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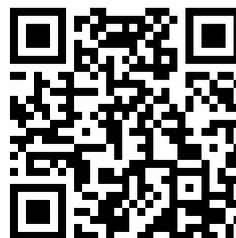
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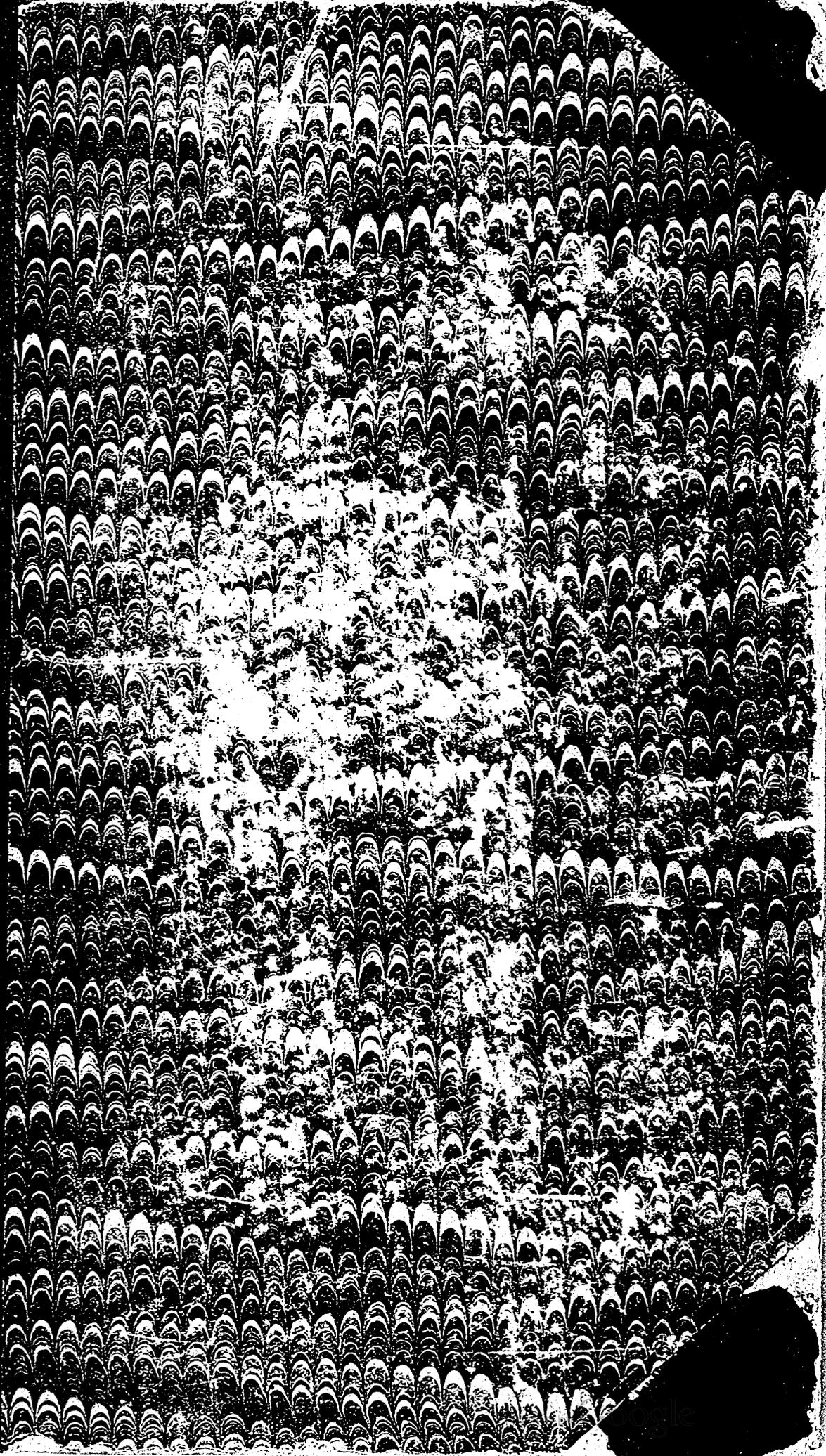
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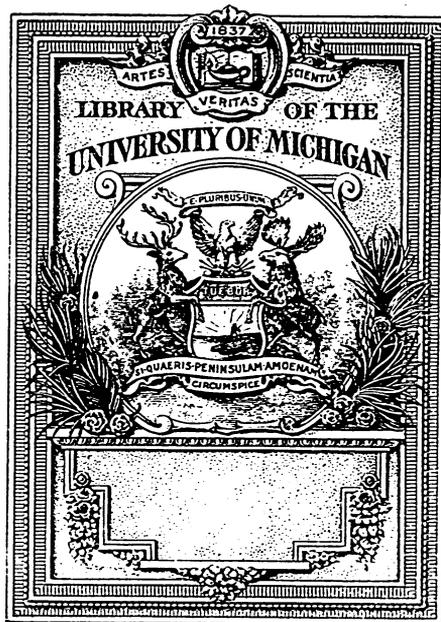
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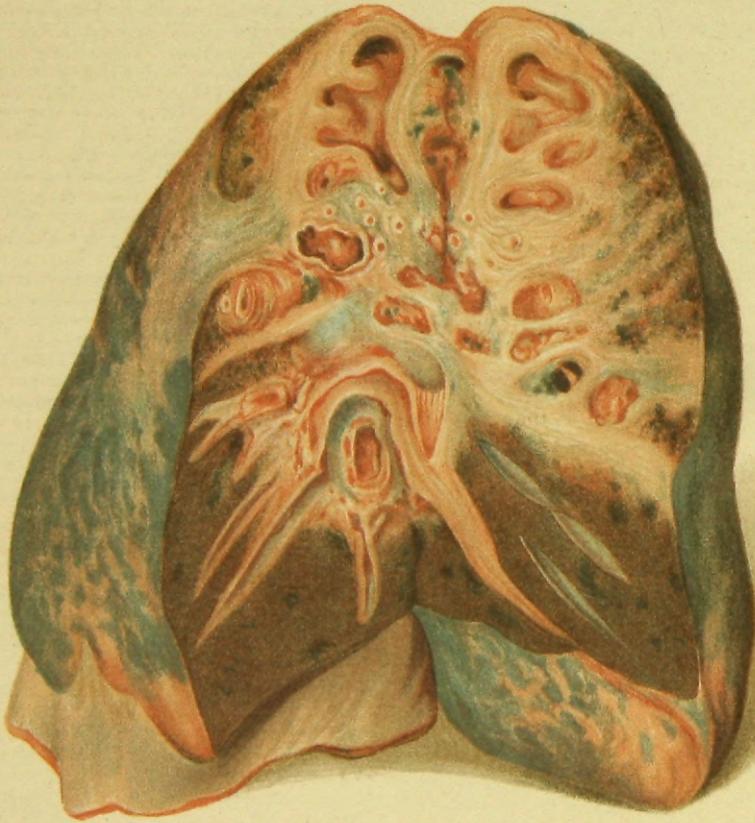
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To illustrate Sir Andrew Clark's Lecture on "The Question of Fibroid Phthisis,  
Bacillary and Non-Bacillary."

## Lectures

ON

## CASES OF FIBROID PHTHISIS.

*Delivered at the London Hospital,*BY SIR ANDREW CLARK, BART., M.D., F.R.S.,  
PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.*Reported for THE LANCET: revised and rearranged  
by the Lecturer.*

(WITH COLOURED ILLUSTRATION.)

## LECTURE I.

GENTLEMEN,—Drs. Hadley and Chaplin have brought here for our consideration to-day a curious case of pulmonary disease. The patient is twenty-seven years of age and is now suffering from cough, expectoration and shortness of breath. He says he has been ill as long as he remembers; that though never seriously ill, he is sometimes worse, sometimes better; but that during the last year he has been worse than ever before. Nevertheless, he does not look ill; but for his cough he does not feel ill; he is not losing flesh; has no elevation of temperature and no other constitutional disturbance.

*Examination of the chest.*—On inspecting the chest you will see that the heart is beating in its normal place, that the right side of the chest is somewhat contracted and moves less freely than on the right, that the veins of the neck do not entirely empty when the patient inspires, and that the left side is rather lifted than expanded when he takes a deep breath. Confining our examination for the present to the left lung, there is almost everywhere increased vocal fremitus and dullness of percussion. On one spot below the angle of the scapula the dullness is accompanied by a somewhat hollow resonance, which suggests, but does not prove, the existence of a dilated tube or cavity. The auscultation one hears in the apex of the lung, hollow, bronchial breathing, coarse, moist crepitation of a slightly metallic character and increased vocal resonance, but no distinct bronchophony. From the cavicle to the base similar vocal sounds are to be heard, varying a little in intensity, from place to place. In the back of the lung we find in the supra-spinous fossa diminished tactile and vocal resonance, dullness to percussion, bronchial breathing and coarse, moist crepitation. About the lower angle of the scapula, where I before noticed a sort of tubular dullness, there is loud bronchophony of a metallic character. From this point to the base there are to be found slightly increased vocal fremitus, decreasing dullness and coarse, moist crepitation or crackling. A careful examination of the right lung elicits no physical sign of disease of sufficient importance to be dwelt upon.

*Examination of other physiological systems.*—Here, then, plainly enough is some chronic chest trouble and before endeavouring to interpret it let me call your attention to the manner in which the other physiological systems of the organism are behaving in its presence. The cardiac impulse is felt in its normal place, the area of dullness, especially on the right side, is a little increased, but the cardiac action is regular and the cardiac sounds are distinctly heard and unaccompanied by any murmurs. The arteries are soft and moderately full; pulse is about 80; the peripheral circulation, however, is somewhat feeble, for the extremities are cold and the fingers are purple and a little swollen. The digestive system is acting healthily; the urine is low in density but free from albumen; no evidence of disorder or disease in the nervous system is discoverable. Recurring to the patient's symptoms, it is particularly to be noted that the expectoration is difficult and the cough by which it is brought up is often paroxysmal and sometimes ends in vomiting. Finally, let me remind you of the patient's asseveration that "but for his chest trouble" he would be quite well.

*Summary of the facts.*—Substantially we have now elicited all the facts which are necessary for the framing of the diagnosis of the patient's malady. Certainly he has got an extensive consolidation of the left lung; certainly also he has got a cavity or dilated bronchial tube in the organ at the part corresponding to the inferior angle of the scapula. What is the nature of this affection? Consider how long it has existed and how little are its constitutional defects. There

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is no wasting or sweating, no fever or hurry of circulation, no loss of strength or grave disturbance of digestion. Consider furthermore that whilst almost the whole of the left lung is consolidated, the right lung remains substantially unaffected. Plainly this affection is not a common one and I doubt if any acquaintance, however close, with your text-books would enable you to determine its exact nature.

*The nature of this affection.*—Is the consolidation malignant? Is it tubercular, or is it, as I believe, fibroid? When we remember that the patient is young, that his malady has lasted for years, that it is confined to one lung, the normal limits of which it has not exceeded, that it has produced no progressive loss of strength or colour and that there is no fever; furthermore, when we consider the patient's allegation that but for his cough he would be well, we shall find in this constitution sufficient justification for discarding the idea of malignant disease being the cause of his symptoms. Is the consolidation tubercular? In these days this is a somewhat difficult question to answer, but I think I shall be within the limits of an accepted generalisation if I say that a consolidation with the occasional presence in it of tubercle bacilli is tubercular, and that one in which no tubercle bacilli are ever found is not so. There are, indeed, some enthusiastic pathologists who will declare that every chronic consolidation of this sort, not malignant, is, even without bacilli, tubercular. But here the enthusiasm of a theory has undermined the judgment of facts and I will not follow them so far. Now the sputa of this patient have been examined over and over again and at various times of the day, but no tubercle bacilli have been found, though the searchers have been experienced experts. According, therefore, to the modern theory of tuberculosis as generally received, this consolidation of which we are speaking is not tubercular. Furthermore, I may draw from the older methods of pathological reasoning, happily not yet extinct, an additional argument against the tubercular nature of this consolidation. I have examined over more than 4000 bodies, and I have never yet found one lung wholly invaded by what would have been accepted as tubercular lesions without evidence of the existence of tubercle, either in the other lung or elsewhere. Well, then, if this consolidation is not malignant and not tubercular, what is it? Doubt on the point is no longer possible. It is fibroid disease of the lung. We thus conclude that the cause of the patient's malady resides in the fibroid consolidation of the lung accompanied with what I shall for the moment assume to be a cavity therein.

*Definition of phthisis.*—Nosologically this corresponds to our generic definition of phthisis, for phthisis, as I have always taught you, is that assemblage and progression of symptoms due to the ulcerative or suppurative destruction of more or less circumscribed non-malignant deposits in the lung. I shall not contend that this definition is perfect, but I do contend that in the present state of our knowledge it is the best that you can produce, for it has the fewest drawbacks and the greatest advantages of any other definition of which I have read or heard. Observe that this definition is a generic one, for it assumes that there are different consolidations and that therefore there are varieties of phthisis; and if the critical study of these alleged varieties of phthisis proves that they are different in their origin, in their progress, in their relations to the organism, in their duration, in their response to treatment and in their issues it is important—nay, it is necessary to the advancement of the practical side of our art that such varieties should be described and named.

*Acute tuberculosis.*—Observe, in the next place, that this definition of mine excludes tuberculosis, for acute tuberculosis differs in many respects from phthisis and especially in this respect: that it is invariably an acute disease. It comes on somewhat suddenly, often in the midst of apparent health, like an ordinary fever; it runs a febrile course; it deposits throughout the organism small miliary bodies called tubercles, which in the lungs almost never give rise to cavities and at the end of six weeks or two months it puts an end to life. Now, this is not a history of phthisis, and for reasons which I will not now stop to state it has been of set purpose excluded from my definition. When I am told that the anatomical structure of the tubercle of acute tuberculosis differs in no material particular from the anatomical structure of the tubercle of chronic phthisis, I will reply that the anatomical structure of a morbid product can never be made the true criterion of the disease which produces it. For the true criterion of the nature of a disease lies in its life history and not in the anatomical forms whereby it finds but a

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partial expression which may be shared by other and different diseases.

*The modern theory of tuberculosis.*—Here it will be necessary for me to make a short digression in order that I may bring before you in greater detail the modern theory of tuberculosis. This theory is based upon the brilliant researches of Dr. Robert Koch. He discovered in all tubercular and scrofulous consolidations the microphyte, the tubercle bacillus. He discovered that this bacillus could be grown and multiplied outside the body; that by the inoculation of animals with the descendants of pure cultures of this microphyte tuberculosis could be produced and that from the acute tuberculosis thus engendered other animals could be similarly affected. He went still further and he showed that in phthisis these tubercle bacilli were always present; that they were capable through inoculation of producing tuberculosis in animals and that the tuberculosis so produced could be propagated downwards for several successive generations. Here I must ask you to observe that the disease produced by the inoculation of tubercle bacilli is acute tuberculosis and that there is no conclusive evidence to show that the disease which I have defined as phthisis is ever so produced. I do not deny that there is any close organic alliance between acute tuberculosis and phthisis, but I do earnestly contend that there is such a fundamental organic difference between the conditions of which they are respectively the expressions, that the advancement of our art requires that this difference should not be overlooked. Now this brilliant discovery of Robert Koch and the theory based thereon make it plain that there are two factors in the evolution of tuberculosis—the tubercle bacillus and the soil on which they grow. For it is certain that the tubercle bacilli will not flourish in every soil and that the soil which at one time has favoured their propagation will at another time cease to do so.

*Tuberculin.*—I presume you are all familiar with the immense efforts that have been made during the last two years for the discovery of some agent which would destroy tubercle bacilli and so bring about the cure of phthisis. You doubtless all know how much attention has been devoted to the bacilli and how little to the soil in which they grow and doubtless you know also how unhappily these efforts have ended. At present it cannot be pretended that either Koch's tuberculin or any other similar agent which has been tried for the destruction of the tubercle bacilli has produced a single authentic cure of phthisis. To my mind the reason is obvious and conclusive; for the more I study the phenomena of phthisis the less becomes my expectation that any agent will be discovered by which the tubercle bacilli will be killed and the progress of phthisis stayed.

*Reaction of the organism to irritants.*—Why do I say so? Here I will bring you to the consideration of one of the most important facts in connexion with all such cases as this. Phthisis, as I have defined it, does not consist in any specific action of the bacillus or of the products of its living action. It consists in the reaction and in the nature and character of the reaction of the tissues of the organism to the irritations which the bacilli and their products create. Now organisms are different and they often respond very differently to the same irritations and thus it happens that these tubercle bacilli give rise to products of irritation and therefore forms of phthisis which are different from each other, which have their origin in different states of constitution, which have a different assemblage and progression of symptoms, which respond differently to their environments, which pursue a different course and which issue in different structural results.

*The soil.*—Every bacillus implanted in the lung produces by its irritations at least two different forms of structural products, the fibroid or the pneumonic. If the fibroid dominates, the course of the resulting disease is slow and cold. If the pneumonic dominates, the course of the resulting disease is usually rapid and always febrile. And if the pneumonic product dominates and if its elements are composed of rapidly growing and rapidly decaying epithelial-like cells, and if the masses produced by their agglomeration assume a caseous character, there is developed a form of disease known as galloping consumption, which has an individuality of its own sufficient to distinguish it from every other form of phthisis. Now, if all these things are so, would it not be infinitely better for us to spend less of our time in what seem vain attempts to destroy these microphytes and more of our time in studying the character of the soil in which they will or

will not grow? For all my experience points to the conclusion that it is mainly, if not entirely, through the influences which we may become able to exert upon the soil that we may best hope to control or to stay the progress of phthisis.

*Scientific retrogression.*—Now as the structural products of tubercular bacillary irritation in the lung vary in form and structure and as each variety has a different life-history from the other and as these life-histories are most diverse, I regard it as a most scientific retrogression to slump them together and obscure their organic distinctions in one name; for if it be just to say—and I contend that it is—that these varieties of phthisis differ in their origin, in their course, in their complication, in their response to their environments, in their duration and in their issues, then surely it is not merely just but necessary to the progress of our art that they should be separately recognised and separately named.

*Non-bacillary phthisis.*—I have one thing more to say. It has been alleged by Koch—and it is generally believed in London—that every case of phthisis, as I have defined it, is microbial, is associated with and dependent upon the presence and the action of tubercle bacilli. For my own part I presume to deny the allegation and to contend that whilst the great majority of cases of phthisis are bacillary there is a considerable minority of cases which are non-bacillary, in which at no period of their history can bacilli be found. To this denial it is sometimes replied that if the bacilli were not there when you sought for them they were there when you did not, or if they were very enthusiastic and proportionately polite they will say that you were unable to find them and that they were certainly there. Some years ago I had in my own wards three cases of what I designated as non-bacillary fibroid phthisis. I invited two or three of my more distinguished contemporaries to examine these cases and to demonstrate the existence of the tubercle bacillus in them. They failed and, justifying their failure, said, "These are quite exceptional cases and do not break down our generalisation"; but, gentlemen, it is just the exceptional cases of this kind that demand the most careful consideration, for although they do not bear immediately or greatly upon our practical clinical teaching, they bear sufficiently upon it to justify me in calling your attention to it at this time.

*Cavity or dilated bronchus?*—Now let us return to our patient. To what condition are we to ascribe the physical signs here near the lower angle of the scapula—to a dilated bronchus or to a cavity in the lung? The physical signs of themselves will not enable us conclusively to distinguish between them and yet it is of supreme importance that the distinction should be made, for if we are dealing with a cavity the future of the patient will probably be one thing; if with a dilated bronchus, probably quite another. A careful microscopic examination of the sputa will enable us conclusively to solve the problem. If we find in the sputa several connected areolæ of elastic tissue we shall be enabled to say without hesitation that there is a cavity in the lung, and not only that but, according to the conditions of the areolæ, we may be able to say whether the cavity is old or new, stationary or rapidly progressive; but if instead of connected areolæ of elastic tissue we find leashes, threads, or bands of elastic tissue we shall not be justified in stating that the cavity exists in the lung, for such forms of elastic tissues may come, and do often come, from the bronchial walls. Now, this patient has areolæ of elastic tissue in his sputa, wherefore he has a cavity—he has a cavity in a fibroid consolidation and his malady is fibroid phthisis.

*The diagnosis.*—But we have still another question to determine concerning the patient before our diagnosis is complete. Is this phthisis bacillary or non-bacillary? Both Dr. Hedley and Dr. Chaplin have examined the sputa on many occasions with the utmost care and have never been able to discover the presence of tubercle bacilli.

*Not a question of terms.*—I have been labouring hard to bring you up to this particularity of diagnosis—this bacillary fibroid phthisis. Is the labour in vain? Have I been wasting your time to carry you to no other issue than a mere distinction of names, or does not this particularity of diagnosis carry you to a distinction of things of which it is of the utmost importance for you to know. This is my belief; for again I earnestly contend that without recognising the fundamental verity of these distinctions you will fail to recognise the varying characters of the soil in which the bacilli grow, the different nature of the structural changes which they effect, and therefore the chief factors concerned

in the evolution of phtysical lesions of the lung. The diagnosis which I have made determines, in some measure at least, the prognosis. For if the diagnosis had been bacillary tubercular phtisis, then the duration of the patient's life must have been limited to a very few years. But the diagnosis being fibroid and non-bacillary, the patient, barring accidents, may achieve the fullest term of years allotted to man.

*Importance of the prognosis.*—I know of no capability in a doctor which contributes more to usefulness in his art and success in practising it than the capability of forming an accurate prognosis; and of no capability more difficult to acquire. For the prognosis does not determine merely the direction of the patient's future life, but it determines in many and important ways the lives of households and of families. It cannot be otherwise than of supreme importance to all persons connected with a sick man to know, with some approach to certainty, whether he is likely to live for two years or for thirty; and a careful study of the natural history of the varieties of pulmonary phtisis will enable you with comparative ease to form a correct prognosis of individual cases of each variety.

*Illustrative cases.*—Dr. Hadley will remember how some years ago, to illustrate this subject of prognosis in the varieties of pulmonary phtisis, I brought before the class of clinical medicine two young girls about eighteen years of age, each suffering from a different variety of phtysical disease. The first was tall, pale, florid, thin, with finely cut features, dark eyes, languid manners, and an expression of serious illness. Her chief complaint was weakness and a recurrent sense of almost insupportable exhaustion. She had a short cough, with scanty mucoid expectoration in which tubercle bacilli were found; she became breathless on exertion; her heart was small and beating over 110 times a minute, her evening temperature reaching 102°; she had morning sweats and the physical signs of tubercular disease were confined to some moist crepitations in the summits of both lungs. The second girl was short, fair, coarse-featured, fat and healthy-looking. Her only complaints were cough and mucopurulent expectoration and breathlessness on exertion; her appetite and digestion were good; she had no fever; and she was not only full of activity, but able for work. She had extensive consolidation and contraction of the left lung; the heart, which was large and otherwise healthy, lay in the middle of the left axillary region; the pulse was about 70 and the breathing about 20 per minute. There were no signs of disease in the right lung. I pointed out that the first girl had few physical signs of pulmonary disease, but profound constitutional disturbance; and that the other, with signs of extensive pulmonary disease, had no obvious constitutional disturbance of any kind. I further pointed out that whilst the former case was one of advancing tubercular disease, which would probably terminate within a year, the latter was one of fibroid disease, not incompatible with the longest duration of life. The tubercular girl soon afterwards was seized with diphtheria and died and the autopsy revealed the presence of grey tubercles in the summits of both lungs. A few months ago I learned that the second girl was alive and well. Only yesterday I saw, with Dr. Ford Anderson of Belsize-park, a gentleman, seventy-nine years of age, in whom I discovered a contracted fibroid lung and a displaced heart. He had no pulmonary symptoms at the time and was seen for a malady of another sort, but on cross-examining him I elicited the fact that for fifty-five years he had something remarkable in his left lung, of the nature of which no one could give him any satisfactory account. Just one other illustration of the duration of one of these varieties of pulmonary phtisis and I shall have done. Some years ago I was called into consultation with Mr. Burton to see a gentleman over eighty years of age, who was suffering from pulmonary phtisis and reported to be very ill. He was an Irishman and full of Irish humour. It was not difficult to see that he was striving to make himself appear worse than he really was. He was suffering from a recent bronchial catarrh, grafting upon a long-standing lesion of the right lung. He was able to take food; he had no elevation of temperature and no hurry of circulation. The urine contained a small quantity of albumen with no casts. The right side of the chest was greatly contracted and the impulse of the heart was felt beating above the right nipple. Nothing was found in the left lung beyond mucous râles and on its posterior base some

moist crepitation. He declared himself to be very ill and expressed a doubt if he could live out the day. I bantered him a little and then he asked me how long I thought he had been ill. I replied, "Perhaps fifty years." "You are quite wrong, doctor," replied he, his face beginning to brighten with humour, "I have been ill sixty years and here is the proof of it." Whereupon, he took from under his pillow a document signed by Sir Philip Crampton and Dr. Graves certifying that the patient was labouring under phtisis and not likely to live.

*Factors in prognosis.*—Returning again to the case under consideration, we have to settle the question of prognosis. What is the course which it will probably pursue? What are the possible perils into which the patient may fall? How long will the disease last before it puts an end to life? The answers to these questions demand close and varied consideration of the moral as well as of the physical characteristics of the patient. In the first place, the patient's malady is not hereditary and so far as my knowledge extends fibroid phtisis is never so. In the second place, the disease does not exhibit the marks of a diathetic affection. It is confined to one lung; incidental acute affections possess their common characteristics and run their usual course; the disease has continued for years without impairment of the general health and at this moment the patient is free from constitutional disturbance. Furthermore, the patient is a man of regular and temperate habits, he seems to be "right-minded" and he leads an occupied and a tranquil life. All these considerations contribute to justify a favourable prognosis and to warrant us in saying to the patient and his friends that, barring accidents and assuming that he will continue to walk in the ways of physiological righteousness, he may live for many years and die at last from some other affection. But in giving such a favourable prognosis you must clearly accompany it with the necessary qualifications. It is never pleasant and it is sometimes humiliating for one patient whose duration of life you have estimated at a quarter of a century to die within two years and for another patient whose life you have estimated at the lesser value to live for years and pester you with annual apologies for being alive. This patient is liable to many complications which may either permanently damage the general health or even put an end to life. Among the acute complications I will mention bronchitis, pleurisy, pneumonia and nephritis. Contrary to theoretical expectation, these acute complications are usually well borne, pursue a favourable course and seldom leave serious mischief behind. Of the chronic complications to which our patient is exposed I may specify cardiac hypertrophy, gastro-hepatic catarrh, diarrhoea and albuminous urine. Again, whilst it is certain that some cases of fibroid phtisis never become in the modern sense tubercular, it is equally certain that others do—that, in different words, the living soil becomes so altered in its characters that the tubercular bacilli become capable of growing and multiplying therein. Furthermore, hæmoptysis is not an unfrequent complication of fibroid phtisis both in the bacillary and in the non-bacillary varieties. Lastly, let me warn you that the favourable prognosis which I have given of our patient could not be given of any other patient who, in all other conditions equally favourable, had tubercular bacilli in his sputa. In any circumstances whatever the prognosis of fibroid phtisis is more favourable than the prognosis of tubercular phtisis; but the presence in the fibroid lung of bacilli—which may grow, multiply and emigrate to all parts of the body—adds an element of great gravity to the prognosis of a case otherwise in all respects favourable.

In my next lecture I purpose bringing before you a series of cases of fibroid phtisis that you may be enabled to compare one with another and become familiar with the varying aspects which they assume. To Drs. Hadley and Chaplin, who have been for some time engaged in a critical study of the varieties of phtisis, I owe the privilege of bringing these cases to your notice; and, indeed, but for their able and indefatigable help these clinical demonstrations of fibroid phtisis could not at present have been made.

[We would direct attention to the coloured lithograph which accompanies this lecture and which illustrates very clearly the essential features of the disease which forms the subject of Sir Andrew Clark's Lectures.—ED. L.]

ABSTRACT OF A

Lecture

ON

## BRUISES OF INTERNAL ORGANS.

*Delivered at St. Bartholomew's Hospital,*

BY SIR WM. S. SAVORY, BART., F.R.S.,

LATE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND;  
CONSULTING SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

GENTLEMEN,—We are familiar enough with bruises of superficial parts, but perhaps less attention than they deserve has been given to bruises of internal organs, for contusions of viscera, although noticed in our works on surgery, receive but little attention in practice and are perhaps commonly recognised only in their severer forms. Yet it is obvious that bruises of important internal organs must as a rule be in their nature and clinical history far more mischievous than the bruises which are so frequently seen in and immediately under the skin. One reason of the comparative neglect of their study is no doubt to be found in the fact that so little attention is usually called to their existence after death. If observed at all, they are passed by with slight notice in the search for injury of a graver nature. Illustrations of simple contusions are very rarely to be met with in our museums—hardly ever, except in conjunction with, and as a part of, some more serious lesion. The absence of such illustrations, which is, I think, to be regretted, is due, in part at least, to the fact that the characteristic appearance is difficult to preserve. Of course much depends on the colour, which rapidly fades on exposure to light. There is in our museum a portion of the left ventricle of the heart of a child, which at present shows very plainly and beautifully two or three small bruises of the muscle. First let us glance at the nature and clinical history of bruises and then let us shortly review, in the way only of illustration, without any attempt at a full study, bruises of some of the more important internal organs. Bruises of course, like almost all injuries, vary widely in degree. In its usual form bruising means rupture of portions of tissue, including that of the minuter vessels. Hence hæmorrhage and extravasation to which the characteristic stain is due. But one can imagine bruises so slight as to involve little or no rupture; while, when the injury is so severe as to produce visible laceration of texture, the simple bruising of parts becomes merged into the effects of the graver lesion. It would be generally said that you cannot have bruising without laceration—that, in fact, laceration is an essential part of bruising. Although this may be conceded from a pathological point of view, yet clinically it is of some importance that the distinction should be drawn. In simple bruising there is not necessarily laceration visible to the naked eye—no distinct gap or rent of the injured substance,—the rupture of vessels is made apparent only by the ecchymosis. The amount of blood extravasated in bruises of course varies widely, and depends not only on the nature and extent of the actual injury, but on the vascularity and delicacy of the structure which has sustained it. This hæmorrhage, when copious, often masks the other effects of bruising. Just as when the substance of tissue is largely torn we refer to the rent or laceration and not to the bruise, so when there is copious hæmorrhage either in the form of a distinct collection of blood in the injured part, which is called "hæmatoma," or when it escapes into adjacent cavities, we speak and think of this rather than of the injury on which it depends.

I propose now to consider cases of what may be called "simple bruising," in which, although there are necessarily laceration of tissue and extravasation of blood, neither the rent nor the hæmorrhage constitutes a prominent feature of the injury, but in which, nevertheless, the damage done is, I venture to think, worthy of more attention than is usually given to it.

Bruises of the brain are, I believe, far more common than is usually supposed and worthy of much more attention than they have hitherto received. In works on surgery contusion of the brain obtains a passing notice and occasionally, as at St. George's Hospital, a specimen to show contusion of the brain is to be found in our museums; but in practice it is for

the most part included in the more vague and comprehensive condition of concussion. The relation of contusion to concussion of the brain presents some points of great interest. On what happens in a case of concussion pure and simple we are not perhaps quite clear; certainly, we are not agreed, whether it be due to some sudden and temporary change in the minute vessels in the way of spasm, or whether—which I venture to think is more probable—it is due to some more subtle and profound molecular disturbance of the brain substance itself. As a matter of fact we know that cases of simple concussion severe enough to prove fatal are so very seldom seen that some even doubt whether they ever actually occur. That, however, concussion of itself pure and simple may prove fatal, and that more frequently, when death from injury to the brain is attributed to other causes it is really due to concussion I have no doubt and the facts and arguments for this belief I have given elsewhere. So far, however, as the brain itself is concerned, the chief changes that are associated with severe concussion are contusion or bruising. In the worst instances this is accompanied by laceration of the brain substance and copious hæmorrhage, so that the blood collects into a distinct mass, but many cases occur, short of these, in which there is neither visible laceration nor blood-clots, but simply a bruised condition of the cerebral substance and this perhaps in a situation opposite to the part struck. When in such an instance a section of the brain is made, the white or grey matter, as the case may be, exhibits a patch or patches, pink or red from bloodstain; and when these are more minutely examined, especially after water has been allowed to flow freely over the surface, numerous minute points or specks of blood appear scattered over the stained area. In these places the substance of the brain shows the effects of bruising. There is here some rupture of substance and some extravasation of blood, but no visible laceration and nothing which would be called hæmorrhage. There cannot, I think, be any reasonable doubt that this condition frequently occurs as the result of injury to the head short of any graver effect and that such cases usually terminate in recovery. Under the head of concussion of the brain, cases are described in which recovery is not rapid and direct, but more prolonged and circuitous, in which the patient passes days and even weeks in a state of partial unconsciousness or constant drowsiness, with sometimes fits of restlessness, from which perhaps he may be temporarily aroused to make short replies to simple questions, but into which he immediately relapses when left to himself. Then, as consciousness is gradually restored, the mind remains in a dull and lethargic state, interference of any kind is often resented and the temper is sometimes strangely altered for the worse. Usually headache more or less severe is complained of. But the bodily functions in general in this stage are performed fairly well and there is no fever or sign of serious disturbance in any other organ than the brain. In such cases many months often elapse before complete recovery is assured and during this period its progress is easily interrupted by any attempts to exert the mind. Patients in this state complain that they cannot attend to business, that they are incapable of sustained mental effort, that they have lost the power of self-control, that their senses of sight, hearing, and taste are strangely disordered and so on. Many such cases, in more recent times, have acquired interest of another kind from the fact that they have been the result of accidents on railways.

Now I am not asserting that such a state as this, even in its more severe forms, may not be the result of what I have called simple concussion, that if the brain could be dissected any abnormal condition would be always visible, but seeing how different the effect of injury and the progress of the case are from that of many cases of what may be called simple concussion even in its severe forms seeing this, and coupling it with the fact that bruises of the brain are not uncommonly seen when looked for after death from other causes, I think, to say the least, it is reasonable to assume that in such cases as I have alluded to we have to deal with the effects of contusion beyond those of concussion pure and simple. To be sure, the treatment of such cases does not turn upon the precise view which is taken of their nature, whether they are regarded, as perhaps they generally are, as cases of mere concussion with unusually slow and irregular recovery; or whether, as it seems to me, they should be regarded as cases of concussion complicated with contusion, from which the patient continues to suffer after the effects of concussion have subsided; on either view the management is practically the same. It is on either view the insistence upon absolute and prolonged rest with careful nursing—upon

absolute rest, not of the mind only, but of the senses of sight and hearing and prolonged not only during the whole period of cerebral disturbance or defect, but for at least some time after. The danger of further mischief in these cases is perhaps not so great in the earlier stages, when the necessity of abstinence from all mental effort is obvious enough, as in the later ones when the patient, feeling himself while quiet and at rest to be tolerably well, cannot be persuaded to abstain from such activity as may be productive of mischief. Over and over again one sees patients who in spite of all precaution attempt to enter into active life, break down and are compelled to desist by headache, loss of sleep and of appetite, disorder of the senses and strange and startling sensations in various parts of the body. It is well if such strong hints are taken in time, for even the loss of this is in the end made much greater by such premature attempts.

What has been said of bruises of the brain may be applied also in general terms to contusion of the spinal cord. In examinations after death similar appearances to those found in the brain are sometimes seen in the cord—blood-stained patches in the substance of which minute extravasations may be discerned. As with the brain, the effect of such injuries during life is for the most part included in the symptoms of concussions and little or nothing is said or thought about the bruises which the substance of the cord may have sustained.

In modern times such cases are most commonly met with as the result of railway accidents, and have been no doubt described and discussed as cases of concussion. With reference to these important cases in their relation to similar injury of the brain there are two points especially which deserve attention. The symptoms of these injuries, at least the more immediate ones, are less marked in the cord than in the brain. At first there is certainly less pain and usually less local disturbance. There is sometimes tenderness over the particular region of the cord, but this is probably due to injury of the surrounding structures rather than to that of the cord itself, and there is nothing corresponding to the headache, which is often so severe in corresponding injury of the brain. As a consequence such injury is more likely to be overlooked or disregarded in the cord than in the brain, and the needful rest neglected with much greater risk of subsequent mischief. Again, even when the necessity of absolute rest after such an injury is insisted on, it cannot be carried out so fully and completely as in the corresponding cases of many portions of the brain. The functions of the cord cannot, from its nature and endowments, be placed in such complete abeyance as those of the greater portion of the brain. The activity of the vital functions is not so closely connected with what are called the highest nerve centres as they are with those beneath them. As Dr. Marshall Hall long ago put it, the true spinal system never sleeps; and sleep is never more emphatically "nature's sweet restorer" than in such cases as those now under consideration. So that while bruises of the cord are not perhaps, as a rule, more severe than bruises of the brain, there is from these two causes the impossibility of obtaining such complete rest for the cord as for much of the brain, and the neglect of enforcing in the first instance such rest as may be practicable—a far greater risk of more remote mischief of a serious kind after injury of the cord than of the brain. No doubt the wisest practice in all these cases of injury, either of the cord or brain, even when in its early effects it may appear to be trivial and the patient is disposed to disregard it altogether, is to insist on immediate and unconditional rest, and as time goes on to relax this only very gradually under careful watching when no symptoms of any further disturbance appear.

How is it that so little attention has been paid to bruises of the lung, or rather, how is it that they have been so commonly overlooked? That they not unfrequently occur is, I think, beyond dispute, and yet specimens of the injury are not shown in our museums, nor is it often recognised during life. The injury is caused, of course, by blows on the chest, and is usually associated with fracture of the ribs, especially when due to direct violence, but it may and does occur under certain conditions when the ribs are not fractured. Indeed, such injury may happen, and even laceration, without any visible injury of the chest wall, as, for instance, from the passage of a wheel over it. If at the time of the accident the glottis is closed, the lung is suddenly compressed by the external force against the retained air.

I believe the effects of contusion of the lung are usually confounded with pneumonia. In the severer cases some days after an injury to the chest wall the patient complains of more deep-seated distress; the respiration perhaps becomes

quickened; there is hacking cough, and soon rust-coloured sputa are expectorated. Then there are dulness, crepitation and other signs of consolidated lung with fluid in the smaller tubes over a limited area. These symptoms are not, I think, usually associated with much dyspnoea or fever and other signs of constitutional disturbance of pneumonia, although I should not insist on this distinction as a marked one. What is more significant during the progress of the case is that the expectoration frequently contains little pellets, or even larger clots of dark blood, which have evidently formed in the smaller tubes as the result of the injury and in time become detached. After this repair and convalescence are usually rapid and uninterrupted. It is perhaps hardly needful to remark that bruising of the lung is not necessarily accompanied by emphysema or pneumothorax or even by hæmoptysis; but in some of these cases, as in those of wound or puncture of the lung from broken rib, there is, at the time of the accident, the expectoration of blood-stained frothy mucus; but this does not last, and some days usually elapse before further evidence of damaged lung is revealed. No doubt for the first day or so the signs of injury of the lung are masked by the more impressive effects of broken ribs and perhaps of injured pleura.

These cases for the most part do well, and in subjects otherwise healthy perhaps there is not much to apprehend. It is trite to say that they require care and should never be neglected; in some instances of unsound constitution or of damaged organs the patient is not altogether free from the risk of septic infection. The liver and kidneys are no doubt often bruised, and blood then readily escapes from the vessels of these vascular organs. Examination after death frequently reveals laceration of them, and specimens showing this form of injury may be seen in our museums. This of course almost invariably includes bruising; but cases of simple bruising without distinct laceration unquestionably occur. In the case of the liver during life the diagnosis can only be guessed at, and perhaps it is a wise precaution in doubtful cases to assume its existence. In the case of the kidney the pain is, I fancy, as a rule more distinct and obvious than in that of the liver, and here there is often in addition the significant symptom of blood in the urine. The spleen, too, sometimes suffers in this way, and even the pancreas. A remarkable instance of severe bruising of the pancreas I saw some years ago as the unfortunate result of compression of the abdominal aorta by a tourniquet for the cure of aneurysm of the vessel lower down. After death the large aneurysm was found almost completely filled with quite recent clot, and the pancreas, where it lay across the spine, was terribly bruised. It may be added that during the few hours that the patient survived the operation there were no particular symptoms that could be directly referred to the damaged pancreas.

Every surgeon is familiar with the difficulty of exact diagnosis in injuries of the abdomen. Severe blows in that region, or more frequently perhaps the passage of the wheel of some vehicle over it, produce profound shock. The patient remains for some time in a state of more or less intense collapse and the degree and duration of this state is an important element in the diagnosis of any local lesion. In some of these cases the subsequent rapid progress of the patient towards recovery indicates the absence of any considerable local lesion and then the immediate effect of marked depression on the receipt of the injury we attribute to shock. In other cases the condition of collapse continues and death rapidly supervenes. In these cases we expect to find some distinct lesion of some important viscus—rupture or complete division of the intestine, for example. Everyone knows that even complete division of the whole tube of intestine may be the result of the passage of a wheel across the abdominal wall without any wound or opening in it. There is a third class of cases of great interest and importance which terminate neither in death nor in rapid recovery. The state of collapse very gradually passes off, but the patient remains pale and depressed. The abdominal wall becomes rigid and remains so and there is considerable tenderness, either somewhat localised or more generally diffused. The patient lies quietly on his back with the knees raised, and the respiratory action of the diaphragm is limited. The urine is usually passed without any material difficulty, but the bowels do not act. For the rest, the tongue is perhaps rather coated, but the temperature is not much raised, if raised at all, and the pulse is not quickened. This state will last for several days, or even for a week or two, and end in recovery. Now in these cases there has probably been bruising of important

## An Address

ON

## TOOTH CULTURE.

*Delivered at the Annual Meeting of the Eastern Counties  
Branch of the British Dental Association at  
Cambridge on June 22nd, 1892.*

By SIR JAMES CRICHTON-BROWNE, M.D. &c.,  
LORD CHANCELLOR'S VISITOR.

structures. In some of them, perhaps, such mischief may be limited to the abdominal wall, and no doubt in many instances the symptoms and effects may be explained by such injury of the abdominal muscles. In other cases I think we must believe that some portion of the intestinal canal or other structure has been contused and is suffering from the effect. As a matter of fact, we sometimes see this condition when death is caused by other graver injury associated with it and the occasional supervention of peritonitis confirms this view. The strongest evidence in its favour is furnished by the untoward result of mismanagement. If the patient be not kept at absolute rest for some considerable time, but is allowed to move too soon or too freely; still more, if he be not fed with the greatest care, to the rigid exclusion of all food likely to encourage or compel peristaltic action; and worst of all, perhaps, if the routine purge "to clear out the bowels" be administered, the supervention of inflammation in the disastrous form of peritonitis tells its own tale. Hence the importance in these cases of the most careful nursing and management. In none is there greater need for the observance of unqualified rest, of "rest in its physiological sense," as Hilton put it. And it is hardly necessary to add that the drug of chief value in these cases is opium; not merely, if need be, to relieve pain and procure sleep, but to reduce as far as practicable the natural action of the intestinal canal. In such cases, for some days at least after the injury—as for some days after an operation for strangulated hernia—we should look upon an action of the bowels as a misfortune, and when at length it may seem prudent to permit it it should be gently solicited by the use of some very simple enema, as for instance, by the injection of a few ounces of warm olive oil. Again, it must be obvious that in all cases in which the extent of injury is at all doubtful, it is wisest to keep on the safe side and to adhere to the line of treatment dictated from the graver point of view.

A word further. It is important to remember that the liability to become bruised from the same degree of injury varies very widely in different persons. While the vessels of some will resist considerable violence, those of others give way under a slight touch and soon show the discolouration of a bruise; and this, of course, is significant of the state of the structures generally. When the vessels of superficial parts are thus very easily ruptured it indicates a fragility or an unsoundness which in other regions may lead to disastrous consequences. In such cases there are usually other signs of undue degeneration. Persons advanced in life, perhaps perhaps women more frequently than men and above all those with a preponderance of fat are usually the subjects of this condition. Bruising in these instances has the same significance, and for a similar reason, as epistaxis. When due to an adequate cause, or even to a strictly local condition, it has no grave import; but the case is very different when in advanced life it is provoked by trivial disturbance. Here is a striking case in point. A fat elderly woman was brought to the hospital on account of some, not severe, accident to one of her legs. I saw her in the admission room and there was no bruise or any sign of injury on her face. She was carried into one of the wards and when in half an hour I saw her there I found her with two very bad "black eyes." Upon seeking an explanation of this I learnt that her face had not been struck in any way, but that while being carried up a step or two into the ward she had received a sudden jerk and this was the only cause to which the ecchymosis could be assigned. This led of course to a further careful examination of her state and signs of a fatty heart and other symptoms of degeneration were soon revealed. In the course of two or three days she suddenly died. It is familiar knowledge to those who "train" and to many others that as the man gets into "condition" the flesh becomes firmer and with this the liability to become bruised is very materially diminished. The importance of bearing this state of the tissues in mind in diagnosis and prognosis is obvious enough.

**MEDICO-PSYCHOLOGICAL ASSOCIATION.**—The next examination in England for the certificate in Psychological Medicine will be held at Bethlem Hospital, London, on July 7th, at eleven o'clock in the morning. The examination for the Gaskell Prize will take place on the following day at the same hour and place. Candidates are requested to give notice at once to the honorary general secretary, Dr. Fletcher Beach, Darenth Asylum, Dartford.

GENTLEMEN,—It is with unaffected diffidence and in compliance with the pressing solicitations of a valued if somewhat exacting friend that I occupy the chair this afternoon and presume to preside over a meeting of a body of men at whose feet I should sit for edification in the subjects that are to be considered here. But whatever I may lack in knowledge of the topics which are to engage your attention, I am not behind you in lively interest in them, for since I read the paper of Mr. J. Smith Turner on the Condition of the Teeth of School Children, communicated to the Hygienic Congress in London, I have realised the importance of the inquiry which he described and have sought further information bearing on it. Some special investigations which I have myself undertaken from time to time into our present educational systems in their physiological aspects have prepared me for the disclosures which you are making and I needly scarcely say that I fully accept the conclusions arrived at in your first collective report and am in complete sympathy with you in the recommendations offered in that report and during the discussions of your Association which have taken place upon it. That report is, it seems to me, a very grave and significant document, revealing a state of matters for which even those most familiar with dental defects were scarcely prepared, for it is surely startling to find that amongst 5249 children under twelve years of age, there were only 485 with normal or perfect dentures—that is to say, made up of sound teeth requiring neither filling nor extraction, that only 26 per cent. of infants at five years of age have teeth free from caries and that every 1000 children at twelve years of age have amongst them 2543 teeth affected by caries. Almost as startling as the report itself are some of the statements of independent observers by which it is supported, such as that of Dr. John Livey, who, after examining the teeth of 4000 children attending schools in Bolton, said that during the course of this inquiry he could not help observing that caries is extremely common and that indeed it is quite the exception to find a perfect set of teeth, more especially in children over ten years of age; such as that of the dental officer to the Police Orphanage at Twickenham, who said that not more than one child in three enters the Orphanage with sound teeth; such as that of Mr. Fisher of Dundee, who said that amongst 400 boys on the training ship *Mars* in the Firth of Tay, drawn from a part of the country where bone and muscle are of the best description, boys who are kept clean, well housed, clothed and dieted, he found only 80 sound sets of teeth; or such as that of Dr. Cunningham, that in a school at Hull there were 595 defective teeth for each 100 children. The fact that 10,000,000 of artificial teeth are used in this country annually, although, of course, only a small proportion of the population can procure these articles of luxury, brings home to us the truth that dental mortality is heavy in these days and that the gaps in dental circles that require filling must be big and numerous.

Putting aside for the present the important information you have supplied regarding other dental abnormalities and diseases found in school children, supernumerary teeth, honeycombed teeth, syphilitic teeth, fractured teeth, enamel defects and fistulae, I wish to confine what I have to say this afternoon to caries, the most ruinous of dental maladies, not only in childhood, but at every epoch of life; and if in speaking of it I should utter what are to you truisms or travel over ground with which you have long been familiar, I must crave your kind indulgence, which I am sure you will extend to me when you remember that my acquaintance with the literature of your specialty is necessarily limited. Even the crudities and impertinencies of an outsider, however are not without instruction to the expert and from

my stumbling steps you may perchance gather some hints to expedite your own advance.

Now, as regards dental caries, it can be scarcely necessary that I should rehearse to you the evidence that has been adduced to prove that it is now far more prevalent in this country than it has ever hitherto been and that its ravages are more widespread and serious, in the present than in any former generation, about the dental history of which we have records. You will probably agree with me that that evidence is conclusive and, indeed, I take it that your own observations on the condition of the teeth of school children make it certain that dental degeneration has now attained an ascendancy that it did not in former times possess. It is impossible to believe that the British Empire would have become what it is to-day if amongst those hardy Norsemen who pushed up their keels upon the shore at Ebbsfleet and entered upon the making of England there had been only one sound set of teeth in every ten, or if amongst our ancestors, who have extended our dominions by land and sea and won for us our civil and religious liberties by struggles in which personal vigour and endurance counted for more than they do in the highly scientific and explosive warfare of modern times, there had been all but universal rottenness of the teeth before adolescence. Depend upon it that in the England of the past the teeth were not as frail or troublesome as they are to-day. The skulls dug up on the battle-fields of England grimly and silently attest the fact and the very existence of your profession in its present magnitude in the country bears witness to it. I am not going to argue that sound teeth are the passports to power, or that biting and grinding capacity have determined the course of history, but this I will maintain, that no nation has ever climbed to pre-eminence on carious teeth, or can retain pre-eminence when its teeth are no more and that it behoves a conquering people jealously to look to its teeth and to keep them, not less than its weapons, bright and sharp. If I might alter Goldsmith slightly I would declare

"Ill fares the land, to hastening ills a prey,  
Where gums accumulate and teeth decay."

It is not an edentulous race that will finally possess the world.

When we inquire into the cause of the greatly increased prevalence of dental caries in modern times we at once perceive that it is an instance of these imperfect adjustments which we often see in living beings in their passage from a natural to an artificial and from an artificial to a more artificial condition of existence. All advance in organic evolution involves danger and sacrifice and in highly complicated organisms an advance in one direction often means retrogression in another, in which the power of adaptation is tardy or where compensatory measures have not been adopted. The resources of civilisation are more ample, nimble, and varied than those of dentition and so it has come about that the teeth have not been modified in accordance with the altered habits of life of modern times, and especially of the nineteenth century, and have not yet been adequately protected by specially devised safeguards. But in examining into the causes of the increase of dental decay which we see around us, we can go beyond a mere general statement of this kind and indicate, I believe, some of the specific conditions of modern life which are mainly responsible for it; and some of these specific conditions, as they present themselves to my mind, I venture, with great deference, to submit to your consideration.

In the first place, then, it seems to me that the greater prevalence of dental caries in these days is probably in some measure dependent on the softness and pulpiness of the food on which we for the most part feed. Hardness and toughness of food—and the food of savage and semi-civilised races is generally hard and tough—involve vigorous mastication and vigorous mastication involves a vigorous use of the teeth in their proper function and a copious flow of saliva and a copious flow of saliva involves cleansing of the teeth and gums, to which the active movements of the lips, tongue, and cheeks during mastication largely contribute. But softness and pulpiness of food—and the food of all civilised races tends to become more and more soft and pulpy—means comparatively little mastication and use of the teeth and little mastication means a diminished flow of saliva, for the far-fetched condiments of refined cookery do not stimulate the salivary glands to anything like the same extent that ordinary sapid substances with energetic masticatory movements do, and a diminished flow of saliva means diminished cleansing of the teeth,

which are at the same time imperfectly scrubbed by the feeble movement of the parts engaged in mastication, and so it comes about that when the food is soft and pulpy particles of it lodge in and about the teeth and gums; to an extent that is impossible where it is hard and tough and afford a nidus for those bacterial growths which alike by the decomposition they set up and their direct attacks are so inimical to the integrity of the teeth. It has been shown that the jaws and the muscles of mastication are larger in savage than in civilised races. I have little doubt it will be found that there is some atrophy of the parotid, submaxillary and sublingual glands in the latter as compared with the former and then it will appear that tooth-brush and dentifrice are merely auxiliaries to a natural apparatus which has to some extent dwindled by disuse.

In the second place, I would suggest to you as a specific cause of the increase of dental caries a change that has taken place in a food stuff of a particular kind and of primary importance—I mean bread, the staff of life,—from which in the progress of civilisation the coarse elements—and the coarse elements consist of the outer husks of the grains of which it is composed—have been eliminated. In as far as our own country at any rate is concerned, this is essentially an age of white bread and fine flour and it is an age therefore in which we are no longer partaking to anything like the same amount that our ancestors did of the bran or husky parts of wheat and so are deprived to a large degree of a chemical element which they contain—namely, fluorine. The late Dr. George Wilson showed that fluorine is more widely distributed in nature than was before his time supposed, but still, as he pointed out, it is but sparingly present where it does occur and the only channels by which it can apparently find its way into the animal economy are through the siliceous stems of grasses and the outer husks of grain, in which it exists in comparative abundance. Analysis has proved that the enamel of the teeth contains more fluorine, in the form of fluoride of calcium, than any other part of the body and fluorine might, indeed, be regarded as the characteristic chemical constituent of this structure, the hardest of all animal tissue and containing 95.5 per cent. of salts, against 72 per cent. in the dentine. As this is so it is clear that a supply of fluorine, while the development of the teeth is proceeding, is essential to the proper formation of the enamel and that any deficiency in this respect must result in thin and inferior enamel. If, in our dislike to grittiness, which has run parallel to our addiction to soft and succulent food and in our preference for white and fine flour, we have cut off the main source of supply of fluorine to our systems, it is not difficult to understand how we may have thereby incurred comparatively feeble and unprotected teeth, with a diminished power of resistance to adverse influences and peculiarly liable to decay. For the dense close-fitting prisms of the enamel are to the tooth what its-armor-plates are to a modern ship of war; and if they are easily penetrated, corroded, or worn away, then the fate of the dentine within is sealed. I think it well worthy of consideration whether the reintroduction into our diet, and especially into the diet of childbearing women and of children, of a supply of fluorine in some suitable natural form—and what form can be more suitable than that in which it exists in the pellicles of our grain stuffs?—might not do something to fortify the teeth of the next generation.

In the third place, I would name to you, as a cause of increased dental decay in our population, the high nervous tension of our times and the impaired nutrition which that high tension frequently entails, either hereditarily or by its operation on the individual life. It is everlastingly true that when the parents have eaten sour grapes the children's teeth are set on edge, that when the parents have been prodigal of their strength the children are impoverished in constitution. Intense vitality of the conjugating spermatozoon and ovum is necessary to give the new being a fair start on its career and to impart to it an impulse which will carry it and all its tissues steadily through the perils and vicissitudes of development and maturity to the gentle declivity of kindly old age. Such intense vitality of the spermatozoon and ovum is not to be expected when the parents who produce them are labouring under nervous exhaustion; so there are now vast numbers of human beings, the offspring of neurotic or neurasthenic parents, sent "into this breathing world," "deformed, unfinished," and "scarce half made up," whose teeth are delicate and destined to premature decay. The gastro-intestinal mucous membrano of the embryo from which the pulps and sacs of the teeth

originate may in such cases be supposed to have been wanting in formative energy, or the trophic influence from nerve centres which is exerted, if not during the papillary and follicular, certainly throughout the sacular and eruptive stages of dentition, may be presumed to have been defective. It is to be remembered that as early as the fourteenth week of embryonic life, when the membrane of the dental groove with its adherent follicles and their pulps are stripped off, there may be seen dental nerves running along under the follicles and distributing twigs to each of them; it is certain that from this time till the completion of dentition at the twentieth year the development of the teeth is more or less under nervous control. It is not to be expected, I think, that robust teeth will grow and come forth in due order in children who are kept in a state of nervous excitement or overstrain. While I am quite satisfied that inherited tendencies are more potent than personal experiences in inducing the dental debility which we encounter in nervous children, I still cannot acquit our modern system of education, with the over-pressure into which it so often runs, of some share in its causation, directly through interference with the growth and eruption of the teeth, as well as indirectly through interference with digestion and secretion and the consequent establishment in the mouth of conditions favourable to dental caries. It is, I think, corroborative of the view that nervous tension contributes to dental caries that your statistics show that as regards caries better class schools are in a worse condition than those in which lower class children are educated. Better class children have of course more care bestowed on their teeth than those of a lower class, but they are at the same time of more nervous temperament and are more subject to nervous strain. With the view of ascertaining how far dental defects and decay are associated with arrested development of the nervous system, I carefully examined, by the permission of Dr. Shuttleworth and with his kind assistance and that of Dr. Telford Smith, the teeth of 113 idiots and imbeciles in the Royal Albert Asylum at Lancaster about a fortnight ago. I cannot here of course enter upon any details or give even a general summary of the observations made, but I may tell you that there was not amongst these 113 idiots and imbeciles of an average age of seventeen years one denture perfect or approaching perfection. Dental caries was present in every case save three, and in one of these three cases six teeth had been removed and in another two, so that there was only one boy out of 113 idiots and imbeciles who did not present evidence of past or present dental caries, and in him the teeth were crowded, displaced, and pitted. In a vast majority of cases the caries might be described as galloping and had been widely and deeply destructive, so that the mouths of these blighted creatures presented a lamentable spectacle and might, without hyperbole, be addressed by the dentist called in to examine them in the language used by Romeo when breaking into the vault of the Capulets:

"Thou detestable maw, thou womb of death,  
Thus I enforce thy rotten jaws to open."

Besides caries there were many other dental defects noted in the weak-minded inmates of the Royal Albert Asylum. There were overcrowding and displacement of teeth in seventy-five cases, sometimes to such an extreme degree as to produce two distinct rows of incisors in the upper jaw, the central incisors in front and the lateral incisors behind and this overcrowding depending upon contraction of the jaws, the upper jaw being V-shaped, semi V-shaped, or saddle-shaped, and invariably associated with narrowness and arching of the palate, was three times as frequent in girls as in boys. There were notching, pitting, and honeycombing of the teeth in eighteen cases and these conditions were five times more frequent in boys than in girls, while in almost every case there was observed either natural absence of a tooth or teeth, delayed eruption of a tooth or teeth, dwarfing of teeth, or malformation of one or more teeth, while in a considerable number of cases there were hypertrophy, hyperplasia or distortion of the alveolar processes and gums. Without entering on further particulars I would say that my limited survey of the teeth of idiots and imbeciles has convinced me that much valuable information will be derived from a systematic study of the developmental irregularities of the teeth and jaws which abound amongst them—a study which has been touched on by Cartwright, Ballard, Ireland, Langdon Down and Oakley Coles, which was seriously undertaken some years ago by your colleague, Dr. Talbot of Chicago, who did not, however, push his inquiries very far, but limited them to

maxillary modifications. It is obvious, I think, that the condition of the several teeth in the weak-minded will sometimes guide to the particular point in the evolution of the nerve-centres when arrest in development took place, while the distribution of caries amongst their teeth will throw light on some obscure questions in dental pathology. It is obvious that certain types of teeth are characteristic of certain varieties of mental defect and it is possible therefore that certain less marked but still perhaps distinctive dental characters are associated with certain mental qualities in those who are not weak-minded and that dentistry might afford glimpses of insight and prescience to which palmistry has only pretended to attain. It is obvious above all that cerebral abnormalities, congenital and developmental, have associated with them dental malformations and degenerations of an exceedingly marked kind and it is probable therefore that cerebral disorders in the young when dentition is still incomplete may impair the soundness of the teeth and so as I have said the nervous high tension of the age, which is so apt to induce cerebral disorder, may be a contributory cause of the increase of dental caries in these days.

In the fourth place, I would mention as a possible cause of the increased prevalence of dental caries amongst us the growing aggregation of our population in large towns, for this aggregation entails for old and young higher nervous tension than country life, a greater liability to anæmia and a low standard of health, and also to several zymotic and constitutional diseases, which not less than general reduction of health and nervous exhaustion leave their stamp on the teeth in impaired nutrition. But more than this, the conditions of town life conduce especially to those forms of dental failure which depend on bacterial onslaughts. Wherever human population is thick on the ground, bacterial population is thick in the air, and in our crowded cities we have a crowded atmosphere contrasting unfavourably with the pure air of the country and conveying constantly into the mouths of men, women, and children volumes of parasites pathogenetic and non-pathogenetic. The mouth is indeed veritably a menagerie of tame and wild bacteria. Miller found twenty-two kinds of bacteria in the mouth, of which sixteen brought about an acid reaction when cultivated in beef extract-peptone, while four produced an alkaline solution and only two a neutral one. Six organisms are invariably found in the human mouth, almost invariably another three or four, and during epidemics or when there has been contact with persons suffering from various diseases the organisms associated with these diseases and epidemics are frequently detected in the mouth mingling with its habitual inhabitants, a fact which reminds me of the curious way in which home lore sometimes anticipates scientific discovery; for as a boy I was instructed, and I daresay many of you were so also, always to spit vigorously for some time after passing a person supposed to be afflicted by any infectious disease or any house where it was known to exist. The frequent presence of such organisms in the mouth as well as of others of a still more virulent type, such as that of sputum, septicæmia, which is harmless until there is, from some cause set up, congestion or œdema of the lung, when it immediately induces croupous pneumonia or gangrene, or that of neutro-septicæmia, or such as the streptococcus aureus and albus, seems to make it incumbent on the dentist to practise thorough antiseptic cleansing of the mouth before even trifling operations are undertaken in town at any rate, for supuration and symptoms of chronic poisoning and of pyæmia have followed even the extraction of a tooth or lancing of the gums.

Whether indigenous or of occasional and foreign intrusion, the bacteria which haunt the mouth find there conditions eminently suitable to their rapid multiplication. The mouth is indeed an incubating chamber specially prepared for bacterial cultivation. In it the proper temperature is steadily kept up and the proper degree of moisture and aeration is maintained, while proper nutriment is liberally supplied in particles of food which adhere to the teeth and gums, in the desquamating epithelium, in the sugar resulting from the transformation of starch by the action of ptyalin, and in the substance of the teeth themselves. In sections of decalcified teeth stained with fuchsin and vesuvium bacteria are often seen scattered irregularly through the dentine when it is undergoing decay or softening; and although these bacteria may be only playing a secondary part, it is to be borne in mind that it is an important part and that it has only become possible because other bacteria have taken the initiative. It is when the enamel is removed that bacterial

inroads in the dentine become practicable and the removal of the enamel is effected by lactic acid and the peptonising enzyme which other bacilli produce. Miller found in his experiments on artificial decay that as long as the enamel was on the acids had no power to injure the dentine beneath, but wherever the enamel was thin or imperfectly developed the dentine was soon softened by any acid that was present and the canaliculi were then speedily filled with bacteria, which gave rise to irregular corrosion. As a large majority of the bacteria which find their way into the mouth do produce acids, it is evident that conditions that increase the bacterial supply to the mouth must promote the destruction of enamel and the invasion of the dental tubules, so that the aggregation of our people in towns must tend to the diffusion of dental caries.

There are other conditions of modern life, such as the catholic habit of smoking tobacco and the frequent administration in the treatment of debility of drugs, like the perchloride of iron and hydrochloric acid, that are rapidly destructive of enamel, which have perhaps contributed to the reign of caries that we deplore—a reign that still extends, notwithstanding an enhanced degree of attention bestowed upon the care of the teeth, as indicated by the huge increase in the manufacture and sale of toothbrushes and tooth-pastes and powders during the last twenty years. But the principal causes of the increase of dental caries have, I believe, been summed up in what I have said to you this afternoon, and the practical question that now arises is what can be done to remove these causes or to counteract their effects, to banish from our country a blight that has invaded every household and to secure to our people the boon of sound and serviceable teeth.

I have said that the present state of matters is deplorable. I am sure you will agree with me that it is harrowing to reflect on the pain and sleeplessness and distress that are daily due to dental caries in this country. Beyond these immediate evils accruing from it there are remote consequences which are even more grievous. Decay of the teeth implies imperfect mastication, delayed digestion, impaired assimilation, and a whole train of derangements which embitter and sometimes shorten life. It implies also imperfect articulation and therefore some social disability; and further than this, I would affirm that it implies sometimes danger to mental health, for in a sensitive woman, especially if she is otherwise pretty, the knowledge that she has unsightly teeth, or an obviously artificial set, is just one of those minor but constantly recurring worries and chagrins that tend to upset the equilibrium of the nervous system. The prevention of dental decay, then, and the preservation of sound teeth, become hygienic and prophylactic measures of the first moment. The boy who can masticate has a much better prospect of success and happiness in life than he who can merely munch, and the girl who dares to show her teeth will have more joy in her womanhood than she who has to veil them behind an imperturbable upper lip.

What, then, are the hygienic and prophylactic measures which should be resorted to for the prevention of dental caries and the preservation of sound teeth? The most important, the most hopeful of all of them, are those which you are met to discuss this afternoon, and which have reference to the care of the teeth of children during the period of schooling. We cannot roll back the tide of evolutionary change, abolish the potato and other pulpy foods, cool down the fever of competition, or reverse the centripetal force that is drawing our labouring classes into towns; but we can do much, very much, to avert and counteract the injurious effects upon the teeth which are exerted by such movements towards more artificial modes of life; and, best of all, we can do this in early life. The reformation of the vicious and criminal classes can only be successfully carried out amongst the young; and dental delinquency is only to be efficiently dealt with—on the large scale, at any rate—amongst those of tender years. I would, perhaps, not be going too far in alleging that if universal, continuous, and skilful supervision and management of the teeth during their development and eruption—that is, up till twenty years of age—could be secured, there would be practically nothing to do to the teeth afterwards. Once safely brought through the perils of youth they might, in a vast majority of instances, be left to themselves afterwards without any fear of their degenerating, even under circumstances of trial and neglect.

It is during childhood that tooth troubles originate and it seems to me that you are performing a great public duty, in a manner worthy of an unselfish profession, in calling

attention to the alarming prevalence of dental caries amongst school children and in asking that steps be taken to arrest its progress and prevent its spread. It seems to me that you have already made out an unanswerable case in favour of interference and I cannot doubt that you will soon be successful in securing it. You have shown the reality and the magnitude of the evil as it exists; you have shown the practicability of dealing with it remedially, and you are entitled to insist that easily attainable protection shall be given against an evil, distressing in itself and pernicious and far-reaching in its consequences.

In the first place, I would say it is the clear and pressing duty of Government or Parliament to provide that in all public institutions for the maintenance or education of the young, whether under public control, as in the case of training ships, reformatories, industrial and workhouse schools, or under the management of committees of subscribers, as in the case of orphanages, hospitals and homes the teeth of the children shall be periodically examined by a qualified dentist and everything that is needful done for their preservation. The governing bodies of such institutions stand *in loco parentis* and are bound to do everything that a good and prudent parent would do to guard the children under their charge against suffering and illness and to equip them thoroughly to earn their living. Of the children in such schools a large number ought to look forward to joining the public services and in order that they may do that it is essential that they should have sound teeth, for, as we know, a considerable percentage of young men desiring to enter the army and navy are rejected annually solely on account of dental disease.

As regards Board Schools, there would certainly be greater difficulty in introducing compulsory dentistry. There would, no doubt, be resistance by ignorant and stupid parents, and perhaps by a pig-headed society, to any operative procedure enforced to ensure to children the inestimable blessing of sound teeth, just as there is opposition to compulsory vaccination and other beneficent measures of a like kind; but, as far as I can see, there could be no objection to compulsory inspection of teeth and it is this, I respectfully submit to you that you ought to aim at and that, were it once fully introduced, would ultimately secure for us nearly all we want. Were statutory powers obtained, making it obligatory upon all School Boards and committees of schools receiving grants, to have the teeth of every child attending these schools examined by a qualified dentist twice a year; to forward to the parent or guardian of every child a copy of the dentist's report, indicating, wherever interference is necessary, what measures are required for the preservation of the child's teeth; and to provide at a cheap rate to parents and guardians disposed to avail themselves of it the assistance necessary to carry out these measures, then I feel satisfied that dental caries would be immediately circumscribed in its ravages and in a few generations become comparatively rare. The very existence of such a system would create a public opinion in favour of sound teeth, it would bring home to the people a sense of the value of tooth culture and lead to the widespread adoption of domestic precautions against dental caries, now too much neglected. In so doing it would have advantages beyond those merely relating to the teeth, for you may depend upon it, that the simple ceremonial observance of the morning and evening tooth-brush, regularly performed, exalts self-respect and so has a wholesome effect upon moral character.

A system of compulsory inspection of the teeth of school children and State-aided rectification of defects in them, such as I have alluded to, would of course entail a large outlay of money, for I contemplate that the dentists employed in this public service would be adequately remunerated for their labours; but the money would be well spent and would yield a splendid return in the increased comfort, contentment, health and vigour of our people. Rather than it should not be spent on so laudable and desirable an undertaking—and truly our school rates are already high—I would willingly see some curtailment of the curriculum which our Board Schools now offer. Nutrition, I have often said, comes before education. It is wasteful and even cruel to force education on half-starved children, and teeth, I would now assert, come before talents. It is preposterous to confer shreds of showy accomplishments on children who cannot chew their food; and sure I am that it would be for the ultimate welfare of the country (if so be that adequate tooth culture cannot be otherwise secured) even that the grand piano in some of our London Board Schools should give

place for a time to the dentist's chair. Admirable is the grand piano in its way; it is the high altar of popular æsthetics, but Chopin and Wagner ill accord with the groans of toothache. Horrible, no doubt, in its way is the dentist's chair, excruciating are the associations that cluster round it, but a timely resort to it robs it of its terrors and converts it into a benefactor that lifts us from purgatorial pains into paradisaical tranquillity and ease. The union of teeth is a far more momentous matter than that union of hearts of which we have heard so much lately.

Taken in its incipient stage caries is readily extirpated and stayed, and one of the most pleasing features in your profession at the present day, if I may say so, is the anxiety you manifest to save teeth in which it has already made serious inroads and to sacrifice as little as possible of natural dental structure. Marvellous is your skill, but you cannot yet supply artificial teeth with the true vital polish, and firm, nice and sentient in grip like the natural organ planted in its living alveolus, and your efforts are therefore directed to preserving that natural organ, even when badly damaged, whenever it is practicable to do so. Extraction which was at one time the opprobrium of your art, just as amputation was of surgery, is now comparatively rarely practised, except by old-fashioned or questionable practitioners—although it is still, I fear, too frequently resorted to by members of my profession when trespassing, as they are often obliged to do, on your domains. Blake, the artist, left us a grotesque and curious portrait of the ghost of a flea—a hideous figure covered with scaly skin of black and gold, with a murderer's countenance and eager tongue whisking out of its mouth and a cup in its clawed hands to hold the blood. I much wish he had bequeathed to us his conception of the ghost of a lost tooth, a spectre of ivory pallor and hollow visage, with quivering fangs for limbs, wormeaten, writhing in agony and waving aloft forceps and key; and even more do I wish that such a spectre could be set to plague every dentist or doctor who has been guilty of denticide or the unnecessary extraction of a saveable tooth. But no such ill-visions, gentlemen, will affright you, for I know how scrupulously conservative you are, how loth even to confer euthanasia on a perishing stump. In conclusion, I would beg very cordially to wish you success in your efforts to secure the protection of the teeth of the young and I would exhort you to steady perseverance in these efforts, undaunted by opposition, unruffled by ridicule and undiscouraged by failure, for your cause is a good and reasonable one and it must prevail. You are a wing, an useful and honoured wing, of the great army that is giving unceasing battle to the powers of darkness, disease and death.

## A Clinical Lecture

ON THE

### TREATMENT OF FRACTURE OF THE PATELLA,

WITH AN ACCOUNT OF A NEW METHOD.

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GENTLEMEN,—There are few fractures that give more trouble both to the patient and to the surgeon than those of the patella and the reasons for this are now well understood. The natural tendency to separation of the fragments by the "tonic" contraction of the quadriceps extensor, the effusion of blood into the joint cavity, the traumatic synovitis set up by the injury, and the intrusion of the torn prepatellar aponeuroses between the two fragments are so many natural obstacles to a favourable union, and they may be aided, perhaps in a material degree, by plans of treatment which intercept the blood-supply to the injured part and so tilt the fragments that a strong bond of union becomes a physical impossibility. Then, union of a more or less satisfactory kind having taken place, the prolonged immobilisation by which it has been secured is apt to leave stiffness of the joint, often for a long time after the patient is allowed to use the member; and ultimate freedom of motion is only obtained by painful and frequent manipulations. It is probable, moreover, that a detrimental element of a different kind

comes into play in a large proportion of the cases. There is reason to believe that fracture of the patella, when compared with fractures of the long bones, is relatively infrequent in young and vigorous persons, but is more prone to occur in subjects of a less favourable type; women and men over middle age or of feebler habit of body; and perhaps the lower tissue resistance in such cases is a predisposing cause of the lesion and of the imperfection of the reparative process. In the last four months there have been admitted into my wards seven persons with this injury. Of these, five were women, and not at all of a robust type, and two were elderly men who died within a few days of admission from ailments of a medical nature. This is of course an exceptionally bad list, but my impression of the cases that have been under my care during the last ten years is that the subjects were with few exceptions decidedly below the average in reparative power. To put this in some measure to the test I have, with the aid of my house surgeon, Mr. W. F. E. Milton, analysed the records of 274 cases treated since the beginning of 1880 at St. Thomas's Hospital and have taken for comparison the much larger number of fractures of the leg within the same period. From this it appears that the former accident is relatively much more frequent in women than the latter. Thus of the patellar fractures 35.5 per cent. were in women; of the leg fractures only 20.7 per cent. Again, the average age in patellar fracture is very high (39.7) and no less than 49 per cent. of the patients had passed their fortieth year, against 30 per cent. in fractures of the leg. Now it might be supposed that transverse fracture of the patella is especially favoured by a powerful development of the quadriceps extensor, since there can be little doubt that it is the violent contraction of this muscle that determines the breach of continuity in the vast majority of the cases; but the large proportion of women and of elderly men who are subject to the accident points rather to the predominant influence of a second factor, a diminished textural resistance in the bone, and such diminished resistance is likely to be associated with impaired reparative power.

The remedial measures, apart from the familiar elements of rest and position and local antiphlogistics, may be divided into operative and non-operative. The non-operative treatment was until a few years ago almost the only resource which the surgeon regarded as justifiable and consisted of a variety of bandages and appliances designed to draw the fragments together. I do not propose to speak of these in detail, but merely to point out that most of them were positively injurious, because they tended both to impede the circulation in the patellar vessels and to tilt the broken edges of the fragment forwards, and many if not all of the warning specimens in our museums were perhaps rather the products of misdirected surgical zeal than of nature's inability to do the work of repair. There is, indeed, little doubt that in cases not treated by operation, simple rest and extension of the limb, without any attempt to coerce the fragments of the broken bone into position, afford the best prospect of a sound union, and it is perhaps the exclusion of harmful interference that explains the success claimed in recent years for the innocent expedient of massage of the extensors. If, however, we take the results of all cases treated by non-operative measures—good, bad and indifferent—there is little serious reason for dissatisfaction. It is true that the patients were crippled for a much longer time than in most other fractures of the lower extremity, but very few of them had any further cause for complaint and the mortality was *nil*. Only two cases since 1880 were admitted into the hospital for the treatment of badly united bones; and it must of course be recollected that it is not in the patella alone that imperfect union occurs. These facts must be borne in mind in estimating the desirability of certain forms of operation. In operative treatment we have now a considerable variety of resources, all aiming to secure a close mechanical apposition of the fragments, either by immediate suture or by forces less directly applied. The suturing operations are of several kinds. The fragments may be exposed and wired after the manner of Lister; the bone may be drilled and sutured subcutaneously, after the method of Ceci; the suture may be passed through the ligamentum patellæ and quadriceps tendon and around the bone longitudinally, the wiring material being knotted externally, after the method of Kocher, or carried beneath the skin over the patella as recommended by Barker. The details of the different operations have been graphically described in a recent article by Mr. Barker and need not be repeated.

Amongst all these plans, that of Lister stands first in its

results. The effused blood is removed from the joint, the torn prepatellar aponeurosis is cut away and the two broken surfaces are accurately adapted. This is ideal surgery and the reward is all that would be expected—speedy union and early and complete restoration of the functional utility of the joint. In the series of cases quoted admirable results have been secured by my colleagues, Mr. Croft and Sir William MacCormac, from this measure. The methods of Kocher and Barker too have been very successful, although they have not the advantages of Lister's operation; but in all these the cavity of the joint is interfered with. Now antiseptics includes too many factors and directly or indirectly the coöperation of too many persons to render possible an absolute certainty of success; and so grave are the consequences of suppuration of the joint that were it to happen in only one out of fifty cases it is very doubtful whether all the benefits gained for the other forty-nine would compensate for it. The results of the ordinary treatment, however, are not good enough to permit us to rest content without seeking to improve upon them if we can do so without sacrifice of safety, and if an operation can be devised that will secure approximation of the fragments without implicating the articular cavity it should receive a fair consideration. Amongst the methods aiming at this result are Treves' adaptation of Malgaigne's hooks to grasp the patella itself instead of the quadriceps tendon and ligamentum patellæ; Marshall's plan of piercing the bone transversely above and below the fracture by pins which are drawn together by means of wire outside the joint; and Mr. Mayo Robson's operation, in which the pins are passed through the tendon of the rectus and ligamentum patellæ instead of through the bone. We have not at present a large experience of either of these three methods. The first certainly removes the danger attached to the original application of the hooks—that of penetrating the joint—and appears worthy of a more extended trial; the second must be somewhat difficult of safe performance when the lower fragment is small; and the third would appear to require some care to avoid the implication of the supra-patellar synovial pouch and to ensure that the fragments, the lower one particularly, shall not be tilted. Of course, none of these "subcutaneous" measures remove the obstacle to ideal union offered by the torn ends of the prepatellar aponeurosis; but there is no reason to believe that this tissue fills the interval between the fragments so completely as to intercept a satisfactory union if the apposition of the fragments be sufficiently close.

In the course of a dissection of the structures in front of the knee I was struck with the strength of the prepatellar fibres of the quadriceps and their strong fixation to the bone, and on passing a pin between the thin tendinous aponeurosis and the bone I found that a very considerable force of traction might be exerted without any yielding of the tissue—a force much greater than that required to ensure contact of the fragments in fracture. Acting upon this I took advantage of a series of five cases admitted into my wards to apply a new procedure. All the cases were kept for a week at perfect rest with the limb extended upon a back splint. The patient was then prepared for operation by a thorough cleansing of the skin over the front of the knee and the application for twelve hours of a moist perchloride of mercury pack. A strong steel pin, about four and a half inches long, with a lance-shaped extremity, was passed through the integuments down to the front of the upper fragment near its outer margin, about half an inch above the line of fracture, and was pressed onwards transversely nearly as far as the opposite border, the point being kept in contact with the bony surface till it was finally pushed through the skin. The lower fragment was similarly treated and it was found that approximation of the ends of the two needles at once obliterated the gap between the two portions of the broken bone. A cork was then fixed on the two needle points, and the heads on the opposite side of the joint were connected by means of a twisted silver wire. The whole joint was dusted with iodoform powder and covered with an antiseptic dressing and the limb was again placed upon the back splint. It was left untouched for a fortnight or three weeks, at the end of which time the dressings were removed and the pins withdrawn. I will not take up time by reading the reports of the individual cases, as it will be more easy and profitable to summarise the results. The patients were all women—one aged twenty-four, a fairly good subject; two aged thirty, of poor physique; one aged forty-five, an extremely stout woman; and one aged fifty-two, a person of very intemperate habits. In all the fracture was transverse and the accident was

attributable to a spasmodic contraction of the extensors consequent upon a stumble. In four of the cases the course was aseptic and painless throughout and when the pins were withdrawn the union was found to be linear; in the fifth, that of the alcoholic patient, suppuration occurred along the track of the pins and it was necessary to withdraw them at the end of thirteen days; but there was little or no pain and a good fibrous union was secured with an interval of about a quarter of an inch. This person returned home at her own request at the end of five weeks and it has since been impossible to trace her; but as she left her original home shortly after her discharge there is reason to believe that she was able to make a satisfactory use of the limb. The other patients have been kept under observation for three or four months after the accident. In all of these the result of treatment was maintained; in two there was undoubtedly osseous union; in the other two it was impossible to be certain whether the uniting material was or was not bone, but the vertical diameter of the patella was the same as in the sound limb. Some little stiffness in the joint was present in all the cases after the removal of the splint, but it yielded to treatment. The stout patient, whose weight must have exceeded 16 st., had the ill luck to

FIG. 1.

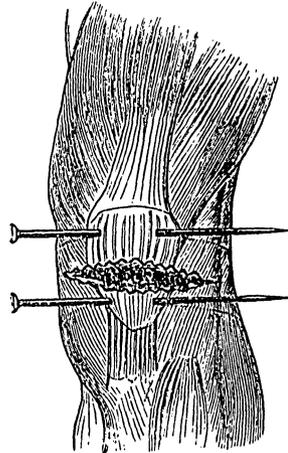
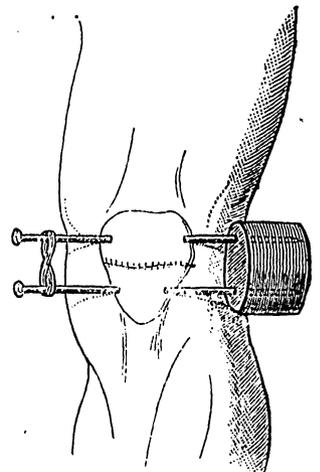


FIG. 2.



fall about fourteen weeks after the original accident and was readmitted into the hospital, with considerable pain and some swelling in the knee, but it was found that the patellar union had held good and she returned home at the end of a few days.

Taking these cases as a whole they may be regarded as very satisfactory. The occurrence of suppuration in one instance, that of the alcoholic subject—and it may here be noticed that alcoholics are singularly prone to suppuration after surgical operation, in spite of the most careful antiseptic precautions—is of interest in showing that even this accident is of no gravity and only prevents so close an approximation of fragments as in other cases where no pus is formed. The resistance to the violent strain caused by the fall in the case of the stout woman may be considered a crucial test of the strength of the union. The temporary stiffness of the joint was merely that which is observed under non-operative treatment and was not in any way connected with the use of the pins.

The patients were retained in the hospital for about six weeks, the knee in each case being kept straight in a plaster splint for a fortnight more, but this latter precaution was probably unnecessary, and in future cases I propose to shorten the period of detention and to allow earlier movement of the articulation.

Harley-street, W.

**NEW WATERWORKS, WAKEFIELD.**—The chairman of the Waterworks Committee of the Borough Corporation (Councillor J. S. Booth) performed on the 23rd ult. the ceremony of cutting the first sod of the new Withens Reservoir, on the Rishworth Moors, in connexion with the Wakefield new waterworks. The reservoir will have a capacity for 240,000,000 gallons of water. The estimated cost is £120,000.

ON POSTURE AND ITS INDICATIONS.

By T. LAUDER-BRUNTON, M.D., D.Sc. EDIN., F.R.S., &c.,  
ASSISTANT PHYSICIAN AND LECTURER ON MATERIA MEDICA AND  
THERAPEUTICS AT ST. BARTHOLOMEW'S HOSPITAL.

In a former paper<sup>1</sup> I observed that I thought medicine lost a great deal by its practitioners either not recording their experience at all, or not recording it in such a form as to be readily available for their fellow practitioners, or with sufficient precision to be really useful. As examples of vagueness and precision I instanced a verbal description of a face as commonly given, and a sketch containing all the features more or less precisely drawn. In the present paper I have tried in a very imperfect way to indicate the common postures which one meets with daily, either in patients or others, and to discover the reason why those postures are assumed. I have not attempted to draw the figures, for this would have been beyond my powers, and probably also beyond the powers of many medical men. I have simply indicated the position

FIG. 1.

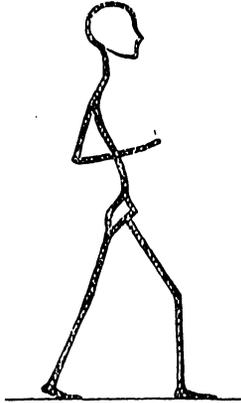
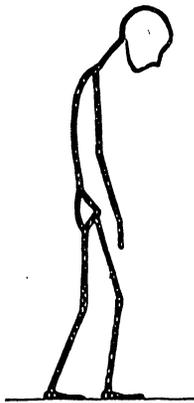


FIG. 2.



by a few simple lines such as anyone can draw. This method is one which was employed with great success by the late Professor Goodsir more than thirty years ago in illustrating his lectures on anatomy. In a few lines he conveyed the impression of the agility of the cat as compared with the heavy movements of the ox or of the elephant, and the absence of detail fixed the minds of his students all the more firmly on the main facts which he wished them to carry away. As we walk along the streets and notice the difference of attitude in the passers-by,

FIG. 3.

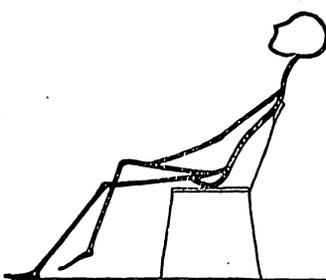
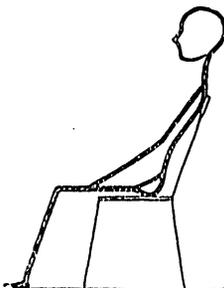


FIG. 4.



some with head erect and agile steps convey to us at once the idea of energy and activity (Fig. 1), while others with hanging heads and bended knees suggest the ideas of languor, weakness and depression (Fig. 2). It is a matter of ancient observation that such an attitude as this is associated with weak circulation, and it is probably more than three thousand years ago that the injunction was given: "Strengthen ye the weak hands and confirm

the feeble knees; say to them that are of a fearful heart, Be strong, fear not." Is. xxxv., 3, 4.<sup>2</sup> When the heart is stimulated by joy or hope the attitude again becomes erect and the gait brisk and elastic. It is by no means easy to distinguish exactly between the part played in this change by the motor cells of the nerve centres and by the circulatory apparatus, for the activity of the motor cells on which muscular action depends is itself influenced to an enormous extent by the circulation of blood through the nerve centres. We find an example of this in the

FIG. 5.

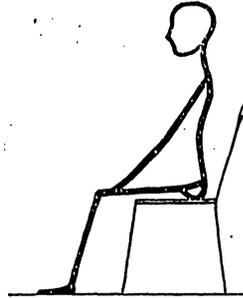
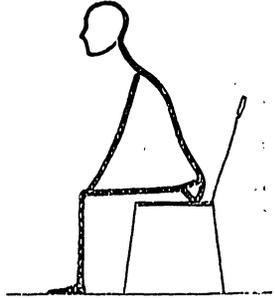
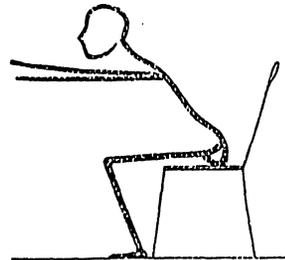


FIG. 6.



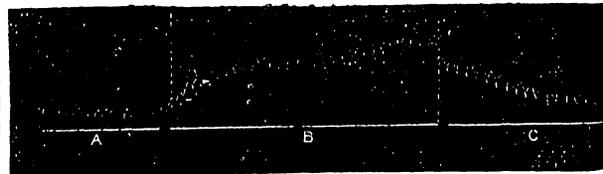
attitude unconsciously assumed by anyone engaged in conversation or argument. So long as he takes only a listless interest in the subject under discussion he may lie back in the chair with his legs crossed and his arms either hanging down or his hands laid loosely in his lap (Fig. 3). As his interest increases his attitude becomes more erect (Fig. 4), and he sits straight up, with his hands folded or laid upon his knees instead of hanging listlessly down (Fig. 5). As the interest increases still further the body is bent forwards at an angle and the hand is very probably placed firmly on the thigh (Fig. 6).

FIG. 7.



If he becomes excited in the heat of argument the body is bent forwards at a somewhat acute angle and the hand is stretched out in front and somewhat upwards as if to help the words which flow from his lips to drive the thoughts which are rapidly evolved from his brain into his opponent's mind. (Fig. 7.) In this position the flow of blood through the arterial system onwards to the brain as well as its return backwards through the veins seems to be particularly easy (Fig. 8).

FIG. 8.



Tracing from the brain. A, in upright position; B, with head inclined forwards.

This position is not only assumed during the heat of argument, whether the speaker be sitting or standing, but when one is led to assume it unconsciously it seems to give rise to a rapid and sometimes almost uncontrollable flow of ideas. Thus it occasionally becomes a cause of remorse to devout souls, who during the attempt to pray in church in this atti-

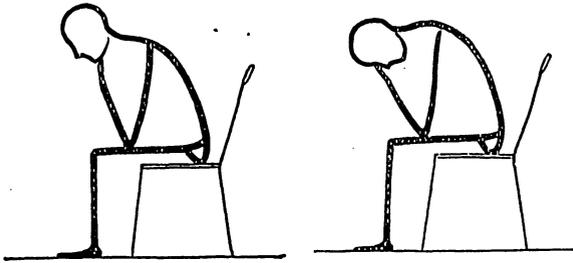
<sup>1</sup> On the Method of Zadig in Medicine, THE LANCET, Jan. 2nd, 1892.

<sup>2</sup> Also, "Lift up the hands which hang down, and the feeble knees, and make straight paths for your feet." Heb. xii., 12.

tude are sadly distracted by crowds of ideas which at once disappear on the assumption of an easy sitting posture. The circulation in the cerebral vessels and the current of ideas in the brain are very delicate things and may be modified by very slight causes; thus an attitude with the head drooping slightly more than that indicated in Fig. 6, and with the chin supported upon the hand is the one frequently assumed in deep thought, with concentration of ideas upon a single subject and no desire for immediate expression (Fig. 9). The touch of the hand upon the head seems to have a directing power over the thoughts which one would formerly have been inclined to deny, but such experiments as those of Tesla and Crookes with electric currents of very high tension give a visible illustration of phenomena previously unknown and seemingly incredible. For in these experiments a person who has put himself into the electric field renders vacuum tubes containing various substances fluorescent and fills them with a glow of coloured light by simply waving his hands over them. The tubes, which were previously dark, owe their luminosity only to the approximation of his hand, yet he himself does not feel that any special power has gone out of him. The contact of the hand with the temples seems as if it could hardly by any possibility modify the circulation in the brain or the feelings of the individual, and yet it appears to have an actually soothing effect and to be a real physical solace in cases of grief and depression (Fig. 10). At the same

FIG. 9.

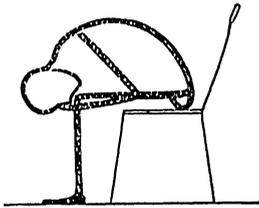
FIG. 10.



time the greater droop of the head possibly provides for a better supply of blood to the sensory parts of the brain in the posterior part of the head and thus to a certain extent counteracts the general weakness of the circulation. In the case of excitement (Fig. 7), the head being more raised, if a straight line were drawn through the axis of the body so as to represent the line of the aorta and carotid arteries, it would come out at the anterior part of the head; and blood driven onwards in this line would supply nutriment rather than the motor than to the sensory centres.

In cases where the circulation is exceedingly weak and syncope is threatened, a most useful plan is to make the patient put his head down between his knees (Fig. 11), so

FIG. 11.



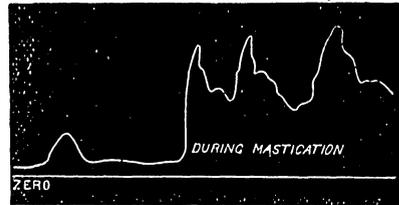
that an ample supply of blood shall reach the cerebral centres. Long ago, before the introduction of anaesthetics, a common plan of rendering patients senseless previously to the performance of an operation was to lay the patient flat upon his back and then suddenly hoist him to a standing posture by six strong men who held him by the arms, three on one side and three on the other. The brain being thus, as it were, lifted away from the blood, became so anæmic that it ceased to act before the circulation could adapt itself to the new posture.

An experience of my own once showed me how very dependent the brain is upon the supply of blood. I was called upon one night after a long day's work to write an article immediately. I sat down with pen, ink and paper

before me, but not a single idea came into my head, not a single word could I write. Lying back I soliloquised: "The brain is the same as it was yesterday and it worked then, why will it not work to-day?" Then it occurred to me that the day before I was not so tired and probably the circulation was a little brisker than to-day. I next thought of the various experiments on the connexion between cerebral circulation and mental activity and I concluded that if the blood would not come to the brain the best thing would be to bring the brain down to the blood. I laid my head flat upon the table and at once my ideas began to flow and my pen began to run across the paper. I thought "I am getting on so well I may sit up now," but the moment I raised the head my mind became an utter blank, so I put my head down again flat upon the table and finished my article in that position.

Stimulation of some branch or other of the fifth nerve seems to increase the circulation in the brain and those who are making their utmost calls upon their mental powers are accustomed to stimulate this nerve in one way or another. The late Lord Derby used to eat brandied cherries, and an experiment of Marey's (Fig. 12) proves that mastication will

FIG. 12.



Tracing of the rate of circulation in the carotid. After Marey.

accelerate the flow of blood through the carotid artery, and serves to show the wisdom of an editor whom I knew who used to eat figs while writing a leading article and even of those who indulge in the practice so disagreeable to their neighbours of chewing tobacco. Others stimulate the gustatory branches of the fifth nerve by the sweets which they suck or by the smoke of a cigar or cigarette; while a rustic called upon suddenly to answer a question will probably excite the cutaneous branches of this nerve by scratching his head, and a man of more culture may stroke his moustache or beard, press his forehead or eyes, or, like many Germans, smite his nose with the forefinger.

A similar reason may be given to explain the habit of snuffing formerly so much in vogue. The gentle titillation of the nasal mucous membrane by the snuff probably serves to stimulate the cerebral circulation and the increased arterial tension due to the efforts of sneezing so increases the cerebral nutrition that difficulties seem at once to disappear and obscurities of mental vision are so rapidly removed that snuff is said in popular language to "clear the head." The practice of snuffing has fallen to a great extent into disuse, but it may still be occasionally employed with advantage in cases of severe and persistent headache where other remedies fail to relieve. Even where such a strong irritant as snuff is not resorted to, smelling salts (sal volatile) or aromatic vinegar may give considerable relief in headache if frequently inhaled.

While stimulation of the fifth nerves just described tends to keep people awake and increase their mental activity, gentle, rhythmical stroking of the head tends, on the contrary, to make them fall asleep, and brushing the hair has this effect on many people to such an extent that the movements of the hairdresser's fingers over the scalp and rhythmical click of the shears will send some people to sleep, even at the risk of having their hair shorn to a much greater extent than would be at all pleasing to them on awakening. A gentle rubbing of the scalp, as if to loosen it upon the skull, also tends not only to sooth irritability, but to relieve and to prevent headaches.

External temperature has a powerful effect in determining posture. On a hot summer's day the natural tendency is to lie down with the head slightly raised, the arms hanging loose and one leg extended, while the other perhaps is drawn up, as in Fig. 13. The physiological reason for this posture is that in it the greatest extent of cooling is attained; for it ensures the greatest possible exposure of the largest vascular district in the body—viz., the intestinal vessels—to

the cooling influence of the external air. This is aided by the loss of heat due to the evaporation of sweat. By the slight raising of the head and the drawing up of one leg the abdominal parietes are rendered loose and the intestines tend to fall sideways and the abdomen tends to become flattened from before backwards. The greatest extent of cooling surface is thus obtained and the temperature of the body is kept as low as possible.

An entirely opposite attitude is assumed when the external air is cold (Fig. 14). The thin abdominal walls being insufficient to protect the intestinal vessels from the cooling influence of the external air, the legs are drawn up until the thick muscles of the thigh form a warm covering to the abdomen and thus prevent loss of heat from the intestinal vessels. Many people are unable to get to sleep when they are at all cold, and Rosenthal has shown that this attitude

FIG. 13.

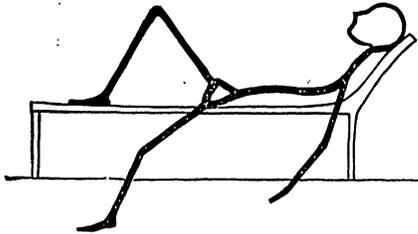
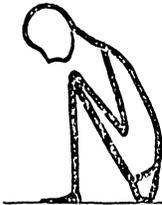


FIG. 14.



is commonly adopted by men, dogs and other animals when preparing to sleep so as not only to maintain the bodily temperature during sleep, but to allow the intestinal vessels to dilate and accommodate a mass of blood which would otherwise be driven into the cerebral circulation, stimulating it to functional activity and keeping the person or animal awake.

The attitude of the body may be altered permanently by occupation or disease in such a way that one accustomed to pay attention to this subject can frequently make out with a little trouble a good deal regarding the patient's history and illnesses. Thus a chronic cough has the effect of inflating the chest and rounding the back, so that one might almost guess from the figure (15) that the person so shaped was liable to chronic bronchitis. The more tightly a bladder is blown up with air the more tense does it become and the more does it

FIG. 15.

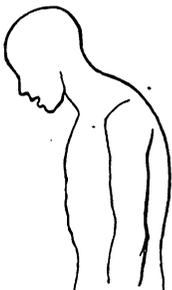
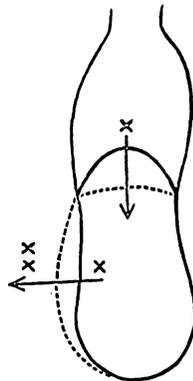


FIG. 16.

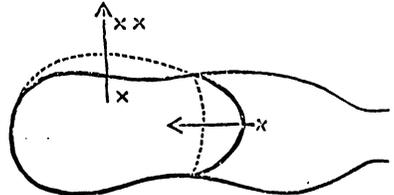


take a circular form. In the same way the more an alveolus of the lung is blown up by the efforts of coughing the more does it resemble the inflated bladder. What is true of a single alveolus is true of the chest as a whole. It tends as nearly as possible to become globular, with a circular outline not only in the transverse, but in the longitudinal direction. The sternum and vertebrae prevent it from becoming completely globular, notwithstanding all efforts, and it thus assumes the barrel shape so characteristic of emphysema, as being the nearest possible approach to a globe. In going through a hospital ward one sees here and there patients who are constantly sitting up in bed and do not lie down at all; these are for the most part people who have great difficulty of breathing. The reason for this position has no doubt been often given, but I do not recollect

coming across it in print and I cannot say whether the reason that I now give has been evolved from my own brain or whether I have learned it from others.

When a man is sitting upright the diaphragm moves up and down during respiration. (Fig. 16.) At each inspiration it descends and displaces the intestines and the abdominal walls outwards. During each expiration the diaphragm ascends and the intestines and abdominal wall return back to their former position. In the upright posture the diaphragm moves vertically, but the abdominal walls and intestines move in a horizontal plane and there is no lifting work for the diaphragm to do. The case is quite different when a man is lying on his back, for then the diaphragm moves in a horizontal plane and the abdominal walls and intestines in a vertical one. During inspiration as the diaphragm encroaches on the abdomen for the purpose of enlarging the thorax (Fig. 17)

FIG. 17.



it has actually to raise the intestines and the abdominal walls instead of merely moving them in a horizontal plane. As the diaphragm returns into the thorax during inspiration its progress will be accelerated by the weight of the descending intestines, and thus the recumbent posture may be sometimes useful in cases of bronchitis with emphysema, and so such cases may be seen sometimes lying down although there is considerable interference with the aeration of the blood. In cases of cardiac disease no benefit of this kind is obtained, and therefore we find that a large proportion of those whom we see sitting upright in bed in a hospital ward are suffering from disease of the heart.

When a patient lies upon his side the intestines also move in a horizontal plane, and this is the position usually assumed during healthy sleep, for in it there is no interference with expiration any more than when the patient is sitting upright, while at the same time the rest obtained is much more complete. The side upon which one lies is immaterial to most healthy persons and they frequently lie first upon one and then on another, turning over perhaps several times in the course of the night; but in cardiac disease or cardiac irritability without organic disease patients frequently are unable to lie upon the left side because the heart beats against the ribs with such force as to cause physical discomfort. At the same time the heart itself appears to be stimulated by the blows which it gives itself against the thoracic walls and to palpitate more violently than before. The patient is therefore obliged to lie upon the right side. A similar result may occur if the liver is enlarged or congested, for then it seems to drag upon the suspensory ligaments when the patient lies upon the left side and thus he is obliged to turn round that the liver may be supported by the ribs. If a heavy meal has been taken shortly before retiring to rest the person may be unable to lie upon his left side because the stomach drags upon its pyloric end. On the other hand, if the stomach is distended by flatulence the gases sometimes will not escape while the patient is lying on his left side and he must either be raised into the sitting posture or be turned on his left side to allow the gas to cruetate by the œsophagus and the tension in the stomach to be relieved,<sup>2</sup> for the œsophagus joins the stomach at such an angle that when the patient is on his left side the gases appear to accumulate and not to find an exit through the œsophagus, but when he is on his right side they pass upwards with comparative ease. This of course is a matter of very slight moment to patients who are able to move readily, because they adjust their own position at will and soon find out which is the most easy one for them. But when a patient is so weak that he is unable to move himself he is frequently allowed to lie flat on his back and to suffer

<sup>2</sup> I have found this practice useful. The explanation I have given of its utility was, I think, suggested to me several years ago by John Haddon, M.A., M.D.

much from abdominal distension and even from difficulty of breathing, due to the diaphragm being pushed upwards when he might be relieved by simply sitting him up for a few minutes or turning him over on his left side.

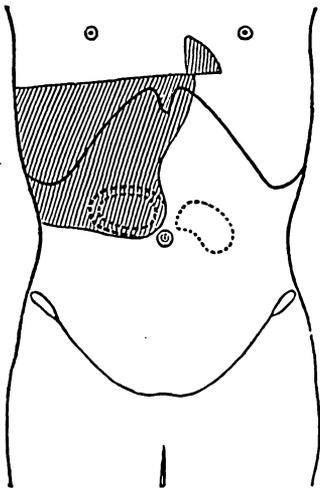
In this short paper I have made no reference to many other postures in disease, neither have I attempted to discuss the postures due to trade, nor have I attempted to make the paper complete. I have merely tried to give an illustration of an easy method of recording posture in a tolerably precise and easily understood way and have attempted to connect external signs with physiological conditions as an illustration of the method of tracking which I mentioned in a former paper in the hope of inducing others to prosecute the same line of work.

### A CASE OF INTUSSUSCEPTION ASSOCIATED WITH CANCER OF THE CÆCUM.

BY SIDNEY COUPLAND, M.D., F.R.C.P. LOND.,  
PHYSICIAN TO THE MIDDLESEX HOSPITAL.

In his monograph on Intestinal Obstruction,<sup>1</sup> Mr. Treves points out that whereas of all cases of intussusception more than 50 per cent. occur in the first decade of life, yet in the chronic varieties alone the period of greatest frequency is between the twenty-first and fortieth years. He also shows that the majority of subacute and chronic cases are of the ileo-cæcal variety—about three-fourths. These two facts may be allied with a third—namely, the association of chronic invaginations with epitheliomatous disease of the bowel. Mr. Treves<sup>2</sup> has no doubt that in some cases the new growth may arise subsequently to the intussusception, but seeing that other forms of intestinal tumour are indubitably provoking

FIG. 1.

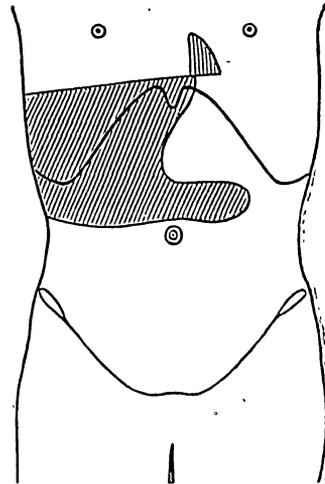


causes of an invagination, it is highly probable that in many instances the malignant growth has antedated the formation of the intussusception. In the following case we seem to have an example of this, although it is not possible to assert positively that such a sequence existed.

C. L.—, a French polisher, forty years of age, was admitted into Hertford ward of the Middlesex Hospital on Feb. 26th, 1892, complaining of a swelling in the abdomen, which had appeared after severe colicky pains, from which he had suffered for about ten days, accompanied at first with vomiting. Since childhood he had been subject to attacks of jaundice and bilious vomiting and his bowels were habitually constipated, but it was only in November last that he began to be attacked with colic. At the end of that month he began to have griping pains about the umbilical region, which came and went in paroxysms, without relation to meals or rest. He was treated at a dispensary and was completely relieved for a week, when the pains recurred and again inter-

mitted. The intervals of freedom from the colic became shorter and each returning attack more severe, until towards the end of January he was free from pain for about a fortnight. On Feb. 17th, at the close of his day's work, just after his supper, the colic recurred with great severity, "doubling him up" and causing him to vomit at times during the night and on the next day, there being very little remission of the pain until the day of his admission into the hospital, when it ceased. He was a well-developed, fairly muscular man; there was no jaundice; the tongue was moist and covered with a white fur. The abdomen was somewhat prominent in the umbilical region, and on palpation a rounded cylindrical swelling could be felt passing towards the right from the umbilicus over the lower edge of the liver in the course of the colon. This swelling was dull on percussion, the dullness being continuous with that of the liver and passing also into the right flank. (Fig. 1.) Above, the line of the hepatic dullness was at the level of the sixth rib in the nipple line. There was nothing else abnormal in the case. The lung signs were healthy, the heart sounds normal and the apex beat in the usual position. The pulse rate was not increased and the temperature was normal. The urine was acid, sp. gr. 1020, free from albumen and sugar. As there were no urgent symptoms and absolutely no pain nothing active was attempted, but rest in bed and a low diet were prescribed. Except for the fact that the tumour had apparently disappeared from the right and now lay wholly to the left of the

FIG. 2.



umbilicus (Fig. 1, area enclosed by dotted line) there was no change in his condition a week later—namely, on March 4th. The bowels, however, had not been satisfactorily opened, and under the impression that the mass was a faecal tumour (too little regard being paid to the previous history of the case) an enema of olive oil, followed by a simple enema, was administered more than once, with the result that a fairly copious motion followed each injection, containing some scybulous masses. This treatment was repeated on the succeeding two days, but no appreciable difference was observed in the size or position of the tumour. Accordingly on March 6th he was given a drachm of castor oil every four hours, which had the effect of opening the bowels freely and caused the tumour to assume a lower position. But it did not disappear, and on the 8th it seemed to be again continuous with the liver (Fig. 2), of which the dullness reached down to the umbilicus; the swelling projecting from the liver towards the left. Between this observation and the next note on the morning of the 9th the bowels had been again freely opened, whilst the tumour had entirely disappeared: the hepatic dullness was once more of normal extent, not reaching more than two inches below the costal arch and the area hitherto occupied by the swelling was quite resonant. (Fig. 3.) This change being maintained and the patient feeling quite well, he was discharged on March 12th. The idea that the case was one of faecal accumulation seemed to be borne out by the result of the measures directed to evacuate the bowel, but it is clear from the later history of the case that the condition was probably one of intussuscep-

<sup>1</sup> Intestinal Obstruction, Cassell and Co., 1881; pp. 217, 237.  
<sup>2</sup> Loc. cit., p. 200.

tion, which had become spontaneously reduced; and it seems more than likely that the attacks of colic from which he had suffered off and on for three months were also due to the peristalsis which precedes invagination and indeed causes it, or even to a series of recurrent intussusceptions.

Nothing more was heard of the patient until Thursday, May 26th, when he came to the out-patient department stating that since the 23rd he had been suffering from abdominal pain and vomiting and the passage of blood from the bowel. It appears that on the 21st he took some jalap, which opened his bowels eight times, and on the 23rd, whilst at work, he was suddenly seized with severe pain in the abdomen and vomiting. Shortly after this he passed some blood. He took to his bed and had medical advice, but the vomiting continued every four hours, as well as the mæna, and the pain did not diminish. On the night of the 26th he noticed for the first time that the motions, instead of being mere blood as hitherto, were blackish and offensive. He was readmitted on the 31st. We found him looking anxious and complaining much of abdominal pain. The abdomen, which was tender, was tense and tympanitic and was manifestly more prominent on the right half than the left. Crossing the abdomen from the right flank to the left hypochondrium there could be seen and felt a cylindrical swelling slightly curved, the concavity being downwards. It was very firm and rounded; the right half of it was dull on percussion, the dulness being continuous with that of the liver, whilst the left half was resonant. (Fig. 4.) The man was not collapsed; the

ing. It may be added that at no time during his stay in the hospital was the temperature above normal.

The post-mortem examination was made on the following day by Dr. Voelcker, from whose notes the following report is condensed. The peritoneal cavity contained a slight excess of clear fluid. The intestines were much distended and lines of red injection were observed along the contiguous coils. There was no lymph; no fecal extravasation. The hepatic flexure of the colon and the first part of the transverse colon formed a large cylindrical tumour due to the invagination into the gut of the cæcum and part of the ileum, the length of the whole mass being ten inches and a half. On laying open the colon, the mucous membrane of the intussuscepted bowel was seen to be intensely reddened and swollen and it had commenced to slough near its free extremity. Here also could be seen two orifices—namely, one leading into the appendix cæci, the other into the ileum. Moreover, at the upper part of the head of the intussusception the lining membrane was replaced over an area of the size of a crown piece by a soft, whitish, fungating and ulcerating mass of new growth. No adhesions could be made out between the serous layers of the intussusception. The rest of the intestines and the stomach showed nothing abnormal. The liver and kidneys were pale and in a condition of cloudy swelling. Both lungs were congested and œdematous, the heart was flabby, but otherwise natural. No new growth was found in any other part of the body.

The case speaks for itself. It illustrates the possibility of

FIG. 3.

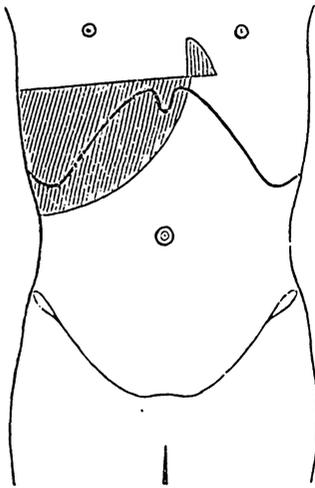
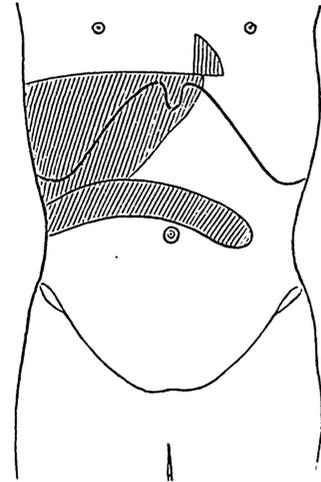


FIG. 4.



pulse was 98, fairly full and regular. There was no tenesmus. There was no doubt now that he was the subject of an intussusception, which was strangulated and probably commencing to slough. It was obvious from the duration of the symptoms, as well as the extent and probable condition of the invagination, that surgical interference was out of the question. There seemed no other alternative than to give opium freely and support his strength during the slow process which the natural cure of such a condition entails. At the same time, as the bowels had not been recently moved, the colon was gently irrigated with warm water in order to determine whether the motions showed evidence that sloughing was in progress. Some dark-brownish fluid came away having a faecal odour but containing no sloughs. The next day (June 1st) his condition had markedly changed for the worse. He had suffered from more pain in the night and had vomited about a pint of dark feculent-looking fluid, which, however, had no distinct faecal odour. The abdomen was more tense and the pain was aggravated paroxysmally. It was observed that with each recurrence of the pain the tumour (otherwise unchanged) seemed to become firmer. The man looked pinched and his pulse was smaller and harder, 120 to the minute. The symptoms rapidly increased in severity, vomiting became incessant, the bowels were opened twice, motions dark brown and fluid; no blood, mucus, or sloughs were passed. The abdomen became more and more distended, the pulse more rapid (138) and after an hour of noisy delirium he died at 6.30 p.m. During the last hour he had profuse faecal vomit-

mistaking intussusception in the adult, especially of the ileo-cæcal variety, for faecal tumour. The error has been made before, when, with a history of constipation and no urgent symptoms of obstruction, a tumour forms in the region of the colon. Fortunately, large enemata, which generally satisfactorily dispel faecal tumours, may have the same effect on the slighter forms of intussusception, with which alone the diagnostic difficulty lies; but it is remarkable that, whereas in this case enemata failed to produce that result, it took place after the administration of castor oil, a treatment which would certainly not have been adopted had the diagnosis been correctly made. On the second occasion there was no doubt at all as to the intussusception, but it is to be regretted that the patient did not seek admission into the hospital on May 23rd instead of the 31st, for then its reduction might have been successfully effected. The post-mortem examination did not show such complete strangulation, nor such advanced inflammation as was anticipated. The growth, which has the appearance of epithelioma (a microscopical examination has not yet been made), arose in the cæcum and it was probably the exciting cause of the intussusception.

Queen Anne-street, W.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The fifty-first annual meeting of the Association will be held on Thursday, 21st prox., at The Retreat, York, in honour of the centenary of the foundation of the institution. Dr. Robert Baker will preside.

## CANCER OF THE EAR.

BY SIR WILLIAM DALBY, F.R.C.S. ENG.,  
CONSULTING AURAL SURGEON TO ST. GEORGE'S HOSPITAL.

IN the history of cancer, which is at the present time subjected to such rigid analysis and receives such able handling from the Bradshaw lecturers, it seems advisable to place on record the experiences of individuals who have more than the usual opportunities of observing the occurrence of cancer in any especial locality, so I therefore embody what experience I possess in a few observations on cancer as it has come before my notice during the past twenty years in the very limited area of the ear. With one exception, as will be noted, this area might be more limited by using the term "middle ear" and even still further by saying "the cavity of the tympanum." In the course, then, of twenty years I have only seen six cases in all, including both hospital and private practice, and, without knowing what the experience of others may have been in a similar time, I should be inclined to say that, considering the opportunities I have had, cancer of the ear is comparatively speaking a rare disease. It is to be remembered how exceedingly often the mucous membrane which lines the tympanum is left in an exposed position, this being due to the fact that an enormous number of persons pass the largest part of their lives with a perforation of the tympanic membrane in one or both ears. The first point to be observed is that in the four cases I had seen up to 1885 and in all the recorded cases I could find (and there were very few) the patients had suffered for a considerable time from a discharge from the ear, evidently arising from a perforation, before any symptoms of malignant disease appeared and that in the early stages the appearances most closely resembled polypus arising from the tympanic cavity or ordinary bone granulations. Thus the presence of a constant discharge acted as a local irritation in each case. But in the first case everything, so to speak, arose *ab initio* from a local irritation, even the perforation itself. This case may be found recorded in vol. lxii. of the Medical and Chirurgical Transactions in a paper on "Disease of the Mastoid Bone" as follows:—

"In March, 1878, A. S.—, a married woman aged thirty-two, whilst picking her left ear with a hair-pin, ruptured the tympanic membrane and soon after the accident came under my notice as an out-patient of St. George's Hospital. With the exception of this lesion she was, in all respects, in good health. The rupture did not heal and in a few days, from the fistulous opening thus established, there was a purulent discharge. A month later, after an attack of pain in the ear, which was followed by facial paralysis of that side, I again examined the ear and found a polypoid mass filling up the cavity of the tympanum, the membrane having by this time quite gone. She now came into the hospital. I removed the polypoid growth, and the pains in the ear, which had previously been considerable, passed off. Her stay in hospital on this occasion was three weeks. On July 31st, when she again applied for relief and was admitted, she stated that she had suffered from no further pain until within five weeks, when acute pain in the ear came on and soon afterwards the parts over the mastoid process became swollen and tender. Two weeks ago, she said, the skin over the swelling broke down and a little bloody matter was discharged. The ragged wound at that time observable was the result, and from this wound had been coming ever since a quantity of watery, very foul-smelling discharge. The skin over the mass was bluish, the tissues were infiltrated and the edges of the wound were everted and hard. In short, the disease was to all appearance malignant. There were no enlarged glands, neither was there any history to be obtained of cancer in her family. No loose bone could be detected, although a large surface of bone was exposed. From this time she rapidly wasted; the wound increased in size until it formed a large cavity discharging most offensive matter and she died on Nov. 12th from exhaustion without any head symptoms or hæmorrhage."

The origin of the perforation here was traumatic, but the origin of the cancer was a discharging surface. The same might be said of a case reported in the Pathological Transactions for 1850 by the late Mr. Cooper Forster, for although the boy was knocked down by a cab and so received a violent blow on the head, he is said to have after this suffered

from great pain in the ear, followed by facial palsy, so that although the blow was the cause of the inflammation within the tympanum, the suppuration in this cavity preceded the appearance of cancer. I am able only to mention two cases in which this precedence of suppuration did not obtain. One was in the last case which I saw—a woman about fifty years of age—whom I saw on Feb. 15th of this year with Dr. Meek of Herne-hill. There was no history of inflammation of the tympanum. She had constant gnawing pain in the ear for three months, a partial facial paralysis coming on very gradually and a most fetid discharge from the ear with occasional bleeding. The external canal was filled with a soft-looking, exuberant mass, which when examined by a probe had a spongy feel and bled upon the most gentle manipulation. In short, it had all the appearance of a malignant growth. A distinct family history of cancer gave strong additional probability to the diagnosis. On removing the mass under ether a few days later it was found to be soft and pulpy. On examining portions under the microscope, Dr. Rolleston, the curator of the museum at St. George's Hospital, reported: "Sections show typical cell-nests composed of squamous epithelium surrounded by granulation tissue. The growth is therefore a squamous-celled epithelioma which has probably been growing for a considerable time." This was the character in all the cases I have seen except one, when I had not the opportunity of an examination. This patient died on May 4th, having developed a week previously some symptoms of cerebral irritation but none of pressure. I learned this from Dr. E. H. Young's letter to Dr. Meek, Dr. Young having attended her at Okehampton up to her death. Like other cases which I had seen at the time of death, the growth had involved a considerable area. In one instance the internal carotid gave way and the patient died in her sleep from suffocation. Amongst the six cases the one solitary example in which the disease did not start in the tympanic cavity it commenced by an ulceration over the mastoid process close to the junction of the outer ear and proceeded inwards, eroding the mastoid.

There is not much more to be said about cancer of the ear except to repeat that in one case only was a predisposition discoverable; in one case only did the growth commence elsewhere than in the tympanic cavity; that in two cases (and this includes Mr. Cooper Forster's) an injury started the suppuration; that they all died within six months of the discovery of the growth; that the proportion of cases in which a perforation is followed by cancer is extraordinarily rare; that there is only one case of tympanic origin that was not preceded by suppuration; that considering how frequently the tympanic cavity is the seat of suppuration, this surface possesses a remarkable immunity from cancer; finally, that cancer of the ear is one of the rarest of diseases.

Savile-row, W.

## REMARKS ON THE EVACUATION OF DÉBRIS AFTER LITHOTRITY.

BY REGINALD HARRISON, F.R.C.S. ENG.

SURGEON-MAJOR FORBES KEITH having described in THE LANCET of June 11th, 1892, a method of removing stone fragments after lithotripsy other than by the process of evacuation with the aspirators at present in vogue, I will describe a procedure I have seen during the last twelve months at M. Guyon's clinic at the Necker Hospital and elsewhere in his practice, which seems to possess certain advantages. I have adopted it myself to some extent and I know that other surgeons think favourably of it. There can be no doubt that the shortcomings of lithotripsy are chiefly connected with the difficulty existing of guaranteeing that every fragment, however small, is removed and that nothing is left behind on the completion of a crushing operation which is capable of furnishing a starting point for another concretion. Of all the conditions favourable to the reproduction of stone this is probably the most fertile one and all proposals tending to diminish the liability in this direction are deserving of careful consideration.

M. Guyon's practice, as I have now observed it on several occasions in public and private work, is as follows. The patient being fully anaesthetised, the fenestrated lithotrite is introduced, and the stone is not merely broken up but absolutely pulverised. In the last case I saw, a urate-phosphate stone with

a diameter which only just brought it within the grasp of the largest lithotrite, was subjected to a process of trituration which lasted for twenty-five minutes by my watch, without, I believe—as far as I can remember—a single withdrawal of the instrument. When no fragments could be felt with the lithotrite the evacuating catheter was introduced. The latter consisted of a full-sized instrument with a large eye on either side of the beak. No aspirator was attached to it such as we are in the habit of using for withdrawing fragments by suction-pressure, but after the bladder had been allowed to empty itself spontaneously of its contents by the catheter an ordinary syringe was attached to the latter and about six ounces of warm boracic lotion were gently injected. Then the syringe was disconnected and the bladder allowed to empty itself, this process being continued until the contents of the syringe were returned absolutely pure. The bladder was finally washed out with a solution of nitrate of silver (1 per 1000) and a rubber drainage catheter was passed and retained for twenty-four hours. The operation was completed in forty minutes and considerably over an ounce of stone powder was withdrawn suspended in boracic lotion. The total amount of blood was little more than sufficient to colour the water and entirely disappeared before the syringing was completed. I examined the débris after it had all been collected. In its moist state it had the appearance and feel of soft homogeneous mud. There were no appreciable fragments of stone in it.

The following were the points noticeable in this and similar procedures, as elsewhere observed. 1. The use of the lithotrite to produce this effect was necessarily more prolonged than where mere fragmentation is the object. This, with the patient under an anæsthetic, is a matter of no importance so long as the lithotrite is carefully used. 2. The less frequent introduction of lithotrites and evacuating catheters along the urethra. This is a point of some little importance where the prostate is large and the deep urethra irregular. 3. The back action of the suction apparatus by means of which fragments of stone often become impacted in the sacculæ and lacunæ which are found in bladders complicated with enlarged and irregular prostates is done away with. The force of a syringe is probably less than that of the back action of a strong rubber bag compressed by the hand. Further, impalpable wet powder is substituted for irregular fragments of stone. The latter by their nature are not only more liable to become impacted in depressions within the bladder wall, but by their movements under the force of the aspirator to wound the mucous membrane, as illustrated particularly by Surgeon-Major Keith in the paper referred to. 4. With the syringe there is no chance of fragments once withdrawn being washed back by any return current into the bladder. No aspirator that I have yet seen is free from this objection.

I am not aware that there are at present any statistics indicating the relative frequency of recurrence after these two methods. That the subject is worthy of careful consideration is evident from the large number of recurrences which follow lithotripsy, more particularly in those cases which are further complicated with conditions rendering the patient completely dependent on the use of the catheter.

Lower Berkeley-street, W.

## ON ACTINOMYCOSIS OF THE FOOT, COMMONLY KNOWN AS MADURA FOOT.

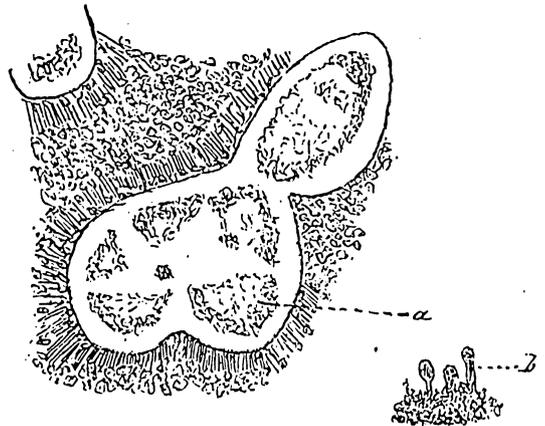
By R. T. HEWLETT, M.B.,

DEMONSTRATOR OF BACTERIOLOGY, KING'S COLLEGE, LONDON.

In 1886 Dr. Vandyke Carter<sup>1</sup> drew attention to the close resemblance between mycetoma (Madura disease) and actinomycosis, in their clinical and pathological characters and microscopic appearances. With regard to the latter, he says: "This resemblance obtains as regards both dimensions and form of the granular central body, with its ray-like envelope and exudation-cell surroundings; and incidental differences apart, it is so distinct that for my own part I cannot but infer that in these two instances at least the foreign bodies must be of an approximate character. There are no other structures I am aware of in the whole range of pathological histology which could compare so closely as these two; and in ordinary scrutinies, with like conforming

results, the inference would be as just intimated. .... I am disposed to conclude that one form of actinomycosis presents a morbid structure which is nearly homologous to that characterising a frequent variety of mycetoma." In the same year at the Pathological Society, in a discussion on a paper by Dr. T. Acland on Actinomycosis, Dr. Bristow<sup>2</sup> expressed the opinion that similar appearances were met with in actinomycosis and Madura disease.

Bassini<sup>3</sup> in 1888 examined a case of Madura foot and, though he failed to recognise the true nature of the disease, the description which he gave, as Baumgarten<sup>4</sup> pointed out, at once recalls to mind the pathology of actinomycosis. In January last Mr. Kanthack exhibited specimens of Madura disease of hand and foot at the Pathological Society. I was not at the meeting and can only judge of the nature of his communication from the short reports which appeared in THE LANCET.<sup>5</sup> Mr. Kanthack is reported to have stated that the Madura disease was undoubtedly due to a fungus and that this fungus was identical in its staining reactions with actinomyces. In May last Dr. Curnow received a specimen of Madura foot from Surgeon-Major Hatch, I.M.S., and presented it to Professor Crookshank, who asked me to examine it by the modern methods used for actinomycosis. The disease occupies the whole of the foot and the lower third of the leg. The foot is enlarged, the bones softened and carious and small abscess cavities are scattered through the tissues and communicate with the surface by several sinuses, the external openings of which have raised and thickened margins. There are other small cavities containing many fine yellowish particles, the so-called roe-like granules, and hence the specimen belongs to what has been described as the pale variety of Madura disease. The raised margin of a sinus was removed and sections prepared from it. In the unstained condition the appearances are characteristic. Scattered through the sections are yellowish bodies varying somewhat in size and frequently of a more or less reniform shape and occurring in groups of three or four or more. These bodies are somewhat granular, have distinct margins and are surrounded by an indistinct, radiating structure, beyond which again are round cells, the whole being enclosed in a distinct fibrous capsule. The appearances in stained specimens are conclusive as to the nature of the fungus. By the method of Gram the so-called "fairy-rings" of the fungus



Section from Madura foot stained by Gram's method and with orange-rubin. a, Network of fine filaments stained blue,  $\times 250$ . b, Clubs at margin stained with orange-rubin,  $\times 800$ .

are occupied by a central network of fine, branching, interlacing filaments stained blue (a), but the club-shaped bodies are unstained. By staining with orange-rubin, however, typical clubs can be demonstrated at the periphery (b).

No doubt the presence of a network of filaments and the apparent absence of the club-shaped bodies have been the causes of hesitation in fully recognising the identity of actinomycosis hominis (including Madura disease) and actinomycosis bovis. As Professor Crookshank demonstrated at the International Congress of Hygiene last summer, the actinomyces is a pleo-morphic organism; in cattle the clubs are almost

<sup>2</sup> THE LANCET, vol. i. 1880, p. 673.

<sup>3</sup> Archivio per le Scien. Med., vol. xii., 1883, No. 15, p. 309.

<sup>4</sup> Centr. f. Bact. und Par., iv., 1890, p. 682.

<sup>5</sup> Jan. 23rd, 1892.

<sup>1</sup> Trans. Med. and Phys. Soc. of Bombay, No. ix., 1880, p. 80 (abstract in THE LANCET, vol. i. 1880, p. 321).

invariably well marked and readily stained by Gram's method, while there is a central area which as a rule remains unstained. In man the reverse of this is the case. These two extremes, however, are connected by intermediate forms; in cattle the filamentous network, so characteristic of the disease in man, occasionally appears. In the disease in man the clubs can usually be demonstrated, in sections by special methods of staining (orange-rubin &c.), but especially by examining the fungi in the fresh state.

Mr. Kanthack is reported to have stated that actinomycosis bovis cannot be stained by Gram's method unless the saponaceous and calcareous matter be first removed. This, however, is not the case, brilliant results being obtained by Gram's method without preliminary treatment when clubs only are present and in the rarer bovine cases in which filaments and clubs are found. The microscopical appearances in Madura disease, both in the stained and unstained conditions, are then identical with those in actinomycosis; clinically and pathologically the diseases resemble each other closely and there can no longer be any hesitation in accepting the view first put forward by Dr. Carter that Madura disease is a manifestation of actinomycosis in man. Professor Crookshank concurs in this opinion and I must thank him for allowing me to publish the case and for helping me with the literature of the subject.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### NOTES FROM A PRACTITIONER'S CASE-BOOK.

By H. HOWARD MURPHY, M.D. CANTAB.

*Chorea in the Adult.*—Early in March, 1892, a lady aged twenty-six had follicular tonsillitis which she had suffered from several times previously. She had never had rheumatism nor had any others of the family. After a week the temperature still kept up and the tonsils remained large, though inflammation had quite subsided. A few days later jerky movements were noticed in the right hand and arm which developed shortly into a typical attack of general chorea. The movements ceased during sleep, but were violent enough by day to make the skin red and threaten to ulcerate over the elbows and knees. The mind was much affected, memory a blank even of events occurring a few minutes previously, recognition of relatives often failing for a time; the speech was very slow and jerky, imaginary events related as real and persons falsely accused of unkind actions. There was a loud mitral systolic murmur. After six weeks there was much loss of flesh and weight and she could not stand at first. Now, three months from the commencement, she is quite well in every way and the murmur has gone. She was treated all through with salicylate of soda, a course that seemed rational to me if there is any connexion of chorea with rheumatism. I should be glad to know if this treatment has been used by others and its result. Arsenic in increasing doses was also given for a month during the period of most severe movement, followed by iron and strychnia as this abated. The writers on chorea say that complete recovery is not usual in adult patients.

*Dislocation of Patella.*—A few days ago I was hastily summoned to see an elderly woman who "had put her knee out," the messenger said. On arrival the left leg was fully extended, could not be bent and was suffering some pain. On examination the patella was obviously much displaced; its upper edge projected very much forwards, its lower edge, with the attached ligamentum patella, was correspondingly depressed, dipping into the joint, and the skin and tissues at each side of the ligament bulged forwards, partially overlapping it. There was no fracture or lateral rotation. She could not bend the knee at all and I could hardly move the patella laterally even with some force. The lower end of the patella I concluded had got caught on the transverse ligament connecting the semilunar cartilages, or perhaps on one of the cartilages themselves. It was reduced by traction and flexion of the joint, when, with a loud snap, the patella recovered its

position and the patient could freely move the joint. Immediate removal to bed and an icebag did not suffice to prevent a considerable though painless effusion following. The displacement occurred while she was kneeling on a chair with the left knee bent and reaching forwards and the right foot was on the ground. When she stood up and straightened the limb she was unable to flex it and noticed the distortion. I have not been able to find any mention of such a dislocation of the patella (if it deserves such a title) in any of the textbooks.

These cases, medical and surgical, were followed a few days ago by an obstetric one.

*Procidencia Uteri.*—A woman about twenty-seven years of age engaged me to attend her in her confinement at the end of May, 1892. She had had one child seven years before by a former marriage and had suffered ever since from a bearing down of the womb, which she alleged occasionally protruded from the vagina, but which she had always been able to replace herself. Her husband called me out of bed about a fortnight before the time she expected, saying she had her womb down and could not get it back and was suffering dreadfully. On arrival I found a mass rather larger than my fist protruding from the vagina, which grasped it pretty tightly. Its covering was a dry mucous membrane appearing like the lips. It was oedematous, moderately firm and had the tube-like os in the centre. After steady compression and cleansing and anointing with antiseptic ointment it was with some difficulty reduced, nor did it tend to come down again. Next morning labour pains had set in. On examination the swelling had entirely gone; the os was the size of a shilling, its margins thin and sharp. To my surprise a very slow and tedious labour from a rigid os resulted and was only terminated next night by forceps. The patient has done well since, but when she gets up some support to the uterus will no doubt be necessary.

East Twickenham.

#### THE EFFECT OF BLANK CARTRIDGES ON TISSUES.

By J. M. ATKINSON, M.B. LOND. &c.

T. Y.—, aged thirteen, was admitted to the hospital at 11.50 A.M. on Feb. 24th, 1892, in a state of collapse occasioned by hæmorrhage from a wound in the left groin. On examination there was a wound in the left inguinal region, circular in shape, about the size of a ten-cent piece, situated just below Poupart's ligament, one inch external to the line of the femoral artery. This was filled with blood-clot and on removing the pad and bandage with which it had been dressed there was copious hæmorrhage from the wound. This was controlled by pressure on the left external iliac artery. The patient being anaesthetised, the A. C. E. mixture being used, this wound was explored and was found to extend inwards some inch and a half, tearing up the muscles and completely severing the femoral artery. The two ends of the artery were tied with a silk ligature, the wound was syringed with corrosive solution and a small drainage-tube inserted, the edges being brought together with catgut. The collapse was extreme, the pulse improving slightly under the influence of the anaesthetic. Ten minims of ether were injected hypodermically and hot-water tins applied, the left lower limb being swathed in cotton wool. By 3 P.M. he had rallied considerably and told me that he was picking up lead at the range at Kowloon that morning and had been shot. Enemata of brandy and beef-tea were given and one-tenth grain of morphia injected hypodermically. Shortly after 7 P.M. his pulse became much weaker; some six ounces of a neutral saline solution were transfused, without any relief, however. He gradually sank and died at 7.50 P.M.

*Neurosis.*—The left femoral artery was found to be severed just below its origin, both ends being secured by ligature; the muscles in the region of the wound were torn to pieces. After careful examination no trace of any "wad" or foreign body could be found. There was no charring of the edge of the wounds. The clothing of the boy was examined and an irregular tear was found in the left leg of the trousers corresponding to the wound in the boy's thigh; there was no charring of the fabric. On February 25th and 29th experiments were made by Dr. Lowson and myself in the presence of Lieut. Hall and Fleet-Surgeon Mahon, H.M.S. *Impérieuse*, on the effect produced by firing from a Martini-Henri rifle blank cartridges similar to those served

out to the Blue-jackets on the morning this happened, at different distances on cloth &c. The boy's trousers were used and on firing at a distance of two inches there was an irregular tear produced in the cloth with no charring; at a distance of three inches the fabric was charred and at twelve inches it was fired. On placing a piece of the cloth in front of a turnip and firing at a distance of two inches a tear was produced in the cloth and a cone-shaped hole in the turnip, some two inches in depth, with traces of uncharred powder round about, very similar to the hole produced in the boy's thigh. I have no doubt that the wound was caused by the firing of a blank cartridge from a Martini-Henry rifle, the nozzle of the rifle being within two inches of the boy's body.

Government Civil Hospital, Hong Kong.

#### A PEBBLE IN THE EAR FOR EIGHT YEARS WITHOUT THE PATIENT'S KNOWLEDGE.

By W. R. H. STEWART,

AURAL SURGEON TO THE GREAT NORTHERN CENTRAL HOSPITAL, &c.

A SINGLE lady, kindly sent by my colleague, Mr. Macready, consulted me for deafness on the left side, which had lasted off and on for some years. It had become much worse the week or two before coming to me and there was a rather distressing "hammering" noise in the ear. I found the left meatus plugged with a mass of hardened wax. On using the syringe for its removal out dropped a pebble, evidently from the sea beach. In shape it might be called an irregular cube, measuring on its longest side five-sixteenths of an inch, the other sides being three-sixteenths and one-eighth. The patient had no idea the stone was in the ear and as she had not been to the seaside for over eight years it must have been in the ear all that time. The case is, I think, interesting, for it is strange that so large a pebble had remained all those years in the ear without the patient's knowledge. It also confirms the opinion that a foreign body may lodge in the meatus for a considerable time without producing mischief, provided no injudicious instrumental attempts have been made to remove it.

Devonshire-street, W.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ST. THOMAS'S HOSPITAL.

CASES ILLUSTRATING THE TREATMENT OF RECURRENT PELVIC PERITONITIS BY ABDOMINAL SECTION; REMARKS.

(Under the care of Dr. CULLINGWORTH.)

WE commence this week a series of cases recently under the care of Dr. Cullingworth, in which it was necessary to perform the operation of abdominal section. The cases described had a number of points in common which render them of very great interest; in all there was a history of attacks of abdominal pain due to pelvic inflammation and its consequences and in all there was much disease, which could only be cured by the removal of the diseased structures. It is worthy of note that in nearly all of them the operation was one of considerable difficulty and it was necessary to employ drainage of the pelvis afterwards. The results of the treatment are most satisfactory.

CASE 1.—P. B—, aged twenty-five, single, a dressmaker, was admitted into the Adelaide ward on March 2nd, 1892, complaining of abdominal pain and swelling. She had enjoyed good health till three years ago, when she was laid up for three months with an attack of rheumatic fever. Two years and a half ago she was confined to bed for several days by an attack of pelvic inflammation following gonorrhœa. She has since been liable to similar but less severe attacks of pelvic pain. Menstruation has been regular and normal till the first week

in December, 1891, when her last period occurred. A fortnight later—i.e., in the third week of December last—she was suddenly seized at midday, while at work, with severe pain in the abdomen and legs. She left her work and went home to bed. The pain in the abdomen continued. A doctor was called in and discovered a swelling in the lower half of the abdomen. The patient had not been conscious of the presence of a tumour in the abdomen till it was noticed by her medical attendant. She has remained in bed ever since; poultices and leeches have been applied with little relief and hypodermic injections of morphia have been administered every night or very often in the morning, on account of the pain and restlessness. She has lost a good deal of flesh and her bowels have been very constipated.

On admission the patient, a thin, highly intelligent, anæmic woman, complained of continuous abdominal pain and swelling of eleven weeks' duration. On examination the abdomen was somewhat resistant and considerable pain and tenderness were complained of, especially in the left iliac region. A smooth tense swelling was defined occupying the left lower half of the abdomen, extending upwards as high as the umbilicus. On the right side was a smaller swelling, its upper limits reaching a point midway between the pubes and umbilicus and extending outwards as far as the outer third of Poupart's ligament. A distant sulcus could be felt between the two swellings superiorly. Both were absolutely fixed and on the left side there was indistinct fluctuation. On bi-manual examination the lateral and posterior fornices were found depressed. The cervix was high up and almost obliterated and the external os closed. Two rounded swellings could be felt through the vaginal roof separated by a distinct sulcus; the smaller one on the right was smooth, soft and rounded and apparently continuous with the cervix, any movement imparted to it by the external hand being directly appreciated by a finger placed on the cervix. The uterine sound was not passed. A hard crescentic mass was felt in Douglas's pouch.

On March 10th, eight days after admission, abdominal section was performed. There had been no material alteration in the physical signs, except that fluctuation had become more evident in the swelling in the left side. Maximum temperature since admission 99° F. On opening the abdomen two suppurating ovarian cysts were discovered; the larger one on the left side contained over a pint of greenish-yellow, inoffensive pus, which was withdrawn by trocar and cannula. The contents of the smaller cyst on the right side were of a similar character. Both cysts were intimately adherent to surrounding parts and especially to the rectum. The body of the uterus, normal in size, was pushed forwards behind the pubes. The broad ligament partially enveloped the cysts anteriorly. There was no cellulitis. The Fallopian tubes were thickened and elongated, but otherwise normal. The operation was somewhat protracted and rendered extremely difficult by reason of the number and density of the adhesions. The right cyst was ruptured during its separation from the neighbouring parts and its purulent contents escaped into the peritoneal cavity. The abdomen was freely douched with boracic-acid lotion, a glass drainage-tube inserted and the wound sutured with silkworm-gut sutures. The patient was returned to bed in a collapsed condition. Temperature 95.6°, pulse almost imperceptible at wrist; cardiac pulsations 154. She gradually rallied and convalescence was afterwards rapid. The sutures were removed on the seventh day; the indiarubber tube, which had replaced the glass tube, was discarded on the twelfth day. The patient got up on the sixteenth day and left the ward on April 22nd, the wound having been healed for ten days. She reported herself a month later in good health.

CASE 2.—E. C—, aged thirty-two, married, was admitted into the Adelaide ward on March 8th, 1892, complaining of severe pain and swelling in the lower part of the abdomen. She was married at the age of nineteen and had never been pregnant. She had menstruated regularly till six weeks ago, when her present illness began. Up to this time she had enjoyed good health. No history of gonorrhœa. Six weeks ago the patient was suddenly attacked in the early morning, while lying in bed, with acute pain in the lower part of the abdomen. She got up for an hour or so, but was compelled to go back on account of the increasing severity of the pain and tenderness of the abdomen. No rigor or vomiting. The pain gradually diminished, but a week later she began to vomit and this has continued more or less severely up to the present. She has also complained of difficulty and pain in micturition. Three weeks ago the

patient first noticed a swelling in the lower part of the abdomen and this has progressively increased in size and become more painful and tender. She has grown much thinner during the last few weeks and has kept her bed up to the time of her admission.

On admission the patient, a pale, emaciated woman with sunken eyes and looking extremely ill, complained of abdominal pain of six weeks' duration. Thoracic organs normal. The lower half of the abdomen is somewhat prominent and asymmetrical, the fulness being more marked on the right. The walls are somewhat rigid. On palpation a smooth, tender swelling can be defined reaching in the middle line to the umbilicus and laterally for a distance of three inches from the middle line. Indistinct sense of fluctuation was obtained. There is resonance over the upper half of the tumour. On bi-manual examination the uterus was found pushed forwards and to the left by two tense cysts, the larger one occupying the right posterior quarter of the pelvis, the smaller a similar position on the left, a distinct sulcus a little to the left of the median plane intervening. Temperature 101° to 102·8°. Urine normal.

On March 14th, six days after admission, the patient having been steadily losing ground and with a temperature ranging from 99·4° to 103·6°, abdominal section was performed. On the right side was found an inflamed ovarian cyst universally adherent and partly covered in front by adherent intestine. During the separation of the adhesion the cyst wall was ruptured and pus escaped freely. Sixteen fluid ounces of very offensive pus were drawn off by trocar and cannula. The vermiform appendix was so firmly adherent to the cyst wall that it was torn across during the separation of the cyst. It was thickened and inflamed, the lining membrane being denuded of epithelium and covered with lymph. On the left side there was a smaller cyst also intimately adherent to surrounding structures, especially to the rectum, and containing offensive pus which escaped in considerable quantity during its separation. The Fallopian tubes were normal. The peritoneal cavity was thoroughly doused with hot boracic lotion and two glass drainage-tubes inserted and the wound sutured with silk-worm-gut sutures. The operation lasted nearly two hours and the patient was returned to bed in a somewhat collapsed condition and an injection of brandy administered subcutaneously. The patient rallied well from the operation. The temperature rose the same night to 101°, but with that exception the maximum temperature during the convalescence, which was singularly rapid and uneventful, was 99·6°. One glass tube was removed the following morning and twenty-four hours later the other tube was replaced by an indiarubber tube, the discharge being purulent and offensive and containing small sloughs. Stitches were removed on the seventh day, the indiarubber tube on the fourteenth day, the discharge being very slight and non-offensive. She got up on the sixteenth day and left the ward well on April 13th. She presented herself a month later perfectly well.

CASE 3.—M. S.—, aged forty-six, married, was admitted into the Adelaide ward on Feb. 27th, 1892, complaining of attacks of abdominal pain of five years' duration. The patient has been married twenty-five years and has never been pregnant. Catamenia began at the age of fourteen, twenty-eight days' type, the flow lasting from three to four days and accompanied with pain. Since 1887 the patient has suffered from paroxysmal attacks of pain in the lower part of the abdomen and left side. She also suffers from winter cough. The attacks of pain recur very frequently and last generally for two or three days and always start in the left iliac region. During the attack she says she feels very ill and sick and is obliged to take to her bed. The longest interval that she has had free from pain during the past five years is five weeks. Between the attacks she feels quite well. She was in the ward under treatment for pelvic inflammation, chiefly cellulitic, twelve months ago and greatly improved whilst under observation, but from the time of her discharge she had suffered from recurrent attacks of pelvic pain more frequently than ever.

On admission the patient, a stout, robust-looking woman, complained of pain in the lower part of the abdomen and the left side. The abdominal wall was soft, thick and flaccid, resonant all over; nothing abnormal detected on palpation. On vaginal examination the uterus was found retroverted and displaced to the right. The sound passed normal distance. Occupying the left posterior quarter of the pelvis was a hard, irregular mass, quite fixed and somewhat painful. There was no evidence of fluctuation. The temperature was normal and

the urine contained a trace of albumen. The thoracic organs were normal. After seventeen days' complete rest in bed, there being then no alteration in the physical signs, abdominal section was performed. The left posterior quarter of the pelvis was found occupied by a tense, inflamed ovarian cyst roofed in by adherent intestine and omentum and partly covered in front by the thickened and inflamed left broad ligament. The uterus was displaced a little to the right of the median plane. Posteriorly, there were dense adhesions between the cyst and rectum. With considerable difficulty these adhesions were broken down and during the manipulations the cyst was ruptured and the purulent and highly offensive contents escaped into the abdomen. The collapsed cyst was then removed, a portion of its wall being left on the distal side of the ligature; the lining membrane of this was afterwards dissected away. The abdominal cavity was thoroughly doused with boracic lotion, a glass drainage-tube inserted and the wound sutured with silk-worm-gut sutures. On subsequent examination the cyst showed signs of intense inflammation; the wall was dense, a quarter of an inch in thickness and glistening white on section; it measured three inches and a half by four inches. Internally it presented a red, ulcerated and shreddy surface. At one part of the wall there was considerable thickening, which on section had the appearance of ovarian tissue rendered dense by chronic inflammation. It proved on further examination to be inflamed connective tissue, with the slightly thickened but otherwise normal Fallopian tube embedded in its midst. The convalescence was satisfactory in every respect. The patient got up on the fourteenth day and left the ward a fortnight later in good health, the wound having been completely healed for a week. The patient had since menstruated normally. There have been two attacks of severe pain of short duration, but the general health continues to improve. Some induration can still be felt on the left side of the pelvis.

CASE 4.—M. S.—, aged twenty-seven, married, was admitted into the Adelaide ward on Feb. 20th, 1892. She was married in 1880 at the age of sixteen and has had two children. She dates her illness from an abortion in 1885, after which she suffered from violent pain in the lower part of the abdomen with hæmorrhage and sickness for some months. During the past seven years the catamenial function, which had previously been regular and normal, has become very irregular, occurring at intervals varying from three to six weeks. She describes the flow as being like "dirty water." No dysmenorrhœa. She has not been pregnant since the abortion seven years ago. During these seven years she has been subject to attacks of abdominal pain. The last and most severe attack commenced a fortnight before admission. The pain was of a sharp burning character, situated chiefly in the right iliac region and to a less degree on the opposite side and radiating down the thighs. The patient had been in bed on account of the severity of the pain for one week before her admission.

On admission the abdominal wall was so rigid that a satisfactory examination could not be made. A few days later an examination was made under an anæsthetic; the uterus was found displaced to the left and freely movable. Occupying the right posterior quarter of the pelvis and depressing the right fornix was a tense, smooth, fluctuating swelling the size of a fist, separate from the uterus, which could be moved independently of it. The thoracic organs were normal. Urine contained a decided trace of albumen. Temperature 98° to 102°.

On March 18th abdominal section was performed. The uterus were found displaced to the left and the appendages on that side were normal; on the right side was found a globular tense cyst adherent to the surrounding parts and to the small intestine. The cyst burst during its separation from the adhesions and its purulent contents escaped partly into the abdomen and externally. The broad ligament was considerably thickened by cellulitis and the Fallopian tube was also thickened and inflamed. The tube, with the collapsed suppurating ovarian cyst, was removed and the abdominal cavity doused with boracic lotion at 110°. A glass drainage-tube was inserted and the wound sutured with silk-worm-gut sutures. On the following morning the glass tube was replaced by an indiarubber tube, the discharge being considerable in quantity and of offensive odour. The stitches were removed on the seventh day. The tube was left out on April 11th, there being less discharge of a purulent non-offensive character. The patient got up two days later and left the ward on April 29th, well, in all respects, except for the presence of a small discharging sinus at the lower angle of the incision.

(To be concluded.)

## BURTON-ON-TRENT INFIRMARY.

### A CASE OF INTESTINAL OBSTRUCTION WITH PECULIAR FEATURES.

(Under the care of Mr. P. B. MASON.)

THIS case presents features which make it of considerable importance, for it would appear from Mr. Mason's account that there was a giving way in the wall of the bladder of a "healthy muscular man" without unusual strain and without direct injury. There does not appear to have been any obstruction, such as stricture or enlarged prostate, to the outflow of urine, which itself is said to have been normal in character. The most marked change described is that in the bladder wall, the reason for the excessive thinness of which could not be found, though it was apparently the predisposing cause of the rupture. For the notes of the case we are indebted to Mr. R. M. Littler, house surgeon.

W. W.—, a healthy muscular man, twenty-nine years of age and unmarried, was admitted into this institution on May 20th last with the following history: Four days before admission, and when engaged in his ordinary avocation—furniture removing—he felt a sudden severe sickening pain in the abdomen which "doubled him up." Vomiting soon ensued and became bilious and later fecal. He described it as tasting "like what comes the other way." There was no action of the bowels and no passage of flatus. He had had previous attacks of pain in the abdomen for some weeks, which were said to be inflammation of the bowels. When admitted there had been no passage of flatus or feces since he was first taken ill and no vomiting for ten hours. The abdomen was rounded, tense and very tender. The pain specially referred to the region round the umbilicus, where there was some dullness. Pulse full and bounding, rate 80 to 90. Temperature 99.6°. The tongue was very dry and coated. He seemed very drowsy and had not the typical aspect of a patient suffering from peritonitis. He had passed urine at 4 A.M.; he also passed fourteen ounces at 3 P.M., quite clear. At 3.30 P.M. an incision about four inches long was made in the linea alba and the peritoneum exposed and opened. Distended small intestine presented itself and a little blood-stained fluid escaped. The coils of bowel were matted together with pieces of thick lymph. On further exploration with the finger, about half a pint of clear, fetid fluid came away, with a strong urinous odour. After washing the cavity out well an attempt was made to find the seat of constriction and the gut cleared for several feet in its congested and swollen portion, until clear, healthy bowel was found at each end. No definite constricting band was found. Rough fungating masses were felt in the left iliac region, feeling much like new growth, but it was not considered desirable to clear up this diagnosis by further exploration. The cavity was now well washed out, dried and stitched up. The patient bore the operation very well. He passed urine soon afterwards (eight ounces), clear and containing no albumen. Temperature at 5 P.M., 97.6°. He was very restless during the evening, but passed a quieter night. Nothing was given but ice and opium. The following day the temperature remained at 97.8°, but the pulse was weaker. Nutritive and brandy enemata were given and well retained. The patient did not complain of pain. Towards evening the temperature rose to 99.4° and he gradually got weaker, death taking place shortly before midnight. All the urine passed after the operation was clear and sweet, of normal colour and did not contain albumen.

*Necropsy.*—The small intestine was distended and evenly congested almost throughout. Coils were adherent to the anterior abdominal wall and to each other, but the adhesions were easily broken down. The inner surface of the pelvic peritoneum was covered throughout with a very thick layer of tough lymph. This also surrounded the appendices epiploicæ of the sigmoid flexure and probably gave rise to the sensation of new growth as felt at the operation. The bladder was covered thickly with lymph and collapsed and was isolated and removed with difficulty. On separating the layer of lymph before removal a small quantity of white purulent fluid appeared at its upper part and on examination after removal there was found a perforation in the bladder wall at its upper and back part about one inch by half an inch. The walls of this opening were, however, not at all congested or infiltrated and the surrounding bladder wall was very thin in places; only the mucous membrane was left. The kidneys and liver were

very congested. The pelvis of the left kidney contained a small quantity of purulent matter. The ureters were quite intact and healthy.

*Remarks by Mr. MASON.*—Although the operation in this case was useless, it is right to put on record all cases of laparotomy for intestinal obstruction. The condition found was very remarkable. The fluid referred to was undoubtedly decomposed urine contained in a sac formed by lymph matting together the small intestines. The intestines themselves had no collapsed portion, but antiperistalsis was no doubt set up by the mechanical interference caused by the adhesions of the various coils. When the urinous fluid escaped a catheter was passed into the bladder and a small quantity of urine drawn off exactly similar in character to that passed immediately before the operation. Post-mortem the condition of the bladder was remarkable in the thinning of its posterior wall, the muscular coat being much thinned and even absent in places. The actual opening was probably made while removing the thick layer of lymph which bound it down. The only explanation of the case which I can suggest is that a small sacculus of the bladder had ruptured and the extravasated urine had been confined by old adhesions among the intestines due to former attacks of peritonitis. It is sometimes impossible to explain why fluid in the peritoneal cavity does not pass certain limits, as in a case of laparotomy for ruptured liver which I have already recorded in THE LANCET. The effused and unclotted blood did not pass over the middle line or extend above the level of the umbilicus, while no adhesions were found on opening the peritoneum, the decubitus since the accident having been uniformly dorsal.

## Medical Societies.

### OPHTHALMOLOGICAL SOCIETY.

*Detachment of the Choroidæ.—Recurrent Keratitis Superficialis Punctata.—Changes in the Retina due to the contact of a metallic chip.—Double Optic Neuritis after Influenza.*

AN ordinary meeting of this Society was held on Thursday, June 9th, the President, Mr. Henry Power, F.R.C.S., in the chair.

Dr. STORY (Dublin) communicated the notes of a case of Detachment of the Choroidæ, which were read by the Secretary. The patient was a female aged twenty-four, the sight of whose right eye had failed twelve months previously; the eye subsequently became, according to her account, so painful that she wished to have it removed. It proved, however, that her statements on this point were exaggerated. On admission to hospital the vision of the right eye was reduced to counting fingers at one metre. On ophthalmoscopic examination it was observed that there was a large detachment of the retina below, extending from the margin of the optic disc downwards. No rent was visible in the retina; all over the detached portion were small, brilliant, white spots and also large, circular and linear white patches of degeneration. The choroid coat was also detached over a corresponding area; its structure could be easily made out through the overlying retina, except where the above-mentioned patches obstructed the view. The tension of the eye was normal and there were no external signs of disease. Reference was made to a case published by the author in the Society's Transactions last year.

Dr. ADOLF BRONNER (Bradford) recorded a case of Recurrent Keratitis Superficialis Punctata in which the use of cocaine aggravated the symptoms. The patient, a stout man aged forty-eight, first suffered from an attack in the right eye in March, 1867, and the disorder returned every year, usually in March or April and nearly always in the same eye. During an attack which occurred in 1885 cocaine drops were used and the consequence was an increase in the severity and duration of the attack. In March, 1892, the case first came into Dr. Bronner's hands, the symptoms, which had existed for a week, subsiding in five days under the use of atropine. As a result, however, of exposure to a strong wind the left eye became affected. There was severe pain in the eye and forehead, intense photophobia, the lids were red and swollen and there was much chemosis. The pupil was dilated and over the lower half of the cornea there were ten to fifteen small, white, elevated spots. The appli-

cation of cocaine produced two or three minutes' ease and then the old pain returned with increased severity, all the symptoms and appearances becoming exaggerated. After the subsidence of the attack the cornea was perfectly clear and there were no signs of macula. Somewhat similar cases had been recorded by several German authors and one also by Mr. Marcus Gunn in the Society's Transactions for 1890.—Mr. MARCUS GUNN referred to two cases he had brought before the Society a couple of years ago, soon after the condition was described by Fuchs. Treated by atropine followed by yellow ointment they recovered rapidly.

Mr. PRIESTLEY SMITH read a description of Changes in the Retina, due to the long-continued lodgment of a metallic chip on its surface, in a lad aged seventeen, who was struck in the left eye by a fragment of bell metal. When first seen one month after the accident a small linear cicatrix was visible at the inner margin of the cornea; behind this a black point in the iris probably indicated an aperture made by the chip. The lens was clear; the fragment of metal could be seen lying on the retina some distance from the nasal side of the disc and on a rather higher level. Its position was shown by a scotoma in the perimeter chart. The eye was free from pain or other symptoms and vision was  $\frac{1}{2}$ . About four months later the foreign body shifted its position to a slight extent, its heavier end moving slightly downwards; one month later the whole chip dropped directly downwards through an angle of about forty-five degrees, according to the chart. Its former position was marked by a grey opaque patch on the retina, around which was a cloudy zone bordered by a faint pigmentary discolouration. Two scotomata were now shown in the chart, the second one indicating the new position of the chip. Thirteen months after the accident the position of the foreign body remained unchanged; its surface was less lustrous than at first. On the chief arteries and veins of the retina were numerous minute shining points, looking like specks of gold-leaf. The eye remained free from pain or injection and the lad was regularly at work. Mr. Priestley Smith thought it unlikely that the eye would remain permanently in its present quiet and useful condition. The foreign body, though aseptic in the ordinary sense, was acting surely though slowly as a chemical irritant. The question as to the possible danger of this chemical action to the fellow eye is one concerning which further information is desirable.—The PRESIDENT referred to the case of a man who was struck in the eye by a chip from a hammer. Traumatic cataract resulted and after twelve years the eye was removed on account of attacks of severe pain. Great difficulty was experienced in dividing the optic nerve, which ultimately had to be done very far back, and it was then found that a large fragment of steel lay embedded in it. The eye itself had become quite blind, but no effect was noticed in the opposite one.—Mr. SNELL mentioned the case of a boy with a fragment of metal in one eye, but with retention of good vision. He considered it a matter of importance in such cases to keep the patient at rest in the recumbent position for some time after the accident, so that the chip might become fixed to the retina by the lymph thrown out around it.—Mr. TWEDDY spoke of a man who had been under his care about ten years ago, in whom a small chip of steel had passed through the cornea, iris and lens and had become embedded in the retina. The fragment became involved in grey lymph and the eye remained perfectly free from pain or irritation. The lens did not become opaque, although a fine scar was visible in it. The patient was seen at intervals for a twelvemonth afterwards.—Mr. CRITCHETT mentioned a somewhat similar case which he had had under observation for three years. The eye during that time remained quiet and vision was but slightly impaired.—Mr. LANG alluded to a case published by the late Mr. James Adams, in Vol. I. of the Society's Transactions. This patient had a foreign body embedded in the retina near the yellow spot. It was covered by lymph, which also extended along the vessels. After eight years the eye was still free from irritation and vision was  $\frac{3}{4}$ .—Mr. PRIESTLEY SMITH, in replying, contrasted these cases with those described in text-books associated with sympathetic ophthalmia and pointed out the enormous importance to practical surgeons of the fact that an aseptic particle could remain in and destroy one eye without affecting the other.

Mr. SIMON SNELL (Sheffield) read notes of two cases of Double Optic Neuritis after Influenza. Both patients were females, one aged nineteen, the other thirteen and a half. In each case sight failed a few weeks after recovery from an

attack of influenza. In the elder girl the neuritis had nearly passed off. When she first came under observation the optic discs were atrophied and there was no perception of light. The younger patient was seen three weeks after the sight began to fail; the neuritis was then well marked. Vision was in right eye  $\frac{2}{3}$ , in left eye  $\frac{1}{4}$ . The neuritis had now to a great extent cleared up, but the discs were atrophic and there had been very little improvement in sight. Mr. Snell referred to the cases published by Macnamara and Lee.—Mr. MARCUS GUNN mentioned a case under his care at Moorfields. The patient, a man of forty-five, had retro-bulbar neuritis; the discs were hazy and the vessels small and in one eye vision was entirely abolished. Recovery began in a couple of weeks, under mercury and iodide of potassium, the vision in the blind eye improving to  $\frac{3}{4}$ .—Mr. CROSS (Clifton) referred to two cases he had seen in young women, in whom there was no evidence of intracranial disease and nothing which seemed to bear a causal relation to the neuritis except influenza. In these cases vision failed rapidly within a few days of the attack.—Mr. MCHARDY mentioned two cases he had seen and which he considered were probably due to influenza, no other cause being ascertainable. Both were females and in both there was temporary albuminuria. He had treated them by absolute rest in bed and the administration of iron; recovery had ensued.

The following living and card specimens were shown:—

Dr. D. J. WOOD: Drawing of a case of Detachment of Retina, with Unusual Dilation of Retinal Veins.

Mr. J. GRIFFITH: Instrument for Removal of Meibomian Cysts of the Lower Lid.

Dr. REDMOND: Tuberculous Disease of Iris.

Mr. JULER: (1) Congenital Cleft of Upper Lid; (2) Congenital Dermoid Cyst.

Dr. JAMES ANDERSON: Paralysis of Third Nerve in a case of Migraine.

Mr. MARCUS GUNN: Ophthalmoscopic Drawing, showing changes in the Retinal Vessels in Chronic Albuminuria.

## EDINBURGH MEDICO - CHIRURGICAL SOCIETY.

WEDNESDAY, JUNE 22ND.

Dr. JOSEPH BELL, President, in the chair.

*Discussion on Pernicious Anæmia and its Treatment by Transfusion.*—At a special meeting of this Society on Wednesday, June 22nd, Dr. BRAKENRIDGE read a paper on the Treatment of Pernicious Anæmia by the Transfusion of Human Blood. Before proceeding to discuss the influence of transfusion the facts known and the views entertained regarding the disease were glanced at. "The facts recognised on all hands were—(1) the progressive and remarkable reduction in the number of the red corpuscles and alterations in their form and size &c.; (2) evidence of greatly increased destruction of blood-corpuscles in the liver; (3) evidences of altered genesis of red corpuscles in the blood-forming organs such as the marrow usually consisting of an over-production in number and an under-production in quality; (4) the condition is not definitely attributable to any ascertainable cause. Theoretically, the condition might be accounted for by (1) a faulty genesis, whereby the corpuscles were imperfect, deformed, delicate, short-lived and easily destroyed by the action of the ordinary blood-destroying organs—as the liver—or by any poison; (2) an over-activity and perhaps a modified activity in the organs which normally destroy worn-out corpuscles; (3) the presence of both factors as a result of the same disturbing cause; (4) by the presence of some poison, ptomaine or other, introduced through the alimentary canal or otherwise. While the disease arises independently, it may become engrafted on a wide variety of pre-existing diseases, as chlorosis, tape-worm, &c. Although many mines of information in the field of the pathology of the disease have recently been opened up and worked, and although some links have been successfully forged, a chain of evidence which will bind all the facts into one consistent theory has not yet been put together. There can be no doubt that the view entertained *a priori* regarding the probable nature of the disease will materially influence the expectation of success from such a remedy as transfusion of human blood. If we believe the explanation of the anæmia is to be found in a vicious activity of the blood-destroying organs, and particularly if we hold that this is

caused and aided by a blood-destroying poison absorbed from the alimentary canal, we could expect very little and very temporary assistance from the introduction of so small an amount of blood as from two to six ounces. If we believe, on the other hand, the explanation to be that owing to some modification of their function the blood-forming glandular organs have lost their power to produce healthy, properly constituted and normally long-lived corpuscles, our expectation of a beneficial result should be very much more hopeful, for we should expect the transfused blood would improve the condition both of the blood-forming organs and of the faulty blood-corpuscles. It was in the hope inspired by the latter view—which I held in 1885—that I determined to give transfusion a fair trial in all my cases which failed to respond to other and approved methods of treatment and from the outset I believed it might be necessary to repeat the operation. All the cases which responded to the ordinary treatment were excluded and only those which resisted all other methods were transfused. There are five such cases and they in some measure support the following conclusions: Firstly, that in the transfusion of human blood we have a powerful means of arresting the progress of this grave disease; secondly, that the operation in skilful hands and with due precautions is perfectly safe; thirdly, that a number of precautions must be attended to in performing transfusion if inconvenience and even risk to the patient are to be avoided; fourthly, that the results throw a suggestive side-light on the probable nature of the disease, supporting, although not shutting one up to the view that the anæmia is probably mainly due to a failure in blood genesis. But the purpose of this paper is therapeutical rather than pathological." The cases were given in detail.—Case 1. A woman aged thirty-four presented all the characteristic features of pernicious anæmia and on admission on June 19th, 1885, the red corpuscles were 1,900,000 per cubic millimetre, and the hæmoglobin 35 per cent. She was carefully and specially dieted and treated with citrate of quinine and iron with arsenic. On June 28th the hæmoglobin had fallen to 30 per cent. and the red corpuscles to 1,600,000 per cubic millimetre. On July 3rd the iron and quinine were stopped, as they were not agreeing with the patient, but the arsenic was continued. On July 5th the hæmoglobin had further fallen to 24 per cent. and the red corpuscles to 1,160,000 per cubic millimetre. The temperature from the first ranged from 99° to 100·8°. The unanimous opinion of the physicians who saw the case was that it was one of pernicious anæmia and the question to him was, Could anything further be done? He held then, as he still holds, that the disease was mainly due to faulty genesis and a consequent tendency to the early death of the corpuscles in the blood-destroying organs, and he determined to try the effect of repeated transfusions in the hope that the normal function of the blood-forming organs might thereby be restored, or that such an impetus might be given to them as would bring them within the influence of the curative action of arsenic. After full and careful consideration and discussion of the matter with Dr. John Duncan transfusion was determined upon. The method employed was the indirect one; the blood was received into a solution of 1 in 20 phosphate of soda and maintained at blood heat. Six ounces of blood with two ounces of the phosphate of soda solution were injected very slowly, the pulse and respiration being carefully watched and the injection being suspended when any marked change in either was noted. Seven hours after the transfusion the patient felt better, the pulse was increased in volume and the blood-corpuscles had risen from 1,160,000 to 1,470,000 per cubic millimetre. There was a slight upward tendency in the number of corpuscles and the amount of hæmoglobin for three days and then there was a rapid fall until five days after the transfusion; they were nearly as low as before it. The second transfusion was done on July 12th and after it the corpuscles were 1,670,000 per cubic millimetre. The third transfusion was on July 26th, the corpuscles at that date having risen to 2,215,000 before the operation and to 2,820,000 after it. A fourth transfusion was unsatisfactory, the soda solution being used too strong and she declined to submit again to the operation. When she left the hospital the blood-corpuscles had trebled, being 3,000,000 per cubic millimetre and the hæmoglobin having risen to 60 per cent., her strength and colour having greatly improved. She returned to her home and died at the end of the year. From about four or five days after the first transfusion microcytes disappeared from the blood and were never again seen.—Case 2. A married woman. The red corpuscles on Oct. 11th, 1888, numbered 1,000,000 per cubic millimetre and the hæmoglobin was 20 per cent. During the

first six days in hospital the corpuscles rose to 1,900,000 per cubic millimetre, but during the subsequent seven days they fell to 960,000. On Oct. 27th arsenic was commenced and in two days the corpuscles rose to 1,100,000, after which they gradually fell and reached 640,000. On Nov. 2nd, with the corpuscles at 640,000 per cubic millimetre, she was transfused, about five ounces of blood being used. After transfusion the corpuscles numbered 1,030,000 and from this time there was a steady rise. In seven days they had reached 2,080,000 and before she left hospital they had risen to 4,000,000 per cubic millimetre and the hæmoglobin to 75 per cent. of its normal; while the temperature, which had ranged from 99° to 101°, fell soon after transfusion to normal. She has remained quite well since that time. The particulars of the other three cases need not be given, for in the case of two of them the effect upon the blood was the same, although in both accidents of an avoidable nature occurred and in the other case transfusion was delayed too long. In all the cases transfusion not only increased the number of blood-corpuscles immediately, but the corpuscles continued to increase after each transfusion. It was necessary to take great care in all the steps of the proceeding and the operation had to be performed very slowly, and with full attention to all precautions the operation does not entail any danger to the patient.

Dr. AFFLECK then read the notes of a case of Pernicious Anæmia and showed the patient, in whose case he had, as a *dernier ressort*, used transfusion, although he had at the time little if any faith in the treatment. However, this case had entirely changed his views, for the patient had made an uninterrupted recovery after one transfusion, the corpuscles reaching their normal limit in six weeks.—Dr. JOHN DUNCAN referred to the surgical aspects of transfusion and said that after trying all methods he preferred the phosphate of soda method which had been suggested by Dr. Pavy and brought under his notice by Dr. Cotterill. He had used it extensively in his surgical operations with the happiest results. He dwelt upon the precautions necessary in the preparation and sterilising of the soda solution and explained how the accidents had happened in Dr. Brakenridge's cases. He thought that the rigor which occurred in some cases was not necessarily septic. He considered one-third of the soda solution the best proportion to use. Whatever constituent of the blood be useful in these cases of anæmia, it is permissible to believe—(1) that all of them when injected are still visible; (2) that, as with skin, bone and nerve, healthy blood tissue may have a determining influence in producing its like; (3) that the introduction of blood in cases of hæmorrhage is more valuable bulk for bulk than that of saline solution; and (4) that the cases prove that with little risk a beneficial effect in anæmia is produced by the operation.—Dr. JAMES asked whether the disease might not be due to a parasite of some kind and if the transfusion of blood serum might not be sufficient to counteract the poison.—Dr. W. RUSSELL referred to a paper he had published in 1889, in which he contended that there was a hyperplasia of blood-forming tissue which was to be regarded as a compensatory process; and that there was evidence of increased blood destruction in the liver, spleen and kidneys, but that for various reasons he did not consider the disease was a liver disease, although this view was at first sight attractive. Beyond the two facts of increased destruction and increase in blood-forming tissue he held, then, that we could not go. The question now was whether Dr. Brakenridge's remarkable results and work in other fields enabled them to move forward in their views and he thought they did. Dr. Brakenridge's and Dr. Affleck's cases clearly established the fact that transfusion had a curative effect, the corpuscular richness continuing to rise after the added corpuscles must have perished. On the other hand, within a few years serum therapeutics had arisen and was practically a new science. The curative action of blood serum under certain conditions was fully established, and knowing the results being obtained in pernicious anæmia by Dr. Brakenridge, it had been before his mind for some time that Dr. James's suggestion was in the right direction; and he believed the disease would be found to be an infective one, which the transfusion of blood counteracted, whether it did so by its antitoxic effect or by its influence upon phagocytic action; and if this view were correct, Dr. James's further suggestion that blood serum might be sufficient would probably also be correct. There still would remain the question whether the disease was due to an organism in the blood or, as Hunter believed, to the absorption of ptomaines from the intestinal tract and in view of the

cases brought before the Society he thought the former would probably be the correct view. The view held by Dr. Brakenridge did not appeal to him as it did to Dr. Brakenridge, while the infective view fitted all the facts better and was in accordance with recent work.—Dr. SMART, referring to clinical work which he was at present carrying on in the Royal Infirmary with reference to the pathology and treatment of anæmia, said that he had been particularly interested in one feature to which his attention had been specially drawn and which had a distinct reference to the present discussion. The urine in all his anæmic patients yielded a hæmatine reaction by means of a test suggested by MacMunn in his book on the Clinical Chemistry of the Urine. These urines do not afford any ocular evidence of the presence of blood, many of them being pale and colourless. The characteristic roseate colour appears only after the addition of the test. The explanation given of this phenomenon by MacMunn is that the colouring matter is derived from the destruction of the red corpuscles of the blood, brought about by the absorption from the bowel of decomposing fecal matter, which would appear to break up and destroy them, causing anæmia. The results of his examinations of these urines would seem to corroborate this view. He also made examinations of urines in cases of chronic constipation and in one case of intestinal obstruction of nearly a month's duration, in all of which the colour reaction was very pronounced. If the view be correct that the red corpuscles undergo destruction in the circulation by a process of auto-blood-poisoning it can hardly be doubted that the blood-making organs also participate in the general sepsis. This is rendered highly probable in pernicious anæmia by the evident great depreciation in number of the red corpuscles, as also by their altered shapes and low standard of hæmoglobin—all indicative of the extreme disability of the formative blood organs to provide the number or quality of the corpuscles required for the needs of a healthy vitality. If we admit that in pernicious anæmia there exists this twofold disability, the one destructive and the other a constructive defect, we are at a better standpoint to appreciate the effects which followed the transfusions of healthy blood, as referred to by Dr. Brakenridge in his cases and as seen in Dr. Affleck's patient, who had only four ounces of blood injected. The remarkable effects which followed cannot on any theory be explained by reference to the quantity of blood used. It will be more accordant with our knowledge and experience to ascribe these effects to the energetic action of healthy blood, viewed in the circumstances, as a most potent therapeutical agent, stimulating to the utmost the devitalised organs and tissues and rousing them into renewed and sustained activity, and, most of all, by affording to the trophic and other centres concerned in blood making that kind of degree of stimulation which they most stand in need of. Dr. Brakenridge's work on transfusion is of great value in settling the question of its eligibility as a method of treatment. After the results obtained we must regard it as a remedy of high rank, whether as given primarily, or after the apparent failure of other remedies.—Dr. JAMES RITCHIE also referred to different forms of anæmia and in particular to a family in which several infants had died of what he believed to be pernicious anæmia, in one of whom the body was examined and there was evidence of blood destruction in the liver.—Dr. R. MUIR said that he also had found evidence of blood destruction in the liver and that he agreed with the views expressed by Drs. James and Russell.—Dr. COTTERILL spoke to the advantages of the phosphate of soda method of transfusion and Dr. NORMAN WALKER as to the importance of thorough sterilisation.—Dr. BRAKENRIDGE, in his reply, said that the purpose of his paper was mainly therapeutic and while he still held by his original view as to its pathology, he by no means felt bound by it.

At the June quarterly meeting of the Court of Assistants of the Society of Apothecaries the following gentlemen were elected members of that Court: Dr. J. S. Stocker, Dr. T. Dickinson and Sir George Buchanan, F.R.S., late Medical Officer, H.M. Local Government Board. Dr. Stocker has been for some years past the chairman of the Society's Examiners and has greatly contributed in that capacity to the successful working of the Medical Act of 1886, so far as relates to the granting of a complete qualification by the Society. At the same Court Sir Hugh Reeve Beever, Bart., King's College Hospital, was elected one of the Society's Examiners in the place of Dr. Stocker.

## Reviews and Notices of Books.

*The Principles and Practice of Medicine.* Designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, Physician-in-Chief to the Johns Hopkins Hospital, Baltimore, formerly Professor of the Institutes of Medicine, McGill University, Montreal, &c. Edinburgh and London: Young J. Pentland. 1892.

THIS book is a distinct acquisition to medical literature. There are plenty of works on the principles and practice of physic, but there is always room for one more which bears the notes of personal experience, keen observation, boundless trouble, power of lucid and systematic statement, and interest in disease and its processes. Indications of these qualities are to be found in every part and article of this book, which we most heartily commend to students and practitioners of medicine. Though an American Professor, Dr. Osler is no stranger in England. He is well known to English pathologists and physicians by his Gulstonian Lectures, delivered in the Royal College of Physicians of London in 1885 during the presidency of Sir William Jenner on Malignant Endocarditis, and throughout this volume he does ample justice to the work of the British School of Medicine. The author arranges his subjects in the following order of sections:—Section 1 deals with Specific Infectious Diseases; Section 2, Constitutional Diseases; Section 3, Diseases of the Digestive System; Section 4, Diseases of the Respiratory System; Section 5, Diseases of the Circulatory System; Section 6, Diseases of the Blood and Ductless Glands; Section 7, Diseases of the Kidneys; Section 8, Diseases of the Nervous System; Section 9, Diseases of the Muscles; Section 10, the Intoxications, Sunstroke, Obesity; Section 11, Diseases due to Animal Parasites. There are various charts and illustrations interspersed throughout the book which add to its value. The extent to which the author contrives to give the latest investigations in pathology and to combine with this such an admirable account of his own large clinical observations is striking. The boldness, too, with which he accepts new conceptions of any given disease or places it under a new classification shows at once his acquaintance with the latest tendencies of medical science and the openness of his mind for the recognition of new truth. As an illustration of this we may refer to his article on Pneumonia, extending over twenty-six pages, in which every symptom, feature and relation of the disease is very graphically described. But the qualities of the author to which we have alluded as illustrated in this article appear in the opening definition of the disease:—"Pneumonia: an infectious disease characterised by inflammation of the lungs and constitutional disturbance of varying intensity. The fever terminates abruptly by crisis. Secondary infective processes are common. An organism, the *diplococcus pneumoniae*, is invariably found in the diseased lung." Who can deny to the author of such a definition of pneumonia his opinions and the courage of them?

We are by no means convinced that all pneumonias are of an infective character and we think that Dr. Osler is a little hasty in including all of them under such a definition. We still adhere to the belief that in many, if not the majority of cases of the disease, exposure to cold and not infection is the main causative agency, judging by common evidence. But this does not affect the ability with which Dr. Osler adduces and enforces the evidence of its dependence in many, if not all, cases on a micro-organism, the *diplococcus pneumoniae*. Be this as it may, his clinical description of the disease and the account he gives of the very interesting studies of the Drs. Klemperer of Leyden on the production of immunity from pneumonia in animals by the subcutaneous or intravenous injections of large quantities of the filtered bouillon cultures,

or by injection of the glycerite extract, and on the cure of it in infected animals by injection of the serum of an animal that had been rendered immune, give this chapter of the book a very complete character, embracing all that is suggestive in recent research and all that is to be learnt by close personal and clinical observation. Amongst the latter is his account of the complications met with in the disease and of the results ascertained in 100 necropsies. We notice too more than one thoughtful allusion to a point not made so clear in books or so well realised in practice as it should be—the “agonising” character of the pain of pneumonia.

Tuberculosis in all its forms is classed among the specific infectious diseases, and receives the attention it deserves as one of the most widespread of maladies that has recently received brilliant elucidation. Under this heading, too, the articles Pericarditis and Endocarditis in Section 5—including one on Malignant Endocarditis—and the articles on Chronic Valvular Disease are extremely valuable for their lucidity and the personal observations clinical and post mortem, which they include.

There is always one question which is vital in a work on the practice of medicine: What are the “lights” of the author in regard to therapeutical measures? It has to be admitted that the closest student of symptoms and of lesions is not always the author from whose book the practitioner in his difficulties will obtain the greatest help. Dr. Osler’s belief in mere drugs is very qualified. He does not believe, for example, that the course of pneumonia can be modified by medicine. And we are disposed to think that he over-estimates the necessary fatality of it. But still he is full of wise counsel as to the help that physicians can give; and where medicine is specific he has ample generosity to recognise it. Thus of quinine in ague he says: “In not a single instance among the several hundred cases of intermittent fever which I have had under observation during the past seven years did quinine fail to check the paroxysms”; and he supplements this broad statement with interesting details of dose and mode of administration. We congratulate our brethren of the American school on a work on the practice of medicine which deals with this great subject in a most fitting manner.

*The Principles of Bacteriology: a Practical Manual for Students.* By A. C. ABBOTT, M.D., First Assistant, Laboratory of Hygiene, University of Pennsylvania, Philadelphia. With Illustrations. London: H. K. Lewis. 1892.

In the handy little volume before us are contained most of the directions essential for the carrying on of bacteriological investigation. After giving an introduction and general chapters on bacteria, their nutrition and their products, the author deals with the principles of sterilisation, disinfection and the apparatus required for the carrying out of these processes. The principles of Koch’s plate method of isolation are described, after which descriptions of the various media on which micro-organisms may be grown and the different methods of employing these are given clearly and succinctly. Staining methods, inoculation, post-mortem examination and the like are taken up in turn; then a scheme of identification is appended; this, however, is far from complete and will be of comparatively little use to those who are not already acquainted with the methods of determining species, though we find that here the use of a most important medium (milk) is, very properly, strongly insisted upon—a medium which has hitherto been far too little recognised.

In the portion of the work devoted to the practical application of the methods of bacteriology we find a series of graduated lessons which should be of use to those who are studying bacteriology without a teacher. The whole book is evidently the work of an observer who has had considerable

laboratory experience; there is little that is superfluous and much of what he has written is exceedingly good. It is, however, somewhat one-sided, as too much stress is laid on the German methods and too little on those in use in France. It is a capital text-book for students, though it is not equal to “Salomonsen’s Bacteriological Technique” (a work which was also translated and first printed and published in America) either in originality or thoroughness. The printing is good, but several Americanisms met with in the text strike the eye of the English reader.

*The Human Mind: a Text-book of Psychology.* By JAMES SULLY, M.A., LL.D. London: Longmans, Green and Co. 1892.

THE author of this work has an established reputation as a psychologist, and his “Outlines of Psychology” must be familiar to a large circle of students. His present attempt is more ambitious and is characterised by thoroughness of detail and systematic analysis of mental phenomena. The book is one which shows how great an advance has been made in the study of this subject by the aid of modern physiology, and Dr. Sully has contrived to clearly expound the nexus between the higher intellectual attributes and those of sensorial activity. The first part of the work forms a series of introductory chapters treating of the nature and scope of psychology, its data and method and a discussion on the physical basis of mental life. In the last named there is an outline sketch of the nervous system, which is hardly adequate to the subject, and to a student who has no previous physiological training it may even prove misleading. The author indeed refers the reader to physiological text-books and says he only offers a *résumé* of the more important points having a psycho-physical significance. Later on, in speaking of “localisation,” he points out that it is yet far from complete, but he gives no indication of the fact that there are whole areas of the cerebral cortex which are as yet unexplored, or rather the stimulation of which excites no response capable of being interpreted. No doubt in the future, as in the past, clinical and pathological observation may come to the aid of physiology in this matter; and the various psychoses may come to be associated with definite changes in cortical areas. In the gradual unfolding of his subject the author proceeds step by step in a manner which deserves the highest commendation. Thus the second part of his work is entitled “General View of Mind.” It opens with an analysis of mind, in which the triple functions of intellect, feeling and will are first analysed and the relations of these mental processes to physiological functions discussed. He passes on in the next chapter—that on Primitive Psychological Elements—to deal with sensations in the first place, and then in turn with “elements of feeling,” “active elements,” and “primitive psycho-physical complications,” which include the subject of Instinct. To us the first of these is most attractive, as it is based on the definite results of scientific research; and Dr. Sully shows how thoroughly he has grasped the physiology of sensation and the senses in the full exposition he gives of them. Of especial interest are the sections devoted to hearing, sight, and the muscular sense. The mental response to sensory stimulation or the mental images of sensations is a subject of some complexity, and it is skilfully treated under the head “Attention” in the chapter that follows next upon the discussion of Sensations. Analysing this still further, we are taken to the processes of mental differentiation or discrimination, then those of assimilation, and lastly of association, and the evolution of these factors of mental elaboration is shown to be generally in harmony with physiological development. The way is now cleared for the fuller exposition of each of the three great divisions of the mind, and to this exposition about two-thirds of the work are devoted. We do not propose to follow the author

in his analysis of intellect, feeling and volition. The whole range of psychological problems is here presented with a clearness and precision that seldom characterise their discussion. Nor is his exposition limited entirely by the normal, for towards the close he speaks, briefly it is true, of hypnotism and mental disturbances, showing how the transition from the healthy to the morbid takes place in the sphere of mind as imperceptibly as it does in physical conditions. We must be content with warmly commending this book to students and to members of our profession. They will find it of no small service in practical life, whilst the problems it raises and the explanations it affords give opportunity for unlimited reflection and thought upon matters that have been too often obscured by fanciful theories and too much neglected by those whose duty it is to promote the health of the mind as well as of the body.

*A Treatise on the Parasites and Parasitic Diseases of the Domesticated Animals.* By L. G. NEUMANN. Translated and edited by GEORGE FLEMING, C.B., LL.D., F.R.C.V.S. London: Baillière, Tindall and Cox. New York: William R. Jenkins. 1892.

HELMINTHOLOGY, in common with every department of science bearing on the practice of medicine, has of late years undergone enormous expansion; so much so that it is quite impossible for the medical man, with so many other things to attend to, to keep abreast with its progress. A competent knowledge even of the comparatively small department of the science which has immediate reference to man himself is possessed by very few and anything like a fair knowledge of comparative helminthology by fewer still. Yet medical science is daily becoming more and more the study of parasites and comparative pathology is daily being more and more drawn on to illuminate and advance human pathology. The appearance therefore of an important work of reference dealing with questions of comparative pathology is a matter of interest to the medical as well as to any other profession to which it may happen to be more especially addressed. Neumann's work is of this character and it is not too much to say that the distinguished author and, in a secondary degree, his translator have placed the medical profession under very heavy obligations.

Neumann arranges his subject, not on strictly zoological but rather on anatomical and pathological principles. This, we are sure, will be found a very great practical convenience. Such a plan enables the comparatively uninitiated observer to identify species very readily and with certainty and—guided by the copious bibliography, which is practically complete—to find out all that is known about any given parasite. Further, by bringing similar forms of helminthiasis in different species into close contrast a fuller and more philosophical grasp of any given helminthological problem is quickly obtained.

In carrying out this plan the author divides his subject into the Parasites of the Skin, the Parasites of the Digestive Apparatus, the Parasites of the Serous Membranes and so forth. So that a student, wishing to identify a parasite which he may have found or is submitted to him, has only to turn to the chapter on the particular part of the body from which the parasite came to learn all about it or to find out where to get fuller information. Thus, suppose we are concerned with a distom from the lungs of an ox, we turn to the chapter on the Parasites of the Respiratory Apparatus, Article II, where, under the heading Distomatosis, we find not only an account of the distoms of the ox's lungs, but an account of the distomatoses of the lungs of other domesticated animals, and in footnotes references to the entire literature of the subject. The chapter on the Acariases of the domesticated animals is particularly full and well done and the section on the dermatomycoses is particularly interesting to medical men.

Subjects having a special bearing on human pathology,

such as coccidiosis, trichinosis, hydatid disease, &c., are admirably handled, and to the human pathologist are of very special interest. In these and other chapters it will be found that many interesting and valuable side lights are thrown on questions of human pathology. We do not hesitate to say that this is a work which all pathologists ought to possess; and the practitioner, especially the country practitioner, who is so often looked on as encyclopædian in his knowledge of physical science, will not fail to add to his reputation if he has this book on his shelves and uses it.

Dr. Fleming, although himself well qualified to write a work on the parasitology of the domestic animals, has, with rare modesty, preferred the task of translator to that of author. It is unnecessary to say that he has performed his self-imposed task with complete success, besides contributing many original notes which will be found interpolated here and there throughout the text. Veterinary surgeons already owe much to Dr. Fleming; by the present work their debt, as well as ours, is still further increased.

## Analytical Records.

### AUSTRALIAN BRANDY FROM THE VICTORIAN VINEYARDS. (HOWES & EDWARDS & SONS, 27, MINING-LANE, E.C.)

OUR large colony, Australia, much to her credit, produces many good things and now, it would appear, she promises to vie with countries of established reputation in the production of not only excellent clarets, burgundies and ports, but also of sound, honest brandy. We have received a sample of a consignment of brandy recently shipped from Melbourne which our analysis and examination show to be of a fragrance, purity and quality second to none. The importance of this new departure can hardly be over-estimated when we are confronted with the fact that genuine grape brandy has, according to many official reports, become almost a thing of the past. In 1890 the vice-consul at Rochelle warned the British public that real cognac was then scarcely obtainable and what was sold as such was usually spurious. This statement of course caused much annoyance in the Charente district, where alone cognac is made, and sundry contradictions were published; but the consul, Mr. Warburton, in a more recent report, adheres to it and says that little as there was before of cognac brandy, there is less now. What is sold as cognac at a lower price than 25 francs per bottle is not cognac at all, but an industrial rather than an agricultural product, into the composition of which cognac, even if present, enters only to a very limited extent. Since the unfortunate ravages of the phylloxera there has been an immense falling-off in the shipments of brandy from the cognac district. It is a significant fact, however, that in the importation of so-called brandy there has been no falling off whatever and there is little doubt that the term "brandy" (branntwein) is now extended in its application so as to include spirit distilled from maize, rice and other cereals, as well as from potatoes, turnips and beetroots. The introduction of a genuine grape brandy, therefore, more particularly from our own dependencies, is a matter not merely of commercial importance, but one of especial interest to medical men, who have oftentimes to resort to it as a most valuable and powerful remedial agent. Just as it is essential that drugs (as, for example, salicylic acid) should be pure, so also, for medical use, it is essential that brandy should be pure. The fragrance, flavour and character of the Australian specimen submitted to us were excellent and the results of analysis testify further to the genuineness of the product. The alcoholic strength, as will be seen, is greatly

in excess of that of ordinary brandy. It was equal to 51·80 per cent. absolute alcohol by weight, or 59·65 per cent. by volume, or, in terms of proof spirit, 104·5. The residue amounted to 1·06 per cent. (almost exactly equal to real cognac) and on burning gave off a fragrant ethereal smell. A mere trace of ash remained. We confidently bring this new and interesting colonial product to the notice of the profession and it would be satisfactory to learn how in its therapeutic action it is found to differ from brandy now commonly met with.

#### MOUNT ROSA HONEY.

(AGENTS: S. DE PINTO & SON, 5, COMMERCIAL-STREET, LEITH.)

This is described as perfectly pure honey, gathered by bees from the highest flora in Europe, in ambulant apiaries placed on the slopes of the southern or Italian side of Mount Rosa. Our analysis does not disagree with the former part of this statement. We found the honey to be of a clear, brilliant straw colour and of excellent aroma and taste. Analysis showed it to contain about two-thirds its weight of glucose and other honey sugars, the rest of the solid constituents, amounting to 11 per cent., consisting of wax, pollen and gum.

#### GAUFRETTES FRANCAISES.

(H. A. SCHLESINGER, 81, JEWRY-STREET, E.C.)

The skill of the French biscuit baker is eminently displayed in these preparations. They consist of a thin, delicately crisp and nutritive biscuit, flavoured agreeably with vanilla. As very little effort is required to masticate them, they are admirably suited as accompaniments to the light meal of a convalescent or invalid.

#### CAFFYN'S CARNIS SUPPOSITORIES.

(LIQUOR CARNIS COMPANY, LIMITED, 50, HOLBORN VIADUCT.)

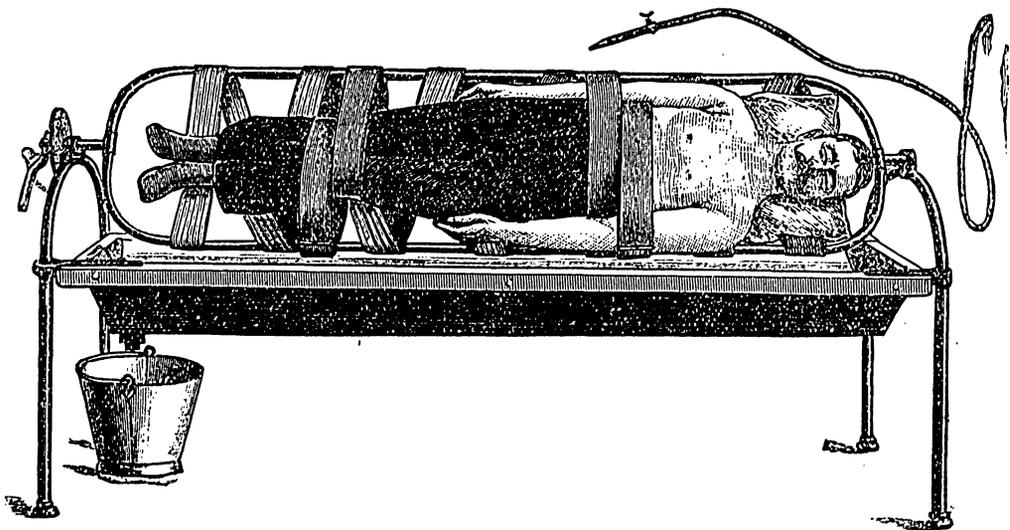
These preparations contain an equivalent of two drachms of liquor carnis and they appear to fulfil the requirements of a satisfactory suppository. They contain, for instance, according to our examination, the soluble albumen of freshly expressed meat juice and they melt readily in water at the normal temperature of the rectum in about five minutes, without the assistance of agitation or stirring. Inasmuch as unaltered albumen of meat juice is absorbed in the rectum to nearly the same extent as complete peptones, the value of these suppositories will be obvious to every practitioner. They are bullet-shaped and contain the nutrient material in a moist and adaptable colloid medium, which keeps well on account of the presence of a mild antiseptic.

## New Inventions.

### REVOLVING TABLE FOR FLUSHING OPERATIONS.

On May 24th, 1892, I exhibited this table in the operating theatre of the Westminster Hospital and used it for the following cases:—1. Excision of the left mamma. 2. Excision of segment of bone at transverse tarsal joint. 3. Excision of right hip-joint. 4. Radical cure of inguinal hernia. The engraving gives a good general idea of the table. The top

infected bands are burnt. Broad leathern straps belt the patient down and permit his body to be subverted. Underneath this framework is a large, long, japanned trough, which leads down to the foot of the table through a tap or plug into a bucket and prevents the operating floor becoming slippery from moisture or unpleasant from mess. A hose is shown in the engraving capable of supplying pure water or medicated solutions direct to the wound. The table stands firm. It has been manufactured by Mr. John Carter, 6 A, New Cavendish-street, W., at a cost of ten guineas. The workmanship is good and much care has been bestowed on its



revolving frame can be fixed at any angle, or easily detached and used as a stretcher for the conveyance of a patient from and to the ward. The capability of revolving allows the freest drainage by rendering any wound dependent and permits the fullest examination in varying posture. The framework is turned by a short lever and fixed by a steel pin at the foot of the table. The patient reclines upon broad canvas bands; these cross bands are quickly adjusted and can be replaced (if soiled) at the cost of one shilling. Thus all

execution. The table has been presented to the hospital by a lady (per J. A. Tapson, Esq.). It is thought that this description of table goes some way towards meeting a general surgical want—not only for major operations and interference with the body cavities, but also for the ordinary dressings in surgery, where cleanliness and the very free use of good water is necessary.

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Surgeon to the Westminster Hospital.

TEAPOTS.

WE have had submitted to us specimens of two teapots, each of which supplies, in its own way, a very important want. "Tea," says Sir Andrew Clark, "is a blessed beverage," and we feel sure that many will re-echo the sentiment, but it is one that only applies under certain conditions of its preparation. Some teas are speedily converted by imperfect methods of preparing them into the representation of all that is "physiologically wicked." For instance, tea is a very common cause of palpitation, which is probably due to the theine or caffeine in its composition which increases the power of the cardiac muscular fibre and stimulates it to increased contraction. Indigestion and other

FIG. 1.



troubles are only too common among inveterate and unwise tea-drinkers. On the other hand, everyone who knows the refreshing and invigorating power of tea, when taken and prepared judiciously, will admit the importance of any invention or modification which tends to render it non-injurious. The fault in many instances is not so much with tea *per se* as with our method of making the infusion in this country, the long-continued "drawing" to which it is generally subjected lessening the aroma and extracting so much of the soluble matters, that the resulting fluid is less aromatic and delicate in flavour and at the same

FIG. 2.

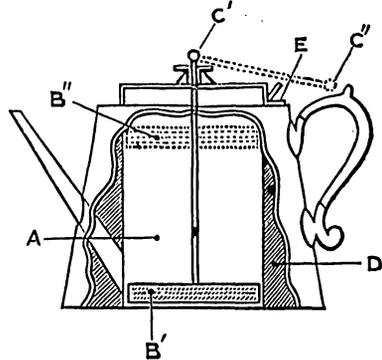


time a too great quantity of tannin is dissolved out, more especially from the fashionable Indian teas. The first teapot is sent to us by the patentee, Mr. J. A. Chandler, who has had upwards of twenty-five years' experience in the Mincing-lane tea trade. It is a combined teapot, infuser and strainer. The modification consists in a little cage attached to a chain, which pierces a hole in the lid of the teapot and by which the cage is raised or lowered in a manner very similar to the "centre board" of a yacht; when this has been charged with the tea it is allowed to be suspended in the hot water and pulled up by means of the chain

when the infusion is made. The idea was recommended by Sir Andrew Clark many years ago. By its use the tea cannot be stewed or over-drawn, for, when the time necessary to its infusion has expired, the cage can be pulled up out of the water, and the tea will then remain uninjured. By this teapot the minimum quantity of tannin is obtained and very perfect infusion of the tea is ensured. The urns are fitted with an extra lining or cosy to prevent the outward radiation of heat. The patent includes a complete infusing apparatus, which can be applied to any ordinary teapot. The teapot is made of the best quality of material and when it can be had in porcelain will certainly be a valuable and useful article for the tea table, and a few modifications, which will no doubt be made, may greatly add to the importance of this new application of an old and well-known principle. Information can be obtained at the offices of the patentee, 21, Bedford-street, Strand.

The second teapot, which we illustrate, is made by Mr. G. Wilson of Paul-street, London, E. C., and it combines, as will be seen by the illustration, some very important principles, although the application of them is still in a crude form. Hitherto our appliances for making tea have been more elegant than scientific, but the teapot figured here is on a sounder basis. The diagrammatic sketch sufficiently explains the principle.

FIG. 3.



A, Teapot proper; B, tray for tealeaves in position for infusing; B', tray for tealeaves drawn clear of the water; C, rod for drawing up tray; C', rod for drawing up tray, with tray drawn up; D, hot-water chamber surrounding teapot; E, funnel-opening for filling D.

Boiling water is first poured into the outer chamber D, to heat the teapot and then the tea is made in the ordinary way, but after standing for from three to four minutes the tray is drawn up into the top of the teapot by means of the jointed rod C, and the infusion ceases, the result being a perfectly clear, palatable and wholesome beverage which will remain hot for a considerable time and yet be as delicate in flavour and as harmless as when first infused. This, like the other teapot, would be improved by being manufactured in porcelain.

**BEACH ROCKS CONVALESCENT HOME, SANDGATE.**—The new convalescent home at Sandgate was formally opened on Saturday, June 25th, by Sir Edward Watkin and Lady Ingram Watkin in the presence of a large assembly of the inhabitants of the town and of visitors from other districts interested in the work of the Samaritan Society. It is pleasantly situated close to the sea, which it faces and which is approached by broad flights of steps from its terraces. Being thus open to the invigorating and health-giving sea-breezes, it is sheltered on the north and east by the well-wooded heights of Shorncliffe. The building and the furniture have cost in all about £20,000. It has been the aim of the designers to get as much light and air within the building as possible, which must tend to have a most salutary effect on many of the patients who unhappily have been accustomed to different surroundings. It is already occupied by 130 inmates.

# THE LANCET.

LONDON: SATURDAY, JULY 2, 1892.

THE report of the House of Lords' Committee upon Metropolitan Hospitals will serve to form a somewhat diffuse discussion and to give point to a controversy which up to the present time has ranged in a more or less confused way over an immense field of debate. This feature of the position is strikingly illustrated in the *procès* of evidence which the report contains, but which, owing to pressure on our space, we are unable to reproduce to-day. The digest brings into a manageable compass the substance of the very voluminous evidence laid before the Committee and, by means of the Committee's earlier reports, before the public. But it thereby serves to make manifest the great number and diversity of the points to which that evidence has been directed and to give an impression even stronger than that produced by the unabridged evidence of the multiplicity of the issues raised. Upon many of these issues the Committee has not adjudicated in any way and in that sense the report therefore is very incomplete—indeed it is plain that the draughtsman of the report has not aimed at completeness in this sense. He has rather singled out the issues which he considers most important and has given them prominence by passing over the rest. The adoption of this course was, we think, judicious and if we were disposed to criticise the report at all in relation to this matter we should be more inclined to observe upon the examples which the report exhibits of side issues treated inadequately than upon the instances in which the reader looks in vain for any utterance upon these subordinate points. For example, there is a very infelicitous paragraph (numbered 571) in which, passing from the three "Endowed Hospitals" to the remaining eight general hospitals with schools the Committee say of these latter that they "depend entirely for their support upon voluntary contributions, excepting in a few cases where they possess some small endowment." This exceedingly inexact reference to the financial condition of the "unendowed" general hospitals is the more remarkable because the earlier part of the report itself contains detailed references to the same matter and states, for example, that the London Hospital has invested property to the amount of £283,000 and St. George's Hospital to the amount of £441,000. The mistake is evidently due to haste and is by no means the only sign of haste in the preparation of the report. It is well that this should be pointed out, for strongly as in the main we agree in the conclusions at which the Committee has arrived, we cannot but perceive that on many points its utterances will form a starting-point rather than an end of discussion.

The main result of the Lords' deliberations is embodied in the suggestions which they have put forward with regard to the formation of a Board of Supervision. The constitution which they approve is that of an elective body consisting of forty-nine members, to which the various hospitals and other bodies concerned will send representatives. It is proposed that for this purpose the hospitals shall be grouped and that to a group of small hospitals shall be 'conceded a

representation equal to that enjoyed by one large institution.—The other constituent bodies are to be the dispensaries—in two groups,—the various medical and surgical professional authorities of the metropolis, the London County Council and the Sunday and Saturday Funds. The duties of the Board so constituted are roughly sketched and amount to a system of watching and recording the operations of the various institutions committed to its jurisdiction. It is to receive annual reports and statements of accounts, to examine and report upon proposals for new hospitals, to maintain a system of visitation and to "turn its attention to the possibility of so organising medical charities as to secure their coöperation with one another and the coöperation of medical charity with general charity." This is a result of great practical importance and equal promise of useful consequence. We trust that in some way it will shortly be realised. How this is to be done does not at all appear from the report and this singular omission is another of those signs of haste in its preparation to which we have previously referred. Probably, however—indeed, undoubtedly,—the idea in the mind of the Committee was that the Board would be created by an Act of Parliament and endowed thereby with all necessary authority for the exercise of its functions. It seems, however, probable that this part of the scheme has not been fully worked out and we think that probably some difficulty would be found in persuading the Legislature to move exactly on the lines sketched out by the Committee. The consultative authority and duty of observation with which it is proposed to invest the new Board are not unlike those which are confided to the Lunacy Commissioners or the Prison Commissioners in other spheres, and no doubt precedents could be found in other directions equally in point. Still the composition, so far as we know, of all these commissions or boards is very different from that suggested for the proposed hospital board. A body so popular in organisation, so large numerically and representative, so strong, could hardly be expected to confine itself in practice to the judicial function of criticism and the routine of receiving and compiling reports. Our feeling is that mischief would be sure to come of putting so powerful a machine to work upon so delicate a task. We think that in circumscribing the task the Lords' Committee has acted with great wisdom, but that for undertaking that task a much more suitable agent could be found and that two excellent schemes would be prejudiced by the failure of one ill-devised organisation, if a task requiring minute and painstaking attention to details and involving little or no exercise of control were confided to the hands of a large and popular assembly ill-fitted to carry on a laborious routine, but eminently adapted to exercise a large authority.

NEXT to the poor, for whom the hospitals are primarily intended, there is no body of persons for whom the recommendations of the Select Committee of the House of Lords on the subject of Metropolitan Hospitals have more immediate interest than the members of the medical profession. They are interested in them in two or three ways—in the efficiency and readiness with which they meet the cases of urgent medical need which in the first instance generally come under the notice of the general practitioner; in such a careful use of hospitals and their accommodation that they shall not pauperise those receiving their help, or enter

unduly and unfairly into competition with the hardworking general practitioner on whose ubiquitous presence by night and day the public, and especially the poor, depend for help in time of trouble. Further, the medical profession cannot fail to regard hospitals with interest as the chief centres of medical education from which medical light and learning emanate. We have dealt above with the report as far as it deals with what we may call the administrative and business aspects of hospital management. We propose now to consider rather two or three questions of special interest from the point of view of the medical profession.

The judgment of the Committee is, on the whole, highly favourable to hospitals and their management. The outspokenness and independence of the Committee are noticeable throughout, but chiefly in their somewhat severe criticism of the endowed hospitals and particularly in their allusions to the sanitary defects of St. Bartholomew's Hospital. They object to the old theory which allows the treasurer of such hospitals to do pretty much as he likes and strongly urge that they, as other institutions, should be governed by a board of managers and subcommittees. For the large general hospitals and particularly the London Hospital they have scarcely any words but those of praise. The charges against the London Hospital they regard as not substantiated by evidence. The difficulties that did arise they consider would have been avoided if the governing board had kept authority in its own hands and not delegated so much to salaried officers.

One of the subjects on which the medical profession feels strongly is the evil of the multiplication of Special Hospitals. The members of the Committee do not see their way clear to condemn all specialisation. They would except children's hospitals, ophthalmic hospitals and the Lock Hospital—on the latter subject, by the way, they express an important opinion that the authorities should have the power of detaining lock patients as "infected" patients who might wish, as such patients are apt to do while infected, to carry on their vile trade. But the Committee fully points out the proved evil of small special hospitals and deprecates their further multiplication. The deliverance of the Committee on the subject of Out-Patients will be regarded by many as the least satisfactory part of the Report. The Committee has patiently heard all its opponents have to say as to the abuse of this department and all its advocates have to say in its defence as a means of education, as a refuge to the poor "night and day." And it has on the whole adopted the views of its defenders and found it indispensable to medical education. The Committee goes further and expresses the opinion that the charities are not abused to any serious or appreciable extent and that the patients are not treated carelessly or by students instead of thoroughly qualified persons. This deliverance will not close the mouth of objectors to the present scale of the out-patient department. But it clears the ground for further discussion, especially in one way. It shows that the out-patient department is not only tolerated but cultivated, not so much for the sake of the poor as for purposes of medical education. Hospital practice in the serious sense of it is felt not to be sufficient to teach general practice and so all and sundry are welcome to the out-patient department for the sake of the pupils that have to be taught. With this great motive for its cultivation much vigilance is

not to be expected and there seems no hope of much limit being set to its growth. We cannot admit the force of the excuse. There are other ways of teaching students familiarity with common diseases under conditions that will not demoralise patients or injure general practitioners. As the Committee itself points out, there are the Poor-law infirmaries in which it would scarcely be too much to say that certain great groups of disease have recently been discovered. There is besides the great field of general practice itself, which under proper conditions can be largely utilised for purposes of medical instruction. We deny that anything like the present scale of the out-patient department is necessary for the purposes of the poor and we heartily agree with the Committee in throwing on the authorities of each hospital the responsibility for arrangements that shall prevent abuse. The out-patient is to some extent an unsatisfactory item in hospital charity and withal a mysterious one. He cannot be traced. The cost of him to the hospital cannot be ascertained. The members of the Committee, however, do not think the mystery impenetrable and we hope it will be still further elucidated.

The Committee makes a wise observation on the effect of the Metropolitan Poor-law Act of 1867 in altering the relation of the poor to the hospitals and everything relating to medical charity. They think further infirmary accommodation is necessary so as to enable the infirmaries to take the sick who are nursed almost entirely by pauper nurses out of the workhouse. They do not express any recommendation in favour of enlarging the staff of the workhouse infirmaries, or of introducing an outside or consultative element.

The Committee has found time to express an opinion in favour of the removal of all territorial restrictions of qualifications for appointments to London hospitals, singling out St. Mary's Hospital as the only hospital without such restrictions. It thinks that practitioners who have "graduated" elsewhere should not be excluded. We presume that "graduation" is not here used in its limited sense. With the general principle we agree. We must now for the present leave this Report which is characterised by much good taste and judgment, though in some respects it appears to be, as we have already intimated, somewhat hastily drawn up. It will not diminish the responsibility of hospital authorities, but it will weaken the excuses of all those who can afford to help hospitals and do not.

THE British sphere of influence is rapidly extending in Africa; in fact, it may be said that from the four cardinal points of the compass British influence, missionary enterprise and commercial undertakings are penetrating towards the centre of the continent. In looking back, let us say, to the time of the Niger expedition, it becomes clear that, apart from physiographical difficulties, it has been fever which prevented the civilisation of Africa long ago. It is true that the configuration of the continent—its lack of bays and estuaries and its want of rivers navigable from the sea—has prevented that rapid exploration and development which might have been expected. During the last twenty years, however, rapid strides have been made, and we are at present perfectly familiar with the main geographical features of the whole of the continent, although of course there is much field still left for detailed exploration. This

knowledge has, however, only been attained through great loss of life or permanent injury to health, primarily, we believe, due to fever. Turning to missionary enterprise in Africa, we note that both on the east coast and on the west, as in the centre, the heroic labours of the missionaries are "cabinéd, cribbed, confined" by the same cause; and now that commerce is making rapid strides in the large areas of the African continent which have during the past few years come under the sphere of British influence, we find that it is fever which proves the great barrier to the extension of commercial enterprise. What of the future? If our commerce, if our missionary enterprise, if our efforts at introducing the blessings of civilisation into the country are to be successful, it will apparently, as in other parts of the world, only be attained after the sacrifice of innumerable lives and at a great expenditure of money.

We have recently received reports from various quarters throwing grave doubts on the received etiology and on the nature of African fever. Is the disease due to malaria? If so, is the malaria in Africa produced by the same, or approximately the same, causes by which it is produced elsewhere? This naturally involves the whole subject of the nature, cause, prophylaxis, and cure of malaria. Recent bacteriological research seems certainly to point to a micro-organism, a polymorphic hæmatozoon, being concerned in the production of malaria in most parts of the world. At any rate, the researches of LAVEBAN in France, of MARCHIAFAVA, CELLI, and CAMILLO GOLGI in Italy, of VANDYKE CARTER and HERR in INDIA, and COUNCILMAN and OSLER in America, all result in a common agreement that such is the case, and the examination of the blood of a few patients who have returned from various parts of Africa also points to the same hæmatozoon being at work in that continent. On the other hand, it will not do to ignore the fact that there are observers, and observers of no mean order, who in India, in America, and in Africa deny even that malaria exists as a disease *sui generis*, and who maintain that the phenomenon witnessed in, for instance, intermittent fever are due to either errors of personal hygiene or to the action of "chill." It is certainly difficult to reconcile these last opinions with the widespread ravages of malaria, which, as Dr. HERR holds, possess the unenviable position of killing more human beings than any other malady enumerated in the nomenclature of disease.

Having regard to the vital importance of the issue involved in this question, we have decided to institute a commission of inquiry into the subject of the so-called malarial fever in tropical Africa, and an appeal is issued to all medical men who are, or have been, at work in tropical Africa to give their testimony. This testimony must be strictly limited to African experience of fever, in order to elucidate how far the malarial fevers of Africa are either distinct or identical with such fevers in India and other parts of the globe. To make the inquiry more complete, a Special Commissioner is engaged in personal investigations on the subject in West Africa. The schedule of inquiry which has been issued has been compiled with great care and not only calls the observer's attention to the various important points in connexion with the inquiry, but is also arranged in such a manner as to entail upon the investigator the minimum of trouble. It is hoped that all who can aid in this inquiry will give their hearty coöperation, so that the

vast amount of isolated information which must exist may be examined and tabulated. It is intended in due course to publish the results of the inquiry as a report of THE LANCET Special Commission.

It would be needless repetition to refer here to the numerous points to which attention is drawn in the schedule, but it may be useful to allude in somewhat broad outlines to a few matters with regard to malaria, and especially to what we know of its character in tropical Africa. Most persons will probably allow that malaria is more or less a preventable disease, for we have only to bear in mind the change which has taken place in its production and incidence in the United Kingdom since the days of CROMWELL and CHARLES II. Drainage and cultivation have done their work, and the scourge has been almost completely banished from districts which were once its endemic home. Again, the presence of towns checks the disease—in the case of Chicago, for example, the rapid growth of which has banished malaria from the district, although it would appear that its place has been taken by enteric fever, or perhaps, as the Americans would say, by a hybrid disease, typho-malarial by name. It must not, however, be forgotten that some methods of cultivation may produce malaria where it has previously been non-existent, or may give an impulse to its production—a.g., the introduction of the cultivation of the sugar cane into the Mauritius, or, at any rate, the extension of its cultivation in that country, and perhaps, as suggested by DAVIDSON, the introduction of the coffee-leaf disease into the colony in cases of plants from Ceylon, produced an outbreak of malarial fever in a district where up till 1866 paroxysmal fevers had been practically unknown. To illustrate the second point we may refer to the impulse which is given to the production of malaria in the new irrigation districts in India.

To return, however, to tropical Africa and to the conditions which there obtain. The first point to notice is that, although Europeans suffer most severely from fever in tropical Africa, the natives are not exempt from the disease, and it is found that although when remaining in their own districts they are comparatively free from the scourge, yet when they are removed from their homes, either during war or when acting as carriers in exploring parties, they suffer considerably from fever and, indeed, show less power of throwing it off than the whites. It is also well worthy in this connexion to note that Africans, returning, say, from America to Africa, suffer as severely from fever as Europeans. In tropical Africa those conditions of climatology and of the configuration of the ground and altitude, as well as cultivation, which influence the incidence and epidemic spread of malaria in other parts of the world, are apparently identical. It is only perhaps when we come to consider the manifestations of the disease itself that we may be led through the accounts given by travellers and other observers to any dubiety at all as to the identity of African fevers with fevers in other regions. Upon the surface it seems perfectly clear that African fevers may be classified somewhat as follows—viz., an ordinary intermittent fever which, probably after receiving the malarial poison into the system, may be induced by either a wetting or a chill after severe perspiration, as was referred to by Dr. PARKE in THE LANCET of May 28th; again, a fever of a remittent type, lasting from

ten to fourteen days, most usually experienced on the coast and forming the "acclimatisation fever" of older observers; once more, a remittent fever, complicated by bilious symptoms of extreme gravity, the well-known bilious remittent of the west coast of Africa; but this is a type of fever which is met with under certain circumstances all over tropical Africa and is almost invariably due to an individual equation. We then come to the severe fever known more especially on the west coast of Africa, but it likewise occurs widely distributed—namely, the Blackwater fever, which, according to EASMON (and he is probably correct), is simply an ordinary fever complicated by hæmorrhage from the kidney and deserving of no distinctive name whatever. In cachectic patients, or in such as have been exhausted by prolonged marches and exposure, there is another form of fever which tends to the continuous type. As a rule, it seems that the well-marked quotidian, tertian and quartan fevers are not so distinctively met with in tropical Africa as elsewhere, but it is a question if this is really the case and if it is not a fact that closer observation by trained medical men would show that even in the supposed continuous fever, to which reference has just been made, one or other of the well-known types of ague may not, owing to reduplication or anticipating paroxysms, really represent one or other of the classical forms of the disease. From what has been said it will be seen that with the information we have at present at hand there is really insufficient evidence to justify the statement that African fever has an identity of its own.

It is to be hoped that THE LANCET Special Commission will throw considerable light both upon the personal care and hygiene which would serve in a given case to ward off fever, and upon prophylactic measures generally with regard to it. That personal care may do a great deal in preventing fever none will deny, and with regard to prophylaxis it is of extreme importance that more light should be obtained from Africa itself. We know how much drainage has done in other parts of the world, as also the choice of salubrious situations on which to erect stations. But it is too much to expect that general laws will ever be able to settle this matter, so much depends upon local conditions. It is said, and rightly, that the administration of quinine will act as a prophylactic measure, and a great deal of valuable information has been gathered on the subject in all parts of the world, but it is a question of grave importance whether it is advisable for men to habituate themselves to the use of this drug. In the experience of many it is found that, should a person who has been taking prophylactic doses of quinine for a considerable period be unfortunately struck down by fever, far larger doses are required to cut it short; and even in many cases the drug may be said to fail. It is also a matter worthy of grave consideration whether the large and continuous administration of quinine does not injuriously affect the nervous system and therefore it would appear that further research is necessary before we can definitely understand the advantages or disadvantages of the prolonged administration of a drug which is nevertheless admitted to be one of the most serviceable with which we are acquainted.

THE frequency and variety of the operations performed through wounds made in the abdominal wall justify a special consideration of the best means of obtaining a proper

healing of these wounds, especially as the firmness of an abdominal cicatrix plays so important a part in the result of an operation. In the case of an ordinary laparotomy wound the surgeon endeavours to obtain two special features in the cicatrix—in the first place, firmness, and next, the absence of adhesion between it and the subjacent viscus or viscera. To obtain the latter he must unite the cut peritoneum as closely and accurately as possible and so get a perfect linear scar in the serous membrane. To ensure a firm, unyielding scar it is important to unite all the divided tissues and not merely the cut peritoneum and skin. Then when primary union has occurred the recent cicatrix must be supported from without by strapping, a bandage or a belt, until it has become strong enough to resist the abdominal pressure. Two main forms of suture are employed: generally the suture is threaded on a needle at each end and each needle is made to transfix the abdominal wall from the serous coat through all the structures to the skin. The other method is by means of a series of buried sutures. The first is a fine continuous suture of the serous membrane, then a second is placed in the cut or separated muscle, and finally the skin is sutured. At the end of a long operation such a suture is tedious and it is absolutely necessary to have aseptic sutures. There is no doubt the suture obtained by the system of buried sutures is very excellent and this should impress surgeons with the importance of stitching the abdominal wound in such an even, regular manner that the entire cut surfaces are brought into exact apposition until their union is secured.

Another group of cases is made up of those in which a permanent opening into a mucous canal is obtained—such, for example, as in gastrotomy and colotomy. Here the main purpose is to obtain a firm, unyielding union between the given viscus and the abdominal wall. A common plan to follow is to unite the cut edge of the parietal peritoneum to the skin and in that way close the wound of the muscle &c. and then to unite the serous and muscular coat of the stomach or intestine to the peritoneum and skin only. The advantage of this plan is that it brings into close apposition two serous surfaces which very quickly unite and shut off the serous sac. The drawback to it is twofold: In the first place, it takes time and in the second place the union of the parietal peritoneum and skin is liable to yield and allow the viscus to slip back. A far simpler and better plan is to draw out the stomach or bowel and unite it to the skin only. This plan is extremely simple and expeditious and, best of all, it makes an exceedingly strong union of the viscus to the abdominal wall. The serous coat of the stomach or bowel unites very quickly and securely to the cut muscle and fascia and no fear need be entertained of evil effects from blood or other exudation from the wound finding its way into the peritoneal cavity or of slipping back of the bowel.

In a third group are the cases in which a hollow viscus, an abscess or a cyst, is opened and drained. In the case of a hollow viscus—e.g., the gall-bladder after cholecystotomy or the urinary bladder after supra-pubic lithotomy or exploration—closure of the wound in the viscus and abdominal wall is desired without diminution of the size of the viscus. This is most rapidly and surely obtained if the bladder is united to the deepest layers of the abdomina

wall only and not to the skin. The gall-bladder should be stitched to the peritoneum and transversalis fascia only, the urinary bladder to the transversalis fascia and deepest part of the rectus muscle only: The effect of this is to have a granulating wound superficial to the mucous membrane, between it and the skin, and this tends to fill up and consolidate very quickly, closing securely over the bladder wound; there is also the minimum of displacement of viscera. Where the older plan is pursued of uniting mucous membrane to skin there is greater displacement and the opposed mucous surfaces of the bladder have no tendency to unite and so the fistula is longer in closing. Where, however, it is an abscess wall or cyst that has to be drained, the object aimed at is quite different. The healing process must start from the bottom and extend upwards; it must close the cavity and not merely the wound into it. The abdominal incision must be the very last part to consolidate and it may have to remain open for many months. It is an advantage to have any bar to its premature closure and therefore in these cases it is best to unite the cyst or abscess wall to the skin—alone or in conjunction with the peritoneum—preferably to the skin only.

Too much attention cannot be paid to abdominal scars to prevent their subsequent yielding. When extreme, such a yielding and the consequent hernia are great sources of suffering and even of danger to the patient and the means of relieving the distress are very imperfect and unsatisfactory. It is a case where prevention is vastly better than so-called cure. Such are some of the main principles that must guide the surgeon in the suturing of abdominal wounds and their importance is such that we may repeat them in the form of aphorisms. The closure of a simple abdominal wound should be as perfect as possible; the serous surfaces should be accurately united and all the cut tissues between peritoneum and skin should be brought into apposition with precision and uniformity. The means by which this is to be done are of far less importance than the attainment of the end in view. Where a viscus has to be permanently fixed to a wound in the abdominal wall it should be sutured to the skin only. Where a hollow viscus is drained without permanent obliteration of its cavity, its wall should be sutured to the deepest part of the abdominal incision only. Where a pathological cavity is drained with the object of securing its obliteration its wall should be sutured to the skin.

THE subject of Extra-uterine Pregnancy or, as better named by Dr. ROBERT BARNES, "ectopic gestation," which is theoretically included in the field of obstetrics, but almost always demands the attention of the gynaecologist, has come very prominently before the profession lately on account of several observers relating their experiences before the Societies and by the production of books and articles dealing with this difficult subject. Closely allied to this is pelvic hæmatocele, which according to some authorities is due in about a fifth of all cases to rupture of tubal pregnancies. It is well therefore to consider some points especially important to general practitioners, because in many of the cases recorded the existence of pregnancy has not been recognised by the medical attendant. Perhaps from not bearing in mind the possibility of this disastrous accident he supposes that the woman is

suffering from some form of "pelvic congestion," or if he discovers a swelling he diagnoses "an obscure pelvic tumour" or a "limited peritonitis with effusion," and only when rupture of the distending sac takes place is the nature of the case suspected. This is a condition which requires to be carefully differentiated, so that if possible timely rational surgical treatment may be adopted. Formerly the view existed that after insemination the spermatozoa wended their way through the uterine cavity, up the Fallopian tube, to meet the descending ovum, and it was almost universally taught that the ovum might be fecundated in any part of its course and the impregnated ovum might take root and develop in the uterine cavity, as in ordinary cases, or in the tube where it passes through the uterine wall,—the so-called interstitial or tubo-uterine form—or in the free part of the tube—tubal pregnancy—or take root in the ovary, or even in the abdominal cavity itself. Modern investigation has thrown doubt on the existence of these two latter varieties and Mr. LAWSON TAIT, whose extensive experience entitles him to speak with authority, believes that all ectopic pregnancies might be classed as tubal pregnancies. As to the causation of ectopic pregnancies we know little. The late Dr. PARRY of Philadelphia, in his excellent treatise, showed that these anomalies are most frequent in women who have been sterile for a long time, but they may occur in the newly married or in the mother of a family. It has been suggested that attacks of desquamative salpingitis in which destruction of the ciliated epithelium takes place will account for the occurrence of tubal pregnancy. Mr. BLAND SUTTON, who has made this point a subject of prolonged investigation, thinks that this statement contains an element of truth, but considers that it does not hold good in all cases, so that the causal relation between salpingitis and tubal pregnancy requires further elucidation. The usual course of tubal pregnancies is that early rupture takes place as a rule and according to Mr. TAIT is not delayed beyond the twelfth week of gestation. Rupture of the sac may be intra-peritoneal, with escape of the foetus into the peritoneal cavity, or it may be the intra-ligamentous form, with escape of the products of conception into the space between the folds of the broad ligament, being extra-peritoneal in character. It is in the latter form almost always that cases of extra-uterine pregnancy reach an advanced term, for sometimes development goes on after such a rupture, and the foetus may ultimately lodge in the peritoneal cavity as the result of secondary rupture. There are many points connected with the physiological and pathological histories of these important cases which have been cleared up or are being made intelligible by the careful study of the parts which have been removed by abdominal section and also by the exhaustive post-mortem study of frozen sections made by Dr. BERRY HART and the late Mr. CARRER. An interesting case, elucidating the true history of so-called "abdominal pregnancy," was recently related by Mr. TAIT to the Obstetrical Society of London, in which the foetus, still retaining its amniotic covering, seemed to have developed to the full term in the peritoneal cavity. It was evident, however, that it had originally been a case of tubal pregnancy, and rupture of the Fallopian tube took place about the tenth week of gestation, development going on thereafter in the cavity of the peri-

toneum. Mr. TAIT considered that this case may be regarded as giving the true solution of all cases of this variety. The important thing for the majority of practitioners is to bear in mind the possibility of these anomalous pregnancies, and the advisability of diagnosing the condition. The symptoms vary according to the advance of gestation. The patient herself very often has no idea that she is pregnant, because in the majority of cases she has not been pregnant before, and usually the practitioner has not his suspicions aroused owing to the usual signs and symptoms of pregnancy being absent or obscure. Cases have been diagnosed of diseased tubes, which on examination after their removal have been found to be gravid; but as a rule it is only when rupture of the sac occurs at some period before the end of the third month that the symptoms point to the actual state of matters, and these symptoms are modified according to the seat and direction of the rupture. If rupture takes place between the folds of the broad ligament the symptoms are less severe than when the tubal pregnancy bursts into the peritoneal cavity. In the intra-peritoneal variety the symptoms are characteristic of internal hæmorrhage after complaint is made of "something giving way" and death may supervene in the course of a few hours. Such cases of rapid death have occasionally been attributed to poisoning, but the true cause was discovered on post-mortem examination. The treatment by abdominal section is the rational course in tubal gestation, and the condition has been recognised and so treated before rupture. If at the time of rupture the symptoms of hæmorrhage be quite distinct and the patient's life in imminent danger then the abdominal cavity must be opened, and the bleeding arrested as soon as possible. If the rupture takes place between the folds of the broad ligament, operative interference is not so urgent as the hæmorrhage is restricted, but at any time in the subsequent course of the case surgical interference may be necessary to save the patient.

THE next few weeks of high-wrought excitement in the British Islands will have their quietus in a general holiday—antecedent and consequent giving no confirmation to the "error"—"vulgar," as any stigmatised by Sir THOMAS BROWNE—that contemporary exceeds all preceding life in the unrelieved stress and strain, the worry, the nerve-wear, and the other adverse influences by which suffering is lengthened and longevity curtailed. Among the bright, incidental discussions in Dr. PYE-SMITH'S lectures on the "Etiology of Disease" may be instanced that in which he drove another nail into the coffin of the otiose fallacy that the "ugly rush" of modern life incurs a prevalence of neuroses of every kind, bringing in their train a susceptibility to organic disease and an intolerance of effective treatment unknown to less bustling generations. To that as to the other tasks imposed by his subject the lecturer was more than equal, and we have seen no attempt on the part of any *fin-de-siècle* pessimist to traverse the reasoning by which he relegates the fashionable induction to the limbo of "hereditary fudge." That the induction should not only have found acceptance, but should still be propagated, is quite in keeping with the tenacious vitality of error, proving as it does that the generation which received it in bequest and is

prepared to bequeath it in return—"enlarged" if not "revised"—is also open to the imputation brought by HALLAM and THACKERAY against the society of fifty years ago—that it does not read!

If there is one feature of modern civilisation more distinctive than another it is the economy of force effected by its inventions and innovations. It is indeed the triumph of the mechanical, in substitution for the personal, factor that the former minimises the forth-putting of the latter. Take one of the most familiar directions in which the individual is called upon to exert himself—that of travel or getting about from place to place. If ancient or mediæval records or the published experiences of "sixty years since" teach us anything, it is that a journey of any distance used to be a more or less serious undertaking, to be planned and prepared for days or weeks in advance, and sure to absorb the traveller's mind during every hour of his progress till he found himself safe and sound, weary but thankful, at his destination.

Come quel, che con lena affannata  
Uscito fuor del pelago alla riva  
Si volge all'acqua perigliosa, e guata!

Dangers due not merely to the mode of transit, though these were real enough, but to the quality of the resting-places *en route*, to say nothing of the "gentlemen of the road" whose blackmail exhausted what the "perfidus caupo" had spared, kept the mind preoccupied morning, noon, and night, to the exclusion of that enjoyment shared by every present-day traveller; for whom vicarious exertion or agency minimises all hindrances to free attention, discursive or sustained. The reader has but to revert to SCOTT'S immortal picture of mediæval travel and hotel-entertainment in "ANNE OF GEIBURSTEIN," and to compare it with the comfort and convenience commanded in the same regions—the Switzerland and Germany of to-day—to realise the exemption from anxiety, privation and positive jeopardy secured him by nineteenth century arrangements for the economy of time, of trouble, of the thousand-and-one provocatives of worry and nerve-wear and neurotic susceptibility.

The certainty and punctuality of modern communication with the more distant latitudes is another phase of economy of nerve-force characteristic of contemporary civilisation. "The hope deferred that maketh the heart sick" was a frequent concomitant of the tardy, irregular, not seldom abortive postal system of classical antiquity and of mediæval times. What the anxiety and the disappointment of the expectant correspondent must have been in those worlds we know from the letters of CICERO and ERASMUS; indeed, we can realise it in the Italy of to-day where ill-advised retrenchments in the service induce an unpunctuality in despatch and delivery which goads the British man of business in his *villaggiatura* to something little short of madness. Till lately the whole continental life was fraught with these trials to mind and temper; proofs in point even now beset us and find ample illustration in their consequences. Take one of these illustrations out of many. It is notorious that the European countries which are most backward in civilisation and mechanical improvements are also those in which the soul-satisfying, soul-soothing enjoyment of nature in her picturesque or romantic phases is least in favour. But is not this because their inhabitants are so mentally preoccupied over the petty details of life—over the incidents of

a social arrangement the reverse of easy, those of transit included—that the undivided attention which is, even for the most sympathetic natures, indispensable to adequate appreciation of the beautiful or the sublime, is for those less sympathetic ones difficult, if not impossible? GASTON BOISSIER, it is true, expanding, if not actually borrowing FRIEDLÄNDER'S induction that the Latin races have not that sense of the lovely or the grand in scenery characteristic of the Teutonic, taxes the Romans with something like apathy to the sentiment of landscape. But in abatement of the charge he brings against those gifted pro-consuls and generals who found nothing but horror and repulsion in the Alpine passes which attract the modern nature-worshipper in thousands, may it not be pleaded that the hardships, the uncertainties, the positive dangers of travel in those days, must have deadened the most poetically-attuned minds to everything but a personal preoccupation, intelligible, if also ignoble?

Modern life may render it hard to be idle; but is not "brain rust" as prolific a parent of neuroses as "brain fag"? While every opportunity is now supplied for that wholesome exercise which all minds, in their infinite diversity, require, is there not also provided that not less wholesome recreation and transition which are equally necessary for normal evolution? The human organism has a self-adjusting, self-righting virtue that makes it intolerant of persistence in any course injurious to itself. It shifts its position, it leaves off in due season, it relieves or remedies itself with an instinctive punctuality that saves it from long-continued error. Every year multiplies its opportunities of restorative change: the railway, the steamship, the agencies to which fashionable theory attributes all the vague influences believed to impair the nervous system are precisely those which are most instrumental in bringing the requisite relief and renovation. Climate, thanks to these agencies, is now a therapeutic resource in yearly greater request, particularly for invalids drawn from those classes whose cerebral and moral powers are brought most intensely into play. The seaboard, the island, the mountain, high latitudes and low latitudes, the arctic yachting cruise, the sojourn in the winter city or in the great sun-bath of the Sahara itself—are additions to the consultant's armoury made available by those latter-day inventions which are superficially credited with the evils they most contribute to neutralise. Dr. PYE-SMITH has already laid medicine and rational therapeutics under many obligations. He has done few more opportune services than by demonstrating—with an acuteness and a command of scholarship in his case hereditary—that the means by which modern life is assisted and expedited stand in no causal relation to the genesis—real or supposed—of neurotic temperaments or of "nervous disorders."

WE are glad to be able to state that Mr. Gladstone has not suffered any serious consequences from the regrettable outrage of which he was the subject on Saturday last at Chester. Undoubtedly he must have endured great pain from the nature of the injury and the results at his age might have been exceedingly serious. Fortunately it has been otherwise.]

## Annotations.

"No quid nimis."

### MEDICAL CANDIDATES BEFORE THE CONSTITUENCIES.

IN greater force than hitherto the medical profession has come forward for parliamentary honours in the election now imminent. Constituencies of every kind—county, borough and great city—have medical candidates before them and each nationality, that of England, Scotland and Ireland, has its representatives among these. This, we cannot but think, is a wholesome innovation on the too reserved attitude maintained by the profession towards politics in days gone by. If returned, as there is reason to expect the majority of such candidates will be, the interests of the public in Parliament will be considered and safeguarded by them in a direction heretofore unrealised. Problems of the deepest importance will no longer be left to the half-informed, half-hearted initiative or promotion of the political amateur, and State medicine and professional education, in their manifold aspects, will for the first time have something like justice done them by those best qualified to take them in hand. A glance at the names of the medical candidates in nomination will reassure the profession and the public that, whatever may be thought of them as political partisans, they have the education, the experience and the ability to give to the problems referred to the attention they demand. Sir B. W. Foster solicits re-election for the Ilkeston Division of Derbyshire and grounds his claim to the honour on a record of good work already done. In the Walton Division (Liverpool) Dr. B. W. Richardson is a candidate and, if successful, may be counted on as an accomplished, eminently capable and fearless advocate of reform in sanitary and social questions. Dr. Charles Cameron, who stands for the College Division of Glasgow, is well known as a conscientious and useful member, never absent from his place when the interests of the public health or the adequate recognition of the profession are before the House; while Dr. R. Farquharson and Dr. G. B. Clark, the latter a candidate for Caithness-shire, the former for West Aberdeenshire, are honourable types of the medical legislator, prepared to add to their previous record of good service for the body politic. Ireland sends up for re-election a proportionately greater number of medical candidates than either of the sister kingdoms and in Mr. J. G. Fitzgerald, Mr. J. E. Kenny, Dr. Tanner and Mr. J. F. Fox has already found popular representatives with their constituencies and their colleagues. Other names in the list of candidates are those of Dr. E. C. Thompson, who contests Mid-Tyrone; Dr. Verdon, who stands for the suburban constituency of Norwood; and Dr. Pollard, who courts the suffrages of the Southport Division of Lancashire. The number may yet be reinforced by hitherto unannounced candidates who, at the eleventh hour, have come forward for constituencies not yet contested. But, even as it stands, the list we have set forth is more numerous than any previous general election has called forth and the character of its *personnel* is not inferior to that of any equal number of men drawn from other walks of life. Parliamentary representation, discussion and legislation have nothing but good to reap from such an accession of the working power of members professionally educated like these.

### CHOLERA AND ITS PROSPECTS.

ALTHOUGH cholera is decreasing at Meshed, the fatal attacks having fallen to some thirty-five a day, yet the disease has extended over a wider area and has at last entered Russian territory in Europe. Passing in a westward direction from Meshed, a number of towns have at intervals

been attacked in the direction of Astrabad and still further westward the disease subsequently appeared at Abasabad on the southern shore of the Caspian Sea. But the disease also crossed the mountain frontier between Meshed and Russian Turkestan, making its appearance notably at Khnaka and Askabad. Then it followed the railway route and has since been reported at Usun-ada on the eastern shore of the Caspian. The passage across the Caspian from this point is not difficult to understand and as a matter of fact the important port of Baku in European Russia, situated on the western coast of the Caspian, soon became attacked. Thus the southern portion of the Caspian Sea has been invaded at three points, and not only so, but the disease would appear to have extended in a south-westerly direction from Baku towards the Turkish frontier, for the town of Shusha, in the province of Elizabetopol, is now also a seat of cholera. There is, further, the prevalence of cholera in Samarkand and Bokhara, in both of which Russo-Asiatic states a number of towns have been attacked, and between which and Russia in Europe there is a not unimportant traffic. No trustworthy statistics are as yet available as to attacks or fatality, but it is certain that in Russian territory there have been several hundred deaths from cholera. The town of Bokhara is said to have escaped and its escape is attributed to the advanced sanitary measures which have been steadily adopted there since last December, the action having been taken at the instigation of the resident Russian diplomatic agent. The immediate interest in this intelligence lies, for us, in the prospect of a European invasion of cholera. The route which the disease has taken is by no means a fresh one; and it is, besides, one that by reason of its traditions as to Oriental plague in and about Astrakan is known to be one where the conditions favourable to the diffusion of cholera have long since abounded and still abound. It is, at the present moment, impossible to forecast the future. But without professing to any prophetic accuracy, we may say that there are substantial reasons for fearing that eastern Europe is in risk of cholera invasion. At the same time we may add that, unless the extension becomes more rapid than it has been during the last month, an even greater danger to Europe may lie in a recrudescence of the infection next year than any wide prevalence this year. If this apprehension be correct, time will be afforded to Governments and sanitary authorities to prepare themselves in advance by means of those well-known sanitary measures which constitute the best defence against cholera invasion.

#### FATAL RESULT OF WATER DRINKING.

AN old way of poisoning criminals used to be to compel them to swallow large quantities of bull's blood and it is interesting to note how this acted as a means of causing death. Bull's blood is not a poison at all in the ordinary sense of the word, but when it enters the stomach it forms a coagulum, and instead of the organ being filled with liquid which might be ejected by vomiting, it is filled with a solid mass. This mass presses upwards upon the heart and displaces it. The pressure upwards upon the lungs interferes with the respiration and the pressure backwards upon the aorta, vena cava and the solar plexus would probably be sufficient to cause death. The same thing occurs in animals when they are first turned out among the clover; they overeat themselves and are very likely to die from over-distension. A case was recently reported in the newspapers of an Irishman who had eaten largely of potatoes and milk and who died suddenly. The post-mortem examination revealed no disease. He was apparently healthy, except that his stomach was distended, and no doubt he died in exactly the same way as the criminals who were compelled to drink bull's blood. Generally death cannot be brought about by the simple drinking of fluids, because the stomach

is able to eject them. Apparently, however, this is not always the case. In one of the lay papers a few days ago there was a notice of three Frenchmen who laid a wager as to who would drink most water and all three of them died in a comparatively short time. The death in this case might have been partly due to the distension of the stomach and partly to the effect of the water on the blood after its absorption. It very rarely happens in a healthy person that enough water can be absorbed to cause any alteration in the blood, because it is excreted as rapidly as it is absorbed and the composition of the blood is kept nearly constant. Death from the action of water on the blood may occur after profuse hæmorrhage when thirst is extremely urgent. This has been noticed in the battlefield and also in the case of women who have been nearly drained of blood by hæmorrhage. In these cases it is always advisable not to give pure water to quench the thirst, for it is not only an irritant to living tissue, but it is also destructive to the blood. The risk of injury is considerably lessened by adding a little salt to the water, making it of the strength of the physiological normal saline solution.

#### THE PERFORMANCE OF CLASSIC PLAYS AT PUBLIC SCHOOLS.

THE "struggle for existence" on the part of the ancient languages amid the competing claims of the "modern side" has forced their teachers to introduce salutary innovations on the traditional methods of cultivating them. One of these innovations, which has gone far to restore their popularity, is the performance at school or college of the masterpieces of Greek or Roman dramatic genius, and year by year the practice has commended itself with steadily increasing advantage to teacher and pupil. Like many other so-called innovations, this one is simply an extension of old custom, a connecting link with which may be found in the "Westminster Play." At the Renaissance and for two or three generations after it, not only were classical plays performed by the young scholars at the principal seats of learning, but now plays—mostly in Latin—were specially written for them and reproduced on the academic boards under the superintendence of the teaching staff. George Buchanan, to instance no other, was one of the most successful of these playwrights; and for the students at the College of Bordeaux, in which he was the leading Latinist, he wrote the "Baptistes" and the "Jephthes," the plot of which he derived from two of the most tragic incidents in Old and New Testament history. With a similar object he translated into Latin verse the "Medea" and the "Alcestis" of Euripides. His pupil Montaigne has put upon record how much he owed to these performances; but the benefits to be drawn from such modes of schooling the young mind in literature and language are not æsthetic or linguistic merely. The physical exercise they necessitate, the training of the voice, the development of the chest, the sway of the person are all most salutary adjuncts to the educational system, and indeed are but another revival of ancient practice in one of its most admirable phases. In their worship of the body (which no doubt they pushed to extravagant lengths) the "clara lectio" of the Romans was one of their most prized auxiliaries to the maintenance of health and the perfecting of the physical organism—a "reading aloud," as the late Dr. King Chambers pointed out, not in the constrained attitude and the grotesque mannerism of the candidate for "clergyman's sore-throat," but with head held back and chest thrown out, with distended nostril and animated eye, with sympathetic action and speaking gesture, as we see in gongs and similar relics of the plastic genius of antiquity. When, furthermore, such wholesome and life-invigorating exercise is carried on, as in ancient Rome or Athens, in the open air, we have all the conditions of a salutary gymnastic, coming in reinforcement of the physical training which is

now seen to be an indispensable adjunct of the growing boy's upbringing. The highest point to which such a happy resuscitation of classic method has yet attained is the performance of Greek or Roman plays as now practised at some of our chief public schools and Universities—at none more effectively than at Bradfield College where for three days last week might have been witnessed the "Agamemnon" of Æschylus, mounted and acted with a success that profoundly impressed the beholder. The theatre occupies a chalk pit within easy distance of the college, its steps rising in terraces for the accommodation of the audience, as may be seen in such comparatively perfect examples of the ancient open air theatre as that at Fiesole. The head master, Dr. Gray, drew happily on his archaeological lore for the scenic details so as wellnigh to persuade the auditory that they were really assisting at an antique performance. Careful rehearsal had obviously prepared the young actors for their more than adequate representation of the *dramatis personæ*, Mr. Willis evoking just admiration for his "Cassandra" and the head master himself winning universal applause for his rendering of the short speeches assigned to the Coryphæus. To the young men who witnessed—still more to the young men who acted—the play, a deeper, fuller appreciation of its grand and subtle beauties than was possible under the old reading-lesson system must have been imparted, so that in after life, in the intervals of professional or business cares, they must inevitably go back with pleasure to an original so vividly and agreeably imprinted on their minds. We hope to see the extension to all public schools of such performances as that for which Bradfield College has earned so honourable a reputation—performances not limited to Greek or Latin *œufs-d'œuvre*, but including the master works of Molière and Racine, of Goldoni and Alfieri, of Schiller and Shakespeare himself. It is surely a welcome revolution in the "wearisome bitterness," as Milton called it, of classical study at school, when mind and body, eye and ear, voice and gesture, are combined in the interpretation of its most interesting subject-matter in so effective and in every sense so salutary a mode as in the revived representation of Æschylus and Sophocles in the open air.

#### FOOD-SUPPLY AFLOAT.

"ENGLAND expects every man to do his duty." So ran Lord Nelson's famous signal at Trafalgar. Is it not time to put the converse of the saying, "Every man expects England to do hers"? Certainly she has been wanting, in many ways, to her sons of toil, agricultural, mechanical and combatant—to none more than to her "hearts of oak." The privations of her merchant and naval seamen are matters of history, burnt into her annals by writers like Smollett, whose picture of the horrors of the Cartagena expedition, in which he served as surgeon, forms one of the most tragic pages in literature. Scurvy down to much more recent times decimated her crews, in spite of the warning note of John Woodhall, surgeon's mate, in 1636, who suggested the lemon-juice ingredient in naval diet, which was made obligatory only in 1795 by the exertions of another medical philanthropist, Sir Gilbert Blane. The disease is now practically extinguished in the services afloat, so much so that naval surgeons assert they have never seen a case of it; but from time to time we have evidence that the neglect—or worse—with which the food-supply of seamen is maintained still justifies the indignation of the sanitary reformer. We need not go back to the shameful frauds practised on more than one Arctic exploring expedition in which the tinned meats and vegetables proved, when opened in high latitudes, to be unfit for consumption. Only the other day the good ship *Crofton Hall* is stated to have revealed as scandalous a breach of faith in the victualling of its

hands as any yet made known to us. Having sailed with a clean bill of health on the 3rd ult. from Calcutta, she put back to that port on the 13th with but five out of her crew of twenty-nine in a condition for active duty. And the alleged cause was that meat had been served out in so advanced a stage of decomposition that many of the sailors threw it overboard the first day. Notwithstanding this emphatic protest the tainted meat continued, it is said, to be set before them till, hunger surmounting disgust, the whole stock was consumed. By this time the inevitable consequences became apparent. "Cholera"—or at least violent diarrhoea—broke out on board, carrying off two men on the second day, four others later, and ere the week closed putting nearly all hands on the sick-list. Calcutta was shocked to see the vessel return in a state so appalling, and the indignation of the citizens may be imagined. Pending the official inquiry, we may remark that the case occurs not inopportunistly when questions of sanitary reform, among others, not more clamant, are coming before the constituencies. Protection for the lives and limbs of our sons of toil is rapidly asserting its truly imperial importance, and no attempt at its practical solution can be regarded as complete which fails to take cognisance of the victualling and health of our crews, combatant and non-combatant, in whatever waters they may serve.

#### SMALL-POX PROSPECTS.

ONE of the most serious prevalences of small-pox is that which is still in progress in and about Halifax, the borough itself and a number of surrounding sanitary districts being affected. Special arrangements have been made as to attendance on the sick and at least one hospital has been hurriedly erected in order to isolate the patients. Seventeen cases are also reported to be in the small-pox hospital at Liverpool. In the metropolis, the diminution in the number of fresh cases which set in some weeks since has, in accordance with our anticipations, been maintained; the number of fresh attacks during each of the four weeks ending June 18th having been thirty-one, twenty-eight, twenty and thirteen respectively. Thus, as we have already suggested, the main danger to be anticipated is the recurrence of the small-pox, which has managed to diffuse itself in a number of centres, during the approaching winter.

#### A WORD OF PROTEST RE TESTIMONIALS.

SEVERAL correspondents complain of being written to for testimonials by gentlemen with whom they are unacquainted and whose names are perhaps only known to them by the occasional receipt of a treatise or of a reprint of a paper read before a society or published in one of the periodicals. We must express sympathy with practitioners in their complaint, but should have thought that they usually consigned pamphlets, if apparently sent to them for such a purpose as obtaining a testimonial at some future time, to the waste-paper basket. We find, however, that many of the most eminent men in our profession and some of our busiest consultants carefully read and value them. At least this is the only conclusion at which we can arrive when we examine a batch of testimonials—over thirty in number—which have been given to, we believe, a very eligible candidate for an appointment at a hospital. In these testimonials one-third of the writers explicitly state that they have no *personal* knowledge of the candidate, and it is clear that, with two or three exceptions, the others are equally ignorant. From the following typical example the character and value of these testimonials may be estimated: "The writings of ..... show that he is a ..... who possesses a high degree of medical ability, scientific and practical, which cannot fail to ensure for him future distinction and to augment that which he has already

achieved." Many others go a little further and are bold enough to assert that if the candidate be elected it will be of marked advantage to the institution. Eminent members of our profession evidently therefore feel themselves justified in testifying to the possession of those practical qualities which are essential to an important hospital appointment by a candidate whom they have never seen at work. We question if they would not more carefully consider their position if they were asked to testify with regard to a post at their own respective hospitals. The manifest injustice to other candidates involved in the giving of such certificates of proficiency need not here be adverted to. We need only say that they would be valueless in the estimation of any judicious medical committee; and if submitted to a lay committee "the more 's the pity of it," as they might even turn the scale against the candidate in whose favour they are written. If good nature prompts kind hearts to yield to the temptation of giving testimonials to gentlemen of whom the givers have no personal knowledge, the latter can only blame themselves if their time is invaded by every applicant for an appointment who has had the opportunity or ability of writing an essay and who takes care that it has been sent to them and doubtless afterwards reminds them of the fact. The objectionable practice is one of their own creation and the remedy is in their own hands.

#### "CURES" FOR INEBRIETY.

A CIRCULAR has been widely distributed by another American company which also professes to cure this disease, but of course disclaiming the method to which we referred in a former number. From this we learn that a medical man with an English qualification is the medical officer to the company, and the same gentleman begs to state that he has answered our article of June 6th, 1892. The distribution of a small book of the usual type, affording only the vague information that the treatment is by hypodermic injections of modern alkaloid, is another instance of the total disregard of professional ethics in these matters to which we then referred. There is no question but that any medical practitioner is passing beyond the limits of professional etiquette in thus administering secret remedies, and we would suggest that the licensing authority from which he derives his qualification should take some notice of the circular and pamphlet. From an advertisement which appears in our columns it will be seen that Dr. Leslie E. Keeley has been invited to explain his treatment to the Society for the Study of Inebriety on July 5th. This is a proper method to pursue.

#### CRUELTY TO CHILDREN.

THE *Child's Guardian* for June contains a full report of the eighth annual meeting of the National Society for the Prevention of Cruelty to Children. We are pleased to learn from it that the needful work done by the Society continues to grow in public favour and effective usefulness. It is significant of the care with which the cases dealt with by the Society are selected that out of 8324, the total number brought before it during the past year, 7291 proved to be indictable on the ground of cruelty. We would, however, direct attention specially to certain points in the treatment of children and the detection of cruelty discussed by speakers at the recent meeting. Some observations by Mr. H. H. Fowler on the regulation of circus training in the case of children may be mentioned in illustration. Still more evidently called for was a vigorous protest by the same gentleman against the practice of child insurance. The object of life insurance, as he remarked, is to provide compensation for pecuniary loss sustained in consequence of a death. Where the deceased was a child no such loss was incurred and consequently there was no real occasion for insurance. Any difficulty as to fun expenses would best be met by some

arrangement which would provide, not a sum of money, but the services of an undertaker and other incidental necessities. The fact that cruelty, and gross cruelty too, is met with not only in poor but in wealthy homes was noticed by more than one speaker. It may be quoted here as affording a suggestive answer to some who attribute this form of crime, in the artisan class to pressure of poverty. The Earl of Fife did good service in advising that the powers entrusted to the police under the Cruelty to Children Act should be more freely used than they now are. Among those present at the meeting were the Bishop of Rochester, the Bishop of Portsmouth (who appeared for the Archbishop of Westminster), Lady O'Hagan, Mr. Benjamin Tillett and others whose names afford sufficient evidence of the scope of public interest in the Society and of the worthiness of its endeavours. A well-deserved reference to the strenuous labours of its secretary, Mr. Benjamin Waugh, should not be forgotten in this brief report of proceedings at its latest annual convocation.

#### STREET ACCIDENTS.

MR. GAREY, M.R.C.S., of Glasgow, who is a member of the Town Council of that city, is to be congratulated on having recently induced the Council to deal more liberally with members of the profession who are summoned to attend in cases of street accident. Hitherto the fee for such attendance as only been paid when the injured person was both able and willing to pay it, but in future the city will pay a fee of five shillings in all cases of day accidents and ten shillings in night accidents; and this will be done whether the doctor be summoned by a police officer or by any other person. This arrangement must be regarded as fairly liberal on the part of the City authorities, in view of the fact that already there are specially appointed casualty surgeons receiving amongst them £460 a year and that the new system is altogether supplementary. The position of casualty surgeon has been frequently held by surgeons who have become eminent. Dr. Wm. Macewen did some excellent work in this department in his earlier years. We feel sure the profession in Glasgow will fully appreciate Mr. Garey's action on their behalf.

#### ENTERIC FEVER AT NORTHALLERTON.

THE Northallerton Local Board of Health are very properly much exercised because of a prevalence of enteric fever in their town, and they have passed a resolution requesting the Local Government Board "to come and hold an inquiry into it." As a rule, when such resolutions are passed there is some obscurity attaching to the outbreak which calls for "inquiry." But nothing of the sort seems to exist in Northallerton. Mr. Lumley, the medical officer of health, indeed, tells his authority in advance what the result of the inquiry will be. He says "the wells on [one] side of the town would be condemned;" and he adds that he himself analysed samples from seventy-two wells some time ago and only found "three or four that were really good." The matter being put to the local board in homely phraseology, it was explained that the circumstances about the wells were such that "these wells are receiving the typhoid germs which fly like yeast in bread." We hardly understand, under these circumstances, what there is that has to be inquired into, and we should hold that the local authority were highly to blame for allowing such wells to exist were it not that some time since measures were taken to supply Northallerton with an improved water-service. According to the local press plenty of good spring water is available in or near the town and it should be obvious that it is action rather than inquiry that is wanted; the first action being to close the polluted wells and at once supply a wholesome water, at least twice a day to every house, by means of water-carts which have been filled

at a source where no risk of pollution exists. The remaining action, with regard to such matters as isolation, disinfection, &c., can be explained to the authority by their own medical officer of health and doubtless this has been already done.

#### THE CHELTENHAM LOCAL BOARD.

WE are pleased to find from the Cheltenham papers that the Local Government Board has removed the suspension of Mr. Walters, not, however, without a censure on Mr. Walters for ordering treatment without first visiting the case—which Mr. Walters denies having done. We still consider that the question of whether a Poor-law medical officer is justified in seeing a pauper patient without an order has not been satisfactorily settled by the central authority in its decision upon this case and we trust the matter will not be allowed to drop.

#### THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

THE annual meeting of the Association was held on June 27th, Sir Andrew Clark presiding. The report showed the increasingly good work done by the Association and that through its instrumentality great facilities were afforded to those who were engaged in scientific work in obtaining licences. It therefore deserved the support of all who were interested in the advance of scientific medicine. The working annual expenses are but small, but as the funds are now nearly exhausted contributions are asked to enable the Association to continue its good work. These may be sent to the treasurer, Dr. Wilks, 72, Grosvenor-street, W., or to the secretary, Mr. Stephen Paget, 57, Wimpole-street, W.

#### THE ISLINGTON MEDICAL OFFICERSHIP OF HEALTH.

ON Friday of last week there seems to have been another vestry storm over the motion for suspending the by-law which would prevent Dr. Wynn Westcott, lately a member of the vestry and now temporary medical officer of health, from becoming a candidate for the permanent office. There were only eighty-five members in the division. Eventually the resolution to suspend the by-law was carried by fifty-seven to twenty-eight votes. It looks as if Dr. Westcott's friends were more in earnest than those who do not like to see by-laws tampered with in favour of ex-members of the vestry. There are, we understand, about thirty candidates. They will be sanguine gentlemen if, in the face of these proceedings of the vestry, they fail to see a foregone conclusion.

#### "CHOLERA NOSTRAS" IN PARIS.

The Consultative Council of Hygiene of France have held an important meeting to discuss the prevalence in Paris of cases qualified as "cholera nostras," but which have excited considerable alarm. An official report was drawn up and will shortly be published. From private sources we have received information on the subject, but before publishing the same will wait till the issue of the official report. We trust that this report will contain a full account of the bacteriological experiments made with the microbes derived from the dejections of the patients. The history of the cases should be coupled with some account of the water-supply in the districts that have most suffered. The epidemic, slight as it was, is supposed to be subsiding; it was nevertheless sufficiently serious to justify special measures on the part of the Paris Municipal Council. A committee was secretly appointed to inquire into the matter and to take special measures should the epidemic suddenly spread. A number of deaths continue to be registered under the heading of "Cholera nostra, Cholérine et Entérite," the latter term especially may mean anything. It will be found,

we believe, that many of these deaths are due to drinking the water of the Seine; or, in any case, that such deaths are more frequent in those quarters and outlying districts of Paris where the water companies only provide water from the river Seine. We trust that so independent and official a body as the Consultative Council of Hygiene of France will deal fearlessly with this question and that the short-sighted desire to prevent panics will not hinder the publication of the full truth.

#### PROFESSOR MURRI OF BOLOGNA.

FLORENCE, as we recently announced, has lost in Professor Federici one of her most brilliant and useful teachers and consultants, and her Senatus Academicus, consisting of the *personnel* of her Istituto di Studi Superiori, has been sounding Professor Murri of Bologna as to his willingness to accept the vacant post. At the prospect of seeing their own seat of learning deprived of an exceptionally able and effective colleague, the Bolognese professors have met in council and agreed to frame an address urging Professor Murri to let no inducement tempt him to prefer the Florentine chair to that in which he has won such honour for himself and for Bologna. So matters at present stand—the Bolognese students adding their voice to that of their professors for the retention among them of a teacher so difficult to replace. We believe no action on either side will be taken till the close of the month, when Professor Murri will have returned from Carlsbad.

#### THE ANNUAL GENERAL MEETING OF THE ASSOCIATION OF FELLOWS.

THE Association of Fellows of the Royal College of Surgeons of England held its annual meeting on Thursday at 5 P.M., at the rooms of the Zoological Society, 3, Hanover-square, Mr. Holmes, Vice-President, in the chair. Among those present were Mr. Alban Doran, Mr. John Tweedy, Mr. Allingham (sen.), Mr. G. F. Helm (Cornwall), Mr. Vincent Bell (Southampton), Mr. Geo. Jackson (Plymouth), Mr. T. B. Keetley, Mr. Purnell, Dr. Collins and others. After the confirmation of the minutes a long and interesting speech from Mr. Holmes and the adoption of the report of the Committee, a resolution was unanimously passed to support Mr. John Tweedy at the election on the 7th inst. About fifty letters, postcards, &c., had been received from members who regretted their inability to be present. As we are going to press we reserve further notice of the meeting till next week.

#### CORNISH SANITARY ADMINISTRATION.

THE County Council have stirred up the question of sanitary administration in Cornwall and they have done well, for sanitary activity has never been a leading characteristic of this remote member of the sanitary body of Great Britain. Some of the annual reports of the medical officers of health are regarded as inadequate; others, by way of contrast, are held to be typical of what such reports should be and that prepared by Mr. J. Q. Couch on the Madron urban district is quoted *in extenso* as a pattern. The precise function of County Councils towards annual reports of medical officers of health has always been very obscure; such useful action as they have commonly taken on them has been the result of advice by a county health officer. Whether such an official exists in Cornwall is not clear. We read in the local press of the "honorary medical officer" to the county, but he comes in for some reflection too, for he is told that the committee of the Council fear he has given a more encouraging report on the sanitary condition of St. Ives than the circumstances warrant. The whole story of the Council in this matter is really somewhat difficult to understand.

## FOREIGN UNIVERSITY INTELLIGENCE.

*Athens.*—Dr. R. Nicolaides has been promoted to an Extraordinary Professorship of Anatomy and Physiology.

*Basle.*—Dr. A. E. Burckhardt has been promoted to an Extraordinary Professorship of Hygiene.

*Bern.*—Dr. W. von Speyr has been promoted to an Extraordinary Professorship of Mental Diseases.

*Breslau.*—Dr. J. Kolaczek has been promoted to an Extraordinary Professorship of Surgery.

*Ghent.*—Dr. van Imschoot has been appointed to give the lectures on clinical surgery which have hitherto been given by Dr. F. Soupart, Emeritus Professor.

*Greifswald.*—Dr. A. Kruse has been recognised as *privat-docent* in General Pathology and Morbid Anatomy.

*Munich.*—Dr. Moritz has been appointed Extraordinary Professor of Medicine, with charge of the Policlinic in the Reisingerianum.

*Vienna.*—The following promotions to Extraordinary Professorships have been made:—Dr. Englisch, Surgery; Dr. Bergmeister, Ophthalmology; Dr. Hochsetter, Anatomy; Dr. Kolisko and Dr. Paltauf, Morbid Anatomy.

*Warsaw.*—The Medical Faculty has selected for the Lectureship on Surgical Pathology Dr. M. A. Vasalieff, chief Surgeon of St. Roch's Hospital, and for the Lectureship on General Pathology and Therapeutics, Dr. M. K. Zénets.

THE following invitation has been issued to the Fellows of the Royal College of Surgeons along with their voting papers:—"The President and Council invite the Fellows to meet them in the Theatre of the College on Thursday, July 7th, at five o'clock P.M., after the conclusion of the Election to the Council on that day."

DR. A. P. LUFF, lecturer on medical jurisprudence at, and physician to, St. Mary's Hospital, has been appointed Official Analyst to the Home Office, in the place of the late Dr. Meymott Tidy.

## REPORT OF

## The Lancet Sanitary Commission

ON THE

## WARMING AND VENTILATING OF PRIVATE DWELLINGS.

THE best practical application of the principle of warm walls and cold air is undoubtedly the house which M. Somesco, Civil Engineer, has built for himself at Creil. We were fortunate in visiting M. Somesco on a day when a strong north-easterly gale was blowing. Wind creates greater difficulties than cold; but on this occasion we had both wind and cold. It is important to note that M. Somesco's house is built on marsh land. On both sides of the house there is a river and but for the construction of embankments flood would constantly occur in this spot. It was necessary to dig six feet below the level of the cellar floor to find a foundation. As much masonry had to be placed under the house to form a foundation as would have sufficed to build it. The garden, in the midst of which the house stands, was also artificial. Nor is there any shelter from the winds. The house stands alone in the midst of what is now a garden, but which used to be a dismal swamp. The system of warming and of ventilation has therefore been tested under the most trying circumstances. In shape M. Somesco's house is square, measuring twelve metres. It has cellars, two floors and above these under the roof a large sort of hall which serves as a billiard-room. The hollowed walls are 55 centimetres thick. The external wall is 22 centimetres and the inner wall 11 centimetres, so that

there is an intervening space between the walls of 20 to 22 centimetres. These walls are made with porous bricks, but in the basement the walls are massive. The house is like one box inside another box with a space of four to five inches between the two boxes.

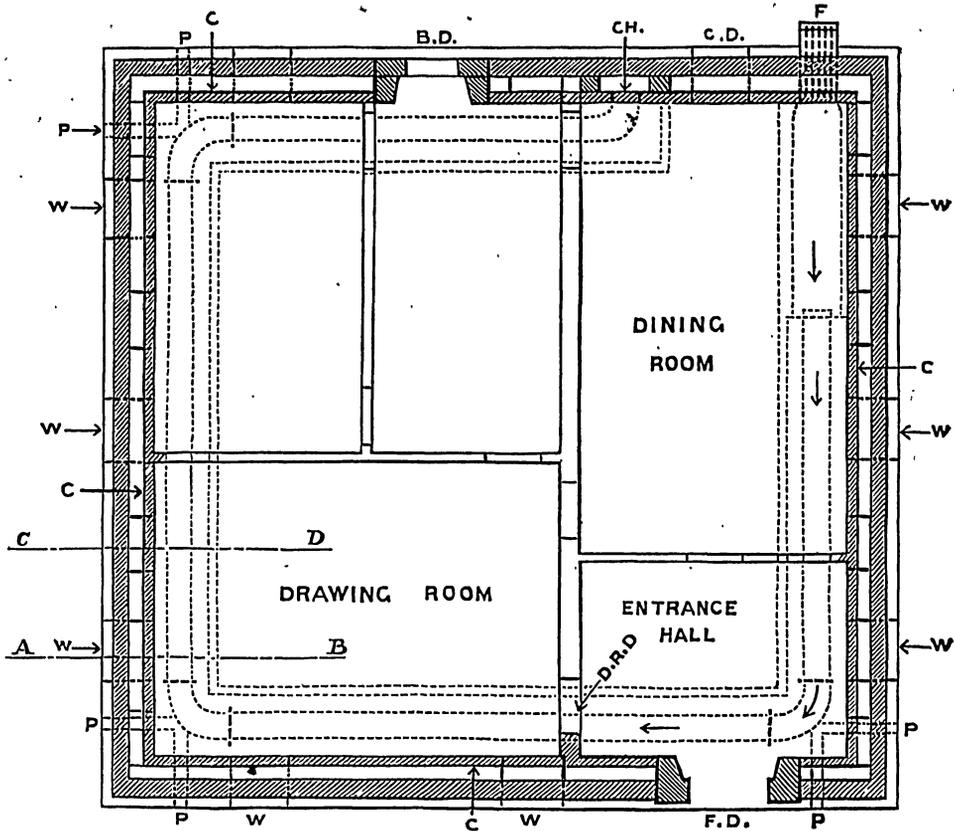
Outside, at the back of the house, there is an ordinary coal furnace. The smoke and heat from this furnace pass into a chamber built in the cellar of the house, measuring about six feet in length and not quite two feet square. From this heat chamber and going all round the outer walls of the cellar there is an enclosed passage. Suspended in the centre of this passage and also going the whole way round the house is a metallic flue of more than a foot diameter (35 centimetres internal and 37 centimetres external diameter). This serves as a chimney and draws off the smoke and the heat from the furnace and heat chamber, travelling horizontally round the four sides of the house; and then, when it is nearly back to the furnace, the flue opens into a chimney, the smoke and what heat remains go up vertically to the roof. In other words, the basement of the house is surrounded by a narrow closed passage, in the centre of which is suspended the flue or chimney from the furnace and this flue serves to warm the air in this passage. To keep the cellar cool and to retain the heat that goes round the cellar the wall of this passage is covered over with "sluck wool" or "silicate cotton," as it is sometimes called, which is considered a better non-conductor than asbestos. All round the house communicating with this hot-air passage there are inlets of fresh air from the garden, which measure eighty by fifty centimetres and are protected by metallic gauze or webbing. If the wind is very violent a coarse canvas may be hung in front of these air inlets on the windward side of the house. There are ten such inlets, the fresh air being delivered, as will be seen in the sectional drawing A B below the hot-air flue. The pipe or flue rests on iron bars and on a socket that permits the easy dilation and contraction of the iron with which it is made. The drawing C D shows how the air warmed in this passage ascends into the space between the two walls of the house. There are a number of these openings into the hollow of the wall all round the house.

The temperature in the hot-air passage varies from 114° to 122° F. This suffices to bring up the temperature of the inner wall on the ground floor from 86° to 92° F. The temperature of the inner wall decreases by about one degree centigrade per metre of height. Thus if the wall on the ground floor level is at 35° it will be 32°C. on the level of the first floor, which is three metres higher up. The hot air that travels up the hollow of the walls comes out in the large attic under the roof of the house. If this air is warmed to from 114° to 122° F. when it enters the space between the walls it will have fallen to about 104° F. as it emerges from the wall into the attic. From this attic the hot air filters into the open through the porosity of the roof and by the various openings, chinks, &c.

Much of the success of this experiment depends upon the porosity of the walls. Every precaution is taken not to interfere with this porosity. There is no plaster work put on the walls and there is no paint or paper. A light wooden frame is nailed on to the walls and from this tapestry—that is, a tissue, as far as possible a woollen tissue—is suspended and replaces paper. Some hangings of this description can be obtained that are hardly any dearer than good paper, and though for artistic purposes expensive woollens are employed, the expense in the long run is not great, for the cloth lasts an indefinite time and, unlike paper, can be taken down and cleaned. It also contributes very materially to maintain the warmth of the walls. M. Somesco has now lived in this house for some years. Without the aid of fires, when the windows were shut, he has never known the temperature of the rooms fall below 54° F. and this during the hardest frost. If the windows were thrown wide open the temperature indoors would not fall below 39° F. in spite of the frost. The air coming through the windows is absolutely cold and frosty, but the thermometer rises under the influence of the heat radiated from the walls. There is a fireplace in each room, though fires are very rarely lighted. When, however, it is very cold weather and the windows have been open for a long time, then it is expedient to light a fire for an hour or so. As there is no loss of heat through the coldness of the walls the room is warmed in a very short time. On the day of our visit the drawing-room windows had been open for two hours and as the weather was very cold a fire was lighted, but soon the fire was let out, the room was too warm, the thermometer marking 78° F. We left the drawing-room for some time. We opened the front door leading to the garden and the drawing

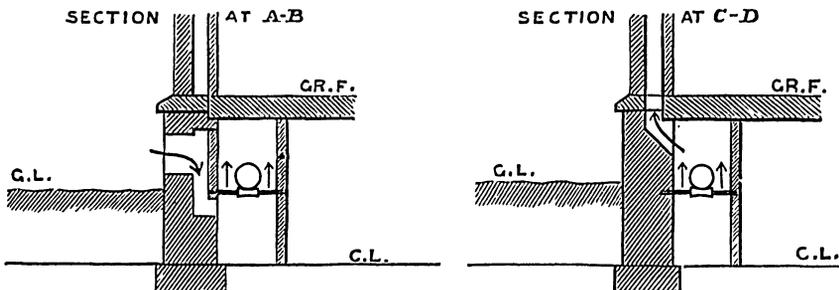
PLAN OF GROUND FLOOR AND BASEMENT OF M. SOMESCO'S HOUSE AT CREIL, OISE, FRANCE.

PLATE No. 1.



The dotted lines indicate the warming flue passing down the centre of the hot-air passage in the basement of the house. The plan gives the walls underneath the windows and indicates the space for hot air between the outer and inner wall. C C C, The hot-air space between the walls. C D, The door from the garden into the basement. B D, The back door. F D, The front door. D R D, The door from the entrance hall to the drawing-room. F, The furnace lit in the garden outside the house. The arrows from the furnace indicate how the smoke and hot air pass horizontally round the house till they reach C H, where a chimney carries the smoke vertically up to the roof. P P P P, Apertures through which brushes may be passed from the garden into the smoke flue to clean away the soot. w w w w, Position of the windows.

PLATE No. 2.



Section A-B, Showing inlet of air into the basement passage where the air is warmed. G. L., The ground level of the garden. c. L., The ground level of the basement or cellar. GR. F., The parlour floor or first floor of the house. The inlet of air as indicated by the arrows is below the smoke flue, which is suspended in the centre of the passage, so as to warm the air in this passage.—Section C-D, G. R., Shows the outlet of the air above the smoke flue. The air warmed by contact with this flue passes upwards in the intervening space between the inner and outer walls of the house, so as to warm the entire substance of the walls.

room door, which was from four to five feet from the front door. Thus the fresh air from the garden blew freely into the drawing-room. Yet, and though there was now no fire, the radiation of heat from the walls was such that the thermometer marked 66° F. In the garden the temperature was below 50° F. and a strong north-easterly gale was blowing. Thus we wore while indoors breathing cold, pure air from the garden.

We have seen that M. Somesco's house was built on a swamp; and yet the principal, if not the only, inconvenience from which he has suffered is extreme dryness. We visited other houses in the neighbourhood and found the walls stained by the damp to a height of six or seven feet; some of M. Somesco's furniture and other objects were spoiled because the wood had split in consequence of its extreme dryness. To counteract this inconvenience, M. Somesco has been obliged to place a large number of plants in different parts of the house, a measure which, however, adds considerably to the charm and beauty of the place.

The heat and dryness thus secured cost M. Somesco ten tons of English household coals per annum. His house has fourteen rooms and ten persons could live comfortably in it. The cost would then be one ton of coal per head per annum. But then it must be noticed that the furnace and the system of warming the passage round the basement of the house are somewhat roughly contrived and that more economical methods of obtaining the necessary heat could be easily devised. Then it must also be noted that it is not a question of warming one room or a portion of a room, but that the entire house is equally warmed, and warmed to such an extent that doors and windows are constantly opened and this in spite of the exceptionally cold and damp nature of the surrounding soil and the exposed position the house occupies.

Over and above all these considerations M. Somesco maintains he has realised the ideal that a dwelling should be like our clothes, only not portable, but permeable. It should be warm, because it should be made of materials that are bad conductors of heat. Indoors we should possess means of counteracting the chilling effect of the outer air. We ought to live indoors as we live out of doors and we should consider our house merely as if it were an extra great-coat. The coat, if porous, will be warm and healthy. One of the reasons, he says, why we are apt to feel uncomfortable when it rains is that the rain blocks up the porosity of the walls and that, too, on the windward side. As for microbes, M. Somesco proudly pointed to the artistic drapery which covered the bare bricks of his porous walls. "These are," he exclaimed, "my microbe traps. If I have any reason to believe that injurious microbes have been introduced into my house, I know pretty well where to find them. It would take but little time or trouble to unhook all this drapery, to put it in the disinfecting stove and there superheated steam under pressure, without injuring the cloth, would assuredly kill the microbes. Even without these artificial methods of purification, if the walls were porous, oxygen would go wherever the microbe went and nature would effect its own cure." How far a porous wall can filter and purify air, as earth filters and purifies sewage, is a matter which has not yet been investigated. He is of opinion that if we leave our walls alone and do not block them up with paint and paper we have for ordinary house walls in ordinary weather two cubic feet of air going through every square foot of wall in the course of an hour and this is probably enough to ensure the sufficient oxidation, if it goes on at all, of the materials of which the wall is made. Further, the porosity of the walls must also materially assist in the ventilation of the room which they surround. It was M. Somesco's delight to think that even when the doors and windows of his house were shut the pure air of his garden was blown upon him through the porous walls.

M. Somesco's house can of course only be taken as an experiment. The principles of which it is a practical application have not yet been adopted by the public. Already a private house is in the course of construction at Beauvais built on the same principles and they are also to be applied to the military hospital at Madrid. To sum up these new theories and methods, the teachings of M. Trélat, the practical experiments of M. Somesco, suggest that the natural porosity of our walls, especially the outer walls, should not be destroyed. These walls should be decorated, not with paper and paint, but with porous non-conducting substances, such as woollen drapery. The outer walls on the side nearest to the inner surface should be hollowed throughout, thus constituting a double wall with a space of about four inches between the two walls. A heating contrivance of

whatever description may be found most expedient or economical should be placed in the basement of the house. A warm air chamber or shaft travelling round the base of the outer walls should supply to the hollow in the walls air taken from the outside and warmed at the point of admission into the wall to a temperature of from 100° to 120° F. This should maintain the temperature of the inner wall at from 80° to 90° F. Then, he considers, the walls will radiate sufficient heat through the rooms to enable the inhabitants to constantly open the doors and windows and to breathe cold, fresh, outer air without inconvenience. As a rule fires will be unnecessary, dampness will be completely banished from the house, and to maintain some moisture in the air it would, he thinks, be expedient to decorate the house with numerous evergreen plants. The inhabitants should then be able to benefit by unlimited ventilation and could breathe pure, cold and fresh air coming upon them directly from the outside.

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## THE LANCET

### Special Analytical Commission

ON

## ARSENICAL WALL-PAPERS.

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SEVERAL authenticated cases of chronic arsenical poisoning by wall-papers as well as by such domestic articles as chintzes, cretonnes, table-cloths, lamp-shades, tapers, &c., are to be found in the columns of THE LANCET from the year 1860 to within a few years ago. Consequent on the publication of these cases the profession and the public have been vigorously warned again and again in our columns to exercise the utmost caution in the choice of a paper intended for decorative purposes and the attention of manufacturers has repeatedly been called to the fact that they were responsible in some measure for the mischievous and oftentimes alarming symptoms arising from the presence of arsenic employed in the preparation of the paper. Specimens of paper analysed in and about the years 1870 and 1880 were found to contain, in some instances, as much as from nineteen grains to forty-five grains, or even more, of arsenious acid to the square yard. It will be remembered that arsenic entered very definitely into the composition of certain colour compounds then only available for the purpose. Thus Scheele's green, which was at that time largely employed, is a definite compound of arsenic with copper known to chemists as copperarsenite  $\text{CuHAsO}_3$ . Schweinfurth green, again, or acetoarsenite of copper, is another example of a definite compound containing arsenic. Out of sixty papers analysed in 1877 only ten, as is recorded in THE LANCET, could be regarded as harmless in this respect; but in spite of many warnings impressed by precept and experience arsenical pigments continued to be used down to 1888 to 1889. Since this time, however, less has been heard of cases of chronic arsenical poisoning referable to this cause, although instances are forthcoming now and again. In the interest of public health we have been led, therefore, to reinvestigate this subject, to ascertain whether any improvement in the manufacture of papers has since been effected. As already pointed out, green papers have in past years most commonly contained arsenic, because with copper it forms the beautiful but dangerous pigment, Scheele's green. According to the results of a recent examination we have made, we found that in no case had this pigment been used; indeed we are inclined to the belief that the public may be fairly confident that papers of a green pattern generally contain no arsenic at all, as out of several samples examined no evidence of its presence was gained. Prejudice against a design in green rose high for reasons already cited and in the minds of many green is still the colour to avoid and the one most to be suspected. But on this very account alone manufacturers have studied this colour more than any other, with the idea of substituting for it a material equally effective and elegant, but free from any substance which could be regarded as injurious. This view is confirmed by the fact that excellent green pigments are now made without arsenic entering in any way into their composition. But, on the other hand, there may frequently

be traced small and variable quantities of arsenic in many of the dyes used in the staining process—as, for example, the anilines, for the manufacture of which arsenic is often employed. As a matter of fact, we have detected arsenic in minute quantity in lilac, marone and blue designs, probably not knowingly used, but nevertheless contained in the dye, which is doubtless bought by the paper-maker as a non-arsenical pigment. On this subject we have been furnished with some interesting information by Messrs. William Woollans and Co., who, as is well known, have for several years paid particular attention to the manufacture of absolutely non-arsenical papers. This firm assured us that although various manufacturers supply patterns guaranteed free from arsenic, yet on examination many of them are found to contain minute quantities of the poisonous metal. This is not wilfully introduced into the paper, but is contained in the dye, for the production of which arsenic is frequently employed. We have examined several papers so guaranteed and on the whole the results were fairly satisfactory. Where arsenic was found it was only in minute quantity, according to the exceedingly delicate test hereafter to be described. Other papers were obtained from the collections of various manufacturers bearing no guarantee at all, and arsenic in minute amount was invariably detected in these. Samples of papers were also secured, as varied in design and as elegant in pattern as the foregoing, but which were guaranteed to be coloured with *strictly* non-arsenical pigments. On examination such was actually found to be the case, no indication whatever of the presence of arsenic being afforded when the most searching test was applied. There is reason to believe that however intimately the steps, both in the process of the preparation of the paper and the colouring material, are known, it would not be strictly safe to guarantee them until the finished papers have passed this test. In fact, this is a precaution adopted by the firm already alluded to, who find that to be quite certain, although the paper is of their own manufacture, they must minutely and accurately test all those finished papers which are afterwards guaranteed to be absolutely non-arsenical. In the majority of instances of poisoning through the medium of wall-papers the quantity of arsenic found has generally been sufficient to establish with little doubt the *fons et origo mali*, but we do not think now—and we note it with considerable satisfaction, as THE LANCET in past years has not failed to condemn the use of arsenic in the pigment of wall-papers or to point out the dangers likely to arise from their use—that respectable manufacturers use arsenic at all, at least knowingly or willingly. Turning to the numerous analyses we have recently made, some papers were found to contain arsenic in varying minute quantity and others to contain absolutely none. The question therefore arises: Is the presence of arsenic, however slight the amount, to be tolerated at all? The test we have relied upon, and which is according to our experience the best and most delicate, is a modification of that known as Marsh's test. It consists in generating hydrogen from a mixture of perfectly pure sulphuric acid, water and zinc in contact with the suspected substance in a flask provided with a long funnel and delivery tube. The delivery tube is fitted with a drying tube containing calcium chloride and to this is attached the depositing tube, which is a glass tube six inches long and of one-eighth of an inch calibre. The purity of the materials having been ascertained by a blank experiment, a piece of the paper five inches square, cut up into small pieces, is introduced into the flask and a steady evolution of hydrogen gas is allowed to proceed until the whole apparatus is filled with gas. On now heating the depositing tube in the middle with a spirit lamp a metallic arsenical mirror varying in intensity as regards lustre and colour will be produced if arsenic is present.

Proceeding in this way with a score or so of samples and operating on five square inches of paper, deposits were obtained varying from a light, almost imperceptible brown to a blackish, but not opaque, lustrous stain. Now in experiments with a very weak standard solution of arsenious acid we were able to detect very readily  $\frac{1}{1000}$  of a grain of arsenious acid; and this amount, small though it be, gave a distinct black lustrous, though hardly opaque, deposit. Probably therefore not more and considerably less than  $\frac{1}{1000}$  of a grain of  $As_2O_3$  occurred in the quantity of paper experimented with above, as no more intense deposit than that yielded by this amount was in any single instance obtained. Is this quantity of arsenic in wall-paper likely to be injurious? One can hardly think so; but at any rate, if any doubt existed at all, and to be

quite positive (for there is no reason why the quantity of arsenic should not be subject to serious variation), wall-papers of excellent design can be secured which stand this test perfectly, and inasmuch as the delicacy of the test is such that  $\frac{1}{1000}$  of a grain even produces a distinct stain, such paper may be confidently regarded as absolutely non-arsenical. A paper yielding when tested under the conditions described above, a distinct black and lustrous deposit which is sufficient to cut off at any point a black line on a white ground, technically known as thick rule (eight to pica), would be condemned according to a rule fixed by many eminent authorities and perhaps on the whole it is a useful and justifiable standard. Very great care has to be exercised in carrying out this test, and on no account should it be performed until the absolute purity of the materials (zinc, acid and the glass of the apparatus) has been determined.

To sum up, one interpretation would appear to lend itself to the foregoing results. Owing doubtless to the action of the medical profession in unanimously condemning the practice of employing arsenical colours in wall-papers—an action in which THE LANCET took no small part—wall-papers loaded with arsenical pigment have apparently become a thing of the past, for amongst many specimens obtained by us from several respectable makers, those containing any arsenic at all contained it in almost imperceptible quantity, while others gave no response to a test which serves to detect the one fifty-thousandth part of a grain. Notwithstanding all this, it is necessary that a careful examination of wall-papers selected haphazard should from time to time be made in order that this satisfactory state of things may be maintained.

## DANGEROUS DIABETIC FLOURS.

IN order to ascertain by chemical analysis whether a flour is suitable for the use of diabetic patients a weighed quantity of the flour is taken and the carbo-hydrates converted into glucose by treating it with sulphuric acid in an inverted condenser for a few hours and then estimating the amount of glucose by the alkaline copper test. This process with care gives absolutely reliable evidence.

Some of the foods which have been advertised of late and especially American foods claiming to be "mainly free from starch," have, according to this test, been shown to be absolutely pernicious as diabetic foods. Our attention was directed to the fact that one specimen in particular which was advertised in the columns of THE LANCET had no claim whatever to the qualities ascribed to it, and we therefore submitted samples to analysis, and have ascertained that the so-called gluten flour contains over 66·60 per cent. of starch and the other, the so-called diabetic flour, over 62·00 per cent. of starch. That is to say, the quantity of glucose yielded on conversion or acid digestion is not a whit less than that similarly yielded by normal wheaten flour. The tests were performed again and again with varying amounts of flour, so that there cannot be the least doubt about the results.

One firm—that of Messrs. Farwell and Rhines—invited medical men to send for samples of these flours free of charge. The microscope showed them to contain wheat-flour granules in abundance. The preparations are made so as to simulate the appearance of gluten flour, for they are prepared in a fine granular form. A pamphlet is issued to the members of the medical profession and the preparations are even claimed to be recommended by the profession. Patients are under the impression that they are taking the proper diabetic food when in reality as bad a food for the disease as ordinary wheaten bread is being consumed. We have evidence before us of many instances of positive harm arising endangering the life and health of diabetic patients to an enormous extent. The effect of such foods is that patients who ought to have had little or no sugar in their urine according to the regimen adopted when under treatment have had large amounts of sugar accompanied by severe and marked symptoms of the disease. They have asserted that they have been taking the restricted diet, which has been absolutely contradicted by the state of the urine and their symptoms, and upon inquiry and investigation it has been found that they have been making use of the American flour under the

impression that it consisted of the proper gluten flour as supplied by the approved gluten food makers in London.

Whatever view of the nature of diabetes is held—and there is by no means unanimity on the point,—there can be no question at all as to the desirability of reducing the amount of carbohydrate food in the diabetic to the fullest possible extent. The doctrine, for instance, of faulty action of the liver, that of hyperglycogenesis and the like, is necessarily bound up with the amount of glycogen-forming material that finds its way into the portal circulation. Or if, as Dr. Pavy holds, the essence of the disease is due to defective assimilation of the carbo-hydrate element of food, the argument for restriction of diet is even more obvious. For on this doctrine the carbo-hydrate principles of food, instead of passing in their proper direction towards utilisation or consumption and disappearance in the system, in diabetes, through defect of their chemical transformation, simply run—through the influence of ferments with which they come in contact—into sugar, which, reaching the general circulation, will pass off by osmosis into the urine. It does not signify in the slightest degree what carbo-hydrate is given, the result will be the same. In giving carbo-hydrate food in this disease, not only is the food perfectly useless to the patient because it cannot be properly assimilated, but it produces an absolutely pernicious effect by reaching the general circulation and inducing at once an abnormal condition. In diabetes the blood in the general circulation contains sugar quite in proportion to the amount of the carbo-hydrate which has been ingested with the food and as the food of the general circulation becomes charged with sugar, so in proportion will be the deviation from the normal state, and in proportion to the deviation from the natural state of the food, so will be the failure in health and the symptoms of the disease. Of course this is true only up to a certain point, for under some conditions the dietetic restrictions are neither well borne nor efficient, and the physician may feel compelled to remove them in the interest of his patient; but such cases are exceptional.

#### THE REPORT OF THE PROCEEDINGS OF THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

“A FURTHER ACCOUNT of the Proceedings of the Association of Fellows of the Royal College of Surgeons of England from March, 1890, to June, 1892,” has, as we stated last week, been issued and sent to the Fellows of the College. During the period specified the Committee of the Association has been actively engaged in carrying out the policy approved by the Association for advancing the interests of the Fellows of the College. “The Committee has held twelve meetings, there have been three general meetings of the Association, eight or nine meetings of subcommittees appointed for various purposes, and a deputation from the Association has held a conference with a committee of the Council of the College of Surgeons with very satisfactory results.” The main efforts of the Committee have been concentrated on endeavouring to secure for the Fellows the privilege of meeting within the walls of the College and of being convened separately from the Members to deliberate upon the affairs of the College. The proposals of the Committee expressed through a deputation were at first met with the statement that the solicitor of the College had given it as his opinion that under the existing charters this course of action would be illegal, but in the end the Council of the College submitted the matter to the Attorney-General and Mr. John R. Paget. The opinion given, which was dated Dec. 22nd, 1890, did not sustain that of the solicitor of the College, the first sentence affirming that “no legal objection exists which prevents the Council of the College granting the use of the College premises to either the Fellows or the Members for a meeting for purely consultative purposes.” “In view,” however, “of the pending litigation before Mr. Justice Stirling,” it was considered unwise “to permit a meeting of any section of the College except in the cases expressly provided by the Charter and By-laws.” In accordance with this opinion, the Council of the College resolved not to “take any action in reference to separate meetings of Fellows until the decision of the action Steele

v. Savory.” More than a year elapsed before the action was settled in favour of the defendants and soon afterwards the Council appointed a committee to consider what further advantages could be extended to the Fellows. The report of the Committee, which was adopted by the Council, recommended that meetings of Fellows apart from the Members should be held when the Council deemed it desirable, with or without a requisition from the Fellows and the Fellows have now been invited to meet the Council at 5 P.M. on the day of the ensuing election on July 7th. This result is in large part due to the Committee of the Association of Fellows. On more than one occasion it has been necessary for the Committee to formulate and to bring forward at general meetings resolutions expressing regret that the Council of the College had not consulted the Fellows before taking action, as, for instance, in regard to the scheme for the reconstitution of the University of London and the scheme for the fulfilment of the five years' curriculum. The proposals of the Committee of the Association for simplifying and improving the method of distribution and reception of voting papers resulted, as opinion was equally divided in the Council of the College, in the appointment of a committee to consider the existing rules. The necessity for altering and amending the by-laws, in order to effect the object in view, turned the scale against the proposals, but probably at no distant date these proposals may be accepted and the by-laws altered. The request of the Committee of the Association that the Council would grant to the Fellows a common room in the College has resulted in the adoption by the Council of a resolution to the effect—“That the room adjoining the secretary's office now forming a part of the library not used by readers be furnished as a common room for the use of the Fellows and Members of the College.” Legal opinion was adverse to the appropriation of a room in the College for the exclusive use of a section of the Members of the College. Into the other subjects dealt with in the report it is not necessary to enter. The cardinal fact remains that owing, we may hope, to our own repeated representations and to the perseverance of the Committee of the Association steps have been taken by the Council of the College to establish more satisfactory and intimate relations between the Fellows of the College and the Council. A new departure has been made and it rests with the Fellows of the College generally to improve their position by united action at the meetings of Fellows which will soon be inaugurated. A large accession of numbers to the ranks of the Association and the success of its candidates at the election at the College would speedily be followed by further concessions, which would place the Fellows of the Royal College of Surgeons in a similar position to that enjoyed by the Fellows in the other professional colleges in the United Kingdom.

#### IMPROVED FACILITIES FOR CONTINENTAL TRAVELLING.

##### THE DIEPPE ROUTE.

THE increasing number of travellers between England and the Continent renders any improvement that can be effected in the Channel service a question of considerable importance. Progress has been achieved by leaps and bounds. For instance, if we take the three main routes—Dover and Calais, Boulogne and Folkestone, Newhaven and Dieppe—we find that the number of passengers between England and the Continent by these three routes amounted to 347,923 in 1884. During the year of the great Paris Exhibition the number of passengers was nearly double and attained the extraordinary high figure of 642,465 for the three routes. In 1880 there were 450,779 and in 1891 454,538 passengers. These passengers travelled during the Exhibition year in the proportion of 53.90 per cent. by the Calais route, 17.42 per cent. by the Boulogne route and 28.68 per cent. by the Dieppe route. This latter route found special favour during the Exhibition year and its percentage rose much above the normal. In the previous year (1888) only 17.54 per cent. of passengers went by Dieppe. Those who, for special and temporary reasons, went by Dieppe during the Exhibition year were evidently favourably impressed, for the percentage of passengers going by that route has steadily increased ever since. Thus the percentage of passengers by Dieppe was equal to 21.55 in 1890 and

23 03 in 1891. The statistics of continental travel clearly establish that the Calais and Dieppe routes are becoming more and more appreciated every year. The Calais route will always enjoy the largest patronage because, apart from all other considerations, it involves the shortest sea journey. The new steamers have now crossed from the Calais pier head to the Dover pier head in one hour and ten minutes. Formerly the passage from Newhaven to Dieppe took as long as seven hours in crossing and has sometimes occupied nine hours. The ships were small and narrow and those passengers who were subject to sea-sickness suffered terribly. The route therefore acquired the reputation of being only suited to good sailors and certainly invalids would scarcely venture upon such a journey. Nor were the ports of Newhaven and Dieppe all that could be desired. Consequently in very bad weather there were delays in the departure of ships. Now, however, both ports have been considerably improved; a magnificent breakwater has been built at Newhaven, which effectually shelters the entrance to the port from south-westerly winds while the cliffs close by, at Seaford, break the force of easterly winds. At Dieppe dredging operations, carried out on an extensive scale, render the entrance easy even at low tide.

Of more importance than this consideration is the great improvement effected in the character of the ships now employed on the service. In 1882 two new ships were put on the line. These were called the *Brittany* and *Normandy*. They measure in length 231 feet and their registered tonnage is 240, which is equal to about 520 gross tonnage. These ships have a shallow draft, 7 ft. 6 in., and can carry 578 passengers. In 1888 two ships of a larger model were added to the fleet. These are the *Paris* and the *Rouen*. Their length is 250 feet, their draft 8 ft. 2 in.; their registered tonnage is 326, which is equal to about 700 gross tonnage and they can carry 706 passengers. All these four ships are fitted up in a luxurious manner. They have deck cabins and an upper deck which constitutes a very favourite lounge for passengers. But what is of greater value than all such qualities is the fact that these ships effect the passage in four hours. Indeed, when the season is favourable, and more particularly in the months of July, August, and September, the passage is often accomplished in three hours and a half. Another ship was added to the line last year. This was the *Seine*, and she differed from the other ships inasmuch as she possessed double screw propellers instead of paddle wheels. The *Seine* has effected the passage in three hours and eleven minutes. But nevertheless the venture cannot be spoken of as a success. The speed is unequalled, but in consequence of the shallow harbours the draught is slight and is insufficient to secure steadiness. Therefore there have been so many complaints that the *Seine* was sent into dock for structural alterations with a view of preventing the excessive rolling of the vessel. These new ships have been constructed in such a manner as to secure notable sanitary advantages. Care has been taken to warm and to ventilate the cabins. Under the seats and all round each of the cabins there is a copper coil which during cold weather receives the steam from the engine. Underneath the cabin table are openings through which air, brought down from the deck, enters. All round the ceiling of the cabin, close under the deck, is an exhaust shaft which communicates with the funnel of the steamer. Openings about two inches long and a quarter of an inch wide at a distance of about a quarter of an inch from each other are made by perforating the metallic sides of the exhaust shaft. Thus, all round the cabin the air finds a natural exit which is stimulated by the suction produced in the funnels of the steamer. We noted with pleasure that no difference whatever is made, in respect to warming and ventilation, between the first class and second class cabins. In like manner the closets and the lavatories are the same for both classes. The constructors of these ships have evidently recognised that it is as necessary to observe the laws of health for the poor as for the rich and as much pains are taken to give a plentiful supply of air to the second class as to the first class passengers.

The Dieppe route is now able to offer accommodation as commodious as can be found on any channel steamer. Of the three principal routes to the Continent, the Dieppe has the longest sea and the shortest railway journey. The journey from London to Newhaven is effected under two hours and that from Dieppe to Paris under four hours. The scenery on both sides is undoubtedly the prettiest that exists on any of the routes from London to Paris. On the

English side the passenger, by the payment of one shilling over and above the first class fare, can enjoy the luxury of travelling in a Pullman car. The railway officials are prepared to tender every assistance and facility to invalids travelling by this line. A sort of hammock has been made which can be affixed to the roof of the railway carriage in such a manner that a patient may be carried in his bed from London to the steamer. Finally we should not omit to mention that the ladies' cabins, both in the first and the second class, are of much larger dimensions than were considered necessary in the older steamers. Indeed the ladies' cabin used to be so small and so badly ventilated that many and bitter complaints were made. It is satisfactory to note that the grievances and the hardships attending the Channel passage are rapidly disappearing. Delicate persons need no longer entertain the fears that in the past were quite justifiable. The journey can now be accomplished with so much ease, comfort and rapidity that the apprehensions formerly entertained, when patients were recommended to go abroad, do not apply to the present improved services.

## THE TWENTY-FIRST GERMAN SURGICAL CONGRESS.

EARLY on June 9th the members of the Surgical Congress inspected the hospital at Moabit under the guidance of Professor Sonnenburg. At ten the second meeting of the Congress began in the Langenbeck House. Dr. Güterbock of Berlin showed a case of Empyema. The patient was a man in the prime of life. In the right side of the breast, from the armpit to the girdle, a deep depression was visible, with the operation wound, not yet quite healed, in the middle. The loss of ribs and of a large portion of the lung and the adjacent parts, however, had not in the least impaired the state of the patient's nutrition or the use of the right arm and his appearance was that of a man in excellent health. A considerable number of cases of the removal of tumours from the brain were then discussed and Czerny of Heidelberg expressed the opinion that trephining has a great future as a means of regulating intercranial pressure in mental disease. Pfeilschneider of Schönebeck showed several persons treated by him for fracture or comminution by suture, but this method was condemned by Bergmann and others and only partly defended by Trendelenburg. Küster of Marburg showed a boy in whom a ureter had been successfully resected for stenosis. Schlange of Berlin exhibited several persons who had been cured of actinomycosis. Eyselsberg of Vienna reported a case of this disease which had been cured by injecting tuberculin. Grawitz of Greifswald spoke on the changes of tissues in inflammation and their biological significance and König on the treatment of tuberculosis of the bones and joints, on which subject he is about to publish a book. In the course of the same sitting König proposed the erection in the Langenbeck House of a marble bust of Gustav Simon, who may be regarded as the real originator of the German Surgical Society, for it was he who persuaded the reluctant Langenbeck to found it. After the sitting the members of the Congress dined together in the Central Hotel.

On the 10th some of the members inspected the municipal Hospital am Urban under the guidance of Dr. Körte, others the Emperor and Empress Frederick Hospital under the guidance of Dr. Baginsky and Prof. Gluck, while others were present at a series of demonstrations with the projection microscope given by Dr. Barth of Marburg and Dr. Arthur Hartmann of Berlin. Hartmann's demonstrations had reference to the structure of the skull and attracted great attention. The Congress met at ten. Thiern of Kottbus showed a woman in whom the temporarily applied artificial anus had been reclosed after the healing of a syphilitic ulceration and stricture of the rectum. Trendelenburg followed with a case of flat-foot cured by straightening the foot after chiselling the bones of the leg just above the ankle. On the fact observed by him, that flat feet sweat excessively, Trendelenburg bases the theory that the morbid secretion of sweat is due to a condition of nervous irritation and that perhaps in flat-foot there is abnormal pressure on the nervus plantaris. Professor Albert Köhler showed a young woman who had suffered from stenosis of the pylorus. Before the operation she weighed less than 54 lb

The pylorus was cut out and a new one formed out of the adjacent parts. Half a year after the operation she weighed 84 lb. and now, though convalescence was interrupted by a surfeit followed by severe indigestion, she weighs over 127 lb. The operation-scar in the linea alba is quite firm and solid. The same surgeon showed several cases of amputation in which the patella had been grafted on to the chiselled end of the femur in order to round off the stump better. After Haassler of Halle had shown and commented on a case of gastro-enterotomy, Professor Kraus of Altona showed a woman whom he had cured of very severe faceache and headache by excising the fifth cranial nerve. Madelung of Rostock reported a similar operation performed by him—viz., the extirpation of the third branch of the same nerve. Seuger of Krefeld showed a woman with a burn the size of one's hand on her breast, which had baffled all attempts at cure, owing probably to self-injury on the patient's part. Thiersch related the case of a woman who had frustrated all the efforts of her doctor by always cauterising a skin-wound by means of a piece of caustic soda kept hidden in her dress. Bardenheuer of Cologne reported cases of resection of the upper and lower jaw. A cure of leprosy was also reported. The patient went to Cramer of Wiesbaden, who examined the nerves of the upper arm, and found them softened inside, with leprosy bacilli in them. He removed the smallest of the diseased nerves, split the other two lengthwise, and scraped all the matter out of them. The wound healed and the man was observed for two years. The arm was restored to use, and there was no relapse. After that no more was heard of him but that he had returned to Siam, where he had contracted the disease. Neuber of Kiel spoke of the aseptic treatment of wounds. By certain modifications of the aseptic method, one of which is the keeping of the walls of the operation room moist, he hopes to render the draining of operation wounds superfluous. His main aim is to prevent wound infection from the air of the operation room, which is especially to be feared when operations are performed before many spectators. Schleich of Berlin recommended the cleansing of the field of operation and the surgeon's hands with soap mixed with marble-powder and wax-paste. Arthur Hartmann exhibited his bone preparations and showed a dragoon who had been thrown on his head and dragged for some distance by his horse in the French war. Some years later he began to suffer from headache, which gradually assumed a very threatening form. He was sent from one doctor to another without result, till he came to Hartmann, who discovered suppuration in the frontal sinus. The cavity was opened, the pus removed, and the man permanently relieved.

The afternoon sitting began with a discussion of König's speech of the day before on the treatment of tuberculosis of the bones and joints. Bardeleben reported several cases of resection of the hip-joint in which the restoration of the use of the leg had been extremely successful. One of the patients, a boy, had raced with dogs and beat them. Schleich pointed to the fact that tuberculosis very seldom occurs in fatty organs and recommended the application of fats to tuberculous parts. Schuchardt of Berlin maintained that tuberculosis is transmitted by sexual intercourse. Gurlt then reported on the collective investigation set on foot by the society with a view to getting statistics of narcotisation. In the first year of the investigation 24,625 narcoses were reported, whereas last year, which was the second, 84,605, performed by sixty-two observers, were reported. Of the former number six cases resulted in death, of the latter thirty-three, but it is certain that many of these deaths were not due to the narcotic. In the two years in question the number of cases reported in which chloroform was used was 94,123, in thirty-six of which death ensued—i.e., in one out of 2614. The number of ether cases was 8431, in only one of which death ensued. In 2891 cases mixtures of chloroform and ether were applied and there was one death; in 1380 a mixture of ether and alcohol without deaths; in 2179 bromide of ethyl without deaths; and in 219 the new narcotic called pental with one death. It is pretty certain, however, that the last-mentioned death and that after the use of ether were not due to the narcotics. Among the chloroform cases there were 836 in which Pictet's crystallised ice-chloroform was used. This form of chloroform has a good record, as has also pental, which causes narcosis very rapidly and does not produce several unpleasant by-effects which chloroform does. Ether too has proved a first-rate narcotic. Bromide of ethyl produces only narcosis of short duration up to about three minutes and is therefore most used in dentistry. It is

inapplicable in cases in which laxity of the muscles is necessary, for it does not produce this effect. Bruns proposed that the investigation should be continued for another year on the ground that the material already collected is too scanty. This proposal was carried. König was elected chairman for next year's Congress and accepted the office.

Berlin, June 21st.

## HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

At a meeting, held in the clinical theatre of the National Hospital for the Paralysed and Epileptic on Thursday last, the Right Hon. the Earl of Strafford occupying the chair, Sir James Paget delivered an address in the course of which he said that there were two reasons why he had acceded to the request to speak at the opening of this theatre. He regarded it as a considerable honour to be able to take part in a work of so good a character and it had always been a great happiness to him to know that on the staff of this hospital were numerous and surgeons whom he was happy to call his friends and who were amongst the best promoters of the very highest knowledge in pathology, medicine and surgery and it would be a great happiness to him if he could help the progress of the hospital by speaking of the great good which he had accomplished. He knew of no hospital that had so perfectly fulfilled its purpose as this hospital, which had been associated with charity of the most perfect and hearty kind and with that there had been, as the chairman had pointed out, a constant carrying on of research and teaching, for in the great progress that had been made in the knowledge of the diseases of the nervous system no institution had contributed so largely, both by the opportunities for work which it had afforded and by the kind of work which had been accomplished through its agency. Never a year had passed since the foundation of the hospital without witnessing some distinct and definite increase in the knowledge of medicine and surgery in relation to the brain and the nervous system. If he had a right to speak at all in a place like that it was not for the direct promotion of charity—that could be done more eloquently by others—but he might speak of the way in which charity was dependent for its increase and perfection on the advancement of scientific knowledge. And in relation to that, if the operations now proposed and carried out by Mr. Horsley had been attempted before the foundation of this hospital, it would have been suggested that the brain of the proposer would be the first to require the operation. It was due to scientific inquiry carried on along two distinct lines—lines which seemed in no relation to one another and never likely to converge; and yet these lines had now met and had resulted in the saving of more lives than could now be told. The progress of the knowledge of the nervous system was due to continual inquiry both by scientific research and experiment and by continual clinical observation in the wards, especially in the wards of a hospital such as the National Hospital, in which there were collected large numbers of the rarest cases, such as no private practitioner or general hospital possessed, so that the method of scientific experimental inquiry and scientific medical observation were coöperating, each testing the other and each suggesting to the other what line of inquiry should be followed up in the respective fields of observation. By those means there had been added, year by year, more accurate anatomical and microscopical facts; electricity had been applied more scientifically, and the study of the nervous system had continued all that time, and with all this there had been a constant mutual discussion, each factor testing the value of the other's observation. After alluding to the progress which had been made in neurological science during the last thirty or forty years, Sir James Paget concluded by invoking the fullest blessings upon the hospital and upon the work in which, it is engaged, after which, on the motion of the chairman, seconded by Mr. Victor Horsley, a vote of thanks was passed to Sir James Paget; and on the motion of Dr. Buzzard, seconded by the Right Hon. H. Ryder, a similar vote of thanks was accorded to the chairman.

METROPOLITAN HOSPITAL SUNDAY FUND, 1892.

In addition to the returns published in our last issue giving the amounts collected in aid of the Metropolitan Hospital Sunday Fund, we have received notification of the following amounts. The returns are, of course, as yet incomplete.

	£	s.	d.		£	s.	d.
St. Michael's, Chester-square (Rev. Canon Fleming, B.D.), with additions	1208	15	3	Chigwell Parish Church (Rev. T. Marsden)	23	1	3
St. Jude's, South Kensington (Rev. Prebendary E. Eardley-Wilnot)	1004	10	0	St. Stephen's, South Lambeth (Rev. J. S. Pratt)	20	8	0
Christ Church, Lancaster Gate (Rev. J. C. Ridgway)	1000	17	4	St. George's, Bickley (Rev. R. Wood)	56	10	0
Sir Savile Crossley, Bart., M.P. (a further)	1000	0	0	Christlehurst Wesleyan Chapel (Rev. J. Clarke)	24	0	3
All Saints, Ennismore Gardens (Rev. Ravenscroft Stewart)	440	14	0	Christ Church, Hornsey (Rev. C. W. Edmonstone)	64	15	1
St. Mark's, Hamilton-terrace (Rev. Canon Duckworth, D.D.)	230	2	1	St. Dominic's, Haverstock-hill (Vory Rev. John Procter)	25	2	0
St. Matthew's, Bayswater (Rev. J. Fimer Sullivan)	100	11	0	Horbury Congregational Church, Notting-hill (Rev. H. Hazell)	24	14	7
All Souls, Langham-place (Rev. W. Hay Chapman)	132	10	2	Finsbury Park Wesleyan Church (Rev. J. H. Grubb)	20	4	5
St. Saviour's, Chelsea (Rev. L. C. Walford)	121	13	2	St. John the Evangelist's, Angell Town (Rev. Lancelot L. Sharpe, B.D.)	20	14	11
St. Thomas's, Portman-square (Rev. R. P. Thompson)	117	14	4	Chipping Barnet Parish and District Churches (Rev. D. W. Barrett)	40	7	9
The Theistic Church (Rev. C. Voysey)	107	0	0	St. Paul's, Camden-square (Rev. G. Tiley)	55	8	8
Christ Church, Hampstead (Rev. Geo. F. Head)	136	5	7	The Theistic Church (Rev. C. Voysey), with additions	110	10	6
Grosvenor Chapel, South Audley-street (Rev. W. Foster Elliott)	75	0	0	Westminster Aboey (Vory Rev. Dean Bradley), with additions	185	10	4
Earl of Feversham (a further)	50	0	0	All Saints, Ennismore gardens (Rev. R. Stewart)	470	14	0
Holy Trinity, Marylebone (Rev. A. T. Robinson)	62	4	4	St. Mark's, Hamilton-terrace (Rev. Canon Duckworth), with additions	230	2	1
St. Jude's, East Brixton (Rev. R. B. Ransford)	64	15	0	St. Stephen's, South Dulwich (Rev. J. Meek Clark)	151	2	4
St. Paul's, Wimbledon Park (Rev. E. C. Brace)	59	10	1	Portman Chapel, Baker-street (Rev. Marmaduke Washington)	134	3	1
St. Paul's, Forest Hill (Rev. F. Jones, B.D.)	105	0	3	Holy Trinity, Chelsea (Rev. Prebendary Eytton)	239	1	10
Christ Church, Mayfair (Rev. H. Rowsell)	103	8	1	St. George's, Hanover-square (Rev. David Anderson)	148	7	3
Roslyn Hill Unitarian Church (Rev. Brooke Herford, D.D.)	108	5	3	Christ Church, Streatham-hill (Rev. C. S. Nicholl)	106	10	0
St. Mary Abbott's Parish Church, Kensington, Mission Hall, and Open Air Collection	303	7	7	St. Mary's, Kilburn (Rev. J. Robertson)	102	13	7
St. Paul's (Kensington), Vicarage Gardens (Rev. the Hon. E. Carr Glyn)	80	6	0	St. Columba's, Post-street (Rev. Donald McLeod, D.D.)	102	12	10
Christ Church, Victoria-road, Kensington	82	13	4	St. Phillip's, Kensington (Rev. W. Smale)	107	2	4
St. James's, Holloway (Rev. E. A. Stuart)	80	19	0	All Saints, Martabet-street (Rev. W. A. Whitworth)	68	10	7
Holy Trinity Parish Church, Sydenham (Rev. H. Stevens)	104	0	0	Stamford-hill Congregational Church (Rev. J. M. Gibbon)	95	4	4
St. Barnabas's, Kensington (Rev. Prebendary Thornton, D.D.)	140	14	8	Christ Church, Highbury (Rev. W. J. Chapman)	88	0	10
St. James's, Kidbrook (Rev. J. C. Leeke)	108	8	4	St. Laurence's, Catford (Rev. E. C. Robinson)	26	0	0
St. Luke's, Chelsea (Rev. Gerald Blount)	45	10	0	All Saints, West Dulwich (Rev. J. Beaby)	36	10	0
St. Mark's, Regent's-park (Rev. W. J. Sparrow-Simpson)	25	3	3	St. Stephen's, Portland Town (Rev. F. K. Povah)	34	10	0
St. Stephen's, Ealing (Rev. E. S. Tupholme, D.D.)	91	10	4	St. Mary's, Merton (Rev. E. A. Kempson)	23	9	3
St. Paul's, South Hampstead (Rev. J. W. Bennett)	111	3	3	Willesden Presbyterian Church (Rev. James Durran)	27	10	0
Brixton Wesleyan Circuit (Rev. Enoch Salt)	95	14	10	St. Mary's, Leyton (Rev. J. Lunt)	22	5	6
St. Luke's, Nightingale-lane (Rev. C. M. Erskine Clarke)	41	2	11	St. Andrew's, Streatham (Rev. W. C. Cubison)	38	12	2
St. Paul's, East Molesey (Rev. G. E. Tatham)	23	0	4	Chapel Royal, Hampton Court (Rev. D. Lancaster McAnally)	76	4	4
Raid's Brewery Company (a further)	200	0	0	St. Mary Aldermary and Associated Churches (Rev. Lewis Borrett White, D.D.)	93	11	11
Bloomsbury Baptist Chapel and Mission (Rev. James Ballew)	44	10	9	All Saints, Woodford Wells (Rev. N. R. Fitzpatrick)	22	12	5
Clapham Parish Church (Rev. C. P. Greene)	78	8	8	Holy Trinity, Eltham-road (Rev. T. N. Rowsell)	44	12	9
Church of the Ascension, Blackheath (Rev. W. A. Moberley)	37	2	11	Camden Church, Camberwell (Rev. P. S. O'Brien, D.D.)	61	19	0
St. Augustine's, Queen's-gate (Rev. R. R. Chope)	94	0	0	St. Stephen's, Wandsworth (Rev. C. Caruthers)	50	0	0
Quebec Chapel (Rev. E. B. Outley)	184	0	7	St. John's, Pango (Rev. W. Smyly)	71	0	0
Christ Church, East Greenwich (Rev. Canon Baynes)	40	0	0	St. Augustine, Highbury (Rev. Rev. Gordon Calthrop)	64	0	2
Hendon Churches (Rev. N. W. J. Munt)	40	12	0	R. M.	1	0	0
Finchley Parish Church (Rev. S. Bardalay)	20	1	0	Christ Church, Brondesbury (Rev. C. Dale Williams)	60	5	9
St. Katharine, Royal Collogiate Chapel (Rev. The Master)	33	1	0	St. Mary Boltons (Rev. W. T. Du Boulay)	61	11	6
St. Augustine, Kilburn (Rev. R. C. Kirkpatrick)	58	12	8	St. Mary's, West Kensington (Rev. C. Bradshaw Foy)	51	10	0
Regent's Park Baptist Chapel (Rev. F. B. Meyer, B.A.)	58	10	10	St. Peter's, Streatham (Rev. H. Baron Dickinson)	50	10	6
Holy Trinity, Beckenham (Rev. S. Whitfield Daukes)	35	13	5	St. Saviour's, Aberdeen Park (Rev. J. Bicknell)	32	13	0
Hayes (Kent) Parish Church (Rev. G. Clowes)	20	10	11	Aldenham Parish Church (Rev. Kenneth F. Gibbs)	51	2	0
St. Mary Magdalene, Peckham (Rev. James Seaver)	22	5	0	St. Luke's, Redcliffe-square (Rev. W. F. Handcock)	31	6	8
Christ Church, Marylebone (Rev. E. Venables)	33	5	7	St. Margaret's, Lee (Rev. F. H. Law)	50	3	9
St. Paul, Upper Norwood, morning collection (Rev. W. H. Graham)	101	1	3	Chelsea Old Church (Rev. R. H. Davies)	21	10	1
W. T. Blandford, Esq. (a further)	20	0	0	Farm street Roman Catholic Church (Rev. T. Welsley)	36	8	3
Mrs. Alexander Black	20	0	0	St. German's, Blackheath (Rev. R. Hayes Robinson)	33	19	1
Roehampton Parish Church (Rev. R. Carrington)	52	17	8	Stammore Parish Church (Rev. F. C. Jackson)	42	8	0
St. James's, Piccadilly (Rev. Prebendary Kempe)	105	0	6	St. Matthew's, Upper Clapton (Rev. L. H. Bradford)	74	8	0
St. Gabriel's, Pimlico, and All Saints' (Rev. J. H. J. Ellison)	88	2	11	Clapham Congregational Church (Rev. J. Guinness Rogers, M.A.)	53	0	3
St. Saviour's, Poplar (Rev. J. Beardall)	26	5	0	Essex Unitarian Church, Notting-hill (Rev. R. S. Oakshott)	23	9	2
St. Saviour's, Southwark (Rev. W. Thompson, D.D.)	21	10	10	All Saints, Clapham-park (Rev. A. G. Childstone)	42	1	1
Thomas Ditton Parish Church (Rev. E. H. Rogers)	24	1	6	St. Saviour's, Pimlico (Rev. Henry Washington)	52	3	9
Tooting Graveney Parish Church (Rev. E. H. Morton)	22	0	0	Putney Parish Church (Rev. the Hon. R. Henley)	22	1	3
Highgate Presbyterian Church (Rev. Alex. Ramsay, B.D.)	27	14	3	St. John the Evangelist, Putney (Rev. the Hon. R. Henley)	50	1	0
Church of the Annunciation, Chislehurst (Rev. H. Lloyd Russell)	37	4	8	King's Weigh-house Chapel, Duke-street, W. (Rev. Alexander Sandison)	24	0	0
St. John's, Upper Norwood (Rev. W. F. La Trobe Bateman)	32	13	9	St. Phillip's, Buckingham Palace-road (Rev. W. C. Gibb)	20	4	1
Camden-road Presbyterian Church (Rev. R. M. Thornton, B.A.)	26	7	10	St. Paul's, Clapham (Rev. H. Hughes)	57	14	4
Christ Church (Reformed Episcopal), Harlesden (Rev. J. Anderson)	25	10	2	Christ Church, Lee (Rev. L. A. Smith)	38	4	2
St. Mark's, Tollington-park (Rev. Canon Hurst)	22	13	0	St. Saviour's, Paddington (Rev. M. Tweddle)	86	11	0
Islington Parish Church (Rev. W. P. Barlow, B.D.)	20	11	6	Christ Church, Woburn-square (Rev. J. J. Glendinning Nash)	27	10	0
St. Peter's, Norbiton (Rev. J. Hooker)	20	14	1	St. John the Evangelist, Blackheath (Rev. J. W. Marshall)	46	3	0
St. Peter's, Dulwich-common (Rev. H. J. Pulley)	52	0	0	St. Mildred's, Lee (Rev. F. W. Helder)	34	11	6
St. John's at Hackney (Rev. F. E. Gardiner)	50	5	8	St. Andrew's, Stoke Newington (Rev. H. E. J. Bevann)	26	1	0
				Royal Military Barracks, Wellington Barracks (Rev. R. Arnitage)	40	10	1
				St. Saviour's, Hampstead (Rev. G. A. Herklots)	21	18	3
				Box outside Mansion House, including cheque from J. H. Brown for £2 2s.	25	1	8
				St. Paul's, Shadwell (Rev. Edward Bray)	3	5	3
				St. George's Hospital (Rev. W. Edward Blythe)	2	10	0
				West Drayton Parish Church (Rev. A. W. S. A. Row)	8	5	10
				St. John's Church, North Woolwich (Rev. A. E. Clarke)	2	11	4
				Mr. Thomas Whitby, the Sweep, High-street, Boxley, Kent	0	10	0
				St. Alphage, London Wall (Rev. R. Wheeler Bush, M.A.)	4	0	0
				St. Anthony's Church, Stepney, E. (Rev. W. Gedde)	2	6	2
				St. John's Church, Drury-lane (Rev. E. W. Pownall)	5	2	0
				Mission of the Holy Redeemer, Stoke Newington, N. (Rev. J. A. Le Couteur)	4	0	0
				St. Mary's, Haggerston (Rev. A. Tanner)	4	15	5
				St. Nicholas National Church, Crown-court	1	7	0

Other subscriptions have been received, and will be announced in our next issue.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### ADDITIONS TO THE MUSEUM.

PROFESSOR STEWART, the Conservator to the Museum Committee, is to be congratulated on the success which has attended his labours in the arduous task of obtaining, completing, arranging and describing the very interesting specimens which have been added to the Museum during the past year. The additions to the various departments are more numerous and are probably of a more interesting character than Professor Stewart has had to report upon for any similar period and will, looking to the fact that they include specimens not hitherto in the Museum, prove of great value to the collection.

In the department of pathology the additions, which are numerous, include many specimens illustrative of common diseases, usually classed as medical pathology. It is pointed out by Professor Stewart that for obvious reasons that section of the Pathological Department does not receive proportionately so many contributions as others devoted to purely surgical subjects, and that an attempt has accordingly been made to supply deficiencies in this respect and to render the collection more uniformly representative.

In the pathological series may be mentioned as being of considerable interest the following specimens: Gummatous osteitis of knee-joint, presented by Mr. J. Hutchinson, jun.; bullet impacted in spinal column, presented by Mr. J. W. Hulke; diverticulum of œsophagus, presented by Mr. J. F. Chavasse; peri-œsophageal suppuration from sword-swallowing, presented by Mr. C. Crisp; and foreign body removed from the ear by means of mercury, presented by Mr. A. M. Sheild.

The additions also include a series of microscopical sections, taken from all the specimens of Madura foot contained in the Museum, presented by Mr. A. A. Kanthack, who is of opinion that the fungus found in this disease is indistinguishable from, if not identical with, actinomycosis hominis; and from an independent microscopical examination of the same specimens Mr. J. H. Targett, we understand, is able to support this conclusion.

The cabinet of calculi presented by Sir Henry Thompson, and which now contains one thousand calculi, will prove interesting to many medical men, as it contains a full description of each case.

In the comparative anatomy section over one hundred skeletons and skulls of various mammals, mostly new to the collection, which were presented by the late Sir Victor Brooke, form a most valuable addition to the department. This section includes also two specimens of the remarkable somewhat mole-like marsupial, *Notoryctes typhlops*, which excited so much interest last year; this was presented by Professor E. C. Stirling.

We also note the large and interesting series of additions to the groups of symbiosis and commensalism exhibited at the last soirée of the Royal Society. The additions altogether in this physiological series are of very great interest and importance.

Not the least interesting exhibit is to be found in the additions to the anthropological series, which are numerous, attention should specially be directed to the series of thirteen skeletons and twelve skulls of Ancient Egyptians belonging to the fourth dynasty (not later than 4000 B.C.), presented by Dr. Flinders Petrie.

Looking to the fact that there are so many valuable additions to the collection and also the limited time that the collection is on view—namely (as we announced last week), July 5th, 6th, 7th and 8th—we may strongly advise all who are interested in these professional and scientific subjects to take the opportunity of paying a visit to the Museum.

## THIRD REPORT OF THE SELECT COMMITTEE OF THE HOUSE OF LORDS ON METROPOLITAN HOSPITALS.

THE report contains a summary of the evidence taken by the Committee, who come to the following

### CONCLUSIONS.

#### ENDOWED HOSPITALS.

The Committee observe that only when the endowed hospitals wish to deal with their estates, or to alter the fundamental conditions on which they administer charity, can the Charity Commissioners effectually intervene. The practice is that the endowed hospitals send their accounts annually to the Charity Commissioners; but the action of the Commissioners is limited to receiving these accounts, and the Committee recommend that the Commissioners should have power to audit the accounts and to see that the endowments are applied according to the trust. For the building of St. Thomas's Hospital the authorities had to borrow £100,000 at the rate of 4 per cent., which was afterwards reduced to 3 per cent. St. Thomas's Hospital has £27,000 invested with the Charity Commissioners, and the committee consider that it is to be regretted that by the action of the Charity Commissioners the hospital was prevented from using its own money. In the case of the three endowed hospitals, the Committee are of opinion that the system of administration does not on some points compare favourably with that which exists at other general hospitals. It throws too much power and responsibility into the hands of one individual, the treasurer; though at St. Thomas's Hospital a larger share in the administration is assigned to committees than at the other two. The Committee would especially direct attention to a report by Dr. Thorne (see paragraph 18 of this report), showing that the nursing home at St. Bartholomew's Hospital was in a very unhealthy state, to such an extent that twenty-three nurses and three ward maids were attacked with diphtheria; and also that the drainage arrangements of the three principal ward blocks of the hospital square were defective and "could not be too strongly condemned." The Committee consider that, had there been a large committee of governors alive to the responsibilities of their office, such a discreditable state of things would not have been allowed to occur. It appears in the evidence that the surveyor, a salaried officer, during the three years that he had been in office had never been called upon to make a thorough examination of the drainage of the hospital; and though a report was at length made it was not a thorough report, the excuse being given that it had to be ready by a certain date and that there was not time to make it as thorough as it ought to have been. This neglect is, in the opinion of the Committee, the more inexcusable owing to the affluent circumstances of this charity. The Committee would suggest that in all these endowed hospitals the government should be carried on by a system of weekly boards and subcommittees. As regards St. Thomas's and Guy's Hospitals, the Committee greatly regret to remark that owing to want of funds, occasioned by fall of values, for the most part in agricultural rents, a certain number of beds are obliged to be kept vacant in each hospital, while others are let to paying patients.

#### REMAINING EIGHT GENERAL HOSPITALS WITH SCHOOLS.

The remaining eight general hospitals with schools depend entirely for their support upon voluntary contributions, excepting in a few cases where they possess some small endowment. Their systems of management greatly resemble one another and the evidence shows that they are generally well administered. The Committee note the enormous amount of work done by unpaid boards of managers; and the care exercised, so far as the Committee are able to judge, in the appointment of their medical as well as other officers. The Committee desire to refer to the personal nursing dispute appearing in the evidence of the London Hospital. The authors of these charges were for some time nurses and probationers in this hospital, some of whom did not remain during the whole period of training and of whom two at least stated grievances of their own which were not confirmed by the evidence; and the late chaplain who, for some time before the termination of his connexion in that capacity with the hospital, had differences with the Committee both in these matters and also in regard to the performance of his own duties. The charges are, on the whole, in the opinion of the Committee, not substantiated by the evidence. The evidence in regard to the injury to the health of the "sisters" appears inconclusive. The Committee consider that the difficulties would have been avoided had the governing board, in charge of the hospital at that time, not allowed their authority to fall into the hands of salaried officers. In justice, however, to the London Hospital, the Committee wish to add that it is an admirable hospital, doing work in a part of London where it confers inestimable benefits upon a very large and very poor population. They therefore think it is deserving of the greatest measure of charitable support. The Committee recognise that it is advisable, under present circumstances, to maintain the individuality of these general hospitals, and they consider that the generous rivalry thus promoted tends to medical and administrative efficiency. The Committee suggest that the fact of not holding the diplomas of the Royal College of Physicians and Royal College of Surgeons of London should not exclude practitioners who have graduated elsewhere from becoming members of the staffs of the general hospitals in London. At present at only one general hospital, St. Mary's, are there no restrictions. The Committee would gladly see the restrictions removed at the other hospitals in London.

#### CONVALESCENT HOMES.

The Committee remark that the accommodation for convalescents in connexion with the large hospitals is insufficient, only two or three having convalescent homes attached to them; and that this want is met by the authorities of the hospitals subscribing, through the Samaritan Fund, to convalescent homes. Owing to the scarcity of accommodation the patients, although not thoroughly cured, are discharged, if well enough to leave the hospital. In some cases these patients find their way to the Poor-law infirmaries; in other cases, patients suffering from medical complaints have to be kept for long periods in a hospital, although they would recover more rapidly at a convalescent home in the country. Moreover, these patients have to be provided for in the hospital, to the exclusion of those who would be

**ROYAL LUNATIC ASYLUM, DUNDEE.**—The reports for 1891 submitted to the annual meeting of subscribers held on the 20th ult. were of a satisfactory character. There was an improvement in the financial position during the year; £2000 had been lodged in the bank from ordinary revenue and the building debt reduced by £8295 5s. 8d. The income from the board of patients &c. was £12,283 and the expenditure £12,385; 168 patients had been admitted during the year.

admitted were beds vacant. The Committee avail themselves of this opportunity to direct attention to this need, in the hope that more extensive convalescent accommodation may be provided by philanthropic effort.

#### OUT-PATIENTS AND DISPENSARIES.

The Committee received much evidence on the subject of the out-patient system. On the one hand were set forth the advantages of large out-patient departments for teaching purposes and for the relief of the poor, as they are open at all times day and night, and the great advantage they afford as centres for consultative purposes. On the other hand it was urged that unlimited medical relief was the first step towards pauperising large masses of individuals. The witnesses who held this view pointed out the advantages of provident associations. Those who had not the means to belong to a provident association could obtain medical relief from the institutions provided by the Poor-law. It was suggested that it might be advisable to map out London into districts; and that a person leaving one district and therefore the provident medical association could easily attach himself to the provident medical association of his new district. But the Committee, agreeing that such an arrangement would be highly desirable if it were practicable, doubt whether in London, with its heterogeneous and migratory population, such an organisation would be possible. It is considered by the Committee that by the abolition of the out-patient departments medical education would be seriously interfered with, and further, that on the whole it must be left to the authorities of the hospitals themselves to arrange the organisation of the out-patient department, with the view of rapidly attending to the requirements of the public and of insuring as far as they can that the charities shall not be abused. The Committee are of opinion that the charities are not abused to any serious or appreciable extent, nor do they think that it was by any means proved that patients are carelessly treated, or treated by students instead of thoroughly qualified medical practitioners. The evidence respecting fees appears to show that above the sphere of the poor-law there must exist a large section of the population who cannot afford to pay a doctor in the case of long and serious illness, or in the case of a large family. On reviewing the evidence as to the different systems pursued by the different great general hospitals, the Committee think that, on the whole, the system of limiting the number of out-patients per diem is the most convenient. The Committee consider that inquiries should be made wherever experienced officials think there is cause for suspicion and that the patient should establish a *prima facie* case for charitable relief. It was difficult to obtain from witnesses the exact amount of the work of an out-patient department, because the return of new cases only shows about a third of the work done; it was, however, generally agreed that each patient attended on the average about three times. The Committee do not attach too much importance to the statements as to the reduction of fees of practitioners among the poor by the free work of the hospitals, but it is obvious that the existence of the charities must tend to reduce them. Medical practitioners and the medical officers of free and other dispensaries should be encouraged as much as possible to take advantage of out-patient departments as centres for consultative purposes; and, from the evidence of many hospital witnesses and others, this is already done to a certain extent. In the case of dispensaries and practitioners, the patient might be left in the hands of his medical adviser and not necessarily taken into the hospital.

#### DISTRIBUTION OF HOSPITALS.

The Committee observe with regret that on the south side of the Thames there is very little hospital accommodation compared with that on the north side. St. Thomas's Hospital and Guy's Hospital, already shown to be obliged, for want of funds, to close their doors to many of the sick poor, are the only large general hospitals south of the Thames, but they are situated in the extreme margin of the southern district. One witness from the south side described the medical relief as lamentably deficient; at the same time it was stated that Lambeth Infirmary was full. On the north side of the Thames, especially in the region of Soho, there is great congestion of hospital accommodation. It was stated by a witness that within one mile of the Middlesex Hospital (Berners-street, Oxford-street) there are over 2050 hospital beds, as well as 13 dispensaries of various kinds; in fact, that by far the greater proportion of the institutions for medical relief are within an area of two miles square. In addition to this local accommodation for the sick, there is the Marylebone Infirmary at Notting-hill, where there is accommodation for 650 patients; Paddington Infirmary, 180 beds; and Central London Sick Asylum, 204. It was suggested that certain hospitals might be removed from places where they are not so much required to localities where the accommodation is deficient. The Committee cannot regard this suggestion as practical, but they would strongly advise that more hospital accommodation should be provided south of the Thames, and were it possible to find the site, and were philanthropic endeavours to be made for further accommodation for the sick in London, a large general hospital, say in the densely populated district of Camberwell, would no doubt be of extreme value. The Committee do not lose sight of the tendency of individuals to prefer some particular hospital, and many instances were given of patients passing four or five hospitals on their way from their homes to a particular hospital in which they had confidence. Though the Committee cannot doubt that this is a fact, and that possibly this migratory disposition would not be checked by the building of a large general hospital, they are nevertheless convinced that more hospital accommodation is required south of the Thames.

#### EDUCATION.

The Committee had before them all the deans of the medical schools and heard opinions from some prominent members of the profession. Many witnesses put forward views in favour of and against central colleges for the teaching of certain subjects. The Committee consider it well worthy of consideration whether it would not be advantageous that the medical schools in London should affiliate themselves to a teaching university or organisation, after the nature of colleges in a university, with the view to the securing first-rate lecturers for the subjects which can be taught in classes as distinguished from clinical instruction. The Committee observe that a very useful field for medical instruction is at present closed to students—namely, the Poor-law infirmaries could be usefully opened for clinical instruction. In this the Committee heartily concur. In addition to the large

field for instruction which would thus be opened, they agree with the opinions expressed that the presence of students in the practitioners stimulating, by reason of the observation and criticism which are brought to bear on diagnosis and treatment; and the evidence they have received shows that where a system of clinical classes of students is carried out under proper regulations the patients have no objection to students at their bedside. It appears that there are only three hospitals where female clinical clerks are employed—the Hospital for Children in Great Ormond-street, Royal Free, and New Hospital for Women. Witnesses from these hospitals testify to the ability and address with which the duties of such clerks are performed.

#### SPECIAL HOSPITALS.

The case of special hospitals and the arguments urged for and against this class of hospital are summarised in the preceding pages. Hospitals for certain diseases of patients—for example, for children—do not appear to the Committee to be open to the criticisms made on special hospitals. Lock hospitals form a separate subject for consideration. The Committee think that the nature of the disease and the character of the patients make it desirable that they should be treated in separate buildings, or, at all events, in separate wards from other patients. The Committee have had their attention particularly directed to the fact that patients in these hospitals are in the habit of quitting the hospital in a diseased state on such occasions as the Derby week, fairs, &c., for the purpose of pursuing their avocation. The Committee recommend that provisions analogous to those which prevent a patient leaving a hospital when suffering under infectious diseases should be extended to certain venereal diseases. Objection is made to special hospitals on the ground that exclusive attention to a particular disease tends to narrow the mind and to induce a specialist to imagine that all complaints are in some measure connected with the disease to which he has devoted so much attention. It is obvious that there is a certain tendency in any special study to narrow the mind, but any such consequence is practically avoided if the practitioner goes through a sufficient course of general hospital and other general practice before he elects to devote himself as a specialist to a particular disease. It is impossible to prevent the natural consequences of the great competition in London to force men into eminence in respect of their special knowledge and familiarity with particular complaints. After all the evidence presented to them it seems to the Committee that the hostility, so widely shown by the medical profession to special hospitals, arises from the fact that numerous small hospitals for special diseases have been instituted by medical men for the purposes of their own advancement, and that such a course of action leads to the establishment of hospitals where they are not wanted, to waste of money incident to the creation of badly managed and small institutions, and to the deception of the public by inducing them to subscribe to undertakings alleged to be of public benefit, but which are in reality mere schemes for private emolument, and also are useless for teaching purposes. The Committee consider that the charge of abuse is substantiated in regard to some small special hospitals. This class of small special hospitals to which the Committee refer, of which examples appear in the evidence, the Committee do not consider of any real benefit either to the sick or to science. They appear to be carried on sometimes in incommensurate buildings or under unsanitary conditions, and the Committee would deprecate the multiplication of such institutions. The Committee think it their duty to invite particular attention to the case of the Royal Hospital for Incurables at Putney. While in receipt of very large support, having a surplus in 1890 of £16,000, the authorities of this hospital appear to be incapable of effecting reforms and are extremely resentful of external observation. In regard to this hospital the Committee would strongly recommend reforms in this direction:—That a resident medical officer should be appointed with general control in absence of the Committee, as is the case in the Poor-law infirmaries; that a ladies' committee should be appointed, as a large majority of the patients are females; that all nurses should be hospital trained; that the contracts for food and stores of all kinds should be by open tender; and that the general supervision by the committee of governors should be greatly increased. The objects of this charity are excellent, but until the management is thoroughly reformed the Committee regret that they feel bound to add that the institution is not one which can be commended.

#### ACCOUNTS.

The Committee observe with satisfaction that, since the opening of this inquiry, a committee, comprised of the secretaries of some of the principal London hospitals, has been considering the subject of a uniform basis of accounts, a copy of which appears in Appendix A to the report. The Committee are glad to notice that those best acquainted with hospital accounts have recognised the advisability of a uniform system. The Committee consider that, for accuracy, further subdivision on the expenditure side might be advisable—as, for instance, "firing and lighting"; also "wines and spirits" might be tabulated separately. Under heading VI. it might be well to state, for the information of the public, for whom the "salaries, wages and pensions" as well as "other salaries, wages and pensions" are charged. It might be worth while for the committee of hospital secretaries, if it renews its sittings, to consider whether the totals might be stated on one page, with letters referring to schedules, where the items of expenditure might be set forth in greater detail. In the evidence before the Committee mention was made of the difficulty of ascertaining the cost of an out-patient, without which calculation any estimate of the cost "per bed" is unreliable. The Committee do not think the difficulties insurmountable. The main difficulty appears to be to separate the accounts of the dispensaries into two parts—the in-patient and out-patient; this once arranged, the reliable cost per bed might be ascertained. The Committee consider that this difficulty might be met thus—an account might be kept of any drugs supplied for the in-patients; the difference between the total dispensed and the amount supplied to the in-patients would be the amount supplied to the out-patients. The wages of the nurses in the out-patient department and the wages of the scrubbers, porters, &c., employed could be charged to the out-patient department. The proportion of rates and taxes might be estimated by the proportion which the space allotted to the out-patient department bears to the whole hospital.

#### CONTRACTS.

The Committee consider that all contracts should, as far as possible,

be by public tender, according to the practice enforced by the local board in regard to poor-law infirmaries.

#### COÖPERATION.

The Committee regret to remark that there does not seem to be any genuine wish for coöperation between the various kinds of medical institutions. They are of opinion that much more might be done than at present by the hearty coöperation between the special hospitals and general hospitals, between dispensaries of all kinds and general hospitals, and between general practitioners and general hospitals. It would be an early duty of a central board to devise some scheme to further such coöperation.

#### NURSING.

The subject of nursing is treated at length on pages 73 to 85. A certain amount of variety exists as to the hours of employment of nurses in the general hospitals in London. The Committee consider that eight hours' work, exclusive of the time for meals, is, as a rule, as much as should be required from nurses in these hospitals. In constructing future hospitals care should be taken that sufficient accommodation for nurses be provided to allow of the hours of nursing being reduced. They would suggest that every nurse in the large and busy hospitals in London should have at least two days off in the month and that the period of holiday should not be less than three weeks; that not less than one full hour should be allowed for dinner; and while, on the whole, the food of the nurses appears to be good, yet, from the nature of the occupation of nurses, special care ought to be exercised that as well as being sufficient in quantity and in quality it should be served in an appetising manner. In bringing about this end the Committee are strongly of opinion that at the nurses' dinner one of the head officials of the hospital should preside, and that the dinners should be frequently visited by members of the governing body. The Committee note with satisfaction the great preponderance of opinion that the health of nurses in London is good. The Committee think it very desirable that, where the funds of the hospital permit, pensions should be provided for nurses, whether by the hospital following the example of the London and Guy's Hospitals, by joining the National Pension Fund for Nurses, or by the hospital providing a special pension out of its own funds. Nurses in the wards should not have their duties increased by doing menial work, such as scrubbing and cleaning grates and lavatories or other services of a like nature. For that purpose, as is the case in most hospitals, the class of servant termed "ward maids" or scrubbers should be employed. While the Committee recognise that the matron must be greatly responsible for the appointment and dismissal and general conduct of the nurses, they are strongly of opinion that no absolute power ought to be given to any matron, but that the appointments and dismissals should be made by the chief executive authority of the hospital. It is to be observed that many hospitals send out nurses after a certain period of training at sums varying from one guinea to three guineas a week to private patients. That these nurses bring considerable addition to the funds of the hospital there can be no doubt. The Committee consider that this is a good practice, but that, to prevent the wards from being denuded of nurses in order to bring funds to the hospital, a separate staff should be employed for this purpose. They are of opinion that the minimum period after which a nurse can be advertised as thoroughly trained, is three years; and considering the large amount of money these nurses can earn for the hospital, the Committee think that a sliding scale commission on their earnings, mentioned as being in practice at one of the large general hospitals, would be a fair addition to their regular hospital wages. It appears that at the London Hospital, in the form of certificates for nurses, certain blanks may be filled up in different ways according to the discretion of the matron. The nursing capabilities and conduct of the nurse may be described respectively as "excellent" and "exemplary," which constitutes a first-class certificate, or as "good" in both cases when the certificate ranks as second class. It would seem that the latter form is used when the matron is not so well satisfied with a nurse; and the Committee think that words indicative of inferiority should be inserted in all certificates below the best, if, indeed, it is desirable that any such certificate should be issued at all. In regard to male nurses, who appear to be only employed in cases of violent patients, with the exception of two hospitals, every care should be exercised to secure the services, if not of duly qualified men, of well-known and thoroughly trustworthy persons, having, if possible, some experience. Nursing in the Poor-law infirmaries differs in various institutions. In some a large proportion of nurses are hospital trained; but the Committee regret to find that one half of the matrons are not regularly trained nurses. The Committee are strongly of opinion that not only all matrons but that all nurses in a Poor-law infirmary should be trained nurses; the Committee would recommend that no nursing whatever should be done in infirmaries by paupers. The Committee remark that there is no separate infirmary at Bethnal-green and they observe with surprise and regret that there appears to be in the sick wards in this workhouse a regular staff of less than twenty nurses, some of whom are sixty-five years of age, and that as many as eighty paupers are employed as nurses. The Committee consider that the number of nurses should be increased throughout the infirmaries and that infirmaries should train their own nurses. This system already exists at one of the largest infirmaries in the metropolis.

#### POOR-LAW INFIRMARIES.

On the whole, the Committee are inclined to think that the system of organisation which places the resident superintendent in charge of the whole institution is a good one. The Committee agree in the suggestion of Miss Twining, that lady inspectors for infirmaries, especially as regards the nursing department, would be a valuable addition to the staff of the Local Government Board. The new Poor-law infirmaries established since 1867 appear to the Committee, so far as they are able to judge from the evidence, to be well-managed institutions. They think that further accommodation is required, as it was pointed out that a large number of sick poor have to be treated in the sick wards of certain workhouses. The medical supervision is less efficient in the workhouse, while the nursing is altogether inferior. The Committee concur in Dr. Bridge's suggestion that the accommodation in infirmaries should be increased so as to take the patients who are now housed in the workhouses. A notable instance exists in the case of the three unions, the Strand, St. Giles's and St. James's, which have but a single infirmary between them, the London Central Sick Asylum containing

only 264 beds, as has been observed above, while Bethnal-green has no infirmary whatever. The Committee observe that, although strong representations have already been addressed by the Local Government Board to the guardians of Bethnal-green with a view of increasing their sick accommodation, no steps have yet been taken to remedy the defect; and they are of opinion that if the powers of the Local Government Board are insufficient to enforce a proper provision for the sick, they should be extended.

The want of accommodation for the sick is also notable as regards the Whitechapel district, where it appeared that at times the infirmary has 10 per cent. more patients than its proper complement.

#### HOSPITAL SATURDAY AND SUNDAY FUNDS.

The Committee think the public might subscribe more freely to the Hospital Saturday and Sunday Funds could they believe that by these organisations they were really enabled to discriminate between those hospitals which are worthy and those which are unworthy of support. The system of distributing the Sunday Fund on the principle of "work done," and the Saturday Fund on that of "relief afforded," appears to be open to the objection that it is a premium on competition for patients; and that it tends to stimulate the discharge of patients before the cure is complete, with a view to show as large a return as possible of patients in the year.

#### PROPOSED CENTRAL BOARD.

Various proposals for a central board are set out on pages 44 to 47 of this report. The Committee do not incline absolutely to any one of these proposals. They are of opinion that, as there is no Government grant, the interference of a Government officer for inspection would be unwise, and they think such interference would tend to check the flow of voluntary contributions and to some extent to interfere with the responsibility of the unpaid boards of managers. The Committee do not think that such a central board should be given any statutory powers as regards the formal licensing of any hospital built, or about to be built. They would recommend that the proposed central board should be granted a charter to entitle it to receive endowments, legacies, bequests and contributions for distribution to medical charities and to meet its own necessary expenses. The board might be organised in the following way:—The various hospitals and dispensaries of all kinds should be grouped. The smaller hospitals should be grouped according to the classes of disease which they treat. Each general hospital, with or without a school, might be considered to be equivalent to a group. Each group would send one or more delegates to be members of the central board. The heads of the great medical corporations—e.g., the Royal Colleges of Surgeons and Physicians, the Medical Council and the Society of Apothecaries—might become members of this central board. The free and part-pay dispensaries might send one member and the provident dispensaries also one member. The Hospital Saturday and Sunday Funds might each send one member. A table (marked "A") is attached, suggesting details for the formation of such a board. The duties of this board might be of the following nature:—(1) It should receive annual reports, statements of accounts and balance-sheets from all hospitals and dispensaries, together with a return of the total number of in-patients, out-patients, and casualty patients. (2) It should require that all accounts be audited by competent chartered accountants. (3) It should arrange that all medical charities should be visited and reported on periodically. (4) It should report from time to time, as occasion required, all proposals for new hospitals. (5) It should publish an annual report, the principal heads of which might be as follows:—(a) A complete statement as to the pecuniary position of each medical charity. (b) A statement by a competent authority as to the existing sanitary condition and ventilation of each hospital and as to arrangements concerted with the Metropolitan Fire Brigade. (c) An account of the number of beds in use, the number of beds unoccupied, and the reasons why they are unoccupied. The average daily number of occupied beds, details as to beds for which payment is made, and the number of resident medical staff, resident officers, nurses and servants. (d) A statement as to the method according to which each hospital deals with its out-patients and casualty patients and the number of each. (e) Proposals for the removal of hospitals and dispensaries to places where further hospital or dispensary accommodation is required and the proposals for the establishment of new hospitals, and all other matters of interest relating to the treatment of the sick poor. (f) The nursing at hospitals and the proceedings of nursing associations in the metropolis. (g) The proposed board should early turn its attention to the possibility of so organising medical charity as to secure their coöperation with one another and the coöperation of medical charity with general charity.

While this board would not have any direct or legal power to stop the building of a new hospital, or to amend systems of organisation in existing institutions, the Committee think that the fear of adverse comment in the reports of the board, or omission from recommendation in those reports, would have a powerful influence in preventing the building of useless hospitals and in securing proper administration in existing institutions. The Committee think that the board should assist and work with the managers of the Hospital Saturday and Sunday Funds, and that in addition to the caution which is exercised by the administrators of those funds no grant should be made to any institution whose application was not endorsed by the central body. There can be little doubt that in times of pecuniary difficulties of any individual hospital or group of hospitals appeals to the public would have greater weight were they supported by a body of responsible men who were conversant with the merits and the means of all the medical charities in London. The expenses of this board might be defrayed by levying a small percentage on the income of each group of hospitals sending a delegate to the board. In sketching the foregoing outline of a central body, the Committee are desirous of expressing their opinion that some more satisfactory organisation of medical charity is most desirable. It should always be borne in mind that the establishment of Poor-law infirmaries and rate-supported asylums, under the Metropolitan Poor-law Act, 1867, has in great measure altered the relations between the poor and the hospitals and everything associated with medical charity; and the Committee cannot shut their eyes to the possibility that if some such organisation as they have recommended is not adopted, a time may come when it will be necessary for hospitals to have recourse either to Government aid or municipal subvention. It is shown by the evidence that, apart from the three endowed hospitals, the general hospitals

in London are maintained principally by the legacies they receive and large donations from unexpected quarters. In most cases the subscriptions from annual subscribers do not suffice to pay the wages of the servants and nurses employed in the service of each hospital, to say nothing of the cost of maintenance and administration. It has been authoritatively stated that from £50,000 to £55,000 per annum are required to render available the 1800 or 2000 vacant beds which are said to exist. One endowed hospital is maintained entirely by its endowments, but the two others are so short of funds that many beds are closed to the sick poor. It but remains for the Committee to acknowledge the readiness with which the authorities of the medical charities and of the Poor-law institutions have laid before them all the information desired.

TABLE A.—Suggested Grouping of Hospitals for the purposes of Representation on the proposed Central Board.

Group of hospitals, &c.	Number of beds.	Number of representatives.	Total representatives of groups.
3 Endowed hospitals ..	1912	6	—
8 General, with schools..	2613	10	—
9 General, without schools	837	4	—
16 Women and women and children ..	—	—	20
4 Consumption .. ..	611	1	—
2 Dental .. .. .	—	1	—
3 Incurables .. .. .	—	1	—
2 Cancer .. .. .	141	1	—
4 Paralysis and epilepsy ..	240	1	—
8 Orthopedic .. .. .	113	1	—
2 Seamen and accidents ..	303	1	—
5 Ophthalmic .. .. .	197	1	—
5 Throat and ear .. .. .	62	1	—
7; 4 Skin and 3 Fistula, &c.	112	1	—
1 Lock .. .. .	208	1	—
1 London Fever .. .. .	180	1	—
4 Lying-in .. .. .	132	1	—
7 Foreign and pay .. .. .	240	1	—
Free and part-pay dispensaries .. .. .	—	1	—
Provident dispensaries..	—	1	—
General Medical Council	—	1	—
Royal College of Physicians ..	—	1	—
Royal College of Surgeons ..	—	1	—
Society of Apothecaries ..	—	1	—
General practitioners ..	—	1	—
University for London ..	—	1	—
London County Council	—	1	6
Sunday Fund .. .. .	—	1	1
Saturday Fund .. .. .	—	1	1
		<b>Total</b> ..	<b>40</b>

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

**Barnsley Rural District.**—Changes in the area of this district make statistical comparisons with previous years somewhat difficult. The general death-rate, which was influenced both by measles and influenza, was 18·8 per 1000 last year. School attendances, both as regards teachers and scholars, had to be interfered with by reason of scarlet fever and measles, and a certain number of patients, including four cases of enteric fever and one of small-pox, were removed to the Kendray Hospital. Dr. Sadler naturally finds grave fault with the Yorkshire midden-privy and the nuisance necessarily arising from it; he also refers to bad scavenging at Darfield and Cudworth. Extension of sewers is in progress, drain defects continue to be remedied and by-laws as to slaughter-houses are to come into operation. Other improvements are still called for and amongst these is the substitution of a proper water-supply for that derived from local wells in certain localities, such as Royston.

**Plymouth Urban District.**—Mr. F. M. Williams has evidently performed his duty towards Plymouth in pointing out its gravest sanitary defects. The "wall sewers," which are but elongated cesspools, together with inefficient drainage, ventilation, water-supply, &c., are naturally found to be associated with high death-rates; and it is satisfactory to learn that as regards the sewers a new scheme is in prospect. Mr. Williams objects to the ventilation of sewers on to the level of narrow streets. In this respect he by no means stands alone, but when he explains that it is a paradox to

allow this as regards sewers and to require soil pipes to be ventilated by shafts "carried above all windows," it may be argued that the two things not are quite comparable. Soil pipes ought not, according to modern by-laws, to receive air from the public sewers; they should only contain the current of air, largely fresh air, which courses through each separate house drain and this drain is in turn aerially cut off from the sewer. Thus to admit the air of one's own house-drain at a level above house windows is a different thing from receiving the air of public sewers, which may contain infectious excreta in abundance at the same point. This, indeed, is one of the difficulties in finding an acceptable alternative to the system which Mr. Williams and others condemn. The general death-rate for 1891 was 22·5 per 1000 and the infantile death-rate was abnormally high, a result which, apart from other circumstances referred to in the report, cannot be dissociated from the prevalence of insanitary conditions. Public health matters are, we trust and believe, now receiving much attention in this important borough, and amongst other matters we are glad to note that the long-needed means for properly isolating cases of infectious diseases are about to be provided. Action is also being taken under the Housing of the Working Classes Act.

**Wirksworth Urban District.**—According to Mr. Broster the death-rate of 17·4 per 1000 last year, whilst marked by an excess of death amongst old people, was attended with a diminished amount of death in infants. The infectious diseases notification system seems to work well, but there are no adequate means for isolation and disinfection; and to provide such means in a proper way is held to be beyond the resources of the district. Combination between adjoining districts is hardly likely to be made voluntarily, and hence Dr. Broster favours the formation of joint districts for such purposes by the County Council, much on the same lines as those set out in Lord Thring's Bill just submitted to the House of Lords. House accommodation for the lower classes is bad in the district, but it is hoped that new erections will be properly controlled by the by-laws. Questions of water-supply and sewerage are engaging the attention of the authority.

**Stroud Rural District.**—For the eighteenth year Mr. T. Partridge makes his annual report on this district. Diphtheria prevailed to an exceptional extent, the disease being found in association with insanitary surroundings and dampness of houses due to faulty foundations or to walls abutting on adjacent banks; it is also suggested that the existence of scarlet fever produced faucial lesions favourable to the reception of the diphtheria contagium. Public water-service is being extended in the district and other sanitary work is steadily in progress. The general death-rate and the zymotic rate were 18·4 and 1·5 per 1000 living respectively.

**Watford Urban District.**—Dr. Brett gives the death-rate for 1891 as 12·9 per 1000 and the zymotic death-rate was low. The isolation hospital is well spoken of, although the scarlet fever pavilion is looked upon as temporary. Since the report was written difficulties as to scarlet fever isolation in the rural district have arisen and if the joint action between the two authorities advocated by Dr. Brett is maintained it is to be hoped that something more than temporary provision will be made. The report does not this year contain much information as to sanitary circumstances or improvements in the district.

**Thingoe Rural District.**—Dr. C. S. Kilner discusses the vital statistics of the district somewhat carefully, and gives the death-rate for 1891 as 15·2 per 1000 living, the zymotic rate being 0·57. Infectious diseases have, as will be gathered, been by no means frequent, and typhoid fever, the disease which is most intimately influenced by sanitary measures, was practically absent. There were, however, 14 cases of scarlet fever, a number quite large enough to start an epidemic, hence the recommendation to provide means of isolation in advance. The water supplies, some of which are hardly of the best, are looked after; dwellings are supervised with a view to their being made fit for human habitation; and some very interesting proceedings are recorded in connexion with action taken under the Housing of the Working Classes Act, 1890, which has ended in the burden of the expenses for building certain new houses being cast on the whole of the Thingoe Union.

**Bilston Urban District.**—Of 92 notifications during 1891 63 had reference to scarlet fever, and of these 28 patients were removed to a temporary cottage hospital, no death occurring. The hospital was thus very useful, but Dr. Bailey reminds the sanitary authority of the need for a per-

manent building, adequately arranged for its intended purposes. Houses have been condemned and otherwise dealt with; the closet arrangements need to be brought under one system, and the water-carriage system, combined with automatic flush arrangements, is advocated for the houses of the labouring classes. The death-rate was high—namely, 23·6 per 1000; and the rate of death in infants was excessive, even in view of the fact that young mothers are much employed in factory labour.

*Uverstono Rural District.*—Dr. A. Thompson calculates the death-rate as 14·4 per 1000 last year. Of 106 notifications 69 were of scarlet fever and 27 of typhoid fever. As regards the latter, it is stated that the water-supply was often found unsatisfactory, but that this has been remedied. It may be hoped that the supplies will be maintained under constant supervision so as to prevent such a result in the future.

*Grange-over-Sands Urban District.*—The main drainage has been completed in this district, scavenging is in part carried out by the authority and improvement in the water-supply is in prospect. In short, this place bids fair to have an excellent reputation. The death-rate, according to Dr. A. Thompson, was 10 per 1000 in 1891.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6782 births and 3377 deaths were registered during the week ending June 25th. The annual rate of mortality in these towns, which had been 17·8 per 1000 in each of the preceding two weeks, declined last week to 17·3. In London the rate was 17·3 per 1000 and corresponded with the mean rate in the thirty-two provincial towns. The lowest rates in these towns were 8·8 in Croydon, 11·2 in Wolverhampton, 11·6 in Brighton and 11·9 in Leicester; the highest rates were 21·1 in Manchester, 21·5 in Salford, 22·7 in Huddersfield and 22·9 in Oldham. The 3377 deaths included 477 which were referred to the principal zymotic diseases, against 466 and 514 in the preceding two weeks; of these, 176 resulted from measles, 99 from diarrhoea, 84 from whooping-cough, 50 from diphtheria, 47 from scarlet fever, 19 from "fever" (principally enteric) and 2 from small-pox. No fatal case of any of these diseases occurred last week in Huddersfield or in Gateshead; in the other towns they caused the lowest death-rates in Croydon, Leeds and Newcastle-upon-Tyne, and the highest rates in Manchester, London, Oldham, Preston and Halifax. The greatest mortality from measles occurred in London, West Ham, Manchester, Sunderland, Birkenhead, Oldham, Birmingham and Halifax; from whooping-cough in Salford, Bristol, Preston and Hull; and from diarrhoea in Blackburn, Norwich, Birmingham and Plymouth. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 50 deaths from diphtheria included 39 in London and 4 in Manchester. A fatal case of small-pox was registered in London and one in Liverpool, but not one in any other of the thirty-three large towns; 56 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 6 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2066, against numbers increasing from 1226 to 1945 on the preceding thirteen Saturdays; 284 new cases were admitted during the week, against 207 and 213 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 304 to 202 in the preceding six weeks, further fell to 181 last week and were 35 below the corrected average. The causes of 49, or 1·5 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Portsmouth, Bristol, Bradford, Newcastle-upon-Tyne and in thirteen other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Salford, Blackburn and Hull.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·8 and 17·7 per 1000 in the preceding two weeks, rose again to 19·3 during the week ending June 25th and exceeded by 2·0 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Perth and 16·5 in

Greenock to 20·0 in Aberdeen and 21·1 in Glasgow. The 538 deaths in these towns included 35 which were referred to measles, 27 to whooping-cough, 11 to diarrhoea, 8 to diphtheria, 3 to scarlet fever, 1 to "fever," and not one to small-pox. In all 85 deaths resulted from these principal zymotic diseases, against 82 and 66 in the preceding two weeks. These 85 deaths were equal to an annual rate of 3·1 per 1000, which exceeded by 0·7 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 27 in each of the preceding two weeks, rose again to 35 last week, of which 31 occurred in Glasgow and 3 in Edinburgh. The deaths referred to whooping-cough, which had been 30 and 27 in the previous two weeks, were again 27 last week and included 22 in Glasgow and 3 in Edinburgh. The fatal cases of diphtheria, which had been 2 in each of the preceding two weeks, rose to 8 last week, of which 3 occurred in Aberdeen, 2 in Edinburgh and 2 in Glasgow. The 3 deaths from scarlet fever showed a slight further decline from recent weekly numbers and included 2 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 124 and 94 in the preceding two weeks, further declined to 80 last week and were 47 below the number in the corresponding week of last year. The causes of 43, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·0 and 31·6 per 1000 in the preceding two weeks, declined again to 27·4 during the week ending June 25th. During the first twelve weeks of the current quarter the death-rate in the city averaged 31·9 per 1000, against 19·0 in London and 17·9 in Edinburgh. The 184 deaths in Dublin during the week under notice showed a decline of 28 from the number in the preceding week and included 24 which were referred to measles, 5 to whooping-cough and not one either to small-pox, scarlet fever, diphtheria, "fever," or diarrhoea. In all, 29 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·3 per 1000, the zymotic death-rate during the same period being 3·1 in London and 1·8 in Edinburgh. The fatal cases of measles, which had increased in the preceding three weeks from 21 to 27, declined again to 24 last week. The deaths referred to whooping-cough, which had been 1 and 5 in the preceding two weeks, were again 5 last week. The 184 deaths registered in Dublin last week included 29 of infants under one year of age and 43 of persons aged upwards of sixty years; the deaths of infants showed a slight decline, while those of elderly persons showed a further increase upon recent weekly numbers. Four inquest cases and 2 deaths from violence were registered; and 55, or nearly a third, of the deaths occurred in public institutions. The causes of 14, or nearly 8 per cent., of the deaths in the city last week were not certified.

#### CALCUTTA

The total number of births registered in February was 647, giving an annual ratio of 16·6 per 1000 of population. Of the 647 births 324 were males and 323 females. The total number of deaths (exclusive of stillbirths) registered in February was 1199, against 1302 in the preceding month showing an annual ratio of 30·8 against 33·4 per 1000 of the population. The proportion of male to female deaths was as 138 to 100. The monthly total was higher than all the corresponding figures of the past decade, excepting 1890 and 1891. There were 85 deaths from cholera, against 57 in the preceding month. The number is less than all the corresponding figures of the past ten years, excepting 1886 and 1887. There was only one death from small-pox registered, and one in the previous month. The deaths from fevers amounted to 455, against 497 in the previous month. The total exceeds all the corresponding figures of the past decade. There were 32 deaths from tetanus in the month, 24 of which were under one year of age. The mortality of infants under one year of age reckoned on estimated births was 277·9 against 287·2 in the preceding month per 1000 of population per annum. In the amalgamated area of suburbs there were 366 births registered in the month, giving an annual ratio of 20·4 per 1000 of population. Of these 203 were males and 163 females. The total number of deaths registered in February was 721, giving an annual ratio of 40·2 per 1000 of population. Of these deaths 40 were from cholera, 339 from fevers, 79 from bowel complaints, 42 from tetanus, 13 from injuries and 208 from other causes.

## THE SERVICES.

## MOVEMENTS IN THE ARMY MEDICAL STAFF.

Surgeon-Major F. W. Trevor has been transferred from Aldershot to Woolwich.—Surgeon-Major J. E. Nicholson has arrived at Hong-Kong in relief of Surgeon-Lieutenant-Colonel Barrow.—Surgeon-Major Murphy, Senior Medical Officer of the Royal Arsenal, died on the 24th ult.—Brigade-Surgeon-Lieutenant-Colonel F. Howard, in charge of the Station Hospital, Belfast, has proceeded on leave of absence.—Surgeon-Lieutenant-Colonel Charlton, in charge of the Station Hospital, Athlone, has proceeded on leave.—Surgeon-Captain L. E. Anderson has joined at Whitley Camp from York for duty with Militia.—Surgeon-Captain J. V. Savaige has been invalided to England from Ceylon.—Surgeon-Captain A. Perry has arrived in Ceylon.—Surgeon-Captain O'Callaghan has arrived in England on leave of absence from Cyprus.—Surgeon-Captain J. Ritchie has obtained leave of absence from Malta for four months.—Surgeon-Captain A. Baird has proceeded from Devonport to Leigh-hill Camp with Militia, and Surgeon-Captains J. H. Brannigan, C. Gerner and H. B. Mathias to Hay Camp, Monmouth and Brecon respectively.—Surgeon-Captains Bayler, Power, Jameson and Sandiford have proceeded from Cork to Nenagh, Wexford, Kilkenny and Glenburgh respectively, on Militia duty.—Surgeon-Captains F. W. Begbie, Dunn, Tyacke and Burchall have proceeded from Portsmouth to Montrose, Haddington, Edinburgh and Wicklow respectively on Militia duty.—Surgeon-Captain C. J. Woods has been granted sick leave from Gosport.—Surgeon-Captain R. C. Johnston, Thames District, has been granted leave pending retirement.—Surgeon-Lieutenant-Colonel Dwyer has joined the Home District for temporary recruiting duty and Hon. Deputy-Surgeon-General Don has proceeded on leave.

## DEATH OF SIR WILLIAM AITKEN.

In consequence of the death of Sir William Aitken and the retirement of Dr. Allman, the post of Examiner in Chemistry and Natural Science at the next examination of candidates for the Army Medical Service will, it is understood, be filled by Dr. T. W. Shore, of St. Bartholomew's Hospital, and that of Examiner in Medicine by Dr. W. H. Allchin.

## ENTERIC FEVER IN INDIA.

We are glad to see that this subject is exciting the attention of the Indian press. We have so frequently adverted to it that there remains little or nothing to add to our previous remarks. Quite recently the deaths of three young officers from this disease have been announced in three separate localities. Enteric fever is notoriously the most fatal disease to which the young and newly arrived European soldier is exposed in India; and its spread seems to have been rapidly increasing in that country of late years. No doubt the numerical increase is partly attributable to a more careful diagnosis and to the fact that the true nature of the milder forms of the disease are recognised and correctly returned; but this does not by any means explain the large and increasing mortality and sickness attributable to typhoid fever in India. It is notably during the soldier's first year or two of service in that country that his risk of contracting it is so great. It seems to us that something in the shape of a public health department, with local boards at different military centres, might be organised. On the occurrence of any outbreak the fact should be reported to the nearest local committee or board, who should proceed to investigate all the circumstances on the spot, with the skilled aid of some engineer or officer of the public works accustomed to sanitary work, so that any defects might be traced and remedied without unnecessary delay. The time has surely come for a thorough and systematic inquiry into the causes of typhoid fever in India by medical, sanitary and engineering experts and for some method of procedure being organised and carried out for investigating local outbreaks and adopting some practical action in regard to them.

## THE DEARTH OF DOCTORS IN INDIA.

The *Civil and Military Gazette*, in advertising to the prevailing unhealthiness of North-Western India, considers the time opportune for reiterating its complaints against the inadequate supply of doctors. The medical services in India have no representation commensurate with their

importance in the government of India, and it is to this that our contemporary attributes the fact that their complaints are not attended to. It is not, however, from the point of view of the doctors that the question has to be regarded. It is obviously a public question and a serious one as far as their actual and prospective patients are concerned, for a scarcity of medical aid during unhealthy seasons becomes a serious affair for the public. There does not appear to be a sufficiency of medical officers for ordinary work, to say nothing of any margin for contingencies. Owing to the paucity of medical officers, too, it is alleged that there are great difficulties in getting leave. Economy is no doubt a commendable quality in a Government, but there is such a thing as cutting down below the line of safety, a point which, according to our contemporary, seems to have been reached by the Indian Government.

## PESHAWAR DISTRICT.

It is stated that the administrative medical charge of the Peshawar district will be held alternately by a Brigade-Surgeon-Lieutenant-Colonel of the Medical Staff and of the Indian Medical Service and that the Quetta district will be a Surgeon-Colonel's charge.

## FIELD HOSPITALS IN BURMA.

It appears that the mobilisation of the field hospitals in Burma is exercising the minds of the authorities of the Madras Government. The hospitals are in Rangoon and supposed to be in readiness to accompany troops proceeding on active service, but they could not, in reality, be mobilised under a month, owing to their not being fully equipped and furnished with the requisite *personnel*. To draw the *personnel* from the permanent hospitals of the district would be to unduly denude these institutions, and to maintain a reserve of medical officers in readiness at Rangoon would be too costly a proceeding for the Government to entertain—hence the difficulty.

Yet another remedy for snake-bite, this time a vegetable one, has been seriously discussed. Brigade-Surgeon W. Dymock has contributed a paper dealing with this specific to the most recent number of the *Journal of the Bombay Natural History Society*. The plant in question is scientifically known as *Pogostemon Parviflorus* and its uses in cases of snake-bite are said to have been long well-known to natives in the western parts of India. Mr. Dymock seems to have procured good evidence as to its value in cases of bite by the venomous *Echis Carinata*.

Cholera of a severe type is still prevalent in Kulu, so it is extremely unlikely that the Viceroy will visit the Valley during the rains.

Dr. Deare, Civil Surgeon of Damoh, has succumbed to the injuries lately inflicted on him by a wounded tiger.

## INDIAN MEDICAL SERVICE.

*Bengal*.—The Queen has approved of the following promotions:—Surgeon-Majors to be Surgeon-Lieutenant-Colonels (dated March 30th, 1892): Alexander Crombie, M.D.; William Reed Murphy, D.S.O.; Chas. Henry Joubert; Edgar Geer Russell; John Scully; Geoffrey Craythorne Hall; Adam Scott Reid; William Andrew Durnford Fasken, M.D.; Edward Lawrie; Joseph Wilson, M.D.; Edward Mulvaney; John Manook Zorab; Russick Lall Dutt, M.D.; John Thos. Brownrigg Bookey; Alexander McGregor; James Young; Joshua Duke; John McConaghey, M.D.; Edward Palmer; Alfred Henry Williams; Robert Andrew King Holmes, M.D.; John Edward Charnock Ferris. Surgeon-Captains to be Surgeon-Majors (dated March 31st, 1892): Charles Pardey Lukis; Robert Richard Harvey Whitwell; Lawrence Austine Waddell; George Shewan Dhanjibhai Barjoעי Spencer; James Clarke, M.D.; Cooverjee Cawas jee Vaid; Philip Durrell Pank; Thomas Richard Mulroney, M.D.; Thomas Rankin Macdonald.

*Madras*.—Surgeon-Majors to be Surgeon-Lieutenant-Colonels (dated March 30th, 1892): Arthur Mudge Branfoot; William Edward Johnson, M.D.; Stanley Locker Dobie; George Frederick Bevan; Andrew Francis Dobson; Charles Little, M.D.; Thomas Mayne. Surgeon-Captains to be Surgeon-Majors (dated March 31st, 1892): Donald Frederick Dymott; Rustom Hormosji Cama; Winthrop Benjamin Browning; Cecil Henderson; Framji Ruttopji Divecha; Crossaile Miller Thompson; Cubitt Sindall Rundle; James William Evans; Brigade-Surgeon-Lieutenant-Colonel Lewis Charles Nanney (dated May 23rd, 1892).

*Bombay*.—Surgeon-Captains to be Surgeon-Majors (dated March 31st, 1892): Henry Peers Dimmock and Charles

Bradley Maitland; Brigade-Surgeon-Lieutenant-Colonel Isidore Bernadotte Lyon, C.I.E. (dated April 2nd, 1892).

**MILITIA MEDICAL STAFF.**—Surgeon-Lieutenant-Colonel M. Moore, 4th Battalion, Princess Victoria's (Royal Irish Fusiliers) resigns his commission; also is permitted to retain his rank and to wear the prescribed uniform on his retirement (dated June 25th, 1892).

**NAVAL MEDICAL SERVICE.**—With reference to the notice in the *London Gazette* of June 21st, 1892, the surname of Fleet Surgeon Henry Scott Lauder, placed on the Retired List, with permission to assume the rank of Deputy-Inspector-General of Hospitals and Fleets, is here correctly given and not as therein stated.

**VOLUNTEER CORPS.**—*Artillery*: 1st Sussex (Eastern Division, Royal Artillery): Surgeon-Captain W. S. Burrows to be Surgeon-Major (dated June 25th, 1892).—1st Cornwall (Duke of Cornwall's) (Western Division, Royal Artillery): Surgeon-Lieutenant R. T. Thomas, M.D., resigns his commission (dated June 25th, 1892).—*Rifle*: William Duncan Fraser, M.B., to be Surgeon-Lieutenant (dated June 25th, 1892).—1st (Inverness-shire Highland) Volunteer Battalion, the Queen's Own Cameron Highlanders: Walter de Watteville, M.B., to be Surgeon-Lieutenant (dated June 25th, 1892).—4th Volunteer Battalion, the Devonshire Regiment: Charles Edmund Russel Rendle, Gent., to be Surgeon-Lieutenant.

## Correspondence.

"Audi alteram partem."

### "ASPIRATION IN PNEUMOTHORAX."

To the Editors of THE LANCET.

SIRS,—The paper by Dr. Sutherland in your last number (just come under my notice) suggests a very few remarks which, though very hurriedly written, I hope you may be able to insert, as the subject is one of importance. Perhaps the most successful case on record of paracentesis in pneumothorax is one which I published in 1865 and to which I can only now thus briefly refer Dr. Sutherland in the *Glasgow Medical Journal* for the above date, p. 165. In that case the patient was beyond doubt *in extremis* from suffocation and collapse, having been brought into the Royal Infirmary of Edinburgh by the police as a dying woman. It was before the days of aspiration becoming usual in this country, but not before I myself had been taught to aspirate by the late Dr. Bowditch of Boston, whose operations preceded those of Dieulafoy by twenty years or more. The chest in this case was punctured twice at an interval of a few days and each time with marked relief, but aspiration was not employed and according to my present judgment would not have been beneficial. The object in view was not at all to remove the whole or the greater part of the air, but only such amount as would come away through a very small-bore cannula, which was left *in situ* after insertion for two hours, so as to allow of the disturbed mechanical balance being readjusted. The air came away at first in such a blast as to blow out a taper over and over again; but after two such operations nature did the rest and so perfectly that there was no appreciable fluid effusion and the patient recovered. I think Dr. Sutherland will do still better in his next case *not* to aspirate, but to give time for the excess of air to come away. He says that on his first puncturing in his case "no air passed out." How did he ascertain this? It is easy to see that, when the aspirator was attached, "air was at once heard to pass into the bottle"; but my inference would be that if it would pass into the bottle thus it would also pass out without the aspirator to such an extent as was needful to relieve pressure. More than this should not, I think, be attempted, on the grounds so well put by Drs. Wilson Fox and Hilton Fagge.

I am, Sirs, yours truly,

Glasgow, June 20th, 1892.

W. T. GAIRDNER.

To the Editors of THE LANCET.

SIRS,—In Dr. Sutherland's interesting and able account of a case of pneumothorax successfully treated by aspiration I note the following remark:—"In considering the question of aspiration one point must not be lost sight of—namely, that an

attack of pneumothorax, by giving rest to the affected lung, may be a most effective therapeutic agent in phthisis." I am aware that this view is held by many and I believe that on similar principles some hold that pleuritic effusions in tubercular subjects are best left alone. In other words, the idea seems to be that a lung when collapsed either from the presence of air or fluid in the pleural cavity is in a condition of physiological rest, and is therefore better able to resist the inroad of tubercle than if it were working normally. I cannot help thinking that to regard a collapsed lung as an organ in a state of physiological rest and to consider collapse of a lung as in any way able to check the progress of phthisis is incorrect. When we speak of giving rest to an inflamed joint we mean absolute and complete immobility, and this is not incompatible with restoration of function. But is this so with the lung? The lungs take their rest between the acts of respiration, as does the heart between its beats. At no time does the physiological rest of the lungs amount to the condition of collapse. This physiological rest we attempt to secure by keeping the patient in bed, freeing him from excitement, quieting his circulation and reducing his temperature. I cannot see that we are justified in going further and depriving him, or allowing him to be deprived, of the use of his lung altogether. It seems little less than absurd to argue that a patient is better off without any working lung at all than he is with only a portion of it *hors de combat*. How is collapse of the lung supposed to check the spread of phthisis? Hilton Fagge says that the consequent anæmia of the part has this effect, but I have never yet seen a collapsed lung anæmic; on the contrary, I have always found it extremely vascular and congested with non-aerated blood. The circulation is doubtless less active in the collapsed than in the normal lung, but this would tend to confine the bacilli to the precincts of the collapsed part rather than to spread them into the general circulation, where we might hope they would find less comfortable quarters. What is the evidence on which it is thought that pneumothorax produces a beneficial effect on the progress of phthisis? It cannot be statistical, for the death-rate of pneumothorax in phthisis is from 50 to 90 per cent. It merely rests on the facts that in a few cases of recovery after pneumothorax the tubercular process has seemed quiescent, and that in some fatal cases the collapsed part of the lung has been the only portion found free from tubercle. But in the former cases we have no proof that the tuberculosis was not quiescent at the time of onset of pneumothorax, for pneumothorax is a pure accident and by no means an indication that the tubercular process is active at the time of its occurrence, whilst in the latter it is at all events probable that the collapse after pneumothorax of the only working portion of the lung was the actual cause of death.

In conclusion, I cordially agree with Dr. Sutherland that the best treatment in his case was the one which he adopted, and even at the risk of reopening a fistula I would do all in my power to favour re-expansion of a collapsed lung, whether the collapse be due to air, fluid, or both, in the pleural cavity.

I am, Sirs, yours obediently,

LEONARD G. GUTHRIE.

Upper George-street, W., June 27th, 1892.

### "EX-CATHEDRA UTTERANCES v. SCIENTIFIC CAUTION."

To the Editors of THE LANCET.

SIRS,—In deprecating the admission of medical controversial matter into the lay press, THE LANCET of May 7th, 1892, uses the following remarkable phrase:—"The writer regrets that scientific questions are not handled in the way in which men discuss them who 'have acquired the spirit of caution which illumines the *savant*, but darkens the counsels of the ignorant!'" How a spirit of caution can illumine one person and darken another is a problem not in my power to solve. The reason for this profound remark is a letter signed by one "Buggobutty Bose," which appeared in the *Bombay Gazette*. For all we know—or for that matter THE LANCET knows—to the contrary, Mr. B. B. may be a medical man; but however that be, his statement that to continue to employ a system which has been proved to be unsafe is criminal does not to my mind display ignorance. The point at issue is: Which of the two systems of administering chloroform shall be adopted, the Edinburgh or the London system? Is the respiration to be watched or the pulse? Mr. B. B. says that the Hyderabad Commission has proved that to "take the pulse as a guide to the effect of chloroform is unsafe." If it is

unsafe it would be criminal to use it. What is it precisely that the Hyderabad Commission has proved? It has proved conclusively that as long as chloroform is given in a diluted form, with perfectly regular respiration and is not pushed after anaesthesia has set in, there is no possibility of the heart being affected. When the heart is affected it is by interference with the breathing or by an overdose, whether directly or indirectly need not at present matter. Therefore to take the pulse as a guide for the effect of chloroform is to watch for results which, under proper administration, cannot occur and when they do occur are proofs that there has been maladministration. Without entering into the argument as to whether the respiration or the heart stops first, the Hyderabad Commission has proved that if the above conditions are fulfilled *and the breathing remains regular* there can be no possible danger. To watch the breathing, therefore, is the only safe way to ensure that condition in the patient which is absolutely essential and necessary for his safety. As soon as the pulse gives a signal of danger I maintain that safe limits have been overstepped and one or perhaps all the rules laid down by the Hyderabad Commission have been broken. Let anyone show me a single case in which these rules having been strictly followed the pulse has shown a sign of danger. This is the point between me and my opponents and until they can prove this no amount of assertion will avail. Under the London system of chloroform administration deaths are constantly occurring, whereas we can show a clean record without a single death during forty-five years. This is a plain hard fact which no argument can get over, and if Mr. B. B. understands that to follow a method under which deaths occur and to neglect a method which is free from deaths and danger is criminal, he is a person of sound common sense, whether he is a layman or a professional. The writer in THE LANCET says that the practice of the London anaesthetists has been more than once put before the profession in its columns and he again repeats that their system is to watch the respiration *as well as* the pulse. Our system is to watch the respiration only and the difference is irreconcilable. If we watched the pulse we should stultify ourselves by looking for effects which cannot be produced unless the patient's breathing has been obstructed or he has been poisoned by an overdose. We have had no deaths because we have no overdoses, and it is by watching the respiration only and never allowing the patient to inhale anything but air when it is irregular that we prevent their possibility. There is no necessity on this occasion to discuss the manner in which the overdose takes effect, whether by respiratory narcosis or by cardiac syncope. All we contend is, administer according to our system and there will be no such thing as an overdose. Mr. B. B. advances no "charge of wholesale crime against the bulk of the profession," as the writer in THE LANCET says. But until these facts are controverted I agree with him that in future it will be criminal to watch the pulse. Nor is it the large bulk of the profession that follows the unsafe and dangerous system. It is, as THE LANCET shows, the London anaesthetists who "consistently" do so. Unfortunately, they are the teachers of the English schools and consequently the evil is widespread and will be difficult to eradicate.

I am, Sirs, yours obediently,

EDWARD LAWRIE,  
Surgeon-Lieutenant-Colonel.

May 29th, 1892.

\* \* Surgeon-Lieutenant-Colonel Lawrie's remarks upon our annotation are simply a reiteration of his views. Some experimenters refuse to admit his results and English chloroformists naturally decline to accept his statements that they do not know how to give chloroform. Deaths, moreover, have occurred both in Scotland and England when Syme's rules have been faithfully followed. We can therefore only repeat that at present it behaves all concerned in this controversy to adhere strictly to the methods of science and avoid *ex-cathedra* statements or arguments based on premises which are themselves at present *sub judice*.—ED. L.

## THE MEDICAL PROFESSION IN PARLIAMENT.

To the Editors of THE LANCET.

SIRS,—In your first leading article of to-day's issue you refer to the politics of the immortal Sydenham in such a way as to

give the impression that Sydenham as a physician took part in politics; you include him in the list with Harvey, Arbuthnot and Meade. As everything connected with Sydenham is of deep interest you will forgive me for saying that there is no evidence that Sydenham the physician was even remotely connected with politics. Prior to meeting Dr. Thomas Cox he was, like his brothers William and Francis, a very pronounced Parliamentarian and like them took up arms for "the House and the Wood." But the fight for liberty practically ended with the surrender of Charles I. in 1646, fifteen months after which he was beheaded. Sydenham took his M.B. in 1648 and he was not admitted to the licence of the College of Physicians until June 25th, 1663, from which time, until his death in 1689, his name does not occur in politics. He was, unlike Willis or Harvey, who were both politicians and physicians, like his friends Havers and Glisson—when he put his hand to the plough he did not look back. His character is summed up in the quotation he selected for his "Medical Observations": "Whatsoever thy hand findeth to do, do it with all thy might; for there is no work, nor device, nor knowledge, nor wisdom in the grave, whither thou goest." In medicine Sydenham found a soul-satisfying study and to-day the civilised world benefits by his undivided love for the profession he adopted and adorned.

I am, Sirs, yours truly,

GEORGE FOY, F.R.C.S.I.

June 25th, 1892.

\* \* Mr. Foy has misread our article. That Sydenham took an active personal part in politics after he had become an eminent consultant we never asserted. That he was an example of Coleridge's remark that every man is born a Parliamentarian or a Royalist we did assert and we still maintain. His was essentially an innovating and reforming mind, not more so when he served as an officer with the forces of the Parliament than when, in his fortieth year, he, as "an innovator and something of a plain dealer," denounced to Mapletoft those "qui vitio statim vertunt si quis novi aliquid in medium proferat." His whole mental attitude and inclination was liberal, in perennial conflict with official conservatism and tradition, professional or lay. To deny this is to misunderstand Sydenham—the Sydenham of John Locke's noble elegiacs, the Sydenham of every biographer of him, from Dr. Samuel Johnson to Dr. John Brown. Mr. Foy will find an even more trenchant opinion than ours as to Sydenham's bias in politics in the appendix to the late Dr. King Chambers's Harveian oration (author's edition). That in Parliament he would have sat opposite to William Harvey who can doubt? We never hinted that "Sydenham the physician took part in politics." Our whole contention was that the political career should be reserved for those of the profession who had graduated without intention to practise, or who were in the position of emeritus practitioners, retaining full possession of their powers and willing to devote their experience and their leisure to the good of the body politic.—ED. L.

## "THE VACCINATION EGG."

To the Editors of THE LANCET.

SIRS,—The confirmation of Jenner's observations as a naturalist, which formed the subject of your leading article last week, is the latest, but it is not the one that is best known. Another confirmation made in 1871 was published in *Nature* (vol. v., p. 382), which is even more interesting as bearing out Jenner's original account in its most distinctive and most minute points and as having served to convince Darwin, who introduced a paragraph into his latest revision of the "Origin of Species," calling it "a trustworthy account of a young cuckoo, which was actually seen, whilst still blind and not able even to hold up its own head, in the act of ejecting its foster-brothers." To show how closely Mrs. Blackburn's account agrees with that of Jenner I have written a few sentences from each in parallel columns. The original observations were made near Berkeley on June 18th, 1787; the confirming observations in Argylshire in June, 1871. In the former case a hedge sparrow's nest contained when first seen two of the bird's own eggs with one cuckoo's egg, and next day the newly hatched cuckoo and one newly-hatched hedge sparrow; in the latter case a meadow pipit's:

nest when first seen had two partly fledged pipits with one cuckoo's egg and next day the newly hatched cuckoo only, the two young pipits, which were several days old and open-eyed, having been found lying on the bank at a distance of ten inches from the nest. They were put back, being still alive, and then ensued the events which are related in the right-hand column:—

Jenner's account, "Phil. Trans.," 1788, p. 225.

"The mode of accomplishing this was curious: the little animal, with the assistance of its rump and wings, contrived to get the bird upon its back and making a lodgment for the burden by elevating its elbows clambered backward with it up the side of the nest till it reached the top, where, resting for a moment, it threw off its load with a jerk and quite disengaged it from the nest.

"It remained in this situation a short time, feeling about with the extremities of its wing, as if to be convinced whether the business were properly executed and then dropped into the nest again."

Dr. Norman Moore, in his Life of Jenner in the "Dictionary of National Biography," has called attention to the fact that the well-known naturalist Waterton, the author of "Wanderings in South America" and "Essays on Natural History" (both edited by Dr. Moore, with an excellent biography of the author), had rejected Jenner's narrative as incredible. "The young cuckoo," wrote Waterton, cannot by any means support its own weight during the first day of its existence. Of course, then, it is utterly incapable of clambering rump foremost up the steep side of a hedge sparrow's nest with the additional weight of a young hedge sparrow on its back. The account carries its own condemnation, no matter by whom related or by whom received." It is singular that Waterton, who was well known to be a strict Roman Catholic, should have actually used Hume's famous argument on miracles in order to discredit a fact in natural history which was generally accepted by naturalists at the time of his writing (1836). It is more probable, he implies, that the witnesses should have been deceived than that the events should actually have taken place. But he would not have argued so concerning the events which Hume thought incredible, nor even concerning ecclesiastical miracles of much more recent date. Dr. Norman Moore, as in private duty bound, backs up Waterton and calls Jenner's narrative of the young cuckoo an absurdity. He has also found a passage in Baron's "Life of Jenner" which leads him to think that the merit (or demerit) of the observations really belongs to Henry Jenner, then a lad, who was set to watch the cuckoo's nest and to report to his uncle. Baron's statement (vol. i., pp. 85, 86) is no doubt to that effect; but why should we assume with Dr. Norman Moore that Henry Jenner "gave an imaginary account"? Why should not a lad be a competent witness? Darwin was at length satisfied with the testimony of a lady, a talented artist. The testimony of the gentleman at Otlands in 1886 was in your opinion strengthened by that of his sister and of another lady. Nor is it certain that Jenner was dependent to the extent that Baron implies on the reports brought to him by his nephew? For in relating the successive steps of the ejection in his letter to the Royal Society he uses four times the expression, "I saw," or its equivalent.—I enclose my card and I am, Sirs, your obedient servant,

June 27th, 1892.

M. N. O.

## BOVINE TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—With reference to your article upon the probability of bovine tuberculosis being transmitted to man through

eating the flesh or by drinking the milk &c. of such diseased animals, I desire to point out to you the fact that at least one-third of the Kaffir diet in Africa consists of sweet and sour milk, that the flesh of cattle dying of all sorts of diseases—including those dying of tuberculosis—is devoured both in a well cooked as well as in a half raw state by the natives; yet phthisis is a rare disease amongst either the adult or infantile native population; indeed, from a long intimate association with the natives of South Africa I have never met with any cases of disease traceable to the circumstance you so alarmingly describe as daily happening in the British Isles. That phthisis does exist amongst the bovines of South Africa is tolerably well known by those who have studied the subject. It will also be borne in mind by you that the "raw" native uses little clothing, but plenty of red clay, lives in ill-ventilated huts and when not in them (the huts) spends most of his daily life in the open. I am, Sirs, yours obediently,

Herschel, South Africa.

S. CARTWRIGHT-REED, M.D.

## THE FRENCH WORKMEN'S SANITARY CONGRESS.

(FROM OUR SPECIAL CORRESPONDENT.)

It is now definitely decided that the French Workmen's Congress of Hygiene will meet on July 3rd and terminate its labours on July 10th. We have already described the nature and origin of this Congress. It is organised by the Possibilist Party, the most influential of the various factions in which the Labour Party of France is divided. This party has determined that it will try and effect some immediate improvement in the condition of the working classes and for once leave abstract theories of social justice aside, so as to secure for the living generation practical advantages. No legislative or political question offered a better field for such action than the broad issues raised by sanitary reformers. It has already been explained that the Sanitary Workmen's Congress was to be preceded by a series of six lectures and we described the first of these lectures delivered by Dr. Dujardin-Beaumetz on Food. The five other lectures have also been delivered and proved most successful. They were each attended by more than a thousand workmen, all representative men, who listened with such rapt attention and showed such enthusiastic appreciation of what was taught by the eminent lecturers that some of the lectures were prolonged for more than two hours. What is more remarkable is the fact that the more scientific the lecture became the more it was appreciated. When dealing with more purely workmen's questions, such as factory legislation, the attention was not so marked, but it became intense when the lecturers described the chemistry of food, the circumstances that affected the quality of mothers' milk and the vital statistics that demonstrated the fatal consequences of bad sanitation. These lectures are being published in the cheapest form, so as to be accessible to the working classes and the most scientific lectures command the best sale. This is a fact well worth noting, for it shows the determination of the more intelligent working men to acquire a scientific basis for their opinions. A large number of the workmen who attended these lectures have also visited the municipal laboratory, where methods of detecting the adulteration of food were shown. The question of adulteration proved very interesting and fraudulent practices in providing alimentary supplies would be suppressed with no light hand if the working classes alone had to decide such questions. The disinfecting station, the sewers, the sewage farm and other places of interest as bearing on public health have been visited by hundreds of workmen during the last few weeks. They were always accompanied by engineers or others who could give full explanations.

Now that the period of instruction is nearly completed, the workmen who have followed these lectures and these investigations are discussing in their respective societies how the knowledge they have acquired can be practically applied. The various trades unions and other workmen's societies belonging to the Possibilist Party are busy drawing up reports and proposals which they will present at the forthcoming Congress. A Commission on each subject will be appointed to study these reports and proposals, take the best points out of them and combine them all in one single report and one set of resolutions. Then discussions will follow and

we shall see to what extent the labour organisations of Paris have profited by the lessons they have had and how they propose to deal with those sanitary problems which in France at least have in the main been discussed only by experts. Apparently the workmen are well satisfied with what scientific men have told them. They do not wish to go any further; they accept what they have been taught, they only demand that the moral of the lesson should be enforced by suitable legislative enactments. The approach of this original style of congress—for I am not aware that in any country workmen have held a sanitary congress—has attracted a great deal of public attention. The French press has given it wide publicity and in the country several municipalities have decided to encourage this effort. The Municipalities of Lilles, Blois, Angers, Tours and Châtelleraul have voted subventions to enable the workmen of these towns to send delegates to the Congress. From abroad also expressions of sympathy and interest have been received. Though the Congress is a purely national gathering, foreign representatives will be welcomed with great cordiality as honoured guests. There is no doubt that a large number of trade unionists would be present but for the general elections which will take place in England just at the time the Congress will meet in Paris.

Paris, June 28th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### Notification of Infectious Diseases.

A CASE was heard last week before the Tynemouth Petty Sessions which shows how careful practitioners should be not to place themselves in a false position by inattention to the requirements of the Infectious Diseases Notification Act. The defendant (a qualified man) was summoned at the instance of the Tynemouth Rural Sanitary Authority for not sending to the medical officer of health of the district a certificate notifying that a child was suffering from typhoid fever. The defence was that the child was not suffering from typhoid fever and that if it was the fever was over when the practitioner was called in. The magistrates, however, decided from the evidence that the case was one of typhoid fever and therefore inflicted a fine of 20s. and costs, the latter, it is said, amounting to three guineas. The father of the child was also summoned for not reporting the case, but, pleading ignorance of the law, got off by paying costs.

### Typhoid Fever at Northallerton.

There is said to be an alarming epidemic of typhoid fever at Northallerton and it has been decided to ask the Local Government Board to hold an inquiry into the cause of the outbreak as soon as possible. The worst of these inquiries is that it is generally so long before the reports come out that they are of little or no use in the way of affecting an epidemic, but the people of Northallerton should in the meantime bestir themselves to get at and remove the cause.

### Carlisle.

The outbreak of typhus fever which caused such alarm a few weeks ago is not yet stamped out, a fresh case being reported, a female, who had been in almost daily contact with other cases. The medical officer of health has recommended that the period of convalescence should be extended to that usually recognised as necessary—namely, four weeks—some of the patients having been discharged after a little over three weeks, which he considered too short and unsafe. As to the water-supply of Carlisle, an informal examination has been made of the water of the upper reaches of the Caldew, which was found to be pure and free from organic contamination and a favourable impression was made as well as to the quantity which could be obtained, for practically there is no limit to the storage capacity of the watershed when the country above Mosedale and Skiddaw Forest is taken into account. The water will, however, have to be carefully examined and tested as to its action on lead.

### Small-pox on Tees-side.

Dr. Malcomson, the medical officer of health for Middlesbrough, has reported five cases of small-pox since its last meeting to the committee of the Middlesbrough Fever Hospital, one of which was the fatal case of the Spanish seaman previously noted and of the others three were from Stockton; these were all from one house, were very bad cases, and were all unvaccinated. The fourth case was that of a shop-

man who had probably contracted the disease in the course of his business.

### Darlington: Curious Meteoric Phenomena.

At the last meeting of the Darlington Naturalists' Field Club some fragments of stone were exhibited which were observed to fall in numbers on the flags of the High-row, one of the principal thoroughfares of the town, during one of the late severe thunderstorms. The fragments were the size of a horsebean and presented some evidence of having been fused. The *Northern Echo* says they were handed over to Mr. Stock, F.C.S., county analyst, for examination.

### A Medical Missionary Society for Newcastle.

It is proposed to form a medical missionary society for Newcastle and a circular has been issued to the profession calling a meeting for next Thursday at the College, at which Professor Philipson is announced to preside and Dr. Henry Martyn Clark, who has had considerable experience in medical missionary work in the Punjab, will give an address.

### Match-poisoning at South Shields.

A case of poisoning by phosphorus is reported from South Shields. A married woman, having steeped some lucifer matches, drank the infusion and then told her husband. Medical aid was at once sought and the stomach-pump was used—it is hoped with effect—but she is still in a precarious state.

### The Tyne and Norway.

We have now steamers running every day to and from Norway, making the North Sea a regular ferry. The fine Atlantic steamer the *City of Richmond* goes on regular fortnightly cruises. Last week she went off from the Tyne with her full complement of 260 cabin passengers. On Saturday a very large party of Americans arrived in Newcastle, en route to Norway. I mention this in case any of your readers are thinking of crossing from the Tyne, that they may make their arrangements in good time to save disappointment, as the Tyne is a favourite route. It is calculated that 20,000 persons crossed last year and this year I hear that the number is likely to be even more.

The guardians of the Easington Union, county Durham, have decided to build a new infirmary at the workhouse forthwith. The cost of its erection will be about £5000.

The committee of the Gateshead Children's Hospital have received a further gift of £250 from the executors of the late Mr. J. Glenton, of this city.

Newcastle-on-Tyne, June 29th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

### Edinburgh Medico-Chirurgical Society.

A SPECIAL meeting of this Society was held last week and was devoted to a discussion on pernicious anæmia, introduced by a long paper by Dr. Brakenridge on the treatment of the disease by the transfusion of human blood. The results recorded were very striking and extended over a period of about seven years. Dr. Affleck also gave notes of a case he had treated in this way with remarkable success. A long discussion followed in which the pathology and treatment of different forms of anæmia were considered and also the best method of performing transfusion and the precautions to be used. The paper and the discussion which it evoked will probably determine a new departure in the treatment of the hitherto incurable cases of the disease.

### The Edinburgh Water-supply.

The committee of the Edinburgh and District Water Trust appointed to consider the report of the engineers upon the water-supply of the city have, it is understood, drawn up the following recommendations: (1) that the Deacon metre should be more largely used to check waste; (2) that the Trust should have power to regulate the water fittings; (3) that application should be made to Parliament for a Bill for the introduction of a new supply.

### The Volo Plague in Scotland.

The committee appointed by the Board of Agriculture to investigate this matter has had one or two meetings. At one of these Professor MacFadyean said he thought the plan of Loeffler feasible and it would be well that an application should be made to him for the means of making the experi-

ment. It will be remembered that Loeffler's method of destroying the animals is by contaminating their food with an organism which is specially fatal to them and not to other mammals.

#### *The Health of Edinburgh.*

The mortality last week was 82, making the death-rate 16 per 1000. Diseases of the chest accounted for 30 deaths and zymotic diseases for 7. The intimations for the week were—typhoid fever 12, diphtheria 2, scarlet fever 35, and measles 67. June 28th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

### *University of Dublin.*

COL. LOWRY is a candidate for the representation of the University at the general election. In his address to the electors when referring to the medical graduates, who form a considerable portion of the constituency, he states that the medical profession has a special claim upon the representatives of the University, for unlike the legal profession very few of its members have seats in the House of Commons. The dispensary medical officers in Ireland he acknowledges have long had reason to complain of their position in regard to both their duties and their pensions, and he promises if elected to give his special attention to the interests of this large and important body. Mr. Carson, Q.C., his opponent, takes somewhat similar views as regards the grievances of dispensary medical officers.

### *Parliamentary Medical Representation.*

The question of parliamentary medical representation has engaged the attention of the Council of the Irish Medical Association and at a special meeting held last week to consider the matter, the following resolutions were unanimously adopted:—"That the Council of the Irish Medical Association having considered the question of special parliamentary representation for Irish Poor-law medical officers, and having had the advantage of hearing the views of the deputation which attended from the Irish Parliamentary Representation Committee, hereby approves the action of that committee, and cordially recommends the movement to the members of the association and the medical profession in Ireland. That the Irish Parliamentary Representation Committee be requested to keep this Association informed as to its proceedings. That the Executive Committee of the Irish Medical Association be instructed to make immediate inquiry from each parliamentary candidate as to his views on the redress of Poor-law medical officers' grievances."

Mr. Kenny, M.P., coroner for the city of Dublin, will be a candidate for one of the Dublin divisions at the coming election.

### *County Galway Census.*

The population of the County Galway has decreased since the last decade by 11.5 per cent. The number of persons receiving Poor-law relief has increased from 1 in 60 to 1 in every 52 of the population. The births registered during the ten years amounted to 50,347, a number equal to 22.0 per 1000; the average rate for the whole of Ireland being 23.2. The deaths were 31,998, equal to 14.0; the rate for the entire country being 17.8.

### *The late Dr. Robert McDonnell, F.R.S.*

A bust of this eminent surgeon, by Mr. Bruce Joy, the well-known sculptor, will be unveiled at the Royal College of Surgeons during the Tercentenary of Trinity College. June 28th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

### *Extirpation of the Liver in Frogs.*

THE removal of the liver does not in the frog involve an immediately fatal issue, as is the case in mammals. The duration of the survival is, however, a question upon which physiologists differ, Müller maintaining that death supervenes in three or four days, whilst Moleschott states that the liverless frog does not succumb until as many weeks have elapsed. M. Roger has investigated this point and finds that of two frogs deprived of their livers one which is placed in a vessel containing water which is not renewed dies in three or four

days, whilst the other, which is kept in water maintained at a uniform temperature and which is constantly renewed, lives for a period varying from eight to fourteen or even twenty days. The explanation is easy. The functions of the liver being suppressed, extra work is thrown on the kidneys to eliminate the products of metamorphosis. When the animal is placed in stagnant water these excreted products are reabsorbed and the frog dies poisoned sooner than is the case with the frog kept in a running stream.

### *Death of the Inventor of the Hypodermic Syringe.*

The ordinary hypodermic syringe is known in France as the "seringue de Pravaz," the instrument having been invented by Dr. Pravaz of Lyons. The death of this gentleman is announced in this week's journals. He was the director of an orthopædic establishment in the silk capital and was well known as a *médecin orthopédiste*. In England the practice of hypodermic medication is generally associated with the name of Dr. Alexander Wood of Edinburgh.

### *Therapeutics of Typhoid Fever in the Paris Hospitals.*

There exists in Paris, as in London and other medical centres, much divergence of opinion as to the efficacy of cold baths in the treatment of enteric fever. This method is attributed in this country to Brand of Stettin, although it had been advocated nearly a century ago by our own countryman, Currie. Dr. Jubel-Rénoy has just communicated to the Société Médicale des Hôpitaux the result of an inquiry he has conducted into this question. For this purpose he applied to eighty colleagues, forty of whom replied. Of these hospital physicians fourteen disapprove of the systematic employment of the cold bath. Twelve, on the contrary, are enthusiastic believers in the method which they apply indiscriminately to all cases, whether they be light or severe in character. Two believe in tepid baths gradually cooled down and eight, while approving generally of cold baths, impose certain restrictions. Of 175 cases treated by the adversaries of the method, 25 died, giving a mortality of 14.2 per cent. Thirty-nine cases treated by the method, with restrictions, yielded one death, or 2.56 per cent. In Professor Bouchard's wards, where progressively cooled tepid baths are in fashion, 54 out of 554 cases died, or 9.74 per cent. The advocates of systematic cold baths lost 40 out of 492 cases, or 8.13 per cent. M. Jubel-Rénoy concluded his paper by expressing his opinion that the introduction of balneotherapy into typhoid fever wards had been the means of reducing the mortality from that disease at least 5 per cent.

Paris, June 20th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

### *The Twenty-first Surgical Congress.*

AT the last sitting of the Surgical Congress, Professor Julius Wolf of Berlin showed a man whose larynx had been completely extirpated and replaced by an artificial one made by the mechanician, Oehmke. The man spoke so loudly and distinctly that he was heard in all parts of the hall. He can even sing a little. The artificial larynx gives him little inconvenience and he can easily change it at will. Schmidt of Cuxhaven spoke on the total extirpation of the popliteal aneurysm and on a congenital bending of the cartilage of the epiglottis. Professor Olshausen of Berlin discussed the total extirpation of the uterus for cancer and showed about forty preparations. He maintained that this operation ought to be much more frequently performed than it is. His opinion is based on experience of many hundreds of cases. Several members, including Thiem of Kottbus, expressed their agreement with him. Förk of Vienna, Braun of Königsberg and Eyselsberg of Vienna spoke on primary sarcoma of the small intestine, Schüller of Berlin on the application of the sculptor's chisel to bones and joints, especially in tuberculous diseases; on chronic rheumatic inflammations of the joints and on cases of osteotomy. Riedel of Jena showed hammers and chisels made of Mannesmann tubes. Thiersch's assistant, Urban of Leipsic, spoke on a new operation successfully performed by Thiersch for compression of the spinal cord by displacement of the bodies of the vertebrae. Under the diseased part a horizontal cut is made to the vertebral column and two cuts on both sides of the column and parallel with it upwards from the ends of the horizontal cut to above the diseased part. From these vertical cuts the column is then chiselled

on both sides, till one can fold the upper half of it, with the skin and muscle-flaps, upwards and thus expose the spinal cord. One then removes the parts of the vertebra which cause the compression and closes the column again. Philipp of Berlin reported his very favourable experience of pental as a narcotic for children, Schede of Hamburg his much less favourable experience of the same narcotic in adults. Schleich of Berlin spoke on local anæsthesia. He has tried to produce anæsthesia by injecting not only cocaine but also other substances into the tissues. He succeeded with chloride of potassium, common salt, sugar and even with distilled water. He resorts to general narcosis only when local anæsthesia proves impracticable or inadequate. Körte of Berlin spoke on the surgical treatment of purulent peritonitis and Lauenstein of Hamburg on agglutinations and omental cords in the abdomen as the cause of very severe colic. The meeting was then closed and three cheers for the chairman were proposed by Esmarck and given by the assembly.

#### *Koch's Tuberculin.*

The preparation and sale of Koch's tuberculin, which have hitherto been in the hands of Dr. Libbertz, will be transferred on the 1st prox. to the great chemical works (formerly Meister, Lucius and Brüning) at Höchst, near Frankfort-on-the-Maine. The fluid will continue to be tested by Dr. Libbertz, who will remove to Frankfort.

#### *New Material for Medical History.*

The well-known Berlin professor of church history, Adolf Harnack, a brother of the professor of medical chemistry at Halle and a son-in-law of the celebrated Leipzig surgeon Thiersch, has collected and published everything connected with the art of healing met with by him in writings bearing on ancient church history. The name of the work, which is dedicated to Thiersch, is "Medizinisches aus der ältesten Kirchengeschichte" ("Medical Matter from the Oldest History of the Church").

#### *New Publications.*

"Cesare Lombroso and the Natural History of Crime," by Dr. Kurella, published in the 147th number of the "Collection of generally intelligible Scientific Lectures," edited by Rudolf Virchow and Wilhelm Wattenbach; "Tone Deafness and Instruction in Music," by Dr. Kunn; "The Progress of Cremation in Germany," by Baron Engerth; the "Successful Treatment of Influenza by Hypnosis," by Dr. Grossmann; "How to kill Bacilli and cure Phthisis," by Ferdinand Koenig of Halberstadt.

#### *Surgeon-General Roth.*

Surgeon-General Dr. Wilhelm Roth died at Dresden on June 13th. He published "Studies of an Army Surgeon" on the camp of Chalons, medical affairs in Belgium, Hanover and England and military medicine at the Paris Exhibition, a "Handbook of Military Hygiene," "Studies on Official and Voluntary Care of the Sick" and the "Elements of Physiological Anatomy for Teachers of Gymnastics." He wrote in periodicals on the English sanitary service in the Abyssinian expedition, the Dutch sanitary service in the war against Atchin, the Russian sanitary service in the Turkish War, military magazines in war and military medical exhibitions and necrological notices of eminent medical men. He was born in 1833, studied in Berlin, graduated in 1855, went to the Frederick William Institute in Berlin as staff surgeon in 1861, was appointed to teach in the Central School for Gymnastics in 1863, promoted to the rank of surgeon-major in 1867 and appointed to teach in the Academy of War. In 1870 he was appointed surgeon-general and corps-surgeon of the Saxon Army Corps.

Berlin, June 28th.

## CANADA.

(FROM OUR OWN CORRESPONDENT.)

#### *Ontario Medical Association.*

THE twelfth annual meeting of the Ontario Medical Association was held in Toronto, June 1st and 2nd, under the presidency of Dr. Richard A. Reeve, Toronto. At the general sessions there was a series of discussions as follows:—  
Obstetrics: The Third Stage of Labour, led by Professor A. H. Wright. Medicine: Diphtheria, A. S. Fraser. Surgery: The Present Status of Antiseptics in Surgery, R. B. Nevitt. Rhinology: Hay Fever, A. B. Welford. Therapeutics: The Therapeutics of Constipation, J. C.

Mitchell. The president of the American Medical Association (Dr. H. O. Marey, Boston) was with us and addressed the Association upon the Anatomy and Surgical Treatment of Hernia. Among the cases presented was one of Landry's Paralysis (Dr. Powell, Toronto), the patient, a man, having regained to a limited degree the power of locomotion. There were over 200 practitioners in attendance at the meetings.

#### *Medical Officers of Militia.*

The surgeons attached to the various militia corps of Canada formed recently an association to be known as "The Association of Medical Officers of the Militia of Canada." Its objects are briefly as follows: (1) The bringing of medical officers in closer relation and the development of a departmental *esprit de corps*; (2) the discussion of matters relating to the medical department of the militia; (3) the discussion of military matters from a medical standpoint; (4) the reading of papers on military medicine, surgery, &c. The first annual meeting was held at the time of the meeting of the Ontario Medical Association, under the presidency of Dr. F. W. Strange. Papers were read by Dr. Warren on Ambulance Work during the Franco-Prussian War and by Dr. Daniel Clark, once Inspector of Surgeons in the United States Army, on Some Brain Wounds, with Results.

#### *Victoria Hospital for Sick Children.*

The Victoria Hospital for Sick Children was formally opened last month by Mr. J. Ross Robertson, president of the board of trustees. This handsome and commodious building has cost £30,000 and is perhaps the most complete of its kind in America. The only thing to be regretted is that there still remains a debt of about £20,000, the existence of which must cripple its usefulness.

#### *Victoria University.*

The last convocation of Victoria University was held last month in Cobourg. Upon the reopening of the College in October next lectures will be given in the new buildings in this city and it will become federated with the University of Toronto, having seven representatives upon the Senate of the latter institution, the charter of the Victoria University not being set aside, but simply held in abeyance during the continuance of federation.

#### *Canadian Qualifications.*

In THE LANCET of April 30th appears a notice of an inquest, at which one T. J. McDonald is quoted as stating he held the degree of M.D., C.M. of the University of Toronto. Such cannot be the case, as the University of Toronto confers only the degrees M.B. and M.D. There does, however, appear upon the roll of graduates of Victoria University the name T. J. McDonald, 1886, M.D., C.M.; but the name does not appear upon the roll of licensed practitioners of the College of Physicians and Surgeons of Ontario, the holding of a University degree in Ontario not being a qualification to practise, the licence of the above-named College being the *sine quâ non*.

## Obituary.

#### SIR WILLIAM AITKEN, M.D., LL.D., F.R.S.

THIS distinguished physician and author, who had long been the subject of renal disorder, succumbed to its effects after some weeks of suffering on the morning of June 25th. The usual indications of uræmia, succeeded by an attack of syncope, were the immediate precursors of the fatal event. Sir Wm. Aitken was the son of a medical practitioner in Dundee, Forfarshire, and was born there on April 23rd, 1825. He was educated in the High School of his native town and on leaving school was apprenticed to his father, at the same time that his friend, now Sir Andrew Clark, Bart., was apprenticed to another practitioner in Dundee. While serving as an apprentice to his father he was a constant attendant in the wards of the Dundee Royal Infirmary. In November, 1842, he matriculated as a student in the University of Edinburgh and after attending classes in the Faculty of Arts and passing through the medical curriculum he graduated as Doctor of Medicine in August, 1848. At the graduation he received a gold medal for a dissertation on a pathological subject. In the same year he became a Licentiate of the Royal College of Surgeons of Edinburgh. In October, 1848, he became associated with the late Dr.

Allen Thomson, professor of anatomy in the University of Glasgow, as Demonstrator of Anatomy and he continued to hold that office, as well as the office of Pathologist to the Royal Infirmary, up to the year 1855.

In the year 1855 Dr. Aitken was appointed by Lord Panmure, then Minister for War, to proceed to the seat of war in the East as "first assistant pathologist" in association with the late Professor R. D. Lyons of the Catholic University, Dublin, to investigate the nature of the diseases from which the troops in the Crimea were suffering and which at the time were filling the hospitals on the Bosphorus with patients. The outcome of these investigations was a valuable report which was presented to Parliament and printed by order in the year 1856. It appeared in the form of a Blue-book of 120 pages bearing the signatures of Drs. Lyons and Aitken, and has since formed an important work of reference on the subject of the diseases which proved so terribly fatal to the British army in the early period of the Crimean War.

In the beginning of the year 1860 Dr. Aitken was selected by the Secretary of State for War, the Right Hon. Sidney Herbert, afterwards Lord Herbert, for the post of professor of pathology in the Army Medical School which was about to be established at Port Pitt, Chatham. The school was opened in October of the same year and from that date until the month of April of the present year he fulfilled the duties of that office. The fast declining state of his health then compelled him to seek leave of absence. This was granted and at the same time it was arranged that he should finally retire from the professorship at the close of the session in July. But, alas, his own end has anticipated this arrangement.

In 1873 Professor Aitken was elected a Fellow of the Royal Society and in August, 1887, the honour of knighthood was conferred on him by the Queen at Osborne on the occasion of Her Majesty's Jubilee. In April, 1888, the University of Edinburgh conferred the degree of LL.D. (*honoris causa*) on Sir Wm. Aitken and in August of the same year the University of Glasgow conferred a similar honour upon him. In the following year his portrait, painted by W. R. Symonds, which had been subscribed for by members of the military medical services, was presented by the subscribers through the Director-General, Sir Thomas Crawford, K.C.B., to the Army Medical Department. It is now on the walls of one of the mess-rooms belonging to the Medical Staff at Netley. An enlarged portrait photograph also exists among the British Museum of Portraits at South Kensington.

As a practical pathologist Sir Wm. Aitken occupied an almost unrivalled position. No one who attended his post-mortem demonstrations prior to the time of his failure in health can forget the admirable precision with which he proceeded, step by step, to unfold to view the anatomical structures and internal organs of the subject before him, to indicate and expound every departure, however minute, from their normal condition and aspect, or the masterly way in which he would connect the pathological changes presented to notice with the previous history and symptoms of the disease which had led to the death of the patient in the case under observation. They were impressive lessons, conveyed through the eye and the ear, which could not readily be forgotten by any of the medical officers who were present at his demonstrations. For some time prior to his decease Sir Wm. Aitken had been engaged in writing a descriptive catalogue of the preparations in the celebrated Pathological Museum belonging to the Army Medical Department, which is now located at Netley. He had completed a first volume, and the fact that the undertaking cannot now be accomplished by one so thoroughly conversant with the museum and its contents and so admirably fitted to describe them is a matter most deeply to be regretted. The break in the work is not merely a misfortune for the Army Medical Service, but is a real loss to the general stock of medical science. Sir Wm. Aitken was a warm-hearted sincere friend, upright and honourable in all his views and dealings and a most loyal colleague. The writer of this brief notice never heard of his having an enemy; his friends seemed to be all who had ever known him.

In conclusion, the titles and dates of some of his numerous publications on pathology and the science of medicine may be briefly mentioned:—1849: "On Inflammatory Effusions into the Substance of the Lungs as modified by Contagious Fevers." 1857: "On the Diseases of the Troops in the East during the Russian War and on the Climate of Scutari on the Bosphorus." 1857: "On the Persistent and Pernicious Influence of the Residence in Bulgaria on the Subsequent

Health of the British Troops in the Crimea." 1857: "On conducting Post-mortem Examinations at Coroners' Inquests." 1857: "Critical and Analytical Review of Recent Works on the Pathology of Vaccination and its Protective Influence from Small-pox." 1858: "Analytical and Critical Review of the First Decennium of the Pathological Society of London." 1858: "Handbook of the Science and Practice of Medicine." This work reached a seventh edition. 1884: "On the Growth of the Recruit and the Young Soldier." A second edition of this work has been since published. 1885: "On the Doctrine of Evolution in its application to Pathology." 1886: "On the Animal Alkaloids." 1892: The first volume of the "Descriptive Catalogue of the Pathological Museum at Netley," already adverted to, is now in print and will shortly be published.

#### DR. ENRICO TANFANI.

SELDOM has a career of such promise been so sadly extinguished as that of this young and exceptionally able medical man. Dr. Tanfani had recently graduated, but even in his student days he had justified the brightest expectations already formed of him and was, as soon as he was eligible, appointed assistant to Professor Caruel in the Istituto di Studi Superiori at Florence, where he had passed through a scientific and professional curriculum with unusual credit. He had also been promoted to a mastership in the Collegio Militare of Florence and was gaining the esteem and affection of a constantly increasing *olientile* when he was overtaken by the accident that so prematurely cut short his life. A proficient, it appears, in the art of fencing, in which the Italians have long held a lead, he had lately succeeded to the post of President of the Circolo Fiorentino di Scherma (Florentine Fencing Club), and on the evening of June 14th he was engaged in a match with a very capable antagonist. All at once Dr. Tanfani gave a cry of pain and fell to the ground bathed in blood. His opponent, in making a lunge with considerable force, had not seen that his foil had lost its button and so the blade penetrated deeply into Dr. Tanfani's breast. He was conveyed at once to the Arcispedale di St. Maria Nuova hard by and found to be in a desperate condition. Every care that skill and devotion could lavish on him was taken, but he lingered only a few hours, dying of internal hemorrhage in the presence of his mother, the Countess Tanfani, and near relatives. The funeral took place on June 17th and was accompanied by a long train of colleagues and friends to the cemetery, where the body was afterwards cremated. His chief, Professor Caruel, made touching allusion in a brief *oraison funèbre* to his estimable qualities and to his career of promise arrested almost on the threshold and was followed in similar strain by more than one speaker, among them a pupil of the deceased. Every profession in Florence was represented by the mourners, the majority being equally divided between the medical school and the military college, with both of which Dr. Tanfani was officially connected.

## Medical News.

UNIVERSITY OF DUBLIN.—The following degrees were conferred last week:—

*Bachelor in Medicine, Surgery, and Obstetrics.*—J. Barcroft Anderson, William Bleazby, Robert James Coulter, Arthur James Cree, Charles Chatterton Deane, John Elliott, George Gower Fannin, Montagu Lawrence Griffin, Richard Henry Kennan, Sam. Mathews, Frederick Wm. Staunton, Charles Elrington Stokes, J. Thompson, Alfred Ernest Wales, Claude Ernest Wellington Wilmot.

*Doctor in Medicine.*—Theodore Bell, Joseph Blood, Rudolph Arthur Colston Burns, Harloe Henry Fleming (*In absentia*), Richard Lane Joynt, Richard Frederick McGrath, Thomas Myles, Brendan McCarthy, Robert William Henry Jackson, Richard Dancer Purfoy, Alfred Ernest Wales.

METROPOLITAN OPEN SPACES.—At a meeting held on the 23rd ult., at the Harlesden Court-house, it was unanimously resolved to recommend the Willesden Local Board to purchase Roundwood Park for a public recreation ground.

THE RETFORD DISPENSARY AND COLLEGE HOSPITAL.—The annual report for the past year shows that in the dispensary department 690 patients' tickets were issued and the cases attended to and eighteen hospital cases were treated. The financial position continued satisfactory; the balance in hand was £85 11s. 9d. in excess of the previous year.

**NEW SOUTH WALES.**—Active measures have been taken to organise a Sanitary Institute in Sydney; membership will be open to medical practitioners, sanitary engineers and architects. The object of the movement is to promote attention to all matters relating to sanitation.—A new Cottage Hospital of three wards with six beds has been opened at Walcha.

**SOCIETY FOR THE STUDY OF INEBRIETY.**—A quarterly meeting will be held in the rooms of the Medical Society, 11, Chandos-street, Cavendish-square, London, W., on Tuesday afternoon, July 5th, at 4 o'clock, the president, Dr. Norman Kerr, in the chair. Paper—"The Urgent Need for Improved Legislation for Inebriates"—H. W. Williams, M.D.

**CAMBRIDGE UNIVERSITY.**—Dr. Anningson and Mr. Robinson, M.A., will deliver a course of practical instruction in Hygiene at the Cambridge University during the long vacation, 1892. The course, commencing on July 9th, will consist principally of practical instruction in the sanitary examination of water, air and foods, chemically and microscopically, having special regard to the requirements of medical officers of health.

**ROSE SHOW AND FLORAL FÊTE.**—At the Mansion House on Friday afternoon, June 24th, H.R.H. the Princess Christian, accompanied by Princess Victoria of Schleswig-Holstein, opened a grand show and floral fete in the presence of a numerous gathering. The exhibits comprised one of the most magnificent collections of flowers ever got together in the city. The Lady Mayoress presided over the chief stall and the wives of the two sheriffs performed similar functions, Mrs. H. S. Foster being energetically seconded by Mrs. Edgar Jenkins, Lady Monkton, the Countess of Bective, Mrs. Frank Grimwood and Mrs. Soulsby, and many other ladies attended the stalls they had so generously decked and the Prince of Wales sent a large consignment of roses and carnations from Sandringham.

**BEQUESTS AND DONATIONS TO HOSPITALS.**—The late Mr. E. M. Bainbridge, of Eshott Hall, Felton, bequeathed £1000 each to the Fleming Memorial Children's Hospital, the Newcastle Dispensary and the Newcastle Infirmary.—Miss Mary Henderson, late of Berkeley Villa, Windsor-road, Southport, bequeathed, free of legacy duty, £1000 each to the Southport Infirmary, the Convalescent Hospital, Southport, and the Tumour Hospital, Rodney-street, Liverpool.—The Salters' Livery Company recently voted £52 10s. each to the Royal London Ophthalmic Hospital, Moorfields, Guy's Hospital and the New Mildmay Medical Mission Hospital.—Baron Hirsch has forwarded a further donation of £300, making a total contribution of £1000, to the Middlesex Hospital.—The Grocers' Livery Company has granted £100 to the National Hospital for Consumption, Ventnor.—The late Mr. A. Burr, of Halesowen, bequeathed £4000 to the General Hospital and £1000 to the Queen's Hospital, Birmingham.—Mr. Arthur Brooks, of St. Dunstan's-hill, London, has forwarded a donation of £500 to the Manchester Infirmary.—The late Mr. Robert Lock, of Blandford, bequeathed £1000 to the endowment fund of the Blandford Cottage Hospital.—Under the will of the late Mr. Peter Atrell, of Tredegar-square, Bow, his executors have recently distributed the following sums—namely, £2500 each to the London Hospital, the City of London Hospital for Diseases of the Chest and the East London Hospital for Children, £2000 to the Poplar Hospital and £1200 to the Royal Hospital for Incurables.—The Rev. C. A. Johnson, of Newbury, bequeathed £1000 to the Royal Hospital for Incurables, Queen Victoria-street, London.—Mrs. Eliza F. Ashton, late of Montacute-gardens, Tunbridge Wells, left by her will £250 to the Tunbridge Wells General Hospital and £100 to the Convalescent Hospital for Children, Hawkenbury, Tunbridge Wells.—The executors of the late Mr. R. A. Newbon have transferred to the trustees of the Great Northern Central Hospital £13,491 12s. 8d. Consolidated Stock (£15,000 less duty), being the amount of Consols bequeathed by the deceased to endow a ward, to be named the Newbon ward. This sum is only available for the maintenance of the ward.—We learn from Mr. Cheston, the chairman of the East London Hospital, that Baron Hirsch, who had already given £700 to the East London Hospital for Children at Shadwell, supplemented this handsome donation by a further sum of £300, which he presented on the occasion of opening the new out-patients' department of that institution by the Duchess of Portland on June 11th.

**HEAVY DAMAGES AGAINST A FRENCH JOURNALIST.** Judgment was given on June 30th in the action for libel brought by Mr. Milton, of the Kasr el Aini Hospital, against the French journal *Bosphore*, which published a violent attack on the English doctors and surgeons connected with the hospital. The court awarded the plaintiff £1000 damages, and ordered the insertion of the judgment in the *Bosphore* and two other papers.

**WEST LONDON HOSPITAL, HAMMERSMITH.**—Sir Algernon Borthwick, M.P., presided at the festival dinner in aid of this institution, which took place at the Hôtel Métropole last week. In proposing "Prosperity to the West London Hospital," the chairman stated that the hospital was founded in 1856 and during the thirty-six years of its existence 18,000 in-patients and upwards of half a million out-patients had been relieved at a cost of £143,000. The annual expenditure for maintenance and management was £6100. The present accommodation (101 beds) was now quite insufficient and efforts are being made to establish a wing to double that number. The land had been secured, but £40,000 is required for purposes of the building. Donations and subscriptions amounting to £2600 were announced.

**CHARING-CROSS HOSPITAL MEDICAL SCHOOL.**—Mr. J. Passmore Edwards presided at the distribution of prizes and certificates which took place at Charing-cross Hospital Medical School on Wednesday, the 29th ult. Proceedings were commenced by the Dean (Mr. Stanley Boyd), who read the annual report of the committee, from which it would appear that the annual increase in the number of students is maintained, whilst some valuable additions to the teaching staff of the school have also been made. In the honours list this year occur the names of Mr. G. H. Hooper, who took the Llewellyn Scholarship of £25; of Mr. D. P. Gabell, who secured the Golding Scholarship of £15, in addition to the prize for Practical Chemistry and certificates for both Anatomy and Physiology. The prizes for Practical and Forensic Medicine were awarded to Mr. W. T. White. The chairman pointed out the important position occupied by this hospital in the event of accidents, so many of which occurred in its immediate vicinity. "Charing-cross was the centre of London," he remarked, "London was the centre of English enterprise and England was the centre of the civilised world." A vote of thanks to the chairman, proposed by Sir Joseph Fyrrer, concluded the proceedings.

#### MEDICAL NOTES IN PARLIAMENT.

##### *The Scarlet Fever Case at Fulham.*

In the House of Lords, on June 23rd, Lord Sandhurst called attention "to the circumstances of the case of a child named Emily Williams, who was removed by order of the magistrate of the West London Police-court from the Middlesex Hospital to the West London Fever Hospital, under the idea that she was suffering from scarlet fever, although the said child had been for six days in the Middlesex Hospital, where there are plenty of means for isolation; and the child was in good health, with no signs of scarlet fever, according to two highly experienced physicians and other medical men." His lordship described at considerable length the details of the case. As to Dr. Cayley, he said he was a distinguished expert in fever. He went down to see the case out of pure philanthropy. He had no expectation of receiving any fee whatever. He saw the child and came to the strong conclusion that it had no symptoms of scarlet fever. He remarked that in the circumstances there was no need for the child going to the Fever Hospital, but that it should be taken to the Middlesex Hospital, where it would be attended to if scarlet fever should appear. Dr. Cayley said to the receiving officer that he would be obliged if he took the child in; there was a dispute as to whether it was a case of scarlet fever. It must occur that in a general hospital sometimes a patient was taken in ailing from something which eventually became scarlet or other fever and there was ample provision made in these general hospitals for such a case. As to the remarks of the magistrate, he did not think that Dr. Cayley's reputation was likely to suffer owing to what he (Lord Sandhurst) must term the intemperate remarks of the police magistrate. This gentleman said he would like to know what the hospital authorities and the people who subscribed to the charity would say and what course the College of Physicians would take. The board of the charity immediately passed a vote of confidence in Dr. Cayley and he (Lord Sandhurst) would be very glad to defend Dr. Cayley's conduct in taking the child into his own wards. More than that, he had had the opportunity of talking with the President of the College of Physicians, Sir Andrew Clark, and he said that Dr. Cayley was one of the most highly esteemed Fellows of the College and undoubtedly one of the highest authorities in London with regard to fever. He desired further to call the attention of their lordships to the question of the legality of the action of the magistrate. The Act provided that wherever there had not been isolation the child or other patient might be removed by order of the magistrate, but this patient was in a hospital where, as he had said, there was ample means of isolation and where the patient could

be as well treated as in the Fever Hospital itself. The magistrate said that in future he would grant these orders on the certificate of the medical officer of health without allowing any discussion whatever. Surely this was a tremendous power to put in the hands of a medical officer of health, who would practically issue all these orders himself. He would like to ask whether a medical officer of health with this large population to attend to should be allowed to continue in private practice. He understood that a petition had been presented for an inquiry into this case and he desired to support it. He very much feared that if a careful inquiry were made they would see this Act, which was intended for the benefit of the whole community, extremely unpopular and made almost unworkable. In conclusion, he might say he had taken up the matter in the public interest and he hoped the Government would give it their careful consideration.—Lord De Ramsey, one of the Lords in Waiting, replied on behalf of the Government. There was, he remarked, hardly anything that the noble lord had said, with the exception of a matter with which he would deal presently, as to the magistrate—there was hardly anything in which he could not most cordially sympathise with the noble lord. This had been in many ways a bad case and certainly it had been a very sad case; and he thought the very fact that the noble lord had brought it forward in this temperate way, knowing, as they all did, that he was chairman of the hospital and that a large part of his time was devoted to its work, would of itself do a great deal of good. As regards the medical officer of health taking private practice when he had the supervision of this large population, he could not own to have an opinion upon that. He was not prepared to answer that point. It was a point, however, that had not been raised in connexion with this case. With regard to what the noble lord had said towards the close of his remarks as to the effect that action taken in this case might have upon the working of the Act, he (Lord De Ramsey) thought he was perfectly justified and right. If, as the noble lord said, the authority wielded under the provisions of the Act, which was the London Public Health Act of last year, was arbitrarily to tear these children away from their parents, those children being subject to great differences of opinion amongst doctors, then he (Lord De Ramsey) said it was only another case where it was most absolutely necessary to exercise the supreme control of the Home Office to keep these officials in order. The noble lord knew of course that the medical officer of health had to be very careful in these matters. He had to take in time any cases of contagion which might spread rapidly into disease and cause much misery, but at the same time there was no question about it that when, as in this case, there was much difference of opinion amongst most competent men upon both sides, then he could not but think that although the diagnosis of the case might have been difficult, still it would have been more advisable for the medical officer of health to have paused a little, especially with such a weight of evidence against the child having scarlet fever at all. He desired to speak with the utmost caution as to the magistrate. The Secretary of State had not had the benefit of hearing the magistrate's views upon this case, as he was away on leave of absence, and he was sure his noble friend would not wish him to make any remarks without having been able to hear what the magistrate had to say. The unfortunate part of this business certainly arose in a local dispute, which undoubtedly was intensified by the mother's refusal to allow her child to go. In passing he would say that, although of course the mother behaved wrongly, at the same time she behaved most naturally, and one could not help regarding her action with some amount of sympathy. The noble lord wished to know whether there were means for isolation in the West London Fever Hospital. His reply was that there was every facility for isolation in that institution. He did not think he had anything to add.—The Earl of Kimberley said he was sure his noble friend (Lord Sandhurst) had not exaggerated at all the importance of this case. There was nothing more dangerous or more to be deprecated than the unwise administration of these somewhat arbitrary laws. He entirely approved of the laws of public health, but they must administer these laws carefully and judiciously. The point he did not at all understand in this case was how the magistrate could come to a decision that this child should be removed. He could not conceive upon what ground an order could be made for the removal of a child who was in a house where there were proper means of isolation. As to the magistrate's conduct generally, he agreed with the noble lord that they should exercise the greatest caution in speaking of magistrates in the discharge of their duty. One could only form a view from the report in the newspapers. But this he would say, that he was extremely glad that the Home Office had agreed to make an inquiry and if they should find after the explanation of the magistrate, that he had at all acted in the manner represented by the newspapers, he (Lord Kimberley) hoped the Home Office would in some way or other endeavour to prevent such vagaries in the future. On the other hand, he wished to state that perhaps the magistrate's explanation might clear him of all blame.—Their lordships then proceeded to the next business.

#### Casual Wards Bill.

Although this Bill passed through the House of Commons without opposition, the Government withdrew it when it reached the House of Lords. The withdrawal is understood to be due to the action of certain officials of local authorities, who brought before the President of the Local Government Board a number of practical objections.

#### The Royal Assent.

The Royal Assent was given by Commission on Monday to the following measures, which have passed both Houses of Parliament: Technical and Industrial Institutions Act, Contagious Diseases (Animals) Act, Galway Hospital Act, London Water Act, Bradford Corporation Waterworks Act, Swansea Corporation Water Act, Lanarkshire Middle Ward District Water Act, Birmingham Corporation Water Act, Exmouth and District Water Act, Pontypridd Burial Board Act, and Uttoxeter Water Act.

#### METROPOLITAN WATER-SUPPLY.

In continuation of the report of the evidence given by Dr. Edward Frankland, D.C.L., LL.D., F.R.S., before the Royal Commission on the Metropolitan Water-supply on June 21st, which appeared in our last issue, we give further evidence tendered by Dr. Frankland, setting forth his reasons why in his opinion the river Thames ought to be abandoned as soon as practicable for the supply of London. Witness gave detailed evidence as to the analyses of the Thames water after filtration.

Professor Dewar: So that you are not prepared to say that that water could not be treated for the purpose of a town supply?—Well, I think that opens up the whole question whether a river like the Thames, which receives even untreated sewage and a great deal of treated sewage, can be made into a perfectly safe water-supply, and I should not like to say that I consider that there is sufficient safety in the operations to which it is subjected before delivery to make it a perfectly safe water for a community to drink. I think you ought to have two or three lines of defence against the propagation of zymotic disease in the case of water supplied to a large community. We have already suffered in London by being too lenient in that respect. When we took the water from between the bridges we had a fearful epidemic of cholera in consequence.—Then I may put it in this way:—If you are not to be satisfied by 99 per cent. of the micro-organisms being removed by filtration, what would you recommend or where would you go in order to get a supply that would be satisfactory to your mind?—Go to the springs in the Thames basin and to deep wells to be sunk in the chalk and oolite and sometimes perhaps into the lower greensand. These waters I consider to be perfectly safe, if supplied to London even without filtration.—I will read that very admirable description of the varying conditions of the Thames in a report signed by yourself and also by Dr. Odling as early, I think, as the year 1863, and you will please say if you agree with it now:—"It is indeed evident that the Thames, in its flow from its source to Hampton, is constantly undergoing changes, now tending to purification, now to pollution; here it receives a tributary purer than itself and here is one more polluted; at one place it is pent up by a weir and flows sluggishly over a thick stratum of putrescent mud, then it dashes down the weir and flows as a rippling stream over a clean, pebbly bed, becoming aerated to the maximum; now it receives the sewage of a town and then it is reinvigorated by a gush of spring water in its bed, and these complicated changes are not merely affecting successive individual volumes of water as they flow on, but these volumes immediately afterwards lose their individuality, owing to the varying velocity of flow in different parts of the river section. No series of analyses, therefore, however great the number of samples or care bestowed on their collection, could, in the case of such a river as the Thames, illustrate exactly the changes produced in a stream by any one of the numerous causes of change above enumerated—the effect of the population residing on the banks for instance." Is that your opinion still?—It is.

In reply to Sir G. E. Bruce, witness stated that, while there was no positive proof that the filtered water is unwholesome, the lives of a large community ought not to be dependent on the efficient filtering-plant of commercial companies. Under present circumstances a serious epidemic of typhoid fever or cholera in the Thames basin above the intakes would be attended with great risk to the water drinkers of London. Such experiments should not be tried on large communities. Before the cholera outbreak of 1849 it was believed that Thames water, abstracted between bridges in London, was perfectly safe, as testified by the evidence of many eminent experts, but that belief cost London 25,000 lives in 1849 and 1854.

Dr. Ogilvie: You say that it is uncertain how far the numerous cases of zymotic disease occurring in the metropolis are traceable to the water-supply. I suppose you do not mean to imply that there is any doubt upon the subject as regards a considerable number of zymotic diseases—for instance, measles, scarlet fever, whooping-cough?—No, there is no evidence whatever that they are ever communicated through water, although there is no evidence that they are not.—No; but there was no reason to suppose that they are from anything we know is there?—Well, I believe that the virus of the zyme of scarlet fever is thought by competent authorities to be communicated through milk.—Which comes from cows that are affected with a certain disease?—Yes.—But through drinking water?—No, I do not think there is any evidence of it at all.—Then there is no risk?—I have never seen it even suggested that either scarlet fever, measles, or whooping-cough were communicated or communicable through water.—Have you ever seen it suggested by any bacteriological authority?—No, I do not think any of those have even suggested it.—Then which are the zymotic diseases to which you refer?—The bacillus of typhoid fever, the bacillus of erysipelas, although you must remember that several of these have never been found in drinking water. If they can live for a number of days in drinking water, it is possible they may be communicated.—But that is the only ground—the possibility of its living in water—on which you base your statement, is it not?—Yes; except in the case of typhoid fever and in the case of cholera, they have actually been found.—Those are, I think, the only two diseases that have ever yet been known to be communicated by drinking water among the zymotic diseases?—Yes, I think so, where it has been demonstrated.—That is typhoid fever and cholera?—Yes. But, taking the capability of living in river water, I should say that the bacillus of tuberculosis was probably most likely to be present in drinking water.—I am aware that the bacillus of tubercle has been said to live for seventy days in water, but it has never been known to be communicated to human beings by means of water?—No, it has not been demonstrated.—Then practically we may dismiss tuberculosis from the list of those which there is any risk of London suffering owing to drinking water from the Thames or Lea?—Yes, certainly; so far as our knowledge at present extends we have no right to presume it is ever so communicated.—Quite so; and, in fact, we come back to the two diseases practically being typhoid fever and cholera?—Yes, and those are the only two diseases that have been demonstrated to be communicable by water.—And as regards cholera bacillus, I think I understood you to say just now that where it was in river water, which contains a large number of competing microbes, it is soon destroyed?—Yes, that is the result of experiments made with this bacillus in river water.—So that the water that passes for any distance down the river, though it might have some cholera germs at the beginning, would soon have lost them?—Yes, that is very likely, at all events.—I think you are wrong in your recollection about the dejection of the man that you referred to who was working there for a very long time. You meant one man?—Yes, one man. The evidence that came to me at the time was that as a rule the dejections of the workpeople down those wells are brought up in buckets and that one bucket on being brought up was tipped over and some of its contents went into the well. I do not know how far that is true or not.—At any rate, that was not water from the Thames or the Lea?—No; it is not river water.—So far as any argument is to be drawn from that case at Caterham it would be that there is no greater safety in water derived from deep wells than

In water from rivers, because there you have a great outbreak of typhoid fever caused by water which you have repeatedly spoken of in your report as of the very highest quality?—Yes.—And of exceptional purity in this case?—Yes. No doubt great care ought to be taken in these cases when workmen are engaged in these wells.—But the Caterham case cannot be in any way cited as tending against the wholesomeness of the Thames and Lea water?—No, I am not putting it on all fours with what would occur in any river. In the first place we must remember that the water as it exists in the well is absolutely free from microbes, therefore the typhoid microbe might have it all its own way there.—I would ask you whether the fact, supposing it to be a fact, that towns which have drunk filtered water from those rivers suffer very little from typhoid fever is not evidence that such water is wholesome?—No, I do not think it is conclusive evidence that typhoid fever is not in some cases, if not in all, conveyed to them by water. Take London, for instance. I never thought that it was impossible that the typhoid fever existing in London continually is not propagated and brought to London, in part, at all events, by the water-supply of London.—But there have been a great many inquiries into typhoid fever outbreaks in London and are you aware that any one was ever traced to the drinking water from the Thames or the Lea?—I think it would be quite impossible to do so.—There have been many traced to milk?—Yes.—But you are not aware that ever any were traced to water?—No; I cannot imagine how it could be done, supposing there were ten times as many cases. You see the Thames water is distributed all through London.—It would be possible, would it not, supposing it was given by the Lea river and not by the Thames, that you would then find a huge outbreak attacking all those areas in which the Lea water was distributed and avoiding all those districts to which the Thames water was delivered?—Yes; if the Lea were exceptionally polluted by typhoid fever sewage there ought to be a difference in the number of cases of typhoid fever in the New River district of the East London Companies; but then I am not aware that that has ever really been investigated.—Do you not think that it is evidence that the filtration of this water has rendered it wholesome, or that it was wholesome before it was filtered, one or the other; that the death-rate from typhoid fever in London in the last twenty years has been lower than in the country at large?—Yes, and it has been very much lower than it used to be in London.—It has been lower all over the country?—Yes, it used to be very much higher than it is now and the lowering has been coincident with the great improvement in the filtration in the water delivered in London, though I do not mean to say that the one is necessarily the cause of the other.—But that lowering has gone on concomitantly with a lowering in the rest of the country?—Yes.—But was not that also been coincident with the improvement in the water-supply?—It may have been possible.—But at any rate the death-rate in London from typhoid fever being lower than that in the country at large is, so far as it goes, evidence that the water which the Londoners consume is not such as is likely to give typhoid fever?—Yes, I think it is decidedly a piece of evidence in favour of the water.—Then, in the face of that, do you think you could maintain the opinion you have expressed that there is not a tittle of trustworthy evidence in support of the view that the filtration of water is effective as a safeguard?—I do not say that there is not evidence that it is a safeguard, but I say there is no evidence of the impossibility of those syzygial germs passing through the filters; that is what I mean. There is no tittle of evidence to show that a pathogenic germ cannot pass through a filter. I do not consider that we have any positive evidence that water which is contaminated with typhoid fever poison becomes absolutely free from it after the same filtration given to it by the water companies can be absolutely free from every risk.—Is the filtration at present adopted and carried out by the London water companies to your mind as perfect as it can possibly be?—I think it is very satisfactory; I do not mean to say that if the filtered water were not passed through a second filter you might still further reduce the number of microbes, but it is exceedingly satisfactory filtration to my mind.

Professor Dewar: Have you had the opportunity of studying the bacteriological condition of a filter when it is most efficient in artificial filtration?—No; I have not. I intend to do so, but have not been able to do so up to the present moment.—Do you know that sterilised sand would be useless for the purification of these waters?—Yes, I do know that.—Therefore the efficiency of the artificial filter depends upon the life of a number of these micro-organisms?—I think it is very likely to be so.—I dare say you are quite aware that it is quite in harmony with the most recent investigations with regard to nitration?—Yes.—And you would regard it as a proof that the organic matter was being apparently attacked by the increase in the amount of nitrates?—Yes.—Consequently we know that the increase in the amount of nitrates is entirely due to microbial action?—Yes.—Therefore the efficiency of the artificial filtration is the result of microbial action?—Yes, certainly, one part of it is; but I am not at all certain from these experiments that there is not also some surface action in the case of a sand filter. When you have fresh sand and, if you like, sterilised sand you would still remove some organic matter from the water.

Sir A. Geikie: Before you leave that I would like to ask you whether you have observed any difference between water taken from a new filter and water taken from one that has been in use for some time with regard to microbes?—That is exactly the problem I am setting myself to establish now, but it has not yet been done.

Professor Dewar: You cooperated with Dr. Klein in this investigation as to the supply, at any rate, and you were in consultation with him on the bacteria in London water?—Yes, last year I determined the number of microbes, but it was Dr. Klein alone who attempted to distinguish them. He was supplied once a week for six consecutive weeks with sealed tubes of the London water.—You are aware of this passage in Dr. Klein's report: "In a good many instances the colonies or their sub-colonies were tested on animals, in order to ascertain whether they possessed pathogenic action or whether some of them at first sight have been taken for animal action connected with a certain amount of pathogenic bacteria." That was what you recommended in the evidence this morning, that it was necessary definitely to infect animals?—Certainly.—Dr. Klein also states: "Before proceeding further to the details of the result, I may state that in no case have I come across any of the known pathogenic bacterial species or of any species that produce on the animals experimented upon—guinea-pigs, mice and rabbits—definite pathogenic action." You are aware of that?—Yes.

Sir A. Geikie: We shall be very pleased indeed when you have completed those investigations if we can have the result of them.

Dr. Frankland: I shall take care that they are placed in the hands of the Commission.

The Commission adjourned till Monday.

On Monday Dr. George Turner, M.B., D.P.H.Camb., Medical Officer of Health for the Counties of Herts and Essex combined, Lecturer on Hygiene at Guy's Hospital and Examiner on State medicine at the Royal College of Physicians and Surgeons, gave evidence as to the pollution of the river Lea and also instances in which the river water had produced typhoid fever. He disagreed with Dr. Frankland in supposing that the non-pathogenic bacteria, the innocent bacteria, fed upon the pathogenic bacteria, so that the presence of a large number of them was distinctly an advantage. That depended entirely upon the sort of microbe organism that happened to be present in the water. Some of them do certainly destroy others.

On Tuesday Mr. Shirley Forster Murphy, Medical Officer of Health of the County of London, stated the results of his investigations made of the pollutions of the Thames and the Lea. Speaking with reference to the protective measures adopted by the water companies for the purification of the water, witness added: "I may, however, submit that, even if it is admitted that polluted streams may, after running some distance, become purified, there is no definite knowledge as to the point where danger ends and safety begins and rivers receiving excremental pollutions must therefore be regarded with some misgiving as sources of public water-supply."

Mr. William Joseph Dibdin, Fellow of the Institute of Chemistry and Chemist to the London County Council, also gave the results of his investigations with regard to the composition of the water supplied to London, after which the Commission adjourned until Wednesday, July 20th.

### METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on June 28th, 1892.

Hospital.	Beds occupied.					Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	
Eastern Hospital	335*	60	1	23	—	424
North-Western Hospital	311	75	—	5	—	391
Western	145	23	—	9	5	182
South-Western	258	38	—	4	2	302
South-Eastern	359	14	1	10	—	384
Northern	655	21	—	—	—	676
Totals	2063	237	1	51	7	2359

\* Infant and mother.

SMALL-POX. *Atlas* hospital ship, 35; *Castalia*, 22. Total, 57.

### Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BACK, H. H., M.B. Lond., M.R.C.S., has been appointed Medical Officer for the No. 5 Sanitary District of the Aylsham Union, vice Beeve, deceased.

BARRATT, J. O. W., M.D. Lond., F.R.C.S., has been appointed Medical Officer at the Infirmary, Parish of Birmingham.

BETTS, F. BERNARD, M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to Queen Charlotte's Lying-in Hospital, Marylebone-road, N.W.

BROWNING, GEORGE, M.R.C.S., has been reappointed District Medical Officer and Medical Officer of Health for the Wertley Union.

CAMPBELL, A., M.B., C.M. Glasg., has been appointed Medical Officer for the Ratcliffe-on-Trent Sanitary District of the Bingham Union.

CARTER, A. H., M.D. Lond., M.R.C.S., has been appointed Medical Officer at the Infirmary, Parish of Birmingham.

DE HAILES, A. J., has been appointed Public Analyst for the Borough of Luton, vice Redwood, deceased.

DUNN, E. D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Public Vaccinator for the District of Motueka, New Zealand.

ENGLISH, JOSEPH, L.R.C.P., L.R.C.S. Edin., has been appointed Visiting Surgeon to the Gaol at Yass, also Government Medical Officer and Vaccinator for the District of Yass, New South Wales.

FENWICK, W. SOLTAN, M.D. Lond., M.R.C.P., has been appointed Physician for Out-patients to the Evelina Hospital for Sick Children.

FERGUSON, A. A., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer of the Workhouse, Aston Union.

FRANCIS, H. A., M.B. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Government Medical Officer at Barcardine, Queensland.

GORDON, J. M., M.B., C.M. Glasg., has been appointed Resident Medical Officer to the Melbourne Hospital, Victoria, Australia.

HICHTENS, FRANK, M.D. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Urban Sanitary District of the Redruth Union.

JAMIESON, SYDNEY, M.B., C.M. Edin., has been appointed Honorary Pathologist to the Sydney Hospital, New South Wales, vice Rennie, resigned.

JEWELL, J. W. F., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Physician to Guy's Hospital.

KENDALL, H. W. M., M.R.C.S., has been appointed Surgeon Superintendent to the Wesleyan Hospital, Hokitika, New Zealand.

MANN, J. DIXON, F.R.C.P., has been appointed to the Professorship of Medical Jurisprudence now instituted at Owens College, Manchester.

MARSH, JAS JOHN, L.R.C.P., I.R.C.S., L.M., has been appointed Medical Officer to the Post-office, Ormskirk.

MAUDSLEY, H., M.D. Lond., M.T.C.P., has been appointed Honorary Physician to the Alfred Hospital, Melbourne, Australia, vice Thomson, resigned.

MCNICOLL, JOHN, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Poole and Parkstone Post-offices.

MORITZ, S., M.D., M.R.C.P. Lond., has been appointed Honorary Physician to the Manchester Hospital for Consumption and Diseases of the Throat and Chest.

NATHINGE, G. J., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Health Officer, Stawell Borough, Northern and Western Wards, and the Stawell Shire, North and West Ridings, Australia.

NASH, CHAS., M.E.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Catherington Union, vice Strong, resigned.

RAKE, A. T., M.B., B.S., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to Guy's Hospital.

ROBERTS, E. T., M.D., C.M. Edin., has been appointed Certifying Surgeon under the Factory Acts, vice A. Roberts, resigned.

RUTHERFORD, J. J., M.D. St. And., L.R.C.P. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for the Shipley Urban Sanitary District.

SALTER, C. E., M.B., B.S., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to Guy's Hospital.

SAMUELSON, G. S., M.B. C.M. Edin., has been appointed Government Medical Officer and Vaccinator for the District of Gundagai, New South Wales.

SHORT, T. S., M.D. Lond., M.R.C.S., has been appointed Medical Officer at the Infirmary, Parish of Birmingham.

SMYTH, T. E., M.D., B.Ch. Dub., has been appointed Government Medical Officer and Vaccinator for the District of Campbelltown, New South Wales.

SNADDEN, JAS., M.B., C.M. Edin., has been reappointed Medical Officer of Health for No. 1 and No. 4 Sanitary Districts of the Wortley Union.

SPARK, J., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Katoomba, New South Wales.

SPOWART, THOS., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Second Sanitary District of the Wortley Rural District.

SYMONS, J. G. R., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Shepperton Sanitary District of the Staines Union.

TEBBS, W. H. A., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to Addenbrooke's Hospital, Cambridge.

THOMAS, A., M.B., B.S., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to Guy's Hospital.

TOSSWILL, J. CECIL, M.B., C.M. Edin., has been appointed Visiting House Surgeon to the Infirmary, Stockport, vice Hamilton, resigned.

VALENTINE, T. H. A., L.R.C.P. Lond., D.P.H., M.R.C.S., has been appointed a Public Vaccinator for the District of Inglewood, New Zealand.

WALLACE, RICHD., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Public Vaccinator for Millicent, South Australia.

WAUGH, ISAAC, M.B., M.Ch. Dub., has been appointed Medical Superintendent of Government Asylums for the Infirm and Destitute at Parramatta, New South Wales.

WESTWOOD, H. O., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Bingham Sanitary District of the Bingham Union, vice Wotton, resigned.

WILKINSON, E. W. C., L.F.P.S., L.M. Glasg., has been appointed Public Vaccinator for the District of Rangitikei, New Zealand.

WINGRAVE, V. H. WYATT, M.R.C.S., L.S.A., has been appointed Assistant Surgeon to the Central London Throat and Ear Hospital.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Resident Junior House Surgeon. Salary £50, with board and washing.

BOROUGH OF SCARBOROUGH.—Medical Officer of Health for the district of the borough for one year. Salary £326 per annum.

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House Surgeon. Salary £100, with rooms and attendance.

CHURCH OF SCOTLAND (JEWISH MISSION).—Medical Missionary, for the Mission and Hospital at Smyrna. Salary £300, or £250 with dwelling-house. (Apply to J. A. Frail, Esq., W.S., 17, Duke-street, Edinburgh.)

COLONIAL HOSPITAL, Perth, Western Australia.—Resident Medical Officer and Assistant to the Superintendent of Vaccination. Salary £200 a year, with quarters in the hospital and board (excepting wines &c.). Passage out provided, conditionally. (Apply to the Agent-General for Western Australia, 15, Victoria-street, Westminster, London, S.W.)

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. Board and lodging provided.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. Board and lodging provided.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road S.E.—Junior Resident Medical Officer. Salary £60.

FAREHAM UNION.—Medical Officer and Public Vaccinator for the Southwick District. Salary £60 per annum, exclusive of extra medical and vaccination fees. (Apply to the Clerk to the Guardians, Union Offices, Fareham, Hants.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Registrar and Pathologist. Honorarium 25 guineas per annum.

MCGILL UNIVERSITY, Montreal, Canada.—Professorship of Pathology for the Faculties of Medicine and Comparative Medicine for one year. Salary for provisional appointment for one year £400 sterling. (Apply to the Dean, Montreal, Canada.)

PARISHES OF WESTRAY AND PAPA WESTRAY, Orkney.—Medical Officer and Public Vaccinator. Salary as Medical Officer £70 sterling per annum.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY, N.B.—Medical Officer. Salary from Board £100, cost of paupers' medicines included. (Apply to the Inspector of Poor of Torosay, Auchnacraig, by Oban.)

PONTYBERAN AND PENTREMAWR WORKMEN AND THE NEIGHBOURHOOD.—Qualified Medical Man. (Apply to Mr. Jones, Cook's Bridge, Pontyberan, near Llanelly, South Wales.)

QUEEN'S HOSPITAL, Birmingham.—Physician for Out-patients and Pathologist to the Institution for three years. Annual honorarium £75.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Honorarium of £10 10s. conditionally.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House Surgeon. Salary £75 per annum, with board and residence.

ROYAL UNITED HOSPITAL, Bath.—House Surgeon. Salary £60 per annum, with board, lodging, and washing.

STAINES UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary £75 per annum.

ST. PANCRAS.—Dispenser for the Infirmary at Dartmouth Park-hill, Highgate, N.W. Salary £100 per annum, rising £10 annually to £120, with dinner daily. (Apply to the Clerk, Vestry-hall, Pancras-road, N.W.)

STOCKPORT INFIRMARY.—Junior House Surgeon for six months, with board and residence. Honorarium of £10.

WIRRAL CHILDREN'S HOSPITAL, Wood-church-road, Birkenhead.—Resident House Surgeon. Salary £60 per annum, with board, lodging on the premises, and washing.

WOLVERHAMPTON EYE INFIRMARY.—House Surgeon. Salary £60 per annum, with rooms, board, and washing.

## Births, Marriages, and Deaths.

### BIRTHS.

DUKES.—On June 26th, at Sunnyside, Rugby, the wife of Clement Dukes, M.D., B.S. Lond., of a son.

NANKIVELL.—On June 20th, at Langham-street, W., the wife of Herbert Nankivell, M.D., of a daughter.

WALKER.—On June 23rd, at Rocklands, London-road, St. Leonards-on-Sea, the wife of Alexander Walker, M.D., of a son.

WISE.—On June 23rd, at Dunheved, Walthamstow, the wife of C. H. Wise, M.D., of a daughter.

### MARRIAGES.

COCKILL—SEELY.—On June 20th, at St. Peter's, Cherry Willingham, Lincolnshire, William Baron Cockill, M.E.C.S., L.R.C.P. Lond., of Kendal, Westmoreland, to Edith Mary, third daughter of Mr. Robt. Seely, of Manningdale, Cherry Willingham.

CRAIG—AITKEN.—On June 23rd, at St. Saviour's Church, Bridge of Allan, William Maxwell Craig, M.B., Surgeon Royal Navy, to Janet Georgina, daughter of the late Archibald Robertson and widow of Stephen Rowan Aitken.

DUTHIE—MCLEAN.—On June 23rd, at St. Mary Abbots, Kensington, Robert Campbell Duthie, M.A., M.B., C.M., D.P.H., Croydon, to Eliza Douglas McLean, daughter of Alexander McLean, Esq., of Kensington.

FAULKNER—WEBB.—On April 20th, at St. Andrew's Parish Church, Brighton, Melbourne, William Cooke Faulkner, M.B., C.M. Edin., of the Hospital, Rockhampton, Queensland, to Ada, daughter of Captain T. Webb, of Melville, Brighton, Melbourne.

FISHER—DARLING.—On May 23rd, at St. Paul de Loanda, Walter Fisher, M.R.C.S., son of William Benjamin Fisher, of Greenwich, to Susannah Elizabeth Darling, daughter of J. S. Darling, of Clonakilty, Ireland.

LEE—MORGAN.—On June 22nd, at St. Philip's Church, Earl's-court, Edward Samuel Lee, M.D., M.R.C.S., St. Leonards-on-Sea, son of the late Dr. Robert Lee, F.R.C.P., F.R.S., to Fanny Caroline, widow of the late Captain Morgan, 4th Battalion Royal Fusiliers, and elder daughter of the late Thomas Huggins, Esq., of Collingham-road, South Kensington.

PRICE-JONES—EYSEN.—On June 22nd, at St. Mark's, Surbiton, Dr. Cecil Price-Jones, of Surbiton, son of the late William Price-Jones, M.D., to Helen Louise, youngest daughter of Gottfried Eysen, of Surbiton.

### DEATHS.

AITKEN.—On June 25th, at Woolton, Southampton, Sir William Aitken, M.D., F.R.S., Professor of Pathology, Army Medical School, Netley, aged 67.

BARR.—On June 23rd, suddenly, at Bembridge, Isle of Wight, William Alexander Barr, M.D., aged 70.

FRASER.—On June 23rd, at St. Helen's-road, Swansea, Thomas Alexander Fraser, M.D., M.R.C.S., eldest son of Surgeon-General John Fraser, C.B., aged 81.

HARMER.—On June 10th, at Alton Lodge, Richmond, Robert Harmer, M.D., aged 68.

N.B.—A fee of 6s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

## BOOKS ETC. RECEIVED.

- BAILLIÈRE, TINDALL, & COX**, King William-street, Strand, London.  
The Surgical Diseases and Injuries of the Stomach and Intestines.  
By F. B. Jessett, F.R.C.S. 1892. pp. 327.
- BLAKISTON, SON, & Co.**, Philadelphia.  
Diagnosis by the Urine. By Alfred Memminger, M.D. Illustrated.  
1892. pp. 77.
- CHURCHILL, J. & A.**, New Burlington-street, London.  
Diseases of the Rectum and Anus. By A. Cooper, F.R.C.S., and  
F. S. Edwards, F.R.C.S. Second Edition. Illustrated. 1892.  
pp. 394.  
Handbook of Hygiene and Sanitary Science. By George Wilson,  
M.A., M.D., F.R.S. Edin., D.P.H. Camb. Seventh Edition. 1892.  
pp. 751. Price 12s. 6d.
- CASSELL & Co.**, London.  
A Manual of Chemistry. By A. P. Luff, M.D. Lond. Illustrated.  
1892. pp. 525.
- DAVIS, G. S.**, Detroit, Mich.  
The Electro-Therapeutics of Gynecology. By A. H. Goelet, M.D.  
Parts I. and II. Illustrated. 1892.
- DORNAN**, Philadelphia.  
Transactions of the American Orthopedic Association. Fifth  
Session, September, 1891. Vol. IV. pp. 403.
- HARRISON & SONS**, St. Martin's-lane, London.  
Notes and Queries on Anthropology. Edited by J. G. Garson,  
M.D., and C. H. Read, F.S.A. Second Edition. 1892. pp. 242.  
Price 6s.
- KEGAN PAUL, TRENCH, TRÜBNER, & Co.**, London.  
The Life of Francis Duncan, C.B., R.A., M.P., late Director of the  
Ambulance Department of the Order of St. John of Jerusalem in  
England. By the Rev. H. B. Blogg, M.A. With Introduction by  
the Bishop of Chester. 1892. pp. 100.
- LONGMANS, GREEN, & Co.**, London.  
The Essentials of Histology. By E. A. S. Butler, F.R.S. Third  
Edition. Illustrated. 1892. pp. 302. Price 7s. 6d.
- MEYERS, E. K.**, Harrisburg, U.S.A.  
Fourth, Fifth, and Sixth Annual Reports of the State Board of  
Health and Vital Statistics of the Commonwealth of Pennsylvania.
- OLIVER & BOYD**, Edinburgh.  
A Thousand Cases of Pulmonary Tuberculosis, with Etiological and  
Therapeutic Considerations. By R. W. Phillip, M.A., M.D.,  
F.R.C.P.E. 1892. pp. 22.
- REEVE, L., & Co.**, Henrietta-street, Covent-garden, London.  
The Physiology of the Invertebrata. By A. B. Griffiths, Ph.D.  
F.R.S. Edin., F.C.S. 1892. pp. 477.
- SMITH, ELDER, & Co.**, Waterloo-place, London.  
Dictionary of National Biography. Edited by Sidney Lee. Vol. XXXI.  
Kennett—Lambart. 1892. pp. 443.
- STANFORD, EDWD.**, Cockspur-street, Charing-cross, London.  
Transactions of the Sanitary Institute. Vol. XII. 1891. With  
Appendix.
- TAYLOR & FRANCIS**, Red Lion-court, Fleet-street, London.  
Descriptive Catalogue of the Specimens Illustrating Morbid Anatomy  
and Pathology in the Museum of Westminster Hospital. By  
Chas. Stonham, F.R.C.S. 1892. pp. 404.
- The Climatologist; edited by J. M. Keating, M.D., and others; Vol. II.,  
May, 1892 (W. B. Saunders, Philadelphia).—Publications of the  
University of Pennsylvania: Philosophical Series; edited by G. S.  
Fullerton and J. McK. Cattell; No. II., May, 1892 (University of  
Pennsylvania Press, Philadelphia).—University of London: The  
Calendar for the year 1892-93. Part I.: Charters, Regulations, &c.;  
and Part II.: Examination Papers, 1891-92 (Harrison and Sons,  
London).—The Ophthalmic Review; edited by J. B. Lawford and  
others; No. 128, June, 1892 (J. & A. Churchill, London); price 1s.—  
Healthy Households; by Guy C. Rothery (J. S. Virtue & Co., Patern-  
oster-row, London, 1892); price 1s.—The Dwellings of the Poor:  
Report of the Mansion House Council for the year 1891 (Cassell and  
Company, London, 1892); price 1s.—The Official Gazette of the United  
States Patent Office, May, 1892 (Government Printing Office,  
Washington).—Census of Jamaica and its Dependencies, taken on the  
6th April, 1891 (Government Printing Office, Kingston, Jamaica).—  
British Journal of Dental Science, No. 580, June, 1892 (J. P. Segg & Co.,  
Regent-street, London); price 6d.—Transactions of the Obstetrical  
Society of London; Part I., for January and February, 1892 (Office of  
the Society, 20, Hanover-square, W.); price 4s.—Practical Sewage  
Purification (Cuthbertson and Black, Manchester, 1892).—A Series of  
Fifty Consecutive Operations for Cataract; by R. L. Randolph, M.D.  
(Reprint from the Johns Hopkins Hospital Bulletin, No. 20, March,  
1892).—The School of Teachers' Ophthalmic Guide; by G. Ferdinands'  
M.D., C.M. (Wyllie and Son, Aberdeen, 1892); price 6d.—Die Quanti-  
tative Pulsanalyse; von Paul von der Mühl (J. B. Hirschfeld, Leipzig,  
1892).—Die Traumatischen Neurosen; nach den in der Nervenklinik  
der Charité in den 8 Jahren 1883-1891; von Dr. Herrn. Oppenheim  
(August Hirschwald, Berlin, 1892).—Tidsskrift for den Norske  
Lægeforening, Juni, No. 6, 1892 (Alb. Cammermeyers, Christiania og  
Kjøbenhavn).—The Infliction of the Death Penalty by Means of  
Electricity, being a report of seven cases; by C. F. MacDonald, M.D.  
(O. Appleton and Company, New York, 1892).—The Journal of the  
College of Science, Imperial University, Japan; Vol. V., Part I.  
(Published by the University, Tokyo, Japan, 1892).—Index Medicus;  
Authors and Subjects; Vol. XIV., No. 6, May, 1892 (Trübner & Co.,  
and Lewis, London).—Proceedings of the Society for Psychical  
Research; Part XXI., June, 1892 (Kegan Paul, Trench, Trübner and  
Co., London); price 2s. 6d.—Magazines for July: Sunday at Home,  
Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recre-  
ations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract  
Society), The Strand.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 30th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Dirrec- tion of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia- tion in Vacuo	Maxi- mum Temp. Shado.	Min. Temp.	Rain- fall.	Remarks at 8.30 A.M.
June 24	29.08	W.	60	55	120	75	50	.00	Hazy
" 25	29.09	W.	60	57	108	72	53	—	Cloudy
" 26	30.07	W.	63	58	123	80	57	—	Cloudy
" 27	30.15	N.W.	66	62	120	81	60	—	Cloudy
" 28	30.15	W.	68	63	100	83	58	—	Hazy
" 29	29.84	S.W.	61	59	101	63	59	.58	Cloudy
" 30	30.33	S.W.	67	62	117	71	48	—	Hazy

## Notes, Short Comments &amp; Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher." We cannot undertake to return MSS. not used.*

## THE POLICY OF THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

Mr. W. T. Law's letter on this point is too long for insertion, and more especially because it is written with an imperfect knowledge of the subject. The lack of organisation on the part of the Fellows is the fault of the Fellows themselves, who have only to join the Association in order to direct its policy and secure all the privileges which they can possibly desire. The resolutions on which the Association was founded were drafted and proposed by Mr. Paul Swain and only referred to the Fellows of the College; but at the first general meeting at the College the Members so far outnumbered the Fellows that it was found that it would be impossible to carry the resolutions unless the words "and Members" were introduced into three of them. At all the general meetings of the College, owing to the Fellows and Members being summoned indiscriminately by the Council, the experience has been the same; and this fact made it necessary for the committee of the Association some years ago to endeavour to settle the claims of the Members. A compromise was effected, but the Members' Association did not adhere to it. They went beyond it and raised a strong antagonism against their claims amongst the Fellows of the College and in the Association itself, which naturally determined to devote its energies entirely to advancing the interests of the Fellows. This policy has been steadily pursued for the last few years and that it has been successful will be seen in the pages of the Report of the Association just issued, which we recommend our correspondent to peruse, believing that his views will undergo considerable modification afterwards. He should also peruse the first account, published in 1890. Mr. Tweedy is a staunch champion of the claims of the Fellows to a larger share in the government of the College and by returning him to the Council the Fellows will do much to remedy the disappointment which is felt by our correspondent in regard to the "so-called advantages about to be granted to the Fellows by the Council." So far as they go these advantages are due in large part to the action of THE LANCET and of the Association; and in proportion to the support accorded to the Association by Fellows like our correspondent will the advantages and privileges of the Fellows increase. The Association returned one of its candidates last year and as its influence is extending there is every reason to anticipate Mr. Tweedy's success on the present occasion.

*Weekly Reader.*—The bill sent us (intended for exposure in chemists windows and other public places) seems to us objectionable. We quite recognise our correspondent's wish not to disregard the whole-some rules of professional life.

FEATS OF A FAKIR.

At Bologna one of those mysterious devotees or fanatics who impose on themselves penances of the most painful, often revolting, kind has been exhibiting before wondering assemblies a series of marvels which Professor Albertoni of the University had no difficulty in exposing as tricks. The professor, in a physiological lecture delivered *ad hoc*, took the first incidents of the fakir's performance, those of swallowing venomous reptiles and causing serpents of a known poisonous family to bite him—both without harm to himself. Redi had long ago demonstrated that the introduction of noxious creatures into the stomach may be practised with impunity, the gastric juice being quite adequate to antagonise them. Again, Professor Albertoni showed his audience how the bite inflicted on the fakir by a poisonous snake may be quite innocuous if certain precautions were taken. The poison of the animal is secreted by a glandule and has its exit from an orifice which opens at the apex of the tooth. This orifice is effectually plugged by making the animal bite wax and so the fakir allowed himself to be bitten thereafter with impunity. Yet again, the poison after even one effective bite is completely evacuated from the tooth and so, having bitten sundry objects repeatedly, the animal has for the rest of the day none of its poison available, till this is once more matured and secreted by the glandule. In this way the fakir might expose himself to any number of secondary bites without danger. The insensibility and "invulnerability" to which the fakir had inured himself is also susceptible of physiological explanation. Professor Albertoni had no difficulty in demonstrating to his hearers the dependence of sensibility on the cerebral cortex and how by practice and special long-continued exercise the sensibility may be first wrought up to its most exquisite point and then exhausted, till for a time it is virtually abolished. This temporary suspension of sensibility the fakir promoted or assisted by exposing himself to the vapours of particular herbs, while also going through a series of motions—mesmerising himself, in fact. In this way he had by "auto-suggestion" trained himself to lapse into a state of lethargy, suppressing the function of the cerebral cortex and inducing an insensibility which he represented as invulnerability. Professor Albertoni's interesting lecture is, we believe, to be printed for the benefit of a wider and non-professional public.

A.—Our correspondent's paper is receiving attention and will appear, if possible, in an early number.

MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—The tone and tenour of several questions put to Dr. Martin of Stourport when before the General Medical Council are the excuses for this letter. Probably it will interest the body of general practitioners and possibly the Medical Defence Union. The facts are culled from the last report of the Conference of the Friendly Societies' Medical Alliance, dated March 8th, 1891. Leamington, Ashford, Preston and Reading all had unqualified medical officers in their employ. At Ashford, at any rate, the unqualified man did about half the work—took the country round one week and town the next. Birmingham had a balance of £1441 16s. 1d.; Derby of £1011 16s. 7d. Is it profit or not? The Leicester Foresters' Society laconically state they have "twelve doctors." In reply to the gentleman who asked the week before last whether the agreements were binding, I beg to say I think they are; but some of the distances debarred are outrageous—seven miles—and could no doubt be successfully disputed on the general principle that no one can prevent a man's earning a living in a reasonable way. As one who has had two such appointments, my advice to any needing it is: Never seek such an appointment. Do not be allured by the salary. The work is hard; the position, without plenty of backbone and numerous fights with a committee probably of twenty-five men (some of whom it would puzzle to write their names), is servile and the petty annoyances innumerable, and worse, it is difficult to get any ordinary berth after holding such a one.

I am, Sirs, yours truly,  
H. W. D.

LONGEVITY AMONG ABSTAINERS.

Two correspondents direct our attention to the respective mortality of the General Section and the Temperance Section of the Sceptre Life Association as shown in the twenty-seventh annual report for the last eight years. The number of lives under observation is over 12,000. The results are as follows:—

	Expected deaths.	Actual deaths.	Percentage.
General Section	704	620	78.03
Temperance	307	204	66.58

THE GREENING OF PEAS.

Dr. Russell (Glasgow).—We have ascertained that there is no enactment under the French law which prohibits the use of copper salts for giving a green colour to vegetables, just as there is no restriction on the import of tinned greened vegetables. But the law says makers of such goods are answerable for any injury that may be caused to health by the consumption of articles coloured with poisonous salts.

NEWSPAPER PUFFS OF MEDICAL MEN.

THE *Globe* has a very dignified annotation on the unseemliness of such puffs. An eminent pianist, in the innocence of his heart, thought to do his physician a good turn by sending a little paragraph the round of the papers praising his skill and success. Our contemporary very properly declined to publish such stuff. It received a second paragraph of the same sort, and was equally firm, feeling that the science of medicine is "too noble" to be degraded to the level of rival soap-boilers." We thank the *Globe* for the stand it so properly takes, and trust other contemporaries will take note of this example and follow it.

B. B.—The Local Government Act of 1888 provides that no person shall after Jan. 1st, 1892, be appointed the medical officer of health of any county, or of any such district or combination of districts, as contained according to the last published census for the time being a population of 50,000 or more inhabitants unless he is legally qualified for the practice of medicine, surgery, midwifery and also is either registered in the Medical Register as the holder of a diploma in sanitary science, public health, or State medicine under Section 21 of the Medical Act, 1880, or has been during three consecutive years preceding the year 1892 a medical officer of a district or combination of districts with a population according to the last published census of not less than 20,000, or has been before the passing of the Local Government Act for not less than three years a medical officer or Inspector of the Local Government Board. Our correspondent will observe that these requirements only relate to districts having more than 50,000 inhabitants at the time of the last published census.

ANTIDOTES TO ANÆSTHETIC NARCOSIS.

To the Editors of THE LANCET.

SIRS,—In cases of chloroform narcosis, such as that reported by Mr. Jordan Lloyd in THE LANCET of to-day's date, I would strongly recommend oxygen gas inhalation. Impressed with its great value in Sir H. Davy's case of carbo-hydrogen poisoning in the Hotwells' Hospital, I included it amongst the antidotes for anæsthetic narcosis in my book, "Anæsthetics, Ancient and Modern." During the past two years I have frequently used the oxygen gas in cases of asphyxia and always found it a reliable, quick-acting remedy. Messrs. Fannin of this city manufactured for me an efficient and inexpensive apparatus for its administration. I am, Sirs, yours truly,  
Dublin, June 25th, 1892.

GEORGE FOY, F.R.C.S.I.

THE VALUE OF MASTICATION.

DR. LAUDER BRUNTON, in the course of a recent lecture on Mastication at St. Bartholomew's Hospital, made use of the following remarks:—"I think it was a magnificent stroke of genius on the part of the President of the Royal College of Physicians, Sir Andrew Clark, when he informed Mr. Gladstone that he had one mouth and thirty-two teeth and that for every mouthful of food he took every tooth should have a chance, so that he should take thirty-two bites to every mouthful. And," continued Dr. Brunton, "if the patient has lost some of his teeth he should allow two bites for every missing tooth and even that will not always do if many teeth have gone."

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. A. G. Auld, Glasgow; Mr. W. Anderson, London; Mr. Atkinson, Sherborne; Mr. Buss, Hendon; Mr. Bourke, Wolverhampton; Dr. Lauder Brunton, London; Mr. T. B. Browne, London; Messrs. Blondeau et Cie, London; Mr. Baron, Manchester; Messrs. Burroughs and Wellcome; Mr. W. Bingham; Dr. E. Blak; Messrs. Boulton and Paul, Norwich; Dr. J. H. Brock; Dr. H. J. Branson; Mr. H. Hamilton Brindle, Manchester; Mr. Browne, London; Mr. Bullock, London; Dr. Cane, Peterborough; Mr. Carlewer, Newnham; Messrs. Condy and Mitchell, London; Dr. Creighton, London; Mr. Clark, West Brighton; Mr. Cornish, London; Mr. Connop, Chamounix; Sir Joseph Crow, Paris; Mr. Denver Clark, Orpington; Sir W. Dalby, London; Col. Duller, London; Dr. Duffield, London; Mr. E. Ducretet, Paris; Dr. Emin, London; Mr. Edmunds, London; Messrs. Evans, Son, and Co., Liverpool; Mr. C. Elliot; Messrs. Ellgood and Fuller, London; Mr. Ford, Devonport; Mr. G. Foy, Dublin; Dr. Fitzpatrick, London; Mr. Grainger, Chester; Mr. Gunn, Kilmarnock; Messrs. Griffin and Co., London; Professor Gairdner, Glasgow; Mr. Griffith, Milford Haven; Mr. Greenish, London; Mr. J. D. B. Gabble, Hyderabad; Mr. Hulme, Birmingham; Mr. Hornbrook, London; Mr. Reginald Harrison, London; Mr. Hirschfeld, Berlin; Mr. Hasnell, South Shields; Dr. Hitchcock, Wilts; Mr. Hoal, Edinburgh; Mr. Holmes, Derby; Dr. A. Halg; Mr. Howe, Preston; Mr. Jamison, Ebbw Vale; Dr. Kelso, Southsea; Dr. Kolyneck, Manchester; Messrs. Keith and Co., Edinburgh; Mr. A. A. Kanthack; Messrs. Kegan Paul and Co., London; Dr. Kerr, London; Mr. Arbutnot Lane; Messrs. Lloyd and Co., Leicester; Mr. Lowndes, Liverpool; Mr. F. C. Lynde, Manchester; Mr. Mansell Moullin; Mr. Moore, Littleport; Mr. Mason, Hull; Mr. U. S. Manning; Mr. G. Martindale, Liverpool; Mr. Jas.

McMunn, Crouch End; Mr. W. Maycock, Foreign Office; Mr. Osburne, Hyde; Messrs. Oppenheimer and Co., London; Messrs. Oliver and Boyd, Edinburgh; Dr. Douglas Powell, London; Mr. Fred. Page, Newcastle; Mr. Perkins, London; Mr. Roch, Dublin; Mr. Arnold E. Reade; Mr. Wm. Rae; Dr. S. Cartwright Reed, Herschell, South Africa; Dr. W. Russell, Edinburgh; Lord Sandhurst; Mr. A. De St. Dalmas; Dr. Sainsbury; Mr. Stockwell, Bath; Messrs. Seabury and Johnson, London; Dr. Smart, Edinburgh; Messrs. G. Street and Co., London; Mr. W. D. Soulsby, London; Messrs. W. H. Smith and Son, Manchester; Mr. H. W. Scobell, London; Mr. Smith, Westgate-on-Sea; Mr. Sinclair, Orkney; Dr. Slatter, Wakefield; Mr. Vickers, London; Dr. Samuel Wilks, London; Mr. W. E. Wright, Crouch End; Mr. Wolfendale, Bolton; Mr. Whitlock, Fareham; Mr. W. Essex Wynter, London; Mr. White, Wolverhampton; Dr. S. W. Wheaton, The Chase; Lieut. Wilkinson, Stockport; Dispensary, London; Carriage Insurance Co., Pall Mall; J. M. L., London; Maltine Manufacturing Co., Bloomsbury; Galen, London; Beta, London; Great Eastern Railway, London; Matron, Birmingham; Clavicle, London; A. B. C., London; H. W. D.; M. D.

LETTERS, each with enclosure, are also acknowledged from—Mr. Smith, Streatham; Miss Clark, Wolverhampton; Mr. Carleton, Newnham-on-Severn; Mr. Elliott, Sheffield; Mr. Camoron, Bristol; Mr. Butler, Harlesden; Mr. Eccles, Derby; Mons. Barbier, France; Mr. James, Cwmavon; Dr. Gill, Formby; Mr. Billiard, Kington; Messrs. Benson and Co., London; Mr. Walker, Stenhousemuir; Messrs. Cleave and Sons, Crediton; Mr. Style, Hucknall Huthwaite; Messrs. Saloman and Co., Essex; Mr. Malcolm, Southampton; Mr. Woodcock, Boston Spa; Mr. Harkin, Belfast; Mr. Hirst, London; Messrs. Bryce and Rumpf, London; Mr. Powers, Cumberland; Mr. Williams, Higher Tranmere; Mr. Westmorland, Manchester; Mr. Jackson, Winchmore Hill; Mrs. Levick, Paris; Dr. Healy, Cardiff; Messrs. Stocks and Crossman, London; Mr. Atkinson, Bristol; Mr. Livingstone, Inverness; Mr. Gilyard, Bradford; Miss Manley, Croydon; Dr. Thomson, Norwich; Mr. Howe, Ellesmere; Mr. Burrows, London; Mr. Clegg, Windermere; Mr. Rozer, Bournemouth; Mr. Hilliar, Birchington-on-Sea; Mr. Jones, Llanelly; Mr. Norman, Devon; Dr. McAdam, Edinburgh; Mr. Perrott, Liverpool; Mr. Brook, Swansea; Mr. Fitzgerald, Cork; Mr. Debenham, Herts; Mr. Trail, Edinburgh; Mr. Haycock, Alfreton; Mr. Offord, Bradford; Mr. Thin, Edinburgh; Mr. Darby, Middlesbrough; Mr. Thompson, Doncaster; Mr. Fitzgerald, Queens-town; Dr. Lund, Newcastle; Mr. Fiske, Maidstone; Dr. Steedman, Hucknall; Dr. Buckland, London; Dr. Court, Chesterfield; Mr. Tyte, Minchinhampton; Mr. Buxey, Southampton; Messrs. Llewellyn and Thomas, Cardiff; Messrs. Humphreys, London; Messrs. Curry and Paxton, London; Mr. McLaurin, Glasgow; Mr. Hitchcock, Market Lavington; Mr. Sutherland, Bangor; Mr. Heywood, Manchester; Mr. Kershaw, Manchester; Mr. Davidson, Ballymena; Mr. Clark, Wolverhampton; Owner, Chelsea; Barham, London; Corporation of Salford; X. Y. Z., Southend-on-Sea; Ajax, London; Carden, Old Swindon; L. M. N., London; Home, London; Yawl; A. W., West Kensington; Surgeon, London; T. W. Audley; Eucalyptus; 78, Mile End-road; Cradock, London; Broughton, London; Medicus, Bournemouth; Medicus, London; Sigma, London; E. W., London; Nomen, London; M.R.C.S., Weymouth; Gerald, Cheshire; Medicus, Margate; Scapula, London; S. H., Holbeach; Hector, London; E. H., Stratford; Surgeon, Kilburn.

NEWSPAPERS.—Bradford Observer, Montreal Gazette, Sydney Morning Herald, Melbourne Age, Leeds Mercury, Manchester Guardian, Madras Times, Birmingham Post, Amateur Gardening, Scarborough Evening News, Eastern-Daily Press, Nursing Record, Express and Star (Wolverhampton), Clevedon Gazette, South Wales Daily News, Leicester Post, Woolwich Gazette, Cork Constitution, Guy's Hospital Gazette, Invention, Kentish Mercury, Elgin Courant, Le Temps (Paris), Carnarvon Herald, Hampshire Advertiser, Hovart Mercury, Indian, Engineering, Torquay Times, Eastern Morning News (Hull), &c., have been received.

# Medical Diary for the ensuing Week.

**Monday, July 4.**  
**ST. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M., and each day at the same hour.  
**CHelsea HOSPITAL FOR WOMEN.**—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
**HOSPITAL FOR WOMEN, SOHO-SQUARE.**—Operations, 2 P.M., and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPEDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
**NATIONAL ORTHOPEDIC HOSPITAL (Great Portland-street, W.).**—5 P.M. Mr. F. E. Fisher: Paralytic Deformities, Club-foot, &c.

**Tuesday, July 5.**  
**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**ST. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**ST. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**ST. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

**Wednesday, July 6.**  
**NATIONAL ORTHOPEDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**ST. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday & Saturday, same hour.  
**ST. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**OBSTETRICAL SOCIETY OF LONDON.**—8 P.M. Specimens will be shown by Dr. John Phillips, Dr. Lewers, Mr. McAdam Eccles, Dr. De Vieux, Dr. Horrocks, and Mr. Bland Sutton. Dr. Herman: On Menstruation in cases of Backward Displacement of the Uterus.—Mr. W. A. Meredith: Two cases of Double Ovariectomy during Pregnancy.

**Thursday, July 7.**  
**ST. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.  
**Friday, July 8.**  
**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.**—8.30 P.M. Patients and Card Specimens at 8 P.M. Messrs. Collins and Cross: Implantation Cyst in Anterior Chamber after Cataract Extraction. Mr. Tatham Thompson: (1) Accidental Vaccinia of Eyelids; (2) Gamma of Episciera; (3) Rupture of Choroid; (4) Rodent Ulcer destroying Lower Eyelid and Eye; (5) Recurrent Sarcoma of Orbit.  
**WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).**—8 P.M. Special General Meeting. 8.30 P.M. Annual General Meeting. Retiring President's Address.

**Saturday, July 9.**  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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The ratio of the albuminoids to the carbohydrates is the same as in human milk—viz., 1 to 6·4; the ratio in cow's milk being only 1 to 3·8.

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The albuminoids are not predigested as in pancreatised foods, but are rendered easy of digestion, leaving (as in human milk) just sufficient work to strengthen and develop the immature digestive powers, instead of weakening and abrogating them by keeping them inactive. Sir WILLIAM ROBERTS'S experiments in feeding kittens show that distinct failure of nutrition occurs when the milk is predigested (peptonised), and the same thing has been observed in feeding infants, probably owing, as THE LANCET points out, to atrophy of unemployed glands.

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As a consequence of the foregoing the proper peristaltic action of the bowels is maintained, and the healthy nature of the evacuations of infants fed on this food is a satisfactory feature much and favourably commented on by Mothers and Nurses.

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When mixed with cow's milk it prevents the troublesome curdling in the stomach which takes place when cow's milk is given alone, and assimilates its composition to that of human milk.

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The absence of the fermentable sugar, which in the various malt extracts and milk foods so often gives rise to Diarrhoea and Flatulence.

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**SAVORY & MOORE,**  
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The Croonian Lectures

ON THE

CHEMISTRY AND THERAPEUTICS OF URIC-ACID GRAVEL AND GOUT.

Delivered before the Royal College of Physicians of London,

By SIR WM. ROBERTS, M.D. LOND., F.R.S.

LECTURE III.

CHEMISTRY OF URATIC PRECIPITATION IN GOUT.

MR. PRESIDENT AND GENTLEMEN,—The chemistry of gout in its full extension embraces changes of the most diverse character in the blood and tissues. I do not propose to deal with the subject in this comprehensive sense, but to confine myself entirely to the relations of gout with uric acid. By far the most characteristic feature of gout is the formation of chalk-like deposits in certain parts and tissues of the body, especially in and about the joints. The essential component of these deposits is the bi-urate of sodium, and it is always present in the crystalline condition. The crystals are distributed through the implicated tissue in the form of delicate needles aggregated into tufts, bundles, and stars. The arthritic incidents of gout may be said, not improperly, to be simply incidents pertaining to the precipitation of these crystals in the structures of the joints. Without the occurrence of this precipitation the gouty paroxysm could not take place, nor could the more chronic changes in the joints, with their train of attendant symptoms, follow after. Were it possible for us to keep the sodium bi-urate in a state of solution in the bodily fluids, the clinical portraiture of gout would be completely transfigured. Whatever other manifestations of the gouty constitution we might have to deal with, we should not have to contend with this most grievous outcome of the diathesis. The evidence brought forward by Sir Alfred Garrod on this point appears to me to be conclusive, and justifies the deduction that the deposition of the crystalline bi-urates is not merely a concomitant, but is the actual cause of the joint troubles of gout. This view is now pretty generally accepted, and forms the basis of most of our plans of treatment in the management of the gouty state. Hence it is that the history and chemical properties of sodium bi-urate have acquired a capital importance in the pathology of gout. We are interested to know how this compound arises in the body from nascent uric acid, what are its relations of solubility in diverse media and more particularly in the blood and lymph and synovia; what are the factors which tend to determine its precipitation in the body or tend to prevent its precipitation.

I have before adduced evidence to show that the normal or physiological condition of uric acid in the body is that of a quadri-urate and that any departure from this condition must be regarded as pathological. In the last lecture I traced the changes which the quadri-urate undergoes in the urine and which lead up to the separation of uric acid in the free state as gravel and urinary sediments. In the present lecture I shall endeavour to trace the converse changes which the quadri-urate undergoes in the blood and lymph and which lead up to the formation and deposition of sodium bi-urate in the tissues. In order to effect this purpose I propose, first, to examine the solubility of the material of gouty concretions—namely, sodium bi-urate—in various media: in the serum of the blood, in synovia and in diverse saline solutions; then to examine and compare the behaviour of free or uncombined uric acid with the same media. Upon the basis of the results thus obtained I shall be able to formulate a general theory of uratic precipitation.

SOLUBILITY OF SODIUM BI-URATE IN DIVERSE MEDIA:

(a) IN WATER, (b) IN BLOOD-SERUM AND KINDRED MEDIA, (c) IN VARIOUS SALINE SOLUTIONS.

(a) *Solubility of Sodium Bi-urate in Water.*—When sodium bi-urate is digested at blood heat with pure water it enters pretty freely into solution. Careful experiments indicated that the solubility of sodium bi-urate in distilled water at 100° F. approximated very closely to the proportion of 1 part in 1000. This was taken as the standard of comparison in estimating the solubility of this compound in all other media.

(b) *Solubility of Sodium Bi-urate in Blood-serum.*—Sodium No. 3593.

bi-urate is very sparingly soluble in the serum of the blood; as is shown by the following experiments. Sodium bi-urate in excess was treated with blood-serum of the horse and pig in corked phials. The phials were placed in the warm chamber and frequently agitated. After a digestion of twelve hours the supernatant serum was filtered twice through a threefold filter.<sup>1</sup> The filtrate thus obtained, when acidulated with acetic acid, gave not the slightest precipitation of uric acid. Nevertheless, some slight solution had taken place. For when a portion of the filtrate was evaporated on a watch-glass in the warm chamber to near dryness, needles of bi-urate could be readily detected in it under the microscope, or when the filtrate was tested with Garrod's thread experiment crystals of uric acid were always found sprinkled on the thread. It thus appears that sodium bi-urate, although very sparingly soluble, is not absolutely insoluble in blood-serum. From a number of comparative experiments I estimated that at blood heat the amount dissolved was probably about 1 part in 10,000.

The behaviour of sodium bi-urate with synovia corresponded exactly with its behaviour with blood-serum; only minute traces went into solution. It was ascertained by direct experiment that the behaviour of uric acid and its compounds with blood-serum depended entirely on the saline ingredients contained in it and had no relation to its albuminous constituents. When the serum was deprived of its salts by dialysis, it was found that it reacted with uric acid and the urates like simple water; and no doubt the same rule holds good with regard to all the bodily fluids. An examination of the saline components of these fluids is therefore of prime importance in the study of the chemistry of gout. The serum of the blood and its derivatives, lymph and synovia, although differing considerably from each other in their albuminous elements, are almost identical in regard to both the quantity and the quality of their saline constituents. These latter are remarkable for the immense preponderance of sodium salts. The subjoined table exhibits the average proportion of the several saline ingredients contained in blood-serum.

TABLE XI.—Showing the Percentages of the several Salts in Blood-serum.

Sodium chloride .. ..	0.50 per cent.	} Sodium salts=0.73 per cent.
Sodium bicarbonate .. ..	0.20 per cent.	
Sodium phosphate .. ..	0.03 per cent.	
Potassium salts .. ..	0.06 per cent.	
Calcium salts	} .. 0.06 per cent.	} All other salts=0.11 per cent.
Magnesium salts		

The fact just mentioned—namely, that the reactions of uric acid and the urates with the bodily fluids depends exclusively on the saline ingredients contained in them—suggested the idea that advantage might be taken of this circumstance to facilitate the chemical study of gouty precipitation. If a solution in water of the salines of blood-serum were prepared, such a solution might be expected to behave with uric acid and the urates like the serum itself; and this proved on trial to be the case. An examination of the above table shows that the salts of sodium exceed the aggregate of all the other salts of blood-serum in the proportion of seven to one. Practically, for the purpose in view, the saline basis of blood-serum might be considered as consisting essentially of sodium chloride and sodium carbonate, so greatly do these preponderate over the sum of all the other salts put together. From these particulars it may be deduced that a solution in water containing chloride and bicarbonate of sodium in the proportion specified in the table would be a fairly exact representation of blood-serum, in so far as its saline ingredients are concerned. It was found experimentally that such a solution reacted with uric acid and the urates in the same manner as blood-serum itself and in the same manner as a solution comprising all the salines of the serum in their due proportions as ascertained by the best analyses. Accordingly a solution was prepared in conformity with these indications, and was designated as the *standard solvent* or *standard solution*. Its composition was as follows:

TABLE XII.—Showing the Composition of the Standard Solvent.

Sodium chloride .. ..	0.5 grammo.
Sodium bicarbonate .. ..	0.2 grammo.
Distilled water .. ..	100 cubic centimetres.

This solution was much used in the present research, especially as a pioneer. For experimental purposes it pos-

<sup>1</sup> The needles of sodium bi-urate are so minute and delicate that some of them pass through the filter unless the most stringent precautions are taken.

sessed certain advantages over serum and synovia. Its composition could be more easily modified by additions to or subtractions from it; the quantities of uric acid and urates taken up by it could be more exactly estimated; and its limpidity permitted the first signs of precipitation to be more readily detected. The behaviour of uric acid and the urates with this solvent was studied in detail under varying conditions of temperature and time and with varying modifications of its composition. The results thus obtained were afterwards collated with those obtained with blood-serum in similar circumstances and with parallel modifications of its composition. The standard solvent was found to behave with sodium bi-urate in exactly the same way as blood-serum. Only the minutest traces of the bi-urate were taken up by it at 100° F. Such a solution, when carefully filtered, gave no precipitate of uric acid when treated with hydrochloric acid.

(c) *Solubility of Sodium Bi-urate in Saline Solutions.*—The influence of different saline substances on the solubility of sodium bi-urate has not only a pathological but also a therapeutical bearing. Saline substances are largely used in the treatment of gout, both in the guise of pharmaceutical preparations and as constituents of mineral springs, under the belief that they promote the holding in solution of the peccant bi-urate, and thereby hinder its deposition as gouty concretions and even favour the resolution of concretions already formed. It is therefore of practical interest for us to know what kinds of salts (if any) act favourably, and what kinds act unfavourably, in this respect. A large series of experiments were undertaken with a view of elucidating this point and the deductions indicated are, I venture to think, of considerable interest. The salts of which the effects were investigated were those of sodium, potassium, calcium magnesium and ammonium. The experiments were carried out in the following manner: Solutions of known strength of the salts to be tested were prepared in distilled water. These solutions were digested at blood heat with excess of sodium bi-urate in corked flasks. The flasks were then placed in the warm chamber and maintained at 100° F. with frequent agitation for five hours. The supernatant liquid was then carefully filtered off. In some cases repeated filtration through a threefold filter was required in order to obtain a perfectly transparent product. Finally, the percentage of uric acid in the filtrate was estimated and calculated as sodium bi-urate. The results thus obtained are exhibited in the following tables. The solubility of the bi-urate in distilled water is placed at the head of each table as a standard of comparison.

*Salts of Sodium.*—The effects of the following soda salts were investigated—namely, the bicarbonate, chloride, sulphate, phosphate and salicylate. All these salts showed a powerful influence in diminishing the solvent power of the medium on the sodic bi-urate, and the adverse influence increased progressively up to a certain point with the increasing strength of the solution.

TABLE XIII.—Showing the Influence of Sodium Salts on the Solubility of Sodium Bi-urate, at 100° F.

Solvent.	Sodium bi-urate dissolved.*
Water .. .. .	1'00 per 1000
Water containing:—	
0·1 per cent. sodium bicarbonate .. .. .	0'50 "
0·2 " " " " " " " " " " " " " " " "	0'34 "
0·3 " " " " " " " " " " " " " " " "	0'20 "
0·5 " " " " " " " " " " " " " " " "	0'13 "
0·7 " " " " " " " " " " " " " " " "	0'09 "
1·0 " " " " " " " " " " " " " " " "	0'08 "
0·1 " sodium chloride .. .. .	0'45 "
0·2 " " " " " " " " " " " " " " " "	0'30 "
0·3 " " " " " " " " " " " " " " " "	0'16 "
0·5 " " " " " " " " " " " " " " " "	0'10 "
0·7 " " " " " " " " " " " " " " " "	0'08 "
1·0 " " " " " " " " " " " " " " " "	0'05 "
0·1 " sodium sulphate (crystals) .. .. .	0'56 "
0·5 " " " " " " " " " " " " " " " "	0'24 "
0·1 " sodium salicylate .. .. .	0'65 "
0·3 " " " " " " " " " " " " " " " "	0'80 "
0·5 " " " " " " " " " " " " " " " "	0'25 "
0·1 " sodium phosphate (crystals) .. .. .	0'70 "
0·5 " " " " " " " " " " " " " " " "	0'82 "

\* The estimations in this and the following tables were generally made by the usual gravimetric process with hydrochloric acid. When the quantity dissolved was too small for weighing, it was estimated by a ninimetric adaptation of Arthaud and Butte's method.

The table indicates that the degree of alkalescence of the medium or its neutrality had not the slightest influence on the result. The carbonate and phosphate, which have an alkaline reaction, acted exactly in the same way as the chloride and sulphate, which have a neutral reaction. It may be observed that the sodium chloride had a more marked effect

than the other sodium salts—more than the carbonate, but especially more than the sulphate, phosphate and salicylate. This difference is, however, solely due to the larger percentage of the metal in the chloride. When solutions were prepared of these several salts in such proportion that the percentage of sodium in them was constant, their effect was found to be as nearly as possible equivalent.

*Salts of Potassium.*—Solutions of the following potassium salts were subjected to examination—namely, bicarbonate chloride, phosphate and sulphate. The results stand in the strongest contrast with those obtained with sodium salts.

TABLE XIV.—Showing the Influence of Potassium Salts on the Solubility of Sodium Bi-urate at 100° F.

Solvent.	Sodium bi-urate dissolved.
Water .. .. .	1'00 per 1000
Water containing:—	
0·1 per cent. potassium bicarbonate .. .. .	0'96 "
0·2 " " " " " " " " " " " " " " " "	1'00 "
0·3 " " " " " " " " " " " " " " " "	1'00 "
0·5 " " " " " " " " " " " " " " " "	0'97 "
0·7 " " " " " " " " " " " " " " " "	1'02 "
1·0 " " " " " " " " " " " " " " " "	0'98 "
0·1 " potassium chloride .. .. .	0'96 "
0·3 " " " " " " " " " " " " " " " "	1'01 "
0·5 " " " " " " " " " " " " " " " "	1'10 "
0·1 " potassium phosphate .. .. .	1'01 "
0·5 " " " " " " " " " " " " " " " "	1'00 "

The experiments tabulated indicate that the salts of potassium exercise no influence neither for nor against on the solubility of the bi-urate. The results came out, within the necessary limits of error, precisely as with distilled water. The bicarbonate and phosphate, which have an alkaline reaction, behaved exactly in the same way as the chloride, which has a neutral reaction. The varying strengths of the solutions made not the least difference.

The difference between solutions of sodium salts on the one hand and those of potassium salts and distilled water on the other is so conspicuous that it is easily perceived without any resort to quantitative analysis. A 0·7 per cent. solution of any of the sodium salts (reckoned as anhydrous) dissolves so little of the bi-urate that saturated solutions made at blood heat show no precipitation of uric acid when treated with hydrochloric acid, or at most only a few scattered crystals at the end of forty-eight hours; whereas similar solutions made with potassium salts, or with distilled water, become almost at once milky when treated with hydrochloric acid, and in a few minutes throw down an abundant deposit of uric acid.

*Calcium, Magnesium, and Ammonium Salts.*—The addition of calcium, magnesium, and ammonium salts diminished the solvent power of water on sodium bi-urate. The subjoined table exhibits the results obtained with these three classes of salts.

TABLE XV.—Showing the Influence of Calcium, Magnesium and Ammonium Salts on the Solubility of Sodium Bi-urate at 100° F.

Solvent.	Sodium bi-urate dissolved.
Water .. .. .	1'00 per 1000
Water containing:—	
0·1 per cent. calcium sulphate .. .. .	0'65 "
0·2 " " " " " " " " " " " " " " " "	0'44 "
0·5 " calcium chloride .. .. .	0'27 "
0·1 " magn. sulphate (crystals) .. .. .	0'90 "
0·1 " magnesium chloride .. .. .	0'85 "
0·5 " " " " " " " " " " " " " " " "	0'68 "
0·1 " ammonium chloride .. .. .	0'85 "
0·2 " " " " " " " " " " " " " " " "	0'60 "
0·3 " " " " " " " " " " " " " " " "	0'42 "
0·5 " " " " " " " " " " " " " " " "	0'25 "

The table shows that calcium salts exercise a strongly deterrent effect on the solvent power of water on sodium bi-urate, approaching in this respect but not equalling the sodium salts. The magnesium salts, on the other hand, although exhibiting a distinctly deterrent influence, approach more nearly to the indifferent reaction of the potassium salts. The salts of ammonium were found to stand in an intermediate position between those of calcium and magnesium.

Reviewing these results as a whole, the following conclusions may be deduced, in regard to the solubility of sodium bi-urate in simple saline solutions, at the temperature of the body:—(a) The influence of a salt depends exclusively on the nature of the base, and has no reference to the acidulous radicle with which the base is combined. (b) Salts with an alkaline reaction, such as carbonates and phosphates, do not differ in the least from neutral-reacting salts, such as chlorides and sulphates. (c) Salts of soda exercise a strong deterrent influence, and the deterrent influence increases with the increasing percentage of the salts in solution. Salts of

lime, magnesia and ammonia have also a deterrent effect, but slighter than that of salts of soda. Salts of potassium have no effect either way.

#### BEHAVIOUR OF URIC ACID WITH BLOOD-SERUM AND THE STANDARD SOLVENT AND WITH SYNOVIA.

An examination of the behaviour of free or uncombined uric acid with blood-serum and kindred media is a necessary part of the study of the chemistry of gout. It is only by knowledge thus gained that we can hope to elucidate the mode in which sodium bi-urate originates in the body, and learn something of the conditions which control its precipitation in the gouty system. The reactions of free uric acid with blood-serum and synovia and with the standard solvent and its modifications are of quite a different kind from those of sodium bi-urate with the same media. In the latter case there is simply an act of solution. The bi-urate is taken up substantially unchanged, and the questions we had to decide were as to its degrees of solubility in the several menstrua. But when free uric acid is brought into contact with blood-serum and kindred media, there occurs not merely an act of solution, but a series of chemical reactions. Uric acid first enters into combination with the bases contained in the media; these new compounds then pass into solution, and subsequently undergo certain ulterior changes which it is of much interest to follow.

*Behaviour of Uric Acid with Blood-serum and the Standard Solvent.*—When uric acid is digested at the temperature of the body with blood-serum or with the standard solvent it passes into solution in combination with a base. In the course of an hour, with due agitation, the liquids will, on analysis, be found to have taken up uric acid in the large proportion of about 1 part in 500. The chemical and solvent power of these media on uric acid depends on the sodium carbonate contained in them and not on the sodium chloride, for a solution of the latter salt alone has no more action on uric acid than pure water. On the other hand, a solution containing sodium bicarbonate alone has precisely the same action on uric acid as when it is associated, as in the serum and standard solvent, with sodium chloride. The question now arose, What is the combination in which uric acid enters into solution? It could not be bi-urate, because crystalline sodium bi-urate is almost insoluble in these media; nor could it be neutral urate, because the neutral urates cannot arise in the presence of carbonates. The presumption remained that the combination is a quadri-urate. It was, however, highly desirable to have direct proof. This was obtained by taking advantage of the great difference of solubility of quadri-urates at different temperatures. The following experiment appears to be conclusive on this point. Uric acid in excess was digested at blood heat with a 1 per cent. solution of sodium bicarbonate under constant agitation for twenty minutes. The filtered product was rapidly cooled on ice. It threw down a copious amorphous deposit, which when duly washed on the filter with rectified spirit to free it from adherent carbonate gave the characteristic reaction of quadri-urate—that is to say, it was decomposed by water with abundant emission of uric-acid crystals. A corresponding experiment with a 0.5 per cent. solution of potassium bicarbonate yielded exactly the same results.<sup>2</sup> We may therefore conclude with certainty that when uric acid comes into contact with blood-serum or the standard solvent it enters into solution in the first instance as a quadri-urate; but the process does not stop here. The quadri-urate gradually takes up an additional atom of base and is thereby converted into bi-urate and the bi-urate thus formed is, after some delay, eventually precipitated in the crystalline form.

In order to bring this remarkable succession of events more vividly before your minds I will relate the particulars of two actual experiments.

*Experiment 1.*—Uric acid in excess was digested, with frequent agitation, in the standard solvent at 100° F. for twenty minutes. The excess of uric acid was then filtered off and the clear solution was placed in a cork phial in the warm chamber. It remained unaltered for two days. On the third day it began to precipitate and on the fourth day a copious deposition of crystalline bi-urate took place. On the fifth day the process was completed and the supernatant liquor was found on acidulation to contain only traces of uric acid.

<sup>2</sup> Solutions of the common (di metallic) phosphates of soda and potash and of the alkaline acetates also take up uric acid very freely at blood heat and the combination formed in these cases in the first instance is likewise a quadri-urate as may be shown by the above-described method of cooling on ice.

*Experiment 2.*—Blood-serum of the horse was digested at 100° F. with excess of uric acid for fifteen minutes with constant agitation. It was then filtered and placed in a corked phial in the warm chamber. In about twelve hours the serum, previously clear, began to lose transparency and fine needles of bi-urate were detected in it with the microscope. On the next day copious precipitation took place. On the fourth day the process seemed to be completed and the supernatant serum was found to be almost free from uric acid. It was impossible not to be struck with a certain rough resemblance between the results observed in these experiments and the phenomena of the gouty paroxysm. In the gouty subject it is assumed that the blood becomes more and more impregnated with uric acid until, after a certain period of incubation has been accomplished, sudden precipitation of sodium bi-urate takes place in and about the joints, and the "fit of the gout" is declared. Then follows a process of recovery, with restoration of the blood to a purer state—that is, with a lessened impregnation of uric acid. In the artificial counterfeit we observe a similar succession of events. First, impregnation of the medium with sodium quadri-urate; secondly, a period of incubation or maturation, during which the quadri-urate passes into bi-urate; thirdly, somewhat sudden precipitation of sodium bi-urate in the crystalline form; and lastly, restoration of the medium to comparative purity.

*Behaviour of Uric Acid with Synovia.*—It is a marked peculiarity of the uratic phenomena of gout that the deposits occur most commonly in and about the joints; and it was a matter of interest in the present inquiry to ascertain how synovia behaved when impregnated with uric acid; and especially whether synovia, as compared with blood-serum and when impregnated to an equal degree, had the property of retarding or hastening the precipitation of bi-urate. This part of the investigation is hampered by the difficulty of obtaining an adequate supply of materials, and my information thereupon is scanty. I have so far only been able to make satisfactory experiments with synovial fluid drawn from the hip of the ox. From this source about a couple of ounces may be obtained from the two joints. Butchers tell me that the synovia from the hip is thinner as well as more abundant than that obtained from the other joints. On two occasions I was able to examine and compare the synovial fluid of the hip-joint with the blood-serum of the same ox. The behaviour of the two fluids with uric acid was substantially the same; but in both instances I found that, when impregnated with uric acid in an equal degree, precipitation of bi-urate began distinctly a little earlier in the synovia than in the serum. My impression is—but it is only an impression—that with the thicker and more concentrated synovia of the smaller joints this difference would be more pronounced. Whether there is in this distinction between serum and synovia a key to the preference of uratic deposition for the joints is a question well worthy of further inquiry. It is, at any rate, conceivable, supposing the blood and its derivative fluids to be equally impregnated with uric acid and supposing the synovial fluids to be more largely charged than their congeners with salts and especially with sodium salts, that precipitation of bi-urate would take place earlier and by preference in and about the joints than elsewhere. This point will be again touched on in my next lecture when I come to speak of the topographical distribution of uratic deposits.

#### GELATINOUS OR HYDRATED MODIFICATIONS OF THE URATES.

There is a point of considerable interest in connexion with the chemistry of the urates which may be conveniently considered in this place, and that is the occurrence of gelatinous modifications of these compounds, which differ both in physical condition and in solubility from the more common granular and crystalline forms. The existence of these gelatinous modifications was first noted by Dr. Ord in the course of his well-known researches on the influence of colloids upon crystalline form and cohesion.<sup>3</sup> He observed that when hot saturated solutions of the urates of soda or ammonia were mixed with an equal bulk of strong solutions of the alkaline chlorides or phosphates the urates were thrown down on cooling in a gelatinous state. He further observed that this condition was not a permanent one, and that the gelatinous matter, after a time, changed into a mass of crystals. The interest for us in our

<sup>3</sup> On the Influence of Colloids upon Crystalline Form and Cohesion, by W. M. Ord, London, 1879, pp. 72 et seq.

present inquiry of these observations lies in the probability that these gelatinous modifications of the urates intervene, perhaps importantly, in the succession of changes which lead up to the formation of uratic deposits in gout. I must therefore ask your attention to some additional particulars which I have gathered on this subject. Crystalline sodium bi-urate is very much more soluble in hot water than in cold water. Nevertheless, such a hot solution, fully saturated, does not deposit its surplus bi-urate on becoming cold; it continues perfectly clear and remains so. But if the solution be evaporated down on the water-bath the bi-urate is again recovered in the crystalline form. It is obvious, therefore, that the bi-urate in passing into hot solution undergoes some notable change whereby its solubility is greatly enhanced. This change consists in the assumption of the gelatinous modification, and herein lies the explanation of the enhanced solubility. These deductions are substantiated by the following experiment: Crystalline sodium bi-urate is dissolved to saturation in hot water. The filtered solution when cold is mixed with an equal volume of a 20 per cent. solution of common salt. A voluminous jelly-like precipitate is thrown down.<sup>4</sup> This is caught on a filter and allowed to drain, and then cautiously washed on the filter with cold water. The gelatinous bi-urate is thus obtained in a condition of approximate purity. Now when this substance is digested at 100° F. with blood-serum or with the standard solvent, it goes freely into solution—so freely that when the filtered product is treated with acetic acid it throws down on standing a considerable deposit of uric acid. But it has before been shown that these same media when digested under similar conditions with the crystalline sodium bi-urate take it up so sparingly that the filtered products do not yield any deposit of uric acid when acidulated.

Dr. Ord noticed, as above stated, that the gelatinous bi-urate collected as a mass on a filter passes after a time into the crystalline condition. The same transformation occurs when the gelatinous matter is held in solution in blood-serum or the standard solvent. Such solutions when set aside continue clear and unchanged for a certain time, but after the lapse of a day or two the bi-urate is reprecipitated in the crystalline form. The obvious explanation is this. The dissolved gelatinous modification reverts by slow degrees to the anhydrous crystalline condition and the bi-urate, in this condition is, as we know, almost insoluble in these media. Consequently, when the transformation reaches a certain point the bi-urate is necessarily precipitated. As to the nature of the gelatinous modifications of the urates, Dr. Ord is inclined to regard them as true colloids, and he remarks on their resemblance to the colloidal modifications of silica. Their jelly-like appearance is certainly strongly suggestive of this idea, but they differ radically from true colloids in passing with ease and unchanged through the dialyser. Their real nature is, I believe, that of hydrated salts. The crystalline bi-urates are anhydrous, the gelatinous modifications are highly hydrated. It is well known that certain salts can be obtained in several degrees of hydration and that these several hydrations possess diverse degrees of solubility. The quadri-urates likewise readily assume the gelatinous modification. Sodium quadri-urate may be obtained in the gelatinous state in the following manner. A 5 per cent. solution of the common phosphate of soda is heated to boiling with excess of uric acid. The mixture is filtered hot. On cooling the filtrate sets into a jelly. The gelatinous substance thus obtained, pressed between blotting paper to deprive it of its mother liquor, possesses the characteristic reaction of a quadri-urate—that is to say, it is rapidly decomposed by water with copious emission of uric-acid crystals.

*Summary of the History of Uric Acid in the Body: (a) in the Normal State, (b) in the Gouty State.*—The facts elicited in this and the preceding lectures enable us to obtain a coherent view of the state and destiny of uric acid in the body. It has been shown that in normal urine uric acid always exists as a quadri-urate; and that in animals which eliminate their nitrogen as uric acid, like birds and serpents, the urinary secretion is composed entirely of the same combination. Proof has also been furnished that in liquids containing alkaline carbonates—such as the serum of the blood and its derivatives, lymph and synovia—uric acid passes into solution in the first instance as a quadri-urate. From these considera-

tions it may be inferred that in the normal state uric acid is primarily taken up in the system as quadri-urate, that it circulates in the blood as a quadri-urate and that it is finally voided with the urine as a quadri-urate. In perfect health the elimination of the quadri-urate proceeds with sufficient speed and completeness to prevent any undue detention or any accumulation of it in the blood. But in the gouty state this tranquil process is interrupted, either from deficient action of the kidneys or from excessive introduction of urates into the circulation, or from some other cause, and the quadri-urate lingers unduly in the blood and accumulates therein. The detained quadri-urate, circulating in a medium which is rich in sodium carbonate, gradually takes up an additional atom of base and is thereby transformed into bi-urate. This transformation alters the physiological problem. The uric acid, or rather a portion of it, circulates no longer as the more soluble and presumably easily secreted quadri-urate, but as bi-urate, which is less soluble, and probably also—either for that reason or because it is a compound foreign to the normal economy—less easy of removal by the kidneys. The bi-urate thus produced exists at first in the gelatinous modification, but with the lapse of time and increasing accumulation it passes on into the almost insoluble crystalline condition and then precipitation becomes imminent, or actually takes place.

#### THE CONDITIONS WHICH ACCELERATE OR RETARD THE PROCESSES WHICH CULMINATE IN THE PRECIPITATION OF SODIUM BI-URATE.

Assuming a real analogy to exist between the processes which go on in serum artificially impregnated with uric acid and the processes which go on in the blood of a gouty patient and which culminate in the deposition of uratic concretions, it is a matter of interest, as bearing on the pathology and treatment of gout, to investigate the conditions which, in the artificial parallel, accelerate or retard these processes. As already explained, these processes consist of three distinct chemical changes. First, the quadri-urate originally formed is converted into hydrated bi-urate; next the hydrated bi-urate is changed into anhydrous bi-urate; and finally this anhydrous bi-urate is precipitated in the crystalline form. For the present purpose it will be more convenient to consider these changes as one continuous process; and for the sake of brevity and ease of expression this process may be designated as "maturation." The investigation embraced a study of the effects of temperature, percentage of uric acid in solution and the addition of various saline and other substances to the maturing medium.

(a) *Temperature.*—It was found invariably that the stage of maturation was more quickly accomplished in the warm chamber at 100° F. than at the temperature of the room, but the ultimate result was exactly the same in both cases. For example, serum charged with 1 part uric acid in 600 began to precipitate in the warm chamber in four hours and precipitated copiously in six hours. A duplicate specimen kept at the temperature of the room (65° F.) began to precipitate in eight hours and did not precipitate copiously for sixteen hours. Another sample of serum, impregnated with 1 part of uric acid in 1000, began to precipitate in the warm chamber in six hours and deposited copiously in fourteen hours; while a duplicate kept at the temperature of the room (60° to 70° F.) only began to precipitate in thirty hours and copious precipitation did not take place for forty-eight hours. The absolute constancy of these results led to the idea that maturation would go on more rapidly at a febrile temperature (104° to 105° F.) than at the normal temperature of the body, and that herein might be found an explanation of the circumstance that gouty outbreaks sometimes follow immediately on the heels of an injury. When, however, this notion was tested experimentally no support was found for it. It was also conceived that, although maturation itself was favoured by warmth, the terminal act of the process—namely, the act of precipitation—might, on the contrary, seeing that the bi-urate is more soluble at higher than at lower temperatures, be favoured by cold and that this might account for the fact that gouty concretions tend to be deposited in the cooler and more exposed parts of the body, in the joints and subcutaneous tissues rather than in the warmer interior regions. I failed, however, to obtain any direct experimental evidence in favour of this conception.

(b) *Quantity of Uric Acid in Solution.*—It was found that no condition exercised so great and decisive an influence on the speed of maturation and the advent of precipitation as

<sup>4</sup> The gelatinous bi-urates may be thrown out of their solutions in several ways. Instead of common salt a concentrated solution of the phosphate, chloride or acetate of sodium, potassium or ammonium may be used, or any of these salts in crystals may be added to saturation to the solution.

the proportion of uric acid in solution. The following experiment with blood-serum, the results of which are arranged in a tabular form, illustrates these points in a striking manner. The phials containing the serum were placed in the warm chamber for fourteen days and were afterwards kept at the temperature of the room. Chloroform was added to prevent putrefactive changes:—

TABLE XVII.—Showing the Influence of Percentage of Uric Acid in the Medium on the Speed of Maturation, and the Time of Advent of Precipitation.

Quantity of uric acid contained in the serum.	Time of precipitation of sodium bi-urate.
1 in 1000 .. .. .	Precipitation began in 6 hours; copious precipitation in 14 hours.
1 in 2000 .. .. .	Precipitation began in 38 hours; copious precipitation in 8 days.
1 in 3000 .. .. .	Slight precipitation began in 3 days, which became a little more copious in 12 days.
1 in 4000 .. .. .	A few needles of bi-urate were detected on the 6th day; more needles and a few tufts in 12 days.
1 in 5000 .. .. .	A few short needles were detected on the 13th day. In 80 days the needles were somewhat more numerous.
1 in 6000 .. .. .	No needles were discoverable in 14 days; a few were detected in 40 days.
1 in 8000 .. .. .	No needles could be detected after the lapse of 40 days.

Assuming that the inflammatory arthritic attacks in gout are directly due to copious and sudden precipitation of crystalline stars and needles of sodic bi-urate in the cartilages and fibrous structures of the joints, the evidence before me indicates that such copious sudden precipitation can only take place when the fluids bathing these structures are impregnated with uric acid in at least the proportion of 1 part in 2500. Below this point the precipitation occurs slowly and scantily, and only in the form of short scattered needles. When the proportion of uric acid in the serum was only 1 part in 5000 the deposited needles were mostly about as long as the diameter of a red blood-disc, some were twice this length, and a few three times this length, and all were of extreme tenuity. It is quite conceivable that this slighter precipitation in the tissues of short scattered needles might account for certain irritations in the various organs, such as characterise irregular or larval gout; but it could scarcely engender downright inflammatory attacks. It is further conceivable that the presence in the blood of such scattered needles might constitute foci, around which clotting might take place; and that the thrombosis not unfrequently observed in gouty cases might thus be accounted for. The impregnation of the blood in gouty persons with uric acid to the extent of these lesser degrees is within the range of observed actualities. Sir Alfred Garrod obtained by quantitative analysis from the blood-serum of one of his patients uric acid to the amount of 1 part in 5714; and he remarks that the quantities thus recoverable from the blood are probably much under the actual amounts, as considerable loss is liable to occur from unavoidable causes. These considerations lead to the suggestion that a microscopical examination of the blood in gouty persons might sometimes reveal the existence of needles of bi-urate in that fluid. I tested this point in ten cases of chronic gout by examining a drop of blood drawn from the finger, but I failed to obtain positive results.

(c) *Influence of Saline Substances.*—The effect of saline substances on the maturing process was tested by adding small quantities of various salts to serum impregnated with uric acid and observing whether these additions accelerated or retarded precipitation. The experiments were carried out in the following manner: Uric acid was dissolved at blood heat in blood-serum in the proportion of 1 per 1000 or 1 per 2000. A number of phials capable of holding 25 cc. were charged with the serum thus impregnated. One phial had no further addition made to it—this was the control phial. To the others small quantities, varying from 0.05 per cent. to 0.2 per cent. of the salts to be tested, were added. The phials were then chloroformed to prevent decomposition and placed in the warm chamber. The occurrence of precipitation was noted at two points—namely, at its very onset, as revealed by the detection on microscopical examination of needles of bi-urate, and secondly, when precipitation became copious and was recognisable by the naked eye. A large number of experiments were made on this plan. The state of the medium during precipitation was that of a supersaturated solution, and, consequently a very slight, often inappreciable, inequality in the

conditions of the experiment was sufficient to disturb the time and rate of precipitation. For this reason it was frequently found necessary to repeat the observations once and again to get the correct indication. I need not trouble you with details; the following summary indicates sufficiently the conclusions deduced from the experiments. The addition of sodium salts to the maturing medium hastened precipitation. An idea of the degree of acceleration may be gathered from the following examples. Serum impregnated with uric acid to the extent of 1 part per 1000 commenced to precipitate in seven hours and precipitated copiously in sixteen hours. A parallel experiment, in which 0.2 per cent. of sodium chloride had been added to the serum, began to precipitate in five hours, and precipitated copiously in twelve hours. Another sample of serum was impregnated with uric acid to the extent of 1 part in 2000. This began to deposit crystals in thirty hours, and deposited freely in ninety-six hours. In a parallel experiment, in which 0.2 per cent. of sodium bicarbonate had been added to the medium, precipitation began in twenty hours and free precipitation took place in forty hours. The alkaline reacting salts, the carbonate and phosphate, had exactly the same effect as the chloride and sulphate, which are neutral in reaction.

The addition of potassium salts sensibly retarded precipitation, but did not appreciably diminish the eventual amount of it. Here, again, the carbonate and phosphate, which are alkaline, produced just the same effects as the chloride, iodide and bromide, which are neutral. Both with potassium and sodium salts the results were entirely dominated by the nature and quantity of the bases added and had no reference to the acidulous radicle with which the bases were combined.

The addition of calcium and magnesium salts appeared to delay precipitation, but their action in this respect was quite insignificant or even doubtful.

## ABSTRACT OF THE Huntarian Lectures ON CERTAIN DISEASES OF THE BREAST,

*Delivered at the Royal College of Surgeons*

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### LECTURE III.

IN this lecture the growths affecting the ducts of the breast are described under a classification neither strictly clinical nor pathological.

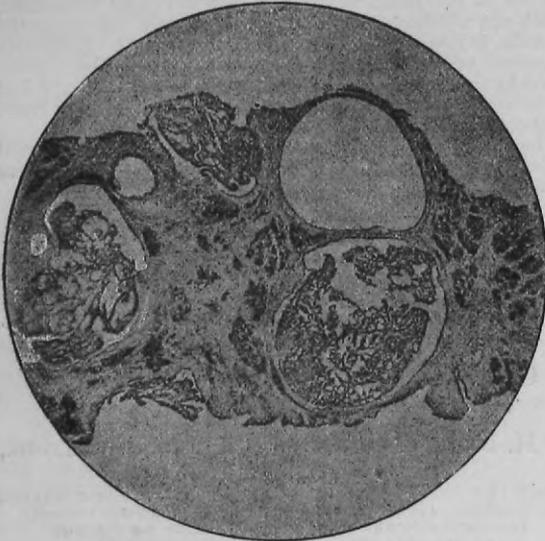
*Duct papilloma* is characterised by the development of papillary growths in the larger ducts, usually in the region of the nipple and particularly in the sinuses. There is no nipple retraction or enlargement of the axillary glands. Discharge from the nipple, which may be serous, clear, or bloodstained, or pure blood, is a marked feature, but it is rarely persistent. The growth is unilateral, unaccompanied as a rule by pain or tenderness, and its progress is slow. It is met with in both married and single from thirty-five to fifty-five. The discharge from the nipple may precede any swelling by some considerable period. There may be a history of prolonged suckling, sore nipples, or injury. On incising the swelling we have a space with smooth walls almost completely filled by a raspberry-like soft papilloma, attached by a slender pedicle. These papillomata may be single or multiple, usually the latter. (Fig. 1.) Of these, one alone may be large and they seem generally distributed in one duct area, of which the ducts may be dilated.<sup>1</sup> The following is an illustrative case: "S. S.—, thirty-nine, was admitted under the care of Mr. Clutton, in September, 1890. She was married and had three children, the youngest fifteen months old and allowed

<sup>1</sup> Barker: Brit. Med. Jour., vol. i. 1890.

to suckle for thirteen months. She had had cracked nipples, but no injury. On admission there was a lobulated and fluctuating lump just above and to the inner side of the left nipple, which was not retracted; this was first noticed three and a half years before, accompanied by a blood-stained nipple discharge and had grown without pain. The axillary glands were not enlarged. The right breast was healthy. On removal the small cyst contained a soft, purplish, villous papilloma growing from its deep surface and almost filling it, bathed by a yellow serous fluid; the growth was easily detached. The breast tissue around was indurated and embedded in it were small cystic spaces containing greyish growths. The nipple was not removed. In about three months there was a reappearance of thickening at the base of the nipple, accompanied by some discharge. The nipple and all the diseased tissue were removed and since this time, for one year and a half, the patient has remained quite well.<sup>2</sup> Rarely the warty growths may project from the mouths of the ducts on the surface of the nipple looking like granulomata.<sup>2</sup>

The papillomata are adeno-fibromatous in structure, composed of a delicate fibrous tissue basis on which are arranged one or more layers of epithelial cells, the deepest being

FIG. 1.



columnar in type. This connective tissue shows no cell infiltration. The cystic spaces are seen to be dilated ducts lined by cubical or short columnar epithelium continuous with the cells covering the papillomata. Specimen 4765 in the Hunterian Museum of the Royal College of Surgeons shows warty growths in enlarged ducts; at the exit of the chief dilated duct from the nipple there is seen to be a very definite constriction. In the case of S. S.— before quoted just beneath the surface epithelium of the nipple was noticed a small cavity filled with granular material. Below this the ducts passing down the nipple were dilated with small warty projections into their interior and the glandular substance in a few spots seemed cystic. From these specimens the change in the ducts appears to be a generalised one and the papilloma only an overgrowth at a special spot of the changed duct surface. Is this alteration due to some obstruction at the nipple surface leading to dilatation and papillary formations behind this, as may happen with strictures elsewhere, or does the change occur in relation with the chronic irritation induced by prolonged suckling, or is the introduction of some irritant, mechanical or microparasite, the causal agent? To assume any of these is mere speculation, but the latter lends itself to our consideration when we remember analogous changes produced by such factors.

The diagnosis of these cases, from the discharge with thickening in the nipple region and no enlarged glands, is comparatively easy. The prognosis is good after removal of the diseased area if it is freely done. If only a small segment be excised, it is possible that some of the dilated ducts may

be left behind, leading to reappearance of the growth. The affected area should be removed well into the base of the nipple for the same reason, if the latter be saved. The whole breast need not be taken away except in the cases where the papillomata are multiple and are not distributed in the same duct area. Many cases are recorded<sup>3</sup> of permanent cure and in no instance can I find a report of a recurrence of this condition as a carcinoma.

*Duct carcinoma* has been described under a great many names. Billroth,<sup>4</sup> in discussing the forms of adenoma, makes a soft variety, the cystadenoma, which corresponds to the softer type of duct cancer. Cornil and Ranvier<sup>5</sup> were among the earliest pathologists to endow this disease with a specific name, calling it "carcinôme vilieux," and to the French we are specially indebted for variation in the terminology. Delbet<sup>6</sup> names these growths "dendritic epitheliomas," Castex "cylindrical epitheliomas," and Labbé and Coyne "intra-canalicular epitheliomas." Neumann,<sup>7</sup> in Virchow's Archives, refers to the disease as "encysted medullary carcinoma," and Waldeyer,<sup>8</sup> in the same work, mentions tumours arising from the lactiferous ducts to which he gave the name of "fibro-carcinoma cysticum mammae." The simplest type of the disease has the papillary form, resembling the innocent growth before described, but with associates indicating malignancy. Clinically these papillary forms are not to be differentiated with any certainty from a firmer variety of tumours; histologically there may be great variation. There is in both cases a localised tumour, usually under the areola. It is not essential that they should be in the nipple region, some occurring towards the periphery of the gland. These growths are circumscribed and somewhat oval in shape. They are usually elastic, especially in the papillary form, where a cystic space has become more or less solid from outgrowths into its interior. The skin is quite free and the nipple is not retracted. Discharge is unusual, but in cases where the growth is very soft a blow or pressure may be followed by a bloodstained discharge. The cases recorded show that the outer half of the gland is more often affected. As a rule these tumours develop without pain; in a few cases it may be slight, but it never seems to be severe. Tenderness may be present. There is so little discomfort that advice is not sought for some time; of thirteen cases one had been present for three years, another two years, and the rest between a year and a half and three months. The disease affects elderly women; more than half are between forty and fifty, some are over that age, but it is rare to get them in quite young women. Bowlby<sup>9</sup> records a case at twenty-nine with a history of five months' growth. It is met with in married and single in about equal proportions and it is rarely seen in males.<sup>10</sup> These tumours are usually encapsuled. On section the papillary form may be very friable and appear granular. They are soft, do not cup on section, and are of a rosy colour, unless hæmorrhage has occurred, which is very frequent in these soft growths. Then they have a brown or black appearance, which in many instances has caused its nature to be considered as a melanotic sarcoma. Besides the bloodstaining these essentially villous tumours may have a gelatinous look from mucoid changes in the growth.<sup>11</sup> The firmer forms are not so friable and are of a greyish or reddish colour; they have been mistaken for encapsuled vascular sarcomata. In size the tumours vary from quite small nodules up to that of a hen's egg. In the true villous form it may be found that the lumps are multiple and distributed in one duct area. Encapsulation is not a constant feature. In some cases with quite a small growth infiltration may be detected in the fat around without, clinically, there being any other evidence of malignancy,<sup>12</sup> but as a rule this infiltration does not take place until at quite an advanced stage. The axillary glands are not involved early. The hæmorrhage in relation with these growths may be of so marked a character as to form cystic swellings filled with blood and to them the term "blood cyst" has been applied.<sup>13</sup> Masterman<sup>14</sup> describes a case under the name

<sup>3</sup> Bryant: Diseases of the Breast. Cassell and Co.

<sup>4</sup> Die Krankheiten der Brustdrüsen.

<sup>5</sup> Manual of Pathol. Histology.

<sup>6</sup> Traité de Chirurgie, tome vi.

<sup>7</sup> Virchow's Archiv, vol. xxiv., p. 219. <sup>8</sup> Ibid., vols. xli. and lv.

<sup>9</sup> St. Bartholomew's Hospital Reports, vol. xxiv.

<sup>10</sup> Vide Trans. Path. Soc., vol. xxv., p. 223.

<sup>11</sup> Robinson: Trans. Path. Soc., vol. xl.

<sup>12</sup> Pollard: Trans. Path. Soc., vol. xxxvii., p. 483; and Pitts: Trans. Path. Soc., vol. xxxix.

<sup>13</sup> Godlee: Trans. Path. Soc., vol. xxvii., p. 270.

<sup>14</sup> St. Bartholomew's Hospital Reports, vol. xxvii.

<sup>2</sup> Pollard: Trans. Path. Soc., vol. xxxvii., p. 483.

"hæmorrhagic carcinoma" which, from the history and description, seems to be undoubtedly a villous cancer with hæmorrhage. Hæmorrhage, in the firmer form of these tumours, is not so common; if present, it may complicate the diagnosis.<sup>15</sup>

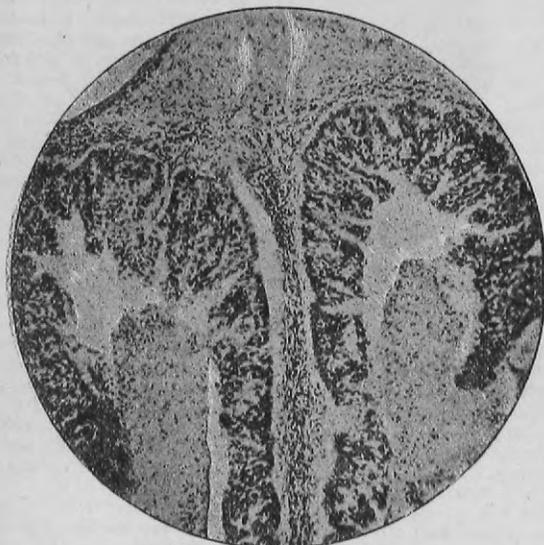
Histologically, in the soft forms distinct papillæ are seen to pass into the interior of a cavity; these have secondary offshoots, which interlock in filling up the space. These

FIG. 2.



papillary processes have an epithelial covering two or three layers in thickness, the deeper cells being typically columnar or cubical. These cells are arranged on delicate connective-tissue processes, which show such a scanty round-celled infiltration in many cases as to give doubts of the malignancy of the growth. (Fig. 2.) The surface cells very soon undergo mucoid degeneration, the latter material staining with hæmatoxylene a reddish colour, like that met with in ovarian adenomata; this mucus holds in suspension numerous epithelial cells

FIG. 3.



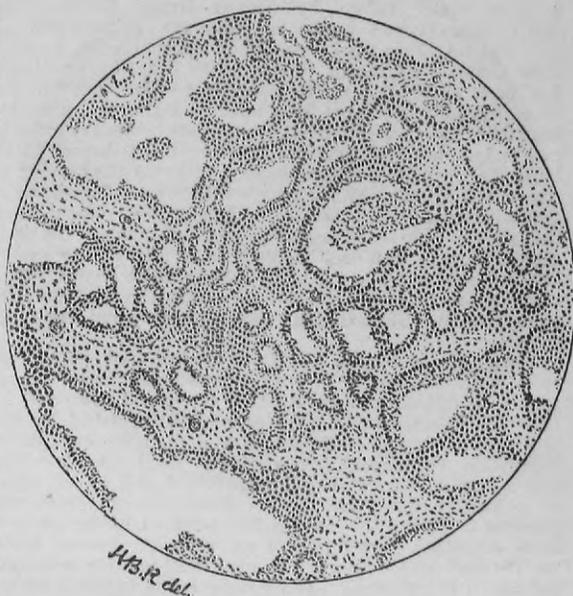
and blood discs. The connective tissue rarely appears in places to have undergone a mucoid change, as in carcinoma myxomatodes, and there may be hæmorrhage into it. Besides the more or less solid growths we may have evidence in the breast tissue around of cystic change due to dilatation of ducts in association with chronic interstitial mastitis. In this tissue

<sup>15</sup> Butlin: *Trans. Path. Soc.*, vol. xxxviii.

we may be able to trace all stages in the evolution of the growth from a multiplying epithelium to the formation of well-marked papillary processes and it seems consistent to assume that the growth has developed on the top of a chronic inflammation. In some cases again the papillary processes may be so united as to give the growths a trabeculated appearance. In the firmer forms the structure may be trabecular or may show alveolar spaces lined by an epithelium many layers in thickness, the outermost cells being columnar. The innermost layer of this epithelium tends to become papillated and in the centre may be granular debris. (Fig. 3.) The alveolar spaces in some examples may be filled by epithelial cells resembling a very cellular acinous carcinoma, except that the peripheral cells are columnar.

The course of these tumours is slow, extending over many years. R. Williams<sup>16</sup> groups the cases of duct papilloma and villous carcinoma together and says, "These growths are of a perfectly innocent nature, though often multiple; they have no tendency to local infection, nor do they ever disseminate in the adjacent lymphatic glands or the system at large and when completely removed they never recur." This very favourable prognosis is unfortunately not borne out by facts, for we have well-marked examples where the growth has recurred near the scar and where the glands have become involved. Bowlby<sup>17</sup> describes a case of villous

FIG. 4.



cancer where there were two recurrences: one two years and a half after the first operation and the other ten months later. One of my cases<sup>18</sup> had a local recurrence fifteen months after and the glands became involved within the next six months, or four years and a half after the tumour was first noticed. Butlin<sup>19</sup> quotes a case in which there were five local recurrences and involvement of glands ten years after the growth was first seen. I cannot find the record of any secondary growths in bones or viscera in this group. The treatment in these cases should be free removal at the earliest opportunity, with exploration of the axilla.

The next variety of duct cancer differs from the last group in its marked likeness to scirrhus. These tumours occur between forty and fifty years of age, attacking both single and married, the latter being very often sterile. They are hard, non-elastic and bossy on the surface, with ill-defined margins infiltrating into the tissues around. They are not limited especially to the nipple region. There is a distinct tendency for the skin to be implicated and in some cases it may be reddened. The nipple is not retracted and there is no discharge, but the axillary glands may be involved. Pain is a fairly constant feature, but it does not occur until late. The tumours are single and may have fluctuating spots in them

<sup>16</sup> THE LANCET, vol. i, 1892, p. 860.

<sup>17</sup> St. Bartholomew's Hospital Reports, vol. xxiv.

<sup>18</sup> *Trans. Path. Soc.*, vol. xli.

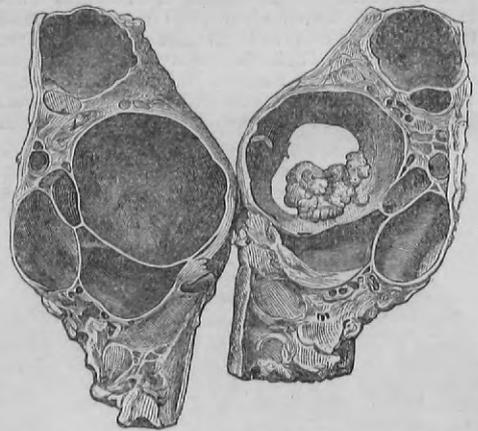
<sup>19</sup> *Ibid.*, vol. xxxviii.

from the presence of cysts. Their growth is slow, causing little inconvenience. Not only are these growths not to be distinguished clinically from scirrhus, but on section there may be some difficulty. They have a firm appearance, greyish red in colour, but they do not have the "unripe pear" look, nor do they cup on section. Hæmorrhage does not usually occur. The tissues around the tumours give evidence of chronic inflammatory change. Under the microscope these growths have a tubular structure, lined by, in most places, a single layer of columnar epithelium; many of the tubes are considerably dilated, so as to form cystic spaces.<sup>20</sup> (Fig. 4.) The latter, from the proliferation of their lining cells, may be converted into solid nodules, resembling a form of growth figured by Labbé and Coyne.<sup>21</sup> In some cases around these tubes may be seen great thickening of the basement membrane, which has been noted by Thin.<sup>22</sup> The diagnostic points between these growths and scirrhus are very slender, the chief clinical features in the former being the absence of nipple retraction and discharge and the slow rate of growth. These tumours tend to involve glands, but this does not apparently take place until the primary growth has been in existence for some time. There may be secondary deposits elsewhere, but of these very little is known. Shattock<sup>23</sup> has described a specimen in St. Thomas's Hospital, where there were tumours of a porous nature in connexion with two ribs. This was obtained from a woman of sixty, whose left breast had been amputated a few weeks before by Joseph Henry Green. The rib tumour proved to be a columnar epithelioma. I can find no other case recorded of dissemination in man. That tumours analogous to this occur in the lower animals has been shown by W. G. Spencer,<sup>24</sup> where many of the mammary glands of a cat were affected by hard infiltrating growths simulating scirrhus. There were secondary growths in the lymphatic glands and lungs and the tumour histologically proved to be a duct cancer. Should the tumour be removed, with the axillary glands if they are enlarged, there seems to be a lengthy period of immunity—at present, from the cases seen, it is impossible to speak of a cure. In three typical cases sixteen months, nineteen months and two years and a half have elapsed since removal and from a recent examination of all of them there is not the slightest sign of recurrence. The treatment should be early and free extirpation.

*Duct adenomas and carcinomas associated with duct cysts.*—In the second lecture I considered certain cysts formed by dilatation of the ducts of the gland described by Birkett<sup>25</sup> as duct cysts. These are distinguished by the presence of a clear discharge, the fluid in consistence being thin or mucoid. Now if the fluid be of a different nature, brownish or blood-stained, this is indicative of a further development, the formation of intra-cystic growths. These cysts with a bloodstained discharge have been described by Velpeau<sup>26</sup> as sero-sanguineous cysts. To Brodie<sup>27</sup> and Bryant<sup>28</sup> we are indebted for excellent papers on this disease. It must be borne in mind that a brown-coloured discharge is not necessarily in relation with the development of a cyst growth, although such is very probable. It may be derived from a very vascular cyst wall, either from a blow or in association with menstruation. A discharge of pure blood is a certain indication of the presence of vegetations. On opening these cysts we find that the intra-cystic growths occur in two forms, as pedunculated tumours, single or multiple, or as sessile nodular tumours. The first resemble the duct papillomata. As far as the pathology and some of the clinical signs are concerned, we can practically make no distinction between the two; the duct cysts may exist for a considerable period without the origin of any growth, and when the latter does develop it bears a very small proportion to the cystic cavity; whereas the duct papillomata are associated with a generalised duct change and the cavities are not large, not exceeding in most instances the papillary growth, but only developing *pari passu* with it. These points of difference, although small, I think are quite definite between duct-cyst adenomata and duct papillomata. These pedunculated duct adenomata may be

multiple and their prognosis appears to be favourable. I cannot find in recorded cases any evidence of recurrence where such a polypoid growth has been removed; and, on the other hand, the after-history of many states that four, five, or six years have elapsed with immunity. The sessile nodular growths have a broad base of attachment to the cyst wall and fill up a small part of its cavity. These solid masses are of a greyish or yellow colour, or black on the surface from hæmorrhage. Although the cysts may be multiple, the growths may only occur in one of them. The fluid in the cysts often contains cholesterol. The vegetations on section appear adenomatous and there is a marked tendency for the growth to extend outside the cyst wall into the tissues around. The very presence of such vegetations is sufficient reason for extirpation without any further evidence. If the tumour should prove malignant the glands are not implicated for some considerable time, thus early removal may mean very small probability of recurrence. The following is a very typical case: "J. E.—, forty-seven, was admitted under the care of Mr. Clutton in September, 1890. She was married and had had four children. Ten years before there was a clear, oily nipple discharge, followed by a small swelling one year after, just to the inner side of the right nipple. This swelling grew painlessly till one year before admission, when, after a blow, it doubled its size and got hard and the discharge stopped. The latter reappeared six months later and a few weeks after was blood-stained. The nipple became retracted and other swellings developed in the neighbourhood of the first. On admission there was a large lump on the inner side, occupying about half the breast, with the skin stretched over it, but at no spot adherent. It seemed chiefly cystic, but solid growth could be detected. There were no enlarged glands. The left breast was normal. After removal the cysts contained a brownish fluid with cholesterol. The tumour was much stained from hæmatoidin. The largest cyst had a sessile nodular growth adenomatous in look (Fig. 5), which extended

FIG. 5.



into the tissue outside the cyst; the smaller cysts were free. The intra-cystic growth was made up of dendritic processes, having a delicate fibrous framework, with a single layer of epithelial cells on it. (Fig. 6.) The growth infiltrating outside the cyst was tubular, with very scanty cell growth in the connective tissue. There has been no recurrence up to date." Specimens 4757 and 4759 in the Hunterian Museum are good examples of these nodular sessile growths. Bryant<sup>29</sup> quotes good examples of these cysts and growths showing their malignancy. Among them is the following case: "A woman of forty, married, had had a lump in the outer half of the breast for ten years, with bloody discharge. After removal she remained well till the axillary glands became involved two years and a half after. Two years later she died with tumours in the left humerus, left femur, os innominatum and vertebræ and also in the liver."

The malignant disease, then, may be implanted on these duct cysts. With its advent there may be pain and nipple retraction and the skin may become involved. The disease runs a slower course and the glands are not so frequently or

<sup>20</sup> Robinson: Trans. Path. Soc., 1891.

<sup>21</sup> Traité des Tumeurs Bénignes du Sein.

<sup>22</sup> Trans. Med. Chir. Soc., vol. xli.

<sup>23</sup> Trans. Path. Soc., vol. xxxix.

<sup>24</sup> *Ibid.*, vol. xli.

<sup>25</sup> System of Surgery, Holmes and Hulke, vol. iii.

<sup>26</sup> Diseases of Breast, Syd. Soc. Translations.

<sup>27</sup> Lectures on Path. and Surg.: Sero-cystic Disease.

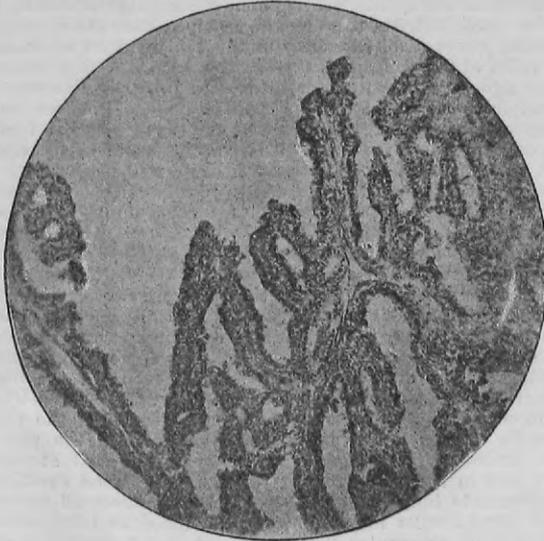
<sup>28</sup> Guy's Hospital Reports, vol. xliii.: Cystic Diseases of Breast.

<sup>29</sup> *Ibid.*, Cystic Tumours of Breast, vol. xliii.

early involved as in a scirrhus. If we have diagnosed a duct cyst with vegetations the cyst should be first incised. If the tumour is pedunculated a local removal may suffice, the cyst wall from which it springs and some of the surrounding tissue. Should the growth be nodular, although there may be no signs of evidence of carcinoma, yet it should be viewed with suspicion and complete removal of the gland is to be advocated.

*Duct Cancer with Paget's Disease.*—A certain number of the cases of chronic eczema are associated with a tumour in the breast. Bowlby,<sup>30</sup> out of twenty-three collected cases, found tumours in fourteen and Delbet's<sup>31</sup> list shows seventeen out of twenty-six. The breast tumours succeed the eczema at a varying interval. What is the nature of the growth in relation with the eczema? Bowlby<sup>32</sup> says "in all these cases the new growth has run the usual course of a scirrhus and has been found on clinical examination to present the usual characters of this tumour"; and "with regard to the cancerous growth, all observers, with the exception of Dr. Thin, describe the tumours as scirrhus or spheroidal-celled carcinoma." He<sup>33</sup> gives the following description: "The tumour consisted of round masses of cells in an alveolar framework, with very little cell exudation and no appearance of small cell columns, as in scirrhus; the central cells are broken down and the outer cells are columnar." Barling<sup>34</sup> records a case of eczema of six months' duration where the nipple alone was affected and from it a cord

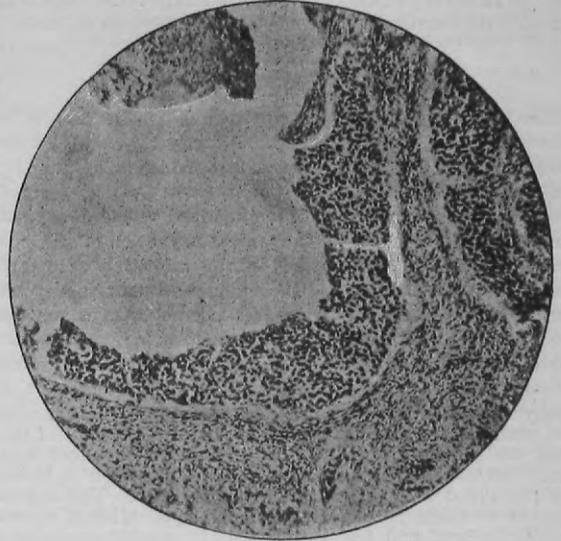
FIG. 6.



presented the forms in the epithelium described by Darier and Wickham as coccidia. This tumour recurred eighteen months after, with marked enlargement of axillary glands."

If there is any truth in the view that psorosperms are the cause of Paget's disease, it seems reasonable to suppose that if the disease has a growth in a breast it is due to the same cause. In passing along the ducts it is probable that some change would be produced here and such seems to have occurred, the tumour formed resembling duct cancers.

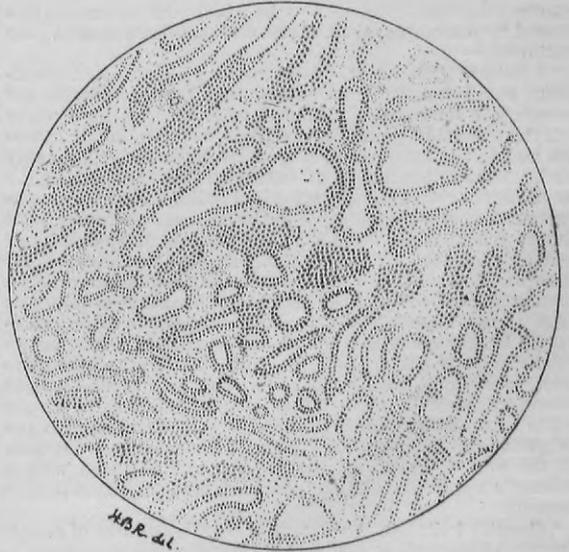
FIG. 7.



A point that has been urged against these tumours being allied to the duct carcinomata is that the latter are usually soft and the glands are not involved. This argument we know is not tenable after a consideration of the clinical course of the firmer duct tumours.

In quite an early stage of the eczema the structure of the

FIG. 8.



stretched to a nodule in the breast the size of a horse-bean. This on incision was of a yellow colour and appeared like an alveolar carcinoma, though in places it resembled a duct carcinoma. Jonathan Hutchinson, jun.,<sup>35</sup> remarks on the resemblance histologically to duct cancer.

The following tumour implanted on a chronic eczema was an undoubted duct carcinoma resembling the structure of the firm circumscribed tumours before described:—"M. G—, aged sixty and married. Soreness and discharge from the left nipple for two years. Four months before admission noticed circumscribed near nipple which was painless. The tissue between nipple and tumour seemed free. One gland in axilla. The tumour on section was made up of a number of cystic spaces filled with filings of epithelium very easily detached. (Fig. 7.) Histologically these large spaces are lined by a many-layered epithelium the deep cells of which are columnar. In the centre there is a large amount of granular material. The tissue between the tumour and nipple showed dilated ducts with proliferating epithelium and some small-celled exudation around. The skin

nipple may show very marked changes. The ducts have their epithelial lining proliferating and they are dilated. (Fig. 8.) This condition I found in a man of fifty-six<sup>36</sup> and it had given him no inconvenience. The case had additional interest because the patient had a very advanced carcinoma of the tongue.

<sup>30</sup> Med. Chir. Soc. Trans., 1891.

<sup>31</sup> Traité de Chirurgie, tome vi.

<sup>32</sup> Med. Chir. Trans., 1891.

<sup>33</sup> Trans. Path. Soc., vol. xxxii., p. 218.

<sup>34</sup> Ibid., vol. xli., p. 219.

<sup>35</sup> Ibid., vol. xli., p. 214.

<sup>36</sup> Ibid., vol. xli.

AN ABSTRACT OF

Lectures

ON THE

TREATMENT OF SURGICAL  
TUBERCULAR DISEASES.*Delivered at the Royal College of Surgeons of England  
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## LECTURES II. &amp; III.

MR. WATSON CHEYNE illustrated the value of extension in tubercular disease of the spine with paralysis. The chronic inflammation of the bone in cases of spinal disease is kept up by the presence of the tubercle, by the weight of the upper part of the body and by the pressure of the inflamed vertebræ against each other as the result of the tonic contraction of the surrounding muscles. This chronic inflammation may extend to the meninges, leading to thickening and paralysis from pressure. In other cases these thickened meninges become infiltrated with tubercular tissue or a chronic abscess forms in the vertebral canal, both of these conditions also leading to pressure on the cord and paralysis. This condition of pachymeningitis is kept up to a great extent in unison with the osseous inflammation by the action of the weight of the body and of the muscular contraction, and therefore it is clear that the first indication as regards treatment is to see what can be done by relieving these conditions. This is best done by complete recumbency and the application of extension to the head and feet rather than by having immediate recourse to laminectomy. The effect of the muscular contraction in producing curvature and leading to the extension of the disease is not sufficiently realised and hence it has been thought by some that the object of the double extension is to undo the curvature, on the supposition that the paralysis was due to actual pressure of the bone. This is, however, not the case; the object of the extension is to overcome the muscular contraction and thus lead to diminution of the inflammation and absorption of the inflammatory material and consequently to relief of the pressure on the cord. The lecturer mentioned three cases in which the operation was avoided by the employment of rest and double extension. He continued:—

“I believe that most cases would yield to that treatment, but I am far from saying that laminectomy is not necessary in some cases. What I wish to urge, however, is that the operation should not be performed till double extension and rest in the recumbent posture have been thoroughly tried. The same principle of extension first followed by the use of proper retentive apparatus is, I believe, the best routine treatment wherever applicable in the case of tubercular joint disease where there is either superficial or deep disease of bone as evidenced by fixation &c. In hip-joint disease, for example, it is, I think, too much the fashion to order a Thomas's splint and let the patient get about on crutches at once. I quite admit that it is almost impossible to do otherwise in hospital practice, but when the patient can be put to bed for six or eight weeks I am sure it is best, where there are signs of bone trouble, to begin with treatment by light extension, generally three or four pounds, reducing the weight as the muscular resistance diminishes. In this way also the deformity can be most quickly and satisfactorily overcome. At the end of that time the patient can be fitted with a Thomas's splint so modified as to overcome the adduction properly.

“Counter-irritation is a favourite remedy in cases of simple chronic inflammation and was formerly much employed in tubercular disease, but now, under the erroneous idea that the only object of local treatment in these cases is to act directly on the tubercular tissue, it is falling into disuse. As I am trying to show, however, a great deal can be done in these cases by getting rid of the attendant chronic inflammation, and for this purpose the severest forms of counter-irritation—blisters and the actual cautery—are of value in suitable instances. In cases of pure synovial disease improvement

sometimes follows blistering, but where the bone is inflamed, and is deep-seated the most effectual method is the application of the actual cautery. The most suitable parts for this treatment are the hip and shoulder joints and the spine. I have not seen much good result from the use of the cautery in pure synovial disease and in the case of superficial joints, such as the knee, I should fear that it would do harm by increasing the congestion of the synovial membrane. In applying the cautery in cases of bone disease it must be done freely by means of a broad flat cautery at white heat passed rapidly two or three times over a considerable area of skin; in the case of the spine, on each side of the spinous processes; in the case of the hip and shoulder, both in front of and behind the joints. After the application of the cautery warm boracic fomentations are applied till the slough separates and then savin ointment, either pure or diluted with vaseline, is used and the sore kept open for about six weeks. I believe the best results are obtained when only the superficial portion of the cutis is destroyed and where, therefore, many nerve terminations are exposed. The objection to this is that it is very difficult to keep these sores from healing rapidly and savin ointment often causes such pain that it cannot be employed. Under such circumstances it may be necessary to open up the sores as they heal by potassa fusa, nitrate of silver, or fresh application of the cautery.

“Another method of treatment which is commonly employed in the treatment of simple chronic inflammation with the very best results is to make free incisions into the inflamed tissues, aseptically, of course, on the principle of relief of tension. In the case of chronic periostitis there is no more effectual remedy than to make free incisions through the inflamed periosteum and in the case of osteitis, to gouge the inflamed bone extensively. In other cases also, especially in tense collections of fluid, the relief of the tension often leads to a cure. A good many years ago Sir Joseph Lister attempted to apply this same principle to the treatment of chronic synovial disease—the tubercular nature of the affection not being at that time thoroughly understood—and with a certain amount of success. The treatment probably acts, as I have said, by relief of tension and consequent subsidence of inflammation. That there is a considerable amount of tension in the part is evident from the way in which the wound gapes when the incisions are made. It is possible also the treatment may be efficacious in another way, for as the wounds heal the young tissue contracts, and this pressure may exercise a beneficial effect. Where the result is partially successful it is not unusual to see a depressed scar at the seat of incision, with little or no thickening in its immediate neighbourhood, great improvement or even cure of the disease having occurred around the incisions, but not elsewhere. Lastly, there may possibly be some meaning after all in the old formula of the induction of healthy action in the part. The process of repair going on actively and well at one part may in some way that we do not understand exercise a favourable influence on the neighbouring diseased parts. That good results may follow simple incisions into joints the seat of tubercular disease is not more surprising—indeed not so surprising—as that good results follow simple laparotomy in cases of tubercular peritonitis; and yet there are now numerous cases on record in which the abdomen has been opened in cases of tubercular peritonitis either intentionally or by mistake, and where, though nothing further was done, though the wound was simply stitched up again, considerable improvement, in some cases apparently cure followed the incision. With our present improved methods of performing arthrectomy and treating chronic abscesses I think that simple arthrotomy has a comparatively small field. When we have once gone so far as to lay open a joint we may as well go somewhat further in most cases and remove at least as much of the tubercular tissue as is easily accessible. At the same time, there are some cases in which the disease is more or less stationary, or only progressing slowly, where an aseptic arthrotomy is sufficient to lead to recovery taking place. The cases most likely to do well are those where the thickening of the synovial membrane is not very great and is firm, and where on cutting through it no cheesy or softened spots can be seen. Of nineteen cases of knee-joint disease treated in this way mine got well. So far the methods considered do not act on the bacilli directly, they only aim at improving the general nutrition of the tissues or diminishing or removing the inflammation around the tubercular deposit, thus putting the tissues in a better position to resist the invasion and destroy the parasite. I must now pass on to the consideration of the

means which act more directly on the parasite and the tubercular tissue:

"Before going on to the operative measures I may say a few words about Koch's tuberculin treatment. I need not go into any detail as to this matter because I have nothing new to say, and the conclusions to which I have come are very much those which I mentioned as provisional conclusions in the paper which I read at the Medico-Chirurgical Society now more than a year ago. At that time I held that the direct risks of the treatment were much overrated, more especially the risk of acute tuberculosis and I still think that this is the case. In none of the cases in which I used tuberculin—nearly sixty in number—did acute tuberculosis occur, while curiously enough three out of nine cases, on which I was consulted or in which I considered the advisability of the treatment but decided against it, died of tubercular meningitis, and one developed an acute tubercular joint disease about fourteen days after we had determined not to employ tuberculin. In my opinion the two great dangers of this treatment are (1) its use where there are septic cavities or surfaces and (2) leaving it off too soon. As regards the first danger, the chief trouble lies partly in the increase of the inflammation as the result of the action of the tuberculin and partly in the weakening of the tissue by this inflammation allowing the pyogenic organisms to penetrate further and more rapidly. As regards the second danger, that of leaving off the treatment too early, it certainly is the fact that under such circumstances recurrence takes place quickly and in my experience the disease seems to progress more rapidly than before the treatment was employed. I do not think that I can say the same when the treatment has been continued for some months and then left off; at any rate, speaking of lupus, while under these circumstances it has recurred in places pretty quickly at first, it has afterwards seemed in several cases to come more or less to a standstill, or even to improve somewhat. Certainly in several of the cases the condition of the patient some months after the treatment was stopped has not been so bad as before it was commenced, nor so bad as it seemed likely to become when recurrence first began to take place. As to the remedial powers of tuberculin, there can be no doubt that in many cases where the conditions are favourable a certain amount of improvement follows its use, which, however, but rarely ends in a cure of the whole area within a reasonable time. In only three of the cases where no operation was performed has the improvement been complete and lasting over the whole surface. These were two children with synovial disease of the knee-joint and one patient with phthisis. In all three cases the treatment was continued for about five months and these patients remain well. Four other cases where sinuses were present which healed at the time remain healed. In all the others in which the treatment has been stopped recurrence has taken place; but in several bad cases of lupus considerable tracts which were previously diseased have remained well, showing, along with the cases just mentioned, that tuberculin really has the power of causing the permanent disappearance of tubercular tissue under certain conditions. From the microscopical appearances I conclude that the main condition is that the tubercles shall be isolated and not aggregated into masses. Isolated tubercles seem to be readily infiltrated with inflammatory cells and disappear, while only the external portions of tubercular masses are in relation to the blood stream. As it is very rarely that in the tubercular area there are only isolated tubercles or very small groups of them, it is very seldom that a complete cure can occur, at any rate within a short time. Although, however, larger masses are not destroyed by tuberculin, their growth is brought to a standstill for a time at least, and the question is for how long this condition of standstill can be kept up. This seems to vary very much in different cases; but, on the whole, when the injections are given frequently in the manner which I recommended in my paper I think that the disease may in a good many cases be kept in check for a long time. In only two of my cases are the patients still going on with the treatment—viz., in two medical men with phthisis—and these patients, though very ill and rapidly going downhill when the treatment was commenced, quickly picked up, even though staying in London during cold and very foggy weather. They have now been at work for more than a year as surgeons on board ships and have no symptoms of disease. They inject themselves every day or every other day, and, if they follow my advice, will continue to do so indefinitely. On the whole, I think that considering the indefinite length of time that the treatment

must be continued and the danger of leaving it off, it does not come into play in those cases of external tuberculosis which are accessible to other local measures. On the other hand, in phthisis I think that the treatment has been unduly discredited and too hastily abandoned, and in some cases of internal tuberculosis which come under the care of the surgeon and where no really radical measures can be adopted, as in the cases of bladder tuberculosis previously mentioned, the use of tuberculin or one of its constituents may be of some assistance in retarding the progress of the disease.

"Various substances have been used both generally and locally with the view of interfering with the growth of the bacilli, but without any special advantage. It has always seemed to me that something might be done by trying to saturate the tissues with some harmless substance which would render the soil unsuitable for the growth of the tubercle bacillus and among other things I have tried the benzoate of soda with doubtful success. Further, attempts have been made by injecting solutions of various substances into or around the tubercle to cause calcification (Kolischer with phosphate of calcium) or encapsulation (Lannelongue with chloride of zinc) of the tubercle, but without any real advantage. Various antiseptics have also been injected into the tubercular tissue with the view of destroying the bacilli—for example, carbolic acid, creasote, guaiacol, &c.; but these substances have failed in their object and only irritate and weaken the tissues and enable the bacilli to spread. For example, the infection of animals by inhalation of dried sputum is rendered more certain if at the same time inhalations of sulphurous acid are administered; and the result of the employment of inhalations of creasote in rabbits which are already tuberculous is not to prevent the disease in the lungs but actually to make it spread more extensively than in the control animals. There has been much controversy as to the anti-parasitic and anti-tuberculous action of iodoform. Certainly no true anti-parasitic action can be produced outside the body. Organisms grow, though perhaps more slowly, on substances covered with iodoform. Indeed, septic infection has occurred in wounds from powdering them with dry iodoform and therefore in an operation where the skin is previously unbroken iodoform cannot be recommended as an antiseptic; and yet if it is employed as an application to a putrid sore the smell very soon disappears and suppuration diminishes. As an explanation of this fact it has been stated that while pyogenic organisms grow in material containing iodoform their poisonous products are apparently decomposed as soon as they are produced, and this decomposition is accompanied by breaking up of the iodoform, the free iodine possibly then acting destructively on the organisms. If the bacterial products are thus broken up the bacteria will be deprived of their weapons, without which they cannot do much harm, and will be more rapidly destroyed by the tissues. Thus iodoform may really be of some use in tuberculosis. It has been recently pointed out by Krause that iodoform acts better in closed cavities, such as abscesses than on a free surface and that better results will be obtained by packing tuberculous wounds with gauze saturated with iodoform than by sprinkling it over the surface. Certainly I have had several cases lately which seem to confirm this view where tubercular sinuses have done extremely well by slitting them up and stuffing them with iodoform gauze, better than formerly by scraping and draining them or injecting iodoform and glycerine."

Reference was then made to the question of cases suitable respectively for expectant treatment and for operation, and the various points which influence the decision were discussed. [See a paper on this subject in *THE LANCET* for October, 1890.]

### LECTURE III.

The modes of complete removal of the disease in cases of tubercular joint affections are three in number—viz.: (1) complete removal of the diseased tissues along with as little as possible of the healthy structures—i.e., arthrectomy; (2) removal of the diseased tissues, along with certain portions of the ends of the bones whether diseased or not—i.e., excision; and (3) amputation above the affected joint. Arthrotomy has been already discussed, and it was pointed out that it was only suitable for very few cases, and that if a joint was opened it was best to remove at least a portion of the affected tissues. This question of partial arthrectomy will be again referred to. Many circumstances influence the choice of the operative measure, the chief of which are the age, the general condition of the patient and the local condition. As regards the treatment of chronic abscess, drainage

is almost entirely given up and more radical measures are adopted: 1. A chronic abscess being a tubercular tumour with softened centre the ideal treatment is to dissect it out as one would dissect out a cyst, and this is what I always do when the situation and size of the abscess permits. Where the abscess has started from a tubercular deposit in the bone the removal of the abscess and the affected bone leaves a clean cut wound which heals by first intention and thus the process is cut short. For example, in chronic abscess connected with a carious rib a cure is at once obtained by dissecting out the abscess and removing the affected part of the rib. 2. Where it is not possible to dissect out the wall on account of its size and connexions the next best thing is to make a large opening into it sufficient to admit the hand if possible and try to peel and dissect out the wall; of course if the abscess has started from a deposit in bone, that ought also to be removed if accessible. 3. Failing either of these plans there remains the method of making a smaller incision into the abscess, and attempting to get rid of the wall as thoroughly as possible by scraping with sharp spoons, rough sponges &c., washing out all the debris, perhaps filling the cavity with a 10 per cent. emulsion of iodoform in glycerine, and stitching up the wound. By this means healing can usually be obtained though the process may have to be repeated more than once; the bone deposit, if present, cannot however be satisfactorily cleared out.

Another important factor influencing the nature of the operation is the septic or aseptic condition of the part. Sepsis aids the spread of the tubercular disease, both locally and generally, and also complicates the operative procedures, because it introduces the risk of the various septic diseases; hence it often necessitates the employment of more severe operative procedures than would otherwise be necessary. Hence in treating a case of tubercular disease with septic sinuses it is, I think, advisable in most cases to do more than merely put the part at rest; some operative treatment should as a rule be adopted. Where it is not deemed desirable to proceed to radical measures I believe the best treatment is to lay the sinuses freely open, scrape or clip away the walls, remove as far as possible the starting point of the original abscess, sponge the surface with undiluted carbolic acid, stuff the wound with iodoform gauze or with cyanide gauze freely sprinkled with iodoform and allow it to granulate from the bottom. My experience is that much better results are obtained in this way than by simply enlarging and scraping out the sinuses and inserting a drainage-tube, as was the method formerly employed. In cases of joint disease, however, this method is only rarely applicable, and in most cases where sinuses lead into joints or are multiple and where the disease is advancing, one of the three radical measures must be adopted. At one time I was inclined to think that the presence of septic sinuses excluded arthroectomy, but I have now done several complete arthroectomies in such cases, sponging the surface of the wound afterwards with undiluted carbolic acid and with good results.

The next point considered was as to the desirability of performing partial operations. Where subsequent mobility is desired, a great objection to complete arthroectomy is that the fibrous capsule is often also removed and that the ligaments must be divided in order to get at the whole of the joint, and thus its strength and mobility are impaired. At first it seemed to me probable that complete removal of the disease was not always necessary and that a partial arthroectomy might be sufficient in a certain number of cases; the grounds for this belief were the good results of expectant treatment, of arthrotomy, actual cautery, aseptic drainage of abscesses, tubercular peritonitis &c., showing that comparatively little is required in some cases to turn the scale in favour of recovery. In excisions also, as formerly performed, no attempt was made to remove all the diseased tissues and yet healing occurred in a considerable number of cases, although it is true fistulae frequently remained open for a long time. The results of partial arthroectomy in the case of the hip-joint and knee-joint were mentioned. In the case of the hip-joint a complete arthroectomy is very difficult, but the lecturer mentioned five cases in which he had performed a partial arthroectomy; in three of them with the view of removing tubercular sequestra, which were evidently present in the neck of the bone.

The lecturer confessed that on the whole he was disappointed with the results obtained by partial arthroectomy and the conclusion he had come to was that this operation has only a very limited field, and that in most cases where it becomes necessary to remove diseased tissue complete removal

is preferable. In a few cases, however, partial arthroectomy may be of use. In some cases in the knee-joint also it may be sufficient, especially in cases where on cutting into the joint the synovial membrane is found not to be markedly pulpy, where the disease is in the substance of the membrane, not on its surface, and does not affect the bone, and where no cheesy spots are present. In other cases it is best to go on to complete removal of the affected tissues. Mr. Watson Cheyne said:

"By arthroectomy I understand all operations by which the whole of the tubercular tissue is removed along with as little as possible of the surrounding healthy tissue. We may perform a complete arthroectomy without opening the joint at all, as in the hip-joint case, where I tunneled along the neck of the femur, or without removing any tissue from the joint, as in the elbow case, where I removed the tubercular deposit from the external condyle, or with the removal of a limited portion of the synovial membrane, as in the other elbow-joint case mentioned. I term the arthroectomy 'complete' when the disease is completely removed, not necessarily when the whole of the structures of the joint are cut away. As a rule the operation is a very extensive one, and requires much patience and great care for its satisfactory performance, because the whole synovial membrane at least is involved. The diseased tissue must be removed by careful dissection; scraping is quite unsatisfactory, except perhaps as regards small points, especially in the cartilage, and if employed it must be very thoroughly done. Let me describe a complete arthroectomy of the knee-joint, where the whole synovial membrane is involved. The first thing is to expose the capsule very thoroughly, and this I do by means of two free longitudinal incisions, one on each side of the patella at a little distance from it, and I think it is best in the first instance not to open the joint. Having made out the limits of the capsule the tissues in front of the synovial membrane are carefully dissected off and the whole of the membrane behind the quadriceps is thoroughly exposed. The dissection is then carried to each side over the condyles, remembering that a fold of synovial membrane extends backwards for a considerable distance over the surfaces of the condyles; the lateral ligaments are then divided and the synovial membrane separated from them. The dissection is then continued inwards to the edge of the patella on each side and behind the ligamentum patellae. The membrane is next detached all round where it is reflected on to the cartilages of the various bones and cut away as far back on each side as possible. The joint is thus freely exposed from the front and a fringe of synovial membrane is seen around the edge of the cartilages of the femur, patella and tibia; this is carefully removed, and then one may or may not connect the two longitudinal incisions by a transverse one over the patella, sawing that bone transversely. Usually I have not required to do this, but by dislocating the patella first to one side and then to the other I have been able to get free access to the whole joint. The crucial ligaments are next divided and thoroughly cleaned, or, if much diseased, removed, and special attention is directed to the condition in the inter-condyloid notch. The joint being then forcibly bent the semilunar cartilages are removed and the dissection of the synovial membrane is resumed. It is quite easy as a rule to define the outer part of the synovial membrane on each side, and having done so separation is gradually effected by the finger or some blunt instrument between the posterior part of the capsule and the vessels and structures behind, and this is continued till the points of reflection of the capsule behind on to the femur above and the tibia below are well defined. The synovial membrane is then cut off at these points and the fringe around the cartilages carefully removed. Having now got away all the synovial membrane the ends of the bones are easily protruded through the wound and the cartilages carefully examined. If any depressions are seen they are carefully cleaned out; if they are loose or thinned anywhere that portion is removed along with a thin layer (quarter of an inch) of the bone beneath. Very often the cartilages are covered with a thin layer of soft tissue and this must be got away either by scraping the surface with the edge of the knife or by scrubbing it with a nail-brush. If the cartilage is absent at any part and the surface of the bone carious, a thin layer of the bone is cut away at that part, bearing in mind that the tubercular tissue only extends into the bone for about one-eighth of an inch; this layer can usually be removed by the knife. Of course if at any part the hole in the cartilage or the carious patch of bone is found to lead to a deposit in the bone that must be

thoroughly cleared out. Having satisfied ourselves by fresh inspection that all the disease has been removed the wounds are closed, the crucial ligaments if left being stitched, and the patella if divided being wired. A drainage-tube is seldom necessary, or if used should be removed in two or three days. I think it is best in most cases not to use a tourniquet; it is easier without it to distinguish disease; the pulsation of the popliteal artery can be felt, which is of importance in dissecting out the synovial membrane posteriorly and the oozing from the wound is less. Subsequently no passive motion should be employed, and as there is a very great tendency to flexion in children a back splint should be worn for a long time, sometimes for years."

The procedure in other joints is essentially the same. In the hip it is necessary to add a posterior incision to the ordinary anterior one for excision. In the ankle good access is obtained by a long longitudinal incision in front of each malleolus, removing the anterior part of the synovial membrane in the first instance and then either removing the astragalus or dividing the malleoli in order to get access to the rest of the joint. Mr. Cheyne prefers the removal of the astragalus and has had several cases, all with most satisfactory results, the disease being eradicated and an excellent movable joint obtained; indeed it would be difficult to say in these cases that the astragalus had been removed. In the elbow longitudinal incisions over each condyle were recommended without division of the olecranon, care being taken on the outer side to avoid the posterior interosseous nerve. The wrist-joint is rarely affected in children and complete arthroectomy as distinguished from excision of the carpus cannot be done. In the case of the tarsus it is sometimes possible, by removal of individual bones with the surrounding synovial membrane, to cut short the disease at an early stage and obtain an excellent functional result. The lecturer had had several cases where it is now impossible to tell that anything had been removed. The lecturer then said: "The conclusion which seems warranted by all the facts is that arthroectomy is the proper radical operation in children up to fifteen or sixteen years of age and excision in patients who have reached their full growth. As regards the hip-joint a really complete arthroectomy is almost impossible, but in children I think that in many cases partial operations—such as clearing out abscesses, partial arthroectomy &c.—are often preferable to excision as regards the ultimate result, though no doubt there are cases where removal of the head of the bone is desirable. For example, in primary acetabular disease, with or without abscess, inside the pelvis satisfactory access can seldom be obtained without removing the head of the bone. Again, where the head of the bone is much diseased, or the epiphysial line destroyed by the tubercular deposit it is better to cut through the neck. And also in cases with septic sinuses where operation becomes necessary slitting up the sinuses, excision of the head of the bone and subsequent stuffing of the cavity with iodoform gauze is probably the best practice. Apart from the question of shortening, which is not so very great if only the head of the femur is removed, excision leaves a weaker and less stable joint than is obtained in other ways. In the case of the knee-joint arthroectomy possesses no advantage over excision as regards the immediate result. On the contrary, as a stiff joint is what one aims at, a firmer result will be obtained by excision; but in patients who have not reached their full growth the interference with growth after excision is so serious that it should not be undertaken. Certainly in young children excision of the knee-joint is not to be thought of for a moment. In adults, however, a better ankylosis is obtained by excision and in my opinion it is the preferable operation. In the case of the ankle arthroectomy, with or without removal of the astragalus—I think in most cases with—is the preferable operation for children and gives most satisfactory results. I have not had the opportunity of trying it in adults, as the cases of ankle-joint disease which I have lately had have either not been limited to the ankle or if requiring operation have necessitated amputation, but I should be very much inclined in a suitable case in an adult to perform arthroectomy with removal of the astragalus instead of excision. The remarks which I have made as regards the knee apply also in the main to the elbow. Arthroectomy is the operation for children and very satisfactory movement is thereby obtained. Excision is, however, I think a better operation for adults; movement is more easily obtained and the disease more readily eradicated. As regards the wrist and tarsus, complete arthroectomy is of course impossible, and in children I should do what I could with partial operations. Fortunately

wrist-joint disease is not common in children, and in adults excision often gives a very good result. In the case of the tarsus in children it is sometimes possible, as I have already mentioned, to get an excellent result by removal of the affected bone and synovial membrane or of a healthy bone, such as a cuneiform, so as to get at the synovial membrane. The shoulder stands, I think, on the same footing as the hip in childhood, but it is essentially a disease of adult life, and in adults excision is the radical treatment."

## THE ELIMINATION OF WATER AND THE PATHOLOGY OF DROPSY.

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IN the debate on Dr. Dickinson's paper on Renal Dropsy<sup>1</sup> at the Royal Medical and Chirurgical Society on May 11th, I made a few remarks on these points, and I propose in this paper to state more definitely and distinctly what I know about the elimination of water from the body and the way in which I think it bears on the pathology of dropsy. To do this as completely as possible I shall examine the matter in its physiological, experimental, clinical, and pathological bearings, and shall point out that in physiology there are certain conditions to be met with every day in which though there is an excess of water in the blood and tissues of the body it is nevertheless unable to pass out either by the kidneys, the skin, the lungs or the glandular secretions; in other words, it is held back and retained in the body. In experimental work I shall point out that bearing in mind the physiological conditions that determine the excretion or retention of water it is possible to increase or diminish its excretion by the kidneys at pleasure. With regard to clinical work I shall point out that precisely the same thing holds in disease, and that, speaking generally, in pathology just as in physiology the urinary water is from hour to hour and day to day inversely as the uric acid excreted along with it. I shall further point out that the action of a large number of so-called diuretic drugs is due solely to their action on uric acid, and that certain disease processes which similarly affect the excretion of uric acid act in the same way as regards the elimination of water. Lastly, in pathology I shall show that the same factors which we have met with in physiology do here also account for the retention and accumulation of water in the body, and so for the most important point in the causation of dropsy, and that this knowledge of causation gives us very great power over the phenomena of disease. Before I begin I must state one point clearly, because it is the peg upon which all the rest hangs—namely, that, other things being equal, the urinary water is from day to day and from hour to hour inversely as the uric acid excreted along with it, because a part of the uric acid excretion passes through the general circulation and contracting the arterioles and capillaries prevents for a time the excretion of water. The first part of this statement is a fact which can easily be observed by anyone, and which, as I have pointed out in the *Journal of Physiology*, vol. xiii., is as well seen in the researches of others as in my own. The second part is my explanation of the fact, for the full discussion of which I must refer my readers to my book<sup>2</sup> (p. 100 and elsewhere).

In making the above statement I do not intend to pass over the action of other factors, such as perspiration and digestion, on the excretion of water, for I know very well that profuse perspiration may reduce the hourly excretion of urine to very small proportions indeed, and that during active digestion the excretion tends to be small, quite apart from the action of uric acid. Nevertheless, apart from the excessive action of these factors, the effects of uric acid on the excretion of water are generally plainly visible either from hour to hour or from day to day. To illustrate these points I will now give a few figures from my last six months' work at the excretion of uric acid and urinary water. Here we have 148 nearly consecutive days in which the hourly excretion of water in sixteen hours of the day ending 10.30 p.m. averages 54 cc., and in eight hours of the night 72 cc.

<sup>1</sup> THE LANCET, vol. i. 1892, p. 1082.

<sup>2</sup> Uric Acid as a Factor in the Causation of Disease J. & A. Churchill, 1892.

Now, it is well known that the excretion of uric acid is just the reverse of this, being most in the day and least at night; and in my book (previous reference page 16) there is a figure showing the large excretion of urates in the day hours and it further shows that when uric acid comes below urea the water at once rises. If we take single days out of the same 148 days the same thing is again seen. Thus I give five days in which the excretion of water was at its lowest and five days in which it was at its highest, giving the relation of uric acid to urea corresponding to each.

Date.	Water in cubic centimetres.	Relation of uric acid to urea.
Jan. 17th .....	840 .....	1 to 22
Jan. 29th .....	900 .....	1 to 17
Dec. 3rd .....	920 .....	1 to 24
Jan. 7th .....	930 .....	1 to 23
Feb. 6th .....	930 .....	1 to 24
Oct. 28th .....	2100 .....	1 to 30
Nov. 5th .....	2070 .....	1 to 30
Oct. 16th .....	2000 .....	1 to 32
Oct. 22nd .....	2000 .....	1 to 32
March 9th .....	1990 .....	1 to 36

*Note.*—Only the relative excretion of uric acid is here given for reasons which will be found elsewhere (*Ibid.*, p. 12).

It will thus be seen that, though speaking generally, there is less uric acid when there is more water and *vice versa*; they do not absolutely correspond, as there is less water with an excretion of 1 of uric acid to 36 of urea than with 1 to 30, and again there is more with 1 to 17 than with 1 to 22. But this is simply because other things are not equal; when there is no excess of fluid in the body relaxing the arterioles will not cause diuresis, and conversely when water has been held back for several days relaxing the arterioles will cause a correspondingly great diuresis and still more is this the case in dropsy, as we shall see presently. Still, other things being equal, the effect of uric acid is quite plain and distinct and the water is either from day to day or hour to hour inversely as the uric acid.

If we now turn to the experimental aspect of the question the same fact stands out even more clearly; for all drugs that hinder the solubility of uric acid and clear it out of the blood relax the arterioles and cause diuresis, and indeed not a few drugs whose diuretic action is well known owe this property entirely to their action on uric acid and so indirectly on the arterioles. Thus opium, mercury, iodide of potassium and other iodides, salicylate of soda, caffeine, and lithia salts, all produce more or less diuresis and diaphoresis, and all have this also in common—that they clear the blood of uric acid. Opium is often used, either alone or in combination, for its diuretic or diaphoretic properties. I have shown that it raises the acidity, diminishes the excretion of uric acid, and clears the blood of it.<sup>3</sup> A good deal has been written about the diuresis produced by mercury and I have shown that it forms an insoluble compound with uric acid, clears it out of the blood and relaxes the arterioles.<sup>4</sup> Iodides also are fairly well known as diuretics, and my researches show that at the time they cause diuresis they diminish the excretion of uric acid and clear it out of the blood, thus allowing the arterioles to relax. Further, the uric acid thus held back passes through the blood when the drug is left off, causing contracted arterioles, headache and scanty urine; in fact, a rebound, just such as is met with after opium, mercury, iron, lead, lithia, or any other members of this group. A good deal also has been written about the diuresis produced by salicylate of soda,<sup>5</sup> but its effects in this direction are entirely dependent on the fact that it clears the blood of uric acid. Unlike the drugs I have already mentioned, it clears the blood of uric acid, not by rendering it insoluble and retaining it, but by rendering it soluble and producing its elimination by the kidney, and a knowledge of this fact gives us the explanation of an important point in which the diuresis produced by a salicylate differs from that produced by the before-mentioned drugs. Take a dose of opium, mercury or an iodide, the diuresis they produce comes quickly within a few hours of swallowing the dose—i.e., they quickly clear the blood of uric acid and relax the arterioles; but with a dose of salicylate this is not so. Take fifteen grains of salicylate of soda three or four times in one day, the urine will not be at all profuse; on the contrary, it will be rather

scanty. Continue the same dose next day and towards the end of the second twenty-four hours there may be a marked diuresis.

Now, the explanation of this is simple. On the first day of its action the salicylate meets with a large amount of uric acid and passes a great deal of it through the blood and out by the kidney. The arterioles are consequently contracted and there is no diuresis. On the second day, however, the immediately available supplies of urate run short and excretion falls down almost to the level of formation. There is but little urate in the blood, the arterioles can relax and diuresis results. If a patient has a large amount of urate in store the diuresis with salicylates may not occur till the third day, but in my own case it comes almost invariably about the end of the first thirty-six hours. It is evident then that the diuresis produced by a salicylate is not due to its direct action on the arterioles, but to its indirect action on the amount of urate contained in the blood and varies in accordance with the amount of this substance that it meets with. Precisely the same thing holds with the alkalies, soda and potash, as we shall see presently. Their first action is to increase the excretion of urates and the amount of these passing through the blood. The arterioles are therefore contracted and the urinary water is scanty. Later on, when they have eliminated most of the urate, the arterioles relax and there is a diuresis, or if the alkalies are left off this occurs at once, but as alkalies are much less powerful excretants of urate than salicylates the blood is not so quickly cleared of urate and the relaxation of arterioles and diuresis do not occur for several days. Caffeine is well known to cause diuresis. I have pointed out that it diminishes the excretion of urates and relaxes the arterioles. It is also well known to be useful in conditions of migraine and depression, no doubt from its action on the urates in the blood. Salts of lithia, again, produce a marked diuresis and this diuresis comes quickly, resembling that produced by opium, mercury and the iodides and differing from that produced by salicylates. But lithia salts act as alkalies, increasing the alkalinity of the blood and diminishing the acidity of the urine and we have just seen that the alkalies (soda and potash) increase the excretion of urates and diminish the urinary water. Here again, as in the case of salicylates, we have the most absolute proof that the scanty urine or diuresis produced by drugs is due not to their action on the vessels, but solely to their influence on the solubility and excretion of urates, which have a powerful influence on the vessels. What is the action of lithia salts on the excretion of uric acid? They greatly diminish the excretion of uric acid, clearing it out of the blood and relaxing the arterioles; hence they produce diuresis.<sup>6</sup> Soda and potash increase the uric acid and diminish the water.

I now come to a very interesting point in which my researches on these matters have been beautifully confirmed by those of others and where also what was a blank in my research has been filled in in a manner which leaves little to be desired on the score of completeness. For in a valuable note in THE LANCET<sup>7</sup> I find the following taken apparently from a thesis for the degree of M.D. of the St. Petersburg Medico-Chirurgical Academy under the heading "Effect of Alkalies on Metabolic Change." "As the effect of alkaline drugs on the nature of the metabolic changes which albumen undergoes in the system has not been satisfactorily worked out, Dr. Yavein has made a series of elaborate observations on the subject, employing citrate and carbonate of soda for the purpose. The daily quantities of the drugs administered were 300 grains or more. The result showed, as a rule, that there was but little effect on the assimilation or on the metabolic change of albumen. There was, however, a considerable increase in the neutral phosphates as compared with the acid phosphates of the urine. As a rule the loss from the skin and lungs was diminished and after the alkali had been discontinued the quantity of urine increased. The body weight increased while the alkali was being taken and decreased afterwards, the increase being probably due to the diminished loss of moisture and the decrease to the augmented secretion." I have quoted this annotation in full because almost every word of it bears importantly on what I am saying.

With regard to the effects of alkalies on the excretion of urinary water, I could have told Dr. Yavein all about this

<sup>3</sup> *Ibid.*, p. 32 and elsewhere.

<sup>4</sup> *Ibid.*, p. 33.

<sup>5</sup> E ubor, in *Deutsch Archiv für Klin. Med.*, xii., p. 129

<sup>6</sup> See *Uric Acid*, p. 29, and *Med. Chir. Trans.*, vol. lxxi., p. 287. *THE LANCET*, vol. i. 1892, pp. 320 and 332.

several years ago and I could also have told him the way in which they produce these effects. I could have told him also that they diminished the excretion of water from the skin and that in the glandular secretions generally. But I did not know (and if his observations are confirmed they will constitute a most valuable addition to our knowledge in many ways) that the loss of water from the lungs is diminished at the same time with that from the kidneys, the skin and the glands. If this is the fact, it shows at once that when uric acid contracts the arterioles it contracts them all over the body and not only obstructs the exit of water from the kidneys, the skin and the glands, but also from the lungs. If this is true, we come at once in sight of a possible explanation of the undoubted clinical connexion between phthisis, chronic bronchitis and asthma, on the one hand, and gout and Bright's disease on the other. I have always inferred that uric acid, when it contracted the arterioles of the general circulation, also contracted those of the lungs; but if Dr. Yavein is right, we have here a method by which this effect on the lungs can be estimated. It may interest Dr. Yavein to know that I have pointed out that the valuable researches of Dr. Lauder Brunton prove that drugs like digitalis which contract the arterioles, diminish or even completely arrest the flow of water from the kidneys, thus paralleling exactly the action of uric acid, to which I of course attribute his results with alkalies.

With regard to the metabolism of albumens, on which Dr. Yavein apparently found that alkalies have but little effect, I have written a good deal, as indeed my whole explanation of the causation of Bright's disease hinges on the effects of urates on metabolism; and I would point out that if he is able to continue his researches in this direction he will probably find that the effect on metabolism is proportional rather to the amount of urate than an alkali meets with in the body than to the absolute dose of alkali. Thus if 300 gr. of carbonate of soda cause the excretion of 15 gr. of uric acid in one man and of 20 gr. in another the depression of metabolism will be more marked in the latter, though he only had the same dose of the drug.

As regards physiology and experiment we have now seen that in natural conditions the urinary water varies from hour to hour and from day to day inversely as the uric acid and that the excretion of water from the skin, lungs and the glands generally is influenced in the same way by the amount of uric acid in the blood. We have further seen that all drugs which clear uric acid out of the blood and diminish its excretion in the urine allow the arterioles to relax cause diuresis and a concomitant increase of the water excreted from all other glands and surfaces; while conversely all drugs which increase the urate in the blood and urine contract all the arterioles, rendering the urine scanty and diminishing the output of water from the glands and the surface of the skin and lungs. And, further, as I have shown that my law of solubilities<sup>9</sup> gives us power to increase or diminish at pleasure the amount of urate in the blood, we have it in our power to relax or contract the arterioles and thus can control to a very important extent the elimination of water from the body.

I shall now pass on to some clinical and pathological points and shall divide the conditions into (1) those in which there is an excessive excretion of urates with concomitant excess in the blood, and (2) those in which there is a diminished excretion. Under the first come migraine or the uric-acid headache in which there is, as I have shown, a *plus* excretion of urate corresponding to the attack, and with this *plus* excretion the urine is extremely scanty, as 30 to 40 cc. per hour; but when the attack passes or is driven off by the use of acids or other drugs which clear the urates out of the blood and urine, the water is profuse as 100 to 200 cc. in the same period of time—in other words, the water held back in the body during the period of uric acidemia and contracted arterioles passes out at once as soon as they are relaxed. Precisely the same thing applies to attacks of epilepsy and hysteria; I have shown that the urate excretion is large and the water scanty during the attack and it is well known to be profuse as they pass off. The ordinary history of a case of gout illustrates very well the same point; between the attacks, as is well known the urate excretion is large, and if the water is saved from day to day it will be found to be scanty; but when an acute attack comes on it will be seen that with the first rise of temperature there comes a more or less profuse diuresis. I know of no condition in which there is such

severe and prolonged uric acidemia as in Bright's disease, and in acute cases the water is extremely scanty.<sup>9</sup>

In chronic cases it is also during the day rather scanty; but at night the blood is to some extent cleared of urate by the rising acidity, and then there is a profuse diuresis of urine of such low specific gravity that the urine of the whole twenty-four hours seems to be profuse and watery; but here, just as in physiological conditions, the water is to a large extent inversely as the uric acid.<sup>10</sup> It is also well known that the contracted arterioles of Bright's disease are completely relaxed by the onset of a febrile complication and a great diuresis may be the result of this;<sup>11</sup> before the fever the urine was 15 oz. to 16 oz. in twenty-four hours, with the fever it ran up to 80 oz. in the same period, and an extensive anasarca was quickly removed.

This brings me to Group 2, the cases in which there is a diminished excretion of urate, and in pathology this is generally due to causes which interfere with its solubility in the blood, and in nature, apart from drugs, this is generally due to a diminution of the alkalinity of the blood. Now it has been shown, by Peiper and others, whom I have often quoted, that fever diminishes the alkalinity of the blood, and there is no doubt that it also increases the acidity of the urine. Therefore fever is the pathological condition in which there is least urate in the blood and urine, and it is well known that fever markedly relaxes the arterioles and the one effect is the result of the other. Now, if in any hospital patient the urine is being saved from day to day and the temperature has been for some time normal or subnormal, the onset of any fever will be seen to be accompanied by a more or less profuse diuresis, and this will continue so long as the fever continues to keep the blood free from urates on the one hand and so long on the other as there is any excess of water to be removed; hence though there is a diuresis in every case under these conditions, it is most marked in cases like the one mentioned above, where there is dropsy. To such an extent is this true that I would undertake to point out the days on which such a patient's temperature had risen, simply from the record of the water passed, provided no drugs affecting the problem had been given. To give an instance of this from recent clinical experiences I would refer to the so-called "diuretic action" of injections of fresh thyroid juice as used in cases of myxœdema. These injections cause a slight rise of temperature and relax the arterioles, and I have no doubt that the diuresis they produce, which is probably beneficial, is simply and solely due to the febrile movement, and might be brought about by the injection of any organic juice that produced a similar rise of temperature. Thus, I notice that my colleague, Dr. Davies, says in speaking of an interesting case of myxœdema which he showed at the Clinical Society, "The injections caused a gradual rise of temperature followed by diuresis."<sup>12</sup> I can show that a similar rise of temperature, however produced, would have the same effect; and as I have remarked in "Uric Acid," p. 118, the relaxed pulse which accompanies fever and the high tension and bradycardia which follow it, are directly due to the effects of fever on the alkalinity of the blood and the solubility of the urates it contains.

I could quote many more pathological conditions which the same facts will serve to explain, and indeed I meet with them every day; but from considerations of space I shall now pass on to say a few words on the bearing of these facts on the pathology of dropsy, and some points in Dr. Dickinson's paper on the subject. He speaks of the absence of dropsy in obstructive suppression, but this is not very extraordinary, for in this condition, as I have pointed out, the skin, the lungs and the glands generally are still free to excrete water; in acute Bright's disease the vessels all over the body are contracted, and water cannot get out anywhere until they are relaxed. In such cases I have been able to relax the arterioles and produce diuresis and the removal of anasarca by applying my knowledge of the solubility of urates. I cannot act so powerfully as nature did in the case above quoted; but the diuresis is certainly proportional to the relaxation of arterioles I produce by using some of the drugs I have mentioned. Again, Dr. Dickinson goes on to say in his abstract,<sup>13</sup> "Passing to chronic conditions a contradiction presents itself, for dropsy lessens with a further increase of arterial tension." It does not seem to

<sup>9</sup> As to the causation of this severe uric acidemia, see Uric Acid, p. 225.

<sup>10</sup> *Ibid.*

<sup>11</sup> See case quoted in Uric Acid, p. 225.

<sup>12</sup> THE LANCET, vol. i. 1892, p. 976.

<sup>13</sup> Med.-Chir. Proceedings, April 20th, 1892, p. 112.

<sup>8</sup> Uric Acid, p. 60.

me that this fact implies any contradiction, for in the diagram from Dr. Lauder Brunton's paper, which I showed at the time of the debate and which can be found in his work on "Pharmacology and Therapeutics" (third edition, p. 430) it appears that with the rise of pressure the excretion of urine increases, until a point is reached, the pressure continuing to rise, at which the arteriole contraction apparently overcomes the power of the heart, and then the excretion of urine sinks down to little or nothing. Now this, I take it, is what occurs in acute Bright's disease, sudden severe uric acidæmia contracts the arterioles and overpowers the heart; hence with moderately high tension the urine is scanty. In chronic disease, however, the tension is higher and yet the urine is profuse, because the heart has meanwhile acquired power to force the blood through the kidney in spite of contracted arterioles; the contracted arterioles only stop the flow when they are able to overpower the heart. Thus the prognosis in Bright's disease with low tension is most serious, because the heart is for some reason unable to acquire power to force the blood through the arterioles; hence also when the heart fails at the end of chronic Bright's disease, dropsy at once supervenes; the arterioles are contracted all the time; but the effect of this contraction depends on the power of the heart to counteract it. Even in Bright's disease the water varies in accordance with the same laws that hold in physiology, being most in the night when the uric acidæmia is least and the arterioles are most relaxed, and least in the day when the uric acidæmia is greatest and the arterioles most contracted and the pulse also, in accordance with Marey's law, is slower in the day and quicker in the night period, varying with the relaxation or contraction of the arterioles. Thus in a case of chronic Bright's disease whose excretions I recently estimated the water was on one occasion forty-four ounces in the twelve hours ending 8 P.M. and thirty-four ounces on another, and in the corresponding twelve hours ending 8 A.M. it was seventy-four and seventy-two ounces respectively. The specific gravity of the day urine was high, 1020 and above, while the mixture of day and night urine was rarely above 1010. Here the excretion of water at night was nearly double that of the day and I hope my readers will now quite understand the cause of this. I would remark in reference to such a case that if one had seen the day urine only and apart from the trace of albumen which it frequently but not invariably contained one might have reasonably doubted whether it was a case of chronic Bright's disease at all and this, I think, is an important point to bear in mind—viz., that a good specific gravity during the day is no proof of the absence of chronic Bright's disease.

In conclusion I will merely restate my position that the elimination of water is dominated by the same law both in physiology and pathology and that the forces which in physiology cause a retention of water and an increase of body weight are the same forces that, acting more powerfully in pathology, cause dropsy and a greater increase of weight, and that the action of these forces can be demonstrated by the use of drugs, as is shown by my researches and those of Dr. Yavin which confirm them.

Brook-street, W.

## CICATRICAL STRICTURE OF PYLORIC END OF STOMACH:

FOLLOWING A BLOW ON THE EPIGASTRIUM; PYLORO-  
PLASTY; CURE.

BY JAMES LIMONT, B.Sc., M.B. EDIN., M.R.C.P. LOND.,  
AND  
FREDERICK PAGE, M.D. EDIN., M.R.C.S.

### *History of the Case and Remarks by Dr. LIMONT.*

D. H.—, aged thirty-one, a stonemason, was admitted to the Royal Infirmary, Newcastle-on-Tyne, in November, 1891, complaining of indigestion of fourteen years' duration. Up to the age of seventeen the patient had no trouble with digestion. One day fourteen years ago he received a severe blow from the shaft of a heavily laden "bogie," which had broken loose on an incline. The end of the shaft struck him with great force in the region of the stomach, and pinned him against a large stone. He remained in bed four days vomiting frequently, even fluids at once bringing on an attack. After a time he returned to work, but for almost a year he

vomited nearly every evening, and suffered from pain in the region of the stomach. During the next six months he was free from all trouble. Since that time, however, he has been subject to recurring attacks of vomiting, with more or less pain. At first the attacks would last from two to three weeks, and the intervals from two to three months. During the last two years, however, the attacks have been more frequent, lasting three or four days, with intervals of not more than four days. Before admission to hospital he had become unable to work through discomfort and weakness. His weight, which a few years ago was eight stones seven pounds, was reduced to six stones nine pounds. He stated that his appetite was good, especially in the mornings, but that half an hour after eating he felt greatly distended and had a heavy dragging pain in the abdomen. At irregular intervals he vomited very large quantities of a sour character, bringing up at the same time much wind. After vomiting he was markedly relieved and soon became very hungry. If he then took a meal he suffered little inconvenience, but the subsequent meals gave more and more discomfort. The bowels were very confined. The stomach could be seen to be markedly distended and the usual signs of dilatation were made out. In the left nipple line the stomach extended from the fifth space to the level of the umbilicus and could be made out to reach two inches to the right of the umbilicus. Towards its pyloric end could be felt a small hard body about the size of the distal phalanx of the little finger; it was not tender and moved freely with respiration. The case was diagnosed as fibrous stricture of the pylorus, probably of traumatic origin. For a month the case was treated by daily washing out the stomach by means of an irrigator. No appreciable improvement followed, and operative interference was suggested to the patient. He, however, left the hospital, but returned in February weaker and more emaciated than before, and was transferred to the surgical wards.

That this is an example of traumatic stricture one can scarcely doubt, when regard is had to the form of violence, the succession of symptoms and the condition found during operation. I have been unable to find a record of a similar case. Dr. S. Fenwick refers to dilatation following blows, but says it is generally due to displacement of the stomach produced by adhesions. The stricture here must have existed for many years, its injurious effects being, however, greatly lessened by compensatory hypertrophy of the walls. Even at the time of the operation the thickness of the wall was found to be greater than normal. It is interesting to find that a stomach dilated for so many years can regain its normal powers. Apparently neither the muscular fibres nor the mucous membrane has undergone appreciable permanent deterioration.

### *Operation and Remarks by Mr. PAGE.*

On March 2nd, 1892, the patient's stomach having been washed out with a solution of boracic acid, the abdomen was opened by a median incision, extending from the ensiform cartilage to the umbilicus. On the anterior surface of the stomach, close to the pylorus, a puckering of the peritoneum was seen, about the size of a shilling. Beneath this puckering, and occupying an area of about twice its size, a hard mass could be felt in the substance of the stomach wall. Sponges were packed about the pylorus, so as to prevent blood and mucus escaping into the peritoneal cavity. The hard mass was then cut through with scissors and the incision carried into the stomach in one direction and into the duodenum in the other, beyond the limits of the induration. The mucous and peritoneal edges of the wound were then sewn together over the muscular coat with a continuous suture of fine silk. The left angle of the wound (ending in the stomach) was next secured to the right angle (ending in the duodenum) with a Lembert's suture of silk. This converted an incision which had been made almost at right angles to the long axis of the body into one nearly parallel to it. The wound was closed with a double row of Lembert's sutures and covered with a graft of omentum. The sponges were removed and the abdominal incision sutured with silkworm gut. The patient suffered very little inconvenience from the operation. He vomited a few hours after and has never been sick since. For eight days he was fed entirely by the rectum. On the ninth day fluids were taken by the mouth, and on the sixteenth he took fish and gradually returned to his ordinary diet. On March 31st (twenty-nine days after the operation) he weighed 7st. 8½lb., having gained 1st. 3½lb. He is now (June 12th) quite well, weighs 10st., and has resumed his ordinary occupation.

Of the surgical procedures at our disposal for the treatment

of stricture of the pylorus of a non-malignant character pyloro-plasty—the ingenious operation suggested by Mikulicz and Heinke almost contemporaneously—seems to be by far the most satisfactory in its results. It has been practised pretty extensively on the Continent and in America, and attention was drawn to the operation by Keen of Chicago<sup>1</sup> last February. I am not aware, however, that any case has been hitherto recorded as having occurred in England.

Newcastle-on-Tyne.

## SOME POINTS IN THE ETIOLOGY AND PATHOLOGY OF DIABETES MELLITUS.

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DURING the last four years seventy cases of diabetes mellitus have come under my observation at the Manchester Infirmary and elsewhere, some of which have presented points of interest respecting the etiology and pathology that seem worthy of being recorded.

### DIABETES AND THE NERVOUS SYSTEM.

**CASE 1.** *Marked ataxia of sudden onset; paralysis of right internal rectus; tremor of right arm; onset of diabetes seven weeks after commencement of symptoms.*—J. W., aged forty-eight, was admitted under the care of Dr. Steell to the Manchester Infirmary on May 7th, 1890. Patient was quite well until April 26th, 1890. On the morning of that day, when going to his work, he suddenly became ataxic and fell to the ground. No loss of consciousness, no paralysis of limbs. He has been unable to walk or stand since, owing to ataxia. History of alcoholism; no syphilitic history. On admission, patient is unable to stand alone; when well supported he is able to advance a few steps and throws forwards his right leg in a jerky, irregular manner. Marked ataxia; no paralysis of limbs; no rigidity; knee-jerks present; no ankle-clonus. Right palpebral fissure smaller than left; apparent ptosis of right eye; paralysis of right internal rectus; left pupil larger than the right. Slight nystagmus; slight tremor of the right arm when the limb is supported, but this is more marked on voluntary movement. Optic discs normal. Old perforation of right tympanic membrane. Temperature normal. Urine 1015, acid, no albumen, no sugar, quantity normal.—June 12th: Amount of urine increased to 92 oz.—15th: Urine pale, clear, 1024, acid, contains a large amount of sugar.—23rd: Great thirst, voracious appetite. During the first three weeks of the diabetic symptoms the amount of urine varied from 160 to 190 oz. and the sugar from 3200 to 4200 grains daily. The amounts of urine and sugar were both diminished by restricted diet. A few months later several large carbuncles developed on the gluteal region, but in course of time these and the paralysis of the right internal rectus, the ptosis and nystagmus disappeared. The diabetic symptoms, the tremor of the right hand and the ataxia persisted.

**CASE 2.** *Tumour of the pituitary body.*—A. H., aged twenty-three, was admitted under the care of Dr. Ross to the Manchester Infirmary on Nov. 16th, 1890.<sup>2</sup> History of headache and gradual enlargement of hands and feet; symptoms of acromegaly. Temporal hemianopsia of the right field of vision; in the left field vision entirely lost, with the exception of a very small area near, but a little to the temporal side of, the centre of the field. Urine 1035; no albumen, no sugar; loaded with urates. After remaining in the hospital for several weeks the specific gravity of the urine rose to 1045, and it was found to contain sugar by Fehling's test, by the phenyl hydrazin test and also by fermentation. The amount of sugar at first was fourteen grains to the ounce; the amount of urine normal. The sugar gradually increased in amount. The patient left the hospital for several months and then returned on account of an abscess which had developed in the left breast. She was admitted on the surgical side under the care of Mr. Southam. The patient complained of thirst and on examination of the urine a large amount of sugar was found. The abscess was opened and treated antiseptically and the patient put on diabetic diet. The thirst, however, increased and five days later the patient died of diabetic coma. The temperature remained practically normal. At the post-mortem examination a round-celled

sarcoma of the pituitary body was found, which pressed on the optic chiasma, and in which the left optic nerve was embedded. The rest of the brain was normal. The thyroid was a little enlarged and contained a colloid cyst. There were changes in the pancreas, which will be afterwards described. Liver enlarged; weight 5 lb. 2 oz.; signs of fatty degeneration.

The following is a good example of *diabetes following an injury to the head*:—

**CASE 3.**—M. A. R., aged eighteen, was admitted under the care of Dr. Steell to the Manchester Infirmary. The patient was a strong, healthy, stout girl up to the time of an accident seven months before admission. On going downstairs she suddenly slipped and fell down thirteen steps, the top of her head coming violently in contact with a door at the bottom of the steps. She was stunned by the fall, but did not lose consciousness. A dish which she had in her hand at the time was broken in the fall and her face was cut by the broken porcelain just below the right eye. She received a deep cut on the flexor surface of the right forearm just below the elbow. She had great pain in the head for many hours after the fall and has frequently suffered from severe headache since. Two weeks after the accident she first noticed thirst, which was soon followed by wasting. On admission, the patient was emaciated; knee-jerks absent; urine acid, 1045, no albumen; large amount of sugar present (twenty-three grains to the ounce); marked brownish-red colouration with  $\text{Fe}_2\text{Cl}_6$ . During the time the patient was in the hospital the amount of urine at first varied from 80 to 90 ounces daily; later from 56 to 68 ounces daily, with increase of sugar to 33 grains per ounce.

The next case is one of diabetes following great mental anxiety, in which purulent *cerebro-spinal meningitis and multiple abscesses in the liver* were found post mortem. It is difficult to say what was the relation of the cerebro-spinal meningitis and liver abscesses to the diabetes. Even supposing these changes were due to some complication, they are so rare as to be not unworthy of brief record. A similar case is published by Frerichs.

**CASE 4.**—J. R.—came under my care on Sept. 28th, 1890. History of an attack of vertigo and vomiting in February, 1890. Five weeks later he began to be troubled with thirst and polyuria. He had been unemployed for eleven months; had lost a large sum of money and been subject to great mental anxiety before onset of diabetes. He had obtained employment, however, at a bleaching works about one month before he first noticed diabetic symptoms. A brother died of diabetes. When first seen the patient was considerably wasted. He suffered from thirst and polyuria. Urine 1032, acid; large amount of sugar present (1 cc. of urine contained 0.0517 gramme of sugar); no albumen. Knee-jerks absent. Commencing cataract in each eye. Bowels regular. Heart, lungs, liver and spleen normal. Four months later he was admitted as an in-patient at the Manchester Infirmary under the care of Dr. Ross. During the time he was in the hospital (six weeks) the amount of sugar varied from 2500 to 4800 grains daily and the amount of urine from 90 to 130 oz. From his admission (Jan. 21st, 1891) until Feb. 24th the temperature was normal. At the latter date the evening temperature was 102° F.—Feb. 25th: Patient complained of pain in the epigastrium. Urine contained for the first time a trace of albumen, and also gave for the first time a dark reddish-brown colouration with  $\text{Fe}_2\text{Cl}_6$ . Bowels constipated. For the next three days the evening temperature was between 102° and 102.8°; then for four days the evening temperature was between 99° and 100°.—March 4th: Evening temperature 102°; pulse 96; respiration 25.—5th: Morning temperature 99.6°; evening 103.2°.—6th: Morning temperature 101.2°; evening 100.2°. Patient complained of pain in the right hypochondriac region. Edge of liver felt about one inch and a half below the ribs. No jaundice; no rigors. Patient became very restless and semi-conscious. Knee-jerks absent; calf muscles tender; no paralysis; no anæsthesia. He could be roused to answer questions until just shortly before his death at 2 A.M. on March 7th. Shortly before death the pulse was 224; respiration 72. No discharge from ears or symptoms of suppurative otitis media during the patient's illness.

*Necropsy* (abstract).—Peritoneum, pericardium, heart and aorta normal. Lungs, adhesions at right apex; small patch of broncho-pneumonia on left lower lobe and another at right apex. Left apex puckered; several small calcareous nodules and cicatrices. Kidneys normal; suprarenal capsules, medulla of each congested; two small yellowish nodules in medulla

<sup>1</sup> Medical Press and Circular.

<sup>2</sup> This patient's symptoms were the subject of a clinical lecture published by Dr. Ross in the International Clinics.

of right capsule. Spleen slightly enlarged and pulpy, weight eleven ounces. Pancreas (weight two ounces and a half) somewhat small and firm. Liver (weight five pounds), capsule normal; on section scattered irregularly throughout the right lobe, but most numerous in the outer half of the right lobe, are a number of small abscesses varying in size from a pea to a marble. Near the right border these are clustered together so as to form a large suppurating patch four inches transversely by two inches and a half vertically. The pus can be washed away, leaving small cavities. At only a few places is there any zone of hyperemia around the abscesses. Gall-bladder contains a small amount of orange-coloured bile; mucous membrane slightly congested, but no ulceration can be detected. No obstruction of cystic, hepatic or common bile-ducts. Large bile-ducts can be traced in liver substance for a considerable distance, but nothing abnormal detected. No thrombus in portal vein or any of its larger branches. Stomach: no ulceration or other abnormality of importance. Rectum, prostate and bladder normal. Spinal cord; dura mater normal. On opening dura mater, meninges of posterior surface of cord, in dorsal region, very turbid and yellowish in colour; in cervical and lumbar region, turbidity not quite so well marked. Vessel of posterior aspect of cord much distended; only slightly distended in anterior aspect. Turbidity of meninges on anterior surface. On section of the cord nothing abnormal detected. Cord hardened in Müller's fluid. Sections in all parts normal to the naked eye (excepting meninges); microscopical examination confirmed the diagnosis of purulent lepto-meningitis. Skull cap, cerebral dura mater and blood sinuses normal; base of skull, including regions of petrous portions of temporal bones, normal. Meninges of each cerebral hemisphere turbid and yellowish; distinct suppuration at the sulci. At the anterior part of the first left frontal convolution is a hæmorrhage about the size of a halfpenny, irregular in shape, situated between the arachnoid and the cortex; and passing down between the convolutions, but not entering the brain substance. The meninges of the upper surface of the cerebellum present the same appearance of purulent meningitis as those of the cerebral cortex. The membranes of the base of the brain appear normal. A small amount of turbid fluid is present in the lateral ventricles and a small amount of pus in the posterior horn of the left lateral ventricle. In the fourth ventricle nothing abnormal detected. Apart from the changes just mentioned the rest of the brain—basal ganglia, cerebral hemispheres, cerebellum, pons and medulla—appear normal. Microscopical examination confirmed the naked-eye appearances of purulent lepto-meningitis. Sections of the pons and medulla showed slight dilatation of the vessels at the floor of the fourth ventricle, but no other microscopical changes.

In the history of some of the seventy cases of diabetes there were several other points of interest. Thus great mental anxiety and worry due to loss of money, loss of employment &c., were antecedents in nine cases. In one case the symptoms came on whilst the patient was preparing for the Final B.A. Examination Lond. For a long period he had devoted almost the whole of his time, with the exception of that required for sleep and meals, to the closest study. In one case the patient had been subject to epileptic fits for several years.

As regards heredity, in one instance three sisters all suffered from diabetes. In six other cases there was a family history of diabetes. In eight cases there was a long history of very great alcoholic excess up to the time of onset of diabetic symptoms. In two cases the symptoms came on during an attack of pleurisy. In another case diabetes came on during prolonged lactation; marked wasting soon occurred and the patient died about twelve months after the onset of symptoms. I have notes of another case, in which diabetes followed a mammary abscess soon after confinement. In one case symptoms of diabetes came on during influenza, in another case during a severe cold.

#### DIABETES AND LESIONS OF THE PANCREAS.

Changes in the pancreas are of great interest, since Minkowski and v. Mering showed by their famous experiments in 1889 that diabetes could be produced in dogs by total extirpation of the pancreas.<sup>3</sup> I have examined the pancreas in four cases of diabetes.

CASE 1. *Marked cirrhosis of the pancreas.*—T. L.—, aged forty-five (under the care of Dr. Ross at the Manchester

Royal Infirmary). Diabetes mellitus, with wasting. Peculiar pinkish tinge of the urine. History of great alcoholic excess. Death by coma. Necropsy: Pancreas weighed four ounces and a quarter; was very hard and was cut with difficulty. Section showed to the naked eye that the organ was infiltrated with dense fibrous tissue, in which small masses of the remaining gland tissue were embedded. There were several small cystic dilatations of the pancreatic duct, containing small calculi and mucous fluid. Microscopical examination showed a very great excess of fibrous tissue. In some places almost the whole of the field of the microscope was occupied with dense fibrous tissue. At some parts small clusters of pancreatic cells, at other parts small lobules of degenerated pancreatic tissue, were seen embedded in the fibrous tissue. With the exception of a cavity and other tubercular changes in the right lung examination of the liver, brain and other organs revealed nothing of importance.

CASE 2. *Atrophy and fatty degeneration of the pancreas.*—T. S.— (under the care of Dr. Mackenzie, Victoria Hospital, Burnley). Diabetes with wasting. Death by coma. Necropsy: Pancreas markedly atrophied, exceedingly soft and flabby, weight one ounce and a quarter; on section studded with pale spots. Microscopical examination of sections stained with osmic acid showed marked fatty changes, especially at the pale spots. At many parts the pancreatic cells contained small fat globules. Mingled with these degenerated cells were fat cells, some small, others very large. In some parts the fatty changes occupied the centre, at other parts the periphery of a lobule.

The pancreas in the case of A. H.— (tumour of the pituitary body), above described, was very large and heavy. It weighed six ounces. Microscopical examination showed a marked excess of interlobular fibrous tissue, which in some parts was richly supplied with nuclei. In this interlobular connective tissue many large clusters of fat cells were embedded, also in the interior of many of the lobules, groups of large fat cells were scattered. Whether the diabetes in this case was produced directly by the tumour of the pituitary body or indirectly through secondary pancreatic changes it is impossible to say.

In the case of J. R.—, above described, the pancreas appeared normal microscopically.

[To Drs. Steel, Leech, Ross, Dreschfeld and Mackenzie, and to Mr. Southam I am indebted for kindly giving me the opportunity of observing some of the above cases.]

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### ON THE TREATMENT OF CLOTTED BLOOD IN THE BLADDER BY AN EVACUATOR.

BY H. A. LEDIARD, F.R.C.S. ENG.,  
SURGEON TO THE CUMBERLAND INFIRMARY.

On somewhat rare occasions the surgeon has to deal with troublesome hæmorrhage into the bladder, where the blood in place of mixing with the urine and passing out naturally becomes clotted, and where further bleeding goes on so as to cause a painful distension of the bladder. In such a case a catheter is passed without affording relief, for the eye of it is instantly plugged. Bleeding continues owing to the presence of clot much in the same way as post-partum hæmorrhage lasts, so long as a clot prevents contraction of the uterus. Among the causes of intra-vesical hæmorrhage villous tumour occupies the first place, for the bleeding is sometimes rapid and the clotting firm; other malignant growths bleed, but, perhaps, less severely. Hæmorrhage is associated with enlarged prostate and ruptures of the bladder, but in the latter most of the blood will be intra-peritoneal. Hæmorrhage after lithotomy is usually external, but according to Erichsen venous hæmorrhage after lithotomy is apt to find its way back to the bladder and may coagulate and distend that organ. Whatever the cause may be, the object held in view is to empty the bladder, and this is by no means easy, for clots will not pass through an ordinary catheter, even when a stream of water is now and then injected down the catheter to keep the eye clear; neither will clots pass

<sup>3</sup> For discussion of the relation of lesions of the pancreas to diabetes, and for complete notes of the cases of T. L.— and T. S.—, see paper in *Medical Chronicle*, March, 1892.

through a large catheter attached to an evacuating bag. So excellent a lithotripsy evacuator as Morgan's has proved quite useless in my hands when the bladder has become distended with clotted blood. Some stronger suction power is needed than the recoil of an indiarubber bag, and all that is wanted is a brass ear syringe, some rubber tubing, and a large evacuating catheter of Bigelow's kind. In this way the bladder is rapidly cleared out; but in order to facilitate the operation I have adopted the ordinary stomach pump syringe, for with it the bladder can be emptied without disconnecting the rubber tubing at the end of each suction, in order to empty the syringe. With the double nozzle of the stomach syringe the apparatus will allow of the bladder being cleared and washed out at the same time without disconnecting the rubber tubing. As it may be convenient to have these instruments ready at hand for emergencies I have had a stomach pump syringe, some rubber tubing and a large-eyed, large-sized evacuating catheter put together in a case by Down Brothers, St. Thomas's-street, Borough, S.E. Cumberland.

“NOTES FROM A PRACTITIONER'S CASE-BOOK.”

BY HUGHES REID DAVIES, M.R.C.S., L.R.C.P.LOND.

UNDER the above heading, in THE LANCET of July 2nd, Dr. Howard Murphy notes an interesting case of dislocated patella, and in concluding his record observes: “I have not been able to find any mention of such a dislocation of the patella (if it deserves such a title) in any of the text-books.” A precisely similar case occurred in my own practice in June, 1891, and whilst I administered ether to the patient—a lady of about seventy years of age—Mr. Jonathan Hutchinson, jun., reduced the dislocation, the reduction producing a “loud snap,” as in Dr. Murphy's case. Dr. Murphy's experience and mine are peculiarly similar. My patient, like his, had mounted a chair for the purpose of adjusting a window blind, the shifting of which caused the leg to twist in some unexplained manner and the rare dislocation to occur. The after history was equally favourable. I remember there was considerable doubt at the time as to how the lower border of the patella became so firmly fixed, but I do not recollect that any very satisfactory conclusion was arrived at.

*The salicylate treatment of chorea.*—I have had complete success in the salicylate treatment of the chorea of children, especially when accompanied by a mitral murmur; but of chorea in adults I have had no experience.

My round of general practice has been singularly rich in interesting “cases” during the last two or three years, a few of which I might briefly note perhaps without being deemed tedious.

*Infantile intussusception.*—Two of these cases I have been able to successfully reduce—under an anæsthetic—by proflation per rectum with an ordinary Higginson's syringe. To the first I was called in consultation by Dr. J. C. H. Dickinson, whilst the other occurred in my own practice, and both cases came under my notice within the space of a year.

*Floating kidneys.*—Of these I have had many, sometimes single and once double. One case became an in-patient at the London Hospital, under the care of Mr. Treves, with a view to fixation of the kidney. The interest in this case was further advanced by the fact that whilst under operation a fair sized renal calculus was discovered and removed. But of this case I am hardly justified in speaking, as doubtless Mr. Treves has it on record.

*Foreign bodies removed.*—1. A needle-case from a vaginal vagina. 2. A large plug of coarse tobacco, encased in wax, from each ear of a commercial traveller—a Devonshire man. He was much troubled by tinnitus aurium and almost complete deafness, both of which symptoms were immediately relieved by removal of the foreign bodies. This patient informed me that he distinctly remembered some thirty years back being treated for earache by the west country method of plugging the ear with tobacco. Therefore, upon his own showing, the length of time during which the foreign bodies had remained in his meatus was thirty years. 3. Two saloon-pistol bullets, one from the thecal eminence, the other from the flexor surface of the first phalanx of the third finger. 4. A needle, after a year's residence, from the hand of an old lady of eighty-five. 5. The complete metallic portion of an etching-pen, at least two inches in length, which was situate for three weeks in a vertical position about

one-sixteenth of an inch from the deep palmar arch. 6. Complete occlusion of right nasal passage by a foreign body for thirteen years,<sup>1</sup> &c.

In conclusion I may say that one can hardly call “general practice” *monotonous* with such a list.

Bow-road, E.

FRACTURE OF THE UPPER JAW WITH MALAR DEPRESSION.

BY GEORGE WHERRY, M.C. CANTAB., F.R.C.S. ENG., &c.,  
UNIVERSITY LECTURER IN SURGERY, CAMBRIDGE.

FRACTURE of the upper jaw with malar depression occurs so frequently at football, and is so easily overlooked, that I call attention again to the subject, and mention a case as an illustration. A fortnight ago an athletic undergraduate called upon me and stated that he could do no reading on account of headaches, which he considered to be the sequel of a football accident five weeks before. He stated that during a match he was knocked senseless by the charge of a player, whose head struck him full upon the prominence of the cheek. Vomiting followed after a short period of unconsciousness and then apparent recovery. On examination there was a yellow stain about the left lower ocular conjunctiva where it had been blood-shot; no other sign of ecchymosis was present. The left malar prominence was slightly depressed as compared with the other side, and an irregular chink could be felt along the orbital margin. There was a very evident line of fracture to be felt on placing the finger inside the cheek on the malar process of the superior maxilla. The patient had not been able to bite on that side since the accident, and there was a remarkable gap which prevented the first molar from touching the lower teeth on that side, a condition which was probably a mere coincidence. There was a patch of numbness in the cheek, but not that definite area of anæsthesia which is found after injury to the infra-orbital nerve. Neuralgia had lately kept him awake at night.

In cases which I have briefly recorded among others to illustrate the effects of blows upon the malar bone,<sup>2</sup> though there was fracture of the jaw with malar depression, yet not more shock and not more ecchymosis could be discovered than is usual in an ordinary black eye, but a slight deformity was permanent. Other cases were followed by serious results, as orbital abscess, paralysis of the infra-orbital nerve, or serious head symptoms suggestive of fractured base. An interesting case is recorded by Mr. Holmes of a gentleman who, after a fall, received a fatal brain injury. An orbital ecchymosis during life exactly resembled that which attends fracture of the base of the skull was found after death to be due to a fracture of the malar bone near its junction with the frontal. In every case which comes under observation after a blow upon the malar prominence an examination should be made of the orbital ridge, of the malar process of the upper jaw and the zygomatic arch on the injured side. The finger in the mouth passed up beneath the cheek will readily detect any fracture of the malar process. The injury above described should be considered of interest and importance like a head injury, and, however trifling it may appear, should not be looked upon lightly.

Cambridge.

EMPHYSEMATOUS VAGINITIS.

BY H. E. WRIGHT, L.R.C.P. EDIN., M.R.C.S., J.P., &c.

DR. HERMAN, in THE LANCET of June 6th, 1891, describes a case of what he calls emphysematous vaginitis, and he remarks upon the rarity of this disease in England within the past few weeks. I have had a case in my practice here which seems to be closely allied to Dr. Herman's, especially to those cases which he quotes from German literature. Although I did not verify the presence of gas in the vesicles, it is quite possible it may have existed in some of them, as I did not pay particular attention to the point. The following are notes of the case:—

Mrs. —, aged twenty-seven, had been under my care for endocervicitis and erosion of the os uteri for nearly three months. On Sept. 2nd she came to me to have the last applica-

<sup>1</sup> THE LANCET, Nov. 15th, 1890.

<sup>2</sup> Practitioner, Sept. 1891; Camb. Med. Soc. Proc., 1889.

tion of nitrate of silver made to the cervix, and on passing Ferguson's speculum I noticed the vagina was studded with white spots, some of the size of a hempseed, others that of a small pea. The spots were milky white and about a third of an inch apart. A close examination showed them to be vesicles, and in adjusting the speculum some of the vesicles were ruptured and a watery, opaque fluid exuded. The ruptured vesicles left small pits in the mucous membrane. The cervix was quite free from the vesicles, which were most abundant in the upper two-thirds of the vagina, the lower third and the vulva being unaffected. I had never seen such a condition of the vagina before and I have a large practice in diseases of women. The milk-white spots suggested the *oidium albicans*, but closer examination clearly showed the spots to be true vesicles. The patient and her husband were surprised when I informed them of the condition of the vagina, which apparently had given rise to no special symptoms. I applied the nitrate of silver as usual to the cervix and left the vagina alone. Three days after this the husband came to me and said that his wife complained of an irritating watery discharge from the vagina and some burning of the passage and itching of the vulva. I prescribed, without again seeing the patient, some borax and glycerine, to be used in warm water as an injection two or three times a day. I heard nothing more of my patient for about ten days, when her husband came to consult me about himself. He said, "I have got the same complaint which my wife has just had. It came on a few days after I had connexion with her, which was the day before she came to you." I had advised him not to have intercourse with his wife until the vagina should have regained its healthy condition. On examining the husband, I found the whole surface of the glans penis excoriated in small spots or patches; there were no vesicles, but the condition of the glans was very suggestive. I must mention that the irritation and soreness of the penis had existed for one week prior to this visit. There was slight redness of the orifice of the urethra and occasionally some slight burning in passing urine. There was no discharge, either water or pus. I prescribed a lead lotion and in a few days he was quite well. I regret that I did not examine some of the vesicles for the *oidium albicans*, as their milky whiteness and rapid disappearance after using a lotion of borax and glycerine convince me that I might have been successful in my search.

Greytown, Natal.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ST. THOMAS'S HOSPITAL.

CASES ILLUSTRATING THE TREATMENT OF RECURRENT PELVIC PERITONITIS BY ABDOMINAL SECTION; REMARKS.

(Under the care of Dr. CULLINGWORTH.)

WE continue and conclude this week the series of instructive cases of recurrent pelvic peritonitis commenced at page 20 of our last issue. We have already published four of the cases and as this week we give the remarks of the operator, advise our readers to refer to those cases before reading the remarks. As Dr. Cullingworth points out, it is impossible to prevent the occasional formation of a fecal fistula after the separation of adhesions which are so firm as those found in the patients under his care and others of a similar character.

CASE 5.—J. L., aged thirty-one, a primipara, by occupation a nurse, was admitted into Adelaide ward on March 3rd, 1892, suffering from pain in the abdomen and sickness. Previous history: In November, 1890, the patient strained herself in her efforts to put out a fire and for a week afterwards she complained of dragging pains in the lower part of the abdomen. At the end of this time, whilst out walking, she was suddenly seized with acute pain in the abdomen, went home in a cab, being unable to walk on account of the pain, and at once went to bed. Two days

later, the period being then a fortnight overdue, she began to lose dark-coloured blood from the vagina copiously and suffered from vomiting, constipation and retention of urine. On Dec. 18th, 1890, she was admitted into the ward complaining of hæmorrhage and pain and with a distinct abdominal swelling. A diagnosis of intra-peritoneal hæmatocele and right hæmato-salpinx was made and an operation advised but declined. She left the hospital on Jan. 14th, 1891, still losing blood. The loss continued till April, when it ceased. A month later she menstruated normally and has remained regular since. In October she noticed a yellow vaginal discharge, and experienced pain in the back and left iliac region, which continued to trouble her for some months; her general health, however, did not suffer, and she remained at her duties as an infirmary nurse till February of the present year. In the first week of February last (her period being due) she experienced a sudden sharp attack of abdominal pain and tenderness, accompanied by vomiting. Her period came on the same day, the flow being much more profuse than usual. She remained in bed for eight days and then got up and resumed her duties; her period had ceased, but the pain in the abdomen continued and was aggravated by any unusual exertion. Three weeks after the commencement of the above attack there was a sudden exacerbation of pain, with vomiting and hæmorrhage. She remained in bed for a week and says her temperature reached 104° F. on one occasion. At the end of the week she was readmitted. On examination the abdomen was rigid and there was considerable tenderness over the lower part and especially in the left iliac region. Per vaginam, the right fornix was normal in height; the left was depressed by a firm, irregular, tender mass, the size of a duck's egg, occupying the left posterior quarter of the pelvis and displacing the uterus slightly forwards and to the right. The uterus was movable and slightly enlarged, its canal measuring three inches. Similar but smaller masses were felt behind and on the right. No evidence of any separation could be detected between them. The urine was normal and the temperature 101.4°. Three weeks later—viz., on March 24th—the patient had not improved and the physical signs remained unaltered. The abdomen was opened and the pelvic viscera were found obscured from view by adherent omentum and intestine. After these had been separated the left Fallopian tube and ovary were found to be enlarged, inflamed and densely adherent. During the process of separation, which was tedious and difficult, the diseased ovary was ruptured and its purulent contents (about two fluid ounces) escaped. There was a small non-suppurating cyst of the right ovary. The right tube was adherent, but not diseased. After removal the collapsed ovary measured two inches by an inch and three-quarters and its wall was acutely inflamed. The abdomen was thoroughly douched and drained for forty-eight hours. Convalescence was complete and unmarred by complications. The patient was discharged on April 18th, feeling quite well, the abdominal wound having been completely healed for over a fortnight. She reported herself a month later, and was then in good health.

CASE 6.—A. C., aged thirty-nine, married, was admitted into Adelaide ward on March 29th, 1892, complaining of abdominal pain and uterine hæmorrhage of three weeks' duration. Previous history: She began to menstruate at the age of eleven and has always been regular, the flow being somewhat profuse and lasting from five to six days. She married in 1881, when twenty-seven years of age, and has had one child, born the following year. She married a second time at Easter, 1887, having been a widow a little over twelve months, and has not been pregnant since. She enjoyed good health till Easter, 1891, when she was confined to bed for a fortnight with pain in the lower part of the abdomen. She quickly recovered from this attack and remained well till three weeks ago, when she again suffered from pain in the lower part of the abdomen and left iliac region. The last menstrual period had ceased fourteen days previously. On the following day she had a flooding with aggravation of the pain and the bleeding continued, gradually diminishing till March 24th, when it ceased. The pain, however, continued to be severe and compelled her to keep her bed. During the last three weeks she has also complained of loss of appetite, diarrhoea and vomiting. On admission she was a well-nourished woman, complaining of constant pain in the lower part of the abdomen and of flooding, which had recently stopped. The abdomen presented nothing abnormal on examination, except some slight tenderness and resistance in the left iliac region. Per vaginam both lateral fornices were found depressed, the right more than the left. Uterus

normal in position, but slightly enlarged. The sound passed two inches and three-quarters. In the right posterior quarter of the pelvis a firm irregular mass could be felt about the size of a hen's egg. On the left side there was considerable resistance, but no definite tumour. The thoracic organs were normal. Temperature 98.6°. The urine contained a decided trace of albumen.

On April 7th the abdomen was opened. The omentum was firmly adherent to the anterior abdominal wall and to the back of the uterus; there were also adhesions between the uterus and intestine which were troublesome on account of their density and vascularity. After these had been separated the right Fallopian tube was discovered dilated and flaccid, and when traced backwards and downwards it was found to be continuous with the enlarged ovary, which was lying deeply in Douglas's pouch, embedded in adhesions. With great difficulty these parts were freed, brought to the surface and removed; about three fluid ounces of blood-stained non-offensive pus escaped from the ovary during the manipulations. The adhesions were very vascular and bled freely when broken down. The left appendages were adherent but otherwise normal and were not interfered with. The peritoneal cavity was doused with hot boracic lotion and the bleeding checked. A glass drainage-tube was introduced and the wound sutured with silkworm-gut sutures. The portion of the tube removed was irregularly enlarged and contorted, four inches and a half in length, the fimbriated portion was completely occluded by its adhesion to the diseased ovary, but there was no communication between the two. The mucous membrane of the tube was swollen and acutely inflamed and covered with thick, yellow, inoffensive pus. The ovary measured two inches and a half by two inches and contained several distinct loculi lined by an inflamed membrane and full of pus. Convalescence was somewhat impeded by a fæcal fistula which made its appearance on the morning of the fourth day after a severe attack of vomiting the previous night. Fæcal matter and occasionally flatus continued to escape from the wound in gradually diminishing quantity for a month, when the escape ceased and the wound healed. She was discharged on May 26th feeling quite well. On June 3rd the patient presented herself on account of the sinus having reopened. There was a free discharge of inoffensive pus, the patient's health otherwise was excellent.

*Remarks by Dr. CULLINGWORTH.*—Recurrent pelvic peritonitis in the female is, in the immense majority of cases, an indication of the presence of pus either in the Fallopian tube or in the ovary, or in both. It therefore almost invariably calls for surgical treatment, for the anatomical position of the tube is such that pus once poured out cannot drain away as it can from most of, if not all, the other mucous surfaces of the body, whilst in the case of the ovary the imprisonment of the pus is, if possible, even more absolute. The six cases forming the above series happened all to be in the ward at the same time. They were all admitted for acute pelvic inflammation and at least four of the patients were extremely ill. The history showed that in all but one of the cases there had been previous attacks, proving the presence of some chronic source of irritation. No one who saw the cases or who reads the foregoing abstracts, carefully prepared by my house physician, Mr. Banks, can doubt that operative interference was the best method of dealing with the cases and in some of them was probably the only possible means of saving life.

How do the contents of an ovarian cyst become infected? What determines their suppuration? There seems good reason for believing that the most common channel of infection is the Fallopian tube. Given cystic disease of the ovary and suppurative inflammation of the Fallopian tube (whether septic or gonorrhœal), there is strong evidence in favour of the view that the process of suppuration may be set up in the contents of the ovarian cyst by the passage of infective micro-organisms from the diseased tube. Case 1 is a good example of this method of infection in a case of gonorrhœal salpingitis. But this is not the only source of infection. For instance, in Case 2 it is more than probable that the suppurative process in the ovaries was due to contamination from the vermiform appendix, which was found in a condition of the most acute inflammation and so adherent to the wall of one of the cysts as to be apparently embedded in it. It will be noticed that in two of the cases fæces made their appearance in the discharges from the abdominal wound during convalescence: in one case on a single occasion only, in the other (Case 6) during thirty successive days. The liability for temporary fæcal fistulae to occur after abdominal opera-

tions where the intestines have been seriously involved in the adhesions is well known. It is due to the ease with which the intestine gives way when its wall is rendered soft and friable by inflammation and its external support is lost by the removal of parts to which it has been adherent. Under such circumstances the strain produced by a fit of laughter or of coughing or the act of vomiting is quite enough to burst the bowel and permit the escape of flatus and fæces. Fortunately it is an exceedingly rare event for a fistula so formed not to heal spontaneously. It must not be supposed that the fact of there having been an escape of fæces in two out of the six cases is any real indication of the proportion of cases in which this accident ordinarily occurs, for these six cases were all of more than average difficulty and severity and the intestines in most of them participated to a more than usually serious extent in the general pelvic inflammation. One important lesson brought home to us by these histories is the wonderful tolerance of the peritoneum. The peritoneum may be soiled by the spilling of fetid pus and even by the passage of fæces over it for many days together without injury, provided ample means of exit exist by which the offensive material can be quickly got rid of by the intra-abdominal pressure. In every one of the six cases purulent material escaped more or less freely into the peritoneal cavity, owing to rupture of the thinner and more densely adherent portions of the cyst wall during the process of separation, and in no instance did any constitutional harm result. Again, in Case 6 fæces passed over the peritoneal surface for thirty successive days without any perceptible ill effects. It may be said, in reference to the bursting of the cysts, that it was the subsequent irrigation that prevented injury. I am a profound believer in the value of flushing of the peritoneum, but I cannot think that it is effectual to the extent of washing the surface absolutely clean. It is, in my opinion, sound practice to ensure free subsequent drainage for at least some hours whenever pus has escaped, so that any portion that may remain after the flushing and sponging may find an easy way out. The powerful force of intra-abdominal pressure is then usually quite equal to the task of effecting its expulsion. For the same reason free drainage should always be provided when there is the least ground for fearing the escape of the intestinal contents. If they are thus provided with a means of exit they will avail themselves of it without delay and the danger of peritonitis will be avoided. Another lesson taught by these and similar cases is that the method that was here adopted of removing the cysts entirely is infinitely to be preferred to that of merely emptying and draining the abscess cavity and then stitching the cyst wall to the edges of the abdominal incision. The presence of the most formidable adhesions ought not to deter the operator from attempting the more complete operation.

### SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

#### TWO INSTRUCTIVE RENAL CASES.

(Under the care of Dr. CLAY, Mr. WHIPPLE and Dr. PRANOE.)

BOTH these cases are important, as the real cause of the patient's serious condition was in Case 1 not diagnosed until the disease was very advanced; in Case 2 the kidney was never considered to be the primary cause of the patient's serious condition. In Case 1 death occurred whilst the patient was still under the influence of the anæsthetic, which was A. C. E. mixture; chloroform had been given at first, but when the patient was anæsthetised A. C. E. mixture was administered instead. The patient became convulsed and cyanosed and pulseless in a few seconds. She had never had fits during her childhood or pregnancy. The left kidney presented the appearance of a pyonephrosis due to calculus, the renal structure had entirely disappeared and the walls of the abscess cavities were quite smooth. The ureter was very thick, but its lumen was small. The pelvis was very much altered and filled up with fibrous tissue. In Case 2 there was nothing during the latter part of the patient's life to lead one to suspect kidney trouble. No tumour could be felt in the loin and nothing was found in the urine. Post-mortem examination showed how it was his condition was overlooked. The ureter was blocked; the abscess cavity had emptied itself, partly into the colon, and partly had made its way into the base of the right lung, where acute miliary tuberculosis had been set up. In both of these

cases there was well-marked compensatory hypertrophy of the other kidney, showing that if the diseased kidney had been removed there would still have been enough renal tissue left to be compatible with life. For the account of these cases we are indebted to Mr. A. Stanley Thomas, house surgeon.

CASE 1 (under the care of Dr. Clay and Mr. Whipple).—F. W.—, aged twenty-nine, married, was admitted on April 12th, 1892, with the following history. Two months previously she had been delivered at full term of a stillborn child. She had enjoyed good health throughout her pregnancy, except during the last two weeks, when she suffered from pains in her legs. She got over her confinement very well and was up and about on the fourteenth day. After that she began to suffer from pain in the left side, which was thought to be due to pleurisy, but not until a month later did she notice anything amiss, when she found that the left loin was very swollen. The urine was examined, and was said to contain pus.

On admission she was extremely thin and pale and looked very ill. Temperature 101°F.; pulse 130. She complained of pain in the left hypochondriac region, which was markedly swollen and extremely tender. Dulness extended in the left flank from the seventh rib in the mid-axillary line downwards to the crest of the ilium; behind, it extended from the vertebral column forwards to within three fingers' breadth of the umbilicus. The swelling was very tense and no fluctuation could be obtained. Urine was acid; sp. gr. 1014; it contained abundant phosphates, no albumen or pus, and nothing was found by microscopic examination. No increase in frequency of micturition.

On April 13th her condition was much the same; temperature 100.4°. She had passed twenty-four ounces of urine in the previous twenty-four hours. It was acid; sp. gr. 1014; no pus. On April 14th, her temperature having been between 100° and 102° since admission and her condition having in no way improved, she was recommended to have the swelling in the left loin explored. That afternoon she was given chloroform; when fully under the influence of this anæsthetic A. C. E. mixture was given throughout the rest of the operation. An incision parallel to the last rib was made in the left loin and very offensive pus was evacuated. A second abscess cavity was then opened above the first and similar pus escaped. Both cavities were irrigated with boracic-acid solution and a large drainage-tube was put into both cavities and the wound was then dressed with carbolic-oiled gauze and wood-wool wadding. The administration of A. C. E. mixture had been stopped for quite a minute when the patient, who had been breathing well all through the operation, became quite suddenly convulsed and cyanosed, the pupils became dilated and the radial pulse, which had previously been good, suddenly ceased and the patient never regained consciousness in spite of every restorative means being applied.

At the post-mortem examination, which was unfortunately not a complete one, the capsule of the left kidney extended from the brim of the pelvis upwards to the seventh rib. In front the colon and small intestines were adherent. The kidney substance was replaced by abscess cavities, the walls of the cavities being smooth, the contents thick fetid pus. The pelvis of the kidney and the perinephritic tissue were extremely thick and the opening into the ureter was very small, but the lumen was not at all dilated. The sac and the remnants of the kidney weighed one pound two ounces. The right kidney weighed eight ounces and was quite a healthy hypertrophied organ.

CASE 2 (under the care of Dr. Franco).—R. E.—, aged thirty, a labourer, was admitted on March 9th, 1892, with the following history. About a year ago he began to suffer from pain in the back and in the legs; he got gradually weaker, but not until early in February of this year did he take to his bed. On March 2nd he had his chest aspirated and a small quantity of pus was withdrawn from the right side. He had no history of any urinary trouble, and there was no history of phthisis in his family.

On admission he was very emaciated and complained of pain in the right side of the chest. He had a very troublesome cough; his expectoration was very offensive, but rather scanty. There was dulness over the right base and diminished vocal fremitus. On auscultation, fine râles and bronchial breathing were heard over this area. Respiration 22; temperature 98.8°. On palpating the abdomen nothing could be felt; patient complained of pain in the back; urine high coloured; sp. gr. 1014, acid; albumen present; no pus or blood. Microscopic examination revealed nothing. There

was a superficial abscess over costal cartilages on the right side.

On March 10th the abscess was opened below the twelfth costal cartilage. It contained gas and most offensive pus. Its cavity ran upwards between the liver and diaphragm. It was washed out and a drainage-tube put in, and then dressed with carbolic oiled gauze and wood-wool wadding.

March 11th.—Had a better night. Has lost all pain in right side. Dressed. Breathes through the opening beneath the twelfth rib. The patient's condition was now thought to be due to an empyema, which had perforated the lung and diaphragm.

12th.—Not so well. Will not take any nourishment.

14th.—Bowels were opened three times. Motions very offensive and liquids resembling pus.

15th.—Patient became comatose and died early this morning. At the post-mortem examination the incision made beneath the twelfth rib communicated with a perinephritic abscess. This abscess had extended upwards between the diaphragm and liver, the former had been perforated and the surrounding lung tissue was consolidated and affected with miliary tubercle. The rest of the right lung was normal, except that there were a few small calcareous nodules at the apex. The left lung also had signs of old tubercle at the apex. The abscess sac was adherent in front to the colon and had ulcerated into it in one place; the colon contained pus similar to that found in abscess. The right kidney weighed 10½ oz. and on section it was found to be riddled with abscesses, the walls of which were rough and irregular; and the contents varied from caseous material to thick yellow pus. The upper part of the ureter was dilated; five inches from the bladder it was kinked or twisted and at this spot the lumen was completely blocked. The left kidney weighed 12 oz. and was composed of quite healthy kidney tissue. There was no other sign of tuberculous disease.

## Reviews and Notices of Books.

*A Text-book of the Practice of Medicine for the Use of Students and Practitioners.* By R. C. M. PAGE, M.D., Professor of General Medicine and Diseases of the Chest in the New York Polyclinic; Visiting Physician to Randall's Island Hospital, St. Elizabeth Hospital, the Polyclinic Hospital, and the North-Western Dispensary Department of Diseases of the Heart and Lungs; Member of the New York Academy of Medicine and the New York Pathological Society, &c. New York: William Wood and Co. 1892.

We do not think that we can do better than quote the substance of some remarks from the author's preface to this work in order to describe its nature, design and general scope. He says that the chief objects in preparing the volume have been to facilitate clinical instruction and enable both the physician and student to obtain in brief the most practical as well as scientific view of the various subjects treated in it. Students in medical colleges and those who visit New York and other medical centres for the purpose of taking a supplementary course in clinical medicine, as well as the busy practitioner, often find that they have not sufficient time at their command to sift out desired information on any given subject from extensive treatises and systems. While such books are necessary and invaluable, it is believed that a shorter work is called for and will prove a valuable aid. Only the chief points in pathological anatomy, for instance, are given, and if further study in this direction is necessary recourse must be had to works specially devoted to the consideration of such subjects. On the other hand, the author has gone more fully than usual into detail regarding treatment, not only naming the drugs found useful but in many instances giving the prescription and dose. It is unquestionable that such books have their use, and the busy practitioner must frequently apply to a practical and compact work in which he can obtain the information he needs in a concise and condensed form, together with such methods of treatment as have been practically tested and

approved. It would be obviously unfair therefore to compare this work, as regards completeness and variety of information, with such treatises as the Dictionary of Practical Medicine by Various Writers, edited by Dr. J. Kingston Fowler, for example; but Dr. Page has succeeded on the whole in his Text-book of the Practice of Medicine in attaining the objects he has set forth in his preface. The book is illustrated, divided into eight chapters, and supplied with a table of contents, and a fairly sufficient, though short, index. The first chapter deals with Diseases of the Heart and Blood-vessels, and the information seems to be well put together and clearly set forth in the sixty-eight pages devoted to this subject. The chapter on Diseases of the Respiratory Organs is full. We notice that the author does not regard croup and diphtheria as one and the same, but as utterly different and distinct diseases. The symptoms of the former are those of catarrhal laryngitis, until stenosis takes place, when they are the same as those of diphtheritic croup. The one disease is a croupous inflammation of the mucous membrane of the larynx prevailing in certain damp, low-lying places exposed to north-east winds, and never infectious or contagious and not usually attended with the more severe constitutional symptoms and swelling of the lymphatic glands accompanying diphtheria. The author's description of and remarks upon pulmonary emphysema are to the point. We are glad to observe that he devotes attention to fibroid phthisis as a separate form or variety of chronic phthisis, but there is reason in Sir A. Clark's objection to its being regarded as invariably tuberculous (bacillary) in nature. The remarks on pleurisy with effusion and empyema are practical and sound. Diseases of the liver are fairly well described, but the description of suppurative disease of that organ is very meagre. In his chapter on Acute Infectious Diseases the author treats in a condensed and practical way of typhoid fever, and has some judicious remarks on the utility of giving large doses of quinine as an antipyretic. He alludes to the failure of large doses of ipecacuanha as a remedy in acute dysentery as the result of their experience of it in Bellevue Hospital in 1868; but we are glad to notice that he adverts to the use of aperients in the early stages of the disease, in which, by the way, he appears to have an earlier recourse to opium and to have greater faith in an opium treatment than the experience of others would indicate. The part devoted to Diseases of the Nervous System is not so full, scientific, and precise as could be desired.

As our readers will have already gathered from our remarks, we regard Dr. Page's book as a good digest of the practice of medicine. It is written in an easy, natural style and the author's aim has evidently been to aid the practitioner in recognising and treating the various diseases he may be expected to encounter in the practice of medicine as it exists to-day.

*Microscopical Observations on the Hematozoon of Malaria, with an Appendix containing a Series of Plates of Illustrations and Descriptions.* By Surgeon PATRICK HEHIR, M.D., F.R.C.S. Ed., Lecturer on Pathology and Clinical Medicine to His Highness the Nizam's Medical School and at the Afsul Gunj Hospital, Hyderabad.

In this monograph the author endeavours to do for malaria in India what has been done for it in other countries. After describing the methods and instruments employed and mentioning that 3281 slide preparations of malarial blood were examined (of which 1490 were from fifty cases systematically and daily examined from the date of entrance into hospital to the date of discharge, cured), Dr. Hehir goes on to describe the various parasitic forms met with; of these he mentions spores, small amoeboid organisms, spherical bodies, hæmatomonas malarie stellata, intra-corporal bodies, crescents, hyaline bodies, spores, rosettes and amoeboid bodies, flagellated organisms and

various pigmented and phagocytic cells. He then gives a description of these various forms and an account of their development. The author agrees with Dr. Vandyke Carter that visible blood contamination may be more constant and uniform than concurrent pyrexial phenomena, and from this he argues that such contamination is fundamental, whilst the fever is rather a contingent event. He considers that the hæmatozoa of malaria have a local destructive influence on the red blood cells, but that they set up fever "by the action of some poisonous substance, possibly a ptomaine, acting as a stimulant upon the heat-generating centres." He also maintains that there is no excessive formation of leucocytes and that the pallor of the blood when drawn is due to a decrease in the hæmoglobin present in the red corpuscles. Quinine does not effect the immediate dissolution of the organism, although it frequently arrests the recurrence of the fever, "showing that the action of the quinine is not altogether direct on the parasite, or at least not directly lethal." The plates, though rough and in one case somewhat eccentric, indicate fairly well the author's ideas of the appearances presented by these organisms.

*Les Anomalies Musculaires considérées au point de vue de la Ligature des Artères.* Par L. TESTUT, Professeur d'Anatomie à la Faculté de Médecine de Lyon. Paris: Octave Doin. 1892.

THE arterial anomalies which are of importance to the surgeon have been fully described in such works as those of Quain, Tiedemann and Henle, and it is most exceptional that any undescribed deviation is now observed which can in any way affect the procedure of the surgeon who has had a fair experience in the dissecting-room and who is at all familiar with anatomical literature. In these works and in scattered papers and monographs by other anatomists some other anatomical peculiarities which have a direct bearing on surgical practice are pointed out, and the frequency of their occurrence often noticed, but muscular irregularities have been more especially studied from the standpoint of the morphologist or the comparative anatomist than from their relations to practical surgery, although this has not been altogether neglected. Professor Testut has therefore done a great service to the practical surgeon who may at any time have to ligature an artery in its continuity by pointing out in a serial order these various anomalies in so far as they affect the ligature of the different arteries and thus filling up, as he truly says, a serious omission in our text-books on operative surgery. The large arteries which he has found to be occasionally covered by supernumerary muscular bands of surgical importance are the brachial, the axillary, the subclavian, the internal mammary, the popliteal, the posterior tibial and the peroneal. As an example of the method in which the author deals with the subject we may refer to the ligature of the subclavian at the base of the posterior triangle. He points out that after cutting through the skin, platysma myoides, superficial and deep cervical fascia, the operator may come upon numerous muscular bundles running in different directions which are not mentioned in ordinary works on practical surgery or most of the students' text-books on general anatomy. These bundles may be due to a forward extension of the trapezius on the clavicle, to a clavicular attachment of the omohyoid or to the existence of a cleido-occipital, a levator claviculæ, a supra-clavicularis or to supernumerary fibres of the sterno-hyoid. Each of these varieties is discussed in detail and the same plan is followed in the case of the other arteries. The author has met with no muscular anomalies which would affect the ligature of the carotids, the radial or ulnar, the iliac, or the femoral or the anterior tibial, and has therefore left them out of consideration. The small quarto of forty pages, published at 8 francs, is illustrated with twelve plates showing forty-one

varieties. These are excellently drawn in chromo-lithography and are mostly taken from Professor Testut's own dissections; they will well repay the scientific surgeon who devotes a little time to their study so as to supplement that everyday anatomical knowledge which is usually considered to suffice.

*A Practical Treatise on the Diseases of Women.* By T. GAILLARD THOMAS, M.D., LL.D. Sixth Edition, Enlarged and thoroughly Revised by PAUL F. MUNDÉ. London: J. & A. Churchill.

DR. MUNDÉ has performed a by no means easy duty fairly well, having recognised the difficult nature of bringing out a sixth edition of the "Practical Treatise" of Dr. Thomas, who, however, granted to the reviser the power to change, omit or add to the original text. This book has long been regarded, especially in America, as one of the most important text-books of the diseases of women on account of its clearness and apparent simplicity. In this edition we have a work combining the experiences of both these distinguished gynecologists, for all the chapters have been largely altered, many of them entirely rewritten, and several new chapters have been added. Great advances have been made since the last appearance of this work in 1881, and we naturally expected to find in this edition more in the way of recording facts than in retaining many of the speculations which encumbered previous editions and in this we have not been disappointed. We think, however, that in some chapters too much of the old matter has been retained; for instance, we find five pages occupied with the subject of the employment of tents, to which is added a short note by Dr. Mundé indicating that Dr. Thomas's present opinion is that "tents of all kinds should be discarded in gynecology, absolutely and completely" and rapid dilatation should always be practised by preference. Dr. Mundé, however, would be sorry to part with the tupelo tent where slow dilatation is required. In the preface it is stated that the work is designed for students and general practitioners, but owing to the differences of opinion sometimes expressed, as on page 491, in describing the treatment of pelvic peritonitis it must be rather difficult for a student to discover the principles underlying the prescribed treatment, seeing that the interpolated notes signed by Dr. Thomas and others more or less contradict the statements bearing the initials of Dr. Mundé. It is upon the whole an excellent treatise, but we consider that in many parts it is too verbose, and that if Dr. Mundé had acted on the authority given him by the author and omitted certain passages it would have been a more acceptable book both to students and to busy practitioners. The work is well got up and the illustrations, numbering 347, are beautifully executed.

*Darwin, and After Darwin.* An Exposition of the Darwinian Theory and a Discussion of Post-Darwinian Questions. By GEORGE JOHN ROMANES, M.A., LL.D., F.R.S. I. The Darwinian Theory. London: Longmans, Green and Co. 1892.

THE present treatise, the author tells us, has grown from two courses of lectures delivered at the University of Edinburgh and at the Royal Institution. These two courses resembled each other in comprising between thirty and forty lectures, but differed largely in other respects; and seeing that the present treatise has grown much beyond the bulk of the original lectures, it has been deemed desirable to publish the whole in the form of three separate works. The first, dealing with the purely historical side of biological science, stands over for an indefinite time; the second is the one now brought out and is devoted to the general theory of organic evolution as this was left by the stupendous labours of Darwin; and the third portion will follow (probably in the autumn season) under the sub-title

"Post-Darwinian Questions." It scarcely needs saying that the work, when completed, promises to afford the most comprehensive survey of the whole subject up to the latest date, from the hands of one of the ablest, most logical and most original of the exponents of the doctrines of Darwinism. This second part dealing with the Darwinian theory consists of 460 pages and is profusely illustrated. That which is to follow on Post-Darwinian Questions will probably demand extended notice, but we do not think that this part calls for any long criticism from us. All acquainted with the author's name and labours will be prepared to find that the facts connected with organic evolution are well arranged and lucidly stated, so as to evolve and lead up naturally and not arbitrarily to the line of reasoning and conclusions he has to set forth. Mr. Romanes says that as the present volume is simply intended to be a systematic exposition of what may be termed the Darwinism of Darwin and is likely to be of more service to general readers than professed naturalists, he has been careful to avoid assuming even the most elementary knowledge of natural science on the part of those to whom the exposition is addressed. Although this may be quite true, and the style adopted is as simple, precise and clear as practicable, and technical expressions have been for the most part avoided, still it has not been possible to do so altogether. The book requires much clear-headed intelligence and continuity of attention on the part of the general reader, who must be possessed of a good deal of elementary knowledge, scientific aptitude and "a love of the thing," if he is thoroughly to appreciate all the facts and the cogency of the reasoning—in the chapter on embryology, for example.

The introductory chapter contains some brief but excellent allusions to the subjective and inductive methods of research, to the revolt since the sixteenth century against the former and the disproportionate value assigned to Bacon's share in the movement, and to what the author terms the bugbear of speculation, which led to the idea that science ought to consist in a mere observation of facts or tabulation of phenomena without any attempt at theorising upon their philosophical import. The minds of naturalists were more or less bound and tied by the chain of these traditional notions, touching the severance between the facts of natural history and the philosophy of it, until the publication of the "Origin of Species" in 1859 set them free. It was in this, as in so many other respects, that it was an epoch-making book. Darwin was the Newton among naturalists, and in his eyes the value of facts was due to their power of guiding the mind to the discovery of principles. He was eminently painstaking and candid, with a sagacity in observation, a penetration in the interpretation of facts and phenomena that amounted to genius. Not facts or phenomena, but causes and principles are the ultimate object of scientific quest. To his predecessors the discovery or accumulation of facts was an end, to him it was a means; and the importance of Darwin's method of scientific speculation and of his exposition of the evidences of organic evolution as a fact and of natural selection as a cause were not circumscribed within the limits of a study of natural history. They had other and far-reaching influences. The late John Stuart Mill, for example, was not a naturalist, but a philosopher, and yet, indirectly, what a difference there would probably have been in his speculative methods of treatment of many subjects if he had lived and commenced to write after, instead of before, Darwin's doctrines had been propounded and investigated as they have now been.

Mr. Romanes shrewdly points out that some naturalists of the present day who have grown up in a Darwinian environment have more or less thoughtlessly adopted some form of Darwinian creed of a dogmatic kind, which, while it usually incorporates the main elements of Darwin's teaching, still more usually comprises serious perversions of their consequences. Be this as it may, Darwinism is only

concerned with the origin of particular forms of life—the origin of species. The theory of descent starts from life as a *datum* already granted, about the origin of which science is not at present, and possibly never will be, in a position to furnish so much as a suggestion. It deals with the evidences of evolution and the scientific theory of natural descent—continuity in natural causation.

The second and third chapters deal with Classification and Morphology and are clearly written and well illustrated. Chapter IV. on Embryology we have already alluded to. Chapter V.—Paleontology—is very well done and interesting, and is naturally followed by one on Geographical Distribution. The two serve to illustrate the general law laid down by Mr. Wallace that “every species has come into existence coincident both in space and time with a pre-existing and closely allied species.” The second section is devoted to the theory and evidences of natural selection and to a consideration of the criticisms on that theory, and the last chapter treats of sexual selection with concluding remarks. An appendix, together with notes and a good index, completes the volume.

The book is an able one and seems to be clearly, candidly and philosophically written; it contains a large amount of interesting and curious information and it is well illustrated, many of the illustrations being quite new. We can only add that we have personally derived both pleasure and profit from its perusal.

## New Inventions.

### NEW CLINICAL THERMOMETER.

FERRIS'S “Perfect Non Plus Ultra” Clinical Thermometer has no contraction in the stem and no chamber to contain superfluous mercury, consequently the whole of the mercury gets thoroughly warmed at once and the temperature is not only recorded more accurately than before but in half the time. The divisions and figures are brought down close to the bulb, so that without increasing the length of the instrument the scale of the thermometer is rendered nearly twice as open as before and is much more easily and accurately read. Ferris's “Perfect Non Plus Ultra” clinical thermometer has a permanent magnified index and a certificate of corrections ascertained by comparison with the standard instruments at Kew Observatory. The Kew corrections are marked on the stem of every thermometer.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual general meeting of the Association of Fellows of the Royal College of Surgeons of England was held at 5 P.M. on the 30th ult. at the rooms of the Zoological Society, 3, Hanover-square, W. Mr. T. Holmes, Vice-President of the Association, took the chair, and in expressing his regret for the unavoidable absence of the President of the Association, Mr. George Pollock, said that Mr. Pollock had been obliged to leave town on that day for the purpose of attending the funeral of Sir William Aitken at Netley. The minutes of the last annual meeting having been read and confirmed, the hon. secretary, Mr. Percy Dunn, stated that he had received upwards of fifty replies from Members of the Association respecting the postcard which had been issued announcing the annual general meetings, the annual dinner and the candidature of the nominee of the Association, Mr. John Tweedy, for a seat on the Council of the Royal College of Surgeons. Nearly all these replies were expressive of regret at being unable to attend the meeting and of determination to support Mr. Tweedy at the election on the 9th inst. A telegram to a similar effect from Mr. Mayo Robson was also read. The hon. secretary read the auditors' report, which was received and adopted, a balance in favour of the Association being shown.

Mr. Holmes then delivered an address reviewing the proceedings of the Association as comprised in the report which

has been recently issued to its members as well as to the Fellows of the College generally. Amongst other things he dwelt forcibly upon the inexpediency of the action of the Council of the College in coming to a decision upon subjects important both to the Fellows of the College and to the profession at large without consulting their constituents. Such matters, he said, ought to be discussed publicly at the College by the body corporate in the face of the profession and ought not to be decided secretly by twenty-four Fellows in an upper room. He instanced especially the scheme for coöperating with the University of London in examining for degrees and also the scheme for the fulfilment of the five years' curriculum. Referring to a recent assertion that the Association of Fellows was a political body, he repudiated it altogether and said that the Association had nothing whatever to do with politics. The Association had to meet a hostile feeling in certain quarters, but always conducted its business with the strictest regard to the feelings of those who were opposed to it. Mr. George Jackson moved and Mr. J. J. Purnell seconded the adoption of the report and this was carried unanimously. Mr. Alban Doran moved a resolution pledging the Association to use its utmost efforts to secure the return of Mr. Tweedy at the ensuing election at the College. He observed that many able men, after election to councils, never succeeded in understanding procedure and never gained a fair knowledge of by-laws. All who had served on the councils of Societies were aware of this fact. Yet, in order to make a good councillor, skill in procedure and a full knowledge of by-laws were imperative. Mr. Tweedy was one of the very few persons who had a full knowledge of the intricate Charters and by-laws of the College of Surgeons and his ability at public meetings was well known. He would prove a valuable addition to the Council. The resolution was seconded by Dr. W. J. Collins and carried unanimously.

In thanking the meeting for the resolution just passed in his favour Mr. Tweedy said that, as was well known, he had been reluctant to come forward as a candidate, but that he had acceded to the request conveyed to him because he took the warmest interest in the success of the Association, whose only object was to secure the best form of government at the College of Surgeons.

The election of officers for the ensuing year was then proceeded with. Mr. Rivington moved that the present officers and members of the Committee of the Association be re-elected and that the names of Mr. T. B. Kectley, Mr. George Jackson of Plymouth, Mr. Vincent Bell of Rochester, Mr. George F. Helm of Cornwall and Mr. Purnell of Streatham be added to the committee. Vacancies had been created by the decease of Mr. William Adams of Regent's-park and the retirement of Mr. Lawson Tait. It was desirable that the committee should be as representative as possible and it was a great advantage to have Fellows from different parts of the country serving on the committee. It had been suggested to him that he should give an account of his stewardship at the College, but it would be very inexpedient and improper to “reveal the secrets of the prison house.” He could not go beyond the published minutes of the proceedings of the Council. From these it would be gathered that progress was being made. Some might desire that the Council of the College should advance rather faster and less like the traffic on a suburban line, but everything now depended on the Fellows themselves. A most important concession had been made by the Council of the College—viz., that meetings of Fellows apart from the Members would be called for consultative purposes whenever the Council thought it desirable and also on a requisition from a certain number of Fellows. This concession was the cardinal point in all reform and if properly utilised would lead to all the other concessions which the Fellows of the College as a body might think desirable. The motion having been seconded by Mr. J. E. James of London was put to the meeting and carried unanimously. A vote of thanks to the chairman terminated the proceedings.

The annual dinner of the Association took place in the evening at the Criterion. Mr. Wm. Allingham occupied the chair. The attendance was curtailed in consequence of the alteration of the date of the dinner originally fixed for the 23rd ult., the Oxford and Cambridge cricket match, and the funeral of Sir Wm. Aitken. The chairman gave the usual loyal toasts and proposed “Success to the Association.” In responding to the toast of “The Association Candidate,” Mr. Tweedy gave an interesting account of his connexion with the reform movement at the College. The proceedings did not terminate till after 11 P.M.

# THE LANCET.

LONDON: SATURDAY, JULY 9, 1892.

SCARLET FEVER is causing anxiety in the metropolis by reason of the large number of attacks removed to the hospitals of the Metropolitan Asylums Board; and it is not unnaturally assumed that this exceptional number of hospital patients indicates a corresponding excess of scarlet fever amongst the population. If we were to consider fatal attacks alone, the cause for anxiety would not be so great. Thus, the largest weekly numbers of scarlet fever deaths in London during the past month were 29, 28, and 21 respectively in the three weeks ending June 18th, June 25th, and July 2nd, these exceeding the average by eleven, nine, and four deaths for the weeks in question. This is in itself not especially alarming. Still there is cause for anxiety in the fact that we have only just entered on the period when scarlet fever usually commences its seasonal rise. So far as attacks apart from fatal cases of scarlet fever are concerned, there does not yet exist much information as to seasonal activity; but Dr. WHITELEGGE, dealing with 23,000 attacks in nine large towns where compulsory notification existed, has shown that a very rapid rise has commonly set in towards the end of July, that it has continued to increase during the months of August and September, and that the maximum has been attained in mid-October, after which date a distinct decline has set in. During the twelve weeks ending June 25th over 5000 cases of scarlet fever were notified in London, the weekly number of attacks ranging from about 350 to somewhat over 550; and not only so, but the number notified during the last few weeks of that period exceeded by over 100 those notified in the previous four weeks. We are therefore, whilst only at the beginning of a critical seasonal period, in face of a substantial increase in the number of scarlet fever attacks. What this may mean it is at present difficult to say, for the reason already given, that we have no trustworthy experience as to the significance of attacks apart from deaths on which to base any precise opinion.

Another element of uncertainty lies in the circumstance that an amount of isolation in hospital is in progress such as London has never before experienced, and that this isolation is going hand in hand with administrative measures of prevention exercised by the local authorities such as have never before been practicable. During the month of June some 2100 to 2200 fresh cases of scarlet fever were certified, and we now learn that no less than 2460 cases were under isolation in the hospitals of the Asylums Board at the beginning of the present month. This is a remarkable achievement, and if we could believe that all attacks are notified and that the average detention of the patients in hospital was for a period of some six to eight weeks, it would mean that considerably more than one-half of the scarlet fever patients of London have been removed from localities where they would otherwise have become centres of infection, it being largely those

who are better circumstanced in this respect who have been allowed to remain in their own homes. And this is not all. Disinfection of rooms and clothing very generally follows removal to hospital, and much the same measures are adopted in other attacks on the recovery of the patients. Such measures are becoming more and more general, whilst notification provides means of information as to where these measures can and ought to be applied, which has not formerly been available. Further, notification in the metropolis is followed by information to school authorities as to the danger involved in allowing children from infected houses to associate with fellow pupils in school. This measure must be expected to remove a principal means of infection which has hitherto prevailed. Indeed, our experience of scarlet fever prevention under the existing circumstances of the metropolis are such that a forecast becomes unusually difficult; and the measures of isolation now available both in London and at the Gore Farm Camp, to which some 600 convalescents can be removed, give us reason to hope that we have means at hand which may enable the authorities to cope, as they have never done before, even with so rapid a rise in the number of attacks as marks this very critical period of the seasonal activity of the disease.

We cannot close these remarks without uttering a warning. When scarlet fever is thus generally prevalent it becomes a habit to look upon every fresh extension of the disease as one which is taking place in the commonly accepted method by aerial diffusion from person to person, assisted, perhaps, by the infection contained in the clothing of those who have been attacked. There have, however, been several recent occurrences of the disease which have seemed strongly to indicate that milk was serving as the vehicle of the infection. One excellent report has been issued on this subject by Dr. J. KING WARRY on an outbreak in Upper Clapton which was said to be associated with the distribution of milk; and other local prevalences in the metropolis have raised suspicion that the same process was going on elsewhere. Under these circumstances it is of the utmost importance that a careful watch should be kept as to the conditions of health and disease in dairies and milk-shops, and that every health officer and sanitary authority should be on the lookout for possible distribution of scarlet fever through the agency of milk. This leads to a further consideration. The Clapton outbreak, to which we have just adverted, could not be traced to any infection of the milk from a human source; and the milk alleged to have been the vehicle of conveying the disease was found to have been derived from a dairy where exceptional precautions as to health and cleanliness were habitually observed. But some of the cows were found to be ailing, the actual ailment at the time of their examination being essentially limited to cracks and abrasions on their teats, with abnormally high temperatures. Past experience compels the utmost caution as to minor ailments, so-called, in milch cows at such a juncture; and it may be well to consider, quite apart from the spread of scarlet fever through its ordinarily recognised channels when once established, whether such seasonal activity as we are now experiencing as regards the affection in the human subject does not in some measure, at least, find its source and its means of rapid diffusion in a bovine ailment, the

prevalence of which is equally favoured by certain seasonal and climatic influences at this period of the year.

DURING the present week two subjects widely differing in their character, but both of paramount importance, have engrossed the attention of the good citizens of Dublin, the burgesses being engaged in the selection of fit and proper candidates to represent them in Parliament, and academicians in their efforts to do fitting honour to the celebration of the tercentenary of the University of Dublin, identical with its own college, that of the Holy Trinity, popularly known by its familiar name, Trinity College. Whatever historic doubts may exist as to the source whence the "Virgin Queen" derived her inspiration, there can be none that the first letters patent were issued by QUEEN ELIZABETH on March 3rd, 1591, thereby winning for herself the proud title of "Fundatrix Collegii Sanctæ Trinitatis *juxta* Dublinum." The presence of "*juxta*" is a constant cause of surprise to those acquainted with the present position of the College in the very centre of a large and populous city, but unacquainted with its early history. Briefly it may be told how, outside the walls of old Dublin, in the possession of the then existing corporation, were some thirty acres of land which the corporation granted to the college for the erection of its buildings—a fact gratefully borne in mind on this the occasion of the commemoration of its tercentenary by the collegiate authorities; in evidence of which a grace of the Senate has been passed conferring the honorary distinction of LL.D. upon the present Lord Mayor of Dublin, and this compliment has been speedily reciprocated by the corporation conferring the freedom of the city on the present Provost, the Rev. Dr. SALMON. Partly by gifts of confiscated lands and partly, though in a minor degree, by purchase, the University is possessed of a considerable amount of landed property which is let on lease to tenants, who in their turn sublet their holdings. The college found this a satisfactory arrangement, as the "middle man" acted somewhat after the fashion of an agent and collected the rents, and the "middle man" obtained for himself satisfactory profits; but in recent times these profits have to a great extent disappeared, and in some instances have reached such a vanishing point that the direct tenant has surrendered his lease to the college authorities, thereby throwing upon them the onus of collecting the rents from the occupier of the soil. Nevertheless it is pretty generally believed that the collegiate income from this source alone reaches the sum of £50,000 a year, the remainder coming from students' term fees and fees payable for the various degrees.

In the University there are several "faculties," but that of medicine is naturally of principal interest to the medical reader. Until recent years the medical school was at a very low ebb indeed—a fact which can be easily explained. At the time alluded to the University would not recognise any certificates but those issued by its own professors for attendance on the lectures required from candidates who sought the degrees. As a consequence the College of Surgeons refused to recognise such certificates, and required their candidates to produce certificates emanating from other teachers recognised by themselves, so that the student seeking both qualifications had to pay twice over for

the required certificates. To the credit of the University it must be stated that it was the first to recognise this anomalous condition of affairs, and after a long struggle, carried on within the walls of the College of Surgeons, principally by the late Drs. BEATTY, ADAMS and HUTTON, and the present Professor RAWDON MACNAMARA, "free trade" gained the day. Since then the University has progressed by leaps and bounds and, thanks to the enlightened zeal and energy of the Rev. Dr. HAUGHTON, its anatomical halls and chemical laboratories have acquired a deservedly high reputation.

During many years it was the fashion to style Dublin University the "Silent Sister," but so far as medicine in the broadest sense of the word is concerned such a reproach was undeserved—witness the writings of GRAVES, STOKES, ROBERT HARRISON, WILLIAM HENRY PORTER, ROBERT ADAMS and CARMICHAEL, the productions of whose pens are classics in medical literature. We must, however, leave it to others to vindicate from this reflection the *alma mater* of USHER, MOLYNEUX, SWIFT, GOLDSMITH, BURKE, BERKELEY, "TOMMY" MOORE, CONGREVE and a host of *alumni* who have carved for themselves niches in the Temple of Fame.

We may briefly note the preparations made to do adequate honour to this important commemoration; it is obvious that the University itself acted in no niggardly spirit in this direction. So far as entertainments go, on the first day took place the garden party in the Fellows' garden; on the second day the tercentenary banquet in the Leinster Hall, to which something like a thousand guests were bidden; on the third day there was a dramatic performance in the Gaiety Theatre; the entertainments winding up, so far as the University is concerned, with the University ball to be held in the Leinster Hall this (Friday) evening. We must express surprise that the play selected for the dramatic performance was the "Rivals" of SHERIDAN, an author who had no connexion with the University, to the exclusion of the tender-hearted, generous to a fault, simple-minded GOLDSMITH, for the production of whose comedy, "The Good-natured Man," the occasion seemed to be singularly appropriate. Rarely played, it would have afforded no opportunity for invidious comparisons—no unimportant consideration when it is remembered that all the male characters are represented by amateurs, the female characters, however, being played by actresses from Mr. EDWARD COMPTON'S comedy company, at present fulfilling a short engagement in Dublin. Failing GOLDSMITH, why was CONGREVE overlooked, whose "Love for Love" would have had the charm of novelty and unsurpassed dialogue? An excellent prologue to the performance of "The Rivals" has been written by Mr. EDWIN HAMILTON. In addition to these entertainments several Honorary Degrees have been conferred in the various Faculties, the recipients of those in Medicine being H. R. H. DUKE CHARLES of Bavaria, Sir ANDREW CLARK, JOHN SHAW BILLINGS, THOMAS BRYANT, ADOLF GUSSEBROW, JONATHAN HUTCHINSON and GRAINGER STEWART, whilst the College of Surgeons, in honour of the event, conferred its honorary Fellowship on Messrs. BRYANT, BILLINGS, GUSSEBROW, and SNELLEN; the President, moreover, issued upwards of 750 cards of invitation to an "at home" to be held to-day (Friday), upon which occasion his Excellency will unveil the bust to be placed in the College in memory of the late lamented Dr. ROBERT MACDONNELL. On Wednesday their Excellencies gave a garden party at the Viceregal Lodge;

and on Thursday the Commander of the Forces gave one at the Royal Hospital, Kilmainham.

Immediately after the reception of the guests and delegates by the Provost in the Examination Hall, favoured by beautiful weather, a procession in full academic robes proceeded on foot to St. Patrick's Cathedral, to attend the commemoration service; and the crowds which thronged the streets witnessed a sight the like of which they are not likely ever to see again. The University of Dublin is to be heartily congratulated on the great success of its tercentenary commemoration.

THE reference in the Report of the Select Committee of the House of Lords on Metropolitan Hospitals and many subjects connected with hospitals deserves a more detailed notice than we were able to give it in one number. We propose, therefore, to deal specially with a few of these subjects as opportunity may offer. Of these one of great interest is the question of Poor-law infirmaries, their general administration and their medical efficiency. The older members of the profession will well remember the dismal provision for the sick poor in the old workhouses. Nothing could be more unsatisfactory. The nurses consisted of paupers a little less infirm than those whom they nursed. The equipment of the workhouses was deficient in all that goes to mitigate the severity of suffering. The scandal culminated in the case of TIMOTHY DALY who suffered from rheumatic fever in a London Workhouse and whose feet projected several inches beyond the edge of his bed. His death led to the investigations of THE LANCET into the general condition of the sick in workhouses, and these in their turn led to the memorable legislation of 1867 known as Mr. GATHORNE HARDY'S Act and the creation of the Poor-law infirmaries. The establishment of these institutions and of the asylums for infectious diseases created new ideas of the duty of the State towards its sick poor and has altered the feeling of reluctance with which such poor regard state assistance in the form of hospital treatment. Insensibly in twenty years a new set of twenty-four hospitals has grown up with 12,445 beds in them. Nor do we seem to have got to the end of this provision. Many of the workhouses, notably Bethnal Green, are without infirmaries; the sick in them are nursed largely by untrained or pauper nurses.

We are much interested in all the bearings, medical, educational and political of this great hospital system of Poor-law infirmaries. It exceeds already the voluntary hospitals in the number of its beds by about 4000. It is still indeed far behind in the quality of its nursing and in the quality of the medical service supplied to the patients. But having said so much on one side we have much pleasure in noting the high terms in which the Committee speak of the general management and the medical and nursing efficiency of these institutions. We regard this as distinctly creditable to the medical profession. The medical officer of these Poor-law infirmaries is not only the medical superintendent, but he is responsible for the general control of the whole establishment. This arrangement is of course open to the objection actually made that an officer who is responsible for the general control of an establishment with 700 or 800 beds,

with perhaps only one assistant, cannot have any leisure for the proper and adequate treatment of so great an amount of suffering humanity. We cannot deny the force of this argument. But it remains true that no serious faults have been exposed, that the general administration is good and that no complaint of neglect of the sick emerged in the course of the inquiry. We see in this another proof of the administrative faculty which abounds in the profession. It is well known that these institutions are served by many able practitioners, who strangely prefer the appointments with their limited incomes (varying from £300 to £500 a year) to the chances of general practice with its uncertainties, its unpaid bills and its rough and irregular work. All the same we are glad to see that the question of the sufficiency of the medical arrangements of these infirmaries was distinctly raised and that important suggestions have been made for its improvement. It requires little imagination to understand that a medical superintendent and one or even two assistants, with 700 patients on their hands, can have but little time to give to individual cases, and that such a number of sick must include many cases of difficulty, of danger, and of suffering on which the opinion of a medical or surgical consultant should be taken. The provision for such consultation should be systematic as it is in Birmingham. We are told in the Report that some superintendents admitted the necessity for some such provision. Some said it was allowed and paid for by their guardians; others said they found no difficulty in getting hospital surgeons and physicians to come and see such cases without fee. But it is due alike to the superintendents and to the patients that a regular provision for consultations should be made in some form or other. The Committee of the House of Lords are much impressed with the evidence in favour of turning the clinique of the poor-law infirmaries to account for the furtherance of medical education. They allege that there was a remarkable uniformity of evidence in favour of this and of the belief that such an arrangement would not be disliked by the sick; indeed that it would be positively beneficial to them. The Committee were told by many witnesses that it would tend to secure careful examination of cases, to discourage routine in treatment, and that the clinical experience to be gained in a Poor-law infirmary would be different from that of the general hospital, both in respect of its in-patients and out-patients. They ventured to suggest that the Poor-law infirmary appointments would especially be useful to men just qualified, or in the fifth year of their studies which has just been added by the General Medical Council. This proposal is not new. It has been repeatedly before the Medical Council. But, spoken of with so much favour by the Lords' Committee, it is sure to come into fresh and serious consideration. It is one of many proofs that with all their perfection our existing hospitals do not teach the student everything and all classes of disease. The exact way in which the Poor-law infirmary is to be brought into line for educational purposes with the hospitals or with general practice is a matter for much reflection. Such a step would of itself involve a reconstitution of the medical staff. We should sincerely regret any change that would affect the authority of the medical superintendents who have so well managed these institutions. But without doing this it will be possible to increase the medical staff to the advantage

of the patient and the relief of the superintendent, whose importance, we venture to think, would only be increased. We have only room for one more word in regard to these great Poor-law infirmaries. It is one of caution. There is a danger that these institutions may be made too easy and pleasant and so become pauperising. "It would seem," says the Committee, "that the excellence of the infirmaries and their separation from the workhouse are likely to exercise, and in fact do exercise, a distinctly pauperising effect on the poor." "Many patients are artisans in receipt of good wages." There should be no parsimony in dealing with actual pauperism associated with sickness, but there is a note of warning in these sentences of the Report against the encouragement of pauperism which we commend to the attention of all concerned.

whether the apparent increase of crime is not sufficiently accounted for by the increase in population. On this point Mr. MORRISON furnishes us with the following statistics—viz., "Basing our calculations upon the estimated population at the middle of each decade it comes out that in 1860-69 one case was tried annually for every forty-four of the inhabitants of England and Wales; in 1870-79 one case was tried for every thirty-seven inhabitants; and in 1880-89 one case was tried for every thirty-eight inhabitants." It would thus appear that crime has been almost stationary during the last two decades, but that these decades indicate a substantial increase on the previous one.

The quality of the crime is obviously a point even more important than the mere number of offences. Taking murder as the most important of all crimes, we find that in the decade 1860-69 the yearly average of murders reported to the police was 126; in 1870-79 the yearly average was 153; and in 1880-89 the yearly average was 160. Even allowing for growth of population there is here a substantial increase in the gravest offence known to the law. The average annual number of indictable offences, which was 2315 in the decade 1870-79, had risen to 2562 in the decade 1880-89. The annual average number of offences against property with violence, which was 1483 in the decade 1870-79, was 1850 in the decade 1880-89. The annual average of offences against property without violence had, however, shown a decided diminution. The number was 10,701 in the former decade, 8049 in the latter. This decline is attributable to the operation of the Summary Jurisdiction Act, which has removed many offences of this nature from the list of "indictable offences," and so this decline cannot be interpreted as indicating a real diminution in this variety of crime.

Facts tend strongly to show that the predisposition to crime is greatest in the greatest centres of population. Thus one policeman was required in the City of London and in the Metropolitan Police District for every 312 of the population as enumerated in 1881; in the English boroughs one policeman was required for every 697 of the population; in the counties only one policeman was required for every 1150 of the population. Mr. MORRISON draws from these statistics the conclusion that "where there is most civilisation there is also most crime." We entirely dispute the justice of this conclusion. Great cities cannot in any true sense be said to be generally and in all parts more highly civilised than the adjacent country districts. The slums and alleys of great cities furnish the deepest depths of barbarism to be found in the civilised world. Further, great cities are the great foci towards which gravitate the streams of thriftlessness, vice, vagabondage and crime. To say that because great cities furnish an undue proportion of crime civilisation tends to make men criminal is, it seems to us, to advance one of the most dangerous and disheartening of fallacies.

We may, lastly, look at the statistics of the prison population, although, as we have already pointed out, this is a very misleading gauge of the growth or decline of crime. The yearly average of persons committed to prison in the decade 1860-69 was 127,690, in 1870-79 it was 154,145 and in 1880-89 it was 170,827. These figures indicate not only an absolute increase in the committals to prison, but also an increase in proportion to the population. The figures

The short paper in the current number of the *Nineteenth Century* on "The Increase of Crime," by the Rev. W. D. MORRISON, raises one of the most important and also one of the most difficult of social questions. At first sight it might seem a very simple matter to determine whether or not crime is on the increase; in reality it is very difficult. With such important and clearly defined crimes as murder or manslaughter there is not much difficulty. The total number reported to the police, the number of trials, convictions &c., will afford a fairly satisfactory basis for calculation. But we are on very different ground when we seek to determine whether the criminal population is increasing or declining. The average number of persons in our gaols depends upon many conditions apart from a growth or decline in crime; depends, for example, on the activity or negligence of the police, on the severity or leniency of magistrates and other officers of the law, on the prevailing tendency to inflict long or short sentences, and lastly depends to a very important extent upon legislation. Crime is partly "natural"—i.e., there are some crimes that are universally recognised as such by all civilised men; but it is also partly artificial or law-made—i.e., an act may be criminal in one country that is not under legal ban in another. The Elementary Education Act of 1870 and the Criminal Law Amendment Act of 1885 added new offences to our Statute-book, and it is obvious that convictions thus arising could not be fairly reckoned in any comparative estimate of the prevalence of crime at the present day and at some past period. It is thus clear that the question is an extremely complex one and that criminal statistics must be scrutinised with the most jealous care before any confident conclusions can be drawn.

Mr. MORRISON first draws attention to the number of cases tried, whether summarily or on indictment, during the last three decades. The figures are as follows:—

	Yearly average of cases.				
1860-67	...	...	...	...	466,687
1870-79	...	...	...	...	628,027
1880-89	...	...	...	...	701,060

Here we are face to face with an apparent very substantial increase in crime. It is satisfactory, however, to learn that offences against the Elementary Education Acts alone account for more than half a million of cases during the last two decades. The question at once arises

for the reformatory and industrial schools show an even larger increase. The rapid and uninterrupted increase in the police force points in the same direction.

Mr. MORRISON concludes, first, that there is a very substantial increase in crime now in progress in our midst, and secondly, that this increase is almost wholly due to the excessive concentration of masses of population in large cities. Mr. MORRISON'S position and the painstaking attention which he has bestowed upon the elucidation of this important subject entitle his opinion to great weight; but before accepting his somewhat pessimist conclusions we should like to have some aspects of the subject treated which he has not dealt with, or at least not dealt with in a way to exhaust the discussion. For example, to crimes the rule is eminently applicable that for a just appreciation they must be weighed, not counted only; and Mr. MORRISON'S statistics appear to us open to cavil in this respect. Ten little crimes may testify to less depravity in a society than one great one; and until it is made out that the figures from which the writer's inferences are drawn are above the suspicion of equating unequal things, we shall be disposed to cling to the more hopeful view of the modern record of crime which other authorities than Mr. MORRISON are able to adopt.

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### Annotations.

"No quid nimis."

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#### THE INTERNATIONAL MEDICAL CONGRESS OF 1892.

THE opinion we have from time to time hazarded as to the month and week in which this great assembly should meet in Rome has just been confirmed at the last conference held *ad hoc* by the Comitato Centrale. We now know that the last week of September has been officially fixed as that during which the Congress will sit. That this is a matter of vital importance to the success of the meeting no one who is cognizant of the character of the Roman climate in the late summer and early autumn can fail to appreciate. Exaggerated though it be, particularly after the activity of the municipal rediles during the last twenty years in reclaiming outlying spaces and building over intra-mural tracts previously tenanted only by the malarian bacillus, the impression is still a prevailing one that from the close of June to the middle of September Rome is not a healthy place of sojourn—an impression reinforced by the immemorial usage of its inhabitants, who for that interval descend to the seaboard or go up to the mountains to escape the heat and the fever-laden breath of the Campagna. To invite the profession from all parts of the world to assist at the Roman Congress during the days of August would simply have been to court the refusal of nine-tenths of those whose presence might have been counted upon. In full cognisance of this the Comitato Centrale have been well inspired in their selection of the time of meeting, and though the last week of September has its drawbacks, particularly for those surgeons and physicians whose duties require them to be at their posts at the opening of our medical schools, still there is just enough interval between the rising of the Congress and the beginning of the winter session to allow of their assisting at the former and being not too late for the latter. We trust, therefore, that the decision of the Comitato Centrale, arrived at as it has been after much consultation of the convenience of the profession in two hemispheres and in many countries, will be found to collide with

no great number of "previous engagements," and to favour as far as possible the truly representative character of this greatest of international gatherings. "Little more than a year," writes an Italian correspondent, "separates us from the memorable occasion which will confirm Italy's right to sit among the nations who, with fraternal confidence in each other, labour in the name of science. The high importance of this approaching reunion has been recognised abroad not less than in the peninsula, inasmuch that while a powerful phalanx of the physicians and surgeons of the Alta Italia have sent in their adhesions the post brings a daily shoal of letters in which the leading lights of foreign medicine, the scientific academies, the associations, and the institutes of Europe and America announce with the most gratifying expressions of goodwill towards Italy their intention to come in person or to be worthily represented. In the next few days the Comitato Centrale will address an identical appeal to all the physicians of central and southern Italy, an appeal to which the response, I need not say, will be at once unanimous and enthusiastic." The Comitato Locali will before the month is out be not less numerous than those which have for some time been in working order in Lombardy, in Piedmont, in the Venetian territory and in the Emelia. The Italian Government, we may add, coöperates loyally and effectively with the profession in its endeavour to make the Congress as brilliantly successful as any of its immediate predecessors, and will, we trust, enable the great promoter of the gathering, Dr. Guido Baccelli, to complete the mighty undertaking of his life, the Roman Policlinico, in time to show his brethren from abroad how Italy can and will improve upon her memorable past in pathological research and in therapeutic resource. To have crowned the edifice of such an institution in presence of the grandees of medical science and medical art will more than entitle the eminent consultant, who is not less distinguished as a patriot than as a physician, to say "Vixi" and to enhance the pride with which he will echo in Rome the welcome that greeted the profession on the façade of the Congress Hall at Berlin, "Universi Medici Orbis Terrarum Salutamini!"

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#### MEDICAL AID SOCIETIES AND THE PROFESSION.

OUR correspondence columns have recently afforded evidence not only of the great and very natural interest taken by our readers in the subject of the bonds into which the medical officers of friendly societies are commonly required to enter upon taking up their appointments, but also of the serious hardship which the observance of the covenanted conditions not seldom entails. It is easy to understand that in a discussion of this kind the disputants should be led to adopt strong views, and in no way surprising if they should be betrayed into expressions of opinion not altogether warranted by the facts or the law, as the case may be. This has, we believe, happened in the course of the discussion which has recently occupied our columns. Some of our correspondents have opined that engagements which would prevent a man from practising on his own account in the neighbourhood in which he has practised as an officer of the medical aid society are in no way binding and may be cast to the winds when the opportunity of infringing them arises. Now if this were sound law it would be very questionable morality, and if adopted as a line of conduct from the first would be such as no casuistry could justify. It may well be that a man who has been tricked or coerced into a position which he never intended to take up, but into which he has been forced either without his knowledge or in spite of his protest, may feel himself at liberty to accept any means of escape which the law extends to him. But any man who should sign an invalid bond knowing it to be invalid and intending, if occasion should arise, to

take advantage of the flaw, would be guilty of dishonourable conduct which no technical justification could excuse or palliate. We think, therefore, that the legal question is not of the importance which some of our correspondents have been inclined to attach to it. The only way in which, without stooping to unworthy shifts, a medical practitioner can defend himself against imposition is by resolutely refusing to undertake any obligations which he will not, when the time comes, be prepared honourably to discharge. But while we adopt this higher ground of morality as that upon which a question of this sort should be decided we have reason to think that some of our correspondents have seriously misapprehended their legal position. We understand that it is quite possible for a bond to be drawn which will bind a man not to take away from an institution with which he has been connected the patients with whom he has there been brought into contact, and which in furtherance of this undertaking will shut him out from practice within a reasonably defined area. Whether a particular bond will or will not be effectual for this purpose must of course depend upon its terms, and if any of our readers who may have such bonds in their possession will furnish us with copies for publication we shall be happy to obtain a legal opinion upon their effect for the benefit of the profession at large. The matter is undoubtedly of great importance, and it would be well for all parties that the legal position no less than the ethical questions involved should be elucidated by full and sufficiently informed discussion.

#### THE PROGRESS OF CHOLERA.

CHOLERA has made some further and substantial progress in South-Western Russia. At Baku on the Caspian the outbreak is of considerable dimensions, and no less than ninety-one deaths, took place there on July 2nd. The port of Petrovsk and the town of Astrakan at the mouth of the Volga have also been invaded, the western shore of the Caspian being thus attacked at three different points. South of the Caucasus the number of places invaded has also increased, and at the present moment Tiflis, Elizabetopol, Shamachi, Erivan and Shusha are seats of the disease. Another line of extension is up the Volga, and this is the more ominous because this is the season of the year when a large traffic up this river commonly sets in. The towns of Tzaritzin and Saratov have already been attacked, and the province of Samara, which immediately abuts on that of Saratov, is also stated to have suffered from such attacks. One of the greatest dangers to Europe will lie in extension of the disease to Black Sea ports, from whence, notwithstanding the restrictions that may be imposed, there will be risk of infection to such European ports as Odessa. In the meantime the Sanitary Board at Sofia has ordered ten days' quarantine upon vessels arriving at Bourgas, Varna, and Balchik from Russian ports in the Black Sea between Soukham Kale and the Turkish frontier. In Russian Turkestan and Bokhara the disease is still maintained, but whilst it has distinctly diminished at Meshed no other serious extension has taken place. On the other hand certain journals in the Caucasus announce that the disease has broken out in the neighbourhood of Bagdad in Mesopotamia. The news which we publish from our special correspondent as to cholera in Paris is disquieting. That form of disease which we are wont to style English cholera often prevails in large centres of population during exceptionally hot weather and Paris has suffered from such weather. Severe diarrhoeal diseases also tend to supervene when sewage-polluted water is being consumed and some parts of Paris and its outskirts are now receiving Seine water which must be regarded as contaminated by sewage. But neither of these conditions is as a rule associated with anything like

the mortality which is persistently maintained around Paris, except when either true cholera or severe enteric fever are the causes of it. According to M. Monod, the energetic Director of Public Health for France, the prevalence to which we advert caused 159 deaths during the three months ending June 30th; it is mainly confined to the loop formed by the Seine west of Paris, and it is positively declared that no case of exotic cholera has taken place. This view has, up to recently, been also supported by Dr. Proust. To these high opinions, if still maintained, we feel bound to defer; but, on the other hand, we believe we are right in saying that the special districts referred to are not the only ones which have received Seine water during the recent drought; that the interior of Paris, where there has been no similar outbreak, has had some share of the same water; and that the mortality is of quite an exceptional character even for the localities attacked. When twelve and fourteen diarrhoeal attacks terminate fatally day by day in a limited area and the disease is not infantile diarrhoea the circumstances of such fatality are sufficient to cause apprehension. Aubervilliers, one centre of the epidemic, has traditions of true cholera which are by no means remote, and, in addition to that district, Courneuve, St. Denis, La Plaine, Ile St. Denis, Suresnes, Courbevoie, Asnières, Clichy, Rueil and Colombes have also been seats of the disease. We trust that the measures which are being taken to prevent further diffusion of the outbreak will be successful and that the inhabitants will take the advice offered to them and boil all potable water so long as it may be necessary to draw it from the Seine. The recent occurrence of alleged cholera on board the *Crofton Hall*, which had to return to Calcutta in consequence of the mortality amongst its crew, has turned out, as we anticipated, to be an outbreak of ptomaine poisoning from unwholesome meat. This is the decision at which Dr. Simpson, the city health officer, and Dr. Forsyth have arrived. We are glad to be able to state authoritatively that, notwithstanding rumours and statements to the contrary, no case of Asiatic cholera has occurred in the Port of London, or, indeed, in any part of the metropolis.

#### MEDICAL PRACTITIONERS AND THE GENERAL ELECTION.

It is certainly a somewhat unique occurrence for a body of medical men to interview a candidate for parliamentary election, with a view to ascertaining whether he is sound on important topics in which they are interested. "Tempora mutantur, nos et mutamur in illis." In these days, when every profession and separate interest has come to press forward its claims on the attention of Parliament, those who are too backward and modest to do so are apt to be forgotten and neglected. It may be owing to this, to some extent, that the medical profession has never received that honourable recognition and distinction from Parliament to which it is so justly entitled from the eminent services it incessantly renders the nation and from the learning and ability of its members. Hence we cannot but highly commend the action of the medical practitioners of Bradford who waited on Mr. Byron Reed, one of the candidates for Parliament in that borough, and laid before him some important questions on which they wished to know his opinions before the polling-day. The action of the deputation was all the more praiseworthy seeing that, following the high traditions of our profession, they sought rather to gain benefits for the public than merely to forward their own particular interests. It is true they uttered a protest against legislation which has recently singled them out from the rest of the population and placed them under penal obligation to render services to the public for which in some instances they receive no remuneration. Medical practitioners are not State officials. If the State

wishes to reap the fruits of medical science it must require the services rendered. The most obvious way of doing this would be by assisting the profession in the acquisition of that knowledge which the State is now coming to see is indispensable to the well-being of the public and by protecting medical men in the practice of their profession. The subjects which Dr. Hime, as the chief spokesman, referred to are of importance and the deputation deserves credit for having drawn public attention to them. A report of the meeting will be found in another column.

#### THE REPEAL OF THE CONTAGIOUS DISEASES ACTS.

THE *Admiralty and Horse Guards Gazette* of the 25th ult. contains, under the heading "Free Trade in Disease," a most able article showing the evils which have resulted from the repeal of the Contagious Diseases Acts, and especially as regards the increase of disease among the men of the army and navy, both abroad and at home. The article deals most severely, but not unjustly, with those persons of both sexes to whom the country owes the repeal of those Acts. Fortunately, the issue is now changed. When the Acts were in force it was contended that all the improvements attributed to the Acts were due to other causes. But now that they have been repealed disease is more rife than ever and is increasing in such a ratio that the attention of the authorities must soon be called to the fact. Whatever may be the political constitution of the majority of the new Parliament and whether the present Ministry will remain or a new one be formed, it will be the duty of some member in the interests of the army, navy, and civil population to call the attention of the House of Commons to the disastrous results of the repeal of the Acts and to ask for an inquiry thereinto. Whether this should be by a committee of the House of Lords or the House of Commons or by a Royal Commission need not be just now discussed. For the present it is gratifying to see that our appeal has been responded to and that a representative of the lay press has taken the matter up, and that we are not left with our medical contemporaries to fight the battle alone. We trust that other representatives of the lay press will exert their power and influence in a cause which does not merely concern soldiers and sailors, but everyone who has at heart the welfare of his fellow-creatures.

#### A GREEK MEDICAL WORK 2000 YEARS OLD.

IN the last number of the *Classical Review* Mr. F. G. Kenyon, of the British Museum, who last year edited the newly discovered papyri of Aristotle and Herondas, describes another similar manuscript recently obtained for our national collection, which contains an ancient treatise upon Medicine by a Greek author, probably of Alexandria. The work, which has apparently hitherto been lost, is of much interest, and the following *résumé* of the state and contents of the manuscript condensed from Mr. Kenyon's report will indicate its importance. The papyrus is of tolerable size, measuring twelve feet, and bears thirty-nine columns of writing, each about three inches in width. Towards the end the writing is more compressed and the concluding portion, which comparatively contains the largest amount of matter, is fortunately in exceedingly good condition, but the other parts of the papyrus are both torn and rubbed and the text frequently barely legible. As to the treatise itself, the first eighteen columns are devoted to quotations from earlier writers as to the origin of diseases and present to us so many quotations from Greek medical authors of the earliest times that if the text can be tolerably well restored it will prove most valuable. Among the writers cited are Euryphon of Chidus, Herodicus, Hippocrates, Timotheus of Meta-

pontum, Philolaus of Croton, Polybius and Menicrates, Dexippus of Cos, Petron and Phillistion, and Alcamenes. In quoting from some of these writers the author tells us he obtained their extracts from a work of Aristotle. Mr. Kenyon suggests this was not an authentic work of that philosopher, but the one cited by Galen, as bearing his name, which was really written by his disciple Menon, and thinks it probable that much of this papyrus text is derived from Menon's work. These quotations appear to cease with authors of the fourth century B.C., and then the more original part of the work is taken up. Unfortunately, just here the writing is very defective, but it can be gathered that much importance is attached to an explanation of the rival views of Herophilus and Erasistratus. The latest author quoted is Alexander Philalethes, who flourished towards the termination of the first century B.C., and the omission of all reference to Galen would seem to show that the recovered treatise was written originally before his time, though this papyrus may be a later edition. It is to be hoped that some of the medical societies may undertake to assist a competent scholar to edit this work, the funds of the British Museum being more properly applied to the acquisition than the publication of such treasures.

#### INFANT INSURANCE AND INFANTICIDE.

WE will not dispute the fact that there is an essential difference between child insurance and baby farming. The distinction, however, it is to be noted, consists in many cases mainly in a primary intention which has now become obsolete. For lack of any visible proof to the contrary we are forced to the conclusion that practical issues must explain the true purpose in either case and thus the terms are commonly found to be really interchangeable. A fresh illustration of their close relationship was afforded by a case recently decided. The defendants, a man and his wife, became possessed of an infant presumably illegitimate some four months ago and received with it a maintenance allowance of £20. The husband took out a policy for the child. Then followed a period of neglect, starvation, disease and general misery, mercifully terminated by the infant's death. To our mind, and especially in view of the history of many similar cases, there is an evident suggestiveness in the association of circumstances here noticeable.

#### THE RECENT BALLOON ACCIDENT.

THE public will hardly be satisfied with the conclusion come to at the official inquiry as to the cause of the fatal balloon accident on June 29th—namely, that no blame attached to anyone. The fact of a disaster having occurred need not, of course, imply intentional neglect, but it certainly could not have taken place under conditions of weather believed to be entirely favourable without some oversight. An examination of the evidence teaches us that as far as is known there was no fault in the original construction of the balloon or in its general management after it ascended. On a previous occasion the aeronaut, Mr. Dale, narrowly escaped a similar fall from the unexpected opening of the valve. This does not seem to have occurred on the present occasion. A part of the neck of the balloon had to be repaired before the ascent, but neither does this fact suffice to explain the accident. The only possible clue to its cause obtainable thus far is connected with the material structure of the balloon. We are told that it was not new, that it was made of cambric, that after the previous ascent it had been wetted, oiled, rolled up and put away; and that when unfolded for use on the last occasion it felt hot. In the fact just mentioned we may probably trace, if not the actual progress of chemical change, at least an assisting circumstance. Moisture and heat are allowed to act for a week upon a quan-

tivity of oiled cambric and decomposition inevitably follows. The question is whether such decomposition would so soon rot the structure as to explain the fatal occurrence. No other but an affirmative answer is, we fear, possible. The neck was not tied, and thus undue pressure by the gaseous contents upon the inflated bag was avoided. Here, however, another question suggests itself. Is it not possible that any dampness of this important part of the balloon could have impaired its efficiency as an exit for surplus gas? Whatever the answer to this query, the fact is clear that after rising some 600 feet the huge bubble burst either from excess of gas pressure or decay of its delicate envelope, or both. A further inquiry into the circumstances is clearly indicated. We would suggest that if instituted it should comprise a careful examination of the condition of the cambric used in this instance, and that it should be partly experimental. Some authoritative utterance as to the materials other than silk which are best suited for balloon construction and the methods of their management is evidently called for as a condition immediately affecting the safety of such ascents as that which has just ended so unhappily.

#### WOOLWICH AND PLUMSTEAD COMMONS.

THE military authorities who, as was stated in a recent issue of THE LANCET, had forbidden cricket and football on the whole of Woolwich Common except in one damp and irregular corner, have somewhat unexpectedly made an important concession which will add largely to the facilities the youths of the neighbourhood at present enjoy for their games. A strip of ground at the top of the common, near the Herbert Hospital, measuring nearly half a mile in length by perhaps 250 yards in breadth, is to be allowed to be used after mid-day—except on the rare occasions when it may be required for parades—on condition that the local board keeps order and sees that a few simple regulations are observed. The military authorities have also shown themselves desirous of meeting the needs of the youths who live a little further to the east by offering for games such portions of that part of Plumstead Common which is still under their control and is not actually required for the evolutions of the troops. Still further to the east a magnificent addition is just being made to the recreation grounds of the people by the opening of Bostall Wood, which will be under the control of the London County Council. In consequence of the facilities provided by the Woolwich Free Ferry all these open spaces, as well as the large tract of beautiful country round Shooter's Hill, Eltham, Chislehurst and the Crays are being more and more utilised for recreative purposes by the inhabitants of Mile End, Bromley, Bow and other parts of East London, who may be seen almost any morning now driving through Woolwich in brakes on their way to spend a "happy day" at some of the numerous rural resorts offered by the north-west corner of the "garden" county, which at the present time is at its loveliest.

#### THE ADVANTAGES OF BODILY EXERCISES.

IN the *Journal of the American Medical Association* for June 4th is an interesting paper by Dr. J. Madison Taylor on the Influence of Bodily Exercises upon Length of Life. He commences by enunciating two propositions: (1) That judicious activities of the body tend to maintain and increase its efficiency; and (2) that the hurtful effects of violent athletic competitions are popularly overrated. The first of these propositions is obvious and he therefore chiefly deals with the second. Against the growing interest in athletic matters there are constantly urged objections to the effect that many perfectly healthy young men are injured beyond repair by strains and shocks to vital organs received in the course of training or competitive sports, even among those who avow much confidence in the value of physical exercise; yet many

declare the pity of it because such havoc is wrought thereby. Instances are cited, rather vaguely it is true, of fine fellows utterly wrecked by contests on land or water, of lives cut short by overtasks at so-called sports. After pointing out how important it is for medical men to define and point out dangers and urgently insist on their avoidance in such cases, Dr. Taylor proceeds to argue that even the best and wisest of medical teachers can err in opinion and cites as an example an assertion of Dr. B. W. Richardson: "I venture to affirm there is not in England a trained professional athlete of the age of thirty-five who has been six years at his calling who is not disabled"; and the same author as saying: "When the artificial system of training ceases, the involuntary muscles, the heart especially, remain in strength out of all due proportion greater than the rest of the active moving parts of the organism." Dr. Taylor maintains that this authoritative statement has swayed the judgment of thousands of thinking men. He has had these views on the damage done to involuntary muscles quoted to him again and again. Such cases he considers are indeed possible and from such causes do they come in the laborious ranks of iron-workers and those who put forth in long days excessive and continued muscular exertion. Among professional athletes the heaviest strains must come, as upon the output of the most concentrated force alone comes to them honest reward. Dr. Taylor has collected the brief histories of a score of these men now living which he thinks at least illustrate how vigorous and sound such men may be even long after the age limit which Dr. Richardson has assigned to them. These histories are interesting and some of them very remarkable and Dr. Taylor is strongly of opinion not only that the judicious pursuit of bodily exercises, either in the line of ordinary avocations, special duties, or sports, tends greatly to maintain and enhance the vigour of both body and mind, but also that the hurtfulness of severe muscular exertion short of profound exhaustion is merely temporary and recoverable and that dangers to internal organs and vital centres are comparatively rare.

#### TREATMENT OF PHTHISIS BY CREASOTE AND GUAIACOL.

DR. F. P. KINNICUTT, in delivering the Middleton-Goldsmith Lecture for this year in New York,<sup>1</sup> chose as his subject "New Outlooks in the Prophylaxis and Treatment of Tuberculosis." He considered very carefully the various methods of treatment which had lately been introduced and gave his experience of those he had tried. One of the most interesting series of records are those cases treated by creasote and guaiacol. Dr. Kinnicutt wished to test the practicability of employing a very large daily dosage of the creasote preparations and to determine, if possible, any advantage which this method might possess over their use in smaller quantities. Several of the patients selected for this treatment presented in a well-marked degree many of the symptoms—namely, hectic sweats &c.—attributed to the toxic influence of the products of the bacillus and were therefore well adapted to test the effect of creasote upon such manifestations. A tabulated report is given of seven cases which were treated with subcutaneous injections of guaiacol, rapidly pushed to a daily dosage of one gramme, and five cases with creasote by the mouth, also rapidly increased to *six grammes* daily. In four of the former cases there was little, if any, appreciable change in the physical signs of disease. In one of them, however, the general condition greatly improved and there was a gain in weight of eight pounds; in one the weight decreased by one pound and three-quarters, in one there was a loss of four pounds, in one the weight remained stationary; in the three remaining cases there was a progressive increase of the pulmonary

<sup>1</sup> Boston Medical and Surgical Journal, May 26th, 1892.

lesions. No influence upon hectic, when present, was observed. Night sweats, however, were affected favourably. In a single case suffering from chronic nephritis (confirmed by necropsy) a marked increase in the albuminuria was observed when a daily dosage of one gramme was reached. The treatment was then discontinued and the albuminuria gradually diminished. In no other case treated either with guaiacol or creasote did any trace of albumen appear in the urine, although examinations were made every other day. In a single case, where the maximum dose of guaiacol was reached, the urine became dark in colour and very similar in appearance to urine containing carbolic-acid products. In the cases treated with creasote two exhibited no appreciable difference in the physical signs. In those there had been a gain of one pound and a loss of three pounds respectively. In the three remaining cases there was a progressive increase of the lesions. The effect of a very large daily dose of creasote upon hectic sweats corresponded to that noted in the use of guaiacol. Entire tolerance of six grammes (over one and a half drachms) of creasote was exhibited by three of the five patients. One complained of slight gastric discomfort when a daily dose of five grammes was reached. Carbonate of guaiacol was also tried. In addition to possessing the advantage of being tasteless and odourless, it seemed to have a beneficial effect on the appetite. The conclusions which Dr. Kinnicutt formed from a careful study of these cases were: That both creasote and guaiacol in certain forms could be given in very large doses with entire tolerance and without injurious effect; that such doses apparently possessed no advantages over much smaller ones and had no greater effect upon hectic and night sweats; that subcutaneous injections of the drug possessed no advantages over administration by the mouth; that whatever beneficial influence creasote might exert in pulmonary tuberculosis could be effected with a comparatively small dosage; and that favourable results could be expected only by its continuance and prolonged employment.

#### THE RESTRAINT OF JUVENILE SMOKING.

It is time that the attention of all responsible persons should be seriously directed to the prevalence and increase of tobacco smoking among boys. Here and there, as we have recently shown,<sup>1</sup> there have been observed expressions of a strong repugnance existing in the public mind against this form of juvenile perversity; but we still lack the support of a general and outspoken objection to its continuance. At the same time we feel assured that no man who has really given any thought to the matter would hesitate in condemning the injurious folly of this practice. Stunted growth, impaired digestion, palpitation and the other evidences of nerve exhaustion and irritability have again and again impressed a lesson of abstinence which has hitherto been far too little regarded. A further stage of warning has been reached in a case which lately came before the coroner for Liverpool. A lad was in the habit of smoking cigarettes and cigar ends, and after an attack of sickness died somewhat suddenly. The post-mortem examination revealed fatty changes in the heart, which there was little doubt, as the verdict held, had been fatally supplemented in their influence by the smoking habit referred to. This of course is an extreme example. It is also, however, after all, only the strongly coloured illustration of effects upon health which are daily realised in thousands of instances. Not even in manhood is the pipe or cigar invariably safe. Much less can it be so regarded when it ministers to the unbounded whims and cravings of every heedless urchin. Clearly there is need of some controlling power here. The parent in certain classes is almost as ignorant of consequences and

probably often quite as apathetic as his boy. Where he can be roused to the active exercise of his authority in repression he should be. In very many cases he cannot, and we have therefore no hesitation in asserting once more our conviction that it is incumbent upon the Legislature, in view of its known pernicious effect upon mind and body during boyhood, to restrict this habit by an age limit which will fall outside this period.

#### CARLILL v. THE CARBOLIC SMOKE-BALL COMPANY.

To those among our readers who are familiar with the ways of the quack medicine vendor the facts proved the other day by Mrs. Carlill in the action which she brought against the Carbolic Smoke-ball Company will occasion no surprise. It seems that the company, which trades in a commodity called the "carbolic smoke-ball," had offered, as an inducement to the public to patronise their shop, a guarantee of £100 that any person using their nostrum should enjoy thereafter immunity from influenza. Mrs. Carlill took the advertisers at their word, bought and used their prophylactic and thereafter suffered, like many of her unprotected neighbours, from an attack of influenza. The promise of immunity having thus been falsified the lady brought an action to enforce the alternative promise of a solatium of £100 and was met with a defence which put forward every possible ground of technical objection to the plaintiff's claim. We are glad to learn that in spite of the ingenuity of their legal advisers the defendants have been held liable to make good their promise. People who are silly enough to adopt a medicine simply because a tradesman is reckless enough to make extravagant promises and wild representations as to its efficiency may thank themselves chiefly for any disappointment that ensues. Still for this folly, which is only foolish and nothing worse, it is possible to feel sympathy when the disappointment comes. It is a pleasant alternative to learn that the dupe has been able, as in the present instance, to enforce a sharp penalty and that the process of reaping a harvest from the simplicity of one's neighbours is attended with dangers of miscarriage which must materially diminish its attractiveness in the eyes of those people who supply the popular demand for quack medicines.

#### CHOLERA IN KASHMIR.

CHOLERA, which existed in several parts of the Punjab during April, was imported into Kashmir along 200 miles of hill road by the men engaged to transport grain to Gilgit, on the frontier. It began in the city of Srinagar in the beginning of May and increased with such rapidity that within fourteen days the deaths per diem from cholera rose from 5 to 50 and then to 150; during the next fortnight the mortality steadily increased till the daily average was 270, even mounting to 300. At the date of our last advices it was slowly decreasing. About 350 new cases were being daily reported, with 140 to 150 deaths. Nearly every part of the city has thus been literally decimated. Within a month 4500 deaths have been registered. The disease is now spreading into the villages, but in a less virulent form. Several European visitors have been attacked and 6 have died. The State Medical Department has exerted itself to the utmost under Dr. A. Mitra in dealing with the cases. Dr. Thomas of the Mission Hospital is dangerously ill at present. He had been much overworked in the house-to-house visitation of the sick. There was a severe epidemic in 1888, when 10,000 patients died. So long as Srinagar remains perhaps the dirtiest city in the world such outbreaks are to be expected. The lesson to be learnt is that sanitation is less costly than epidemics. It is to be hoped that the British officials who are the responsible advisers of the Maharajah will take this lesson to heart. The

<sup>1</sup> THE LANCET, May 14th.

Government of India is responsible for the very expensive frontier policy of Kashmir. But for this large sum of money now spent on the army would be available for works of public utility, such as roads, drainage and a pure water-supply, all of which are now conspicuous by their absence. Surgeon-Colonel Harvey has gone to Kashmir to investigate the question of sanitary reform. It is to be hoped that the Indian Government will see to the resolute carrying out of his suggestions.

#### BROMIDE OF ETHYL AS AN ANÆSTHETIC.

BROMIDE of ethyl has been somewhat extensively employed in Vienna for anæsthetic purposes. In Professor Billroth's clinic it was used 300 times without mishap. Death, however, subsequently occurred in the case of an out-patient who was about to have a very large boil on the arm incised. While anæsthesia was being induced in the usual way the man suddenly became cyanotic and the respiration and cardiac movements ceased. Artificial respiration was persevered with for an hour and a half, but was of no avail. At the post-mortem examination there were found adhesions in both lungs; the heart was fatty and easily torn. The microscope showed that there was fatty and parenchymatous degeneration of the liver and kidneys as well as of the heart. There was no hyperæmic condition of the brain as in death under chloroform. It would seem, therefore, that whatever anæsthetic had been employed the patient might have died; so that no serious degree of blame can be attached to the bromide of ethyl.

#### MR. WATTS' GIFT TO THE NATION.

MEMBERS of our profession will be interested in learning that Mr. Watts, the eminent painter who intends to present to the nation a collection of his works, is now engaged on the picture which is to complete that collection. A short time ago he required medical advice and a well-known consultant was called to see him. The latter diagnosed his patient's case, prescribed for his relief and after some conversation was about to leave the room. Mr. Watts leant forward in his bed and said to the consultant, "Stay a moment—I should like a word with you. I have almost completed the collection of pictures which, as you are aware, I am about to present to the nation. There is but one picture wanting to complete the collection. I have had that picture in my mind for a long time, but I have not had the opportunity of seeing the subject of it until to-day. I want to paint you and when I have done so the collection for the nation will be complete." The gentleman addressed expressed his appreciation of the honour and we have no doubt that the profession generally will concur in this appreciation, seeing that the consultant in question is so representative a member of the body medical as the President of the Royal College of Physicians—Sir Andrew Clark.

#### THE WATER-SUPPLY OF CROMER.

THE Cromer Waterworks Company, in view of the growing popularity of the town, have been engaged during the past two years in sinking a second well capable of giving a supply considerably in excess of that hitherto available. These wells are situated more than half a mile away from the town. Owing to the sandy character of the upper strata great difficulty was experienced in sinking the new well, which varies from 8 ft. to 5 ft. in diameter, and has been carried to a depth of 183 ft. from the surface. The chalk was reached at a depth of 138 ft. below the surface, and, with the object of ensuring the purity of the supply by excluding all percolations from the strata above, the well has been lined to a depth of 151 ft. with brickwork and iron cylinders. The new borehole, which is 20 in. in diameter, extends from the bottom of the well for a further depth of 40 ft. Two head-

ings, each 6 ft. by 4 ft., have been driven a distance of 100 ft., one serving as a connecting link between the new well and the old borehole by means of which the town has hitherto been supplied. The permanent water-level in the new well and the old borehole is 110 ft. from the surface and, as already stated, all the water flows directly from the chalk. The well, with the headings, possesses a storage capacity of about 25,000 gallons and the total yield when the works are in full operation will be at least 200,000 gallons a day, a supply that will suffice for the requirement of the town for many years to come, even at the present rate of progress. A new set of pumps and engine has been erected, which is designed to lift 12,000 gallons per hour, and the entire system is now in duplicate, so that in the event of a breakdown—an eventuality by no means likely to happen—a failure in the supply will, practically speaking, be an absolute impossibility. The water has recently been examined by Professor Frankland, F.R.S., and he reports on samples taken from each well as follows: "The two samples are of most excellent quality for dietetic purposes. They are absolutely free from all evidence of previous sewage or animal contamination, whilst for chalk water they are of very moderate hardness. Cromer may be congratulated on being supplied with one of the best waters in Great Britain." The works have been carried out under the direction of Mr. J. C. Melliss, M. Inst. C.E., of London, and by Messrs: Thomas Tilley and Sons of Walbrook, London. The pumps and machinery have been supplied by Messrs. Robert Warner and Sons of Walton-on-the-Naze, while the buildings at the surface have been erected by Mr. John Newman of Cromer.

#### FORCIBLE REMOVAL TO INFECTIOUS HOSPITALS.

THE case which recently occurred at Fulham and in which a patient was ordered by the magistrate to be removed to the fever hospital on the certificate of Mr. Cooney and against the opinions of Dr. Cayley, Dr. Phillips and others, is likely to be an important one in the history of sanitary legislation. Lord Sandhurst speaks on this subject with much authority, being chairman of the Middlesex Hospital and having been chairman of the Select Committee on Metropolitan Hospitals. Lord Sandhurst has called attention to the facts in the House of Lords, as reported at length in last week's issue of THE LANCET, and in the course of his remarks said that the board of the charity (the Middlesex Hospital) had promptly taken the case into consideration and passed a vote of confidence in Dr. Cayley. His lordship also quoted Sir Andrew Clark as to Dr. Cayley's standing in the College of Physicians and his high authority on such a question as the diagnosis of fevers. Lord de Ramsey, replying on behalf of the Government, said the case was one calling for the supreme control of the Home Office, by which it is understood an inquiry will be made into all the facts of the case. At Fulham a crowded public meeting has been held to express sympathy with the mother of the patient. Resolutions were passed tendering thanks to Dr. Cayley and Dr. Phillips and requesting the Local Government Board to cause a public inquiry to be made into the case, also asking whether the magistrate's interpretation of the Public Health Act does not place far too much power in the hands of medical officers and medical men in general, and whether there is not urgent necessity for an amendment of the law as regards the notification of infectious diseases. The fine of £10 and costs was remitted by the Home Secretary after Lord Sandhurst had made him acquainted with the facts of the case. Though the facts of this case raise questions rather as to the judgment with which the law has been administered than as to the law itself, yet it is well worthy of consideration whether some greater security for sound diagnosis in doubtful cases must not be provided than the certificate of any one practitioner would imply. Indi-

vidual and domestic liberty are sacred things. But the public safety is still more so. The important thing in every serious invasion of private and domestic liberty is to eliminate as far as possible the element of fallibility and to give the poor, who are mostly affected, the same security as the rich. It is only by these means that popular respect for such legislation can be maintained.

#### THE ORGANISATION OF SCIENCE.

WE have received a disclaimer from "A Free Lance" with regard to our criticism of his "Organisation of Science."<sup>1</sup> He is willing that the Linnean Society, whose carnivorous tendency, though contrary to the law of specialism, he appeared to sanction, should deliver up its fauna to its junior, the Zoological Society. His only wish is to further by special concentration of energy the fullest consideration of scientific problems. He also repudiates all intention of limiting by centralisation the vigour of intellectual enterprise. Nothing, therefore, could be more admirable than his purpose. While we gladly admit this however, we must express the opinion that it is one of the most objectionable, as well as most marked and essential, features of specialism, notwithstanding the nice accuracy of its accomplishments, that it tends to a progressive narrowing of the scope of the intellect and a restraint of its free energy, which has often proved fully adequate to the work of investigation in diverse lines of study. Neither would we forget that the very plan of natural subdivision seems to repudiate anything like pure specialism, since every individual department merges within the dim confines of some other.

#### THE DEATH OF THE PREMIER OF BRITISH COLUMBIA.

IN reference to the inquest held on the body of Mr. John Robson, Premier of British Columbia, on the 4th inst., the following particulars of the illness have been furnished at our request by Dr. George Ogilvie. Mr. Robson was sixty-eight years of age and had been suffering from overwork for some time. He came to London on business on June 20th and on that day, when riding in a hansom cab, the tip of the little finger of the right hand was crushed in the hinge of the door. The injured finger was at once dressed at Westminster Hospital and Mr. Robson was able afterwards to keep his appointment at the Treasury Office. The dressing was changed next day at the hospital. He did not again visit the hospital and did not obtain any further advice till he was seen by Dr. Ogilvie on the night of June 26th—i.e., six days after the accident. There had been a rigor on June 23rd, which Mr. Robson attributed to ague, and he did not attach much importance to it, although he felt ill. The following days he suffered from slight nausea and malaise. When first seen by Dr. Ogilvie he had the aspect of a patient suffering from a continued fever. The skin was moist, the complexion sallow, the tongue was glazed and the lips parched. The pulse was weak and irregular; respiration 28, temperature 102°. The physical examination of the thorax and abdomen disclosed nothing which could account for the symptoms. The dressing, which had a faint odour of iodoform, was removed from the finger. The finger nail was loose, the skin covering the tip of the finger was of a dirty-grey colour, and there had been fracture of the tip of the terminal phalanx. An opiate was administered and the patient passed a fair night. Next day the temperature rose to 104°, and Mr. Watson Cheyne was called in consultation. The finger was amputated the same evening. The temperature fell two degrees after the operation, but next day again rose to 104°. The pulse became rapid and intermittent, the respiration was shallow and more frequent,

the breath had a peculiar sweet odour, and the tongue became dry and furred. Later on the temperature fell to 100° and, coma gradually supervening, the patient died on the evening of June 29th—namely nine days after the accident. No post-mortem examination was ordered by the coroner and the family did not desire one to be made.

#### DEATH OF PROFESSOR BIERMER.

THE death is announced of Professor Anton Biermer, who until quite recently was Director of the Medical Clinic in Breslau. He had occupied himself with microscopic investigations, especially of the sputum, and he published papers on the metallic sound in auscultation of the lungs. Previously to his going to Breslau as successor to Lebert he had been Professor of Medicine in Berne.

#### DONATION BOXES IN OUT-PATIENT ROOMS.

WE should be glad to hear from many quarters as to the voluntary contributions of out-patients. At the anniversary court of the governors of the East Suffolk and Ipswich Hospital it transpired that the donation boxes in the out-patient rooms had been very ill supported, only 1s. 7d. being given by 4278 patients. There was a falling off, too, in the Sunday collections.

#### CHRONIC NITRO-BENZOL POISONING.

DR. WARFINGE of Stockholm has reported some cases of chronic poisoning by nitro-benzol occurring amongst workmen employed in a factory where this substance is used and where the workshops are small and badly ventilated. In one case which was treated at the Sabbatsberg Hospital there was severe headache during the first week, followed by lassitude and general debility with fatigue after walking. After some time retching and vomiting with great loss of appetite came on and the bowels became confined, the stools having a reddish-brown appearance. The urine, too, was reddish brown and of a syrupy consistence. There was depression and restlessness at night and subsequently a feeling of formication in the fingers and toes, which rapidly spread to the hands and legs. A blowing sensation was complained of in the feet, which appeared to affect the whole of the body. The headache became more severe and was accompanied by giddiness and impairment of vision with tinnitus in the ears. After this there were tremor in the upper extremities and impaired sensation in the upper and lower limbs with, for two days, impairment of the power of speech. The patient, after three months in the hospital, recovered sufficiently to enable him to resume his work in the factory, but after having been there for four months he was obliged to apply for readmission to the hospital, with somewhat similar symptoms to those existing previously. He presented much the appearance of a person with locomotor ataxy, but, after a month's treatment, recovered.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Berlin.*—An Extraordinary Professorship in the Philosophical Faculty has been conferred on Dr. Assmann, an eminent meteorologist, who was at one time a medical practitioner.

*Buda-Pesth.*—For the vacancy in the surgical chair caused by the death of Dr. Lumniczky the Professorial Senate have proposed the following names: *Primo loco*, Professor Dolinger and Professor Réczey; *secundo loco*, Professor Navratil; *tertio loco*, Dr. Hugo Schmidt of Pressburg.

*Greifswald.*—Dr. Stöwer has been recognised as *privat-docent* in Ophthalmology.

*Heidelberg.*—Dr. Fleiner, assistant in the Medical Clinic, has received an offer of a Professorship at Innsbrück.

*Prague (Bohemian University).*—An Ear and Throat Clinic

<sup>1</sup> THE LANCET, June 18th.

has been established of which Professor Emilian Kaufmann has been asked to take charge.

*Würzburg.*—Dr. Rudolf Arnim Fick has been recognised as *privat-docent* in Anatomy.

At the tercentenary celebration of the Dublin University on Wednesday last the honorary degree of Doctor of Medicine was conferred upon John Shaw Billings, Washington; Thomas Bryant, President R.C.S.; Sir Andrew Clark, President R.C.P.; Adolf Gusserow, Berlin; Jonathan Hutchinson, London; and Thomas Grainger Stewart, Edinburgh. The degree of Doctor of Sciences was conferred on J. Burdon Sanderson, Oxford; Michael Foster, Cambridge; Sir George Murray Humphry, Cambridge; Julius Kollmann, Basel; Alexander Macalister, Cambridge; Professor Richet, Paris; Sir William Turner, Edinburgh; Wilhelm Waldeyer, Berlin; and others.

The Italian Society of Laryngology, Otology and Rhinology will meet for the first time in Rome towards the end of October next. Among the agenda the following may be noted:—1. Report by Professor F. Massai of Naples on the Phases, Nature and Therapeutics of Laryngeal "Papillomi." 2. The Diagnostic Value of the Perception of Sounds "per la Via Craniense ed Aerea" (cranial and respiratory) in Maladies of the Ear. Reported by Dr. Corrado Corradi of Verona. 3. Diagnosis and Treatment of Affections of the Sinuses annexed to the Nasal Cavities. Dr. Giuseppe Strazza of Genoa, reporter.

The Khedive of Egypt has conferred upon His Excellency Crookshank Pasha, F.R.C.S. Edin., the Second Class of the Imperial Order of the Medjidieh in recognition of the valuable services rendered by him as Director-General of Prisons. The brevet and insignia of the 1st order were presented to Crookshank Pasha on the 21st ult. by His Excellency Ahmet Choucry Pasha, Under Secretary of State, and, at present, Acting Minister for the Interior, together with a letter from His Highness the Khedive.

A COMMITTEE MEETING in support of the "Sir George Buchanan Presentation Fund" was held on Thursday, July 7th, at 5.15 P.M., at 13, Old Burlington-street. Subscribers are reminded of the desirability of their sending in their subscriptions as soon as possible, in order that the committee may know at an early date the amount of the fund which will be at their disposal. Dr. W. H. Hamer and Dr. J. C. Thresh are the honorary secretaries.

The medical profession all over the world will learn with profound regret that Professor R. Koch of Berlin, whose researches have so greatly advanced our knowledge of disease, has of late been incapacitated from work and that there is grave reason to fear that the condition of his health is such as to preclude the resumption of his duties for some time at least.

The Rose Show and Floral Fête which was held at the Mansion House on June 24th and opened by the Princess Christian, accompanied by her daughter, Princess Victoria, was organised by the Lady Mayoress for the benefit of the Royal Hospital for Women and Children in Waterloo-bridge-road. After all expenses were paid the Lady Mayoress was able to present to the hospital the sum of £1050.

The summer dinner of the Irish Medical Schools and Graduates' Association took place on the 4th inst. at Kings-town, Dublin, Dr. Mapother presiding and fifty-one members and guests being present.

The University of Siena, by eighteen votes of its Senatus Academicus out of twenty-one, has just elected Professor Domenico Barduzzi as its rector. Dr. Barduzzi is one of the most distinguished among its clinical staff and takes an effective part in promoting the balneological resources of Italy.

The chair of General Clinical Medicine in the Istituto di Studi Superiori at Florence, left vacant by the death of Professor Federici, has by the unanimous vote of the medico-chirurgical faculty of the Institute, been offered to Professor Grocco of Pisa, a clinical teacher and consultant of high reputation in the latter seat of learning.

LORD REAY presided on Monday at a special meeting of the Royal Commission to consider the granting of a charter to the Gresham University for the purpose of hearing the opinions of M. Couvreur, a Belgian professor, who explained the methods of University education in that country.

MR. GEORGE JOHNSON, M.D., Physician Extraordinary to the Queen, and Mr. Frederic Bateman, M.D., Senior Physician to the Norfolk and Norwich Hospital, were introduced to the Queen's presence on July 5th and received the honour of knighthood.

The annual competition for the Volunteer Medical Association Ambulance Challenge Shield will take place at Wellington Barracks on Saturday, the 16th inst., at 5 o'clock. Those interested in the competition are invited to attend.

At the request of a number of his former students, Professor Grainger Stewart of Edinburgh has consented to sit for his portrait, which is to be painted by Sir George Reid, P.R.S.A.

## CHOLERA NOSTRAS AND THE PARIS WATER-SUPPLY.

(FROM OUR SPECIAL CORRESPONDENT.)

THOUGH prominent Government officials may consider it their duty to maintain that everything is for the best in the best of all possible worlds there is no denying that the epidemic in the suburbs of Paris is a matter of grave anxiety. We are asked to believe that there is no cholera; but to the numerous persons who have died after an illness of only a few hours it matters little whether the cause of their deaths was cholera nostras or Asiatic cholera. We are told, on the best authority, that already some hundred and fifty persons have died. To them, at least, the consequences were equally sudden and disastrous. The dejections of the patients have been examined; an official report was to be published as to the result. This report has not yet appeared. Why has it been held back? Because, we are told, the investigation is delicate and difficult. But some ten days ago I ascertained from private sources that the bacillus of cholera had been found in these dejections; only I was further informed that such germs were always found in cases of cholera nostras. To distinguish them from the true Asiatic cholera germ it was necessary to cultivate the germ and produce successive generations. This has been done, and as nothing is published on the subject it may be concluded that probably the result is not encouraging. Indeed, rumours are already circulating that new theories will soon be afloat as to the etiology of cholera which may tend to show that there is not so much difference as is generally supposed between cholera nostras and true cholera.

The epidemic commenced last April at the prison and asylum of Nanterre, which was originally built to hold 2000 inmates. In practice it has become not merely a prison but a sort of asylum for vagabonds and has contained sometimes as many as 5000 persons; consequently there have been all the evils of

overcrowding. Precautions were taken to supply the inmates with pure water. A very deep well was dug into the chalk and was surrounded with steel tubing, so that no surface water could reach and contaminate the well. Some Seine water, however, is also provided at the prison where it is used for working hydraulic lifts. By some mistake or mismanagement the Seine water, instead of the well water, had been distributed for drinking purposes. The epidemic among the prisoners thereupon broke out, with the result, according to M. Monod, who is the Director of the Public Hygiene Department of the Ministry of the Interior, that some fifty cases of a suspicious description ensued causing forty deaths. From the prison the epidemic spread to the neighbouring suburbs, and soon there were twenty-five deaths to deplore among inhabitants living near the Nanterre prison. The well water provided at the prison contained only 0.0015 gr. of organic matter and the Seine water 0.0018 gr., but Dr. Miquel found in the latter 37,000 bacteria to the cubic centimetre.

The epidemic has spread much further afield, but it still seems connected with the drinking of Seine water. Thus at Argenteuil seventeen cases occurred at the commencement of June, when the water of the Seine was substituted for the water of the Oise. The Consultative Committee of Hygiene of France has passed a resolution demanding that the water companies should not be allowed to deliver Seine water to their subscribers without giving them due warning. This is actually done, but perhaps not efficaciously. The position of the Paris water-supply is as follows. In ordinary times 135,000 cubic metres of water are consumed in the day; but when the temperature rises to about 70° F. there is an increased consumption of water equal to about 30,000 to 40,000 cubic metres more. The water works are then obliged to make up the difference by giving Seine water. Nor is it practical to purify efficaciously so great a volume of water. No sterilising apparatus could deal with such a quantity. Moreover, it is not possible to ration the supply, for while the supply was stopped the pipes would get filled with air, and this is attended with many inconveniences and dangers; and, on the other hand, there would be no water to flush the closets. The best hope of the Parisians rests on the fact that 87 kilometres out of the 102 kilometres of the aqueduct, which will bring the water of the Vigne to Paris, are now constructed. Perhaps this additional supply of pure water will be available next summer; in the meanwhile, the inhabitants are asked to carefully boil their water and to wait patiently. As a temporary measure it has been decided to apply the Pasteur filter to the Wallace drinking fountains, so that prudent persons may go to these fountains and fetch their supply of drinking water. But the number of prudent and thoughtful persons is very limited, so the epidemic continues. Also the waters of the Vigne will only reinforce the Paris supply; the suburbs, where the epidemic most generally prevails, will continue to drink the Seine water. M. Sellier, for instance, who is mayor of Colombes, writes to complain that the treaty with the water company supplying his district is binding for another thirty-five years. There is no clause in the treaty giving the concession for the water-supply which enforces the filtration of the water. These treaties are already some twenty-five years old, and twenty-five years ago the dangers of an impure water-supply were not understood as they are in these modern days of bacteriological science. The districts of Bois-de-Colombes, of Asnières, Courbevoie, Puteaux, Nanterre, Suresnes, Gennevilliers are all in the same predicament. What will be done under these circumstances no one can yet foresee. The companies are legally entitled to supply water which is said to be dangerous to drink for another thirty-five years.

Since writing the above I have been informed on the best authority that the publication of the official report on the epidemic has been suppressed by order of the Prefect of the Seine. This report was drawn up by Dr. Proust, who was one of the representatives of the French Government at the Venice Sanitary Conference. The Consultative Council of Hygiene met at the Ministry of the Interior and heard and adopted this report. It was printed, Dr. Proust corrected the proofs, and it was about to appear in the columns of the *Official Journal* when M. Pourbelle, the Prefect of the Seine, interfered and prevented its publication. He feared that the report would create a disastrous panic. What his arguments may have been can be gathered from the incident which occurred a few days ago at a meeting of the County Council (*Conseil Général*) of the Department of the Seine. M. Vaillant attempted to speak about the epidemic, but was

most violently interrupted by the councillors who represented some of the districts affected. Finally, M. Pourbelle rose and exclaimed that he could not understand the fanaticism of sanitary reformers which led them to make speeches that would tend to reduce the value of house rent in the suburbs of Paris. Then, to counteract the influence of the few words that M. Vaillant had been able to utter, the Prefect of the Seine declared that there was only one commune contaminated. Many leading sanitary reformers are indignant at the attitude adopted by the Prefect of the Seine. It is a good illustration of the difficulties in the way of sanitary reformers. Besides, anyone who has studied the death-rate knows full well that it is not in only one commune, but in twenty-four communes or districts, that cases of a suspicious and dangerous character have occurred. Many of these communes are agreeable semi-rural districts outside Paris, where Parisians who cannot altogether absent themselves from town take lodgings during the summer months. If M. Pourbelle had his own way people would be allowed to leave Paris, where, as a rule, pure spring water is obtainable, so as to dwell in suburban districts where nothing but Seine water is available, and this just at a moment when it seems very evident the Seine water is more contaminated than usual. Paris is wealthy enough and has sufficient resources within itself to bear the loss of a few visitors who might be scared away by the publication of Dr. Proust's report; while its leading position as the first town in France imposes upon it the duty of setting a good example. The evil should be met openly, face to face; everyone should know the truth and then it should be possible to take the proper precautions. Secrecy would be bad policy were it possible, but in Paris it is impossible. The Prefect of the Seine cannot, for instance, prevent the papers relating that Madame Vitté, the wife of a porter of a manure factory in the Rue de la Haie Coq died suddenly on July 3rd after only a few hours' illness; that on the same day, and also at Aubervilliers, Alfred Duval died suddenly and that there were other cases of a suspicious description at the Quatre Chemins; that at Courneuve Madame Chevalier and M. Boulogne, both living in the Rue d'Aubervilliers, died in the same manner; that at St. Denis, at the Avenue de la Plaine, there were other cases within the last day or two. Finally, yesterday, within Paris itself, in the Rue Oberkampf, a case is recorded. A special meeting of the municipal council of Clichy has been held to deal with the question. There is no disguising the existence of the epidemic, the great extent of the area it covers and the suddenness of the deaths it occasions. By suppressing the report of the Consultative Council of Hygiene more mischief and a greater panic will result than could ever have ensued from its publication. There is no attempt made in London to conceal the gravity of the present scarlet fever epidemic; and Paris shows itself behind the ago in resorting to the feeble stratagem of secrecy. I do not believe that any prominent French medical man or sanitary reformer approves of this ostrich-like policy.

Paris, July 6th.

## SOCIETY FOR THE STUDY OF INEBRIETY.

### "Cures" for Inebriety.

THE quarterly meeting of the Society for the Study of Inebriety was held on Tuesday afternoon at the rooms of the British Medical Society, 11, Chandos-street, Cavendish-square, W. Dr. Norman Kerr presided.

THE PRESIDENT said that hitherto temperance reformers in this country had usually worked by straightforward and intelligent methods and had exercised that most valuable quality in reformers and everybody else—patience; and, as the magnificent results of the great temperance movement showed, a very large number of drunkards had been rescued, reformed or cured. But human nature was very impatient, and in these latter days there had arisen a feeling amongst a great many people that the evil of intemperance was growing so rapidly and extending so widely, and that the consequences in the present day and to posterity were so tremendous, that they must find some short cut to temperance, some miraculous method of speedily reaching the goal which neither they nor anybody else understood. Mesmerism and hypnotism were straightforward and open remedies for drunkenness and if applied in the presence of medical men and witnesses they could not be called secret remedies. He wished, however,

specially to refer—as circumstances had arisen to render this very necessary—to a so-called secret “cure” which was named the “double chloride of gold cure” to which allusion had already been made in THE LANCET and other medical journals, and to advocate the merits of which a meeting was convened to be held under the auspices of the Church of England Temperance Society, presided over by Bishop Barry; but, owing to his (Dr. Kerr’s) representations to the Bishop of London and Bishop Barry, that meeting had been adjourned *sine die*. The real but unavowed object of that meeting was to float a syndicate to raise £150,000 in this country in order to purchase the right of using this so-called “cure” in England; £110,000 of this—according to the circular he had sent—was to be given in cash and £40,000 in shares to the vendors. There was to be a commercial company for pushing the golden remedy similar to other companies with which they were familiar. They were told in a pamphlet that “without any effort on the patient’s part” a cure would be effected by the use of this wonderful and infallible remedy as “certainly as night followed day.” Already the decoction had apparently proved, if not a golden remedy, at least a veritable gold mine, for the bottles which contained it (one of which the chairman produced) were sold in pairs and each pair cost 9dols., or 36s. There were twenty-six branches in America for the sale of this “cure.” If the remedy were really a remedy for the victims of intemperance, surely it would have the support of the leading temperance reformers in America; but this, Dr. Kerr showed, was not the case. One writer in the *North American Review*, who had lauded this so-called cure, which he had tried, died in New York, a few months after the appearance of his article, the death of a pauper drunkard. The fact was that this falsely called “remedy” was very dangerous, and was compounded of a number of poisonous intoxicants. They would hear from Dr. Usher of Melbourne, who had been to Dwight, Illinois—the centre of the manufacture of the “cure”—what he thought of it and its effects. Dr. Usher, the chairman incidentally mentioned, was about to publish a new book on “Alcohol and its Treatment.” A distinguished analyst, a member of a great medical corporation in England—whose name the chairman was not at liberty to mention—had made a careful analysis of the so-called “bichloride gold cure.” The dictum of this gentleman on a subject of this kind would, were he (Dr. Kerr) at liberty to name him, be received by all competent authorities without any hesitation whatever. Well, he (the analyst) found neither gold nor chlorides, but what he did find present was: water, 61·31 per cent.; sugar, 6 per cent.; a small quantity of mineral salts, principally lime, probably from herbs; and 27·55 per cent. of pure alcohol as intoxicating as port or sherry and more intoxicating than champagne and claret. And yet old teetotalers, unconscious of the composition of the “gold cure,” had been actually recommending a so-called “remedy” more intoxicating than champagne or claret. Not only was this compound preparation condemned by the whole medical press of America and Britain, but by the whole reputable and respectable medical profession of the United States. Having spent many years in America he could bear this testimony to the fact that although there was not there as here a system of registration, yet there were as honourable members of the medical profession in America as in Britain. The testimony of Dr. C. H. MERR in an American journal as to the “results” of Dr. Keeley’s treatment showed that Colonel Mines a few weeks after his “cure” died of alcoholism; Senator Fair’s son died of heart disease directly attributed to the treatment; Walter R. Earle died a raving maniac a week after his dismissal; Henry Anstey died during treatment; Dr. Miller of Illinois, Luther Benson and Charles Vaughan became insane; ex-Congressman Hopkins also went mad and died soon after treatment. This so-called “remedy” was opposed to the whole true principle of enduring temperance reformation. The first thing to do with the drunkard was to cut off the poison, to stop the supply at once. Teetotalism was essential to the effectual cure of the drunkard. What, after all, was inebriety? It was a complex disease and needed moral, mental and physical treatment. An inebriate to be cured must himself have a desire to be cured, and must exercise a certain amount of will power when the narcotic action of the drugs had been swept away from the brain by the exclusion and prohibition of alcohol, then the little will power left would reassert itself.

Dr. J. E. USHER of Melbourne, Australia, then described a visit he had made to Dr. Keeley’s sanatorium at Dwight. He

was, he said, the first British physician who had visited Dr. Keeley’s place. Three leading physicians from Boston, New York and Philadelphia respectively—representing different societies—had preceded him, remained half a day or a few hours and then returned home. Six weeks later all their friends received circulars intimating that these gentlemen had been remarkable successes in the cure way. Although he had visited the place with credentials from the Government, the Cabinet and lay press of Australia, he had been traduced since he left Dwight. Dr. Keeley (who seemed very uneasy while he conversed with him) told him he had used the “remedy” twelve years and it was very successful. He asked him what was the *rationale* of his treatment; what prescriptions he used. Dr. Keeley replied: “We will not go into that. I know it is all right. If you want to know anything about it, the secretary or chemist will tell you.” The “chemist” turned out to be a sort of page-boy to Dr. Keeley. He (Dr. Usher) was introduced to Dr. Blaine, the “chief of the staff.” The staff consisted of unsuccessful practitioners, who were paid from 3000 dols. to 7000 dols. a year, and they did all the work. Dr. Blaine took him where three rows of men were being injected in the left arm with five drops out of a little porcelain bowl containing a pinkish material—atropine really. Four of the patients wore glasses, and they told him that they could not see three or four days after the treatment, and became blind weeks together. Seventy per cent. of the patients had glasses. They suffered too from giddiness. One patient had been at the institution nine weeks, he said, and was afraid to leave because three of his “pals” who had left ten days before got drunk and had to come back. Another patient remained because he said if he stayed there two or three months an aunt had promised him an annuity, and he “wanted to see the time out.” There was a “Bichloride of Gold Club” in which there were “graduates” and “undergraduates,” so called. They did not appear to be healthy; some of them seemed to be under the influence of an opium drug—atropine. About £40,000 a year was spent in advertising or in subsidising people to advertise the concern, which was now engineered by some of the “smartest” men in America. The thing was most lucrative. Two bottles of the preparation cost 36s. Every man who went to Dwight had to pay 25 dols. down and from 5 dols. to 25 dols. a week; and all this money flowed into the coffers of the company.

The PRESIDENT said he had invited Dr. Keeley to attend that meeting, but he replied that he had that evening to deliver a lecture at St. James’s Hall on “Drunkenness and its Cure,” adding that he would be happy should any members of that Society desire to hear his address to forward tickets.

Dr. MORTON (Kilburn) moved: “That this meeting of the Society for the Study of Inebriety (of which the members are registered British medical practitioners) is of opinion that any so-called ‘cures’ for inebriety the composition of which is not disclosed are unfit to be commended by honourable members of the medical profession, who are bound to place the full details of their treatment before their professional colleagues, a requirement as essential in the interest of the public as it is consonant with the disinterested practice of scientific therapeutics.”

Mr. J. SMITH, late superintendent of the Dalrymple Home, seconded the motion, which was carried unanimously.

Surgeon-Major PRINGLE moved, and Mr. Jabez Hogg seconded: “That this meeting, having been informed by a competent London analyst, who has made a special analysis, that the alleged ‘bichloride of gold cure’ shows no trace of gold or of chlorides and contains 27·55 per cent. of alcohol, condemns unreservedly the prescription of such an intoxicating preparation to an inebriate.”

This too was carried unanimously.

Dr. F. R. LEES moved a vote of thanks to Dr. KERR and thanked that gentleman for the prompt and effectual part he had taken in the exposure of this so-called “cure” of inebriety.

Mr. J. HILTON (United Kingdom Alliance) seconded the motion, which was carried *nem. con.*, and the meeting then terminated.

THE baths of University College Hospital are open between the hours of 2 and 5 p.m. and of 6 and 8 p.m. to patients under the advice of their medical practitioners. Wednesdays will be set apart for female and Thursdays for male patients.

## DUBLIN UNIVERSITY TRICENTENARY.

THE week has been a gala one in Dublin and garden parties, concerts, balls and receptions have filled up every available period. The first stone of the historic edifice of Trinity College was laid in 1591, in Queen Elizabeth's reign. Early in 1593 the institution was opened for the reception of students and the first conferring of degrees took place in 1600. The mayor and citizens granted the site of the Abbey of Allhallows and twenty-eight acres of derelict land, which latter now brings in an annual income of several thousand pounds. Her Majesty Queen Elizabeth gave some Crown rents and a yearly grant of £400 from the Concordatum Fund, which latter ceased in the present century, and the former is worth about £5 yearly. Lord Burleigh was appointed first Chancellor and Archbishop Adam Loftus the first Provost.

The proceedings of the tricentenary celebration commenced on Tuesday, the 5th inst., at the Examination Hall by a reception by the Provost, who welcomed the various guests and delegates. At 11 A.M. a procession was formed in front of the library and museum buildings. A military band led, followed by the students in gowns and caps, then the guests and delegates, including representatives of universities in their robes and of scientific societies. Next the foreign guests and delegates, followed by representatives from Cambridge and Oxford Universities; then three members of the Dublin Corporation, graduates and honorary graduates of the University, professors, junior and senior Fellows, another band terminating the procession. As the guests and delegates passed out of the College gates they were presented with buttonhole bouquets by young girls dressed in fancy costume. The procession passed through various streets, walking four abreast until they reached St. Patrick's Cathedral, where a commemoration service was to be held. A procession of the kind was never seen before in Dublin and attracted immense crowds. The bright colours of the graduates' gowns and the quaint costume of the foreign guests with robes of yellow, orange, fawn, crimson and other shades presented an imposing appearance, and the headgear of some of the guests was of the strangest character. Some of the continental guests were in full evening dress with crosses and orders but without robes, while others wore gowns over military uniforms. One stalwart German, a Heidelberg student, walking with drawn sword, created considerable interest, and many surmises were expressed as to what he represented. Some thought that because he wore high boots and a velvet cap with an immense ostrich feather he belonged to the Order of Foresters. An old gentleman in an immense ruff reminded us of the mediæval period. When the procession had reached the Cathedral and had taken their places the scene was magnificent and unique. The State pew was occupied by the Lord Lieutenant, who wore the collar and star of the Order of St. Patrick. There were eight bishops present, the Archbishop of Dublin and the Lord Primate. The choir moved in procession up the centre aisle to the chancel singing the hymn "All People that on Earth do Dwelt," and the choir and clergy being seated the hymn "O God our Help in Ages Past" was sung. The Archbishop of Dublin read the lesson and the Dean of St. Patrick's preached, the anthem being Blow's "I Beheld and Lo."

At three o'clock the cricket match, Dublin University v. Cambridge University, attracted a good many to the College Park, where a three days' match was being held; and at four o'clock there was a garden party in the Fellows' Garden, Trinity College, where about 2000 people enjoyed themselves for upwards of two hours, among the notabilities being his Excellency the Lord-Lieutenant, Viscount Wolsley, Lord Rosse, Chancellor of the University, Earl Dufferin, Chancellor of the Royal University, &c. To inaugurate the occasion a mulberry tree was planted by Miss Salmon, the Provost's daughter, a sapphic ode by Professor Tyrrell being sung of which the following is a translation:—

"Thee did a kindly hand long stilled in death  
Plant here to reach an old age green and hale,  
Years full three hundred now have passed, but thou  
Survivest all their tale.

"To thwart Death's envy of thy long-lived race  
A maiden doth a youthful sister give,  
Bidding her with thy dusky leaves to twine  
Her kindred leaves and live.

"Mayest thou, new Tree, in dark-green mantle clad,  
No less accomplished scions here survey  
From age to age than those thy sister saw  
Crowned with renown for aye."

In the evening the Fellows' professors, and students entertained at dinner several distinguished graduates, including Mr. Alma Tadema, Professor Sayce, Professor Waldeyer, Professor Hashagen, Professor Gusscrow, Sir G. Humphry. On behalf of the guests, Professor Schiffer of Vienna, Professor Knapp, Professor Oort of Leyden and Professor Cremona of Rome responded for the Universities.

At 9 P.M. there was a performance by the University Choral Society in the Leinster Hall of the Tricentenary Ode, composed by Sir Robert Stewart and written by Mr. G. F. Savage Armstrong. The ode was in every way worthy of the high reputation of the author and composer. The evening concluded by a reception at the Mansion House.

On Wednesday the 6th inst. the conferring of honorary degrees took place in the Examination Hall, Trinity College. All the recipients of the degrees were present, with only one exception. The proceedings were presided over by the University caput, consisting of the Earl of Rosse, chancellor; Rev. Dr. Salmon, provost; and Rev. J. Barlow, senior master, *non Regent*. Sir Robert Stewart performed a selection of music on the organ before the proceedings commenced. At 12 o'clock the procession of those who were to receive the honorary degrees and the College dignitaries entered the hall, the members of the caput being preceded by the College steward carrying the mace. At 3 P.M. there was a meeting in connexion with the graduates' memorial and at the same hour the cricket match between the Dublin and Cambridge Universities entered on its second day. At 3 P.M. there was a garden party at the Viceregal Lodge, in the Phoenix Park, the attendance being large and fashionable, while in the evening the tricentenary banquet was held in the Leinster Hall.

We must reserve an account of Thursday's and Friday's doings until next week.

## ACTINOMYCOSIS.

AMONG the diseases of animals one of the most interesting is that due to the presence of the ray-fungus and consequently known as "Actinomyces"; and as it is also a malady of mankind—though much less frequently observed—its interest is much enhanced, especially as it is in the majority of cases an incurable disorder. Its existence in the human species and also in animals may be more common than is usually supposed; for the presence of the fungus may be overlooked and the pathological changes it sets up may be ascribed to something else. Though for very many years the morbid conditions due to its action were recognised in animals, and chiefly in cattle, yet the discovery of the microphyte is only of recent occurrence and the numerous and diverse names given to these conditions are now merged into that which signifies their true nature. So far as animals are concerned, actinomyces is a widespread and somewhat multiform disorder. It prevails throughout Europe and is common on the American continent and in Australasia. But in Europe its prevalence is singularly diversified; for while in some countries it is frequently seen—as in Bavaria, Saxony, Lombardy, Holland, Denmark and England,—in others—as France—it is comparatively rare. Even in this country its localisation appears to be strikingly partial; for while in Scotland and Ireland it appears to be exceedingly infrequent, in England it is not at all so, and in some parts—as Lincolnshire—it is of very common occurrence among cattle. It is equally curious to note that the form actinomyces assumes is almost special in certain countries. In Germany, for instance, though actinomyces of the pharynx is frequently observed and appears as pharyngeal polyp, lymphomata and lymphosarcomata—soft tumours containing myriads of actinomyces nodules, and which interfere with deglutition and sometimes obstruct the respiration—yet according to reports actinomyces glositis (the *Holzsaenge* or wooden tongue) is the most common form it assumes. It is the same in Holland and Italy; and though in these countries and Germany the bones of the jaws are sometimes the seat of actinomyces tumours (the so-called "osteosarcoma" and "spina ventosa"), yet they are not nearly so often seen as in this country, the United States of America, or Australia; while in France, where actinomyces appears to be almost non-existent, the glositis form has been scarcely recognised, that of the jaws being almost the only one observed. In England the three forms are witnessed, but perhaps the pharyngeal region is that which is most frequently invaded, though the first instance

on record, that reported by Fleming, was one of actinomycotic glossitis. Of course, the disease may affect any organ or tissue and though the jaws, tongue and pharyngeal region are by far the most frequently involved, yet pulmonary and mammary actinomycosis are far from infrequent, and the microphyte has also been found in tumours on the skin and elsewhere, as in the omentum, kidneys, muscles, liver, spermatic cord, vertebrae, &c. The tumours vary considerably in size, being from that of a pea or hazel nut to the volume of the fist or a child's head, and they are irregular or nodulated on their surface; while in section they are rather light-coloured and granular, the granules being of a faint yellowish tint. Each tumour is in reality a kind of fibro-sarcoma studded and interspersed with tuberculiform nodules which are developed around tufts or masses of actinomycetes in different stages of development or regression. As has been remarked, each of these nodules exactly represents, histologically, a Köster follicle—that is, the central portion is more or less caseous and consists of multi-nucleated giant cells, voluminous epithelioid cells, with clusters of actinomycetes, some small groups of these being often made out in the interior of the giant cells; the whole being enclosed in a more or less thick layer or envelope of concentrically arranged fusiform cells, the periphery of which becomes gradually combined with the proper tissue of the tumour. After a certain but variable period these nodules become calcified, and the fungus cannot then be so readily distinguished without recourse to special treatment; but in discharges the minute yellow granules or nodules containing it can always be easily detected by placing a thin layer of the matter on a piece of glass or thin layer of cotton wool and holding it up to the light. With regard to the prevalence of actinomycosis in cattle in different countries, it is impossible to obtain reliable information. If rumour can be accepted, the United States of America has the largest proportion, and it has been imagined that about 5 per cent. of the bovines in England, Germany and Italy are its victims. In France only 95 cases have been noted among 130,000 animals, being 0.72 per 100, or one diseased ox in 1400; and it is seen chiefly in the Mancheau and Normandy cattle, those of Brittany and Limousin being almost exempt, as they show only 1 in 10,000. It is to be remarked, however, that these figures only refer to living animals which exhibit the disease externally. Besides the bovine species, the pig is the only other domesticated animal frequently attacked, and it is somewhat curious that the ovine species appears to be endowed with almost complete immunity. Herbivorous and omnivorous animals—such as the ox, sheep, pig and man—have furnished most instances of it, the carnivora being apparently refractory, though one case is recorded as occurring in the dog. The mode in which infection takes place is not yet thoroughly established, but there can scarcely remain any doubt that it is effected by the introduction of the fungus or its sporules through a wounded or abraded surface; in the great majority of instances, in which the head is involved, the actinomycetes are introduced with the food, and possibly by means of grain, straw, or other kind of herbaceous aliment, and in the form in which the tongue is affected, and in which it runs its course most rapidly, the cases are those of animals grazing about harvest time. Pianna records a case of lingual actinomycosis, in which the lesion was manifestly due to the penetration of a barley-seed barbule into a fistulous wound, as the barbule was covered with the actinomycetes when he examined it; and Jöhne has found numerous fungi on fragments of straw fixed between the pillars of the soft palate in a pig; while at a recent meeting of the Medical Society of Greifswald, Professor Grawitz exhibited the inferior maxilla of a calf that had succumbed to actinomycosis, the fungous masses and bone of which when sawn through were discovered to contain several grains of corn, it being surmised that the actinomycetes had obtained admission to the tissues through the abrasions made by these grains. This mode of penetration will explain the frequency with which the jaws, mouth and pharynx are involved; wounded gums or carious teeth afford a good lodgment for the parasite. In Italy and Bavaria as well as in Pomerania the actinomycotic glossitis has prevailed in an almost epizootic form during outbreaks of foot-and-mouth disease. Inhalation of dust from dry fodder will account for the pulmonary form, and the invasion of other organs may be accounted for in a similar manner. The fungus is in all probability conveyed through the connective-tissue spaces, the blood stream and lymphatics having little or no share in its distribution in the body.

There is no proof that the malady is contagious in the

ordinary acceptation of the term, and if it is at all so it must be in a very feeble degree. The infection of mankind appears to be quite independent of diseased animals, as it exceedingly rarely happens that persons suffering from actinomycosis have had any relations with diseased cattle. Moosbrugger has collected the histories of seventy-five cases, and of all these only one of the persons had been in contact with cattle suffering from the maxillary form, while forty-nine of them had nothing at all to do with cattle. The malady is difficult to produce experimentally, as although it may be successfully developed now and again, yet when a series of inoculations are attempted the result is always failure; so the conclusion arrived at is that the source of infection is the same for mankind as it is for animals, and that the medium of conveyance in both is probably grain of various kinds; as in the majority of cases of human actinomycosis the origin of which has been traced, it has been found that the persons had chewed or unwittingly swallowed a piece of straw, or barley or wheat grains with the hull on. There does not seem to be any reason whatever to interdict the flesh of affected animals as food for man so long as the actually diseased parts are destroyed.

The treatment of actinomycosis is a matter of great importance, of course, and it has generally been considered, in man at least, an almost incurable, if not a hopeless disease. But Raffer, in the *Reforma Medica* of February 4th, has reported four cases of recovery, in which the disease was accessible to surgical measures. These were scraping and the injection of antiseptics into the tumours—these injections consisting of a 5 per cent. solution of carbolic acid in glycerine, and if sinuses were present, cotton wool saturated with this fluid was introduced into them. Veterinary surgeons have for a long time employed tincture of iodine with much success as a local application, but quite recently a very distinguished teacher at the Utrecht Veterinary School has drawn attention to the value of iodide of potassium in every form of the disease when given as a drug; from his experience of this agent in cattle affected with actinomycosis, he pronounces it an infallible remedy and Professor Nocard, at a recent meeting of the Paris Central Veterinary Society, in giving an interesting account of the disease, mentioned instances to prove that this medicament promptly and radically cures actinomycotic glossitis in cases which were formerly deemed hopeless. The dose for the ox began with 6 grammes in half a pint of water once a day to commence with, soon increased to 8 grammes, until signs of iodism began to manifest themselves, when it was continued for a few days longer; amendment gradually ensuing without any local treatment. In some instances 6 grammes were given daily for eight days, and when marked amelioration in the symptoms was noted—which was generally in about eight days—the dose was reduced to 4 or 5 grammes at the most. If iodide of potassium is of such potency in this disease as it affects cattle, why should it not be as useful in man? It is certainly worthy of an extensive trial in the human species in which treatment is so often unavailing, especially in those cases where the affected structures cannot be reached. Should the iodism be rather severe there is no great danger to be apprehended, as with the diminution of the dose of the drug or its cessation the more serious symptoms soon subside. It is to be hoped that in medical practice it will prove itself to be as much a specific for this intractable and grave disorder as it is reputed to be in veterinary practice.

## MEDICAL PRACTITIONERS AND THE GENERAL ELECTION.

In illustration of the fact that medical men are becoming alive to the necessities of bringing their particular case before the notice of the candidates for Parliamentary honours we note that a deputation of medical men waited upon Mr. Byron Reed, a candidate for the Eastern Division of Bradford, to ascertain his views on matters affecting the profession in its relation with the public. The importance of the facts is not restricted to one constituency and we therefore trust the attention of all candidates may be directed to the facts which were urged by this deputation.

Dr. Hime, in addressing Mr. Byron Reed, alluded to the progress of unreasonable legislation which singled out the medical profession for the compulsory performance of certain duties

which the Legislature had come to regard as of great public utility. Now the medical profession objected strongly to the knowledge which they had gained without the assistance of the Government in their medical studies being claimed by the public as their property under any circumstances and whether they were paid for it or not. At the present time a medical man was under legal compulsion to sign a certificate of death for which he received no remuneration whatever. By law the certificate could only be utilised for the purpose of burial, but in practice it was utilised for insurance, for club purposes and many others. The notification of infectious diseases had also been made compulsory on medical men, a thing which was without analogy in other cases. He drew attention to the enormous number of deaths which were not inquired into although they were not certified by any medical man. It was left absolutely optional with the registrar whether he would accept the tale of any informant as to the circumstances of a death and certify for burial or not. Throughout the whole country medical men found it not infrequently happened that if knowing of the circumstances of a death they thought it necessary to refuse a certificate because they considered there had been foul play, yet, when they notified that fact which was the result of their personal knowledge, the coroner might and did constantly grant certificates of burial. In order to justify him in doing so, as a rule, he sent his policeman to make inquiries. He, of course, only received the information from interested parties, and that was one-sided, and supported his (Dr. Hime's) statements.

Other subjects calling for reform were instanced, including the question of medical and post-mortem examinations in medico-legal cases. The inadequacy and injustice of the present method, by which any practitioner, who may be practically the mainstay of the prosecution, can alone and unaided and without any supervision make a post mortem, on the report of which a life may be dependent, were strongly condemned.

Mr. Byron Reed, in reply, expressed his astonishment at the number of facts brought to his knowledge for the first time. They were such as called for the serious consideration of the Legislature, and he promised, if returned to Parliament that any bill bearing upon the medical profession or its relation to the public, either directly or indirectly, should not be carried without receiving his most serious attention, and he would, as far as in him lay, urge this upon those members of the House with whom he had any personal influence.

The deputation thanked Mr. Byron Reed for the interest he took in the matter and the courtesy with which he had received them and retired.

## THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

A WELL-ATTENDED meeting was held on Monday, June 20th, 1892, at Dr. Arthur Roper's house at Lewisham Hill, for the purpose of establishing a division of the above society for the Lewisham, Woolwich, Greenwich, and adjacent parts of the S.E. district. On the motion of Dr. Purvis, seconded by Dr. Stevenson, Dr. Arthur Roper presided. Dr. Roper briefly stated his opinion as to the necessity and utility of such a society for London and the neighbourhood and called upon Dr. Mead to more fully explain the matter. Dr. Mead then went into the details connected with the formation of the Society and the steps which had been taken to place it on a broad and representative basis, and to secure to each member the fullest possible consideration of his case, either locally, or if he deemed it advisable, by the Central Council and the Emergency Committee, both of which were easily accessible. The Legal Council, consisting as it did of men of very high standing, constituted a court of final appeal of the very highest character and value. As to funds, the Council had ample means at their disposal, and were prepared at once to defend any member whose case was worthy of defence. Dr. J. Maxwell, Dr. Mercier and Dr. Purvis spoke in favour of a Society having its central Council in London, and pointed out that by means of the district Councils local cases could be undertaken and probably amicably settled. Dr. Heron pointed out that there was ample room for such a society. This was shown by the large numbers who had already joined this Society. The wish of the Council

was to work amicably with any society seeking to benefit the profession. London was pre-eminently the place where any important case affecting the profession should be tried and the difficulties of general practice could always find better and quicker solutions there, seeing that the majority of the leaders of the profession resided in London.

It was then resolved that a division should be formed for that portion of the south-east district and parts adjacent to it. Dr. Arthur Roper was elected president, and Dr. Scott was appointed secretary to the branch. In addition to those who had already joined, seventeen new members gave in their names.

## MILITARY SURGERY IN CHILI.

A REPORT has been published of the work done in the San Augustin Hospital, Valparaiso, from Aug. 28th, 1891—when the Constitutional party gained possession of the city after Balmaceda's defeat—to Jan. 15th, 1892, when the hospital was closed. It will be remembered that the fighting had been discontinued four or five days previously, the great battle having taken place from the 21st to the 23rd. When Señor Benjamin Edwards took charge of the hospital as administrator on Aug. 28th the building was empty and he had to make the best arrangements he could in the disorganised state of the town for the reception and care of the wounded who were being brought in from the field of battle. The medical service had to be organised. Dr. José Rivero was appointed chief medical officer and a staff of surgeons and dressers was soon got together, a good deal of assistance being obtained from the surgeons of the English, French, German and United States vessels at anchor in the harbour.

During the period the hospital was open 1008 patients were treated, not reckoning those who were passed on to other hospitals on ambulances within the first week or two. Of this number 936 were discharged cured or improved and seventy-two died. In 132 cases there were two or more wounds, and in five there were four bullet wounds. The rifle used seems to have been the Mannlicher, which has a small, highly polished, steel-tipped projectile with a very high velocity and a gyratory motion. The wounds were as a rule small and not dangerous to life, though sufficiently serious to put a man *hors de combat* for several weeks. The orifices of entrance and exit were very small and generally cicatrised quickly, with very little suppuration. When the path was merely through muscular tissue healing generally took place without any trouble, just as in a subcutaneous wound—that is, if care had been taken to remove all foreign bodies. The orifice of entrance had clean edges and a diameter much smaller than that of the ball. The orifice of exit was very different and was of various shapes, according to the bony or tendinous tissues the ball had met with. Owing to the outer casing with which the bullet is furnished it generally preserves its form and so produces far less injury to the tissues than the leaden bullets used in the Franco-German war, which frequently broke or became splayed out when they struck a bone. Extraction is too, of course, a much easier matter than with the old-fashioned bullets. In many cases where considerable osseous lesions were produced the wounds healed well and rapidly.

There were twenty-four cases of hospital gangrene attributable to the impossibility of maintaining rigorous aseptic conditions, and doubtless accelerated and aggravated by the drinking habits of the patients. The wounds of the upper extremity are returned as 23 per cent. of the total wounds; those of the lower extremity being 42 per cent. The mortality of fractures of the femur was 25 per cent. The head of the femur was removed five times, with three deaths. The mortality of wounds of the thorax was 54.5 per cent., which compares favourably with that of the Franco-German war, which was over 60 per cent., or that of our troops in the Crimea, which was nearly 70 per cent. There were ten cases of wounds of the abdominal walls, all of which recovered, and sixteen penetrating wounds, of which six recovered, thus giving a mortality for all abdominal wounds of 62.5 per cent., as against 87 per cent. in the Franco-German war and 92 per cent. in the English army in the Crimea. The mortality of the cases of fracture was 6.96 per cent., the number of operations 46.03, and the number of cases where conservative surgery was successful was 47.01 per cent.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE following list is a continuation of the contributions received at the Mansion House up to Thursday last in aid of the Metropolitan Hospital Sunday Fund:—

	£	s.	d.
St. Peter's, Vero-street (Rev. W. Page Roberts) .. ..	823	3	7
Trinity Church, Hampstead (Rev. H. Sharpe, B.D.) ..	101	10	0
St. John's, Paddington (Rev. Gilbert Karney) .. ..	130	8	11
St. Michael's, Paddington (Rev. G. F. Prescott) .. ..	173	17	10
Holy Trinity, Paddington (Rev. Preb. D. Moore) .. ..	151	13	7
St. Alban's, Streatham-park (Rev. S. M. Ranson) .. ..	107	17	10
St. Paul's, Onslow-square (Rev. H. Webb-Peploe) .. ..	324	11	7
St. Peter's, Eaton-square, £810 1 1 } (Rev. John Storrs) ..	722	14	1
St. John's, Wilton-road .. 101 18 4 }			
St. Peter's Chapel .. 10 10 8 }			
St. James's, Clapham (Rev. F. A. G. Lillingstone) .. ..	130	18	3
St. Peter's, Brockley (Rev. C. H. Grundy) .. ..	102	0	0
St. Andrew's, Wells-street (Rev. W. T. Houllsworth) ..	111	15	0
St. Paul's, Knightsbridge (Rev. H. M. Villiers) .. ..	300	8	10
Union Congregational Church and Mission, Islington (Rev. W. H. Harwood) .. ..	100	0	0
St. Luke's, Hatfield-place (Rev. B. H. Alford) .. ..	88	7	0
St. Paul's, Hatfield-place (Rev. B. H. Alford) .. ..	75	18	7
St. Paul's, Hatfield-place (Rev. B. H. Alford) .. ..	95	6	0
St. Andrew's, Stockwell (Rev. C. E. Escraet) .. ..	20	0	0
Holy Trinity, Anerley (Rev. C. A. Keightley) .. ..	60	11	0
Jewisham Parish Church (Rev. S. Bickerteb) .. ..	44	0	0
Hornsey Parish Church and Chapel of Ease (Rev. James Jaokes) .. ..	67	5	10
Waltham Abbey Parish Church and Hamlet Chapels (Rev. F. B. Johnson) .. ..	56	14	6
St. Saviour's, Bunting-hill (Rev. F. G. Sanders) .. ..	20	10	3
Acton Parish Church and Missions (Rev. C. M. Harvey) ..	41	7	1
Hilgigate Parish Church (Rev. J. M. Andrews) .. ..	38	1	6
"F." (4 further) .. ..	50	0	0
Trinity Presbyterian Church, Clapham-road (Rev. D. MacEwan, D.D.) .. ..	20	6	0
Heath-street Baptist Chapel, Hampstead (Rev. W. Brock) ..	55	10	4
St. Mark's, Notting-hill (Rev. W. E. Emmet) .. ..	83	8	7
St. Dunstan's, East Acton (Rev. T. M. Hayter) .. ..	30	1	0
Fulham Parish Church (Rev. W. Carter Marfel) .. ..	34	15	0
Christ Church, Chislehurst (Rev. W. Fleming) .. ..	68	11	11
W. M. Cross, Esq. (C.C.) .. ..	20	0	0
St. Paul's, Greenwich (Rev. A. Love) .. ..	20	5	8
Gordon-square Catholic Apostolic Church (H. S. Hume, Esq.)	20	21	11
Kingston-on-Thames Parish Church (Rev. A. S. W. Young)	25	0	0
St. Alban's, Holborn (Rev. R. A. F. Suckling) .. ..	50	8	7
St. Andrew's, Loytonstone (Rev. W. Manning) .. ..	23	12	6
St. Thomas's, Camden Town (Rev. H. W. Reynolds) ..	21	4	0
St. Peter's, Norbiton (Rev. John Rooker) .. ..	22	2	2
Willesden Parish Church (Ven. Archdeacon Ahtay) .. ..	23	8	8
Wandsworth Wesleyan Circuit (Rev. G. R. Osborn) .. ..	22	4	7
Trinity Presbyterian Church, Notting-hill (Rev. Dr. H. S. Peterson) .. ..	47	6	2
St. John's, Downshire-hill (Rev. Canon Girdlestone) ..	67	13	3
St. John's, Redhill (Rev. J. M. Gordon) .. ..	51	11	9
Christ Church, Beckenham (Rev. John Harding) .. ..	38	5	10
Allen-street Congregational Church, Kensington (Rev. C. S. Horn, M.A.) .. ..	78	5	0
Christ Church, Westminster-road (Rev. Newman Hall) ..	20	8	8
St. Andrew's Presbyterian Church, Upper Norwood (Rev. R. Taylor) .. ..	25	0	0
St. George's, Tufnell-park (Rev. W. T. Hollins) .. ..	50	8	0
St. Luke's, West Norwood (Rev. H. W. Cooper) .. ..	28	0	0
Friends Meeting House, Stoke Newington (E. H. Allen, Esq.)	24	10	9
St. Mary's, Graham-street (Rev. H. M. Villiers) .. ..	20	17	1
St. George's, Westcombe-park (Rev. W. Soames) .. ..	30	4	3
Brixton-road Congregational Church (Rev. B. J. Snell, M.A.)	59	12	8
St. Saviour's, Denmark-park (Rev. H. S. Swinbank) ..	25	14	9
St. Mary Magdalene, Paddington (Rev. R. T. West, D.D.) ..	59	1	7
Emmanuel Church, Maida-hill (Rev. J. Gosset Tanner) ..	28	3	0
Denmark-hill German Lutheran Church (Rev. Alex. Wyszard) .. ..	64	17	1
Chapel Royal, St. James's (Rev. E. Sheppard) .. ..	77	11	0
St. Mark's, Kennington (Rev. A. Gerald Bowman) .. ..	40	17	2
St. John's, Bromley, Kent (Rev. P. Barker) .. ..	22	8	8
St. John's Presbyterian Church, Forest-hill (Rev. W. Martin, M.A.) .. ..	55	0	0
All Saints', Blackheath (Rev. H. Welsford Snell) .. ..	61	2	0
St. Paul's, Beckenham (Rev. Charles Green) .. ..	111	10	4
Dartford Parish Church and Mission (Rev. Allan H. Watts)	24	1	8
Trinity Church, Hampstead (Rev. Hy. Sharpe, B.D.) .. ..	101	10	6
Holy Innocents', Hornsey (Rev. R. W. Powell) .. ..	44	15	9
St. James's Parish Church, Paddington (Rev. W. Abbott) ..	123	4	6
St. Martin's-in-the-Fields Parish Church (Rev. J. F. Kitto)	107	9	2
Immanuel Church, Streatham (Rev. G. S. Streetfield) ..	100	6	10
St. Bartholomew's with St. Matthew's, Sydenham (Right Rev. Lord Bishop of Southwark) .. ..	144	5	7
Christ Church, Westminster (Rev. F. K. Aglionby) .. ..	20	0	0
St. John the Evangelist, Brownswood Park (Rev. G. B. Lattrell) .. ..	25	2	1
Christ Church, Streatham (Rev. C. S. Nicholl) .. ..	111	10	0
Christ Church, Gypsy Hill (Rev. R. Allen; morning collection) .. ..	71	2	0
All Saints', Paddington (Rev. J. Machonechy) .. ..	33	7	8
St. Anne's, Holloway (Rev. W. H. Chambers, D.D.) .. ..	28	8	6
Chapel of Ease, Islington (Rev. W. Nelson Wain) .. ..	21	14	0
St. Thomas's, Regent-street (Rev. Phillip T. Bainbridge; half of offertory) .. ..	40	14	7
St. Mary's Parish Church (Rev. E. Hoskyns) .. ..	35	4	2
Holy Trinity, Knightsbridge (Rev. O. C. Scholesfield) ..	50	6	7
St. Thomas's, Stamford-hill (Rev. F. W. Kingsford) .. ..	31	12	5

	£	s.	d.
St. Mary's, Bryanston-square (Rev. the Hon. Canon Leigh)	80	10	8
St. Saviour's, Fitzroy-square (Rev. Thos. Turner) .. ..	34	10	0
Westbourne Park Baptist Chapel (Rev. John Clifford, D.D.)	29	2	0
West Hackney Parish Church .. ..	42	10	5
All Saints', Camberwell (Rev. T. J. Gaster) .. ..	31	1	11
Park Chapel, Crouch End (Rev. A. Rowland) .. ..	50	0	0
Emmanuel Church, Forest Gate (Rev. E. Wynne) .. ..	25	2	6
St. Mary the Virgin, Primrose-hill (Rev. Albert Spencer) ..	44	0	3
Wanstead Friends' Meeting (J. Lyster Godlee, Esq.) .. ..	44	17	3
South-street Baptist Chapel, Greenwich (Rev. C. Spurgeon)	21	17	3
Argyle-square New Jerusalem Church (Rev. J. Presland)	20	0	0
Box outside Mansion House .. ..	14	18	9

N.B.—The congregational collections are mostly an improvement on last year, but the gross receipts must be less for 1892 unless donations are sent to the Lord Mayor to form some equivalent to the £5000 sent in 1891 by the late Duke of Cleveland.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Lewes Urban District.*—Mr. J. G. Braden has a fairly favourable report to give for last year. The death-rate was 15.1 per 1000 living; but the decennial average is 17.6, and this is very properly regarded as too high for a town like Lewes. The drainage of Lewes is receiving and calls for attention. But the progress made is slow and in the Cliffe portion of the district, which lies low, there are indications that amendments are needed. The town water is good and arrangements are being made to ensure its being abundant. The hospital was not used last year, although a number of scarlet fever attacks occurred. In only two instances did multiple cases arise and it is implied that the attacks did not occur under circumstances actually calling for removal to hospital. In short, the Lewes hospital seems to serve rather for emergencies than for any sustained isolation of infectious cases.

*Coventry Urban District.*—Coventry is an old city and has sanitary difficulties to contend with, but during the last five decennial periods the general rate of mortality has gone down from 27 to 18.5 per 1000. Last year it stood at 19.6. House property and its defects constitute a substantial hindrance to sanitary progress, and Dr. Mark Fenton urges prominently the need for the adoption of more efficient measures for the improvement of the dwellings of the poor. An increased water-supply and better arrangements for the scavenging of refuse are also needed. The city isolation hospital has all along been satisfactorily worked under Dr. Fenton's supervision. In 1874, when it was first opened, twelve patients were admitted, but since then the annual admissions have reached and even exceeded 200. Every effort is made to prevent the spread of infection by means of isolation, and in this connexion it may be mentioned that whereas the zymotic rate for the ten years ending 1881 was 3.3 per 1000, it was only 1.7 in the decennium terminating last year.

*Worsbrough Urban District.*—The death-rate of this little urban district of less than 10,000 inhabitants reached 23.7 per 1000 last year, the excess being due to measles, scarlet fever, influenza, and whooping-cough, diseases which had not been brought about by defective sanitary circumstances. Unfortunately, little could be done as to removal of scarlet fever cases to the Barnsley hospital. Dr. M. T. Sadler makes certain suggestions as to improvement in scavenging and as to overcrowding. Otherwise sanitary matters seem in a fairly satisfactory state.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6378 births and 3348 deaths were registered during the week ending July 2nd. The annual rate of mortality in these towns, which had been 17.8 and 17.3 per 1000 in the preceding two weeks, further declined last week to 17.1. In London the rate was 16.8 per 1000, while it averaged 17.3 in the thirty-two provincial towns. The lowest rates in these towns were 9.4 in Brighton, 13.6 in Leeds, 13.7 in Blackburn and 13.8 in Hull; the highest rates were 21.8 in Oldham, 21.9 in Manchester, 22.4 in Sunderland and 22.5 in Preston. The 3348 deaths included 486 which were referred to the prin-

principal zymotic diseases, against 514 and 477 in the preceding two weeks; of these, 170 resulted from measles, 108 from diarrhoea, 78 from whooping-cough, 55 from diphtheria, 46 from scarlet fever, 34 from "fever" (principally enteric) and 5 from small-pox. No fatal case of any of these diseases occurred last week in Gateshead; in the other towns they caused the lowest death-rates in Brighton, Bradford and Burnley, and the highest rates in West Ham, Birkenhead, Preston and Sunderland. The greatest mortality from measles occurred in Sheffield, Birkenhead, Birmingham, Leicester, Halifax, West Ham and Sunderland; from scarlet fever in Swansea; from whooping-cough in Sunderland, Croydon, Wolverhampton and Preston; from "fever" Birkenhead; and from diarrhoea in Plymouth, Leicester, Sunderland, Preston and Norwich. The 55 deaths from diphtheria included 38 in London, 3 in Leeds and 2 each in West Ham, Birmingham and Bolton. Four fatal cases of small-pox were registered in London and one in Halifax, but not one in any other of the thirty-three large towns; 35 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 5 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2211, against numbers increasing from 1226 to 2066 on the preceding fourteen Saturdays; 331 new cases were admitted during the week, against 213 and 284 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 304 to 181 in the preceding seven weeks, rose again to 185 last week, but were 27 below the corrected average. The causes of 59, or 1·8 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Cardiff, Blackburn, Sunderland and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Salford, Oldham, Halifax and Sheffield.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·7 and 19·3 per 1000 in the preceding two weeks, declined again to 18·0 during the week ending July 2nd, but exceeded by 0·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 8·6 in Perth and 9·1 in Greenock to 20·3 in Glasgow and 20·8 in Aberdeen. The 502 deaths in these towns included 31 which were referred to measles; 23 to whooping-cough, 9 to scarlet fever, 9 to diarrhoea, 7 to diphtheria, 4 to "fever," and not one to small-pox. In all, 83 deaths resulted from these principal zymotic diseases, against 66 and 85 in the preceding two weeks. These 83 deaths were equal to an annual rate of 3·1 per 1000, which exceeded by 0·6 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 27 and 35 in the preceding two weeks, declined again to 31 last week, of which 27 occurred in Glasgow and 3 in Edinburgh. The deaths referred to whooping-cough, which had been 27 in each of the previous two weeks, fell to 23 last week and included 19 in Glasgow. The 9 fatal cases of scarlet fever showed an increase of 6 upon the number in the preceding week; 5 occurred in Glasgow and 3 in Edinburgh. The deaths from diphtheria, which had been 2 and 8 in the previous two weeks, were 7 last week, of which 5 were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 124 to 80 in the preceding three weeks, rose again to 89 last week, but were 17 below the number in the corresponding week of last year. The causes of 57, or more than 11 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·6 and 27·4 per 1000 in the preceding two weeks, further declined again to 24·6 during the week ending July 2nd. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 31·3 per 1000, against 18·9 in London and 17·8 in Edinburgh. The 165 deaths in Dublin during the week under notice showed a decline of 19 from the number in the preceding week and included 20 which were referred to measles, 1 to whooping-cough, 1 to "fever," 1 to diarrhoea and not one

either to small-pox, scarlet fever, or diphtheria. In all, 23 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·4 per 1000, the zymotic death-rate during the same period being 3·1 in London and 2·2 in Edinburgh. The fatal cases of measles, which had been 27 and 24 in the preceding two weeks, further declined to 20 last week. The deaths referred to whooping-cough, which had been 5 in each of the previous two weeks, declined to one last week. The 165 deaths registered in Dublin last week included 25 of infants under one year of age and 30 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from those recorded in recent weeks. Four inquest cases and 4 deaths from violence were registered; and 60, or more than a third, of the deaths occurred in public institutions. The causes of 16, or more than 9 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

### CHOLERA AT LAHORE.

THE outbreak of cholera among the medical students at Lahore is said to be of a severe type. Four cases have proved fatal since June 8th, among the victims being a European lady student. A few fatal cases have also occurred among the native patients in the upper wards of the Mayo Hospital.

### GOOD SERVICE PENSION.

It is notified that, on the recommendation of the Government of India, Her Majesty's Government has been pleased to confer a good-service pension on the undermentioned officer from date specified:—In place of Colonel C. S. Maclean, C.B., C.I.E., I.S.C., who succeeded to colonel's allowance on Dec. 14th, 1891, Surgeon-Colonel Archibald Hamilton Hilson, M.D., I.M.S.

### EMPLOYMENT FOR ARMY RESERVISTS.

Medical officers are quite as much interested, of course, as other officers in the well-being of soldiers leaving the Army for the Reserve, and they will be glad to learn therefore that the recent appeal by the War Office to the railway companies promises to be successful. It has been intimated to Mr. Brodrick, Financial Secretary to the War Office, that the companies will be prepared to give about 2000 vacancies annually to Army Reservists of good character. This, taken in connexion with their employment as postmen, which will be hereafter open to soldiers who have served with the colours, is a move in the right direction, and the departments concerned are to be congratulated on having tried successfully to benefit the soldier's position by increasing the opportunities for his employment in civil life.

### SICKNESS IN THE MEDITERRANEAN FLEET.

With regard to the alleged sickness in the Mediterranean fleet it is pertinent to remark that, according to past experience, an increase in the number of fever cases at this season is to be expected. Much of the sickness in the summer is attributable to the heat and local causes, aided by indiscretions of diet on the part of individuals; that which is of a serious character is due to typhoid fever and to another form of fever, the exact nature and causes of which do not seem to have been fully ascertained. Malta and Gibraltar have of late years been healthy, we believe.

### THE WANT OF CIVIL SURGEONS AT INDIAN STATIONS.

We recently called attention to the alleged dearth of doctors in civil stations of Bengal according to the lay papers of that country. Our contemporary, the *Indian Medical Gazette* for last month, alluding to the same subject, says that there is a general impression prevalent that the medical needs of the community at these stations is not sufficiently realised by the Government; localities not remarkable for their healthiness are left with insufficient medical provision.

### EXPERIMENTS WITH SNAKE POISON.

As our readers are aware, the annual loss of life from snake-bite in India is very large. The committee for the management of the Zoological Gardens in Calcutta are constructing a snake-house to contain specimens of all the principal poisonous snakes of the country, in connexion with which it is proposed, as we have already informed our readers, to fit up a small laboratory for conducting investigations bearing upon the pathology of snake-bite and cognate sub-

jects. The Government of Bengal has addressed the Government of India on the subject. If the latter would make a grant of Rs. 5000 towards this object the Lieutenant-Governor of Bengal will endeavour to make up the required balance from provincial funds. As it is understood that Dr. D. D. Cunningham, F.R.S., will take an active part in organising and promoting the necessary inquiries and carrying out the necessary experiments, it is to be hoped that the project will be carried to a successful issue. The various alleged remedies for snake-bite from time to time brought to notice might then be tested.

#### MOVEMENTS OF THE MEDICAL STAFF.

The retirement on retired pay of Surgeon-Lieutenant-Colonel C. E. Dwyer has been cancelled. Surgeon-Lieutenant-Colonel Blood has resumed duty at Winchester from sick leave. Surgeon-Major W. Campbell has assumed medical charge of the camp at Bisley. Surgeon-Lieutenant-Colonel D. B. Brown has rejoined at Piershill, from leave. Surgeon-Major A. A. Lyle has joined at York, from Chester. Brigade-Surgeon-Lieutenant-Colonel R. H. Carew has proceeded from Meera Meer to Kashmir on sick leave, and Surgeon-Lieutenant-Colonel J. D. Gunning from Bareilly to Mussoorie. Surgeon-Lieutenant-Colonel Gabbett has obtained sick leave from Madras. Brigade-Surgeon-Lieutenant-Colonel Riordan is proceeding to England from Cyprus on leave. Surgeon-Lieutenant-Colonel Barrow is expected in England from Hong-Kong, on relief. Brigade-Surgeon-Lieutenant-Colonel T. D. O'Farrell is placed on retired pay. Surgeon-Lieutenant-Colonel Supple has resumed his duties as senior medical officer in Jersey. Surgeon-Captain W. H. P. Lewis has taken up duty at the Arsenal, Woolwich. Surgeon-Captains Sparke, Hall and Burke have respectively left Warley and Colchester on leave. Surgeon-Captain J. J. C. Watson has proceeded to Bisley Camp from Aldershot and D. O'Connell has rejoined at Aldershot from leave. Surgeon-Captain S. R. Wiles has been transferred from York to Chester. The following officers have obtained sick leave to England from Burmah and Bombay severally:—Surgeon-Captains Green and Holyoake. The leave of Surgeon-Captains C. C. Reilly and J. S. Black from Bengal has been extended. Surgeon-Majors Feltham and Asbury have been granted leave to England from Madras. Surgeon-Captain Sexton has joined at the Curragh for duty and Surgeon-Captain Lensham has proceeded to Dublin. Surgeon-Captains H. Thompson and Hanley are under orders for foreign service. Brigade-Surgeon-Lieutenant-Colonel Ignatius McDonogh O'Farrell, F.R.C.S.I., is placed on retired pay (dated June 16th, 1892).—Surgeon-Captain R. C. Johnston, M.B., is placed on retired pay (dated July 6th, 1892).—Surgeon-Lieutenant-Colonel C. E. Dwyer has been appointed to the Recruiting Staff in London.

#### ARMY TITLES AND RETIRED MEDICAL OFFICERS.

An agitation is, we understand, being set on foot to procure for army medical officers who were on the Retired List prior to the issue of the Warrant conferring the new titles the right to assume the titles now enjoyed by their colleagues on full pay. As a considerable number of these officers are liable to be recalled to service on "an emergency," the application is, in their case at any rate, a reasonable one and seems to deserve favourable consideration, as, if it should be refused, complications as to seniority would arise which the concession would promptly avert.

#### INDIAN MEDICAL SERVICE.

The Commander-in-Chief is pleased to make the following appointments:—5th Bombay Cavalry (Sind Horse): Surgeon-Captain J. G. Hojel to the medical charge, vice Surgeon-Captain T. E. Dyson, transferred to the Civil Department.—7th Bombay Lancers (Baluch Horse): Surgeon-Captain J. B. Jameson to officiate in medical charge, vice Surgeon-Captain J. L. T. Jones, on furlough.—2nd Bombay Infantry (Grenadiers): Surgeon-Captain C. T. Hudson to officiate in medical charge, vice Surgeon-Captain A. Milne, transferred temporarily to the Civil Department.—Surgeon-Captain B. D. Basu is posted to general duty, Sind District.

Surgeon-Captain H. I. Pocock, serving in the Bengal Command, has been appointed to the civil medical charge of Roorkee, in addition to his military duties.—The following changes of station have recently taken place:—Surgeon-Majors: C. H. Swayne, Dublin to Londonderry; P. M. Ellis, to Aldershot; P. J. O. Sullivan, Bengal to Dublin; H. Grier, Nova Scotia to Aldershot; A. Harding, Bombay to Aldershot; E. H. Myles, Swansea to Devonport; G. F. A. Smythe, Dover to Canterbury; W. O. Wolsey, to

Chester; P. H. Fox, Madras to Ballincollig. Surgeon-Captains: M. W. Kerin Cork to Dublin; J. G. W. Crofts, Edinburgh to Home District; M. O' C. Drury, Bombay to Aldershot; H. A. de Lom, Dover to Bombay; A. Perry, Home District to Ceylon; H. J. Fletcher, Bengal to Stoneleigh; G. G. Adams, Horfield to Cirencester; J. M. F. Shine, Bengal to Dublin; W. H. Bennett, Madras to Lonford; P. C. H. Gordon, Edinburgh to Ayr; A. L. H. Dixon, Bombay to Aldershot; P. J. R. Nunnerley, Chester to Stafford; C. Garner, Bermuda to Devonport; J. D. Deacon, Ballincollig to Cork; G. A. Wade, Jamaica to Devonport; C. W. R. Healey, Lichfield to Bengal; W. E. Hardy, Colchester to Dover.—The undermentioned Surgeon-Lieutenants have been transferred from Aldershot as follows:—W. G. Beyts, to Edinburgh; S. H. Withers, to Golden-hill Fort; L. A. Mitchell, to Pembroke Dock; J. Henessy, to Horfield; C. B. Martin, to Alnwick; Surgeon-Lieutenant J. M'Laughlin, Sierra Leone to Bathurst; R. Crofts, Sierra Leone to Lagos.

*Bengal.*—The services of the undermentioned Officers of the Bengal Medical Establishment are placed temporarily at the disposal of the Bengal Government:—Surgeon-Captain C. E. Sunder, M.B.; Surgeon-Captain A. H. Nott, M.B.; and Surgeon-Captain J. T. Calvert, M.B.

Surgeon-Major Owen, I.M.S., Medical Officer on Lord Roberts' Staff, has been appointed Civil Surgeon at Ajmere.

The Governor in Council is pleased to appoint Surgeon-Major J. S. Wilkins, D.S.O., to act as Civil Surgeon, Kaira, in addition to his own duties, during the absence of Surgeon-Captain W. H. Quick on privilege leave.

Surgeon R. Baker, M.A., M.D., and Surgeon-Major H. M'Calman, M.D., respectively delivered over and received charge of the Batnagiri Gaol on June 4th, 1892.

*YEOMANRY CAVALRY.*—Ayrshire: Surgeon-Captain W. J. Naismith, M.D., to be Surgeon-Major (dated July 2nd, 1892).

*VOLUNTEER CORPS.*—*Artillery:* 2nd Cinque Ports (Eastern Division, Royal Artillery): The undermentioned Surgeon-Lieutenants to be Surgeon-Captains:—F. M. Wallis and F. H. Shaw (both dated July 2nd, 1892).—*Rifle:* 1st Volunteer Battalion, the King's (Liverpool Regiment): James Charles Bradshaw, Gent., to be Surgeon-Lieutenant (dated July 2nd, 1892).—1st Volunteer Battalion, the Suffolk Regiment: Surgeon-Lieutenant S. S. Hoyland to be Surgeon-Captain (dated July 2nd, 1892).—(2nd Berwickshire) Volunteer Battalion, the King's Own Scottish Borderers: Surgeon-Lieutenant A. D. Vardon resigns his commission (dated July 2nd, 1892).—1st (Pembrokeshire) Volunteer Battalion, the Welsh Regiment: Surgeon-Lieutenant W. H. Lloyd to be Surgeon-Captain (dated July 2nd, 1892).—2nd (Renfrewshire) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders): Surgeon-Captain W. G. Stevens to be Surgeon-Major (dated July 2nd, 1892).

## Correspondence.

"Audi alteram partem."

### "TOOTH CULTURE."

To the Editors of THE LANCET.

SIR,—In his interesting lecture on "Tooth Culture," Sir James Crichton-Browne enumerates four causes of caries; among them he includes imperfect mastication. He thinks "that the greater prevalence of dental caries in these days is probably in some measure dependent on the softness and pulpiness of the food on which we for the most part feed." I have for some time been strongly of opinion that this is the great cause of caries among the moderns. He points out that soft food means comparatively little mastication and use of the teeth, that the flow of the saliva is thereby diminished and that in consequence, the teeth not being properly cleansed by an abundant flow of saliva, nor by the scrubbing action of the parts engaged in mastication, particles of food are lodged about the teeth and gums and by their decomposition injure the teeth. Few can doubt the reasonableness of that view, but I venture to think that imperfect mastication favours dental caries in another and even more potent way—namely, by interfering with the proper development not only of the jaws, thereby causing over

crowding of the teeth (an acknowledged cause of decay), but of the teeth themselves; and it goes without saying that an ill-grown tooth is more liable to decay than one well developed. This fact is well attested by the early decay of the puny wisdom teeth. That imperfect mastication prevents the teeth from properly developing I can testify from observation, and the manner in which this result is brought about is obvious. With the movements of mastication the jaws become more vascular, there is a large access of blood to the dental arteries, the teeth move perceptibly in their sockets and their blood-supply is greatly increased. They are in fact outgrowths of the jaws, so that it is absolutely impossible to get well-developed teeth in an ill-developed jaw. The teeth in such a jaw may indeed be large, but careful examination of a section of them shows them to be ill-developed. One of the most noticeable effects of imperfect mastication on maxillary development is atrophy of the alveolar processes and early shedding of the teeth. Examine the mouth of a woman—say, from fifty to sixty years old—in a London hospital. It will very often be found that most of the teeth have dropped out and that only two or three remain, projecting far out of their sockets. Such teeth are of course more than useless in that they completely prevent the proper closing of the jaws, which, together with the muscles of mastication, remain practically in a state of disuse. No wonder that alveolar absorption proceeds apace, that the gums are spongy, and the whole interior of the mouth in a loathsome state, a state to which Sir James Crichton-Browne's apt quotation from Shakespeare but too truly applies. Among poor women the teeth are seldom worn down to any appreciable extent, so little have they been used, and indeed among civilised people one never finds the same degree of attrition met with in the teeth of ancient skulls, and this indicates an amount of mastication scarcely less than that of the ruminant. I have little doubt that by a proper use of the jaws in mastication not only might overcrowding be largely prevented, but a healthier development of the individual teeth ensured also and dental caries very considerably diminished. Of the many writers upon the teeth whom I have consulted from time to time Mr. Coleman is the only one who has insisted upon the point I urge—viz., that ill-growth of the teeth, resulting from imperfect use, is a cause of decay. He, however, it is only fair to say, is most emphatic. I would observe in conclusion that the atrophy of the jaws among civilised peoples is only in part the outcome of heredity, that it is in the main acquired by the individual himself, for Weismann, even though he may not have proved that acquired characters are never inherited, has yet made it quite clear that they are not inherited to the degree generally supposed. If therefore an individual were from early childhood to adult age to use his jaws to the same extent as his primitive ancestors used theirs they would develop, if not to the size of the ancestral jaw, certainly to an extent which would surprise many. I look forward, Sirs, to the time when "gymnastics of the jaws" shall be added to other forms of exercise. Meanwhile let us foster the instinct to bite hard things so clearly displayed by children and let us teach the laity to get rid of the "bogey" that the cracking of nuts—the best possible exercise for the jaws and teeth—is injurious to them.

I am, Sirs, yours faithfully,  
Gulford-street, W.C., July 5th, 1892. HARRY CAMPBELL.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to remark in reference to Sir James Crichton-Browne's address on Tooth Culture, reported in your issue of July 2nd, that his statement that the "gastro-intestinal mucous membrane of the embryo" forms the "pulp and sacs of the teeth" is not quite correct. Embryologists are generally agreed that the mouth is no part of the primitive alimentary canal, but is formed by an involution of the parts of the face, the enamel being formed from the oral epithelium and epiblastic in origin; whilst the pulp and sac of the tooth, arising from the sub-mucous connective tissue of the mouth, are developed from the meso-blast. The gastro-intestinal mucous membrane is derived from the hypoblast. The teeth have long been known as dermal appendages.

I am, Sirs, yours obediently,  
F. J. BENNETT, M.R.C.S., L.D.S.,  
July 5th, 1892. Assistant Surgeon, Dental Hospital of London.

## "SOME PRINCIPLES TO BE OBSERVED IN THE CLOSURE OF ABDOMINAL INCISIONS."

To the Editors of THE LANCET.

SIRS,—In your leading article upon the above subject (p. 33) you urge that too much attention cannot be paid to the closing of abdominal scars to prevent their subsequent yielding. In the first group of cases you refer to ordinary laparotomy wounds. In these there can be no doubt, if a firm cicatrix is to be ensured, care must be taken to unite all the divided tissues accurately, peritoneum to peritoneum, muscle to muscle, skin to skin. To do this I think it is only necessary to pass the sutures deeply through the parietes on each side of the wound, being careful that the needle properly transfixes each structure. If this rule is attended to there will be no occasion to use the buried sutures, which are tedious to apply and often cause after-trouble.

So important do I consider it to be to bring the muscular surface together that I have long taught the importance, in ordinary abdominal sections, of making the incision slightly to one side of the middle line, so as to ensure the division of the muscle in preference to dividing the tendinous linea alba, which rarely unites firmly, and I have frequently noticed by this latter incision that there is much more tendency to bulging of the cicatrix. I consider it also most essential in all cases to have a well-fitting belt applied before the patient is allowed to sit up. In the second series of cases you allude to—viz., those in which a permanent opening into a mucous canal is to be obtained—I am glad to find you condemn the practice of suturing the parietal peritoneum to the skin. For the last three or four years I have ceased to adopt this course, as I am convinced that it is not only an unnecessary waste of time, but that it is positively harmful, as the cicatrix thus formed is not nearly so firm as when the divided surface of the wound is brought into apposition with the visceral peritoneum. When speaking on this point at the medical societies I have always insisted upon this.<sup>1</sup> As to the means of fixing the viscus to the skin, this must vary according to circumstances, but in the greater number of cases I do not consider it necessary to stitch the visceral peritoneum to the skin. The circumstances which should influence one in this matter may briefly be considered: first, when it is desired to form a permanent fistulous opening, as in gastrostomy and jejunostomy; secondly, in some cases of intestinal obstruction, when it is desired only to drain the distended bowel for a short time to enable a patient to recover strength before a more radical operation is performed; and thirdly, in those cases in which an artificial anus has to be formed. In the first set of cases I am strongly in favour of slinging the stomach or intestine by means of four sutures, placed in the form of a parallelogram, through the serous and muscular coats, passing through the abdominal parietes, two sets on each side of the wound and then through an oval plate with a central opening, the threads being tied on the plate in pairs. Finally, the portion of the viscus enclosed in the parallelogram is drawn through the wound and central opening in the plate and fixed in position by transfixing it with a harelip pin. This operation was described by me at the Clinical Society's meeting and is also fully described in my work, "Surgical Diseases of the Stomach and Intestines." In the second series of cases the plan adopted and so well described by Mr. Greig Smith in his work on Abdominal Surgery should be adopted and in the third series it is not necessary to stitch the viscus to the wound. Every purpose may be attained by drawing a loop of intestine through the incisions in the parietes and passing a suture through the parietes on one side, then through the meso-colon in sigmoidostomy or lumbar colotomy, and finally through the parietes on the opposite side of the incision, the suture being fastened over a bone bar on each side. By adopting this plan there is no possibility of any portion of the omentum or small intestine being forced out of the wound alongside of the knuckle of intestine, the only other sutures necessary being one at each end of the incision, passing through the parietes in the ordinary manner.

I am, Sirs, yours faithfully,  
FREDK. BOWREMAN JESSITT, F.R.C.S.  
Buckingham Palace Mansions, July 6th, 1892.

<sup>1</sup> THE LANCET, vol. II, 1891, p. 987.

**"RHEUMATOID ARTHRITIS AND RHEUMATIC ARTHRITIS."**

To the Editors of THE LANCET.

SIRS,—In referring to Dr. King's letter on this subject in your issue of June 11th, which professes to deal directly with certain statements of mine occurring in a paper read at the Royal Medical and Chirurgical Society, permit me to examine some of his arguments. At the very outset he destroys the sense of the whole context of one portion of my remarks by a misquotation—namely, by the omission of the word "hereditary" in the passage "it [rheumatoid arthritis] is a constitutional disease of debility, invariably having a hereditary history of phthisis or gout or both." I spoke of rheumatoid arthritis "occurring in cases with a strong hereditary history of gout, phthisis or struma," using the word struma to indicate tuberculous affection of any organ or part except the lung. There are so many symptoms present, either acquired or hereditary, sufficient to account for the debility that to investigate and ultimately prove the presence of the bacillus in these would merely corroborate still further my opinions, whereas its absence, while perhaps being somewhat disappointing in cases apparently markedly tuberculous, would certainly not shake my opinion of a wasting and debilitating disease, if certain clinical proofs were not wanting. Dr. King further thinks that acute rheumatism should have greater prominence as a cause of rheumatoid arthritis. Why "comic" that in chronic rheumatic arthritis the young seldom suffer? Does Dr. King think a patient must be old before he can have a chronic complaint? Lastly, in his treatment of giving salicylates in rheumatoid cases, when suffering from increased pain and swelling, it would be interesting to know whether the rheumatic element was conspicuously absent.

I am, Sirs, yours faithfully,

HUGH LANE,

Surgeon to the Royal Mineral Water Hospital, Bath; Hon. July 4th, 1892. Med. Off. to the Royal United Hospital, Bath.

**DEATH UNDER CHLOROFORM.**

To the Editors of THE LANCET.

SIRS,—In THE LANCET of May 21st Dr. Colvin Smith records a death under chloroform which affords a striking example of the danger of pulse feeling in chloroform administration. The patient was breathing well, but, owing probably to the pharynx being full of blood, was rather cyanosed. Although cyanosed he was supposed to have fainted. Simply because the pulse could not be felt ether was injected, and "other steps were at once taken to stimulate the heart." It is clear from Dr. Colvin Smith's account of the case that the heart was refusing to convey any more chloroform to the brain at this time—i.e., while the cyanosis lasted. If the patient had only been left alone, and the safeguard action of the vagus had not been frustrated by the injection of ether, the stoppage of the heart would have saved his life.

I am, Sirs, yours obediently,

EDWARD LAWRIE.

Hyderabad, June 14th, 1892.

**"THE MEDICAL PROFESSION IN PARLIAMENT."**

To the Editors of THE LANCET.

SIRS,—Apropos of the first leading article in THE LANCET of June 25th I enclose the following extract from Col. Lowry's address to the electors of Trinity College, Dublin:—"Next in point of number are the medical graduates. I have always felt that the medical profession has a special claim upon the representatives of the University; for, unlike the legal profession, very few of its members have seats in the House of Commons. It is within my own knowledge that the dispensary medical officers in Ireland have long had reason to complain of their position in regard to both their duties and their pensions. I shall, if elected, give my special attention to the interests of this large and important body." The lawyers want to make a convenience of the electors by making the University a stepping-stone to the bench. Every University doctor should support the advocates of his own profession, as I do, though I am afraid some of them support the lawyers.

I am, Sirs, yours faithfully,

THOMAS MOORE SUNTER, M.D. T.C.D., M.D. Oxon.

Spring grove, Isloworth, July 4th, 1892.

**"STEELE v. SAVORY" FUND.**

To the Editors of THE LANCET.

SIRS,—We beg to forward herewith a third list of donations and subscriptions to the "Steele v. Savory" fund, and in doing so you will permit us to make known through THE LANCET that the Members of the College of the United Services, the Indian Medical Service in particular, have evinced throughout great interest in the justice of the claims put forward by the Association of Members. Surgeon-Lieutenant-Colonel Calthrop, of Mian Mir, Punjab, Bengal Presidency, has issued an appeal and undertaken to receive subscriptions on behalf of the fund and the first instalment was received by the last mail. Surgeon-Lieutenant-Colonel North writes: "I gladly enclose my guinea, and if the sovereign had only cost Rs10, as it should with us, instead of Rs16, I would gladly have sent two, but I shall be happy to contribute further in the righteous cause of the members of the College, and pray communicate my best thanks to the plaintiffs who have been fighting our battle."

We remain, Sirs, faithfully yours,

JABEZ HOGG, } Joint  
W. G. DICKINSON, } Hon. Secs.

July 6th, 1892.

**THIRD LIST OF SUBSCRIPTIONS.**

	£ s. d.		£ s. d.
Deputy-Surgeon-General McKellar (to make up his donation to £50) ..	34 5 0	Foster MacGeagh ..	1 1 0
Anonymous ..	5 0 0	T. Craddock Palmer ..	1 1 0
A. L. H. ..	3 3 0	E. H. Beaman ..	1 1 0
Chas. Eaton Baker ..	2 0 0	Arthur R. Hopper ..	1 1 0
Maurice E. Ling ..	1 17 6	T. P. Purvis ..	1 1 0
Dr. G. H. Batterbury (Hon. Loc. Sec.) ..	1 10 0	Surgeon-Lieut.-Colonel Calthrop ..	1 1 0
Dr. Jacob Pickett ..	1 10 0	Surgeon-Lieut.-Colonel Temple ..	1 1 0
Andrew Fuller ..	1 10 0	Surgeon-Lieut.-Colonel J. North ..	1 1 0
Richard Emmett ..	1 10 0	Surgeon-Major Harwood ..	1 1 0
F. A. Gray ..	1 10 0	G. J. Muriel ..	1 1 0
G. W. Graham ..	1 10 0	William Marsden ..	1 0 0
Chas. Williams, F.R.C.S. ..	1 1 0	Dr. E. R. Tenison ..	1 0 0
Rev. R. J. Simpson ..	1 1 0	Thomas Aspinall ..	0 10 6
J. M. King ..	1 1 0	Dr. Clewett Griffith ..	0 10 6
T. J. Merriman ..	1 1 0	William Hawkins ..	0 10 0
Dr. Braithwaite Rogers ..	1 1 0	Dr. Bucknell ..	0 10 0
John Prince ..	1 1 0	Dr. Cox ..	0 10 0
Alfred Freer ..	1 1 0		

Donations may be forwarded to the treasurer or paid direct to Dr. Danford Thomas, Park Lodge, Paddington, crossed "Steele v. Savory" Fund, the National Bank, Bayswater, W.

**MEDICAL DEFENCE UNION, LIMITED.**

To the Editors of THE LANCET.

SIRS,—As there appears to exist some misunderstanding as to the position and progress of the Medical Defence Union, Limited, will you allow us to give the following particulars, which will enable the profession to properly judge as to the stability of the Company, its capacity for doing the work of medical defence and for meeting the wants of its members:—

Number of Members.				
1888.	1889.	1890.	1891.	1892 to June.
442	834	1446	1828	2366

Amount of Guarantee Fund.				
1888.	1889.	1890.	1891.	1892 to June.
£538	£1249	£2173	£2826	£3489

The Executive Council of the Union is composed of an equal number of London and provincial members and the meetings are generally held alternately in London and Birmingham. Members of the Union are drawn from the metropolis in large numbers, as well as from all parts of the United Kingdom. One of the secretaries resides in London, one in the Midlands, and in this way cases of emergency can be dealt with with the utmost promptitude and despatch and personal advice given to members resident in London when required.

We are, Sirs, your obedient servants,

LESLIE PHILLIPS, M.D., } Hon. Secs. Medical  
A. G. BATEMAN, M.B., } Defence Union.

July 4th, 1892.

**GREAT YARMOUTH HOSPITAL.**—The annual report for the past year shows that 332 in-patients and 3857 out-patients were treated during the twelve months. The year's income had more than covered the expenditure, leaving in hand a surplus of £220 19s. 11d. The invested funds amount to £16,120 6s. 7d.

## THE FRENCH WORKMEN'S SANITARY CONGRESS.

(FROM OUR SPECIAL CORRESPONDENT.)

ON the afternoon of July 3rd the Congress commenced its labours, which during the first meeting were for the most part of a formal character. The credentials of the delegates had to be verified and the various commissioners elected. M. Prudent Dervillier, a member of the Paris Municipal Council, was appointed chairman. In opening the proceedings he explained that the general programme of the Possibilist Party had been debated at the ten preceding National Congresses and was now so well established and understood that the time had come to deal with practical questions instead of abstract theories. It was the duty of the working classes to study earnestly even dry and technical questions, for on their votes depended the solution of these problems. During the present Congress questions relating to the health of the working classes had been selected for debate.

Workmen, it was true, did not possess the technical knowledge required to deal with these problems, but they had appealed to the Professors of the Faculty of Medicine, who had acquired this knowledge. These eminent men of science were separated from the working classes by many material and social considerations, but they were at one with the working class in seeking to elucidate scientific truths independently of all class interests. As Possibilists the organisers of the Congress wanted to profit by the knowledge of these scientific truths, to demand in the name of science, of humanity, of public health, such laws as shall guarantee to the working classes pure unadulterated food and wholesome dwellings. The workers would then have more intellectual and physical strength; they would then be better able to grapple with those great social and economical problems that went to the root of all the evils from which society suffered.

M. A. Lavy, Deputy for Montmartre and general secretary for the Congress, read the correspondence, showing how widely the object of the Congress had been approved. A few reactionary papers had blamed the workmen for abandoning their scarecrow revolutionary policy. They had abandoned none of their aspirations, but wanted to render workmen fitted for a better future by improving the material conditions under which they now lived.

Some discussion ensued as to whether delegates from the Society of Veterinary Surgeons and from the philotechnic associations should be admitted. These delegates had important communications to make in respect to the teaching of hygiene and the control of the supply of meat. It was ultimately decided that as the delegates did not represent labour organisations they would be welcomed as guests and might submit communications, but could not assist as delegates. As instructors and as guests the representatives of all scientific societies were most welcome—as delegates they could not be accepted for they were not labour representatives.

On the second day M. Lavy, Deputy, was elected chairman and announced that the municipality of Rochefort-sur-Mer had voted a subvention to send delegates, and that delegates had arrived from St. Etienne and from Lyons. He had also to welcome Mr. James Holmes of the Leicester Trades Council. In reply Mr. James Holmes explained that the workers of England took great interest in the Congress and would have sent a numerous deputation but for the general elections. If the first necessity was to obtain good wages the second was to be able to lay out those wages advantageously. The Congress by dealing with the question of the adulteration of food would help to solve this latter part of the labour problem. Some discussion arose as to whether the delegates of a society of cooks could be admitted, because two employers of labour were members of that society. This association is called l'Académie de Cuisine, a title which amused and found favour with the Congress, and it was decided that, as the immense majority of the members were workers, they should be allowed to send delegates to represent their "art" in the Congress.

The discussion was now opened on the first question—the food of the working classes. M. Roland, representing labour organisations of the Port de Flandres districts, said they did not believe much would be done to better the quality

of the food workers were in the habit of buying. Here and there individual tradesmen would endeavour to act honestly, but the intervention of the State was much preferable to individual effort. The scientific lectures delivered in preparation of the Congress proved that many workers did not earn enough to buy the amount and quality of food necessary to keep them in health. Some suggested total abstinence as a remedy, though it had been shown how often the drinking of water was the cause of typhoid fever. Others proposed vegetarianism, while some employers of labour had gone so far as to suggest that the fasting experiments of Succi might indicate how working-men could live cheaply. Against all these proposals he protested energetically and urged that the real remedy rested in the establishment of a minimum rate of wages based on scientific calculations as to what was necessary to keep workmen in good health. Official science had condemned vegetarianism and total abstinence. But, even if the workmen had sufficient wages to procure meat diet and wine, what was to prevent them from being poisoned by, for instance, the bad alcohols added to the cheap wines? He deeply regretted that the French Chambers had not voted in favour of the proposal to create a State monopoly in alcohol. He thought that the municipalities might open depôts for the necessities of life—meat, bread, &c.—and, as there would be no trade interest to serve in adulterating these articles when they were sold by the elected representatives of the community to the community, there would then be a fair prospect of getting wholesome food.

The delegate of the third arrondissement of Paris complained of the facilities existing for the practice of adulteration. Why was theft of this description so easy? Bread contained 40 to 42 per cent. of water when it should not contain more than 30 to 32 per cent. Then the baker also succeeded by various manoeuvres in giving light weight. The workers had no practical means of preventing this daily robbery of their class. Butchers gained 125 per cent. per annum on the capital they engaged in their trade; and competition, the panacea for all evils, according to the teaching of the orthodox economists, had not improved the situation. The number of butchers and bakers was daily increasing, but the prices continue to rise. The real competition wanted was that of municipal butcheries and bakeries who would sell in the interests of the public and not of trade.

Dr. Paul Brousse, Municipal Councillor and representative of the Epinette district, discussed the qualities of the food required so as to maintain the human equilibrium and showed what was proved to be chemically necessary. Money would not always secure this, and even those who could afford luxuries might be underfed or poisoned through the bad quality of what they bought. Pastry might be coloured with copper or arsenic and bread poisoned with the lead coming from the paint adhering to the wood of old houses sometimes used to heat the ovens. Competition had made matters worse. Bakers spent in shop windows and ornamentations to attract customers what they ought to spend in the flour for their bread. People had to pay for the big shops, the flaring gaslights and the big advertisements, and thus did not get their money's worth in food. He agreed with the previous speakers that they wanted the establishment of public services for the necessities of life. But it would not be wise to rest, as it were, hypnotised by this grand conception. Pending the municipalisation of those trades on which public health depended—water, bread, meat, &c.—they must endeavour to obtain stricter laws against adulteration. Alphonse Karr had wittily remarked that if he were to rob his grocer he would certainly be sent to prison, but if he proved that his grocer had robbed him by selling him an adulterated article the grocer would only be fined. If in his indignation he went and killed the grocer he would be arrested, convicted of murder and guillotined, but if he was killed by the grocer selling him an article adulterated with poison the grocer would again escape with a fine. In the Middle Ages, Dr. Brousse urged, adulteration was classed with the coinage of false money, and the culprits were in both instances hanged. Doubtless the municipal analytical laboratory would help to moralise trade, but he suggested that articles of food—such as for instance a cask of wine—should be accompanied by a sort of bill of health, or passport, on which its history should be recorded, so that as it changed hands it might be seen by whom its original quality and character had been altered.

Madame Bertier pleaded for good food for workwomen. It was a deplorable fact that the majority of the workwomen of

Paris were anæmic. How could they give birth to healthy children? Where would France find the soldiers for its future battles? A few workwomen earn enough—they are the exception, and the workwomen who were strong and well fed had such personal charms as enabled them to obtain money from other sources than labour. Even when a workwoman, in consequence of very exceptional taste or skill, could earn enough to buy wholesome food she had not time remaining to cook it properly. Had the underpaid and underfed workwomen of Paris the right to be mothers when they had neither the time to tend their children nor the health to bear them? It was now proposed to enforce rest on Sunday, but this meant no rest for women. Early on Sunday morning the women had to go to the washhouse with the week's dirty linen; then they had to come home and cook and the afternoon was spent in mending the clothes. Sunday was often the hardest day of the week. But there were no two measures in nature—women wanted food and leisure as well as men. She urged that women ought not to compete with men by doing the same work for less wages. A law should be passed making it illegal to employ any woman for less than half a franc per hour. Women might then work three hours in the morning, three hours in the afternoon, gain three francs (or 2s. 5d.) per day, and yet have some time remaining to attend to domestic duties. This Madame Bertier thought should be the very lowest scale of wages the law should sanction.

A communication from M. Tessignier and coming from the Society of Veterinary Surgeons was then read. M. Tessignier insisted on the quality of meat. This was more important than the quantity. In France the soldier was allowed 300 grammes of meat. This was not enough and yet the workman often did not get as much. Then it was bad meat—not absolutely unwholesome, but flesh of old, tired cattle—meat that loaded and embarrassed the stomach without strengthening the system. The meat might be wholesome when it came from the slaughter-house, but it was often unwholesome by the time it was sold. Horse was sold for beef, dog for mutton; accidents and illness resulted, but attracted no attention unless they occurred on a wide scale. Then measures were taken, but they were only temporary in their effect. Yet the workman's only capital was his health. Such laws as existed for the inspection of meat were aimed against great epidemics rather than against evils that occurred but in detail. Nor did the Legislature define the meaning of the word "corrupt" and the verdicts given were most contradictory and uncertain. What is condemned in one town is allowed in another. Municipal by-laws, though often the result of very serious study, are obscure and incomplete. As the Congress represented the working classes, who were the principal sufferers, it must insist on better and more clearly defined laws. A better watch must be kept over private slaughter-houses. In these small places horse was easily substituted for beef and dog for mutton. In all towns with more than 5000 inhabitants private slaughter-houses should be abolished and a public slaughter-house erected. Then there should be a fully qualified veterinary surgeon attached to each public slaughter-house. At present inspectors of slaughter-houses were appointed in consequence of their political opinions and with no regard to their technical knowledge. Some of the meat which is condemned in Paris is forthwith sent to provincial towns, where the inspection is less severe. It is also very difficult to detect bad meat when the worst parts have been previously and carefully removed. It is therefore necessary that there should be a large staff of thoroughly qualified veterinary inspectors and that the law affecting the control of the meat-supply should be strengthened, more clearly defined and rendered uniform.

The Congress then adjourned, as it was close upon midnight.

## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

### *The Medical School.*

THE union of Queen's and Mason Colleges for the purposes of medical teaching is now an accomplished fact and the result is looked forward to with hope and confidence in the future. The gain will undoubtedly be to the students from every point of view, for the amalgamation will produce a solid and substantial basis which must effect strength. At a meeting of the Council, held on the 5th inst., the following

three vacancies in the faculty of medicine were filled up: To the Professorship of Medicine, Dr. R. Saundby; to Ophthalmology, Mr. Priestley Smith; and to Dental Surgery and Pathology, Mr. F. E. Huxley. These appointments will give general satisfaction.

### *Scalding Fatality.*

"What dire events from trivial causes spring" is probably no more forcibly exemplified than in the cases of burns and scalds. Oftentimes miners have been known to walk home after being badly burnt and to die very soon afterwards. With children, too, it is well known what a small amount of burning is sufficient to place their lives in great danger. An instance lately happened to illustrate this in the case of a woman on whom some hot water was thrown by another woman. The patient walked to the General Hospital and was detained there. After a few weeks erysipelas set in; the patient is now dead, and her assailant stands charged with manslaughter.

### *White Cross Society.*

A meeting of this Society was held in the Town Hall on June 30th and was well attended; the Bishop of Wakefield occupied the chair. Among the speakers was Dr. Malins. A vigorous effort is being made to extend the influence of this movement in the town. No nobler objects of a social kind could be aimed at than those this Society seeks to enforce—greater purity among men, a chivalrous respect for womanhood, and a higher tone of public opinion. The want of these attributes in society of the present day is an obvious fact to all reflecting persons, and any attempt to remedy such a condition of affairs will be welcomed with all sincerity.

### *The Society for the Prevention of Cruelty to Children.*

This Society is seeking to enlist public support by holding meetings in and around the town, where sympathy in its work and efforts is earnestly solicited. The records of our criminal courts show the prevalence of the evils and dangers attending the growth of the young in our community. With regard to the protection of infants and children there is still abundant room for progress and the efforts made by this Society cannot fail to be productive of good.

July 6th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *Hospital Saturday in Bootle.*

THE institution of Hospital Saturday has been found to be a most important adjunct of Hospital Sunday. Many persons are prevented by the nature of their avocations from attending church or chapel, while many probably do not attend though quite able to do so. In Bootle last year an experiment was made of a somewhat original idea. Boxes resembling hospital cots were placed in the streets in conspicuous localities; these realised a sum of £227. This year the experiment has been repeated with even better results, £308 having been received. This happy thought seems worthy of adoption elsewhere.

### *The Candidature of Dr. B. W. Richardson.*

It is much to be regretted that Dr. B. W. Richardson, who would have been such a valuable acquisition to the House of Commons, was not induced to try for some seat which he was more likely to win. His candidature for Walton was from the very first hopeless, but there must be elsewhere in the country seats where his political and other views would be more acceptable, and it is to be hoped that we may yet find his name added to those of the other gentlemen who will represent the medical profession in the new House of Commons.

### *The Water-supply of Liverpool.*

On the 14th inst. the Duke of Connaught and Strathearn will inaugurate a most important event to Liverpool—the opening of the new water-supply from Vyrnwy Lake. At the first census in 1831 the population of Liverpool was considerably less than half of what it is now and local reservoirs sufficed for the water-supply. But for years past these have been wholly inadequate and the residents have been put to most serious inconvenience by the authorities reducing the water-supply to a few hours a day of service sometimes and frequently to half-service. It is very satisfactory and very creditable to the sanitary authorities that it did not lead to an epidemic of

typhoid fever. The constant service is on now and we have every reason to hope that it will be continued in future without any break. The formation of the aqueduct for conveying the water a distance of seventy-seven miles from the lake to the heart of Liverpool has been a great engineering feat, comprising the formation of tunnels, reservoirs, and water towers along its course. The carrying of the water under the Mersey was the most formidable part of all, requiring almost superhuman efforts to overcome the difficulties. The work has been costly, of course, but the money will be well spent in providing the city with an abundant and never-failing supply of good water.

July 6th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Newcastle Royal Infirmary.*

A PUBLIC meeting in response to a requisition of citizens was held last week under the presidency of the Mayor to consider the proposal of the house committee to erect new buildings to perpetuate the memory of the late Dr. Bruce, the eminent antiquary and philanthropist of this city. It was stated at the meeting that a new infirmary would probably cost something like £100,000 and that under the existing depressed state of trade it would be hardly wise at present to ask for such a sum. At the same time a new infirmary was admitted want, and the feeling of the meeting was that a commencement might be made in the way of building a new wing or pavilion to be called the "Bruce wing." This would, it was stated, cost from £5000 to £7000. Dr. Philipson, in seconding the motion for the erection of the proposed Bruce wing, stated that the present building was in parts over 150 years old; and when they reflected on the changes that had taken place in the institution from time to time he thought it would be felt that the time had come when very decided action should be taken with respect to the infirmary if its position and prestige were to be maintained. It was also resolved to erect the new infirmary, if it can be so called, upon the present site, which in the opinion of many is open to serious objections; indeed, our medical officer of health was hardly, I think, satisfied with the existing space. Mr. Alderman Newton, surgeon, raised the question as to the allocation of the students' fees between the teachers and the treasurer of the infirmary, but the point was ruled out of order by the Mayor. It is right to mention, as regards the internal economy of the infirmary, that there is a growing feeling here among the profession that some reforms are necessary in the interests of subscribers, the profession, and indeed of the public. For instance, it is thought that relief is given far too readily to casuals well able to pay, that the honorary medical appointments are too exclusively held in connexion with the medical college and that the said appointments are held for too long a period. There are many other points giving rise to discontent, which, however, may be referred to at another time.

### *Raby Castle Sanitation.*

The *Northern Echo* states that Lord and Lady Barnard, who only lately succeeded to and took possession of Raby Castle, will not resume residence there again for some months, until the sanitation of the castle is thoroughly overhauled. The castle is a very ancient pile; some few years ago its condition was a subject of consideration by the sanitary authority.

### *The Bequests of the late Dr. G. Y. Heath of Newcastle.*

The *Newcastle Journal*, in reference to the munificent bequests of the late Dr. Heath (first announced in these "Notes" a few weeks ago), states that the Royal Keper Grammar School has been also favoured to the extent of about £5000 to found a medical scholarship from the school to the Newcastle College of Medicine. The Keper Grammar School at Houghton-le-Spring, near Sunderland, is so named from the fact that in 1574 a Mr. John Heath, in conjunction with the then rector, the celebrated Bernard Gilpin, gave certain tithes which formerly belonged to Keper Priory near Durham for the foundation and maintenance of the school. It should be stated that the will of the late Dr. Heath, if proved, has not, at all events, yet been made public, so that there may be other educational surprises in store.

### *Presentations.*

Dr. Carlyle, Langholm, has been publicly presented with

his portrait (painted by Sir George Reid, President of the Royal Scottish Academy), the occasion being the completion of fifty years' medical practice in the town.—Dr. Smith of Ryton has been presented by his pupils of the ambulance class with a handsome hall clock.—Dr. Wm. Slater of Newcastle has also received a presentation.—Dr. A. D. Mucintyre of Conselt has been the recipient of a testimonial, subscribed for by the railway servants' ambulance class at Conselt and Blackhill.

Newcastle-on-Tyne, July 6th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

### *Complimentary Dinner to Mr. Charles Smith, of Kinnairdy, Banff.*

ON July 2nd Mr. Charles Smith, M.R.C.S., was entertained at dinner by his professional brethren in the Palace Hotel, Aberdeen, on the occasion of his celebrating his jubilee as a medical practitioner. Over sixty gentlemen sat down under the chairmanship of Dr. Angus Fraser of Aberdeen. The toast of the evening, "The Health of the Guest," was enthusiastically pledged, and Mr. Smith in reply gave a highly interesting account of medical practice fifty years ago and its gradual development and improvement. A few days previously Mr. Smith was met by the leading inhabitants of the district where he has so long and ably conducted practice and was presented with a very handsome testimonial.

### *Health of Aberdeen.*

The state of health last week was very satisfactory, except for an epidemic of measles at Torry, one of the fisher quarters of the town. Scarlet fever is on the decrease, and diphtheria is represented by two cases, while there are no cases of puerperal or typhus fever.

July 6th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

### *Dublin University Tercentenary.*

DUBLIN is very busy this week on account of the celebration of the tercentenary of Trinity College. The first of the festivities was commenced on Monday evening by Dr. Kidd, President of the Royal Academy of Medicine, and Mrs. Kidd giving an "at home" at their residence in Merrion-square. A very large number of guests were present, who spent a very enjoyable evening. Music added to the attractions of the evening, the principal vocalist being Mr. Barton McGuckin.

### *Royal College of Surgeons.*

The Honorary Fellowship of the College will be conferred on the 7th inst. upon the following gentlemen—viz., Thomas Bryant, President of the English College of Surgeons; John Shaw Billings, Surgeon-General, United States Army; Professor Adolphus Gusserow, Berlin; and Hermann Snellen, Rector Magnificus, University of Utrecht. A meeting of the College will be held on July 11th, convened by requisition, to take into consideration the whole question of advertising and to decide, if possible, what is within the limits of professional propriety. His Excellency the Lord-Lieutenant will on Friday, the 8th inst., unveil the memorial bust of the late Dr. Robert McDonnell, the eminent surgeon and physiologist, and former president of the College.

### *Irish Medical Schools and Graduates' Association.*

The annual dinner of the Association was held recently in the Royal Marine Hotel, Kingstown, the chair being occupied by Dr. Mapother, of London, in the absence of the president, Mr. Dick, C.B., Director-General R.N. The chairman, in proposing the toast of the guests, specially alluded to Professor Hæshagen and Mr. Bruce Joy, the eminent sculptor. Mr. Bruce Joy, he said, was the son of one of the most popular Fellows of the College of Physicians and the sculptor of the bust of their beloved and lately deceased colleague, the great Robert McDonnell. The chairman, in giving the toast of "The Irish Medical Schools and Graduates' Association," mentioned that the Society could now boast a membership of 700, and concluded by alluding to the grievances of Irish graduates in regard to certain hospital appointments, which were, however, gradually being removed. The toast

of the chairman (Dr. Mapother) by Sir Charles Cameron terminated the proceedings.

#### *Health of Ireland: March Quarter.*

The births registered amounted to 26,978 being 1.2 under the average for the corresponding rate of the ten years 1882-91. The deaths were 30,660, equal to 26.4, and the highest rate recorded for any quarter since registration was established (in 1864), and is 22 per cent. in excess of the average rate for the March quarter of the past ten years. This increase in the mortality principally occurred among persons of advanced ages. The high mortality was due to the prevalence of influenza and pulmonary affections and to the severity of the weather. Measles and whooping-cough were prevalent in the Dublin and Belfast districts, but there was a considerable falling off in the deaths from typhoid fever in the Dublin registration district. It may be mentioned that the Dublin Corporation have agreed to schedule whooping-cough and measles among the list of infectious diseases to be notified.

#### *Report on Dublin Hospitals.*

The thirty-fourth annual report of the Board of Superintendence of the Dublin hospitals has been presented to the Governor of Ireland. The Board have visited the hospitals to examine into their condition and to ascertain if proper care were bestowed on ventilation and on the proportion of inmates to space. They report that the nursing organisation is now generally efficient and have suggested that due provision should be made for the nurses' comforts as far as possible and that their food-supply should be carefully attended to. They also express a hope that an institution connected with the hospitals should be endowed and equipped for pathological, chemical and bacteriological research. They state that such an establishment is urgently needed in the interests of medical science, for medico-legal investigations and for the benefit of the community at large.

July 5th, 1892.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *The Choleric Epidemic.*

SOME weeks ago I had occasion to refer to an outbreak of cholera nostras at Nanterre, a western suburb of Paris. The epidemic has since extended its ravages to adjoining suburbs situated in the west and north-west of the metropolis and a certain number of cases have been met with in Paris itself. From April 5th (the date at which it commenced) to June 25th the epidemic has been fatal in 159 instances. That the number of persons attacked has not been very considerable is apparent from the heavy mortality reported from such centres as Nanterre (44 deaths out of 55 cases) and Argenteuil (13 out of 19). In my previous communication I promised to send you the results of the bacteriological examination of the organs of the Nanterrois who succumbed at the Hôpital Beaujon. These researches, conducted by M. Netter, a very competent authority, are now completed, and it appears that a bacillus discovered in the intestines presented great similarity to the micro-organism of true cholera. Both the Conseil d'Hygiène and the Comité Consultatif d'Hygiène Publique have investigated the matter and these bodies are unanimous in regarding the consumption of Seine water as the efficient factor in the production of the outbreak. They strongly urge the authorities to submit this dangerous stuff—Seine water—to the process of boiling previously to supplying it to those of their customers who are condemned to the ordeal of consuming it. The excessive heat which has lately prevailed has doubtless stimulated the growth and multiplication of the numerous micro-organisms contained in water the periodical distribution of which in Paris is a crying scandal and a reproach to those responsible for the physical well-being of the inhabitants of *la ville lumière*. Meanwhile I think I am justified in stating that the outbreak in question is *not* cholera morbus, and that intending visitors to this gay centre of pleasure need be under no apprehension of contracting the severe form of diarrhoea which is always more or less in our midst at this time of year, provided they refrain from drinking unboiled and unfiltered Seine water.

#### *Recrudescence of Typhoid Fever in Paris.*

*L'eau de Seine* and enteric fever are old and staunch allies, and the turning-on of the water is equivalent to the turning-

on of the disease the existence of which is a disgrace to a Hnuismannised city like Paris. Is it to be wondered at then that cases of typhoid fever should be beginning to pour into the hospitals in increasing numbers? Dr. Monod reports to the Comité Consultatif d'Hygiène Publique that the number of persons with this disease admitted into the Paris hospitals from June 24th to June 30th was ninety-five. On the morning of June 24th there were under treatment in the wards of our hospitals 185 typhoid fever patients; on the evening of the 30th ult. these figures had increased to 235. If these poor sufferers were under treatment for wounds inflicted by roughs in the streets loud demands would soon be forthcoming for the repression of such lawlessness. But when death and disease are distributed through the medium of pipes amongst our population the dire results are accepted as a matter of course and no outcry is emitted by the public against such a scandalous régime. The patient long suffering of the Paris public is simply beyond British comprehension.

#### *Inter-University Courtesies.*

At the usual monthly meeting, held last week at the Sorbonne, of the General Council of the Paris Faculties it was decided to present a congratulatory address to the University of Dublin on the occasion of the tercentenary festivities which are being held this week in the Irish capital. Our distinguished confrère, Professor Lannelongue, was delegated to speak at the banquet in the name of the Paris University. Professor Lannelongue's visit to Dublin will doubtless have the effect of further interesting the hospital surgeons of that city in his sclerogenic method of dealing with tuberculous lesions.

#### *An Anti-Cancer League.*

In March last Professor Verneuil suggested to his colleague Professor Duplay the idea of forming an association the *raison d'être* of which should be the elucidation of the real nature of carcinoma. The idea has now been acted upon, and a committee has been appointed to further the development of this deserving enterprise. The committee includes such well-known workers as Duplay, Trasbot (of the Veterinary School of Alfort), Metchnikoff (of the Pasteur Institute), Reclus, Ricard and Brault, with M. Masson (the publisher) as treasurer. These gentlemen have just issued an address to the public exposing therein the objects of the League and asking for subscriptions in aid of researches. An appeal for collaboration is made to pathologists, clinicians, histologists, microbiologists, veterinary practitioners and even geographical explorers. Congresses will be periodically held in order to discuss the progress made in bringing to light any information concerning cancer, a journal will be published as the organ of the League, and, when funds permit, prizes will be offered for any discovery bearing on the subject. I can only wish the enterprise success in its arduous mission.

Paris, July 6th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *The Twentieth Congress of German Medical Men.*

THE twentieth Congress of German medical men met at Leipzig on the 27th ult. It was attended by 104 delegates, representing 149 societies. Dr. Graf of Elberfeld presided. Dr. Busch of Krefeld reported the proposals of the business committee regarding the relation of medical men to trades unions. At the second meeting of the Congress Dr. Branser of Ratisbon reported on the relation of medical men to the offices for the insurance of the aged and infirm. The well-known Berlin gynaecologist, Dr. Martin, proposed that the business committee of the associated societies of medical men should be instructed to describe the circumstances of the medical profession without reserve in the papers every year at the time when the pupils of high schools are examined for the certificate which admits them to the universities, and urgently to warn all those who have no special aptitude for study, particularly those who look to medicine as a means of earning a livelihood. This proposal was rejected by a majority of one, and the declaration that, considering the difficult circumstances of the medical profession, the increase of the number of medical men is out of all proportion to the increase of the population, was adopted in its stead.

#### *Cholera.*

The Government organ, the *North German Gazette*, writes:

"In order to prevent misunderstandings or alarming conclusions, to which the news of measures to ward off cholera may lead, it may be stated that there is no reason for uneasiness either for the present or for the future so far as it can be foreseen, because our frontiers are separated by vast spaces from the region where cholera is now raging, and the pestilence has not shown the slightest tendency to spread in the direction of central Europe. Moreover, the sanitary measures in question are of old date and so arranged and prepared for that they can be completely enforced the moment they become necessary. The danger of an unobserved introduction and spread of the pestilential germ on German soil therefore seems absolutely excluded."

*Dr. Snell.*

The eminent alienist, Dr. Snell, director of the Hildesheim Asylum, near Hanover, died on the 12th ult., aged seventy-four. He was the first in Germany to use agriculture as an element in the treatment of insanity. He is succeeded by his assistant, Dr. Gerstenberg.

*Professor Anton Biermer.*

Professor Biermer, till lately director of the Medical Clinic in Berlin, died the other day at Schöneberg, near Berlin. He wrote on sputum, leucocythæmia, the anatomy of bronchiectasis, pneumothorax, the diseases of the bronchi and of the parenchyma of the lungs, asthma bronchiale, typhus abdominalis, the causes of epidemics, especially cholera, metallic tinkling &c. He taught at Würzburg, Berne, Zurich and Breslau. His successor in Breslau is Professor Kast, formerly of Hamburg.

*Ozone and Influenza.*

At the general assembly of the German Meteorological Society, which met at Brunswick last month, Dr. Eydram of that city communicated that he had measured the ozone of the air during the last twelve years, latterly in and near Brunswick. He had found that at the time of the recent influenza epidemics the amount of ozone in the air was extremely small, hardly 10 per cent. of the normal amount.

*Miscellaneous News.*

The number of medical students in Berlin University this half year is 1448.

Professor Schnaer of Zurich has been called to succeed Professor Flückiger in the chair of Pharmaceutics in Strasburg.

Dr. Fritz Moritz has been promoted to the rank of professor and appointed director of the medical consulting clinic of Munich University.

Professor Fischer of Würzburg has accepted a call to Berlin.

Dr. August Haupt has published a book entitled "Soden am Taunus" (Soden at the Foot of the Taunus Mountains), giving full information about the climate and the waters of that beautiful watering-place.

The Royal Medical Academy of Belgium has elected Professor Du Bois-Reymond of Berlin a corresponding member.

The Society of Prussian Medical Officials will hold its general assembly in the Langenbeck House here on September 5th and 6th.

A committee of scientific men of all nations, including Du Bois-Reymond, Helmholtz, Waldeyer, Hückel and Billroth, has published an appeal for contributions to a monument of Ernst von Brücke in Vienna. Contributions may be sent to Professor Exner, 17, Schwarzspanier Strasse, Vienna, till the end of this month.

The magistrates of Berlin have ordered that all articles sent for disinfection to the municipal establishment for that purpose must be packed in strong chests lined inside with sheet-metal.

Berlin, July 5th.

## EGYPT.

(FROM OUR OWN CORRESPONDENT.)

*Visit of the Khedive to the Government Hospital.*

ON May 19th the young Khedive paid his first visit to Kasr-el-Aini Hospital, devoting an hour and a half to careful and intelligent inspection. He talked with some of the patients in Arabic, explained some new inventions to his aides-de-camp in Turkish and conversed freely with members of the hospital staff in English, French and German. He was much interested in certain operation cases, such as tracheotomy and gastrostomy, in the arrangements for

disinfecting and washing the private clothes of patients, in an excellent machine for sterilising milk, in a German bandage cutter and roller, which allows 5000 bandages to be made daily by one man for the provincial hospitals, and in the new bacteriological laboratory just opened under Dr. Kaufmann's care. His Highness was also interested in seeing cultures of cholera, diphtheria, &c., and in hearing of experiments on rabbits to secure immunity from tetanus. He has since spoken in the highest terms of appreciation of the work done by the English there.

*Cairo Drainage Scheme.*

It may be remembered that in 1889 the Egyptian Government considered its finances sufficiently satisfactory to be able to entertain the cost of draining the capital, thus doing away with some of the existing cesspools and endeavouring to reduce the rate of mortality among the natives. Accordingly Mr. Baldwin Latham was invited to visit Cairo, and he prepared here a carefully worked out scheme. But Egypt has no power to spend her own money upon any new work without the unanimous consent of six Powers, and France at once, though standing alone, refused the necessary permission. After many ineffectual attempts to overcome this difficulty, France eventually agreed that Cairo might spend half the octroi tax of the city, provided that a Commission appointed by England, France, and Germany should unanimously decide upon a good scheme. The French further insisted that if the three engineers were not unanimous a Belgian arbitrator should be appointed. In February last the international trio met in Cairo. They were Mr. Law, chiefly known for engineering works in Brazil; Herr Hobrecht, the designer, constructor and chief engineer of the Berlin sewers; and M. Guérard, the engineer of the Port of Marseilles. Thirty plans already in existence were laid before the Commission and all were judged incomplete or inapplicable to Cairo; but three were praised above the others and therefore the Government prize of £300 has been divided among them. One of the successful competitors is Mr. John Price, sanitary engineer to the Government, and he has also been given the grade of Bey. The Commission then elaborated their own scheme, which they calculate should not cost more than £500,000. But as they did not attempt to enter into any details it will require some months' hard work to determine whether this estimate is a correct one. The Commission recommend, as was anticipated, the system *tout à l'égout* and the formation of a large sewage farm in the desert to the north-east of the town. They propose to divide the city into four great zones, through each of which should flow a main sewer to receive by gravitation the sewage of the zone. These four sewers are all to end in one station, about half a mile to the north of Cairo. Hence the sewage should be pumped to a certain height, from which it should be forced as rapidly as possible through a succession of cast-iron pipes till it reaches the desert land to be irrigated. They particularly insist that the flow through these pipes is to go on continuously by day and night, without disinfection or contact with air. They also veto the manufacture of poudrette, into which the cesspool contents are at present converted in a secluded spot in the desert. They rather cleverly propose to utilise the Khalig by building one of the main sewers under its bed. This Khalig is an open drain running through some of the most crowded parts of the city; it is much older than the Mussulman religion and has nothing to do with it, but unfortunately the religious devotees here are of a contrary opinion and resent any attempt to close it. The commissioners finish their report by noticing the faulty position of the intake of the water-supply from the Nile, and by decreeing that houses unfurnished with proper water distribution shall not be permitted to be in connexion with the new sewers. They recommend further that public latrines shall be provided in greater number, that the mosques and native drinking fountains shall be improved, the levelling and metalling of streets in the native quarters and the opening out as far as possible of new streets to act as ventilating shafts for the crowded districts. Mr. Latham's hydraulic scheme was rejected by the Commission on the grounds of its cost (£500,000) and of its requiring complicated machinery at twelve stations in the town itself, where the sewage must be collected and disturbed. Here it may be remarked that Mr. Latham's scheme was to carry away 15,000,000 gallons of sewage per day, while that of the Commission is to remove eight times as much; it must therefore be that the former scheme was

very expensive or that the new one is extraordinarily cheap. The Commission arrive at their high figures by calculating a sewage flow of 0.4 litre per second per hectare, while for rainfall they allow 3.4 litres; that is, their daily allowance is for nearly nine times more rain than sewage, yet they distinctly point out that the annual average rainfall of Cairo during the last ten years is an inch and a quarter. It is suggested that they have proposed to design their sewers in consequence of one tropical shower of rain, with hail and thunder, which fell during seventy minutes last December. This is as bad as one of the competitors for the Government drainage prize, who assumed that we had a tropical rainfall to provide for. Then, again, the Commission find that Cairo consists at present of an area of 1630 hectares, and they elect to calculate that there are 400 people to each hectare. This gives us a density of population 63 per cent. over and above the 374,000 we now have. There are some arithmetical errors in the report which may have been caused by linguistic difficulties. But we must be grateful to the Commission, for without them Cairo would still have to wait for its preliminary plans, for which the Public Works Department has now been granted a credit of £2000. \*Deducting the cubic cesspool contents which are removed from the better houses in Cairo, there still remain some 100,000 cubic metres of sewage every year which soak away into the subsoil water. On the other hand, out of some 56,000 houses in Cairo there are only 4300 which receive good water from the water company; the remainder are dependent on wells and on water-carriers, who bring the water from wherever they think fit. There are thus some thousands of native houses in Cairo which either have no water at all or are dependent entirely on wells dangerously contaminated by sewage. It is to be hoped that Fiend Cholera is not aware of these facts. The natives seem to enjoy an extraordinary immunity from enteric fever, but their great mortality is largely dependent upon other filth-producing diseases, such as diarrhoea, dysentery, diphtheria, bilharzia and lung diseases. The English inhabitants of Cairo, who take a little trouble about their drinking-water and sewage removal, live as healthily as in London.

Cairo, June 21st, 1892.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### THE ELECTION TO THE COUNCIL.

THE fourth election of Fellows to fill vacancies on the Council of the College, under the new regulations, voting by means of proxy papers being now permitted, was held in the Library of the College on the afternoon of Thursday, the 7th inst., from two to four o'clock and resulted as follows:—

THOMAS SMITH ... ..	285	(including 2 plumpers).
JOHN TWEEDY ... ..	237	" 21 "
ARTHUR EDWARD DURHAM	203	" 8 "
F. HOWARD MARSH ... ..	200	" 0 "
Henry Morris ... ..	188	" 8 "
Jeremiah Macarthy ... ..	106	" 9 "
William Anderson ... ..	90	" 1 "
Alexander Oberlin MacKellar	86	" 3 "
J. Warrington Haward ... ..	77	" 18 "
George Cowell ... ..	75	" 4 "

Mr. Thomas Smith and Mr. Durham were therefore declared to be duly re-elected, and Mr. Tweedy and Mr. Howard Marsh to be elected, members of the Council. More interest was taken in the election than was the case last year, for 149 Fellows attended and voted in person; more were also present at the announcement by the President of the result of the poll. With regard to the use of proxy papers, it appears that 437 were applied for, but only 367 were returned; last year 322 valid proxy papers were sent in and 119 personal votes were recorded.

Mr. H. B. Robinson and Mr. E. C. Stabb acted as scrutineers of the ballot.

### IMPROVEMENTS AT THE COLLEGE.

Those of our readers who visited the College on Thursday and went into the museum must have been much impressed with the important improvements effected by the addition of the new rooms. Proceeding through the doorway on the right after entering the College, the visitor sees the entrance

of the new large museum across the old hall, now much enlarged by the removal of the room formerly used by the conservator of the museum. This new large museum is a very spacious room, lighted from above and at the north end, and well designed for the exhibition of specimens. The ground floor is chiefly devoted to the use of those wishing to study human anatomy, and arranged on tables of special design are the numerous preparations so well known for their excellence (the work of Mr. Pearson), which formerly occupied the ground floor of the western museum. The tables are so arranged that shelves can be drawn out on which the student may place his book so as to be opposite the specimen which he wishes to "read up" and seats are provided. Around the room in glass cases are arranged osteological preparations and part of the large collection of crania in the possession of the College. There are two galleries in this museum, both of which are to be occupied by pathological specimens as they are added. At present there are many important preparations—the overflow of the older rooms. The arrangement when fully carried out will be very satisfactory, for, after entering the first gallery in the old western museum, the preparations can be most usefully studied in a definite order from the left, the series being so arranged that the student passes from group to group in their order and, returning into the old museum, ends the tour of the galleries on this floor at the old entrance. He can then ascend and follow a series in continuation of the other, arranged in a similar manner in the two galleries above. The anthropological series on the ground floor of the larger of the new museums is continued in the glass cases on the ground floor of the smaller and in the wall cases on one side of the western museum. The middle gallery of the small museum is occupied by teratological preparations and the top gallery by the illustrations, by means of photographs and water-colours, of various diseases. The series of invertebrata have been placed in six table cases in the western museum, the four following table cases next in order being used for the specimens illustrating the development of the human skeleton. The cases in which the series of invertebrata have been placed have been relieved and painted in chocolate—a matter which is worthy of mention, as this colour makes the preparations show much more clearly and is less trying to the eyes, and indicates what is evident throughout, that the furnishing of the museums and arrangement of specimens have been carried out under skilled and practical supervision.

## Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the First Professional Examination:—

J. C. Baskin, J. W. Benson, W. J. Beveridge, G. E. Cairness, D. F. Clarke, H. F. Conyngham, G. Corcoran, W. M. Cummins, G. G. Delap, J. C. Edge, E. A. Fenton, T. Fitzgerald, R. Glynn, E. M. Hamilton, P. P. Harold-Bary, W. J. Healey, C. E. Hodgson, C. E. Horrell, W. E. Jolliffe, W. M. Jones, C. A. Kenny, C. D. Martin, H. B. S. Montgomery, J. Morrissey, J. A. McInn, M. O'Brien, W. H. Odlum, J. J. O'Reilly, T. J. Perkins, T. J. Poirer, F. J. Purcell, A. S. Sampay, E. W. Scully, J. N. Shea, E. W. Siberry, Miss L. F. Strangman, Miss M. S. Strangman, R. H. Walpole, F. C. Wright, and A. H. O. Young.

THE COATBRIDGE MEDICAL FEES CASE.—On the 1st inst. Sheriff Berry issued an interlocutor reversing the decision of Sheriff-Substitute Mair in the case of Dr. Macphail v. the Coatbridge Town Council. The local Police Act constituting Coatbridge into a burgh contains a clause compelling doctors to report all contagious diseases and providing for their being paid 2s. 6d. for each report. A dispute arose between the medical man and the Council as to whether measles and whooping-cough were included; and the Council eventually adopted the Infectious Diseases Notification Act. The medical men maintain, however, that under the local Act they were bound to report and the Council to pay for the reports of these two diseases. Sheriff Mair gave effect to this contention and the Council appealed to Sheriff Berry, who finds that the defenders, the Local Authority of Coatbridge, having adopted the Infectious Diseases (Notification) Act, 1889, and not having taken steps to apply the Act to measles and whooping-cough, are not now liable to pay to the pursuer fees for cases of these diseases reported by him.

**NEW INFIRMARY, LEWISHAM.**—The Bishop of Lichfield performed the ceremony on Saturday of laying the foundation stone of a new infirmary, to be erected by the Lewisham guardians, at an estimated outlay of £60,000.

**SUPERANNUATION ALLOWANCE.**—Mr. George Cheesman, L.R.C.P. Edin., M.R.C.S., lately district medical officer of the Southampton Incorporation, has been granted a superannuation allowance of £132 19s. 8d. per annum.

**GUY'S HOSPITAL MEDICAL SCHOOL.**—The Right Rev. Randal T. Davidson, D.D., Lord Bishop of Rochester, distributed the medals and prizes at Guy's Hospital Medical School on Wednesday last, July 6th. The dean of the school read the report for the past year and a vote of thanks to the Lord Bishop was moved by the treasurer and supported by the senior physician and senior surgeon.

**MEDICAL MAGISTRATES.**—The names of the following gentlemen have been placed on the Commission of the Peace—namely, John Parsons, L.R.C.P., F.R.C.S. Edin., L.F.P.S. Glasg., and George Stringer Pullon, M.D., C.M. Edin., for the Borough of Barnsley, James Thomson William Baird, M.B., C.M. Edin., and Hugh Moss, M.D. St. And., M.R.C.S., for the Borough of Congleton, and James Aitken Myrtle, M.D., C.M. Edin., for the Borough of Harrogate.—John E. Jones, M.D. St. Andrews, M.R.C.S. &c., of Brynffynon, Dolgelly, having, on the recommendation of W. R. M. Wynne, Esq., the Lord-Lieutenant, been placed on the Commission of the Peace for the county of Merioneth, made the usual declaration and subscribed the necessary oaths and qualified as a magistrate for the county at the Trinity quarter sessions held at Dolgelly on June 28th.

**THE SANITARY INSTITUTE.**—The forthcoming annual congress of this institute will be held at Portsmouth, commencing on Monday, Sept. 12th, and continuing throughout the week. The inaugural address of the president and the sectional and general meetings will be held at the Town Hall, but the Health Exhibition will take place in the new drill hall and include sanitary apparatus and appliances in connexion with the congress. The Duke of Connaught and Strathearn has consented to become the patron.

**PRESENTATIONS.**—Dr. Grant of Ellon has been presented by the St. Andrew's Ambulance Classes, Ellon, with a handsome microscope and case.—Mr. Charles Smith, M.R.C.S., of Kinnairdy, Marnoch, has been presented by his friends, on the occasion of his professional jubilee, with an illuminated address and a purse of 292 sovereigns.—Mr. Richard T. Williams, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., who for several years past was assistant to Mr. J. R. James of Cwm Avon, having left that town, has been presented by his friends and well-wishers at Cwm Avon with a well-executed illuminated address and a costly box of surgical instruments.

**SCHOOLS OF SURGERY: ROYAL COLLEGE OF SURGEONS, IRELAND.**—The following prizes have been awarded for the summer session:—Operative Surgery: G. Hamilton, gold medal; O. W. Elsner and T. C. Perry, equal, silver medals. Practical Chemistry: H. E. Bardley, £3 and medal; H. F. Conyngham, £1. Practical Histology: E. A. Meeke, £3 and medal; E. C. Hodgson, £1 and certificate. Materia Medica: E. T. Moore, £3 and medal; E. A. Meeke, £1 and certificate. Pharmacy: R. M. Hamilton, £3 and medal; H. B. Montgomery, £1 and certificate. Medical Jurisprudence: T. T. O'Donnell, £3 and medal; L. F. Corbet, £1 and certificate.

**INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.**—The second International Congress of Physiologists will be held at Liège (Belgium) from the 29th to the 31st of August. An exhibition of physiological apparatus will be arranged. Those taking part in the Congress, the directors of physiological laboratories and makers of instruments, recommended by members of the Congress, will be at liberty to exhibit. The exhibition will be opened two days before the Commencement of the Congress and be closed two days after its conclusion. Professor Fredericq, director of the Physiological Institute of the University of Liège, has kindly offered to place his institute at the service of members desiring to give demonstrations, or to show scientific apparatus. Those intending to be present at the second congress should communicate with Professor Léon Fredericq, Liège or to Mr. C. S. Sherrington, St. Thomas's Hospital, London, before the 1st of August.

**THE DENTAL HOSPITAL OF LONDON.**—The medical staff and Lecturers of this institution have issued cards of invitation to a conversazione, which is to take place on Wednesday, July 13th, at 8 P.M., at the Royal Institute Galleries, Princes Hall, Piccadilly. At 8.30 P.M. there will be a prize distribution by Professor St. George Mivart, F.R.S.

**THE METROPOLITAN HOSPITAL.**—Lord Sandhurst presided at the recent annual dinner in aid of the funds of the above hospital. He defended the conjunction of a provident dispensary and a general hospital, and assured the public that unless they subscribed more liberally to hospitals they would need to apply to the State or to local funds for support.

**NEW COTTAGE HOSPITAL, HORSHAM.**—On Saturday the deeds of this hospital were delivered to the trustees and the building declared opened. It is well situated in the Hurst-road, provides eight beds in three wards, besides three each in the special male and female wards, and has been erected at an outlay of upwards of £1700, the whole of which is covered by subscriptions received and about £200 a annual subscriptions are promised towards its maintenance.

**THE LORD MAYOR AND THE WELSH EISTEDDFOD.** The Lord Mayor of London visited Bridgend on Monday to open the annual Eisteddfod in aid of the Local Cottage Hospital. His Lordship was received by the Eisteddfod Committee and the members of the Local Board at the railway station and presented with an address of welcome; he was afterwards escorted to the Eisteddfod Pavilion by an imposing procession, where he declared the Eisteddfod opened.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on July 5th, 1892.

Hospital.	Beds occupied.					Total	Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.		
Eastern Hospital ..	360	78	2	20	..	466	482
North-Western Hospital	317	73	..	5	..	395	411
Western ..	174	22	..	10	..	210	224
South-Western ..	220	45	..	4	..	278	348
South-Eastern ..	345	14	..	11	..	371	424
Northern ..	704	20	..	..	..	724	782
Gore Farm ..	79	..	..	..	..	79	149
<b>Totals .. ..</b>	<b>2208</b>	<b>252</b>	<b>3</b>	<b>50</b>	<b>4</b>	<b>2523</b>	<b>2770</b>

SMALL-POX.—Atlas hospital ship, 40.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

- ALDEN, J. H., M.R.C.S., has been reappointed Medical Officer of Health for Shirley.
- BOLUS, H. B., M.B., B.C. Cantab., has been appointed Resident Obstetrician to Guy's Hospital.
- COLLINS, RICHARD HAWTREY, M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Poplar Hospital for Accidents, vice Williams, resigned.
- COUNSELLOR, CHARLES BYRE, M.D., L.S.A. Lond., has been appointed Physician to the Esmeralda County Hospital, State of Nevada, U.S.A.
- DOIDGE, M. J., B.A. Cantab., M.R.C.S., has been appointed Medical Officer for the Fourth District of the Risbridge Union, vice B. L. Tandy, resigned.
- DONALD, H. C., M.B., C.M. Glasg., has been appointed Parochial Medical Officer, Paisley Burgh.
- EVERS, C. J., M.B. Durh., M.R.C.S., has been appointed Medical Officer of Health to the Port and Borough of Faversham.
- FLOWER, F. J., M.R.C.S., has been reappointed Medical Officer of Health for Warminster.
- GAYLOR, E., L.R.C.P. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer of Health to the Ripley Local Board.
- GRANT, F., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health to the Market Harborough Local Board.

HARWOOD, C. M.D. Edin., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Shardlow Rural Sanitary District.

HAYES, H. W. McC., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., has been appointed Medical Officer for the Third Sanitary District of the High-poworth and Swindon Union.

HEMMING, G. P., M.R.C.S., has been appointed Medical Officer for the Bishop's Waltham Sanitary District of the Droxford Union.

JACKSON, M. M.D. Irel., M.B.C.S., has been reappointed Medical Officer of Health for the Barnstaple Rural Sanitary District.

JAMES, W. E., L.R.C.P. Lond., M.R.C.S., has been appointed, *pro tem.*, Medical Officer of Health for the Abercarn Local Board.

JONES, G. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Second Sanitary District of the Alton Union.

LONDON, E. E. B., M.R.C.S., L.R.C.P., has been appointed Resident Obstetrician to Guy's Hospital.

LOCKWOOD, C. B., F.R.C.S., has been appointed Assistant Surgeon to St. Bartholomew's Hospital.

LOWNDS, H. A., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Doncaster Board of Guardians, vice Fairbank.

MACINTOSH, D. J., M.B., C.M. Glas., has been appointed Superintendent of the Western Infirmary, Glasgow, vice Russell, resigned.

MCCULLOCH, A., M.B., C.M. Glas., has been appointed Medical Officer for the Torporley Sanitary District of the Tarvin Union.

PALMER, H. L., M.R.C.S., has been appointed Medical Officer of Health for the Kerry Sanitary District of the Newtown Rural Sanitary Authority.

PASSMORE, W. E., L.S.A., has been appointed Assistant Medical Officer of the Infirmary, Wandsworth and Clapham Union.

RADFORD, WILLIAM J., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Surgeon to the Poplar Hospital for Accidents.

ROBERTS, ERNEST T., M.D., C.M. Edin., has been appointed Certifying Factory Surgeon for the Keighley District, and Medical Officer to the Keighley Post-office, vice Arthur Roberts, M.D., D.P.H., resigned.

SICHEL, G., M.R.C.S., L.R.C.P., has been appointed Resident Obstetrician to Guy's Hospital.

SPRENT, W. S., L.R.C.P. Lond., L.R.C.S. Irel., has been appointed Medical Officer for the Hovingham Sanitary District of the Malton Union, vice Watt.

STONHAM, H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Steppney Union.

TAYLOR, HERBERT EDWARD, B.A., M.D., B.Ch., B.A.O. Univ. Dub., has been appointed Medical Officer and Public Vaccinator for the Second District of the Malling Union, vice Dr. Muirhead.

TAYLOR, S. T., M.B. Lond., L.R.C.P., M.R.C.S., has been reappointed Medical Officer of Health to the Cromer Local Board.

WAIT, J. ALFRED, B.A., M.B., B.C. Camb., has been appointed Junior House Surgeon to the Clayton Hospital, Wakefield.

WARD, GEO. S., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Fifth Sanitary District of the Hertford Union.

WILDING, W. F. W., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health to the Hindley Urban Sanitary District.

WILLIAMS, ERNEST G. H., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer at Jamaica (Colonial Service).

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH HOSPITAL, Birkenhead.—Junior House Surgeon. Salary £60 per annum, with board and lodging, but no wine, spirits, or beer. A further sum of from £20 to £25 per annum is usually obtained in fees.

CHURCH OF SCOTLAND (JEWISH MISSION).—Medical Missionary, for the Mission and Hospital at Smyrna. Salary £800, or £250 with dwelling-house. (Apply to J. A. Frail, Esq., W.S., 17, Duke-street, Edinburgh.)

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. Board and lodging provided.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. Board and lodging provided.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Junior Resident Medical Officer. Salary £50.

FULHAM UNION.—Assistant Medical Superintendent of the Infirmary. Salary £100 per annum, increasing £10 yearly to a maximum of £130, with board, furnished apartments, attendance and washing.

JOINT COUNTIES ASYLUM, Abergavenny.—Junior Assistant Medical Officer. Salary (a progressive one) commences at £100 a year, with apartments, board and attendance.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the house.

LONDON COUNTY ASYLUM, Hanwell, W.—A Fifth Assistant Medical Officer. Salary £120 per annum, rising £5 a year to £150, with board, furnished apartments and washing.

LUTON FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Assistant Medical Officer. Salary £150 per annum, out-doors. (Apply to Mr. T. Koens, 32, Grove-road, Luton, Beds.)

MCGILL UNIVERSITY, Montreal, Canada.—Professorship of Pathology for the Faculties of Medicine and Comparative Medicine for one year. Salary for provisional appointment for one year £400 sterling. (Apply to the Dean, Montreal, Canada.)

PARISHES OF WESTRAY AND PAPA WESTRAY, Orkney.—Medical Officer and Public Vaccinator. Salary as Medical Officer £70 sterling per annum.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY, N.B.—Medical Officer. Salary from Board £100, cost of paupers' medicines included. (Apply to the Inspector of Poor of Torosay, Auchnacraig, by Oban.)

PONTYBERAN AND PENTREMAWR WORKMEN AND THE NEIGHBOURHOOD. Qualified Medical Man. (Apply to Mr. Jones, Cook's Bridge, Pontyberan, near Llanelly, South Wales.)

QUEEN'S HOSPITAL, Birmingham.—Physician for Out-patients and Pathologist to the Institution for three years. Annual honorarium £75.

READING AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. Senior Medical Officer. Salary £200 per annum and all Midwifery and Vaccination fees, with a good house and garden free and a conveyance supplied. (Apply to Mr. Griffin, 82, Southampton-street.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Two Examiners.

ROYAL UNITED HOSPITAL, Bath.—House Surgeon. Salary £60 per annum, with board, lodging, and washing.

SHEFFIELD GENERAL INFIRMARY.—Assistant House Surgeon for three years. Salary £80 per annum, with board, lodging, and washing.

STAINES UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary £75 per annum.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant for six months, with board and residence.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, W.—Resident Medical Officer. Salary £105 per annum, with furnished apartments, attendance, coal and gas.

UNIVERSITY COLLEGE, London.—Assistant Ophthalmic Surgeon.

WESTERN DISTRICT OF THE COUNTY OF LONDON.—Coroner. Salary for the ensuing five years £780 a year. (Apply to the Clerk of the Council, Spring-gardens, S.W.)

WIRRAL CHILDREN'S HOSPITAL, Wood-church-road, Birkenhead.—Resident House Surgeon. Salary £50 per annum, with board, lodging on the premises, and washing.

WOLVERHAMPTON EYE INFIRMARY.—House Surgeon. Salary £200 per annum, with rooms, board, and washing.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer. Salary £150 per annum, with board, furnished apartments, and washing.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, Worcester.—Assistant Medical Officer. Salary (without residence) £140 per annum, with part of Midwifery fees; also £20 per year for cab hire.

## Births, Marriages, and Deaths.

### BIRTHS.

ADAMS.—On June 28th, at Aldersgate-street, E.C., the wife of John Adams, F.R.C.S., of a daughter.

BINNIE.—On June 30th, at Meadowfield House, Brandon, Co. Durham, the wife of R. M. G. Binnie, M.D., C.M., of a daughter.

CLARKE.—On July 4th, at Blackheath, the wife of Ernest Clarke, M.D., of a daughter.

DODS.—On July 4th, at High-street, Fenny Stratford, the wife of Louis F. Dodds, Surgeon, of a daughter.

FERRIS.—On July 1st, at Hursley, Uxbridge, the wife of John Spencer Ferris, M.B. Lond., of a son.

### MARRIAGES.

ADAMS—MIDDLEMASS.—On June 29th, at St. Augustine's, Queen's-gate, William Coope Adams, M.B., eldest son of the late Dr. Adams, of North London, to Blanche, second daughter of the late William Middlemass, J.P., of March Mount, Cheltenham.

LUND—BALLANTINE.—On June 30th, at St. Andrew's Presbyterian Church, Bournemouth, Herbert Lund, F.R.C.S., of St. John-street, Manchester, to Mary Crockett, eldest daughter of the late Thomas Ballantine, Esq., of Greenock.

MORISON—MUSHET.—On June 20th, at Dalkeith, by the Rev. Neil M'Lachlan, M.A., James Rutherford Morison, F.R.C.S. Eng. & Ed., of 14, Saville-row, Newcastle-on-Tyne, to Louie, youngest daughter of the late W. Mushet, of Fairfield House, Dalkeith, N.B. No cards.

PARKER—LÜLING.—On June 8th, at St. Mary Abbott's, Robt. William Parker, M.R.C.S., of Welbeck-street, Cavendish-square, W., to Marie, second daughter of the late Charles Lüling, of New York.

SALZMANN—THORNTON.—On July 5th, at St. Mary Abbot, Kensington, Frederick William Salzmann, M.R.C.S., of Brighton, to Grace Harriet, youngest daughter of the late John Thornton, Esq., Bengal Civil Service.

THOMAS—JENKINS.—On June 30th, at St. John's Church, Cardiff, by the Rev. David Davies, M.A., Vicar of Newcastle, Bridgend, John Lynn Thomas, late House Surgeon at the Cardiff Infirmary, to Rosina Mary, only daughter of the late Edward Jenkins, Esq., of Penylan, Cardiff.

VOLATTI—MUSGRAVE.—On June 22nd, at Holy Trinity Church, Whitehaven, by the Rev. James Anderson, Dr. W. J. Volatti, late Royal Navy, to Mary A. F. Mrs. Musgrave, of Whitehaven, Cumberland.

### DEATHS.

BURCHELL.—On July 5th, at Delamers, Bradwell-on-Sea, Essex, Peter Lodwick Burchell, M.B. Lond., F.R.C.S. Eng., aged 74.

SWINDELL.—On July 3rd, at Whetstone, N., Joseph John Swindell, Surgeon, in his 75th year.

TRIMNELL.—On July 2nd, at Southsea, Deputy Surgeon-General D. W. Trimnell, Madras Army, son of the late Rev. G. C. Trimnell, aged 58.

WILLINGTON.—On July 3rd, at The Cottage, Cortayne-road, Fulham, Henry Willington, M.D., late of South Kensington, in his 80th year.

WRIXON.—On June 30th, at Rose Lea, Castlebar-road, Ealing, J. Wrixon, Esq., M.R.C.S., late of Watford, Hertts, and eldest son of the late Captain Wrixon, 10th Lancers.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, July 7th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry bulb.	Wet Bulb.	Solar Radia in Vacuo	Maxim- um Temp. Shade.	Min. Temp.	Rain- fall.	Remarks at 8.30 A.M.
July 1	30.20	W.	60	55	122	74	52	—	Hazy
" 2	30.17	W.	68	68	124	78	53	—	Bright
" 3	29.70	S.W.	69	61	127	83	61	—	Hazy
" 4	29.90	S.W.	67	61	125	80	61	—	Cloudy
" 5	30.00	W.	62	67	117	70	55	—	Cloudy
" 6	29.98	W.	61	56	123	69	55	.45	Cloudy
" 7	29.87	S.W.	63	59	105	67	60	.13	Raining

Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

CARPENTER AND DUKES DEFENCE FUND.

We are informed that the appeal made in connexion with this fund has not been responded to in so free a manner as could be wished, considering the principle involved. Dr. Carpenter's family have generously declined to take any part of the subscriptions till Dr. Dukes is fully released from his share of the debt. The following additional subscriptions have been received:—

The Croydon Medical Reading Society	£10 0 0	Dr. Beard .. ..	£1 1 0
The Editors of THE LANCET	3 3 0	Dr. Mickle .. ..	1 1 0
		Mr. C. G. Woodd ..	1 1 0

A CORRESPONDENT cautions practitioners in engaging gentlemen to fill the post of locum tenens to first consult the Medical Register or to obtain some proof of their being registered.

Mr. C. F. Beadles.—The paper will appear in an early number.

ROMANCE IN THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—I have chosen the above title for this communication as it certainly is the most romantic event that has occurred in my practice, now extending over thirty years. I must premise by stating that the patient alluded to had, through no fault of his own, failed in business and was utterly unable to cancel his indebtedness to me of a sum amounting to nearly £50.

Last Wednesday evening a lady and gentleman called to see me and on entering my consulting-room I found they were complete strangers. The first sentence of the latter revealed his nationality and it was evident he hailed from America. As near as I can remember the following conversation ensued. "I think, sir," said he, "you attended Mr. — and his family." "That is so," replied I. "Well, sir, I am under considerable obligation to them, as when my wife here, who is a connexion of theirs, was a little girl and left an orphan they were very kind to her for years and I have never forgotten it. Now, the other night, sir, I went there to supper and as I had been out all day I was considerably tired out and in the evening I was resting on the sofa and I have no doubt they thought I was asleep. Well, sir, I heard all their conversation and Miss — was telling my wife of all your attention and kindness to them—how you under Providence had saved her life and what sorrow they felt at not having been able to recompense you. Well, sir, they talked so much about it that before I got off that sofa I said to myself, 'That doctor shall be paid.' Now, sir, would you kindly look at this?" Here my visitor held out a malacca cane, the handle of which was carefully enclosed in a morocco case. On opening it I found the cane had a beautifully carved ivory handle, which was studded with jewels, consisting of small rose diamonds, eighty or ninety in number, worked into fanciful shapes representing small birds, fish, &c., and here and there a ruby, emerald and amethyst. It was a

beautiful piece of art-work and I quite believe it cost, as he said, £50. He told me he had taken it for a debt in the East fifteen years ago. He then went on to say that if I admired it he hoped I would accept it as a recompense for my attendance upon Mr. — and his family. I, of course, expressed my admiration at the good feeling and sympathy called forth by his proposal and was leaving the room to show the cane to my wife when he stopped me, saying, "Doctor, I have another proposition to make to you. I own a number of plots of building land in the most rising city of —, in South America, where I reside, and if you would prefer it I will give you a plot worth £100 now (and if you stick to it it will soon be worth double). You shall have the deeds sent to you and have it properly transferred on my return from my holiday here, and whichever you like to choose, the stick or the land, I shall be pleased to leave to you entirely." My friend kindly left the jewelled cane in my possession until the morning; but considering the number of burglaries going on in the suburban districts I decided on becoming a landed proprietor in the United States.

I am, Sirs, yours faithfully,

London, July 4th, 1892.

LONDONIENSIS.

P.S.—A kind but possibly envious friend has just informed me that an Englishman cannot hold land in America without residing there for three months. If this is so, I shall be pleased to show you the stick some day.

MEDICAL AID ASSOCIATIONS AND FRIENDLY SOCIETIES.

To the Editors of THE LANCET.

SIRS,—Your lay contemporaries, several of them—most notably *The Times*, *City Press*, *Rock*, &c.—have in a very outspoken manner referred to the great injustice done to the profession by hospitals and dispensaries which admit patients to their benefits without any inquiry at all as to the applicant's ability to pay the modest fee which an ordinary general practitioner asks nowadays. If free medical treatment or treatment for 1d. per week is permissible, even though recipients can afford to pay a proper fee, the *City Press* asks why legal advice should not be afforded on the same terms? I have two newspapers—viz., the *Kidderminster Shuttle*, with an account of the "Proceedings of Council versus Medical Aid Officer," and in the conclusion of the report it is mentioned that several of the members of the General Medical Council stated openly that they held "strong private opinion" on these "medical aids." The President asked the counsel who defended Dr. Martin, "How would the members of your (the legal) profession like associations formed for the purpose of obtaining legal advice and assistance on similar terms?" Mr. Corbett (in the absence of Mr. Lawrence) replied: "I am certain of this, sir, that if such an association were formed we [i.e., the Incorporated Law Society] should endeavour to deal with it promptly." This expression of opinion was met with the ejaculation, "Hear, hear!" from the members of the Council. Those associations have no wage limit; they admit anyone, they rob the outside medical men, they build premises and they save money at the expense of the slavish toil of their medical officers. In small towns they do infinitely more harm to the general practitioner than any of the hospitals or provident dispensaries. The General Medical Council is the only body to satisfactorily deal with this question.

I am, Sirs, yours faithfully,

July, 1892.

A. T. H. D.

To the Editors of THE LANCET.

SIRS,—So much has lately been said in disparagement of Medical Aid Associations that I should feel obliged by your allowing me, as medical officer to one of these associations, to place before your readers the other side of the question.

I fail to see the difference between the working of these associations and that of the club practices of medical men throughout the kingdom. It can only be a question of larger number, the fees paid by members being in both cases identical; and I think I may safely say that, as medical officers to associations, in the majority of cases, do not entertain private practice, they devote more time to their club patients than private practitioners are able to do. And this was a powerful incentive to the starting of Medical Aid Associations; and as to medical men holding these appointments, to my mind it is far better than accepting an assistantcy at an absurdly low salary, or opening a dispensary in the slums and giving advice and medicine for sixpence and sometimes less. Unfortunately, in our profession the supply is greater than the demand, and we cannot therefore choose for ourselves, especially when one is without sufficient capital to embark in private practice in a good way. In your issue of June 18th a question was asked by "A Hospital Surgeon" relative to Medical Aid Associations appointing unqualified assistants. Very few associations provide unqualified men, and the tendency now is to substitute qualified assistants for them; but how do we differ in this respect from private practitioners? Apologising for the length of this letter,

I am, Sirs, yours faithfully,

June 21st, 1892.

"AUDI ALTERAM PARTEM."

To the Editors of THE LANCET.

SIRS,—I hear of a patient lying ill not far from me who is attended by a club doctor, but waited upon by a trained hospital nurse. We move so quickly nowadays that I daresay in a year or two this will be the usual state of things, now that bishops and ex-ministers are so eager to join the nearest friendly society.—I am, Sirs, yours truly,

July 4th, 1892.

M.B.

## THE LEEDS INFIRMARY.

A CORRESPONDENT signing himself "Chapeltown" complains of the 'wrong uses the infirmary is put to. A new wing has been opened, and, as the writer says, "the hat is being sent round" for £5000 a year additional to maintain its efficiency. He objects to the abuse of the out-patient department—to boards of guardians compounding with the infirmary for the treatment of fractures, dislocations, &c., for payment of which the law has already provided as "extras" to the medical officers; to the infirmary continuing the after-treatment of cases taken there in the first instance as emergencies; to employers of labour sending their workmen there for small injuries &c. We are too familiar with such complaints, which are reasonable, and which tend very much to damp true charity for fitting cases.

*Kappa*.—We recommend our correspondent to purchase either Fry's or Lowe's "London Charities," which will give him all the information he requires.

*Justitia*.—Such a certificate should have been submitted to the coroner.

*Medicus* is thanked for his communication.

## FIFTY-THREE MARBLES SWALLOWED AND EVACUATED WITHOUT INCONVENIENCE.

To the Editors of THE LANCET.

SIRS,—J. K. M.—, a boy of sixteen, was admitted on Nov. 10th, 1891, into the Cardiff Infirmary, under Dr. Wallace, on account of, as he stated, having swallowed fifty-three marbles, which he could not get rid of. My thanks are due to Dr. Wallace for his kindness in allowing me to publish this, I believe, unique case. The boy informed me that he had with former experiments on himself swallowed as many as twenty-three marbles and brought them up again without missing one of them. The reason why he took this extraordinary number was that he had suffered on the date of admission heavy losses at a very exciting game of marbles with a friend and with a view to recover his lost property he bet his more skilled (in marble playing) adversary that he would swallow fifty "alleys." The patient won his bet, but was unable to resume the play on account of his inability to reproduce his "commonsens" and "taws." On admission there was a distinct fulness in the epigastrium, which felt, as Mr. Morland, the present house surgeon, remarked, like a thick bag full of small cobbles. On inverting and shaking the boy the rattling as of a receding wave on a pebbly beach could be heard for yards around. The only allusion to a similar phenomenon that I know of is in the celebrated case related to Mr. Pickwick by Mr. Hopkins of St. Bartholomew's Hospital, where twenty-five beads in a child's stomach made "a devil of a noise, like a small hail-storm." On Nov. 11th the patient passed seventeen marbles per anum at 8.30 A.M., and at 7 P.M. on the same day he passed twenty-nine. The remaining marbles were passed next day and the patient was discharged. The marbles weighed ten ounces, and consisted mostly of "commonsens" and a few "top" or "bottle alleys" and two "bloods." A small boy in one of the narrow streets near Drury-lane Theatre informed me that one of the "alleys" was what was called a "buck"—a species of great value on account of being very hard and rebounding well. It is interesting to note that the first batch of seventeen was passed with hardly any feces within twenty hours of being swallowed and they must have passed through the ileo-caecal valve in single file; for several of the marbles were three-quarters of an inch in diameter, the whole number forming a single column thirty-five inches long. In the museum of the Royal College of Surgeons there are many articles reminding one of an ironmonger's shop, but which were got from the bodies of either insane or hysterical individuals and the motive in all these cases was very different from that which prompted the subject of this case to swallow his marbles. I am, Sirs, yours faithfully,

J. THOMAS,  
Late House-Surgeon to the Cardiff Infirmary.

## HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

*Erratum*—On page 47 of our last issue, owing to an obvious error in the transcription of the notes of our report, Sir James Paget was made to say: "It would be a great happiness to him if he could help the progress of the Hospital by speaking of the great good which he had accomplished." The passage should of course have read, "the great good which it [i.e., the hospital] had accomplished."

A.—We cannot defend C.'s conduct supposing it to be as represented. Consultants should set an example of professional propriety.

*Verax* does not give any address.

## THE M.D. WASHINGTON.

To the Editors of THE LANCET.

SIRS,—A young medical friend has asked me to make inquiries regarding the Washington M.D.—how it is obtained, if a previous university training is required, an examination held, and what are the fees. Several practitioners in his neighbourhood have lately called themselves "Doctor" and looking up the Medical Directory he found that this newly acquired distinction was the Washington M.D.

I am, Sirs, yours truly,  
AN ENQUIRER.

July 3rd, 1892.

## ADVERTISING IN VICTORIA, BRITISH COLUMBIA.

THE following is a batch of advertisements from the *Victoria Daily Times*. We trust that public professional opinion will take note of this style by way of caution:—

"Dr. Hugh Watt, M.C.P.S.Ont., and B.C. Late of Cariboo. Office and residence No. 303, Douglas-street (Dr. Milne's old residence)."

"Dr. G. L. Milne. Office—30, Douglas-street. Telephone at office, No. 10. Telephone at residence, No. 208."

"Dr. Sproule, B.A. Dublin University. Surgeon and Physician. Allopath and Homœopath. Late Surgeon British Royal Mail Steamers. Electricity used when suitable. Rooms 1, 3 and 4, Clarence Hotel, Victoria."

"Dr. Ernest Hall, L.R.C.P. and C.M. Edin. Specialty—Eye, Ear, Nose and Throat. Jewell Block, corner of Yates and Douglas-streets."

"Drs. Hall and Leitch. Offices: Friar Block, 60, Douglas-street. Dr. F. W. Hall, M.D., C.M.; Dr. H. D. Leitch, M.D., C.M., M.C.P.S.O., F.T.M.S. Specialty—Diseases of Women and Diseases of Rectum. Lately attending Woman's Hospital and Post-Graduate School and Hospital, New York."

"Homœopathy. Dr. John Hall, 98, Yates-street, over Cochrane and Munn's Drug Store. Chronic and Children's Diseases a specialty. Office hours from 1 to P.M. only, excepting Sunday and holidays."

*Surgeon-Major Naismith, M.D., Ayr*, is thanked for his communication, but we regret that it is too long and technical for insertion in our pages.

*Athenæum* should forward an application to the Lord-Lieutenant of the county for the purpose in question.

*Mr. C. Elliot*.—No.

## THE OPIUM HABIT.

To the Editors of THE LANCET.

SIRS,—A medical man takes a practise in a small country village and finds opium taking extensively practised. The drug, both solid and as laudanum, is apparently sold *ad lib.* by the village chemist to anyone who asks for it. Is the medical practitioner justified in doing nothing, notwithstanding that he has several patients suffering from the effects of opium taking, who are anxious to get rid of the habit and probably would do so if the temptation did not lie at their door? And supposing a death certificate to be signed as due to opium eating, would there necessarily be an inquest? I enclose my card.

I am, Sirs, yours faithfully,

July 4th, 1892.

OPIUM.

## THE VILLAGE NURSE.

To the Editors of THE LANCET.

SIRS,—I should be very glad if any of your readers having experience in such matters would kindly give me hints as to the best method of instituting a "village nurse," one to attend the sick of all classes in a country village; whether it is better to obtain the nurse by advertisement or from a nursing institute. And, also, if there exists any society which assists in providing village nurses.

I am, Sirs, yours faithfully,

July 5th, 1892.

RUSTICUS.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Messrs. Allen and Hanburys, London; Dr. Ascham; Messrs. Arnold and Son; Mr. Baines, Birkdale; Mr. Baird, London; Messrs. Burgoyne and Co., London; Mr. F. J. Bennett, London; Messrs. Brown, Gould, and Co., London; Dr. Boyland, Paris; Dr. Blanc, Cannes; Mr. Fletcher Beach, London; Dr. Bateman, London; Mr. Cecil Beadles, Colney Hatch; Dr. Henry J. Buck, Clapton; Mr. Legnox Browne, London; Dr. C. J. Cullingworth, London; Mr. Clinton, London; Dr. Harry Campbell, London; Mr. C. F. Clarke, Oxford; Messrs. Condy and Mitchell, London; Mr. Cameron, Hong-Kong; Messrs. Clay and Sons, London; Dr. Murdoch Cameron, Glasgow; Mr. Henry Cowe, Berwick; Dr. P. R. Dodwell, Brompton; Dr. Dees, Exeter; Mr. Hugh R. Davis, London; Mr. A. Duke, Dublin; Mr. Davis, Detroit, U.S.A.; Capt. A. G. Froud, London; Dr. Fitzpatrick, London; Dr. Theophilus Fisher, London; Mr. Frost, London; Mr. F. R. Firmin, London; Mr. F. W. Gelden, Halifax; Mr. Greenish, London; Messrs. Gudman et Cie., Paris; Mr. Gibson, Worcester; Mr. Glendinning, Abergavenny; Mr. Holm, London; Mr. Hulme, Birmingham; Mr. Haswell, South Shields; Mr. Humphreys, London; Mr. Horbert, Brompton; Mr. Jabez Hogg, London; Mr. R. N. Ingle, Jersey; Mr. L. E. Jones, Wales; Mr. D. Janson, Godalming; Dr. Norman Kerr, London; Messrs. Keith and Co., Edinburgh; Messrs. Krohne and Sesemann, London; Dr. R. Whittington Lowe, London; Surgeon-Lieutenant-Colonel Edward Lawrie; Mr. Muirhead Little; Mr. Hugh Lane, Bath; Messrs. Lloyd and Co., Leicester; Messrs. Leader and Sons, Sheffield; Mr. Victor Maurel; Mr. Mansell Moullin; Mr. F. M. Morgan; Mr. Widenham Maunsell, London; Prof. Macnamara, Dublin; Messrs. Macfarlane and Co., London; Mr. J. C. Melliss, London; Mr. Mason, Pateley Bridge; Mr. Moore, Liverpool; Mr. E. Merck; Messrs. McKewen, Son, and Co., Carlisle; Mr. Norris, Birkenhead; Dr. Nichol, Margate; Dr. O'Reilly, Tuam; Count Ostroroc; Sir James Paget; Mr. Van

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LETTERS, each with enclosure, are also acknowledged from—Mr. Fisko, Maldstone; Mr. Birchall, Liverpool; Mr. Ross, Spain; Dr. Morison, Hartlepool; Mr. Price-Jones, Kingston-on-Thames; Messrs. Ellgood and Fuller, London; Mr. Tredinnick, Shropshire; Mr. Owen, North Wales; Mr. Ernst, London; Mr. Irving, Burslem; Messrs. Blondeau et Cie., London; Mr. Tyte, Minchinhampton; Dr. Alexander, Honor Oak; Mr. Davies, London; Mr. Thin, Edinburgh; Miss Pudney, Earl's Colne; Mr. Breach, Newbury; Mr. Garman, Kendal; Baroness Von Roemer, Battle; Mr. Norman, Buckfastleigh; Messrs. Porteous and Co., Glasgow; Rev. Mr. Alison, Edinburgh; Brigade-Surgeon Lane Natter, Southampton; Mr. Roberts, Kelghoy; Messrs. Hooper and Co., London; Mr. Chatterton, St. Albans; Messrs. Evans, Sons and Co., Liverpool; Dr. Robbins, Quebec; Mr. J. Lemon; Dr. Main, East Ilsley; Mr. Savage, Kimberley; Mr. Edmunds, Lambeth; Mr. Hirst, London; Dr. Mason, Pontypool; Dr. Wilson, Pontypool; Mr. Berry, Pendlebury; Mr. Fitzgerald, Queenstown; Mr. Edwards, Boston, Mass.; Mr. Stephen, Preston; Mr. Martin, Bristol; Mr. Mackey, Pontnewydd; Mr. Borchert, Netley; Mr. Clark, Brighton; Mr. Atkinson, Sherborne; Mr. Patterson, Hetton-le-Hole; Messrs. Whitworth and Stuart, Manchester; Mr. Edwards, Bloomsbury; Mr. Ellis, Bishop Auckland; Mr. Rees, Cardiff; Mr. May, Tunstall; Mr. Toy, Chipping Norton; Mr. Dunn, Preston; Mr. Lucas, Cambs.; Mr. Wolcott, New York; Mr. Griffin, Reading; Prof. Osler; Messrs. Burroughs and Co., London; Mr. Layton, Southend-on-Sea; Mr. Griffiths, Milford Haven; Dr. Martin, Blackburn; Mrs. Hill, Newmarket; Mr. Gordon, Witheridge; Mr. Clarke, Blackthorn; Mr. Heywood, Manchester; Mr. Thompson, Launceston; Mr. Jones, Aberkenig; Mr. Clark, Edinburgh; Mr. Fuller, Ramsgate; Mr. Stenhouse, Glasgow; Mr. Roberts, Witheridge; 7, Chambers-street, Edinburgh; 82, Alvey-street, Walworth; G. S., Seething-lane; Gracious, London; S., St. Leonards-on-Sea; J. M. L., London; Permanency, Croydon; Achilles; British Medical Protection Association; Secretary, Manchester Southern Hospital; Zeta, London; W., London; Gerald, Cheshire; Toxicology, London; D., London; Bonaventure, Birmingham; Medicus, Maidstone; J. S., London; J. P., Kilburn; Cosmo, London; Accoucheur, London; Medicus, London; Rev., Peckham; D., Leeds; Traveller, London; M.B., London; T. M., London; Beta, London; R. H. J., Manchester; H. M., London; M.R.C.S., London; Viti; Permanency, London; Clavicle, London; A. B. C., London; J. S. S.; Medicus, Poplar; Tabes; A. B. C., London; Medicus, Tipton; L. M. N.

NEWSPAPERS.—Cape Times, Belfast News Letter, Newcastle Chronicle, East Anglian Daily Times, Hobart Mercury, Sheffield Independent, Grocers' Review, Alliance News (Manchester), Public Opinion, Public Health, Temperance Record, Pioneer Mail, Kentish Mercury, Times of India, Gools Weekly Times, Maccoesfield Chronicle, Coleraine Constitution, Luton News, Border Counties Gazette, Kettering Leader, Barry Dock News, Blyth Examiner, North Wilts Herald, Bridgnorth Journal, Barnsley Independent, Admiralty and Horse Guards Gazette, Egyptian Gazette, Le Courrier de la Presse (Paris), &c., have been received.

# Medical Diary for the ensuing Week.

## Monday, July 11.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.50 P.M.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
 NATIONAL ORTHOPÆDIC HOSPITAL (Great Portland-street, W.).—5 P.M. Mr. A. H. Tubby: Congenital Dislocations.

## Tuesday, July 12.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANGER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

## Wednesday, July 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 8 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

## Thursday, July 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

## Friday, July 15.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

## Saturday, July 16.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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The Croonian Lectures

ON THE

CHEMISTRY AND THERAPEUTICS OF URIC-ACID GRAVEL AND GOUT.

Delivered before the Royal College of Physicians of London,

By SIR WM. ROBERTS, M.D. LOND., F.R.S.

LECTURE IV.

CHEMISTRY OF URATIC PRECIPITATION CONTINUED.—BEARING OF THE INVESTIGATION ON THE THERAPEUTICS OF GOUT.

*Topography of Uratic Deposits.*—The topographical distribution of uratic deposits through the various organs and tissues of the body exhibits certain well-marked characteristics. These deposits are found almost exclusively in structures belonging to the connective-tissue class—in cartilages, ligaments, tendons, and other fibrous structures, and in the cutaneous and subcutaneous connective tissues. On the other hand, uratic deposits are conspicuously absent from the muscular tissue, and from the substance of the brain, liver, spleen, and lungs. The tissues which are liable to uratic precipitations are, however, not equally so in the different parts of the body. The cartilages, ligaments and tendons in and about the joints which are bathed with synovia are much more obnoxious to these deposits than are cartilages and fibrous structures situated at a distance from joints and which are not bathed with synovial fluid. It is further to be noted that uratic deposits favour the more superficial and cooler parts of the body, especially the upper and lower extremities, and are more rare in the deeper and warmer interior parts of the trunk. It may be inferred from these particulars that the influences which coöperate to determine the site of uratic precipitations are of several and quite different kinds. I do not propose to discuss this subject comprehensively, but to refer only to two points which seem capable of a chemical or physical elucidation. These are the influence of the proportion of sodium salts in the several organs and tissues and the influence of synovia.

1. *Influence of the Proportion of Sodium Salts.*—We have seen that the dominant factors in uratic precipitation, as studied in the laboratory, are the proportion of urates and the proportion of sodium salts contained in the medium.<sup>1</sup> The highest tendency to precipitation is reached when there is a concurrence of these two factors in maximum intensity. A medium may be rich in urates, but if it be at the same time poor in sodium salts its tendency to precipitation is very feeble, and *vice versa*. This fact has a direct bearing on the topography of uratic deposits. For supposing the system of a gouty man, on the eve of an outbreak, to be throughout equally impregnated with urates, it is obvious from the experimental evidence before adduced that uratic precipitation would take place earliest and most copiously in those parts which were richest in sodium salts, and take place latest or not at all in those parts which were poorest in sodium salts. Let us now examine the distribution of sodium salts in the body and seek to ascertain if there be any correspondence between the liability to uratic deposits in the several tissues and organs and the proportion of sodium salts contained in them. In the subjoined table I have arranged the results of analysis on this point. The materials available for comparison are not so full and precise as could be desired, but their general significance is, I think, quite unmistakable. In order to render the comparison more complete and instructive I have included in the table not only the results with respect to the solid organs and tissues, but also those with respect to blood-serum and its derivatives—lymph and synovium.

TABLE XVIII.—Showing the Percentage of Sodium Salts in the several Fluids, Tissues and Organs of the Body.\*

Blood-serum..	..	..	0.70 per cent.
Lymph ..	..	..	0.80 "
Synovia ..	..	..	0.80 "
Cartilage ..	..	..	0.90 "
Fibrous tissue ..	..	..	0.70 "
Blood-corpuscles ..	..	..	0.20 "
Brain ..	..	..	0.20 "
Muscle ..	..	..	0.08 "
Spleen..	..	..	0.04 "
Liver ..	..	..	0.02 "

\* The figures in this table are to be taken as approximate numbers. Most of them are deduced from analyses cited in Gamgee's "Physiological Chemistry." The figures for synovia and fibrous tissue are deduced from the author's own analyses of the synovial fluid and tendons of the ox, the amounts being reckoned as chlorides. A more recent analysis of human lymph by Munk and Rosenstein (Maly's Jahresbericht, Band xx., p. 40) gives the sodium salts as 0.80 per cent.

An inspection of the table shows that the tissues which are liable to uratic deposits are very much richer in sodium salts than the tissues and organs which are not thus liable. The remarkable immunity from uratic deposits enjoyed by the muscular tissue, by the brain, liver and spleen, may be inferred to be due, for the greater part at least, to their poverty in sodium salts. Turning to Table XIII., we see that the solvent power of a medium for sodium bi-urate increases in correspondence with its lessening proportion of sodium salts. Brain has only about one-fourth the percentage of these salts as compared with cartilage and fibrous tissue, and muscle only one-tenth. This difference signifies (roughly) that brain has four times more power and muscle ten times more power of dissolving sodium bi-urate than cartilage and fibrous tissue; and therefore, respectively, four and ten times more power of resisting its precipitation in their substance. It might probably be truthfully said, on this ground, that brain, muscle, liver and spleen could not become the sites of uratic deposits until the connective tissues had been in this respect exhausted. It is true that the immune tissues and organs have a quicker circulation than cartilages and tendons, and this doubtless contributes importantly to the difference, but it scarcely fully accounts for it, otherwise we should expect that the skin, which is abundantly supplied with bloodvessels, would share this immunity. The prepotency of the cartilages and fibrous tissues to induce uratic precipitation must obviously operate in a conservative direction and serve to protect the more vital organs of the gouty from similar precipitations, where they would produce more deadly effects.

2. *Influence of Synovia.*—The connexion between synovia and gouty deposits is evidently very close and special. Synovial fluid has itself been repeatedly found heavily laden with crystals of sodium bi-urate. In the great majority of the less severe cases of gout the deposits are exclusively confined to those cartilages, ligaments and tendons which are in actual contact with synovial sacs or synovial sheaths. With regard to the articular cartilages it may, I think, be demonstrated that the uratic precipitation actually takes place from the synovial fluid and is not self-originating in the cartilaginous substance. Vertical sections of gouty cartilages are very convincing on this point. If such sections are examined under the microscope, it is seen that the deposit hugs the synovial surface of the cartilage and that it becomes progressively sparser and sparser towards the deeper layers, the central and deepest parts being usually quite free from deposit. This mode of distribution moreover implies that the process of deposition, so far as concerns the cartilage, is a purely passive one and is no wise active and vital in its initiation. We may suppose that the urate dissolved in the synovia penetrates by liquid diffusion into the superficial layer of the underlying cartilage and that when the critical moment arrives precipitation takes place simultaneously in the synovia and in the cartilage. On this view the after consequences are entirely secondary and are due to the reaction of the tissue against the presence of a foreign body lodged in its substance. It may interest you to know that this process can be artificially imitated in the laboratory and that a counterfeit gouty joint can be produced in the articulations of a dead animal. I here show you samples of such counterfeits. They were prepared in the following manner. Tarsal bones of a pig were suspended in wide-mouthed phials charged with a saturated solution of sodium bi-urate made in hot water and then cooled. The phials were chloroformed, corked and placed in the warm chamber or at the temperature of the room. Re-precipitation of the bi-urate takes place in two or three days. If the bones are now

<sup>1</sup> The proportion of calcium and magnesium salts is always too small to have any appreciable influence on the occurrence of uratic precipitation.  
No. 3594.

examined, the articulating ends are found to be encrusted with a chalky matter, which cannot be wiped off with a towel or removed with a nail-brush. They present an exquisite imitation of the plastered appearance of a gouty cartilage. If vertical sections of such cartilages (previously hardened in absolute alcohol) are made and examined with the microscope, the deposit is seen to be situated in the substance of the tissue, close beneath the synovial surface of the cartilage and to be composed of a dense felt of fine needles of bi-urate. The deeper layers of the cartilage are not affected. It may be inferred that the deposits which occur in the ligamentous and tendinous structures of gouty joints are produced in the same way as those found in the cartilages, and that the precipitation takes place, chiefly at least, from the synovial fluid bathing them, and that they are not due to primary morbid changes in the structures.

Two questions may now be asked: First, Why does gouty precipitation take place preferentially in synovia rather than in its cognates, the serum of blood and lymph? Secondly, why do the joints differ so much from each other in their liability to attack? I will discuss the two questions together, as the arguments often dovetail into each other. It may be that there is, as Sir A. Garrod suggests, some special attraction in the joints for uric acid. There are, however, other factors which come into play. Synovia is a comparatively motionless fluid, while serum and lymph are in ceaseless motion. As a still pool crystallises into ice sooner than a running brook, so likewise, supposing serum, lymph and synovia to be equally impregnated with urates and sodium salts, the tranquillity prevailing within the synovial cysts would give to synovia a priority in uratic precipitation over the restless blood-serum and lymph. Then as regards the varying liability of the different joints to gouty attacks, it may be pointed out that the synovial pouches and sheaths are shut sacs, standing apart from each other and isolated from the general panmixia of the circulation. It might consequently be expected—indeed it is an observed fact—that the synovial fluids in different joints should present differences in the relative proportion of their constituents. Some are certainly more concentrated than others; and we can easily believe that they are not quite identical in their degree of impregnation with urates and with sodium salts. In this way the several joints might come to vary considerably in their liability to uratic precipitation.

Frichs<sup>2</sup> has contributed some interesting particulars on synovia in animals. His observations indicate that synovia varies both in quantity and quality under different modes of life. He found that stall-fed horses and oxen, leading an idle existence, had twice as much synovia in their joints as similar animals roaming in the meadows or doing work. Moreover the composition of the fluid varied in the two cases. In the idle animals the synovia was more watery and contained less albuminoid matters but, and this is significant, a larger proportion of mineral salts, which consist almost entirely of sodium salts. We might conjecture from this fact that if horses and oxen were liable to uratic precipitations the idle stall-fed animals would be more subject to such deposits than the same animals leading a more active life. Perhaps we may discern herein one reason why men who lead a sedentary life are more subject to gouty deposits than men who take active exercise.

*Interpretation of the Appearances found at the Necropsy of Gouty Subjects; Re-solution of Gouty Deposits.*—Before leaving the subject of the topographical distribution of gouty deposits I should like to say a word on the need of caution in interpreting the appearances, both positive and negative, observed at the necropsy of gouty subjects. The incidents of the gouty diathesis, especially in the early periods, pursue a markedly interrupted course. Long intervals of months or years often elapse between the arthritic outbreaks. During these intervals the blood of the gouty recovers its purity more or less completely and approximates in its content of uric acid to the blood of a healthy person. The solvent relation of the bodily fluids to the material of uratic deposits is simply a question of saturation and subsaturation. If the lymph or synovia at a certain spot becomes saturated, or rather supersaturated, with sodium bi-urate, precipitation of that substance will inevitably take place into the contiguous fibrous tissues. And if after such an event the lymph or synovia recovers its purity and becomes approximately free from bi-urate, as in

due course usually comes about, a process of slow resolution will of necessity set in. For, as has been before demonstrated, sodium bi-urate, although very sparingly soluble, is by no means insoluble in these media. The rate and amount of re-solution of uratic deposits must necessarily vary greatly in different cases, according to the degree of subsaturation attained by the bodily fluids, the massiveness and penetrability of the deposits, and the length of time during which the favourable conditions endure.

If regard be had to the often long survivorship of gouty persons and the interrupted course of the arthritic incidents, it seems highly probable, in the lapse of a long life, that deposition and re-solution of uratic matter may take place once and again in a gouty joint. There are undoubted instances, of which Sir Dyce Duckworth<sup>3</sup> records one observed by himself, where no uratic concretions have been found after death in joints which had at some previous period undergone typical gouty attacks. The presumption in such a case is, not that deposits never existed, but that they had been redissolved in the intervals of amendment. Uratic concretions in the pinna of the ear have sometimes been actually observed to come and go and come again. There is no reason why the same thing should not occur within the joints, and such vanished concretions might leave behind them permanent changes in the cartilages and bony structures as tell-tale evidence of their former presence. On the other hand, the discovery after death of uratic deposits in a joint is not always to be regarded as a certain proof that the joint had passed through an inflammatory gouty attack. The observations of Moxon and Fagge seem to warrant this conclusion, and they reasonably suggest that when the precipitation of the urates takes place slowly and by degrees there may be no accompanying inflammatory outbreak to mark the event.<sup>4</sup> The experimental evidence before adduced indicates that when lymph or synovia is impregnated with sodium bi-urate to or above 1 part in 6000 the medium is supersaturated and precipitation either actually occurs or is impending. On the other hand, when these fluids contain less bi-urate than 1 part in 10,000 the medium is under-saturated and there resides in it a certain power of redissolving uratic deposits, and of course the nearer the medium is to freedom from urates the higher rises this solvent power. It may further be inferred that the solvent action will be most effective in the case of deposits situated in textures like the fibrous tissues, which have a comparatively free lymph flow, and conversely that it will be least effective in textures like the cartilages, which have a sluggish lymph flow. This is probably the reason, or chief reason, why the cartilages figure more prominently than the fibrous structures in the morbid anatomy of old gouty joints. Probably both tissues were originally infiltrated with bi-urate crystals in equal degrees; but the fibrous structures afford greater facilities for their re-solution in the periods of amendment than the cartilages, and hence the greater persistence of the deposits in the latter tissues.

*The Mode in which Uric Acid produces its Injurious Effects.*—A problem of great interest in regard to the elucidation of gouty manifestations is the mode or modes in which uric acid produces its injurious effects. The main question is whether these effects are exclusively due to the *mechanical damage* consequent on its precipitation as sodium bi-urate in the tissues, or whether, in addition, uric acid circulating in the blood in a state of solution is capable of acting as a *true poison*. With regard to the incidents of regular gout the mechanical theory seems to offer a natural and complete explanation. The crystalline urates precipitated in the cartilaginous and fibrous structures of the joints necessarily act as foreign bodies; they excite irritation, clog the lymph channels, exercise pressure on the tissue elements and impede their nutritive operations. These effects sufficiently account for the inflammation, pain and swelling which ensue, and explain the remoter degenerative changes which follow after. Nor need we look beyond physical conditions to account for the diversity witnessed in the local manifestations. It is easy to understand that depositions occurring within the tense unyielding structures of the joints would produce widely different results from similar depositions in the loose subcutaneous tissue or in the rim of the ear. It is equally easy to understand that the suddenness or slowness of the precipitation, its copiousness or scantiness, would necessarily cause great variation in the intensity and character of the

<sup>3</sup> Treatise on Gout, p. 68.

<sup>4</sup> Fagge and Pye-Smith's Handbook of Medicine, p. 674.

<sup>2</sup> R. Wagner's Handwörterbuch d. Physiol., Bd. iii., pt. 1, p. 403

local disturbances. So easy and natural is this explanation that we might even predicate, from our general knowledge of pathological cause and effect, that if similar depositions of crystals of carbonate of lime, or of any other inert substance, were to take place in the same localities there would follow very much the same train of morbid sequences as are witnessed in connexion with uratic precipitations. It is in the explanation of the phenomena of irregular gout that the mechanical theory of the action of uric acid seems inadequate, and it is to meet this lack that the theory of a poisonous action has been set up and is invoked. The visceral disturbances and manifold neuræses which trouble the gouty have not yet been anatomically traced to uratic precipitation, and there seemed no other way of explaining their occurrence, if they were to be linked with uric acid at all, except by assuming that uric acid was possessed of toxic properties.

The acceptance of this view appears to me on several grounds to be extremely difficult. There is, first, the complete absence of direct experimental proof. Animals have been made to ingest large quantities of uric acid with their food, and urates in solution have been freely injected into their veins without eliciting any signs of poisoning. In the next place, the idea that uric acid is poisonous seems opposed to broad biological analogies. Uric acid is the physiological homologue of urea; each of these bodies constitutes in its separate domain the final term of nitrogenous metabolism. Now, it cannot be said, without an abuse of terms, that urea is a poisonous substance,<sup>5</sup> and it would be strange if its homologue, uric acid, differed from it in so important a particular as the possession of toxic properties. The theory appears not less improbable when examined from a nearer point of view. The system of the gouty man is at times surcharged with uric acid. On the eve of an outbreak the fluids of his body, in parts at least, must be impregnated with bi-urate to saturation; for of course no precipitation can occur until this point is reached. Yet with fluids saturated with urates such persons often betray not the slightest sign of poisoning and enjoy complete immunity from symptoms of every kind until overtaken unwarned by the sudden precipitation which provokes the arthritic attack. Again, the manifestations of irregular gout are so extremely diverse in seat and character that it is hard to believe that they can be produced by one and the same toxic agent. Sometimes they implicate the stomach, sometimes the liver or heart or lungs and oftenest of all the nervous system. This diversity is, however, easily explicable on the supposition that the disturbances are not caused by uric acid in a state of solution acting as a poison, but are really due to actual precipitation of crystals of bi-urate into the connective and fibrous structures of the implicated organs or into the fibrous sheaths of the nerves which control their functions. Observations at the bedside and in the dead-room lead to the inference that uratic precipitation is very variable in its mode of incidence. In certain conditions the crystals descend in sudden and copious showers, which provoke a sharp inflammatory reaction, as in the regular arthritic seizures. In other conditions the crystals fall in gentle sprinklings, sufficient perhaps to excite irritation if the implicated tissue be a sensitive one, but not enough to cause downright inflammation. The peculiar pricking pains in the joints which some gouty persons invariably experience after partaking of certain wines are highly suggestive of the occurrence of these slighter precipitations. Now if these slighter precipitations instead of falling on the joints fell upon the membranes of the brain or upon the fibrous sheaths of the nerve roots this would, I submit, afford an adequate explanation of the phenomena of irregular gout. Of course it may be objected that no such slight precipitations have actually been found. But have they been looked for? Has the microscope been used in the investigation? In prosecuting such a search it would have to be borne in mind that such precipitations would be apt to be fugitive, and that negative results would have to be interpreted with caution. For it is obvious, in the case supposed, that when the

stress of saturation of the fluids with urates was relaxed and the blood again recovered its power of dissolving these compounds these slight deposits would be speedily removed by re-solution, and not a trace of them might remain at the necropsy. We scarcely realise how imminent a slight but widespread precipitation of the crystalline bi-urate must not unfrequently be in the gouty system. It was shown in the preceding lecture that when the serum of the blood is impregnated with sodium bi-urate to the extent of 1 part in 6000 supersaturation is attained and precipitation is then, of course, imminent. It was also pointed out that Sir A. Garrod had proved by quantitative analysis that the blood-serum of the gouty man is sometimes actually impregnated with uric acid to this extent. These two facts taken together indicate that the explanation here suggested of the phenomena of irregular gout stands on a strong basis of *a priori* probability and thus dispenses with the necessity of assuming that uric acid and its compounds are endowed with poisonous qualities. This mode of viewing the subject enables us to bring the diverse morbid effects of uric acid into uniform line. Uric acid and its compounds are deleterious simply because of their sparing solubility in the bodily media. It may be said that the final cause of uric-acid gravel is the sparing solubility of free uric acid in urine, and in like manner it may be said that the final cause of gouty precipitations is the sparing solubility of sodium bi-urate in blood-serum, lymph and synovia.

#### BEARINGS OF THE INVESTIGATION ON THE THERAPEUTICS OF GOUT.

In dealing with the therapeutics of gout I shall confine myself to those points which have a chemical bearing and which can be brought into touch with the results of the foregoing investigation. According to the views developed in these lectures the mischief done by uric acid in gout is contingent on its precipitation as crystalline bi-urate in the tissues or in the fluids of the body. Within this limited scope the study of the treatment of gout resolves itself into a study of the means we possess of controlling the factors which promote or hinder this precipitation. These means may be divided into those which belong to the domain of diet and regimen and those which consist in the administration of medicinal substances.

##### I. DIET AND REGIMEN.

*Restricting the production of Uric Acid.*—It has been shown that one of the main factors in determining uratic precipitation is the percentage of urates in the medium. Other things being equal the larger the proportion of urates presents the earlier and more abundant is the deposition of the crystalline bi-urate. Our power of controlling this factor lies almost entirely in the direction of regulating the diet. Numerous series of experiments have been made on the effect of diverse kinds of food on the production and excretion of uric acid. The chief point of therapeutical interest that has been clearly made out is this, that the ingestion of large quantities of proteid matter is attended with an increased production of uric acid and *vice versa*. It does not appear clear that proteid substances derived from the animal kingdom differ in this respect from those derived from the vegetable kingdom. But inasmuch as the commonly used articles of food of animal origin—such as butcher's meat, poultry, game, fish, eggs and cheese—are richer in proteid stuff than the commonly used articles of vegetable origin—such as bread, oatmeal, rice, potatoes and garden products—it is true that a vegetable diet is less productive of uric acid than an animal diet. The most trustworthy experiments indicate that fat, starch and sugar have not the least direct influence on the production of uric acid; but, as the free consumption of these articles naturally operates to restrict the intake of nitrogenous food their use has indirectly the effect of diminishing the average production of uric acid. There may be, and indeed undoubtedly are, other differences between animal and vegetable articles of food, and between one article and another of the same class, which are highly important. They differ considerably among themselves in their digestibility and in their stimulating qualities, but in regard to the point under review—namely, their direct influence on the production of uric acid—articles of diet must, as far as our present knowledge goes, be classified according to the percentage of albuminoid matters contained in them. As a rough guide in the choice of food for the gouty the subjoined table may prove useful.

<sup>5</sup> The word poisonous is here used with its ordinary meaning. Almost any substance which could be got into solution in the blood in very large quantities would produce deleterious effects—even common salt. Urea can be taken into the stomach in drachm doses without harm, and Dr. Ross Bradford, who has paid particular attention to this point, informs me that the human body contains habitually in the normal state some thirty to forty-five grains of urea, and may contain very much larger quantities than this without provoking any signs of poisoning.

TABLE XIX.—Showing the Average Percentage of Albuminoid Matters contained in Diverse Articles of Food.

Animal food :	Albuminoid matter.
Butcher's meat .. .. .	19 per cent.
Fowl .. .. .	20 "
Game .. .. .	22 "
Fish .. .. .	17 "
Egg .. .. .	13 "
Milk .. .. .	4 "
Cheese .. .. .	30 "
Vegetable food :	
Bread .. .. .	8 "
Oatmeal .. .. .	12 "
Rice .. .. .	6 "
Green peas .. .. .	6 "
Potatoes .. .. .	2 "
Carrots and turnips .. .. .	1 to 2 "
Green vegetables and salads .. .. .	1 to 2 "
Fresh fruit (excluding nuts) .. .. .	0.5 to 1 "

In choosing a diet for persons who are disposed to uratic precipitations regard must of course be had to the whole condition, and especially to peculiarities of the individual. Nowhere perhaps is it more necessary than in gout to consider the man as well as the ailment, and very often more the man than the ailment, but the general rule in reference to the point under notice is, I think, pretty clear. Gouty people should be advised to partake cautiously of butcher's meat, fowl, game and cheese, and to partake as freely as their digestion will permit of bread, rice, garden vegetables, salads, and fruit. The advantage to be gained from an adjustment of the dietary on these lines may be inconsiderable or even inappreciable in cases of inveterate gout, but it may be of critical moment in the slighter cases. A diminution of one or two grains a day in the amount of uric acid thrown into the circulation may make all the difference between the occurrence or non-occurrence of an arthritic attack.

The use of alcoholic beverages, as constituting an important feature in our dietetic habits, may here claim a word of comment. The most reliable researches indicate that these beverages in their legitimate use exercise no appreciable influence either way on the quantity of uric acid produced in the body. It was, moreover, found in my laboratory experiments that the addition to the medium of small quantities, such as might conceivably reach the circulation, of spirits, wines, or malt liquors had not the slightest effect on the solubility of sodium bi-urate, or any influence in accelerating or retarding the precipitation of the bi-urate in blood-serum impregnated with uric acid. The special and highly important part played by certain classes of alcoholic beverages in fostering a proclivity to uratic depositions is evidently of a very subtle and complex character, and has apparently no direct reference to the chemical problems discussed in these lectures.

*The Use of Culinary Salt.*—It was shown in the preceding lecture that the solubility of sodium bi-urate was conspicuously influenced by the proportion of sodium salts in the medium. I observed, moreover, in my experiments on the maturation of blood-serum impregnated with uric acid that the addition to the medium of small quantities of sodium chloride (0.1 per cent. or even less) always appreciably hastened the precipitation of the crystalline bi-urate. It has also been shown that the topographical distribution of uratic deposits through the body bears a close and striking relation to the percentage of sodium salts contained in the several organs and tissues. Indeed, it might apparently be said with truth that if we possessed the power of regulating the dosage of sodium salts in the fluids and tissues we should be able effectively to control the occurrence of uratic depositions. Our power in this respect is, however, limited. Sodium salts belong to the physiological constants of the blood and their proportion therein can only be modified within a comparatively narrow range. These remarks apply especially to the most abundant of them, the sodium chloride. It has been found in experiments on animals that when common salt is given in excess with the food, or injected into the veins, the surplus is for the most part quickly removed by the kidneys, and there is only a small and transient increase of its percentage in the blood. Conversely, when animals are fed with food abnormally poor in salt there is only a slight falling off in its proportion in the blood, while it almost disappears from the urine. The blood clings with great tenacity to its proper percentage of sodium chloride, and the experimental evidence indicates that in case of a threatened salt famine within the economy the blood has the faculty of supplying its necessities by extracting salt from the less vital

fluids and tissues, and contrariwise, in case of a glut of salt in the blood, the overplus is temporarily passed over into the serous cavities until such time as the kidneys have succeeded in restoring the normal equilibrium.<sup>6</sup> All this leads to the inference that by lessening the intake of salt with the food we should abate its proportion in the blood only to a slight degree, but should diminish its proportion in the synovial fluids and fibrous tissues considerably. Acting on these ideas I have been in the habit for some years past of directing gouty patients to restrict, as far as practicable, the use of common salt with their meals.

II. ADMINISTRATION OF MEDICINAL SUBSTANCES.

In forecasting the possible effects of medicinal substances given internally in the treatment of gout it is well to fully realise the actual conditions of the problem. These are widely different from those presented to us in urinary gravel. In the latter case the daily dose is designed to form an addition to a comparatively small bulk of fluid—namely, to the forty or fifty ounces which constitute the diurnal discharge of urine. In the case of gout we are seeking to make an impression on a much larger bulk of fluid—namely, on the totality of the blood, lymph and synovia—a quantity in a man of average weight certainly not less than twenty pounds. Consequently the effect of our dose must be proportionately less. Moreover, the urine is a dead excretion; it takes and keeps what is cast into it and has no power of self-purification. The blood, on the other hand, is a living stream with high powers of self-adjustment to a normal standard. A practicable dose of an alkaline carbonate enables us to radically alter the urine—to change its reaction from acid to alkaline and thereby to exercise a decisive therapeutical effect in uric-acid gravel; but the same dose only produces a feeble and transient effect on the mass of the blood and lymph. The blood passes on the surplus alkali with all speed through the kidneys into the urine and quickly reattains its proper physiological standard of alkalescence.

The medicinal agents which have been chiefly employed in the treatment of gout with a view of controlling the tendency to uratic precipitation are the carbonates and phosphates of potash and soda, the carbonate of lithia, piperazine and the waters of mineral springs; and it is to these alone that I propose to call attention.

*Alkalies.*—Alkaline substances are largely employed in the treatment of gout, both as pharmaceutical preparations and as components of mineral springs. It is believed that the alkaline carbonates and phosphates administered internally by increasing the alkalescence of the blood enhance its solvent power on the material of gouty deposits and thereby delay or prevent their formation. The experimental evidence laid before you entirely destroys this hypothesis. It has been conclusively proved that alkalescence, as such, has no influence whatever on the solubility of sodium bi-urate. It has, moreover, been shown that the addition of an alkaline carbonate to blood-serum impregnated with uric acid produces no appreciable effect on the process of maturation and the advent of precipitation of the crystalline bi-urate in the medium. The use of alkalies in gout has been advocated on another ground. It is held in a vague sort of way that there is an undue prevalence of acid in the gouty system and that the blood is less alkaline than it should be. In some quarters it is even believed that this is the primary vice of the gouty state, and that there exists a so-called "acid dyscrasia" which dominates the whole condition. I have been at some pains to ascertain what foundation there is for this belief. I have found very little of any kind and none that is really valid. In the numerous examinations of the blood in gouty subjects made by Sir Alfred Garrod the serum was invariably found to be alkaline, never acid or even neutral. He remarks that there is often (not always) a marked alteration in the degree of its alkalinity, and that in cases of chronic gout the serum sometimes shows a near approach to neutrality. It is, however, obvious that observations on the alkalinity of the blood have no validity in regard to the point under consideration unless they are made on cases of gout pure and simple. Gout is often complicated not only with pyrexia but with serious secondary lesions in the kidneys and joints which lead to a profound cachexia. These secondary lesions bring with them blood changes of their own, which are only remotely connected with the primary disorder and have no bearing on the etiology of uratic pre-

<sup>6</sup> Lavage du Sang, by Dastre and Loye, Archives de Physiologie, 1888, p. 63.

precipitation. In the last few years some exact quantitative measurements have been made of the alkalinity of the blood both in health and in disease.<sup>7</sup> These researches indicate that a diminished alkalescence of the blood is a common pathological deviation; and that it occurs in a variety of conditions which have no special relation to gout—namely, in pyrexia, in diabetes, carcinoma, acute rheumatism, anæmia, leukaemia and apparently in every kind of general cachexia. These facts and considerations suffice to show that in the present state of our knowledge the belief in an acid dyscrasia in gout rests on a pure assumption.

*Carbonate of Lithia and Piperazine.*—These two substances have been introduced into the treatment of gout expressly on chemical grounds. Solutions of these substances possess a high solvent capacity for free uric acid; it has been inferred from this fact that their administration internally might exercise a favouring influence on the solubility of sodium bi-urate in the bodily fluids and thereby tend to prevent the formation of uratic depositions. This inference, however, does not appear to be justified. I found experimentally that the addition of carbonate of lithia or piperazine in the proportion of 0.1 per cent. and 0.2 per cent. to blood-serum or synovia had not the slightest effect in enhancing the solvent power of these media on sodium bi-urate, nor the least effect in retarding its precipitation from serum or synovia artificially impregnated with uric acid. If these bodies have any beneficial action in gout, it is, I think, certainly not due, as has been supposed, to their solvent action on the material of gouty concretions.

*Mineral Springs.*—The bearing of the inquiry on the use of mineral waters is, I think, of important practical interest. A considerable number of the springs to which gouty patients resort are strongly impregnated with the salts of soda. Now it has been conclusively shown that all the salts of soda act adversely on the solubility of sodium bi-urate and hasten its precipitation, and it may be inferred that the introduction of these salts into the circulation must tend to favour the occurrence of uratic depositions in the body. It is not therefore surprising to learn that not unfrequently the first effect of these waters on a gouty patient is either to provoke a down-right attack of gout or to aggravate the symptoms under which he was suffering. This event is now recognised by the physicians practising at those spas as a thing to be looked for, and experience has taught them the necessity of caution in regard to the quantity of the waters to be taken by new comers. They comfort themselves and their patients, however, with the belief that this preliminary storm is a necessary prelude to the calm amendment which is to follow. There is no doubt some foundation for this idea. It is no fiction that a gouty man, tormented with symptoms of irregular gout, is relieved by a regular arthritic attack. I presume that this arises from the complete, or approximately complete, precipitation of the urates floating in his blood and lymph into the structures of the joints. The urates are thereby as effectually removed from the vital fluids as if they were eliminated by the kidneys. It must, I think, be allowed that this is a rough mode of cure and that it brings with it serious pains and perils of its own. My impression is that gouty persons should either entirely avoid springs which owe their activity to sodium salts or should use them very sparingly. It is difficult to believe that they can do any direct good and easy to believe that they can do direct harm. If they do any good at all, it must be indirectly, by acting on the liver and the intestinal tract; and we possess other means of effecting this purpose without inducing any collateral risk. There are, however, other springs of high and growing repute in the treatment of gout which are not open to these objections. These springs contain no soda or only traces, and the sum of their mineral constituents does not exceed that which is often present in ordinary potable waters. They contain for their principal ingredient a little carbonate or sulphate of lime and it is very doubtful whether the whole of this is absorbed into the blood. Most of it probably passes out inertly with the feces. In fact, springs of this class may practically be considered as equivalent to ordinary drinking water, except that several of them have the advantage of being thermal. Among springs of this kind may be mentioned in our own country the waters of Buxton, Bath and Strathpeffer; in Germany the waters of Gastein, Wildbad, Pfaffers and the Saucrling spring at Carlsbad; in France the waters of Aix-les-Bains, Contrexéville, Vittel and Barèges.

Now, there can be no reasonable doubt that the efficacy of these springs has nothing to do with their scanty mineral ingredients, but depends on their watery constituent. They are drunk freely and on an empty stomach. Their action would be to temporarily dilute the blood and lower its percentage of urates and sodium salts. This effect would tend to retard or prevent uratic precipitation and thus give the defective kidneys additional time to overtake their arrears in the task of eliminating uric acid.

It may be asked whether the drinking of water at home would not answer as well as resorting to a mineral spring. The inference from my experiments is that, other things being equal, the beneficial results would be the same. But the "other things" never are equal. It would scarcely be practicable for a man going about his usual business to drink eight or ten tumblers of water on an empty stomach every day for two or three weeks. At a watering-place the visitor has nothing to do except to attend to his "cure." Moreover, in getting away from home, he leaves behind him the worries of his daily life, and experiences the advantage of change of air and scene, with a salutary modification of diet, and has abundant leisure for out-door exercise. All these collateral influences help to raise the general level of health and quicken the action of the secretory cells. I do not think, therefore, that we can forego the advantages of the time-honoured practice of a visit to a mineral spring. At the same time, a word may be said in favour of a more systematic use of water in the every-day life of the gouty. I have observed that some gouty persons are very sparing in their use of diluents; such persons should be encouraged to be habitually more liberal in this respect. In a few cases it might even be possible to imitate with plain water the regular two or three weeks' course at the spa, and to repeat this course twice or thrice a year as a prophylactic measure. I may observe that in scarcely any complaint is there more need of caution in judging the effects of remedies than in gout. The incidents of the gouty diathesis exhibit a waviness—a flux and reflux—which is highly characteristic. There is a natural tendency for the periods of aggravation to be followed by periods of amendment, and it requires a good deal of sobriety of mind to avoid being made the dupes of our own preconceptions. I believe that the most promising road to an improved therapeutics of gout lies through a fuller and more accurate knowledge of the chemistry of uric acid and the urates, and a more penetrating study of the reactions of these compounds with the fluids and tissues of the body. This is a large and difficult field of inquiry and demands the coöperation of many labourers. That is my apology for the fragmentary character of the present contribution. I shall, however, be quite satisfied if what I have done prove an incentive and a help to other workers in the same field.

## Clinical Lecture

ON AN

### EXCEPTIONALLY COMPLICATED CASE OF INGUINAL HERNIA, FOR THE RADICAL CURE OF WHICH BASSINI'S OPERATION WAS PERFORMED.

Delivered at the Middlesex Hospital, May, 1891,

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GENTLEMEN,—Some of you have lately seen me perform Bassini's operation for the "radical cure" of an inguinal hernia in a patient in Founder ward. As this method has, so far as my knowledge extends, met with little notice here, and as the form of hernia was exceptional, I have taken this case as the subject of to-day's lecture.

The patient, S. R.—, aged thirty-five years, a porter, a well-grown, muscular man, was sent into the hospital by his doctor on Jan. 3rd last, in the hope that something might be done for the cure of a very large rupture which had latterly become so troublesome as to compel him to give up work and for the restraint of which he had tried several forms of truss, but none could be borne. He said that the rupture

<sup>7</sup> See Peiper in Virchow's Archiv, 1880; and a paper by Rumpf in Centralblatt f. Klin. Med., 1891.

had existed since his childhood, and that its size varied greatly. On stripping him it was at once apparent that the right side of the scrotum was imperfectly developed and that the corresponding testis was absent from it. It was also seen that the right groin was occupied by a conspicuously prominent oblong swelling. The innermost limit of this was slightly to the median side of the spina pubis and the outermost limit was separated by only a slight interval from the anterior superior spinous process of the ilium. This large swelling was in part resonant, showing the presence of intestine; and it also enclosed a soft, solid, pellety mass, plainly omentum. It contained also near its inner end, above and slightly external to the spina pubis, a smooth ovoid body of about the size of a hazel nut, obviously an imperfectly developed testis. We ascertained that this conspicuous swelling, evidently lying superficially in the front of the aponeurotic tendon of the external oblique muscle, was continuous through the external abdominal ring with a deeper swelling, covered by this tendon, filling the inguinal canal; so that the superficial and the deeper parts were loculi of one swelling. Its objective clinical features and its anatomical relations made it evident that this large inguinal swelling was a complete, congenital entero-epiplocele which, in association with imperfect evolution of testis and scrotum, after escaping through the external abdominal ring, had had its downward passage into the scrotum arrested, and had been turned aside in an upward and outward direction along the groin, thus taking approximately the course usually pursued by an enlarging femoral rupture. From this last form of rupture our patient's was immediately distinguished by two ascertained facts: (a) the spot where its most conspicuous part became superficial was the external abdominal ring; (b) it enclosed the testis.

An oblique inguinal hernia of long standing, through yielding of the inter-columnar fibres and wider separation of the pillars of the external ring, giving this opening a long slit-like form, of which the outer end may approach or even transgress the position of the internal ring, may very exceptionally acquire a deceptive appearance of lying in front of the tendinous aponeurosis, and it is conceivable that in this condition it might present a deceptive resemblance to the superficial part of our patient's rupture. Here, however, the ascertained form of the external ring negatived any such illusion. When occurring in association with a testis detained either within the abdomen or in the inguinal canal or just below the external abdominal ring a rupture on escaping through this aperture usually, as noticed already, descends into the scrotum, and it only exceptionally takes the course it pursued in our patient. Still more exceptionally does the rupture enlarge in both directions, as in an instance which some years ago I communicated to the Royal Medical and Chirurgical Society, where, in association with retained testes, on both sides one part of the hernial sac passed downwards into the scrotum, whilst another part of the sac had travelled upwards and outwards upon the aponeurosis of the external oblique muscle nearly to the anterior superior spine of the ilium.

Looking at the subject of hernia from your present standpoint—as students—it will probably astonish most of you to hear that operations for the "radical cure" preceded by several centuries those for the relief of strangulation. The reason of this is not far to seek. In early times, when efficient trusses such as we now have were unknown and the only supports were bags slung by a baldrick across the shoulders, which whilst they in some measure eased the painful dragging of an increasing scrotal rupture did not make any pressure on the abdominal openings through which the viscera escaped from the abdomen, very large ruptures must have then been as common as they are still in countries where surgical culture is yet at a primitive level. But in olden times, when a man was chiefly valued for his "thews and sinews," if he became incapable and he could neither bear arms nor do heavy agricultural work, he was apt to be regarded by his community as a useless encumbrance, and his lot was so sad that he was willing to incur any risk and pain for a prospect of relief, and parents were ready to subject their ruptured children to any travelling charlatan who promised a cure. Strangulation, an incident of relatively infrequent occurrence, was regarded as a desperate disorder beyond help from leechcraft. For our own country this is shown by the "bills of mortality" of old London, in which strangulated hernia is entered under the terribly significant name "Miserere."

So numerous are the surgical methods devised in the last

two decades of this century for the "radical cure" of hernia and so preponderant are the advantages claimed for each by its originator, that the young and as yet inexperienced surgeon may well feel some bewilderment when first he approaches this subject practically. Here a principle laid down by the late Professor John Wood will help to guide his choice—viz., to discard every method which does not aim at closing the neck of the sac and at reducing the internal abdominal ring to the extent sufficient only for the passage of the spermatic cord. Both these desiderata are very certainly effected by Bassini's method, which also strengthens the outer part of the posterior wall of the inguinal canal, where naturally it is weaker; and this it does with, I think, greater precision than is attainable by other methods approximately or strictly subcutaneous. My choice of Bassini's method for this particular case was largely influenced by the fact that we had to deal with a complicated form of hernia, which made preferable a method of operating that permitted each step to be clearly seen and precisely controlled. If you will now follow the extract I am about to read from the dresser's notebook you will be able to realise the successive steps of the operation.

On Jan. 7th, the patient having been anaesthetised, an incision from four inches and a half to five inches long was made parallel to and a short distance above Poupart's ligament, in the longest axis of the superficial part of the rupture, and the tissues were divided down to the sac. This was next detached from the aponeurosis of the external oblique muscle and temporarily placed aside out of the way between a couple of flat, warm, moist sponges. The aponeurotic tendon was then split in the line of the external wound from the external abdominal ring outwards along the whole length of the inguinal canal, so that by separating with retractors the edges of the split the inguinal part of the hernial sac was exposed up to its very neck at the internal abdominal ring. The sac itself was now slit open, the bowel contained in it was reduced, and the omentum, adherent and thickened, having been freed, was tied at the level of the internal ring, then cut through below the ligature and the stump returned into the abdomen. The sac was next carefully completely isolated from the other elements of the cord, tied circularly at its neck and then cut away, a small part of it only being reserved for the construction of a tunica vaginalis by sewing its edges together so as to form a small pouch for the testis. This done, a subcutaneous incision was prolonged from the inner end of the inguinal wound to the bottom of the scrotum so as to make a bed for the testis, which was pushed down into it and fixed there with a stitch. The outer border of the conjoined tendon and the fleshy lower borders of the internal oblique and transverse abdominal muscles were then drawn down and attached to the deep aspect of Poupart's ligament by a series of closely set buried sutures so as to closely embrace the cord at its passage through the internal ring and to cover the stump formed by the circularly tied neck of the sac. Next the edges of the split in the aponeurosis of the external abdominal muscle were sutured together; and lastly the integument incision was similarly closed. It is scarcely necessary to say that throughout the operation and afterwards scrupulous attention to antiseptic was observed. Notwithstanding this, on Jan. 15th (one week after the date of the operation) some tension of the wound was apparent. For this two stitches were cut which allowed a free serous oozing. Four days later suppuration was present. This spread superficially a little way below the groin on to the thigh and above towards the flank, necessitating counter-openings and protracting the patient's recovery so that he did not leave the hospital until April 2nd. For greater security he was recommended to wear a light truss and he was directed to return to the hospital if he felt any inconvenience.

The patient returned in January of this year (1892) to ask if he might safely lay aside the truss. This he was told he might do except when engaged in very laborious work. The scar appeared sound, and it did not show any sign of bulging when he strained or coughed. The testis had not remained in the bottom of the scrotum, but it was well below the external abdominal ring. Here the presence of the large subcutaneous inguinal loculus of the sac, enclosing the testis, which was sessile and not as occasionally suspended by a mesorchium, complicated and protracted the operation, making it more severe than it would have been under ordinary circumstances. Its duration might have been shortened by removing the testis, but this

the patient was unwilling to lose, though a functionally useless organ.

So far as the experience of a single case warrants me in forming an opinion, Bassini's method is more severe than some others, and I am inclined to reserve it for exceptional cases.

## PERFORATION OF THE INTESTINE IN PHTHISIS.

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ALTHOUGH tuberculous ulceration of the intestine is such a common complication of pulmonary phthisis its various modes of termination appear to have received comparatively little attention. The majority of the standard works on medicine and pathology are content to dismiss the question of perforation with the statement that complete rupture of the intestinal wall is a possible but unusual result of its tuberculous affection, while those that deal with the subject in greater detail differ considerably among themselves, both as to the frequency with which perforation is apt to ensue and the clinical symptoms which are supposed to portray the accident. Wilks and Moxon<sup>1</sup> state that complete perforation is rarely met with and they can record but three instances in point, in one of which the appendix vermiformis was the seat of the lesion. On the other hand, Lebert<sup>2</sup> found that perforation occurred in 3 per cent. and Willigk<sup>3</sup> in 5 per cent. of the cases they had observed, while Leube<sup>4</sup> had noted it but twice among several hundred cases. Habershon<sup>5</sup> found that among 56 cases of acute peritonitis due to perforation of the gut, only 4 resulted from tuberculous ulceration. Grawitz,<sup>6</sup> in his analysis of 867 cases of peritonitis, states that 20, or 2·3 per cent., were the direct consequence of tuberculous disease of the bowel. With regard to the actual results of perforation of the intestine the various authors are at still greater variance. Spillman,<sup>7</sup> in his excellent treatise on gastro-intestinal tuberculosis, records several instances where death had occurred from perforation of a tuberculous ulcer, and, while he infers that local abscess is not an uncommon result of the accident, he asserts that extravasation of the intestinal contents into the general cavity of the peritoneum is excessively rare. Theodore Williams,<sup>8</sup> on the other hand, remarks that acute general peritonitis is the most frequent result of perforation of the intestine occurring in the course of chronic phthisis. Rindfleisch<sup>9</sup> lays special stress upon the frequency with which various portions of the small intestine are apt to ulcerate into one another and to establish irregular channels for the circulation of their contents. According to Orth,<sup>10</sup> the vermiform appendix is a favourite spot for tuberculous disease, and perforation in this position is very liable to be followed by the formation of a local abscess and subsequent fistula. In view of these conflicting statements it appeared to us that a further investigation into the subject might prove of interest and perhaps of some practical value. We have accordingly examined the records of 2000 necropsies on cases of phthisis performed at the Brompton Hospital for Consumption and would here gratefully acknowledge the kindness of the senior medical staff in permitting us thus to utilise the records of their cases.

Tuberculous ulceration of the intestine is rarely met with as a primary disease in adults, although in children it is by no means uncommon. In the great majority of cases the disease is secondary to pulmonary phthisis and the frequency

with which the two conditions are associated has been the subject of some controversy. Louis<sup>11</sup> found evidences of ulceration in about four-fifths of all his cases; Bayle in 67 per cent.;<sup>12</sup> while Lebert<sup>13</sup> states that the intestinal complication existed in 67 per cent. of his cases in Breslau and in only 39 per cent. of those examined by him in Zurich. Willigk<sup>14</sup> found the intestine affected in 49·6 per cent. of his cases, and more recently Eisenhardt<sup>15</sup> discovered a similar lesion in 56·6 per cent. of the cases of phthisis examined at München. Our own conclusions tally closely with those of the two latter observers, since we found the intestine was stated to have been the seat of ulceration 500 times in 883 cases, or in the proportion of 56·6 per cent. From these facts it would appear that while the absolute frequency with which the bowel is diseased in cases of pulmonary phthisis is apt to vary in different countries, as a general rule it can be detected in rather more than one half of the cases. All writers are agreed that the ileum, especially its lower portion, is the region of the gut most frequently attacked by the tuberculous processes and among our 500 cases of ulceration the ileo-cæcal region was found to be affected in 85 per cent.; while in 9·6 per cent. it proved to be the only portion of the intestine which showed any evidence of the disease. From this spot the liability to the tuberculous affection diminishes steadily as we proceed in either direction towards the extremities of the bowel and consequently we find that the duodenum and rectum were never diseased unless the other portions of the tract were already in an advanced state of ulceration. Thus among the cases already alluded to ulceration was noted to have been present in the duodenum in 3·4 per cent., in the jejunum in 28 per cent., in the ascending colon in 51·4 per cent., in the transverse portion in 30·6 per cent., in the descending colon in 21 per cent., in the sigmoid flexure in 13·5 per cent. and in the rectum in 14·1 per cent.

Attention has often been drawn to the fact that the vermiform appendix is peculiarly liable to exhibit patches of superficial ulceration in cases of chronic phthisis. Unfortunately, the cæcal appendage appears to have so frequently escaped examination that we are unable to state from our notes with any degree of certainty the relative frequency with which this portion of the bowel was affected. It is, however, quite an exception to find the appendix free from disease when the ileo-cæcal region is in a state of tuberculous ulceration. In seventeen instances it was expressly stated that the appendix was the only portion of the intestinal tract that showed any evidence of ulceration; and the question naturally arises whether this morbid phenomenon was of a simple or tuberculous nature. In every case the ulceration was multiple, and no concretion was noted to have been present. In two cases of a similar nature which have come under our own observation the superficial character of the disease appeared to denote a catarrhal rather than a specific origin, but on submitting the tissues to microscopic examination all doubt as to the true nature of the disease was set at rest by the discovery of numerous tubercle bacilli. Without wishing to infer that all cases of ulceration of the appendix associated with pulmonary phthisis are necessarily tuberculous in their nature, we would submit that this portion of the bowel, owing to the large quantity of lymphoid tissue in its walls, its abundant blood-supply and the comparative stagnation of its contents, is peculiarly liable to fall a victim to tuberculous infection, and that the subsequent ulceration may closely simulate in its macroscopic appearances the results of simple catarrh.

Among our 2000 necropsies we find twenty-five instances in which perforation of the intestine had occurred as the result of the tuberculous ulceration. These figures would appear to indicate that the accident in question only occurs in about 1·2 per cent. of all cases of phthisis, a result which, although it closely agrees with the statements of Dittrich and Louis, nevertheless falls far short of the estimations made by other observers. But these discrepancies are easily accounted for when an inquiry is made into the exact meaning which various writers have attached to the term "perforation." It is well known that advanced tuberculous ulceration of the intestine is invariably attended by a considerable degree of local peritonitis, and it consequently happens that, owing to the firm adhesions which form round the floor of an ulcer actual perforation may occur without giving rise to fecal extravasation and subsequent peritonitis.

<sup>1</sup> Pathological Anatomy, p. 414.

<sup>2</sup> Klinik der Brustkrankheiten, 1874.

<sup>3</sup> Prager Vierteljahrsschrift, 1850.

<sup>4</sup> Quoted by Spillman: La Tuberculisation du Tube Digestif, p. 110.

<sup>5</sup> Transactions of the Medical and Chirurgical Society, vol. xliii., 1860, p. 5.

<sup>6</sup> Charité Annalen, 1884. Also Louis observed one case of perforation among 150 necropsies on phthisis, Dittrich 5 in 403, Wilson Fox 3 in 77, and King Chambers in about 7 per cent. of all cases of ulceration.

<sup>7</sup> Op. cit.

<sup>8</sup> Pulmonary Consumption, p. 100, 1887.

<sup>9</sup> Pathological Histology, New Sydenham Society's Transactions, p. 440.

<sup>10</sup> Lehrbuch der Path. Anat., l., p. 838.

<sup>11</sup> Phthisis, p. 74: Sydenham Society's Transactions.

<sup>12</sup> Quoted by Williams, op. cit.

<sup>13</sup> Ibid.

<sup>14</sup> Op. cit.

<sup>15</sup> Inaug. Dissert., München, 1890.

Thus, in a curious case reported by Lepelletier,<sup>16</sup> a perforating ulcer in the ileum had contracted adhesions with an enlarged and caseous mesenteric gland which eventually came to fit like a plug into the aperture in the wall of the bowel. Perforation, therefore, may be of two kinds, partial or complete, the evidences of the former being latent and often difficult to ascertain without a careful search, while the latter attracts attention immediately the abdomen is opened, from the striking evidences of inflammation in the serous membrane. For these reasons it is obvious that those statistics which, like our own, are founded upon the complete form of the disease, do not represent by any means the absolute frequency with which tuberculous ulceration is apt to terminate in perforation of the bowel. At the lowest computation partial or complete perforation probably occurs in 5 per cent. of all cases of chronic phthisis, or, in other words, in 10 per cent. of the cases where ulceration is present. These facts by no means corroborate the statement made in text-books to the effect that typhoid ulceration of the intestine is far more liable to end in perforation than the tuberculous type of the disease. If we believe that every case of typhoid fever is accompanied by an intestinal lesion and that only 10 per cent. of the entire number of deaths are the result of perforation of the bowel, then even allowing the primary disease to be attended by the high mortality of 20 per cent. we find that only 2 per cent. of the cases of typhoid ulceration terminate in perforation, instead of 10 per cent. as in the case of the tuberculous lesion. Perforation may occur in any portion of the intestinal tract and at the outset it would seem probable that that region of the bowel which is most frequently attacked by ulceration would also be most liable to perforation. But a glance at the figures relative to this point will show that the surmise is only partially borne out by fact. It is true that the ileum is the favourite site both for ulceration and rupture; but, on the other hand, the cæcum, which is almost twice as often affected as the jejunum, is much more rarely the seat of perforation than the smaller intestine. Again, tuberculous ulceration is infinitely more common in the ascending colon than in the duodenum; nevertheless we find that while perforation in the former is excessively rare, the same lesion in the latter is attended by more danger to life than in any other spot in the whole digestive tract.

In the following table a contrast is offered between the tendency exhibited by the various portions of the intestinal tract to ulceration and perforation respectively. The first two columns are derived from an analysis of 500 cases of tuberculous disease of the intestine, while the remainder has been compiled from a comparison of the total number of cases of ulceration with the various instances of perforation occurring in the same anatomical region. It will therefore be readily understood that although the first half of the table is fairly accurate the latter half can only convey a general idea, as it cannot lay claim to any great degree of accuracy.

Table to Illustrate the Relative Frequency with which Tuberculous Ulceration and Perforation occur in the Different Regions of the Intestine.

Region.	Percentage of ulceration.	Sole seat of disease.	Percentage of ulceration terminating in perforation.	Percentage of acute peritonitis.	Percentage of fecal abscess.
Duodenum .. ..	3.4	—	10.0	75.0	25.0
Jejunum .. ..	28.0	1.4	0.53	65.0	35.0
Ileum .. ..	60.2	4.4	1.1	70.0	24.0
Ileo-cæcal (last foot of ileum and contiguous portion of cæcum) .. ..	85.0	0.0	—	—	—
Cæcum .. ..	—	—	0.12	17.0	83.0
Appendix .. ..	(50.0)	(3.8)	(0.1)	—	—
Ascending colon ..	51.4	1.8	0.08	—	—
Transverse colon ..	30.6	1.0	—	—	—
Descending colon ..	21.0	—	—	—	—
Sigmoid .. ..	13.5	—	0.37	—	—
Rectum .. ..	14.1	—	0.34	—	—

Of the 25 instances of perforation which occur among our series of post-mortem examinations 15 terminated in acute general peritonitis and the remaining 10 by the formation of a local abscess. Since this number is but small we have collected an additional 28 cases from various sources, making in all a total of 53. These have been divided for the purpose of analysis into two classes, and the general features of the cases at our disposal will be considered under the headings "acute general peritonitis" and "fecal abscess."

1. *Acute Peritonitis.*—This class includes 34 cases, in 28 of which a single ulcer had perforated into the cavity of the peritoneum, while in the remaining 6 a previous lesion had occurred and given rise to a fecal abscess. The average age at the time of death was twenty-nine, but in those cases where the appendix was the seat of the disease the average age was only seventeen. Men were more frequently the subject of this affection than women, in the proportion of nearly 2 to 1. Among the entire number no fewer than 27 originated in disease of the small intestine, the larger portion of the bowel being only affected in 7 cases, and in 4 of these the vermiform appendix proved to be the seat of the fatal perforation. The greater mobility of the small intestines and the relative thinness of their walls afford an ample explanation for the more frequent occurrence of perforation in this region of the gut, while the fact that acute peritonitis should be such a frequent result of the accident is readily understood when it is mentioned that the various coils receive an entire investment from the peritoneum, and that their contents, being of a liquid nature, can readily diffuse over the whole surface of the serous membrane. Of the 27 cases situated in the small gut 3 occurred in the duodenum, 3 in the jejunum and 21 in the ileum, while those due to disease of the large intestine comprised 4 perforations of the appendix, 1 of the cæcum and 1 in each of the ascending and transverse portions of the colon. Although the reports in many of the cases fail to state the exact position of the fatal lesion, there are still a few facts which serve to throw some light upon the various causes which predispose to perforation. It is well known that simple ulceration of the duodenum is almost invariably situated within a few inches of the pylorus and is very liable to terminate in fatal peritonitis. Now it has already been mentioned that tuberculous ulceration of the duodenum is exceedingly rare, and that when it does occur the disease is more common in the lower portion than in the neighbourhood of the pylorus. In 4 cases where perforation took place in this part of the intestine no fewer than 3 were situated within two inches of the pyloric orifice, and in each case acute general peritonitis ensued upon the accident. We are accordingly forced to believe that although a tuberculous ulceration of the first portion of the duodenum is of very unusual occurrence, the disease is in this position fraught with infinitely greater danger to life than when it attacks any other portion of the intestinal tract; a result which is probably due to the corrosive action of the gastric juice on the mucous membrane when in a state of disease. Of all the causes predisposing to perforation mechanical strain on the walls of the bowel is perhaps the most important. It is a common observation that rupture is particularly liable to occur when the ulcer occupies a spot where the gut is habitually bent or kinked; and there can be little doubt that the hinge-like movement which obtains at such a bend in the coil must exert a very deleterious influence upon the wall of the intestine, already weakened by disease. Perhaps the most interesting feature in this connexion is the part played by a permanent increase of tension in the fluid contents of the bowel. Every pathologist is aware how easy it is to blow out the base of an ulcer by passing through the gut a stream of water at a high pressure; the probability of rupture depending directly upon the thinness of the floor of the ulcer and the pressure of the aqueous stream. Now in 6 cases perforation is said to have occurred within twelve inches of the ileo-cæcal valve, and in no less than 5 of these the valve itself is described as much thickened and ulcerated, with its diameter considerably narrowed. In another case, where perforation took place in the ascending colon, it was noted that the bowel was considerably dilated owing to the presence of a tuberculous stricture four inches lower down. It is probable therefore that under certain conditions the progress of the ulceration may lead to considerable narrowing of the diameter of the bowel and the increase of tension thus induced may relieve itself in the direction of the peritoneal cavity.

As a general rule perforation only ensues upon extensive

<sup>16</sup> Bulletins de la Société Anatomique, p. 383, 1846.

destruction of the intestinal tract by the tuberculous processes; but among our cases there occur one or two exceptions to this rule. Thus in one instance a single ulcer the size of an almond had formed in the ileum and death had resulted from rupture of its floor. In another case fatal peritonitis owed its origin to destruction of the vermiform appendix, which proved to be the only portion of the bowel affected by tuberculous ulceration. Although perforation usually arises from a progressive destruction of the wall of the gut from within outwards it appears that under certain conditions it may occur in a totally different manner. In two cases the disease is stated to have commenced in the peritoneal and subperitoneal tissues, extending inwards toward the lumen of the bowel in the form of hemispherical masses covered by the submucous and mucous coats of the intestine. Ulceration but rarely occurred over the summits of these tuberculous tumuli; but in both the instances under notice the caseous material had undergone softening at one spot, and eventually discharged itself in either direction, and so had given rise to escape of fecal matter into the cavity of the peritoneum. In another case an abscess had arisen in connexion with tuberculous mischief of the right Fallopian tube, and discharged itself through the base of an intestinal ulcer; the sudden irruption of the intestinal contents into the sac had caused its walls to give way and lighted up an attack of peritonitis. In one remarkable instance a round worm had burrowed its way through the floor of an ulcer, and its exit into the general cavity of the peritoneum had been followed by a fatal stream of fecal material. It has already been mentioned that in six cases a previous perforation had given rise to the formation of a local abscess; and an examination of the locality of these abscesses revealed the fact that in five instances they were connected with the same portion of the bowel which subsequently became the site of the fatal lesion, while in the remaining case a chronic abscess round the cæcum had been followed by a fatal perforation of the duodenum. In all the cases at present under notice fecal matter was discovered in the peritoneal cavity at the necropsy, the intensity of the secondary inflammation in the serous membrane varying according to the length of time which had elapsed between the onset of the perforation and the death of the patient. In three cases the peritoneum was found to be in a state of general tuberculous disease.

*Clinical.*—The symptoms arising from perforation of the intestine are usually so characteristic in their nature that it might easily be supposed that the rupture of a tuberculous ulcer in a case of chronic phthisis would meet with certain and instant recognition. But a comparison of the clinical and post-mortem records of these cases shows only too clearly how readily the disease may escape notice altogether, or its symptoms be confounded with those arising from less important conditions. We find from the clinical histories of the foregoing cases that in nearly three-fourths of the total number the fatal lesion was accompanied by distinct premonitory symptoms. The most characteristic of these was severe abdominal pain, usually coming on from twelve hours to three days before actual perforation took place, but in one instance lasting for nearly a fortnight. The pain was referred by the patient to the epigastrium or right iliac region, and was increased by pressure or muscular effort; in many it appeared to be rendered more severe by the ingestion of food. Vomiting, often of a bilious type, was a constant accompaniment of this condition and sometimes proved so severe as to prevent the administration of food by the mouth. The temperature usually showed a slight tendency to rise, the pulse was quickened, and in a few cases the diarrhoea, which had previously resisted all treatment, either diminished or ceased entirely. In a few instances the abdomen was noticed to have become distended and hyper-resonant on percussion. Such premonitory symptoms are important, as they are obviously dependent upon the condition of local peritonitis which so invariably precedes the final catastrophe, and their early recognition may prove of value by affording an indication for preventive treatment.

Actual perforation is usually sudden in its onset and the symptoms to which it gives rise are then extremely characteristic. In three instances the accident occurred while the patient was straining at stool, in two others it took place as the patient was walking about, while in another it appears to have followed directly upon a severe attack of retching. In each case a sudden and severe pain was complained of, sometimes situated in the umbilical region, but more often referred to that part of the abdomen which contained the diseased organs. In many cases this sudden

onset of pain was accompanied by a sensation of an internal snap, and the patient dwelt upon the fact that something had given way in his abdomen. Vomiting and collapse quickly followed these initial symptoms, the features rapidly becoming shrunken and blue and the surface of the body covered with a cold sweat; the pupils dilated, the pulse became quick and feeble and the mental depression pronounced. In every case the temperature exhibited a sudden and characteristic fall to a point considerably below the normal. If diarrhoea had existed before the accident it now entirely disappeared. When death resulted from collapse it usually occurred within three to seven hours of the accident, but in some life was only prolonged for about an hour and a half. In those cases that survived this stage the symptoms of shock were gradually replaced by those of an inflammatory affection of the peritoneum; the temperature gradually recovered itself and rose somewhat above the normal; the pulse grew wiry with an increased rapidity of beat; vomiting became urgent and the abdomen exhibited all the characters indicative of diffuse peritonitis. Death finally ensued from cardiac failure after being postponed for thirty-six or forty-eight hours. It is clear, therefore, that perforation may bring about a fatal result in two different ways—by direct shock or from acute general peritonitis; and it is worthy of notice that the immediate danger from shock bore a definite relation to the position and size of the perforation; for the higher the site of the lesion in the intestine and the more rapid the subsequent extravasation the more profound and quickly fatal proved the subsequent collapse.

The train of symptoms indicated in the foregoing sketch are common to all cases of perforation of the gastro-intestinal tract irrespective of its cause, and their supervention in a case of chronic phthisis would admit of but little doubt being entertained as to the exact nature of the complication. But under certain conditions it is found that rupture of a tuberculous ulcer may be accompanied by symptoms of the most equivocal nature, and it is to such abnormal varieties that we would venture to draw special attention. In nearly one-fourth of the entire number of cases the patient appeared to succumb from gradual exhaustion, and the autopsy, which revealed that death had resulted from purulent peritonitis following intestinal perforation, afforded a complete surprise to those who had watched the progress of the case. The question therefore arises why the same lesion should in some instances be followed by such a characteristic and severe train of symptoms while in others its effects are hardly to be distinguished from those of the primary disease, and although it kills, why it should do so in such an unostentatious manner. The answer appears to be that in order for fecal extravasation to be accompanied by clinical phenomena of a pronounced type it is requisite that both the peripheral and central portions of the nervous system should be capable of immediate reaction to a sudden stimulus. But if either the central nervous system or the surface of the serous membrane be previously deprived of its natural irritability from exhaustion or disease, then the symptoms of shock and subsequent inflammation, which under ordinary circumstances are so characteristic of perforation of the bowel, will be either indifferently developed or even entirely absent.

In looking over the cases which presented but ill-defined symptoms of peritonitis, we find they are capable of being arranged in two divisions according as the central nervous system or peritoneum appear to have been primarily at fault. In the first case the symptoms of the accident were unable to exhibit themselves on account of being masked by the profoundly asthenic condition of the nervous system, while in the other they remained latent during life, because the surface of the peritoneum had been deprived of its natural irritability owing to its previous invasion by miliary tuberculosis. That acute general peritonitis may supervene during the latter stages of chronic phthisis without arousing any suspicion of its presence in the mind of the physician has been the subject of frequent remark, and of the difficulty which such cases of masked peritonitis present in diagnosis the following offers a fair illustration. A youth who was the subject of advanced phthisis complained of diarrhoea, accompanied by occasional attacks of nausea and pain in the right iliac region of the abdomen. A few days after admission into hospital and without any marked accession of pain he commenced to vomit and was soon unable to retain any nourishment in the stomach. The temperature which had ranged about 101°F. showed at first but little variation, but afterwards gradually fell

with the rapid progress of exhaustion. No complaint was made of abdominal pain, and on examination nothing abnormal could be detected, with the exception of some slight general tenderness on pressure. The diarrhoea appeared to increase in severity rather than to diminish. The vomiting, however, proved intractable, the pulse grew quicker and weaker, the tongue became dry and brown, sordes collected about the teeth and lips, and the patient succumbed in four days to a progressive asthenia. The persistent vomiting and diarrhoea without collapse seemed to indicate an inflammatory affection of the gastro-intestinal tract, but the necropsy proved that death had really resulted from general purulent peritonitis, and that the rupture of a tuberculous ulcer in the vermiform appendix had allowed faecal matter to escape into the cavity of the peritoneum. The clinical records of the remaining cases afford but little help in formulating any rules for the diagnosis of this form of the disease. Abdominal pain may be present throughout the illness, but its onset is never sudden or accompanied by collapse, and indeed the general tenderness over the whole of the abdomen seldom exceeds that which arises from the presence of intestinal ulceration. Occasionally the abdomen may become distended and tympanitic on percussion, but in the majority of our cases these abnormal signs appear to have been absent. Vomiting is always the prominent feature, though it varies considerably in its severity in different cases. Unlike the more sphenic variety of the disease, the symptom of constipation is often absent and in not a few instances, as in the one already referred to, diarrhoea proved exceedingly troublesome. The temperature varies in different cases, sometimes showing an inclination to rise above its former point, but more often gradually declining with the approach of death. The pulse exhibits a progressive quickening with enfeeblement of its beat, the first sound of the heart soon becomes toneless or inaudible, the tongue appears dry and brown with sordes about the teeth, and the face often acquires that peculiar drawn and sunken expression so suggestive of acute abdominal disease. The exact duration of life in these cases is difficult to estimate owing to the absence of any positive data concerning the onset of the perforation, but in many instances death seems to have been delayed from five to nine days after the vomiting commenced.

With regard to that variety of symptomless peritonitis which we have alluded to as "latent" the cases at our disposal can only furnish us with three instances in point. In each there had been a long-continued complaint of abdominal pain and diarrhoea, and in two cases the existence of fluid in the peritoneal cavity had been diagnosed some days prior to death. The patient appeared suddenly to grow worse without any adequate cause being discovered, but after death it was found that chronic tuberculous disease of the peritoneum was associated with faecal extravasation arising from perforation of the bowel, which from the appearance it presented was obviously a day or two old. It is now a well-recognised fact that tuberculous disease of the peritoneum renders that sensitive structure proof against many sources of irritation which, under normal conditions, would excite intense inflammation. Consequently it may be taken for granted that when once the serous membrane has fallen a victim to tuberculous disease even faecal extravasation will encounter some difficulty in exciting acute inflammation of its structure, while from the impaired sensibility of the serous surface the accident will also fail to produce that sudden reflex inhibition of the vital organs which is commonly termed "shock." Although the notes on these cases are extremely scanty it would appear that the sudden supervention of intractable vomiting and rapid asthenia in a case of tuberculous peritonitis with intestinal ulceration, the progress of which had hitherto been somewhat slow, should suggest the possibility of perforation having occurred.

Symptoms of acute peritonitis not unfrequently ensue during the course of chronic phthisis totally independent of perforation of the bowel, and it is therefore important to recognise the various causes from which they may arise. In the first place, local peritonitis around the intestinal ulcers may prove so severe as to closely simulate in its symptoms the more diffuse forms of inflammation; and in one case which we recently had the opportunity of watching but little doubt was entertained that actual perforation had occurred. The patient, however, lived three weeks and finally succumbed to the pulmonary disease, while the necropsy demonstrated the fact that the abdominal symptoms entirely owed their origin to the existence of two inflamed ulcers in the jejunum. But in such cases as these the onset of the pain is much less

sudden than when due to perforation. Collapse, with a sudden fall of temperature, is absent, and the face fails to exhibit the peculiar expression indicative of fatal mischief in the abdomen. It should also be remembered that actual perforation is of extremely rare occurrence and the subsequent peritonitis invariably terminates fatally within three days.

Secondly, during the same period of time in which our cases of genuine perforation occurred we find the records of nineteen other cases where death had resulted from purulent peritonitis, for which neither perforation of the bowel, tuberculous disease of the serous membrane, nor renal mischief could satisfactorily account. In each instance the bases of the intestinal ulcers were much inflamed, and although it is possible that in a few cases a small perforation may have given rise to the condition without its presence being detected at the necropsy. But the clinical histories of these cases make no mention of a sudden onset of pain attended by collapse, and the absence of this important diagnostic sign is almost conclusive evidence against perforation having occurred in any case. It is probable, therefore, that the condition of general peritonitis was the result of extension by contiguity. Lastly, it is possible that acute tuberculous peritonitis might at an early stage be confounded with an inflammatory affection of the peritoneum arising from the intestinal lesion. In this disease, however, initial collapse is entirely absent, the abdominal pain is more gradual in its onset and less severe, and fever is the rule, not the exception. Here, again, the comparative frequency of the two diseases should be borne in mind, for we find that while tuberculous peritonitis existed in nearly 4 per cent. of all the cases of phthisis which came to a necropsy, acute peritonitis resulting from perforation only occurred 15 times in 2000.

(To be concluded.)

## A PRELIMINARY NOTE ON FLEXION AND VERSION OF THE UTERUS.

By JAMES OLIVER, M.D., F.R.S. EDIN., M.R.C.P. LOND.

OUR text-books on diseases of women, it is true, devote a large amount of space to the consideration of the various flexions and versions of the uterus; that, however, they impart any true knowledge regarding the manner in which these alterations are produced is extremely doubtful. The mere fact that these variations have been recognised for many generations is no criterion. They are apparent and obvious changes, and no high degree of intelligence or great amount of training is requisite for their detection; and had they failed from the earliest period in the history of medicine to attract attention, we should indeed have been justified in expressing the most profound astonishment. The majority of practitioners and gynaecologists even of the present day are, I regret to say, contented to know that they possess that aptitude which enables them to detect alterations in the configuration or position of the uterus—alterations which they cannot, in fact, help detecting. A man endowed with ordinary sight, in looking towards the heavens on a clear night, recognises the stars which stud the azure vault, but without some special training he is unable to determine the distances and magnitudes and courses of the planetary orbs as they roll along the ethereal plains, and these facts are only reached and disclosed by means of an intellectual effort. The various pessaries which from time to time have been devised for the purpose, if possible, of restoring the uterus to and maintaining it in its recognised form and position are carefully enumerated and each is usually described with much exactness. The good effects produced by the application and adaptation of these mechanical agents are duly paraded, but the panegyrist leaves the imagination to picture to itself the manner in which these so-called supports can affect the configuration or position of the uterus and restore this organ to its natural shape and location. "An unreasoned philosophy, even though true, carries no guarantee of its truth. It may be true, but it cannot be certain, because all certainty depends on rigorous evidence, on strict demonstrative proof. Therefore no certainty can attach to the conclusions of an unreasoned philosophy."

Before directing our attention to the consideration of these

changes which produce an alteration in the configuration or position of the uterus let me discuss, first of all, the following propositions, which, says Thomas,<sup>1</sup> "present the views upon the subject of versions and flexions which will be found to bear the test of experience." 1. "Versions and flexions of the womb may, but very rarely do, exist without causing any symptoms, for in themselves they do not constitute disease." The logic of this precept is strange. On authority, but not by reason, we are asked to believe that versions and flexions do not constitute disease and that consequently, although they may not produce symptoms, they are nevertheless much more likely to give rise to discomfort and prove troublesome. Are we to infer that the structural changes which result in the production of these displacements do not constitute disease? If not, they must then be normal variations. No process of reasoning will, I fear, lead us to this conclusion. They are most assuredly the result of some derangement, physical or chemical. Judging alone from the manner in which we are recommended to treat these displacements we are compelled to admit that the alteration, whether in configuration or in position, is in reality the disease. By the application of what "they" term a well-adjusted pessary the uterus will be restored to its natural shape and situation. Now everyone will admit that a system which is reasoned is of some value even although it may not be true, whereas haphazard statements are absolutely worthless, and, worse than this, they are misleading. 2. "By interfering with the escape of menstrual blood, by disordering uterine circulation and keeping up hyperemia, by causing pressure and friction from contact with surrounding parts, and by creating a barrier to the entrance of seminal fluid, they become as a rule of great importance and require special attention." We have no evidence that flexions or versions interfere with the escape of the menstrual blood. Many women suffer more or less during menstruation, and although we may occasionally in such detect some alteration in the configuration or position of the uterus, it does not necessarily follow that the pain is due to an interference with the escape of blood. Frequently we find women with decided flexions and versions who suffer no discomfort whatever during menstruation. We are too apt to jump at conclusions regarding cause and effect, and for this reason statistics are apt to prove fallacious. We have no evidence either that these variations disorder the circulation. Those who assume that the circulation is disturbed forget apparently that they are dealing with organic structures, with tissues which are endowed with a large amount of power of adaptation to circumstances. In the female dugong we have a uterus which presents a peculiar corkscrew shape, but it is perfectly evident that the circulation of the organ is not thereby disordered. If flexion is due to want of tone in the uterus, then the vessels will not receive that amount of support from the tissues and the blood will consequently pass more sluggishly. In this case, however, the circulation is disturbed not by the flexion, but by the cause of the flexion; the disturbance is nevertheless augmented by the configuration or position of the uterus. In the animal and vegetable kingdoms we have abundant proof that mere shape does not interfere with the passage of that fluid which nourishes the tissues. The tendrils and branches of plants perform many gyrations and assume a variety of shapes without the vascular system in any part of its course being necessarily disturbed. Again, the influence of pressure and friction is undoubtedly exaggerated, for everyday we find new growths developing in the pelvis, arising, it may be, from the uterus or ovaries and attaining a great size, and yet the pressure exercised by these produces little or no discomfort unless they become confined, when the increased tension necessarily produces pressure symptoms. It is alleged, too, that flexions and versions are a cause of sterility, as they create a barrier to the entrance of the seminal fluid. If we examine the genital organs of the females of many of the lower animals we shall observe that greater barriers to the entrance of seminal fluid exist naturally in many of them. The spermatozoa appear to experience no difficulty whatever in effecting an entrance into the corkscrew-shaped uterus of the dugong. In the cervix and body of the uterus of the sheep and goat we find groups of laminae presenting the appearance of a number of successive orifices, and many no doubt would be disposed to affirm that these irregularities in the canal would hinder the progression of the spermatozoa. A careful study of the various methods whereby

the process of fecundation is carried on in plants and animals and a close examination of the genital tract in mammalia compel us to admit that the spermatozoa and ova are attracted towards each other and that they do not meet and coalesce simply because they happen to be traversing the same passage. It sometimes happens that this elective affinity is absent and fecundation is then impossible. In the case of fishes, for example, it is this elective affinity—this attraction between the ova and spermatozoa—which keeps the species pure; without this influence hybrids would abound. In the case of the ornithorhynchus we find a cervix uteri located on each side of the roof of the uro-genital canal. Each cervix presents two orifices, one—the lower—communicates with the ureter, whilst the other—the upper—leads to the body of the uterus. If, therefore, the process of fertilisation depended simply upon chance we would be justified in asserting because of the structural arrangement that the female ornithorhynchus would seldom become pregnant, for the spermatozoa would tend to enter the first opening which leads to the ureter, and would thus fail in their mission. It is evident, however, that the spermatozoa seldom, if ever, enter this opening, but are attracted towards that opening which leads to the uterus and ovary. In the macropus major—a marsupial animal—we find also a structural arrangement of such a character that if the meeting of the spermatozoa and ova depended purely upon chance the species would run a fair prospect of being speedily extinguished. 3. "Often being the results, as they are sometimes the causes, of uterine and peri-uterine diseases, their treatment should be combined with efforts at the alleviation of these states." There can be no doubt that the displacements of the uterus are the result of intrinsic or extrinsic changes, but I am fully convinced that if greater caution were exercised in treating these malpositions and altered configurations of the uterus many women would be freed from a great deal of suffering, and many who have become invalided in consequence of a too vigorous treatment would pass through life more comfortably.

Gordon-square, W.C.

#### THE

### RADICAL CURE OF URETHRAL STRICTURE.

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THOUGH it is universally recognised that strictures of the urethra differ in their situation, cause and arrangement, no attempt has, so far as I am aware, been made to lay down any principles which should guide the surgeon in dealing with these separate varieties. Excluding the traumatic form which, as is so well known, differs from the organic stricture in its extreme intractability, we seem hardly to have advanced much further in our ideas of the causation and pathology of the disease than had John Hunter. He recognised three varieties—*true spasmodic*, *permanent* and *mixed*, and states further and with equal truth that spasm plays an important part in most strictures. Subsequent writers on the question have little to add to this view and the less we stray from these simple statements the greater chance of our getting a clear conception of what urethral stricture is and how to treat it. One point alone we may add to this description to make it complete: we must recognise that congestion plays a very considerable part in many a stricture that comes before us. There is another factor of equal if not of greater importance which remains to be determined before a stricture can be successfully treated. Its exact locality must be determined, and this is doubly necessary, because, for reasons that are not altogether explainable, the locality affected influences both the course which the disease follows and the means which are to be taken for its relief. It is often assumed that the appearance of diseased structures which are so familiar to the student of museums form an all-sufficient basis to enable us to carry out a successful line of treatment. Nothing, I am persuaded, is more untrue and nothing more likely to bring surgery into unmerited disrepute than the acceptance of such a dictum, as some writers have accepted [it without any reservation whatsoever. So far as it goes it

<sup>1</sup> Practical Treatise of Diseases of Women, edition 1880, p. 866.

<sup>1</sup> A paper read before the West London Medical-Chirurgical Society, Jan. 8th, 1892.

cannot be denied that the museum specimen is a most valuable guide, but it must be treated as a servant and not as a master. It represents typical well-marked forms of disease; but the slighter varieties, the beginnings of disease, which are so instructive in teaching us its progress and course and in opening our eyes towards a rational mode of treatment, are practically unknown in museums and are for the most part incapable of representation there. We cannot take a better illustration of this fact than that which is derived from an inspection of hernia specimens in many museums. Direct and indirect inguinal herniæ figure in almost equal abundance and the surgeon who depended only on museum specimens for his knowledge of hernia would perforce conclude that direct and indirect inguinal hernia was of equal clinical significance, whilst a knowledge derived from the living facts of disease would soon convince him that it was their very rarity and not their clinical importance which had prompted the specimen hunter to place direct inguinal herniæ in a bottle. So it is with urethral strictures. Our museums bristle with interesting examples of severe organic strictures, many of them produced by the injudicious use of small and dirty silver catheters, or irritated by the unsparing use of caustics; but of the everyday slight urethral stricture but comparatively few examples are to be found. Not that it is for one moment my intention to find undue fault with the treatment of the period to which these specimens belong. It has now happily passed away, it is to be hoped never to return, but it represented the best thought and the most careful manipulation of a past generation, that was gradually struggling onwards on the lines of surgical progress, and as such should command our intelligent respect; but the specimens which it produced must never be set up as examples worthy of imitation or as indications of the natural course of the disease, unless we are inclined to add the words "exaggerated by surgical treatment." If evidence be needed of such a statement we can find it in the false passages which abound in such specimens, and which may serve as a warning to us against the indiscriminate use of metal instruments. If we would gain a clear knowledge of the best methods of treatment we must extend our knowledge of pathology from the museum spirit to the human flesh, which is more than ever possible to-day by the aid of the urethroscope and cystoscope. What up to quite recently had been a matter of supposition and inference is to-day oftentimes visible to personal inspection. Allusion has already been made to John Hunter's classification of strictures into permanent or organic spasmodic and mixed strictures. Some good reasons may be given for adopting this classification to-day. If the spasmodic variety be first considered it will perhaps conduce to the better comprehension of the other forms, because, as I hope to be able to show, it is the parent of them at any rate in the vast majority of instances. No one doubts that the urethra is at times the seat of spasm, for everyone who has been a few years engaged in the practice of medicine has known instances in which the passage of urine previously easy has been almost if not entirely brought to a standstill either by exposure to cold or by an error in diet. Even Sir Henry Thompson does not deny that in that sense the urethra is subject to spasm, but he would have us believe that such spasm has no connexion with stricture. In referring to the statement made by Otis that deep strictures sometimes disappear after the incision of those situated nearer to the orifice, he makes the following statement. "The deep stricture must be dilated or incised or it will remain as before. If, however, all that is intended by the statement referred to is that a stricture near the meatus may induce spasmodic contraction of muscles connected with the deep urethra, then I have no further concern with the statement; the condition alleged is not stricture; the spasm may or may not occur; its occurrence is a matter of inference or of speculation, not of physical proof, and has no relation to the matter now under consideration."

Many cases of spasm are undoubtedly hypothetical, but all must not be dismissed in so summary a fashion. It is now several years back that I was called upon to treat a case of stricture in the deep urethra, which was said to have supervened upon a recent attack of gonorrhœa and, moreover, a first attack. The patient in question complained that he was often seized with attacks of retention, and though a hot-bath usually relieved him yet a few days later the attack recurred. At times he was quite free from any pain or inconvenience. He was anxious, however, to obtain relief rapidly, as he was about to leave England for some time, and I had arranged to divide his stricture, as, though easily dilatable after a catheter was tied in, it speedily under-

went recontraction and was very painful to the passage of instruments. Under these circumstances urethrotomy had been advised and he was accordingly anaesthetised. I had passed a No. 3 English catheter for him two days previously and did not anticipate any difficulty; but, much to my astonishment, I found that when he was fully anaesthetised the urethra was perfectly patent and no difficulty whatever was experienced in introducing a steadily ascending series up to No. 16 English, though for the larger instruments I was obliged to divide the orifice. I need hardly say that under such circumstances no cutting operation was attempted. After such complete dilatation under the anaesthetic no further difficulty was experienced with catheters, and he soon learnt to pass one for himself. I advised that this should be continued for some little time, and then discontinued, imagining that some temporary cause had induced a spasm and that all further trouble would soon be at an end. I saw nothing of my patient for several years, but within the last few months I have seen him again, and learnt that a few weeks after our last interview he discontinued the use of the catheter, and all went well for several years; but about a year ago—i.e., three years and a half after I had seen him—the ordinary symptoms of stricture supervened, and he sought medical aid. It was dilated and by occasional catheterism he has been kept by this means fairly comfortable, but on the site of the old spasmodic stricture there is now a permanent one of organic character.

Some two years ago I published an account in the Medical Society's Transactions, vol. xiii., page 105, of a somewhat similar case in which electrolysis failed to produce any permanent relief, but which readily yielded to internal urethrotomy. The case is in some respects so remarkable that I need make no apologies for repeating it once more.

W. P.—, aged twenty-four, came to me with a stricture which would admit a No. 4 English catheter. As soon as No. 5 had been held against the stricture for about a quarter of an hour it passed through, and then Nos. 8, 9, 10, 11, and 12 all passed in rapid succession. Nine times in succession did I dilate the stricture, and nine times did he return in intervals of from fourteen to twenty-eight days with his stricture in the same condition. It was clear that one had to deal with a *bonâ-fidâ* case of spasmodic stricture. I examined the man's urethra with the urethroscope and detected on the left side of the canal a small red patch, which was situated as nearly as possible in the locality of the stricture. This at once recalled to me the views on the pathology of rectal stricture which have been so carefully worked out by my friend and colleague, Mr. Harrison Cripps, in his well-known book on "Diseases of the Rectum and Anus," and the case which he records of spasmodic rectal stricture which completely disappeared under an anaesthetic, but which two years later, when he examined the rectum, was converted into a mass of unyielding cicatricial tissue. I soon came to the conclusion that I really had to deal with a spasmodic stricture set up by a small ulcer in the mucous membrane, and that this muscular spasm was gradually being worried into a permanent cicatricial contraction of the canal. This being the case, I at once changed my method of treatment, and advised an internal urethrotomy. The patient consented, and after the operation was completed a No. 16 English catheter was tied in for twenty-four hours, and the urethra kept well dilated by the passage of instruments at frequent intervals for a month. His stricture vanished and nine months later for the first time for eight months I passed an instrument for him and found no trace of his previous trouble. Of course I cannot say that he will have no return, but I feel fairly confident that his case is to be regarded as a true cure, the result of an application of that surgical principle which Brodie so successfully employed in dealing with ulcer or fissure of the rectum.

There cannot be any reasonable doubt that in both these cases just related one had to deal with a true spasmodic stricture and there is, I think, but little reason for doubting that the last case would have gone the way of the first had its downward course not been arrested by a timely urethrotomy. Erichsen records such an excellent instance of extreme spasm existing in a comparatively slight stricture that it is worth while, coming as it does from an independent observer, to record it here. He says: "The influence of anaesthetics in facilitating the passage of instruments through apparently impermeable strictures is very marked. Shortly after the introduction of ether as an anaesthetic agent Liston was going to cut through a stricture that had resisted all

attempts made by his most dextrous hand at introducing an instrument into the bladder; but no sooner was the patient put on the table and rendered insensible than the No. 8 silver catheter, which had been passed down as far as the stricture, and the point of which was to serve as a guide for the knife, slipped into the bladder and thus rendered a dangerous operation unnecessary." Since my attention has been specially directed to the connexion between spasm and stricture I have, almost as a routine treatment, employed an anæsthetic before beginning to undertake the treatment of a case of urethral stricture, and I have been very much struck by the large number of cases in which the stricture has largely increased in calibre under the influence of an anæsthetic. I think I may say it is almost an invariable rule for strictures to yield somewhat, and many yield to a very considerable extent. Whenever a stricture yields largely to an anæsthetic, it is almost certain, when examined with the urethroscope, to display a considerable amount of congestion, and often patches of granulation tissue are seen in its immediate neighbourhood. Much of this spasmodic irritability will disappear by rest in bed and other well-known appropriate means, but there usually remains a small amount of true spasm which yields only to the anæsthetic. If this residual spasm is to be seen in perfection, it must be looked for in an early and recent case, and not in one in which the cicatricial contraction has reached its practical maximum, and where the muscular tissue surrounding the urethra is incapable of producing further constriction. It is needless to add that such conditions are incapable of demonstration by museum specimens, but they can be readily detected by the methods just referred to. These are the cases which, if early recognised and judiciously treated, will I believe yield a considerable number of real cures. The very earliest of all may possibly be cured by the passage of instruments, whilst the more severe cases will yield to electrolysis, or should if this plan fails be subjected to urethrotomy, and well dilated afterwards. Probably one reason why one seldom sees a real cure after urethrotomy is that dilatation is not practised sufficiently, nor with large enough instruments, but of this more later. It is worth while recording that there is no longer the same rooted objection to the word "cure" in connexion with urethral stricture that there used to be. Mr. Mansell Moullin has published an account of some cases in THE LANCET, May 7th, 1892, in which patients had been treated by various surgeons for stricture and in which a cure in its truest sense resulted. It is not so long ago that such a statement would have almost been hailed as evidence of quackery. Once a stricture always a stricture represented the views of twenty years ago. I have myself come across a fair number of cases in which an undoubted cure has resulted, one, I remember, in which a patient had been originally under treatment for stricture by the elder Coulson, and thirty-five years afterwards I saw him. He assured me he had diligently passed a catheter or bougie (I forget which) most religiously twice a week ever since. He had absolutely no trace of a stricture, and I advised the discontinuance of his instrument. I saw him a year or more later, when I passed a catheter for him in order to be able to assure him that there was no chance of a recurrence, and he was still quite free from constriction of any sort. Now what is the best system to pursue for strictures which are not complicated by spasm, or in which at any rate spasm plays a very insignificant part? Can we hold out any hope of cure? It must be admitted the expectation of cure is not often realised, but it certainly does occur sometimes.

Sir Henry Thompson records a case in which, after a stricture had been three times divided by internal urethrotomy, a cure which remained permanent twelve years later occurred, and other instances of undoubted cure may be found. One thing is certain, and that is if once a stricture is completely divided the question of its ultimate cure depends on the subsequent dilatation, on the mode employed and on the thoroughness with which it is carried out. It has been too long assumed that so inveterate is the tendency in a cicatrix to contract that no human power can prevent it. Such a doctrine has done little but retard our knowledge. That cicatricial tissue has a strong tendency to contract may be readily admitted, but it is a tendency which can be overcome in some instances very readily. Why, we might ask, does not the cicatrix which is formed after a radical cure for hernia go on contracting for ever? If only it did do so the hernia would have no chance of requiring a second operation and patients would be more easily cured than they are at present.

Why do not the scars of old strumous abscesses in the neck, after they have been relieved by subcutaneous section, return to their former condition, and why do not burn cicatrices, the most inveterate of all forms of scar-tissue, go on contracting for ever? Simply and solely because treatment is directed towards preventing such a result. Movement of one kind or another is kept up for a sufficient length of time and eventually most of the tendency to recontraction disappears. In the case of the neck this is the more remarkable, because the only possible treatment is rubbing and moving the scar, presumably with the object of preventing the cut bands of scar tissue from rejoining, and there is, as we shall see, some reason for believing that an analogous form of treatment in the case of the urethra will produce in some instances an equally happy result. Rectal strictures of a fibrous nature certainly yield to free division accompanied by persistent dilatation subsequently, and if large bougies are used for about a year, at first daily for ten minutes and after a few months less often, the stricture disappears and shows no tendency to return—a fact which I have been able to verify on several occasions. In some instances I have tried a precisely similar plan with urethral stricture, and with the best results. For this purpose the best instrument that can be employed is a conical steel bougie of as large a size as the urethra will admit. There are very few urethra that will not take with ease a No. 16 English catheter, when the meatus is divided, and in a very large number of patients a No. 18—occasionally No. 20—can be passed without difficulty. Such instruments have the supreme merit of being readily kept clean; they take a high polish and thus pass easily into the bladder, and though at first sight it may sound strange to say so, patients pass them more readily for themselves than almost any other kind of instrument. The reason for this is on reflection quite clear; their weight is such that when passed an inch or two into the penis they glide imperceptibly down the inclined plane of the urethra into the bladder.

I have several cases under observation in which no trace of stricture remains three years after all treatment by dilatation has ceased. But those who have had any experience with hospital patients know how futile it is to expect treatment of this kind to be carried on long and continuously. A few may carry out directions, but the vast majority do not, and in this fact lies the difficulty of the cure. Such experience, however, as I have had of the passage of steel sounds daily, and allowing them to remain in for ten minutes, has led me to believe that dilatation so practised has a far more potent effect even on the very worst strictures than any other plan with which I am acquainted. One man I at present have under observation who was the subject of a very bad ruptured urethra, has been for some months quite free from trouble, while he was so under no other plan of treatment, and at the present time he is beginning to be able to slack off dilatation, because the tendency to recontraction is no longer so marked as it was.

There are classes of cases in which probably there will be no difference of opinion amongst surgeons as to treatment—viz., those cases in which no instrument can be introduced into the bladder. One of two operations must be performed—either that which is associated with the name of Mr. Cock or that which is known as Wheelhouse's operation. The latter is unquestionably tedious, and often attended with considerable difficulty; but the results, both immediate and ultimate, are excellent. Cock's operation, though one of the most rapid methods for the immediate relief of a distended bladder, is by no means altogether free from risk, and often leaves the patient in a worse position almost than he was before the operation, for no attempt is made to promote a continuity between the back and front parts of the urethra; and unless a second operation, somewhat of the nature of a Wheelhouse, is undertaken at a later period, the patient may be compelled to urinate through his perineum for the rest of his days, quite apart from the danger of having his urethra cut completely across, as a result of the first operation for his relief. For my own part I have been inclined to employ more largely than some surgeons the various methods of external urethrotomy from a belief that has been gradually forced upon one that the dangers and evil consequences of relieving a strictured urethra with small instruments, especially when metal ones are made use of, are even greater than they are ordinarily supposed to be. Moreover, though the immediate consequence of an external urethrotomy is often a prolonged and tedious convalescence, yet its ultimate result is with ordinary care both certain and permanent. As an instance of the difficulty which is sometimes met with when

the shorter but more dangerous plan of attempting to pass a small metal instrument by the urethra is carried out, there is a preparation in the Norwich Museum of the bladder and urethra of a surgeon, who had suffered for some years from stricture and for whom a small metal instrument was passed by a well-known London surgeon fifteen years before the patient's death. For fifteen years he never voided his urine except by means of a catheter and after his death it was discovered that the reason for this state of affairs was that a false passage existed, which had left the urethra in front of the stricture and re-entered it in the middle of the prostate. Through this false passage all the urine had been drawn off with a catheter for fifteen years. Nothing probably has tended so much to the better treatment of urethral disease of recent years as the more general employment of rubber instruments in the treatment of small strictures, and it may certainly be laid down as an axiom that whenever a soft guide bougie will pass through a stricture it is capable of treatment by internal urethrotomy, whilst such an occurrence as the one just related will serve to show that however brilliant the passage of a metal instrument may seem to the bystander, the state of the patient afterwards may not be one to be exactly envied. Even if it be granted that success would follow on nine occasions out of ten the surgeon should rather content himself with the more tedious method than court occasional disaster for the sake of a brilliant temporary success.

It has long been recognised and it is now pretty generally admitted that penile strictures demand incision, whilst those more deeply situated are quite amenable to dilatation. It is certainly a curious fact that anterior strictures will not often yield to dilatation, and this is probably due to two facts: (1) The septum pectiniform of the penis is unusually firm and unyielding at its anterior portion; (2) the causes—such as syphilitic sores and very acute inflammations usually of gonorrhoeal origin, which tend to produce anterior strictures, are usually attended with a great deal of inflammation, and thus give rise to strictures of a very unyielding nature. Still the anterior strictures are interesting in other ways. Some of those which are situated within the first inch of the urethra are certainly capable of real cure. In the first place they are visible to the eye, so there can be no dispute about their existence; in the second they can be kept in view whilst they are being divided; and in the third place they can be kept dilated with very large instruments for any period that may be considered to be necessary. If cure be desired in such cases the stricture should be kept dilated for a few minutes daily with a short conical steel bougie for at least six months, after which time the dilatation should be carried on once or twice a week for four or five months more, at the end of which time there will be found to be in most cases (probably in all) but little tendency to recontraction. The accompanying engraving will show the character and shape of the



instrument. Surely if such a result can be obtained with such severe strictures, it should encourage us to hope for cure in those more deeply placed.

With regard to the strictures which are more deeply situated there will probably be much difference of opinion as to how they should best be handled. Many of the slighter ones are so readily amenable to occasional dilatation that few patients are disposed to submit to more prolonged treatment. With the more severe types whenever there is much thickening to be felt from the outside, if there is tendency to congestion, as is shown by their readiness to bleed, or by their admitting instruments of variable size within a short period, no plan has yielded in my hands such good results as electrolysis. I have on more than one occasion published an account of cases with their results several years afterwards, and further experience leads me to assert confidently that in suitable cases excellent results will with care be obtained.

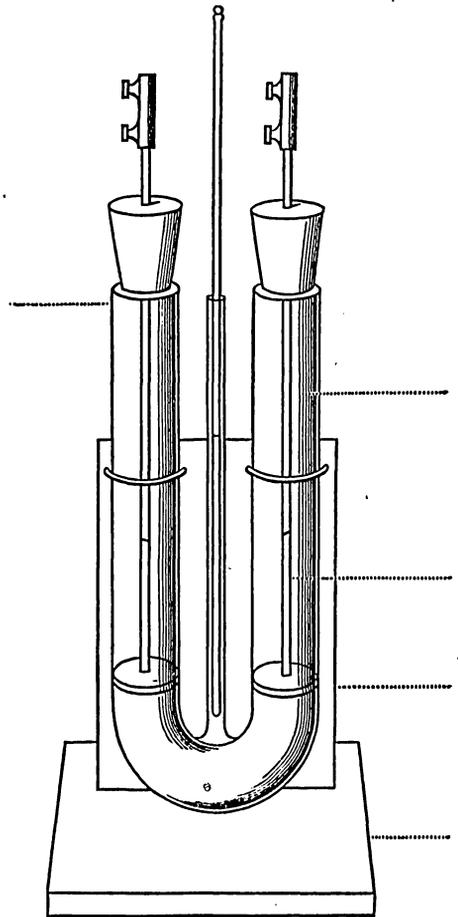
If I were asked to formulate in a few words the most essential points in the treatment of stricture of the urethra I should be inclined to say: 1. Make certain you have a true stricture to deal with. 2. Take the greatest care to keep it dilated for a long time after it has been incised. 3. Where there is much thickening employ electrolysis.

Harley-street, W.

## "THE ELECTRICAL RESISTANCE OF THE URINE AS AN AID IN DIAGNOSIS."

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A PRELIMINARY ACCOUNT of part of this research was given in the Proceedings of the Royal Society of Edinburgh on Dec. 21st, 1891, and a further account is being published in the author's "Practical Manual of Medical Electricity." I desire here to give a brief summary of the work and of its chief results. The object of the inquiry was to ascertain the electrical resistances of various kinds of urine, both in states of health and of disease. The measurements were made by means of a Wheatstone's bridge with alternating currents and a telephone according to Kohlrausch's method and at a temperature of 65° F. The engraving is a view of the electrolysis tube used.



It would appear from the observations—some 500 in number—that the specific resistance of a normal urine amounts on the average to about 45 ohms, and that it varies as a rule more or less inversely with the specific gravity. When the specific gravity is high and when the urine holds in solution much salts, its electrical resistance is low, and *vice-versa* where the specific gravity is low, the resistance is high. The amount of urea has but little to do with the resistance in ordinary urines. A number of experiments were made with artificial urines (see tables), and from these it is clearly apparent that the electrical resistance depends almost wholly upon the salts, and that it is only when these are quite absent, or very much diminished that the influence of the



very common cause of death after gastric ulcer. Transfusion was to have been done the next day, but unfortunately her sudden death forestalled us.

Tunbridge Wells.

### ON PERFORATIONS THROUGH THE ANTERIOR PILLARS OF THE FAUCES.

By G. G. MORRICE, M.D. CANTAB., M.R.C.P.

IN THE LANCET of Nov. 30th, 1889, Dr. Walter Fowler contributed a Clinical Note entitled "The Significance of Perforations through the Anterior Pillars of the Fauces." He concludes with the sentence, "Hence I look upon these perforations as caused by suppurative or phlegmonous mischief in the tonsils; and, considering the circumstances under which they are generally met with, the lesion is most probably a sign of antecedent scarlet fever." As Dr. Fowler does not mention having actually seen the perforation taking place it may be of interest to record the following cases occurring in diphtheria. They took place in Homerton Fever Hospital. I am indebted to Dr. Collie for leave to publish them.

CASE 1.—N. W—, aged ten. She vomited on Aug. 15th, 1890, and was admitted to the Eastern Fever Hospital next day with membrane on the soft palate to the left of the uvula.—16th: The greater part of the left side of the palate is covered with thick jelly-like membrane. During the next week the membrane gradually cleared off, but at the same time an oval piece sloughed out of the left anterior pillar, leaving a hole which would admit a cedar pencil. No sign of diminution in its size appeared while she was with us. Summary of the convalescent stage.—30th: Nasal voice.—Sept. 10th: Paralysis of accommodation.—28th: Attacks of vomiting.—29th: Patellar reflex lost. It was excessive, as often happens, for about two weeks before disappearing. Albuminuria, which had appeared on Aug. 8th, disappeared by Sept. 6th.

CASE 2.—A. K—, aged eight, complained of sore-throat on Feb. 22nd, 1891. On admission to hospital on Feb. 25th there was membrane on the uvula, tonsils and soft palate. A watery discharge from the nose.—March 1st: Uvula encased in discoloured membrane.—2nd: Urine contained much albumen (none on admission).—4th: Voice slightly nasal.—9th: Slough of an oval piece of the left anterior pillar; occasional vomiting; knee-jerks exaggerated.—11th: Drinks return through the nose.—14th: Knee-jerks absent.—30th: Loss of accommodation. April 14th: Strabismus.—15th: Albuminuria ceased; cannot stand alone.—25th: Accommodation regained.—May 5th: No improvement in locomotion.

CASE 3 (from the notes of a colleague).—N. S—, aged two, was admitted to hospital on July 14th, 1891. Bright injection of fauces and soft palate. Yellowish solid-looking deposit on both tonsils.—18th: Deposit has not yet cleared off.—22nd: Well-marked purple bloom on the fauces; a small hole through the right anterior pillar where a piece seems to have sloughed through, large enough to admit a bodkin; no sequela.

Now, with regard to scarlet fever, I have recently seen two children with small perforations of the soft palate and a child, who died, in whom most of the soft palate had disappeared. I have also before me the notes of two other cases, one of whom died of pneumonia and nephritis. These I did not see. My observations up to the present time would lead me to think that the most complete and permanent perforations occur in diphtheria. The striking features about them are the similarity of their position (just above the last molar tooth) and the absence of any indication of repair, their edges being as smooth and uniform as those of a gastric ulcer.

Homerton.

### CASE OF DISLOCATION OF THE METATARSAL BONE OF THE GREAT TOE.

By T. CAMPBELL GREY, M.R.C.S., L.R.C.P. LOND.,  
RESIDENT MEDICAL OFFICER, SWANSEA HOSPITAL.

R. R—, aged twenty-two, engineer, was brought to the Swansea Hospital on June 13th with a recent injury to his right foot. The accident happened in the following manner. The patient's right foot was on the step of an engine, the posterior part being supported by the step, but the anterior

part projecting beyond it. The crank of the engine in its descent struck the projecting part of the foot on its inner and anterior aspect. On examination the skin was abraded over the inner side of the dorsum; the big toe was fixed, the patient being unable to move it; there was a prominence about an inch in front of the tubercle of the scaphoid on the inner part of the dorsum formed by the anterior articular surface of the internal cuneiform; on the inner border of the sole below and behind this was another prominence produced by the displaced base of the first metatarsal bone; this caused a shortening and depression of the arch of the foot. There were no fractures or displacements of any other bones of the foot. I first attempted to reduce the deformity by traction alone, but failed; then, aided by an assistant who pushed forward with his thumb the base of the displaced bone, I was enabled to replace the bone without any difficulty. The case was treated in the usual way; no sloughing of the skin took place, although there had been considerable bruising and at the end of a fortnight the patient was able to begin to use his foot. The rarity of this displacement, unless accompanied with severe injury to the foot, is sufficient excuse for placing the case on record.

Swansea.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

### LONDON HOSPITAL.

#### TWO CASES OF PERINEAL PROSTATECTOMY.

(Under the care of Mr. C. MANSELL MOULLIN.)

THESE two cases illustrate exceedingly well the advantages and the risks of perineal prostatectomy. In the first complete retention was caused by a comparatively slight degree of overgrowth; the gland had spread up the neck of the bladder along its posterior and left lateral wall until it formed two projecting nodules which, meeting over the orifice when the muscles were set in action, effectually closed it. All that was needed was the excision of the offending mass and the division of the growth beneath it in the neck. By this the obstruction to the exit was completely removed, and then the wall of the bladder, which had lost all power of contraction from over-distension, began slowly to recover. Fortunately there had been no previous cystitis, so that the failure in expulsion was due to atony alone and not to the infiltration of the muscular coats by the products of chronic inflammation. In such a case there can be no doubt the perineal operation is the most suitable. The supra-pubic would probably have given equally great relief, but it is certainly more dangerous; cystotomy and drainage might have succeeded, but where it is practicable it is infinitely preferable to re-establish the natural route, and the remaining alternative, catheterism four times a day—by the patient himself or an attendant—could only have had one result. In the second case the conditions were entirely different. Here the lateral lobes were the offending structures; their upward growth had raised a fold between them behind the vesical orifice, but this was firm and rigid, not valve-like, and, though it might have led to the production of a post-prostatic pouch, would not of itself have caused complete retention. The chief difficulty, if not the whole, was due to the way in which the increase in their thickness had compressed the urethra into a narrow slit, through which it was not easy to force the finger. This—aided no doubt by the stricture in front—had created a degree of resistance which the wall of the bladder, weakened as it was by long-continued chronic inflammation, was unable to overcome. Catheterism had become impracticable. The supra-pubic operation would almost certainly have proved fatal, and would not alone have relieved the stricture. Probably in such a case it would have been better to have been content with simple drainage. The bladder

regained a certain amount of power and for a time was able to expel urine through the perineal wound at intervals of two hours; but the task of repair was too great and the sloughing continued to spread. Both lateral lobes have been removed successfully through a perineal incision by Landerer and Willett and one by Wishard; but another case in which the last-named surgeon operated terminated fatally from pyelitis three months later. On the whole the space available is so small and the bruising inflicted during the manipulation is so great that in those cases of prostatic retention in which the chief seat of obstruction is in the lateral lobes it seems preferable either to perform the supra-pubic operation as practised by McGill, or to resort to simple drainage, according to the condition of the patient, and not to attempt complete enucleation through a perineal incision.

A. J.—, a printer seventy years of age, was admitted into the London Hospital on Feb. 12th, 1891, suffering from prostatic retention. The patient was thin and rather wasted in appearance. According to his own account he had always been healthy, although he was suffering at the time from varicose veins and a large chronic ulcer on each leg, until about three weeks before, when he noticed that there was some difficulty in micturition and that the urine did not come in a full stream. He admitted, however, that his night's rest for some time previously had been a good deal interrupted. Retention was complete. A silver prostatic catheter passed easily, but a soft one was brought to an abrupt stop just beyond the bulb and could not be introduced without a stylet. The bladder held from twenty-eight to thirty ounces of urine and had practically lost all power of expulsion, the stream flowing away and following the respiratory movements. The urine was acid, sp. gr. 1013, and contained a trace of albumen and a few blood-corpuscles. The amount was very variable—thirty ounces one day, sixty the next. This continued for a fortnight, no urine coming without a catheter and the bladder not regaining any of its power. The prostate per rectum was only moderately enlarged; from the ease with which a full-sized catheter passed and from the very small quantity of blood in the urine it was fairly certain that the retention was not due to an attack of congestion or thrombosis, which would pass off again. The length of the prostatic urethra was not much increased; from the way in which a soft instrument was stopped the middle lobe certainly projected forward into the channel, and it was therefore determined to make an examination with the finger and if the diagnosis proved correct to remove the obstruction as far as might be practicable.

The operation was performed on Feb. 24th. The perineum was soft and devoid of fat, and as the prostatic urethra was scarcely longer than normal, there was no difficulty in reaching the bladder. The median lobe was found projecting forwards into the neck and was removed by means of a wire creser passed around it, and the top of the left lateral lobe, which had also grown out, was taken off in the same way. An incision was then made along the floor of the urethra in the middle line behind, and the firm tissues torn through by the pressure of a steel director, with the object not only of removing the valve but of establishing a low level channel and keeping the post-prostatic pouch empty until its walls had recovered their tone. A drainage-tube of full size was inserted through the wound into the bladder and continued into a receptacle by the side of the bed. The hæmorrhage at the time was very slight, but a considerable amount of venous oozing persisted throughout the night. The shock, probably owing to this, in great measure was very severe, the temperature falling as much as two degrees, but the specific gravity of the urine that was collected remained practically the same. For some days the patient's condition was critical; there was no fever, the pulse remained strong and a fair amount of food was taken; but he became delirious, losing all control over his actions, and required to be watched constantly. Partly for this reason, partly because the regular washing out of the bladder caused a great deal of pain and disturbance, the tube was withdrawn at the end of a week and the bladder allowed to drain itself through the wound. The urine became alkaline at once, but the decomposition was kept under control by occasional irrigation with corrosive sublimate lotion, a drachm or two of iodoform emulsion being injected afterwards and left in. With the exception of the gradual diminution of the delirium very little progress was made until the end of the third week; then the urine began to come through the urethra, the reaction became acid again, irrigation was stopped and the wound rapidly closed in. After this the bladder slowly regained its power and by the beginning of

April the amount of residual urine was reduced to half an ounce. At the time that he left the hospital (April 13th) the patient was still compelled to pass his urine at intervals of two or three hours, but the condition of his bladder was steadily improving, his general health was perfectly satisfactory and there was every reason to believe that the progress that had been made during the past few weeks would continue.

T. J.—, a silk weaver sixty-six years of age, was admitted into the London Hospital on Dec. 22nd, 1891, suffering from retention. For the last nine years patient had been unable to pass urine without a catheter, which he had been in the habit of introducing for himself. On examination a stricture admitting a No. 5 was found at the bulb with several false passages radiating from it and a moderate enlargement of the prostate, the finger in the rectum being just able to reach its upper limit. The urine, the amount of which varied from forty to sixty ounces per diem, was alkaline, sp. gr. 1010, and contained a small quantity of albumen, with pus, blood and squamous epithelial débris. For some nights after admission he was more or less delirious, evidently suffering from incipient uræmia. This gradually passed off and as the general condition improved, while the difficulty of passing a catheter grew greater and greater, it was determined to divide the stricture, drain the bladder through the perineum and at the same time remove the prostatic obstruction. The operation was performed on Jan. 12th. The urethra was laid open and the prostatic portion examined with the finger. By passing in a sound by the side of it and hooking it against the trigone the bladder could be drawn down sufficiently to feel the neck, and it was found that the lateral lobes were much thickened and elongated and that they had raised up between them a fold of mucous membrane (which proved to contain an upgrowth from the prostate) across and behind the vesical orifice. The median bar was divided, but as this did not give much relief an attempt was made to enucleate a sufficient portion from the lateral lobes by incising the mucous membrane, covering them and working at them with the finger and a Volkmann's spoon. Upwards of a dozen nodules, varying in size from a pea to a hazel-nut, were shelled out in this way; the channel freely opened, so that the finger could be introduced without difficulty, and a drainage-tube of full size secured in the wound and arranged so as to carry off the urine. The anæsthetic given was ether, and the patient stood the operation and the constrained position well; but shortly after being placed in bed the breathing failed and the pulse became exceedingly feeble. Artificial respiration was resorted to and stimulants given freely until the condition of collapse passed off. The next day the pulse was very weak and irregular and, though a fair amount of liquid food and stimulants was taken, the patient continued in a condition of extreme prostration. The day following the temperature rose to 102° F. and the pulse at night to 140. Under the influence of hypodermic injections of digitalin this fell to 100 in the course of the next two days; the strength and fullness of the beat increased; the amount of urine which (though probably all had not been collected) had certainly fallen rose again to 70 oz., and occasionally even more, and for a time there was considerable improvement. The urine was voided at intervals through the perineal opening, the temperature fell nearly to normal, the appetite improved and the patient was evidently gaining strength, although when left to himself he lay in a drowsy, semi-torpid condition. The wound, however, remained in a sloughy state without showing any sign of healing, and a considerable amount of offensive pus came away when it was washed out and also with the urine. On Feb. 4th it was noted that there was some blood in the dressings and the following day about two ounces came away—a quantity small in itself, but sufficient in the patient's condition to make the temperature fall below normal and to bring back the prostration. This in its turn passed off and for some days there was again improvement, but the sloughy condition of the wound persisted, the temperature rose again and became more irregular, the hæmorrhage recurred in small quantities, until at length, on March 15th, as much as four ounces escaped and the patient sank the following day. At the post-mortem examination it was found that practically the whole of the prostate had been removed, a few sloughing shreds around the wall being all that was left. The route into the bladder was perfectly free (a catheter passed in easily through the penis during life), but there was scarcely any evidence of repair. The liver showed an early stage of amyloid disease; there was an old encysted empyema in the right pleura the

existence of which had not been suspected during life; one kidney was very small and contracted, the other was larger, but the pelvis was inflamed and there were some small suppurative foci under the capsule.

### MANCHESTER ROYAL INFIRMARY.

ACUTE INTESTINAL OBSTRUCTION DUE TO BAND; OPERATION; RECOVERY.

(Under the care of Mr. G. A. WRIGHT.)

THESE cases are always worth recording, as showing the value of exploration in intestinal obstruction—a proceeding which adds little to the danger of the condition and saves at least some lives which would necessarily be sacrificed by treatment without operation. For the notes of this case we are indebted to Mr. C. P. Montgomery.

The patient, a young man of twenty, was admitted to the infirmary on March 24th, 1892, with the following history. About eighteen months previously he had an attack of "inflammation of the bowels," with symptoms of (1) constipation lasting for about a week, a little flatus only being passed during the first day or two; (2) a dull pain, not sharp or griping, referred to the region of the umbilicus; (3) vomiting of green bitter matter. At the end of a week the pain subsided, and, on taking salts, the patient passed copious motions and completely recovered, no abdominal tenderness remaining. A month or two later he had another attack of precisely similar character, subsiding in the same way.

On admission the patient was pale, thin and cadaverous-looking. Since the previous Sunday, five days before, he had not had his bowels moved and had passed little or no flatus. Pain and vomiting had been of the same character as in his previous attacks, but more severe and continuous. The abdomen was full and tense, with a peculiar solid feel. There was no tenderness on pressure over the cæcal region, or indeed over any part, and there were no signs of hernia. The patient's diet was restricted to a little beef-jelly, warm cloths were applied to the abdomen and one grain of opium in a pill was given every eight hours. Temperature 99°; pulse 105. Next day there was less vomiting and the patient passed a little flatus, but this improvement did not continue. The vomiting and pain increased, and in the evening of March 28th, four days after admission, the vomiting became stercoraceous in character and the patient much weaker.

March 29th.—An incision three inches long was made in the linea alba, midway between the umbilicus and pubes. On the peritoneum being opened a quantity of turbid serum escaped and the coils of intestine exposed were full, dark and rather congested in appearance. The cavity was explored with the finger and about on a level with the brim of the pelvis towards the left side a sharp tense band, like a thin piece of whipcord, was felt passing between two coils of intestine and constricting a loop of gut behind. There was considerable matting of the coils of gut, especially behind this band, and it could not consequently be exposed to view. There was no inflammatory collection or special adhesion of coils in the cæcal fossa. This band was divided with scissors and passed into the cavity; the peritoneum was washed out with boracic lotion and the wound closed with three deep sutures through the whole thickness of the abdominal wall and peritoneum and a few superficial skin ones.

30th.—Early this morning the patient passed a copious motion. No pain, tenderness or fulness of the abdomen and temperature normal. The patient is kept well under opium and nothing given by the mouth except a few teaspoonfuls of hot water. No vomiting.

31st.—Beef jelly in small quantities given by the mouth. In the morning the general condition was most satisfactory, but in the evening (9 P.M.) the temperature rose to 102° with a pulse, full and soft, of 146. At midnight the temperature was a point less, but the pulse was 160 and the patient much weaker. There was no pain or abdominal distension. Some opium was given, and three ounces of brandy were taken during the night.

April 1st.—Morning temperature 98° and pulse 102. In the evening the temperature only rose to 98·8° and pulse 116, while the general condition was good. No pain or distension.

14th.—From the above date till now there has been absolutely no change in the condition of the patient. His temperature has never been above normal or his pulse above 100 and he has had no pain of any sort. His diet was confined to

beef-jelly till a week ago and was then extended to milk and custard pudding. Last night the bowels were moved twice, the motions being very hard. An enema of half an ounce of glycerine was given and a copious motion followed.

16th.—Wound dressed and stitches removed; healing perfect. Simple enemata ordered every third day. General condition excellent. Fish diet ordered and Battley's solution reduced to five minims at nights.

22nd.—Patient brighter and fresher looking; diet, fish and fowl alternately.

May 4th.—The patient was discharged to-day. Since the last entry his bowels have been moved every day and he has gained weight and strength. All abdominal distension has gone and there is no trace of pain on pressure.

The history of this case corresponded well with the condition actually found at the operation—i.e., local peritonitis with resulting matting and formation of adhesions, one of which probably constituted the band. The absence of any severe symptoms and the previous recoveries seemed to justify the delay in operating, but as soon as his condition became really bad the abdomen was explored and no doubt it would have been safer to have done this even earlier. The somewhat alarming symptoms on the night of the second day were believed to be due rather to prostration than to any serious local mischief, possibly to shock from feces passing for the first time through an injured section of gut, and stimulation was attended with satisfactory reaction.

We also give the following account of another case which was operated on by Mr. Wright a few weeks before, and which presents so many points of similarity that we append it for the sake of comparison, although the operation was performed in private and not in the hospital. Whether in this case the band was the result of previous peritonitis or not must remain uncertain. It is improbable that it was of such recent formation as the attack of abdominal trouble ten days before the illness of which details are given and it seems more likely that the trouble lasting from Feb. 7th to the 13th was also the result of the presence of the band. The fact that it was so thin that it tore through quite readily makes it unlikely that the band was due to any persistent focal relic. Perhaps the most likely theory is that it was formed at one of the early attacks in the previous autumn.

T. C.—, aged about twenty, had a slight attack of peritonitis lasting from Feb. 7th to 13th, 1889, but soon recovered. It appears he had previous attacks in October and November. He was taken ill again rather suddenly after dinner on the 24th. At 9.15 P.M. Mr. Burd was called in. He found the man complaining of very severe pain in the abdomen, which was increased on pressure. The pain was localised to a spot on a level with and slightly to the right side of the middle line of the abdomen, which was tympanitic and slightly swollen. All solid food was vomited, but liquids were sometimes retained. The bowels had not acted for three days. Temperature 100°; pulse 116. Morphia (one-third of a grain) was injected subcutaneously, ice was given to suck and turpentine stupe was applied.

On Feb. 25th the patient was seen twice, the pain and vomiting had ceased and he had slept after the morphia; but in the evening the symptoms recurred, and another dose of morphia was given and an enema of soap-and-water administered, but without result. On the 26th he was somewhat better; on the 27th the abdomen was more distended. Examination of the rectum revealed no cause of obstruction. Temperature 101°; pulse 100. Morphia repeated. On the 28th there was no improvement. Morphia was injected twice. Temperature 101°; pulse 120.

March 1st.—Patient much worse; vomiting distinctly stercoraceous; pain and distension greater. Mr. Burd finding that treatment by opium and starvation after a full trial had failed to give relief advised that Mr. Wright should be asked to operate.

On March 2nd the patient was first seen by Mr. Wright. At that time there was complaint of pain at the umbilicus and in the iliac region, but no iliac tenderness or fulness. There was no visible peristalsis; there was moderate distension of the abdomen. The diagnosis was made of probable matting together of the intestines, and it was decided to open the abdomen. An incision one inch and a half long was made just below the umbilicus, and on passing the finger into the abdominal cavity a band was almost at once felt lying close beneath the opening, the aperture formed by the band was about the size of a five-shilling piece, and through it bowel passed. On making traction upon the band to bring it to the

surface it gave way; its thickness was no greater than whipcord. The abdomen was closed and dressed in the usual manner. In the evening after the operation the pain was much less, but not quite gone. There had been no vomiting. Temperature 98.8°; pulse 108. During the night of the 2nd the man passed flatus and the bowels acted naturally the following morning. The abdomen had so much diminished in size that the dressings had all slipped off. The temperature was normal; pulse 80; there was no vomiting. The appetite returned and in the evening the bowels were again open. A half-grain opium pill every four hours was ordered and milk-and-soda-water was allowed. The case went on well and on the 12th the patient was allowed to get up. On the 22nd Mr. Burd saw him for the last time and he was permitted to go out of doors. He has continued well since.

## Reviews and Notices of Books.

*A Dictionary of Treatment, or Therapeutic Index, including Medical and Surgical Therapeutics.* By WM. WHITLA, M.D. Pp. 948. London: Henry Renshaw. 1892.

A WORK which is so comprehensive in its design necessarily demands much thoughtful consideration, not only from the writer, but equally from the reviewer. Dictionaries are proverbial in not affording material which can be read with pleasure or profit for any length of time. They must be tested at intervals for a due appreciation of their merits and defects. When, as in this volume, both medical and surgical therapeutics are included, the reviewer necessarily approaches his task with a sense of diffidence, conscious of the serious issue of attempting to arbitrate upon subjects covering such a wide range, and anxious to do justice to a work which must have cost the author considerable expenditure of time and labour. It may at once be said that Dr. Whitla has very fairly succeeded in what might almost have been thought to be a superhuman task, in supplying a book which is intended to serve as a guide to the practical treatment of almost everything that is capable of being treated by drugs. The title of Dictionary is used in its widest sense, the principle followed being to arrange in alphabetical order a series of short articles to which the name of a symptom or of a disease furnishes the title. In plan therefore it differs but little from the ordinary therapeutic index which is so often found at the end of text-books of materia medica. From such an index however it differs in the attempt to indicate not only what drugs may be employed, but also the relative amount of advantage that may be expected from them. As usual it will be found that the list is longest where the results are most doubtful and unsatisfactory. Thus five pages are devoted to the treatment of asthma, though it is admitted that the means which afford speedy relief to one patient may aggravate the paroxysm in another, and several of the drugs appear to be only mentioned for the sake of condemning them. As a rule very little is said about the symptoms of the various diseases, but occasionally this rule is usefully broken when most important hints upon treatment depend upon the etiology of the disease. Another satisfactory point worth noting is that Dr. Whitla by no means ignores the value of dietetic and other measures which may be serviceable independently of the action of drugs. Thus, under the heading of Aneurysm, Tufnell's treatment is given in some detail, while the results following acupuncture and galvano-puncture are also discussed. Again, under Diabetes the author quotes at length no less than eight dietaries which have been recommended for this condition. The utility of the general directions for the treatment of dislocations and fractures may be doubted, but the incorporation of the recommendations of the Royal Humane Society for the treatment of those apparently drowned are likely to be of service. A great deal

of space is devoted to Valvular Lesions of the Heart and here the dictionary element is kept in the background; while due prominence is given to the clinical history of the various phenomena commonly associated with these lesions. The writer here permits himself to wander into the picturesque, speaking of coming to "close quarters with the enemy," of "our tried and trusty weapon," and of "skirmishing at long range," all these warlike terms seeming to arise quite naturally after the mention of a "halting ventricle." Still, in spite of these embellishments, this section supplies many useful memoranda, and it should be studied leisurely and in detail instead of being referred to hurriedly when a case of difficulty arises. Less satisfactory is the amount of space devoted to Hydrophobia; the five pages might almost be summed up in a line: "Despatch the patient to Pasteur," this being the logical outcome of the details given from Dr. Roux's statistics and from the lengthy account of the minutiae of treatment at the Pasteur Institute.

It is impossible to criticise the book in further detail. It must suffice to say that, so far as we have tested it, the directions in general appear to be simple and straightforward. While not overlooking the importance of many of the newer remedies Dr. Whitla is careful not to be led into exaggerated statements which can only cause disappointment, and on many occasions where he quotes recent observations he does so with due reservation. The book is remarkably free from printer's errors and is printed in clear type on good paper. It is also rendered more practical by the insertion of numerous formulæ which the author has found valuable or which he has culled from other sources. In a later edition we should be glad to miss the somewhat frequent references to proprietary remedies, soaps and foods.

*A Manual of Chemistry, Inorganic and Organic, for the Use of Students of Medicine.* By ARTHUR P. LUFF, M.D., B.Sc. Lond., M.R.C.P. London: Cassell and Company (Limited). 1892.

STUDENTS of medicine have some difficulty in deciding upon a suitable text-book of chemistry simply because the publishers' lists teem with them. Some manuals are in their way and to an equal degree excellent, some contain prominent imperfections, others are of little or no value at all, while most of the authors generally claim to be familiar with the exact requirements of the class of reader for whom the books are intended. Dr. Luff, the author of the work before us, is fully entitled to the last claim. He has had considerable experience in the teaching of chemical science and especially those sections of the science which bear on the study and practice of medicine. This would lend additional value, of course, to a work which bears his name. All the more disappointing, therefore, is it to note that his book is marred by not a few serious blunders which we may proceed to point out *seriatim*. On page 16 we read: "The molecules of all the other elements [mercury, zinc and cadmium having been cited as examples of molecules containing only one atom] contain two or more atoms; a molecule of potassium contains two atoms and is expressed by the formula  $K_2$ ; the molecule of lead, also two atoms,  $Pb_2$ "; in fact the only elementary bodies, the author goes on to say, containing more than two atoms in the molecule are phosphorus and arsenic. The fact of the existence of a hexatomic molecule of sulphur, by the way, is apparently ignored. He accordingly assumes that the molecular weights of lead and potassium, as well as the rest of the elements, are known with certainty. As a matter of fact the molecular weights or the atomic values of a molecule are only known in the case of fourteen elements, and of these the majority are either non-metals or semi-metals. By far the greater number of the elements are ordinarily speaking non-volatile, as, for example, carbon,

silicon, gold, platinum, or else of such a nature that it is impossible to determine their vapour density.

As if to be in thorough discord with these statements, we find in subsequent pages iron represented as  $Fe_3$ , copper as  $Cu_3$ , lead as  $Pb_3$ , Tin as  $Sn_6$  and so on. On page 115 the formula of nitric oxide is written  $N_2O_2$ ; and accordingly its molecular weight is regarded as 60 and its specific gravity 30. Notwithstanding this it is described merely as "heavier than air" (specific gravity of air=14.4) whereas, according to the above formula, it would weigh more than twice as much. As a matter of fact the specific gravity of nitric oxide is 15, its molecular weight 30 and its formula  $NO$ , while it is a gas but slightly heavier than air. We may be pardoned, in addition to these instances, for pointing out some of the typographical errors we have noticed. Nitric acid, for example, is represented on page 117 as  $OHNO_3$ , and on page 501 ammonium oxalate is written  $(NH_4)C_2O_3$ , and sulphuric acid  $HS_2O_4$ . In the table for the examination of metals, page 499, no provision is made, it may be remarked, for the detection of a lead salt in a dilute solution. Such a solution would not give a precipitate with hydrochloric acid as indicated, but with sulphuretted hydrogen a black precipitate would be obtained. The sulphuretted hydrogen test for lead, indeed, is not even mentioned in this table. Amongst the tests for tin the beautiful purple colour (purple of Cassius) produced on adding auric chloride to a stannous salt is not included, although the reducing action of stannous salts is described.

We have quoted enough to show that the book requires very careful revision, especially if it is meant to compete with existing works of its class; it is evident that more care than has hitherto been taken need be exercised with the proof sheets, and although the general plan and scope of the work will probably appeal to those for whom it is intended, yet it cannot be safely recommended until it is freed from the flaws to which we have made reference.

*Practical Midwifery: a Handbook of Treatment.* By EDWARD REYNOLDS, M.D. New York: William Wood and Co. 1892.

In the preface to this work the author, who is assistant in obstetrics in Harvard University, states that it "is an attempt to furnish to students and inexperienced practitioners a full description of those practical details of conduct which are necessary to the management of every case of gestation, labour, or the convalescence therefrom. It further aims to supply to such men a concise description of at least one method of dealing with each of the emergencies of obstetrical practice." Again, the writer tells us that "the book is mainly intended for the use of those who have already assimilated the more comprehensive but perhaps less definite information which it is the province of the systematic text-books to supply." It will thus be seen that Dr. Reynolds considers that, notwithstanding the numerous text-books on obstetric medicine which already exist, there is room for another, which is to be essentially practical. Let us see how far the book is a success in this direction, for it must be admitted *in limine* that as a scientific guide the volume is far from satisfactory. In treating of the differential diagnosis of pregnancy the author says, writing of fibro-myomata, "slight enlargements of the non-pregnant uterus from the presence of interstitial fibroids may sometimes give rise to the suspicion of early pregnancy. The distinctive points are, however, the greater hardness of the uterus where the enlargement is due to the presence of myomata, the absence of Hegar's sign, the fact that such a uterus is almost always asymmetrical and that the tumours are seldom single and therefore usually present a more or less lobulated outline." We think men of experience will admit that it is the soft oedematous myoma which most closely resembles the pregnant uterus, and of this

variety our author says nothing. In calculating the duration of gestation no reference is made to the practical plan suggested by the late Dr. Matthews Duncan. In reference to the malpositions of the uterus during pregnancy Dr. Reynolds says (speaking of anteversion): "When such a displacement is the cause of annoying frequency or pain in urination, relief may be obtained by recommending the patient to pass as much time as possible in the recumbent position and upon the back; but in any case where the distress is sufficiently extreme to demand immediate relief this may usually be obtained by the introduction of a suitable pessary, such as is ordinarily used in anteversion of the non-gravid uterus." If Dr. Reynolds had first demonstrated that the annoying frequency or pain in urination was due to the displacement, there would be some ground for the treatment suggested; and when he speaks "of a suitable pessary such as is ordinarily used in anteversion of the non-gravid uterus," we must ask him, has he read the literature of the past few years on this question? Surely this bogey of anteversion may now be suffered to remain at rest.

In reference to hydramnion, the author recommends puncture of the membranes or aspiration of the uterus through the abdomen. "This latter operation, if done with sufficient care and with absolute asepsis, should be ordinarily attended by no danger and is usually the better treatment, since it may be followed by a continuance of pregnancy to term." We should like some further information on this point and an account of a series of cases in which this "better treatment" has been employed.

In his remarks on forceps operations, Dr. Reynolds says: "It is a safe rule that forceps should never be applied unless both fontanelles or one fontanelle and an ear have been surely recognised." We are afraid, if this rule were always adhered to, many women and children would suffer. We cannot agree in his recommendation of pilocarpine in eclampsia, and in his remarks on placenta prævia the author devotes too much space to the use of the tampon and too little to the method of Dr. Braxton Hicks. While we have freely criticised some parts of the book, there are others which we can most cordially praise. His remarks on "Antisepsis and Preparations for Labour," on the "Preservation of the Perineum," on the "Management of Breech Presentation," and on the "Treatment of Septicæmia," are well worth reading. In conclusion, while we cannot recommend this work as one to take the place of the many useful text-books on obstetric medicine which exist in this country and in America, we believe that teachers, practitioners and students will in its perusal obtain many useful hints.

*Land, its Attractions and Riches.* By Fifty-seven Authors. London: The Land Roll Office.

THE editor of this volume has persuaded himself that his object in the undertaking to which he has addressed himself is the national one of attracting capital to the land and thereby restoring the rural population, procuring a renewal of prosperity for the British farmer and both directly and indirectly benefiting commerce. His book will leave upon his readers the impression of being a very elaborately got up circular serving to advertise the eligible properties offered for hire and sale by an eminent firm of land agents in Lincoln's-inn-fields. There is no reason in the nature of things why a business circular, drawn up in literary form, should not make a very readable and useful book; but having conscientiously discharged the reviewer's duty upon this volume, we are driven to confess that it is rather heavy reading.

*Diseases of the Nasal Organs and Naso-Pharynx.* By WHITEFIELD WARD, A.M., M.D. New York and London: G. P. Putnam's Sons. 1891.

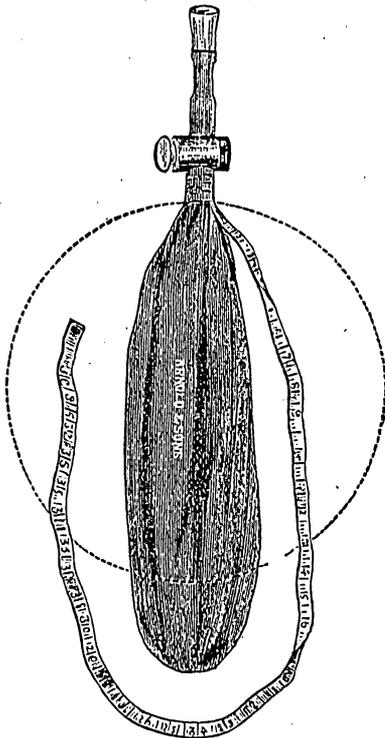
THIS is a well-written little book of 165 pages. The type is good and clear and the illustrations generally well

executed. By the exclusion of much that is doubtful and by a concise method of expression the author has managed to compress into this book much that is useful and important regarding what is known of nasal diseases. A judicious selection of prescriptions is here and there inserted. The size of this work forbids its pretence to be anything like a complete treatise on the subject. At the same time we think the directions for operating in some instances are too meagre and we note with surprise how little attention is drawn to the methods of operation for adenoid growths and their symptoms and pathology. This little book will, however, be a useful addition to any medical man's library.

## New Invention.

### A SIMPLE AND PORTABLE SPIROMETER.

THE spirometer is an instrument now little used, more on account, perhaps, of its bulk and cost than anything else. This infrequency of use may also be attributable to the fact that the instrument has one use only—viz., the capability of determining one condition—vital capacity, without affording indications of the correlating factors which modify it, and the most important of these is expiratory



force. The accompanying engraving represents a very simple, practically efficient spirometer made for me by Messrs. Arnold. Its capacity will prove equal to all requirements. It consists of an elastic bag exceedingly easy to distend, with a tape affixed whereby the degree of distension can be measured. Expiratory force can be determined by employing thicker bags, which require greater effort to distend, or by making use of a broad elastic tape to surround the bag, instead of the tape generally used.

Crouch-end,

JAMES MACMUNN.

## THE MEETING OF FELLOWS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

It was scarcely to be expected that a meeting of Fellows of the Royal College of Surgeons of England summoned by the Council without any definite object in view and without any programme of business stated in the summons would lead to any definite results. If it had been originally intended to place before the Fellows all the resolutions which the Council passed at the instance of the committee which sat to consider what further advantages could be extended to the Fellows and the best mode of celebrating the Jubilee of the Fellowship; it is to be regretted that this was not done. Instead of this, the President informed the meeting that there was nothing particular to be brought forward for discussion and then invited the Fellows present to express an opinion only upon the proposals which had been made in regard to the celebration of the Jubilee, carefully excluding the more important resolutions with regard to advantages to the Fellows. Strange as it may appear, there were several Fellows present who were not aware that any resolutions whatever had been passed by the Council which concerned their interests. Consequently a natural complaint was elicited from Mr. Crosby that no notice had been sent to him from the Secretary intimating that it was the intention of the Council to celebrate the Jubilee of the Fellowship. Thereupon the President directed the Secretary to procure and to read to the meeting the report on the public celebration, which was done; but the meeting not having any organisation or cohesion, and having assembled in a spirit of curiosity and readiness to receive whatever might be vouchsafed to them, did not show any signs of a desire for more substantial fare. A long pause ensued, and but for the intervention of Mr. Holmes the assembly might have dispersed without any discussion. Mr. Holmes rose to express his gratification at the action of the Council in calling the Fellows together, his approval of the arrangements for celebrating the Jubilee of the Fellowship, and to call attention to the desirability of the Council consulting the Fellows of the College before coming to a decision on matters of great professional interest and importance, instancing the University question and the five years' curriculum. His remarks were couched in a friendly and courteous vein and there was nothing to invite the attack which was made on him by Mr. Christopher Heath. Most gladly should we have abstained from alluding to the subject if a sense of professional duty did not compel us to deprecate the spirit and substance of Mr. Heath's remarks, and we shall only add that the sense of the meeting was admirably expressed by Dr. W. J. Collins, who in a few well-chosen words expressed his deep regret at such an episode occurring at a friendly conference at which it was understood that the hatchet was to be buried. Dr. Collins concluded with a suggestion, of which Mr. Howse expressed his approval—viz., that the Fellows should choose a body like the annual Committee of Convocation of the University of London to consider questions affecting the interests of the Fellows and to be the medium of communication between the Fellows and the Council. Before another meeting of Fellows is called we must hope that the Council of the College will see its way to adopt regulations under which the proceedings may be conducted in a formal and businesslike manner. We trust also that the President or other chairman at these meetings will not allow personal attacks to be made in the future.

VICTORIA INFIRMARY DISPENSARY, GLASGOW.—The ceremony of inaugurating the dispensary in St. James-street, Paisley-road, in connexion with this infirmary, took place on the 4th inst. It had been for some time the intention of the governors to establish district dispensaries on the south side, but hitherto they had no funds to spare for that purpose. Under these circumstances Mr. A. Cameron Corbett, on behalf of himself and his sister, had presented the governors with 1000 guineas, which would enable them to equip the dispensary and work it for the next three years. It will be opened to the public on Wednesday next.

# THE LANCET.

LONDON: SATURDAY, JULY 16, 1892.

THE result of the election to the Council of the Royal College of Surgeons of England which took place last week, gratifying as it is to ourselves, will be eminently satisfactory to all who are interested in the welfare and good government of the College. That Mr. THOMAS SMITH would head the poll was in accordance with general expectation and his success was thoroughly deserved. Mr. DURHAM's re-election was by no means so certain and he received 82 votes less than Mr. THOMAS SMITH and 34 votes less than Mr. JOHN TWEEDY, who polled 237 votes (including 21 plumpers) and was second on the list of successful candidates. Mr. HOWARD MARSH, who received 200 votes and not a single plumper, and who took the fourth or substitute seat, was closely pressed by Mr. HENRY MORRIS with 188 votes (including 8 plumpers). At a considerable distance followed Mr. JEREMIAH MCCARTHY with 106 votes (8 plumpers), Mr. WILLIAM ANDERSON with 90 votes (1 plumper), Mr. MACKELLAR with 86 votes (3 plumpers), Mr. WARRINGTON HAWARD with 77 votes (including 18 plumpers), and Mr. GEORGE COWELL with 75 votes (4 plumpers). The total number of valid votes was 516—an increase of 73 over last year, when considerable apathy prevailed—and out of the 516 votes the number of plumpers was 74. With so many candidates and so uncertain an issue it was felt in certain quarters that the right course was to plump for a candidate whose return was specially desired lest he might lose his seat if the votes were split. Hence it was that Mr. TWEEDY received 21 plumpers; but as it happened there was no need for this precaution, and had these 21 votes been split in favour of Mr. HENRY MORRIS that gentleman would have been elected in company with Mr. TWEEDY and have stood third upon the poll. We have always deprecated the practice of plumping and it is satisfactory to note that in the four elections that have taken place under the new regulations it has not secured the return of a candidate. In 1889 there were only 33 plumpers out of 600 votes divided amongst eight candidates. In 1890 there were 92 plumpers out of rather more than 500 votes divisible among seven candidates, and no less than 53 of the plumpers were given to Mr. MITCHELL BANKS. Even this number of plumpers did not affect the result as regards Mr. BANKS, for he had a remarkable success, being no less than 141 votes in front of Mr. MARCUS BECK, who was second on the poll. If the plumpers had been split with the other provincial and progressive candidate, Mr. LAWSON TAIT, he would have gained the third seat at the election. In 1891 the plumpers were only 46 among five candidates and they made no difference in the position of the candidates in whose favour they were recorded.

The combinations of votes given at the present election were very instructive. Some voted for the four senior candidates, some for the four juniors; some voted only for candidates at the same hospital—St. Bartholomew's or St. Thomas's, for instance; some voted, as advised in

THE LANCET, for the four candidates whose views were known to be favourable to the elevation of the Fellows; some voted for the four official candidates and some for the two most progressive candidates. But one circumstance could not fail to be remarked—namely, the greater frequency of Mr. TWEEDY's name in the various combinations as compared with that of any other candidate. Mr. THOMAS SMITH received the official vote, the senior vote, the hospital vote and the progressive vote, but Mr. TWEEDY's votes were still more varied. The one great feature indeed of the election was the brilliant success of Mr. TWEEDY. Let it be remembered that Mr. TWEEDY was the junior Fellow, that his name was last on the list of candidates, that his success was not desired by the official party and that his name had been associated with advanced measures of reform, and his election not merely to a seat on the Council, but over the heads of Mr. DURHAM and Mr. HOWARD MARSH to the second position on the poll, assumes an importance which it would not otherwise have possessed. A tribute it is to his sterling qualities and his personal merit, but it is also a significant intimation to the Council that a large and influential body of the Fellows are in favour of the views which have been advocated by the Association of Fellows (of which Mr. TWEEDY has been a most prominent member since its first formation) and which have been unceasingly advocated in the columns of THE LANCET. Those who decry the influence of the Association, or the progress which the views of the Association have been making within the last two years amongst the Fellows of the College, may yet find reason to alter their opinions, and to be satisfied that the time has come for making real and substantial concessions to the Fellows of the College. The records of the poll prove how easy it would have been for the Association to secure two seats this year, and with good candidates it is not unlikely that in the next election such a result may be secured.

THE disastrous landslip on the line between Bologna and Florence, the serious casualty of the same kind on the Vorarlberg railway, the appalling explosion on board the steamer on the Lake of Geneva, and the terribly destructive inundation near Chamoni, are the more outstanding from among a series of calamities which, occurring at the very opening of the holiday season, cannot fail to prove deterrents to the intending tourist in Italy, Austria and Switzerland. Whether these casualties were to be anticipated, or to what extent they were preventable, will doubtless be elicited at the official inquiry about to be opened on each of them. Murmurs, indeed, in the case of the first three, are already audible as to a more than probable neglect of duty on the part of railway and steamboat managers alike. Whether this be correct we cannot judge, but in Italy the public press has asserted that the "accident" on the Bologna line was no accident at all; that the landslip was a long-admitted danger of which warning had been given years and years ago, and that the reluctance to incur immediate expense, so characteristic of Italian enterprise, is responsible for an engineering inactivity the reverse of masterly. Strictures to the same effect may be gleaned from the accounts given of the steamboat disaster in Switzerland

The boiler is alleged to have been lately examined by an inspector, who is said to have "found cracks in it," but thought "it might run for another year." The Austrian contribution to this tale of casualties has also its candid critics, while it has got to be cleared up whether the Chamonix cataclysm was not more due to man's neglect than to "the visitation of God." Pending official investigation, we repeat, it is not for us to appraise the justice or the injustice of such charges, but the remark may surely be permitted us that if neither regard for public safety nor consideration for private interests can avail to deprive continental transit of its dangers, the inducements to venture life and limb along these familiar lines of route are very appreciably lessened. Of the three countries in which these "accidents" have occurred, Italy, Switzerland and, in a lower degree, Austria are dependent on the tourist season for a large proportion of their yearly revenue. The wave of travel which sweeps over them every summer or winter has in their case been likened to the inundation of Lower Egypt by the Nile—a visitation beneficent for all. But the deflecting of the Nile river above Khartoum and its diffusion over the surrounding desert would not be a more suicidal operation for Egypt than the wanton scaring away of the English-speaking visitors would be for Italy and Switzerland. A few more such disasters as those which have brought death and suffering worse than death to the travelling public on the Bologna route, and on the Lake of Geneva, and Italians and Swiss will have but themselves to blame for a loss of income which neither can afford to incur and at the same time live and thrive.

Last year there was quite an epidemic of railway accidents in Switzerland and on at least one very important line the shareholders had to submit to a total suspension of dividends. In Italy catastrophes of the same kind were far more frequent than usual. But in the case of both countries these were due to their traditional causes—collisions or landslips. Now, however, a new development of railway engineering has opened up fresh sources of danger, just long enough in operation to have given some earnest of the frightful consequences which neglect or failure on the part of an overworked and underpaid service may entail. We allude to the electric railways connecting the low-lying plain with the upland regions of the Alps and Apennines. Many of these are triumphs of engineering skill, in which the water-power of mountain torrents has been utilised for the generation of electricity required to "balloon" the passenger from lake or champaign to hill-plateau or aerial peak. The convenience of such modes of transit is immense, a few minutes sufficing to waft the tourist and his *impedimenta* up the mountain-side to its top, a destination which formerly could be reached only by long hours of toilsome zigzagging in a diligence or on mule-back. But the risks are also tremendous. In Switzerland who can have failed to observe a hill-side railway looking at a distance like a fire-escape propped up against a precipice and relying on the steadiness of its engineering safeguards to ensure the train against backing down with a run into the lake or the ravine below? Not many months have elapsed since the electric tram-service from Florence to Piesole, on its descent from the latter terminus, got quite beyond the conductor's control and crashed into a roadside

wall with its living freight, of whom the majority were either killed on the spot or maimed and injured for the rest of their lives. True, the precautions taken in such modes of transit are manifold; but the risks of accident are not less so, and who can say whether the casualties which have of late years multiplied on the familiar Swiss and Italian gauges, broad or narrow, may not have their counterpart in those mountain railways worked on principles so complicated and requiring an inspection more vigilant and a renewal of material more constant and thorough than the company's returns can well afford?

Of the sanitary dangers to which the English-speaking visitor is exposed—much less, it is fair to say, in Switzerland than in Italy—we have already treated. Year by year witnesses an improvement, even in the outlying tracts of the Italian peninsula, on the mediæval hotel appointments and service with which the sojourner in search of sun or rest had often to put up with. But this year we are more than likely to see a descent of cholera on the Mediterranean shores, with the authorities at the various seaports hardly more prepared for meeting it than formerly. Disbelief in quarantine and sanitary cordons is now, thanks to an enlightened hygiene, pretty well established in those regions. We wish we could point to a compensating advance in their public or personal cleanliness, in pure and abundant water-supply, or in a really effective system of drainage. One department of public health, it is just to indicate, the Italians have at length put on a satisfactory footing—we mean the protection of food and drink against deleterious counterfeits. The energy of the State inspectors in detecting adulterated bread stuffs, tainted meats, "falsified" wines and bogus mineral waters, and in summarily bringing their authors to justice, if it has shown the extent of the hitherto permitted evil, has also proved the thoroughness of the repressive measures brought to bear upon it. The extension of such real public service to other departments equally important in the common interests is imperatively required to reassure the English-speaking visitor or resident. Let such clients of the sunny south or of "the playground of Europe" be persuaded that they can reach their destination not only in comfort but with safety, and that when arrived there they will run no avoidable risks of disease, endemic or imported, and a satisfactory *modus vivendi* will soon be re-established, to the mutual advantage of entertainer and guest.

THE out-patient system has been let off easily by the Committee of the Lords. This is especially the case in the final portion of the report. Still a great mistake will be made if attention is not given to the evidence on this subject and to some of the admissions of the Committee in regard to it. We have already referred in a general way to the conclusions of the Committee on it, but the out-patient department is so huge and important in its bearings that we deem it necessary to revert to it again in more detail. The very existence of the out-patient department is of comparatively recent date, and in the hospitals of Edinburgh it does not exist. There they have a far larger proportion of medical students to their population than we have in London and also abundance of poor, but somehow or other the system

has not taken root. In the metropolis it has assumed vast — nay, alarming — proportions, so that all, whether from a social or a medical standpoint, are calling for some limit to be put to it; and not a few advocate its entire abolition. At the London Hospital 100,000 patients a year are treated, at St. Thomas's Hospital 25,000, at the Middlesex Hospital 38,000, at University College Hospital nearly 40,000. These numbers are spoken of with pride rather than with doubt, as if the hospital authorities were quite sure that they were doing right, and knowing well that the figures strike the public and move the charitable, who are not too inquiring in their turn of mind. At Guy's Hospital on a busy day 480 out-door patients are attended to, including casualty cases. It is a libel to say that patients are seen at St. Bartholomew's Hospital at the rate of one a minute, for it was estimated that, deducting the casualties (which are seen only by the resident staff) and the more serious of the out-patient cases, three or four minutes are devoted on the average to each of the remainder. The Committee admit that the number of persons coming for out-patient treatment often puts a strain on the powers of the staff. Some of the most doughty defenders of the out-patient department further consider that the vast majority of the cases are trivial and that the patients need only to be told to continue the treatment. The Committee go even further and say: "The majority of persons who present themselves at the out-patient department of a hospital come with trifling ailments *which are quite unsuitable for hospital treatment.*" The italics are ours. It is a resort according to some not only of the ailing, but of the idle and those who simply want to talk. At some hospitals the social aspects of the department are made still more attractive by the establishment of refreshment bars or coffee stalls.

The detention of those who are really ill in the out-patient rooms is an objection touched by the Committee, but not satisfactorily disposed of. The Committee suggest the incidental advantage that such delay may have in deterring unsuitable cases. This is just what on their own showing it does not do, seeing that the numbers go on increasing, including a majority quite unsuitable for hospital treatment. Those who are really ill suffer all the disadvantages of a rough and tedious system of attendance which attracts hundreds of thousands of unfit cases. The Committee, their "Conclusions" notwithstanding, have thus given strong confirmation to the belief of medical practitioners that the out-patient department is one that should be greatly curtailed in its proportions, and brought into touch with more self-respecting methods of treating sickness in the working classes. The Committee go with much detail into the further arguments against such wholesale arrangements. They deal with the objection that such a system is not only destructive of self-respect and providence in the poor, but is a gross injustice to the general practitioners who work in the crowded and poorer districts of London and the hardships and self-denial of whose life are known only to themselves. "A witness" was examined who expressed the opinion that the practitioners injured by the wholesale competition of the hospitals were not those whom it was generally desirable to protect. We are glad that such evidence proceeded from

"a witness." We should be sorry to think that any plural number of witnesses throw doubt on the obvious fact that such hospital arrangements must operate against all practitioners. The Committee themselves admit as much in the following sentence under the head of Sweating of General Practitioners (p. 32, third report, 12): "The competition of free treatment would naturally tend to drive down the fees of the private practitioners, and this was stated to be an urgent evil and one which has been going on for ten or fifteen years." It cannot be denied by anyone whose eyes are not wilfully closed that between the attractiveness of out-patient departments and the introduction of petty payments by out-patients, conveying an idea that they are purchasing advice and medicines, the creditable reluctance to go to hospitals has been much broken down and that the medical practitioner has more and more been made a mere convenience chiefly at nights and in great emergencies. In days when working men did not get such good wages as they do now, numbers of them regularly employed and honourably paid a neighbouring private practitioner, who knew their children and acquired that knowledge of their family health and circumstances which doubles the value of medical attendance. The breadwinner himself might be in a club, but a reasonable midwifery fee and a pound or two moreover for the family doctor were easily and cheerfully provided. The great hospitals and the little ones are doing a great deal to upset such an honourable system and the fact is as good as admitted by the Lords' Committee, who go carefully into proposed remedies without much apparent confidence in their sufficiency, and who withhold that word of efficient condemnation for so huge an abuse which we think was expected of them. Inquiry into personal circumstances, limitation of numbers, and payment by patients to hospitals are each reviewed. In Manchester, as is well known, the unfit cases have been weeded out by an efficient system of inquiry and the numbers greatly reduced. In London such is the scale of population and the difficulty of estimating the status of the applicants that little effective work has been done. In 22,000 cases at the London Hospital inquiries were made in 800, or 1 in 27. What are these among so many? We can only remind hospital authorities that this great blot in their administration remains. The Committee have fastened responsibility for it upon them, and they will not be allowed to escape criticism till it is wiped out, and charity for really fit cases is encouraged by careful elimination of the unfit.

THE BOWMAN Lecture of the Ophthalmological Society was this year delivered before a numerous audience by the distinguished Professor of Ophthalmology at Heidelberg, THEODOR LEBER. For many years past Professor LEBER has been engaged in working out the pathology of the inflammatory process, which can nowhere be studied to greater advantage than in the cornea; and it is not surprising that he took that subject for his theme and presented to his hearers in a condensed form the contents of the large and important work he published a few months ago, the chief points in which we recently translated for the benefit of our readers. After a brief but appreciative reference to Sir WILLIAM BOWMAN and to the loss sustained by the

profession by his death, Professor LEBER acknowledged at once that we are indebted to Sir JOSEPH LISTER for the proof that the purulent inflammation following an injury is caused by inoculation of micro-organisms within the wound. Further inquiry has led to the discovery that their capability to give rise to inflammation and to disease in general depends upon the production of certain poisonous substances which in infinitesimally small quantities are able to cause inflammation and necrosis of the tissues of the body; whilst, on the other hand, the presence of an inert foreign body introduced antiseptically into the tissues leads to no inflammation whatever. Nowhere can this be more clearly shown than in the eye. If a small piece of gold or glass be introduced through a slight wound with due antiseptic precautions into the anterior chamber of a rabbit's eye no inflammation is excited, no pus is found, and this foreign body may continue visible for months or even years either in the aqueous or in the vitreous, which remain unclouded. From this fact it was easy to draw the conclusion that suppuration is only produced by the specific action of micro-organisms. Unfortunately, however, further experiment soon presented stubborn facts which militated against this theory; for a single drop of mercury, rendered absolutely sterile by heat, antiseptically introduced into the anterior chamber of the eye of an animal always gives rise to a circumscribed collection of pus in its immediate neighbourhood, which is distinguished from that which is produced by micro-organisms by the entire absence of microbes which can be shown by the microscope, or which can be obtained by culture experiments. But mercury is not the only substance that can induce suppuration. Metallic copper is equally potent, though Professor LEBER has observed remarkable differences in the effects produced according to the part which may happen to come into relation with the metallic fragment. Should it rest either on the iris or inner surface of the ciliary body, suppuration will certainly be produced; whilst a similar fragment produces no pus when situated in the lens, where it does not even produce complete opacity. The reason of this difference, he shows, lies in the fact that the fragment of copper when situated in the lens is completely enveloped by a thick coating of albumen which effectually prevents it from exercising its irritating chemical action. On the other hand, when in contact with vascular tissues copper immediately acts upon the vessels, an effect that is probably due to the copper being dissolved by the fluids of the eye, on which fact its power of provoking inflammation depends. One of the commonest causes of suppuration—the staphylococcus aureus—readily furnishes proof that its action depends upon chemical substances, for if a pure culture perfectly sterilised the fluid containing them can still produce an intense purulent inflammation when injected into the anterior chamber.

The study of septic inflammation of the cornea shows that the action of the micro-organism extends far beyond the area of its development, so that, as Professor LEBER remarks, a sort of distant action must take place. The lecturer then proceeded to describe the keratitis caused by inoculation of micro-organisms. He took the case of a microbe developing in the centre of the cornea and showed that the effect in the area directly attacked consisted only of retrogressive changes in the cells ending in necrosis. At first, if the action of the microbe is sufficiently intense, neither migration of

the leucocytes nor proliferation of the cornea cells takes place; but after a time there appears a zone of dense infiltration of pus corpuscles,—which are in reality white blood-corpuscles,—which affects more or less the entire thickness of the cornea. This is due to the disposition of the leucocytes to move towards the place of the greatest concentration of the exciting substance, but as they are making their way towards the microbic area, stimulated to movement by the slighter concentration of the poison, they fail to reach it, because whilst still at a distance their movements are paralysed through the intensity of the toxic action and the cells have perished. We thus find an explanation of the central necrosis in cases of septic inoculation of the clear ring which surrounds this area and which is saturated with the poison, and of the opaque purulent area formed by dead leucocytes. The lecture is highly suggestive and reflects great credit on Professor LEBER.

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## Annotations.

“Ne quid nimis.”

### VITAL STATISTICS OF LONDON.

In view of the increasing importance of and interest in the health of London, we publish to-day the first of a series of monthly articles dealing with the vital statistics of the metropolis, with special reference both to sickness and mortality in each of the forty-one sanitary districts of London. The returns of notified cases of infectious disease and the mortality in each of these sanitary areas are published in a table specially compiled for THE LANCET; and in order to render the information more valuable for comparative purposes the sickness and mortality rates in each district have been carefully calculated on populations based upon the recent census. The populations of these areas are now accurately known, and as the mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary districts, the rates based upon them are therefore trustworthy and serve to show the true mortality in the various sanitary areas. The progress of any epidemic can be readily traced, both as regards its prevalence and its fatality, in different parts of London.

### A TEACHING UNIVERSITY FOR LONDON.

THE Royal Commission which is now sitting, after having heard a considerable number of witnesses dealing with various secondary points, is now approaching the crux of the whole question. During the next week representatives of University and King's Colleges, of the Royal College of Physicians—the Royal College of Surgeons having already been heard—and of the London medical schools will give evidence. We would remind our readers that whilst the higher education in London is of the gravest importance and every method of improving it merits the fullest investigation, the practical question of how London medical students are to obtain degrees on terms equivalent to those on which such degrees are granted elsewhere must not be left out of consideration. A University which cannot solve this difficulty must obviously fail from want of support by the medical profession. Surely if every capital in Europe except Constantinople and London has a local Teaching University with power to grant degrees to its students, there is no reason why London should not wipe out its reproach. The present University of London is a cosmopolitan examining board, nothing more, nothing

less, and it does its work excellently. It is as far divorced from all connexion with teaching as such an institution can possibly be, and it is therefore easily intelligible why teachers have risen in revolt against it. There are several practical points which must be carefully considered. Three schemes apparently have some support and of these two are old and one is new. The old schemes are those embodied in the proposals of the Senate of the University of London and in the Charter for a Gresham University passed last year by the Privy Council, but defeated in the House of Commons. The desirability of a single University in London is evidently an important consideration in the minds of many who have given evidence or have written articles on this subject. It is clear, however, to us that the existing University, with its traditions, its freedom from local influences and its high standard for degrees, can neither so change itself as to become a local Teaching University nor introduce into its constitution the necessary changes which would allow it to perform such duties. The Gresham Charter had the advantage of being a compact scheme, federalising the two teaching colleges and the ten medical schools whilst it presented no obstacle to their fusion for purposes of scientific teaching and allowed of every facility being given for the appointment of special professors to give instruction in the higher subjects wherein they had made original researches or in which they had attained special eminence. The new scheme is put forward by an "Association for Promoting a Professorial University for London." In this the federal principle is objected to and a centralised scheme is advocated. The leading propositions are thus laid down: "1. The University to be governed by a Senate composed of the professors and of a certain number of laymen to be nominated by the Crown. 2. The professors to be nominated in the first instance by the Crown, but afterwards by special standing boards of experts appointed for that purpose by the Senate. 3. The University to have power to absorb existing institutions of academic rank in London, due provision being made for protecting the interests of the present teachers in such institutions and for preserving the character of special trust funds. 4. The University to have the power of appointing readers and lecturers, either to supplement the teaching of the professors or to deliver graduation or other courses of lectures within the metropolitan area. 5. The degree examinations to be conducted by the professors of the University, acting in conjunction with other examiners to be appointed by the Senate; and no candidate for a degree to be admitted for examination without having attended the lectures of the University teachers for a prescribed period, which shall not be less than two or more than four years." It is further suggested that the medical faculty should be placed on a basis essentially differing from that of the other faculties. The scientific education of the medical student would apparently fall into the hands of a single professor in each subject and his assistants, and it is by no means clear whether sciences such as anatomy, physiology and pathology are to be included or whether the preparatory extra-professional sciences of biology, chemistry and physics are embraced in the scheme. In either case the powers asked for are too large. The number of medical students in London is so great that a centralisation such as is asked for would be deplorable. Three or four competing institutions would be the smallest number even for scientific training that we could recommend for London, and with regard to clinical instruction, provided the amount of clinical material were sufficient, the greater the number of influential and active teachers, the more advantageous would be the result to the student of medicine. There is truly a waste of teaching power in the metropolis, but even this is better than the possibility of a stagnation on the part of the professoriate and an indifference to the daily requirements of the medical student owing to research monopolising the teachers' attention.

We fear that a Senate appointed by boards of experts, without regard to teaching institutions and without regard to the ordinary teachers, could only tend to such an unfortunate result. The power of absorbing existing institutions—e.g., medical schools—can only have been asked for by idealists and not by persons who have an adequate knowledge of the various institutions interested in this question. Those engaged in medical and other sides of technical education must at once see the difficulty of agreeing to such a proposal for a city the size of London and will be sure to oppose its adoption by every means that is in their power. It is a worthy ideal, but considering the immense number of institutions which in many ways educate up to a University standard such a centralised scheme can only exist in "cloudland."

#### CHOLERA PROSPECTS.

IN so far as European cholera is concerned the centre of interest now lies in and around Paris, and the urgency of the question is considerably accentuated by the fact that official records as to the "choleraic"—so-called—prevalence in the suburbs of the French capital suddenly ceased three weeks ago and that their cessation has been synchronous with the highly suspicious circumstance to which our special correspondent drew attention last week and on which in our present issue he again comments strongly. For considerably over a month an epidemic has been going on in the vicinity of Paris which is attacking adults, which has definite characteristics of cholera, which is, so far as can be judged from the statistical information that transpires, as fatal to those attacked as many an epidemic of Asiatic cholera, and concerning which all official announcement has either suddenly ceased or is limited to such statements as the one made by Mons. Laubet, the Prime Minister, to the Chamber of Deputies on the 12th inst., to the effect that all necessary hygienic measures are being taken. So far as news has been forthcoming it is to the following effect. Diarrhoea of a very fatal character prevailed in some of the suburbs of Paris, especially included in the loop of the Seine to the west of the capital towards the end of May and early in June. On June 23rd twenty deaths had just occurred from so-called cholera nostras, Nanterre, Suresnes, Puteaux, and St. Denis being effected. By July 1st the epidemic had since its commencement, caused 159 deaths. Then came more detailed news as to the number of deaths in the various suburbs, and in new places attacked such as Aubervilliers, Quatre Chemins, La Corneuve, Courbevoie, Asnières, Clichy, Rueil and Colombes; but it was announced that Paris itself within the fortifications remained free. By July 4th fresh places such as Levallois and Gennevilliers were attacked. Next day ten fatal attacks were announced, and Neuilly was added to the list of localities infected. On the 6th and 7th there seems to have been a marked increase in the number of attacks, and besides this it was announced that between July 1st and 6th as many as 37 cases out of a total of 68 had terminated fatally. This in itself is sufficiently alarming for a diarrhoeal disease in Europe and in the minds of many it mattered little what qualifying adjective was used to designate this "cholera." Argenteuil and St. Ouen were now also attacked; indeed, the disease was reported to include twenty-four villages. On July 10th it was reported that Paris itself had become involved, although it was difficult to understand to what extent, owing to an apparent confusion between cases and deaths. At Aubervilliers four deaths took place on the 11th inst. This information cannot pretend to accuracy, for owing to the official silence it has had to be gathered from the ordinary public press. Whatever its source, it is evident that the Local Government Board look upon the intelligence, combined with the ominous silence referred to, as justifying the immediate exclusion of rags from France. Some, indeed,

reached Folkestone under such suspicious circumstances that the President of the Board issued a special order prohibiting their being moved inland; and since then a general order prohibiting the importation of all rags from France has been published in the *Gazette*. Evidently the authorities at Whitehall regard the state of affairs around Paris with the gravest suspicion; and everyone must admit that circumstances such as we have detailed are especially serious at the present season of the year. Accounts from eastern Europe are also very disquieting. Cholera continues to extend both in Transcaucasia and in a north-westerly direction from Astrakan and Baku. Perhaps the most serious matter in prospect is the intended fair at Nijni-Novgorod commented on in another column, for cholera has since our last report spread further up the Volga to Simbrisk, and thence to Kazan. Cases are also alleged to have occurred in the province of Kostroma to the north of Nijni-Novgorod. The Local Government Board have also issued an order prohibiting the importation of rags from all ports of the Black Sea and the Sea of Azov, as also from all ports of Turkey in Asia. The order takes effect at once. Pending the further development of the present state of affairs sanitary authorities everywhere will do well to remove all causes tending to pollute air, water and food.

#### OCTOGENARIAN PREMIERS.

WE can only speak at present in the singular number. So far as our knowledge of English history in this century and the last goes there has only been one octogenarian premier—Lord Palmerston—who died at his post in his eighty-first year. Several of our eminent statesmen in this century—not one in the last—who had in their time been Prime Ministers attained to this longevity. Henry Addington (Lord Sidmouth, son of Dr. Addington) died at eighty-seven, the Duke of Wellington died at eighty-two, Lord Grey at eighty-one, Lord Russell at eighty-six; but long before their decease they betook themselves to that “blest retirement” which the poet tells us is such a “friend to life’s decline.” We are no politicians, but we cannot be insensible to prodigies of power at fourscore. In this sense we regard with keen interest the recent mental and physical feats of Mr. Gladstone in his Midlothian campaign. He has already “beaten the record,” and if he is to be again Prime Minister of England we shall regard the achievement as one of which the English race may be proud. Such a statement involves no medical approval of men even of Mr. Gladstone’s strength engaging in political strife at eighty-two. But from a physiological point of view such power and pluck can only excite admiration, and we heartily hope that they may suffer neither harm nor discredit by the experiment.

#### THE CASE OF MR. WALTERS OF CHELTENHAM.

WE publish in another column resolutions of the Poor-law Medical Officers’ Association relative to the suspension of Mr. Charles A. Walters, medical officer of the second district of the Cheltenham Union, an appointment which he had held without complaint or fault for the long period of thirty-eight years. The matter is of still more sad interest, as Mr. Walters died on the 8th inst. The case is a very simple one. Even in its issue there is nothing serious save in its bearing on the unfortunate medical officer. The facts are as follows: A little girl came to Mr. Walters on a Sunday morning, April 3rd, at 11 o’clock with a note from her mother requesting him to see her sister. He asked if she had brought an order from the relieving officer and she said no. Mr. Walters then said “mother must send me an order or come and see me and tell me what is the matter.” The relieving officer was so near that he could be communicated with in half an hour. Meantime Mr. Walters suggested that her mother might give the sister a dose of castor oil. In the

evening, at nine, a Mrs. Robinson called and demanded Mr. Walters’ attendance in his capacity of medical officer *without an order or relief ticket*. She negatived the idea of his attending in any other capacity by stating that she would call in another doctor—a course the mother would seem quite able to have taken, seeing that within the last twelve months, since the death of her husband, she had received over £100 from benefit societies and had, while receiving a weekly grant from the Cheltenham guardians, £30 deposited in the savings bank. On calling next day to see if an order had been obtained Mr. Walters found that the child had been removed with a very mild attack of scarlet fever, from which in a month it had practically recovered. Such is this case. For declining to attend without an order Mr. Walters was suspended by the guardians and “severely censured” by the Local Government Board. We do not remember to have heard of a case where such dire punishment was meted out to a medical officer for doing what was certainly within his right and even his duty. It is undeniable that the mother of this child was able to pay a medical man and that she sent no order to Mr. Walters to attend in his capacity as medical officer. For declining to do so this faithful servant of thirty-eight years’ unblemished character is censured and suspended. We cannot admit that the mere suggestion of a dose of castor oil amounted to an “acceptance of responsibility” for the case, on which theory the Local Government Board founds its censure. We look to the Local Government Board to defend medical officers, and we have had pleasure often in recording that the Board has stood by them. But in this case there seems to have been a terrible failure of duty. Instead of censuring the guardians for giving relief to a person receiving £100 in a year, they censure the medical officer for requiring legal proof of her claim to be treated as a pauper. We cannot defend such action in a Government department, and if unexplained and unatoned for we prognosticate injury to the service. Medical officers under the Local Government Board have their rights as well as their duties. We heartily support the action of the Poor-law Medical Officers’ Association. Nor do we think they should be left alone to protest against such treatment of a medical officer of thirty-eight years’ standing. The Corporations of the profession should join them and claim for Poor-law medical officers the same justice that they would claim for medical officers of the Army or Navy. We commend this very hard case to the consideration of the Presidents of the two Royal Colleges, unless, as we venture to hope, the Local Government Board and the guardians will reconsider their judgments.

#### SCHOOL CHASTISEMENTS.

SOME grown persons would seem to think that there is no true place for chastisement in a system of education. Such at all events is our impression of those, and there are many parents among them, who regard an ordinary beating given in school as almost an indictable form of assault. People of this kind have evidently forgotten the singularities of their own wayward youth, or perhaps their lives knew only a genial and untroubled springtime of good conduct. In neither case can their judgment be relied upon to form a rule of discipline for the guidance of school teachers. The bad boy will continue to deserve, and to repay with better behaviour his needful thrashings, and even the good boy will sometimes err and will profit by corporal reproofs. The truth about physical punishment, we may take it, is that it is indispensable—an evil perhaps, but a necessary one. It must be borne, but in order to attain success with the least possible amount of injurious friction it must also be regulated. There must be no impulsive pulling about, no random strokes with the hand or the ruler, no ear-boxing with its probable sequela—the ruptured tympanum. The head should never be struck, not even slapped. We may say the same of the

body, but for one most tender but safely padded prominence which appears to mark the naturally appointed seat of childish affliction. We need hardly emphasise the importance of guarding jealously against all displays of temper while inflicting punishment. No doubt this is difficult with refractory children, but such a degree of self-government as will enable parents or teachers to avoid the angry moment is nevertheless requisite for success. A case occurred lately which illustrates this point. It was that of a boy who was beaten about the back and hand the day following a school misdemeanour. Singularly enough, he injured his head next day, and being at the time in poor health, though believed to be well, he died in a week from tubercular meningitis. At once his teacher was blamed; but proof being brought that the chastisement inflicted was deliberate, orderly and proportionate, though the means employed were not quite regular, he was entirely exonerated at a subsequent inquest. It would indeed, in many cases, render the duties of a schoolmaster as barren as difficult if he were not allowed a reasonable freedom in physical correction. The possible occurrence of such incidents as the above must, however, impress what we have said as to method in its application.

#### "CURES" FOR INEBRIETY.

THE special report of the meeting of the Society for the Study of Inebriety, on the 5th inst., which we published in our last week's issue, shows very clearly how necessary it was that we should give the profession and the public a timely warning against these secret cures. Dr. Keeley was unable to attend the meeting. Dr. Usher of Melbourne gave details of the method in which the so-called cure had been worked at Dwight, U.S.A., of the immense sums spent in advertising the institution and the cost of the preparation used—viz., thirty-six shillings for two bottles. Further, Dr. Norman Kerr laid before the meeting an analysis stating that the preparation contained neither gold nor chlorides, but 6 per cent. of sugar and 27.55 per cent. of pure alcohol. We quite agree with the members present that "so-called 'cures' for inebriety, the composition of which is not disclosed, are unfit to be commended by honourable members of the medical profession." Inebriety is a disease of which the treatment is as well known to the profession as is that of morphinomania or any similar habit, and it is only by legitimate and open treatment that it can be cured. There is no patent remedy for it, nor is there ever likely to be. Unfortunately, the unhappy sufferers and their friends are always asking for a specific and so they readily become the dupes of some ardent and unscientific believers in a method, or, worse still, of those who trade on their weakness.

#### "ELECTION FEVER."

It may not be inopportune during the turmoil of the general election to call attention to some of the dangers attending ill-regulated enthusiasm and irrational excitement. This appears to be the more necessary as already several fatalities attributable to these conditions have been reported. In the one case an elector died suddenly on the declaration of the poll, in another suicide is stated to have been the more tragic consequence, and yet another died through the excitement of the election. Danger under these circumstances is naturally both physical and moral and in some instances these causes are doubtless combined. Irregular and injudicious meals and irregular and insufficient rest are ever fruitful causes of that silent sap of energy which at the supreme moment causes it suddenly to fail, and a weak heart may then as suddenly cease to beat, or flicker out in futile palpitation. If to such purely physical dangers be added the still further strain of persistent anxiety, and its frequent consequence, defective sleep, it is not difficult to appreciate the unexpected loss of that calm control of both body and mind

which flows from the presence and consciousness of a reserve of force. To indicate these causes is not only to point out their natural effects, but also, to reasonable men, the lessons they convey. To those engaged in the work of the elections personal hygiene of the most careful order is of the first importance. Regularity in the storage of force and care and calmness in its expenditure are the secret of many a victory. "Those who strive in the games are temperate in all things," and the game of a contested election tries both mind and body severely. Nervous constitutions, wrought to a high pitch by the eloquence of party leaders or by the impulses of self-interest, are specially liable to sudden catastrophe, and it would be well for all such to remember, like one of Bulwer Lytton's characters, that the country has survived many unparalleled crises, and will yet survive many more quite as unprecedented. Moreover, to aggravate the causes of agitation by importing further sources of interest and unrest, such as betting on the issues involved and in other ways working up to fever heat the political furor, is very unwise in excitable persons. It is to point out these self-evident considerations which, nevertheless, are too apt to be forgotten at times of public excitement, that we have deemed it our duty to call attention to this matter.

#### APPARENT DEATH IN CHOLERA.

THE approach of cholera is already bringing much disquietude to the nationalities of Southern Europe, particularly to those who people the Mediterranean shores. The Italian, French and Spanish ports have on each former descent of the scourge suffered severely, all the more that in their conscious neglect of sanitary precaution their authorities invariably lose their heads in presence of the invader and attempt to atone by a few days' feverish energy for the culpable remissness of years. But there are special causes of the uneasiness, not to say positive panic, which the slightest hint of the advance of cholera arouses in those populations. Their custom of allowing but a few hours' interval, sometimes hardly a day, to elapse between decease and burial has on the occasion of increased mortality from epidemics induced certificates of death to be prematurely given, with the horrible result that apparent corpses have come to life on their way to the tomb or the crematorium, and with the necessary inference that not a few must have been buried or cremated when the vital spark, so far from being extinct, might still have been kept alive. The great Tuscan pathologist Pacini some thirty years ago published a memorable pamphlet on "La Morte Apparente della Colera" and having instanced a number of cases in which the seeming corpse had been snatched from the very brink of the grave he proceeded to give rules by which even in collapse the apparent victim to cholera might be resuscitated. Among his prescriptions that of the intravenous injection of bay salt, as suggested and practised in 1832 by Dr. James Macintosh of Edinburgh, held a prominent place and by this means, particularly in the cholera visitations of 1877 and 1884, the restoration to life of many duly certified as dead was just in the nick of time effected. In the latter year, however, a remarkable and extremely painful instance of the all too tardy resort to the practice occurred in the person of a distinguished Genoese physician who, having overworked himself in the public cause during the epidemic, was himself struck down just when it was in full retreat. Every care was bestowed upon him, but he rapidly sank into collapse and within forty-eight hours he was thought to be, and certified as, dead. Burial arrangements were in progress and the family, sitting disconsolate in a room adjoining that in which he was laid in his shroud for burial, were expecting the arrival of the undertaker every moment, when, to their mingled horror and delight, the door was feebly opened and the apparent corpse presented himself and, in a voice scarcely audible from

weakness, remonstrated with them for having left him so long unattended. Instantly they conveyed him back to bed and employed, under the best professional advice available, every means that could be imagined for his rescue; but in vain. He died a few hours afterwards of cardiac failure. The case was much commented on at the time as a typical example of what might occur on the strength of death certificates prematurely given, and so Pacini's method was reapplied with enhanced vigilance on every cholera patient who had reached the stage of collapse. The epidemic ran its course; the panic and the vigilance born of it disappeared, till now, when cholera is again within measurable distance of the Mediterranean seaboard, Pacini's name and practice are once more trotted out. The Southern populations, however, must surely have learned by this time that prevention is a better safeguard than cure, be it as ingenious as it may, and that to leave their ports in a mediæval state of filth and neglect invites those cholera explosions that never occur on so sudden or so vast a scale in the more civilised harbour towns of the British Isles or of the Dutch and Danish coasts. With the experience of Naples and Spezzia still recent, sanitary rehabilitation must have made some way towards the protection of regions to which quarantine and "hygienic cordons" have ceased to give the security so long laid to their credit.

#### LONDON DUST AND REFUSE.

LONDON residents will be dismayed if they find they are required to burn the vegetable and other refuse which collects in their houses and if the dust collector receives instructions not to remove anything but dirt and ashes. The readers of the columns of the *Daily Telegraph* will find in it letters from "distressed" and "aggrieved" Londoners complaining that such is the case; the former states that his cook had informed him that the dustman would no longer remove any vegetable stuff; living in a flat, he had found it difficult, if not impossible, to burn it; the latter writes that the vestry's dustman had declined to take any vegetable refuse, paper or garden rubbish; that to burn this in the house would be prejudicial to the household, and that to burn it in the garden would create offence to the neighbours. We cannot but think that there must be some misunderstanding; it is reasonable for sanitary authorities to require householders to burn such matter as is practicable, but it is equally certain that local authorities must be prepared to relieve householders of their waste refuse. We do not suppose that sanitary authorities will be unreasonable in this respect. What is wanted at the present time is that a system of periodical removal of house refuse should be instituted in all parts of London and that houses should be provided with the proper receptacles for its storage for the short period which must intervene between successive collections.

#### THE EPSOM COLLEGE REPORT.

THE report issued for the present year by the Council of Epsom College makes out not only a strong case for generous support by the profession and the public of this most deserving institution, but also a record of advance made in the direction of securing public recognition which should encourage the friends of the school to take a very hopeful view of their prospect of shortly surmounting the difficulties by which they have been, by which indeed they still are beset. In the meantime these difficulties are very serious and it cannot be doubted that the highly creditable result which the Council are able to report has been reached only by dint of very determined and wholly unremitting labour on the part of those who are entrusted with the work of carrying on the school. During the past year it has held its own in comparison with kindred

institutions and shows a very gratifying list of academic successes. The amount of good which by its charitable and its educational work Epsom College accomplishes and the value of the service which in both respects it renders to the medical profession cannot well be overstated. Unfortunately it is only too easy to under-estimate them, and the neglect of which for many years the active supporters of the school have had too much reason to complain affords abundant proof of this proposition. We trust that this period of neglect has now passed away and that the newly awakened interest, which so largely contributed to the success of the biennial festival, is the herald of a happier time in the annals of the College. This quickened interest is amply justified by the success which has already been achieved under distinctly depressing conditions of work by an executive whose devotion to their undertaking is just beginning to be recognised. We trust that the time is not far distant when this institution will be regarded with fitting solicitude and pride by all the members of our profession. It will then flourish on a scale at present rendered impossible by the narrowness of its means, and we do not hesitate to predict that the skill and zeal which have rendered it at the present moment worthy to represent a great profession in its own department will under these more fortunate conditions place it in a position to receive by common consent the rank among public schools to which its connexion with the profession of medicine gives it a presumptive claim. Founder's Day will be held on Monday, July 25th, when the annual distribution of prizes will take place.

#### IMPROVEMENT SCHEMES IN LONDON.

THE London County Council, at their meeting last Tuesday, resolved to contribute one-half of the cost of a scheme for the improvement of an unhealthy area in Shoreditch and themselves to carry out an improvement scheme in Mill-lane, Deptford, to which the sanitary authority will contribute one-half the cost. The Mill-lane area comprises fifty houses, in addition to which are eight registered lodging-houses and other premises. It is proposed to erect improved lodging-houses in place of those which are to be demolished. This area is now occupied by very poor Italians, who sell ice-creams in the summer and in the winter perambulate the metropolis with barrel-organs. The outbreak of enteric fever in Deptford and Greenwich last autumn was found on inquiry by the Council to be caused by the distribution of ice-creams from this locality. The estimated cost of the improvement is £39,500.

#### THE REPRESSION OF INFANTICIDE.

A RECENT meeting of the Society for the Prevention of Cruelty to Children is worth recording, if only for the practical discussion of the question of child life insurance, which occupied a prominent place in its agenda. It was generally agreed that the proposals contained in the Government Bill on Friendly Societies were quite inadequate to deal with this matter. As a measure it was distinguished as much by its friendliness towards insurance companies and insuring parents as by its comparative inattention to the weal or woe of the helpless children. The following suggested amendments ought to be borne in mind by any and all who have at heart the best interests of the latter. First, as regards registration, it was proposed that steps should be taken to secure the efficient notification of every case in which a burial policy was taken out in respect of a child, that death (if it occurred) should be officially noted, that agents should be registered, that the sum insured should be no more than sufficient for burial (about £1), and finally, that this should be granted only on receipt of satisfactory proof respecting the actual nature of the child's last illness. The very necessity for burial insurance shows a want of adapta-

tion in domestic money matters. It were certainly preferable if by the independent exercise of homely thrift any such necessity could be done away with. Where this is impossible and the alternative method is employed it must in mere justice to the life involved be guarded by the rules above-mentioned. We would therefore ask for these the careful attention of the new Parliament. A further suggestion was brought forward at this meeting—namely, that persons having charge of even single nurse children should be subject to efficient supervision. We have long advocated such an arrangement. It aims at the root of the baby-farming evil and it must, if carried into effect, exercise a wholesome influence in its repression.

#### POISONOUS ICE CREAM.

SINCE Dr. Vaughan reported ice creams as containing most deadly irritant poison medical officers of health have been quick to detect any poisonous agent in this substance. Dr. George Turner, acting for the Public Health and Housing Committee of the County Council, has been able to demonstrate that in certain parts of Mill-lane, Deptford, the ice cream made by Italians is prepared under conditions which he deems to be favourable for its contamination. We are glad to see that the committee, instead of deferring the matter by appealing for special legislation, have expressed the opinion that the proper remedy for the condition indicated is the efficient application of the general provisions of the Public Health Act to places in which food is prepared for sale and not the acquisition of further powers dealing with articles designed for consumption. If these powers are not sufficient an enactment must be obtained, but if Dr. Turner's report is carefully studied and the points to which he draws attention are mastered by the authorities, they will find that they have full powers to act where ice creams are being manufactured in premises in which people are living under unwholesome conditions. The general powers under the Act are very far reaching, and if properly put in force should cover all irregularities and provide for bad hygienic conditions in all places where articles for human consumption are prepared or manufactured. Typhoid fever is at present too rife to permit of any factors, however doubtful, involved in its spread being ignored.

#### HONOURS TO A PHARMACOLOGIST.

ON March 29th, 1792, was born, at San Miniato, in Tuscany, Gioacchino Taddei, who rose to be one of the lights of the Florentine school, in which for many years he held the chair of Pharmacology. In the Arcispedale di Santa Maria Nuova he taught the practice of his subject to successive generations of students and contributed by precept and example to raise that branch of the profession to an efficiency unsurpassed in any other province of Italy. He sat as one of the Tuscan group in the Italian Chamber of Deputies, where his services as a wise and liberal legislator, particularly in all questions relating to the public health and to the higher education, professional and lay, procured his subsequent promotion to a seat in the Senate. Taking these facts into consideration, the "Associazione Chimico-Farmacologica Fiorentina," in coöperation with the Communal Council of Florence, will at an early date cause to be unveiled on the façade of Professor Taddei's house a memorial tablet setting forth his signal contributions to science, to public health, and to his country's unity and independence. The bestowal of such honours is a frequent and commendable practice in Italy. No doubt it is sometimes abused. Monuments and memorial tablets have from time to time been erected not so much to honour the "illustrious obscure" as to gratify the self-advertising ambition of organising committees and their presidents, whose activity, culminating in the ceremonial proceedings and the inevitable

banquet, with its opportunities of speech-making, fructifies in little else than a confirmation of the impression that "Italians are a carnival people." But there can be no doubt as to the propriety of unveiling a tablet to Gioacchino Taddei. His scientific eminence would of itself justify the step, even if he had not been an exemplary citizen and an intrepid patriot in days like those of 1849, when espousal of the national cause meant social ostracism, confiscation of means, exile and not seldom death itself.

#### THE MEDICAL OFFICER OF HEALTH, NEWTOWN, MONTGOMERYSHIRE.

OUR attention has been directed to the decision of the Newtown Local Board to elect a medical officer of health in place of the gentleman who has recently held that office. We have received evidence of the esteem in which Mr. Palmer is held by those who have had the opportunity of forming an opinion of his work. The appointment he holds is an annual one, and it is open to anyone who may take exception to the action of this officer to seize the occasion of his re-election and to endeavour to introduce another medical man into the office. The circumstances under which the Newtown Local Board have been led to adopt this course deserve the investigation not only of the profession but of the public, for the public cannot be well served if medical officers of health feel they cannot be re-elected if they show the least independence either in the performance of their duties or in the ordinary conduct of life. In the present case it was decided to advertise the office only upon the casting vote of the chairman.

#### CHOLERAIC DISEASE IN FRANCE.

IT is interesting to learn that Dr. Dujardin-Beaumez speaks of the malady that is now alarming Parisians as a form of cholera fostered by bad drinking water and the insanitary conditions that prevail in the environs. Although unwilling to call the disease cholera, he describes it as of Asiatic origin, arriving in France from Persia by the Caspian Sea, making its first appearance at Nanterre at the end of March and subsequently spreading to Asnières, Neuilly, St. Denis, Aubervilliers and Clichy. Later accounts speak of this malady as occurring also at Suresnes, Courbevoie and Colombes. What is obviously greatly needed is an inquiry into the whole circumstances of the disease, such as the Local Government Board makes in England whenever the prevalence of any malady demands investigation. The suburbs of Paris are, it is said, unable to provide themselves with satisfactory water-supplies and hence water from the Seine and Marne are utilised to make up for the deficiency of other supplies. The inhabitants of these localities have a right to know whether the water is to blame. Cholera in Paris may lead to the introduction of the disease into England, though with us there is less cause for alarm. Still, all English water-supplies are not above suspicion, and there is no community so perfect from a health point of view as not to require the earnest attention of the sanitary authority.

#### THE POLLUTION OF THE MERSEY AND THE IRWELL.

AT a meeting of the Mersey and Irwell Watershed Joint Committee, which was held last week, the chairman (Mr. J. T. Hibbert), after congratulating Mr. Hulton, the clerk, on the success which had attended the passage of the Bill through Parliament, commented on the action of a representative of the Local Government Board when the Bill was brought before a committee of the House of Commons and stated that, while he thought some of the control by this Board was useful, he did not think that an important joint committee like that dealing with the whole watershed should be treated as children. He further regretted that any au-

thority in the watershed and represented on the watershed board should have opposed the Bill. He then stated that twenty-nine authorities had sewage works in operation, but that they varied in effectiveness. Some required alteration. In twenty-three places there were no schemes in operation and on twenty of these twenty-three authorities notices had been served. The two months' notice had now expired and he thought it desirable that further action should be taken against them at the next meeting. The figures he had submitted dealt only with urban authorities—the rural had in nearly every case taken some action. Mr. Armitage gave notice that at the next meeting he would move that action be taken against those authorities which had not adopted any scheme.

#### ELECTRICITY ASTRAY.

AN accident to an electric lighting main in Walbrook, E.C., appears to have recently occasioned some merriment to the dwellers in those parts. We cordially congratulate them on having escaped any more serious consequences than those which provoked their mirth. It seems that through some unexplained failure of the insulator of an electric-lighting main a metal shop front became charged with wandering electricity and passers-by discovered that by touching it with their hands they could experience the delightful inconvenience of an electric shock. The circumstance that this luxury is in the minds of most people, and particularly of most street urchins, associated with festival occasions and penny fees no doubt invested the unpriced supply in Walbrook with an added charm. Happily, the amount of current obtainable seems to have been inconsiderably small; but seeing that a metal shop front in connexion with an electric-lighting main might easily become a greater source of peril to unwary passers-by than an uncaged tiger, the story of this mishap is calculated to give the reader of a serious turn more food for reflection than is altogether pleasant. Fortunately, it is not possible that such an accident should happen without serious fault on somebody's part, and although the London public seem to have taken the matter with a light heart, we hope that those whom it most nearly concerns will make a point of exacting the full penalty for a flagrant default, be it whose it may—*pour encourager les autres*.

#### THE CHOLERA IN KASHMIR.

SOME further particulars of the cholera in Kashmir are to hand in the form of a letter from Mr. A. Neve, the senior medical missionary, who when the epidemic commenced was working single-handed, as his brother, Dr. Ernest Neve, had gone with a party of Moravian missionaries to Ladakh. He had, however, a valuable native helper. As soon as the epidemic became at all pronounced the British resident and all the European visitors took flight to Gulmarg, a hill sanatorium some thirty miles from Srinagar. Mr. Neve and his assistant carried out as systematic a visitation in the city as was possible, but little could be done either in the way of sanitation or of medication, as the cases were rarely seen during the first few hours, when drugs are really valuable. The hospital was as far as possible cleared out, the patients being sent away to their villages lest in their weak state they should contract the disease. "I got up very early," continues Mr. Neve, "and ride to the bazaar. The head man of each district then comes and escorts me to the new patients in the neighbourhood. Many of the houses are two- or three-storied and one has to climb up and down the most tortuous stairs, usually very steep and the ceilings very low, so that my thick sola topi has been almost smashed to pieces. The people all crowd round the unfortunate patient. A well-known man will have twenty or thirty neighbours sitting round him and the women do not reserve their wails for the dead, but beat their breasts and

tear their hair and scream 'Hai, hai, wai, wai' if anyone is badly attacked. .... For a time there seems to be no 'purdah' and no class is specially inaccessible. In fact the well-to-do Hindus seem quite as willing to receive me as any others. In many cases one can do little; in others one can turn the scale. But although a few lives here and there have been saved I think the moral effect of our work is more important. The people well know the apathetic selfishness of their co-religionists and they see the missionaries and ladies as well as others going about trying to relieve suffering." Mr. Neve's assistant succumbed to the disease, though after transfusion he rallied for a short time. The Indian Government have deputed Surgeon-Colonel Harvey to make a searching inquiry into the epidemic and he has taken up his quarters in the mission house with Dr. Ernest Neve, who has returned, Mr. Arthur Neve going out into the villages where the cholera, after having abated in the city, was becoming rife.

#### ENTERIC FEVER AT NORTHALLERTON.

ENTERIC FEVER still prevails at Northallerton, but, as we anticipated, the Local Government Board do not see any reason for sending a medical inspector to investigate its causes, those causes being known in advance to the local authority. Mr. Lumley again tells the local board that the further incidence of the disease goes to confirm his view that it is due to polluted water. Unfortunately the account of the proceedings of the local board does not contain any statement as to what is being done; indeed, the only action recorded is a proposal that the board should form itself into a committee to further consider the outbreak and the means which should be adopted to stop the spread of the disease. It is, however, to be hoped that all suspicious water-supplies have been stopped and that a wholesome supply is being delivered day by day, by water-cart or otherwise, at all houses where the local supply is liable to contamination.

#### A PRESIDENTIAL ADDRESS.

THERE lies before us a copy of an important and highly interesting document which should be available for every member of the profession, for it deals with topics of more than local interest. It is the address of the President of the Royal College of Physicians delivered to the assembled Fellows on the occasion of the close of his year of office. We are unfortunately restrained from discussing its contents and especially its exhaustive treatment of the movement for a new or reformed University in London by the superscription on the title-page "private and confidential." Is this also one of the "secreta Collegii"? Surely it cannot be so intended. Incidentally we may remark that the "secreta" have of recent years been unusually numerous, and we cannot help speculating whether the bond of union that has obtained between this College and the sister institution in Lincoln's-inn-fields may have had a tendency to deprive the proceedings of the College of Physicians of a publicity which in these days ought to be the rule and not the exception. Apart from the general question, however, it does seem foolish and unworthy of the College to require its President to restrict the circulation of his address to a small circle, and whilst we are dealing with this specific instance we may perhaps express a natural regret that the previous addresses of the present occupant of the presidential chair and those of his much-revered predecessor have never been published. They are of permanent value and should not be suffered to lie neglected in the College vaults. For without doubt they contain words of wisdom and the teachings of ripe experience which might exert the best possible influence upon the profession, not only in the present day but in years to come. The London College of Physicians occupies such an eminent position among the medical institutions of the empire that it is its bounden duty to lose no

opportunity of inculcating the principles it represents and the ethical standard it maintains. It could not better promote these aims than by publishing the annual addresses of the leaders of the profession whom it places at the head of its affairs.

#### SMALL-POX IN YORKSHIRE.

SMALL-POX still hangs about some of the Yorkshire towns and villages. During the month of June Liversedge and the Doncaster rural district and some localities in the neighbourhood of Halifax were somewhat seriously affected. Mexborough is still suffering from the disease.

#### THE SCARLET FEVER EPIDEMIC IN LONDON.

A STATEMENT made at the last meeting of the managers of the Metropolitan Asylums Board is entirely in the direction of the caution which we uttered in our leading article of last week as to the extent to which scarlet fever is prevailing in the metropolis. The chairman explained that the incidence of the 2247 cases under isolation in the Managers' hospitals amounted only to one case per 2000 of the 4,250,000 people in London. And even if we assume the total number of patients to be double that in hospital, the rate of attacks would only be 1 per 1000. The death-rate, as we intimated, is by no means alarming at the present moment.

#### THE MEDICAL MAGAZINE.

A NEW literary adventure in the medical world deserves a hearty welcome, when, as in the case of the monthly journal appearing under the above name, it is issued with the laudable desire to restrict the growing tendency on the part of lay periodicals to insert contributions on medical subjects in their pages. This magazine, which is produced in commendable style, has doubtless a mission to fulfil, and the contents of the first number are varied as well as interesting. There is a faithful and just tribute to the work and character of the late Dr. H. G. Sutton, one of the most remarkable physicians of our day from the pen of Dr. Donkin; an interesting sketch of the health conditions of Chester from mediæval times to the last century by Dr. Creighton; and some strong advocacy of the value of periodical medical literature in advancing medicine by Dr. Saundby. Dr. Maudsley writes on Suicide in Simple Melancholy, in which he conveys the impression that suicide is not out of the natural order of things, as we are disposed to regard it. Mr. G. H. De'Ath, the medical officer of health for Buckingham, does good service by drawing specific attention to facts of rural sanitation (or rather insanitation) which have come to his notice. Dr. Francis Warner contributes a brief paper on Mental Physiology; and there is an anonymous (presumably editorial) article on the Medical Profession and Practical Politics—an appeal to members of the profession, especially those retired from active practice, to share in political and municipal affairs.

#### CHOLERA AND CROWDS.

THE Russians are evidently greatly disquieted by the fear of the threatened epidemic of cholera and are taking the most active measures to prevent the spread of that disease along the lines of railroad. Cholera is advancing up the Volga. Of that there can be no doubt apparently, and it becomes a serious question as to what steps have been taken in regard to the approaching fair which, we are told, is to be held at Nijni Novgorod. The latest accounts would indicate that the official authorities in Russia have been very active in this direction of late, but whether the sanitary arrangements are of an adequate kind and commensurate with the occasion we do not know. The

authorities in India have had great experience of what occasionally happens at Hurdwar and other large religious gatherings and of the arrangements that have to be made to prevent an outbreak of cholera or limit its spread. A great deal of forethought and labour are expended in the way of organisation and preparation on such occasions, and arrangements are also made for the sudden breaking up of the religious fairs and dispersal of the pilgrims in case of need. When any epidemic is actually present or impending there must obviously be great risk attending the assemblage of a large concourse of people. Even if some of them did not bring the disease with them, the heat, fatigue, overcrowding, defective sanitary arrangements and difficulties connected with water-supply, are all adverse factors that have to be encountered. A commercial fair like that at Nijni Novgorod is, of course, on quite a miniature scale compared with one of the vast Hindu religious gatherings in India, but all such assemblages require great preparatory care in the way of sanitary organisation and arrangements. The truth is there is no short and ready way, no royal road to the prevention of the spread of cholera in a country by quarantine and cordons. The scale on which the attempt has to be made is altogether too large and the difficulties too great for it to be practicable to apply such methods. Sanitation on a large scale, a pure and good water-supply, efficient sewerage, cleanliness and wholesome dwellings are the only reliable safeguards against cholera. There is the seed and the muck-heap to be dealt with, and if the former cannot be destroyed the muck-heap necessary for its growth and development can be removed. An increased knowledge and experience have only confirmed the truth and given precision to the late Lord Palmerston's sagacious remarks on the subject.

#### RIGOR MORTIS IN ITS RELATION TO DEATH FROM POISON.

THE *Wiener Medicinische Presse* publishes a paper read by Professor A. Paltauf before the Association of German physicians at Prague on some experiments he had made to show the causal connexion between rigor mortis and deaths from poison. For the purpose of these experiments such poisons were used as were known to exert a certain influence on the muscular system, either by directly acting on the muscular substance or indirectly by affecting the nervous system. Amongst the poisons belonging to the first series curare always considerably delays the occurrence of rigor mortis. Amongst those acting on the central nervous system, strychnine, picrotoxine, camphor, and the salts of ammonium accelerate the occurrence of rigor mortis. This acceleration is still more increased by artificially prolonging the stimulation of the muscular system, but is again arrested on the occurrence of paralysis. Veratrine and physostigmine cause only a slight acceleration of the rigor mortis, but with caffeine and its chemical derivatives—the rhodan salts—this acceleration becomes considerable. To study the influence of the nervous system at the time of occurrence of the rigor mortis, Professor Paltauf divided the nerves and the spinal cord, with the result that the more a muscle had been stimulated by the poison the sooner was the rigor mortis observed, independently of its connexion with the spine, if such connexion existed. The reaction of the rigid muscles was in the case of many poisons, as has been generally believed, acid. Other poisons, however (such as camphor, ethyl-theobromine and the rhodan salts), gave, contrary to the general assumption, an alkaline reaction. This alkaline reaction affected, however, only the anterior portion of an animal in which after the poisoning the cord had been divided. The posterior part of the animal, in which the rigor mortis was delayed, showed the usual acid reaction until the alkaline reaction of putrescence took place. Where the reaction of the anterior portion of the animal was

alkaline it often became, after the reduction of the rigidity had passed off, neutral or slightly acid before putrescence once more made it alkaline. Division of a single nerve had the same result, and it was possible to cause either alkaline or acid reaction in the various muscles of one extremity by leaving the nerve entire or dividing it. Professor Paltauf also approached the solution of the question of the existence of a cataleptic rigor mortis. He found that the convulsive muscular contractions of an animal poisoned by camphor and suddenly killed by strangling led to immediate rigor mortis, and he therefore believes in a cataleptic rigor mortis.

#### THE COST OF HEALTH OFFICERS AT LEWES.

MR. J. G. BRADEN has resigned the post of medical officer of health for Lewes after a service which has extended over many years and which has been courteously acknowledged by the Town Council. Not only has that service been efficient, but it involved a period of great anxiety and responsibility when Lewes suffered in 1874 from its now historic epidemic of enteric fever due to insuction into water-pipes of infective matters during intermissions in the service. A committee of the council have recommended a new appointment at £100, but the subject has been referred back to them because some members of the corporation think £80 sufficient, and they quote other places which are comparable with Lewes in point of area and population in support of their contention. In one respect the comparison is inapplicable, for at Lewes it is to be part of the duty of the health officer to attend such patients at the isolation hospital as are not under the care of their own medical advisers. Even a few such cases will involve a large number of visits extending in each case over many weeks, and if the corporation were to set this service down at £20 a year it would probably be the least that could be offered for it. This would as a matter of fact place Lewes on a level with those towns where the medical officer of health receives £80 a year. There is another reason for dividing the total salary in this way. No repayment from the county funds is likely to be secured for the hospital attendance, for it is no part of the official duty of a health officer to attend patients anywhere. The repayment is certainly to be limited to the £80, which is regarded by some as sufficient for the services of the health officer as such.

#### MULTIPLE NEURITIS.

At the meeting of the Congress of Neurologists held at Baden-Baden a few weeks ago Dr. W. H. Gilbert read a paper on two cases of polyn neuritis which presented some striking features. The first was that of a high Government official, aged fifty-six, a member of a "very nervous family," and himself of irritable and hasty temper. In February, 1891, he had an illness thought to be peliosis rheumatica, in which he suffered great pain, followed by cutaneous anaesthesia and muscular paralysis of the extremities. He improved somewhat under electrical treatment and massage, but when first seen by Dr. Gilbert he was emaciated to an extreme degree. There was, in fact, general muscular atrophy, abolition of the plantar and patellar reflexes, whilst the nerve-trunks, which could be felt through the attenuated lower limbs, were the seat of painful nodular swellings. There was some loss of control over the bladder and rectum. Under treatment he improved slightly, so that he could walk better and gained a little in weight. An attack of diarrhoea, brought on by exposure to cold, rapidly reduced his strength and he died on July 9th. The other case related by Dr. Gilbert was that of a lady, thirty-two years of age, who, on Feb. 2nd, 1892, swallowed a large quantity of "Schweinfurt green" with suicidal intent. Prompt recourse to the stomach-pump and other measures averted a fatal issue, but then ensued great prostration and severe gastro-enteritis lasting four days.

Next followed symptoms of paralysis of the limbs with severe paroxysmal pains, especially in the right limbs, numbness of the fingers, sensation of cold, profuse sweating and insomnia. In this condition the patient came under Dr. Gilbert's care on April 3rd, when she could only move slowly and with great difficulty, and complained of stiffness in the legs and great weakness. The plantar and patellar reflexes were exaggerated and there was foot-clonus on the right side, but only moderate anaesthesia. This patient, who presented in a striking degree the effects of arsenical neuritis, entirely recovered. Dr. Gilbert remarked that in each of these cases the motor functions were more involved than the sensory.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

The deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Anders Georg Drachmann, father of the poet, Holger Drachmann. He made a great study of hygienic gymnastics and orthopaedics and of the hygiene of childhood. He practised medicine in Denmark till within a short time of his death. He was eighty-two years of age.—Professor Hermann Nasse, of Marburg, at the age of eighty-nine. In his earlier years he was assistant to the Professor of Surgery in Bonn, and from thence was invited to Marburg as Professor of Physiology, Pathology, and Veterinary Pathology. The two latter subjects he gave up after a few years, devoting himself entirely to physiology, and in 1879 he transferred the charge of the physiological laboratory to Professor Kuelz.

THE British Institute of Public Health have issued regulations for the conduct of their examinations for sanitary inspectors. There will be two examinations, the first preliminary, the second technical, held twice in each year, in April and October. It has been arranged that the first annual meeting of this institute shall be held in Dublin on Aug. 17th, 18th and 19th.

THE German Consul has officially informed Mr. Gerald Portal, the British Consul-General, that the German Government recognises the right of Great Britain as the protecting Power to regulate the sale of liquors in Zanzibar and has ordered German subjects to submit to the licensing system established.

WE learn from inquiries made at the Pasteur Institute in Paris that M. Pasteur suffered a fortnight ago from slight diarrhoea and colic. He is now, however, we are glad to state, well and able to resume his customary daily walks in the Park of Villeneuve.

AT the quarterly meeting of the directors of the Naval Medical Supplemental Fund held on the 12th inst., T. Russel Piekthorn, Esq., Inspector-General, in the chair, the sum of £70 was distributed among the several applicants.

DR. ALFRED HILL has accepted the presidency of the Birmingham branch of the Association of Medical Officers of Health. Dr. Hill was the founder of the Association, and its first president, sixteen years ago.

DR. GEORGE GORE, F.R.S., has been awarded a Civil List pension of £150 in consideration of his services to chemical and physical science.

OUR Paris correspondent telegraphs that no death from cholera had occurred in that city on Tuesday or on Wednesday.

REPORT OF  
The Lancet Sanitary Commission  
ON THE  
DRAINAGE OF SURBITON.

THE SANITARY AUTHORITY.

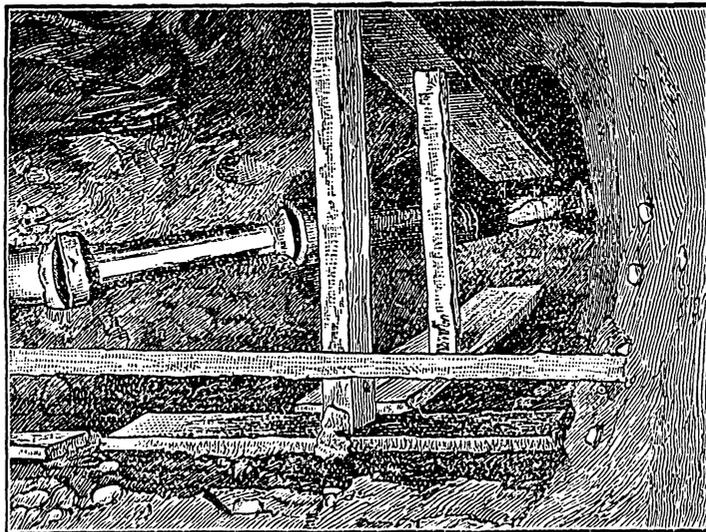
THE sanitation of Surbiton is under the control of the Improvement Commissioners, by whom are appointed a medical officer of health (Dr. Coleman) and a borough surveyor and inspector of nuisances.

THE MAIN DRAINAGE.

Most of the sewers consist of earthenware pipes which have been laid down during the last ten years; but we are informed that two or three of the old brick sewers still remain in use. The storm waters are carried by separate channels. Up to a recent date the sewers were ventilated by openings at the level of the road, but owing to complaints of nuisances arising from these ventilators several shafts have been carried from the sewers up the sides of the houses and many of the old road ventilators have been closed, with the result of abating the nuisance. The sewage of the town is carried to Kingston and is there subjected to precipitation by means of the A B C process, the effluent being subsequently run into the

statement of one inhabitant the house drain was not only not laid on concrete, but the individual pipes were uncemented, so that sewage was leaking through at every joint. The rain-water pipe was also untrapped and opened directly into the drain. In this house a case of diphtheria occurred and was the cause of the drain being examined. Another house was found to be in a condition somewhat similar. A case of acute dysenteric diarrhoea having occurred, the medical attendant suggested an examination of the drains, with the result that the house drain was discovered passing over a cesspool, the joints uncemented and leaking, and the sink wastepipe connected directly with the drain. The accompanying engraving is from a photograph of the drain of a house in which "much sickness occurred" and from which the family were ordered away by the medical man in attendance. It will be noted that the joints of this drain are open. We were also informed that a gentleman had offered to take a house in the neighbourhood on condition of the drains being satisfactory. On the drain being laid bare and tested with smoke and water the joints were found to be so defective that the inspector reported that the drain would require to be relaid. The other sanitary arrangements of the house were also condemned. This house had been built within the last two years. It was also stated that there are houses in Surbiton which have not been properly joined to the new sewers; but of this class we could not obtain an example based on sufficiently reliable evidence for the purpose of this report.

3. *Houses built before the passing of the by-laws of 1880.*—Examples of defects in the sanitary arrangements of houses



Thames. The Surbiton Improvement Commissioners pay the Kingston authorities for the disposal of their sewage according to the quantity treated, and we were told that in consequence of this arrangement only a certain amount of sewage is allowed to escape at the outfall, the rest being backed up in the Surbiton sewers during the night. It is said that as a consequence of this the air of Surbiton is frequently offensive in the morning. During our visits to Surbiton we could not detect any smell from the sewer ventilators in the road.

HOUSE DRAINAGE.

The code of sanitary by-laws at present in force in Surbiton came into use in 1880 and we shall best be able to describe the drainage of the houses by dividing them into classes, according as they were built prior or subsequent to the passing of these laws.

1. *Houses built in compliance with the by-laws of 1880.*—The drainage of these houses has been laid down according to the most modern plans, the house drains being outside upon concrete and provided with inspection chambers at the front and back of the drain. The sink, bath and rain-water pipes are all disconnected and cistern overflow pipes discharge outside. We had an opportunity of inspecting some of these houses and are satisfied that these points were all carefully attended to.

2. *Insanitary houses erected since 1880.*—Of these houses several have been brought to light recently. According to

of this class are naturally numerous. We personally inspected some of these houses and found them drained according to the old plan—soil-pipe inside and unventilated, pan closets, waste pipes not disconnected, and rain-water-pipes going straight into the drain. We found one of the worst examples of these houses to be in the following condition: A four-inch soil-pipe had fixed on to it a one inch and a half ventilating pipe; a single cistern supplied the closets and drinking water by a single pipe which divided into three branches; the closets were of the pan type, and the D trap of one of them projected for about four inches into the roof of the pantry. The sink waste was not disconnected, and the cistern overflow did not discharge externally. We have also been furnished with written reports of sanitary defects which have been detected in houses of this class during the past three or four months. These include soil-pipes inside the house, soil-pipes ventilated with one-inch pipe, unventilated soil-pipes, ventilating pipes made of zinc, drains passing under the house with leaking joints, cisterns outside the house and uncovered, rain-water-tank under the floor, with overflow into drain and no trap intervening, pan and container w.c. fixed direct to the drain with no trap, and waste-pipe from lavatory discharging into drain under w.c.

GENERAL REMARKS.

It must be admitted that the drainage of Surbiton, compared with that of other places, is fairly good; but it is evident from the instances adduced above that it is far from perfect.

The sanitary laws in force in Surbiton are excellent, and were they rigidly enforced during the erection of new houses would secure to the town an admirable system of drainage. We were informed that the duties of borough surveyor and inspector of nuisances are discharged by one official. There has been much dispute between one inhabitant and the Improvement Commissioners as to how his house came to be in the state in which it was found; and the solution of the difficulty has been by no means satisfactory.<sup>1</sup> As regards the houses built before 1880, their sanitary defects must be remedied either by tenant or landlord; or failing these, by an appeal to the sanitary authority on a nuisance arising from them. On turning to the report of the medical officer of health (Dr. Coleman) for 1891 we see that the total death-rate is returned as 13.5 per 1000, the death-rate from zymotic disease being 1.1 per 1000. Of infectious diseases 35 were notified during the year. Of these 10 were erysipelas, 1 enteric fever, 3 scarlet fever and 21 diphtheria. In 1890 there were 36 cases of diphtheria notified. Dr. Coleman says: "Correctly speaking, there has been no outbreak of diphtheria, for the succession of cases, spread over the whole year, are not to be so called and there is no reason for suspecting water, milk, or any article of food. Equally impossible is it to account for all of them by any theory of personal infection or of local or general sanitary defects." The steady persistence of diphtheria during two years in an otherwise healthy suburb and its great preponderance over the other infectious diseases is certainly a matter for inquiry. The medical officer of health is inclined to attribute it mainly to the large amount of damp prevailing during these two years.

## THE CHOLERA IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

A FORTNIGHT ago, under a pledge of absolute secrecy, I was informed that all the talk about cholera nostras and choleraic diarrhoea was concocted merely to avoid panic. It was necessary to account for the sudden deaths which were occurring in such a manner as to avoid alarming the public and none of the authorities dared to confess that cholera prevailed in and about Paris. Then I was told that careful bacteriological researches had been made. The comma bacillus had been found in the dejections of the patients. At first some doubts existed as to whether this was the real germ of Asiatic cholera. It was maintained that similar germs had been found in previous years and yet no cholera epidemic, as we generally understand the term, had occurred. Also it was found that, unlike the germ of Asiatic cholera, the comma bacillus had failed to give the usual reaction when grown in milk. Soon, however, it was seen that, if the bacillus was cultivated for three days, then its action upon milk was exactly similar to that produced by the germ of Asiatic cholera. Finally, these various experiments led to the conclusion that the comma bacillus, if not quite identical with that discovered and described by Dr. Koch in India, resembled in every respect the microbe of cholera cultivated at the Bacteriological Institute of Saigon by Dr. Calmette. As for the effects on the patients they were identical—rice-water evacuations, cramps, cold at the extremities, black vomit, cyanosis, &c. Post-mortem examinations have confirmed the opinions resulting from bacteriological researches; and by the side of what seemed to be cases of only cholera nostras, there have been other, and many other, cases that in no wise differed from Asiatic cholera.

Words are not strong enough to express the indignation that must naturally be felt at the persistent efforts made to conceal the true facts, which are now at last openly admitted and published in the medical world, though the daily political papers still continue to speak of the "choleraform" epidemic. The means of disinfection and isolation in and about Paris are far from perfect. The machinery at the disposal of the authorities to meet such emergencies is not very elaborate or complete; and this is especially the case in the outlying districts, the residents of which so far have been the principal sufferers. It was therefore necessary that everyone should be on the alert, that the intelligence and the devotion of the public should supplement what the authorities lacked

in means of action. Instead of this we have had a foolish attempt to hush up the matter, though previous experience should have shown how dangerous and futile such secrecy must be.

On Nov. 4th, 1884, Dr. Dujardin-Beaumez addressed the Academy of Medicine. He said now that the danger was all over, now that there had not been a case for an entire month, he would relate what measures had been taken and how a small epidemic of cholera having broken out in the suburbs of Paris the disease had been successfully stamped out. From June 24th to Oct. 4th the epidemic had prevailed, and though it had only caused forty deaths no doubt was entertained that these deaths were due to genuine cholera. Cholera was then existing at Marseilles and at Toulon, and it was easy enough to account for its probable importation to the neighbourhood of Paris. Dr. Dujardin-Beaumez congratulated himself and the Academy of Medicine on the fact that the epidemic was now quite over, that no alarm had been caused, and, in spite of the secrecy observed, efficient measures had been taken to prevent the epidemic spreading. On that very day (Nov. 4th), while Dr. Dujardin-Beaumez was thus confidently claiming that the danger was over, five cases of cholera occurred in Paris and two deaths ensued. A few days later (Nov. 10th) there were 110 deaths, and the epidemic continued to spread within the walls of Paris. Altogether 938 deaths occurred from cholera in Paris. This experience shows, first, that the cholera attacked the suburbs of Paris and remained in the suburbs for a considerable time before it came within the walls—that is, the fortifications—of Paris. It shows, further, that the secrecy then observed was of no avail in preventing the disease spreading, and finally that the subsidence of the cholera in the suburbs did not indicate that the danger was over.

With slight fluctuations the present epidemic is continuing and some cases have occurred within Paris. Perhaps an idea of the gravity of the situation may be formed from the fact that there were 217 disinfecting operations performed last year at the central stations in the course of the month of June, whereas during the month of June this year the number has increased to 1223. Since the month of May last no doubt can have been entertained that we were in face of genuine cases of cholera, and yet it is only within the last few days that the fact has been admitted. Some 200 deaths are supposed to have occurred, and the proportion of deaths is two out of every three cases. It would be reprehensible to wait for anything more serious than this before warning the public. In the suburbs of Paris the alarm is widespread in spite of the secrecy observed, and I have heard of some schoolmasters who accompanied the school-children back to their homes in order to see that they did not drink water on the road and recommended the parents to give them only boiled water. At St. Denis the cases have occurred principally among the inhabitants of the Quai de la Seine, the Boulevard Ornano, the Route de la Révolte and the Avenue de Paris, where the houses are all supplied with water from the Seine. The inhabitants of St. Denis who have escaped from the epidemic drink water taken from an artesian well. Somewhat late in the day, but still better late than never, the water companies have convoked a conference, which is to meet at Asnières, one of the suburbs near Paris, where there have been several cases of cholera. The conference is to discuss what are the best means of filtering water. There is no question as yet of supplying the suburbs of Paris with other than Seine water, but perhaps some better methods might be employed of filtering this water. But for the contamination of the Seine as it approaches and passes through Paris the water of the river would be good, and, as I have explained, in the suburbs of Paris the water is taken from the river after and not before it has reached the capital. Considering that two-thirds of the Paris sewage fall into the river it is not surprising if the water is contaminated.

Paris July 12th.

LYING-IN HOSPITAL, LIVERPOOL.—A new Cottage was formally opened on Tuesday, July 12th, which has been added to this institution on Brownlow-hill. The charity has existed nearly a century, having been established in 1796. In that year 126 patients were treated, at a cost of £450. Last year 2000 cases were dealt with, at an expenditure of £2150. The hospital on Brownlow-hill was erected some years ago, but additional accommodation had been found necessary, the total outlay for which (including furnishing) is £2000, and of this sum £900 is still required.

<sup>1</sup> The other instances quoted also press for an explanation.

HOSPITAL ACCOUNTS.

OUR readers are aware that the Council of the Hospital Sunday Fund, when circulating their request for the various hospital accounts a few months ago, suggested that these statements should in the present year be prepared in the form which had been drawn up by the Committee of Hospital Secretaries convened under the auspices of the Mansion House Council to consider that matter. The result of that suggestion is now before the public in the form of a series of financial statements for the present year and it must be confessed that it is a most disappointing result and one that augurs badly for the ultimate success of persuasive methods in improving the present modes of hospital administration. The result is disappointing because the authorities of the hospitals have paid so very little heed to the suggestion. In this it seems to us that they are equally ungracious and unwise—ungracious because the request was an eminently reasonable one, with which they might have complied at very little cost of trouble or inconvenience to themselves, and unwise because delay in a matter of this kind is much more likely to result in an aggravated demand than in any event more agreeable to the hospital authorities. The importance of uniformity in the presentation of accounts is a thing which has been clearly apprehended by the public or that section of the public which busies itself with such discussions, and it is not at all likely to pass out of sight. Even the Committee of the House of Lords, which has observed the strictest moderation in all its criticisms, has insisted on the importance of this reform, and has made further recommendations which proceed on the assumption that accounts will hereafter be rendered in some commonly adopted form. That being so, resistance to the movement which has for its object the security of this uniformity is now untimely, and those, if any such there are, who have reason to think that the form of statement which has been actually proposed would be ill adapted to their own use should, if well advised, be the first to attempt the task, and thus they may be able to convince either themselves or the Accounts Committee of their mistake. The statements now made public do not, however, show any sign of a serious or general effort to reduce this suggestion to the test of experience. Barely half a dozen institutions have adopted the suggested form; the rest have ignored it and reproduced the schedules which they have used heretofore, with the result that the new form, so far from bringing the statements into a uniform shape at the present time, has actually increased the existing confusion by superadding a new type to those already in use.

For this unfortunate result the Council of the Hospital Sunday Fund cannot be held in any way to blame. To them it is a matter of some consequence that the information upon which they have to apportion the funds committed to their charge should be supplied to them in a readily available form—that is to say, in a form which makes the comparison of various institutions as simple a matter as such a thing can be. At best it cannot be a really simple thing, so great is the diversity of the features which have to be compared, so many are the points at which general impressions and more or less vague estimates must of necessity take the place of exact analysis. It was therefore an eminently reasonable thing that the Council of the Fund should ask applicants to present their claims in a common form that would as far as possible facilitate comparison. Equally reasonable was the course which the Council adopted in the drafting and settling of the form. This was entrusted to a committee of hospital secretaries, who might fairly be expected to have the interest of their institutions not only at heart, but also very clearly in view; so that no demand for information would be likely to be put forward which could not be safely and easily satisfied. If the hospitals had been asked to furnish their accounts in the form, for example, which has been put forward in our pages and which was submitted by the representative of THE LANCET to the Lords' Committee, it might very possibly and very plausibly have been said that the change would involve a considerable departure from the familiar lines, and such an alteration in the method not only of presenting but also of keeping the accounts as could not well be accomplished offhand. No such objection can be alleged against the Hospital Sunday Fund Schedule. Its shortcoming is that it follows so closely the old and accustomed lines that it does not convey the information

which the public most desire and which it is necessary to bring clearly out in the interest of the hospitals themselves. In a word, the fundamental considerations of perspicuity and completeness in the statement have been sacrificed in the preparation of this form to the subordinate consideration of what will cost least trouble to the officer charged with the preparation of the accounts, and yet even to the extent of adopting a form of statement modified so slightly from that with which they are familiar the secretaries for the most part have refused to accede to the request of their benefactors.

The criticism which we have here passed upon the Council's form of financial statement merits a somewhat fuller reference than a mere passing allusion. The reason of our fault-finding has been, indeed, fully stated when we say that perspicuity and completeness are the qualities which, above all others, should be conspicuous in a document of this kind. But perspicuity and completeness are relative terms, which must be understood in relation to some purpose which the statement is to serve. Now, the end of a financial statement is to exhibit to the reader the financial condition of the account which it summarises. In the case of a hospital the financial condition is ascertained by considering (1) how much is annually expended on the work of the institution, (2) how that expenditure is distributed among the various departments; (3) what is the amount of the income available to meet the expenditure; and (4) from what sources that income is derived. These four heads of inquiry should be fully worked out. A statement which leaves any one of them in obscurity is to that extent incomplete. A statement which deals with them all may be passed as complete, and one which deals with them all in such a way as to be easily read and understood is both complete and perspicuous. Tried by this test the Council's form will be found to be wanting in both particulars. To allude, first, to its failure in respect of perspicuity. Those who drafted it have followed the prevalent but eminently perplexing practice of making the first entry on the income side of the account the amount of the balance brought forward from the previous year. This is a mere accountant's trick, and it has the mischievous result of making it impossible to discover without an arithmetical operation what is the actual income of the given year. An illustration will make this clear. Suppose that a given account contains the following items:

Balance brought forward from last account	£500	0	0
Income from charitable sources ... ..	10,000	0	0
Income from property ... ..	1000	0	0
Total... ..	£11,500	0	0

Here the total income of the year under notice does not at all appear, since the total figure represents not income only but income *plus* a balance which is the residue of the income of a previous year, the aggregate being an artificial sum which satisfies no other condition than that of balancing an equally artificial aggregate sum on the other side of the account. It would be quite easy to exhibit the self-same figures in a clearly intelligible form, thus—

Income from charitable sources ...	£10,000
Income from property ... ..	1000
Total income ... ..	£11,000
Balance brought forward from last account ... ..	500
Grand total ... ..	£11,500

Here the reader discovers at a glance what is the total amount of the income for the year, and if the expenditure be treated upon a similar plan he may discover at a glance whether the income of the year has balanced the expenditure or no. The form issued by the Council misses this point and, by introducing the balance brought forward at the head of the income column, involves the whole statement in needless obscurity.

Another point in respect of which this statement stands in need of improvement is the presentation of that part of the income which is derived from legacies. This is here shown under the head of "Extraordinary Income," a term which is doubtless intended to convey the meaning that the sums so classified are regarded as windfalls—sources of income not to be counted upon as yielding an annual return. To a large proportion of the income from legacies such a description is plainly applicable; but when it is found

that year after year for long periods of time legacies come in, sometimes in greater sometimes in smaller volume, but never sinking below a considerable figure, it is plain that no committee of reasonable men would think of actually regarding the whole of such income in this light. The proper course and the course always adopted in actual practice is to treat the income from legacies as falling under two heads. One part may fairly be regarded as "ordinary" or "regular" or "renewable" income not distinguishable in this respect from what is derived from annual subscriptions for example. The residue is properly classified as extraordinary or occasional income not to be counted upon, and when received, suitable rather for investment than to meet the ordinary outgoings of routine expenditure. Now this being by common consent the sound theory of hospital finance, the perspicuous way of stating the account must be to make a corresponding division in the statement and to carry part of the sum received from legacies to the ordinary and the residue to the extraordinary branch of income. The form now under discussion passes the whole in one sum to the head "extraordinary income."

These are small points, comparatively speaking, and in respect of them the form of statement adopted by the Council might be modified without adding in any way to the labour of preparing the account or the difficulty of persuading the hospitals to adopt it. With reference to the statement of expenditure, larger questions arise, and the views which we advocate would doubtless meet with more opposition, as involving a much more serious departure from existing practice. This, therefore, is a topic on which we cannot enter at the present moment—considerations of time and space forbid it. We reserve for another occasion this more debateable matter.

## DUBLIN UNIVERSITY TRICENTENARY.

### [SECOND NOTICE.]

On Thursday morning, the 7th inst., a procession of delegates, graduates, undergraduates and members of corporate bodies, in academic or official robes, passed through the streets from the Examination Hall, Trinity College, to the Leinster Hall. Previously to their arrival the string band of the Sussex Regiment performed a number of musical selections and during the presentation of addresses played the national airs of a good number of the countries represented. The hall where the presentation of addresses from the delegates to the University of Dublin took place was decorated with garlands of evergreens and flags, while the front of the galleries was festooned with draperies of gold and white cloth over a red ground; and plants and flowers were placed in different parts of the hall, which was exactly in the same condition as at the banquet given there on the previous evening. The arms of the College, in colours, were placed in various parts of the building; and it may be mentioned that the correct arms, as recent investigations have shown, are a castle with two towers, over which is a book—presumably the Bible—and above this a lion and a harp without the crown. The chair was taken by the Earl of Rosse, Chancellor of the University, and the Provost gave an address, being followed by the Lord Mayor. The Vice-Provost then called out the names of each member of the deputations presenting addresses, who passed up from the body of the hall and, shaking hands with the Chancellor and Provost, took their seats on the dais. Professor Richet, of the University of France, spoke in his native tongue and received quite an ovation from the large audience present, the other speakers being Sir James Paget, Bart., for the University of London; Mr. D. C. Gilman, LL.D., President of the Johns Hopkins University, U.S.; Professor Schipper, University of Vienna; Professor V. D'Hondt, University of Ghent; Professor H. M. Saxtorph, University of Copenhagen; Baron F. von Richthofen, University of Berlin; Professor C. P. Tiele, University of Leyden; Professor A. Vambóry, University of Buda-Pesth; Professor Gaudenzi, University of Bologna; Professor F. Hagerup, University of Christiania; Dr. T. T. Martens, University of St. Petersburg; Professor J. Kollmann, University of Basle; Dr. J. Peile, Vice-Chancellor, University of Cambridge; and Rev. H. Boyd, Vice-Chancellor of the University of Oxford. The following is the order in which the delegates were called upon by the Vice-Provost to present their addresses:—

*Africa*.—University of the Cape of Good Hope, Rev. J. Thompson.

*Australia*.—University of Adelaide, Professor J. Hudson Beare; University of Melbourne, Professor T. G. Tucker; University of Sydney, Hon. Peter Faucett and Mr. H. E. Barff.

*Canada*.—Queen's University, Kingston, Professor D. H. Marshall; McGill University, Montreal, Professor Alexander Johnson, Vice-Principal; University of New Brunswick, Professor W. F. Stockley; University of Toronto, Professor W. J. Ashley and Professor J. J. M. Baldwin; Trinity College, Toronto, Ven. Archdeacon Jones.

*India*.—University of Bombay, Sir Raymond West, K.C.I.E.; University of Calcutta, Sir A. Croft, K.C.I.E.; University of Madras, Mr. J. Kernan; University of Punjab, Hon. W. H. Rattigan, Vice-Chancellor.

*New Zealand*.—University of New Zealand, Professor H. L. Ferguson.

*England*.—University of Durham, Rev. Professor A. Plummer; King's College, London, Hon. R. C. Parsons; University College, London, Rev. Professor T. G. Bonney; Victoria University, Professor G. H. Rendall, Vice-Chancellor, and Professor A. S. Wilkins; University of London, Sir James Paget, Bart.

*Ireland*.—Catholic University, Very Rev. Monsignor Molloy, Rector; Queen's College, Belfast, Rev. T. Hamilton, President; Queen's College, Cork, Dr. J. W. Slattery, President; Queen's College, Galway, Dr. T. W. Moffett, President; Royal College of Physicians, Dr. J. Magee Finny, President, and Dr. J. W. Moore; Royal College of Surgeons, Dr. Edward Hamilton, President, and Sir Charles Cameron; Royal University, the Marquis of Dufferin and Ava, Chancellor.

*Scotland*.—University of Aberdeen, Sir W. D. Geddes, Principal, and Rev. James Myers Dawson; University of Edinburgh, Sir Wm. Muir, K.C.S.I., Principal, and Professor Masson; University of Glasgow, Professor Ramsay and Professor J. Ferguson; University of St. Andrews, Lord Acton.

*Wales*.—University College, Aberystwyth, Professor W. J. Johnston; University College, Bangor, Mr. H. R. Reichel, Principal; St. David's College, Lampeter, Professor A. W. Scott.

*America*.—Johns Hopkins University, Dr. D. C. Gilman, President, and Professor S. Newcomb; University of California, Professor W. Carey Jones; Columbia University, Professor H. T. Peck; Cornell University, Professor Hiram Corson; Harvard University, Professor W. G. Farlow; College of New Jersey, Rev. F. L. Patton, President; University of Pennsylvania, Dr. J. S. Billings, Professor E. J. James and Professor W. R. Newbold; Yale University, Professor T. R. Lounsbury and Rev. J. H. Twichell; National Academy of Sciences, Washington, General F. A. Walker; Smithsonian Institution, Dr. James C. Welling.

*Austria*.—University of Vienna, Professor J. Schipper; Academy of Sciences, Vienna, Professor Theodor Gmperz.

*Belgium*.—University of Ghent, Professor V. D'Hondt and Professor A. de Couleeneer.

*Denmark*.—University of Copenhagen, Professor H. M. Saxtorph.

*France*.—University of France, Professor Lannelongue, Professor Bonet-Maury, Professor Beljame, Professor Lafaye, Professor Richet, Professor Tisserand; Academy of Aix, Professor Joret; Academy of Caen, Professor Mabillean; Academy of Montpellier, Professor Soubeiran.

*Germany*.—University of Berlin, Baron F. von Richthofen; Royal Prussian Academy of Sciences, Berlin, Professor W. Waldeyer; University of Erlangen, Professor Paul Gordan; University of Göttingen, Professor Franz Kielhorn; University of Heidelberg, Professor A. Merx; University of Kiel, Professor Friedrich Blass; University of Munich, Professor Ludwig Boltzmann; University of Rostock, Professor Friedrich Hashagen; University of Strasburg, Professor G. F. Knapp.

*Holland*.—University of Leyden, Professor C. P. Tiele and Professor H. Oort, Rector; University of Amsterdam, Professor B. J. Stockvis, Rector Magnificus; University of Utrecht, Professor H. Snellen, Rector Magnificus.

*Hungary*.—University of Buda-Pesth, Professor A. Vambóry, Professor Z. Beothy.

*Italy*.—University of Bologna, Professor A. Gaudenzi; Accademia della Crusca, Florence, Sir J. Kingston James; Accademia dei Lincei, Rome, Professor F. Brioschi.

*Norway*.—University of Christiania, Professor F. Hagerup.

Russia.—University of St. Petersburg, Dr. T. T. Martens and Dr. N. E. Wedenski.  
 Switzerland.—University of Basle, Professor J. Kollman; University of Bern, Professor T. Studer, Rector; University of Geneva, Professor Nicole; University of Lausanne, Professor A. Maurer, Rector.  
 University of Cambridge.—Dr. J. Peile, Vice-Chancellor; Rev. H. M. Butler, Master of Trinity College; Professor A. Macalister, Sir G. G. Stokes, Bart.  
 University of Oxford.—Rev. H. Boyd, Vice-Chancellor; Sir H. Acland, Bart.; the Bishop of Oxford.

From 4 to 6 P.M. there was a garden party at the Royal Hospital, Kilmainham, given by General Lord Wolseley and Lady Wolseley, which was attended by a large number of guests; and at 8 P.M. the same evening there was a dramatic performance at the Gaiety Theatre. The theatre was crowded from pit to ceiling by guests and citizens, the National Anthem being sung on the arrival of His Excellency the Lord Lieutenant. The first play was a comic sketch written by Dr. Woods and C. W. Wilson, A.B., entitled "Botany Bay."

On Friday, the 8th inst., in the Examination Hall of Trinity College, addresses were delivered to the students by guests of the University. The chief speakers were: Professor Wilhelm Waldeyer of Berlin; Professor Cremona of Rome, who spoke in Italian; Professor Max Müller, who delivered an eloquent and interesting address; M. Leon Say; General Walker of Boston; and Professor G. Bonet-Maury of Paris. Later in the evening the Lord Chancellor gave a banquet to 150 guests in the dining-hall of the King's Inns. The toast of "The Universities of the World" was given by Professor Dowden in felicitous language and was replied to by Professor Cremona, Dr. Martens (St. Petersburg) and Baron von Richthofen. The University ball in the Leinster Hall the same evening was a brilliant and successful affair and fitly terminated the week's proceedings. Earlier in the day Lord and Lady Rosse entertained at Birr Castle a large number of Tercentenary visitors, luncheon and afternoon tea being provided. Great interest was shown in Lord Rosse's famous telescope, which was exhibited and minutely explained by the astronomer, Dr. Boedicker. The visitors, who thoroughly enjoyed their day's outing, were conveyed in his lordship's vehicles to and from the railway station, special trains being engaged both going and returning. The weather during the week, it may be added, was exceptionally good.

METROPOLITAN HOSPITAL SUNDAY FUND.

The following list is a continuation of the contributions received at the Mansion House up to Thursday last in aid of the Metropolitan Hospital Sunday Fund. The amount received up to the present is £37,100; the amount at the corresponding date in 1891 was £39,250.

	£	s.	d.
St. Barnabas, Pimlico (Rev. Alfred Gurney) .. .. .	20	10	0
Box outside Mansion House .. .. .	5	6	3
St. Mary and St. John the Divine, Balham (Rev. Thos. Bates) .. .. .	55	8	11
St. James', Hatcham (Rev. W. H. Stone) .. .. .	41	12	0
All Saints, Putney (Hon. and Rev. R. Henley) .. .. .	32	0	0
Islington Parish Church (Rev. W. H. Barlow) .. .. .	20	11	0
St. Stephen with St. Thomas Iron Church, Paddington (Rev. T. Harvey Brooks) .. .. .	100	11	11
St. Peter, Bayswater (Rev. C. N. Moore) .. .. .	100	11	8
Christ Church and St. Barnabas, North Finchley (Rev. H. Stephens) .. .. .	28	10	11
Blackheath Congregational Church (Rev. Chas. Wilson, M.A.) .. .. .	100	10	6
St. Stephen, Gloucester-road (Rev. J. P. Waldo) .. .. .	218	13	6
St. John the Divine, Kennington (Rev. C. E. Brooke) .. .. .	60	11	1
St. John's, Notting-hill (Prebendary R. Thornton) .. .. .	74	12	2
St. Agnes, Kennington Park (Rev. T. B. Dover) .. .. .	25	3	1
Wilmington Parish Church (Rev. E. Jamblin) .. .. .	22	2	6
J. J. Randolph, Esq. .. .. .	20	0	0
Harecourt Chapel, Canonbury (Rev. H. Simon) .. .. .	20	0	0
South Kensington Presbyterian Church (Rev. H. Milner) .. .. .	21	0	0
St. John the Baptist, Leytonstone (Rev. W. J. Bettison) .. .. .	20	3	4
St. Paul's, Lorrimer-square, and Missions (Rev. C. H. Simpkinson) .. .. .	30	4	0
St. James's, Norland-square (Rev. A. Williamson) .. .. .	30	0	0
Streatham-hill Congregational Church (Rev. J. P. Gledstone) .. .. .	40	1	5
East Finchley Congregational Church (Rev. H. Barron) .. .. .	20	8	1
St. John's, Deptford (Rev. E. J. Hone) .. .. .	47	0	2

"MEDICAL AID SOCIETIES AND THE PROFESSION."

In an annotation bearing the above heading on page 98 of our last issue, we stated that we should be happy to obtain a legal opinion on the points raised by our correspondents if one of the bonds in question were furnished to us. A form of agreement has been submitted on which we have, through our solicitors, obtained a legal opinion from Mr. J. W. Gordon, Barrister-at-Law, which we subjoin.

Opinion.

The agreement as to which I am asked to advise the Editors of THE LANCET is made between a medical practitioner of the one part and the trustees of an unregistered medical aid society of the other part and binds the former to serve the society in a professional capacity, giving his whole time thereto in return for a salary of one hundred and fifty pounds a year in addition to a residence and an allowance equal to three-fourths of the amount earned by him in the way of midwifery and vaccination fees. It is a special term of this agreement that the medical officer "agrees that he will not, either directly or indirectly, undertake private practice while in the service of the said Association, and on his engagement with the said Association being determined he will not, either directly or indirectly, practise as a physician or surgeon within a radius of seven miles of the surgery within a period of five (years<sup>1</sup>) from the time of his engagement as aforesaid being determined, under a penalty of two hundred pounds as liquidated ascertained damages."

These terms appear to be very onerous, but I entertain no doubt that the agreement is binding and could be enforced by the trustees. Two remedies would be open to them if the medical man were to commence practice in violation of the agreement—that is to say, an injunction to restrain the breach or a judgment for the amount of the penalty. If the latter remedy were followed they could recover the full amount—£200—of the agreed damages.

I will deal in order with the points about which I understand doubt to have arisen.

1. Although the society is unregistered, the agreement, being made with trustees, could be by them enforced.

2. There is consideration sufficient to support the agreement in the fact that the medical officer received his appointment upon these terms. This has long been settled law and was so laid down by the late Master of the Rolls (Jessel) in the case of Gravelly v. Barnard (18 L. R. Eq. 518).

3. The limits imposed are not unreasonable in respect either of space or time. So long ago as the end of the last century it was decided that a radius of ten miles and a period of fourteen years were for this purpose reasonable

<sup>1</sup> The word "years" is omitted from the copy agreement supplied to me.—J. W. G.

limits. (*Davis v. Mason*, 5 T.R., 120.) More recent decisions make it clear that no time limit need be imposed if the undertaking be reasonably limited in respect of the prohibited area.

4. The language of the clause in question is very involved and indeed ungrammatical; so much so that upon first reading I was disposed to doubt whether the meaning had been made sufficiently clear for a Court to act upon it. But upon fuller consideration I am satisfied that the intention of the parties is made clear enough. In coming to this conclusion I have borne in mind the very vague terms of a similar agreement to which effect was given in the case of *Saunter v. Ferguson* (7 C.B. 716).

J. W. GORDON.

Plowden-buildings, Temple, July 14th, 1892.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Withington Urban District.*—The annual death-rate in this local board district last year was 15·0 per 1000, a rate in excess of that which has for some years past prevailed. The zymotic rate was as low as 0·6, and no death occurred from any of the continued fevers or from small-pox. When attacks of infectious disease occurred they were promptly attended to; some cases were removed to Monsall Hospital, and local sanitary defects were dealt with. Measures are being adopted as to the disposal of refuse, but the necessary preliminaries do not appear to be settled. The ash-pit privy still retains its hold on the district, 2947 such structures being in existence; and, contrary to common experience, the scavenging is said to be perfectly satisfactory. Appended to Dr. Railton's report is a good account of the work done by the sanitary inspector.

*Epping Rural Sanitary District.*—Following upon an account of the attacks from infectious diseases, which included twenty-three of scarlet fever and fifteen of diphtheria in Chigwell alone, comes a somewhat detailed statement as to the sanitary inspections carried out during the year. The value of real isolation seems to have but little hold on the public mind, for only two cases were removed to the sanatorium. The main sanitary requirements of the district are set out by Mr. Trevor Fowler as follows:—Better houses for the working classes; better drainage for villages, hamlets and groups of houses; abolition of cesspools and connexion of houses with existing sewers; the supply of proper water in place of that derived from surface wells; the securing of certain urban powers; and the proper fitting of the sanatorium. The death-rate for the year was 16·9 per 1000.

*Whitechapel.*—Mr. Loane's district now includes a population of 74,261, and the death-rate during 1891 was 24·7 per 1000. Whilst the general death-rate is greater than that for the metropolis, the zymotic rate contrasts favourably with that for London as a whole. This must be regarded as satisfactory in view of the difficulties which Whitechapel presents. Of this class of diseases the largest number of deaths was thirty from diphtheria, a disease which is making substantial inroads on large communities. Improved dwelling accommodation is continuing to be made and 337 fresh apartments have been provided in model dwellings during the year; houses unfit for habitation have been closed, pulled down or repaired, and this on an extensive scale. Mr. Loane also gives an excellent summary of the London Public Health Act such as must be of considerable value to many residents and others who are not in touch with Acts of Parliament. Great improvements are anticipated as work progresses on the new lines indicated, and we hope Mr. Loane is right in saying that the "house sweaters" will find the Act in this respect a "terror" to them. The sanitary staff will need increasing for the steady increase in duty that is in prospect, and to this aspect of affairs attention is very properly drawn at the onset.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6362 births and 3347 deaths were registered during the week ending July 9th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 17·8 to 17·1 per 1000, was again 17·1 last week. In London the rate was 17·2 per 1000, while it averaged 17·1 in the thirty-two provincial towns. The lowest rates in these towns were 10·2 in Norwich, 10·3 in Croydon, 11·1 in Cardiff, and 13·0 in Brighton; the highest rates were 20·6 in Wolverhampton, 20·1 in Manchester, 22·1 in Liverpool, and 23·2 in Sunderland. The 3347 deaths included 503 which were referred to the principal zymotic diseases, against 477 and 486 in the preceding two weeks; of these, 161 resulted from diarrhoea, 134 from measles, 83 from whooping-cough, 49 from scarlet fever, 47 from diphtheria, 28 from "fever" (principally enteric), and 1 from small-pox. The lowest death-rates from these diseases were recorded in Brighton, Norwich, Huddersfield and Bolton; the highest in Preston, London, Leicester, and West Ham. The greatest mortality from measles occurred in London, West Ham, Birmingham, Nottingham, Leicester, Gateshead, and Halifax; from scarlet fever in West Ham, Preston, Swansea, and Plymouth; from whooping-cough in Manchester, Burnley, and Blackburn; from "fever" in Preston and in Hull; and from diarrhoea in Liverpool, London, and Leicester. The 47 deaths from diphtheria included 30 in London, 4 in Birmingham, 2 in West Ham, 2 in Nottingham, and 2 in Newcastle-upon-Tyne. A fatal case of small-pox was registered in London, but not one in any of the thirty-two provincial towns; 27 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 5 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2372, against numbers increasing from 1226 to 2211 on the preceding fifteen Saturdays; 301 new cases were admitted during the week, against 284 and 331 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 181 and 185 in the preceding two weeks, declined to 170 last week, and were 29 below the corrected average. The causes of 59, or 1·8 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Nottingham, Bradford, Leeds, and in twelve other smaller towns; the largest proportions of uncertified deaths were registered in Cardiff, Birmingham, Liverpool, Preston, and Hull.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·3 and 18·0 in the preceding two weeks, further declined to 17·6 during the week ending July 9th, but was 0·5 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·0 in Perth and 12·6 in Leith to 19·1 in Paisley and 20·6 in Glasgow. The 489 deaths in these towns included 22 which were referred to measles, 21 to whooping-cough, 7 to diarrhoea, 5 to scarlet fever, 4 to "fever," 3 to diphtheria, and not one to small-pox. In all, 62 deaths resulted from these principal zymotic diseases, against 85 and 83 in the preceding two weeks. These 62 deaths were equal to an annual rate of 2·2 per 1000, which was 0·4 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 35 and 31 in the preceding two weeks, further declined last week to 22, of which 20 occurred in Glasgow. The deaths referred to whooping-cough, which had been 27 and 23 in the previous two weeks, further fell to 21 last week, and included 19 in Glasgow. The 7 fatal cases of diarrhoea also showed a slight further decline from those recorded in recent weeks. The deaths from scarlet fever, which had been 3 and 9 in the preceding two weeks, fell to 5 last week, of which 3 occurred in Glasgow and 2 in Edinburgh. The 3 fatal cases of diphtheria showed a decline of 4 from the number in the previous week.

and included 2 in Glasgow and 1 in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had been 80 and 89 in the preceding two weeks, declined last week to 71, and were 6 below the number in the corresponding week of last year. The causes of 52, or nearly 11 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined from 31.6 to 24.6 per 1000 in the preceding three weeks, further fell to 21.8 during the week ending July 9th. During the thirteen weeks of last quarter the death-rate in the city averaged 31.3 per 1000, against 18.9 in London and 17.8 in Edinburgh. The 146 deaths in Dublin during the week under notice showed a decline of 19 from the number in the preceding week and included 13 which were referred to measles, 3 to diarrhoea, 2 to whooping-cough, 1 to diphtheria, 1 to "fever," and not one either to small-pox or scarlet fever. In all, 20 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3.0 per 1000, the zymotic death-rate during the same period being 3.4 in London and 0.8 in Edinburgh. The fatal cases of measles, which had declined from 27 to 20 in the preceding three weeks, further fell to 13 last week, a lower number than in any week since March last. The 3 deaths from diarrhoea exceeded the number in any recent week. The fatal cases of whooping-cough, which had been 5 and 1 in the previous two weeks, were 2 last week. The death referred to diphtheria was the first recorded within the city since the beginning of May last. The 146 deaths registered in Dublin last week included 27 of infants under one year of age and 31 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons slightly exceeded the numbers recorded in the preceding week. Eight inquest cases and 5 deaths from violence were registered; and 35, or nearly a fourth, of the deaths occurred in public institutions. The causes of 10, or nearly 7 per cent., of the deaths in the city last week were not certified.

#### VITAL STATISTICS OF LONDON DURING JUNE, 1892.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during the month of June in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in London during last month, it appears that the number of persons reported to be suffering from one or other of the ten diseases specified in the accompanying table was equal to 9.9 per 1000 of the population, estimated at 4,263,294 persons in the middle of this year. Owing to the epidemic prevalence of scarlet fever in the metropolis this rate shows a further increase upon those recorded in the preceding four months, which had risen from 5.1 to 9.4 per 1000. Among the various sanitary districts the rates last month were considerably below the average in Paddington, Fulham, Hampstead, Strand, St. Saviour (Southwark), St. Olave (Southwark), and Rotherhithe; while they showed the largest excess in Westminster, Holborn, City of London, Bethnal-green, Whitechapel, Mile End Old Town, Poplar, Newington, Woolwich, and Plumstead. The prevalence of small-pox showed a marked decline in London, an average of 16 cases weekly being notified in June, against 27 in May; of the 80 cases notified during last month 16 belonged to Shoreditch, 8 to Whitechapel, 7 to Islington, 7 to Lambeth, and 7 to Plumstead sanitary districts. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained 40 small-pox patients at the end of June, against 108 at the end of May; the weekly admissions averaged 11, against 29 during the preceding month. The prevalence of scarlet fever during June showed a further marked increase upon that recorded in recent months. This disease was proportionally most prevalent in Hackney, Holborn, City of London, Whitechapel, Mile End Old Town, Poplar, Newington, Woolwich, and Plumstead. The Metropolitan Asylum Hospitals contained 2117 scarlet fever patients at the end of June, against numbers increasing from 1142 to 1652 at the end of the preceding four months; the weekly admissions averaged 238, against 118, 170, and 200 in the previous three months. Diphtheria showed the highest proportional prevalence during June in Hammersmith, Westminster, Hampstead, City of London, Bethnal Green, Whitechapel, and Mile End Old Town. There were 255 cases of diphtheria under treatment

in the Metropolitan Asylum Hospitals at the end of June, against numbers increasing from 198 to 220 at the end of the preceding four months; the weekly admissions averaged 49, against 28, 33, and 41 in the previous three months. Among the various sanitary districts enteric fever was proportionally most prevalent in St. Martin-in-the-Fields, Bethnal Green, and Rotherhithe. The Metropolitan Asylum Hospitals contained 57 enteric fever patients at the end of June, against numbers steadily declining from 285 to 47 at the end of the preceding seven months; the weekly admissions averaged 10, against 9 and 8 in the preceding two months. Erysipelas showed the highest proportional prevalence during June in Marylebone, Bethnal Green, Whitechapel, Limehouse, and Greenwich.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed among the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data that can be secured upon which to calculate reliable rates of mortality. During the five weeks ending July 2nd the deaths of 6910 persons belonging to London were registered, equal to an annual rate of 16.9 per 1000, against rates declining from 24.2 to 18.8 in the preceding four months. The lowest death-rates in the various sanitary districts during June were 10.0 in Hampstead, 11.3 in Lewisham (excluding Penge), 11.4 in Wandsworth, 12.0 in Plumstead, 13.8 in Battersea, 14.3 in Hackney, and 14.4 in Islington; in the other sanitary districts the rates ranged upwards to 21.6 in Limehouse, 21.9 in the Strand, 22.2 in Mile End Old Town, 22.4 in Newington, 23.4 in Holborn, 23.7 in Whitechapel, and 29.9 in St. George-in-the-East. During the five weeks of June 1249 deaths were referred to the principal zymotic diseases in London; of these, 556 resulted from measles, 200 from diarrhoea, 187 from diphtheria, 159 from whooping-cough, 110 from scarlet fever, 31 from "fever" (including 28 from enteric and 3 from simple fever) and 6 from small-pox. These 1249 deaths were equal to an annual rate of 3.1 per 1000, against rates steadily increasing from 2.5 to 3.3 in the preceding four months. Among the various sanitary districts the lowest zymotic death-rates were recorded in St. Martin-in-the-Fields, Strand, St. Olave (Southwark), Lewisham, Woolwich and Plumstead; and the highest rates in Hammersmith, Whitechapel, St. George-in-the-East, Mile End Old Town, St. George (Southwark) and Newington. Six fatal cases of small-pox belonging to London were registered during June, of which 2 belonged to St. Luke, and one each to Chelsea, Camberwell, Greenwich, and Plumstead. The 556 deaths referred to measles exceeded by as many as 235 the corrected average number in the corresponding month of the preceding ten years; among the various sanitary districts this disease showed the highest proportional fatality in Paddington, Kensington, Hammersmith, Whitechapel, Mile End Old Town, and Newington. The 110 fatal cases of scarlet fever were 22 above the corrected average number; this disease was proportionately most fatal in Westminster and Newington. The 187 deaths referred to diphtheria were nearly double the corrected average; this disease showed the highest proportional fatality in Hammersmith, City of London, Whitechapel, St. George-in-the-East, and Mile End Old Town. The 159 fatal cases of whooping-cough were 118 below the average; among the various sanitary districts this disease was proportionally most fatal in Limehouse, St. George (Southwark) and Newington. The 28 deaths referred to enteric fever were 17 below the corrected average; this disease showed no marked excess last month in any of the sanitary districts. The 200 fatal cases of diarrhoea were 55 above the average; this disease was most fatally prevalent in Shoreditch, Whitechapel, and Mile-end Old Town. In conclusion, it may be stated that the mortality in London during June from these principal zymotic diseases in the aggregate was as much as 22 per cent. above the average, owing principally to the epidemic prevalence of measles.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 125 per 1000 during June; the lowest rates of infant mortality were recorded in St. James (Westminster), St. Martin-in-the-Fields, St. Olave (Southwark), Rotherhithe, Wandsworth, Woolwich, and Plumstead; the highest rates in Holborn, Clerkenwell, Shoreditch, Whitechapel, and St. George-in-the-East.

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—JUNE, 1892.  
(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1892.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.																
		Small-pox.	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Rhysselas.	Croup.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhoea.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.	
LONDON	4,283,224	80	2471	694	1	132	19	18	522	48	4	4039	9.9	6	556	110	187	189	—	28	3	200	1249	3.1	6910	16.9	125	
<i>West Districts.</i>																												
Paddington	119,199	—	42	14	—	—	—	—	6	—	—	68	5.9	—	37	2	4	2	—	—	—	5	60	4.4	209	18.3	135	
Kensington	163,721	1	67	21	—	—	—	—	12	—	—	110	6.7	—	34	1	3	—	—	—	—	2	50	4.4	252	15.8	141	
Hammer-smith	100,642	2	34	30	—	—	—	—	11	—	—	84	8.4	—	40	1	12	—	—	—	—	9	67	6.9	186	19.3	137	
Fulham	98,195	1	34	30	—	—	—	—	10	—	—	59	6.3	—	7	—	7	—	—	—	—	7	23	2.3	137	14.6	150	
Chelsea	97,300	2	49	15	—	—	—	—	10	—	—	79	8.5	—	11	—	3	—	—	—	—	6	26	2.8	152	16.3	131	
St. George's (Hanover-square)	76,946	—	44	15	—	—	—	—	6	—	—	61	8.3	—	10	—	3	—	—	—	—	1	23	2.3	113	15.3	123	
Westminster	55,203	—	33	27	—	—	—	—	4	—	—	68	12.8	—	2	—	5	—	—	—	—	1	15	2.8	97	18.3	141	
St. James (Westminster)	24,383	2	8	3	—	—	—	—	—	—	—	18	7.7	—	1	—	4	—	—	—	—	5	6	2.1	36	15.4	74	
<i>North Districts.</i>																												
Marylebone	140,799	—	68	30	—	—	—	—	24	2	—	130	9.6	—	8	7	4	—	—	—	—	6	29	2.1	260	19.3	140	
Hampstead	71,652	—	20	17	—	—	—	—	4	—	—	48	6.3	—	4	—	5	—	—	—	—	3	13	1.9	69	10.0	125	
St. Pancras	234,207	3	83	30	—	—	—	—	31	2	—	161	7.2	—	25	4	6	—	—	—	—	7	54	2.4	399	17.8	144	
Islington	234,451	7	114	60	—	—	—	—	47	3	—	251	8.1	—	16	4	12	—	—	—	—	21	62	2.0	448	14.4	144	
Hackney	235,370	4	180	42	—	—	—	—	23	3	—	270	12.0	—	17	8	12	—	—	—	—	7	51	2.3	322	14.3	99	
<i>Central Districts.</i>																												
St. Giles	39,071	1	18	5	—	—	—	—	7	1	—	34	9.1	—	2	—	—	—	—	—	—	2	7	1.9	63	16.8	88	
St. Martin-in-the-Fields	14,204	—	2	4	—	—	—	—	—	—	—	9	6.6	—	—	—	—	—	—	—	—	—	—	—	23	16.9	111	
Strand	24,256	—	4	3	—	—	—	—	1	—	—	10	4.3	—	—	—	—	—	—	—	—	—	—	—	51	21.9	188	
Holborn	32,912	—	26	3	—	—	—	—	4	—	—	39	12.4	—	3	—	—	—	—	—	—	—	11	3.5	74	23.4	198	
Clerkenwell	65,482	—	33	8	—	—	—	—	10	—	—	55	8.8	—	7	—	—	—	—	—	—	4	15	2.4	125	19.9	175	
St. Luke	41,850	4	25	3	—	—	—	—	7	1	—	44	11.0	—	5	—	—	—	—	—	—	—	12	3.0	82	20.4	102	
City of London	36,692	1	45	14	—	—	—	—	5	1	—	69	19.6	—	3	—	—	—	—	—	—	—	11	3.1	62	17.6	143	
<i>East Districts.</i>																												
Shoreditch	123,683	16	78	17	—	—	—	—	22	2	—	142	12.0	—	21	5	7	—	—	—	—	15	53	4.5	239	20.2	160	
Bethnal Green	139,408	3	82	33	—	—	—	—	29	2	—	160	12.9	—	27	4	8	—	—	—	—	6	55	4.4	232	18.7	133	
Whitechapel	74,853	8	57	38	—	—	—	—	16	2	—	125	17.4	—	20	4	4	—	—	—	—	8	44	6.1	170	23.7	185	
St. George-in-the-East	45,343	—	21	9	—	—	—	—	2	—	—	34	7.8	—	8	—	—	—	—	—	—	2	23	5.3	130	29.9	191	
Limehouse	57,480	1	33	7	—	—	—	—	11	5	—	61	11.1	—	9	—	—	—	—	—	—	6	21	3.8	119	21.6	145	
Mile End Old Town	107,811	3	81	27	—	—	—	—	12	2	—	132	12.8	—	23	3	9	—	—	—	—	14	57	5.5	230	22.2	129	
Poplar	167,857	—	145	42	—	—	—	—	20	3	—	222	13.8	—	34	3	5	—	—	—	—	6	57	3.5	298	18.5	119	
<i>South Districts.</i>																												
St. Saviour (Southwark)	26,973	—	4	5	—	—	—	—	3	1	—	14	5.4	—	4	—	—	—	—	—	—	4	5	1.9	50	19.3	135	
St. George (Southwark)	59,846	—	25	4	—	—	—	—	7	—	—	39	6.8	—	11	—	—	—	—	—	—	2	28	4.9	116	20.2	119	
Nevington	116,649	—	111	7	—	—	—	—	21	—	—	147	13.1	—	34	—	—	—	—	—	—	2	59	5.3	250	22.4	133	
St. Olave (Southwark)	12,787	—	6	—	—	—	—	—	—	—	—	8	6.5	—	2	—	—	—	—	—	—	—	—	2	1.6	18	14.7	70
Bermondsey	84,440	—	65	5	—	—	—	—	8	—	—	80	9.9	—	17	—	—	—	—	—	—	3	27	3.3	153	19.5	124	
Rotherhithe	39,459	—	11	6	—	—	—	—	2	—	—	25	6.6	—	8	—	—	—	—	—	—	3	14	3.7	69	18.2	86	
Lambeth	277,917	7	169	29	—	—	—	—	40	3	—	253	10.6	—	25	13	15	—	—	—	—	14	35	3.2	429	16.1	108	
Battersea	156,313	—	103	43	—	—	—	—	18	—	—	161	10.7	—	14	—	—	—	—	—	—	7	38	2.5	207	13.8	133	
Wandsworth	164,003	—	74	13	—	—	—	—	20	1	—	117	7.4	—	17	—	—	—	—	—	—	6	36	2.7	179	11.4	68	
Camden	241,465	3	176	21	—	—	—	—	20	—	—	227	9.8	—	30	—	—	—	—	—	—	8	36	2.2	314	14.9	110	
Camden (excluding Penge)	169,734	2	114	22	—	—	—	—	27	—	—	169	10.4	—	17	—	—	—	—	—	—	6	35	2.7	260	16.0	111	
Greenwich	74,673	—	40	4	—	—	—	—	9	—	—	50	7.0	—	12	—	—	—	—	—	—	1	10	1.4	81	11.3	90	
Woolwich	41,376	—	48	1	—	—	—	—	3	—	—	124	13.6	—	2	—	—	—	—	—	—	3	17	1.8	63	15.9	86	
Plumstead	91,704	7	100	—	—	—	—	—	10	—	—	124	13.6	—	4	—	—	—	—	—	—	—	—	—	—	108	12.0	74
Port of London	—	2	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

## THE SERVICES.

## THE PROFESSORSHIPS AT NETLEY.

THE question of the professorships at Netley gravely affects the interests of both the Army Medical Service and Army Medical School. Surgeon-Colonel Godwin, it will be remembered, was appointed to the Chair of Military Surgery at Netley in succession to Sir Thomas Longmore, C.B. It has been decided that Surgeon-Colonel Godwin is not to draw the pay and allowances of his rank, but those of the professorship he holds; and as there is a considerable difference between the two, Surgeon-Colonel Godwin not unnaturally objects to be subjected to a serious pecuniary loss for the honour of being Professor of Military Surgery at Netley. Owing to the death of Sir William Aitken, the appointment of Professor of Pathology is also vacant. No officer of the Medical Staff has probably the same claims to the appointment, on the score of ability, special knowledge and previous training as assistant professor of the subject, as Surgeon-Colonel F. H. Welch; but the decision in the case of Surgeon-Colonel Godwin is applicable to both cases alike and governs the decision of the officers in question. Surgeon-Colonel Godwin resigns his professorship and Surgeon-Colonel Welch declines to accept that of pathology without the emoluments of his present rank. It is understood that the former officer reverts to the service and goes to India, and the latter will probably proceed to the Devonport district as principal medical officer. This will deprive the list of brigade surgeons of two steps of promotion. It seems probable that a civilian will have to be selected for the chair of Pathology in succession to Sir William Aitken; but we may assume that his chair of Military Surgery cannot be filled by anyone but a military medical officer with the requisite rank, reputation, experience and qualifications for such an appointment. It is a very laudable ambition for a medical officer to desire to fill a professorial chair at the Netley school and it seems to be distinctly in the interest of the public service that such appointments should be regarded as prizes for medical officers. It must surely be a wise policy to encourage medical officers to maintain and develop a high standard of professional knowledge and efficiency and to strive to qualify themselves for appointments in their own special institutions.

## THE ROYAL UNITED SERVICE INSTITUTION.

A good deal of interest has been displayed of late in regard to the financial position and prospects of the Royal United Service Institution. The institution has done good work in the past. We can recall some excellent lectures delivered within its walls by the late Professors Parkes and De Chaumont, and in these days, when army hygiene and the application of modern medicine to modern war are matters of great interest, there must be a number of subjects on which medical officers are well qualified to speak. An institution of the kind should bring together representatives of all branches of the service and be instrumental in disseminating much useful information on various subjects which dovetail into one another in naval and military services. The powers of the institution in this direction might possibly be further developed. Courses of lectures of a thoroughly practical kind might be given by experts on a variety of subjects not only to officers, but to non-commissioned officers and men of the Army, Militia and Volunteer forces. It has been urged that the medical services should support the institution by joining it in larger numbers than they at present do.

## MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Captain Sawyer has been granted leave from Gibraltar. Surgeon-Captain H. Adamson has re-embarked for Bombay. Surgeon-Captain C. G. Woods has rejoined at Portsmouth, from sick leave. Surgeon-Captain Bostock has resumed his duties in London, on return from Pirbright. Surgeon-Lieutenant-Colonel Finlay has left Aldershot on leave. Surgeon-Lieutenant-Colonel Beamish has been appointed to the Royal Arsenal, Woolwich, in succession to Surgeon-Major Murphy, deceased. Surgeon-Lieutenants Mitchell, Hennessy and Tyacke have reported themselves at Chatham for duty in the Thames district. Surgeon-Captain Burke has rejoined at Colchester, from leave. Surgeon-Lieutenant Dunn has joined at Woolwich for duty. Surgeon-Colonel Jameson has arrived from Egypt, on sick leave. Surgeon-Captain Reckitt has left Shorncliffe on leave. Surgeon-Captain Freyer has rejoined at Belfast. Brigade-

Surgeon-Lieutenant-Colonel O'Brien has left Dublin, on leave of absence. Surgeon-Captain Baylor has proceeded to Kilkenny for duty.

By the death of Surgeon-General Hassard, retired pay, a good-service pension becomes available for disposal. As Surgeon-General Hassard obtained this pension whilst on the effective list the recipient of the vacant distinction will presumably be a full-pay officer.

## INDIAN MEDICAL SERVICE.

Surgeon-Captain H. A. de Lom, M.S., is attached to the Station Hospital, Colaba, for duty. — Surgeon-Captain H. W. G. Macleod, M.B., 19th (Punjab) Regiment of Bengal Infantry, has been permitted to resign the service from April 25th, 1892, subject to Her Majesty's approval. — Surgeon-Captain T. Grainger is appointed to officiate as Civil Surgeon at Champaran during the absence, on deputation, of Surgeon-Major E. Bovill. — Surgeon-Captain J. G. Jordan is appointed to act as Civil Surgeon of Jessore. — Surgeon-Captain W. H. M. Ingham, on expiration of sick leave, is ordered to do duty in Rangoon district. — On return from deputation duty with the Government of India, Military Department, Surgeon-Captain W. G. Thorold is appointed to the civil medical duties of the Kheri district.

NAVAL MEDICAL SERVICE.—The appointment of Principal Medical Officer at Melville Naval Hospital, Chatham, rendered vacant by the transference of Deputy-Inspector-General T. S. Burnett to Jamaica, has been conferred by the Admiralty on Deputy-Inspector-General Belgrave Ninnis, M.D. — Staff Surgeon A. L. Christie, M.B., has been appointed to the *Naiad*; Fleet Surgeon T. M. Clement, M.D., to the *Clyde*; Surgeon J. O. B. Williams, M.B., to the *Iron Duke*; and Surgeon J. J. Walsh to the *Bramble*.

MILITIA MEDICAL STAFF CORPS.—Hants Company: Surgeon-Captain Walter Scott Warlters from Norwich Company Volunteer Medical Staff Corps to be Surgeon-Captain (dated June 29th, 1892).

VOLUNTEER CORPS.—*Artillery*: 1st Devonshire (Western Division, Royal Artillery): Charles Frederick Rudd, Gent., to be Surgeon-Lieutenant (dated July 9th, 1892). — 2nd East Riding of Yorkshire (Western Division, Royal Artillery): Surgeon-Lieutenant Albert Wilson to be Second Lieutenant (dated July 9th, 1892).

## Correspondence.

"Audi alteram partem."

## "ASPIRATION IN PNEUMOTHORAX."

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me a few lines in reply to the letters in THE LANCET of July 2nd by Professor Gairdner and Dr. Guthrie on the above subject. Dr. Gairdner asks how it was ascertained that no air passed out of the pleural cavity on simple puncture. This conclusion was arrived at from the facts that no rush of air was to be felt, that no movement was communicated to a piece of wool held over the end of the hollow needle and that no change in the position of the displaced heart could be made out. Dr. Gairdner further infers that if air passed out of the pleural cavity by means of aspiration "it would also pass out without the aspirator to such an extent as was needful to relieve pressure." What pressure is meant? The fact that no air escaped after simple puncture indicated clearly that the intra-pleural pressure was not greater than that of the atmosphere, and that therefore relief could come only by slow re-expansion of the retracted lungs, which would allow of the heart swinging back towards its normal situation and thus free the embarrassed circulation. Dr. Gairdner says that in time this would have taken place, but he seems to forget that the patient was so collapsed that full inspiratory movements were not to be expected, and that syncope from cardiac displacement was imminent. In Dr. Gairdner's very successful case, to which he refers, the conditions were entirely different, for there was a rush of air out of the pleural cavity immediately on puncturing with, presumably, instant relief to the urgent symptoms. On the other hand, what was the object in aspirating? Dr. Gairdner erroneously assumes that it was "remove to the whole or the greater part of the air." I hoped by

aspiration to produce such an exhaustion of air in the pleural cavity as would allow of the re-expansion of the *sound* lung, with return of the mediastinum and heart towards their normal position, and as soon as this was affected the needle was withdrawn. This hope was based on the now generally accepted teaching of Dr. Douglas Powell that "the primary cause of displacement of the heart in pneumothorax is not air pressure acting from the diseased side, but lung traction acting upon the healthy side"<sup>1</sup>. Dr. Gairdner seems to imagine that my routine treatment of pneumothorax is by aspiration, but I tried to show in my paper that it was adopted as a last resort to relieve cardiac asthenia, after rest, stimulants, time and finally puncture had failed.

Having tried to reply to the criticisms of Dr. Gairdner on my employment of aspiration in this case I must now consider Dr. Guthrie's advocacy of more frequent aspiration than I ventured to employ, owing to my belief that compression and rest of the lung are beneficial in phthisis. In discussing the pathology Dr. Guthrie confines his attention to the retracted, healthy portion of the lung, which he believes to be adapted for the inroad of the tubercular virus, but ignores the altered condition of the portion of lung which is already phthisical. Before the onset of pneumothorax a consolidated area, except at the extreme apex, is prevented from natural healing by contraction, owing to the rigid chest wall and the traction by the sound part of the lung during inspiration. If rest be secured to the lung by pneumothorax, and if the rigid wall be replaced by an elastic body such as air, nature may then get her opportunity and complete the cure by contraction and cicatrization. Dr. Guthrie further considers pneumothorax a pure accident, and by no means an indication of active phthisis. While this may be true exceptionally, as in the case of a ruptured emphysematous area, it is not generally so. Professor Gairdner has shown<sup>2</sup> that the progress of tubercular disease in the lungs is accompanied by a plastic inflammation of the neighbouring pleura and that the resulting pleuritic adhesions are often in advance of the actual deposit of tubercle near the surface. Were it not for this "curious and beautifully conservative arrangement" pneumothorax would be the rule and not the exception in phthisis, and its occurrence is usually to be explained by the rapid advance of the disease before pleuritic adhesions have had time to form.

I am, Sirs, yours obediently,

Carlton-hill, N.W., July 11th, 1892. G. A. SUTHERLAND.

### "TOOTH CULTURE."

To the Editors of THE LANCET.

SIRS,—Innate imperfections in the tissues, especially in enamel, form the prime factor in the etiology of dental caries, and there exists enough evidence to prove that these imperfections are in the main due to evolutionary and hereditary influences. In all civilised races the size and strength of the whole apparatus of mastication—jaws, muscles and teeth—are inferior. Professor Flower showed some years ago, after examination and measurement of many thousands of specimens, that there is gradual diminution in the size of the teeth from the anthropoid apes through the lower races of man to the European. He constructed a "dental index" and in this the average size of the teeth of the gorilla was represented by 50.8, the Tasmanian by 47.5; other savage and primitive races held intermediate positions, and the European stood at 40.5. Striking evidence of the influence of heredity is afforded daily in dental practice. Nothing is more common than to find in members of the same family jaws and teeth of one general type of quality. Very often the characters are derived from one parent alone—boys "taking after" the mother, girls after the father—and not only does it seem certain that a type of jaw is transmissible but also that a small local deformity or a mal-development of a portion of the maxilla may be passed on to succeeding generations. A tooth or two in the set will also often be found irregularly placed in a parent and some of the progeny; in other instances teeth are to be found presenting in exactly the same situations in parent and child flaws or patches of inferior enamel. It is not uncommon to meet with a mother having first-rate dental tissues who brings forth children whose teeth are inferior and bear the closest resemblance in form and structure to those of the father, and he may be

perfectly healthy and free from any physical defect except the dental.

There can be no doubt that enamel and dentine when once fully calcified are not the seat of physiological activity and do not undergo processes of waste and repair. It must be therefore futile to attempt by therapeutic means the prevention of caries by improving the quality of enamel after formation of that tissue. The exteriors of the crowns of all the temporary teeth—from caries of which children suffer so much—are formed at birth; and these teeth can therefore be influenced only through the mother. By the same time the permanent first molars, incisors and canines are so far advanced in development that it is open to doubt whether later treatment can have any effect upon their enamel. That hereditary disease is capable of influencing the development of enamel and dentine has been proved by the observations of Mr. Hutchinson, and, although the typical teeth which he has described are discoverable in only a small percentage of children, unquestionably syphilitic, their occurrence clearly shows that ill-made teeth may result from a constitutional taint. A considerable variety of malformed teeth with pitted rocky ridged or spinous surfaces, commonly classed as "honeycombed" teeth, are frequently met with and are often mistaken for syphilitic teeth. The defects of these teeth are due to causes acting upon the enamel during calcification; probably some form of stomatitis implicating the tooth-sacs in earliest infancy. Mr. Hutchinson has adduced much evidence to prove that the stomatitis in many instances is caused by administration of mercury immediately after birth. It seems sufficiently obvious that if "tooth culture" is to be practised on a rational basis measures must be in the main directed to the improvement of the race. Strict observance of the laws of health will tend to produce good teeth in the nation, and among these laws must be included one insisting upon the use of articles of diet which shall give due exercise to the muscles of mastication and prevent them and the bones to which they are attached from wasting. Such exercise begun early enough may do good in the individual by stimulating the development of the maxillæ and preventing crowding and irregularity of the teeth—a fruitful cause of decay. Crowding leads to lodgment of debris which fermenting produces acid, the indispensable agent in dental caries. It is not likely that dental surgeons will agree with Dr. Harry Campbell, who in THE LANCET of to-day recommends that children should be encouraged to crack nuts with their teeth in order to exercise their jaws, but there is no difficulty in arranging a child's dietary during the whole period of dentition so that articles of food—such as stale crusts and hard biscuits—may be introduced which shall give the masticating apparatus enough work to ensure a more vigorous development than is likely to follow the exclusive use of soft bland substances which require no chewing whatever.

I am, Sirs, yours faithfully,

Wimpole-street. July 9th, 1892.

HENRY SEWILL.

### "ON ACTINOMYCOSIS OF THE FOOT, COMMONLY KNOWN AS MADURA FOOT."

To the Editors of THE LANCET.

SIRS,—I regret that Mr. Hewlett was not present at the meeting of the Pathological Society when I showed two specimens of Madura disease in the hand and foot, as had he been present he might have saved himself the trouble of criticising "statements which I have been reported to have made."<sup>1</sup> On the meagre evidence of a short report he credits me with having said "actinomycosis bovis cannot be stained by Gram's method unless the saponaceous and calcareous matter be first removed." I certainly did not make any dogmatic statement of this nature. What I did say was, "that at times the fungus masses are so calcified (or saponified) that it is impossible to recognise them as actinomyces until the calcareous (or saponaceous) matter has been removed." This was meant to apply not to actinomycosis bovis alone, but to actinomycosis generally, whether bovis, suis, or hominis. Anyone who has had extensive experience of actinomycosis must have met with cases not unfrequently where no fungus structure could be made out on account of advanced calcification, and where after careful treatment with hydrochloric acid and alcohol the typical structure of the ray-

<sup>1</sup> Medical and Chirurgical Transactions, vol. lix., p. 186.

<sup>2</sup> Clinical Medicine, pp 397, 398.

<sup>1</sup> THE LANCET, July 2nd, 1892, pp. 18 and 19.

fungus was beautifully exhibited. This is especially common in the pig and the calf, but applies equally to man and the ox. When, therefore, Mr. Hewlett asserts that in "all" cases of actinomycosis bovis Gram's method, with or without previous decalcification, will give brilliant results, I can only explain this on the assumption of a limited experience on his part or of extremely good fortune. When calcification is advanced there is in fact nothing left to be stained by Gram's method, and we can only hope after decalcification to find the mycelial elements which enable us to diagnose the nature of the affection by means of appropriate stains. There are also other inaccuracies in Mr. Hewlett's paper. It must be many years ago that there was the slightest "hesitation in fully recognising the identity of actinomycosis hominis and actinomycosis bovis." For shortly after J. Israel's researches this identity was acknowledged. Whether the fungus is one and the same for the two forms is an open question even now; we may have to deal with varieties of the same species. The difficulty in recognising the identity of mycetoma and actinomycosis cannot and does not lie "in the presence of a network of filaments and the apparent absence of the club-shaped bodies," but it lay in the apparent dissimilarity of the yellow and black forms of the Indian fungus. This latter circumstance has always been the obstacle to accepting Dr. Vandyke Carter's view that mycetoma is a parasitic disease. As a matter of fact the filamentous network in the yellow form was not clearly recognised by Dr. Carter himself, while almost every observer acknowledged its presence in the black form. In a paper which will shortly appear I hope to give unequivocal proof of the actinomycotic nature also of the black variety of mycetoma; a specimen of this form, obtained from the St. Bartholomew's Hospital Museum, showing both clubs and mycelium beautifully.

As far as my experience goes—and this is the usual experience—in cattle the clubs are absent as frequently as in man. But are the rays of any importance in the diagnosis of the fungus? By rays or clubs I mean with others the well-known hyaline fringes in which the mycelial filaments disappear. I cannot understand on what or whose authority Mr. Hewlett asserts that "in cattle the rays readily stain with Gram's method, while there is a central area which as a rule remains unstained." In actinomycoses, whether in man or in cattle, the central mycelial zone, the true and typical fungus elements "always" stain with Gram's method, but the hyaline clubs "never" do; in fact they refuse any nuclear stain. In older specimens we find that the filament which disappears in the ray is often distinctly clubbed, and naturally stains with aniline gentian violet, but these club-like endings are not what we call "rays or clubs." The pleomorphism, as I also pointed out at the Pathological Society, was established by Israel, Wolf, Bostroom, and others some years ago; but this pleomorphism does not apply to the rays, for it is now acknowledged by all competent mycologists that the hyaline rays are of no morphological or biological importance, and are probably due to some degenerative changes. The extraordinary differences in the staining reactions of the human form from those of the bovine form are certainly new, and require confirmation. Yet another inaccuracy I must draw attention to. Mr. Hewlett speaks of "the apparent absence of the club-shaped bodies in Madura disease." This assertion is perhaps excusable, as in his "one" specimen they seem to have been indistinct. As a matter of fact, as I pointed out at the same meeting, in most cases the clubs are so very well marked and so gigantic, compared with the forms met with in actinomycoses more familiar to us, that it led me to believe that the Indian fungus is not identical with the European form—perhaps a variety of the same species. Drs. Lewis and Cunningham also generally observed tall, fringe-like processes.

In a future publication, to which I have already alluded, I shall enter more fully into the morphology and biology of the Indian fungus and its relation to our forms of actinomycoses. I felt it incumbent on me to correct a few statements which "report" laid at my door, and also with a concluding word to correct yet another statement which I am reported to have made—viz., "that Madura disease is undoubtedly due to a fungus, and that this fungus is identical in its staining reactions with actinomycoses." As in my forthcoming paper I am giving Dr. Carter all the credit he merits for his original suggestion as to the identity of the Indian and European diseases, I hope it will not be thought that I am attempting to claim priority when I reply that at the meeting of the Pathological Society I said that the fungus found in the yellow form of

mycetoma was not only "tinctorially" but also "morphologically and biologically" a form of actinomycoses. At that time, however, I had no absolute proof as to the exact relation existing between the ochroid and the melanoid masses, and could not go further than suggest the actinomycotic nature of the black variety, which now, as I hope to show, thanks to the kindness of Mr. Edgar Willett, who supplied me with the necessary specimens, is likewise established. Other inaccuracies of Mr. Howlett with regard to literary references and the morphology of the fungus I shall pass over, as they are outside the purpose of this letter. I apologise for having occupied so much space, but I found it necessary to defend myself against a criticism based on a mere "report," which might have been obviated if Mr. Hewlett had thought fit to learn my actual statements at their proper source.

I remain, Sirs, yours truly,

A. A. KANTHACK, M.B., M.R.C.P.,  
John Lucas Walker Student in Pathology,  
Cambridge University.

Cambridge, July, 1892.

## PUBLIC HEALTH AND THE NEW PARLIAMENT.

To the Editors of THE LANCET.

SIRS,—It has long been admitted that a Minister of Public Health would be a desirable addition to the Cabinet. Would not therefore the appointment as President of the Local Government Board of some suitable medical M.P. to an extent accomplish this. Such an appointment might eventually lead up to the creation of a special Minister of public health. The time being opportune I have ventured to draw attention to the question, trusting the opinion of the profession will be forthcoming on the matter.

I am, Sirs, yours faithfully,

July 12th, 1892.

C. E. ABBOTT, L.R.C.P.I., M.R.C.S.

## DANGERS IN RESCUING THE DROWNING BY THE POLE ("AXE") DRAG.

To the Editors of THE LANCET.

SIRS,—It is alleged that in 1884 an unfortunate foreigner, who had tumbled into the water at Havre, whilst his rescue was being attempted by an intended life-saver armed with the clumsy, cumbrous pole-drag, or say rather "pole-axe" drag (as still recommended by our Royal Humane Society), was fatally struck on the head by the well-meaning rescuer. The Royal Humane Society's practically non-portable pole-drag measures 19 ft. 10 in. in length. Its metal pole-head is about 20 inches across, weighing 3 lb. 10½ oz. This head terminates in three double sharp-pointed hooks or flukes. This pole-drag, with its long 18 ft. ash-pole, weighs about a further 7 lb., so, in all, the present pole-axe-drag of the Royal Humane Society weighs approximately about 11 lb. But in using it, as the chief weight is at the bottom, the leverage or pendulum swing practically brings out a still heavier weight. I am anxious to learn if any of your correspondents can kindly inform me of other fatal accidents alleged to have occurred in attempts to rescue the drowning by the unwise use of the pole-axe-drag of the Royal Humane Society. Lieutenant Brunel has invented a pocket life line having thirty yards of cord. Its grapnel and float only weigh 5 oz. He has also invented a coastguard life line with a grapnel weighing 4½ oz., a long wooden float serving as bobbin or reel, weighing 2½ oz., and further 46½ ft. of stout cord weighing 5½ oz. or in all 12½ oz., whilst the leather case and strap weigh 4½ oz. Therefore the entire apparatus, including the case, weighs only about 17½ oz. It is to be hoped that the Brunel system of life-saving will be adopted and introduced into this country, where it is neither patented nor protected. Instead of the former dangerous pole-drags, upwards of 3000 Brunel life lines are now used in France saving over 250 lives a year. Invented in 1874, the Brunel portable life lines have already rescued upwards of 1300 lives in France and her colonies. The cost of the apparatus, though infinitely more efficient and portable, amounts in France to less than a third of the price charged for the apparatus at present recommended by the Royal Humane Society.

On June 13th, 1892, at the Swimmers' Life-saving Society, I exhibited, side by side, the life-saving appliances of the Royal Humane Society and those also on the Brunel system.

The latter were generally approved. In a subject of such vital importance as the rescue of the drowning, it is for the public, who are the patrons and subscribers of the Royal Humane Society, themselves to decide which system is the more efficient and economical.

I am, Sirs, yours faithfully,  
J. LAWRENCE HAMILTON, M.R.C.S.,  
Late Honorary President, Fishermen's Federation.

Brighton, July 11th, 1892.

## HEALTH EXHIBITION IN NOTTINGHAM.

To the Editors of THE LANCET.

SIRS.—Our scheme for holding an exhibition of sanitary appliances in connexion with the annual meeting of the British Medical Association in Nottingham, and under the joint Patronage of the association and the Nottingham corporation, seems likely to prove a success. Thirty-six important firms, including Messrs. Allen, Anidjah, Billington, Bostel, Chorlton, Cliff, F. Cooke, Danks, Duckett, Farmiloss, Foster and Cooper, Henry, Hughes and Lancaster, Jennings, Longford (bedding) Co., Merryweather, Parker and Hassall, Sanitas Co., Sollory and Son, Tylor and Sons, Watts and Whitfield have engaged spaces and paid their deposits. The stalls are 420 feet in length and have a uniform width of eight feet. As already announced the Nottingham corporation have lent the covered and wood-paved yards (measuring 100 feet square) at the rear of the Guildhall and are laying the necessary water mains. The patent jointed drain pipes of Messrs. Parker and Hassall will be laid under the stalls and connected with the nearest street sewer. This complete system of water supply and drainage will enable all working hydraulic apparatus to be shown in operation. The president of the British Medical Association, with the Mayor of Nottingham and Sir Walter Foster, will perform the opening ceremony at 11 A.M. on July 26th. Certificates of merit in three classes will be awarded to deserving manufacturers or inventors. Twelve representative gentlemen from London and the provinces have consented to act as judges of exhibits.

I am, Sirs, yours faithfully,  
Nottingham, July 11th, 1892. PHILIP BOOBYER, Hon. Sec.

## THE FRENCH WORKMEN'S SANITARY CONGRESS.

(FROM OUR SPECIAL CORRESPONDENT.)

THE third sitting of the Congress was presided over by M. Audinet, delegated by the Municipality of Châtelleraut, with delegates of the Paris and the Angers Labour Exchanges as vice-presidents.

M. Prudent Dervillier, member of the Paris Municipal Council, reopened the discussion on the food of the working classes. He complained of the insufficiency of the French law with regard to the prevention of adulteration. The analysis of articles offered for sale as food must be made through inspectors appointed by the police; thus nothing was done except under the direction of the Prefect of Police. Sanitary reformers took no initiative in the matter. It was not necessary to insist on the evils that result from leaving everything to the initiative of the chief police official, who was not of necessity a competent hygienist. It was a subject for which the working classes should demand special legislation. There should be penalties sufficiently severe to act as a deterrent on those who sought to adulterate food. Then there should be a service of inspection that did not depend exclusively on the Prefecture. The local authorities should have a voice in the matter and consumers ought to possess the means of obtaining an analysis of a suspected article without having to pay an extravagant fee. On all these questions the example of the English Legislature was well worth studying. The English laws against adulteration were far from perfect, but they were infinitely superior to those existing in France. There were now forty-two public analysts for the metropolis of London, whereas in Paris there was only the one municipal laboratory. As the number of analyses made increased the proportion of articles found to be adulterated decreased. In 1872 the proportion of articles proved to be adulterated was equal to 26 per cent. of those that were examined and in 1880 it was only 17.47 per cent. The English law sanctioned the

imposition of heavy fines and in some cases of imprisonment with hard labour.

If in England results which, though not perfect, served as an encouraging example had been attained, it would be a great mistake to imagine that this was in any way due to the initiative of the English Government. It was due, on the contrary, to the courageous, bold initiative of individual Englishmen. It was not the custom of the Possibilist party to praise individuals, and they were on principle strongly opposed to all forms of hero-worship. There were circumstances when it was useful to point out what one man could do when inspired by the love of the public good. It was impossible to deal with the question of the prevention of food adulteration in England without describing the initiator of this great reform, the late coroner for Middlesex, Mr. Wakley, M.P. Besides, no name could be more appropriately mentioned at such a Congress as the late Mr. Wakley was one of the early champions of the people's cause. It was as far back as 1850 that Mr. Wakley began his campaign. Then adulteration was so much the practice, even among what were considered the most respectable tradesmen and manufacturers, that there was good reason to believe the death-rate was seriously affected. The late Mr. Wakley took upon himself alone to break down this dangerous system of fraud and robbery, though warned by all his friends that such an unequal struggle would entail his ruin. He established a chemical laboratory, sent two persons to buy samples, and, so that his good faith should not be doubted, divided these samples and left one-half in a sealed packet with the tradesman. He then published in his journal, THE LANCET, the result of the analysis. The tradesmen thus detected and denounced were thrown into a wild state of terror and indignation. But the public gave enthusiastic support. Finding that the law was of no service several tradesmen armed themselves with sticks and lay in waiting; but Mr. Wakley had the advantage of being an athlete, and in this respect also had the best of it. French workmen were too indolent and wanting in personal initiative; they were always afraid to complain and were for ever waiting for the Government to come and help them. For this reason the history of Mr. Wakley's endeavours was a useful example. Mr. Wakley had shown that, for instance, out of twenty samples of tea, twelve were false and mixed with poisonous substances. Even opium and other medicaments were adulterated. Of course coffee, pepper and numerous other articles offered a wide field for fraud. They now wanted to render justice to the memory of the man who made these facts matters of public notoriety, who had raised public opinion and had created such an agitation that the government of England was compelled to legislate on the matter. The son and grandson of the late Mr. Wakley were now continuing in these good traditions. It was most important that such independent organs as THE LANCET should exist. The speaker wanted to particularly call the attention of the Congress to the position of the proprietors of THE LANCET. They considered themselves in honour bound and pledged themselves to have no business or financial interest whatsoever in the matters that might be mentioned in the journal. Thus THE LANCET was absolutely independent and free to criticise all and every one. It was a great misfortune that no such independent organ existed in France. All the French papers had business interests to promote and could not follow suit and create a movement such as had arisen in England and which had resulted in the Food and Drugs Act and the Sanitary Act of 1875. Had such a thing been possible in France the lives of thousands and thousands of French workers would have been saved. Yet everyone present at the Congress might attempt, though of necessity on a smaller scale, to follow the example given by the late Mr. Wakley and boldly attack the adulterators. "Let us follow the example of this good English citizen who created the movement that rendered legislation possible and brought about the adoption of those English laws which, with all their imperfections, have nevertheless given some guarantee that the food sold is wholesome, and which have to a notable extent reduced the prevalence of adulteration. We shall then have better food and with better food wiser minds. We shall then be able to judge better and act with greater ability. The workers will more successfully study the causes of their poverty and be in a better position to solve the social problem."

This speech, of which I have given but a summary, was greeted with more than the usual applause. M. Fabré, a journeyman baker from Versailles, followed. He thought the Congress had not given enough attention to the question

of the spoil or inferior flour which was used for bread. At the military and other depôts such deteriorated flour was sold at a very low price. What became of it? Measures should be taken to see that it was not used for human food and that it should only be given to cattle. With regard to the 10 per cent. of water over and above the normal quantity so often found in bread the speaker did not think this was added purposely. It was far more profitable to reduce the cost of labour. Journeymen bakers were made to load the oven so frequently that they had not the time to knead the dough properly. Then, as a further economy, the loaves were crowded so close together in the ovens that there was not space enough to bake them properly. To this was due the high percentage of water found. Men who worked fifteen and sixteen hours in a day could not be expected to make bread well, that is carefully and laboriously. The hours of labour should be limited and the output per man per hour very much reduced; then the bread would be well and wholesomely made. The delegate agreed that the municipality ought to compete against private bakeries, but it would be a mistake to create one large central municipal bakery. The cost of delivering the bread might amount to 10 per cent. of the total cost of producing it, while that of labour would not be more than 6 to 7 per cent. It was much more practical to have a number of small local municipal bakeries and thus the expense of delivering the bread would be very materially decreased. For about £100,000 the municipality could start 120 different bakeries in various parts of Paris, where the journeymen bakers would not be overworked and where genuine, cheap bread could be sold.

M. Heppenheimer, municipal councillor, was anxious that an independent and purely scientific authority should be organised to check adulteration instead of the present police authorities.

M. Caumaud, municipal councillor, apologised for the small wine dealers. They were not the worst culprits, though they certainly did add water to their wine. It was the intermediary merchants who should be watched.

Dr. Paul Brousse, municipal councillor and reporter on this question, urged that the law protected the wholesale merchants while prosecuting the retail dealer. It was only when an article was offered for sale that proceedings could be taken, so it was quite safe to adulterate in a wholesale manufactory. At the wine docks of Bercy the cost would be too great, in consequence of the entrance dues, to adulterate wine. The intermediary firms were the real culprits. They advanced small sums to individuals so that the latter might open retail wine shops. The sum advanced was generally insufficient, the retailer had to borrow more, and in doing so had to accept adulterated wines. When the retailer was caught it was the intermediary merchant who paid the fines and continued to supply bad wines. The law should be able to trace the wine back to this intermediary and thus reach the real culprit.

The Congress now proceeded to discuss the second question—namely, the feeding and rearing of workmen's children, or as it was put, the milk question—*la question de l'allaitement*. M. Caumaud reported and said he did not propose to deal with children above the age of two years. The high rate of infant mortality was due to our present bad social organisation which tore children away from their mother's breast. The number of mothers who abandoned the hope of suckling their own children was daily increasing. The child which was the product of a difficult gestation due to excessive toil, prolonged till the eve of its birth, came into the world weak and unhealthy. The mother, anxious to return to the factory or the workshop, sent the infant off to some distant provincial baby farm, where it was almost certain to die. A great step had been accomplished by the humanitarian law of May 23rd, 1874. This law, instituting a system of inspection over all who had charge of children, was more rigorously applied in the neighbourhood of Paris than elsewhere and statistics showed with what beneficent results. The mortality of infants under one year old was 18.44 per cent. in the period from 1868-1872. It fell to 16.72 per cent. for the years 1878-1882, and does not now exceed 15 per cent. This was a clear demonstration of the advantage of legislative interference. M. Caumaud insisted on the duty of mothers to suckle their own children. In the upper classes mothers sought to avoid this responsibility. They were too fashionable to suckle their own children and gave them over to the care of hired wet nurses. This was against nature's laws and should not be allowed. As a result

it often happened that either the nurse contaminated the child or the child contaminated the nurse. Many peasant women had caught syphilis through nursing Parisian children. The results of artificial feeding were even more disastrous. In Paris of the assisted infants of the poor the proportion of deaths in 510 of children fed from the breast was 4.90 per cent. and of 669 fed from the bottle 9.56 per cent. In the suburbs of Paris out of 1634 infants fed from the breast 6.36 per cent. died, and out of 1389 fed from the bottle 12.45 per cent. died. M. Caumaud urged that long tube bottles should not be allowed. He proposed that as £600,000 had been spent to build the prison of Nanterre for criminals and vagabonds, at least £400,000 might be spent to create near Paris a vast establishment which would serve as a maternity, where mothers could live with their infants for at least two months after the birth of the child, instead of being driven away in five days, as is done at the hospitals.

Madame Bertier did not like the idea of such vast agglomerations. Nature demands that children should remain with their mothers, and if mothers could not afford to keep their children with them, then sufficient out-door relief should be given to avoid the necessity of separating mother and child.

M. Vallet protested that this was true enough in principle, but in practice many mothers were much too poor and too ignorant to rear their own children. The recommendations given with regard to the precautions for the milk would not be understood; and till such time as the lower labouring classes were better educated and better paid institutions such as had been suggested by M. Caumaud would render great service. Naturally it would be better to keep mother and child together, on condition that the mother did not live in some overcrowded, filthy and insalubrious garret.

The Congress then adjourned.

Paris, July 11th.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *The Infirmary and Owens College.*

FOR a long time the question has been agitated whether the Royal Infirmary should accept a site on the Stanley Grove estate, which has been given to the Owens College by the trustees of the late Sir Joseph Whitworth, and should thereon erect a new infirmary. It has been urged that the present building is insufficient and antiquated, and that the site offered by the Owens College would be more suitable, being quieter in its surroundings and about a mile and a half from the centre of the town, for building a new hospital, and that it would be rather more convenient for students inasmuch as it is nearer to the Owens College. On the other hand, plans have been prepared for the enlargement of the Royal Infirmary or the erection on the same site of a new hospital with greater accommodation. These proposals will shortly be laid before a meeting of the trustees of the infirmary. Meanwhile the board of management have refused the offer of the Owens College for a building site on their property. Any scheme for increasing the bulk of buildings on the present site, which is in the centre of the city, will be strongly opposed by many people, who consider that the ground now surrounding the buildings should be preserved as an open space for the general benefit of the town.

### *The late Professor Schorlemmer*

Professor Schorlemmer, F.R.S., who held the chair of Organic Chemistry in the Owens College, died on June 27th. The deceased gentleman, who will be long remembered by many old medical students, became attached to the College in 1861 as assistant to Professor Roscoe, and in 1874 was appointed Professor of Organic Chemistry. He wrote a manual on the chemistry of the carbon compounds and, together with Professor Roscoe, an extensive treatise on chemistry.

Manchester, July 6th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Health of Newcastle City.*

DR. H. E. ARMSTRONG (our medical officer of health) has just issued his annual report on the sanitary condition of this city, with tabular reports of the sickness and mortality of the

past year. The returns show reduction in the general rates of births and deaths per 1000 population of all ages, and the former have fallen from 40·5 in 1890 to 35·7 in 1891. The latter have declined from 26·2 to 23·6, notwithstanding the increased mortality from the last six weeks of the year, which attained the average of 35·8 per 1000. The rise is all the more striking from the fact that the average rate for the preceding six weeks to Nov. 21st was only 21·9 per 1000. The principal factors of this abnormal state of things, Dr. Armstrong says, were undoubtedly diseases of the respiratory organs with or without influenza. By far the most fatal infections have been measles and whooping-cough. These together caused 307 of a total of 478 deaths from zymotic diseases and diarrhoea. Small-pox has been entirely absent, and no death from typhus fever has been recorded during the year. Dr. Armstrong shows very forcibly that measles (of which the sanitary department has no official knowledge except from the registrar of deaths, when it is too late to benefit by the information) causes four times as many deaths as scarlet fever. Dr. Armstrong, in his painstaking report, shows how the various sanitary departments are working for the good of the city and instances the work done by the inspectors of nuisances of the common lodging-houses and of the active proceedings of the inspector under the Adulteration Acts.

#### *Sunderland: the New Eye Infirmary.*

The foundation stone of the new building for the Sunderland and North Durham Eye Infirmary has been laid by Mrs. Backhouse. The building is to be two storeys high and provides accommodation for sixteen patients. On the ground floor is a waiting-room to hold 200 persons. This is situated behind the Board-room, from which it is separated by a sliding wood partition which enables the two rooms to be turned into one for the purpose of concerts &c. The general form of the plan is an H, which gives the best possible light and ventilation with the greatest economy in construction. The architect is Mr. J. Wardle Donald of South Shields and the cost will be £4590.

#### *Carlisle: Curious Medico-legal Case.*

A case was tried at the late Carlisle Assizes before Mr. Justice Denman which possesses many points of medico-legal interest. It was sought by an action to set aside the will of a Mrs. Wilcox made in 1884. She died in 1885 at the age of seventy-five. It was shown that at one time she was insane and imagined she was related to the Countess of Derwentwater and Lord Bute and conveyed the whole of her property to Dr. Goss, Bishop of Liverpool; but she still collected her rents. Dr. Goss had the property reconveyed back to Mrs. Wilcox again. At another time she conveyed all her property to the Jesuits and in the same year made her will. In short, she was frequently settling and unsettling her property. It was admitted that she was an inmate for a time in 1864-5 of the Southern Counties Asylum at Dumfries, her mind becoming unhinged after the severe illness and death of her husband. On the other hand, it was shown by solicitors and others that she was generally a shrewd and even very intelligent lady, who knew very well what she was about. The learned judge in summing up said a person might be insane to a certain extent and yet have a mind sufficiently sound for the purpose of disposing of property. The fact that a person had once been in a lunatic asylum must not of itself be taken as conclusive evidence that the person was incapable of making a will and they must judge of a person's sanity by collateral points, by documents, and by other circumstances. The jury, after a consideration of twenty minutes, found for the validity of the will.

#### *A Long Service.*

At the last meeting of the Weardale guardians Mr. Bourne, surgeon, wrote tendering his resignation as medical officer on account of physical infirmities. He said that he had served forty-four years and asked to be recommended for the usual pension. His resignation was accepted with regret by the guardians and the question was adjourned for the next meeting, with the object no doubt of having a full one and a stronger force in the recommendation to the Local Government Board.

At West Hartlepool on Sunday there was a brilliant afternoon to favour the Sunday Hospital demonstration, and the attendance and procession of the Friendly Societies are said to have been the largest on record; it is hoped that the collection will be in proportion. Addresses were given by the Mayor (who presided) and other gentlemen in favour of the fund.

Newcastle-on-Tyne, July 12th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

### *Edinburgh Medico-Chirurgical Society.*

THE last meeting of the session of this Society was held last week, Dr. Joseph Bell, the president, being in the chair. Dr. James Carmichael showed a Brain with Abscess of the Cerebellum secondary to internal ear disease, and Dr. James showed a Sphygmometer. There were four papers before the meeting for discussion, the first dealing with Electro-diagnosis by means of the Urine, by Dr. Dawson Turner, who gave an outline of a large number of observations he had made on the subject, the urines being from different classes of cases, and the general conclusion being that the degree of resistance depended mainly on the salts present. [We print a *résumé* of these observations in another column.—ED. L.] The next paper was by Dr. G. A. Gibson, on the Antiseptic Treatment of Pernicious Anæmia, and was a further contribution to the discussion on Pernicious Anæmia which had taken place at the preceding meeting. The communication was based upon a well-marked case of the disease which had resisted treatment by arsenic and in which  $\beta$  naphthol was given, following a suggestion of Dr. W. Hunter. During the administration of the drug in doses of two grains thrice daily the blood improved in corpuscular richness, and two or three months after its commencement stood at 2,320,000 per cubic millimetre and the general condition had correspondingly improved. For purposes of comparison it was also given to an ordinary case of anæmia in a young woman, and in this case also there was a gradual improvement in the corpuscular richness of the blood. The paper gave rise to considerable discussion, which was taken part in by members of the Society who had not been present at the previous discussion, but no further points of special interest were brought out. The next communication was by Dr. J. A. Gibson and Dr. Lockhart Gillespie, entitled "Lessons from the Development of the Heart," and consisted of a lantern demonstration of photographs of transverse sections of the heart showing the thickness of the walls of the ventricles at different periods of fetal life at different ages after birth, and in some diseased conditions; but the discussion on the practical bearings of these was deferred. The last paper, Notes on Indian Enteric Fever, by Surgeon-Captain C. H. Bedford, Bengal Medical Service, was taken as read, and ordered to be published in the Transactions of the Society.

July 12th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

### *The late William Colles, M.D., F.R.C.S.I.*

AT a meeting last week of the governors of the Rotunda Lying-in Hospital the following resolution was adopted unanimously: "That the board desire to record their regret at the death of the late William Colles, who for many years discharged the duties of consulting surgeon to the Rotunda Hospital." A copy of this resolution has been forwarded to Mrs. Colles.

### *Sir Patrick Dun's Hospital.*

A garden *fête*, under the patronage of the Lord Lieutenant and the Countess of Zetland, will be held this day and tomorrow in the grounds of Gortmore, Dundrum, in aid of this excellent institution. The Blue Hungarian Band and two military bands will add to the attractions of the *fête*.

### *Royal College of Surgeons.*

On Friday, the 8th inst., a portrait and bust of the late Robert McDonnell, M.D., Fellow and ex-President of the College, was unveiled by his Excellency the Lord-Lieutenant. Sir John Banks, K.C.B., said on behalf of the subscribers that he begged to present the portrait and bust to the College. The object was that the esteem in which Dr. McDonnell's personal worth and professional labours were held should be perpetuated. He received his education in their ancient University and followed his father in choosing the profession of medicine. He presided over that College and also over the Royal Academy of Medicine, and his name and fame went beyond this country, for he received the much-coveted distinction of a Fellowship of the Royal Society. Dr. McDonnell rose to the very highest rank in the profession, and it was expected that having regard to his

position, his services and all the good that he did to the State in peace and war, and as a member of several Royal Commissions, that he would receive some State recognition. This was the desire of the public and of the profession, and the Viceroy was of the same opinion. In conclusion, he had on behalf of the subscribers to give the portrait and bust to the College. The presence of his Excellency the Lord-Lieutenant added dignity to their proceedings and showed his kindly feeling and sympathy with their profession. The President, on behalf of the College, having thanked the subscribers, his Excellency made a few appropriate remarks, in the course of which he said that Dr. McDonnell was not only a member of every scientific institutions in Dublin, but was one who gave up a position in Steevens' Hospital and who of his own accord volunteered to go into the dangers of the trenches in front of Sebastopol, where he did signal and extraordinarily good services to his country. He trusted that the bust and portrait, both of which would be admired as works of art and appreciated because of the gentleman to whom they bore a resemblance, would keep his memory alive in many generations of Irishmen.

#### *Graduates' Memorial, Trinity College, Dublin.*

A meeting in reference to the proposed graduates' memorial took place during the tercentenary week and was presided over by Lord Rosse. Up to the day of meeting a sum of £6500 had been received or promised, but since then I learn that the fund now available, the major portion of which has been invested in Government stocks, amounts to a much larger sum, and it is confidently expected that £10,000 will be realised before many months have passed. The Board of Trinity College have promised a site within the College, the site to be determined by the amount of contributions received. The proposed building is intended when completed to accommodate the various societies which meet within the walls of the university. The following resolution was adopted: "That the graduates of the University of Dublin desire to express their warm thanks to the Board of Trinity College for the assent accorded by them to the establishment of a Dublin University Union within the precincts of Trinity College as the graduates' memorial of the tercentenary of the College and the University.

#### *Ulster Medical Society.*

At the annual meeting held at Belfast on July 8th, the report of the Council was submitted, from which I learn that the Society is in a very flourishing condition, there being a larger number of members than at any previous period of its history. The following office-bearers were elected for the coming session:—President: Dr. Whitaker. Vice-Presidents: Dr. John W. Byers and Dr. Barnett. Treasurer: Dr. Charles Kevin. Secretaries: Dr. McCaw and Dr. Calwell. Librarian: Dr. Cecil Shaw. Pathological Secretaries: Dr. John Campbell and Dr. McQuitty. Members of Council: Dr. J. A. Lindsay, Professor Sinclair, Dr. Ferguson, Dr. Dempsey, Dr. E. C. Bigger and Dr. W. M. Killen.

#### *North of Ireland Branch of the British Medical Association.*

The annual meeting of this Society was held in Lisburn on Thursday, July 7th. Mr. St. George, surgeon to the County Antrim Infirmary, president, occupied the chair. After several interesting medical communications had been brought before the meeting Dr. J. Walton Browne (Belfast) was elected president for the ensuing year. After the conclusion of the meeting Mr. St. George entertained fifty members of the North of Ireland branch at luncheon in his house at Lisburn.

Mr. J. E. Kenny coroner for Dublin, has been elected M.P. for the College Green Division of Dublin by a considerable majority.

The session for the present summer has now ended both at the hospitals and at Queen's College, Belfast.  
July 12th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *The Epidemic of Cholera in Paris and its Environs.*

WHEN last week I wrote about the outbreak concerning which so much anxiety is felt in this city, I gave it the name of cholérine. I regret that further inquiries compel me to modify its nomenclature and to designate it "cholera

morbus." Such is undoubtedly, I believe, the real nature of the epidemic, and no amount of reticence on the part of the authorities can alter the significance of the facts. The epidemic has manifested itself at two principal centres, but situated "down-stream" and located along the great curve described by the Seine around the peninsula of Gennevilliers. The first centre, comprising Courbevoie, Suresnes, Asnières, Colombes and Argenteuil, is, with the exception of the last, situated within the loop, while the second-mentioned village centre is on the right bank, and includes Aubervilliers and St. Denis. It cannot be denied that, however sluggish the disease may be in its rate of extension, the mortality is alarming amongst those attacked, a fatal result often occurring in a few hours after invasion; and although the capital itself has on the whole escaped, a few cases occurring amongst Parisians have for the last few days been registered. Thus, on Saturday last, three cases were reported—one in the eighteenth and two in the nineteenth arrondissements. On Sunday there were eight cases in different arrondissements. Of these eight cases, however, there is reason to believe that five at least were cases of fright, the symptoms being trifling. On Monday two deaths were registered, both victims being infants. On that day four cases were admitted into the Lariboisière Hospital. Several fatal cases are reported from Aubervilliers, St. Denis, Courbevoie, Levallois, Asnières, St. Ouen and at Ivry, where the disease has made its appearance in the large Hospice des Vieillards. Its appearance at Ivry and at Noisy-le-Sec, both situated up-stream, cannot well be attributed to the drinking of contaminated Seine water. Is the disease really Asiatic cholera? In an able article published in the current number of *La Médecine Moderne* Dr. Talamon, the talented editor, replies unhesitatingly in the affirmative. He regards it as proved that the comma bacillus has remained latent until lately in the soil of the Plaine St. Denis since the year 1884, the date of the last epidemic. He recalls the fact that the cholera of 1884 imported to Toulon made its first appearance in the neighbourhood of Paris at St. Denis and Aubervilliers. He observes great similarity between the present epidemic and the outbreak of cholera in 1890 at Puebla de Rugat. In both instances there was no importation from abroad, both occurred at the same time of the year and both were characterised by slow extension and endemicity. The survival of the cholera bacillus in the soil since 1884 is explained by the researches of Huoppe, Wood and Lustig. These savants tell us that the cholera bacillus is both aerobic and anaerobic, according to its habitat. In the intestinal canal it is anaerobic. Its virulence is here very intense; but it is, on the other hand, more vulnerable to the destroying action of chemical agents. Hence the importance of the prompt disinfection of choleraic stools. In the superficial layers of the soil the bacillus is aerobic and its vitality becomes greatly increased. Its power of resistance is further increased by the formation of jointed spores—the "zoogloes arthrospores" of Huoppe, which, forming a kind of thick viscid network, offer protection against the influence of putrefaction and desiccation. Combined dryness and heat favour its growth, and these atmospheric conditions have been present for the last two months. It further appears that at Aubervilliers extensive road repairing has been in progress for a considerable time, thus setting free colonies of microbes, which, finding their way into the drinking water, spread the disease. The comparative benignity of the outbreak is explained by the observation of Hauser, to the effect that if the bacillus lying latent in the soil resumes its morbid properties in contact with the air, it has nevertheless lost the power of reproduction so characteristic of the microbe of direct Asiatic origin. What measures are the authorities taking to stem the choleric tide? A first step has been taken by the Prefect of Police in the appointment of a sanitary inspection committee, which comprises amongst its members such well-known names as Colin, Dujardin-Beaumez, Proust, Levraud (President of the Sanitary Commission of the Municipal Council) and Brousse. To these names have been added those of Drs. Thoinet and Dubauf, both accomplished bacteriologists, together with Drs. Deschamps and Touvenin. These latter gentlemen, each accompanied by a member of the committee, have already begun their rounds in the infected suburbs. The Assistance Publique has determined to utilise the temporary hospital situated in the Bastion No. 36 for cholera cases, such a step being taken in order to prevent as far as possible the introduction of the infection into the

interior of Paris. A sum of 42,500 fr. has been voted by the Conseil Général of the Seine Department in aid of those communes that are willing to make an outlay in the purchase of filters and sterilising apparatus. I may supplement the above information by stating that Dr. Chantemesse, one of M. Pasteur's principal assistants, is decidedly of opinion that we have to deal with true Asiatic cholera. This I have from a private source. So far as I am aware, no cases have as yet been reported from any of the barracks.

*The Composition of Dr. Brown-Séguard's Gland Juice.*

At the last meeting of the Académie des Sciences M. Gautier announced that Professor de Poehl of St. Petersburg had succeeded in extracting from the pancreas, thyroid body, ovaries and testes a leucomaine called spermine, having the composition represented by the formula  $C_6H_{14}N_2$ , which he has isolated in the form of crystallised phosphate. A few centigrammes of this base, introduced subcutaneously in the form of hydrochlorate, is said to produce the tonic and exciting effects of Dr. Brown-Séguard's injections, and the discoverer believes that it is to spermine alone that the remarkable results obtained by these injections are due. It appears that spermine possesses great oxidising power, it being capable of rapidly converting, in the presence of gold or platinum chloride, magnesium into magnesia. Under its influence also the nitrogenous extractives of urine are converted into urea. It is pointed out that in Germany spermine is confounded with piperazine, the latter substance being sold for the former.

Paris, July 13th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

*Death of Professor Hermann Nasse.*

PROFESSOR HERMANN NASSE, the oldest member of the medical faculty at Marburg, died the other day. Both his father and his grandfather were medical men of more than average reputation. He was born at Bielsfeld in 1803, studied at the Rhenish Frederick William's University and in Paris, assisted Philipp von Walther in the surgical clinic at Bonn and established himself as a private lecturer there in 1834. In 1837 he was called to the chair of physiology, pathology and veterinary science at Marburg, but afterwards confined himself to physiology. His chief writings are: "Inflammation as illustrated by its Anatomical Results," "Contributions to the Physiology and Pathology of the Blood" (written in conjunction with his father), "The Influence of Nutrition on the Blood," "Lymph and its Formation," and the articles on Blood, Chyle, and Lymph in Rudolf Wagner's "Handwörterbuch der Physiologie" ("Hand Lexicon of Physiology").

*Miscellaneous Items.*

The appointment of Professor Fischer of Würzburg to succeed A. W. von Hofmann as professor of chemistry and director of the first chemical institute in Berlin is now an accomplished fact. He will enter on his new duties next session. He will be succeeded at Würzburg by Professor Victor Meyer of Heidelberg.

Professor Ludwig Andreas Buchner, who occupies the chair of pharmacology at Munich, will retire at the end of this session.

Dr. Zander, private lecturer on anatomy, and Dr. Nauwerck, private lecturer on pathological anatomy, both of Königsberg, have been appointed professors.

The *Allgemeine Medicinische Central-Zeitung* (General Medical Central Journal), the oldest of the German medical journals, passed into the possession of the publisher, O. Coblentz, on the 1st inst. Dr. H. Lohnstein remains editor.

Berlin, July 12th.

## EGYPT.

(FROM OUR OWN CORRESPONDENT.)

*The Medical School.*

LAST February some new regulations came into force for the School of Medicine, chiefly on the initiative of the new director and his energetic English colleague. The students will now undergo a six years' course before their final examination for the diploma and the last two years will be devoted to hospital work almost entirely. Before entrance to

the school they must prove that they are at least sixteen years of age, of good health, and that they have passed successfully the secondary examination of the Government schools. This rule will get rid of all those of miserable physique and of untrained mental growth. Students will pay some £84 for the whole of their school and examination fees, but special reduction may be made in a few cases to those who are considerably richer in intellect than in pocket. This is an advance upon the late system, under which the Government paid all the boys for the privilege of teaching them. But it must be remembered that elementary education was only commenced in Egypt fifty years ago, and that at that time Mehemet Ali Pacha had to take children from their parents by force to fill his new schools. During the first two years anatomy, among other subjects, will be taught in a much more thorough and practical way than before, and during the first four years there will be gradually diminishing lessons in the English language. Pathology, which until lately has been entirely neglected, will be taught in the third year, and students will also for two years be obliged to attend all the necropsies of the hospital. The present appointment as pathologist and head of the bacteriological department of Dr. Kaufmann, ex-assistant to Professor Weigert, has already borne good fruit, and it is to be hoped that his labours may gradually furnish the now empty shelves of the pathological museum. The third-year students attend the out-patients' department, in the fourth year they visit the wards for an hour a day, and they hold hospital appointments during the fifth and sixth years. The lecturers are bound to formulate their course upon certain standard books chosen by a committee of lecturers and examiners. Those chosen for next year are mostly in Arabic or French, with a few English text-books, such as Pagge, Nettleship, Klein, &c. Written examinations are to be introduced for the first time next October. The annual examinations have just been held orally, with a new board composed of eight members, each of whom has the lecturer of the subject associated with him. These eight members are unconnected with the school, though some of them are on the hospital staff, and for the first time they are to receive a small fee. They are appointed for three years and consist of a native, a French, and four English doctors, together with a French and a German chemist. At the recent examination 106 students presented themselves, of whom 53 were referred till October, the failures being mostly in anatomy, midwifery, pathology and hygiene. This is the first time that the examinations have been conducted on any serious principle. The School of Pharmacy has dwindled down to two students, of whom one failed to satisfy the examiners. The medical school for girls was represented by fifteen, of whom ten were successful. The girls' school has recently been placed under the control of an English nurse holding an obstetric diploma, and the girls when not attending lectures are lodged, fed and clothed in the hospital, where they act as under nurses in the female wards. None of these reforms would have been possible without the coöperation of the Minister for Education—an Armenian Pacha of rare intellectual gifts.

*The "Bosphore Egyptien."*

It will be remembered that on May 4th a French newspaper here went out of its way to libel Mr. Milton with reference to various surgical operations. The terms of the libel caused the greatest sympathy with Mr. Milton to be manifested by all those not belonging to the French colony, and great joy was evinced yesterday when the verdict of the judges was announced in the civil action brought against the journal. The case was tried in the Court of Mixed Tribunals here, a cumbersome method necessary in a country where every individual is protected by the laws of his own nation. The case came before five judges, two natives, a Russian and an American, with a German president. The *Bosphore* made no attempt to prove its charges and relied for its sole defence upon further abuse of Mr. Milton and his English and German colleagues. It tried, of course unsuccessfully, to prove that Mr. Milton, because he possesses the L.S.A. diploma together with that of M.R.C.S. Eng., was nothing but a simple druggist. The advocate for the defence, who is also one of the owners of the newspaper, made the wildest and most hysterical statements, and, when taxed by the plaintiff's counsel with direct falsehood, he complained plaintively that he had not been able to find any medical witnesses to support the libellous charges. The judges ruled that the libel was "untrue, defamatory and injurious" and condemned the *Bosphore* to pay all costs and £1025 damages, with interest at 7 per cent.

until paid. The judgment was published yesterday in the *Bosphore* and must also appear, by order of the Court, in an English and Arabic local paper. The condemned parties will of course appeal and the case will be reheard at Alexandria in the autumn. The verdict leaked out a few days before, delivered probably through the native judges, and it is an open secret that if it had not been for the Gorman and American members of the Bench the sum awarded would have been absurdly small. The *Bosphore* in its issue last night devotes two furious columns to the iniquities of the Court and threatens Mr. Milton with future disclosures. So long as there is no comic journal published in Egypt we owe a debt of some gratitude to the *Bosphore Egyptien*.

Cairo, July 1st.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council held on the 14th inst., the President reported that at a meeting of the Fellows of the College, held on the 7th inst., for the election of four members of the Council in the vacancies occasioned by the retirement in rotation of Mr. Thomas Smith, Mr. Arthur Edward Durham and Mr. George Lawson, of whom Mr. George Lawson did not offer himself as a candidate for re-election, and by the death of Mr. Matthew Berkeley Hill, Mr. Thomas Smith and Mr. Arthur Edward Durham had been re-elected and Mr. John Tweedy and Mr. Frederick Howard Marsh elected members of the Council. These gentlemen made a declaration in the terms of the oath prescribed by the Charter of 1800 and took their seats as members of the Council.

The minutes of the Museum Committee of the 4th inst. were read as the report from that committee and it was agreed that Mr. Burgess, the museum artist, should be employed for a further period of six months.

The Council decided to supply six additional tables for the display of the dissections of human anatomy.

As recommended by the Committee of Management, the West Riding Lunatic Asylum at Wakefield is to be recognised for the purposes of study required by Section 1, Clause 2, Paragraph 13 of the Regulations of the Combined Examining Board in England.

In accordance with the recommendation of the same Committee, it was decided to provide a sinking fund for the Examination Hall and Laboratories, and the subject was referred back to the Committee for elaboration of a scheme.

The reports of the Laboratories and the Nomination Committees were approved, read and adopted.

The following professors and lecturers for the coming year were appointed: Mr. J. Hutchinson, jun., and Mr. B. Pitts, as Professors of Surgery and Pathology; Mr. B. T. Lowie, Mr. C. B. Plowright and Mr. C. Stewart, as Professors of Comparative Anatomy and Physiology; Mr. J. R. Bradford, as lecturer on Anatomy and Physiology; Mr. J. H. Targett was appointed as the Erasmus Wilson Lecturer.

The President reported the holding of the meeting of Fellows after the election of members of the Council on Thursday, the 7th inst.

A letter was read dated the 4th inst. from Mr. E. Octavius Croft, Secretary to the Faculty of the hospital, enclosing an application from the honorary medical staff of the Hospital for Women and Children at Leeds for the recognition of that institution as giving such clinical instruction in gynaecology as is required by the regulations for the examinations for the Membership of the College. The letter was referred to the Committee of Management for their consideration and report.

Mr. J. H. Targett was elected Pathological Curator for another year. Mr. J. B. Bailey was re-elected Librarian.

Mr. Thomas Bryant was re-elected President of the College for the third time. Messrs. C. Heath and A. E. Durham were elected Vice-Presidents.

The members of the various committees were appointed.

It was agreed, on the motion of Mr. Rivington, that a committee should be appointed to consider and report to the

Council on the standing rules, and to submit a revised copy to the Council.

The thanks of the Council were given to Mr. F. G. Hallett for his catalogue of portraits and busts in the Royal College of Surgeons.

The next meeting of the Council will be held on August 1st.

## Medical News.

**EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.**—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on the 4th inst. :—

*Anatomy and Physiology.*—Thomas S. Bartley, William F. Rawson, Eric G. Storrs and Percy V. Fry, students of Yorkshire College, Leeds; Walter R. Walton, of University College, Liverpool; Thos. F. Woolley, Wilfred Allport, William S. Willmore, Geo. H. E. Bekenn, Eustace B. Bostock, George E. Atkins and Henry W. Pepper, of Queen's College, Birmingham; Subhan Ali, of Lahore Medical School; Edward W. Battle, of Owens College, Manchester; F. H. Humphris, of Edinburgh University and Mr. Cooke's School of Anatomy and Physiology; Francis F. Noonan, of Melbourne and Edinburgh Universities; Alfred Lockhart and Isaac Wood, of Queen's University, Kingston, Canada.

*Anatomy only.*—Charles A. Phillips, Edward H. Phillips and Geo. Y. Myrtle, of Yorkshire College, Leeds; Henry W. Lloyd, of University College, Liverpool; Ernest W. Ormrod, of Bristol Medical School; Herbert A. L. Banham, of Sheffield Medical School.

*Physiology only.*—Geo. R. Sparrow, of University College, Liverpool. Twelve candidates were referred in both subjects, one in Anatomy only, and six in Physiology only.

Passed on the 5th inst. :—

*Anatomy and Physiology.*—Phillip Macaulay, of Yorkshire College, Leeds; R. Howlett-Hayes, of Dublin and Guy's Hospital; Leonard N. Pentreath, of St. Thomas's Hospital; David L. Clay and John Hepworth, of Owens College, Manchester; Alfred K. White, of Dublin; William H. Brown, David Horwich, William G. Thomas and William H. G. Wilkes, of Queen's College, Birmingham; Thomas J. Chidley, of Dublin and Mr. Cooke's School of Anatomy and Physiology.

*Anatomy only.*—Wilbye Cooper, John L. Elliott and Arthur T. Lachmora, of Yorkshire College, Leeds; John T. Barritt and Robert Marshall, of Owens College, Manchester; Frederick A. W. Quay, of Trinity College, Toronto; Bernard P. O'Neill, of Guy's Hospital; Howard P. Kennard, of St. Thomas's Hospital; J. A. K. Griffith, of University College; Edward A. McAnnally, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; Augustus C. Greenwood, of Middlesex Hospital.

*Physiology only.*—William Archer and Walter G. Parkinson, of Yorkshire College, Leeds; Thomas W. W. Boyce, of Bristol Medical School; Frederick A. L'E. Burges and John W. Farndale, of Queen's College, Birmingham; Thomas H. Agnew, of University College, Liverpool; Henry J. Heginbotham, James Worthington, and Samuel Crossley, of Owens College, Manchester.

Nine candidates were referred in both subjects, four in Anatomy only and ten in Physiology only.

Passed on the 6th inst. :—

*Anatomy and Physiology.*—Julian Horn, Tom H. B. Yorath and Harry D. Packer, of Guy's Hospital; John C. Padwick, George Miller and Sydney C. Hounslow, of St. Bartholomew's Hospital; Lewis W. Burrow, of St. Thomas's Hospital; Frederick A. J. R. Brooko, of London Hospital.

*Anatomy only.*—Joseph L. F. de Gannes and Cyrus W. Smith, of University College; Preston R. Wallis, of University College and Mr. Cooke's School of Anatomy and Physiology; Christopher A. A. Coulthard, of St. George's Hospital; Charles F. Stileman, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; Thomas H. Parker and Henry P. Cox, of King's College; Ernest H. Tipper, of Guy's Hospital; Percy L. Blaber, of St. Thomas's Hospital; Alan P. Birch, of Middlesex Hospital and Mr. Cooke's School of Anatomy and Physiology.

*Physiology only.*—Ernest E. Crowther, of Yorkshire College, Leeds; George V. Miller and Frederick P. Duncan, of University College; Walter K. Hopkins, of St. Bartholomew's Hospital; Henry A. Burridge, of King's College; Charles C. Jenkins, of Guy's Hospital.

Fifteen candidates were referred in both subjects, three in Anatomy only and ten in Physiology only.

Passed on the 7th inst. :—

*Anatomy and Physiology.*—Alfred Armer, of St. Bartholomew's and Guy's Hospitals; Cecil F. Gordon, of St. Bartholomew's Hospital; Francis J. H. Cann, of Guy's Hospital; Philip G. Mould, of Owens College, Manchester, and St. Mary's Hospital; Geo. B. C. Blount, of St. Thomas's Hospital; Thomas Lambie, of University College; Arthur G. L. Smith, of Middlesex Hospital.

*Anatomy only.*—John W. Ensor and Morton E. Tresidder, of Guy's Hospital; George W. Brown and William Herbert, of St. Thomas's Hospital; Alexander S. McSorley, of King's College; Thomas S. Pigg and Arthur R. H. Skey, of St. Bartholomew's Hospital; Francis A. Phillips, of St. George's Hospital; Morgan D. Blake, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; Randolph L. Grosvenor, of Cambridge University and St. Mary's Hospital; William G. Noble, of London Hospital.

*Physiology only.*—John R. Benson, of King's College; J. S. Hosford, Ernest G. L. Goffe and John W. Stokes, of University College; Edward J. C. Kennedy, of Victoria University, Ontario; Walter A.

Sharpin, of St. George's Hospital; William A. Carden, of Guy's Hospital; David L. Jones and G. G. Oakeley, of St. Bartholomew's Hospital; A. Stanley-Matthews, of St. Thomas's Hospital; Alfred Carruthers, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology.

Nine candidates were referred in both subjects, seven in Anatomy only and nine in Physiology only.

Passed on the 8th inst. :—

*Anatomy and Physiology.*—Frank Lond, of Guy's Hospital; Arnold E. Lovitt, Wm. G. Mortimer and John H. Power, of London Hospital; Richard T. Cesar, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Malcolm Wheeler, of Edinburgh University and St. Thomas's Hospital; Gordon C. Barker, of King's College; William F. Cross, of St. Bartholomew's Hospital; L. E. Callender and Robert W. Dodgson, of St. Mary's Hospital; A. H. Waring, of University College.

*Anatomy only.*—Edwin Folliot, William M. Coghlan and Bernard W. Holmes, of St. Bartholomew's Hospital; Percy H. Collingwood, James H. de Willers, George Candler and Frank E. Saunders, of St. Thomas's Hospital; Norman Macdonald, of St. Mary's Hospital; Thomas Herbert, of Middlesex Hospital; Arthur S. Turner, of Guy's Hospital; Alfred W. Hayes, of King's College.

*Physiology only.*—Gerald H. Goddard and Charles F. Wanhill, of University College; Frederick E. H. Keogh, of St. Mary's Hospital. Eleven candidates were referred in both subjects, three in Anatomy only and eleven in Physiology only.

Passed on the 9th inst. :—

*Anatomy and Physiology.*—Clement H. Hunter, Harry F. Spon and Ernest T. Shorland, of Guy's Hospital; Sideoy H. White, John E. Brash and Sidney Bridger, of University College; Frank Copeland, of Westminster Hospital; George W. Connor and Thos. H. Wells, of Middlesex Hospital; William W. Woolliscroft, of Charing-cross Hospital; Francis R. S. Cosens and George A. Leon, of London Hospital.

*Anatomy only.*—William P. Brooke and Montague M. Lowsley, of Charing-cross Hospital; Arthur B. R. Sworn, of University College.

*Physiology only.*—Richard Lumley Roberts, of Guy's Hospital; Thomas J. McCulla, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; John Blackwood, of University College. Eighteen candidates were referred in both subjects, three in Anatomy only, and three in Physiology only.

Passed on the 11th inst. :—

*Anatomy and Physiology.*—Charles J. Kearney and William L. B. Davies, of Guy's Hospital; Richard D. Fisher, Edwin C. Smith and Thomas P. Littlejohn, of London Hospital; Jonas W. Leake, Robert W. S. Christmas, of Charing-cross Hospital; S. E. A. Zichy-Wornarski, of Melbourne University; Marcus B. Johnson, of Cambridge University and St. Mary's Hospital; Joseph Hayes, of McGill College, Montreal, and Mr. Cooke's School of Anatomy and Physiology; Francis E. Clay, of Westminster Hospital.

*Anatomy only.*—Duncan N. Macleannan, of Queen's University, Kingston, Canada, and Mr. Cooke's School of Anatomy and Physiology; Harold E. Dixon and Thomas W. Turner, of London Hospital; Lewis Savin, of Middlesex Hospital; Willie N. Barron, of St. Bartholomew's Hospital.

*Physiology only.*—Henry C. Lambert, of Queen's College, Birmingham, and Bristol School of Medicine; Alfred B. Wright, Alexander S. Grant, of London Hospital; John A. MacPhail, of McGill College, Montreal; David C. Kemp, of University College; Arthur E. Poake and Frederick Moreton, of Westminster Hospital; Alfred R. Hitchfield, of Guy's Hospital; A. A. Rogers, of St. Bartholomew's Hospital; William Ashford, of St. Thomas's Hospital.

Nine candidates were referred in both subjects, five in Anatomy only and four in Physiology only.

Passed on the 12th inst. :—

*Physiology only.*—Henry Harvey, William P. Thomas John J. Spears and Wm. F. Adams, of London Hospital; Montague H. C. Palmer, of Cambridge University and London Hospital; James R. Webb, of Melbourne University and London Hospital; Richard D. Stacy, William H. Pope, Martin A. Cooke, Percy W. G. Shelley, Burroughs M. Hughes and Alfred N. Wilde, of St. Bartholomew's Hospital; Walter J. O. Kay and Edward Haines, of St. Thomas's Hospital; William Gilbertson, of Cambridge University and St. Thomas's Hospital; Edward Fisk, William F. Byford, Stanley Rivers, Thomas S. Biggs and Percy E. Tresidder, of Guy's Hospital; Arthur T. Davey and John Gardiner, of Middlesex Hospital; Charles Mathews, of St. Mary's Hospital; Daniel Fogarty, of Ledwich School of Medicine, Dublin, and Mr. Cooke's School of Anatomy and Physiology. Eleven candidates were referred.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentleman, having passed the necessary examinations and having now attained the legal age of twenty-five years, was at the quarterly meeting of the Council on the 14th inst., admitted a Fellow of the College :—

Lee, Arnold William Warrington, M.B. Lond., L.R.C.P. Lond., of Owens College and Royal Infirmary, Manchester; diploma of Member dated Aug. 1st, 1890.

**SOCIETY OF APOTHECARIES OF LONDON.**—The following candidates have passed the recent Primary Examination in the respective subjects :—

*Chemistry, Materia Medica, Botany, and Pharmacy.*—E. M. Aikin, H. L. Billitt, E. C. Bond, T. Butcher, E. L. Colebrook, J. G. Horwood, C. E. Long, and E. M. Wells, of the Royal Free Hospital; E. G. Smith, Westminster Hospital; J. K. H. Smyth, St. Mary's Hospital; A. Wheeler, Edinburgh.

*Chemistry.*—J. Ash, Charing-cross Hospital; S. A. Clarke, Middlesex Hospital; M. Orange, Royal Free Hospital.

*Materia Medica, Botany, and Pharmacy.*—E. G. Adams, L. M. Blako,

E. Briggs, E. M. Gough, M. H. Harris, E. J. Macgowan, H. M. Maitland, M. Thorne, and C. S. Vines, of the Royal Free Hospital; C. Basan and S. Smith, Middlesex Hospital; C. Bayley, Charing-cross Hospital; A. P. B. Ellis, City School of Chemistry; F. T. Knott, Guy's Hospital; L. Macrae, King's College Hospital.

*Anatomy and Physiology.*—R. B. Allen and A. E. Mellersh, of St. Mary's Hospital; A. T. Anderson, Owens College, Manchester; E. Bentham, C. T. Green, Rukimabal, L. E. V. Saville, and A. M. Thornett, Royal Free Hospital; H. Clough, Yorkshire College, Leeds; R. Crawford, Belfast; W. J. Gething, Queen's College, Birmingham; W. A. Higgins, Cambridge; D. W. Jones, H. S. Oliver, and T. H. P. Peers, Charing-cross Hospital.

*Anatomy.*—J. Abrines and A. H. Wade, St. Bartholomew's Hospital; J. T. Brickwell, Guy's Hospital; A. H. Bygott, Queen's College, Birmingham; B. N. de Beauvais, Aberdeen; E. T. Fitzpatrick, Dublin; F. B. Hargreaves, Owens College; E. J. Macgowan, Royal Free Hospital; and A. Wheeler, Edinburgh.

*Physiology.*—C. Basan, Middlesex Hospital; W. E. V. Gould, Queen's College, Birmingham; T. E. Johnson and T. J. McCulla, London Hospital.

**KILSYTH, STIRLING.**—It is stated that Sir Archibald Edmonstone has given the town council of Kilsyth a right to supply water, which will be in addition to the present service, from a spring near Corry, as well as ground for a reservoir, free of expense.

**DEVONSHIRE HOSPITAL, BUXTON.**—The half-yearly report of this hospital is worthy of notice, for it shows a new departure worthy of imitation by provincial and other institutions of a similar kind. In addition to the medical report of the patients under treatment there is a statistical supplementary medical report, detailing the statistics of cases of rheumatism, rheumatoid arthritis and sciatica, which are collected from notes made since the commencement of the year. This report will give information of value as regards some of the most important points in the etiology of the diseases mentioned, but must be carried on for a much longer time before conclusions of value can be drawn. The house surgeon, Mr. E. Valentine Gibson, and the assistant house surgeon, Mr. H. R. Lloyd-Davies, are to be congratulated on this addition to the report, for without their voluntary exertions it would not have appeared.

**WEST LONDON MEDICO-CHIRURGICAL SOCIETY.**—The annual meeting was held on Friday, July 8th, Dr. Chas. Wells, President, in the chair. Dr. Wells delivered his valedictory address, in which he congratulated the Society upon the satisfactory progress of its tenth session. The papers generally have been upon subjects commanding attention and attracting interest, and the evenings devoted to the exhibition of clinical cases proved, as heretofore, very popular and were largely attended. He then referred to the excellence of the Cavendish Lecture by Sir Charles Cameron, on the Etiology of Typhoid Fever. The subject was admirably chosen, practical, full of original work, and the interesting experiments showing the diffusion of gases through porous soils were very striking, especially in relation to the fact of the greater frequency of typhoid fever upon gravel than upon the clay. This has a considerable bearing upon the salubrity of the locality of London. "Gravels," says Dr. E. A. Parkes in his "Practical Hygiene," "of any depth are always healthy except when they are much below the general surface and water rises through them," and many other authorities testify to the same result. It seems, therefore, that the old prejudice against living upon the clay is not well founded, certainly as regards the prophylaxis of enteric fever. Dr. Wells quoted from the reports of the medical officer of health of Hampstead, where the average death-rate from all zymotic diseases is 1.1 per 1000, in support of this theory. He also corroborated Sir Charles Cameron in pointing out the dangers of underground air entering our dwellings, and insisted upon the importance of covering the whole or the site of the house with cement or allied material. After referring with much regret to the loss by death of four members, Dr. Wells in conclusion again very heartily thanked the Society for the high honour conferred upon him by his election to the presidential chair and warmly acknowledged the generous support and assistance he had received from the Council and officers during his term of office. A vote of thanks to Dr. Wells was carried with acclamation. The following officers and Council were elected for the session 1892-1893 :—President: Mr. Swinford Edwards. Vice-Presidents: Mr. R. W. Lloyd, Dr. J. B. Ball, Mr. L. Mark and Dr. Symons Eccles. Council: Drs. Abraham, Banning, Batten, C. W. Chapman, Clippingdale, Masters, Schacht, Messrs. Benham, Bruce Clarke, Percy Dunn, R. Lake and Mansbridge. Treasurer: Mr. Gunton Alderton. Secretaries: Mr. J. Herbert Menzies and Dr. A. Clemow. Librarian: Dr. Schacht.

THE Queen has been pleased to give directions for the appointment of Francis Volcy Pougnet, Esq. M.D., to be a member of the Council of Government of the Colony of Mauritius.

**KIDDERMINSTER INFIRMARY.**—The committee of this institution has accepted an offer from Mr. Howard C. Jobson of Summerhill to give a donation of £250 to endow a bed in the infirmary in memory of the late Mr. W. C. Audry.

**DISEASED MEAT AT ILKESTON.**—A Nottingham butcher has been prosecuted by the town authorities, at the Ilkeston Petty Sessions, for exposing for sale forty-seven pieces of meat unfit for human food, and fined 3s. for each piece and costs—total £8 7s. 6d.

**LONDON SCHOOL OF DENTAL SURGERY.**—On Wednesday, at the Royal Institute Galleries, Piccadilly, Professor St. George Mivart, F.R.S., distributed the prizes won by the successful students at this school, which is in connexion with the Dental Hospital. After the distribution the professor referred to the growth of the school as shown by the fact that, whereas in 1875 the students numbered but ten, at the present time they had increased to one hundred. The principal prize winners were Mr. G. Northcroft, who gained the Saunders's Scholarship, and Mr. H. J. Stevens, who won the prize given by Messrs. Ash and Sons for the best essay. The first prizes in class subjects were awarded to the following: Mr. H. J. Stevens, in Dental Metallurgy and Dental Surgery; Mr. E. H. Harwood, in Dental Mechanics; Mr. T. H. Clarence, in Operating; and Mr. H. W. Trewby, in Dental Anatomy.

**POOR-LAW MEDICAL OFFICERS' ASSOCIATION.**—At a meeting of the Council held at their rooms, 3, Bolt-court, Fleet-street, on July 12th, 1892, the case of the late Mr. C. A. Walters of Cheltenham, who died on the 8th inst., was further considered, and the following resolutions were unanimously passed: "That the suspension of Mr. Walters by the guardians of Cheltenham for declining to attend the child of Drusilla Cook without a medical order, which was no dereliction of duty whatever, was not only uncalled for but also seriously unjust. That the 'severe censure' passed on Mr. Walters by the Local Government Board for no serious fault, and which appears to have accelerated his death, was unwarranted and even cruel, and especially to a medical officer who had held his appointment for thirty-eight years. That in the opinion of this Council the guardians of the Cheltenham Union were themselves guilty of a grave error in having sanctioned any form of relief being given to Drusilla Cook, who had received over £100 since the death of her husband, and this within the past twelve months, and who had £30 deposited in the savings bank at the time her weekly allowance was granted by the board. That a copy of these resolutions be sent to the guardians of the Cheltenham Union, to the medical journals, and to the Cheltenham local press."

**DENTISTRY AND WORKHOUSE CHILDREN.**—At the weekly meeting of the Strand Board of Guardians on Tuesday evening an important discussion arose on a communication from the Local Government Board approving of a resolution passed by the guardians of the Strand Union at a recent meeting for the appointment of a qualified professional dentist to attend the children of the schools at Edmonton, the salary, however, not to be made a charge on the common poor fund. The chairman remarked that this was the first appointment of the kind made by any metropolitan or provincial board of guardians, and he thought the Strand Union deserved every credit for initiating such a necessary and beneficial advance in the hygienic treatment of the poor children in their workhouses and schools; but he could not understand the objection of the Local Government Board to charging the dentist's stipend on the common poor fund. Mr. Walker was glad to note that the course taken by the guardians had met with the approval of their regular medical and surgical staff, and there was no narrow-minded professional jealousy or animus shown at the proposed creation of a new semi-medical office. There was a large number of children in the schools of the Union, and for their present physical comforts and future health and prospects in life it was essential their teeth should be well looked after. Several other guardians concurred in the importance of the subject, and in the result the board agreed to carry out the instructions of the Whitehall authorities and to elect a duly qualified dentist at the next meeting.

**A HOSPITAL FOR STOURBRIDGE & C.**—Mr. John Corbett, late M.P. for Mid-Worcester, has made a further donation of £500 for furnishing and equipping the hospital he is founding for the Stourbridge and Brierley-hill district.

**OPEN SPACES.**—The Local Government Board has sanctioned the borrowing of £41,250 by the Corporation of Dewsbury, for the purchase and laying-out of a public park and street improvements. The estimated cost of the park is £33,250.

**PHARMACEUTICAL SOCIETY OF IRELAND.**—The following candidates have obtained the licence of the Society: R. S. Moore, T. J. Walsh, G. F. Walsh, T. Whelehan, G. F. Stevenson, M. L. Tierney, R. J. Cahir, W. J. Hartnett, C. O'Connor, J. H. Graham, H. A. Kelso, and J. W. Peatt.

**UNIVERSITY COLLEGE HOSPITAL.**—In consequence of the necessity for carrying out extensive repairs, painting, &c., it has been decided to close University College Hospital, with the exception of the maternity department, for six weeks from the 20th inst. The committee appeal for funds to enable them to meet the heavy expenditure.

**PRESENTATION TO DR. J. H. BRIDGES.**—A massive silver bowl was presented to Dr. J. H. Bridges on Monday, July 4th, in the library of the British Medical Association, 429, Strand, W.C. The bowl had been subscribed for by the medical officers of the metropolitan fever hospitals, district asylums, poor-law schools and workhouses. The chairman, Mr. J. Adams Clarke (Medical Officer of the St. Pancras Schools at Leavesden), in making the presentation, paid a graceful tribute to Dr. Bridges' high qualifications, ability, and courtesy, and acknowledged the help invariably shown by him to those with whom he came into official contact. Dr. MacCombie (of the South-Eastern Hospital) expressed the regard felt for Dr. Bridges by the medical superintendents of the metropolitan fever hospitals, and Dr. A. H. Robinson (of Mile End Infirmary) spoke on behalf of the infirmaries and schools. Dr. Bridges, after expressing his gratification at the handsome present he had just received, spoke of the numerous difficulties encountered when he assumed the duties of an Inspector of the Local Government Board twenty-three years ago. Dr. Bridges, in taking leave of those present, hoped that he should not lose touch of those medical officers with whom he had been in official contact for so many years. The proceedings were brought to a termination by formal votes of thanks to the chairman and to the secretaries of the movement, Drs. Littelljohn and Sydney Stephenson.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

**ALCOCK, REGINALD**, has been appointed Assistant House Surgeon to the North Staffordshire Infirmary and Eye Hospital, vice J. F. Crombie.

**ANDREW, A., L.R.C.P., L.M. Irel.**, has been appointed Medical Officer for the Glossop Sanitary District of the Glossop Union.

**BENSON, ANNETTE M., M.B., B.Sc. Lond.**, has been appointed Resident Medical Officer to the Victoria Hospital for Children, Hull.

**CARLING, W., B.A., M.B., B.C. Cantab.**, has been appointed Assistant House Surgeon to Guy's Hospital.

**CARROLL, J., M.B., C.M. Glasg., D.P.H. Camb.**, has been reappointed Medical Officer of Health for Ilkeston.

**CROMBIE, J. FRANK, M.B., C.M. Edin.**, has been appointed House Surgeon to Great Yarmouth Hospital.

**EATON, J., M.R.C.S.**, has been appointed Medical Officer for the Splittlegate Sanitary District and Workhouse, and Public Vaccinator to the Grantham Union, vice Bailoy, resigned.

**EVANS, A. ERNEST, M.B., C.M. Glasg.**, has been appointed House Physician to the City of London Chest Hospital.

**FAGAN, JOSEPH P., L.R.C.S., L.R.C.P. Irel., L.M.**, has been appointed Assistant Surgeon to the South Dispensary, Liverpool, vice Dr. J. G. Moyle, resigned.

**FARQUHARSON, WM. F., M.B. Edin.**, has been appointed Assistant Medical Superintendent to the Counties Asylum, Carlisle, vice D. M. M. Ross, M.B.

**FOLKER, HENRY HERBERT, M.R.C.S., L.R.C.P. Lond.**, has been appointed Honorary Assistant Ophthalmic Surgeon to the North Staffordshire Infirmary and Eye Hospital.

**FULLER, JOHN B., M.R.C.S., L.R.C.P. Lond.**, has been appointed Senior Resident Medical Officer of the Birmingham Children's Hospital.

**GARRETT, JOHN HY., M.D., L.S.Sc. Durh., D.P.H. Camb.**, has been appointed Medical Officer of Health for the Borough of Cheltenham, vice Dr. Sampson Roch, resigned.

GODSON, A. H., B.A., M.B., B.C. Cantab., has been appointed Assistant House Surgeon to Guy's Hospital.

GREEN, A., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Surgeon of the Chesterfield and North-East Derbyshire Hospital.

HAWORTH, S. R., M.D., C.M. Irel., has been appointed House Surgeon to the Bridgnorth Infirmary, vice Craig, resigned.

HOUGHTON, MURTAUGH J., L.S.A., has been appointed Assistant to the House Surgeon and Physician at the Wolverhampton General Hospital, vice R. S. Hogarth.

JOHNSON, T. C., M.B., C.M. Edin., has been appointed Medical Officer for the Middleham Western Sanitary District of the Leyburn Union.

MURRAY, B. W., F.R.C.S. Eng., has been appointed Surgeon to the Liverpool Infirmary for Children, vice R. N. Pughe, resigned.

PEARSON, JOSEPH, M.B., C.M. Aberd., has been appointed Honorary Assistant Medical Officer to the Children's Hospital, Sheffield, vice C. H. Willey, M.D.

RAINY, HARRY, M.B., C.M. Edin., has been appointed Resident Medical Officer to the Chalmers Hospital, Edinburgh, vice Mackenzie.

RICHARDSON, G. G., L.R.C.P., L.R.C.S. Irel., has been appointed Junior Resident Medical Officer of the Birmingham Children's Hospital.

ROBERTS, J. LLOYD, M.B., C.M. Edin., D.P.H. Eng., has been reappointed Medical Officer of Health for the Abergele and Ponsarn Urban Sanitary District of the St. Asaph Union.

ROSS, DONALD M. M., M.B., C.M. Edin., Senior Assistant Medical Officer, Cumberland and Westmoreland Asylum, Carlisle, has been appointed District Medical Officer in the Government Medical Service, Jamaica.

SLEVIN, P. J., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the West Drayton Sanitary District of the Uxbridge Union.

TURNBULL, W. H., M.B., B.S., B.Hy. Durh., has been appointed Medical Officer of Health for the Borough of South Shields, vice Dr. T. E. Hill.

WETHERELL, J. A., M.D., C.M. Edin., has been appointed Resident Medical Officer and Government Resident at Wyndham, Western Australia.

WILEY, C. H., M.D., has been appointed Honorary Medical Officer to the Children's Hospital, Sheffield.

YOUNG, F. C., B.A., M.B., B.C. Cantab., has been appointed Assistant House Physician to Guy's Hospital.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Senior House Surgeon. Salary £80, with board and washing.

BOROUGH HOSPITAL, Birkenhead.—Junior House Surgeon. Salary £60 per annum, with board and lodging, but no wine, spirits, or beer. A further sum of from £20 to £25 per annum is usually obtained in fees.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £70, with board, residence and washing.

BURY DISPENSARY HOSPITAL, Bury, Lancashire.—Senior House Surgeon. Salary £100 per annum, with board, residence, and attendance.

ECCLES AND PATRICROFT HOSPITAL.—House Surgeon. Salary commencing at £60 per annum, with board and residence in hospital. (Apply to the Honorary Treasurer, 11, Quay-street, Manchester.)

EVELINA HOSPITAL FOR SICK CHILDREN, South-wark-bridge-road, S.E.—Junior Resident Medical Officer. Salary £60.

FULHAM UNION.—Assistant Medical Superintendent of the Infirmary. Salary £100 per annum, increasing £10 yearly to a maximum of £130, with board, furnished apartments, attendance and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—House Surgeon. Salary £60 per annum, with board and lodging in the hospital.

HORTON INFIRMARY, Banbury.—House Surgeon and Dispenser. Salary £60 per annum, with board and lodging.

JOINT COUNTIES ASYLUM, Abergavenny.—Junior Assistant Medical Officer. Salary (a progressive one) commences at £100 a year, with apartments, board and attendance.

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—A qualified Assistant. Salary £120 a year (out-door). (Apply to the Secretary, 12, North Parade, Lincoln.)

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the house.

LOUGHBOROUGH FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Junior Medical Officer. Commencing salary £160 per annum.

MCGILL UNIVERSITY, Montreal, Canada.—Professorship of Pathology for the Faculties of Medicine and Comparative Medicine for one year. Salary for provisional appointment for one year £400 sterling. (Apply to the Dean, Montreal, Canada.)

METROPOLITAN ASYLUMS BOARD, Norfolk-street, Strand, W.C.—Clinical Assistant at the Darenth Schools and Pavilions for Imbeciles, near Dartford, Kent. Board, lodging and washing provided.

NOTTINGHAM BOROUGH ASYLUM.—Resident Clinical Assistant for six months. Board and residence provided.

QUEEN'S HOSPITAL, Birmingham.—Physician for Out-patients and Pathologist to the Institution for three years. Annual honorarium £75.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, S.E.—Obstetric Physician.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL, Portsea.—Assistant House Surgeon for six months. Board, residence and washing, and an honorarium of £15 15s. at expiration of term of office.

ROYAL SEA-BATHING INFIRMARY FOR SCROFULA, Margate.—Resident Surgeon. Salary £100 per annum, with board and residence. (Apply to the Secretary, Offices, 30, Charing-cross, S.W.)

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior Assistant House Surgeon. Salary £65 per annum, with board, lodging and washing.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant for six months, with board and residence.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Wolbeck-street, W.—Resident Medical Officer. Salary £105 per annum, with furnished apartments, attendance, coal and gas.

VICTORIA INFIRMARY OF GLASGOW.—Superintendent and Resident Medical Officer. Commencing salary £150 per annum, with apartments and board.

WEST KENT GENERAL HOSPITAL, Maidstone.—House Surgeon. Salary £150 per annum, with furnished apartments, coals, gas and attendance in the hospital.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter.—Assistant Medical Officer. Salary £150 per annum, with board, furnished apartments, and washing.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, Worcester.—Assistant Medical Officer. Salary (without residence) £140 per annum, with part of Midwifery fees; also £20 per year for cab hire.

## Births, Marriages, and Deaths.

### BIRTHS.

DUNLOP.—On June 30th, the wife of Shuldham Dunlop, M.D., Holywood, county Down, of a son.

FRAZER.—On July 9th, at Bellgrove-terrace, Newcastle-on-Tyne, the wife of Surgeon-Major P. T. Frazer, Army Medical Staff (Retired), of a daughter.

HAIRISINE.—On July 4th, at Roose House, Upper Tooting, S.W., the wife of Hudson Hairisine, L.R.C.P., of a son.

LANGTON.—On July 12th, at Marlborough-place, Brighton, the wife of Herbert Langton, M.R.C.S., of a daughter.

MARTIN.—On July 12th, at Arnheim, Blackburn, the wife of John M. H. Martin, M.D. (Vict.), F.R.C.S. Eng., J.P., of a son.

MORRIS.—On July 12th, at Windhill, Bishop's Stortford, the wife of John Edward Morris, M.D., of a daughter.

SELBY.—On July 11th, at Teynham, Kent, the wife of Prideaux George Selby, L.R.C.P. Lond., M.R.C.S., of a daughter.

WALE.—On July 6th, at High-street, Croydon, the wife of George Wale, L.R.C.P. Lond., D.P.H. Camb., M.R.C.S., of a son.

### MARRIAGES.

COLE-BAKER—LYSTER.—On July 13th, at St. Peter's Church, Dublin, G. Cole-Baker, M.B., Assistant Master, Coombe Hospital, 28, Lower Baggot-street, to Florence, widow of the late Philip T. Lyster, R.M.

HARDEN—LEVY.—On July 6th, at St. Mark's, Hamilton-terrace, N.W., Edward Henry Thornborough Harden, M.R.C.S., L.R.C.P. Lond., eldest son of the late Henry Harden, M.R.C.S., of St. Mawes, Cornwall, to Emily Agnes, youngest daughter of the late Albert Levy, of Hall-road, N.W.

LUKE—RUSSELL.—On July 12th, at The Lodge, Elle, N.B., by the Rev. P. Hay Hunter, Minister of Yester, assisted by the Rev. R. H. Dunlop, Minister of Elle, and the Rev. Duncan MacGregor, Minister of the Free Church, Elle, James Luke, M.B., C.M., to Elizabeth, daughter of the late George Russell, J.P., of The Lodge, Elle.

PINHORN—BRYANT.—On July 7th, at Christchurch, Marylebone, Richard Pinhorn, M.R.C.S., L.R.C.P. Lond., L.S.A., of Cambridge-terrace, Dover, to Susan Catherine Victoire, widow of the late Lieut.-Colonel G. F. Bryant, Indian Army (2nd Belooch Regt.).

SCOTT—LAMB.—On July 6th, at St. Stephen's Church, C.-on-M., Manchester, Benjamin Scott, M.B., C.M., of Ardwick-green, Manchester, to Alice Mary (Mollie), second daughter of the late Alderman Joseph Lamb, J.P.

SCOTT—MOLONY.—On July 5th, at Christ Church, Crookham, Hants, Horatio Scott, M.D., Surgeon-Major Retired, of Basingbourne, Fleet, Hants, son of the late Rev. J. L. M. Scott, Rector of Portferry, to Eleanor Florence, second daughter of the late Frederick Beresford Molony, Madras Civil Service.

WIGAN—HOPKINS.—On July 6th, at Easton Church, near Winchester, Charles Arthur Wigan, M.D., of Portishead, Somerset, to Emily, daughter of Major Powell Hopkins, late 16th Regiment, and granddaughter of the late General Sir Philip Baimbrige, K.C.B.

### DEATHS.

BALKWILL.—On July 11th, very suddenly, at 14, Old Cavendish-street, Cavendish-square, London, William Edward Balkwill, aged 43.

BURCHELL.—On July 5th, at Delamers, Bradwell-on-Sea, Southminster, Essex, Peter Lodwick Burchell, M.B. Lond., F.R.C.S. Eng., aged 74 years and 10 months.

DOUZY.—On July 12th, at Moulsoford, J. Harrington Douzy, M.R.C.S., L.S.A., Superintendent of the Berks County Asylum, late of Netherhampton, Salisbury, aged 34.

MURPHY.—On June 24th, at Cork, Surgeon-Major F. H. S. Murphy, Army Medical Staff, aged 37.

RUTHERFORD.—On July 2nd, at Pulborough, Sussex, Samuel Rutherford, M.D., M.R.C.S., L.S.A., aged 64.

SYLVESTER.—On July 10th, at Dry Hill Park, Tunbridge, Harold Augustus Sylvester, M.R.C.S., fifth son of S. A. Sylvester, in his 28th year.

WALLACE.—On July 5th, at Grange Mount, Cloughton, Cheshire, Quintin Macadam Wallace, M.D., aged 30.

WALTERS.—On July 8th, at Wharfedale House, Cheltenham, Charles Astley Walters, M.R.C.S., aged 67.

WEISS.—On July 4th, Hubert Foveaux Weiss, F.R.C.S. Eng., of Granville-gardens, Ramsgate, and Piccadilly, W., aged 87.

N.B.—A fee of 6s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 14th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo	Maxim. Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
July 8	29.97	N.W.	61	54	125	73	53	--	Bright
" 9	30.11	W.	62	50	125	73	54	--	Cloudy
" 10	30.01	W.	61	55	110	69	54	..	Overcast
" 11	30.03	S.E.	61	57	112	68	57	..	Overcast
" 12	29.94	S.E.	61	57	107	67	56	..	Cloudy
" 13	29.56	S.E.	60	58	107	63	57	.10	Cloudy
" 14	29.70	N.E.	58	55	70	59	55	.4	Overcast

## Notes, Short Comments &amp; Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

## THE DISCOVERY OF THE CIRCULATION OF THE BLOOD.

NO discovery has been so gradual as that of the circulation of the blood, and an adequate history of the steps by which the ground was prepared for Harvey's immortal induction has yet to be written. We have had monographs from time to time setting forth the claims of pioneers like the Spaniard Serveto and the Italian Cesalpino to having, in part if not in whole, anticipated the English physiologist, while enthusiastic "vindicators" like Dr. Archibald Pitcairne have contended that for those who can "read between the lines" the discovery was as good as made by Hippocrates himself. But, we repeat, a competent historian of the most momentous finding in physiology has yet to appear. Early in the third century after Christ (a scholarly correspondent reminds us), probably in the reign of the Emperor Caracalla, were published the "Recognitions of Clement," in the eighth book of which there is certainly a remarkable adumbration of Harvey's discovery: "What shall I say of the substance of the blood which, proceeding as a river from a fountain and first borne along in one channel and then spreading through innumerable veins, irrigates the whole territory of the human body with vital streams, being supplied by the agency of the liver, which has its seat in the right side for effecting the digestion of food and turning it into blood?" The passage is of deep interest, and in that history which we have already desiderated must find its place as an important link in the inductive chain which it was reserved for Harvey to complete and to connect with universal truth.

*Anxious.*—It is only safe to employ a qualified assistant under the immediate supervision of the principal and living in the same house.

*Mr. J. W. Cook.*—We do not recommend practitioners.

## PSEUDO-CYESIS.

To the Editors of THE LANCET.

SIRS,—You may think the following case of spurious pregnancy of sufficient interest for publication.

A lady engaged me to attend her in her confinement. She stated that she was eight months pregnant. Inquiring her age, I discovered she was fifty-two years old, which surprised me, and I obtained the following history. Until to eight months before she had been perfectly regular and showed no signs of change of life. She was a widow with two children, the youngest being of age. She had incurred the risk of impregnation

eight months previously with a man who promised her marriage, which promise he has not fulfilled. Morning sickness almost immediately set in and lasted for seven weeks. The breasts became painful and she "quickened" at the beginning of the sixth month, since when, she said, "the kicks have often made me feel faint." She increased greatly in size. I did not then examine her. Five weeks later I was sent for, as she was said to be in labour. The pains were very strong and frequent on my arrival. Palpation failed to reveal the presence of a child, though the abdomen was very large; breasts turgid and secreting milk freely. While examining the abdomen I saw a distinct impulse, and on placing my hand over the point felt the rectus muscle violently contract. It was very like the kick of a child. Vaginal mucous membrane normal in colour; cervix ulcerated and congested. The sound passed into the womb registered 8½ in. The os slightly patulous. Temperature of patient 100°; pulse 100 and irregular. I assured the patient and her friends that she was not pregnant, but I think they would like to have assured me I was not sane. However, I insisted upon it, and very shortly the pain ceased. Next morning the breasts had ceased to secrete milk, the abdomen was decidedly less in size and there had been no pain. I ordered the patient up and to go out (she had not been out for nine months, fearing recognition of her state), which she did, and a few days after had a regular menstrual flow and is now in her normal healthy condition. The patient after connexion had been much worried, fearing impregnation, and had been unable to sleep, and the symptoms very soon showed themselves and followed the regular order. She had disclosed her condition to her family, causing much grief, and in all good faith had prepared everything for her confinement and lying-in.

I am, Sirs, yours faithfully,

July, 1892.

G. HAY REYNOLDS, M.B.

## MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—In reply to the question asked by "A. H. T. D.," may I point out that there is nothing to prevent any association from making a contract with a member of the legal profession in order to obtain advice at a low rate, and that if the Incorporated Law Society or the General Medical Council try to interfere in those matters they will have to be dealt with by a still more powerful body, the House of Commons, the vast majority of whose members are dependent for their seats on the votes of men who are either members of friendly societies or who sympathise with those who are. Moreover, were the whole population of these islands to secure advice and medicine by paying 1d. per week the income of a medical man would be about £300 a year, and if we consider that the larger incomes made in our profession are drawn from a comparatively small wealthy class who will not join friendly societies, we can see that no increase of such societies can greatly reduce the incomes of medical men. I have been in the employment of a practitioner who paid me barely 5 per cent. of the income he received from my work, whereas now, in the employment of a friendly society, I receive about 50 per cent. of the payments of members and all the midwifery fees. What is it to me who gets the surplus, and why should I fancy I have any claim on it? There are many other reasons which make me prefer my present position to that of an assistant; there is no possibility of differing on a professional matter from my employer—a difference which, whether he proves to be right or wrong, results unpleasantly for an assistant; I hold a permanency during good behaviour, and cannot be dismissed to make way for a partner or for the principal's son (newly qualified); my employers increase my salary according to promise and do not allege that "business is bad," for the plain reason that they have no interest in doing otherwise; I receive far more respect from my patients than I should receive in a surgery, where the patient, having his fee ready and knowing that other surgeries are open to him, regards the doctor as he does the publican. I very seldom see my employers, and am not interfered with by them in the discharge of my duties. All these reasons lead me to think that assistants are justified in looking on even a junior position in connexion with a medical association as a prize, and that they do so is shown by the keen competition for such appointments. As to the fact that the parish nurses attend our cases, I may point out that instances are not rare in which even patients who pay large fees to their medical attendant seek the services of these women. In conclusion I may say that I have heard of no instance in which a doctor was refused an appointment because of his having been connected with a Medical Aid Society.

I am, Sirs, yours faithfully,

July, 1892.

VERAX.

## INCREASE OF MEDICAL OFFICERS' SALARY.

A GENERAL MEETING of the Glamorgan County Council Asylum Committee was held recently to consider applications on behalf of the medical staff for increase of salary on account of increased duties. It was recommended that the medical superintendent, Dr. Pringle, should have his salary increased from £800 to £1000; Dr. Stewart, second in charge, to have an increase from £200 to £250; Dr. Findlay to be raised from £150 to £200; and another medical officer at Angeltown to be increased from £120 to £150.

*Suffolk.*—The question is hardly one for us to decide, but in the absence of other evidence it would appear as if the clause quoted stated the precedence of the parties.

## THE "STABILIMENTO BALNEARE" AT NOCERA.

PROFESSOR MURRI of Bologna, than whom there are few better qualified to speak authoritatively on therapeutics, has put on record his high opinion of the virtues of the waters of Nocera, particularly in gouty affections in which stomach, liver, kidneys and heart are involved. The source that yields the so-called *Acqua Bianca* has proved of signal efficacy in the uric acid diathesis, and the air of the locality is such as to cooperate effectively in promoting a return to the healthy state. Like other centres of mineral-water supply, Nocera after centuries of popularity fell into disrepute, sharing, indeed, the general decadence that befell Italy after the Renaissance. It was still resorted to in 1714, the year in which a medal was struck to commemorate the building of the Palazzo Nuovo by Pope Clement XI., who highly appreciated its healing resources; but shortly after that date it had almost ceased to attract visitors, in spite of its noble position, its excellent air and the undoubted virtues of its *Acqua Bianca*. Quite recently, however, it has, like many other Italian institutions, undergone a resurrection, and few "stabilimenti balneari" in the peninsula have done more to merit a return to popular favour. In summer its temperature ranges from 16° to 22° C.; it is sheltered from the hot winds of the south; its air is dry, pure and restorative, not too stimulating for the nervous system and very grateful to delicate chests. It has, moreover, warm alkaline baths for disorders of the skin and for rheumatic and gouty subjects, and its hydrotherapeutic staff consists of able physicians provided with every resource for the inhalation of compressed or rarified air, for the practice of Faradisation and other electrical treatment, culminating in "bagni elettrici" proscribed and administered by well-qualified consultants and attendants. Professor Murri's attestation to the value of the "stabilimento" is confirmed by the written opinions of Professor Castiglioni and Dr. Barduzzi, two eminently sound authorities, who have had personal experience of its efficacy. Add to this the lovely landscape of Umbria, recalling so many *chefs-d'œuvre* of Perugia and his pupil Raphael, and Nocera would seem to be a health resort inferior to none in Italy and to few in Austro-Hungary, Switzerland, Germany or France. Hotel accommodation, usually defective in Italy, has of late years been much improved throughout the peninsula, and that of Nocera, previously sharing in the general roughness of Italian houses, now affords a favourable specimen of the more comfortable appointments demanded by modern civilisation. The season is now at its height, but the early summer and the late autumn have much to recommend them, especially to the visitor from northern latitudes.

*Lex.*—Much depends on the distance between the towns A and B and the possibility of C being able to take personal interest in and exercise supervision over affairs in town A. The mode of procedure is not ordinary, but we are not prepared to say it is wrong.

## THE OPIUM HABIT.

To the Editors of THE LANCET.

SIRS,—In reply to the letter of "Opium" I beg to inform him that there is no limit to the quantity of opium or tincture of opium that a druggist may sell to a customer. A few months since I discovered that a druggist had for many years supplied one of my patients with thirty or forty ounces at a time of tincture of opium. This patient had contracted the opium habit, but although I suspected that small quantities were taken I was astonished to find that it had been possible to procure it in the quantity I have mentioned. I have been informed on good authority that the Sale of Poisons Act does not in any way prohibit the sale of laudanum in any quantity and without any inquiry as to the name of the purchaser or the purpose for which it is required. This reveals a most lamentable state of things, and shows the necessity for an amendment of the law. The Association for Preventing the Sale of Opium to the Chinese should investigate the subject of the facilities for obtaining opium without let or hindrance in England.

I am, Sirs, yours obediently,  
SANITAS.

July 11th, 1892.

*Medical Superintendent.*—Misrepresentation and exaggeration are inexcusable in a lady allowed to visit hospital patients. But any honest criticism directed in the first instance to the authorities of the hospital should be welcomed.

*Correspondent.*—He should be willing to do so if required.

## LIFE INSURANCE.

To the Editors of THE LANCET.

SIRS,—The vital importance of life insurance for the medical profession must be my excuse for asking you to allow me to call your readers' attention to the Pioneer Life Office of Liverpool, which seems to be very little known in London. The advantages offered are so great, the premiums so small and the system so easily grasped that I would advise all intending insurers to thoroughly examine it.

I am, Sirs, yours faithfully,  
M.D.

June 20th, 1892.

## CHOLERA REGULATIONS.

The following General Order has been issued by the Local Government Board to portsanitary authorities, urban and rural sanitary authorities, medical officers of health, officers of customs, masters of ships &c.:

"Whereas cases of an infectious disease alleged to be cholera now exist in certain parts of France and it is expedient that regulations should be made with reference to ships having on board bales of rags from that country, now therefore we, the Local Government Board, do by this our Order, and in exercise of the power conferred on us by Section 180 of the Public Health Act, 1875, by the Public Health Act, 1880, by Section 118 of the Public Health (London) Act, 1891, and every other power enabling us in this behalf, make the following regulations, and declare that they shall be enforced and executed by the authority or authorities specified: 1. From and after July 12th, 1892, and until we shall by order otherwise direct, no rags from France shall be delivered overside, except for the purpose of export, nor landed in any port or place in England or Wales.—2. If any rags shall be delivered overside or landed in contravention of this order, they shall, unless forthwith exported, be destroyed by the person having control over the same, with such precautions as may be directed by the medical officer of health of the sanitary authority within whose jurisdiction or district the same may be found.—3. All masters of ships consignees and other persons having control over any rags prohibited under this order from being delivered overside, except for the purpose of export, or landed, are required to obey these regulations.—4. All officers of customs are empowered to prevent the delivery overside or landing of rags in contravention of this order.—5. It shall be the duty of the sanitary authority to take proceedings against masters of ships, consignees or other persons having control over any rags, who shall wilfully neglect or refuse to obey or carry out, or shall obstruct the execution of any of these regulations." [The Public Health Act, 1875, provides by Section 180 that any person wilfully neglecting, or refusing to obey or carry out, or obstructing the execution of any regulation made under that Section shall be liable to a penalty not exceeding £50.]

## CLAIM TO EMERGENCY CASES.

*One Anxious to Know.*—We think Dr. A. has no claim to the case in question. Claims arise either from previous attendance on patients, or from a sudden call in an emergency. But it cannot be maintained that a message in an emergent case to the practitioner whose door comes first in the messenger's way gives any claim to the case.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Messrs. Allen and Hanburys, London; Mr. R. Bingham Adams, Southsea; Mr. E. Brown, Birmingham; Mr. J. F. Bullar, Southampton; Dr. J. St. Clair-Boyd, Belfast; Dr. R. W. Bateman, Newmarket; Messrs. A. and C. Black, Edinburgh; Mr. Baron, Manchester; Messrs. Burgoyne and Co., London; Dr. Bobardt, Newbury; Dr. H. J. Buck, Clapton Common; Mr. J. B. Browne, London; Messrs. Baillière, Tindall, and Cox, London; Mr. Philip Boobyer, Nottingham; Messrs. Black, London; Mr. Birchall, Liverpool; Dr. Canney, London; Surgeon-Lieutenant-Colonel A. Crombie, Calcutta; Messrs. Chapman and Farrington, London; Mr. Cooke, London; Dr. Coghill, Birmingham; Dr. W. Dale, London; Mr. Davids, Banbury; Mr. J. H. Dewhurst, Tunbridge Wells; Messrs. W. and W. Davies, Brighton; Mr. Havelock Ellis, London; Mr. Fardon, Liverpool; Mr. J. Foare, Liverpool; Mr. Gravatt, London; Messrs. Chas. Griffin and Co., London; Mr. T. Campbell Grey, Swansea; Mr. Heywood, Manchester; Mr. Harding, Loughborough; Messrs. Humphreys, London; Mr. J. W. Lawrence-Hamilton, Brighton; Mr. Hornbrook, London; Mr. M. J. Houghton, Wolverhampton; Dr. Hedley, Brighton; Mr. Johnstone Herbert, Whitby; Mr. C. A. James, London; Dr. Kanthack, Cambridge; Mr. Knight, Dublin; Dr. T. Laffan, Dublin; Mr. Maconochie, London; Mr. McGachen, Tilbury; Mr. Martin, Blackburn; Messrs. McDonald and Sons, London; Mr. Macaulay, Halifax; Messrs. Mitchell and Co., London; Mr. F. M. Mangan, London; Mr. Lewis A. Marin, Bayswater; Dr. James W. Martin, Leith; Messrs. Mason and Co., Chelsea; Mr. A. Nixon; Dr. C. Oakes; Messrs. Oppenheimer Bros. and Co., London; Dr. Oliver, Newcastle-on-Tyne; Dr. Phillips, Birmingham; Mr. Chas. E. Piers, Capetown; Mr. Page, London; Mr. W. T. Palmer, Barking; Mr. Rumble, Camberley; Messrs. Rowntree and Co.; Mr. F. J. Rebman; Dr. Snow; Mr. J. Barker Smith; Mr. C. Sers, Peckham; Mr. Smith, London; Mr. Spencer, London; M. Ch. Somasco, Creil; Major Singleton, London; Mr. Smith, Westgate-on-Sea; Mr. Storer, Nottingham; Mr. Stallard, Worcester; Dr. Chas. Steele, Bristol; Messrs. Saint and Co., Carlisle; Mr. Thomas, London; Mr. Vickers, London; Dr. Wethered, London; Dr. W. Essex Wynter, London; Messrs. Whitehead, London; Messrs. Wright and Co., Bristol; Mr. Woodcock, Bradford; Messrs. Wright, Dain, and Co., Birmingham; Mr. Worrell, London; Messrs. Winsor, Sykes, and Co., London; Mr. Williams, Tranmere; Messrs. Whitworth and

Stuart, Manchester; Messrs. Wilson and Blossley, London; Sheffield Public Hospital; *Nursing Record*, London; Agent-General for New Zealand; Secretary, Victoria Infirmary, Glasgow; Secretary, Bury Dispensary Hospital; Hope, London; Lady Superintendent, North London Nursing Association; General Apothecaries' Co., London; The Bursar, Epsom College; M.B., London; Surgeon, London; *Patent Medicine Journal*, &c., London; Mark, London.

LETTERS, each with enclosure, are also acknowledged from—Dr. Luca Scilla, Italy; Mr. Ward, Cork; Mr. Keens, Luton; Messrs. Keith and Co., Edinburgh; Rev. A. Tooth, Croydon; Mr. Moseley, Upper Caterham; Mrs. Burchell, Bradburn-on-the-Sea; Mr. Marks, New York; Dr. Dixey, Sidcup; Mr. Thin, Edinburgh; Messrs. Battle and Co., Paris; Surgeon-Captain Hughes, Malta; Dr. Pendleton, West Brighton; Mr. Cox, Southport; Mr. Breach, Newbury; Messrs. Lee and Martin, Birmingham; Mr. Cobb, Dolgelly; Mr. Jamison, Ebbw Vale; Mr. Fry, Maldstone; Mr. Brown, Tredegar; Messrs. Thynne and Co., Westminster; Dr. N. Kerr, London; Mr. Mainwaring, West Kensington; Mr. Birkenhead, Coalville; Mr. Groves, Dorset County Asylum; Dr. Ingle, Jersey; Mr. Fox, Chesterfield; Mr. Cochrane, Greenock; Mr. Norman, Buckfastleigh; Mr. Johnstone, Edinburgh; Mr. Cane, Waterford; Mr. Davidson, Ballymena; Mr. Hardy, Maldstone; Mr. Griggs, St. Albans; Mr. Griffiths, Lampeter; Mr. Rhodes, Huddersfield; Mr. McFarland, Smallburgh; Messrs. Bonger, Manchester; Mr. Kegworth, Lincoln; Miss Elliott, Manchester; Mr. Tyto, Minchinhampton; Dr. Williams, St. Servan; Mr. Fitzgerald, Queens-town; Mr. Spencer, Devonport; Mr. Findlay, co. Durham; Mr. Bayley, Basingsstoke; Mr. Wheatley, Blackburn; Mrs. Rutherford, Sussex; Mr. Wheeler, Manchester; Mr. Deane, Lincoln; Mr. White, Wolverhampton; Mr. Millor, Aysgarth; Mr. Eales, Torquay; Mr. McDonald, Glasgow; Mr. Fiske, Maldstone; Mr. Kerr, York; Mr. Armstrong, London; Dr. Mason, Pontypool; Mr. Walker, Canada; Mr. Duckett, Burnley; Mr. Totten, Bolton; Mr. Goodman, Taunton; Mr. Mackay, Pontnewydd; Dr. Wetherall, Australia; Mr. Johnstone, Canada; Dr. Harvey, Australia; Galen, London; British Medical Protection Society; Anvers, London; H. J., London; Medicus, London; Class Booms, Edinburgh; Alpha, London; Alpha, Birmingham; College of State Medicine, Bloomsbury; S., London; Secretary, Joint County Asylum, Abergavenny; Kensington, London; Hackney Furnishing Co., London; Transfer, London; K. H. F., London; L. D., Kidderminster; Smith, Eastbourne; Edinburgh, London; Clayton, Edinburgh; Gerald, Cheshire; J. M. M., London; A. B., London; J. W., London; Surgeon, Wantage; Alpha, Farnworth; Edina, Edinburgh; B. C. H., London; G. Jasper-street, Hanley; B., London; M.R.C.S., Finsbury-circus; Beta, London; B., Borough; Tabes, London; Belgrave, London; Medicus, Bristol; Maraden, London; F.R.C.S. Eng., London; M. C., London; York, London; Nucleus, London; Gravitas, Middlesbrough; Sherlock, London.

NEWSPAPERS.—*Leicester Daily Post*, *Sydney Morning Herald*, *Brighton Guardian*, *Newcastle Daily Chronicle*, *Birmingham Post*, *Liverpool Courier*, *Western Daily Press*, *Toronto Mail*, *Montreal Daily Star*, *Le Temps (Paris)*, *Health*, *Windsor and Eton Express*, *Local Government Chronicle*, *Law Journal*, *Hertfordshire Mercury*, *Guy's Hospital Gazette*, *Insurance Record*, *Surrey Advertiser*, *Windsor and Eton Gazette*, *Mining Journal*, *Weekly Free Press* and *Aberdeen Herald*, *Reading Mercury*, *City Press*, *Architect*, *Engineer*, *Nottingham Daily Express*, *Local Government Journal*, *Citizen*, *Builder*, *West Middlesex Advertiser*, *Bradford Observer*, *Midland Evening News*, *Kimberley Independent*, *Scottish Leader*, *Doctor's Weekly (New York)*, *The Times Democrat (New Orleans)*, *Court Journal*, *Sunday Times*, *Scoteman*, *United Service Gazette*, *Nottinghamshire Guardian*, *Woodford Times*, *Bristol Times and Mirror*, *Western Morning News*, *East Grinstead Times*, *Irish Times*, *Express and Star (Wolverhampton)*, *Northern Whig*, *Lynn News*, *Yorkshire Herald*, *Times of India*, *Pioneer Mail*, *The Statesman (Calcutta)*, &c., have been received.

## Medical Diary for the ensuing Week.

### Monday, July 18.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

### Tuesday, July 19.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

### Wednesday, July 20.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

### Thursday, July 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
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### Friday, July 22.

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ABSTRACT OF TWO

Lectures

ON

POTT'S DISEASE OF THE SPINE.

*Delivered at the National Orthopaedic Hospital, London,  
on May 9th and 10th, 1892,*

By E. MUIRHEAD LITTLE, F.R.C.S. Eng.,  
SURGEON TO THE HOSPITAL.

IT would be futile to attempt to discuss fully in one or two lectures the history, etiology, pathology, symptoms and treatment of Pott's disease, and I shall not try to do so, but will confine myself chiefly to a consideration of some of the more important points in the diagnosis and treatment of this malady. Caries of the spine was known to the ancients and is mentioned by Hippocrates, but it was reserved for Percival Pott in 1779<sup>1</sup> to fully describe it. It has long been considered to be associated with the strumous diathesis and is now, in common with other strumous bone troubles, recognised as a local manifestation of tuberculosis, though we may be hardly prepared to find that out of 185 cases in which this point was investigated by Gibney of New York he got a history of tubercle in one or both parents in 76 per cent. Both sexes are liable—males slightly preponderating, according to most authors. The disease is rare during the first two years of life, the third year being that in which the onset most frequently occurs, and the frequency diminishes in each succeeding lustre; and, although there is a general agreement among authors as to this relative liability, the figures given differ remarkably. An analysis of the last 320 cases treated at this hospital shows that there were 151 males and 169 females. Of these cases 115 occurred in the first five years of life, and 200 before the end of the tenth year. After adult age cases are rare; the onset may, however, occur at any age, up to even seventy-three, as recorded by Dr. Ogle in the case of a well-known ecclesiastic.<sup>2</sup> Which region of the spine is most frequently attacked? There is no doubt that the dorsal region is by far the most liable. All observers are substantially agreed on this point. The lower six dorsal vertebrae are more often attacked than the upper six, or than the lumbar or cervical region. The lumbar region comes next in order of frequency, and last the cervical.

Like other strumous bone troubles Pott's disease is often the outcome of the inflammatory reaction following on some perhaps slight injury and it most often happens that the patient's friends consider the disease as the result of a fall or tell you that it comes of his having been dropped by a nurse. In 845 cases Taylor found a history of injury in 53 per cent (447). It should, however, be borne in mind that all active children are liable to falls and I believe that if the parents of a large number of healthy children between the ages of two and ten years were interrogated more or less severe falls during the previous twelve months would be recorded in a large percentage, if not in 50 per cent. of cases. The disease may have its seat in the bodies or the arches of the vertebrae. These latter are rarely affected and their destruction in whole or part does not produce the serious deformity that follows destruction of the bodies. I have here several sequestra removed from the right lamina of the seventh dorsal vertebra in a girl aged fifteen now in the hospital.

Abscess is in my experience not so common a complication of Pott's disease as is generally supposed and among 187 cases treated here as out-patients I find only 7 in which abscess is recorded. Among in-patients abscess is far more common (21 in 133 cases), evidently because many cases are admitted because they have abscesses, which otherwise would be treated as out-patients. Pus must in most cases be formed during the course of the disease and the records of post-mortem examinations show that abscess frequently exists without any external evidence of its presence being given. Thus Mohr found abscess in 30 out of 61 necropsies and Nebel in 56 out of 82. An abscess may reach the surface in the pharynx in the case of cervical caries, in the loin in lumbar or dorsal disease, and following the sheath of the psoas may appear in the groin or at any point below Poupart's

ligament. Abscess may cause obvious swelling in the anterior surface of the abdomen, or may pass over the crest of the ilium and appear on the buttock. Abscesses have also been known to make their way into the lung, trachea, bronchi, alimentary canal, or bladder, or burst into the peritoneum or larger vessels. These abscesses contain pus, serous or sero-purulent fluid, or cheesy or cretaceous matter and sequestra. Spontaneous cure is the end of the majority of vertebral abscesses, if we include those which give no external sign of their presence.

For convenience the course of the disease may be divided into three stages—(1) Inflammatory; (2) loss of substance; and (3) consolidation. In the earlier stages of Pott's disease, before there is any loss of substance, the symptoms are so vague and so often overlooked that, especially among the lower middle and working class, advice is seldom sought until there is obvious deformity. Pain, localised or referred to the periphery of the spinal nerves, is not in my experience a common symptom at any stage of the malady, and it is surprising that such extensive disease, involving one of the most important bony structures of the body should be so little painful. Tenderness on pressure over the spinous processes is also rare, and the hot sponge described as a test in many surgical text-books is of little diagnostic value. Peculiarities of gait and attitude and departures from the normal in the mobility of the head and trunk are the symptoms which are the most characteristic. In whatever part of the vertebra or vertebrae the disease begins the affection sooner or later reaches a part where the inflamed structures are interfered with by motion and the irritation caused by movement tends to aggravate the inflammatory process. The efforts of nature, as in hip-joint disease, seem directed towards procuring physiological rest for the part by the involuntary contraction of the appropriate muscles. Hence in the spine, as in the hip, we have stiff joint as an early symptom due to muscular action and stiff joint as a final result due to ankylosis. The parallel holds good, although Pott's disease is not primarily a joint affection. This contraction of the muscles produces rigidity of the part of the spine affected and often of the greater part of the column. The wider the range of movement in health the more marked and obvious is the stiffness in caries. Consequently, when the cervical region is the seat of disease the stiff neck is at once noticed by the friends, whereas in the dorsal region rigidity may be overlooked for months until the case is examined by a surgeon. The patient in the early stage of cervical caries—say, in the middle of the region—if directed to look over one shoulder turns his whole chest, the movement occurring in the loins and hips. Flexion and extension of the neck is no longer practised. Nodding, although limited, may be possible, and if the upper cervical vertebrae are affected voluntary flexion and extension are impossible, the head and neck forming one rigid rod. A characteristic attitude seen in some cases of cervical disease is that in which the patient rests his elbows whenever he can possibly do so, and takes the weight of his head off the inflamed structures by supporting it in the palms of his two hands. He sometimes, if a child, "squats" in oriental fashion and stooping forwards holds his head while his elbows rest on his knees. Patients with caries in the neck walk with a peculiar air of anxiety and, carefully avoiding any jar or shock, may be said, like Agag, to go delicately.

In the first stage in the dorsal region the patient will avoid bending the back, and if the disease be severe it will be noticed that he takes some of the super-incumbent weight of head and upper extremities off the inflamed structures by resting his hands on the seat of the chair on which he sits, on a table or on any available object. Sometimes the child will lean the body (without bending it) forwards and rest his hands on his thighs, the hip and knees being slightly bent. If a patient is asked to pick up anything from the floor he will generally keep the trunk perpendicular and sink down by bending the knees and hips until his hand is within reach of the ground. This is very characteristic. With disease in the lumbar region the gait and posture are much the same as in the dorsal, but the upper part of the spine is less rigidly fixed. In the lowest dorsal and lumbar region, psoas contraction is apt to occur and this may be the only marked symptom besides rigidity. This contraction causes lordosis if the patient is old enough to walk about. If you tell the patient with dorsal caries to try to touch his toes without bending his knees—and this test is not available in young children—he will be able to go only a very little way and will keep his back stiff, and in lumbar caries this stiffness is still more marked. If a child suspected of Pott's disease be laid

<sup>1</sup> Remarks on that kind of Palsy affecting the Lower Limbs.

<sup>2</sup> Pathological Transactions, vol. xv., p. 20.

prone on a couch and the surgeon holding the ankles lift the lower extremities and pelvis while the upper part of the chest remains on the couch on which it rests as a fulcrum, should the spine be of normal mobility a general curve will be formed from the shoulders to the hips, while the thighs will be further extended. In Pott's disease, however, the trunk will remain rigid and the thighs slightly flexed and the patient generally resists the manoeuvre. Pain is very variable in the first stage of Pott's disease. In some cases the child cannot be moved without pain and the friends will say that it never seems easy and constantly cries unless it is lying down. In some children night cries occur; in others pain may be referred to the distribution of the spinal nerves of the part. Thus with disease about the seventh dorsal vertebra epigastric pain is complained of and sometimes vomiting occurs; in others there is pain over the hip (twelfth dorsal), and in lumbar disease the anterior crural or other lumbar nerves may be irritated and pain be referred to the thigh &c. In general the story told is that the patient has been ailing for some months, has been fretful and easily tired, and cries when moved roughly, but no very sharply localised pain is often complained of. The classic test, which consists of making the patient jump off a small height on the heels or drop on to the heels from tiptoe is not to be recommended; if there be active disease it will do harm, although, as a rule, in such a case the patient will not put it in practice when told to do so, and it is not always easy to get a healthy child to do it. The practice of pressing on the head in suspected disease high up is equally to be condemned and is yet more dangerous. As the first stage merges into the second alterations in the form of the column occur, causing in the dorsal region an exaggeration, in the cervical and lumbar an obliteration, of the normal curves or their reversal. Before this has gone very far all doubt of the nature of the disease is set at rest when the other usual symptoms are considered. One spinous process is soon found to project from the line, forming a boss, and as the bodies of the vertebrae on each side of the area of destruction fall together other spinous processes on either side become more prominent until a knuckle-like angle is formed. But it must not be forgotten that an irregularity of the line of spinous processes or marked projection of one or more of these is perfectly consistent with health. In that case, however, there is normal or sometimes more than normal mobility. This irregularity is, however, very different from the pronounced salient angle which develops in the later part of the second stage. But projection of one or more spines in the dorsal region, below the first two dorsal, is almost always pathological and presumptive evidence of caries. It is commonest in the lumbar region.

The backward projection in Pott's disease is not infrequently accompanied (as Lovett of Boston, U.S., has pointed out) by a lateral deviation from the mid line and a mistaken diagnosis may be made in such a case. The mobility of the column in slight or moderate lateral curvature and its rigidity in caries should prevent mistakes. Also rotation of the spine is absent in caries. Strain of the back may suggest early Pott's disease. If there be any doubt in such a case it must be treated as though caries were present. Time will clear up the doubt. In the posterior curvature which occurs in rickety infants there is generally mobility enough to exclude Pott's disease, but in some cases the differential diagnosis is not easy.

In disease of the cervical vertebrae the head is sometimes held awry, and such a case may be mistaken for torticollis. The freedom of movement within certain limits in the latter deformity quite negatives caries. A careful examination of the parts will, by showing the seat of the trouble, help to distinguish between hip disease and psoas-contraction in lumbar caries, or between the latter and sacro-iliac disease. In hysteria rigidity of the spine may simulate Pott's disease. The hyperaesthesia and absence of the typical symptoms of caries, such as resting the weight on the hands and the detection by careful observation of mobility when the patient is off her guard, will help in diagnosis. In rheumatism of the spine the local pain and the long-standing rigidity, without angular deformity besides the general constitutional state, are the chief guides to a diagnosis. That the diagnosis is not always easy is shown by the occasional occurrence of lamentable mistakes, as in a case reported by Mr. Edmund Owen.<sup>3</sup> In Dr. Ogle's case, before referred to, no suspicion existed during life of the extensive disease of

the axis and neighbouring parts which was found after death.

As a means of recording the progress of the deformity an outline of the contour of the spine should be taken by means of a flexible strip of lead, which is applied to the back—preferably while the patient is lying down—so as to lie closely in contact with the skin over the apices of the spinous processes. This strip of lead must be stiff enough to retain (with careful handling) the form thus acquired and is to be used as a guide to pen or pencil when laid on its edge on a piece of paper. The outline thus obtained is preserved for comparison with future ones. Another way of using the outline is to trace it on a piece of cardboard. The card is then cut through along the line, and the template thus formed is applied to the spine. If it does not exactly fit it must be modified by means of scissors. When accurate it is to be kept as a means of detecting the slightest alteration in contour. In dealing with very young children it will be found convenient to warm the lead to the temperature of the skin by immersion in a bowl of warm water. In the third stage the angle has reached nearly its maximum and the spine consolidates and only a slight alteration takes place in the contour here, but changes occur in the healthy parts of the spine, producing what are known as compensatory curves. These may go on increasing for years after active mischief has ceased.

The treatment of Pott's disease in its active phases, like that of other inflammatory bone or joint mischief, should be mainly directed towards securing complete physiological rest for the injured part, and in most cases all that is needed is to second the efforts of the patient, both voluntary and instinctive, which are directed to the same end. In a disease which tends so often to end in spontaneous recovery—we have had six deaths from all causes in 133 cases admitted as in-patients—radical operative measures on a part so deeply seated as the anterior half (the vertebral bodies) of the spinal column can seldom be justifiable; and although, since Israel's operation in 1882, Treves and others have operated on the seat of the bone lesion in a good many cases, the results are not such as to make the operation preferable to expectant treatment in most cases. In practice it is only in the lumbar region that the bodies of the vertebrae are at all freely accessible; and in the dorsal region, which is attacked in so large a proportion of cases, it is only by resection of ribs that the operation is feasible. It is also extremely difficult to remove the diseased parts thoroughly and safely, and without this an operation must be looked on as a failure. Rest—i.e., arrest of motion of the diseased part—is sought after in various ways, each of which has its advantages, by recumbency, by extension and fixation. Complete recumbency in the supine or prone position is advisable, for a time at any rate, in the first stage of disease in most cases, while in the severe cases, where there is marked constitutional disturbance it is a *sine qua non*. Its advantages are that it is simple, requires no apparatus and no special skill to carry it out, while it removes the weight of the parts above from the affected part of the spine to a more complete extent than any portable apparatus can do. Its drawbacks are that it prevents the patient taking exercise, that it is in young children difficult sometimes to maintain, and that the confinement to bed that it involves may be prejudicial to their health and may retard or prevent recovery. In most cases in the early stage patients are better without exercise, and by the use of the bed frame children can be easily prevented from sitting up. The bed frame consists essentially of two blunt hooks of  $\frac{3}{4}$ -in. iron rod jointed at the shank ends to a flat iron bar, the length of the distance between the patient's axillae (shown). The upper ends of the arms rest in these hooks, to the extremity of each of which a padded strap is fixed, which passes over the shoulders and buckles to the shank of the hook. The flat iron bar rests on the bed, below the nape of the neck, and the whole is attached to the head of the bed by simple means. Though principally meant to be used as a means of counter-extension when weights are used it is useful in simple continued recumbency to restrain young patients without interfering with the use of the arms. Extension may be made by weights attached to the feet, the bed frame being used for counter-extension, or the weight of the body, when the foot of the bedstead is raised up, may itself supply the counter-extending force. Instead of thus hanging, as it were, the body by the feet, which has obvious disadvantages, we may hang it by the head and upper extremities and this can be most conveniently done by using the suspension couch. This

<sup>2</sup> THE LANCET, Jan. 30th and Feb. 20th, 1892.

allows constant extension to be practised while the patient is in the sitting or reclining position, a method of treatment introduced by my colleague, Mr. F. R. Fisher, in 1877.<sup>4</sup> This method has the great advantage that the patient when in the sitting position can see what goes on around in the daytime, while at night he can be lowered almost to a horizontal position. The exact regulation of the amount of extension is easily made by means of the rack-and-pinion movement. Another means of applying extension and in children a most convenient and efficient one is the box known by the name of Dr. Phelps of New York. This consists essentially of a Y-shaped trough of wood, suitably padded. The body of the child occupies the trunk of the Y, the lower limbs the two branches. The sides of the box are cut away just below the shoulders of the patient to allow his arms free play and the bottom is also cut away below the buttocks to facilitate the use of the bed-pan. By means of occipital and chin straps regulated by buckles counter-extension can be made, the body weight acting as an extending force when the head end of the box is raised up, or by means of the anklets and cords extension can be made by pulling on the feet. The patient I now show you has been in such a box, modified by Mr. Ernst, for some weeks. The box is very light and easily carried about, and a child can even be taken to school in it and given as much fresh air as climate and situation allow. Experiments on the cadaver, both normal and affected with spinal curies, show that no practicable amount of force will effect immediate separation of the surfaces of the affected bones. I cannot but believe, however, that continuous and uninterrupted extension with only a few pounds weight, and still more so when a large part of the weight of the trunk is employed, must in time, by tiring out the muscles, succeed in reducing or nullifying the pressure between the diseased elements of the spinal column. Clinically extension is most useful and its results encouraging. Fixation of the spine is sometimes attempted in the active stage by the application of gypsum jackets or by some other portable appliance. In most cases fixation or attempted fixation is ineffective unless the mischief be situated towards one end of the column.

In the later stages of Pott's disease portable appliances have their true and best uses. These consist of gypsum, poroplastic felt, leather or wooden &c. jackets or instruments made of steel and leather. These have as their object to support the spine and prevent further bending of the affected portion, and it is claimed for some of them that not only may the deformity be reduced by their employment but even in some cases totally removed. It has never been my good fortune to see this result. The gypsum jacket has the great advantage of low cost and simplicity, needing the help of no instrument-maker in its application and being made of common and easily obtainable materials. On the other hand, it is heavy and in its simplest form not removable and consequently dirty and disagreeable. It may, it is true, be made to open and lace down the front, but is even then not adjustable to any great extent, and if much modification, owing to changing conditions of the spine &c., is wanted a new jacket must be made. In consequence of objections the gypsum jacket is very rarely ordered in this hospital, where the poroplastic felt jacket may be said to have quite taken its place. This material has the advantages of lightness, great plasticity when softened by steam heat, sufficient rigidity at the body temperature and consequent adaptability to changing conditions, and the jacket is easily removable. It should be applied while the patient is suspended. A properly designed and constructed steel support is perhaps the best possible appliance for convalescent or consolidated Pott's disease, but it has the disadvantages common to all elaborate instruments that it needs special skill and experience on the instrument maker's part and also on the surgeon's to secure a good result. Jackets and steel supports, unless they extend to the head and thus relieve the spine below of some of the weight of that organ, are of little or no effect as a means of longitudinal extension, and in children, even with the head-piece or jury-mast, the pelvis is so little developed that it is difficult or impossible to get a proper basis or point of support for counter-extension. These appliances must therefore be chiefly useful as a means of extending the spine in the sense of diminishing the abnormal curve or angle, in the same way that a splint is sometimes used on the outer convex side of the leg to straighten a curved tibia. Gypsum and poroplastic jackets can, however, do little more than support the trunk, while a steel support may be made to press on the projecting

angle, and by means of a pelvic band and shoulder-straps and a laced chest-piece counter-pressure at the ends of the lever can be obtained and further deformity be more surely prevented, or the existing angle be perhaps in some cases diminished.

In cervical and upper dorsal disease an extension of the apparatus to the head is imperatively needed, and for this purpose the occipital support with the chin and forehead straps is better than the overhead jury-mast, in that it more thoroughly immobilises and extends the cervical spine by using the occipital piece as a point of support for the head. It is also less unsightly and far less in the way. In high cervical disease one of the forms of collar which transfers the weight of the head to the shoulders may be used late in the disease, while in the acute stages recumbency, with sandbags to support the neck and prevent movement, is a classic and effective treatment, and the higher the disease the more complete should the rest be. A small, firm pad, as Mr. Hilton long ago pointed out, should be placed under the upper part of the neck to support the vertebra in the normal anterior curve of that part and in atlo-axoid disease—happily rare—to prevent pressure on the medulla by displacement of the odontoid process.

In the dorsal region (lower two-thirds) Phelps's box or recumbency, with extension by bed frame and weights, is the best treatment during the active stages of the malady. When consolidation begins a poroplastic jacket or well-fitting steel support is advisable. In the loin disease as a rule results in less deformity than elsewhere, because an obliteration or even reversal of the lumbar curve is much less obvious in its effects on the appearance and attitude of the body than alterations of form in the neck or chest, and the alterations of the normal loin curve are not often great, no doubt because (as Bradford and Lovett point out) the bodies here are very large and are not often completely or even extensively eaten away by the disease. In this region simple recumbency gives good results, while it is obvious that, owing to the nearness of the trouble to one end of the lever, it is difficult to exert antero-posterior extension by supports. Owing, however, to the length of the unaffected parts of the spine above, of which we can take hold by a jacket or instrument, mechanical support is more efficient here than in the dorsal region. A poroplastic jacket may be made by careful moulding and firm lacing to fit to the ribs at the sides and back so closely as to offer considerable support to the upper part of the trunk, some of the weight of which is thus transmitted to the hips direct. All jackets and instruments should be removed at night or at other times when the patient is recumbent, because they are not then needed, and also to allow the chest walls full play and counteract, as far as possible, the necessarily constricting effects of the jacket during the time it is worn. The "life" of a jacket is also prolonged by thus saving unnecessary wear and tear.

After consolidation is complete little or no change occurs in the gibbosity formed by the ankylosed vertebra, or remains of vertebra, but gradual changes in the "compensatory" curves which occur in the sound parts of the column above and below the projection go on for some time, unless prevented by a well-fitting and firmly applied support. These compensatory curves are the result of the erect position, in which without them the centre of gravity of the body and especially of head and upper extremities would be placed too far forward for stability; the gibbosity is therefore thrown backwards and the vertical through the centre of gravity made to fall within the base by the curves above and especially below (lordosis), but in some cases of dorsal disease instead of compensatory curves the lines of the angle are continued as it were above and below, and the whole trunk is thrown backwards by movement in the loins and at the hips, so as to attain equilibrium and much to exaggerate the apparent deformity; a proper support should prevent this. The chief complications are abscess, paralysis, psoas contraction. Abscess is a serious complication of Pott's disease and four modes of dealing with it present themselves: (1) Expectant treatment; (2) repeated aspiration; (3) injection of fluid to promote absorption; (4) incision. Expectant or, as it may be called, passive treatment should always be tried and persisted in as long as an abscess is not rapidly increasing or showing a disposition to point, and not a few chronic cases will do well under this treatment. It must be remembered that psoas and, in a less degree, lumbar and iliac abscesses differ in many circumstances from those in other parts of the body and those from other causes, and cannot often be dealt

<sup>4</sup> Essays on the Treatment of Deformities, Churchill, 1870.

with according to the general rules of surgery. In the first place the sac cannot freely be laid open nor the tissue lining it be safely completely excised. The channel communicating with the focus of disease is a long one and often tortuous, and there are often diverticula and other sacs communicating with that which is apparent externally by perhaps minute openings. Add to this the neighbourhood of important structures and the difficulties in the way of radical treatment are at once appreciable. In some cases, when an abscess has existed for a long time, it may have become cut off from its original source and be nothing more than a localised collection of pus, which is easily cured by incision. Aspiration will only remove the serous or more fluid parts of the contents, leaving the cheesy or curdy masses, which are more important, behind, and even evacuation of the fluid by aspiration may be hindered by the blocking of the needle by flakes of lymph or curdy masses. Aspiration, however, will, by reducing tension, put off the evil day of rupture. With antiseptic precautions simple incision, repeated if needed, is to be preferred to aspiration. Injection with iodoform glycerine or iodoform and ether is a means of treatment that has lately found favour in Germany—from 30 to 100 grammes (seven to twenty-five ounces) of a 10 per cent. solution being injected through an aspirator needle, the abscess having previously been emptied. Bruns claims fifty cures in fifty-four cases, and the treatment appears certainly worthy of trial. Iodoform poisoning is stated hitherto not to have been observed. For retro-pharyngeal or retro-oesophageal abscess incision is the best treatment, on account either of accessibility or danger to life. In lumbar abscess incision is more useful than in psoas abscess, as the sac is likely to be less extensive and complicated, and drainage is here much more complete. Lumbar incision may also advantageously be practised in abscess pointing in the groin, an incision being made at the outer side of the transverse processes of the vertebrae in the loin through the fibres of the quadratus lumborum. Pressure on the abdomen and groin will cause bulging of the sac, which may then be probed by an aspirator or grooved needle and then freely opened; if easily accessible the carious vertebrae may at the same time be attacked and scraped. Israel's case was of this kind; the canal was opened, liberating pus, but the patient died from empyema. In slow chronic cases, despite risk of lardaceous disease, a less heroic treatment is to be recommended.

Paraplegia as a complication of Pott's disease too often occurs, although in 133 cases treated here as in-patients I find it noted in only 10; paresis is mentioned in 8 cases. Of the 10 cases 7 recovered, while of the paresis cases 6 are recorded as recovered, no mention being made in the seventh of the paresis; probably it had disappeared. The lower extremities generally alone suffer, motor power being often completely lost, while sensation may be impaired but is seldom lost. Control over the sphincters of the anus and bladder is often lost; the knee-jerk is generally absent. The upper extremities are also in cervical disease occasionally palsied, yet they may recover. Spontaneous recovery under rest treatment is the rule even after a very long interval. The cause of the palsy is generally a pachymeningitis and not displacement of the vertebrae. Hence the contrast in prognosis between palsy from injury (fracture dislocation) and that from caries.

In the treatment of paraplegia rest and extension produce the most encouraging results. They may be applied when the disease is lower dorsal or lumbar, by weight extension in the recumbent position, or when it is above this by suspension from the head, and, if the body be heavy, also by the arms. The adult patient (twenty-two) you have just seen has been treated by the former method, the child whom you see by the latter method. Both had complete motor paralysis and loss of knee-jerk on admission and improved in general health under treatment. In the case of the child returning power was evident after a fortnight. Both can now (in July) walk about. I suppose that the improvement is not due to rest alone, from the rapidity with which improvement has set in when extension was applied, rest having, at least in the man's case, been previously tried. I presume that extension, by removing irritation and diminishing intervertebral pressure, allows the organism a chance to absorb the inflammatory products and thus alleviates pressure, more than by any possible straightening out of the distorted canal. Macewen advocated operative interference in pressure paralysis and operated by removing the laminae and spinous processes. This operation has now been done some score of times, with a fatal or negative result in many cases.

It is probable that some at least of the successful cases would have recovered under other treatment, and, as Lovett and Taylor have recorded, that when palsy came on under treatment every case studied by them recovered, and that of all cases 83 per cent. recover without operation, it must be plain that the field for operation is a narrow one, applicable to otherwise hopeless cases. After years of palsy even patients may recover without operative interference. In one case under my care recovery occurred after two years of palsy. Contraction of the thigh sometimes occurs in dorsal or lumbar disease where psoas contraction has been marked, and prevents the patient's reaching the ground with the affected limb without flexing the whole trunk forwards, as compensatory lordosis, such as occurs in hip disease is either prevented by ankylosis or else the whole available mobility is employed in compensating for the dorsal gibbosity. To prevent this contraction extension should be applied early wherever flexion of the thigh exists. When deformity from contraction remains section of the offending muscles and fasciæ subcutaneously should be practised. In some cases it may be necessary to operate on deeper structures, which can only safely be done by open incision. The limb must be kept extended by a splint for some time. This splint may form part of any support fitted to the trunk so as to allow walking.

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A REPORT ON  
THIRTY-SEVEN CASES OF TUBERCULOUS  
DISEASE OF THE HIP-JOINT,  
FOR WHICH EXCISION OF THE JOINT WAS PERFORMED  
IN THIRTY-SIX CASES.

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INTRODUCTION.

THE treatment of tuberculous disease of the hip-joint after it has advanced to suppuration is regulated by two main schools of thought. One considers it best merely to open and drain the abscesses as soon as they are detected. The other recommends that the abscesses should not only be opened, but that they should be cleared of tubercular material and that the tubercular growth should also be thoroughly extirpated from the joint, notwithstanding the fact that, in order to do so, it is usually necessary to remove the head of the femur. The relative merits of two methods of treatment have been much discussed in recent years, but the advocates of the rival plans are still, so far as we know, unconvinced by the arguments of the other side. *A priori* arguments and general impressions in regard to results will not carry conviction on a subject of this kind. Mere tabular statements of the results are also insufficient. The opponents of a particular method of treatment should be so completely supplied with the facts that they may estimate its merits and demerits for themselves. Such a report should deal with consecutive cases, which have been under treatment in sufficiently recent times to allow of at least the majority of them being traced; for it is surely just as reasonable to assume that untraced cases either are or have been under treatment at other hospitals or even that they are dead as it is to assume that all or the majority of them are cured because they have not applied for further treatment. Nothing further can be said of untraced cases than that they spoil the returns. Having these views in mind, we have not delayed our investigations to a time when the report might suffer conspicuously from untraced cases. This report deals with all the cases of tuberculous disease of the hip-joint which have been operated upon by one of us during the last six years. By making inquiries in the localities where the children used to live we have traced several cases which would otherwise have escaped us. We have only failed to find two patients. We have prepared abstracts of the notes

of all the cases. These, though of necessity short, include, it is hoped, all the important facts in regard to them. The condition of the children when last seen is pretty fully stated, and engravings, executed from photographs, are appended to the reports of the cases when the children have left off their splints and are going about, their wounds being healed.<sup>1</sup> In order to avoid repetition in the reports of individual cases, we shall first of all describe the plan of operation which was followed.

#### DESCRIPTION OF OPERATION.

The abscess, which almost always was found situated beneath the sartorius and tensor vagina femoris muscles, was first freely opened by an incision between these muscles and thoroughly scraped and scrubbed with sponges in order to remove the tubercular growth. The lower part of the abscess was then plugged, whilst the sinus which led into the joint, and which was usually found just above the neck of the femur in the angle between it and the great trochanter, was enlarged sufficiently to give exit to the pus and tubercular débris from the joint and to admit the finger. If the head of the femur was diseased, as it invariably was, the neck of the bone was divided with an Adams' saw and the separated head was raised from the joint with a curved elevator and removed. Care was always taken to divide no more of the Y-ligament than was necessary in order to remove the head of the femur, for it was considered that this ligament was one of the chief agents in limiting the inevitable displacement of the trochanter upwards. The cavity of the joint was then very thoroughly scraped with a sharp spoon and in some cases tubercular tissue was cut away with scissors. In the earlier cases repeated scrubbing with sponges was relied upon for the removal of the tubercular débris, but in the later cases the cavity of the joint was flushed out with water sterilised by boiling alone or, in addition, by perchloride of mercury in the proportion of 1 in 4000 either through Mr. Barker's flushing spoon or through a piece of rubber tubing. The cavity of the joint was then dried and, the wound being held open, a careful examination was made for any remaining tubercular growth with the aid of a strong light thrown into the cavity from a forehead mirror. By this means in a few cases tubercular foci were seen which would otherwise have escaped detection. Iodoform was applied to the joint and the cavity was tightly packed with sponges. After the stitches had been inserted the sponges were removed and the limb held in abduction. The sutures were then tied. In some of the cases a tube was inserted, but in others, following Mr. Barker's lead, no provision was made for drainage. In order to leave the cavity as dry as possible firm pressure was kept up about the joint until the dressing had been securely fixed with a moderately tight bandage. A double Thomas's splint made so as to maintain abduction of the limb was then applied. In the earlier cases the tube was not entirely removed for some weeks, in those about the middle of the series no tube was used, and in the later cases a tube was employed for about twenty-four hours. Immediate excision was not resorted to unless extensive and general disease of the joint was found. In some of the cases it was decided to deal with them as thoroughly as possible without excision, so as to give them a chance of healing without destroying the natural support of the joint. In all these cases with the exception of one, which is not included in this series, it was judged best to excise the joint at a later date on account of the unsatisfactory progress of the case.

The series of cases here reported refer to thirty-six patients. In one case both hip-joints were excised. We have therefore to do with thirty-seven radical operations for the removal of tuberculous disease from the hip-joint. Eight of the patients, or 21.6 per cent., are known to be dead. The mortality directly dependent on the operation was 10.8 per cent. (four patients). Of the remaining four cases two died of intercurrent affections altogether unconnected with tuberculosis and two died from other tubercular complications. There remain for consideration twenty-nine cases. Of these twenty-seven have been followed up; two could not be found. The report has therefore to do chiefly with twenty-seven cases. Seventeen of these are now healed and are going about without splints. They are subsequently referred to as completed cases. The remaining ten cases are still wearing Thomas's splints. Four of these appear to be soundly healed; six have

a sinus. After the reports of the individual cases we propose to give an analysis of them under several headings in order to bring into relief the points both favourable and unfavourable which appear to us to be the most important and instructive.

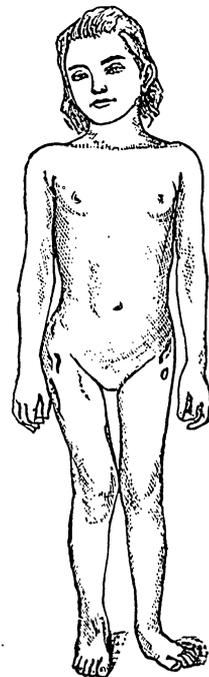
#### COMPLETED CASES.

CASE 1.—C. R.—, aged nine years. Disease of the right hip began at eight years of age. No cause was assigned. There had been no previous treatment. The patient was admitted to hospital one year after the onset of the disease with a large abscess behind the trochanter. The limb was adducted and everted but not flexed. The joint was excised through a posterior incision. The head of the femur and the trochanter were found diseased and the head of the femur and part of the trochanter were removed; the wound was drained with tubes. The temperature was normal throughout. The wound healed by primary union, except at the tube tracks; these healed by granulation two months after operation. There was a recurrence of the disease two years after the operation, the splint having been discarded for nine months. Carious bone was removed from the trochanter. The second and third secondary operations were performed six and ten months after the recurrence, and there was no further bone disease. The fourth secondary operation was performed eleven months after recurrence, an iliac abscess being opened. The fifth secondary operation was fifteen months after recurrence, with no further bone disease. The wound finally healed one year and four months after recurrence and three years and seven months after excision. A double Thomas's splint was worn for nine months after excision and a single Thomas's splint for six months more. The splint was resumed after recurrence and left off sixteen months after final healing. When the patient was last seen, five years and three months after excision (three years and three months after recurrence), the splint had been left off six months. The general health was fairly good. The real shortening was two inches, but the apparent shortening was only half an inch, the difference being due to abduction. The limb could be flexed to 10° and extended to the vertical. The patient walks easily with the aid of a stick. (Fig. 1.)

FIG. 1.



FIG. 2.



CASE 2.—R. B.—, aged seven years. Disease of the left hip began at seven years of age; no cause assigned; treated previously with Thomas's splint for six months; again by weight extension five weeks before admission. Admitted to hospital fifteen months after onset of disease with abscess over trochanter. Limb was flexed and adducted and rotated

<sup>1</sup> Owing to the length of this paper in its original form we are obliged to omit the abstracts of the incomplete cases; also some of the engravings.

inwards. Joint excised by anterior incision; head of femur much diseased; head and part of neck of femur removed; drained with tube. Temperature normal. Healed in three months; no recurrence of bone disease. Small sinus scraped four months after excision. Finally healed five months after excision. Single Thomas's splint worn for twelve months after excision and then left off without sanction. When last seen, five years and two months after excision and four years and nine months after healing, splint had been left off four years and two months. Joint quite sound; real shortening two inches. General health fairly good. Joint could be flexed to 90° and extended to vertical. (N.B.—This patient developed disease of the other hip about four years and a half after excision of the first hip; this was treated at the Evelina Hospital, where the head and neck of the femur were removed. Owing to this the apparent shortening could not be taken, and the patient could not walk without crutches; but with them and a patten on the left foot she could get about comfortably.) (Fig. 2.)

CASE 3.—E. M—, aged six years. Disease of the left hip began at five years of age after a fall; treated with weight extension for two months before operation. Admitted to hospital ten months after onset of disease with a posterior abscess. Limb was then flexed to 30° and adducted 20°; no shortening. The

months and afterwards with weight extension. Admitted nine months after onset of disease with abscess in front of joint. Limb was flexed and inverted; joint excised by anterior incision; head and neck of femur diseased and acetabulum perforated. Head and part of neck of femur removed with a loose sequestrum from acetabulum; no drainage; temperature normal on eighth day; healed by primary union; recurrence three months after excision. Two secondary operations were done three and nine months after excision. Sequestrum removed from acetabulum at the first of these; no further bone disease at the second. Third secondary operation performed a year and ten months after excision; small carious spot in acetabulum. Finally healed one year and eleven months after excision. When last seen, three years and four months after excision, or one year and five months after final healing, splint had been left off eight months. General health good and joint quite sound; real shortening one inch; apparent shortening one inch; no displacement of limb; joint allows flexion to 90° and extension to vertical. Walks easily on sole of foot without support. (Fig. 4.)

CASE 5.—A. P—, aged five years. Disease of the left hip began at four years of age; no cause assigned; no previous treatment. The patient was admitted to hospital a year after the onset of the disease with an abscess in front of the joint;

FIG. 3

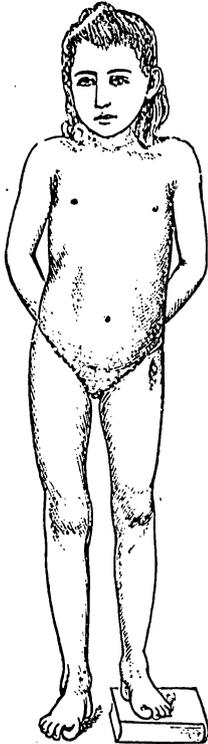


FIG. 4.

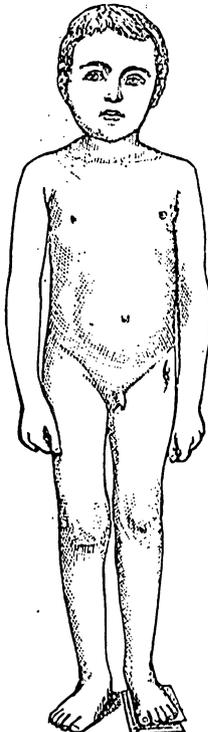


FIG. 5.

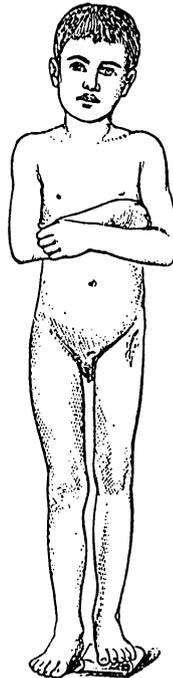
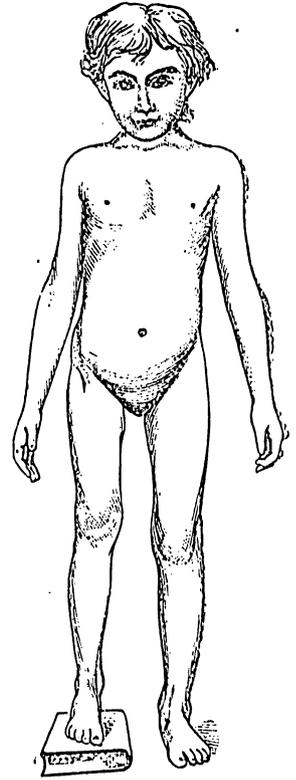


FIG. 6.



abscess was opened and drained six weeks before excision. The abscess track did not heal. Joint excised by anterior incision. Head of femur carious, and removed. Acetabulum only superficially affected. Drained for five weeks. Temperature irregular for three weeks after excision. Healed in seven weeks. Two small secondary operations, one consisting in scraping granulations, the other aspiration of an abscess three and eight months after excision. No recurrence of bone disease. Finally healed about nine months after excision. Splint worn for one year and ten months after excision. When last seen, four years and four months after excision, or three years and seven months after final healing, the splint had been left off about two years and a half. General health good; joint sound; real shortening two inches, apparent shortening one inch and a half; firm fibrous union at an angle of 45°; flexion compensated for by lordosis; difference in apparent and real shortening due to slight abduction. Walking good on toes without support. (Fig. 3.)

CASE 4.—J. M—, aged three years. Disease of the left hip began at the age of two years and three-quarters, after an injury to leg. Previously treated with plaster-of-Paris for three

joint excised through anterior incision; head of femur disintegrated; acetabulum and root of trochanter diseased; head and part of neck removed and trochanter scraped; drained with two tubes; temperature rarely above 101°. Healed by primary union, except at tube track; recurrence fourteen months after excision. Four secondary operations—fourteen, sixteen, eighteen, and eighteen months and a half after excision. At the second of these there was fresh bone disease in the trochanter and upper end of the neck of the femur, with two small sequestra. There was no further bone disease at the last two operations. Wound finally healed about six months after recurrence, and a year and eight months after excision. A Thomas's splint was worn for two years and six months. When last seen, three years and four months after excision, or a year and eight months after final healing, the splint had been left off eleven months. General health good and joint sound; real shortening an inch and three-quarters; apparent shortening an inch and a quarter, the difference being due to slight abduction. The limb could be flexed to 30° and extended to the vertical without movement of spine.

Walks easily on toes without support, and can run about with other children. (Fig. 5.)

CASE 6.—W. B—, aged five years. Disease of the right hip began at three years of age; no cause assigned; previous treatment by weight extension for three months, followed by Thomas's splint for fifteen months. Admitted to hospital two years after onset of disease with abscess in front of and on outer side of joint. Joint excised by anterior incision; head of femur destroyed and upper part of neck carious; remains of head and part of neck of femur removed; drainage for five weeks. Temperature never above 101°; drainage track did not heal; recurrence; two secondary operations four and thirteen months after excision; carious bone removed at each. Wound finally healed fifteen months after excision; a Thomas's splint worn for one year and nine months after excision. When last seen, two years and six months after excision, or one year and three months after final healing splint had been left off nine months; general health good; joint sound; real shortening two inches and a quarter, apparent shortening one inch and three-quarters, difference being due to slight abduction; limb was flexed at an angle of 10°; joint allowed slight flexion and abduction. Walking good on sole of foot. (Fig. 6.)

CASE 7.—C. K—, aged eight years. Disease of left hip began at six years of age; no cause assigned. Treated for nearly two years with a single Thomas's splint. Admitted to hospital two years after onset of disease with an abscess in front of joint. Limb was shortened three-quarters of an inch, adducted and everted slightly, but not flexed; joint excised by anterior incision; head and neck of femur diseased, acetabulum denuded of cartilage, but not very carious; head and neck of femur removed. Wound drained with two tubes for six weeks and a half; temperature only once above 101°; primary union except at tube tracks; no recurrence of bone disease, but residual abscess opened one year and eight months after excision, child having then left off splint five months previously. A double Thomas's splint was worn for seven months after excision, and a single Thomas's for eight months more. When last seen, two years and six months after excision, the splint had been left off about a year. General health fair. Real shortening one inch and a quarter; apparent shortening one inch; the difference being due to slight abduction. Joint firmly ankylosed in good position; no movement independent of pelvis. Walks on sole of foot, preferably with the aid of a stick, but can walk well without it. (Fig. 7.)

CASE 8.—L. A—, aged nine years. Excision of both hip-joints. Disease of the left hip began at eight years of age; no cause assigned. Treated with weight extension and double Thomas's splint before operation. Admitted to hospital one year after onset of disease with an anterior abscess. Limb in good position. Joint excised by anterior incision; head of femur carious, acetabulum affected superficially; head of femur removed; no drainage; temperature below 100° after third day. Primary union in three weeks; no recurrence or secondary operations. Wound finally healed three weeks after excision. Disease of right hip began insidiously while a double Thomas's splint was being worn; it was only noticed a month before excision. Joint excised by anterior incision three months and a half after first excision; head and neck of femur carious and most of head absorbed, acetabulum superficially diseased; head and neck of femur removed and a tubercular focus scraped in trochanter; no drainage. Temperature normal on eighth day. Primary union in three weeks; recurrence in scar six weeks after excision; no further bone disease. One secondary operation. Wound finally healed thirteen weeks after excision. A double Thomas's splint was worn for a considerable time after the operations (exact time not known). When last seen, two years and five months after the first excision, two years and one month after second excision and one year and ten months after final healing of second excision, the patient's general health was good in spite of the fact that she also had had spinal caries for which prolonged treatment had been necessary. Both joints were quite sound. Left limb: Real shortening, estimated, by relation of trochanter to Nélaton's line, two inches; joint allows flexion to 60° and extension to the vertical, also adduction to 45° and slight abduction. Right limb: Real shortening one inch and three-quarters; joint allows flexion to 30° and extension to the vertical, also slight abduction. The patient can walk slowly on the soles of the feet without any support. (Fig. 8.)

CASE 9.—A. C—, aged six years. Disease of right hip

began at four years of age; no cause assigned. Previously treated with Thomas's splint. Admitted to hospital two years and a half after onset of disease with an anterior abscess. This was opened and drained thirteen months before excision. As the sinus did not heal, the joint was excised by anterior incision. Head of femur nearly destroyed, acetabulum superficially diseased; remains of head and part of neck of femur and a sequestrum removed.; drained with tube; temperature never above 101.2°; wound healed by primary union except at tube track. Three secondary operations, three, four and six months after excision. Further bone disease at the first of these only. Wound finally healed eight months after excision. A Thomas's splint was worn for about one year and eight months. When last seen, two years and five months after excision, or one year and nine months after final healing, splint had been left off about nine months. The boy had not gained much flesh, but his general health was good. Joint firmly ankylosed at an angle of 15° flexion; real shortening one inch and a half, apparent shortening one inch and a half. Walking good on sole of foot without support. An interesting point in connexion with this case is the fact that signs of phthisis appeared at the right apex nine months after final healing,

FIG. 7.

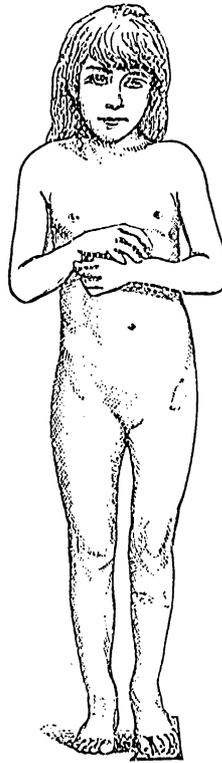
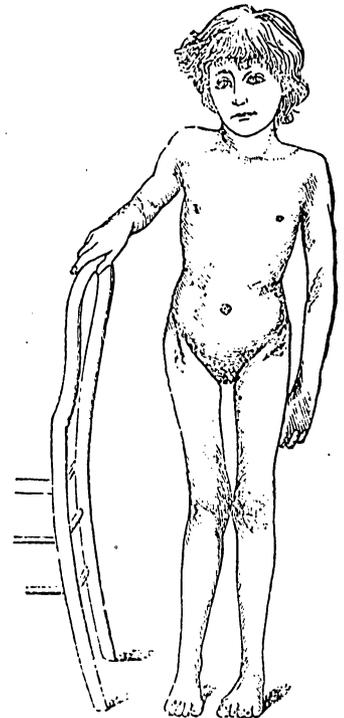


FIG. 8.



but when last seen (nine months after leaving off splint) no sign of phthisis was detected. (Fig. 9.)

CASE 10.—G. P—, aged five years. Disease of right hip began at five years of age, after a fall. A Thomas's splint was worn for some time before operation. Admitted to hospital five months after onset of disease with abscess in front of joint; limb flexed and everted; joint excised by anterior incision; head of femur diseased, acetabulum superficially affected; head of femur removed. Drained for four weeks; temperature never above 101.2°; wound healed by primary union except at drainage tract; finally healed five weeks after excision; no recurrence; no secondary operations. A Thomas's splint was worn for thirteen months after excision. When last seen, two years after excision, or one year and eleven months after final healing, splint had been left off eleven months. General health very good. Joint sound and fixed by firm fibrous union at an angle of 20°; real shortening one inch and three-quarters, apparent shortening one inch and a half. Walking good on toes without support. (Fig. 10.)

CASE 11.—C. N—, aged eight years. Disease of right hip said to have begun when the child was eighteen months

old. Admitted six years and a half (?) after onset of disease with a large abscess over right buttock and a discharging sinus over trochanter; limb was shortened one inch, flexed and adducted; joint excised by posterior incision; head and neck of femur destroyed; trochanter and acetabulum extensively diseased; trochanter and remains of neck removed; drained with tube; wound did not heal. Five secondary operations one, three, four, five, and twelve months after excision; at the second of these the joint was reopened from behind and more of trochanter sawn off. The other operations consisted in the scraping of sinuses and treatment of

FIG. 9.

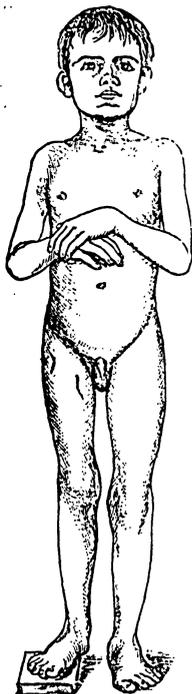


FIG. 10.

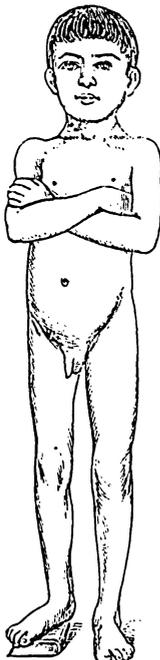
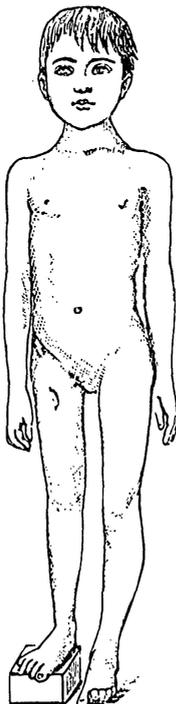


FIG. 11.



fresh abscesses. Wound finally healed thirteen months after excision. Temperature irregular all through till last operation. Splint worn for one year and three months after operation. When last seen, one year and eleven months after excision or ten months after final healing, splint had been left off eight months. General health good. Joint sound; actual shortening three inches and a half, apparent shortening two inches; difference due to abduction. Limb can be flexed to 30° and extended to vertical. Walking good on toes without support. (Fig. 11.)

(To be continued.)

**NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.**—This institution satisfactorily maintains its benevolent activity and usefulness. The new wing is found well suited to the important uses to which it is put. The receipts for the past year were £15,539 0s. 9d., the largest since the hospital has been rebuilt. The amount received for general purposes was sufficient to meet the expenditure and to leave a small balance, but a debt of £2200, with which the year opened, remained. The board has, however, since the account was prepared, been enabled to discharge the several loans and the institution again stands free from debt.

**SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.**—A quarterly court of directors was held on Wednesday, July 13th. Sir James Paget, President, was in the chair. Four new members were elected. The deaths of two widows receiving grants were reported. It was resolved to distribute on the 20th the sum of £1296 among the fifty-eight widows and eighteen orphans now in receipt of grants. No fresh applications for assistance were read. The expenses of the quarter amounted to £51 11s.

## PERFORATION OF THE INTESTINE IN PHTHISIS.

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(Concluded from p. 186.)

We will now turn to the consideration of the second result of perforation of the intestine by a tuberculous ulcer—namely, the formation of a chronic abscess having a direct communication with the bowel. Fæcal abscess may arise during the course of chronic phthisis under two separate and distinct conditions. In one a small localised collection of pus may form in the abdominal cavity as the result of a previous attack of peritonitis, and bursting through the wall of the intestine give rise to fæcal extravasation. The second variety results directly from perforation of a tuberculous ulcer of the bowel, and it is with this condition that the present paper is alone concerned. Fæcal abscess having its origin in tuberculous disease of the intestine is but rarely met with, for among 122 instances of this affection collected by Dr. Samuel Fenwick<sup>1</sup> only 10 were due to the perforation of a tuberculous ulcer. Among 2000 consecutive necropsies on phthisis performed at the Brompton Hospital we have only been able to discover 10 instances of the disease in question and with considerable difficulty have collected 15 additional cases from various sources, making in all a total of 25. The disease occurs at all periods of life, but perhaps is most frequent between the ages of twenty and thirty. In two cases the patients were less than four years of age, and in one case over sixty. Women appear to be more often the subjects of this affection than men, for of the 25 cases no fewer than 15 were females. The sac of the abscess may be situated either within the cavity of the peritoneum or in the substance of some solid organ. In the first case its walls may be said to be formed by a thickening of the serous membrane and adhesions between the neighbouring organs; while in the second the attachment of the fasciæ and an inflammatory thickening and condensation of the connective tissue constitute an efficient barrier against further diffusion of the purulent material. The cases at our disposal afford two instances in which the abscess-cavity was contained in the substance of a muscle. In one recorded by Piégu<sup>2</sup> a coil of small intestine had become adherent to the right psoas, and a perforating ulcer had given rise to a collection of pus among the muscle bundles. In another instance an abscess in the anterior abdominal wall owed its origin to the adhesion and perforation of a tuberculous ulcer in the ileum. It is interesting to note that in many instances the walls of the sac were found profusely studded with granulations, and in not a few cases an acute tuberculous affection of the peritoneum quickly followed the establishment of the local disease. So long as the sac remains entire the orifice in the bowel continues patent and the pus is feculent; but the abscess is very apt to burrow and discharge, either externally or into some hollow viscus, and when this event occurs the intestinal aperture may become completely closed and, the discharge continuing, may entirely lose its fæcal element.

With regard to the location of the fæcal abscess, it is to be noticed that the large intestine is far oftener the starting-point of the affection than the small, the proportion in our cases being nearly 3 to 1. In 21 instances the post-mortem notes define fairly accurately the position and relations of the abscess. In 10 it was situated in the right iliac fossa, the sac having formed eight times in the subperitoneal tissue and twice within the cavity of the peritoneum. Of the subperitoneal variety 6 were due to perforation of the posterior wall of the cæcum and 2 to perforation of the vermiform appendix, which in these cases was only partially invested by the peritoneum and lay behind the first portion of the large intestine. Both instances of intra-peritoneal abscess in this region originated in perforation of the appendix and

<sup>1</sup> *Obscure Diseases of the Abdomen: Art., Fæcal Abscess.*

<sup>2</sup> *Bulletins de la Société Anatomique, 1837.*

in one case there was a similar lesion in the ileum just above the valve. In five cases the abscess was found to occupy the central regions of the abdomen, in three of these it lay superficially and pressed the intestines backwards, while in the remaining two it was deeply situated among the coils of the small gut and was connected with them by numerous adhesions. The perforations in these cases were found as follows: three were located in the ileum, one in the jejunum and in one both the duodenum and cæcum were simultaneously affected. The pelvic cavity was the seat of an abscess in five cases; in three of these a perforation was found in the small intestine, one in the sigmoid flexure and one in the upper part of the rectum. In only two instances was the faecal abscess situated in the lumbar region, and in both of these the affection occurred on the right side. One originated in perforation of the ascending colon, while the other appeared to have followed faecal extravasation from the vermiform appendix. In twelve cases the abscess burst during life, and it is important to notice that in only one instance did the sac rupture into the cavity of the peritoneum. Three times an abdominal abscess made its way through the umbilicus, feculent matter mixed with pus being discharged continuously through the wound. In four cases an iliac abscess presented at the right groin, and in one the contents of the sac were evacuated by surgical interference. In three instances the abscess burst into some other portion of the intestinal tract; in one a lumbar abscess perforated into the ascending colon; in another an iliac abscess, resulting from disease of the appendix, made its way through the wall of the cæcum, while the third example occurred in the pelvic cavity and the pus found its way into a loop of small intestine.

Attention has already been drawn to the fact that fatal peritonitis may ensue from perforation of a tuberculous ulcer in the intestine without giving rise to any symptoms indicative of the condition, and it is therefore not surprising to find that in the majority of cases the development of a faecal abscess occasioned but little additional disturbance of the general health. Local pain was always complained of, and although this symptom varied in severity in different cases it was invariably increased by pressure and on muscular movement. Nausea and vomiting were noticeable features in nearly every case, sometimes continuing throughout the whole course of the illness, but more often only recurring from time to time. The formation of an abscess appeared to exert no influence upon the diarrhoea which always accompanied the extensive ulceration of the intestinal tract, but in one instance the stools were noticed to contain blood a few days before the discovery of the abdominal tumour. Emaciation proceeded rapidly in all the cases and the tongue presented a dry, furred or fissured appearance. In only one case did the patient suffer from rigors, a fact worthy of particular notice, since in cases of faecal abscess arising from causes other than tuberculous ulceration repeated shiverings are the rule and not the exception. With this single exception the clinical records of the cases fail to show that any definite degree of pyrexia accompanied the formation of the local abscess. Except when rupture of the sac took place, the abscess appears to have exerted but little influence upon the duration of life. In one case an abdominal tumour was discovered by accident a fortnight prior to death, and in the majority of cases life was certainly prolonged for three or four weeks after the presumable occurrence of perforation death finally resulting from exhaustion. From these facts it is obvious that a faecal abscess cannot be looked upon as a complication of chronic phthisis endowed with any symptoms more striking than those of chronic local peritonitis.

In 14 out of the 25 cases the presence of an abdominal tumour attracted notice during the life of the patient. In 9 instances the swelling occupied the right iliac fossa, in 3 the epigastric and umbilical regions, and in 2 the tumours invaded the greater portion of the anterior division of the abdominal cavity. The case with which it could be detected varied according to the relation of the sac to the abdominal wall, the outline being irregular and ill-defined when the abscess was situated deeply among the coils of intestine, but rounded and distinct when it occupied a more superficial position in the neighbourhood of the cæcum. In a few cases the swelling was sufficiently large to produce an obvious effect upon the outline of the abdomen. Owing to the presence of adhesions the tumour was always firmly fixed to the surrounding structures, and hence it not only resisted all attempts to displace it by lateral pressure with the fingers, but also failed to alter its position during forced acts of

respiration. Various statements are made with respect to the consistency of the tumour, some writers describing it as "hard and irregular," others as "soft and smooth," while the term "brawny swelling" is frequently made use of to express the physical characters of the disease when situated in the iliac fossa. In a few instances a certain amount of elasticity could be detected in the tumour, but true fluctuation could seldom be made out satisfactorily. It occasionally happened, especially when the abscess was situated in the iliac fossa, that firm pressure over the swelling produced a gurgling noise. This sign was probably due to the sac containing a mixture of air and fluid, but in some cases it might also have arisen from the presence of a piece of intestine interposed between the anterior surface of the tumour and the hand. The percussion note over a faecal abscess is liable to wide variation. Sometimes the note proves quite dull, and under these circumstances the sac is presumably full of fluid. In other cases the note is found to vary according to the force of the percussion stroke, being hyper-resonant when the finger is lightly struck, but becoming dull and toneless when more forcibly percussed. Such a qualitative change in the percussion note arises in all probability from the composite nature of the contents of the abscess, the tympanic sound being the expression of its gaseous moiety and the dull note that peculiar to the fluid portion. There is, however, one percussion sign of such importance that, when present, it is pathognomonic of faecal abscess—the sudden development of tympanic resonance over a tumour which had previously yielded only a dull note. In such a case the development of gas within the tumour can only have arisen from putrefaction among its original contents or by the direct admission of air or intestinal gas into the cavity of the abscess. In one of our cases it was expressly noticed that when the abscess due to perforation of the duodenum discharged itself through the umbilicus, the appearance of the pus was preceded by an escape of a large quantity of very fetid gas, after which the whole tumour became dull on percussion.

In addition to the foregoing there are one or two physical signs which are more rarely encountered. The outline of the tumour as determined by percussion is sometimes found to vary with the position of the patient and a distinct splash becomes audible when the body is shaken or suddenly moved. In other cases, again, the physical characters of the swelling appear to be influenced to a great extent by the state of the bowels, a sudden attack of diarrhoea often giving rise to a remarkable diminution in the size of the tumour. This latter sign is almost entirely confined to those varieties of faecal abscess which originate in causes other than tuberculous ulceration of the bowel, for in our cases diarrhoea was a constant and not an occasional symptom, and consequently a sudden diminution in the size of the sac was never observed unless rupture had taken place. From these facts it would appear that whenever an abdominal swelling, unattended by special symptoms, presents itself during the latter stages of chronic phthisis, irregular and ill-defined in outline, immovable on deep inspiration or by pressure with the fingers, tympanic on light and dull on deep percussion, with gurgling and pain on pressure, it will almost certainly prove to be a faecal abscess. In certain cases, however, the diagnosis may prove of some difficulty, for not only may the tumour itself be difficult to investigate on account of its deep situation, but the physical signs peculiar to it may be simulated closely by other pathological conditions. It may happen that an abscess arising from perforation of the duodenum, instead of coming forwards as in the case previously alluded to, may remain localised in the immediate neighbourhood of the lesion. In this position the tumour is difficult to detect on account of the rigid condition of the abdominal walls, and the auscultatory phenomena may so closely simulate those of pneumothorax that Leyden has designated the condition "pyo-pneumothorax subphrenicus." In true pneumothorax, however, the whole of one side of the chest is expanded and motionless, while in peri-duodenal abscess the expansion of the thorax due to the tumour is strictly confined to its lower part. In the former case, again, the percussion note is hyper-resonant, the breath sounds either diminished or totally suppressed, tactile fremitus abolished, and the heart driven over towards the opposite side. In the latter condition the diaphragm is pushed upwards and the base of the lung compressed, hence where the breath sounds are deficient the percussion-note is dull and tactile fremitus increased; while the heart may be tilted upwards, but is never laterally displaced. Lastly, if air and fluid coexist in the chest the splashing sounds are

limited to the diseased side, but if gas and liquid are associated in an abscess cavity, the splash and metallic phenomena are distinctly audible all over the abdomen and back.

The left lobe of the liver is frequently enlarged in cases of chronic phthisis, and if previously the seat of hydatid or syphilitic disease the tumour may present some difficulty for diagnosis. From faecal abscess, however, such a condition is easily distinguished by the absence of pain on palpation, its slow growth and more definite outline, its free movement on inspiration and by the fact that percussion produces a dull note under all circumstances.

If the tumour be situated in the right iliac fossa it may be confounded either with a caecum thickened by tuberculous disease of its mucous membrane or with a mass of caseous glands located behind the first portion of the large intestine. In each case a gurgle may be produced by pressure and the percussion note vary with the force of the stroke. A thickened caecum, however, usually forms a tumour less distinct in outline than a faecal abscess in this situation, is less painful on pressure and exhibits little tendency to increase in size. A bundle of caseous glands may easily be recognised from the fact that the tumour it gives rise to is much harder and more irregular in outline and less painful on pressure than a faecal abscess, while other enlarged glands can often be detected in the immediate vicinity or elsewhere in the abdominal cavity. It must be remembered, however, that if suppuration should occur in connexion with the tuberculous mass, the pus may eventually burst through the caecum and give rise to a true faecal abscess. In the cavity of the pelvis the existence of the disease can seldom be determined during life. Faecal abscess connected with the colon may be mistaken for a tumour arising from the kidney. In the latter case the urine generally contains albumen, blood or pus, and the symptoms present point more strongly to a tuberculous affection of the kidney than to the exceedingly rare association of a local abscess with perforation of the ascending colon.

In conclusion, we will as briefly as possible draw attention to a few of the less important local results of perforation of the bowel by a tuberculous ulcer. When extensive adhesion exists between the coils of the gut, a perforating ulcer, after destroying the whole thickness of the bowel, may find itself confronted by the serous surface of another coil and proceed to eat its way through the tissue opposed to it until it has opened up the cavity of the bowel. In this manner the intestines may be completely honeycombed and the contents of the intestinal canal no longer follow a definite route but pass at random from one portion of the intestine to another. Thus Rindfleisch<sup>3</sup> states that these fistulous openings in the wall of the gut may exceed in diameter that of the intestine itself, and instances one case where he found five such irregular means of communication existing between different parts of the intestinal canal. In other cases fistulae may originate by an intermediate process of abscess formation. A slight amount of leakage having taken place through the base of an ulcer, inflammation and suppuration are promptly excited in the vicinity, and the abscess thus formed by burrowing in different directions may effect a communication with another of a similar nature, or even find its way through the wall of a contiguous coil. Should any obstruction exist in the course of the intestine situated between these two points the abscess track will be appropriated by the intestinal contents as an easier means of transit, and a permanent fistula be established. Thus in one of our cases a perforation existed in the lower end of the ileum just above an obstructed ileo-caecal valve, and the abscess had communicated with an aperture in the vermiform appendix and allowed the contents of the small intestine to find their way into the caecum. In another instance an intra-peritoneal fistula was found to connect a perforation in a diverticulum from the ileum eighteen inches above the valve with the dilated cavity of the appendix caeci, and here again the valve was much obstructed. Rintel<sup>4</sup> records a case in which an abscess resulting from perforation of the duodenum had burrowed downwards and eventually established a communication with the caecum. After death it was evident from the empty and contracted state of the jejunum and ileum that the whole of the gastric contents had been accustomed to circulate along the false canal instead of following the natural but more circuitous

route. These abnormal conditions, however, seldom give rise to any definite symptoms or physical signs, and are consequently of greater interest to the pathologist than the physician.

## NOTES ON OCEAN TRAVEL FOR HEALTH AND DISEASE.

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LIFE at the end of the nineteenth century is so eager and full of struggle, competition is so keen, the reward of successful effort so great, that most of us in every station neglect those precautions and habits upon which continued health chiefly depends. Prolonged and anxious intellectual labour, irregular hours, warm and ill-ventilated rooms, insufficient sleep and exercise, strain the nervous system, beget indigestion and innumerable physical evils. The physiological and prophylactic remedies of out-door exercise, rest, diet, rational amusement, which do so much to keep us in health, are not so generally utilised as their inestimable value deserves. Accordingly we approach the summer season jaded, worn, with nerves unstrung, appetite feeble, digestion faulty, sleep restless and insufficient. Rest is urgently demanded; the brain needs to lie fallow for a time that it may recuperate after its strenuous energy. Among the many means to which we may resort for restoration of physical and intellectual force I would unhesitatingly assign a high, perhaps the highest, place to ocean travel. To leave our accustomed haunts and treadmill round of duty for a while, to exchange the tasks which have wearied us and the places with which we are familiar for new scenes and occupations is highly beneficial. To cast off for a time the load of labour and responsibility which we carry, to feel ourselves for a space at liberty, is a wonderful relief. Often we do not realise how heavy has been our burden until it is temporarily removed. Rest and travel by land and sea are sovereign agencies in recruiting exhausted strength. A tranquil country life will afford repose, but its monotony will often weary the spirit habituated to variety and excitement. Summer travel by rail is not restful. Our seaside resorts, beneficial though they doubtless are, afford too much opportunity for social dissipation, so that their good effects are to a great extent lost. They are open to the objection, moreover, that the father of the family can so easily "run up to town" when what he needs is to escape the city's heat and confusion. No remedy is a panacea. The most useful agencies can be abused. Change and recreation are desirable. To exchange the counting-house or the office for the smoking room of an ocean steamer, to smoke, drink and play cards while crossing the Atlantic is to wilfully throw away the advantages which may be obtained from the journey. Life at sea is sufficiently full of incident to avoid the reproach of dullness. One meets with old friends or forms new acquaintances and a pleasant, leisurely intercourse permits the days to glide by without weariness. The sea air, always in circulation and charged with ozone, invigorates the exhausted system. Movement is not restrained. We feel the ship beneath us forging its way through the water, the deck affords us an ample promenade, the heaving surface of the ocean a picture full of charm. The pure salt breeze fans our cheeks, the porpoise or the shark claims a share of our attention, and as we traverse the ocean highway we meet other steamers sending up their clouds of smoke or sailing vessels with canvas spread to catch the wind.

The panorama of the heavens is a spectacle of beauty, grandeur and awe. Who can describe or who can depict the glories of the rising or the setting sun? On the eastern horizon the grey light of dawn becomes brighter, and above the surface of the deep the king of day arises. A rosy glow lights up the sky as the sun starts upon his daily race. At eventide the brilliant spectacle is repeated as the orb sinks below the line. What a flame of colour shines in the west as the sun majestically descends! The vivid crimson reflected from cloud to cloud gradually fades to rose, to pink, to purple as the light of day vanishes and at last the pageant has ended. Then, when twilight has deepened into dark, the stars peep out and the dark expanse above us is studded with innumerable sparkling lights upon which we gaze with admiration and by which our

<sup>3</sup> Pathological Anatomy, vol. i., p. 440.

<sup>4</sup> Berl. Klin. Woch., 1867, p. 332.

captain calmly shapes his course across the trackless waste of waters. Anon the moon, fair queen of night, arises and as she takes her place among the glittering constellations the sublimity of the night scene culminates. Whether crescent or full, alike beautiful, her silvery beams falling upon the water mark a track of light across the sea. The sweet light which fills the air seems to the fancy more mystic and solemn than that of day. Thus, day after day, wind and wave, sun, moon and stars are our companions. Their sweet influences sink unconsciously into our minds and work a subtle change throughout the system. It is good for us to be led away from our toils and ambition to commune with Nature. On land the face of Nature shows more variety, but is seldom so imposing and so attractive in its grand, stern features as upon the sea. The pure, equable and invigorating ocean climate, the pleasant idleness and agreeable companions of our journey, the grand natural scenes spread out before our eyes, form a totality of influence capable of rejuvenating weary minds and bodies and restoring us with renewed power to the scenes of our wonted activities.

But to this alluring picture of rest and recreation there is a reverse side. Few altogether escape sea-sickness upon their first voyage, many never entirely lose their susceptibility to attack. In the majority of instances the sick person recovers after a few days have passed, and the latter portion of the voyage is both pleasant and beneficial. Indeed, so thorough has been the evacuation of the system that when recovery is finally established the appetite is extraordinarily vigorous. The depression which the sickness had caused gives way to an exaltation of mind and body to which one has long been a stranger. Exceptional individuals are indeed met with to whom an ocean voyage is always an affliction and who are compelled to lie in their berths from one shore to the other. To such ocean travel can scarcely be recommended, though if free from organic disease they not infrequently gain strength rapidly as soon as they have landed. The symptoms of sea-sickness are so well known as to require no description. Its mode of genesis is as yet imperfectly understood, though it probably depends upon disturbance of the central nervous system by the alterations or shocks of the sense of equilibrium produced by the rolling or pitching of the vessel. That it is not chiefly due, as has been surmised, to the effect upon the visual centre is proved by the fact that the blind are not exempt from sea-sickness. An experience of twelve years, during which I have spent many of my holidays upon the sea, has convinced me that *mal de mer* can only be avoided and controlled by the exercise of a strong will in conjunction with a fairly healthy condition of the nervous and glandular systems. It is of advantage some days prior to sailing that the alimentary canal should be thoroughly cleansed by the operation of a saline or mercurial cathartic. In the absence of or after recovery from sea-sickness the sanitary effects of a sea voyage are very decided. The result is brought about by a combination of physical and psychological influences which have been already glanced at in the foregoing remarks. First in the category is the ocean climate. Sea air stimulates the appetite, improves digestion, assimilation, secretion and excretion. The glandular follicles and organs of the alimentary system are awakened to a high state of functional activity. Relaxed muscular tissue becomes firm, the heart is invigorated, the circulation is carried on more actively, respiration is deepened, the pure air inhaled promotes a quickened oxidation and tissue change, the skin grows soft and blooming, the tone of the nervous system is raised and a cheerful state of mind induced. The traveller gains flesh and strength, sleep is sound, lassitude vanishes and irritable nerves become firm. A portion of this improvement is doubtless to be attributed to the companionship and amusements on board and to the daily and nightly spectacles of sea and sky.

I have by implication alluded chiefly to the summer voyage by steamer to Europe simply because it is that with which I, in common with many of my countrymen, am most familiar. Our own seaboard is, however, so extensive that innumerable short sea trips can be taken during favourable seasons upon either the Atlantic or Pacific coast. Those dwelling in the interior have, in the great lakes, a serviceable substitute for an ocean voyage. The atmosphere of the lakes is hardly equal in tonic properties to that of salt water, though it is certainly pure, and the voyage from Buffalo to Duluth possesses peculiar interest. In the summer the inhabitant of one of our Eastern cities can avail himself of the steamship lines which will convey him along the New England coast, while

in the winter he can travel to the south. On the Pacific one can cross to Japan or China, or make the very interesting and beneficial excursion to Puget's Sound, and thence along the coast to Alaska. Under certain circumstances the old-fashioned sailing vessel offers superior advantages to any steamer. If there is reason to believe that the health will be improved by an ocean voyage, the slower progress of the sailing vessel allows more time for the work of recuperation to proceed. On the other hand, the lack of genial company, the coarser fare and accommodation to be found upon sailing vessels will in many cases neutralise their advantages. The journey across the Atlantic by the most direct routes has gradually been so shortened that hardly time enough is allowed on shipboard, especially if half that period is occupied by an attack of sea-sickness. This objection can be partially met, however, by choosing one of the less direct routes. There are many to whom it is of more value to spend a few additional days upon the ocean than to rush at the highest attainable speed from New York to London, Paris or Berlin. Besides those who every summer seek Europe for commercial purposes or in pursuit of pleasure there is a small army who go in order to re-establish their health. At the head of the list may be placed the overworked business or professional man who for nine months has toiled almost without cessation. The most hurried meals, the scanty nights' rest have robbed him of flesh and freshness, his appetite has failed, his digestion is bad, his bowels constipated or irregular, his head often aches or is the seat of an indescribable feeling worse than an ache, his mind is dull, his nerves are unsteady and temper irritable, and his work has become a burden. He determines or is bidden to tear himself away, engages his passage and is a changed man before he reaches the end of his voyage. He can again look on the bright side of life, can laugh and be amused, can enjoy his meals and sleep all night. He lands, visits spots of historic interest, pleases himself perhaps in visiting the home of his ancestors and returns to this country vastly benefited by two ocean voyages and a sojourn in another land. How often have I witnessed such transformations and, indeed, experienced it in my own person.

Next reference may be made to the unhappy victim of dyspepsia. "The accursed hag Dyspepsia," as Carlyle says, "had got me bitted and bridled, and was ever striving to make my living day a thing of ghastly nightmares. I resisted what I could, never did yield or surrender to her, but she kept my heart right heavy, my battle being sore and hopeless." Few have the force of intellect and will that distinguished Thomas Carlyle, and what wonder that despondency, hypochondria, melancholia, and sometimes suicidal mania, may follow in the train of chronic and aggravated indigestion. Again, though the will can do much, it cannot counteract the effect of chemical poisons engendered by faulty processes within the alimentary canal. Palpitation, asthma, eczema, urticaria, lithemia and other troubles may be the outcome of the same cause. Many of these consequences may be averted and the condition of the patient vastly ameliorated by an ocean voyage. Sea-sickness to such an individual is not an unmixed evil. The alimentary canal is cleansed perforce, the man begins anew, and if he be free from grave organic disease of stomach or liver the improvement may be permanent. The constipation which troubles so many without seriously undermining the general health, yet which produces a muddy complexion, engenders headache and dulls the mind, generally yields to the improved nutritive conditions caused by breathing sea air. The secretions are augmented and peristalsis excited. It is well known that many forms of cutaneous disease are excited either directly or indirectly by chronic indigestion. The toxic products of imperfect metabolism thrown into the circulation act, in some cases, as specific poisons to the skin, its appendages, nerve-supply, vascular, or absorbent system. To remove the cause has from time to time been recognised as the first step in therapeutics, and in consonance with this axiom, when a few days' travel upon the ocean has ameliorated the indigestion, acne, seborrhœa, eczema, psoriasis, and paræsthesia are often more speedily and rapidly benefited by a sea voyage than by the most competent and elaborate advice and use of the most approved remedies while the patient remains at home. In addition to the systemic influence the skin is directly improved by the moist atmosphere of the ocean. Chronic gastro-enteritis is relieved by a trip across the water. The vascular stasis of stomach and bowel is removed and the local circulation quickened, the vaso-motor tone is raised, the inflammatory products are expelled and the anatomical

condition of the mucous membrane is materially changed. The muscular fibres are invigorated, secretion is more efficiently performed and the patient reaches his destination in a much better condition than when he began his journey.

Salt water has long enjoyed a popular reputation of conferring immunity against the effects of exposure to cold. Fishermen and boatmen along the coast as well as sailors in mid-ocean pursue their laborious avocations in dripping garments without fear of "taking cold." How much of this protection is due to the salt contained in the water and air, and how much to the natural resistant power of a hardy organism, I shall not attempt to determine. Whether fishermen off the coast are less liable to attacks of catarrh of the respiratory passages than men who follow the same calling in fresh water I am unable to say, yet the general belief of seafaring men, founded upon abundant experience, must contain an element of truth. At all events, signal amelioration often attends a journey by sea in the case of bronchial and pulmonary disease. In chronic bronchitis inflammatory action is lessened, expectoration and cough are diminished, respiration becomes more free and sleep more sound. Vesicular emphysema is relieved by the favourable impression made upon the attendant bronchitis, by the tonic effect upon the heart and the improvement in digestion. In many cases of spasmodic asthma the patient, while at sea, is spared his distressing paroxysms. Attacks of hay asthma may be escaped by a sea voyage. A strong illustration of the neurotic element in asthma is the fact that those sufferers whose home is in the interior are more apt to be benefited by sea air than those who dwell near the coast. A voyage is a sovereign remedy for insomnia. When this habit is strictly dependent upon nervous strain or obstinate indigestion it vanishes as the conditions which gave rise to it improve. Many people of middle age, however, without any apparently decided failure of general health are not able to readily fall asleep. They may feel drowsy before preparing for bed, but the act of undressing arouses them and by the time their heads touch the pillow they are wide awake. This wakefulness continues for some hours, the patient rolls in his bed and adopts various devices in order to woo sleep, but in vain. The mind is singularly active when one wishes rest, unpleasant subjects of thought arise like magic and in time the patient dreads retiring for the night. This very apprehension intensifies the difficulty and thus the case progresses, and fortunate is the man who resists a strong temptation to have recourse to narcotics. The sea exerts a wonderful power in this condition. The ocean atmosphere possesses decided hypnotic virtue and "Nature's sweet restorer, balmy sleep" closes the eyes of the thankful traveller. An ocean voyage mitigates or suspends the pain of neuralgia. Free from torment, a hearty appetite, an abundant consumption of food, quickened oxidation and sanguification re-establish the nutrition of nervous tissue. The affected cords restored to health cease to be sources of agony. A remarkable happy effect is often produced in hemicrania. I have known patients whose pangs were periodical and excruciating to experience entire freedom during the passage, to suffer from no relapse for months afterwards, and indeed in some instances the malady has never since returned. A very pleasing effect is often produced in melancholia. The settled gloom is gradually dispelled. The poor sufferer little by little awakens to an interest in life, ceases to meditate continually upon his woes, listens to cheerful conversation and no longer avoids his fellows. The hypochondriac, improved in physical health, forgets his morbid fears. The hysterical girl, impressed by the majesty of Nature, with nerve centres fortified by the multifarious influences of her unaccustomed surroundings, is led to forget her own personality, and ceases, for a time at least, to be a source of trouble or annoyance to her relatives. A more lasting effect is produced upon neurasthenia. New and richer blood feeds brain and spinal cord, languor disappears, and the patient returns home with a new lease of life. Choreic children are often vastly improved, or even cured, by a sea-voyage. Jerking and irregular movements gradually decrease, sleep becomes uninterrupted and normal, coördination at last results. Epilepsy also is often benefited. The spasms are mitigated in severity and recur at longer intervals. Ocean travel is of conspicuous advantage to the subjects of anæmia and chlorosis. It is unnecessary to repeat what has been already said concerning the freshened activity of the blood-forming organs. Suffice it to say that the capricious and perverted appetite becomes keen and normal, pallor and discolouration rapidly vanish, the lips and mucous membranes

acquire a rosy hue, muscular strength augments, and, in brief, the patient is soon cured. A sea voyage may very appropriately be recommended to one who has just recovered from an attack of purpura, particularly of the hæmorrhagic variety. Local disease of the skin remotely connected with chlorosis is benefited by removal of its cause. As regards the menstrual function, the usual primary effect of crossing the ocean is suppression for a few periods, but the ultimate influence is beneficial. Dysmenorrhœa is sometimes, and ovarian neuralgia generally, relieved.

(To be concluded.)

## A NATIONAL DANGER: LEAD POISONING FROM SERVICE PIPES.<sup>1</sup>

By ALFRED SWANN, M.D.,

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THIRTEEN years have now passed since I first drew attention to the great danger of supplying water for drinking and dietetic purposes through leaden service pipes. During that period a great deal has been said and written upon this subject, but as far as I can gather the really fearful danger existing from this cause has either been ignored or only partially recognised. The general opinion seems to have been that the results of drinking water very slightly contaminated by lead were rather inconvenient than dangerous, and my object in writing the present paper is to show that a serious national danger exists, and I do not think after perusing these lines anyone can doubt my deductions. Ocular demonstration is a very important thing in a case like the present and a very simple means is at everyone's disposal for ascertaining the presence of lead in water. A solution of one grain of bichromate of potash to the ounce of distilled water furnishes everybody with a test capable of discovering 1 part of lead in 500,000 parts of water and I would recommend every medical man residing in districts suspected of lead poisoning to make use of the foregoing. My method has been as follows: To one gallon of water free from lead I have added one grain of lead acetate; to fifteen drachms of this solution one drachm of the bichromate solution is added. This gives the precipitate obtained by one grain of acetate of lead to the gallon of water. The original acetate of lead solution I dilute by halves: thus, 1 gr.,  $\frac{1}{2}$  gr.,  $\frac{1}{4}$  gr.,  $\frac{1}{8}$  gr.,  $\frac{1}{16}$  gr.,  $\frac{1}{32}$  gr.,  $\frac{1}{64}$  gr., and to each I add the same quantity of the test solution. This gives a series of graduated colour tests which can be used for comparison with any sample of water brought for analysis.

The last ten samples of water tested by me in the foregoing manner give the following results:—

Case	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Reaction equal to	"	"	"	"	"	"	"	"	"	"
of a grain of lead acetate to the gallon.	"	"	"	"	1 grain of	$\frac{1}{2}$ of a grain of	1 grain of	$\frac{1}{2}$ a grain of	1 grain of	$\frac{1}{2}$ a grain of
"	"	"	"	"	"	"	"	"	"	"

The foregoing cases were taken haphazard in my daily practice between June 9th and June 27th this year and represent a class of cases such as I have been treating without intermission for the past thirteen years.

CASE 1.—Female about sixty years of age, in easy circumstances. Has suffered for many years and was told by a medical man some years ago that she had cancer of the stomach. Present condition: Never free from abdominal pain, which increases frequently to agonising colic; constipation; profound anæmia. Other members of the same household suffer from colic and digestive disturbances which disappear when they leave home.

CASE 2.—Female aged about thirty-four. Colic; constipation; anæmia; frequent abortions.

CASE 3.—Male aged about forty. Colic; constipation; lumbago; rheumatic pains.

CASE 4.—Female aged fifty-five. Progressive motor and sensory paralysis of legs; lumbar pain; constipation; colic occasionally.

<sup>1</sup> For complete and exhaustive information on this subject I would refer to "Études sur les Eaux Potables de le Plomb," par A. Hamon, Paris, 1884, to whom I am indebted for much valuable assistance.

CASE 5.—Female aged twenty-five. Menstrual irregularities, sometimes profuse; constipation; colic; abortions.

CASE 6.—Female aged seventeen. Distressing colic; constipation; menstrual irregularities; profound anæmia.

CASE 7.—Female aged thirty-eight. Profound anæmia; constipation; colic; menstrual irregularities.

CASE 8.—Male aged ten. Paroxysmal colic; occasional diarrhoea; choroid movements about eyes and hands; anæmia.

CASE 9.—Female aged thirty-one. Constipation; colic; anæmia; faintings; confusion of ideas; occasional loss of speech and sensation; mental condition gradually deteriorating.<sup>2</sup>

CASE 10.—Female aged fifty-eight. Anæmia; constipation; lumbago; gout.

To the foregoing cases I would add the following:—

S. B—, aged about forty. Agonising colic; blue line round teeth. Would not believe it was lead. A magnificent specimen of muscular humanity. For years went from bad to worse; developed albuminuria. Passed from under my care, but shortly after 'died of "apoplexy." Young son living in same house about ten years old. Completely paralysed (general paralysis); blue line round gums.

S. S—, aged thirty-five. Joiner. Suddenly went blind in right eye. Retinal hæmorrhage; blue line round gums; constipation; occasional colic.

I could multiply cases *ad infinitum*, but the foregoing are enough for my purpose. To justify the heading of this paper,<sup>3</sup> I must state that Mr. Walker of Heckmondwike, the inventor of the "health" iron tin-lined service pipe, has kindly allowed me access to his collection of sample specimens of water from the following districts. He has for some time adopted the following plan. After obtaining a sample of water from a given district he places in it a piece of polished lead and leaves it there. In the course of a very few days, sometimes hours, a precipitate begins to form and very soon the water becomes milky, and there really in many cases seems to be no limit to its solvent action under these conditions. He has informed me that he will be glad to show these specimens to anyone interested in the subject.

The following is a list of the waters of which Mr. Walker has specimens and which show a great power of dissolving lead, and I cannot do better than use his own words, which are as follows: "Distilled water acts very vigorously and throws down plenty of lead salts in a short time. Glasgow water acts still more vigorously and deposits more lead salts. Wakefield water acts very strongly on lead, making plenty of lead salts in a short time. Leeds water acts sometimes strongly and at other times very little. Morley water, which is from Leeds, we find acts strongly, but it also varies. Huddersfield, Mirfield, Dewsbury and Heckmondwike, Manchester, Oldham, Blackpool and Halifax act vigorously, all of them depositing lead salts, some acting rather more quickly than others. Batley, Ecclehill, Birstall, Gomersal, Pudsey, North Bierley act very vigorously. Barnsley, Clifton, Rastrick and Brighouse, all these have an affinity for lead, though not so strong as the others. Newcastle-on-Tyne water takes the lead into solution, but does not throw down or deposit lead salts; but having had only one sample of this water I am not prepared to speak with certainty of it. Liskeard water acts very vigorously."<sup>4</sup>

This list is quite sufficient justification for the heading of this paper and the urgency of the subject is increased by the fact that at the present time local authorities seem to be making positively no efforts to check the use of leaden service piping. When we realise that half a century before the Christian era Vitruvius condemned lead service pipes and 130 years after that time Galen did the same thing, it is a puzzle to my mind to know how it is that the use of such a poisonous means of conveying water should ever have become general.

The amount of physical suffering, mental<sup>4</sup> degeneration and death brought about by lead poisoning, coupled with the fact that children begotten by poisoned parents are puny, rickety and ill developed, both mentally and physically, makes one feel that the Emperor<sup>5</sup> of olden days who made the use of lead pipes a capital offence was gifted with a prescience and wisdom unknown in our enlightened age.

Batley.

<sup>2</sup> Since writing above this patient has had an attack of right hemiplegia and loss of speech.

<sup>3</sup> See also monograph already alluded to by M. A. Hamon.

<sup>4</sup> See work already quoted by M. A. Hamon.

<sup>5</sup> Vide Empoisonnement par l'emploi des Tuyaux de Plomb pour la conduite des Eaux Potables et des Boissons Alimentaires, par Louis Wagner. Paris, 1887.

## PARALDEHYDE: HYPNOTIC AND DIURETIC.

By J. COCKBURN SYSON, M.B. GLAS. &c.

HAVING frequently had occasion within the last six months to use paraldehyde as a hypnotic it may be of interest to record one or two observations made during the administration of the drug. In a case of senile arterial degeneration with considerable mental depression, restlessness, marked insomnia and where there existed a double aortic murmur, with a mitral regurgitant and enlarged left ventricle, I was induced to try the drug after unsatisfactory results from sulphonal, urethane, chloral &c. At first forty minims in peppermint water were given and this was followed by a state of comparative restfulness, though sleep was not induced. Two hours later, the pulse being unchanged, thirty minims more of the drug were administered and within half an hour the patient dropped quietly to sleep, which lasted, more or less, for four hours. It was described as being more refreshing than that produced by sulphonal and not accompanied by the same depression and uncomfortable sweating. The offensive odour of the drug however was objected to and this could be detected in the patient's breath during the next forty-eight hours. Two nights later the same doses were given, but these failing to produce the desired effect a third dose of fifty minims was allowed three hours after the second. After this third dose it was noticed that, though the patient was evidently asleep, there was considerable muscular twitching and shifting about in the bed. At short intervals he would sit up (his eyes being closed the while) and make incoherent remarks, but when told to go to sleep would lie down again and remain perfectly quiet during periods of ten or fifteen minutes. This lasted for three hours, after which there was still more or less drowsiness, though the patient did not again go to sleep. The pulse was not in any way weakened, but during the ensuing twenty-four hours there was marked muscular weakness and polyuria.

On the third night after the last administration paraldehyde was again given, beginning this time with a dose of sixty minims. In twenty minutes the patient felt drowsy and was asked to lie down and go to sleep. At the end of an hour, being still awake, sixty minims more of the drug were administered, but only short snatches of sleep followed and there was, as on former occasions, considerable muscular twitching and rambling talk. On the day following it was again remarked that the patient voided an excessive quantity of urine. There was no diarrhoea and the appetite was not interfered with. The muscular weakness was again very marked and during nearly twelve hours there was more or less stupor and drowsiness. Having failed to induce a fair amount of sleep with drachm doses, and feeling disinclined to push the drug further, I was forced reluctantly to fall back upon morphia.

In about three weeks from the last administration of paraldehyde cardiac compensation began to fail and there was considerable dropsy about the ankles and half-way up the legs. Remembering the diuretic action exhibited by paraldehyde, I was induced to again have resort to the drug with the hope of getting rid of the dropsy. Ninety minims were given at 10 p.m. Within twenty minutes the patient was asleep, though his rest was disturbed by the muscular twitchings and restless movements already mentioned. At 12 midnight he had become quieter, but was not asleep. The pulse being satisfactory and not apparently affected by the hypnotic, another drachm was administered and further snatches of sleep were induced. Altogether, with two drachms and a half of the drug something like three hours' sleep were procured, and followed by several hours of quiet and drowsiness. During the following day the weakness and unsteadiness of gait were very marked, the patient walking with difficulty and having to steady himself by catching on to objects in his room. But the most striking result was the complete disappearance within twelve hours of the dropsy, which had persisted more or less for a week, and the accompanying presence of polyuria. On a subsequent occasion as much as 120 minims of the drug were given in one dose, followed in two hours by 90 minims, but the excitement and spasmodic muscular movements were so great as to make me think the cure worse than the disease, and so for the

nonce the drug was discontinued. Three weeks had again elapsed since paraldehyde was last given, and, being unable to use sulphonal owing to the extreme after-depression and misery, I determined to again give paraldehyde a trial, but this time in repeated small doses. Beginning at 6 P.M., 30 minims were given, and this was followed at 7 P.M., 8 P.M., and 9 P.M. by 20 minim doses. After the second dose the patient was restful, lying quiet for half an hour though not sleeping. After the third dose the excitement and restlessness began to appear, and when the fourth had been given these were so great that the patient's friends were unwilling to have the drug pushed further. This state of matters lasted for an hour, after which the patient lay quiet for nearly four hours, during which time he had occasional and short intervals of sleep. This result I considered unsatisfactory and did not again use paraldehyde in this case. It is to be noted that at no time during the use of the drug, even when given in such considerable quantity, was there any diarrhoea—an after effect mentioned in the Year Book of Treatment for 1892 (p. 88) as sometimes occurring. From its non-depressing effects upon the heart's action, and since it seems to have diuretic properties, paraldehyde may become a useful hypnotic in cardiac cases where there is dropsy. Though I was induced to give up its use in this particular case I have not lost faith in the drug. The insomnia here was most intractable, and of all the hypnotics used, with the exception perhaps of opium, paraldehyde on the whole gave the most satisfactory results, and can be used where it would be decidedly risky to push the older drug. To sum up, then, it seems to me that, so far as my limited experience of the drug goes, paraldehyde may be looked to as a fairly reliable and safe hypnotic, that its administration is followed by a well-marked stage of excitement, that it does not depress the heart's action, does not interfere with the appetite or digestion, possesses probably diuretic properties and induces a sleep which is described as "refreshing."

Beith, N.B.

## A DEMONSTRATION OF ACUTE PNEUMONIA, ITS FORMS AND ISSUES.<sup>1</sup>

BY A. G. AULD, M.D. GLASG.,  
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ACUTE pneumonia in its pathological aspect is commonly regarded as the summation of a more or less definite and constant series of changes resulting from generalised inflammation in the lung. Thus viewed it is held to be made up of four stages, those namely of engorgement, of red hepatisation, of grey hepatisation, and of resolution. Here is a standard to which the disease is continually being referred, a mould into which it is constantly being cast, but the wider our study of pathology the more liberal becomes our conception of the scope of morbid processes. The stereotyped image gets dashed to pieces as disease manifests itself in its protean aspects. To this broad principle pneumonia forms no exception, its histological features are no less diverse and inconstant than are its issues.

Clinicians well know the various courses which this affection may pursue. Sometimes hepatisation declares itself only to vanish quickly and resolution is promptly effected; in other instances it proceeds wave-like over the organ, closely followed, it may be, by the symptoms of its breakdown. Or it may exhibit a faltering, a persistent, or even a recurrent character. And although the duration of the disease is by no means the measure of its fatality, the latter element will not infrequently yield its readiest solution to a microscopical study of the affected organ.

Under a microscope is placed a specimen of hepatised lung obtained from the body of a young and previously healthy adult. It is the so-called "red" hepatisation, the air-cells being filled with a meshwork of well-formed fibrin, which adheres with considerable tenacity to the alveolar walls. Scattered throughout this fibrin are variously sized epithelial elements, a few leucocytes and a fair proportion of red blood-cells. The alveolar walls themselves reveal but little alteration from the normal, and were attention directed to these alone it would probably be affirmed by most that they were in a state of health. A fibrinous network is further seen to exist in the lymphatics of the

adventitious structures of the organ, but beyond this there is little of note to be found. The next specimen reveals a very different state of matters. Herein the fibrinous network is still so far apparent, but it is no longer in contact with the alveolar wall. It appears to be disintegrating into a finely granular mass, which is separated frequently by a somewhat crescentic space from the wall. In this granular mass is a considerable sprinkling of fatty corpuscles with disintegrating nuclei, and somewhat similar though less degenerate corpuscles are likewise seen in fair numbers in the crescentic space. Closely inspecting the alveolar walls, it is found that they are lined with round and spindle-shaped bodies which are evidently the source of many of the corpuscles lying outside. Here, in fact, is seen the process of resolution in the hepatised lung. Very different, again, is the third specimen. It is a section of hepatised lung from an elderly and otherwise unhealthy man. The alveoli are densely packed with cells resembling leucocytes, amongst which not a vestige of fibrin is to be seen. In both lungs the hepatisation was everywhere uniformly thus. The walls of the air cells are, however, intact and their bloodvessels patent and containing blood. In this case also the alveolar walls are seen to be lined with round and spindle-like cells. Between these varieties many gradations are to be seen. Fibrin and corpuscles vary exceedingly. The earlier exudation may be chiefly fibrinous, and if resolution does not take place after the manner described the air cells will become crowded with cellular elements, replacing the fibrin. Sometimes, again, the corpuscles, shed early with the fibrin, are in considerable numbers, when they may exhibit the characters of true pus cells. Or it may be that the cellular element is the dominant one from the commencement, or even the sole element, forming the "yellow hepatisation" of Da Costa.

From the consideration of these phenomena I am led to recognise a typical resolving pneumonia, represented in the three stages of engorgement, hepatisation and resolution; and likewise a pneumonia whose leading feature is a corpuscular hepatisation terminating either in resolution or in destruction of the lung. In the first case we have resolution accomplished without the intervention of this corpuscular consolidation. The fibrinous exudation no doubt loses colour and becomes more cellular in the period of resolution, but this is distinct from corpuscular hepatisation. Hence the term "grey" hepatisation, though convenient, is otherwise objectionable and apt to mislead. The exudation in this speedily resolving pneumonia is identical with that obtained by Paget in the blisters of healthy individuals. On the other hand, in corpuscular hepatisation, the exudation resembles that obtained by the same illustrious observer in the blisters of cachectic persons and called by him "corpuscular lymph." The term "corpuscular" therefore seems to me to be the most authoritative definition for this form of consolidation. As to the light gained from a study of these exudations respecting the gravity of the disease, it may be said generally that when the disease proves fatal in the absence of corpuscular hepatisation we have to look to the severity of the constitutional symptoms, the blood poisoning, or the diminution of the breathing space in the lungs leading of course to failure of the circulation. When, however, the corpuscular lymph is abundant there is a local condition which in the absence of severe or sthenic symptoms is sufficient to cause a protracted resolution (and it is undoubted that this form of pneumonia may resolve) or else cause a destruction of the lung with its invariably fatal termination.

Regarding the derivation of the cellular elements found in the air cells in pneumonia, when these are abundant many of them have no doubt proceeded from the bloodvessels; but careful examination reveals—and this is particularly applicable to the stage of resolution—that a goodly proportion are derived from the epithelial elements lining the walls. Cornil and Ranvier, Rindfleisch, and others thus regarded pneumonia as terminating by a catarrhal pneumonia—a view which I cannot but regard as a travesty of inflammation. On the other hand, I believe that these corpuscles are merely the outcome of a superabundant growth of young epithelium, just as a similar overgrowth of new epithelium is formed on the surfaces of healing wounds.

Is this disease, then, to be regarded as a genuine inflammation? Inasmuch as no changes occur in the connective-tissue cells of the alveolar walls, the process can only be regarded as superficial, the local expression of a general disease. It is this absence of germination in the fixed tissue cells which is the sole anatomical distinction

<sup>1</sup> Substance of Remarks on Microscopical Preparations exhibited to the Pathological and Clinical Society of Glasgow, May 8th, 1892.

between acute pneumonia and acute broncho-pneumonia. I have elsewhere compared the pulmonary lesion of acute pneumonia to the joint lesion of acute rheumatism. As the former differs from broncho-pneumonia, so does the latter from acute synovitis. It is alleged—as for instance by Sturges and Coupland—that hepatisations of lung exist resembling that of acute pneumonia, which are in fact secondary to other diseases or own but a mechanical origin. But such cases are to be suspiciously regarded, and I am inclined to think that they are mostly genuine pneumonias, modified no doubt by the peculiar circumstances under which they occur.

Now as to the issues of this affection. Passing over destructive softening of the lung, abscess formation and gangrene, there remain two conditions which are no doubt rare and consequently ill-understood, but which are none the less highly important. One is somewhat vaguely termed “delayed resolution.” By this it is implied that dulness, riles and deficient breathing persist over a greater or less area of lung after the complete subsidence of all acute symptoms. This condition may be present for weeks or months and yet the lung may gradually “clear up” and become restored to health. This is an occurrence of considerable rarity, and, according to Wilks, in ninety-nine cases out of a hundred in which dulness persists after pneumonia it is due to pleurisy. In many cases there is no doubt empyema; but post-mortem, cases are likewise found showing persistent pulmonary consolidation, the air cells containing granular fibrin, mucous flakes and fatty cells, and the alveolar walls being lined with several rows of spindle cells. In such cases there is absence of interstitial changes, at least at first. If, however, complete recovery does not take place there remain two other possibilities. The hepatised area may break down into small abscesses and a form of phthisis is set up, or else the lesion contracts in area and cicatricial changes ensue, leading to a fibrous node, which becomes ultimately buried in emphysematous tissue.

The other issue of pneumonia to which I refer is in induration. Not, strictly speaking, in induration of the lung, but in induration of the pneumonic lung. The first step in this process is the germination (atypical to the disease) of the connective-tissue corpuscles of the alveolar walls. Next, the fibrinous exudation (never the corpuscular) becomes organised. To this form of induration I have applied the term “fibroid pneumonia,” for reasons which it is impossible here to discuss. Easily recognised at first, this remarkable transformation of the pneumonic products exhibits changes both of growth and of decay. To trace microscopically the evolution of fibroid pneumonia from its inception to its various terminations is a task of considerable difficulty. Outwardly indeed and to the naked eye this lung is sufficiently distinguished from Corrigan’s cirrhosis in its bulky character and the comparative absence of bronchiectasis. Further, it is found as an independent affection not consecutive to an acute pneumonia. But many cases of what is termed chronic pneumonia or interstitial pneumonia or Clark’s phthisis are in reality advanced cases of this fibroid pneumonia. No doubt this statement may be criticised and questioned, but it is none the less capable of proof, direct, continuous and complete.

Glasgow.

**LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.**—A meeting of the members of the medical profession in Hampstead and the neighbourhood was held on June 25th at 127, Fellowes-road, South Hampstead, to establish a division of this Society for the north-western district of London. The Council of the Association had, under their articles, large powers, of which they only retained such as were absolutely necessary to secure the stability of the Society; all other powers were transferred to the Branch Councils, which were thoroughly representative of their respective districts.

**WEST RIDING MEDICAL CHARITABLE SOCIETY.**—The annual meeting of this Society was held at Wakefield on the 14th inst. After a lengthy conference of the officers, the chair was taken by Dr. Wright, president for the year. The report stated the Society to be in a prosperous condition, with about 450 members, whilst the invested capital amounted to upwards of £20,000. The claims of twenty-four applicants were investigated and awards were granted for the year amounting to £830. The Society was originated in 1829 in Wakefield.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb. lib. iv. Prooemium.*

### MIDDLESEX HOSPITAL.

TWO SURGICAL CASES.

(Under the care of Mr. HULKE.)

**SURGEONS** are, it is believed, without exception agreed that lacerations of the urinary bladder, implicating those parts of the viscus where a complete rent of all its coats involves direct outflow of the urine into the peritoneal sac, should be immediately closed by suture. Here every hour’s delay adds to the already great danger of the injury, and were it possible to diagnose a *partial* laceration, implicating the mucosa and muscular walls, but leaving the peritoneum untorn, it is suggested that the safest course would be to treat this similarly, since with the infiltration and softening of the injured coats which will certainly ensue there must be a great risk of the peritoneal coat giving way, and thus of a *partial* becoming a *complete* laceration. Unfortunately such early precise recognition of the true nature of the injury as would warrant instant surgical interposition is not in every case possible. The initial shock is not always great and where present is not pathognomonic, and it may soon lessen. The presence of urine, as is well known, is not in all instances so poisonously irritating to the peritoneum as to immediately excite inflammation of the serous membrane. Doubtless much depends on the quality of the urine. The analogy of cellular urinary extravasation proves this; thus a familiar instance is the rapid sequence of gangrene of the perineal tissues and scrotum upon the extravasation into them of urine contaminated with inflammatory substances and with products of decomposition, such as is not uncommon where the urethra gives way behind a stricture in concurrence with a chronic cystitis, whereas extravasation of normal urine—particularly the limpid urine of young persons—such as occurs with fractures of pelvis, occasions swelling, which for some time may differ but slightly from that of a simple œdema. Of course, if on introducing a catheter no, or very little, urine is found in the bladder, whereas on gently pushing the instrument a little further in a larger quantity escapes, this affords a strong presumption of a complete laceration; and this presumption becomes a certainty if on depressing the handle the vesical end of the catheter mounts and projects the abdominal wall over the pubis. These signs are, however, not in every case patent and obviously recognisable, even where a rent is complete. That this is a fair statement of the difficulties surrounding the diagnosis is illustrated by the following case. Here the bloody tinge of the urine raised a strong presumption of injury of the bladder, but the quantity of urine that the bladder apparently held seemed to contraindicate a complete rent; the early subsidence of the symptoms of great shock and the retardation of symptoms of peritonitis conspired to mislead and so led to the postponement of laparotomy, which, had the true nature of the accident been immediately perceived, would have been undertaken with a reasonable prospect of the patient’s recovery.

**CASE 1.** *Extensive laceration of the urinary bladder; laparotomy and suture of rent; death from peritonitis.*—C. E—, aged thirty-three, in the evening of Jan. 14th, 1892, in rough horse-play with others with whom he had been drinking, was butted sharply in the abdomen. He at once felt great pain and he was shortly after this brought to the hospital at 9 P.M. He had, he said, passed urine two hours previously. On reception into Founder ward the house surgeon noticed that he had an anxious expression, coldness of surface, a small, weak, slow pulse. He complained of severe pain in the lower part of the abdomen and of an urgent desire to micturate. The front of the abdomen was everywhere resonant. A catheter was passed without difficulty and some urine (roughly judged by the ward sister to be six to eight ounces), very slightly tinged with blood, was drawn

off. On withdrawing the catheter a small blood-clot was noticed entangled in its eye. At six o'clock on the following morning, there being again an urgent wish to micturate, the house surgeon again used the catheter and drew off nearly as much urine as on the preceding evening; it was still slightly blood-tinged. At 10 A.M. the pulse was 126 and the temperature 99.7°. At the midday visit, when he was first seen by Mr. Hulke, the symptoms of great shock had passed off. He complained of some pain over the pubes, where there was found a central dullness suggestive of a full bladder. With a catheter twenty-two ounces of urine, very slightly blood-tinged, were drawn off, after which the dull area was found resonant. When in the bladder the catheter was gently used as a sound for the detection of a rent in the viscus, and with a negative result. The accumulation of so large a quantity of urine apparently in the bladder seemed incompatible with the supposition of a complete rent involving its peritoneal coat and allowing the efflux of urine from the cavity of the bladder into the peritoneal sac; and to justify the diagnosis made by the admitting officer and house surgeon of shock from severe blow on the abdomen, with perhaps bruising and possibly partial laceration of the bladder or a slight laceration of that part of it uncovered by peritoneum, a close watch was kept for any sign of extravasation into the pelvic cellular tissue. In the early evening increased pain in the abdomen and some tenderness and vomiting supervened. This was attributed to the super-vention of peritonitis. Small doses of morphia were given hypodermically and at 12 midnight leeches were put on. This was followed by ease and apparent improvement; he took and retained liquid nourishment.

16th.—10.30 A.M.: Temperature 100°; easier. In the evening vomiting returned, and he had more pain in the abdomen, which had become distended; urine drawn off is turbid and offensive; cystitis was present.

17th.—Vomiting; much abdominal pain and great distension. An exploratory laparotomy, which had been considered and previously thought unwarranted, was decided on. The abdomen was opened—after passing the catheter and withdrawing three ounces of offensive bloody urine—by an incision three inches long, just above the pubis and afterwards extended nearly to the umbilicus. A large extravasation of blood in the sub-peritoneal cellular tissue was found behind the rectus muscle. On dividing the peritoneum several ounces of grumous bloody fluid escaped. At first only coils of highly congested small intestine, coated and agglutinated by recent exudation, were apparent, but on displacing these gently upwards much highly offensive puriform fluid welled up from the situation of the urinary bladder, and when this had been sponged out a rent, nearly sagittal in direction, about two inches and a half long in the posterior wall of the bladder, was brought into view. Its edges were swollen, soft and stained with infiltrated blood. The rent was closed with a double row of closely placed sutures, the deeper series including all the tissues down to the mucosa and the superficial series, the peritoneum with perhaps a thin plane of muscular tissue. The bladder was then injected with a watery solution of boric acid and proved watertight. The peritoneum was flushed out and cleaned. The abdominal wound was sutured in the usual manner and the bladder was kept drained by a full-sized soft red-rubber catheter. For two hours after the patient was put back in bed vomiting ceased, but it soon returned. The peritonitis ran a rapidly fatal course and death occurred next morning (the 18th) at 6 o'clock. At the necropsy the sutured rent in the bladder was found still watertight, no leakage occurring under considerable pressure. The pathological appearances observed were those of an intense, widely diffused peritonitis, which had evidently its focus in the vesical injury.

CASE 2. *Immense dermoid cyst deeply seated in thigh; extirpation; recovery.*—Very many, perhaps the majority, of dermoid cysts other than those occurring in relation with the ovaries and their annexes are met with in situations suggesting genetic relation with embryonic clefts, using this latter term in a very wide sense; but this explanation is not universally applicable, and the present is an instance of such exception, which, on account of its singularity, seems to deserve publication. A tall, stout, rather muscular brunette, aged forty-seven years, was admitted into Bird ward on Jan. 15th last, having an immense swelling in the inner part of the right thigh. It extended from the groin to one hand-breadth from the knee, and it had a transverse girth equal to if not greater than that of the thigh itself. Near its lower end the overlying skin in a circular area of several

inches was red, and the subcutaneous tissues corresponding to this were matted and œdematous. In the middle of this red œdematous area was a small ulcerated spot from which oozed a turbid, milky, inodorous fluid. Except within this area where the wave was damped by the overlying œdema, this great swelling everywhere distinctly fluctuated. By its great bulk and position the tumour embarrassed the patient much in walking, giving her a very awkward gait, in spite of which inconvenience she had continued to work until the skin inflamed and broke, which finally obliged her to seek advice. When lying on her back, as in bed, with her lower limbs extended, the inner part of the tumour covered her vulva and rested on the inner side and the front of the left thigh. It was observed that during active contraction of the adductor longus muscle the tumour became firmer, evidencing its compression by this muscle, and it was further noticed that the limb having been passively abducted, in which attitude the tumour rested flaccidly on the mattress, contraction of the adductor magnus caused the tumour to rise up off the bed and made it tense. At the upper and inner part of the tumour the adductor gracilis was traceable on to its surface; whilst lower down the front and inner part of the tumour was obliquely crossed by the sartorius. The fingertips could be pressed down between the upper border of the tumour and the brim of the pelvis, so making it evident that the tumour did not extend under Poupart's ligament. The patient's account of the tumour was remarkable. It had existed from her childhood. In her eleventh year, the swelling being then as large as a small orange and at the "top of her thigh," her mother sought medical advice for it, and being told that any operation for its removal would be dangerous and could not be undertaken without risk to the child's life, she later exacted from her a promise that she would never permit any operation to be performed upon her. The patient had therefore uncomplainingly borne with the increasing inconvenience until at last her condition became unendurable.

Fluctuation was so apparent that of the cystic nature of the tumour there could not be any doubt; and the nearly equal distinctness of the percussion wave through the great swelling in every direction established its unilocular character. The character of the fluid oozing from the little opening described showed that sebaceous material was one of the contents of the cyst. The differential diagnosis was thus narrowed to the discrimination between a sebaceous retention-cyst, or wen, and a dermoid. But wens can only arise where sebaceous glands are present; they are therefore superficially seated in intimate relation with the integument; but this huge cyst was plainly seated under the deep fascia, amongst the muscles, and this circumstance favoured the supposition of its being a dermoid. Its locality, the thigh, though unusual for a dermoid, could not be taken to exclude this kind, since, although, as already mentioned in numerous instances, dermoids show a distinct preference for the sites of embryonic clefts, into which it is conceivable that epiblastic tissues may become fixed and later give rise to cysts, yet other instances of dermoids have been met with where such mode of origin is less obvious—e.g., dermoids in the brain—and yet others have been recorded where such an origin seems quite excluded—e.g., dermoids in solid abdominal organs as in the liver. That this cyst had a pelvic origin was very improbable, seeing that its upper border did not transgress the line of Poupart's ligament; but a pelvic communication through the obturator opening could not be absolutely excluded and the possible existence of such was hinted by the ascertained relations of the cyst to the adductor muscles. However, upon a consideration of all the circumstances, an extension of the cyst from the pelvis through the obturator foramen into the thigh appeared so extremely improbable that it was not deemed necessary to settle this by a vaginal examination, the patient being an unmarried person.

The practicability of a complete extirpation appeared highly probable, and since it offered the only prospect of relief, it was advised and was accepted by the patient. It was done on Jan. 17th, the removal of the cyst being effected through a long incision from the groin to the lower end of the tumour. The operation was a rather long one, owing to the close adhesion of the cyst wall to surrounding parts, and particularly along its outer side, where its close relations to the large vessels necessitated cautious dissection. At its uppermost limit, where the cyst had a leathery thickness and toughness and which was presumably its oldest part, it was intimately attached to the periosteum of the front of the os pubis,

just under the attachment to this of the adductor longus; and here, springing from the inner surface of the cyst, were two little tufts of black hair. Hæmorrhage having been arrested—a rather large number of arteries required tying—the wound was flushed with hot water and then with mercuric chloride, and its edges brought together with aseptic silk sutures. Three drainage-tubes were inserted. An attempt was made to keep the superficial and deep parts of the wound in contact by aseptic cushions and bandaging, and the whole limb was fixed by the aid of a long outside thigh-splint.

In spite of much care to secure and maintain an aseptic condition suppuration ensued at the end of a week. This seemed, probably rightly, attributable to much derangement of the dressings through the patient's great restlessness during the first days after the operation. The integumental incision closed in the greatest part of its extent immediately, but troublesome sinuses persisted during several weeks. On April 28th the patient was sent to the seaside, whence she returned on May 12th looking remarkably well. She then walked "with perfect comfort" and she said that her right leg was nearly as strong and able as her left. She has since resumed her occupation, cicatrization of the entire wound has long been complete and she says she has better health than she had enjoyed for years previously.

## Medical Societies.

### OBSTETRICAL SOCIETY OF LONDON.

#### *On Menstruation in Cases of Backward Displacement of the Uterus.*

A MEETING was held on July 6th, Dr. J. Watt Black President, in the chair.

Dr. HERMAN read a paper on Menstruation in Cases of Backward Displacement of the Uterus. The paper was based upon an analysis of 388 cases of retroversion and retroflexion of the uterus. In about 60 per cent. of the entire number there was no alteration in the quantity of the menstrual flow. In some 20 per cent. there was amenorrhœa, but in every instance of amenorrhœa it was accounted for by causes irrespective of the displacement. In about 50 per cent. of those in whom the menstrual function was not in abeyance there was no alteration in the quantity. In nearly 40 per cent. hæmorrhage was increased. In patients of the same class as those in whom retroversion and retroflexion commonly occur, but whose uteri are normal as to position, the frequency of incidence of causes of hæmorrhage other than gross organic disease and pregnancy is probably about 30 per cent. The proportion of women with backward displacements who suffered from hæmorrhage was thus larger by about 10 per cent. than the proportion of women whose uteri are normal in position. It was therefore reasonable to believe that in this small proportion of cases the hæmorrhage was due to the displacement. Among women with backward displacement of the uterus in whom the menstrual function was not in abeyance pain at the period was absent in only about 20 per cent. Menstrual pain was commoner in those women who had backward displacement of the uterus than in those who had not; and also in those who had increased hæmorrhage.—Dr. HAYES thought the value of the paper impaired by the fact that the amount of hæmorrhage in the cases was not specified. Hæmorrhage varied so much even in healthy women under trifling distractions that comparisons were difficult and misleading. Again, in backward displacements the ovaries were often prolapsed, giving rise to troublesome bleeding; in the paper no mention was made of the position of the ovaries. Respecting the dysmenorrhœa, he would have liked some specification of the amount of pain in the individual cases.—Dr. RUMFORD asked how many of the 40 per cent. of the women with increased menstrual flow were multiparæ and what was the average number of children per woman. He thought subinvolution, as well as retroflexion, might account for the menorrhagia.—Dr. HEYWOOD SMITH asked if any observations had been made among so large a number of recorded cases as to the number of cases of retroflexion of the gravid uterus.—Dr. ADDINSELL made some remarks.—Dr. HERMAN, in reply, said that no doubt in many of his cases subinvolution existed; this was also present among the cases with which he had compared those of

displacement. He did not think subinvolution was especially common in multiparæ. Prolapse of ovary was present in many of his cases, but he did not know the exact number. He had often observed pregnancy occur in backward displacement, though he could not, without reference to his case-books, say how often. In a paper read in December, 1891, he had discussed this point. He found the sound generally caused pain in patients of all classes when it passed the internal os, but he had not perceived anything to make him think there was stricture at the internal os.

Mr. MEREDITH contributed notes on Two Cases of Double Ovariectomy during Pregnancy. In the first case, a primipara, two papillomatous cysts were removed at the third month of pregnancy. Extensive adhesions necessitated the use of a drainage-tube for thirty-six hours, yet the patient convalesced uninterruptedly well, and was delivered at full term of a well-developed boy. In the second case, a multipara, aged thirty-one, the left ovary was a multilocular cystoma with a recently twisted pedicle; the right ovary was a dermoid cyst. No drainage-tube was used. The patient recovered perfectly and was safely delivered at term of a daughter. In both cases delivery was followed by normal contraction of the uterus and by perfect involution subsequently. Only four cases of double ovariectomy during pregnancy had been previously recorded. All the mothers recovered, but in only two was a living child born, one prematurely at the eighth month and the other at full term.—Mr. DORAN said it was right to remove an ovarian cyst during pregnancy, and if on removing one ovary the other was found cystic it also ought to be removed; indeed, its removal hardly increased the chances of abortion, and if left behind after irritation by handling, it might set up uterine contractions. The Fallopian tube in these cases was specially sensitive. The evidence that ovulation continued when both ovaries were in an advanced stage of cystic disease implied that when thus diseased they influenced the uterus prejudicially, hence their thorough removal in cases of pregnancy was highly desirable.—Dr. LEWERS was much interested in the first case, where a drainage-tube had been used and where there were papillary growths on the outer aspect of the cysts without infection of the peritoneum. He thought it would be difficult to use a drainage-tube when pregnancy had advanced, as Douglas's pouch was then practically obliterated by the gravid uterus. He had had a case of double ovariectomy recently where there were numerous papillary growths from the outer aspect of the cysts without any infection of the peritoneum, and not due to the intra-cystic growth bursting through the cyst wall. Probably the papillary growths had existed a considerable time, as three years before he operated the patient had been advised elsewhere against operation on the supposition that she had pelvic cancer.—After some remarks by Mr. BLAND SUTTON and Dr. HEYWOOD SMITH, Mr. MEREDITH briefly replied and the meeting closed.

The following specimens were shown:—

- Dr. LEWERS: (a) Primary Carcinoma of Uterine Body; (b) Microscopic Sections of same.
- Dr. DES VŒUX: Hæmorrhagic Ovaries.
- Mr. BLAND SUTTON: (a) Decidual Cast from Case of Ectopic Gestation; (b) Papillomatous Ovary.
- Dr. CULLINGWORTH: Two Cases of Pyo-salpinx.
- Dr. W. DUNCAN: Knitting-needle removed from Pregnant Uterus by Abdominal Section.

### OPHTHALMOLOGICAL SOCIETY.

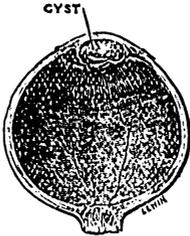
*Implantation Cyst of the Iris after Cataract Extraction.—Acidental Vaccinia of the Eyelids.—Symmetrical Dacryoadenitis.*

An ordinary meeting of this Society was held on July 8th, the President, Mr. Henry Power, F.R.C.S., in the chair.

Mr. RICHARDSON CROSS and Mr. TREACHER COLLINS contributed a paper on two cases of Implantation Cyst of the Iris after Cataract Extraction. The first was that of a woman aged sixty-four, who had had an uncomplicated extraction of cataract with iridectomy performed on her left eye, and subsequently obtained vision which enabled her to see to read and sew. Seven months after the operation an attack of acute glaucoma came on and the sight rapidly failed. The eye was excised a year later. The pathological examination of the eyeball showed that there was a large cyst in the

anterior chamber lined throughout by laminated epithelium. It was bounded in front by the posterior surface of the cornea, below by the anterior surface of the iris, which curved round it, and behind partly by the lens capsule and partly by the hyaloid of the vitreous. The iris, where it ceased to be in contact with the cyst, was in apposition with the cornea.

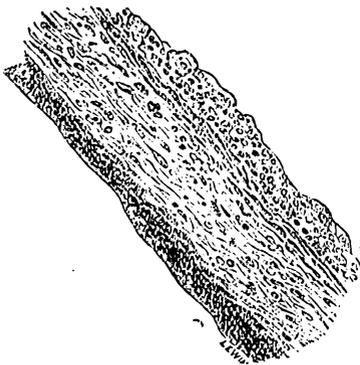
FIG. 1.



Lateral half of the eye of Case 1, showing the position of the cyst.

The angle of the anterior chamber was closed in its entire circumference, a portion of the root of the iris having been left above in the situation of the coloboma. The optic disc was cupped. The second case was that of a man aged forty-one, who had a cataract extracted from his left eye with iridectomy. At the conclusion of the operation the anterior chamber was washed out with a solution of the biniodide of mercury of the strength of 1 in 25,000. Striated keratitis came on subsequently and persisted. Seven months later a thick opaque membrane filling the coloboma was needled; after this the eye continued painful and bloodshot, the cornea became more hazy, and new bloodvessels developed in it. The eyeball was ultimately excised two years after the extraction. At the pathological examination a cyst was found in the anterior chamber lined by laminated epithelium closely resembling that on the surface of the cornea, the most flattened cells being towards the interior of the cyst. In shape it was somewhat triangular, one side being in contact with

FIG 2



Laminated epithelium lining the cyst, on the anterior surface of the iris.

the cornea, another with the iris and a third with the lens, capsule and vitreous. For the determination of the mode of formation of these cysts the authors considered that it was necessary to ascertain the origin of the laminated epithelium found lining them. Two possible sources suggested themselves:—(1) That it was derived from proliferation of the endothelium lining, Descemet's membrane and the anterior surface of the iris; (2) that some of the surface epithelium was carried in at the time of the operation and had subsequently proliferated. The latter view seemed the more probable because the epithelium was found on the surface of the lens capsule and the hyaloid of the vitreous, and was not confined to the iris and Descemet's membrane, and because epithelial-lined cysts had been produced experimentally in rabbits' eyes by such implantations of surface epithelium. The first case was of additional interest from the fact that the eye became glaucomatous. The cyst, which filled the whole of the coloboma, must have prevented fluids passing through it into the anterior chamber. Consequently the iris became pressed forwards into contact with the cornea and folded round the cyst, very much as it is round a lens when

dislocated into the anterior chamber and blocking the pupil. In this way the whole of the filtration area of the cornea became closed by the periphery of the iris and the exit of intra-ocular fluids arrested. The paper was illustrated by lantern slides.—The PRESIDENT thought it remarkable that cysts from implantation of surface epithelium were not more common after extraction of cataract.—Mr. HULKE said that cysts in relation with the iris were usually the consequence of injury, but that the evidence in the cases brought forward showed satisfactorily that these resulted from operation.

Mr. TATHAM THOMPSON reported a case of Accidental Vaccinia of the Eyelids, occurring in a man aged thirty-eight. The lids were œdematous and painful and at the outer canthus the edges of both lids were involved in a purulent ulcer with indurated margins. There was great tenderness of the parts and painful enlargement of the glands at the angle of the jaw and down the sterno-mastoid. The man's child had been vaccinated a short time previously and his wife had been accidentally inoculated therefrom. The man had suffered from slight marginal blepharitis, with excoriation at the outer canthus, and the inoculation had probably occurred at that point.

Mr. SIMON SNELL communicated a paper on a case of Symmetrical Dacryo-adenitis. The patient was a married woman aged thirty-six, who came under observation on March 22nd. Ten weeks previously the right eye became inflamed; this was soon followed by a swelling beneath the upper lid, which gradually increased and was accompanied by pain. A similar condition on the left side had begun a week before she came to the hospital. Both lacrymal glands were enlarged, hard and tender to the touch, the right being much more affected than the left. The history threw no light upon the cause of the disease. In spite of the absence of evidence of syphilis, iodide of potassium was given (five grains) three times a day and was rapidly followed by subsidence of the swelling and other signs. During the time the lacrymal glands were decidedly enlarged there was an almost complete absence of tears on the right side and a noticeable diminution in their secretion on the left side.

The following cases and card specimens were shown:—  
Mr. STEPHENSON: A Movable Stencil Plate for Accurate Delineation of the Meridian of the Retina.

Mr. LINDSAY JOHNSON: A Modification of Priestley Smith's Perimeter.

Mr. JULER: Fundus Changes (after Influenza) resembling Albuminuric Retinitis.

Mr. SHEPHERD: A Cutting Strabismus Hook.

Mr. TATHAM THOMPSON: (1) Episcleral Gumma; (2) Rupture of Choroid and Retina in the Region of the Macula; (3) Rodent Ulcer of Face; (4) Recurrent Sarcoma of Orbit.

Mr. BRAILEY: Transplantation of Flap of Skin from the Arm for Ectropion.

Dr. WOOD: Partial Detachment of Retina, with Unusual Dilatation of Vessels.

The annual general meeting was held at 9.30, and the following list of officers elected for the ensuing year:—  
President: Mr. Henry Power. Vice-Presidents: Dr. James Bankart, Exeter; Dr. John Hughlings Jackson; Mr. George Lawson; Dr. William M. Ord; Dr. D. C. Lloyd Owen, Birmingham; Mr. Simeon Snell, Sheffield; and Mr. John Tweedy. Treasurer: Mr. George Cowell. Secretaries: Dr. Charles E. Beevor and Mr. Gustavus Hartridge. Librarian: Mr. W. Adams Frost. Other Members of the Council: Dr. James Anderson; Mr. F. Richardson Cross, Bristol; Dr. James McKenzie Davidson, Aberdeen; Mr. Robert W. Doyne, Oxford; Mr. Henry Eales, Birmingham; Mr. J. R. Lunn; Dr. J. A. Ormerod; Mr. Herbert W. Page; Mr. D. D. Redmond, Dublin; Dr. W. C. Rockliffe, Hull; Dr. G. H. Savage; and Dr. A. Quarry Silcock.

ASSOCIATION FOR THE ORAL INSTRUCTION OF THE DEAF AND DUMB.—The annual meeting of this Association was held on the 13th inst. The report stated that thirty-four boys and fifteen girls had attended the courses of lectures during the past year, which were given under the German oral system. The committee regretted that they had not been able to supply as many teachers as were wanted, particularly for private tuition, and expressed a hope that the Training College would receive more pupils. The cash statement showed a slight deficiency, and as the Association is dependent on subscriptions, an earnest appeal was made for additional funds.

## Reviews and Notices of Books.

*A Handbook of Hygiene and Sanitary Science.* By GEORGE WILSON, M.A., M.D., F.R.S. Edin., D.P.H. Camb., Fellow of the Chemical Society, &c. Seventh Edition. London: J. & A. Churchill. 1892.

THE merits of a book which has run through several editions must by this time have been so well recognised as to need no lengthy notice in our columns. And yet the simple fact that a book has reached the seventh edition arrests attention and supplies its own comment. If it had not filled a void and furnished much valuable and useful information it is clear that it could not have attained the popularity which "Wilson's Handbook of Hygiene" has secured.

The present edition has been enlarged to the extent of more than 200 pages, and contains a number of new woodcuts illustrative of those parts of it which deal with ventilation, sanitary fittings and drainage, house building, isolation hospitals, and parasitic diseases. It seems to have been carefully revised and brought up to date, many of the chapters having been wholly or in great part rewritten, whilst two new chapters on climate and meteorology and disposal of the dead have been added. When a man has to select a cheese he can judge of its quality by a sample from its interior and happily does not require to eat the whole to form a correct judgment. We have gone further than one sample, however, for we have taken a good many pages as samples and compared some sections of this seventh edition with those of an earlier edition of the same work. The chapters on Food, Removal of Sewage and House Refuse, Sewage Disposal, Communicable Disease with its summary of the most recent advances in bacteriological research, and that on Disinfection and Disease Prevention, are honestly and well done. The chapter on Vital Statistics is a difficult one to arrange properly and lucidly, so as to explain methods and guard against the various pitfalls in the path of the enthusiastic but unwary novice in statistical science. *In passant* we may say that we do not see any allusion, beyond the brief remark at page 246, to the contamination of water with zinc which has been referred to by some chemists and authors. A great deal of labour and care must have been expended on the composition and compilation of this handbook. The subject of Sanitary Science is a big and growing one, and the additions to our sanitary legislation of late years have enlarged the sphere of functions, increased the responsibility, and multiplied the duties, of all concerned with public health. Medical officials, candidates for public health diplomas, local surveyors and sanitary inspectors generally will find a great quantity of information in this volume which it concerns them to know. We can honestly speak of it in terms of high commendation.

*The Essentials of Histology.* By E. A. SCHÄFER, F.R.S., Jodrell Professor of Physiology in University College, London. London: Longman, Green and Co. 1892.

A THIRD EDITION of this well-known work needs but little recommendation. The object of the book is to supply the student with directions for the microscopical examination of the tissues. A proper knowledge of histology can only be obtained by a practical study of each individual organ. It is not sufficient that the student should be provided with a series of prepared specimens and be told to "read them up" from a book; he should obtain the organs and prepare the sections for himself, and in so doing he will secure a far better and more lasting idea of the structure of the tissues than by any other means. This book is divided into forty-five lessons, each of which would occupy a class from

one to three hours. The methods may be thoroughly trusted, as only those "are recommended upon which experience has proved that full dependence can be placed." Needless to say that with such an author as Professor Schäfer the work is complete in every detail.

Each "lesson" commences with practical directions as to how to secure and prepare the specimens or sections and then full descriptions are given as to what should be observed. The illustrations are numerous and excellent and greatly add to the value of the book. One of the greatest difficulties experienced by students is to understand the structure of the nervous system. It is necessarily by no means easy to demonstrate clearly the course of the numerous fibres and the arrangements of the cells and ganglia, but by the aid of diagrams and drawings the author has succeeded in laying before the reader by far the most succinct and satisfactory description which we have ever seen. Take, for example, the structure of the cerebrum. Six sections taken from various parts of the hemisphere, and admirably reproduced, give as good an idea as possible of the arrangement of the various layers, whilst the full descriptions which accompany them will teach the student in a comparatively short time all that he need know on this complex subject. By the previous editions the success of the book has been ensured, and we can only pronounce the present edition a great improvement on the two which have gone before, excellent though they were. We cordially recommend the work to all students.

*Transactions of the Seventh International Congress of Hygiene and Demography.* Vol. XI.: Indian Hygiene and Demography. Edited by C. E. SHELLEY, M.A., M.D., assisted by the Hon. Secretary of the Indian Committee. London: Eyre and Spottiswoode. 1892.

THE labour of producing the voluminous transactions of the great Congress which was held in London last year is steadily progressing, and certainly few volumes can be more important than the one before us. The book opens with a lengthy, valuable and elaborate paper by Sir William Moore, K.C.I.E., on Sanitary Progress in India, in which facts collected from a great variety of sources are brought together, while the results of sanitation are shown by many statistical tables. This paper makes it very clear that sanitation in a tropical country has its special difficulties and that methods which work well enough here may fail in India. This paper, as well as those by Surgeon-Major Hendley, C.I.E., on Sanitation in Rajputana, by Surgeon-Major Kirtikar on the Sanitary Wants of the Bombay Presidency, by Assistant Surgeon Ramji Ghole on the Hygienic and Demographic Condition of India, by Mr. Dhurandhar on the Sanitary Condition of Towns and Villages, and by Mr. Lionel Ashburner on Legislative Action as applied to Village Sanitation, make it plain that hygiene in India, to be successful, must begin in the homes of the people and that the apathy, ignorance and superstition of the people constitute a dead weight with which it is an almost hopeless task to attempt to deal. The papers by the native gentlemen who made communications to the Congress will be read with special interest, combining as they do an accurate knowledge of the natives and their wants with a knowledge of medicine and sanitation, for the most part acquired in Europe or at the hands of European teachers. Mr. Bypamjee's paper on Bhavnagar, Dr. Fernando's paper on Ceylon, Mr. Chotalali's paper on the City of Ahmedabad, Mr. Ollivant's paper on Bombay, and Major Temple's paper on the City of Rangoon all serve to bring prominently before the mind's eye the actual state of sanitation in our great Indian dependency and the possibilities of effecting improvements in the future.

Certain other papers which were read in other sections of the Congress have been added to this volume and are here printed in duplicate, because it was felt that the whole of the

Indian papers should be included in one volume in order to render the book as useful as possible to those who are interested in Indian sanitation. These supplementary papers include the Prevention of Fever, by Sir W. Moore; Sanitation in India, by Mr. Baldwin Latham; the Water-supply of India, by Surgeon-Major Pringle; Enteric Fever in India, by Professor Notter; Hygiene for the Zenanas, by Surgeon-General Francis; and two papers on Factory Legislation, by Mr. Holt Hallett and Dr. Bahadurji. In conclusion, as this is a matter which affects the public at large, we may state that this volume may be had separately for 2s. 6d., and we earnestly hope that it will be widely read.

*The Science and Art of Midwifery.* By WILLIAM THOMPSON LUSK, A.M., M.D. Fourth Edition. London: H. K. Lewis. 1892.

DR. LUSK'S excellent treatise has in former editions proved to be to both students and practitioners a safe guide to the practice of midwifery. This new edition, which in many parts has been entirely rewritten, embodies all the most important advances in obstetric science which have been made since the appearance of the previous issue in 1885. Many modifications have taken place during these years in the theory and practice of this science consequent upon more careful investigations by several observers in anatomy and pathology. Most of these results are set forth by Dr. Lusk with due discrimination. The modern development of aseptic surgery is manifest in the treatment of many of the complications of the puerperal state. The book contains two very instructive chapters dealing with the latest phases of questions relating to the febrile conditions which occur during the puerperium, and full justice is done in the work to the bacteriologists whose researches have given us the true explanation of these much-dreaded complications.

*Notes on Dental Practice.* By HENRY G. QUINBY, L.D.S.I. London: J. & A. Churchill. 1892.

A SECOND EDITION of Mr. Quinby's *Notes on Dental Practice* is a welcome addition to dental literature. It comprises the teaching of a conscientious worker of long experience, and will well repay perusal by the student or practitioner. Perhaps the most valuable portion of the book is that relating to the treatment of the temporary teeth, which are too commonly regarded by parents as of little importance, whereas their welfare has a profound influence upon their successors. When the first teeth are decayed the first step is to gain the confidence of the little patient by gentleness and kindness and to correct the preconceived idea of dread of a visit to the dentist. Fillings should be of a simple character, of which guttapercha, all things considered, is the best. Gold stoppings in such cases are not only unnecessary but absurd. Extraction is rarely necessary as a mere means of relief of pain, and should only on exceptional occasions be resorted to; for premature removal often results in a contraction of the alveolus, which impedes the eruption of the permanent tooth, and, further, if performed early, the developing tooth may from the force used be wrenched out of its normal position. When second dentition is in progress it is invariably bad practice, although too common, to remove two temporary teeth to make room for a permanent one. In the chapter devoted to the subject of extraction as a means of preventing decay the author makes the pertinent remark that in deciding upon this procedure the history of other members of the same family should always be taken into consideration. In the treatment of irregularities many practical points are brought forward, and the importance of securing the active coöperation of the parents is impressed upon the reader. When dealing with the subject of the treatment of adult teeth Mr. Quinby's remark is surely not to be taken seriously when

he says of the rubber dam and the saliva ejector that their chief use is "for the convenience of the dentist, because it enables him to leave his patient, without danger to his work, and go to his lunch or see another case for a moment," but rather as a protest against the abuse of these adjuncts—valuable alike from the operator's and the patient's point of view to the dental armamentarium. The book closes with a chapter on anæsthetics for dental purposes written by Dr. Briggs.

## Analytical Records.

NATRIUM SALICYLICUM PURISS. PULV. AND ACIDUM SALICYLICUM PURISS. PULV. (DR. HEINRICH BYK, BERLIN).  
(R. W. GREFF & Co., 20, MINCING-LANE.)

IN consequence of the disturbances of a more or less severe, and in some instances grave, nature which have followed on the employment of salicylic acid synthetically prepared from phenol, several chemists have been induced to investigate the subject, with a view of discovering in what respects the artificial acid differs chemically from that obtained from oil of winter green, or from that interesting body, salicin. Eventually the difference was found to be due chiefly to the presence in the artificial acid of creasotic acid, which results from the use of impure phenol and also of para-hydroxybenzoic acid and hydroxyisonaphthalic acid in its manufacture. The presence of the two latter substances is referable either to the use of caustic soda containing potash or to undue raising or lowering of the temperature during manufacture. Professor Charteris, in a series of comparative experiments on rabbits, showed that natural salicylic acid in 10-grain doses and the sodium salt in 32-grain doses had no deleterious effects on rabbits weighing 2½ lb. Artificial salicylic acid, on the other hand, in 10-grain doses and the sodium salt prepared from the artificial acid in 18-grain doses caused the death of rabbits of the same weight. In fact the very best specimens of the artificial acid sold as chemically pure proved fatal to two rabbits, while in others it caused marked prostration and paralysis. With less pure specimens fatal results followed. It is satisfactory therefore to learn that a simple process has since been adopted by which these powerfully toxic impurities may be carefully removed and a perfectly pure acid obtained. The process consists merely in treating a hot aqueous solution of the artificial acid with chalk till it becomes neutral. The liquid is allowed to cool, when the sparingly soluble calcium salicylate separates out in hard glistening crystals, while the impurities remain in solution. The calcium salt so obtained is recrystallised, more than once if necessary, from hot water and then decomposed with hydrochloric acid. The salicylic acid thus set free is washed with cold water and finally crystallised with pure spirit. So prepared the acid occurs in large, well-formed, prismatic crystals, which are exactly similar in appearance to the crystals of the natural acid; and the melting point, solubility and other properties of the two substances are identical. Moreover, physiological experiments with this purified acid showed that even with larger doses there was no paralysis or depression when it was administered to rabbits. We are not aware whether the acid above or the sodium salt was prepared in this way, but according to the chemical and physical tests we applied it is analogous in all respects to the natural product. The melting point was exactly 156° C., the crystals were well formed, and no carbolic acid could be detected. It crystallised satisfactorily also from spirit, while it gave an exact equivalent when titrated with standard alkali. Both preparations are evidently of great purity and may accordingly be used with confidence for medicinal purposes.

**SYRUP CHLORIDE OF IRON (WELD'S).**

(PARKE, DAVIS, AND CO., 43 &amp; 44, HOLBORN-VIADUCT.)

Each tablespoonful of this preparation is said to be equivalent to twenty drops of the official tinctura ferri perchloridi and our analysis practically confirms this statement. It is acid to test paper, gives a blue precipitate with prussiate of potash, increased on the addition of hydrochloric acid; no colouration with sulphocyanide of potassium until similarly treated, and no precipitate with ammonium hydrate. Alkaline copper solution is rapidly reduced. These results contribute to show that the preparation consists of a carefully made combination of syrup with perchloride of iron. Although it is characterised by a sweet and inky taste, it has not that marked action on the teeth which forms a drawback to the general administration of ordinary compounds of iron. In short, it would seem to possess all the advantages of an efficient iron salt.

**INVALID NOURISHING STOUT.**

(J. T. USHER, HORFIELD-ROAD BREWERY, BRISTOL.)

Malt liquors when honestly prepared are not only a wholesome form of tonic and stimulating beverage, but possessing in addition distinct nutritious qualities, are often of value to invalids. When taken habitually beer tends, it is well known, to induce a state of fulness and plethora of the system and a disposition in some people to accumulate fat. The nutritive matter of beer occurs chiefly in the form of soluble carbohydrates (dextrin, malt sugar) and also of albuminates in small quantity, while salts of potassium, and especially phosphate, are a normal and abundant constituent of the ash of malt. The digestive action of beer is referable, more perhaps than anything else, to the free carbonic acid contained in it, as the activity of the diastase of the malt is destroyed in the boiling of the wort. Bottled beer, therefore, is more freely to be recommended for dietetic purposes. According to our examination the sample of stout prepared by the above firm is well brewed, ripe and of mellow full taste. Analysis showed a normal proportion of nutritious extractives with a corresponding amount of mineral matter, essentially potassium phosphate, while alcohol was present to a suitable extent. The figures actually gained were as follows:—Absolute alcohol 5.65 per cent. by weight, 7.00 per cent. by volume; extract 6.72 per cent.; mineral matter 0.52 per cent. The product compares favourably, therefore, with other brands.

**NOTESCO LIQUEUR.**

(NOTESCO Co., 380, OXFORD-STREET, W.)

The claims made in respect of this preparation are many, but our examination does not enable us to confirm the bulk of them. It yielded on evaporation to dryness a sticky residue, consisting practically of sugar to the extent of 26.64 per cent. When this was incinerated there remained a small quantity of mineral matter equal to 0.10 per cent. On distillation alcohol was obtained amounting to 8.50 per cent. by weight or 10.56 per cent. by volume. The liqueur possesses a sweet but hardly an attractive taste in which the presence of peppermint is suggested. Ether did not appear to extract any substance, or at least not in any important quantity. We have not succeeded in obtaining evidence further than this that would in any sense enable us to regard this preparation as "a tonic for brain and nerve &c."

**EUCALYPTUS SOAP.**

(CURTIS AND CO., 48, BAKER-STREET, W.)

The oil of eucalyptus globulus was readily obtained from this soap on distillation. The soap lathers very freely and contains no free alkali or excess of moisture. A good proportion of the antiseptic is ingeniously incorporated into its composition, and this fact enhances its value, of course, as a cleansing agent.

**CARBOLINE.**

(HENRY ELLISON, JUN., CLECKHEATON, YORKS.)

A strongly alkaline tarry fluid, which separates into dark-brown oils on the addition of acid. With water it forms a slate-coloured emulsion which on agitation yields a soap-like lather. Although it contains tar oils and acids we did not succeed in getting any satisfactory evidence of the presence of true carbolic acid. This was searched for, more particularly as the preparation is described as non-poisonous, while it is also claimed to contain the "active principles of carbolic acid." The carbolates are, of course, highly poisonous compounds, and we should like more evidence therefore as to the non-poisonous character of the preparation. It is stated also to contain eucalyptus oil, which would account for the modified character of the smell evolved from it. Carboline being rapidly miscible with water affords probably a useful means of obtaining a plentiful supply of a powerful disinfectant at a moment's notice.

**PREPARATIONS OF THE ROYAL PERFUMERY CO.**

(NAPOLEON PRICE &amp; CO., LIMITED, 104, ALDERSGATE-STREET.)

We have received a selection of this firm's goods, which include various soaps, medicated and for toilet use, a nursery powder and a wash specially prepared for the hair. Of the soaps we have examined the following: Velveen, a white opaque soap of especial purity, free from excess of moisture and alkali, and therefore admirably adapted for all toilet requirements; real old brown Windsor, desiccated and trebly milled, containing, according to our own tests, a minimum of moisture and perfectly free from irritants; eucalyptus and pine soap, smelling pleasantly of pine and eucalyptus and yielding both bodies on distillation, although there was nothing in the mere appearance of the soap to indicate the presence of either; carbolic soap, a delicately coloured soap containing the pure acid; improved carbolic soap, a light brown soap yielding phenols on distillation; and an improved coal-tar soap, chiefly remarkable for the excellence of its colour in spite of the character of its antiseptic constituents. The nursery toilet powder was found to be free from irritants, delicately scented and to consist mainly of rice starch reduced to a fine state of division, probably by trituration. The preparation of bay rum was apparently an alcoholic extract of bay leaves. Materials of the best quality only are evidently used in the manufacture of all these products, a precaution of especial importance where articles for the toilet are concerned.

**New Inventions.****TEUFEL'S ABDOMINAL SUPPORTS &c.**

We have carefully tested the various ingenious inventions of Mr. W. J. Teufel of Stuttgart, consisting of abdominal supports, bandages, the so-called "stooop-cure" &c. It is well known that a suitable support for the abdomen in advancing pregnancy, in abdominal complaints or in corpulency is very desirable, but owing to the imperfections of most of the bandages sold it is rather difficult to get a support which is not defective in some respect; it is therefore as a rule advisable to have one properly constructed according to the special requirement of each individual case, as a bandage to fit every case requiring support is an impossibility. Mr. Teufel, recognising the truth of this statement, has divided his abdominal appliances into a series of six systems, according to the special condition; and in each series all sizes are kept in stock, so that according to the particular necessity anyone can be supplied with a support which will give the greatest amount of com-

fort and the least possible annoyance, with the most beneficial results as to the abnormal condition for which it is employed. These supports are made of various materials, as jean, white horsehair, satin, pure wool or cotton. By the addition of a specially constructed steel spring and a pad constant pressure may be made on the hypogastrium in certain uterine conditions, and a similar spring and pad are added in cases of umbilical hernia.

The "stoop-cure" is an appliance to counteract the habit of stooping in those who have weakness of the muscles of the back. It is worn under the dress without being observed, and consists of a flat backpiece containing springs lying parallel with the spine, and two moderately strong springs extending from the centre outwards to the shoulders, attached to the ends of which are two straps encircling the shoulders, so that the continuous action of the springs tends to draw backwards the shoulders. Such an appliance must be of considerable service when used in combination with exercises for improving the tone of the dorsal muscles.

The "menstrual safe-guard" is a neatly constructed arrangement for minimising the discomfort attending upon the monthly period.

These are supplied by the Teufel Remedial Appliances Company, 61, Moor-lane, London, E.C.

#### SELF-RETAINING CYLINDRICAL SPECULUM.

THE cylindrical form of vaginal speculum is the one most universally used, and Ferguson's, with mirrored surface, being cleanly, moderate in price, and affording a good view of the os and cervix, seems to be the favourite (at least with the general practitioner). The main objection to this valuable speculum is its extreme fragility, and that if left unheld after introduction it is very liable to be extruded by contraction of the vaginal walls and, if falling from the bed or couch, to be broken. The illustration represents a modification which, if the proper sized speculum be chosen, renders it self-retaining. It consists of a bulbous expansion at the outer end, which is to be introduced within the vagina; owing to its increased calibre and the sulcus around it the sphincter vaginae muscle is enabled to hold the instrument, thus setting free both hands of the practitioner. The bulbous expansion has also another advantage—that is, the concave surface forms a trough which will catch any small quantity of caustic fluids (carbolic acid, for instance) which might otherwise find its way downwards and burn or stain the external parts or the patient's clothing. This form of speculum will be found in practice a great improvement on the older form if only for the

reasons given. The makers are Messrs. Arnold and Sons, who have carried out the idea to my complete satisfaction.

Dublin.

ALEXANDER DUKE.

#### THE INVIGORATOR CORSET.

We have had submitted to us a specimen of "Rest's Patent Invigorator Corset." It claims to possess two important qualifications. First, that it tends to prevent tight-lacing, so common and so injurious; and, secondly, that it lends support to the shoulders by means of straps which cross over the shoulders and thus afford valuable assistance to persons who are weak in the chest, or who have a tendency to stoop. Tight-lacing and stooping generally go together—

what prevents the one will tend to remedy the other. We have submitted the truth of these statements to practical test and the corsets have been found to be a great comfort. They might, however, be rendered a little softer under the arms. While affording a necessary support these corsets are made of a material so pliant that they readily adapt themselves to all the movements of the body.

#### HARTMANN'S ACCOUCHEMENT OUTFIT.

EVEN in these days of aseptic midwifery it is not always easy to ensure that all the necessary articles will be ready at the time of confinement, especially in the homes of young married women, who are usually ignorant of what is needed for accouchement. The Sanitary Wood Wool Company have prepared a guinea outfit to remedy this want. It consists of a box containing various requisites, especially sheets and towlettes of various sizes made of Hartmann's antiseptic absorbent wood wool and other articles necessary for the health and comfort of the lying-in woman. We have little doubt that this supplies a want often felt equally by medical attendants, nurses and patients, and from the results of our experience of the various appliances supplied by this company we can recommend this box to all intending mothers. The "outfit" can be obtained at 26, Thavies-inn, Holborn, London.

#### A BABY-CARRIER.

SURGEONS are but too familiar with the often life-long injuries and deformities experienced by sufferers as the result of falls during infancy from the arms of nurses. The accompanying illustration depicts a simple device intended to pre-



vent such accidents; whilst it may be useful in lessening the fatigue of carrying infants and freeing the arms of the nurse for other incidental duties. As will be seen by the figure, the appliance consists of strong network attached to an eyeletted strap. This is thrown over the left shoulder and affixed to the end of the net, which is brought under the right arm by means of a hook. We draw attention to this invention, which is patented by Messrs. S. T. Matthews and Co., John Bright-street, Birmingham, as we believe it to be calculated to be of service to such as have the personal charge of infants and useful as a preventive of a class of calamities to which very young children are liable.

**NEW HOSPITAL ON BEDMINSTER DOWNS.**—The Bristol Sanitary Committee have approved of plans for a new large sanitary hospital at the Nouvers on Bedminster Downs. It will be a commodious building and provide accommodation for 100 patients and enable the medical officer of health to deal more satisfactorily with the isolation of infectious diseases. The estimated total cost of the site, buildings and drainage works will be about £30 000.

# THE LANCET.

LONDON: SATURDAY, JULY 23, 1892.

In considering the prospects of an invasion of cholera into this country it may be well to recall the past history of England as to this disease. Although cholera had long been prevalent in the valley of the Ganges, where it must be held to have its permanent centre, it did not reach this country until 1832; and seeing that this first epidemic took place before any national system for the registration of deaths had been inaugurated it is impossible now to estimate the extent of its ravages. On that occasion England became invaded by means of the sea route from the Baltic. Again, in 1849, when this country was next invaded, cholera travelled by much the same route. Having passed from Asia into Eastern Europe it crossed Russia, Prussia and Holland; it then traversed the German Ocean and first attacked our eastern coast. In 1853 a similar course of events again took place; Norway, Sweden and Denmark, with the Baltic ports of Germany, preceding our ports in so far as date of attack was concerned. On the next occasion—namely, in 1865 and 1866—a different route was followed. The line of human intercommunication between the East and Europe had undergone a change. The Cape route, with its power of extinguishing cholera as colder latitudes were reached, was giving way to a line of traffic across Egypt and by the basin of the Mediterranean; and so it came to pass that the disease first attacked certain southern towns of this country and notably Southampton. With the construction of the Suez Canal it was contended that a direct route was opened up between Calcutta and our Indian ports on the one hand and European ports on the other, and that it was by this new route that cholera would henceforth menace Europe. This view was borne out to some extent by the 1864-67 epidemic in Europe, the disease being conveyed by a French transport from Tonkin to one of the Mediterranean ports of France.

But a new danger has since then arisen for Europe. Whereas cholera formerly took a long time to travel from India to Eastern Russia across Persia or across the deserts of Turkestan, a line of railway laid down by Russia has now superseded the old trade desert routes, and this brings cholera from Bokhara, Eastern Turkestan and Northern Persia by a rapid transit right on to the Caspian Sea within a comparatively short period. Thus the danger is the greater because some of the countries traversed serve by their insubstantial state to intensify the infection; whereas by the sea route to the Mediterranean there was always a prospect that any disease on board a vessel might soon die out. It is by this new railway route through Southern Turkestan that cholera has this year reached Europe. Directly the Asiatic ports of the Caspian were attacked the disease took but a day or two before it crossed that sea to Baku and Astrakan; and then, travelling in two directions, it attacked a large number of towns south of the Caucasus and proceeded to ascend the Volga, following the

route of travel by steamer up that river. Thus, as the lines of human intercommunication have changed, and as they have been influenced by facilities for rapid traffic, so has cholera on several occasions altered its route to and within Europe, and no doubt can possibly remain that, for Europe at least, we must accept the doctrine that this disease follows those lines of travel, by sea, rail, or river, which convey men and merchandise from the East to the West.

In so far as risk to England is concerned the prevalence of cholera in Russia and its existence around Paris have both to be considered. In Russia the main prevalence at present lies in the two directions indicated. The disease has been and is widely prevalent south of the Caucasus, and thence it could most easily reach Western Europe from ports in the Black Sea and the Sea of Azov. The town of Azov and its vicinity are already infected and rumour says that cases have occurred in Odessa. The most dangerous trade between these districts and England is the rag trade, and when it is remembered that the effects, even of patients in cholera hospitals, have been sold, it requires no particular effort of the imagination to understand how contaminated clothing and linen would find its way to ports whence rags are exported to England. Hence it is that the Local Government Board have issued an order prohibiting the importation of rags into this country from the ports referred to. In a northerly direction the extension of cholera involves a double risk. From Astrakan the disease has spread up the Volga successively to Tzaritzin, Saratov, Samara, Kazan and into the province of Kostroma; it tends also to take a westerly direction, and danger may hence come both by its crossing the Prussian frontier or by its taking the Baltic route. The amount of cholera in Russia is already serious. Thus, to take only two days at the end of last week, the official, and we fear incomplete, returns record 1781 cases and 1300 deaths, and of the deaths 812 occurred in towns on the Volga. Still, at the same time, there is no immediate indication of a rapid extension westwards; and, besides this, there are grounds for hope that so far as the Baltic traffic is concerned our eastern ports may be able efficiently to cope with any emergency, and that the land route across Prussia, Belgium, Holland, Denmark &c., does not present the same favourable conditions to cholera diffusion which existed in 1854 on the occasion when the disease last reached this country by that route.

There are also certain hopeful conditions attaching to the outbreak around Paris. Whatever the source of the cholera in the Parisian suburbs it seems to lack that special aggressiveness which so commonly shows itself in a newly imported contagion. Paris itself has also remained practically immune. But as regards both this outbreak and the Russian epidemic there is the extremely uncertain element of season. A really hot August, with but little rainfall, might upset all forecasts; and the safest course for sanitary authorities to adopt will be a course of preparation for the worst that may be possible.

At this time of the year, when Londoners forget all about fogs and when London is experiencing fresh breezes and a clear atmosphere, an apology would appear to be needed for bringing to remembrance one of the worst evils of our metropolitan winter. But if to be forewarned is to be forearmed, then it

is well to give due consideration to the scheme which forms the subject of an article by Mr. L. C. D'OYLE, B.A. Camb., in the current number of the *Gentleman's Magazine*. The scheme by which this author proposes to make London smokeless is by no means novel, as a reference to the columns of THE LANCET on this subject will show; but many of the arguments urged in its favour carry with them fresh force and weight. Unquestionably the employment of gaseous fuel would be a means of obviating the evil. Why do we waste fuel, practically asks Mr. D'OYLE, and deluge the metropolis with unburnt products of combustion by burning it imperfectly and extravagantly when at properly contrived places it could be so distilled that practically all its heating power could be utilised and economically supplied in mains in the form of combustible gas? This proposal endorses once more what we have already said, that whatever may be the scheme proposed, it must necessarily be colossal in proportions and one with which only drastic legislation can be expected to deal if it is to be put into practical operation. Enjoin the people to burn smokeless fuel—or to employ smoke-consuming grates—or to use only gaseous fuel, and three proposals of an equally gigantic kind and each demanding in an equal measure, in order to secure their universal adoption, the pressure of legislative force have to be faced. The proposal to use one kind of solid fuel—e.g., anthracite—may be dismissed as obviously impracticable and then there remain practically two other proposals for consideration—viz., the use of gaseous fuel and the use of solid fuel or coal. We are justified when considering these schemes in assuming that perfect combustion and smoke-consuming appliances are available. Even supposing, to take the gaseous fuel theory first, that the task of laying down miles and miles of extra gas mains and of constructing huge retort houses has been accomplished, it is next absolutely necessary to ensure that the gas-stove is perfect in its working. Nothing can be more injurious than the imperfect products of combustion arising from faulty gas-burners, and where air is admitted, as in an ordinary Bunsen burner, the arrangement by which the exact proportion of air is regulated is very liable to get out of order unless it is frequently examined. But, as Mr. D'OYLE reasonably holds, the manufacture of gas fires as an industry is still in its infancy, and very great improvements have already been effected in their construction, and still further improvements may be confidently hoped for. On the other hand, the grate which will burn coal and burn it completely without formation of smoke or other objectionable products possesses many advantages in favour of the system of burning solid fuel. Thus, while such a grate will cost no more probably than the gas stove, it will burn the only fuel which is at the present time practically available for the purpose. The adoption of this system also will not necessitate the immense undertaking entailed by the gas-heating system; extra gas mains, for example, need not be constructed and the setting up of powerful gas-making machinery will not be requisite. Coal when properly burnt gives invisible and harmless products of combustion which differ little from those produced from coal-gas, although it is true that the "purifiers" of the gas works effect a partial reduction in the amount of sulphur in the gas. The quantity of sulphuric acid, however,

escaping from an ordinary gas burner is not so trifling as might be supposed, as may be determined by boiling water in a glass flask over a gas flame for a few hours. It will be found that the external surface of the flask after that time has become moist with sulphuric acid and intensely sour to the taste and that it acts strongly on blue litmus paper.

To the bulk of readers probably Mr. D'OYLE's strongest argument in favour of gaseous fuel would appear to be summed up in the following sentences:—"A ton of coal weighs a ton; convert it into gas and it comes at once as a decimal in gravitation and could be conveyed in mains at a very small expenditure of force per mile." Again: "A series of trunk mains running direct from the coal districts to different parts of the city could supply London with fuel in this form far cheaper than rail-roads or ships can do it at the present time in the form of coal. It is merely a question of carbonising at the mouth of the pit instead of in London, thereby saving to a great extent the expense of carting, shifting and conveying such an enormous mass as some millions of tons annually a distance of two or three hundred miles." The claim with regard to decimating the weight of coal by converting it into gas reminds us of the old catch question: Which is heavier, a pound of feathers or a pound of lead? A ton of gas weighs, of course, as much as a ton of coal, and the force required to pump gas through hundreds of miles of mains is far greater than is generally supposed. The resistance offered by so great a length of piping would be enormous and the gas would suffer considerable compression before any effect of initial pressure would be felt at the extremities of the mains. A very simple experiment suffices to illustrate this. If a person blows through a length of leaden pipe he will find that a very considerable effort is required before the air at the other end of the pipe is forced out.

Another important point which Mr. D'OYLE appears to have overlooked is that less than one-half of the coal as it is distilled at the gasworks is converted into gas. The gas produced therefore represents only at the most one-half of the fuel value of the coal as regards carbon, as more than half of it (60 per cent.) remains in the retort in the form of coke. Now in a perfect combustion-stove this would not be the case. Practically the whole of the carbon as well as the other combustible constituents of the coal would be burnt and the total heating or calorific value of the fuel be utilised.

It is evident that the smoke abatement question is still far from having arrived at a satisfactory solution; but when the difficulty shall have been successfully combated one of the biggest achievements of the age will be accomplished. One way out of the difficulty, however, seems probable; and that is, that until some other source of power becomes available, coal or solid fuel, so long as it lasts—or it may even be liquid fuel—will after all be resorted to solely for the purpose of generating and distributing a force which may at will be resolved into either radiant or calorific energy. We refer to the immense advances recently made in electricity, which promises to provide us not only with light in our homes, but also with heat that will be available for the purposes both of cooking and warming.

THE nursing profession will, we feel assured, derive much satisfaction from the way in which their calling and their work are treated by the Lords' Committee on Metropolitan Hospitals.

The remarks on this subject occupy twelve or thirteen pages of the report—a larger space than is devoted to almost any other subject in the Blue Book. There is no doubt that “nursing” is one of the burning questions of this acute age. It is said of a great living physician that when he gets ill he goes to bed and sends for a good nurse. The public are not yet quite so enamoured of the trained nurse. Her training has not yet reached that perfection at which it ceases to show itself. She still stands on her dignity a little too much, perhaps, to be altogether a *persona grata* in private houses. The patient is apt to resent her too routine and mechanical ways and her air of authority and command. The domestics are still more resentful. They declare that the trained nurse assumes airs and requires more waiting on than any other member of the house; that she is a sort of *imperium in imperio* and regards them as altogether inferior persons. Such prejudices have possibly a certain basis of reason, but they are yearly growing less and less as the training of nurses becomes more complete and nurses come to see that human nature, especially under conditions of sickness, requires a good deal of humouring. It cannot be doubted, too, that the results of medical treatment are greatly improved and enhanced by the ever-increasing frequency with which it is applied and carried out by intelligent and trained nurses, who are not affected in their ministrations by that feeling and fear which so often disable friends in the very climax of illness. We cannot but regret that nurses are still too infrequently employed. Partly from considerations of cost and partly from the existence of prejudices based on an exceptional or unhappy experience of nurses, they are still rather luxuries of the rich and of hospital patients than common blessings of the sick. The poor, too, of London and our large towns, as the Lords' Committee properly tell us, are receiving the benefit of good nursing in an ever-increasing degree at the hands mostly of ladies of cultivation and often of rank and wealth, who are appointed by the various Associations for District Nursing. From the evidence of several important witnesses it would appear that the demand for district nurses is on the increase; and Dr. BRIDGES intimated that it was in contemplation to allow boards of guardians throughout the country to establish them. One incidental advantage of an increase in district nursing would be that many cases, with this assistance, could be advantageously treated at home which otherwise would fill the scanty beds of our straitened hospitals. Still the great majority of patients of the middle and lower middle class have to do without the assistance of a regular nurse. The consequence is that the patient is longer in getting well and that his or her immediate friends, who act the nurse's part without the nurse's rest, often get laid up or become broken down. It is, however, in hospitals that the beneficent work of nurses is fully seen. It is to this work and to considerations for improving it that the Lords' Committee give so much space and, we may add, so much praise. What strikes an outside observer with surprise is the fascination which nursing seems to have for a large number of women, even in classes of society where pecuniary motives can have no force. This is a matter of common observation; but it is strikingly illustrated in the report. At the London Hospital the number of applicants for employment as nurses was 1600. Nurses are drawn from a well-educated class. Many are daughters of

professional men, merchants, farmers and tradesmen—even the nobility and aristocracy are not unrepresented in this noble class of workers—for there is no evidence in the report of ignoble work or workers. We are all familiar with old stories of cruelty in hospital nurses; but there is no reason to think that in the hospitals of London now, with a nurse to three patients and a half, and these nurses carefully selected and closely supervised by matrons of special training and large experience, any material complaints can be made. On the contrary, testimony was forthcoming of the admirable care and attention bestowed on the patients and the spirit of self-sacrificing zeal which animated the nurses. This testimony is the more creditable as their hours are still too long and their holidays and periods of relaxation too short. The work-day on an average extends from seven in the morning with short intervals for meals to nine o'clock at night. Money only is wanted to increase the proportion of nurses to the sick, but of recent years a great advance in this direction has been made. At St. Bartholomew's it has been doubled in ten years and at the London Hospital in 1880 it was 1 to 5, whereas it is now 1 to 3½. Still there is room for improvement, and when hospitals have succeeded in eliminating their unfit cases we shall expect to see such a flow of charity as will diminish by three or four hours the working day of nurses. It is gratifying to know that the Commissioners find no serious evidence of defective health in nurses as a rule.

Another satisfactory point established by the work of the Lords' Committee is the entire disappearance of friction and misunderstanding between the medical and nursing staffs. The Committee attribute this to the system by which the matron is made responsible for the efficiency and the discipline of the nurses and to the recognition of this system by the medical staff. The Committee magnify the position and the responsibility of the matron, and regard it as second in importance only to that of the medical staff, adopting apparently the strongly expressed opinions of Miss NIGHTINGALE. As the importance and position of nurses become increasingly recognised they will be expected to give more and more proof of their efficiency and training; and there seems every probability that their remuneration and their prospects will improve. In a nurse character is an important qualification. In this respect hospitals have a decided advantage over private nursing arrangements. In a hospital the nurse is under the immediate supervision of the matron and of the sisters. Virtues and faults are more quickly and easily discerned. In private practice it is difficult to get such a knowledge of the actual character of a given nurse. Faults, have to be very pronounced before patients or families will make them the subject of note or complaint to the hospital or association from which the nurse comes, and so it may happen that a faulty nurse may have a long run of employment; but the general experience of medical men will go to confirm the impression left by the report that nurses have rapidly improved in efficiency, in faithfulness and in kindness, and generally deserve the confidence of the public.

DR. SWANN has clearly demonstrated in a paper which appears on page 194 in our present number the grave results that may arise from drinking water that has been conveyed

through leaden pipes. The solvent action on lead which is specially characteristic of certain waters—notably those of the moorland supply in Yorkshire and in Devonshire—has been very carefully studied by several chemists during the last few years. Whatever way speculation may turn as to the cause of this remarkable property, it seems fairly well established that lead-dissolving waters are generally unusually soft and contain but little mineral constituents, while waters which have not the power of dissolving lead commonly contain a maximum of chalk in solution besides other mineral matter, though perhaps little organic matter. This is illustrated in a singularly conclusive experiment made by Dr. GARRETT some time ago, who found that a sample of water obtained from Mirfield, Yorkshire, notorious for its lead-dissolving powers, acted strongly on lead, but when it was mixed with New River water (a water which does not dissolve lead at all) in the proportion of 1 part of the latter to 20 parts of the former, the action on lead was entirely prevented. The addition of “hardness” to a water was recognised as a likely remedy by the subcommittee appointed by the water committee of the corporation of Sheffield in 1890. In accordance with a resolution adopted in March of that year the water supplied to the town was continuously treated with chalk, and the medical and chemical experts expressed unanimously their satisfaction with the means successfully adopted to effect the removal of the cause of complaint and also their approval of the permanent continuance of the process. The report goes on to say that, “with a view to the security of the community using the water from liability to injury from lead contamination, the process now adopted for treating that water with carbonate of lime in the form of chalk, or such modification thereof as experience may show to be an improvement thereon, be permanently continued; and that, for the more satisfactory and economical application of the process, such apparatus be provided and fitted up as will permit the addition of the material to the water in an automatic manner.”<sup>1</sup> The cases cited by Dr. SWANN, however, occurred at Batley in Yorkshire in June of the present year—that is, just two years after the above recommendation was issued. We do not gather whether the chalk remedy which has proved satisfactory in Sheffield has been tried at Batley. It seems odd if it has not, for on the face of it there is no reason why a remedy in one place should not prove also a remedy in another. Everyone will agree that the subject is serious enough to demand immediate precautionary measures, and that the evil is one to be once and for all avoided. At the Congress of Hygiene held in London last year, Dr. GARRETT, to whose investigations we have already referred, read an interesting paper on this subject, and the discussion to which it gave rise proved of an instructive character, bearing chiefly on the question of a means of prevention. Some chemists—and it is to be regretted that there were not more medical men present in this section—expressed their approval of the addition of chalk as a remedy, and one eminent expert, Professor LEHMANN of Berlin, quoted an instance in Germany where no cases of lead poisoning had occurred since this treatment had been adopted, the water having hitherto acted strongly on lead. Dr. PERCY FRANKLAND advocated

the use of carbonate of soda, while others recommended the employment of lead pipes containing 3 per cent. of tin. Lead pipes containing 3 per cent. of tin have been employed in Dublin and in Blackburn and no cases of lead poisoning, it was stated at the Congress, have since occurred, although previously to the adoption of this precaution the waters were known for their power of dissolving lead. Dr. SWANN has incidentally referred to the use of a tin-lined iron pipe. Tin, of course, is quite proof against the solvent powers of water, and if it did not possess certain other disadvantageous properties which preclude its practical employment no better material could be found. Apart from the enormous undertaking which the substitution of tin-lined pipes for those at present in use would entail, there are combined qualities possessed by lead not enjoyed by other available metals. Lead is practically the only soft metal at hand, and pipes made of it may, as is well known, be bent or adapted to almost any shape; moreover, it is easily repaired or joined. Tin, on the contrary, is hard and brittle, and when bent is liable to crack or “kink,” and where tin enters into the composition of an alloy it tends to introduce hardening qualities. It seems, therefore, that the simplest and the only practicable remedy is the one already alluded to—that is, treating the water with crushed chalk before it passes into the service pipes. Such a precautionary measure, it may be imagined, could be readily adopted by the proper authorities at the stations where the water is stored. In addition to the ordinary filter-beds of a waterworks, all that would be required would be a bed of chalk over which the water should be allowed to flow. Objections have been raised to the use of hard water for drinking purposes as likely to cause mischievous concretions in the human system; but, as a matter of fact, there is no evidence to show that such has been the case. At any rate, if hardness is regarded as objectionable, it may be got rid of by applying a simple and well-known process to the water after it has been drawn off. But of two evils the lesser should surely be chosen.

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## Annotations.

“Ne quid nimis.”

### MEDICAL MEMBERS OF PARLIAMENT.

THE following is a list of members of our profession who have been elected to the new Parliament:—Charles Cameron, M.D., LL.D., will represent the College Division of Glasgow; Donald McGregor, L.R.C.P., L.R.C.S. Edin., is elected to represent Inverness-shire; Gavin B. Clark, M.D., is returned for Caithness; Robert Farquharson, M.D., F.R.C.P. Lond., LL.D., for West Aberdeenshire; Charles K. D. Tanner, M.D., for Mid-Cork; M. A. MacDonnell, M.D., for Queen’s County (Leix); J. E. Kenny, L.R.C.P., L.R.C.S. Edin., for the College Division of Dublin City; D. Ambrose, M.D., for South Louth; R. G. Price, M.R.C.S., for East Norfolk; and Sir Walter Foster, M.D., F.R.C.P. Lond., for the Ilkstone Division of Derbyshire.

### THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

Now that the question as to when this great gathering shall hold its sittings has been decided in favour of “the last week of September,” 1893—a date at which, in what has been called the “non-business period of the year,”

<sup>1</sup> THE LANCET, Aug. 1st, 1891, p. 245.

Rome is a perfectly safe place of sojourn—the various sections over which the work will be distributed are proceeding vigorously with their preparations. A meeting has been held in the house of the Hon. Guido Baccelli, president of the Congress, at which a first step has been taken to constitute the committees of these sections with a view to defining their special programmes and to appointing their *personnel*. A beginning was made, appropriately enough, with the section of Sanitary Engineering, a subject of the highest importance in its bearings on State medicine, and nowhere more so than in Italy, where water-supply, drainage and the reclamation of waste malaria-breeding lands—the true *Italia irredenta*—demand immediate and effective action. The “Comitato Organizzatore della Sezione per l’Ingegneria Sanitaria” (Organising Committee for Sanitary Engineering) has thus been constituted: Signors Cadolini, Zainy, and Romanin Jacur (members of the Italian Legislature); Professors E. Gui, Gactano Bruno, and Galileo Ferraris; the engineers Finchera, Zoppi, G. de Angeli, Giachi, Fadda, Costiglia, and Lemmi; the Commendatore Bongiovannini; the Commendatore Pagliani; the Cavaliere Bentivegna; and Dr. Maggiora. To all who have interested themselves in the great undertakings of sanitary engineering in Italy during the last two decades these names are full of significance, associated as they are with the successful solution of problems that had baffled many able, energetic and hardly less accomplished predecessors. The organising committee thus appointed is now engaged in its preparatory work, prominent in which is the selection of special subjects to be introduced for discussion at the Congress. When these subjects have been definitely chosen and announced they will be entrusted to committees charged with their special study, each of which will prepare its report embodying the result of its labours. What has been achieved in the section of Sanitary Engineering will also be soon effected in the other sections, and from time to time, as their working staff and programmes are completed, we shall keep our readers informed of the progress made. In no undertaking in which her national honour has been concerned has Italy been more in earnest than in this, and she looks to its success as fraught with additional proof that she has justly won her legitimate place among the great Powers—a place attested not only by her formidable armaments on sea and land, but by her proficiency in those sciences and arts in which she once took the lead.

#### A TEACHING UNIVERSITY FOR LONDON.

As we pointed out last week, the Royal Commission, which is inquiring into this important question, has reached the most critical part of its investigations. The question of the fusion, for the purposes of scientific teaching, of some of the smaller medical schools, or of their pupils being taught science at one of the colleges or larger schools with properly-equipped scientific laboratories, is a secondary consideration; equally so are the problems of University extension teaching and of whether professors of University standing should be appointed to give lectures on subjects which a collegiate professor could not be expected to teach, or which had been made special matters of research. Already the lectures given at the Royal Colleges and at the University of London afford a precedent for such higher instruction in medicine and it would doubtless be of great value to the profession if instruction of this kind were extended. Professorships of University standing could be created for this purpose under any of the schemes, either that of the Senate of the University of London, that of the Gresham Charter, or that of the Association for Promoting a Professorial University for London. There is no practical difference between the main propositions in the earlier and

later schemes propounded by the Association. A Senate which is not composed of representatives of institutions, but which is to consist of professors and Crown nominees, can never expect to gain the adhesion of the medical schools and teaching colleges in the metropolis. It is not probable that any institution of academic rank in London would be willing to be absorbed without adequate representation on the governing body. We question even if University College (medical faculty included) is willing to be absorbed and it has been definitely stated that King's College would never agree to such a process. Other institutions, such as the larger hospitals possessing able teachers in science and good laboratories, would also refuse to submit such an integral part of their educational establishment to the absolute control of a centralised body. The medical students of London require more schools of science than one and should not be subjected to a single scientific authority, and the same applies to students in arts and science. London is too large for a centralising scheme, and some arrangement for a partial fusion among the medical schools would be far more beneficial. The fact is apparent in the documents issued by members of the Association that whilst a desire for centralisation in arts and science is obvious, the necessities of the medical schools “probably require special treatment.” The Association does not come to close quarters and tell us what treatment is recommended and how it proposes that this should be carried out. Mr. Stanley Boyd's statement would have more weight if the Executive Committee for Promoting a Professorial University for London would explain in detail, as has been done in the Gresham Charter and in the various schemes of the University of London, in what way it is proposed to translate an ideal scheme into a workable plan. With regard to Dr. Glover's letter, it may be pointed out that originally a university degree did not confer a licence to practise, but was simply an academic distinction, and there are many members of the profession who are of opinion that it would have been a wise course if the old plan had not been altered. As, however, every medical degree of a university is now a qualification, it is essential, we think, that any degrees granted by a new university in London should carry the same right as those of the older universities.

#### INCIDENTS OF THE RUSSIAN CHOLERA EPIDEMIC.

FROM all time the medical profession has been able to find among its members men distinguished no less by human fellow feeling and a high sense of personal duty than by intellectual capacity and scientific insight. We should be guilty of a widely reaching injustice were we even to allow that such men were exceptional or other than typical of their class. It is they who have earned for it that honourable position which it now enjoys in all civilised communities. It must also be admitted, nevertheless, that times of panic in the presence of uncontrollable disease, as they have exerted a depressing influence upon the mental and moral force of a population generally, have acted with a like result upon many of its healers. The plague of London acted thus as a discriminating influence. There were those who at that time bore well the crucial test of their devotion, and there were those who preferred their personal security. According to recent information members of our profession in Russia are now passing through a similar ordeal during the visitation of cholera, and details are given of a not very creditable medical exodus from the affected area. It is reassuring to learn, however, that this apparent dereliction of duty has not been entirely, if indeed it has been in any degree, spontaneous. Reports tell us of riotous disorder prevalent among the populace in Astrakhan and Saratoff, of a hospital wrecked, and of medical men and nurses shamefully maltreated. It is easy to conjecture a possible reason, which is no reason, for this extraordinary behaviour. The intractable

nature of established cholera is well known, and we may conclude that the ignorant mob have, in their impatience of the epidemic, attributed their misfortunes to the supposed incapacity of those who are labouring for their relief. This error is everywhere too common, though not everywhere equally extreme or equally disastrous. Selfishness, ignorance and ingratitude are its underlying causes. The Russian Government, it is said, has interfered to prevent the resulting exodus of practitioners, and there is therefore some ground for hope that under the control of a recognised authority we may shortly witness the signs of a clearer understanding of the position and of a more generous unity in the face of the common foe.

#### THE TREATMENT OF UNTRIED PRISONERS.

The treatment of untried prisoners is a matter to which we have on more than one occasion felt constrained to draw attention, and of late we hoped that it had received at the hands of the responsible authorities the consideration due to a matter of grave importance, affecting the comfort in a great degree and in no small measure the health of a class of persons for whose condition the community is in a special sense responsible. It would seem, however, that at Durham the accommodation afforded to prisoners awaiting trial in the precincts of the court is still conspicuously deficient. Mr. Justice Day is reported to have recently observed that it was a "sad thing that there should only be one room for male prisoners, 28 ft. long, 14 ft. wide, and 11 ft. high. Prisoners ought to be detained with convenience to themselves and convenience to society. It was sad to think that twenty or twenty-five males, many of them mere boys there for the first time, some of the men old returned convicts, were all put together, notwithstanding all the care that was taken in prisons to prevent communication." These observations need no comments to enforce them, but we trust that they will have their due effect upon those who are responsible for the state of the Durham Court House and other similar places up and down the country.

#### SUICIDE AND SMALL-POX: A QUESTION IN NOTIFICATION.

A VERY painful case, full of lessons to the profession and the public, has been the subject of a coroner's inquiry at Saffron Walden. The patient's name was Mark Chapman, aged forty-seven, living at Sewers End, a hamlet of the town. He was removed to the infectious hospital; but to make room for him two cases of scarlet fever had to be removed. The caretaker's wife was supposed to be qualified to do all the nursing, apparently including the two infectious diseases. The sanitary inspector, having removed Chapman in an ambulance, stayed with him a little time—he had been informed that he would not keep in his bed. The patient was quiet, and seemed as if he would go to sleep. The caretaker, after returning the horse which had drawn the ambulance, went to the ward and found that the patient had escaped through a space of open window about eight inches wide. He informed the police, who soon discovered the patient lying face downwards in a pond about ten yards from the hospital and presenting a dreadful appearance of skin disease. Inspector Creasy and Police-constable Lancum tried artificial respiration for some time but without success. They were warmly thanked for their exertions by the jury. The notification history of the case is more instructive than satisfactory. A medical practitioner had attended a daughter of this man for some time and allowed her to go home with an eruption which he considered chicken-pox. The symptoms had been very mild. In a fortnight a sister developed the same symptoms and then the father, when the medical attendant's suspicions of something worse were aroused. Four days after first seeing the patient he ordered his

removal to the infectious hospital, but still spoke of chicken-pox "to prevent panic." When pressed for still another case to explain the attack of the first daughter he reluctantly stated that there had been one in the grammar school. He notified Chapman's case on the Saturday. It is unnecessary to accentuate all the lessons that are contained in the above facts. As the coroner said, it is not always easy to differentiate chicken-pox and small-pox and we must make the most of this fact. Still when case follows case and an adult is attacked severely it is time to use diligence in diagnosis for the sake of the public and all concerned. We will not dwell on the sanitary prospects of a community where scarlet fever patients have to make room for small-pox without, as we understand, an interval for disinfection even if there were the materials or the nurses, which seems doubtful. We do not read a word about the revaccination of the police and other exposed persons. We trust that this crowning, if not only, protection in such circumstances has been applied with promptitude. Whenever a rash is of doubtful nature and may be small-pox all exposed persons should be revaccinated.

#### FINES FOR NON-NOTIFICATION.

The *Times* of July 20th gives particulars of charges under the Public Health Act, 1891, at the Westminster Police-court, against the Countess of Donoughmore and Dr. George Mann Carfrae. Lady Donoughmore was charged on two informations with failing to notify to the owner of a lodging-house the fact that her daughter was suffering from scarlet fever and with knowingly removing the infectious case in two cabs. Dr. Carfrae's offence was against Section 55 of the Act for failing to notify the case which he attended to Dr. Parkes, medical officer of health for Chelsea. Details were given and the facts were admitted. The defence was that her ladyship gave one of the cabmen a sovereign to have the cab disinfected and as soon as she got to her hotel she wrote to the Commissioners of Police. Dr. Carfrae said he had in the end notified; but it was shown that three days had been allowed to elapse. Mr. de Rutzen, remarking that it was of great importance that the salutary provisions of the Act should be enforced, imposed the full penalties—£10 on each of the summonses against Lady Donoughmore and 40s. in the case of Dr. Carfrae. We regret that any medical practitioner should lay himself open to so obvious a charge. Nothing would have been lost in this and in the generality of such cases by proceeding deliberately and according to law, whereas by such hasty and illegal procedure innocent people are exposed to the risk of much suffering and trouble.

#### VILLAGE SANITATION IN INDIA.

MISS FLORENCE NIGHTINGALE, with undiminished pluck and energy, and with that true womanly feeling which shines through all her noble deeds, is trying to bring home to the people of India the necessity of turning their serious attention to the sanitation of the villages. It was largely owing to the action of Miss Nightingale that the Indian section of last year's Congress of Hygiene and Demography assumed such grand proportions. In February, 1891, Miss Nightingale addressed a letter to the Poona Sarvajanic Sabha calling attention to the Congress, and emphasising the importance of India being thoroughly represented. In this letter the point is insisted upon that the native gentlemen have a duty to perform in interesting their wives in the important matter of home hygiene, and Miss Nightingale thoroughly recognises that a raising of the standard of domestic sanitation is the surest way to the real and permanent sanitary improvement of the people, and that the only way to procure pure water in country districts is to prevent the reckless fouling of wells, which, common in this country, is doubly common in India, where the poorer people

seem to be absolutely without any sense of decency or care in the elementary principles of the right bestowal of poisonous refuse. The appeal of Miss Nightingale and the other representations which were made by the Indian Committee, both privately and through the Secretary of State for India, were most successful and resulted not only in magnificent contributions to the Congress from many of the native Indian princes, but also in very thorough discussions on Indian sanitation and the establishment of a Tropical Section as a permanent feature of all future Congresses. At the close of the Congress an important memorandum was drawn up and signed by the chairman of the Organising Committee, the Secretary-General and many of the members of the Indian Committee, pointing out that the papers read at the Congress had revealed the deplorable sanitary condition of the rural villages, and urging that sanitary measures should be considered as a first claim upon the village cess or rate which is levied for local purposes. Miss Nightingale forwarded these and other documents to Lord Cross, the Secretary of State for India, and his lordship, in thankfully acknowledging the documents, promised to urge upon the Government of India and Bombay the importance of considering the representations which had been made. In another column will be found a review of the eleventh volume of the Transactions of the Congress which is devoted to Indian sanitation, and we understand that two hundred copies of it have been ordered by the India Office for distribution. Those who wish to understand the nature and the size of the sanitary problems connected with our great Eastern Empire should study the contents of this volume, to which officials and non-officials, native and English, have alike made important contributions.

#### THE MEDICAL MISSIONARY IN EAST AFRICA.

A HINDOO, jealous of the encroachments of Western civilisation on his traditional beliefs, when asked "Which of all the methods of that civilisation do you fear the most?" naturally enough evaded the question, remarking, "Why should I put weapons in the hands of an enemy?" At last he said, "We do not greatly fear the missionary schools, for we need not send our children. Nor do we fear their books, for we need not read them; nor their preaching, for we need not listen to it. But we dread the doctors and the women. The doctors are winning our hearts and the women our homes; and when our hearts and homes are won, what is there left of us?" It is, in truth, with the advent of the medical man and the trained nurse that progress has been made in the reclamation of the backward Oriental, and the annals of missionary enterprise would lose half, and more than half, of their practical interest if these two factors of their work were omitted from the record. We had recent occasion, in noticing the career of the late Rev. John Lowe, F.R.C.S. Edin., to indicate the immense leverage given to his operations by his skill in the healing art, and how the success that followed his exertions had encouraged the great medical missionary school at Edinburgh to redouble its activity and to reinforce its service by an increasingly effective contingent of medically trained workers. Nor is it less true that medicine itself is reaping the advantage of such disinterested and really philanthropic activity; and just as the discovery of America enriched our Pharmacopœia, so does the steady opening up of "Darkest Africa" and the development of its virgin resources in the vegetable and mineral kingdoms, to say nothing of its wealth in climatic situations, react for good on the means at the disposal of the profession in every branch of therapeutics. It is such considerations as these that give interest to the ceremony of the 14th inst. at Glasgow, where the memorial missionary steamer the *Henry Henderson*, built for the Church of Scotland Foreign Mission Committee, was successfully launched by its "godmother," Mrs. A. L. Bruce, daughter

of the late Dr. Livingstone. A very numerous and distinguished company, in which all ranks and professions had their representatives, assisted at the ceremony, and the chief spokesman of the occasion, Professor Henry Drummond, set forth the good service which the steamer was about to enter upon. It will enable the medical missionary to conduct operations among the Makololo and other river tribes of British East Africa, plying as it will between the Chindé mouth of the Zambesi to Port Blantyre, and touching at all the intermediate stations. Mrs. A. L. Bruce added that two other steamers, to assist the further enterprise of the mission, were in contemplation, "so as to perfect the transit service from the Chindé mouth of the Zambesi, right up the river." The friendly coöperation in this direction between the different religious sects of the mother country will soon, it is gratifying to think, be an accomplished fact—a prime agent in which desirable consummation can be no other than the increasing medical element in the undertaking—an element which ignores all differences of creed, and which, more than any other force at the service of philanthropy, can say that "its field is the world."

#### ALBINISM IN MINES.

It has long been known that animals living for generations in dark places lose the colour which is produced by exposure to the rays of the sun and assume the character of the so-called albino. It has, however, been supposed that the actual change into complete albinism is the result of generations of life in caverns, valleys and other spots from which the sun's rays have been cut off, and that by gradual change, extending from one generation to another, the races of the albino type have been developed. According to a series of observations recorded in the *Scientific American* this hypothesis must be given up, or at all events much modified. From the facts discovered during some mining operations along the famous "blue lead" near to Bangor, California, it appears that in this range of mines there was recently reopened a mine that had once been worked under the name of "the old Potter Mine" (now called after its owner, the Bishop Mine), but had been closed for thirty years. A young explorer entered a dry slope leading to a second shaft, the existence of which was unknown owing to a thick growth of brush and trees about it. In the darkness he was surprised to hear a noise arising from a number of flies that were buzzing around him. One of these he caught, and on examining it by the aid of his lantern he was astonished to find that it was of pure white colour, although its eyes were red. Soon afterwards he heard what was unmistakably the sound of a rattlesnake, and directing his light towards the place whence the sound proceeded he saw the snake so clearly that he was able to strike it down by throwing at it a portion of rock, and afterwards to kill it by crushing it with other portions of the same material. On taking this animal into the light it proved, like the flies, to be of the purest white. Professor Harlow Ballard of Buffalo, who was at the time near the mines making mineral explorations, procured the body of the snake and also several specimens of the "white flies." Within a week under the influence of sunlight the flies assumed the natural dark colour of the common house fly. The mine had originally been closed owing to flooding, but the water in it had subsided and air had been admitted, but no light. The flies, Professor Ballard believes, were the changed offspring of common flies imprisoned when the mine was closed. The snake, he supposes, had been carried down by a water current and had remained in the darkness long enough to undergo the loss of colour of its tissues which it so markedly exhibited. The observations above recorded open up the question whether we ought to consider the change of colour in the flies and the snake as due to the same cause as that

which produces the true albino. Buffon assumed that the primitive colour of every living thing in nature was white, or, to speak more correctly, that every living thing in nature was primitively colourless, and that development of colour was sequential to changes gradually induced by varieties of conditions to which things of life have been subjected in the course of ages. The after-suggestion of Blumenbach, that the peculiar colour of the eyes of albinos is due to the absence of the black pigment, exploded the hypothesis of Buffon, and afterwards led to the view generally accepted, that the white colour of the skin is brought about by a similar cause and that the loss of colouring substance is induced by a gradual and hereditary process of change. In this last record the change in the snake seems to have been direct, while in the case of the flies there was the rapid development of dark colour so soon as the influence of the sun was brought into play, as if the sun's ray had developed at once a pigmentary or colouring substance. The observations open up a new line of investigation for those who are devoted to the study of the influence of external forces on living structures and of adaptability to circumstances as part of the varied manifestations of vital phenomena that must be ever in progress in our universe.

#### ONE OF MEDICINE'S FORGOTTEN WORTHIES.

How inadequately the historian of medicine has acquitted himself of his task is impressed upon us from time to time by the publication of monographs vindicating from neglect or oblivion the good work achieved in their day and generation by inquirers, who found in the promotion of science their one pleasure and their one reward. Italians have animadverted, with something of bitterness, on the postponement of their medical pioneers to those of other countries in the apportionment of honour won in physiological and pathological fields, and they have certainly made good the claims of not a few of their compatriots to a far higher place in "the order of merit" than history has hitherto vouchsafed them. A monograph of the kind referred to has just appeared, its author being Dr. Calandruccio and its title "Agostino Bassi di Lodi, il Fondatore della Teoria Parassitaria e delle Cure Parassitiche" (Augustine Bassi of Lodi, Founder of the Parasitic Theory and of the Modes of Curing Parasitic Disease). Bassi's own countrymen had almost forgotten him; but that, as a true precursor of Cohn, of Pasteur and of Koch he was a man of powerful inductive sense and far ahead of his times, has, we think, been demonstrated by Dr. Calandruccio's work. He was born not far from Lodi in the Æmilia in 1773, matriculated at the University of Pavia, and, under that prince of physiologists, Spallanzani, devoted himself to mastering the scientific bases of medicine. An affection of the eyes caused him to make agriculture the business of his life, but without much success, blindness of a peculiarly hopeless character having supervened. But he did not abate one iota of his interest in pathological pursuits and so utilised the opportunities that his short-lived powers of vision had allowed him that, in the true scientific sense, he saw what later observers were able to verify in much more favourable circumstances, the findings of the microscope included. His agricultural occupations had interested him in silkworm disease and that peculiar phase of it known as "il calcino" engaged his earliest consideration. Having endeavoured in a multitude of ways to trace it to its cause, he tried to reproduce its characteristic forms, on the hypothesis that it developed spontaneously. Nothing daunted by repeated failure he continued his experiments and his investigations till, after nineteen years of labour and expense, he satisfied himself that he had tracked the phenomenon to its source. He published a book on the subject and showed that "il calcino" does not spring into being spontaneously; that

it is contagious; and that the principle of the contagium continues to propagate itself on the dead body of the silkworm; that the medium of contagion may be by grafting or appropriate ailments or by contact itself—all which he reinforced by experiments going to prove that the germs of the disease may be diffused by the atmosphere. The cause of the malady he defined to be a living vegetable organism—a fungus, in short—whose seeds, penetrating into the silkworm or into other insects, develop, increase and give origin to other plants, these thereafter assuming in their *ensemble* that efflorescence to which "il calcino" owes its name. Bassi describes in their diverse phases these "vegetabili minutissimi" and the conditions most favourable to their development, such as humidity, moderate heat and the like; and then he shows, step by step, how the parasitic fungus attacks the silkworms and how it multiplies itself with a fecundity quite marvellous. In view, moreover, of the readiness with which the disease may spread from locality to locality by means of these very minute germs he proceeds to recommend modes of disinfection, among which he instances the frequent cleansing and the isolation of the *locales* of the silk-worm industry; after which he advises recourse to alcohol, to boiling water, to lixiviated caustic potash, and such means of destroying the germs. This truly epoch-making work the blind, or all but blind, Bassi followed up by others in which actual research is more than replaced by acute reasoning in reply to his numerous critics. He admits a quasi-spontaneity of generation in "il calcino," which he explains as due to a pre-existence of germs which the living forms have stored up within themselves, and which in certain circumstances may develop and give rise to the disease. Bassi, moreover, anticipated the "cultures" of the bacteriologist, and from his special studies on "il calcino" he convinced himself that further knowledge in the same field will clear up marvellously the theory of contagions in general. In his latest works (1846-53) he demonstrates that all the phenomena presented by contagious maladies find their explanation in the "ipotesi parassitaria" (the parasitic hypothesis), and contends that not only plague, small-pox and rinderpest might be produced by "esseri parassiti vegetali o animali" (parasitic beings, vegetable or animal), but besides that wounds might be kept up by such parasites, of which gangrene may be regarded as a consequence. To combat these parasites Bassi counsels a recourse to fire, to boiling water, to acids, to sulphur, to the salts of mercury and recommends as a disinfecting implement the needle with which Italian children are inoculated with vaccine lymph. All which, it will be admitted, discloses an intellect much in advance of his time, justifying Dr. Calandruccio in his closing remarks: "Even the parasitic doctrine, like many other branches of the knowable (*scibile*), has had its cradle in our Italy. With us it has had its origin and its growth, while foreigners have only facilitated its wonderful acceptance and diffusion."

#### DIURETIN.

PROFESSOR DEMME, in a clinical report of the Berne Children's Hospital, mentions that he has successfully employed the so-called diuretin or salicylate of theobromine and sodium in several cases of dropsy, in which calomel and hot baths did not seem suitable and where ordinary diuretics had not proved beneficial. He finds that it may be regarded as a safe drug for children above a year old, and one that is quite free from unpleasant effects. He believes the diuretic effect is occasioned mainly by action on the renal epithelium. In scarlatinal nephritis severe dropsy coming on after the acute stage of nephritis is more easily reduced by diuretin than by any other means. In cases of mitral insufficiency, with insufficient compensation, ascites and anasarca are best combated with the help of diuretin after the compensatory disturbance has been reduced by

digitalis. As to dosage, children from two to five years of age may be ordered from eight to twenty-five grains during the day, and children of from six to ten years as much as from twenty-five to forty-five grains, in divided doses of course. The total amount for the day is generally dissolved in four ounces of water, with ten or twelve drops of brandy and forty grains of sugar. In some cases the administration was continued for some weeks without any signs of either a cumulative action or of diminished therapeutical effect being seen. In one of the cases of scarlatinal dropsy, of which details are given, the effect of diuretin was very striking. While the child was upon acetate of ammonia the urine amounted to only nine or ten ounces a day, and contained 0.15 per cent. albumen, according to Esbach's scheme of measurement, with a considerable number of granular casts and epithelium undergoing fatty degeneration. The change of treatment produced an immediate effect, the urine in the three days amounting to nearly three times the quantity previously measured and containing only half the former quantity of albumen, with very few casts, and in a week neither albumen nor casts could be found.

### THE MILITARY TOURNAMENT.

IN the notice which we published of the Military Tournament at the Agricultural Hall in our issue of June 7th, we took objection to the sleeping accommodation provided for the soldiers, to the hot and vitiated atmosphere of the hall and to the want of requisite ventilation. Tents were erected in an upstairs portion of the building and it was pointed out that such a condition of affairs was scarcely in harmony with army hygiene or complimentary to those who made the arrangements. Our attention has been recently called to the alleged occurrence of typhoid fever among some of the soldiers who were present at the Agricultural Hall on that occasion. It would be interesting to learn, presuming that the statement in question is correct, whether the occurrence of the disease among these soldiers is in any way connected with the overcrowding of the men, with the bad ventilation of the building, or with the imperfect flushing of certain of the waterclosets, particularly of those which were used by the soldiers.

### TYPHOID FEVER IN CHICAGO.

WE have received a copy of a pamphlet giving the results of an inquiry instituted by Mr. William T. Sedgwick, Professor of Biology of the Massachusetts Institute of Technology, Boston, and Mr. Allen Hazen, chemist in charge of the Lawrence Experiment Station, into the extraordinary prevalence and fatality of typhoid fever in Chicago. The paper was read in part before the American Statistical Association at Boston at the beginning of the present year. Assuming that there is no mistake about the figures and facts set forth in it, the amount of typhoid fever in Chicago has of late years assumed alarming proportions; and this state of things becomes of more than local consequence in view of the fact that the "World's Fair" is soon to be opened at Chicago. Unless measures be at once adopted and energetically applied to remove the causes of disease it is not to be expected that the consequences will be circumscribed within the limits of Chicago in 1893. For many years there has been a large amount of typhoid fever in that city; but in 1890 the death-rate from this disease rose suddenly and was still further augmented in 1891. During the latter year 1997 deaths from typhoid fever were reported in Chicago, giving a death-rate for this disease of 16.64 per 10,000 of population and a percentage of all deaths of 7.19. As compared with London, continental cities and those of the United States, the amount of typhoid fever in Chicago is very high. The typhoid fever death-rate per 10,000 inhabitants for 1881-90 was 6.75 in Chicago as compared with 1.80

in London; and in 1891 the typhoid fever death-rate in Chicago reached the proportion of 16.64 as compared with 1.40 per 10,000 in London. The general death-rate in Chicago from diseases other than typhoid fever is not excessive. The authors of the paper from which we are quoting suggest that if the total number of deaths recorded in Chicago from this disease in 1891—viz., 1997—be multiplied by ten an approximate estimate may be formed of the whole number of persons affected by it during the year; in other words, it is estimated that more than  $\frac{1}{2}$  per cent. of the population of Chicago suffered from a disease which is classed as preventable. The cause of this lamentable state of things seems to be intimately connected with that of the water-supply. It is a case of water poisoning on a wholesale scale and of long standing, but which has grown worse of late years. The water of Lake Michigan is polluted in the vicinity of Chicago by raw sewage and occasionally by the flushing of the Chicago river. We are glad to hear that the epidemic has been declining since January of the present year. It is also only right to add by way of conclusion that earnest and strenuous exertions are being made to remedy the pollution of the Chicago water-supply by some extensive works of a sanitary-engineering kind which will no doubt prove successful.

### THE BUCHANAN PRESENTATION FUND.

WE have alluded on a previous occasion to the fact that a committee, with Sir Henry Acland as chairman and Dr. Bristowe as treasurer, has been formed with the object of presenting to Sir George Buchanan, on his retirement from the post of Medical Officer of the Local Government Board, some permanent memento of the general esteem in which he is held. The conspicuous services rendered by Sir George Buchanan to public health may be said to have a world-wide reputation, and doubtless all who are interested in the cause of preventive medicine will desire to contribute their quota towards the above fund. As the committee are desirous of learning as soon as possible the amount which will be at their disposal, intending contributors should forward without delay their subscriptions to one of the secretaries—Dr. W. H. Hamer, 69, Dartmouth Park Hill, N.W.; Dr. J. C. Thresh, The Limes, Chelmsford.

### THE PATHOLOGY OF ADDISON'S DISEASE.

IN respect to the phenomena of Addison's disease and their interpretation the pendulum of pathological opinion is constantly changing its position. Broadly stated, there are two main views of its pathogeny—the one which refers the symptoms to chemical changes, and the other which claims that they may all be explained by nervous disturbance. Although it is clearly wrong to single out from all its symptoms the fact of abnormal pigmentation alone, yet, as that is the most obvious and easily noted in experimental researches, most stress has been laid upon it. As regards this single feature of the affection, the explanation has been offered, on the one hand, of its being due to the retention in the blood of products which the healthy suprarenals destroy, thus establishing a sort of parallelism between this disease and myxœdema; there is, on the other hand, no inconsiderable support to the view that pigmentation is under direct nervous control. This latter view is fully stated by Professor Raymond in a recent paper,<sup>1</sup> based on a case of lymphadenoma associated with marked melanoderma, but where the suprarenals were unaltered; whilst the great abdominal ganglia were seriously encroached upon by chronic inflammatory changes. Professor Raymond believes that in the outis there are chromatophorous cells which, like those in the frog and chameleon, are under direct nervous control, and that they yield an excess of pigment to the Malpighian layer under

<sup>1</sup> Archives de Physiologie, July, 1892.

certain conditions of nerve disorder. Pathological records afford many facts in support of this contention, and we need dwell no further upon it. Quite recently, however, some important researches upon the normal suprarenals and the urine in Addison's disease have come to the support of the chemical or humoral doctrine. Dr. F. Marino-Zuco, director of the Chémico-Pharmaceutical Institute of Genoa, has found<sup>2</sup> that normally these organs yield a notable quantity of neurine, which is also eliminated in appreciable amount in the urine in Addison's disease. In a communication by Drs. F. and S. Marino-Zuco, presented to the Academy of the Lincei by Professor Canazzaro, the subject is carried further. Experiments were first made to establish the physiological importance of the suprarenal capsules, showing that animals in which both these organs were removed did not survive, but when one only had been extirpated the animal survived and increased in weight. From fourteen to twenty-four days after the extirpation of one capsule circular slate-coloured patches were observed in the shaven skin, from which sprang tufts of blackish hair of rapid growth. In the next place they tested the action of neurine on animals, by injecting two to four cubic centimetres of a solution of 5 in 1000 into the peritoneal cavity. The daily injection of two cubic centimetres produced no constitutional disturbance, but after six to eight days small slate-coloured patches with thicker and darker hairs were visible on the abdomen, and on shaving other parts of the body the same slate-coloured patches were visible, increasing day by day. The investigators are pursuing their researches and believe that they have discovered a clue to the mechanism of the pathogenesis of Addison's disease.

#### MEANS OF ISOLATION AT BATLEY.

THE question of the provision of means of isolation for infectious diseases in the sanitary districts which make up the Dewsbury Union seems to be at a standstill. The Batley scheme of a joint hospital for a number of those authorities was practically stopped by the alternative action proposed by Dewsbury, of which nothing more seems to have been heard of late. As will be remembered Batley was recently compelled to erect a temporary hospital, but it is a building that can in no sense serve for a term of years, and it now becomes a question as to what should be done in order to meet the permanent requirements of the borough. Dr. Swann advocates the erection of a small permanent hospital for Batley purposes only, and this seems to be the most desirable procedure. It would certainly always be possible to make the hospital a joint concern with one or more of the neighbouring authorities, provided sufficient space were secured at first for further extension of buildings when that might become necessary. But one thing is certain and that is that Batley ought no longer to defer dealing with this matter in a final and efficient manner.

#### ALLEGED GAOL FEVER AT KILKENNY PRISON.

WE are indebted to Dr. C. E. James, senior surgeon to the Kilkenny County Infirmary and medical officer of H.M. Prison, Kilkenny, for the following account of the cases which have occurred there. Fourteen cases of a febrile disease, with symptoms identical with those of a case recorded by Dr. Drysdale in the *Medical Press* of the 6th inst., have occurred in the prison. The general features are acute headache and pains in back and limbs; there is a very erratic range of temperature, the maximum being usually attained on the second day; nervous symptoms and delirium are marked in some cases, absent in others; where delirium occurs it is an early symptom. It bears no relation to the temperature and sometimes is present throughout. Slow pulse (40 to 60) occurs at some period in

nearly all cases as does subnormal temperature, which is sometimes succeeded by a rise to its former height; there is no initial rigor, but sometimes a period of malaise of varying duration. All cases date the beginning of their illness to some time between June 13th and 26th, 1892. The cases occurred simultaneously in all parts of the prison among persons who had no communication with each other, two being the governor's children. The highest temperature recorded was 104°. All the usual symptoms of typhoid fever are absent. No rash, spots, iliac tenderness, specific diarrhoea or splenic enlargement are present. The disease runs a prolonged course, convalescence being slow and preceded by a stage of subnormal temperature. Of the fourteen cases eight are convalescent, four going on very favourably; one, who suffers from long-standing heart disease, is not yet out of danger, and one death in the case of a man of very intemperate habits and broken constitution has occurred. The drainage of the prison has recently been thoroughly overhauled and appears to be above suspicion. The water is derived from a well 150 feet deep, the last twenty of which are bored through solid rock, and is not contaminated by organic matter. The site of the prison is an elevated and healthy one. The hospital is a detached building and the most stringent measures of isolation and disinfection have been carried out through the whole course of the disease with perfect success, no fresh case having arisen. Similar cases have been observed in the town and surrounding district.

#### JOINT DISEASE IN HÆMATOPHILIA.

THE effusion of blood into the joints of persons with hæmorrhagic diathesis is the subject of a paper in Volkmann's clinical lectures by König of Gottingen, in which he points out that the so-called bleeder's joint is due not merely to effusion of blood into the cavity, but to irritation and a peculiar form of inflammation which leads to a permanently diseased condition, with contraction, ankylosis and other deformities. Three stages of the disease may be distinguished—the hæmorrhagic, the inflammatory and the retrogressive, the last producing conditions resembling those due to tuberculosis; the tendency to form abscesses and fistulæ which exists in tuberculosis is, however, entirely absent in hæmatophilia. As regards treatment, the less that is done the better. On no account should capital operations be attempted, their result being invariably disastrous; whereas, when absolute rest is maintained, and perhaps finally a simple puncture made into the joint, a successful result may sometimes be obtained.

#### THE SIGNIFICANCE OF FLY BITES.

WE have now reached that point in the yearly circle at which, if at any time, might have been expected a continuance of warm weather. One sure earnest of summer heat (despite the recent rains, and it may sincerely be hoped, merely temporary chilliness of northerly winds), has long been present with us in an increase in the numbers and activity of the household fly. It may appear fussy and unphilosophical to fret over this petty trouble, but we should be more than human if our patience were proof against its constant and obtrusive attentions. The sick especially have reason to complain of the annoyance it causes them. Happily, however, they are not quite without resource. The muslin fly-curtain or head covering, the hand-switch, the fan, and a variety of other contrivances attest the practical ingenuity which has been enlisted on their behalf. Not least effectual, though as simple as it is generally unobjectionable, is the device of suspending a glutinous cord above the head of the invalid. Comfort, however, is not the sole object aimed at by treatment of the fly plague. The part played by insects in the inoculation of living germs has long been recognised, and it should be remembered that even the house fly, notwith-

<sup>2</sup> Gazzetta degli Ospitali, July 9th.

standing the weakness of its mandibles, is not incapable of taking a share in this work. In THE LANCET of June 18th we showed how easily the fatal effect of the sting of a gad-fly might thus be explained. It is also a fact familiar to bee-keepers that the sting of the bee varies in severity under different conditions. May this not be attributable to the previous surroundings of the insect? We may also glean from the fact an implied lesson as to household cleanliness and as to the necessity of treating by suction, poultices, or other convenient methods even so slight a matter as an irritable fly bite.

#### DEATH OF MR. THOMAS COOK.

THE death of Mr. Thomas Cook of Leicester, at the ripe age of eighty-four, the originator of excursions by land and sea over the world, calls for a word of deep respect and regret. We sometimes complain of the restlessness of the age and its locomotive tendencies. And there is something just in the complaint. But Mr. Cook is not much to blame. His is the credit of having reduced the evils and the discomforts of travel and of having enormously contributed to the width of men's ideas of the world and of their fellow-creatures. The credit is the greater to a man who was born in a village and had to work at ten years of age for a penny a day.

#### THE STRIÆ MEDULLARES OF THE MEDULLA OBLONGATA.

It is believed by many anatomists that the striæ medullares or striæ acusticæ of the medulla are connected with the roots of the auditory nerve. Bechtzeff disputed this view some time ago on the ground that, at all events in man, the development of the striæ medullares is much later than that of the roots of the auditory nerve. He has recently published another paper in the *Meditsinskoi Obzrenie*, in which he gives an account of the course of the striæ medullares, so far as he has been able to trace them anatomically. They arise in the white substance of the cerebellum, close to the flocculus, and serve as commissural fibres for the basal portions of the cerebellum, emerging from the cortex of the convolution of the flocculus. The fibres first follow the inner basal surface of the flocculus, ascending on the margin of the cerebellum which surrounds the restiform body, and then reach the lateral margin of the fourth ventricle.

#### THE MEDICAL OFFICERSHIP OF HEALTH FOR ISLINGTON.

THE *Islington Gazette* gives a long account of the final step in the remarkable election to this medical officership of health. We cannot congratulate all the members on the discussion. Even those who were defending what they considered the reputation of the vestry from blots on its fair fame for purity of election suffered themselves to use a rudeness of speech which disfigured their cause and detracted from the weight of their arguments. The discussion took place on a report from the Public Health Committee presenting three selected candidates and recommending that one of these should be appointed. Our readers are aware that the by-law of the vestry which forbids a recent or present member of it becoming a candidate for a paid office had been twice suspended in favour of Dr. Wynn Westcott. His name was included amongst those presented in alphabetical order by the Public Health Committee. The other names were those of Mr. Alfred Edwin Harris, medical officer of health for the County Borough of Sunderland and for the Port of Sunderland, and of Mr. A. Wellesley Harris, medical officer of health for the Borough and County of Southampton. In the first division Mr. A. E. Harris had 46 votes, Dr. Wynn Westcott 43 and Mr. Wellesley Harris 23. In the final

poll between Mr. A. E. Harris and Dr. Westcott, Mr. A. E. Harris secured 47 votes and Dr. Westcott 45. So ends this important and remarkable contest. Mr. A. E. Harris is a very well known medical officer of health and his record of work in Sunderland is so full of experience and success in dealing with great epidemics and in altering a very unsatisfactory sanitary condition, that Islington may be congratulated on the appointment. We trust that Dr. Westcott's abilities will be available for the public in another sphere. His very close public relations with his fellow vestrymen, and his election by the suspension of a most wholesome by-law would not improbably have weakened his influence in Islington.

#### ABDOMINAL GUNSHOT WOUNDS.

DR. POROSKHIN describes in the *Russkaya Meditsina* a case of gunshot wound in which the bullet had injured the stomach and one kidney and the patient recovered. He leaves undecided the question whether the bowel had been perforated as well. The treatment was expectant. This case and many others described in medical literature have induced Dr. Poroskhin to teach that the treatment of abdominal gunshot-wounds in general should be expectant, with exception only of those cases in which there is hæmorrhage from the abdomen or when gases or feces escape from the wound, or when there is incipient peritonitis.

#### LEICESTER SEWAGE OPERATIONS.

ACCORDING to a report received by the Barrow rural sanitary authority from Dr. J. Turner, their medical officer of health, the village of Thurcaston is threatened with a grave nuisance, owing to the method in which the Leicester sewage is being disposed of on the adjacent land. So grave is the nuisance that a large number of letters have been addressed to the chairman of the rural sanitary authority by aggrieved persons, and Dr. Turner has advised that a notice be immediately served on the Leicester Corporation. The rural authority, after discussing the matter privately, decided to refer the whole case to the Local Government Board and to inform both the County Council and the Leicester Corporation to that effect.

#### EPICUREAN PHARMACY.

If only they were as harmless in themselves as they are worthless for any useful purpose, we might pass over unnoticed many of the æsthetic vagaries which have arisen at the prompting of a too civilised palate. Since they are not always thus impotent, however, we must be allowed a word of warning respecting them. Take, for example, the opium habit. Intended by nature and employed by man from a remote period merely as a remedial agent, we need not remind our readers how this drug has, almost within the memory of living man, usurped the place of a household luxury. When chloroform was in course of introduction it was in a somewhat similar manner adopted for a time as a kind of scientific bon-bon. It was a plaything of society, and curious tales are told of its effects in the drawing rooms of a past generation. It is asserted that some erratic epicures have more recently sought to add something to the fine native flavour of the strawberry by sprinkling it with ether. Surely the law of contrast could not be further strained or the palate of man be more grossly insulted. Better, perhaps, in taste (there is, proverbially, "no accounting for taste"), but worse by far in its unphysiological recklessness, is the practice of others, who are said to have substituted absinthe for wine at dinner. It is hardly worth our while to proclaim the self-evident fact that no process of reasoning can justify the misapplication of poisonous agents implied in each of these cases. Such experiments are doubly discreditable.

They suggest, on the one hand, a meretricious tendency to indulge in the pleasures of the palate and, on the other, a culpable indifference to the dangerous folly of playing with edged tools. These latter have their use no doubt, but not in play. Poisons have their place also, but it is in the Pharmacopœia.

#### THE CROTON WATER, NEW YORK.

THE water-supply of New York, the *New York Medical Journal* states, seems to be in a muddled condition, judging from observation and common report. From an æsthetic standpoint the unfiltered hydrant water is not attractive, and its bouquet, so to speak, does not inspire confidence. It is stated that chemical examination shows an increase of albuminoid ammonia, and that the microscope reveals the presence of vegetable matter. If this condition persists we may expect to hear of an increase in the number of cases of enteric fever among the many who use unfiltered and unboiled water.

#### TUBAL GESTATION AND OÖPHORITIS.

DR. VERTSINSKI, writing in a Russian journal on the differential diagnosis of tubal gestation and oöphoritis, calls attention to one very characteristic symptom, which had been described by Thomas as far back as 1873, had then fallen into oblivion, and was only in 1889 again thoroughly appreciated by Professor Lebedeff. This symptom is the varying size of the tumour in inflammatory conditions of the tubes and ovaries. The tumour is sometimes as large as an orange, whilst on other occasions, and often in a few days only, it is barely to be defined. This periodical variation in size is closely connected with menstruation and ovulation.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Basle.*—Drs. Siebenmann and Burckhardt have been promoted to Extraordinary Professorships.

*Buda-Pesth.*—The professorial Senate has proposed the following names for the chair of Surgery vacant by the death of Professor Lumniczner: *Primo loco*, Professor Récezy; *secundo loco*, Professor Navratil; *tertio loco*, Professor Dollinger.

*Königsberg.*—Drs. Zander and Nauwerck have been promoted to Extraordinary Professorships.

*Munich.*—Dr. Buchner, Professor of Pharmaceutical Chemistry and Director of the Pharmaceutical Institute; has retired, and Dr. Hilfer of Erlangen has been appointed as his successor.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Philipp Marbreiter of Vienna, at the age of eighty-three; he was connected with the establishment of the *Wiener Medicinische Presse*.—Dr. T. G. Richardson, Professor of Surgery in New Orleans.

THE following despatch, published by *Le Temps*, completely bears out the information, diametrically opposed to that vouchsafed by the majority of our contemporaries, which we published in our issue of last week:—"Garches, July 15th, 11 A.M.—Please formally deny the news published by a newspaper of this morning's date; the health of M. Pasteur is completely re-established."

THE Royal Commission to inquire into the granting of a charter to the proposed Gresham University held a long sitting on Tuesday last in Great George-street, Westminster, Earl Cowper in the chair. The Bishop of London and the Rev. H. Wace, D.D., representing King's College, London, gave evidence in favour of the granting of a charter.

LORD SANDHURST has invited the chairmen of the boards of the general hospitals and other gentlemen interested in the subject to a conference at Spencer House, St. James's-place, which will take place at half-past three to-day (Friday), July 22nd. The meeting will be of a preliminary nature. The attention of those present will be principally directed to the possibility of the formation of a central hospital board. The subject is one of great importance and of no less difficulty, seeing that very various opinions are held by those well qualified to judge as to the best means of securing the most desirable results from the working of our noble medical charities. The proceedings, therefore, of the conference will probably occupy a somewhat lengthy period.

WE regret to announce the death of Mr. Frederick le Gros Clark, F.R.S., F.R.C.S., in his eighty-second year. He died on Tuesday at his residence, The Thorns, Sevenoaks. For many years he was surgeon at St. Thomas's Hospital and lecturer there on Surgery and Anatomy, and during the latter part of his long life he was consulting surgeon at that institution. He was the author of many works on the Anatomy and Physiology of the Nervous System, and translated in the year 1847 Dupuytren's work on "Diseases and Injuries of Bones." He was examiner for ten years to the Royal College of Surgeons, and President of the College in 1874. Mr. le Gros Clark became in 1872 a Fellow of the Royal Society.

MR. WILLIAM DALLA HUSBAND, F.R.C.S., for many years the leading surgeon in the city of York, died on July 18th in his seventy-sixth year, after a long and painful illness. Mr. Husband had filled the office of Lord Mayor of York, he was a Deputy Lieutenant for the West Riding of Yorkshire and a Justice of the Peace for York. He was consulting surgeon to the York County Hospital and had for many years been an active surgeon to the same institution. In 1868 he was appointed President of the Council of the British Medical Association. He subsequently acted as treasurer for a further period of six years.

THE colleagues of the late Sir Wm. Aitken, M.D., F.R.S., who served with him in the course of the thirty years during which he held the appointment of professor in the Army Medical School, are taking steps to erect a tablet to his memory in the chapel of the Royal Victoria Hospital at Netley.

THE thirty-fourth annual meeting of the New Sydenham Society will be held in University College, Nottingham, on Friday, July 29th, at 9.30 A.M. The business will include the consideration of the annual report, the balance sheet for 1891 and the election of officers for 1892-93.

THE appeal against the conviction in the Fulham scarlet fever case is to be heard by Sir Peter Edlin, at the Clerkenwell Sessions, to-day (Saturday), the 23rd inst. There is only one short case to be heard before it.

THE annual meeting of the Royal British Nurses' Association was held in the lecture-hall of the Royal Pavilion, Brighton, on Thursday, July 21st. Dr. Hollis, F.R.C.P., occupied the chair.

MR. DONOVAN, medical officer of health for Cork, informs us that he has traced a case of small-pox to Vosvanges, Norway, and thinks it judicious to warn English visitors of the fact.

HER MAJESTY THE QUEEN has given directions for the appointment of Dr. Francis Voley Pougnet to be a Member of the Council of Government of the Colony of Mauritius.

## NEW MEASURES AGAINST THE CHOLERA IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

THE present cholera epidemic already gives promise of good results. It is lamentable, but nevertheless a most positive fact, that nothing is more prolific in producing sanitary reforms than the panic engendered by cholera. In Paris, but more particularly in the suburbs outside Paris, the means to prevent the spread of disease are either inefficient or most ineffectually organised. In the suburbs of Paris, where the cholera has so far found the greater number of its victims, the authorities do not know what to do and have not the means of taking effective measures even if they were sufficiently enlightened. In Paris the authorities know what to do and have the means of doing it; but these means and this authority is divided between the Prefecture of the Seine and the Prefecture of Police. In most towns there is one mayor and he is the chief and responsible functionary. In Paris there is no mayor, but both the prefects exercise the functions of mayor, though they are irresponsible and not elected. The authority being divided rivalries have arisen between the two administrations, much to the detriment of public welfare. Seeing how dangerous this might be, more especially in the event of an epidemic, Dr. Paul Brousse, Municipal Councillor, who has recently rendered good service to the cause of sanitation by initiating and helping to organise the Workmen's Congress of Hygiene, made a proposal to centralise the sanitary services. This motion was made last February; and, as there was then no fear of cholera, the matter remained in abeyance. It needed the present epidemic to infuse vitality into the proposal, and Dr. Brousse's suggestions have now in part been realised. The proposition was printed by the Paris Municipal Council, and bears the date of Feb. 23rd last. In the preamble Dr. Brousse points out that most foreign towns and several French towns possess an autonomous, competent and responsible sanitary authority, but such an authority does not exist in Paris. There are, however, in Paris many scattered services which, if united under one single direction, would constitute a good sanitary authority.

The Article 23 of the Decree of Messidor, year 8, confers upon the Prefect of Police in Paris all the powers in respect to sanitation which the mayors of other towns possess. The Decree states: "The Prefect of Police shall maintain the salubrity of the town." This seems to render the Prefect of Police master of the situation. But on the other hand the subsequent Decree of Oct. 10th, 1859, withdrawn from this magistrate, among other administrative functions, the management of the sewers, the cleansing of the public streets, the emptying of cesspools, &c., and transferred these duties to the Prefecture of the Seine.

Thus we now find at the Prefecture of Police the Council of Hygiene and Salubrity which is a county institution, the medical sanitary inspection of women under the Contagious Diseases Act, the service of disinfection and the staff of disinfectors, the transporting of cases of infectious disease, the inspection of meat, mushrooms, &c., the veterinary service, the inspection of unwholesome industries. All these services come under the control of M. Besançon, chief of the Second Division at the Prefecture of Police, while the Municipal Laboratory is under the control of the Secretary-General of the Prefecture.

At the Prefecture of the Seine will be found all the services connected with hospitals and poor relief, all that relates to sanitation in schools, the service of disinfection—that is to say, the disinfecting stoves; the commission on unwholesome dwellings, the service for the sanitation of the interior of houses, the direction of public works and finally the statistical department.

It would be difficult to imagine a more confusing mixture. If bedding is sent to be disinfected in the stove, it is done by the Prefecture of the Seine; but the room from which the bedding has been taken must be disinfected by men sent by and working under the orders of the Prefecture of Police. The law affecting these two administrations requires thorough revision, but in the meanwhile Dr. Brousse proposes that under the Prefecture of the Seine a director of hygiene should be established, in whose hands the sanitary services

should be concentrated. The director of hygiene should be a medical man and a distinguished hygienist and should be assisted by a municipal officer, a chemist and a clerk. To this direction should be adjoined a consultative committee of hygiene, with the Prefect of the Seine as president.

This proposal, as already mentioned, met at first with but little support. Now, however, that the cholera has broken out it has been discussed on all sides, and finally M. Lozé, the Prefect of Police, has taken the bull by the horns and has himself created a central direction for sanitary matters. The decree of the Prefecture of Police is dated July 12th. The preamble says: "It is necessary to centralise the information given by the medical corps and the various administrative services on all certified cases of contagious disease, either in Paris or the department of the Seine, and to utilise to the best advantage the ambulance-waggons, the disinfecting stoves and the staff of disinfectors, so as to ensure the proper disinfection of the contaminated localities, and to coördinate and control in a united manner all the prophylactic measures taken.

### "DECREE.

"Article 1. A Permanent Committee of Hygiene, composed of the delegation of the Council of Hygiene and Salubrity of the Seine, shall be instituted at the Prefecture of Police. This committee shall consist of five members, the two county councillors belonging to the Council of Hygiene and three members annually appointed by that assembly.

"Article 2. Under the authority of this Permanent Committee, a service of information and of control for the disinfecting operations and the removal of the sick that come within the attributes of the Prefecture shall be created. This service shall consist of four medical inspectors, of whom two shall be permanent and shall act as aides or substitutes.

"Article 3. The Secretary General of the Prefecture of Police is charged with the execution of this decree.

"The Prefect of Police,

"H. LOZÉ."

This decree was no sooner issued than the Permanent Committee was at once constituted. It is composed of Dr. Léon Collin, Inspector-General of the Army Sanitary Service and member of the Academy of Medicine; Dr. Dujardin-Beaumez, chief physician at the Cochin Hospital; Dr. Proust, Inspector-General of the Sanitary Services of France; Dr. Levraud, member of the Paris Municipal Council and President of the Sanitary Commission of the Municipal Council; Dr. Paul Brousse, Municipal Councillor and member of the Sanitary Commission. The doctors who are to do the actual work of superintending the disinfection &c. are Dr. Thoinot, auditor of the Consultative Committee of Hygiene of France, and Dr. Dubief, chief of the Bacteriological Laboratory at the Cochin Hospital. The assistant inspectors are Dr. Deschamps, formerly chief of a clinique at the Faculty, and Dr. Touvenaint, laureate of the Academy of Medicine.

These appointments have given widespread satisfaction, the special competency of all the persons named being well recognised. Nevertheless, though this is a step in the right direction, the conflict between the various authorities is far from settled. Both Prefectures are, however, already working in greater harmony with each other, and we are not likely to have a repetition of former scandals. Thus, for instance, the case of the lady who was assassinated in the west-end of Paris not long ago will be remembered. She might have been saved if transported at once to a hospital. The request for an ambulance was addressed to the Prefecture of Police, whose jealous clerks would not allow the ambulance of the Prefecture of the Seine to be employed and had no ambulance at their own disposal. While the squabble between the two prefectures raged no ambulance was sent and the woman died. In another instance a contagious skin affection having broken out at a police-station the Prefect of Police was compelled to send the bedding and clothes of the policemen to be disinfected in the stoves under the control of the Prefect of the Seine. To convey these contaminated articles to the stoves the Prefecture of the Seine sent the special carts employed for this purpose. But this was more than the Prefecture of Police could bear. They were obliged to use the stoves of the Prefecture of the Seine, not having any of their own, but they could procure carts of their own. Consequently the carts specially employed for carrying contaminated objects were sent empty away, and the contaminated bedding and uniforms of the police were placed in ordinary carts. The hire of these carts had to be paid for out of the

taxes, and nobody knows whether the carts were properly disinfected afterwards. Whereas, had the Prefecture of Police condescended to utilise the carts of the Prefecture of the Seine the removal of the contaminated bedding &c. could have been performed at no cost and at no risk. These incidents will suffice to illustrate the disastrous consequences that accrue from the existence of rival authorities concerned in one and the same question.

In the meanwhile the cholera continues its slow progress, though there are more cases than is generally known or admitted. Within the walls of Paris itself twenty-seven cases are officially reported between July 11th and 15th. The proportion of deaths is of course not yet known, but in previous records it has been very high. So far, however, it is in the suburbs, and not in Paris itself, that the epidemic is doing its worst. After the lesson received in 1884 it was natural to expect that the authorities would be well prepared to meet any other similar epidemics. Such is not the case. There are better means now for coping with the danger, but these are not well organised. Fortunately, the epidemic is developing itself so slowly that there has been time to make preparation; also there is the hope that it may not become general—it certainly does not seem to have taken root in Paris itself. The cases are scattered all over the town, just as might be expected if the source of contamination was outside and had been brought in accidentally. So far therefore this fact helps to strengthen the belief that the drinking of the Seine water is the principal cause, as persons may drink that water when in the outskirts of Paris for business or pleasure and then fall ill on returning to the city.

## THE NECESSITY OF RE-ESTABLISHING THE CONTAGIOUS DISEASES ACT IN INDIA.

BY SURGEON-GENERAL SIR WM. MOORE, K.C.I.E., Q.H.P.

ALTHOUGH much has been done during recent years to improve the condition and social surroundings of soldiers and sailors we have not yet reached that problematical social millennium in which moral force shall overcome animal instincts. So long as human beings are constituted as they are physiological laws will be obeyed by the very great majority of the inhabitants of this world. For a young man who cannot marry, and who cannot attain to that exalted moral standard required for the suppression of natural instincts, there are only two ways of satisfaction—the one leads to disorders of body and mind, the other to the fearful dangers of venereal disease. In England, before the Contagious Diseases Act was passed and applied to certain military stations, the annual loss to the army owing to invaliding of soldiers for venereal disease amounted to three regiments, or, in other words, to the loss of the services of the whole force then serving in the United Kingdom for three weeks. In the navy the daily loss by men on the sick-list was 386, equal to the complement of an iron-clad. A Committee of the House of Commons reported in 1862: "The facts are so appalling that we feel it a duty to press on Government the necessity of at once grappling with the matter. Hence the Contagious Diseases Act in England. In 1866 the working of the Act was inquired into by a Committee of the House of Lords, who reported: "Prostitution appears to have diminished, its worst feature to have softened and its physical evils to have abated." In 1869 a Committee of the House of Commons reported: "The Contagious Diseases Acts have both directly and indirectly promoted the objects of sanitary and municipal police." In 1870 a Royal Commission stated that the ratio of primary syphilis among the military at protected stations had fallen from 120 per 1000 to 54, or more than one-half. The next Committee was composed of members of the House of Commons in 1879, who gave a table showing the amount of disease among newly registered women and those on the registers at nine military stations. The figures for the newly registered women are 40·2; for those on the register, 5·7. Yet all this, and much more that might be mentioned, did not prevent a section of society in England maintaining a continuous agitation against the Contagious Diseases Act, culminating in the passing of Mr. Stansfeld's motion in 1883, "That this House disapproves of the Contagious Diseases Act." As might be expected, the immediate result of the

passing of Mr. Stansfeld's Act was diminution of the number of females examined and admitted into hospital and a large increase of syphilis in the army and navy. There was also a large increase of men arriving in India on board the troopships with primary syphilis; but the House of Commons, not satisfied with the mischief done, insisted in 1888 on the abolition of the Contagious Diseases Act in India. The result is shown in the recently published report (for 1890) on the health of the army in India. Allowing for readmissions, it would appear that 500 out of every 1000 men are suffering from venereal disease. In 1890 the total number of admissions into hospital for various forms of venereal disease was 34,152 out of a total strength of 67,823. The admissions per 1000 for the whole of India in 1890 were 504. In 1887, the last year of the working of the Contagious Diseases Act, the admissions were 361 per 1000. As from that period up to the date of the last return (1890) there was an annual increase, so doubtless there has been a similar increase to the present time. We may therefore now conclude that nearly 600 per 1000 will be admitted during the year 1892 for venereal disease. In former days ague or some other tropical malady headed the lists of admissions and invaliding. Now the first place has been either usurped or nearly approached by venereal disease. For instance, in the Bombay Army in 1890 venereal disease caused 37 per cent. of the total sickness and ague 21 per cent. Of the European Army in India during 1890 it is reported that 87 per 1000 were constantly sick, against 60 per 1000 in the ten years 1870-79, and much of this increased sickness must be attributed directly or indirectly to venereal disease.

The folly of what has been done is only equalled by the absurdity of the arguments which caused it to be done. The opponents of the Contagious Diseases Act object that, as the fear of contracting disease tends to prevent men yielding to vice, it is improper to prevent such disease; that the Contagious Diseases Act increases vice by rendering it safe; that reducing the penalties of wrongdoers is playing into the hands of transgressors. But if fear of disease prevented vice, it would not prevail so extensively as it does, in London for instance, where the Act has never been applied. None but medical men fully understand the dangers of syphilis, and what is generally known is not sufficient to act as a deterrent. Moreover, the disease of soldiers and sailors is as often as not contracted when the mind is obscured by alcohol. The opponents object that examination exerts a deteriorating influence on the women. But for confirmed prostitutes no further debasement is possible. Registration and the fact of the women coming to be examined effectually prevent what used to be common enough in Bombay at least—viz., girls being practically prisoners in brothels. All are brought to light and liberty. It is also objected that the women so dislike being examined that they will not submit unless compelled to do so. Well, when the Contagious Diseases Act was abolished in Bombay and the various examination offices closed, the women went about asking where they were to be examined. It is also asserted that the system is unjust to women, being directed against one sex for the benefit of the other. It is only directed against those of the one sex who are dangerous to themselves and men. The liberty of the subject has been made an opposing point; but no person has a right to spread a contagious disease. The opponents assert that the Act does no good. Now, although the results of the working of the rules for the prevention of venereal disease for the whole of India have not been so satisfactory as could be desired, the experience of certain stations where the rules have been carefully administered shows beyond all question that with proper management a most decided impression may be made on the prevalence of primary venereal disease. I have no time to demonstrate this, but I know from experience that if the Contagious Diseases Act were well worked the amount of local syphilis may be reduced almost to *nil*. And it cannot be doubted that the care taken of diseased females must have tended to lessen venereal disease. When, as was the case in Bombay, from sixty to eighty diseased women were in the hospital who would otherwise be disseminating syphilis, such disease *must* be lessened. Whether the Act did any good or not, I think it is now tolerably certain that its abolition has done a great deal of harm. The opponents say that attendance at hospital should be voluntary. But women of the class will not voluntarily go into hospital confinement, but continue to ply their trade—some knowingly, others unknowingly—long after they are diseased. Perhaps the most absurd argument of the opponents is that syphilis

is not the destructive malady it has been asserted to be. This impression appears to arise from the fact that, except in a few cases, syphilis is not a directly fatal disease such as cholera or bad forms of fever. It is indirectly and remotely that syphilis proves so destructive, and this is not appreciated. The opponents of the Contagious Diseases Act will not believe when they are told that eye diseases, affections of the spinal cord, of the brain, of the heart, and of the blood-vessels result from syphilis, although such affections may be otherwise named. Neither will they believe that in India much of the cachexia, liver disease and fever from which the European soldiery especially suffer, is either purely syphilitic or much aggravated by syphilis, or that when an attack of sunstroke occurs it is much more likely to end in permanent disability if there is a syphilitic taint. It is also useless telling the opponents of the Contagious Diseases Act of inherited syphilis; but any large hospital, whether in England or India, daily presents numbers of children the subjects of one or other of the forms of inherited venereal disease. The advantages which arose from the Contagious Diseases Act may be mentioned as diminution of severity of disease, prevention of disease, cure of disease, social improvement by a reduction in the number of brothels and the lessening of juvenile prostitution, and opportunities afforded to women for reformation. Having had the control of the Contagious Diseases Act in Bombay for some years when surgeon-general there, I know that such advantages did, to a greater or lesser extent, accrue from the working of the Act.

I regard the abolition of the Contagious Diseases Act in India as a display of ignorance almost unparalleled. I would ask how much longer is the health of the Anglo-Indian Army to be undermined at the instance of agitators? Let us hope the Indian Army will not be called upon for service in the field while in its present deplorable condition.

## SOME MODES OF THERMAL TREATMENT AT STRATHPEFFER SPA.

BY FORTESCUE FOX, M.D. LOND.

A HIGH opinion of hot springs has been commonly held, even from the earliest times. The magnificent "Thermae" or baths established by the Romans in Italy, Gaul and even Britain show how such waters were prized by them, first as a luxury and afterwards almost as a necessity of their civilisation. Subsequently larger and more definite claims were advanced as to the medicinal and even specific virtue of this and that bath in particular diseases—claims which have been countenanced by medical opinion even to the present day. Of late years, however, an entire change of medical doctrine has taken place, arising from a more exact knowledge of the limited power of absorption possessed by the skin. Since it has been demonstrated that the sulphates and carbonates and even the chlorides and sulphides are not absorbed from their solutions by an unbroken skin, it has not been possible to believe that baths containing one or more of these ingredients possessed on that account any specific medicinal value.<sup>1</sup> Their potency, which is acknowledged, is rather of a general kind, depending on the thermal qualities in which they agree and not on the chemical qualities in which they differ. It is, however, possible that this doctrine may be pushed too far, if, for example, it is denied that chemical agencies may be competent to produce effects, stimulant or sedative, on the peripheral nerve-endings and circulation independently of absorption, or that in morbid states of the skin—eczema and ulcers, e.g.—absorption of such ingredients may take place.

The internal use of the hot spring, relying as it does on the far more active absorptive power of mucous membrane, is not likely to be challenged or regarded as "indifferent"; but in

<sup>1</sup> "In the estimate of baths therefore we may set aside the amount they contain of iron, lime, the sulphates of soda and magnesia, soda, iodine, bromine and arsenic; and as special baths we have only to consider those containing carbonic acid—the sulphur baths, the soil baths, the clinical effect of which is established and explained in a mechanically chemical manner; the moor baths (peat baths), in which special chemical agents are added to the general thermal effect; and sea baths."—Curative Effects of Baths and Waters: Braun, English Edition, p. 103

respect to their external use in the form of baths, most, if not all, of the warm mineral waters must be now regarded simply as thermal agencies. The continuous baths of Louk, the warm piscines of the Pyrenean spas, the thermal baths and douches of Aix-les-Bains and of Bath in England cannot any longer be held to depend for efficacy on their minute and various mineralisation, but on the skilled and systematic application of warmth and moisture. The old theory that "natural" or telluric heat was of a different quality from artificial heat and imparted thereby a special quality to thermal waters has no foundation in ascertained fact. It should also be observed that thermal treatment, properly so-called, includes not only the use of water and watery vapour naturally or artificially heated to the proper temperature, but also local forms, such as poultices and fomentations of every kind; and in addition the application of heat without moisture, as in the Turkish bath, and locally, as the hot sand bath and the thermal hammer.

The following observations have reference to two forms of thermal treatment in use at Strathpeffer Spa, the douche bath in various shapes and the peat bath, in both of which the principal factor is the regulated application of moist heat.

1. The douche bath: This is largely used in the ordinary form of a jet or nozzle douche as an application to the affected joints in early rheumatoid arthritis and in some cases of chronic rheumatism and gout. If serious disorganisation of the joints has not already taken place, perseverance in this treatment undoubtedly assists in restoring to the parts a healthy nutrition, whether by its effect on the circulation or nervous supply it is impossible to say. It may be worth observing in this connexion that, next to the skin itself, the joints are the most superficial portions of the body and therefore the most amenable to external influences. If changes of temperature are competent, as is the case, to produce inflammatory conditions in susceptible joints, it is not unreasonable to attribute partly to the element of temperature the beneficial effects of the douche. The low-pressure douche so largely employed at Aix-les-Bains, but until lately nowhere in this country, has been lately introduced at Strathpeffer. A large volume of water, almost without pressure and of a pleasant warmth, is continuously poured over the patient's back and shoulders whilst seated and whilst, it may be, the limbs are subjected to the ordinary (high pressure) douche. It is instructive to notice that enlightened medical opinion at the French spa is now inclined to allow that the strong hot douche is too "exciting" in many cases to which the gentle douche at lower temperatures is perfectly adapted and in which indeed it acts as a general nervous sedative. The spinal douche at Strathpeffer consists of fine jets of water in a vertical series, directed at close quarters upon the spine—the patient being comfortably seated—and given at a temperature ranging from 102° to 115°. The apparatus admits of sudden alternations with cold where desirable. The whole body may meanwhile be subjected to a low pressure or rose douche at any desired heat. The spinal douche is principally used in neurasthenia, in sluggish circulation with cold extremities and particularly in cases of congestive and nervous dysmenorrhœa. It appears to act mainly through the vaso-motor system, both on the general circulation, causing warmth and flushing of the extremities, and probably in the same manner on the pelvic and abdominal organs. In numerous cases of dysmenorrhœa the catamenia are reported as being quite painless after a course of these douches. Complete rest—lying down in an adjoining room—should always follow a bath of this kind.

2. The peat bath (moor bath): This bath is composed of disintegrated peat, or moor earth, freed from extraneous matter and mixed or churned with boiling water in a special apparatus separately for each bath. The peat itself is of a rich brown colour and is taken from deposits at an elevation of 1500 to 2000 feet. It is somewhat remarkable that this form of thermal treatment—for such in the main it undoubtedly is—although so prevalent and justly famous on the continent of Europe, was not apparently employed in this country until three years ago. It is held by competent authorities to be "less exciting" than other forms—that is to say, that it produces its effect at a lower temperature than other modes of thermal treatment. It is also further distinguished from most or all other baths by its consistence (that of a thin poultice), and especially by the state of chemical activity attributed to its ingredients. Among these ingredients, organic and inorganic, when freshly prepared at a high temperature for the bath, it is believed that chemical trans-

formations and exchanges are set going, causing a constant minute variation of temperature at the body surface. Whether or no this is a correct theory of its mode of action, the clinical facts regarding this bath remain the same. Careful observation during a long course of years at the Bohemian and other spas has established the value of the peat bath as a safe and powerful mode of thermal treatment. It is recommended more particularly in the slighter forms of spinal paralysis with motor or sensory disorder, and for promoting the absorption of exudations in the neighbourhood of joints and elsewhere.

At Strathpeffer these baths have also been used with encouraging results in chronic skin affections (eczema and psoriasis) with thickening and exudation; in simple inactivity of the skin, with a chaonically dry and sometimes cold surface; in sluggish circulation and cold extremities (a condition frequently combined with inactive skin), and in painful affections of muscles and nerves. In cases of depressed peripheral circulation patients will sometimes report, after even a single peat bath, that they feel a glow of warmth over the body to which they have been unaccustomed for years. Again, in neurotic subjects suffering from what is frequently termed "spinal irritation," with pains in the limbs, sensations of heat along the spine, posterior headache and other distresses, the peat bath is distinctly more beneficial than other forms of thermal treatment. It relieves the pains and other morbid sensations, promotes free perspiration and induces a state of calm and disposition to sleep strikingly in contrast with the excitement and restlessness sometimes caused in the same subjects by the hot douche.

In conclusion, it may be observed that the modes of treatment here described are not the only ones for which there is at present no full and sufficient explanation forthcoming. Many remedies of the greatest value have been and still are used more or less empirically, resting on experience rather than on scientific hypothesis; and among these thermal agencies, though a more complete knowledge of their *modus operandi* is to be earnestly desired, still hold the place they have held for ages in the successful treatment of many chronic ailments.

## HOSPITAL ACCOUNTS.

### [SECOND ARTICLE.]

IN our article last week upon this subject we passed in review one part of the schedule which has been prepared for use by the hospitals and showed how the statement of income might be rendered more perspicuous than it is in this form. The statement of expenditure we then reserved for subsequent criticism and to that we now turn. The principles by which we propose to test it have been already stated, but it may be convenient to restate them here. They are four—that is to say, the statement must clearly show (1) how much is annually expended on the work of the institution; (2) how that expenditure is distributed among the various departments; (3) what is the amount of the income available to meet the expenditure; and (4) from what sources that income is derived. The third and fourth of these heads have been already considered in connexion with the statement of income. The first two have now to be applied to the other (expenditure) side of the account. As to the first no difficulty arises. The importance of showing the total amount of the expenditure has been fully appreciated not only by the committee which prepared the form now under discussion, but by most other people who have taken in hand the preparation of a financial statement and hence the aggregate expenditure can very commonly be found in any of these accounts and would always be shown by a statement prepared upon the lines of the Mansion House form. The second rule is recognised to some extent, and it is upon this point that discussion must be chiefly directed. The Accounts Committee has prescribed a subdivision of the expenditure into two large groups of items: the one is called "ordinary expenditure," and covers all that is laid out upon managing the institution and maintaining its work; the other, "extraordinary" expenditure, and includes such items as building for the purpose of extension, the making of permanent improvements and the acquisition of investments for capital. To put it in a word, the "ordinary expenditure" represents expenditure pure and simple; that is to say, expenditure of the resources of the institution, whereas

"extraordinary expenditure" is expenditure only in name and represents no expenditure of resources, but on the contrary their accumulation. Such a distinction is indispensable to the production of a statement that shall not be absolutely misleading. By summing together without distinction the money expended and the money invested, it is possible to make the most thriving institution appear to be involved in financial difficulties. Attention has been recently and publicly called to instances of this particular kind of misrepresentation—instances in which hospitals that have added largely to their investments in a given year have published statements in which the expenditure is shown to be in excess of income. The general adoption of the Council's form would correct this fault, and although the desire to make an effective appeal to the charitable public may in some instances militate against the ready acceptance of a form of statement which is transparently clear, we are satisfied that upon the whole the hospitals would gain more from increased public interest and confidence than they would lose from the moderation of their demands.

This, however, is only a first step towards the elucidation of the expenditure account. A second step is taken by the subdivision of ordinary expenditure under the two heads of maintenance and administration, a division which corresponds roughly to what may be described as the expenditure upon the effective and the non-effective forces of the institution respectively. Thus "maintenance" covers the expenditure on food, drugs, rent, taxes and medical and nursing and domestic services; whereas administration covers the cost of the secretary's and collector's offices, advertisements and such-like outlay which does not directly supply the patients' needs. Here there is a manifest intention to apply a criterion of economy to the accounts of the institution, and the only question which can arise is whether the criterion is a satisfactory one, having regard to all the circumstances of the case. Our reason for thinking it unsatisfactory is that expenditure on "administration" as above defined, though one of those branches of outlay which are most apt to grow to excess, is not by any means the only one out of which extravagance can arise. It is as possible to have excessive expenditure upon the professional staff as upon the secretarial and equally possible again to pay too much for house-rent or provisions. This is to some extent recognised in the form under discussion, inasmuch as the maintenance charges are divided up under various heads representing various departments of hospital work. But at this point the scheme breaks down altogether and the distribution of the items, instead of elucidating, serves only to confuse the statement. Thus we have the full amount of the butcher's bill carried to an entry under the subhead of "Provisions," but no intimation is conveyed in what proportions the supply of butcher's meat is appropriated to the patients and to the officers by way of allowances. It may be better economy to pay liberal salaries without allowances than small salaries with them; and a statement which affords no indication of the extent to which professional services are requited by payment in kind supplies absolutely no basis of comparison between different institutions. It seems to us that the object of this final subdivision should be that of securing a clear statement of the whole cost of every several department of hospital work, whether that cost is defrayed in money or in money's worth, and that a statement of the expenditure upon salaries which is not supplemented by a corresponding statement as to the expenditure upon allowances is absolutely meaningless. This is a point which cannot be too strongly emphasised and we are therefore glad to be able to quote in this connexion the opinion of the House of Lords' Committee. They confine their observation, it is true, to the one department—namely, the out-patient department—which they consider the most important of all for this purpose and with reference to it they say (at page 97): "In the evidence before the Committee mention was made of the difficulty of ascertaining the cost of an out-patient, without which calculation any estimate of the cost 'per bed' is unreliable. The Committee do not think the difficulties insurmountable." They then proceed to sketch a plan for effecting an analysis of the accounts with this object, which, extended to other departments, would entirely accomplish the end that we have advocated. We think, therefore, that there is every reason to believe that a perfectly satisfactory statement of hospital expenditure is possible, and we hope that when a form of account is ultimately adopted this important point will receive adequate consideration.

## THE BRUSSELS OBSTETRICAL CONGRESS.

THE programme of the proceedings of this Congress was issued at the end of last week by the president, Professor Kufferath, and the general secretary, Dr. Jacobs. The sittings of the Congress will commence at the Palais des Académies on Tuesday, Sept. 13th, at 9 P.M. The Belgian Gynecological and Obstetrical Society will give a concert in honour of the members of the Congress on the Wednesday at 2 P.M. The Congress will be declared open in the presence of King Leopold II. The Exhibition will include an international display of instruments and apparatus at the Palais des Académies, and a special exhibition of specimens and instruments, contributed by the Belgian Universities, and held at the Brussels Maternité. On the Thursday, Friday, and Saturday the ordinary sittings will be held, general communications being read between ten and twelve, whilst special subjects chosen for discussion will be brought forward in the afternoon. The order of these subjects is as follows:—Thursday, Sept. 5th, Pelvic Suppuration, introduced by Dr. Segond of Paris; Friday, Sept. 16th, Extra-uterine Pregnancy, by Dr. Martin of Berlin; and Saturday, Sept. 17th, Placenta Prævia, by Dr. Berry Hart; on Thursday, at 9 P.M., the Minister of Public Works will receive the members of Congress at his official residence; on Friday, at 7 P.M., there will be a special performance at the Opera; and on Saturday evening the Belgian Gynecological and Obstetrical Society will give a banquet. Subscriptions may be sent by post-office order to the general secretary, Dr. Jacobs, 12, Rue des Petits Carmes, Brussels. After Sept. 12th they may be paid at the secretary's office. Further information will be supplied on application to the general secretary at the above address.

## MARITIME HYGIENE IN ITALY.

AN Italian correspondent writes: "I have been favoured with the following 'Ordinanza' from the Ministry of the Interior, just issued in view of the anticipated importation of cholera from the Black Sea stations. It is based on the law enacted on Dec. 22nd, 1888 (No. 5849, Series 3A), on sanitary precautions for the safeguard of the public health, and it decrees: (1) That all ships proceeding from the Black Sea ports shall be subjected to a rigorous medical examination; (2) that from these ships shall be prohibited the unloading of goods, whether linen or woollen, for personal or domestic use, which shall not have been thoroughly cleansed or previously disinfected; (3) that the harbour officials, on finding on shipboard linen or woollen goods in an uncleanly state, shall ensure before their debarkation that they be properly disinfected either by the steam apparatus provided *ad hoc*, or, if the vessel possesses no such apparatus, that they be kept for at least ten minutes immersed in water either in the boiling state or holding in solution corrosive sublimate in the proportion of 2 per 1000, with the addition of chloric acid in the proportion of 5 per 1000; (4) that the sanitary officers charged with shipboard inspections shall judge in special cases whether or not the wearing apparel of the crew or the passengers shall be subjected to the disinfecting process above mentioned; (5) that the vessels on which cases of cholera shall have been proved to have occurred during their passage or on which suspected cases of the malady shall have presented themselves, on arrival in port shall be sent to the nearest sanitary station of the island of Asinara or of the island of Poveglia, there to undergo those measures *in contumaciam* which from time to time shall be determined by the Minister of the Interior. The ships ascertained to come under the above categories shall have to make directly for the said sanitary stations before touching at any other port. The prefects of the maritime provinces of the kingdom, the dockyard authorities and the harbour officials are charged with the execution of these precautionary measures. The 'Ordinanza,' specially framed, it will be seen, to meet the danger of imported cholera from the Russian and Ottoman shores of the Black Sea, is signed by the head of the Italian Home Office (*Il Ministro dell'Interno*) his Excellency Signor Giolitti."

## METROPOLITAN HOSPITAL SUNDAY FUND.

THE following is a continued list of the contributions received at the Mansion House up to Thursday, the 21st inst., in aid of the Metropolitan Hospital Sunday Fund. The amount received up to the present is £37,500.

	£	s.	d.
St. Stephen's, Gloucester-road (Rev. J. P. Waldo) .. ..	218	18	6
St. Peter's, Baywater (Rev. C. N. Moore) .. ..	109	11	3
Corporation of City of London (a further) .. ..	105	0	0
"J. C." (a further) .. ..	100	0	0
Blackheath Congregational Church (Rev. Chas. Wilson, M.A.) .. ..	100	16	5
St. Stephen's (with St. Thomas's), Paddington (Rev. Harvey Brooks) .. ..	100	11	11
St. John's, Notting-hill (Rev. Prebendary R. Thornton), D.D.	74	12	2
South Kensington Presbyterian Church (Rev. R. Milner) ..	21	0	0
St. John the Baptist, Leytonstone (Rev. W. J. Bettison) ..	20	8	4
St. Paul's, Lorrimer-square, and Missions (Rev. C. H. Simpkinson) .. ..	30	4	9
J. J. Rantolph, Esq. (a further) .. ..	20	0	0
St. Agnes', Kennington Park (Rev. T. B. Dover) .. ..	25	8	1
St. Mary and St. John the Divine, Balham (Rev. Thos. Bates) .. ..	55	8	11
St. John's, Upper Lewisham-road (Rev. E. J. Hone) .. ..	47	0	2
All Saints, and Holy Trinity, Wandsworth (Rev. Wm. Reed) .. ..	61	0	0
Holy Trinity, Westminster (Rev. G. Miller) .. ..	20	0	0
East Finchley Congregational Church (Rev. H. Barron) .. ..	26	8	1
Streatham-hill Congregational Church (Rev. J. P. Gledstone) ..	40	1	5
St. James's, Norland-square (Rev. A. Williamson) .. ..	30	0	0
Christ Church and St. Barnabas, North Finchley (Rev. H. Stephens) .. ..	28	16	11
Harecourt Chapel, Canonbury (Rev. H. Simon) .. ..	20	0	0
All Saints, Putney (Hon. and Rev. R. Henley) .. ..	32	0	0
Islington Parish Church (Rev. W. H. Barlow, B.D.) .. ..	20	11	6
Chiswick Parish Church (Rev. L. W. T. Dale) .. ..	28	15	6
Wilmington (Kent) Parish Church (Rev. R. Jamblin) .. ..	22	2	0
St. James', Hatcham (Rev. W. H. Stone) .. ..	41	12	0
St. John the Divine, Kennington (Rev. C. E. Brooke) .. ..	60	11	2

## Public Health and Poor Law.

## LOCAL GOVERNMENT DEPARTMENT.

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Thull and Goolo Port District.*—Dr. J. W. Mason's report on this port is an eminently satisfactory one, for it shows that a careful inspection of vessels is made and that when sanitary defects are discovered they are dealt with and amended. In all, 4566 vessels were thus inspected last year, and out of 169 defects 155 have already been carried out. The wholesomeness of drinking water on board receives special consideration and the emptying and cleansing of tanks are insisted on. Cases of infectious diseases are promptly removed to hospital and where necessary the crew &c. are subjected to strict medical examination. This port has close relations with the Baltic and at the present season, with advancing cholera in Russia, it is a matter of satisfaction to know that an efficient port sanitary administration is carried on under Dr. Mason's supervision.

*Newham Rural Sanitary District.*—During the past year the death-rate for this rural district was 18.5 per 1000. Notification has been in force since 1889, but, as Mr. Boustead points out, the means of isolating first attacks of infectious diseases is a necessary complement to learning of the existence of such cases. The needed hospital has, however, not yet been provided. The midden-privy system is a source of grave nuisance, and it is evidently of the utmost importance that it should be amended or abolished. From the detailed description of individual localities and villages which is given in the report, it is clear that full acquaintance with all insanitary conditions has been acquired and is maintained.

*Hatfield Rural District.*—Dr. Lovell Drage gives the general death-rate for 1891 as 13 per 1000. The subjects of epidemic influenza and diphtheria receive considerable attention in the report, certain current knowledge as to the etiology and means of diffusion of these two diseases being set out in a form that can be apprehended by the intelligent non-technical reader. As regards the latter disease, it is stated that at one and the same time diphtheria, scarlet fever, follicular tonsillitis and simple sore-throat all prevailed in one limited and defined area. Hatfield itself possesses a good water-supply and new sewerage works have been commenced. But similar works, notably as to water, are needed elsewhere and the

question of by-laws remains in an unsettled condition. Much has fortunately been done in recent years to improve dwelling accommodation.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6471 births and 3491 deaths were registered during the week ending July 16th. The annual rate of mortality in these towns, which had been 17.1 per 1000 in each of the preceding two weeks, rose last week to 17.9: In London the rate was 18.9 per 1000, while it averaged 17.1 in the thirty-two large provincial towns. The lowest rates in these towns were 9.8 in Croydon and in Birkenhead, 10.7 in Brighton, 13.5 in Hull, and 13.6 in Oldham; the highest rates were 19.8 in Halifax, 20.0 in Salford, 21.3 in Blackburn, 21.5 in Liverpool, and 22.6 in West Ham. The 3491 deaths included 598 which were referred to the principal zymotic diseases, against numbers increasing from 477 to 503 in the preceding three weeks; of these, 260 resulted from diarrhoea, 131 from measles, 80 from whooping-cough, 60 from diphtheria, 44 from scarlet fever, 23 from "fever" (principally enteric), and not one from small-pox. No fatal case of any of these diseases was recorded last week in Brighton; in the other towns they caused the lowest death-rates in Hull, Leeds, Norwich and Derby, and the highest rates in London, Sunderland, Leicester and West Ham. The greatest mortality from measles occurred in Huddersfield, West Ham, Oldham, Halifax and Sunderland; from scarlet fever in Swansea; from whooping-cough in Huddersfield, Wolverhampton, Bolton and Burnley; and from diarrhoea in West Ham, Bristol, Preston, London and Leicester. The mortality from "fever" showed no marked excess in any of the large towns. The 60 deaths from diphtheria included 43 in London, 4 in West Ham, and 3 in Birmingham. No fatal case of small-pox was registered either in London or in any of the thirty-two large provincial towns; 17 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 4 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2488, against numbers increasing from 1226 to 2372 on the preceding sixteen Saturdays; 323 new cases were admitted during the week, against 331 and 301 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 185 and 170 in the preceding two weeks, further declined to 168 last week, and were 31 below the corrected average. The causes of 60, or 1.7 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Nottingham, Oldham, Bradford, Newcastle-upon-Tyne and in ten other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham and Leicester.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding three weeks from 19.3 to 17.6 per 1000, further fell to 17.2 during the week ending July 16th, and was 0.7 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13.2 in Greenock and 14.1 in Edinburgh to 18.3 in Glasgow and 20.1 in Leith. The 480 deaths in these towns included 18 which were referred to whooping-cough, 16 to diarrhoea, 13 to measles, 7 to diphtheria, 6 to scarlet fever, 2 to "fever," and not one to small-pox. In all, 62 deaths resulted from these principal zymotic diseases, against 83 and 62 in the preceding two weeks. These 62 deaths were equal to an annual rate of 2.2 per 1000, which was 0.9 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had declined from 27 to 21 in the preceding three weeks, further fell to 18 last week, of which 9 occurred in Glasgow, 3 in Dundee, and 2 each in Edinburgh and Aberdeen. The 16 deaths referred to diarrhoea showed a marked increase upon recent weekly numbers and included 7 in Glasgow and 3 in Dundee. The fatal cases of measles, which had declined from 35 to 22 in the preceding three

weeks, further fell to 13 last week, of which 9 occurred in Glasgow and 4 in Edinburgh. The 7 deaths referred to diphtheria exceeded by 4 the number in the previous week and included 4 in Glasgow and 2 in Aberdeen. The 2 fatal cases of "fever" were both recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 89 and 71 in the preceding two weeks, further declined to 65 last week, and were 8 below the number in the corresponding week of last year. The causes of 42, or nearly 9 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined from 31.6 to 21.8 per 1000 in the preceding four weeks, rose again to 24.2 during the week ending July 16th. During the thirteen weeks of last quarter the death-rate in the city averaged 31.3 per 1000, against 18.9 in London and 17.8 in Edinburgh. The 162 deaths in Dublin during the week under notice showed an increase of 16 upon the number in the preceding week, and included 9 which were referred to measles, 4 to "fever," and not one either to small-pox, scarlet fever, diphtheria, whooping-cough, or diarrhoea. In all, 13 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.9 per 1000, the zymotic death-rate during the same period being 4.2 in London and 2.9 in Edinburgh. The fatal cases of measles, which had declined from 27 to 13 in the preceding four weeks, further fell to 9 last week. The deaths referred to "fever," which had been 1 in each of the previous two weeks, increased to 4 last week and exceeded the number in any recent week. The 162 deaths registered in Dublin last week included 31 of infants under one year of age and 28 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase upon those recorded in recent weeks; while those of elderly persons showed a decline. Three inquest cases and 4 deaths from violence were registered; and 37, or more than 20 per cent., of the deaths occurred in public institutions. The causes of 13, or 8 per cent., of the deaths in the city last week were not certified.

#### CALCUTTA.

The total number of deaths registered in the town of Calcutta during the week ending May 21st was 219, against 270 and 240 in the preceding two weeks. There were 39 deaths from cholera, against 55 and 59 in the preceding two weeks; no deaths from small-pox. The general death-rate of the week was 24.4 per 1000 per annum, against 20.4, the mean of the last five years. In the amalgamated area of suburbs the total number of deaths registered during the same week was 138. There were 44 deaths from cholera, against 37 in the preceding week; no deaths from small-pox. The general death-rate of the week was 33.4 per 1000 per annum, against 28.1, the mean of the last three years. The general death-rate of the combined area was equal to 27.3 per 1000.

### THE SERVICES.

#### MEDICAL STAFF MATTERS.

THERE were several recommendations made by Lord Camperdown's Committee which we advocated at the time and to which attention may be fitly called again now when a change of Government is probably soon about to take place. The regulation by which extension of the time of a foreign service tour from five to six years was made applicable to all medical officers seems to us a hardship, nor does it appear to be an essential or economical arrangement. There are always a certain number of medical officers in India and elsewhere who are desirous of extending their periods of service in the commands in which they may happen to be serving at the time. It suits their health and their convenience; they like the climate and their work; and it is in the interest of the service that they should, as a rule, be allowed to stay on when desirous of doing so. The pay of medical officers serving in India also requires some re-adjustment, especially in the brigade-surgeon rank. The privilege of exchange should be extended to medical officers, with the approval of the Director-General, as to other branches of the service. It should not be difficult to regulate the system of exchange so as to guard it against abuse and

protect the service from financial loss. We advocated these improvements years ago and we have not seen any valid reason for changing our opinions since.

#### MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Colonel Patterson has left Hong Kong for Japan, on leave. Surgeon-Captain E. G. Browne has been granted sick leave to England, from India. Surgeon-Captain Long has arrived at Sierra Leone, for duty. Surgeon-Captain Ritchie has arrived home, on leave from Malta. Surgeon-Lieutenant Withers has been transferred to Dublin, for duty. Surgeon-Major Dorman has arrived home on leave, from Halifax. Surgeon-Major Young has reported himself for duty, at Parkhurst. Surgeon-Captain Woods has joined at Weymouth. Surgeon-Captain Blackwell has left Woolwich, on leave. Surgeon-Captain Wiles and Surgeon-Lieutenant Hughes have joined at Chester and Preston respectively from out-station duty. Surgeon-Lieutenant-Colonel Reynolds, V.C., and Brigade-Surgeon-Lieutenant-Colonel Johnson have proceeded on leave from Shorncliffe. Surgeon-Major Beamish has obtained leave from Dublin, and Surgeon-Captains Sandiford, Power and Browning have arrived at Cork. Surgeon-Major Gormley has proceeded to Limerick, from the Curragh, and Surgeon-Major O'Sullivan has joined at the Curragh. Surgeon-Lieutenant-Colonel Rooney has been promoted to the rank of Brigade-Surgeon-Lieutenant-Colonel, vice O'Farrell, retired from June 16th, and Surgeon-Captains J. G. S. Lewis and J. L. Hall have been promoted to the rank of Surgeon-Majors, from July 6th.

In consequence of the large number of officers of the higher ranks now in India, the reliefs for the coming season will, we understand, be chiefly supplied from Surgeon-Captains and Surgeon-Lieutenants. This will be greatly appreciated by the Surgeon-Majors now at home, for hitherto foreign service has pressed very heavily upon that rank, whose turn has come round much faster than that of the juniors.

#### SIR WILLIAM ATKEN'S SUCCESSOR.

We learn that the Professorship of Pathology at the Army Medical School has been conferred upon a civilian—Mr. A. E. Wright, M.B., B.Ch. Dublin., late Demonstrator of Pathology at the University of Cambridge. Opinions may differ as to whether the vacant chair of Pathology should, despite the difficulties on which we have already commented, have been filled by an army medical officer, whether of the British or Indian medical service, but there can be no difference of opinion as to Dr. Wright's eminent fitness for the post which he has accepted.

#### SURGEON-GENERAL HASSARD, C.B.

We record with much regret the death of Surgeon-General H. B. Hassard, C.B. This officer, who retired from the service in 1888, after having filled the post of principal medical officer in Ireland, had seen much service during his long and varied experience in the Medical Department. He was in receipt of a good-service pension at the time of his death. Surgeon-General Hassard served a good deal in India and had held a responsible post in the Afghan Campaign. The record of his war services embraces the following:—The Kaffir war, 1851-53; horse shot in Waterkloof (medal); the Hazara campaign of 1868, including the expedition in the Black Mountain (medal and clasp); the Afghan war of 1879-80, with the Cabul Field Force (medal); he was awarded a C.B. for his services in the last-named expedition and subsequently became the Principal Medical Officer of the Sirhind Division, and on his promotion took up the appointment of head of the Medical Service in Ireland. Surgeon-General Hassard was considered a good administrator; he was prompt and decided, possessed excellent business qualifications and was, we believe, deservedly liked and respected by those who knew him or served under him.

#### SURGEON-LIEUTENANT-COLONEL D. C. G. BOURNS, M.S.

This medical officer, who died at Oxted, Surrey, on the 9th inst., entered the army in 1864. He served in the Zulu war of 1879 (medal and clasp), in the Egyptian campaign of 1882, and was present at Tel-el-Kebir (medal, clasp and Khedive's star). On his return from Egypt he served in England some time and then went to India for a while. In September, 1890, he retired on half-pay. Of late years he had been occasionally out of health, probably attributable to malarial diseases contracted abroad. He was only forty-five years of age at the time of his death.

#### SURGEON-MAJOR F. H. MURPHY, M.S.

We much regret to announce the death of this medical

officer at Cork on the 24th ult. He became a surgeon in 1877 and a surgeon-major of the Army Medical Staff in 1889. He was the medical officer of the Royal Arsenal, Woolwich and was only thirty-seven years of age at the time of his death.

#### EUROPEAN TROOPS IN INDIA.

There can be no doubt that much more care is taken of the British soldier in India than was formerly the case. Among other sanitary recommendations the highest medical authorities went on year after year urging the importance of providing accommodation for European troops in the hills. According to the latest information from India we are glad to recognise that a remarkable change has taken place in this respect. Out of some 42,000 men in the Bengal Presidency 14,219 British soldiers, 611 women and 1392 children have been accommodated at hill stations during this hot weather. The *Pioneer* says this is double the number of twenty years ago. Enteric fever is the disease from which our soldiers suffer in India and unhappily those at hill stations are not exempt from it, although the general health of the troops is greatly benefited by residence in a hill climate.

#### THE RUPEE AND MEDICAL OFFICERS.

The rate of the exchange—which seems ever falling—and the belief that the value of the rupee has not yet reached its downward limit are becoming a very serious matter for officers and others serving in India. Instead of the proposed bi-metallism being adopted it may be definitely set aside, in which case the value of the rupee will probably be still further depreciated. It is all very well to say that the rupee still represents in India about the same value that it did, but officers serving in that country do not and cannot spend their pay there; a large number of them are married and have families to educate and support at home. To such as have to send money from India to this country the loss involved by the rate of exchange comes to a large sum in the course of the year, and Indian pay and allowances represent a nominal value which is very different indeed from the real one. Time was when service in India brought with it good salaries to cover home remittances and compensate for the risk to health and separation from family, but that time has passed away, apparently never to return. The Pagoda-tree has ceased to yield a plentiful crop; little fruit falls after much shaking; meanwhile, discontent increases among Indian officials of all sorts and the Government of India is at its wits' end to know what to do.

#### THE PARKES MEMORIAL PRIZE.

The subject for the next prize is the following: "Malarial Fevers; their Causation and Prevention." (To be illustrated, as far as practicable, from the personal experience of the writer.) Essays are to be sent in to the Secretary of the Parkes Memorial Fund, Royal Victoria Hospital, Netley, on or before Dec. 31st, 1894. Each essay to have a motto and to be accompanied with a sealed envelope bearing the same motto and containing the name of the competitor. This prize, consisting of 75 guineas and a gold medal, is open for competition to the medical officers of the Army, Navy, and Indian Services of executive rank on full pay, with the exception of the assistant professors of the Army Medical School during their term of office.

#### ARMY MEDICAL DEPARTMENT.

Surgeon-Lieutenant-Colonel James P. Rooney, F.R.C.S.I., to be Brigade-Surgeon-Lieutenant-Colonel, vice I. McD. O'Farrell, F.R.C.S.I., retired (dated June 16th, 1892).—Surgeon-Captains John G. S. Lewis and John L. Hall to be Surgeon-Majors (dated July 6th, 1892).—The Queen has approved of the retirement from the Service of Brigade-Surgeon-Lieutenant-Colonel Kenneth McLeod, M.D., Bengal Medical Establishment (dated April 16th, 1892).

#### INDIAN MEDICAL SERVICE.

Surgeon-Captain H. W. Stevenson, Superintendent of Mahableshwar, in the district of Satara, is appointed to be a Magistrate of the Second Class in that district.—The services of Brigade-Surgeon-Lieutenant-Colonel Spencer, Chief Medical Officer in Rajputana, have been replaced at the disposal of the Commander-in-Chief for appointment to the administrative medical charge of the Presidency district, vice Surgeon-Colonel Morice, who has proceeded on eight months' leave to England.—2-1st Gurkhas: Surgeon-Captain H. Smith to the officiating medical charge. 3rd Sikh Infantry: Surgeon-Captain C. H. James, from 20th Punjab Infantry, to the officiating medical charge. 2nd Punjab Infantry: Surgeon-

Lieutenant B. G. Seton to the officiating medical charge. 5th Bengal Cavalry: Surgeon-Major H. Hamilton, from 10th Bengal Infantry, to the officiating medical charge.—Surgeon-Captain A. H. Nott is appointed to act as Civil Surgeon of Hooghly.—Surgeon-Major F. C. Reeves is appointed to be District Surgeon and Superintendent of Gaol, Madura, vice Surgeon-Major W. B. Browning.—Surgeon-Captain W. H. Gray assumed charge of the civil medical duties of Dera Ismail Khan on June 4th, relieving Surgeon-Captain C. E. Sunder.—Dr. G. D. McReddie, M.D., Civil Surgeon, Hardoi, is appointed to officiate as Superintendent, Lucknow Central Prison, from date of taking charge from Surgeon-Major A. E. R. Stephens.—Brigade-Surgeon-Lieutenant-Colonel W. R. Hooper, Civil Surgeon, Lucknow, is appointed to hold visiting medical charge of the Hardoi district, in addition to his own duties, during the absence on deputation of Dr. G. D. McReddie.

YEOMANRY CAVALRY.—Middlesex (the Duke of Cambridge's Hussars): Charles Elliott Leopold Barton Hudson, Gent., to be Surgeon-Lieutenant (dated July 16th, 1892).

VOLUNTEER CORPS.—Rifle: 3rd Volunteer Battalion (the Devonshire Regiment): Surgeon-Captain F. A. Gray to be Surgeon-Major (dated July 16th, 1892).—21st Middlesex (the Finsbury): Surgeon-Captain J. Adams to be Surgeon-Major (dated July 16th, 1892).—1st Volunteer Battalion (the Prince of Wales's North Staffordshire Regiment): Surgeon-Major E. Gaily resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement (dated July 16th, 1892).—2nd Volunteer Battalion (the York and Lancaster Regiment): Surgeon-Captain C. S. Blythman to be Surgeon-Lieutenant-Colonel, to resign his commission; also to be permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated July 16th, 1892).—3rd (Renfrewshire) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders): Surgeon-Major J. Mackinlay, jun., M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated July 16th, 1892).

## THE MEDICAL BATTERY COMPANY v. JEFFERY.

### IMPORTANT JUDGMENT.

WE are indebted to the courtesy of the editor of the *Electrical Review* for the following account of a county court case which will be of interest to our readers:—

On Tuesday, at the Bloomsbury County Court, before his Honour, Judge Bacon, the claim and counter-claim in the above-named action were heard. Mr. De Witt (barrister-at-law) appeared for the company, and Mr. Lickfold (Messrs Lewis and Lewis) appeared for the defendant. The claim was £3 5s., balance of £5 5s., the price of an electric belt (Harness's patent) supplied by the plaintiff company to the defendant; and the defendant, by way of counter-claim, sought to have an I O U for £3 5s. delivered up to him, and the sum of £2 cash returned to him on the two following grounds: First, that he was induced to buy the electric belt through misrepresentation; and, secondly, that there was no good consideration for the contract into which he had entered with the plaintiff company.

Mr. De Witt said the plaintiff company carried on business at 52, Oxford-street, and were very well known, and had acquired a high reputation through their sales of electrical appliances for the cure of diseases. His Honour was probably aware of Harness's patents for electric belts and similar appliances. The plaintiffs had a branch establishment where they treated such matters as sprains, injuries to the joints, hernia and ruptures. On May 9th last the defendant, who was a bank clerk, came to the plaintiffs' place and said he thought he was suffering from a sprain. The receiving officer of the establishment at once introduced him to Mr. Simmonds, an expert in these matters in the employ of the plaintiffs. Mr. Jeffery said he had a sprain, and was afraid that it might turn to rupture. Mr. Simmonds examined him, and told him it was desirable that he should wear one of Harness's electric belts with a suspender, in order to obviate what might develop into rupture. The defendant asked the price of the belt and was told £5 5s. The defendant said he could not afford £5 5s., and Simmonds asked, "What can you pay?" The defendant said he had £2, and would pay the balance presently. Simmonds agreed to take the £2, and an I O U for the £3 5s. balance. The defendant agreed to this, and took away the belt. Nothing more was heard until early in June, when the plaintiff company received a letter from the defendant complaining of the belt, but the plaintiff company could not find the letter.

Mr. Lickfold said he was able to produce a copy which he would read. The defendant stated that after wearing the electric belt for some time sores were brought out on his body. The belt only aggravated the complaint. He had consulted a medical man and was ordered to leave it off at once, as such an article was in no way fitted for rupture. He demanded the return of his £2 and I O U for £3 5s. and threatened legal proceedings in default. In reply, the plaintiff company wrote offering to exchange the belt if it did not fit. It was their

custom to supply a good-fitting for an ill-fitting belt free of charge. On June 18th the defendant wrote saying there could be no ambiguity about his former letter and said that unless he received his £2 back and his I O U for £3 5s. was returned, he should instruct Messrs. Lewis and Lewis to proceed against them. The defendants replied, threatening legal proceedings to recover balance of account, but confirming their previous offer to exchange the belt. On the 27th Messrs. Lewis and Lewis wrote to the plaintiff company and in reply received a letter from the solicitors to the plaintiff company to the effect that proceedings had already been taken against the defendant. The defendant then filed his counter-claim.

Mr. De Witt, continuing, said the correspondence showed the position of the parties. To resume his narrative: the defendant kept the belt for one month, and when asked to pay the balance of the purchase money refused, saying he was suffering from rupture. He did not know if his learned friend (Mr. Lickfold) relied on breach of warranty, or on misrepresentation. If on breach of warranty, then Mr. Simmonds would go into the box and say he never warranted that the belt would cure the defendant.

Mr. Lickfold: I shall not say anything so absurd as that anybody warranted that the belt would cure anything.

His Honour: The counter-claim is for misrepresentation.

Mr. De Witt: And what misrepresentation?

Mr. Lickfold: The defendant called and asked to see a properly qualified man.

Mr. De Witt: I shall call Mr. Simmonds, who will tell you that in cases of hernia and rupture he is a qualified man. In cases of rupture he is a specialist, and has had, since his connexion with the plaintiff company, no less than 10,000 cases of rupture pass through his hands. In that respect he is qualified. He never said he was a qualified medical man. If the defendant had required to see a medical man, he might have seen one of the two gentlemen always on the premises. Mr. Simmonds will tell the court that on May 9th the defendant had not a rupture, but showed symptoms of what might develop into rupture and therefore it was necessary that he should have the internal pressure relieved by external support. The false representation set up here by the counter-claim is that Mr. Simmonds told the defendant he had not a rupture, and it was not until a month afterwards that the defendant learned he was ruptured. Now, a rupture may happen in a very few days.

His Honour: Yes, and sometimes in a very few minutes.

Mr. De Witt: If the defendant can establish misrepresentation there is an end to the case. But there is no misrepresentation in saying that Mr. Simmonds is a "qualified" man, and no misrepresentation in saying that on May 9th the defendant was not actually suffering from rupture.

The following evidence was then taken:—

Mr. Frederick Thomas Simmonds, examined by Mr. De Witt: I have been in the employ of the plaintiff company for nearly seven years. I have had great experience in fitting trusses and dealing with hernia and strains. During that time 10,000 cases have passed through my hands.

His Honour: How do you arrive at that estimate?

Witness: I have taken the last six months as an average and multiplied by thirteen.

Examination continued: The defendant came to our establishment on May 9th and saw one of the receiving officers. He was shown to my consulting-room. He said he had a sprain which he thought might develop into rupture. I examined him and said the hernia was incomplete.

His Honour: Then he was ruptured really?

Witness: No, not absolutely. The internal ring was disturbed, but not the external.

Examination continued: I thought there was a fear that that might happen. I recommended this electric belt in order to decrease the pressure and to give a tone to the muscles.

His Honour: Why did you not give him a truss?

Witness: He did not require one. My experience is that the wearing of a truss when not necessary is injurious.

What would be the effect of wearing a belt?—It would strengthen the walls of the abdomen.

Would not the wearing of a truss do the same thing?—No, certainly not.

Examination continued: The defendant did not take up his I O U. If he had come to us we would have changed the belt.

The defendant says the wearing of the belt was attended with painful consequences—could you have alleviated that?—Yes.

How?—That depends on what the painful consequences were.

When you fitted the belt as you fitted it, would that be attended by painful consequences?—Hardly ever.

Would the wearing of it hurt him?—Certainly not.

When the defendant was consulting you what representations did you make to him?—Nothing particular. He said he was suffering from strain. I told him if he wore the belt for a certain time the injury would probably be removed, as it had been in thousands of cases.

What did you say about your qualifications?—Nothing; he never asked me any question.

Did you say to him that you were a "qualified" man?—No; certainly not.

Did you say you believed you could relieve him of the pain from which he was suffering?—Certainly.

Was it unlikely that a rupture would develop by June 9th if he did not wear a belt?—Not at all.

Cross-examined by Mr. Lickfold: I have been employed by the plaintiff company for nearly seven years. I began treating hernia after I had been with them for about three months.

What were you before you were employed at Harness's?—I was engaged in commercial pursuits.

Have you any qualification for treating hernia?—I have studied it all my life; ever since I was nine years of age.

What was your "commercial pursuit" before you were employed by the plaintiffs?—I was a salesman in the West-end of London.

What, in the drapery line?—No, in Oriental furniture.

You do not acquire much knowledge of the treatment of hernia in selling Oriental furniture?—No.

And yet after being in the plaintiff's employ for three months you developed into this consulting person?—Yes.

You thought you had sufficient knowledge?—Yes, I had assistance from others. I am now one of the consulting officers. There are two qualified medical men on the premises daily from ten until six. I do not think it absolutely necessary to consult them in cases of hernia.

Is electricity a good thing for hernia?—Yes, in some cases. In the first or incipient form of hernia electricity would be a good thing.

His Honour: What would be its effect?—It would give a tone to the anna clos—to the weak parts.

Cross-examination continued: Hernia is a bursting of the internal coating of the stomach?—Not of the stomach, the abdomen.

And the bowel protrudes?—Sometimes. It must protrude to form a hernia.

Was there this protrusion when you saw the defendant?—There was a protrusion through the internal ring.

What would be the effect of electricity?—I cannot say, but the belt would give support.

Would the electricity heal the hernia?—No.

Would not the effect of wearing this belt be to press downwards and so aggravate the symptoms?—No, not a properly shaped belt. There would be support and the pressure would be upwards.

How many belts did you fit on the defendant?—Only one.

What skill did you show, then, in your treatment of the defendant?—I placed the defendant in a recumbent position, examined the whole of the canal and fitted a belt on him adapted to his case.

Why did you not send for one of the medical attendants?—Because in matters relating to hernia my practice is far beyond theirs.

And you do not think it necessary to consult them?—Not except in a very complicated and abstruse case; and then they generally leave it to me.

If a person came to your place and said he wanted to consult a medical man?—He would be sent to a medical man.

If he said he wanted to consult someone on hernia?—He would be sent to me.

This belt [the belt sold to and worn by the defendant] weighs between 2 lb. and 3 lb. Is that a proper belt for hernia?—Yes, for incipient hernia.

How many of these have you in stock?—Between 500 and 600.

Is there any electricity in this?—Yes.

And the patient did not require more electricity than he would get out of this belt?—He would not require an electric battery.

Do you mean to pledge your oath that there is any electrical current here?—I have no knowledge of electricity.

Then why did you sell an electric belt and charge £5 5s. for it?—I have not a large knowledge of electricity, but I have a sufficient knowledge of its physiological effects to know that it would be useful.

Do you pledge your oath that the patient would get a serviceable amount of electricity from this belt?—Yes, certainly. The moisture of the body would complete the circuit.

Did not the defendant when he called on you ask for a truss?—No.

How much would a truss cost?—From 7s. 6d. to 12s. 6d.

If you merely intended to support the parts you could get as much support from a plain belt as from this belt?—Certainly.

Then why did you sell him this?—He wanted a tonic to the local parts.

And so you thought you would give him this affair?—Yes. I did not give the defendant his bill; it was brought to him.

What is the intrinsic value of this thing?—I do not know.

About 16s.?—I have no idea. I have nothing to do with the cost of the goods.

You are above that sort of thing?—A little above it.

Re-examined: These belts are patented by Mr. Harness?—Yes. Harness has a large number of patents. I am not an electrical expert, and I do not know the mode in which the electrical current passes.

This was the plaintiffs' case.

Mr. Lickfold, addressing the Court, said the defendant was a cashier in the Union Bank, and having, as he feared, ruptured himself, his attention was attracted to an advertisement calling attention to the Electropathic and Zander Institute, 62, Oxford-street, where medical advice was given gratis. He asked to see a medical man.

He saw Mr. Simmonds and told him he was suffering from rupture. Mr. Simmonds examined him and told him he was not so suffering and added: "You must have one of our belts and that will set you right."

The defendant was fitted on and took a belt costing £5 5s. Instead of doing good, the belt chafed the skin and caused an eruption and the illness was so aggravated that the defendant consulted a medical man, Dr. Rowntree.

After going through the facts, which he would prove in evidence, the learned gentleman submitted that there had been misrepresentation in this case, because Mr. Simmonds was not a qualified man, and because he misled the defendant by telling him that he was not suffering from hernia when he was so suffering. Then the defendant was entitled to have his money and I O U returned to him as he had not received any good and proper consideration for his money.

The defendant, Mr. D. Jeffery, in examination-in-chief, said in consequence of what I read in an advertisement I called at Harness's place, 62, Oxford-street. I saw a porter and said I wanted to see a qualified gentleman to inform me if I was ruptured or not. I was introduced to Mr. Simmonds. I told him I feared I was ruptured and wanted a truss. He examined me and said I was not suffering from hernia, and if I used one of Harness's belts I should derive benefit from it. He said he would recommend me an electric belt and I should soon be all right.

He fitted one on me. I dressed. Someone else presented me with a bill for £5 5s. I only had £2 with me and the cashier said my I O U for £3 5s. balance would do. I was very pleased at being told that I was not ruptured. I wore the belt for some time and it gave me great pain. There was a downward pressure and a lump formed in my groin; an external sore also formed. When I took off the belt I felt relief.

I consulted Dr. Rowntree. I left off the belt entirely and wore a truss, which cost 12s. 6d. I am much better now. The doctor told me I was ruptured and had been so for some time.

Cross-examined by Mr. De Witt: I have been a bank clerk for twenty-nine years. I told Mr. Simmonds I feared I was ruptured. He examined me carefully, I believe. I do not think he wilfully intended to do me any mischief. I saw Dr. Rowntree on May 23rd. Between May 9th, when I called at the plaintiffs' establishment, and May 23rd, when I saw the doctor, I had been attending to my business. I wore the belt for more than a week. I got so bad that when I moved I was

in excruciating pain. I did not ask the price of the belt before it was fitted on, and had I known it was £5 5s. I would not have purchased it.

What is the false representation you complain of?—That Simmonds told me I was not ruptured.

You complain that you were induced to part with £2 by a false representation. What was the false representation?—I went for a truss. Simmonds assured me that I did not want a truss, and that it was not ruptured.

Re-examined: I got worse whilst wearing the belt.

Mr. William George Rowntree, L.R.C.P., examined, said: On May 23rd Mr. Jeffery called on me at my house. I examined him and found that he was suffering from rupture. There was no doubt about the nature of his suffering. I have examined the belt and I say, if it was fitted tight on a patient suffering from rupture it would aggravate the complaint. I have heard the defendant's evidence as to the swelling in the groin, and I think that that swelling had existed for some time previous to my seeing him.

Would the belt produce that swelling?—Not unless there was previous hernia.

Would this belt be of any use to the defendant?—Not of the slightest use. I recommended a truss and the patient is getting better.

Cross-examined by Mr. De Witt: Rupture may come on in a few minutes, but there are generally previous symptoms well known to medical men. I undertake to say that the defendant was suffering from rupture on May 9th. I believe the rupture was of one month's duration at least—and from the symptoms which the defendant described to me, it might have been of three months' duration.

Mr. Tom Ernest Gatehouse, examined by Mr. Lickfold, said: I am an electrical and consulting engineer of twenty-two years' standing.

Have you examined this belt (produced and handed to witness)?—Yes.

And what do you say of its electrical powers?—I say that it has not any, and that it is utterly useless.

Why do you say so?—Because I have tested it.

There is something in it—some zinc and copper—and why do you say it is useless as an electrical appliance?—Because as the belt stands it cannot generate any electricity at all.

His Honour: You have heard the witness (Mr. Simmonds) say that the moisture of the body, acting on these bits of zinc and copper, would complete the circuit. Have you tried it in this way?

Witness: Yes. The moisture of the body is supposed to act chemically on these metals. Your Honour is acquainted with the old schoolboy experiment of putting half-a-crown under and a penny above the tongue, and on bringing the two metals in contact little flashes of light appear before the eyes of certain people.

His Honour: I did not know about the light. I thought you could only taste.

Witness continuing: The moisture of the body would be sufficient to set up a current between two dissimilar metals, but you must have a complete circuit. If I place one half of this belt on my stomach and the other half on my back, I have the elements for a galvanic battery, but there is no completion of the electrical circuit.

His Honour: The witness says the circuit is completed by the action of the moisture.

Witness: That is the internal, and not the external circuit.

His Honour: Why would not a body touched back and front and all around complete a circuit?

Witness: As this belt was worn it never produced a trace of electricity. This morning I made an experiment with this belt, so as to produce a small quantity of electricity. I took salt water and moistened the two parts, and then I connected the copper and zinc with a galvanometer, and so I got a slight deflection of the needle of about fourteen degrees. I then put the belt on my legs and on my arms and the deflection was not in the slightest degree altered. That shows that when these belts are worn by any patient no electricity passes through the body in any way whatever, but only along the webbing of the belt and over the skin surface. Electrically, these things are useless.

Mr. Lickfold: Then you say this belt electrically is absolutely a useless article?

Witness: Yes.

Cross-examined by Mr. De Witt: Zinc and copper are used in generating electricity.

Do you say that this belt would produce no current at all?—Not as the defendant wore it. The circuit was not completed. I saturated this belt with salt water, and then I got a small electrical current. I say there is a current, but the current, if properly connected up, will not go through the body—it is the webbing and skin and not the body which forms the internal circuit.

This concluded the evidence.

Mr. De Witt contended that though there might have been an error in judgment on the part of Mr. Simmonds, there had been no wilful misrepresentation, such as, according to the ruling in the case of Peck v. Derry, would entitle the defendant to have his contract rescinded and his money returned. He also submitted that there had been no failure on the plaintiffs' part to give the defendant consideration for his money.

His Honour, in giving judgment, said: In this case the plaintiff sues for the balance of the purchase money of an electrical appliance, and the defendant by his counter-claim says: I want to get back the money which I paid on account, either on the ground that I bought it on the misrepresentations made to me by your agents, or on the ground of a failure of consideration. The defendant has been taken in in the sense that he has been persuaded to buy something utterly useless. It is not every such case which will entitle the purchaser to avoid his purchase and have back the purchase money, but there are cases in which the purchaser is entitled to avoid his contract. After referring to the case of Peck and Derry, His Honour continued: I think it is clear, on the evidence, that the defendant went to the plaintiffs' establishment and asked to see a qualified doctor. That was uncontradicted. The defendant has shown that the gentleman whom he saw (the gentleman who calls himself an "expert," a gentleman without any medical education, or education in this matter, except having studied the best works on the subject since he was nine years of age), and when he asked for a truss recommended him something which he said was better. The defendant has shown that this gentleman told him he was not suffering from rupture, but only from the beginning of rupture. I have no doubt from the evidence Mr. Simmonds said to the defendant: "I

am happy to tell you you are not ruptured." But that was not the fact; the defendant was ruptured, as I cannot help believing from the evidence of Dr. Rowntree, who says: "From my observation, and from the symptoms described to me by the defendant, I am satisfied that the rupture had existed three months before I saw him on May 23rd." Then was the thing which the defendant received the thing which he asked for? I will not enter into the merits of an electrical appliance which I do not understand. Mr. Gatehouse's evidence as to the electrical volume may be right or wrong—I do not know; but this (this belt) is the thing put on the man when he was ruptured, and the man was persuaded to buy it upon the representation that he was not ruptured. He went for a truss. He was told, "You do not want a truss." This is a representation made by a man who had not taken the trouble to qualify himself, and who ought not to have made any representation at all. That was the representation which led to the contract—a contract without any good of any sort to the defendant, and it must be avoided. There must be judgment for the defendant on his counter-claim, and his £2 must be returned to him.

Mr. Lickfold applied for costs on the higher scale.  
His Honour refused the application. Judgment accordingly.

## Correspondence.

"Audi alteram partem."

### A TEACHING UNIVERSITY FOR LONDON.

To the Editors of THE LANCET.

SIRS,—In your issue of July 16th you publish an annotation upon "A Teaching University for London," which contains evidence that upon some points the proposals of the Association for Promoting a Professorial University for London have not been fully understood. I have myself no right to speak authoritatively for this Association; but it has been my duty to inquire into their views, and, as expounded to me by the secretary and other members of the Association, they differ very markedly from what you state them to be. I am not at all surprised that you have been misled, for I have not yet met the man who, without skilled assistance, has succeeded in appreciating the true meaning of the proposals of the Association. They are exceedingly sketchy, particularly with regard to medicine—rightly so, I should say. The scheme was foreshadowed in the fourth proposal of the Association for Promoting a Teaching University for London (February, 1886); its main features were clearly enunciated by Professor Ray Lankester in his evidence before the Royal Commission (June 23rd, 1888); and now it appears again with much wider support. Practically this scheme comes from the faculties of Arts and Science, and it is a bold move to obtain for London, not at once, but in the course of time, the advantages of a great university, such as those of Berlin or Strassburg. There are apparently two things chiefly which attract great minds—viz., large emoluments and great opportunities for work and teaching. Neither the endowment of the chairs in University College and King's College, or the perfection of their laboratories, or the size or quality of their classes, is sufficient to enable these institutions to obtain and to retain the services of the greatest teachers and workers in the various subjects. The two colleges say in the Gresham Charter—"Give us the power of granting degrees to students whom we have taught and our benches will soon fill, as also will our pockets; then we shall be able to improve our laboratories and to pay the best teachers, and all will go well with us; there is nothing in the Gresham Charter to prevent our blending as closely as we like, to prevent our establishing intercollegiate lectures &c." The promoters of the professorial scheme reply that in the Gresham Charter there is not the least guarantee that there will be any common action between the two colleges; on the contrary, the Senate consists very largely of the representatives of institutions—put there, confessedly, to "guard the interests" of the institutions—and this can hardly be taken as a good start towards union in a common university. They suggest that the governing bodies of institutions, such as the two colleges, should if possible be persuaded to hand over their trust to the Senate of the new University; rather a startling request, yet one which a recent vote of the Council of University College would show to be not absolutely absurd. One cannot help feeling, however, that King's College would have still greater difficulty in joining in such a scheme, as it was recently founded and endowed as a Church of England institution; and, although its trust funds might conceivably be reserved for the benefit of adherents (real or nominal) of the church, such an arrangement would cause great and

lasting discontent, and the influence of the college from the sectarian point of view would be lost. The authorities might, however, regard the establishment of a theological faculty in the University as a counterbalancing gain, for a faculty conducted by earnest men of wide sympathies would have greater opportunities for good than King's College alone could obtain.

Assuming that the two colleges consented to this absorption, and that the Government School of Science at South Kensington (many of the professors are strongly in favour of the scheme) came in with other institutions, it is supposed that the University would determine to use the buildings of each in various ways—e.g., those of King's College for arts and theology, those of South Kensington for pure science and those of University College for the technical application of science. The question at once arises, What is to become of the present teachers in these institutions? Many wild answers have been given, but the only one commending itself to sober judgment is that the institutions must be taken over by the University as "going concerns"—teachers and all—and that only as vacancies occur will the contemplated fusion become possible. Years will be necessary to the working out and development of the idea. All that has to be done now is to decide whether the idea or principle of centralisation is that from which the greatest University for London is likely to grow. Supposing the opinion of the majority to be in favour of this idea, the various institutions coming in to the University are put upon it, so to speak, as a child with a flexed hip is laid upon a Thomas's splint. There is to be no violent wrenching, with its accompanying pain and many dangers, but time is allowed in full confidence that the limb will settle down on to the splint with the minimum of local and general disturbance. Ultimately it is thought that there will be a university professor at the head of each branch of arts and science, but there may be any number of extraordinary professors, lecturers, readers and other teachers in the different branches.

But what is "the University" as the term is used in the professorial scheme? The proposals were that the University should consist of the Senate, faculties, convocation and undergraduates, but the constitution and powers of the Senate and the powers of the faculties were not defined. These are important matters about which, again, there are many opinions. The suggestion for the Senate which we have heard most often is that one-half should be nominated by the Crown and that the other half should consist of the University professors in about equal numbers from each of the faculties. This would be a very large body if anything like all the University professors had seats and many seem to feel that the supreme authority would be left in the hands of "irresponsible professors," "not representing anybody but themselves." But as a large outside admixture is contemplated, as an appeal to the Privy Council upon the action of the Senate is to be allowed to Convocation and as the powers of the faculties are yet unframed, it would probably be possible to provide against any sense of irresponsibility on the part of the University professors; if not, some other constitution of the Senate might be arranged. Every professor would be *ex officio* an examiner in his subject; other examiners not professors would be appointed to take part in all degree examinations. These latter may be members of the University or not. The right association of teaching and examining is thus assured. Lastly, it is hoped that the University will be the remodelled University of London; those who are striving to do away with injurious competition between colleges are anxious not to introduce it between universities. Moreover, it is stated that the Senate of the London University has recently, with only one dissentient voice, resolved that it would receive with favour a recommendation from the Royal Commission that a professoriate should be added to the London University with a substantial voice upon the Senate. Thus, the London University might become a teaching university for London with (as is suggested) its pass examinations open to the undergraduates only, but with its honours examinations open to the world.

How would medicine be affected? What position would it occupy in, and what advantages would it gain from, a professorial university? The supporters of the scheme say that in any university in London the medical faculty must be great, but that under the professorial scheme it will be associated with far greater brethren—if I may so speak of the other faculties—than is at all likely under the Gresham scheme. Its graduates and undergraduates would have

access to the University laboratories. The medical teachers of London are offered one-fourth of the professorial half of the Senate, supposing that there are four faculties at the start. All the teachers in the medical schools of London would have seats in the faculty, the functions of which would probably be electoral. The teachers would thus practically regulate matters medical; but the arrangements for the examination of medical undergraduates in arts and science would be made by the independent boards of studies in arts and science acting conjointly with that in medicine, a guarantee being thus afforded to the provincial schools that the new University will not neglect these matters in its medical degrees. On this understanding the opponents of the Gresham scheme have signed the proposals for a professorial university. The idea of "absorbing" the medical schools has never been entertained. It is suggested that the teaching of pure science (chemistry, physics and biology) might with advantage be placed in the hands of the University; but this does not imply that the University contemplates endeavouring to teach 500 or 600 first-year men in a single class. There is, however, no compulsion; each school can if it pleases continue to teach science and the University degrees will be open to its students. It is generally acknowledged that the amalgamation of some of the schools would render their teaching of certain subjects better than it now is. If the idea of the professorial university should be adopted the medical schools, like the colleges, will feel its influence, and those who believe in the idea are confident that amalgamation, so far as it is desirable for thorough teaching, will result. Other doubtful matters may be left to solve themselves.

As I understand things, we have now to make a choice between a university in which the central idea is the perpetuation of the interests of rival institutions and one in which institutions as such will have no weight and all forces will be united for the common good. Medicine, with its complete organisation in London and the examinations of the Conjoint Board conducted practically by London teachers, wants mainly the power to grant an M.D., and that it will get under either scheme. Shall its weight be thrown into the balance with the Gresham Charter, thus to secure the first place in a university of which real success is doubtful; or, looking to the general interests of education, shall it endeavour to obtain the establishment of a university in which its representation will be smaller—though still, upon the system adopted, proportionate—in which that great source of weakness—compromise—is set aside and the probability of free and healthy growth is correspondingly increased?

I am, Sirs, yours obediently,

July 20th, 1892.

STANLEY BOYD.

To the Editors of THE LANCET.

SIRS,—May I ask so much of your space as will suffice to remove from the minds of your readers any erroneous impression which might be conveyed by the article in your last issue, entitled "A Teaching University for London"? You refer therein to the scheme put forward by the Association for Promoting a Professorial University for London, which you there summarise under six headings. Those headings are taken from a document put forward in the first instance by the promoters of the Association. The Association itself has never accepted or sanctioned the document to which you refer. It appointed an executive committee to draft a scheme, which has received the approval of the Association, and which is the sole authoritative document of the Association. That document has been published in *The Times*, the *Academy*, *Nature* and other newspapers, and I enclose a copy of it for your perusal. It especially excludes the medical schools from the principle of absorption and leaves the constitution of the medical faculty largely in the hands of the medical teachers themselves, subject to some sufficient guarantee that a medical degree shall mark a general academic culture and not be the mere equivalent of a licence to practise. The executive committee of the Association are not only willing but desirous of working for a university which shall not be opposed by the medical schools either of London or of the provinces, but they cannot look with favour on a scheme like that of the Gresham Charter, which failed, in their opinion, to meet the requisites of a great modern university. As a matter of practical politics, I venture to think that it is as idle now (especially having regard to the probable change in the Government), as it was when I wrote to you in the spring, to work for the Gresham

Charter. The Association for Promoting a Professorial University is now a very strong body, and if the representatives of the medical schools can come to anything like an agreement with its executive committee, there will be a far better chance than has hitherto been possible for a really great metropolitan university.

I am, Sirs, yours truly,  
Crowborough, July 16th, 1892.

KARL PEARSON.

To the Editors of THE LANCET.

SIRS,—According to accounts the Royal Commission on a Teaching University for London is proceeding rapidly. Will you allow me through your columns to direct attention to one fatal blot in the last scheme which, it is to be hoped, will not reappear in the next?—viz., that the much-wanted medical degree for London students which is to counteract the centrifugal force of Scotch and provincial universities is to have no validity as a *qualification*, or as admitting to the Medical Register. Is it conceivable, Sirs, that if such an indignity be put on the new degree it can be tolerated? That while any other degree—from that of St. Andrews to that of Oxford—admits to the Register, this metropolitan University degree shall not do so? Unless the metropolitan community is sunk to such an apathy as to disentitle it to the university facilities of every capital in Europe and of every third-rate town in Germany or Scotland, such a stigma will not be borne, no matter what the vested interests are by which it is sought to be furtively imposed on a Parliament too much absorbed in party politics to care for academic ones. I am glad to be assured that this vital point is not being overlooked by all the Commissioners.

I am, Sirs, yours obediently,  
Highbury-place, July 20th, 1892.

JAMES GREY GLOVER.

## "APPARENT DEATH IN CHOLERA."

To the Editors of THE LANCET.

SIRS.—I notice, under the above heading, in *THE LANCET* of July 16th, page 154, the following statement in connexion with Dr. Pacini's pamphlet, "La Morte Apparente della Cholera," published thirty years ago:—"Among his prescriptions, that of the intravenous injection of bay-salt, as suggested and practised in 1832 by Dr. James Macintosh of Edinburgh, held a prominent place, and by this means, particularly in the cholera visitations of 1877 and 1884, the restoration to life of many duly certified as dead was just in the nick of time effected." The Dr. James Macintosh alluded to is doubtless Dr. John Mackintosh, for many years extra-academical lecturer in the Argyle-square Medical School. On consulting his work on the Practice of Physic it will be seen that he gives the credit of originating this heroic treatment of a disease that "begins with death" (as he was accustomed in his lectures to term "cholera") to Drs. Latta and Lewins of Leith, in which seaport the epidemic of 1832 was particularly malignant. The latter-named physician was my father, and I have often heard him speak of the improvement effected by the warm salt-water injection as only temporary and in no single case resulting in recovery, as apparently claimed for Dr. Pacini practically in the above extract from *THE LANCET*.

I am, Sirs, yours truly,  
Army and Navy Club, July 18th, 1892.

R. LEWINS, M.D.,  
Surg.-Lieut.-Colonel (R.).

## ANÆSTHETICS AT THE INTERNATIONAL MEDICAL CONGRESS.

To the Editors of THE LANCET.

SIRS,—On my return from the International Medical Congress held in Berlin in 1890 I ventured to express the opinion in your columns that at future Congresses it would be desirable to have a separate section for the discussion of anæsthetics and allied subjects. In your issue of July 9th you draw attention to the fact that we are now within measurable distance of the Congress to be held in Rome in September, 1893. Might I therefore be permitted again to express the hope that it will be found possible to make the alteration suggested? The increasing amount of attention which is being given to the subject is well known, and if any proof of this fact were necessary, it would be furnished by the pages of the Report of the Berlin Congress, just completed. In that report upwards of forty-five pages are

devoted to anæsthetics, and there can be little doubt that much more material would have been forthcoming but for the uncertainty which prevailed as to the particular section in which each individual paper was to be read, for the papers, demonstrations and discussions on the subject were distributed over seven sittings of five different sections. I need hardly add perhaps that by establishing a separate section or subsection for anæsthetics some of the pressure upon the other sections would be relieved.

I am, Sirs, yours faithfully,

J. FREDK. W. SILK,  
Assistant Anæsthetist to Guy's Hospital, Anæsthetist  
to the Dental School, &c.  
Weymouth-street, W., July 19th, 1892.

### "A MANUAL OF CHEMISTRY, INORGANIC AND ORGANIC, FOR THE USE OF STUDENTS OF MEDICINE."

To the Editors of THE LANCET.

SIRS,—I should not ordinarily contemplate replying to the criticisms contained in your pages of a work emanating from my pen, but in the review of my "Manual of Chemistry" in your last issue there is at least one statement both misleading and inaccurate, which, with your permission, I will briefly explain. I do not propose to touch upon the debatable points, concerning which differences of opinion exist among chemists, and in connexion with which I believe I am in accord with the majority of chemists, notwithstanding the dogmatism of your reviewer. What I wish to refer to is a mere matter of fact, about which there can be no question of controversy whatever, and for the expression of which I request, in simple justice, as much publicity as you have given to the notice in question. Your reviewer in part bases his idea that the book requires more careful revision and the exercise of greater care with the proof sheets upon his supposed discovery of three typographical errors in a book of 525 pages. He states that "Nitric acid, for example, is represented on page 117 as  $\text{OHNO}_3$ ." I know not whether this statement is due to careless reading, failing eyesight, or deficiency of chemical knowledge on the part of your reviewer, but a reference to the page in question will convince the merest tyro in chemistry that 20 molecules of  $\text{HNO}_3$  are indicated and that your reviewer has attached the cipher of the 20 to the  $\text{HNO}_3$ .

I do not dwell upon the question as to whether a review of a book should be exclusively directed to the dragging in of polemical matters and to the exposure of small printer's errors; such must be left to the taste of the reviewer, but I do think that a statement that a book "cannot be safely recommended until it is freed from the flaws to which we have made reference" should be based upon something more substantial than an error of eyesight or of comprehension on the part of a reviewer.

I am, Sirs, yours very truly,

Weymouth-street, W., July 18th, 1892. ARTHUR P. LUFF.

\*.\* A reference to the review will show that our criticisms were not in the main based upon the single typographical error, which is practically the only point to which Dr. Luff replies. The mistake may be an obvious one, even perhaps to the "merest tyro." Twenty molecules of  $\text{HNO}_3$  may be indicated, but as a matter of fact they are not represented. The "cypher" in front of the formula alluded to is not the figure 0, but the letter O. Our "dogmatisms" are the "dogmatisms" of Victor Meyer, Ostwald and other eminent chemists.—ED. L.

### DISPOSAL OF REFUSE.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me a little space to call the attention of my professional brethren to a subject which, I venture to think, is of great importance at this season of the year, especially as it is not impossible that we may have cholera in our midst before long? I refer to the disposal of the refuse taken by the parish authorities from our dustbins. The following extract from the report of the case of *Allhusen v. Vigers*, before Mr. Justice Chitty, in the *Daily Chronicle* of July 18th will give one an idea of the danger which is allowed to go on unchecked in our midst:—

The plaintiff, who is the owner and occupier of Teyford Abbey, Ealing, brought his action against the defendant, a contractor, for the

removal of town refuse, in respect of an alleged nuisance caused by deposit of this refuse about 400 yards from the abbey. Prior to the trial of the action he applied for an interim injunction to restrain the nuisance, which he contended was of such a character as to interfere with the comfort and enjoyment of his house and grounds. The defendant conveys the refuse he contracts for by barges on the Grand Junction Canal to the site in question, where it is deposited to the extent of 300 yards in length, thirty-five in width, and twenty-five in depth. The small from this heap was said to be very bad, and in certain directions of the wind was conveyed as far as the plaintiff's premises.

Can someone not suggest or invent a method of disposing of such refuse, so that it shall not remain a pestiferous heap of decaying animal and vegetable matter? Mr. Justice Chitty kindly allowed defendants three weeks to find means to prevent the nuisance, at the same time suggesting that there was no method known at present.—I am, Sirs, yours faithfully,

GEO. HERSHELL, M.D. Lond.  
West-st., Finsbury-circus, E.C., July 18th, 1892.

### THE TRANSFORMATION OF SMALL-POX INTO COW-POX.

To the Editors of THE LANCET.

SIRS,—I have been much interested in reading Dr. Hime's account of his supposed transformation of small-pox into cow-pox and only wish his experiments could set at rest the question of identity of variola and vaccinia. He has done what has been already accomplished by others and it has been pretty clearly shown that such supposed transformation has not been effected. I am still sceptical of the reality of such change, but am nevertheless quite open to conviction if Dr. Hime will afford further proof of the identity in origin of small-pox and cow-pox by transforming the latter into the former. This should be easily done if there is only one virus acting in the production of both. And what about sheep-pox, which in its clinical features and morbid anatomy so closely resembles human variola? The question of identity will not be solved until cow-pox can be converted into small-pox, which has not yet been done, and I am doubtful whether it will ever be achieved.

I am, Sirs, yours truly,

London, July 20th, 1892:

GEORGE FLEMING.

### THE HUNTERIAN LECTURES.

To the Editors of THE LANCET.

SIRS,—I have just read with the utmost surprise certain remarks in Mr. Robinson's lecture on villous growths of the breast, in which he says that in my paper on this subject I have grouped together the cases of duct papilloma and villous cancer as growths of a perfectly innocent nature. By what subtle alchemy the candid lecturer has deduced this perverse conclusion from my paper passes my comprehension. In order to rescue this little known group of diseases from the obscurity that had hitherto involved them I laid it down as a fundamental axiom (p. 858) that under the term "villous cancer," as commonly employed, two perfectly distinct kinds of neoplasm were included—viz., the non-malignant villous papilloma and the malignant tubular cancer. I fully set forth and contrasted the salient pathological and clinical features of each of these groups; so that it seemed to me impossible for anyone to mistake them in the future. This fundamental distinction, dimly foreshadowed in the varied nomenclature of previous observers, had never before been definitely set forth. Mr. Robinson now adopts it as his own conclusion, together with the rest of my work, and coolly asserts that I never made the distinction. The result is that this part of his lecture is merely a parrot-like repetition of my paper—published several months previously—which he has had the audacity to appropriate and pervert, but not the grace to acknowledge.

I am, Sirs, yours faithfully,

Proston, July 14th, 1892.

W. ROGER WILLIAMS, F.R.C.S.

### CONTAGIOUS DISEASES IN GARRISON TOWNS.

To the Editors of THE LANCET.

SIRS,—Having taken a great interest in the above for some years I read with satisfaction that the matter is being taken up. It is now high time that something was

done and that we should form ourselves into a body and endeavour to introduce a measure which would minimise the amount of disease. An article appeared in a recent number of one of your contemporaries which represents the state of affairs existing in garrison towns, particularly that of women discharging themselves repeatedly from a workhouse lock wards and disseminating disease among newly arrived soldiers and sailors, returning as frequently to the wards in order to be temporarily built up in order to meet a new regiment. This is just the state of affairs which exist in my lock wards and is most disheartening, for, with a few exceptions, all the women discharge themselves before they are fit to be at large and are in and out like "dogs in a fair." I entirely agree with the article in every respect and am sure that what exists in one military town must be so in others. Many in the town where I reside who signed for the repeal of the Contagious Diseases Acts see their error.—I am, Sirs, yours truly,  
July 17th, 1892.

UBIQU.

## THE BRITISH INSTITUTE OF PUBLIC HEALTH.

To the Editors of THE LANCET.

SIRS,—I am desired by the Council of the above Institute to inform you that they have made arrangements for holding their annual conference in Dublin on Wednesday, Thursday and Friday, Aug. 17th, 18th and 19th, 1892, under the presidency of Sir Charles A. Cameron, medical officer of health to the City of Dublin. I am further desired to say that the President and Council will feel obliged if you will allow me through the medium of your columns to cordially invite the medical officers of health of the country and other gentlemen interested in public health to attend.

I am, Sirs, yours faithfully,

C. A. JAMES, L.R.C.P., D.P.H., Hon. Secretary.

July 18th, 1892.

## THE FRENCH WORKMEN'S SANITARY CONGRESS.

(FROM OUR SPECIAL CORRESPONDENT.)

At the fourth sitting of the Congress the discussion on the Hygiene of Infancy was reopened by the labour delegate of the Municipality of Châtelleraut. He thought that the advice given by the learned professors who had delivered preparatory lectures was not always practical. It was supposed that cow's milk might convey tuberculosis and it had been shown how such milk could be sterilised; but working-class women had not the time to take such precautions and they were too untidy and too careless to carry them out effectively. Then it was said that tuberculosis in a cow could not be recognised till it had reached an advanced stage. This difficulty could be met by submitting all cows to an inoculation with Koch's tuberculin, and all cows displaying suspicious symptoms could be slaughtered. Thus the disease could be stamped out, to the great advantage of the bovine race and of humanity. This was more practical than asking workwomen to sterilise the milk.

A delegate from the eleventh arrondissement of Paris complained that poverty prevented workwomen from taking the necessary care of themselves and their children. When women went out as wet nurses, instead of suckling their own children, they were well fed and had good milk. If they remained at home the want of proper care and food impoverished their milk. Perhaps the milk was good for the first and the second child. The younger children of a workman's family were bred under the most unfavourable conditions and bore the stigma of the poverty into which they were born. Well might the population remain stationary. Yet if there is a right in this world it is certainly the right of the child to its mother's milk. The child did not ask to live; the mother belongs to the child and not the child to the mother. If the nation, if society, wished to live, society must mind its children. It was labour that made the wealth of society, it was society that profited by this wealth, and it was the duty and the interest of society to provide every creature born with the means of becoming a healthy and useful worker.

Mademoiselle Bonneval, of the School Teachers' Union, reported that the women employed in the State tobacco

factories had sent up petitions for the creation of a larger number of crèches with a demand for better medical surveillance. The Teachers' Union, specially represented by the speaker, thought that all congresses should have two objects—the proclamation of an ideal and the achievement of something immediately practical. They did not mind being called dreamers if by the side of their dreams they could show practical improvement. The ideal would be to abolish all crèches, all nursing and maternity establishments, and to give all mothers the means of enjoying abundance in healthy homes. The speaker freely recognised the great evil of the aggregation of children. The discipline inseparable from such establishments deprived children of that freedom so essential to their healthy development. It was wrong to make young children sit in classes. Parents were much to blame for trying to bring up their children as infant prodigies. Song and frolic should be the spontaneous and joyous outcome of freedom and health. Freedom is what the child wants, morally and physically. Freedom to run, to jump, to play with the earth, which seems the favourite of all amusements, as if the child felt instinctively that the earth was its first mother and was destined to provide its food for life. "Let those little children make their mud pies," pathetically pleaded Mdlle. Bonneval.

The delegate of the Port de Mandres denounced clerical orphanages. In some of these the children had very little food and were terribly overworked. Yet they did not learn a trade, for the labour was so subdivided that when they left these establishments they were unfit to earn their living outside. He more particularly protested against the system of punishment consisting of solitary confinement. This tended to develop secret vices, more particularly among the girls, who became hysterical, anemic and sometimes idiotic. In the name of virtue, humanity, and hygiene he demanded the suppression of the convent workshops.

The Congress then proceeded to discuss the third question, the Hygiene of the Workmen's Home. M. André Gély, who is a member of the official Commission on Unwholesome Dwellings, reported to the Congress. He lamented the tendency of the working classes to struggle only for political ends; they were constantly carried away by the "tall talkers," and men of science failed to move the masses. They could not get up an outcry against bad drainage and inefficient ventilation. Yet the housing of the population of Paris was at present in so deplorable a condition that there were proportionately three deaths in the poor quarters to every single death in the rich quarters. The poor slept three or four in the space where only one or two ought to live. Statistics also proved that in the districts of Paris where the old cesspools still existed the death-rate was higher. The existing laws were altogether inefficient. The appointment of a commission on unwholesome dwellings was optional. Only about a dozen of the more intelligent and important municipalities of France had appointed such commissions, and there were 36,000 municipalities in France. Some slums, it is true, had been abolished, but many remained that were quite as bad. It was absolutely necessary that a Ministry of Public Health should be created.

On the following day the Congress was presided over by M. Mercier, house painter and decorator, delegate of the municipality of Rochefort-sur-Mer. In opening the proceedings he demanded that the law of 1852, by which the outside of all houses had to be cleaned once in every ten years, should be made to apply to the inside of houses. He protested against the proposal to make workmen live in the suburbs of great towns; this would be most injurious, since it was by living in the centre, surrounded by the best shops, that the artisan acquired and preserved his ideas and his good taste. He protested against the model artisans' dwellings built on the Buttes de Chaumont, as tending to separate class from class. Philanthropists, with the best of intentions, were doing great harm by treating artisans' dwellings as something quite apart from the general questions of hygiene. If they wished to avoid class wars they had better mix and not separate the classes.

M. A. Lavy, member of the Chamber of Deputies, profited by an interval to express the gratitude of the Congress to the foreign press, but more especially to THE LANCET, for the publicity given to the work of the Congress. It was most essential that men of science, sanitary reformers, and legislators should know what the workmen themselves thought of the many efforts made to improve the sanitary condition of the great mass of the people. The publicity given, especially by THE LANCET, would tend to this end

and help to bring about harmony between the organised workers and the sanitary reformers of different countries.

Continuing the discussion, M. Forget, of the Newspaper Carriers' Society, complained that workmen could not effect improvements in the condition of their dwellings, for as soon as they appealed to the sanitary authorities they received notice to quit from their landlords.

M. Saint-Domingue, delegate of a labour group of Positivists, spoke of the fatal moral influence of unwholesome dwellings. When families live in one room children lost all sense of respect for their parents. Rents need not be reduced, but the accommodation should be much improved. The father was driven to the café to escape the discomfort and overcrowding of his home. The girls also, eager to make their escape from home, went early to the factory; they therefore did not learn how to keep house. The good housewife was fast disappearing, and this again added to the discomfort of the worker's home; and all of which led to out-door life, to drink and vice.

M. André Gôly continued his report and stated that the committee of the Congress appointed to study this question had received nine reports from various workmen's societies. There were points in common in these reports; these would be embodied in the resolutions to be submitted at the last sitting of the Congress. The Port de Flandres group had calculated that there was human flesh to the extent of about 3,000,000 kilogrammes buried in and about Paris. This must be an active cause of insalubrity, and the report concluded that cremation should be obligatory for all large towns. The Versailles group had a technical report on the disposal of slop-water, concluding in favour of a law rendering the use of sinks with trapped pipes obligatory. Though all the reports sent in demanded great improvements in house accommodation, there was not a single labour society or a single individual workman who asked for or approved of the building of artisans' dwellings. One report urged that the municipality should create washhouses and forbid home-washing. The floors were infected by the slops from dirty linen, and small apartments in crowded towns were not the proper places for washing dirty clothes. There should be more facility for taking baths. A great deal of the difficulty in finding house accommodation was due to the spirit of speculation. This would be checked if untenanted apartments were taxed in the same manner as tenanted houses.

Dr. Paul Brousse was glad to see that workmen had recognised the economic necessity of abandoning the small cottage home. With regard to dwelling in a large building, he pointed out the greater luxury which association and collective effort brought. To very large piles of buildings should be attached club-rooms, libraries, baths, gymnasias and all the facilities that science and industry had devised. M. Caumeau, M. Dalle, and other speakers demanded the better inspection not merely of dwellings, but of offices and workshops. They urged that private sanitary committees should be appointed to stimulate the action of public bodies, and that the municipal councils should have the legal power of destroying unwholesome and condemned dwellings.

The Congress now proceeded to discuss the fourth and last question, the Hygiene of the Factory, Workshop, &c. M. Dalle was reporter on this question. A report had been received from the Fargan district, dealing with the kilns in which bricks are baked. Here men, almost naked and covered with only a wet cloth, worked in a temperature of 70° centigrade. Sixty per cent. died prematurely from chest complaints and from the asphyxia caused by breathing the carbonic acid gas which was produced by the clays of Vaugirard. These men earned only fourpence per hour. The report concluded in favour of limiting the hours of labour and of constructing kilns of a less dangerous description.

The saddle-makers reported on the bad effect on health and eyesight of the numerous underground workshops existing in their trade. Women were also made to work such heavy sewing-machines that their health generally failed them when they reached the age of thirty. The Academy of Cooks sent in a report dealing with the foul air in underground kitchens, which were generally situated close to untrapped drains. They had petitioned the authorities, but all to no purpose. Cooks had sometimes to remain fifteen hours in kitchens where the temperature varied from 55° C. to 68° C. The metal polishers described how they were poisoned by the effluvia of cyanide of potassium. The Versailles bakers demanded that the law should prohibit the existence of closets inside bakehouses and should see that bakehouses were properly ventilated. The river bargemen and the crews of tug boats reported on the terrible

condition of the stokeholes in these little river steamers; the temperature rarely fell below 55° C. The State match-makers reported upon the bad ventilation of their factories, and the tobacco manufacturers made a similar complaint. The printers and compositors denounced the unwholesomeness of their workshops. The house decorators wanted a law compelling the use of zinc instead of lead for making paint. They related that though there were police decrees to enforce proper precautions for the security of scaffolds outside houses in the streets these decrees did not apply to scaffolds erected in back yards and within houses. The tanners and leather-dressers wanted the abolition of the use of picrate and the employment of lime instead. The gas-workers demanded the inspection of the places where they worked and that baths should be attached to all gasworks. All the trades demanded that proper waterclosets should be provided instead of the insanitary untrapped and unflushed closets that now exist. Though there was so much to be said on this fourth question the discussion had to be cut short as the time had now arrived to put the resolutions before the closing of the Congress. These resolutions were all carried unanimously, but they would not be considered as resolutions in England: they were more like essays on the various subjects, and would, taken altogether, form a good stout pamphlet. On the first question (Food Supply) the resolutions were comparatively brief; they set forth the conflict of interest between the tradesman and the consumer, and the imperative necessity of providing the population with wholesome food. This end it was considered would be best secured by establishing municipal bakeries, butchers' shops &c., and by the amendment of the law on adulteration so that food in the course of preparation might be seized, and the premises not only of the retailer, but of all middlemen and manufacturers concerned might be subjected to inspection and the articles seized analysed.

On the second question, the Hygiene of Infancy, the resolution had a preamble to the effect that infants had a right to thorough "integral" protection, which at present was not given to either woman or child, yet horticulturists gave such protection to plants under their care. Was not the infant a young plant in the hands of society? Women should be prevented from working beyond their strength during the period of gestation. The Roussel Law of Dec. 20th, 1874, was the first attempt to protect infants; and though this had done much good, still there were more deaths in the course of a year from the use of the long-tubed bottle than there had been soldiers killed in the biggest battle. Therefore the resolution concluded that laws should prevent nightwork and overwork for women; and their employment during the more advanced periods of gestation should be prohibited; no mothers capable of suckling their children ought to be allowed to hire wet nurses. The sale of long-tube bottles should be rendered illegal. Maternities ought to be established, where mothers need not give their names and where they could remain and nurse their children till the latter were two months old. The convent asylums ought to be placed under the common law. Women who hired wet nurses should be made to pay a tax of £8, and every measure possible should be taken to compel mothers to suckle their own children.

On the third question, the Hygiene of the Worker's Home, the resolution condemned barrack-like artisans' dwellings, demanded strict legal enactments for the enforcement of proper drainage; trapped and flushed closets; municipal baths and washhouses; the creation of a Ministry of Public Health; the obligatory instead of optional appointment of sanitary committees in all the communes of France; the disregard of sanitary laws to be punished by imprisonment as well as fines; the right of sanitary inspection at all hours, inspectors to take the initiative and not to wait till they receive complaints, such inspection to include factories and workshops; municipalities to be prevented from alienating communal land, but to build upon such land model dwellings; untenanted property to be taxed as heavily as tenanted property; new sanitary laws for the building of new houses and the reform of old houses, giving strong compulsory powers to the municipalities.

The resolution on the fourth question was of great length and took about half an hour to read. It is impossible even to summarise such a resolution. It went into the detail of the grievances of a great variety of trades. The resolution suggested that four sanitary services might be organised to deal with the four phases of sanitation discussed at the Congress; that a Ministry of Public Health should be

erected to study and prepare sanitary laws and establish technical schools of practical hygiene; that committees of inspection &c. should have as members some representatives of the class that suffers most and no representatives of the class that benefits by the infliction of such suffering; that the existing law for the election of working miners as inspectors of mines should be extended to all other trades and manufactories; places where work is done should be roofed, staircases washed once a month, concrete floors provided where organic matter is used, these floors to be frequently washed with disinfectants; walls painted with zinc paint; one closet for every ten workers; separate closets for females; all closets to be well trapped and flushed; each worker should have twenty-five cubic metres of space allowed him and there should not be more than fifty workers in one workshop; all workshops should receive direct light from the sun and underground workshops should be abolished; powerful mechanical ventilation should be provided where there is metallic dust and other dangerous dust or poisonous gases; there should be dining-rooms separated from the workshops &c.; a good water-supply on the premises; work in tunnels and places subject to malaria should be stopped during the two most dangerous months of the year; efficient means of escape in case of fire; ambulances and medical attendance in case of accident should be supplied, &c. To enforce all these and many other demands fines and penalties of all sorts were proposed. It was impossible for the Congress to discuss all these details, but with full confidence in the reporters these four lengthy resolutions were each in turn, as already mentioned, adopted unanimously. Then the Congress reaffirmed the resolutions carried at the great international labour congresses of Paris, London and Brussels in favour of international legislation on the hours of labour, unwholesome industries &c.

Finally, M. André Góly rose to close the Congress. The Congress, he said, had exhausted its programme. All workers would be grateful for what had been accomplished. They had made popular questions which in France had previously been known only to men of science. The reports presented to the four commissions on the four questions proved the interest which had been awakened among the working classes. These reports were very carefully drawn up and were full of facts and figures. They showed how the workers had realised the necessity of health and consequently of sanitary legislation. In the name of the Organising Committee he returned thanks and complimented the Congress on the admirable order and unanimity which had been maintained throughout.

The Congress then broke up amid cheers. During the week the delegates visited the sewers, the catacombs, the municipal laboratory, the disinfecting station, and other places of interest.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *The Visit of H.R.H. the Duke of Connaught.*

ALTHOUGH the main object of the visit of the Duke of Connaught and Strathearn to this city was the inauguration of the water-supply from Lake Vyrnwy, his Royal Highness made a pleasing addition to the programme by volunteering to visit the Royal Southern Hospital and Sefton Park. Both of these were opened some years ago by the Duke, and his recollection of the double event was so pleasing that he wished to see again the hospital which has, since it was opened by him, been the means of relieving so many of those injured in the daily battle of life incidental to such a city as this and treated in a hospital situated near the southern docks and other localities whence accidents and urgent cases come. The park, moreover, has afforded healthful recreation to all the residents of that and other portions of the city, to rich and poor alike. The inauguration of the water-supply was successfully accomplished and the Duke received a most hearty welcome.

### *Election of Surgeon to the Northern Hospital.*

The trustees of the Northern Hospital were the first to change the mode of election of honorary medical officers from the general body of trustees to an elective committee on the lines suggested by a subcommittee of the medical institution and confirmed by the members generally. This elective committee met for the first time on the 15th inst. to elect a surgeon in the place of Mr. George Gibson Hamilton, recently

elected to the office of assistant surgeon to the Royal Infirmary; out of a total of one hundred and twenty members sixty-six attended. Mr. Arthur Henry Wilson, surgeon to the Stanley Hospital, was elected. The experience of the two recent elections under this new system has been very satisfactory and its superiority over the former mode has been generally admitted.

### *Copper and Green Peas.*

Last week a retail dealer was charged with an offence against the Food and Drugs Act in having sold peas adulterated with sulphate of copper in such a quantity as to be injurious to the health of the consumer. A tin of peas, weighing 1 lb., was purchased for 10½d. by an official of the Health Department. Mr. Williams, the assistant county analyst, stated that experiments had proved to him that the copper was capable of being absorbed into the system, and that in the case before the court there were two grains and a half of copper in the tin. Dr. Campbell Brown, the city analyst, stated that the sulphate of copper did not preserve the natural pigment of fresh green peas. He would hardly say the coloured peas were injurious to health in the ordinary sense of the phrase, but the effect of the sulphate of copper in the proportion shown in this case with an ordinary amount of peas was astringent and the effect would by no means pass off after the food had left the stomach. Stale peas boiled with sulphate took the colour of fresh peas. The peas sold by the defendant would injure the digestive powers of people with weak stomachs. Dr. Hope, assistant medical officer of health for Liverpool, said that no more than a grain and a half of copper was necessary to every pound of peas. Mr. Stewart, the stipendiary magistrate, was satisfied that the quantity of copper used was injurious to health. He thought the wholesale manufacturers were more responsible than the tradesmen, who trusted to them. The latter should protect themselves by getting a written guarantee from the manufacturers that there were no injurious ingredients in the goods they supplied. Under the circumstances he would not impose a larger fine than 30s., with all the costs. A second dealer was similarly fined for a like offence.

Liverpool, July 19th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Heath Chair of Comparative Pathology at Newcastle.*

MR. F. PAGE, surgeon to the Royal Infirmary here, in a reprint of his lecture last session on Parasites, makes a timely reference to the generosity of a respected citizen of Newcastle, Mr. Clement Stephenson, F.R.C.V.S., whereby the College of Medicine has been enabled to establish within its precincts a laboratory thoroughly equipped with the most modern appliances for the study of the many interesting problems constantly arising in this department of study. Mr. Page goes on to say that Professor G. Y. Heath, the late distinguished and able president of the College of Medicine, deemed the study of disease as it affects the whole animal kingdom of such paramount importance to the community that he bequeathed the sum of £5000 for the chair of Comparative Pathology and its endowment. This professorship will be called after the name of its far-seeing and generous founder. In connexion with Dr. Heath's bequest I hear that he has also left his museum of pathological preparations and the bulk of his valuable medical library to the Newcastle College of Medicine.

### *The Newall Telescope at Cambridge.*

Although we were sorry to lose the late Mr. Newall's magnificent telescope from Gateshead, where the climatic conditions were not favourable, we are, on the other hand, pleased to know that it has got a proper astronomical home, so to speak, at Cambridge. We hear that it has been set up there on a conical frustum of special concrete nine feet six inches deep, on a circular base ten feet in diameter. The removal from Gateshead would cost, together with the necessary clockwork and machinery, about £1500, towards which the Sheepshanks Fund has contributed £1000, so that the University chest has been only asked for about £168.

### *Centenarian Voters.*

Of centenarian voters I (imitating the caution shown in an annotation in THE LANCET of last week) "can only speak at present in the singular number," but I can vouch for the fact

that Mr. Thomas Ironsides, farmer, of Kibblesworth, near Gateshead, voted last week in his district. Mr. Ironsides is in his 102nd year, and until I hear to the contrary from your numerous and well-informed correspondents I claim him to be the oldest voter in the country, and challenge them to produce an older one.

#### *Sunderland.*

Sunderland is about to lose its able medical officer, who has effected so many sanitary reforms for the borough in his long tenure, Mr. Alfred E. Harris having received the post of health officer to the metropolitan district of Islington. While we are sorry to lose Mr. Harris we are glad to hear of his promotion. Mr. Harris has been long esteemed in Sunderland as a professional brother, as a sanitarian and as a citizen. It is reported that the Sunderland Corporation contemplate pulling down two areas of insanitary property; the cost in the first case is £5750 and in the second £9600. Some 300 tenants will be "disturbed," it is said, which is a mild way of stating that some poor people will be rendered homeless; unless some equivalent provision is made for them there is certain to be dangerous overcrowding.—An inquest was held the other day on the body of a woman who died at her residence at Sunderland from the effects of a paraffin lamp explosion.—At the annual meeting of the North of England Branch of the British Medical Association, held at Sunderland on last Tuesday, Dr. James Murphy, President, in the chair, it was resolved to form a representative committee to give a cordial invitation to the British Medical Association to hold their next meeting (1893) in Newcastle-on-Tyne; and, in case of its acceptance, complete arrangements were made for the purpose.

#### *Durham City.*

At the late assizes held at Durham the Judge drew attention to the series of foul odours experienced in the court, and had more than once to apply his handkerchief to his nose to mitigate the smells. He asked who was responsible for the state of the court and was told it was the High Sheriff. The Judge replied that as that official and the Under Sheriff were away courting votes he could not send them to prison; but if the atmosphere of the court was not made purer the assizes would have to be removed another time to Newcastle. His Lordship instanced the case of Leeds, where the assizes were on the point of removal to York until the Corporation of Leeds awakened to the necessity of doing something. It seems that by a liberal supply of disinfectants the business of the court did proceed. Well, Durham is a slow place, but if it does not mend its unsanitary ways it will get a harder name.

Newcastle-on-Tyne, July 21st.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Close of the Summer Session in Edinburgh.*

Most of the classes in the Edinburgh Extra-Mural School of Medicine closed last Friday; some of the practical classes are, however, still going on and the classes in the University do not finish until Friday of this week.

#### *Medical Examinations in Edinburgh.*

The second professional examination in the University commenced on Monday and the first professional will begin on Monday of next week, after the close of the session. The various examinations for the Scottish triple qualification which have been going on for the past fortnight have almost finished; there has been a large number of candidates and a considerable proportion of rejections.

#### *Scottish Universities Commission.*

The Commission is still taking evidence on the question of materia medica. Last week Professors Hamilton of Aberdeen and Greenfield of Edinburgh gave evidence on the relative positions of materia medica and pathology in the curriculum.

#### *Royal Edinburgh Hospital for Sick Children.*

The directors at their meeting last week appointed Drs. W. Ford Robertson and W. B. Drummond to be resident physicians to this hospital for six months from Nov. 1st. These gentlemen are at present resident physicians in the Royal Infirmary.

#### *The Health of Edinburgh.*

The mortality last week was 68, making the death-rate 13 per 1000. Diseases of the chest caused 9 deaths and

zymotic diseases 6. The intimations for the week were—typhoid fever 6, diphtheria 5, scarlet fever 38, and measles 27.

#### *Health of Leith.*

The death-rate of this burgh last week was 20 per 1000. Of the total of 27 deaths 15 were of children under five years of age and 10 under one year. There were 15 new cases of scarlet fever reported.

#### *Health of Aberdeen.*

For the month of June Dr. Matthew Hay reports that scarlet fever is again on the increase, 70 cases with no deaths having been reported. Since February 1st 230 cases have occurred, with only 2 deaths, or a mortality of less than 1 per cent. Whooping-cough, although less prevalent, is far from having been eradicated, and it compares very unfavourably with scarlet fever in respect of mortality. An outbreak of measles has occurred in the fisher quarter, Torry, and several cases of concealment of the disease have come to the knowledge of the Public Health Department. The outbreak is, however, almost at an end, and the other quarters of the town have escaped. Diphtheria is accountable for 3 deaths out of 5 cases reported. Four cases of typhoid fever and 3 fatal cases of puerperal fever have been notified. Although no cases of typhus fever were notified in May and it was thought that it had again disappeared from the town, a small group of cases has been discovered during the present month in a new tenement in an old quarter of the town. Not only the infected members, but the whole family have been removed to the city hospital for observation and treatment.

#### *Aberdeen University: Close of the Summer Session at Marischal College.*

During the past fortnight the examinations for medical and surgical degrees have been held, the summer session having ended on July 8th. The number of candidates is about the average. The candidates for the D.P.H. are also undergoing examination, and last week there were about a dozen candidates for the certificate of the Medico-Psychological Society. The "capping" will probably take place on Tuesday, July 26th.

#### *Presentation to Dr. Maohenzie Booth.*

The officers and men of the 7th Company Volunteer Medical Staff Corps met on July 18th at headquarters and presented Surgeon-Captain J. M. Booth with a handsome silver épergne as a marriage gift. Surgeon-Captain MacGregor made the presentation in highly felicitous terms and Surgeon-Captain Booth made an appropriate response.

#### *Proposed Hospital for Peterhead.*

At a recent meeting of the Peterhead Town Council a discussion took place on the advisability of erecting a hospital for the town or for the town and district. Except for one dissident, who thought they should not adopt the Notification Act until compelled so to do by Parliament and who thought a town with a death-rate of only 14.5 per 1000 was in no need of a hospital, the members of the board were enthusiastic in their approval of the scheme.

July 16th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

#### *National Hospital for Consumption.*

UP to the middle of July the total collected or promised for the proposed Hospital for Consumption amounted to the handsome sum of £9420 14s. 1d. No site has yet been selected, but there is little doubt that the promoters will ultimately select some place adjacent to Dublin.

#### *Cholera Precautions.*

In consequence of the prevalence of this dread disease in certain parts of France and countries bordering on the Black Sea the Local Government Board have issued orders prohibiting the importation into Ireland of rags from these countries.

#### *Longevity in Ireland.*

For the March quarter the number of centenarians in the mortality returns was something unusual. Twenty-eight deaths were registered of persons whose ages amounted to 100 years and upwards. Of these, seven were 100 years of age, two 101, four 102, two 103, six 104, two 105, two 106, one 107 and one 109 years. The latter died in the

Macroon Workhouse, where she had been an inmate since its establishment.

*Board of Superintendence of Dublin Hospitals:  
Annual Report.*

The thirty-fourth annual report for the year ended March 31st last, on the condition and management of the nine Dublin hospitals which receive Parliamentary grants, has been issued. As regards the Lock Hospital the Board again refer to the faulty condition of the laundry, which is located in the basement immediately beneath an occupied ward. The only exercise ground available for the patients is a small yard with bare walls—a confined, shut-in place and totally unfit for its purpose. Being, however, situated in the centre of the city, no better recreation ground can be provided; but if the institution were removed to the suburbs various necessary improvements could be carried out. The Meath Hospital, as usual, is efficiently administered, and reference is made to a new department erected during the year, partly external to the main building, for receiving and dressing accident cases. This has been a great improvement, as before its erection extern accident cases had to be brought into the hospital, which at night time was calculated to disturb the patients in the wards. Additional wards have been opened in Cork-street Fever Hospital owing to the greater variety of infectious diseases now admitted since the Infectious Diseases Notification Act came into force. The mortality was 9.27 per cent. A suitably furnished children's ward has been added to the recent improvements in the House of Industry Hospitals, and plans have been obtained for converting the present chapel into a small-pox hospital which will be capable of accommodating twenty-four beds, the sanitary arrangements being isolated from the wards. The Rotunda Lying-in Hospital enjoys a well-deserved reputation and the renown of its clinical teaching continues to attract a large number of students. A ward on each storey is allotted to patients in actual labour, the floors being laid down with concrete, which prevents their being saturated with organic matter. Particular attention has been given to the dietary of the pupil nurses, and the board-room is used by them as a dining hall until the proposed new building is completed. The mortality of the labour patients was at the extremely low rate of 0.48 per cent. The drainage system of the Coombe Lying-in Hospital was very defective and a thorough overhauling has taken place, new pipes being laid down in place of the old sewers and the waterclosets replaced by modern patterns. Four deaths from septicaemia occurred, and the mortality of labour cases was 1.82 per cent., or eight deaths in 439 cases. The structural defects of St. Mark's Ophthalmic Hospital and the inadequate space for the inmates limit its usefulness, while the imperfect ventilation of some of the wards must prove injurious to the patients and often hazard the success of operations. The proposed amalgamation of St. Mark's with the National Eye and Ear Infirmary has made no progress and a considerable time must elapse before any definite steps are taken. The average annual cost per bed for maintenance in these nine hospitals varied from £15 11s. 6½d. in St. Mark's to £29 2s. 7½d. in Cork-street Fever Hospital; while a much larger discrepancy is observable in the average annual cost per bed for maintenance and for establishment charges—for example, in the Hospital for Incurables it amounted to £31 10s. 2d. and in Cork-street Fever Hospital to no less than £90 19s. 5½d. The Government grants amount to £15,722 15s. 9d., of which the House of Industry Hospitals obtain £7472 15s. 9d., the Westmoreland Lock Hospital £2600, Cork-street Fever Hospital £2500, smaller sums being allocated to the Meath, Steevens', Rotunda Hospitals, &c.

*The late Mr. Colles.*

The committee of the National Eye and Ear Infirmary at a recent meeting passed the following:—"That the committee have learned with deep regret of the death of Mr. William Colles, for many years consulting surgeon to this hospital, and desire to record their sincere sympathy in their bereavement with Mrs. Colles and her family."

*Appointment of Surgeon to Her Majesty in Ireland.*

I hear with considerable satisfaction that his Excellency the Lord-Lieutenant has recommended Mr. Philip Crampton Smyly, the well-known Dublin surgeon, for appointment as surgeon to the Queen in room of the late Mr. Colles. I specially mentioned his name some weeks ago as Mr. Colles' probable successor, and have only now to add that the

appointment is one which will be regarded as eminently satisfactory.

Sir George Porter, Bart., Regius Professor of Surgery in the University of Dublin, has been elected consulting surgeon to Sir P. Dun's Hospital, in the room of the late Mr. William Colles.

The returns of pauperism for the March quarter, compared with the corresponding quarter of last year, show a slight increase in the average number of workhouse inmates on Saturdays during the quarter, but a decrease of 2337, or 3.6 per cent., in the average number of persons on out-door relief.

July 19th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

*A New Sterilising Filter.*

MUCH misconception prevails amongst the public concerning the efficacy of filters, most people believing that, provided it be passed through any apparatus labelled a filter in the shops, the most foully contaminated water is rendered harmless for the purposes of consumption. Hygienists know, on the contrary, that natural filters or even the passage of water through a layer of sand does not enable water companies to guarantee the purity of the product distributed by them to their customers. The discovery of a new and effective method for the sterilisation of water supplied to towns by those well-known bacteriologists MM. Babès was announced by Professor Cornil on the 12th inst. to the Académie de Médecine. The principle underlying the method is the precipitation by means of appropriate substances of the micro-organisms whose presence in drinking water is so undesirable. The water is made to percolate vast reservoirs containing a thick layer of iron filings, through which there is passed at the same time a current of air. The percolated product is collected in large cemented tanks, from which it is decanted for use at the expiration of twenty-four hours. The efficiency of the apparatus is apparent from the fact that water which previously contained from 1200 to 1300 germs per cubic centimetre yielded, after decanting, only a proportion of 0.20. An additional advantage possessed by this filtered and practically sterilised water is the presence in it of CO<sub>2</sub> (from the decomposition of the FeCO<sub>3</sub>), which confers on it a slightly acid taste and renders it sparkling and refreshing without any chalybeate flavour, iron being conspicuous by its absence. A modification of this wholesale method is recommended for household purposes. A zinc or glass vessel, with a capacity of from ten to forty litres, and standing on a wooden pedestal, is pierced near its base with an orifice into which is introduced a rubber cork traversed by a glass tube provided with a tap. The reservoir having been filled with water, one and a half grammes of powdered alum are added for every ten litres and the contents are well shaken, either manually or by means of a rotatory mechanism, the vessel being finally covered with a well-fitting tin lid. After a lapse of eighteen or twenty-four hours the water may safely be used, it being, however, a good precaution to first allow about half a litre to run away. Besides the alum, alternative sterilising substances such as sulphate of iron or prepared chalk may be utilised. Practical sanitarians will readily appreciate the importance of the Babès method, controlled as it is by rigid bacteriological analysis which amply confirms its very great value.

*Self-mutilations by General Paralytics.*

Accusations, mostly false, brought against attendants, of ill-treatment of patients affected with that too common variety of mental alienation, general paralysis of the insane, are familiar to every practitioner. It is, therefore, a matter of importance to be fully aware of the injuries which such patients are wont to inflict upon themselves. M. Vallon observes (Société de Médecine Légale, 11th inst.) that certain general paralytics are in a constant state of agitation, their upper and lower extremities never being still. Others occupy their whole time in alternately buttoning and unbuttoning their clothes, dressing and undressing, while others, again, tear their clothing or the sheets. These latter patients may, especially when totally confined to their beds, inflict on themselves more or less extensive injuries without the attendants knowing anything about it. M. Vallon gives a few instances of such mutilations produced by constantly recurring movements of limited range. One sufferer had a long deep wound of the thigh caused by the nails of the right hand in its

incessant to-and-fro movements. In another the testes had been similarly laid bare, while yet another had lost part of the nose through the same mechanism. Constant grinding of the teeth is common in this class of patients, entailing the ultimate wearing down of those masticatory instruments. A habit of continually sucking either *à vide* or the sheets or pillows is also met with. One of M. Vallon's patients was suffocated by a poultice, which, originally applied to a wound, the defunct paralytic had sucked almost in its entirety. Another curious case is that of a man in whom enormous swelling, followed by gangrene of the lower lip, had resulted from this constant sucking. These few examples suffice to emphasise the necessity of closely watching general paralytics who, arrived at the terminal stage of their disease, may, during the long hours of the day and especially the night, succeed in damaging themselves very seriously.

#### *Suggestion as a Remedy for the Morphia Habit.*

At the annual meeting of the Société d'Hypnologie held in Paris on the 11th inst., M. Bérillon stated as the result of his experience in the treatment of six cases that complete demorphinisation can, in the majority of instances, be obtained by means of hypnotic suggestion without isolation in a special establishment. The difficulty of attaining this end is not, as might *a priori* be imagined, proportional to the amount of the daily dose of the drug to which the morphinomanic had accustomed himself. Old offenders who have been in the habit of administering to themselves considerable doses are sometimes, according to M. Bérillon, more easily curable than those accustomed to smaller doses. In those exceptional cases where isolation is necessary recovery is more rapid and easy when psycho-therapeutics are had recourse to, such means diminishing notably the pain and physical and mental discomforts entailed by abstinence from the poison. The average duration of the suggestion treatment is one month. The supply of morphia should be gradually diminished. When this gradual reduction has brought the daily dose down to a few centigrammes complete suppression should be insisted on. The suggestion *séances* should be more frequently repeated during the week following complete suppression. The prognosis after cure by hypnotic suggestion is much better than when abstinence from morphine has been brought about by other methods, it being easy to inspire the patient with disgust for the habit by psychical means.

#### *The Consumption of Tarlatan in the Paris Hospitals.*

Calico bandages have long ago become things of the past in the surgical wards of Paris hospitals, that stuff having been dethroned by tarlatan. An idea of the expense entailed by these liberally applied tarlatan bandages may be gathered from the fact that there were used in the Paris hospitals during the year 1890 no less than 1600 kilometres, or 1000 miles, of this material. In 1891 the mileage had reached 1188, an amount which cost 135,000 fr., or £5600.

#### *Cholera in Paris.*

From the means of information within my reach I gather that the cholera epidemic remains stationary and exhibits no tendency to extension, at any rate within the fortifications. On Friday last there occurred at Aubervilliers three deaths and at Clichy, in a filthy house inhabited by rag-pickers, two persons died. Several non-fatal cases occurred at Gennevilliers. From the 14th to the morning of the 16th eighteen deaths occurred in the northern suburbs, comprising principally St. Denis, St. Ouen and Aubervilliers. No new case was reported in Paris itself on Saturday, nor did any suspicious death occur on Sunday. Ten fatal cases were reported from the above-mentioned suburbs and one from Clichy. On Sunday Aubervilliers was visited by Drs. Proust and Dujardin-Beaumont, their colleague on the Council d'Hygiène, Dr. Léon Colin, repairing to St. Denis. The special Sanitary Commission, accompanied by the Prefect of Police, inspected the rag-pickers' house at Clichy mentioned above and ordered its immediate evacuation. From Clichy the Commission extended its peregrinations to Levallois-Perret and Asnières. News received this morning at the Prefecture of Police announced an improvement in the sanitary situation in the north-west suburbs, only two new cases being reported. At St. Denis Hospital forty-nine cases have up to the present been under treatment, a third of whom are cured, the rest having either died or being convalescent. At St. Ouen the distribution of filtered water produced an immediate improvement. Here the schools have all been provided with filters. Things are better also at Aubervilliers, where filters

will be shortly installed. An old disused artesian well has been repaired and is extensively patronised. There is no case at Levallois-Perret, but the malady reigns at Asnières. Officially the disease is still dubbed *épidémie oholériforme*.

Paris, July 20th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *The Sixty-fifth Meeting of the Society of German Naturalists and Medical Men.*

THE sixty-fifth meeting of the Society of German Naturalists and Medical Men will be held at Nuremberg in the middle of September. The programme is as follows:—Sept. 12: A general meeting in the hall of the Gymnastic Club; a lecture by Professor His of Leipsic on the Structure of the Nervous System; a lecture by Professor Pfoffer of Leipsic on the Sensibility of Plants; a lecture by Professor Hensen of Kiel on the Expedition of the Humboldt Trust; at 8 P.M. a social gathering in the restaurant of the Stadtpark, at the invitation of the municipality of Nuremberg. Sept. 13th: Sectional meetings; excursions; at 8 P.M. a meeting in the rooms of the Museum Society. Sept. 14th: A general meeting in the Gymnastic Hall; a lecture by Professor von Helmholtz on Permanent Forms of Motion and Apparent Substances; a lecture by Professor Strümpell of Erlangen on the Alcohol Question; a lecture by Professor Ziegler of Freiburg, on the Nature and Importance of Inflammation; at 5 P.M. a banquet in the Gasthof zum Strauss. Sept. 15th: Sectional meetings; at 8 P.M. a ball in the Gasthof zum Strauss. Sept. 16th: A general meeting; a lecture by Professor Günther of Munich on Volcanic Phenomena regarded from the Physical and Geographical Points of View; a lecture by Professor Hieppe of Prague on the Etiology of Infectious Diseases and their Relations to the Development of the Causal Problem; at 3 P.M. an inspection of industrial establishments; at 8 P.M. a social gathering in the festal illuminated park of the Rosenau Society. Sept. 17th: An excursion to Rothenburg. A ladies' committee will show the ladies the sights of the city and provide for their entertainment during the meetings.

#### *Dr. Behring on Blood-serum Therapeutics.*

Dr. Behring of Koch's Institute for Infectious Diseases, well known for his studies on immunity against traumatic tetanus and diphtheria, has published a treatise on the practical aims of blood-serum therapeutics and the methods of producing immunity, in order to obtain medicinal serum. He endeavours to prove that the blood-serum of animals rendered immune by treatment with cultivations acted on by trichloride of iodine cures other animals infected by the disease and renders healthy ones immune. He has applied this method with success against traumatic tetanus and diphtheria, and now states that one of his fellow-labourers has been equally successful in diseases caused by streptococci. All these results have been obtained by experiments on animals, but Behring's final aim is to find a new means of combating diphtheria, tetanus, &c., in the human body, and he indicates the way to that great end, admitting, however, that it is a difficult and especially a very costly one—too costly for individual investigators or even institutions to enter on without ample pecuniary aid. In the second part of his treatise he criticises other methods of producing immunity. The treatise is published by Thieme of Leipzig, and its title is "Die praktischen Ziele der Blutserum-Therapie und die Immunisirungs methoden zum Zweck der Gewinnung von Heilserum."

#### *The Cholera.*

In the semi-official *Norddeutsche Allgemeine Zeitung* (North German General Gazette) of the 14th inst. is the following paragraph:—"The information received here from Asia and European Russia leaves no room for doubt that we must be prepared for a further spread of cholera from the East. But now news has arrived from the West which indicates the possibility of an outbreak of that disease beyond our western frontier also. Public opinion in Germany has not yet been rendered uneasy by these statements, and this is right, for the population may rest assured—just as on the occasion of the last epidemics, which fortunately affected Germany little, if at all—in the consciousness that the Imperial Government and the authorities in the frontier districts of the individual states of the Empire are

following the course of the pestilence with attention, and have prepared for all the measures that will be necessary should the disease appear in our vicinity, though it is hoped it will not."

*Dr. Otto Völker.*

Dr. Otto Völker, head of the surgical department of the Ducal Hospital at Brunswick, died suddenly of heart disease at the bedside of a patient at Harzburg on the 10th instant, aged forty-nine. He was the author of essays on the Diseases of the Lateral Cervical Region, on Cartilaginous and Osseous Loose Bodies in Joints, &c., and contributed largely to the *Zeitschrift für Chirurgie* and to *Virchow and Hirsch's Jahresbericht über die Leistungen in der Medizin*.

#### Miscellaneous Items.

Professor Henoch celebrated his seventy-second birthday, which was also the fiftieth anniversary of his graduation, on the 16th inst. The Emperor bestowed on him the Order of the Red Eagle of the Second Class.

At the instance of Professor Förster, Rector of Berlin University, a meeting of professors and students will be held on the 22nd inst. in the Philharmonic Hall, to do honour to the memory of Professor von Hofmann.

A monument of the late Professor von Nussbaum was unveiled at Munich on the 16th inst., prince and people uniting to do him honour.

Professor Hilger of Erlangen has been appointed to succeed Professor Buchner (who retires at the end of this session) as professor of pharmaceutical chemistry and director of the Pharmaceutical Institute at Munich. Buchner has filled the chair in question since 1852.

The number of summer visitors at Ems in the first days after the beginning of the Prussian school holidays (from the 9th to the 12th inst.) was 9290; at Marienbad 8461; at Franzensbad 4184; at Heligoland 2390; at Neundorf 971; and at Sulza 895.

Berlin, July 18th.

## MEDICAL TRIAL.

### HIGH COURT OF JUSTICE, QUEEN'S BENCH DIVISION.

#### MACDONALD v. TURNER.

##### THE PURCHASE OF A MEDICAL PRACTICE.

THE case of Macdonald v. Turner was heard in the Queen's Bench Division on July 19th before Mr. Justice Wright. Both parties to the action are medical men, who entered into communication in consequence of an advertisement which appeared in our columns of a medical practice which was represented as returning an income of about £600 a year. Plaintiff asserted that after a three months' trial, during which time he used every endeavour to make the business a success, it had only produced the sum of £20, and for that period he paid in respect of his tenancy £28. Defendant's avowed reason for giving up the practice was that he had disease of the hip, which would require an operation, and that the practice was suffering in consequence of his inability to attend to it. In the course of conversation he told plaintiff that he could not guarantee figures, but he gave him every opportunity of inspecting the books. Mr. Justice Wright said he did not think there had been any wilful misrepresentation, though no doubt there had been exaggeration. Mr. Hopkinson submitted that even innocent misrepresentation would entitle the plaintiff to recover. Mr. Rowlandson stated that he had evidence that there was no misrepresentation of any kind whatever. Mr. Justice Wright said that he would hear that question of law argued on Thursday next.

**FIRST AID.**—The Duchess of Albany distributed on the 13th inst. the certificates gained by the most successful students of the Streatham local centre of the St. John Ambulance Association. During the winter months one nursing class and six first-aid classes were held and were attended by twenty-seven men and 125 women, to seventy-seven of whom certificates of proficiency were granted. Of the ladies, sixteen gained certificates for nursing and fifty-five for first aid. Ten certificates for first aid were awarded to men.

## Medical News.

**THE ITALIAN HOSPITAL IN LONDON.**—By the permission of the committee of management of "Venice" at Olympia, a morning performance of that entertainment was given on Wednesday last in aid of the funds of the Italian Hospital in London.

**A COTTAGE HOSPITAL FOR DINAS POWIS.**—It is stated that a building situated near the railway station has been taken for the purposes of a cottage hospital for Dinas Powis and that a lady resident in the village had consented to assume the charge of the institution when opened.

**NEW INFIRMARY FOR ISLINGTON.**—The difficulties which the Islington guardians have hitherto had to contend against for providing a new infirmary are apparently likely to be surmounted. They have just resolved to offer £17,000 for five acres of ground in Tollington-park and to erect thereon a building to provide about 800 beds at an outlay of from £80,000 to £85,000. The entire cost of the undertaking is estimated at £110,000.

**FATAL LEAD POISONING AT LOW MOOR.**—At an inquest held at Low Moor last week on the body of a forgerman a verdict was returned to the effect that the deceased had died from lead poisoning, epilepsy and exhaustion, and that the lead poisoning was caused by drinking water supplied to the inhabitants by the North Bierley Local Board and purchased by that board from the Bradford Corporation, such water having a solvent action upon lead.

**ST. JOHN AMBULANCE ASSOCIATION.**—The practical application of ambulance work finds a strong centre at Ramsgate. Through the persevering energy of the local honorary secretary, assisted by three surgeons, Messrs. Cotton, Tamplin and Berry, not only has a corps of men been formed who are frequently called for accidents and removals, but there is at the same time a small but efficient corps of some eight or twelve lady nurses who devote their time in supplying gratuitous nursing to the sick poor in their own homes. Both these corps have now been working for more than a year and are thoroughly appreciated both by the medical men and the patients. On Saturday afternoon last a pleasing function took place at the house of the honorary secretary in the presentation of a testimonial to the surgeon, Mr. Cotton, who has instructed most of the ladies' classes and is honorary surgeon to the nursing corps.

**ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.**—The fourth quarterly meeting of the session will be held on Tuesday, Aug. 2nd, in the Anatomical Theatre of the new buildings of the University of Edinburgh, at 4.30 P.M. Agenda:—Exhibits—Professor Sir William Turner, F.R.S.: 1. A series of Specimens. Dr. Symington: 2. (a) A Human Heart, with Unusual Arrangement of the Anterior Papillary Muscle; (b) Specimen illustrative of the Mode of Closure of the Ileo-cæcal Valve. Papers—Professor Cleland: 3. A Contribution to the Comparative Anatomy of the Ankle-joint. Dr. Birmingham: 4. (a) Extreme Anomaly of Heart, with History; (b) Spina Bifida, with Abnormality of Skull. Dr. Musgrove: 5. (a) The Costo-sternal Articulations; (b) The Bloodvessels and Lymphatics of the Retina (with lantern slides). Dr. Symington: 6. A Note on the Fascia Dentata in the Human Brain.

**ROYAL COLLEGE OF SURGEONS IN IRELAND.**—The following prizes have recently been awarded:—Operative Surgery: Mr. G. Hamilton, 1st Prize (Gold Medal); Mr. O. W. Elsner and Mr. T. C. Perry (equal), 2nd Prize (Silver Medals); Mr. H. G. Lo Fanu and Mr. F. Warren (equal), 3rd Prize (Certificates). Practical Chemistry: Mr. H. E. Eardley, 1st Prize (£3 and Medal); Mr. H. F. Conyngnam, 2nd Prize (£1 and Certificate). Practical Histology: Mr. E. A. Mecke, 1st Prize (£3 and Medal); Mr. E. C. Hodgson, 2nd Prize (£1 and Certificate). Materia Medica: Mr. E. T. Moore, 1st Prize (£3 and Medal); Mr. E. A. Mecke, 2nd Prize (£1 and Certificate). Pharmacy: Mr. R. M. Hamilton, 1st Prize (£3 and Medal); Mr. H. B. S. Montgomery, 2nd Prize (£1 and Certificate). Medical Jurisprudence: Mr. T. T. O'Donnell, 1st Prize (£3 and Medal); Mr. L. F. Corbet, 2nd Prize (£1 and Certificate). The "Mayne Scholarship" of £15 has been awarded to Mr. G. Hamilton.

**THE LONDON COUNTY COUNCIL AND THE WATER-SUPPLY.**—At the usual meeting of the Council on Tuesday last it was agreed that, subject to an estimate being submitted to the finance committee, the Council should contribute a further sum of £250 towards the expenses of the investigations now being carried on by Dr. Percy Franklin and Professor Marshall Ward at the Royal Society into the question of the vitality of microscopic pathogenic organisms in water.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

**BANNATYNE, GILBERT A., M.D. Glasg.**, has been appointed Honorary Medical Officer to the Bath Royal United Hospital.  
**CARNELLEY, M., L.R.C.P. Lond., M.R.C.S.**, has been appointed Medical Officer for the Gotham Sanitary District of the Basford Union.  
**CAUDWELL, H., L.R.C.P., L.R.C.S. Edin.**, has been appointed Medical Officer for the Woodstock (No. 2) Sanitary District of the Woodstock Union.  
**CROOM, J. H., M.D., F.R.C.P., F.R.C.S. Edin.**, has been appointed Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital.  
**DRUMMOND, W. B., M.B., C.M. Edin.**, has been appointed Resident Physician to the Royal Edinburgh Hospital for Sick Children.  
**FRAZER, E. E., M.R.C.S., L.R.C.P., L.S.A.**, has been appointed House Surgeon to the Royal United Hospital, Bath, vice L. H. Walsh.  
**HARDY, C. M., M.B. Durh., B.S.**, has been reappointed Medical Officer of Health for the Rural Sanitary Authority, Darlington.  
**HARRIS, A. E., L.R.C.P., L.R.C.S. Edin.**, has been appointed Medical Officer of Health for Islington, vice Tidy, deceased.  
**HILL, WALTER J., M.R.C.S., L.R.C.P.**, has been appointed House Surgeon to the Bristol Royal Infirmary.  
**INCE, W. H., Ph.D. Würzburg**, has been appointed Demonstrator of Physics and Chemistry in the Medical School of St. Thomas's Hospital.  
**LUCAS, ALBERT, L.R.C.P. Lond., F.R.C.S.**, has been appointed Resident Surgical Officer, General Hospital, Birmingham, vice Holden, resigned.  
**MARCH, G. C., L.R.C.P. Lond., M.R.C.S.**, has been appointed Medical Officer for the Gosforth Sanitary District of the Whitehaven Union.  
**MCDONNELL, M. S., M.R.C.S.**, has been appointed Medical Officer for the First Sanitary District of the Southampton Incorporation.  
**NUTT, H., M.R.C.S.**, has been appointed Medical Examiner on the Society's Staff by the Equitable Life Assurance Society of the United States for the Sherborne, Dorset, District.  
**ORMEROD, HENRY LAWRENCE, M.R.C.S., L.R.C.P.**, has been appointed House Physician to the Bristol Royal Infirmary.  
**ROBERTSON, W. FORD, M.B., C.M. Edin.**, has been appointed Resident Physician to the Royal Edinburgh Hospital for Sick Children.  
**STREETEN, F. E., L.R.C.P. Edin., M.R.C.S., D.P.H. Irel.**, has been appointed Medical Officer of Health for the Rural Sanitary District of the Farrington Union.  
**SYRETT, FRANK**, has been appointed Resident Medical Officer to the Children's Hospital, Newcastle-on-Tyne.  
**VERNON, H., L.S.A.**, has been appointed Assistant Medical Superintendent of the Infirmary, Parish of Paddington.  
**WALSH, L. H., M.R.C.S., L.R.C.P., L.S.A.**, has been appointed Resident Medical Officer to the Royal United Hospital, Bath, vice E. H. Biddlacombe, resigned.  
**WATSON, J., M.B. Durh., F.R.C.S. Edin., L.R.C.P. Lond.**, has been appointed House Physician to the Wolverhampton and Staffordshire General Hospital.  
**WILLIAMS, T. O., L.R.C.P., L.R.C.S. Irel.**, has been appointed Medical Officer for the Third Anglesey Sanitary District of the Bangor and Beaumaris Union.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement.*

**ANCOATS HOSPITAL, Manchester.**—Senior House Surgeon. Salary £80, with board and washing.  
**BRADFORD CHILDREN'S HOSPITAL.**—House Surgeon. Salary £70, with board, residence and washing.  
**BURY DISPENSARY HOSPITAL, Bury, Lancashire.**—Senior House Surgeon. Salary £100 per annum, with board, residence and attendance.  
**DEACONESSES' INSTITUTION AND HOSPITAL, Tottenham.**—Resident House Surgeon for one year. Salary £90 per annum.  
**GENERAL HOSPITAL, Birmingham.**—Two Assistant House Surgeons for six months. Residence, board and washing provided.  
**GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.**—House Surgeon. Salary £60 per annum, with board and lodging in the hospital.  
**HORTON INFIRMARY, Banbury.**—House Surgeon and Dispenser. Salary £60 per annum, with board and lodging.  
**LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.**—Two Surgeons for the Bischoff House and Malton House Surgeries of this Association. Salaries £208 per annum and Midwifery fees. Good residence, drugs supplied, and rates and taxes paid. Also Assistant Surgeon. Salary to commence at £120 and Midwifery fees. (Apply to Mr. C. H. Wilson, 8, South Parade, Leeds.)

**LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.**—A qualified Assistant. Salary £120 a year (out-door). (Apply to the Secretary, 12, North Parade, Lincoln.)  
**LIVERPOOL STANLEY HOSPITAL.**—Honorary Physician.  
**LIVERPOOL STANLEY HOSPITAL.**—Honorary Surgeon.  
**NOTTINGHAM BOROUGH ASYLUM.**—Resident Clinical Assistant for six months. Board and residence provided.  
**ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL, Portsea.**—Assistant House Surgeon for six months. Board, residence and washing, and an honorarium of £15 15s. at expiration of term of office.  
**ROYAL SOUTH HANTS INFIRMARY, Southampton.**—Assistant House Surgeon for six months. Board, residence and washing provided, and an honorarium of £10 10s., conditionally, at expiration of term of office.  
**ST. LUKE'S HOSPITAL.**—Resident Clinical Assistant for six months, with board and residence.  
**SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.**—Senior Assistant House Surgeon. Salary £65 per annum, with board, lodging and washing.  
**STOURPORT MEDICAL AID ASSOCIATION.**—Assistant (out-door). (Apply to Mr. John Bourne, Stourport.)  
**WEST KENT GENERAL HOSPITAL, Maidstone.**—House Surgeon. Salary £160 per annum, with furnished apartments, coals, gas and attendance in the hospital.

## Births, Marriages, and Deaths.

### BIRTHS.

**MAURICE.**—On July 17th, at Friar-street, Reading, the wife of William James Maurice, M.A., M.B. Oxon., of a son.  
**O'REILLY.**—On July 14th, at Thurnby, Guildford, the wife of Surgeon-Major J. O'Reilly, M.B., of a daughter.  
**PORTER.**—On July 19th, at Holsley, Yorkshire, the wife of J. Francis Porter, M.D., Coroner for County of Yorkshire, of a son.  
**PURVES.**—On July 16th, at Hardwicke Cottage, The Common, Wimbledon, the wife of W. Laidlaw Purves, M.D., of a son.  
**WELLS.**—On July 12th, at Belsize-park, the wife of Poulett Wells, M.B., of a son.

### MARRIAGES.

**GOODSALL—WRIGHT.**—On July 19th, at Holy Trinity Church, Lamorbey, Frederick Goodsall, M.D., to Edyth Elwin, eldest daughter of the Rev. John Wright, late Rector of Falmouth.  
**HUNTER—DAVIDSON.**—On July 18th, at the Presbyterian Church, Willesden, James Hunter, M.D., Dregthon, Ayrshire, to Sarah Jane (Minnie), eldest daughter of the late Dr. John Davidson, C.B., Inspector-General R.N.  
**KELLET—BARCLAY.**—On July 14th, at Moseley, by the Rev. F. Kellett, father of the bridegroom, assisted by the Rev. W. Wilson of Manchester, Alfred F. Kellett, M.B., B.S. Cantab., of Lewisham-road, Lewisham, S.E., to Margaret Eleanor (Nellie), second daughter of Thomas Barclay, of Arnccliffe, Moseley, Birmingham.  
**OWEN—HUGHES.**—On July 20th, at St. James the Less, Victoria Park, William Owen, Surgeon, Shore-road, South Hackney, to E. E. Hughes, widow of the late J. B. Hughes, Esq., Newport, Monmouthshire.  
**RICHARDS—PENNINGTON.**—On July 18th, at St. Oswald's Church, Collyhurst, Manchester, by the Rev. A. W. Taylor, M.A., Rector, Arthur Izod Richards, M.R.C.S., L.S.A., youngest son of the Rev. George Richards, D.D., Rector of Marlingford, Norfolk, to Florence May, youngest daughter of the late Dr. T. R. Pennington, of Pembroke-place, Liverpool. No cards.  
**RODGERS—BOWMAN.**—On July 18th, at St. Andrew's, Cambridge, by the Rev. H. Smith, J. H. Rodgers, L.R.C.P., L.R.C.S. Edin., Lincoln, to Florence E. Bowman, Darlington.  
**STAVELEY—NICHOL.**—On July 20th, at St. Mary Abbott's, Kensington, by the Rev. H. B. Nichol, brother of the bride, assisted by the Rev. the Hon. E. Carr Glyn, Vicar of Kensington, and the Rev. E. D. L. Harvey, Rector of Downham Market, W. H. C. Staveley, F.R.C.S., of 13, South Eaton-place, S.W., second son of the late T. G. Staveley, of the Foreign Office, to Annie Maud, third daughter of the late Dr. Nichol, of Denmark-hill, S.E., and Mrs. Nichol, of 15, Brunswick-gardens, Kensington, W.  
**THORNTON—CLIVE.**—On July 18th, at St. Mark's, North Audley-street, by the Hon. and Rev. Canon Bridgeman, uncle of the bride, assisted by the Right Rev. the Lord Bishop of Ripon and the Hon. and Very Rev. the Dean of Hereford, John Knowsley Thornton, of 22, Portman-street, and Hildersham Hall, Cambridge, to the Hon. Mary Agnes Windsor Clive, youngest sister of Lord Windsor.  
**TRENTELS—LEMMENS.**—On July 18th, at l'Église Évangélique, Rue du Musée, Brussels, by M. le Pasteur Rochedeux, Jules, eldest son of the late Guillaume Trentels, of Rue de la Pépinière, Brussels, to Ida Anne Caroline Florence, youngest daughter of the late Charles Daniel Lemmens, of Brussels.

### DEATHS.

**BURTON.**—On July 9th, at Crumlin, co. Antrim, Dr. Bindon John Burton, aged 73.  
**CLARKE.**—On July 19th, at The Thorns, Sevenoaks, Frederick Le Gros Clark, F.R.S., F.R.C.S., in his 82nd year.  
**GEORGE.**—On July 10th, at Colney-hatch, William Heming George, L.R.C.P. Edin., L.F.F.S. Glas., Senior Assistant Medical Officer of the London County Asylum, aged 40.  
**GRAY.**—On July 13th, at Brigg, Lincolnshire, Charles Edward Gray, M.D., late Surgeon Royal Navy, and Physician, Melbourne Hospital, aged 44.

**HUSBAND.**—On July 18th, at The Roost, Clifton, Bristol, William Dalla Husband, F.R.C.S., D.L., J.P. (late of York).  
**TYLDEN.**—On July 10th, at Harewood-square, N.W., Henry John Tylden, M.D. Oxon., aged 35.  
**WEISS.**—On July 4th, suddenly, while yachting at Gosport, Hubert Foveaux Weiss, F.R.C.S. Eng., L.R.C.P., L.M.R.C.P. Irel., F.R.G.S., F.R.M.C.S., M.W.L.M.C.S., late Assistant Surgeon at the West London Hospital, of 6, Granville-gardens, Ramsgate, and 27, Piccadilly, W., aged 37. Friends kindly accept this intimation.

*N.B.*—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

**BAILLIÈRE, TINDALL, & COX,** King William-street, Strand, London.  
 Cardiac Outlines. By Wm. Ewart, M.D. Cantab., F.R.C.P. Illustrated. 1892. pp. 105.  
**CHURCHILL, J. & A.,** New Burlington-street, London.  
 A Treatise on Hygiene and Public Health. Edited by T. Stevenson, M.D., F.R.C.P. Lond., and Shirley F. Murphy. Vol. I. 1892. pp. 1013.  
 Saint Thomas's Hospital Reports. 1890. New Series. Edited by Dr. Hadden and Mr. Anderson. Vol. XX. 1892. pp. 483.  
**DAVIS, THE F. A., Co.,** Philadelphia and London.  
 Annual of the Universal Medical Sciences, 1892. Edited by C. E. Sajous, M.D., and 70 Associate Editors. Vols. I. to V.  
**DICKENS, CHAS., & EVANS,** St. Bride-street, London.  
 Locke's Annual Register of Births, Marriages and Deaths. 1891. Vol. I.: Births and Marriages. With Index. 1892. pp. 527. Price 10s.  
**GRIPPIN, CHAS., & Co.,** Exeter-street, Strand, London.  
 Practical Sanitation. By G. Reid, M.D., D.P.H. With an Appendix on Sanitary Law, by Herbert Manley, M.A. Cantab., M.B., D.P.H. With Diagrams. 1892. pp. 300.  
**HODGES, FIGGIS, & Co.,** Grafton-street, Dublin; and **WILLIAMS & NORGATE,** London.  
 Royal Irish Academy. "Cunningham Memoirs." No. VII., July, 1892. Contributions by D. J. Cunningham, M.D., D.Sc. Dub., F.R.S., and Victor Horsley, M.B. Lond., F.R.S. With Plates. 1892. pp. 368. Price 15s.  
**HODGE, WM., & Co.,** Bothwell-street, Glasgow.  
 The Scottish Poor-laws: their History, Policy, and Operation. By Robert P. Lamond. New Edition, with Appendices. 1892. pp. 398.  
**KIMPTON, H.,** High Holborn, and **HIRSCHFELD BROS.,** Fetter-lane, London.  
 Digestion and Diet Rationally Discussed. By Thomas Dutton, M.D. Durh. 1892. pp. 130. Price 2s.  
**KING, THORNE, & STACE,** Brighton.  
 Medical Reports of the Davies Treatment in Phthisis Pulmonalis, discovered by W. and V. Davies, F.C.S. 1892. pp. 80.  
**LEWIS, H. K.,** Gower-street, London, W.C.  
 Alcohol and Public Health. By J. J. Rudge, M.D. 1892. pp. 91.  
 The Extra Pharmacopœia. By W. Martindale, F.C.S., and W. Wynn Westcott, M.B. Lond. Seventh Edition. 1892. pp. 524.  
 The Anatomy and Diseases of the Lachrymal Passages. By W. S. Watson, B.M. Lond. With Plates. 1892. pp. 55.  
**MURRAY, JOHN,** Albemarle-street, London.  
 The Study of Animal Life. By J. A. Thomson, M.A., F.R.S.E. Illustrated. 1892. pp. 375. Price 5s.  
**PENTLAND, YOUNG J.,** Edinburgh and London.  
 Practical Pathology. By G. Sims Woodhead, M.D., F.R.C.P. Edin. Illustrated. Third Edition. 1892. pp. 652.  
**WATERLOW & SONS,** London Wall, London.  
 Swin, Swale, and Swatchway. By H. Lewis Jones, M.A., assisted by C. B. Lockwood. 1892. pp. 203. Price 10s. 6d.  
**WRIGHT & Co.,** Bristol; and **SIMPKIN, MARSHALL, & Co.,** London.  
 Ptoamines and other Animal Alkaloids. By A. C. Farquharson, M.D. 1892. pp. 162. Price 3s. 6d.

The Asclepiad, No. 34, Vol. IX., 1892 (Longmans, Green, & Co., London); price 2s. 6d.—Guide to Lucerne, the Lake, and its Environs, 1892; illustrated (Moyor's Printing Office, Lucerne).—Affleck's Popular Digest upon Income Tax, 1892-93 (Examiner Printing Works, Manchester); price 1s.—Some Thoughts about Nursing; by Oswald Browne, M.B. Cantab., M.R.C.P. (Griffith, Farran, & Co., London); price 6d. net.—The Treatment of Tuberculosis of Bones and Joints by Paronychmatous and Intra-articular Injections; by N. Senn, M.D., Ph.D., Chicago (reprint from Annals of Surgery, January, 1892).—Beiträge zur Protozoen-Forschung; von Dr. R. Pfoiffer; Heft 1 (August Hirschwald, Berlin, 1892).—The Official Gazette of the United States Patent Office, July, 1892 (Government Printing Office, Washington).—Proceedings of the Society for Psychological Research, Vol. VIII., July, 1892 (Kogan Paul, Trench, Trübner, & Co., London); price 3s. 6d.—The Blood: its Rotary Motion and Centrifugal Force; by C. H. Rosenthal, M.D., San Francisco, 1892.—The Strand Magazine for July.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 21st, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
July 15	30.05	S.W.	57	53	01	05	53	..	Cloudy
" 10	29.84	S.	03	59	106	73	54	..	Hazy
" 17	29.79	N.E.	50	55	00	56	55	..	Raining
" 18	30.01	N.E.	55	49	107	03	52	..	Cloudy
" 19	29.94	W.	57	52	95	02	50	..	Cloudy
" 20	29.81	N.E.	58	55	105	04	53	..	Cloudy
" 21	30.23	N.E.	55	50	114	05	50	..	Fine

Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

"HORRORS OF THE HIGHWAY."

UNDER this title we commented lately on the tremendous burden and strain imposed upon the horses engaged in the London omnibus service, particularly when, in addition to the excessive weight of the vehicle and its inmates, the frequent stoppages and "spurts" occasioned by passengers getting in or out or up and down, as the case may be, multiply the exertion of the poor animals tenfold. A Berlin correspondent, *à propos* of this latter feature of the service, suggests that "London should follow the example of Berlin in having halting-places at short distances apart. Of course," he adds, "it is somewhat trying to see the trams coolly pass one, and very great was my astonishment when I first came to find that the raising of my finger had no effect, except to elicit an amused smile from the conductor. Passengers are none the worse for this arrangement; on the contrary, they are much the better, when time is precious to them; and most certainly the horses must benefit by it." There is much to be said for this method of economising the horses' powers and the passengers' time, and its adoption from Berlin would be one of the least objectionable importations from that semi-military and rather rigidly organised capital.

**G. Clarendon Hamilton, M.B.**—In the case of perfect strangers it is reasonable that the medical man who acts on the emergency for his absent brother, should be promptly thanked and offered the half-fee; and this is a common rule. We can easily imagine such a fee being declined, but it is only reasonable on the part of the gentleman who has been so served to offer it.

**J. Warrington.**—We can only refer our correspondent to our advertising columns.

**St. Bernard.**—We do not recommend practitioners.

OPHTHALMOSCOPY WITH ELECTRICITY.

To the Editors of THE LANCET.

SIRS,—Some few years ago at the Ophthalmological Society I remember seeing an ophthalmoscope shown by Mr. Juler, which had a small electric lamp attached to the mirror. I should be glad if any of your readers could inform me whether any London makers supply such an instrument, and at what price.

I am, Sirs, yours faithfully,

PHILIP JAMES, F.R.C.S.

Wellington, New Zealand, June 10th, 1892.

## MEDICAL ADVERTISING.

THE following advertisement is from the *Walthamstow and Leyton Guardian* of July 9th. It is to be deprecated that a medical practitioner cannot cease connexion with a given address without advertising the fact in large type in a local paper:—

"Professional Notice!—Dr. Steven begs to intimate to the inhabitants of Walthamstow that he has severed all connexion with 4, High-street, and that in future his permanent address will be 41, Blackhorse-road."

The following has a distinctly trade advertisement character. It is from the *Manchester Evening News*:—

"Notice of Removal.—Dr. Courrie's consulting rooms for diseases of women and children removed to 199, Chester-road, Hulme, Manchester. Hours, 11 to 3 and 6 to 8."

*Mr. T. W. Story.*—We regret that it is manifestly beyond our province to be able to give our correspondent the information he requires.

## FRACTURE OF THE NECK OF THE FEMUR.

To the Editors of THE LANCET.

SIRS,—About five years ago you most kindly inserted for me in THE LANCET one or two letters about an old lady, a centenarian, named Sarah Markham, of Roxby, Lincolnshire. At the time the letters excited a good deal of interest in her and brought her many friends. In early life Mrs. Markham was in the service of Tom Sheridan and helped to bring up his three daughters, who afterwards became most distinguished ladies, one of whom was the mother of the present Marquis of Dufferin. I now regret to say that recently Mrs. Markham died, not exactly from old age, but from the effects of a fall which she had on the eve of her birthday. The accident occurred through her throwing a basin of water out of her cottage door; the act causing her to slip or overbalance herself and thus in the fall she fractured, I am told, the neck of her femur. Mrs. Markham's birthday was on Royal Oak Day and she lived a month after the occurrence, so the days of the years of the life of the old lady were 107 years and one month—a goodly age, no doubt and one to which few of us can hope to reach. Perhaps the old lady living in Scamblesby in the so-called insanitary house, who is in her one hundred and third year, may reach or exceed the patriarchal age of Mrs. Markham. Mrs. Markham was a most intelligent woman and her fine memory and love for reciting poetry remained with her nearly to the end.

Fracture of the femur is a frequent cause of death in old people. I knew an active and healthy old gentleman ninety-six years of age who whilst in the act of jumping from the top of a five-barred gate in a field on his land, was blown down by a gust of wind and had his thigh bone broken, the injury causing his death. Several cases of a similar kind have come under my observation.

I am, Sirs, yours faithfully,

Lincoln, July 19th, 1892.

WILLIAM O'NEILL, M.D.

## AIR PASSING AUDIBLY BY THE VAGINA.

*DR. SOCHAVA* reports in a Russian medical journal the case of a patient who for some years had been annoyed by the audible passing of wind from the vagina whenever she lay down or reclined in an easy chair. On examination he found a defective development of the labia and nymphæ, which were rather rigid, and prolapsus of the anterior vaginal wall, so that the vagina was directly accessible to the entrance of atmospheric air. Every contraction of the vaginal walls of course expelled the air and so caused a certain amount of noise. Energetic treatment of the prolapsus led to a cure of this exceedingly troublesome condition.

*DR. Q. C. Smith (Austin, Texas).*—No works on this general subject have been recently published. Our correspondent would find the books of Sir Joseph Fayrer and Dr. Ronald Martin useful.

## THE ACTION OF HYDROCHLORATE OF COCAINE.

To the Editors of THE LANCET.

SIRS,—I have unhappily been a sufferer from nasal polypi (mucoïd) for some years and from time to time I have them removed by the electric cautery. I have also had both lower turbinated bones chiselled out. I find that during the growth of the polypi, when of course there is considerable nasal catarrh, nothing gives me so much relief as painting the posterior nasal cavity with a 15 per cent. solution of hydrochlorate of cocaine; it contracts the polypi and the mucous membrane and arrests the thick mucus secretion, this relief lasting for perhaps two or three hours, when I usually repeat the application with a camel's hair brush. This use of the drug produces ringing in the ears and a stunned feeling such as I have felt after the near discharge of heavy artillery; and of course, if any trickles on to the soft palate or fauces, it produces retching. The question I wish to ask is whether the use of cocaine in this way is likely to be injurious to health by causing tissue degeneration or in any other manner. Of course I do not swallow any of it, and the amount I use each time is about six drops. I shall be very grateful for an opinion in your columns.

I remain, Sirs, faithfully yours,

Frocester, Gloucestershire, July 13th, 1892.

COCAINE.

## THE WARMEST PLACE ON EARTH.

THERE are several of these "claimants" for the highest temperature on the habitable globe. The Central Sahara registers a mean of 97° in July. Central Australia boasts of 94° in January—a mean which is attained in South California and Inner Arabia in midsummer. But a recent report of the New York Meteorological Bureau tells us that a Californian Valley between seventy and eighty miles to the east of the Sierra Nevadas, running in a north-north-westerly and south-south-easterly direction between two mountain ranges—the Tunal (6000 ft.) and the Amargosa (10,000 ft.)—has the highest temperature yet recorded. This valley lies below the sea-level at a depth variously estimated at from 100 ft. to 175 ft., and its reputation for excessive heat and extremely low humidity is built upon such tragic incidents as sudden death from insolation incurred by those who have ventured into it, culminating in the total extinction of an immigrant party from heat and thirst in 1850. The latter occurrence, indeed, gave it the title it goes by—"Death Valley." The report above referred to sets forth that in four months out of five during which readings were taken the mean temperature rose above 90°, in July and August exceeding 100°, while the mean for the entire period was not less than 94°. The minimum was usually above 70°, while an absolute maximum of 122° was registered on three successive days at the end of June and beginning of July. On July 18th, 1891, the New York meteorologists had the uncomfortable experience in Death Valley of spending a day in which the maximum temperature was 120°, the minimum 90°, and the mean of all hours 108° 6', while the hottest spell of all occurred from this day onward to July 24th, when the minimum never fell below 85° and the maximum ranged between 119° and 121°. The rainfall during the five months reached a total of only 1'40 inch. The winds, on the other hand, were of great force and frequency, those from the south prevailing every three or four days, while their velocity would rise from thirty miles an hour to over forty-five miles. Such gales were of but brief duration, but one of them, on June 17th, lasted from 10.40 A.M. till 6 P.M. as "one hot continuous blast," the temperature of the day being 112° 6'. These high winds assume the character of the simoon of the Sahara; the loose, friable soil contributing clouds of sand, which often conceal the surrounding mountains. What with the heat and the nature of the soil, vegetation was extremely scanty; at the bottom of the valley indeed well-nigh non-existent. Animal life was hardly to be seen; the stinging gnat by day, and the snake, the lizard and horned toad by night were its only representatives. But for one transient flock of blackbirds no winged creatures were to be seen by the New York observers, who might have given the valley the name bestowed by Virgil on a similar region from the same phenomenon—viz., "Avernus" (or Aornos, from *à not*, and *òpus* bird).

## "PSEUDO-CYESIS."

To the Editors of THE LANCET.

SIRS,—The case mentioned by Dr. Reynolds reminds me of one I had some years ago. A friend of mine, who was unfortunately suffering from an attack of typhlitis at the time, asked me to attend a confinement for him, as the friends had just sent a message to say the patient was in labour. On my arrival I found the patient sitting on the edge of the bed dressed in a petticoat and nightdress, and was informed that "niggling pains" had been coming on with regularity for some little time. Requesting the patient to get into bed, I "tried a pain," and what was my surprise on finding the cervix firm and the os quite small, while my hand on the abdomen felt no tumour in front. The general swelling was resonant on percussion and quite soft. The delight and surprise of the patient and her mother were great on my announcing the fact that it was a false alarm, as the patient was unmarried.

The striking point of similarity between this case and Dr. Reynolds' is the fact of both patients being unmarried women, and that having exposed themselves to the risk of impregnation the dread of becoming pregnant had produced symptoms of the result they both feared. In my case the mother had engaged my friend at the fourth month, and the patient herself had remained in-doors since the cessation of the menses a month after connexion.

I am, Sirs, yours faithfully,

Southfields, S.W., July 18th, 1892.

CECIL ROBERTSON, M.B., C.M.

## THE ETHICAL ASPECT OF AGREEMENTS TO SERVE ON MEDICAL AID SOCIETIES.

A CORRESPONDENT invites us to comment on the ethical side of such agreements. We may take an opportunity of doing so when occasion arises. Meantime each man who accepts such appointments ought to consider for himself the ethical as well as the legal aspects of his action. He may easily imagine that the whole profession of a town would not discountenance the holders of such appointments if there were not something questionable in accepting them. Are we to understand that in his Question as much as a guinea is charged for attending a whole family per year? May we ask if there is a wage-limit, and what proportion of the families pay this sum?

## FUNERAL REFORM.

THE Registrar-General has written the following letter to the Secretary of the Funeral Reform Association:—

"Although prompt registration is very desirable, long journeys to the registrar in order to effect it prior to interment may be dispensed with. By transmission of a medical certificate of cause of death to the registrar through the post, accompanied by a stamped envelope for reply, the friends of a deceased person may obtain from that officer by return of post a certificate of notification of death, which for burial purposes is of like value with his certificate of registration. The death can then be registered on the first visit of the registrar to the neighbourhood in which the death took place. The Registrar-General is of opinion that anything in the nature of provisional death registration could only have the effect of adding to the trouble of informants, since, unless the registration practice of the last half-century were reversed, it would always be necessary that their signatures should be attached to the entries made by the registrar."

## "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—Your correspondent "Verax" may have had very unfavourable treatment during his career as assistant and may feel even a relief in his present position, but I fear the shoe will pinch him some time. His scarcely veiled threat of the action of the friendly societies (not very friendly to the medical profession) through the House of Commons might be treated with the contempt it deserves if it were not for the miserable want of cohesion in our profession. A strong trade union is the most drastic and perhaps effectual remedy, but one to which only despair will drive us. Surely, even "Verax" would join such a union if he saw that it is only the *abuse* of his friendly society institution we complain of. Your correspondent does not appear to consider in his calculation that £300 would not pay the working expenses of many practices, nor does he state that his clients pay him a penny per week per head; the usual payment in such institutions is much lower. The fact of the matter is this. The profession is being degraded by low contracts with people able to pay moderate fees, and such men as "Verax" are assisting to degrade the profession and pauperise the people. They are not the only sinners, but their position being a public one they are more prominent. The secondary impression upon the mind of the public that medical services are worth little or nothing is a most serious one; and when we have all had enough of it, as I have already, we may hope that reform will begin. Meanwhile we must "possess our souls in patience."

I am, Sirs, your obedient servant,  
Loughborough, July 16th, 1892. J. B. PIKE.

## THE OUT-PATIENT DEPARTMENT.

To the Editors of THE LANCET.

SIRS,—The thanks of all London practitioners, especially of those living in the neighbourhood of the great hospitals, is due to you for your article on the out-patient system in your last issue. The usual excuse alleged by the hospital authorities for the existing state of things is that these out-patients are necessary for the training of the students; but of what use is it to train them for the practice of their profession unless there is something for them to do when they are trained? We are at the season of the year when parents and guardians are making their arrangements for entering their sons and wards as medical students. Let them fully consider what they are doing before they spend their money in preparing them for a profession in which there is so little chance of earning a decent living. Why do we not hear more of the "hardships" of the general practitioner's life? Because to make them known is to proclaim himself to be one of "those whom it is not generally desirable to protect."

I am, Sirs, yours faithfully,  
July 10th, 1892. A GENERAL PRACTITIONER.

## MEDICAL ASSOCIATIONS AND MEDICAL LEGISLATORS.

THE Mississippi Valley Medical Association boasts one great advantage over similar bodies—"that nothing can be discussed during the session save and except science." All ethical matters are referred to committees whose decisions are final. "Precious time is not allowed the demagogue or the medical legislator." Does the Mississippi Association mean to imply that "demagogues and medical legislators" are allowed too much rope in other scientific medical bodies? The charge is a curious one, which we leave other associations to answer.

## A COASTING TRIP.

To the Editors of THE LANCET.

SIRS,—I am anxious to get as much sea air as possible during a short holiday, and see that steamers are advertised to sail from Liverpool round the north of Scotland to Leith. Can any of your readers tell me whether there is suitable accommodation for a lady on such steamers? I do not, of course, mean Atlantic liner style, but such as would make the trip endurable if the weather was bad enough at times to make it necessary to be a good deal down below.

I am, Sirs, yours truly,  
July 10th, 1892. A. E.

## MINERS' STRIKES AND THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—May I be allowed to ask your opinion on a certain matter which affects not only myself, but nearly all the practitioners in colliery districts in this county?

First, I would state that we practitioners receive our money (that which comes from the miners) on a kind of club system, every miner paying 6d. per fortnight, which covers attendance on himself and family for the ensuing fourteen days. As a rule this is collected by the overmen at the various pits, the 6d. being stopped out of each man's pay, for which service we have to pay the overman 10 per cent. or 7½ per cent. of the gross amount. In consequence of the recent strike in the county the miners' subscriptions were never deducted during ten of the twelve weeks. During the first fortnight of the strike, however (at this colliery at any rate), 6d. per man was kept off the week's money that the owners keep in hand. The amount to which we are entitled therefore is 2s. 6d. per man. We have been working the whole time in the same way as if the subscription had been going on as usual, fully expecting that the men would fulfil their part of the contract, which they as a body refuse to do, although many of them individually are honest enough to pay. The question I wish to ask is, can we legally claim the 2s. 6d. back money? If so, it will be a great boon to many practitioners beside myself; for when one has, say, 500 subscribers and perhaps fifty of them pay their just debts it means a clear loss of £50 10s., besides the fact that working expenses (drug bills, assistants' salaries, horse and trap, &c.) have been going on all the time.

I shall be greatly obliged if you will give me your opinion on the matter and I will communicate with the neighbouring practitioners.

I am, Sirs, yours faithfully,

R. E. INGRAM-JOHNSON.

Chester-le-Street, Durham, July 10th, 1892.

\*.\* We think the recovery of the money might be very difficult. We presume our correspondent would have to prove a specific contract with each individual miner, and must take proceedings against each and not against any aggregate body. Our correspondent has our hearty sympathy.—ED. L.

## SALE OF PRACTICES.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me how the measurement of the distance is determined in the case of selling a London practice? Is it according to the nearest cab route, or as the crow flies? What is the customary limit in the sale of a West-end practice, and for how many years is it reasonable to prohibit practice in the locality?

I am, Sirs, yours faithfully,  
July 17th, 1892. LEONARD.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Dr. Aitchison, Wallsend-on-Tyne; Messrs. Anderson and Co., Edinburgh; Mr. F. P. Atkinson, Surbiton; Mr. W. Adamson, Liverpool; Mr. Arrowsmith, Bristol; Mr. Blacket, London; Mr. James Braithwaite, Leeds; Messrs. Battle and Co., Paris; Mr. Stanley Boyd; Mr. Bobardt, Newbury; Mr. Baron, Manchester; Messrs. Bowen and McKechnie, London; Mr. Bennett, Liverpool; Mr. Byrne, East Finchley; Dr. Barker, Hungerford; Messrs. Burgoyne, Burbidges, and Co., London; Mr. Connon, Northumberland; Messrs. Clarke, Son, and Platt, London; Messrs. Curtis and Co., London; Dr. Collins, Birmingham; Mr. Cornish, London; Dr. W. A. Clarke, Fulham; Dr. Carey Coombs, Somerset; Dr. Crook, Margate; Dr. A. Doran; Dr. Léon D'Astros, Marseilles; Mr. De Bathe, St. Luke's; Mr. J. Theodoro Dodd, London; Mr. Davids, Banbury; Messrs. Duncan, Flockhart and Co., Edinburgh; Dr. Jas. Edmunds, London; Messrs. Eason and Son, Dublin; Mr. Evans, Llanelly; Dr. A. G. R. Fullarton, London; Dr. W. Garstein, Blackburn; Dr. A. Grose, Wilts; Messrs. Gardiner and Co., Wisbech; Mr. Walter Goodman, London; Mr. Griffith, Milford Haven; Mr. Hamer, London; Mr. Howitt, Carlisle; Dr. G. Clarendon Hamilton, Manor-park; Mr. Hornibrook, London; Mr. C. Henshaw, Southampton; Mr. Heywood, Manchester; Messrs. Hargreave and Doidge, Suffolk; Mr. M. M. Jefferds, London; Mr. R. E. Ingram Johnston, Chester-le-Street; Mr. Jesso, Macclesfield; Mr. Philip James, Wellington, New Zealand; Mr. J. Brinley James, London; Surgeon-Lieutenant-Colonel R. Lewins, London; Dr. B. Lumley, Northallerton; Mr. Little, London; Mr. Lovick, Paris; Mr. Albert Lund; Mr. Moore, Liverpool; Mr. Munro, Carlisle; Messrs. Mabbett and Edge, London; Dr. McDonald, California; Messrs. Marlborough and Co.; Messrs. Maund, London; Professor Middendorp, Germany; Mr. P. W. C. Nesup, Bournemouth; Dr. G. Lloyd Owen, Birmingham; Messrs. Orridge and Co., London; Mr. E. A. Piggott, Suffolk; Mr. Pensuti, Rome; Dr. Phillips, Birmingham; Mr. Carl Pearson, London; Mr. Potter, Liverpool; Mr. J. B. Pike, Loughborough; Mr. F. J. Redman, London; Dr. Ronton, Oxford; Messrs. Reay and Co.; Dr. B. W. Richardson, London; Mr. C. Robertson, South Fields; Messrs. Robertson and Scott, Edinburgh; Dr. Romeo, Rio de Janeiro; Dr. G. E. Shuttleworth, Lancashire; Messrs. Street and Co., London; Dr. Steele, London; Mr. Scobell, London; Messrs. Street

Bros., London; Mr. C. Stonham, London; Mr. T. W. Storey, Batley; Dr. Q. C. Smith, Texas; Mr. Sanders, Cardiff; Dr. Steele, Portobello; Dr. Smith, Kettering; Mr. Strange, London; Messrs. Taylor and Co., London; Mr. Wheeler, Manchester; Messrs. Whitworth and Stuart, Manchester; Dr. Whittendale, Kenilworth; Mr. A. H. Scott White; Mr. Wilson, Leeds; Mr. Watt, London; Messrs. Wright and Co., Bristol; Dr. C. J. White, Bournemouth; Messrs. Wilson and Blessley, London; Mr. Webb, Bury; Messrs. Hiram Walker and Sons, London; Dr. James Wallace, Greenock; Mr. Roger Williams, Preston; Dr. Dawson Williams, London; P. A., London; Chadburn and Coldwell Manufacturing Co., London; Anglo-Swiss Condensed Milk Co.; X. Y.; S. D., London; Alpha, London; McIvor; Maltine Manufacturing Co.; Sister Kirby, Tottenham; University of Glasgow; Vincent, London.

LETTERS, each with enclosure, are also acknowledged from—Dr. Fraser, Manchester; Mr. Macdougall, Sussex; Dr. Elgood, Battle; Mr. Cox, Brooklyn, N.Y.; Dr. Griggs, Wheatthampstead; Dr. Martin, Blackburn; Mr. Allison, Ayrshire; Dr. Gosford, Liverpool; Mr. Anderson, Carmarthen; Mr. Machell, Shanghai; Mr. Branch, Bath; Dr. Orr, Sittingbourne; Mr. Tyte, Minchinhampton; Mr. Spearing, Chelmsford; Dr. Sutcliffe, Torrington; Mr. Thin, Edinburgh; Messrs. Keith and Co., Edinburgh; Rev. Dr. James, Winslow; Messrs. Oliver and Boyd, Edinburgh; Dr. Illingworth, Acerrington; Messrs. Rowntree and Co., York; Dr. Wallace, Farington; Mrs. Cuthbertson, Rhondda Valley; Mr. Wilkes, London; Mr. Rodgers, Lincoln; Messrs. Godfrey and Cooke, London; Mr. Gardiner, Sydenham; Messrs. Cassell and Co.; Mr. Findlay, co. Durham; Dr. Lister, Chislehurst; Mr. Hale, Chesterfield; Dr. Edwards, Wrexham; Mr. Johnstone, Edinburgh; Mr. Mountford, Coventry; Mr. Hibbert, St. Albans; Dr. McKelvie, Norwich; Mr. Fry, Wateringbury; Mr. Towner, Brighton; Mr. T. Smith, London; Dr. Carmichael, Barrow-in-Furness; Dr. Stewart, Aberdeen; Mr. Wilson, Birkdale; Mr. Brown, Tredegar; Dr. Joynet, Fiji Islands; Mr. Posnett, Huddersfield; Mr. Beville, East Molessey; Miss Pounce, Eastbourne; Dr. Mackay, co. Durham; Dr. Duggan, co. Durham; Mr. Spicer, Chand; Dr. Brooks, Manchester; *British and Colonial Druggist*, London; Iris, London; Secretary, Rotherham Hospital; Veritas, London; T. D. A., London; Secretary, Victoria Hospital for Children, Chelsea; Obstetrician; Secretary, Bradford Infirmary; F. L. P. S., London; Rusticus; Secretary, Hospital for Women, Chelsea; Tutor, Newcastle-on-Tyne; Smedley's Hydrophatic Establishment, Matlock; Gerald; Medicus, Sheffield; Warneford Asylum, Middlesex; H. B., Southport; Hector; Papain; Worcester General Infirmary; Tympanum, London; Devon, London; A. B. C., Goole; F. S., London; B., London; Armitage, London; Scolopax, London; M., Carlisle; E. W., London; Matron, Edinburgh; S. D., London; Wrekin, London; Truth, London; O. L., London; Babbins, London; A. K. L., London; L.S.A., London; 7, Chambers-street, Edinburgh; C. J. R., London.

NEWSPAPERS.—*East Anglian Daily Times, Leicester Daily Post, Liverpool Courier, Newcastle Chronicle, Birmingham Gazette, Law Journal, Western Mercury, Galitgnami's Messenger, Scottish Leader, Llandudno Advertiser, Scotsman, Bradford Observer, Sala's Journal, Windsor and Eton Gazette, Mining Journal, Reading Mercury, Local Government Chronicle, City Press, Surrey Advertiser, Insurance Record, Citizen, West Middlesex Advertiser, Hertfordshire Mercury, Le Temps (Paris), Weekly Free Press and Aberdeen Herald, Burton Evening Gazette, Windsor and Eton Express, Ashbourne News, South Wales Daily News, Builder, Leicester Journal, Le Courrier de la Presse, Home News, Local Government Journal, Oban Times, Architect, Yorkshire Herald, Batley News, Sunday Times, Times of India, Pioneer Mail, Madras Standard, Hereford Times, Darlington and Stockton Times, Donegal Independent, Donegal Vindicator, Sheffield Weekly Telegraph, English Mechanic, North British Daily Mail, Manchester Guardian, Sussex Daily News, Dundee Advertiser, Sanitary Record, Manchester Evening News, &c.*, have been received.

# Medical Diary for the ensuing Week.

Monday, July 25.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, July 26.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
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 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 28.

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 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, July 29.

ROYAL SHERFORD LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

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Address in Medicine,

Delivered at the Meeting of the British Medical Association at Nottingham,

By JAMES CUMING, M.A., M.D., F.K.Q.C.P.I.,  
PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE,  
QUEEN'S COLLEGE, BELFAST.

IN his opening remarks Dr. CUMING referred to the fact that, although the profession of medicine had lost somewhat of its repute in respect to learning, yet at no time had there been more assiduous cultivation of medicine, or its claims to public usefulness been capable of being so triumphantly indicated. He thought that its progress might be furthered still more if chemistry, botany, and natural philosophy were to a great extent banished from the curriculum, since, whatever their value, as developing habits of careful and accurate observation, it could not be denied that there are several subjects more closely identified with medical science which afford ample scope for wide and exact mental discipline. He asked whether as at one time it was necessary to defend medicine from the overweening pretensions of authority and prescription it may not now be necessary to shield it from the excessive demands of science, and he then proceeded as follows:]

We may now leave the negative part of our subject and turn to what constitutes the indispensable parts of our equipment. Besides the so-called practical subjects—medicine, surgery and obstetrics—we should know all that can be learned about the structure and the functions of the human body. Our anatomy must be thorough, although it is instructive to remember, even in respect of a subject so absolutely essential as a groundwork of medicine and surgery, that a surgeon of no less eminence than Lawson Tait entered his protest in Birmingham against the unnecessary minuteness and elaboration of even anatomical teaching. For my own part I am inclined rather to adopt the standard of Huxley, that anatomy should be so learned that the body will be as it were transparent to the eye.

Now one cannot fail to be struck with the fact that among the subjects of greatest present interest there are two which seem to give evidence of distinct currents of thought moving apparently in opposite directions. On the one hand, we find an important part in pathological and physiological processes ascribed to minute organisms, the white corpuscles or leucocytes, which are apparently free from all direct nervous influence and float freely in the blood; and, on the other hand, we find that the domain of the most highly-organised and differentiated part of the body, the nervous system, is being extended and increased. It seems as if attention was being divided not unequally between the simplest elements of the body and the most complex portion of its structure; shared between little masses of protoplasm, which present but slight differentiation in structure, and the nervous system with all its complicated and refined activities and powers. And even, what is still more remarkable, we find a certain similarity in function suggested as existing between these seemingly widely different portions of the economy. It has been long known that unicellular organisms, amoeboid cells, possess the power of choosing their appropriate nutriment and of rejecting what is harmful or useless to them. These facts have been for a considerable time familiar to naturalists and their remarkable character has caused them to be studied with much interest. It has been abundantly shown in respect of animals higher in the scale, but possessing either no cerebral hemispheres or only a rudiment of them, that they are capable of much and varied bodily activity in response to suitable stimuli. With regard to the human body, it has been also established that osmosis does not take so important a part in nutrition as was formerly supposed and that a distinct selective power is exercised by the epithelial cells of the intestines, which, for example, pick out the globules of fat from the materials within their reach and transmit them to the commencement of the chyle vessels. Now the striking observations of Metschnikoff regarding the action of the leucocytes on microbes, the phenomena of phagocytosis, have naturally been received with more favour owing to the knowledge we possessed of facts presenting some analogy with his observations.

No. 3596.

The instructive discussion which took place in the Pathological Society of London during the earlier months of the present year has brought, more prominently than formerly, the facts on this subject before the profession in this country. In the main, I think, we are compelled to accept Metschnikoff's views as representing the present state of our knowledge, and accordingly we must accept phagocytosis, notwithstanding the opposition of some observers of great weight and authority, and notwithstanding some considerable objections. It seems then to be established that certain cells, of which the leucocytes are the most important, possess the power of attacking and destroying certain infective microbes when introduced into the body; that these free, mobile and apparently quite independent organisms act in a manner highly important to the integrity and safety of the body at large, protecting it under suitable circumstances from the injurious effects of virulent bacteria. So much I think may be regarded as fairly established, even should Buchner's views regarding the importance of antibiotic fluids in the blood be ultimately established. It is, however, with a certain degree of wonder, not unmingled with distrust, that we find something of the purposive character which has hitherto been supposed to be the exclusive endowment of conscious beings attributed to these minute, hardly differentiated masses of protoplasm. We learn that under the influence of chloral the leucocytes refuse their work and become anaesthetised, so that the bacteria have it all their own way. We are told that they show a liking for some substances and an instinctive aversion for others, and some facts are adduced regarding their mode of warfare which seems to point to a more than nascent civilisation. One observer describes them as marching right up to the bacilli and attacking them, which seems analogous to the Napoleonic tactics in battle, while the lymphocytes are described as forming a second line of defence, a method suggestive of the more watchful strategy of Moltke. Altogether the demeanour and endowments of the cells open up a field for investigation both as regards cell action in itself and as regards its relation to the organism generally which contains much that is of the highest pathological and physiological interest. A new cellular pathology is being developed, differing widely indeed from the brilliant theory bearing this name so long familiar to us from the powerful advocacy of Virchow, but agreeing with it in the important functions assigned to the ultimate elements of the body as independent factors both in morbid and in healthy processes, and also in representing them as being either uninfluenced or as only indirectly influenced by the nervous and vascular systems in some of their essential activities.

Now while phagocytosis is directing our attention with increasing interest to the minutest and most elementary constituents of the organism, on the other hand renewed zeal is being shown in investigating the complex problems which the nervous system presents to the inquirer. Even with regard to those more doubtful subjects which are in the borderland of legitimate scientific inquiry a revival of interest has taken place. Hypnotism and its allied states have long exercised a powerful fascination on a large portion of the intelligent public, and have been looked on with much curiosity, but always with a little suspicion by physicians. Although not new these singular and striking manifestations have of late been more carefully studied, the methods of producing them have been more clearly ascertained, and one is glad to notice that, instead of being relegated to non-professional men, they have engaged the attention of some of the physicians most competent to conduct such inquiries and most capable of estimating their results with precision and judgment. Whatever verdict may ultimately be passed on hypnotism there can be no reasonable doubt that certain facts have been elicited which show that in the hypnotic condition profound and extensive modifications occur in the sensory and motor functions of the brain. Now admitting much that has been urged against hypnotism; granting that it is likely to attract the attention of men who have a liking for the marvellous; that it can be practised by men possessed of no scientific training and incompetent to deal with the most refined activities of the nervous system, and that it thus lends itself easily to charlatanism and imposture; granting that it may be attended with danger of a formidable kind and also that its field of therapeutic usefulness is likely to be at best a very restricted one, and its effects probably only transitory; still it is a subject eminently deserving of careful and profound scientific investigation, conducted under the most rigid precautions, so as to exclude intentional or involuntary deception. We do not need to be much

concerned about whether, as has been stated, we have in hypnotism a condition akin to natural sleep, or whether it is in reality a pathological state related to hysteria. What is at present wanted is a clear account of the phenomena which are capable of being produced under its influence. If, as numerous statements aver, hypnotic suggestion can be shown to in any degree affect processes of nutrition and the reaction to irritants, then some points of the very highest interest as regards the influence of psychical on physical processes will have been established. Most of us have been inclined to read with a considerable degree of scepticism the accounts of instances in which obvious physical changes have been stated to have resulted from nervous influence, especially when these changes have occurred in a rapid manner. Should the statements on this subject which have been made so positively and on the faith of apparently cautious and trustworthy observers prove to be authentic we shall certainly be compelled to reconsider our position with reference to them.

The opinion is very generally entertained that the diseases of the nervous system are now more widely diffused and more numerous than formerly. It is somewhat difficult to obtain accurate statistics on this question and not altogether easy to ascertain their precise value, but some facts seem open to no serious question. In Ireland the proportion of the insane to the population has steadily increased. I owe to the kindness of the Registrar-General for Ireland the numbers of those mentally affected as shown in the Census of 1891 as compared with that of 1881. The numbers of the insane including idiots were in 1881, 18,313; in 1891, 21,188; an increase of 2875, although the population has diminished by 453,677. The proportion is 224 to each 100,000 of the population. Even allowing for the fact that emigration takes away in the main the healthy and strong, and that consequently this represents the proportion of insane to a much larger population than now exists in the country, still it indicates a very notable increase. The reports of the Registrar-General for England show an almost uninterrupted increase in the mortality from nervous diseases. Some of this is no doubt explicable in other ways, but on the whole the evidence of statistics coincides with the general opinion among physicians that there is an augmentation. Whether this depends on the increase of causes tending to overwork and weary and exhaust the brain and nervous system we need not at present stop to discuss. Now, even those of us who have no special connexion with the treatment of the insane find ourselves frequently brought into contact with questions regarding insanity. Apart from the mere granting of certificates, which, however, is attended with much anxiety and with heavy legal responsibility, there are the numerous minor forms of aberration in which it hardly becomes a practical question whether they necessitate restraint or not, and there are also the many instances in which general affections produce mental phenomena. Then we have the numerous cases of temporary insanity which are never known beyond the families of the sufferers and the medical men to whom their care is entrusted, as well as the incipient stages of mental disease in which skilful management is of the utmost importance. It was no doubt in consequence of considerations based on these facts that systematic instruction on the subject of mental disease has been adopted by some of the examining bodies as a necessary part of the training of the practitioner in medicine, and has thus become a recognised portion of medical education. I may add that the existence of the Psychological Section of this Association is a further proof of the importance of this branch of inquiry to the medical practitioner.

Now, the study of medical psychology alone is to my mind a very incomplete and inadequate preparation for comprehending the multiform disturbances of mental function and is even more inadequate in respect of either diagnosis or therapeutics and in regard to the expectation of adding to our knowledge of cerebral diseases as regards either localisation or character. I have long been of opinion that some knowledge of psychology proper—that is, of the science of the phenomena of mind in its normal conditions—is absolutely necessary. Without an acquaintance with the problems and methods of psychological inquiry it is impossible to observe and to describe adequately the phenomena of morbid mental states. In the investigation also of those conditions in which the disturbance of a single function is what is most manifest and striking, it is clear that a knowledge of the limits of differentiation of function must be of capital importance. It will be of value also to become familiar with the terms used in psychology, in itself a study of no inconsiderable difficulty and extent. In dealing with such questions as amnesia, aphasia, delusions

and hallucinations, and other disturbances of consciousness, we are not only in the sphere of our legitimate activity and of our daily work, but we are touching, not indirectly, on some of the most interesting problems of mind. In examining these questions we get into one of the main currents of modern thought, and have suggested to us some problems which have engaged the attention of many of the acutest intellects of ancient and modern times. Some psychologists refuse to accept any help from physiology, and fortify themselves in the citadel of introspection, declining all external aid. It is said by them that the comprehension of physical processes throws no light on psychical processes, and that these are absolutely heterogeneous. I am not concerned to defend the claims of physiology, which find advocates enough, but in respect of morbid conditions, when we find misery and despondency connected with defective digestion, perversions of the will and deceit attending on hysteria, emotional instability, causeless anger and childish tears and laughter accompanying the later stages of chronic damage to the brain; when, to take a simpler and more-transitory influence, we find alcohol leading to the well-known mental exhilaration which attends the early stages of its effect; when we find opium, in those accustomed to its use, producing such agreeable sensations that De Quincey could state: "Here was the secret of happiness, about which philosophers had disputed for so many ages, at once discovered; happiness might now be bought for a penny and carried in the waistcoat pocket; portable ecstasies might be had corked up in a pint bottle; and peace of mind could be sent down by the mail"; when we find all these and many kindred mental accompaniments of physical changes brought to our knowledge we have the strongest motive to attempt the analysis of the material lesion and of its modifications and varieties. Some of our greatest observers attach much moment to the entire and absolute denial of any relation of cause and effect in these events, and they insist on regarding the neural occurrence as merely concomitant with the mental occurrence. Now, we may grant at once that the nexus between them is as yet undiscovered and may be undiscoverable; but in investigating mental phenomena from the physical side we are doing something that can hardly fail to throw light on certain obscure questions, and we need not embarrass ourselves with any considerations regarding the real connexion or relation with each other of these concomitances. For my own part, I may be permitted to say that the progress of psychology is, I think, in a great measure to be sought for at the hands of the members of the medical profession. In physiology I am convinced that pathological and clinical observation have done more than experiment to elucidate function; and in like manner I have little doubt that the study of morbid and limited and incomplete mental and cerebral manifestations will throw a great deal of light on some of the most abstruse questions in the relations of matter to mind. It will be bringing into action the logical method of difference, the ascertaining the influence of the removal of part of the cause on the effect. Now in assisting in the solution of these grave problems I think our function as medical men is in the main a limited although a highly important one. Our obvious duty is to collect such a body of facts as will afford a sure foundation for future generalisations. Besides the states of marked and more or less well-defined disease which enter of right into our nosological classifications we have a wide field in examining into the influences of habit and heredity, the cerebral peculiarities which, more or less transformed, descend from generation to generation, constituting an "innate preparedness" for the development of particular morbid phenomena; the relations between vice and disease; and the question of when criminality implies merely pathological conditions.

I think we should avoid, at least for the present, the more ambitious philosophical attempts which have exercised during many generations a powerful influence on some of the highest intellects of our race. We need not attempt the great metaphysical questions of substance, reality, the nature of consciousness, the ontological nature of space and time, the essence of causal action and the like. The domain of the clinical and pathological observer is a humbler, but, we may fairly congratulate ourselves, a more fruitful one. Just as biology concerns itself with the manifestations of life and puts aside all theories regarding its nature and origin; just as, in fact, all sciences have to resolutely set aside at the beginning a certain number of unsolved questions, so we may fairly relegate these problems to other and more competent

authority. Nor do I think we should gain much at present by attempting to form any wide generalisations. A working hypothesis is no doubt of the highest utility in an experimental science, even if it ultimately comes to need to be corrected or to be altogether abandoned; and, if the facts which come before us were capable of being called into existence or of being modified at pleasure, such a hypothesis might be necessary for our guidance. But we have to deal only with phenomena not susceptible of voluntary modification, and what we have to do is simply to observe them with accuracy and to record them with fidelity. In these observations the materialist, who regards mind as a form of motion in the brain-cells, and the spiritualist, who looks on it as an immaterial principle underlying the phenomena of consciousness although acting through the nervous system, can work together in perfect harmony, as the problem is to observe and analyse the phenomena brought before them. Even in this task there are limits set to our observations which it is not easy to surmount or evade. Physiologically it seems improbable that we shall ever be able to identify or to accurately estimate the results of mental activity in the shape of oxidation products of brain substance. The weight of the brain is about 2 per cent. of that of the body and we can hardly doubt that in mental processes only a small portion of the cerebrum is employed at any given time. Besides, we have no measure of the relative degrees of intellectual exertion and consequently cannot express them in terms of potential energy.

The nerve-cell must doubtless be accepted as the ultimate unit of the nervous mechanism and the nerve-fibre plexus as containing or constituting the channels of communication between these elementary units of cerebral activity. When we come to localisation of function, with the exception of the motor areas and Broca's convolution and some further fairly definite areas concerned in disturbances of language, we have little which is well ascertained. If, as is hoped, we can make out that in the brains of the insane special areas are differently and disproportionately affected, it is not unreasonable to suppose that these areas may ultimately be ascertained to be connected with special functions. Charlton Bastian long ago expressed the opinion that the posterior lobes of the cerebrum are the most important for intellectual purposes and this view has received the high sanction of Hughlings Jackson. On the other hand, Bevan Lewis<sup>1</sup> lays down without hesitation the following principle regarding insanity. He states that while acute insanity may be regarded as a very general implication of the sphere of mind, and hence of a widespread disturbance of the cerebral cortex, its morbid results on the brain are decidedly concentrated on the motor or fronto-parietal section of the hemispheres. We learn from these conflicting opinions how little is definitely ascertained regarding the most important developments of cerebral activity. If I might indicate some definite lines on which medical observation might be of the greatest value in elucidating some unsettled problems I should be inclined to name among others the aberrations and decay of memory. For this species of observation no apparatus is necessary and the opportunities are daily offering themselves and most abundantly to the busiest practitioner. Have we as yet any sufficient number of facts to justify the dissolution view of the decay of memory—that is, that in the decay of memory there is a certain definite sequence of events. The law of regression, as it has been formulated by Ribot, corresponds to the general principles of dissolution as a reversal of evolution which have been enunciated by Hughlings Jackson with his usual force and ability. The process of decay would then go on in a regular gradation, from the complex to the simple, from that which has been least thoroughly organised or incorporated into the brain to that which has been most so, from the least to the most automatic of our acquisitions, so that we first forget recent events, then intellectual acquirements, then the impressions which belong to the domain of the feelings, and, finally, how to perform automatic acts. All this, of course, depends on a supposition that a physical modification of some of the very many millions of cells of the cortex of the brain takes place originally in connexion with the mental process which memory revives, this modification constituting the organic basis or anatomical substratum of memory. It is suggested that it is in this way that we can best comprehend the retention of impressions which are for a time absent from consciousness, just as it is the intercommunication of the cells which enables us to conceive

how the impressions can be revived. But is this law fairly established? When we reflect on the enormous number of instances in which memory suffers notable, and, so to speak pathological decay in age, it would seem easy to collect and classify such a number of facts as would put this doctrine on a secure footing. But I think this is far from being the case, and the number of exceptions seems to be so great that we may fairly regard this law as at present in this important sphere, unestablished. I have recently had the opportunity of witnessing a curious disturbance of memory in a young medical man, in whom multiple neuritis had arisen in consequence of much and premature exposure to cold after an attack of influenza. Besides the usual paralytic symptoms his memory became greatly impaired. He gradually reached the point of forgetting the year and the month, became hazy about his personal identity, and was doubtful who his wife was, and where he himself was residing. *Nec domus nec placens uxor* was retained in his memory, but he still had a very fair recollection of the leading diagnostic and therapeutic facts about his profession. He had forgotten a great deal, but the platysma myoides was fresh in his recollection, and the differential diagnosis of fluid in the pleura from consolidated lung was retained firmly. These facts, I cannot but think to the no small credit of his teachers, were so organised in his brain that they resisted dissolution.

The phenomena of aphasia, which have been so much studied and about which so many curious facts have been ascertained, bring us in contact with a most interesting problem, the relations of thought to language. It is, I think, doubtful whether without words any continuous reasoning can be carried on, and it is pretty certain that in the absence of the symbol no abstract reasoning could take place. According to the fine illustration of Sir William Hamilton, all considerable progress in thought must be accompanied by a corresponding development in language. "You have all heard of the process of tunnelling through a sandbank. In this operation it is impossible to succeed unless every foot—nay, almost every inch—in our progress be secured by an arch of masonry before we attempt the excavation of another. Now, language is to the mind precisely what the arch is to the tunnel. The power of thinking and the power of excavation are not dependent on the words in the one case or the mason work in the other; but without these subsidiaries neither process could be carried on beyond its rudimentary commencement. Though, therefore, we allow that every movement forward in language must be determined by an antecedent movement forward in thought, still, unless thought be accompanied at each point of its evolution by a corresponding evolution of language its further development is arrested." Now, when we find that a special damage in one situation makes us lose the power of reviving the recollection of the word, although we recognise it when heard; that damage in another region so affects us that the sight of the word does not call up its mental representation, although we see the word plainly; and that lesions in a third region have as their result that the sound of a word will not call up the corresponding idea, although we hear the sound of the word distinctly; it is impossible not to recognise that here we have got a good way in making out the very mechanism of this potent instrument of thought, and it is difficult to see in what other way we could have arrived at a similar comprehension of these complex and refined activities. We learn from facts like these how great a part the observation of the dislocations and derangements of important functions can play in enabling us to better understand the scope and nature of the function itself. Few things are more noticeable in connexion with this subject than the amount of research which is being conducted on the subject of experimental psychology. In this direction much of the best work has been done in the Leipzig psychological laboratory by and under the direction of Wundt, but kindred investigations are being made by various observers. The researches on the intensity and the time relations of sensation and of motor response to stimuli are of the highest interest. They have enabled us to ascertain the time occupied by mental acts, by the reproduction of impressions, by acts of association and by logical judgments. The amount and quality of work done in this direction justify the hope that psychology as a natural science will take its place beside physiology, and that the physical basis of mental activity will be more and more understood and elucidated. I have dwelt, at perhaps undue length, on this aspect of my subject, partly because it has a direct bearing on the relation of medical science to other branches of

<sup>1</sup> A Text-book of Mental Diseases, p. 480.

knowledge and partly because it furnishes a convincing proof of the claim of medicine to take a leading part in the elucidation of important psychological problems.

Again, to take an instance of how medical experience can correct psychological speculation, we may, even if it be a little ungracious, select an example from the writings of a great thinker to whom many of us are under deep intellectual obligation—Herbert Spencer. This eminent psychologist<sup>2</sup> attributes an importance to the circulation in the brain which physicians would be inclined to regard as excessive. He states that quickening of the circulation in the brain causes a rush of unusually vivid ideas and makes the memory more distinct than usual. He contrasts the illusions of delirium as exemplifying the extreme vividness with which revived feelings may rise when the cerebral circulation is excessive, and the loss of consciousness caused by cerebral anæmia as exemplifying the converse result. Now we have ample opportunity of knowing that anæmia is a fertile source of delirium, as the term "inanition delirium" indicates, and while there is much that is doubtful in that most obscure chapter of pathology which deals with hyperæmia of the brain, we know that it is at least as likely to produce somnolence and coma as it is to produce illusions. If the rapidity of the blood-current were so potent as Spencer supposes physical exercise ought to heighten the receptivity of impressions and there would be even a perceptible increase in the erect as compared with the recumbent position. As a matter of ordinary observation it is found to be difficult to collect our thoughts when the circulation is much accelerated by rapid exercise and hardly possible to carry on a train of reasoning requiring any considerable effort of memory. It has been urged by Schroeder van der Kolk<sup>3</sup> that a free communication exists between the arteries and veins in the pia mater so as to allow a considerable portion of the blood, when the circulation has been quickened, to pass away over the cortical substance without entering its tissue at all, thus avoiding the disturbance which its rapid passage through the capillaries of the brain would cause. In this way, as he has put it, the storm sweeps over the brain without our perceiving it.

I have alluded to this comparatively trivial point to indicate how medical knowledge comes to have a direct bearing on subjects of wider and more general interest and to show also how physicians, by bringing their special knowledge to bear in this way on the solutions of some of the most interesting problems which can engage the human intelligence, can best vindicate the dignity of their profession, which will thus have the fairest prospect of again forming an important factor in promoting the intellectual progress of the race. Nor even in a therapeutic sense will studies of this kind fail to bear fruit in enabling us to deal more rationally and more successfully with the morbid conditions of this important portion of the economy. It can hardly be denied that there is a tendency among the most enlightened members of the profession to attach a less overwhelming importance to the administration of medicinal agents and to have recourse to the employment, instead of them, of what may be called physiological remedies for the treatment of the morbid conditions of the mind and brain. Light, air, nutriment, environment, the warding off of hurtful and the presentation of soothing impressions—these are more frequently and more successfully employed than the large class of nervines, of the remedial actions of which we are not so certain as we could wish. And when we add to these the so-called moral treatment, comprising amusement, occupation and the like, we have enumerated most of the agents on which we rely with the greatest and the most assured confidence. I do not wish to be understood as underrating the numerous and potent additions which have been made of late to our stock of nerve remedies. I like to know that they are being constantly added to and that their actions are being more fully investigated and defined. I regard them in the light of a great arsenal of warlike weapons of the newest construction and the most perfect adaptation to their purpose, kept always ready for use and in a thoroughly efficient state of order and readiness. But as I regard it as the highest and most successful statesmanship not to be obliged to employ these powerful weapons in actual warfare, so we best vindicate the efficiency of our art by having recourse to our armaments only as sparingly as may be, confident, however, that at

critical moments and in periods of active disturbance they can be employed with great and admirable effect.

It is a common and easy practice for writers to exercise their wit at the expense of the profession of medicine. Molière and Le Sage have condemned to immortality what was perhaps not a very gross caricature of some forms of practice in their day; but graver and weightier thinkers have lectured us on our shortcomings and have given us much well-meant advice. Now, there is nothing which gives us a higher idea of the ability of the earlier physicians than when we examine the opinions and theories which have been advanced by some of the most commanding intellects of the world in reference to medical subjects, and which are often ludicrous and absurd. The father of modern experimental philosophy, Bacon, brought a charge against physicians that they prescribed in too simple a manner and did not combine together a sufficient number and variety of drugs. It is but justice to say that a number of both ancient and modern therapeutists have applied themselves with no inconsiderable energy to relieve their profession from this reproach. The same great philosopher advised the employment of a peculiar bath to obviate the hardening effects of age, and he hoped by this means to promote longevity and to restore to the rigid frame of age the suppleness and freedom of youth. The bath was to consist of fresh blood, or if that were found loathsome it might be made of milk, butter, yolks of eggs and the fatter kinds of flesh, with oysters and wine, and sweetened with sugar or honey. This extraordinary bath was to be followed by various anointments and frictions. It is hardly to be wondered, when one reads this curious prescription, that Harvey, who was said to have been his physician, remarked of him, "He writes philosophy like a Lord Chancellor." Berkeley recommended, as is well known, his wonderful tar water as not only capable of remedying bodily disease, but as having a valuable influence on the understanding, an effect of matter on mind which we would hardly have expected from the great master of idealism. "Nor is it only useful to the bodies of infants," he says, "it hath also a good effect on their minds, as those who drink it are observed to be remarkably forward and sprightly." When we remember that at the time this passage was written Cullen and William Hunter were teaching medicine and anatomy we have no reason to think that the physicians of that day had much to learn from the metaphysicians. Kant, the most profound speculative genius of Germany, was strongly opposed to vaccination, which he called "the inoculation of bestiality," and he was enthusiastic about what he regarded as the great discoveries of Beddoes regarding the prevention and cure of consumption. One of these discoveries was the use of digitalis as a remedy for phthisis, which Beddoes regarded as opening out a brilliant era for humanity, as in his hands it cured a large number of cases.

Now, when we see the notions which existed on the subject of medicine among these great and highly endowed thinkers we can form some idea of the views which would in all likelihood find favour among the masses of mankind and the effects to which such views were likely to lead, and we can form, too, a fairly adequate notion of the superiority on their own ground of the contemporary leaders of medical science. We can see, too, what important services legitimate medicine has rendered to the world, even if it had only the negative merit of protecting mankind from disastrous and ignorant meddling. Physicians cannot accept the position of mere *curiosi nature*; in presence of serious disease they must act with the best means they possess. Failing in this duty they would be justly liable to the reproach of Mephistopheles:—

"To grasp the spirit of medicine is easy,  
Learn of the great and little world your all;  
To let it go at last, so please ye,  
Just as God will."

We must always remember that it is by its utility to the world that medicine must ultimately stand or fall, but we must use the word utility in its widest signification as comprising, on the one hand, all the special activities of our profession in preventing or mitigating or removing human suffering, and on the other all its incidental advantages in aiding the development and progress of human intelligence by taking its position along with other members of the group of sciences of observation. It is to be regretted, but I fear it is inevitable, that the study of the old humanities must be curtailed and must even in some measure disappear from medical education. Greek seems doomed past recall, and it will perhaps be possible to say at some future day of the

<sup>2</sup> Principles of Psychology, vol. 1., p. 287.

<sup>3</sup> Mental Diseases, translated by Rudall. London: Churchill, 1870, p. 36.

medical profession, as Petrarch said of Italy in the fourteenth century, that it did not contain more than ten persons who could appreciate Homer. And yet, in putting aside Greek, medical men will miss some of the finest products of the human intellect moulded in the most perfect form. Many of those who take an interest in the study of the subjects I have been imperfectly advocating will be glad to be reminded of what is surely one of the most touching passages in ancient literature, that in which the scene before the death of Socrates is related in the *Phædo* of Plato, when the illustrious old psychologist after his fetters had been removed began to bend and rub his leg where the chain had galled it, saying as he rubbed: "How singular is the thing they call pleasure and how curiously related to pain, which might be thought the opposite of it; for they will never come to a man together and yet he who pursues either of them is generally compelled to take the other." Our psychologists are to-day still busily engaged in investigating the same problem.

Latin will make a harder fight to maintain its place and will probably succeed in retaining it. If it should fail it will be impossible not to feel a profound sense of compassion for the physicians of the future if they are never to be admitted to the simple feasts at the Sabine farm at which educated men have been charmed guests for so many generations, or if they are never to feel the beauty and finish of the hexameters of Virgil. I do not suggest that grace of style or elegance of diction is to be regarded as of intrinsic value in medical writings—

*Res ipsa ornari negat, contenta doceri.*

Works on a subject so changing as medicine is are destined to a comparatively brief existence and any prolonged or anxious care devoted to their form and finish would be alike unnecessary and fruitless. The classical Latinity of Mead and Heberden has not saved their works from all but total oblivion. The same fate is destined, at no remote date, to overtake the eloquent periods of Latham and the charming lectures of Sir Thomas Watson—lectures which surely not merely early prepossession which makes me regard as among the finest English prose of the generation which witnessed their publication. But good writing satisfies the literary conscience of the author and gives a not altogether undesirable pleasure to the reader. The pursuit of literature is everywhere being regarded as less necessary—and we must be of our generation—and from a utilitarian point of view it is impossible to give more than a passing regret to those branches of learning which have so long been regarded as the stamp and evidence of culture. What with unconscious irony are called the paying subjects are brought more and more prominently forward in general education and those studies which bear on professional training will ultimately prevail to the comparative exclusion of all others. But it must be also borne in mind that it is not by the mere accumulation of scientific facts that the physician of the future will gain his most valuable training. It is by those studies which develop and heighten intellectual energy and aid in forming and promoting that flexibility and grasp of mind which enable it to deal with the varying problems which medicine presents in such abundance. It was remarked by Dugald Stewart that Locke owed some portion of his success as a psychologist to his medical training. "No science could have been chosen more happily," he observes, "to prepare such a mind as that of Locke for the prosecution of those speculations which have immortalised his name; the complicated and fugitive and often equivocal phenomena of disease, requiring in the observer a far greater portion of discriminating sagacity than those of physics, properly so-called, resembling in this respect much more nearly the phenomena about which metaphysics, ethics and politics are conversant."

It will always also be of great aid to the physician to be able in dealing with those committed to his care to recognise the influence on them of ideas of hope, of confidence, of endurance; to be able to deduct from their complaints what is the result of an impressionable nervous system and what of pure imagination; to solve, as nearly as may be, the personal equation. These capabilities will supplement beneficially the most refined and accurate physical diagnosis. We need not doubt that the multiform aspects of disease, following, as they do, closely on the track of all the numerous and diversified forms of human energies and activities, will afford ample scope for the freest exercise of the highest scientific faculty as well as for the employment of the most minute and patient observation. The tendency of the

medicine of the future will no doubt be in the direction of greater specialisation. Physicians and surgeons will devote themselves more and more to the cultivation of a limited portion of the vast and always widening field of knowledge. Medicine must adapt itself to the varying necessities and requirements of the world. It must prove itself capable of supplying the wants of a civilisation rapidly becoming more complex in its development and therefore more varied as well as more exacting in its demands. It must press into its service all knowledge, physical and mental, likely to aid in the furtherance of its mission; accepting the help of its sister sciences, but allowing itself to be dominated by none of them. It must be alike flexible in its methods and steady in its aim; and it must be at once cautious and aspiring, always sane in practice, while bold in speculation. But at the same time it behoves all those concerned in its guidance, or responsible for the instruction of those who are to become its members, to bear in mind its position as one of the main supports of the tripod of learning, as one of the great factors in the intellectual progress of humanity; being well assured that it cannot sacrifice any portion of its intellectual elevation and dignity without a corresponding sacrifice of its truest and most practical usefulness.

## Address in Surgery,

*Delivered at the Meeting of the British Medical Association at Nottingham.*

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### SYNTHESIS IN SURGERY.

GENTLEMEN,—It has been found by some of my predecessors in this rostrum that the advances in surgery have been so great and so important that to follow them at all closely in their many ramifications would be impossible. This difficulty seems to have occurred to my immediate predecessor, the learned Edinburgh surgeon, Professor Chiene, who in his admirable address, turned at once, and for relief, as it were, to surgical rest. But the rest, aptly termed surgical, for which Mr. Chiene, following Mr. Hilton, had secured so much attention was objective. Methinks that with this much needed surgical rest there runs *pari passu* a surgical unrest which is subjective and which will be my text for a moment. On this, the eastern side of the Atlantic, where in every branch of commerce, in every trade and handicraft, in every liberal art, in every learned profession, the lines which divide the work to be done by each are, for the most part, clearly and distinctly traced, the steady agitation of life is marvellous, and would seem to favour the view long ago expressed by De Quincey that solitude was, even in his time, becoming a visionary idea in this country. Yet to me it appears life here is calm, quiet, placid when compared with that on the western continent. Here there is time for easy and familiar intercourse; there it is grudgingly given. Here you leisurely perform the functions necessary for the repair of wasted tissue and the reception of food; recreation and sleep have their due time allotted to them; there they are unduly curtailed as things which might be realised and converted into currency. This state of unrest everywhere—but especially in the western world—is not favourable to the surgeon, the full capacities of whose intellect are not unfolded without sufficient occasional leisure and thought and retirement, all of which are, in some measure, denied him in our new and over-active world. With you, as with us, but, as it seems to me, not so much with you as with us, the average surgeon of to-day is less a man of thought than a man of action. He is constantly liable to disturbance, either from the particular character of his calling or from the agitation of all around him, of which he soon partakes. He is made to eschew the more meditative habits which would the better fit him to weigh well and to adopt or reject what should be adopted or rejected without reference to authority or without being swayed by the influence, not always safe and reliable, of superiority of position or of condition.

Perhaps at no time in the history of our art have the facilities been greater everywhere than they are at present of

arriving at conclusions which may not be intelligent and of being misled by representations which may not be strictly true. In the few intellectual centres in ancient times opinion was gradually formed in solitude. It advanced in regular progression and from mouth to mouth, as it were. To-day, with steam and electricity and the wondrous and unceasing development therefrom of vast physical agencies men are brought nearer to each other. Truth to-day travels with the speed of lightning, but error also and with like rapidity. Opinion formed in a large centre acts especially on the imagination of those around and more powerfully still perhaps of those at a distance. It does not always convince, but it impresses; and, quoting the words of a classical writer, it has the force of authority rather than of reason, and concurrence in it is not always an intelligent decision but a submission or belief. Our minds are often misled by misrepresentations and they remain misled till other and true representations put them right again. Surgical opinion, in an especial manner, is at first and for some time what seems to be thought by everyone in general and by someone, or perhaps no one, in particular. An opinion hurriedly expressed by eminent or even prominent, or perhaps only self-beguided, authority is adopted; it is propagated, it becomes the opinion of the general body; and although we may have resisted the influence of the individual authority in the first instance we finally succumb to the voice of that general body of which we are constituents—each part having, without perceiving it, perhaps done its share in diffusing truth—it may be in extending error. The views on surgical questions, expressed ere they have been fully considered; hasty reports of surgical cases and premature records of surgical operations—especially if they have been bold and novel—when published within a few days of their performance, are often misleading. Had the publication of so-called successful cases in medical journals for its sole object the elicitation of truth error in time would be of small moment. The haste in publishing enables the operator to send copies broadcast over the land as a bid for like operations. Is the journalist quite blameless in facilitating the premature publication of cases which had left, it is true, the hands of the surgeon or the surgical ward of a hospital to terminate fatally in the hands of a medical practitioner or in a medical ward from the direct, though perhaps not immediate, result of surgical interference? Would that that tutelary deity who is supposed to preside over medical journalism would so ordain that there be a little less hurry, a little less zeal in taking the public partially into one's confidence, and in publishing successes while they are yet problematical. Readers of the journals of both hemispheres have occasionally noticed in yours a greater precision in reporting cases and in stating facts than what obtains always in the western world. You do not so often indulge in unknown quantities and dates, and other circumstances are stated with greater fulness. I have noticed the same features in your discussions. An absence of that precision in America must not, however, be allowed to take from the value of a report. It is due in great measure to the hurry and unrest, the variety of fatiguing work a surgeon is called upon to do and the difficulty, even in cities, of having properly qualified clinical assistance. Outside of well-organised hospitals there are well-qualified nurses for the rich—their services are beyond the reach of the poor—and they append the temperature and pulse chart; but beyond this there is often no record till the case is finally summed up by the surgeon, when the feature of treatment is added. Men of action, who have left and are leaving the impress of their intellect in the more practical departments of our art, have been obliged to search in their visiting list or their day-book, where the more methodical arrangement of your work enables you to be more precise. Sometimes the facts are drawn from memory and, for all that is essential, correctly drawn, though dates and other precise circumstances are often wanting. It is from this hurried manner of reporting cases that doubt is sometimes felt of their credibility when given without reference to minor parts which are not considered essential to their truth. The older members of this Association can recall how the statement was received from America some years ago that a crowbar had been driven through a man's skull without killing him, and how brain matter had been found adherent to the strong bar of iron at a distance of many feet. The number of feet was not given (I cannot give it now), but the statement nevertheless was true, even without the lesser detail of distance. Many of you will remember how little disposed you were to believe that a sponge

probang, charged with solution of nitrate of silver, could be got beyond that watchful sentinel, the epiglottis, and be applied to the larynx. Who doubts it now? The same may be said of Sayre's assertion, discredited at the time, that after excision of the bones of the hip-joint the joint could be so arranged that the little patient could be borne from one place to another and without injury. Many of you have seen Sayre's work.

Were I disposed to dwell on American surgery I could greatly multiply instances of this kind, but that is not my purpose. I shall merely add that it must be apparent to readers on this side of the Atlantic and to those who have visited the western hemisphere that the American surgeon arrives, in his own way and with marvellous celerity, at the chief points in a case—at its gist, its essence, so to speak—by a process which may not be strictly called logical, but which partakes rather of an intuitive intellectual judgment or perception. He seems to recognise truth, or something he takes to be truth, without any elaborate process of ratiocination. This marked quality in the American mind renders him prone to eclecticism, not alone in medicine and surgery, but in philosophy and even in matters of theology sometimes. The relatively greater freedom from death which Valentine Mott, more than half a century ago, claimed for surgical operations performed in New York and Philadelphia I claim, and more advisedly claim, for operations performed in the larger cities of Canada. The inflammations which sometimes follow surgical procedures with us are indeed accentuated and are marked by much elevation of temperature, but the character of those inflammatory processes is of a simpler, plainer, more sthenic type and not of that irritable form which so often perplexes hospital surgeons in the larger centres of Europe. The climate of Canada has much to do with this. In many parts of Great Britain mortality, from all causes, increases with the decrease of temperature; with us it is the reverse. Our winter season, with the temperature of St. Petersburg, is the healthier; spring and autumn come next in salubrity; while the largest mortality is in July and August, when the temperature is that of the same months in Paris. At certain seasons the atmosphere is so dry that the ment of the buffalo and the red deer, when cut into strips and dried in the open air, may be reduced to powder, forming the pemmican which often alone sustains the aborigine in his wanderings. When you add to this condition of climate the simple frugal habits of the people—well fed, well clothed, well housed—where, like Longfellow's Arcadian, "the richest are poor, and the poorest live in abundance," you have a sturdy energetic race who display much power of resiliency when their injuries demand the intervention of surgery. It is, moreover, a people subject to few ailments, and these are of a sthenic inflammatory type. Thorough acclimatisation is found to confer additional immunities. Those who can count the greater number of generations born in Canada are the healthier, while those undergoing the process of acclimatisation do not suffer in the processive state. These remarks do not apply to the descendants of the aborigines who have been allied to the whites. The inflammatory affections met with in the *métis*, whether of the French with the Huron or of the Scotch with the Cree, are for the most part of a strumous type, presenting but few of the characteristics of those affections in the people of either progenitor. There are no surgical diseases in Canada which have not their counterpart in every portion of Europe, two alone excepted, when, in the words of Milton,

"the parching air

Burns froze, and cold performs the effect of fire."

Frostbites are met with (among the non-acclimatised chiefly), and when snow covers the land the *mal de raquette* is complained of by those who suddenly, and without preparation, are called upon to make long and hurried journeys on snow shoes. Aneurysms are not common in Canada; chronic rheumatic arthritis is seldom met with; rickets, which the Germans still love to call, yet they cannot say why, "Englische krankheit," is scarce; strumous ophthalmia, which is so constantly seen in the hospitals of Vienna, London, and Glasgow, is not frequent; and in cancer, especially of the breast, the glandular system is not generally primarily affected, affording thereby a fairer chance of freedom from early recurrence of this disease. I allude to this illness advisedly, as I observe that some of your more distinguished surgeons counsel removal of the axillary glands in all cases of scirrhus of the breast—advice which, from my experience in Canada, I am not disposed to follow.

It is true that on the eastern coast of New Brunswick in

Canada a few lepers are met with in the lazaretto there, but the disease is not indigenous to the soil. Nearly a hundred years ago two shipwrecked sailors were cast ashore at a place called Tracadie. They were the subjects of leprosy. A French-Canadian woman gave them shelter. She washed their linen, contracted that pitiless disease and transmitted it to her children. These marrying, a small colony of lepers was formed. The number was at one time about seventy, but is now diminished to twenty-two, under the care of the sisters of charity from the Hôtel Dieu Hospital of Montreal. Outside those walls there is no disease peculiar to the country. As acclimatisation effects certain changes it affords also certain immunities from which those not similarly circumstanced cannot expect to benefit. The acclimatised bear injuries well. Living in a simple primitive state they require occasional aid from the surgeon and less from the physician. Colonists in thinly settled districts sometimes send long distances for surgical aid in cases of hernia or dislocations. The *ramacheur* or *rebouteur*, as he is styled, is supposed to have an intuitive knowledge of broken bones, and how best to replace them. In dislocations, however, these men are less fortunate; and although their practice is invariably to find a small bone out of joint, which they incontinently proceed to reduce with an audible snap (of their own hidden thumb and finger, be it added) they do not attempt to reduce dislocations of the larger joints. I once had a case of dislocation of the hip of fourteen weeks' standing brought to me a distance of 1500 miles. It took that period of time, after the *rebouteur* had done with the sufferer, for him to reach Montreal in a box like a closely-fitting coffin. The padding was so perfect that movement of either limb or body was thoroughly prevented during a rough journey extending over six weeks. Domestic surgery in civilised countries might in some things learn a little from the primitive methods of our aborigines. For instance, the treatment of the newborn by the latter is judicious. The yielding abdominal walls are never compressed by a unyielding bandage, and the young bird in its nest is not more comfortable. As the varied movements of respiration are not impeded, the infant cries but seldom. It never suffers from the local troubles as the children of the whites often do. The urine is carried beyond the infant's person if a male, by an ingenious mechanical support which directs the stream. Feculent matter is received into dry moss, which is to be found in large quantities in every wigwam where there is an infant. If in the depths of the forest an Indian breaks his leg or arm, splints of softest material are at once improvised. Straight branches are cut, of uniform length and thickness; these are lined with down-like moss, or scrapings or shavings of wood, or with fine twigs interlarded with leaves, if in summer; or with the curled-up leaves of the evergreen cedar or hemlock, if in winter; and the whole is surrounded with withes of willow or osier, or young birch. Sometimes it is the soft but sufficiently unyielding bark of the poplar or the bass-wood. Sometimes, when near the marshy margin of our lakes or rivers, the wounded limb is afforded support with wild hay or reeds of uniform length and thickness.

To carry a patient to his wigwam or to an encampment a stretcher is quickly made of four young saplings interwoven at their upper ends, and on this elastic springy couch the injured man is borne away by his companions. When there are but two persons and an accident of this nature happens to one of them, two young trees of birch or beech, or hickory are used. Their tops are allowed to remain to aid in diminishing the jolting caused by the inequalities of the ground. No London carriage maker ever constructed a spring which could better accomplish the purpose. A couple of cross bars preserve the saplings in position and the bark of the elm or birch cut into broad bands and joined to either side forms an even bed. In this way an injured man is brought by his companion to a settlement, and often it has been found, on arrival, that the fractured bones are firmly united and the limb is whole again. This is effected in less time than with the whites, for the reparative powers of these children of the forest are remarkable. In their plenitude of health osseous matter is poured out in large quantity, and firm union is soon effected.

[Dr. Hingston here showed a femur of an aborigine in which the osseous matter was so profuse as not only to unite the fracture, but to form a bed on which the tuberosity of the ischium was made to rest.]

The healing powers of the aborigines when injured are equalled by the wonderful stoicism with which they bear injuries and inflict upon themselves severest torture. They are accustomed to cut into abscesses with pointed flint; they light up a fire at a distance from the affected part (our

counter-irritation); they amputate limbs and sometimes they amputate their own limbs with their hunting knives, checking the hæmorrhage with heated stones, as surgeons were accustomed to do in Europe in the time of Ambroise Paré, with more *sans froid* than many young surgeons will display when operating on others. The stumps of limbs amputated in this primitive manner are well formed, for neatness is the characteristic of all the Indians' handiwork. The aborigines are familiar with, and practise extensively, the use of warm fomentations. In every tribe their old women are credited with the possession of a knowledge of local bathing with hot water and of medicated decoctions. The herbs used are known to a privileged few and enhance the consideration in which their possessors are held. The Turkish bath, though in a simpler but not less effective form, is well known to them. If one of their tribe suffers from fever, or from the effects of long exposure to cold, a steam bath is readily improvised. The tent of deer skin is tightly closed, the patient is placed in one corner, heated stones are put near him and on these water is poured till the confined air is saturated with vapour. Any degree of heat and any degree of moisture can be obtained in this way. Europeans often avail themselves of this powerful sudatory when suffering from rheumatism. The aborigines have their herbs—a few, not many. They have their emetics and laxatives and astringents and emollients, all of which are proffered to the suffering without fee or reward. Now and then the surgeon of practical trend of mind has opportunity to turn this quality, essential in a new country, to advantage. I could in illustration relate many instances, but shall confine myself to one or two. My predecessor in the surgical clinic, the late Dr. Munro, an eminently practical surgeon, was travelling in a wild part of the country when he was asked to see a man suffering from retention of urine. Munro had no catheter with him, and many miles interposed between him and an instrument and the roads were wellnigh impassable. He looked around the log cabin for something wherewith to enter the bladder, but saw nothing. He noticed, however, that the floor was cleanly swept and that implied the use of a broom. He asked to see the broom. A corn broom was brought to him and with it he soon entered the man's bladder. How? some will ask. With the handle? No. With the corn tops? No. He had noticed that the corn tops were bound to the handle with wire; this he quickly unrolled, made a loop at the free end, and as he unrolled he straightened the wire by putting his foot into the loop, bent a piece, gave the double end a slight curve, and passed it easily into the bladder. The free ends which remained without the body separated somewhat, and the pent-up fluid passed between them. It is not always that the devices which were found to be successful in an emergency are put aside for something which might be better though not so primitive. Some years ago I was present at a meeting of a medical society, not in Canada, 'tis true, but in one of the more western of the United States. A gentleman from one of the large centres had exhibited an instrument for removing foreign bodies from the nose. He extolled its advantages, was applauded, and everything promised well. I noticed, however, a smile on the faces of many present when a small nervous man advanced somewhat briskly to the platform. I wish I could give you anything like a faithful sketch of his manner. His style was sharp, his language terse, and personal pronouns were used most sparingly. He commenced somewhat in this fashion: "Mr. President,—Much obliged to the gentleman from the city. Long distance for him to come to show us this instrument; long distance for us out here to send for one when wanted. Now, when called to see a child with a cherry or any other kind of stone, or a pea, or a bean, or a bead, or a button in his nose, not going to send all the way to the great city for this instrument, and for the professor to come with it—for that's what it means. Can do without both. Wherever there's a boy with something in his nose that has no business to be there, there is sure to be a woman in the neighbourhood, and wherever there's a woman there's sure to be a hairpin. Now, with the boy and his nose and something in it, and the woman with her hairpin and a live doctor and his jack-knife, nothing more is wanted. Now, with the jack-knife, half open, bend the double end, coax this bent end along the roof of the nose, raise the wrist a little, and withdraw with the bent end well down, and if one of the child's toys is there it's safe to come. Wouldn't give that instrument (he had made one while addressing us) for the instrument of the gentleman from the great city, and it don't cost as much money. There's not enough of that in the backwoods for the Professor."

Returning from this digression, although allusion has been

freely made to the primitive manner in which surgery is sometimes practised in Canada, it would be an error to conclude that such is by any means its general state. In the larger Canadian cities surgery in every department is pretty much what it is in the more favoured centres of Europe. There is with us as much refinement in diagnosis, as much dexterity and courage in performing surgical operations, and as much nicety in the technique. All the cavities of the body, brain, chest and abdomen have been explored and the diseased organs operated upon. Canada follows Europe closely, very closely, in all her work. She has had the boldness—may she be pardoned—to precede Europe in some departments of surgery. The tongue and lower jaw were together first removed in Canada; the innominate and the gluteal arteries were first ligatured in Canada; and the credit of the first nephrectomy, which writers give so generally to Germany, belongs to Canada and to Montreal. But why should Canada be in any way behind? The better classes of her students, not content with receiving instruction in their own medical schools, pass one, two and sometimes many years in Europe before commencing the practice of their profession in Canada. London, Dublin, Edinburgh, Paris, Vienna, Berlin are never without a contingent of young Canadian graduates, and, as you well know, many of our medical practitioners periodically visit Europe to add to their stock of acquirements and to renew their zest and relish for professional labour.

The erection of hospitals has in later years been with us the work of individual effort and of private subscription. Hospitals are met with in all large cities in Canada and sometimes even in the smaller towns. The last hospital erected in Montreal—the Victoria—is the magnificent gift of two of her citizens. The first one—the Hôtel Dieu—is the outcome of female love and heroism. The history of the latter is so strange, so unusual, that I may be pardoned if I allude to it at length. When Jacques Cartier returned to France after his discovery of Canada the news of his exploit travelled over France as quickly as was then possible. A French girl, described as young and beautiful, became impressed with the thought that the newly-found country should be the scene of her labours. She succeeded after a time in fitting out a small barque, with money furnished by a Madame Bullion, and with twelve sailors crossed the Atlantic in the spring of 1641. The sea voyage to Quebec occupied three months; it can now be accomplished in one-fifteenth of that time. The journey from Quebec to Montreal by the St. Lawrence, which can now be performed in a night, then occupied eight days. Miss Mance's barque came to anchor at a projecting point off the island of Montreal, then called Hochelaga. Hochelaga was then the *chef-lieu* of the warlike Huron. They looked with amazement at the advent of pale-faced men and one pale-faced woman—for she was alone of her sex. They soon recovered from their surprise, however, and it was necessary for the colonists to throw up as quickly as possible wooden palisades on the land or rear approach; the big canoe, as the barque was styled, was a sufficiently imposing defence in front. If a colonist ventured beyond the palisades to gather fruit or berries or to cut wood he ran the risk of being pierced with arrows. Half of the first colonists perished in this manner and Miss Mance was obliged to go back to France in 1649, returning with other recruits; and again in 1658, leaving France with twenty male and female recruits, half of whom died on the voyage of a form of plague. In their attacks on this small force some of the red men were wounded in return and, when deserted by their comrades, they were brought within the palisades to what they and their tribe considered—according to their own custom in warfare—certain death. They soon found the hospital to be a place of woman's tenderest solicitude. When the red man's wounds were healed a repast of dog's meat was prepared for him and he was permitted to rejoin his tribe to tell what the pale-faced maiden had done for him. It need not surprise us to be told that in the presence of such devotion the warlike Huron soon forgot his ferocity.

A few years later it was necessary for the small colony to move a few hundred yards inland. Word went throughout the Huron camp, and before the hour of departure the aborigines had strewn the ground with leaves and branches of trees and wild flowers, saying the earth was not fit to receive the tread of these women. In this way our first hospital was established, and in this way the light of Christianity was brought to the island of Montreal. Here is how it has been sustained. Miss Mance had obtained from the French king a deed of gift in perpetuity of the small piece of ground where

she had landed, which at that time was valueless. It became, however, in the course of time the centre of the village of Montreal, and eventually the commercial city clustered around it. A century and a third ago, when Canada passed from the rule of France to that of Great Britain, respect was paid by the conqueror to the rights originally conferred by the French king; and the hospital, which at first had but the aborigines for inmates, received within its walls, as colonisation went on, persons of every succeeding nationality. For upwards of a hundred and fifty years after its foundation it alone afforded asylum to the sick and wounded of Montreal. How many from these shores, when sick and disabled, have received maternal care! How many of your children, then, in that then far-off land, have had the pillow of death smoothed for them, and without fee or pecuniary reward! And the same continues to this day; for the property preserved to them by a wise conqueror has, with economy, sufficed for the wants of the institution without municipal aid or Governmental patronage. Between the foundation of this our first, and the Victoria, our last, hospital, other hospitals have been erected—chiefly the Montreal General Hospital, the Western, and the Notre Dame; and all that generosity on the part of the public and zeal and ability on the part of the staff can effect are prodigally bestowed.

In my desire to place before you—and the occasion is so rare—a sketch of what relates to professional life in your greatest colony, I fear I am being beguiled beyond the reasonable and the considerate. I shall turn for a few moments to what you in the Old World and we in the New have a common interest, the division of professional work. There was a time, not yet in the far past, when the human body, in its entirety, came within the scope and purview of the medical practitioner. As the knowledge of cause and effect in medicine became more fully understood; as facts were multiplied and methodically arranged; as the art of healing became so fully developed as almost to permit it to substitute its precepts and rules and directions for those principles which are fundamental, and which belong alone to science; and when morbid anatomy opened a new and practically an inexhaustible field of inquiry, many men gave themselves up almost exclusively to a particular branch or section of medical knowledge, and pursued it with such zeal and ardour—not always, perhaps, for the sake of knowledge, but by some (let us hope not often) for the sake of its productive application—that to synthetise and unite again under a common head parts which have been segregated now seems to be almost impossible, even were it advisable, and for two chief reasons:—1. When in our profession men of energy devote themselves to any branch of knowledge, and apply their minds with continued attention, they cease to realise that, beyond and around them, there are other branches of our art which are of the same origin, which partake of the same nature, and which cannot be divorced from each other without mutual injury. 2. Although reputed pre-eminence in one department of surgery is admittedly a hindrance to advancement in any other department of the same art, and although pre-eminence narrows the horizon around the worker and limits the scope and extent of his work, the one so cribbed and confined within those narrow limits and who obtains pre-eminence within those limits is more surely advanced than is one not so restricted. "The very narrowness of a man's claims," says a classical writer, "by making them definite and appreciable is an advantage. The advantage lies in doing a thing which has a name—an appreciable name—and the narrower is the art, the more appreciable are the degrees of merit in that art." One so restricted, provided he excel in his narrow sphere, "will find himself a privileged man in comparison with the philosopher or the very largest and amplest intellect that ever nature endowed or education expanded."

Nowadays it is difficult for men, even of superior intellect and of liberal knowledge, to avoid being drifted away into one or other of the narrow streams leading into or from the general highway of surgery, and becoming so absorbed in the pursuit of partial truth as not to perceive that it is wanting in many parts; that it is incomplete, unfinished and defective, and can only obtain wholeness when facts are arranged and when phenomena, however distinct they may appear to be, are brought under a common law. No separate department of surgery when isolated from its surroundings for the purpose of inquiry can of itself become an art. I cannot emphasise this too strongly. It is only when the mode of its reticulation with those around it is understood that any particular or special object of pursuit in surgery can hope

to be dignified with the name. Each part, each division, each subdivision—in a word, each speciality—is as the separate clauses in a sentence, which are essentially “architectural parts, aiding, relieving, supporting each other.” As an illustration let me take for a moment the real or fancied disturbances of the functions of certain organs often considered to be the most important of all the organs, compared to which, in the minds of some, the rest of the body (female I mean) is a mere appendage. In many places men have been bold in taking liberties with them, removing them sometimes as if they were of themselves particular or distinct entities, unconnected with or uncontrolled by, and having little relation to, a thinking faculty of mind which readily receives impressions, which is easily affected by sensations and which is quickly disturbed by emotions and passions. Has not quackery gained, has not poor woman lost and has not our profession suffered in honour and dignity by the refusal or neglect of the surgeon to seek for parallelisms and comparisons in other departments of the art? or perhaps, as it sometimes happens with uninformed minds, by the inability to consider any question by a process of mental abstraction, without which science—i.e., knowledge of laws and principles and relations—does not exist. Is it not the tendency of many other departments or segments of our art to take a part for the whole and to give to that part a width, an extent, to dwarf into littleness the limit or exterior line of all other departments? Gentlemen, the exclusion of what is cognate diminishes the value of what is accepted in direct ratio to the value of what is excluded. As the process of analysis has gone on till we can scarcely expect to see it greatly extended, it may occur, it has occurred, to many to ask: Is it not time to hark back upon our course and see if, in the interests of the public even, as well as of our art, a more general synthetising is not desirable, when the approximation of parts which have been divided and which have been kept too much asunder should not be aimed at? As long ago as the second decade of the present century honest John Abernethy, in his remarkably practical essay on the Constitutional Origin and Treatment of Local Diseases, said an evil seemed to him to have arisen “from the artificial division of the healing art into the medical and surgical departments. This division,” says he, “has caused the attention of the physician and the surgeon to be too exclusively directed to these diseases which custom has arbitrarily allotted to their care.” But medicine then was one and surgery was one. What would Abernethy say to-day when each section of the human body is apportioned and allotted, and when, paradoxical as it may seem, each part is often considered to be greater than the whole? Whether a mixed or an unmixed good—and I shall not stop to discuss the question—the art of surgery is becoming more and still more divided into an ever-increasing number of special or particular branches of study or pursuit, each branch having its respective province or domain, which, it cannot be denied, is sometimes kept more distinct by an exaggerated interpretation of its importance. Yet each must ever remain cognate to, and in close relationship with, every other department of the art, for there are no limits or boundaries to their various departments, and a seemingly intimate acquaintance with one and a total nescience of others are crass ignorance of all, for “all are but parts of one stupendous whole,” as the poet puts it. I hope this will not be understood as an expression of a desire to interfere in any way with the pursuit of any particular course, however narrow it may appear to some, however vast to others. My desire is to extend the horizon of each, not to narrow it, and to show that all branches of our art are cognate to each other. So long as there is division of labour there must, indeed, be division of thought; but the narrow limits and boundaries endeavoured to be established are arbitrary. Part is intimately connected with part and a full knowledge of the functions of any part and of its derangements can be had only by those who have a general knowledge of the disposition and arrangement of other parts and their countless and never-ending relations to one another in that wonderfully constructed whole—this body which we inhabit.

In view of what has been said I am impelled to ask, Has the candidate for admission to the study of surgery that mental outfit which would enable him to weigh well the facts and circumstances as they will be presented to him in professional life? Or is it not too frequently the case that his memory has been loaded—overloaded—with material for the most part ill-digested, but with a modicity of knowledge which might be termed liberal, and perhaps, withal, with an absence of logical inference as an instrument of truth.

Memory, however retentive, and stored with facts however great in number, never alone in our profession raised its possessor above mediocrity and retained him there, save when the science of causes and principles was understood, and when philosophy could be invoked wherewith to analyse facts and to place them in relation to other facts which an irrational eye could not see, and which the unphilosophic mind could not understand. Of course I speak not of genius which is trammelled by no law save that which belongs to genius. Never, perhaps, in the history of surgery has the necessity been greater than it is at present to furnish those who are to devote themselves to the art of surgery with an adequate mental outfit, to enable them to say what surgical ailments are by their relations to other phenomena, and to recognise the “consent of the whole constitution with its parts and with other parts which may appear to be remote, but which can never be considered quite separately and without reference to an unfailing sympathy, continuous, contiguous or remote.” Accompanying each part or section of the art in its remotest, most intimate penetral, the facts there gathered, the phenomena there observed, are but segments or fragments of a greater part—of larger phenomena—which the logical mind alone can fairly interpret; for it alone can apprehend these facts and phenomena in their various bearings and relations, in their “strong connexions, nice dependencies,” as the poet puts it.

Here let me say I mean by the word “liberal” not classical, but something more than classical and never without it. It is urged by those who know not or who value but little the advantages which a liberal education confers on its possessor that it is remote from the use and tenour, the needs and occupations, of life, and can be well done without—that its utility is not apparent, that its profitableness is questionable. Looking at the question from a financial aspect—and that aspect obtrudes itself nowadays into every question—a liberal education may be fruitless in money-getting, it may be inconvenient at times when men wish to be untrammelled in their interpretation of the duties of life or may wish to act without reference to any standard of efficiency, or even of honour or of dignity. Physicians and surgeons have, in every country and in every age, been amongst the most learned and the best informed. To-day the difficulty of preserving that distinction is greater than formerly. Education, at one time confined to the few, is now possessed by the many, and while the separation of professions and division of labour tend to the perfection of art, says Dr. Copleston, the same learned authority adds, “but, although the art itself is advanced by this concentration of mind in its service the individual who is confined to it goes back.” Is not the conviction sometimes forced upon us that he was right? It may seem strange to some of you that, coming from a country where schools are thought to be sparsely established and schoolmasters not always easily procured, I should not wish to have the status of classical education lowered. On the contrary, we in Canada would say to you in Great Britain, Elevate your standard of classical attainments and we will raise it with you. Require from aspirants to professional honours that most extensive and varied knowledge which, for want of a better term, we call liberal, and we too shall demand it. We are demanding it now. Acting independently every few years as circumstances permit, we demand more and more from candidates who desire admission to the study of medicine. Within the last two months the Legislature of the province of Quebec has, to English, French, Latin, geography, history, arithmetic, algebra, geometry, *belles lettres* and physics, added philosophy, which with us always embraces logic and mental or moral ethics. This is a step in advance, as that science of sciences “includes, locates, and connects and uses all kinds and modes of knowledge,” and will do much to hold together and keep under control every branch of our noble profession, whose members have in every age been amongst the most cultivated and whose social influence—and commonly for good—it is beyond the power of man to measure.

THE METROPOLITAN ASYLUMS BOARD.—At a meeting of the managers of this Board on Saturday the question of providing another fever hospital for London was discussed. A motion was subsequently adopted that application should be made to the Local Government Board for their sanction, without further delay, to the managers purchasing a plot of fifteen acres of land at St. Anne's-road, Tottenham, as a site for a fever hospital, at a cost of £12,000.

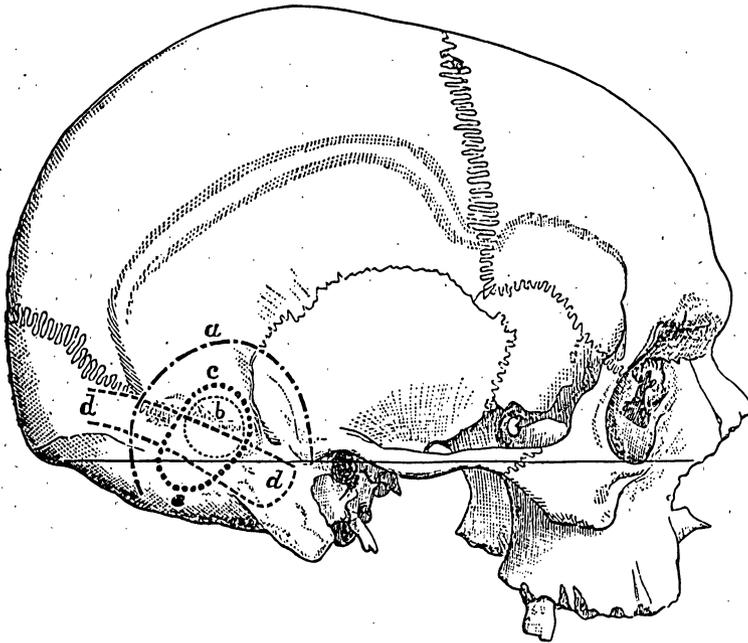
A CASE OF  
CEREBELLAR ABSCESS SUCCESSFULLY  
TREATED BY OPERATION.

By HENRY PERCY DEAN, M.S., B.Sc. LOND., F.R.C.S.,  
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SEVERAL successful cases of cerebral abscess treated by operation have been published during the past few years, but so far as I have been able to ascertain no account of the successful treatment of a cerebellar abscess has been recorded. This fact will, I trust, be a sufficient apology for the publication of a case of cerebellar abscess successfully treated by operation. I believe it is generally admitted that in the majority of cases of abscess of the brain following chronic otitis media it is impossible, from the symptoms, to say whether the lesion is situated in the temporo-sphenoidal lobe or in the cerebellum. This is especially the case when the abscess is on the right side of the brain. In certain cases, however, when the pus is on the left side of the brain, some affection of speech may indicate

and the cerebellum. It should be laid down as a rule that in all these cases the surgeon must be prepared, before commencing the operation, to search, if necessary, both above and below the tentorium. The point recommended by Barker for exploring the temporo-sphenoidal lobe is an inch and a quarter behind and two inches above the centre of the external auditory meatus and for the cerebellum a point an inch and a quarter behind and an inch below the centre of the external auditory meatus. It is clear that these two spots could not be conveniently included in one skin flap and certainly could not be reached by one trephine hole. If, however, the pin of the trephine be placed one inch behind and a quarter of an inch above the external auditory meatus a part of the lateral sinus and the dura mater just above it are exposed. After slightly enlarging the hole upwards with a pair of Hoffman's forceps (the work of two minutes) the dura mater can be incised and an exploration of the temporo-sphenoidal lobe satisfactorily carried out. If the pus is not found the trephine hole can be enlarged for about one-third of an inch downwards and backwards, exposing the whole diameter of the lateral sinus and the dura mater for a small extent below it. By incising the dura mater below the lateral sinus the cerebellum can be easily explored within five minutes of exploring the temporo-sphenoidal lobe.

By referring to the figure it will be seen how small an area



Sketch of an adult skull to represent an operation for treating the chief intra-cranial complications of chronic otitis media. (Reduced to one-half of natural size.) *a*, Line of skin incision; a semicircular flap commencing just behind the pinna, and having a diameter measuring about two inches *b*, Pin of trephine placed one inch and a quarter behind, and one-quarter of an inch above, the centre of the external auditory meatus. *c*, Area of bone removed by bone forceps, exposing the lateral sinus completely and the dura mater above and below it. *d*, The outline of the lateral sinus.

that the temporo-sphenoidal lobe is affected. We are all familiar with instances where that lobe has been explored unsuccessfully and at the post-mortem examination an abscess has been found in the cerebellum, and conversely where the cerebellum has been searched in vain because the pus was situated above the tentorium. In these cases the surgeon has been deterred from exploring both regions probably by several reasons. Chief among them is the fear that the second operation might cause serious shock and perhaps death on the operating table. No doubt also the feeling of disappointment caused by the failure to find the pus at the first exploration has determined some surgeons to abandon the search. If we admit, as I think we must, that in the majority of cases it is impossible to diagnose in which region the abscess is situated the decision not to make a complete search for the pus cannot be justified by any argument. My chief object in publishing this case is to point out that there are no objections whatever to making a complete search for the pus. In every case of cerebral abscess following otitis media the surgeon can, with one skin flap and with one trephine hole, explore both the temporo-sphenoidal lobe

of bone need be removed in order to expose the temporo-sphenoidal lobe, cerebellum and lateral sinus. The operation should not last at the outside more than thirty minutes.

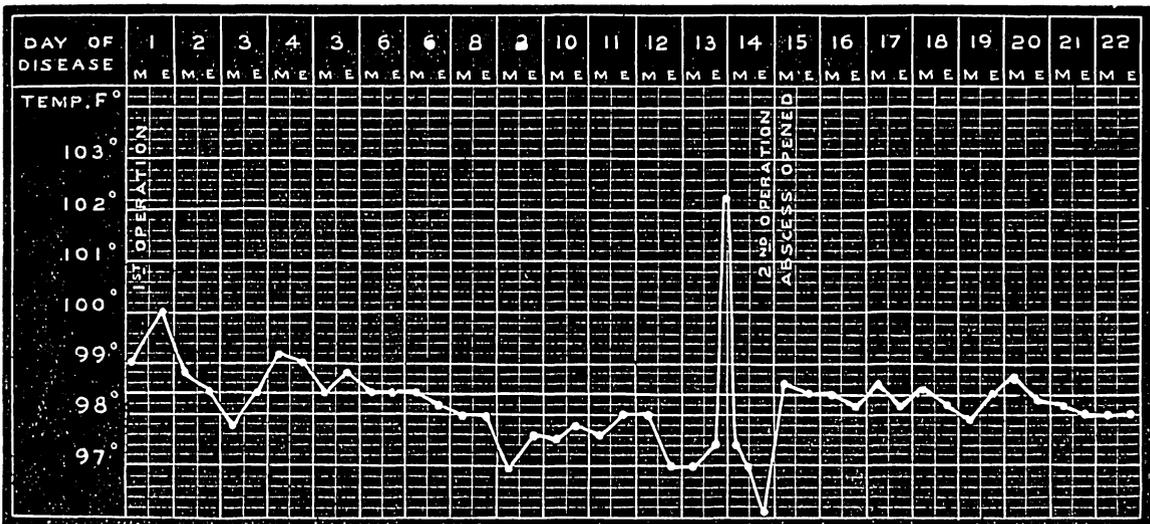
It is well known that in some cases it is impossible to diagnose cerebral abscess from meningitis. In both cases the most evident symptoms are due to cerebral compression, and it may be impossible to say whether the inflammatory exudation is localised or diffused. If after exposing the brain evidence of meningitis is present and no pus can be found, the lateral ventricles should be tapped by inserting a trocar inwards and slightly upwards just above the lateral sinus. It is evident that the only satisfactory way of relieving this pressure caused by the inflammatory effusion of meningitis is to drain the lateral ventricles. The patient is dying from the effects of cerebral compression, and by relieving this pressure the only chance, and that a very slight one, of recovery is given. The symptoms caused by thrombosis of the lateral sinus—"lateral sinus phlebitis," as it has been called—are vague and may easily be mistaken for those caused by abscess or meningitis. Indeed, one of the latter conditions may be present with the lateral sinus phlebitis. It is evident that by the

operation I have just described the lateral sinus can be easily examined. An exploring needle connected with an aspirator, or, better, a hydrocele trocar, can be inserted into the sinus. If blood flows freely from the trocar thrombosis of the lateral sinus can be excluded. I have explored the lateral sinus in this way with a small hydrocele trocar on two occasions, and no bad results have followed. If thrombosis were present, the operation suggested by Horsley and successfully carried out by Ballance should be performed. We see therefore that by a small operation, necessitating but little shock, nearly all the grave intracranial complications of chronic otitis media can be satisfactorily treated, an abscess in the temporo-sphenoidal lobe or in the cerebellum can be drained, the lateral sinus can be explored and the intracranial pressure caused by meningitis can be relieved. It will be noticed in the account of the operation that a small hydrocele trocar was used for exploring the brain and the lateral sinus. It is very convenient and easy to manipulate; if it be thought that the cannula is plugged, the reinsertion of the trocar clears up the doubt. The value of a silver drainage-tube in treating abscesses of the brain I fail to appreciate. An ordinary indiarubber tube adapts itself well to alterations in the size of the abscess cavity as it is healing; it can be easily shortened and is much more readily obtained in an emergency than a silver one.

F. B.—, aged fourteen, was admitted into the London Hospital under the care of Dr. James Anderson on April

examining the right ear it was found that the tympanic membrane had quite disappeared and that the middle ear was filled with flabby granulation tissue. A curved incision was then made over the swelling behind the pinna and a small quantity of pus escaped. With a gouge and mallet the mastoid antrum was exposed and about half a drachm of pus evacuated. The bone was found to be very soft and it was scraped and chiselled away until the dura mater covering the lateral sinus was exposed. It was thought that the lateral sinus might be thrombosed, so a small hydrocele trocar was inserted into it, but blood flowed freely through the cannula, which was then withdrawn. By carefully chiselling and scraping away the carious bone the tympanic cavity was laid open and the granulations scraped away. All traces of softened and carious bone were carefully removed. The tympanic cavity was freely laid open, so that a probe passed in at the external auditory meatus touched one passed in through the mastoid antrum. Antiseptic lotion (perchloride of mercury, 1 in 2000) could be easily syringed right through in a considerable stream. A drainage-tube was then inserted into the tympanic cavity and the wound in the skin was sutured in the usual way. It was thought by Dr. Anderson and myself that sufficient disease was found in the mastoid bone to account for the symptoms presented by the patient.

Condition after first operation.—On the night following the operation the patient slept well and on the next day her condition was much improved. Except for an occasional slight



Temperature chart in a case of cerebellar abscess successfully treated by operation. Notice the marked subnormal character of the temperature for the six days preceding the second operation, also the single rise of temperature to 103.2° the day before the second operation. After the second operation the temperature remained normal. A four-hourly temperature was recorded, but the chart does not show any more features of interest than the morning and evening one.

20th, 1892. The patient had been quite well until five years previously, when she complained of pain in the right ear and this was followed by a "discharge of yellowish matter." Since then the girl has frequently complained of pain in that ear and every few months a discharge has been noticed. The present illness commenced three weeks ago with severe pain in that ear and in the right side of the head, especially in the mastoid region. Dr. Anderson gives the following description of her condition on admission: "Patient extremely irritable and evidently in great pain, shrinking from the lightest touch over the right mastoid process, where the skin is boggy and dusky. She is only partly conscious, addressing her father, who is not present. There is no evident paralysis of limbs, face or ocular muscles. Pupils dilated, equal, act imperfectly to light. There is well-marked double optic neuritis, high myopia, however, making it impossible to estimate accurately the amount of swelling. The right meatus is filled with pus, the left is clear and the membrane fairly normal; knee-jerks normal; no ankle-clonus; heart and lungs normal; no pain or swelling down the right side of the neck." Dr. Anderson asked me to see the case with a view to operation. It was decided to explore the mastoid cells and the patient was transferred to Sophia ward under my care.

First operation.—As soon as possible the patient was taken to the theatre and chloroform was administered. On

headache she continued to improve until April 30th. On April 25th her eyes were examined by Dr. Anderson, who stated that the neuritis was decidedly less marked. On April 30th it was noticed that she was rather drowsy, and that the temperature during the preceding twenty-four hours had not reached 98° F. This drowsiness increased during the following day, and when I saw her at 4 P.M. on May 2nd her condition was as follows:—Patient rather more drowsy than yesterday but answers questions rationally. She complains of slight headache on the right side of the head, chiefly in the mastoid region. No evidence of any motor weakness or anaesthesia could be detected; knee-jerks present, not well marked; no ankle-clonus; no vomiting or nausea. Pulse 64, occasionally intermittent. At noon the temperature was 97.4°. Shortly after I left the temperature was taken and found to be 103.2° (see temperature chart), and the patient then was very (drowsy, occasionally complaining of severe pain in the head. Soon afterwards she commenced to vomit. Owing to a misunderstanding I was not sent for and the patient was not seen by me until the following day at 4 P.M., when the following note was taken. "Patient in a very drowsy condition, and only roused with difficulty; no sensible answer could be obtained. She was frequently sick. Temperature 97.2°; pulse 56, very irregular; respiration very irregular in depth and rhythm. Pupils equal and widely dilated; knee-jerks present; no ankle-clonus." It was evident

that the patient was suffering from grave cerebral compression, and abscess of the brain was strongly suspected. It was decided to operate at once.

*Second operation, May 3rd (fourteen days after the first operation).*—The patient was taken to the theatre and chloroform was administered. Her head was shaved and thoroughly cleansed. A semicircular flap of skin just above and behind the ear was turned down and a periosteal flap was then reflected. The pin of the trephine was placed one inch behind and half an inch above the centre of the external auditory meatus, and a disc of bone three-quarters of an inch in diameter was removed. The lateral sinus was exposed in the lower part and the dura mater above bulged considerably. The dura mater was incised and the brain protruded in a marked degree from the opening. A small hydrocele trocar was then inserted six times in different directions into the temporo-sphenoidal lobe, but no pus escaped. The second time the trocar was inserted the lateral ventricle was tapped and a few drachms of clear cerebro-spinal fluid escaped; but after this the brain did not return to any considerable extent within the skull. It was evident that the intracranial pressure was not due to meningitis or to an excess of cerebro-spinal fluid. As the lateral sinus seemed to bulge more than usual a trocar was thrust into it. Blood flowed freely away, as at the previous operation. It was then decided to explore the right lobe of the cerebellum. With a Hoffman's forceps the bone was chipped away backwards and downwards for half an inch, so as to expose the whole diameter of the lateral sinus and the dura mater below it. The latter was then incised and the trocar thrust in. At the second insertion pus flowed freely away. A large trocar was then inserted and finally a pair of sinus forceps; over an ounce of pus escaped; an indiarubber drainage-tube was inserted into the abscess cavity; the dura mater was carefully laid over the surface of the brain, but was not stitched. The operation was completed in the usual way and the wound dressed with sal alembroth gauze and wool.

*Condition after second operation.*—Immediately after the operation the pulse was more rapid—110 per minute—and regular; the respiration was also regular. The pupils, which just before and during the operation were widely dilated and immobile, became moderately contracted. On the following day, May 4th, the patient's condition was distinctly improved. The wound was dressed and a slight amount of discharge was found. On May 5th Dr. Anderson saw the patient and made the following note:—"Neuritis of left side quite as marked as yesterday, perhaps slightly more so. The right disc on the inner side is also somewhat more woolly, but there are no hæmorrhages as on the left side. Pupils widely dilated; pulse 80, somewhat irregular." The wound was dressed daily and the drainage-tube was gradually shortened. The patient's condition rapidly improved. On May 7th Dr. Anderson made the following note:—"Neuritis of left side distinctly less marked; edge of disc can be easily distinguished; some improvement also on the left side." The drainage-tube was removed on May 10th, and on the following day Dr. Anderson wrote the following note:—"Neuritis in both eyes almost completely subsided; hæmorrhage in left fundus rapidly absorbing." The patient steadily continued to improve, and on May 16th she got up for a short time. On May 19th the wounds of both operations had completely healed up. There was a slight discharge from the ear, which was syringed out daily. On May 30th the patient was quite well. She was seen by Dr. Anderson, who made the following note:—"Both discs are now perfectly free from exudation; edges sharply defined, both of the discs proper and of the staphylomata on their temporal sides: myopia of 9 D. in left and of more in the right; vessels normal, veins perhaps slightly enlarged; pupils and ocular movements normal, except a slight alternating divergent strabismus. V. = J.1 with each eye. H. D. of right ear nil, and of left 1½ ft. Perosseal hearing doubtful. Knee-jerks normal; mental state clear." On May 31st the patient was sent home and told to attend as an out-patient. She was seen last on July 12th, when she was perfectly well with the exception of a slight purulent discharge from the external auditory meatus.

In conclusion, I desire to express my thanks to Dr. James Anderson for the valuable assistance he has rendered me during the progress of the case, and also for the following remarks which he has kindly consented to contribute. "The indications for operation were perfectly clear on the admission of the patient and no time was lost. The pus between the mastoid process and the lateral sinus was readily evacuated and when

Mr. Dean demonstrated to me that the lateral sinus was intact, I considered we were justified in resting satisfied with what had been done. There was marked improvement for a fortnight, but the girl's condition, as the notes show, was never perfectly satisfactory either as to her mental or her physical state, and I have very little doubt the cerebellar abscess was present from the first. I venture to say that the operation devised by Mr. Dean is a distinct advance in cerebral surgery, making it possible in one operation to examine the lateral sinus and to explore the temporo-sphenoidal lobe and the cerebellum. I have twice, for the reason he mentions, given my opinion against a second operation for cerebellar exploration after failing to find pus in the temporo-sphenoidal lobe. In both cases it so happened the opinion was correct, the one being a case of simple mastoid abscess, which recovered; the other a case of meningitis, which died. In both cases, however, I recognise that I might have been wrong and that in both a cerebellar abscess might have been overlooked. My reason in both cases was not that I felt sure there was no cerebellar abscess, but that I dreaded a second operation. The tapping of the lateral sinus to ascertain its condition was new to me. It seems to be a perfectly safe and simple procedure, and it is a very great satisfaction to know that the sinus is intact."

Gower-street, W.C.

## NOTES ON OCEAN TRAVEL FOR HEALTH AND DISEASE.

By JOHN V. SHOEMAKER, A.M., M.D.,  
PHILADELPHIA, U.S.A.  
(Concluded from p. 194.)

THE sufferers from chronic malaria are remarkably improved by an ocean voyage. The congested, inactive liver is depleted and resumes its functions, the sallow hue disappears from the face, the bowels become regular, the swollen spleen diminishes in size, appetite and sleep return and chills and fever cease. Other forms of toxæmia exhibit no less amelioration from ocean travel. In the various manifestations of lead poisoning elimination is decidedly assisted and regeneration of disabled tissues is promoted. A very happy effect is produced in lithiasis and gout. Again and again have I known a patient embark suffering with joint pains and enlargement, disordered digestion and assimilation, an irritable condition of the heart, muscular cramps, headache and insomnia, which vanished almost as soon as the steamer left the wharf. The journey across the Atlantic effected an improvement which endured for months, additionally perpetuated perhaps by a sojourn at one of the spas considered advantageous in gout. These springs no doubt possess a certain efficacy. The water drains the alimentary canal and the liver, which viscus is aided in the resumption of its work in the elaboration of nitrogenous food. I am persuaded, however, that very much of the special virtue of foreign baths consists in the regulated habits there encouraged, together with the superintendence and power of the physicians in charge. The patient, by precept and example, is taught to live by rule. Early and simple meals (served strictly at appointed times), the water taken at specified hours and in specified quantities, the amount and kind of exercise daily prescribed, excess of any kind prohibited—such a system in itself, irrespective of any medicinal virtue in the water, is calculated to reduce lithæmia. As far as the water is concerned, no doubt a number of our American alkaline waters are equally efficacious. We have not yet learned, however, in this country that strict business and professional management of our springs which has been elaborated in Europe. Our people when at home are restless under medical as well as other forms of surveillance and the physicians attached to our springs are destitute of any authority save that which always attaches to their professional advice. For these reasons better results may be obtained at foreign watering-places. And I am of the opinion that, as regards American visitors, much of the benefit thought to be derived from foreign spas is really due to the ocean trip by which the residence is preceded and followed. These remarks certainly express nothing in derogation of the virtues of the various watering resorts, for the management of which I can have

no words but of praise, having known cases of gout to remain markedly improved for many months after such a summer holiday. Patients suffering from diabetes mellitus are improved by ocean travel. I have a vivid recollection of the case of one lady. The patient was passing a large quantity of sugar; she ate and drank with avidity, yet was terribly emaciated and exceedingly weak. All sugar-producing aliments were, as far as possible, eliminated from the dietary, and, as the summer season approached, a voyage to Europe was recommended. The advice was obeyed, the patient crossed the ocean, remained some time at Carlsbad and returned home. The change in her condition was marvellous. Within a few months she had gained more than thirty pounds in weight, the sugar had disappeared from the urine, and bodily strength was notably increased.

On account of its tonic influence upon muscular tissue the atmosphere of the sea is of value in maintaining compensation in valvular diseases of the heart. Ocean travel will delay as long as possible the inevitable occurrence of dilatation. After the cardiac muscle has yielded the value of ocean travel is less decided, and, in fact, may be harmful if the patient suffers from sea-sickness. In the early stage of fatty degeneration of the heart a voyage is beneficial and it may have a favourable effect in angina pectoris.

Among the most impressive cases which it has been my lot to observe was one of functional heart disease, associated with various neuroses. The patient, a big-boned Scotchman, had, from overwork and business cares, fallen victim to a train of nervous symptoms. On being called to see this large man he was found to be reduced in weight to about 100 lb.; he had lost his relish for food, ate but little and digested that little poorly; his bowels were irregular, his head ached, he suffered from vertigo and sleeplessness. The heart's action was forcible, rapid and irregular, and dyspnoea at times so extreme that the affection had been considered organic. The mental condition of the patient was alarming. The temper was irritable, the man was subject to fits of passion alternating with moroseness and there appeared every prospect of the case terminating either in insanity or death. His system had already been deluged with tonics and stimulants of every variety without the slightest avail. Recognising the gravity of the situation, but being firmly convinced that the symptoms, ominous though they might be, reposed upon no organic basis, my advice was, in brief, to "throw physic to the dogs," cross the ocean, revisit the home of his boyhood, breathe his native air and drink Scotch ale. My instructions were followed to the letter. A slow route was selected and two weeks were spent upon the ocean. Four weeks were occupied in visiting his early haunts and two weeks more in returning to Philadelphia. He had left this port on his outward voyage but a few days when improvement became manifest. The heart's action became more steady and less rapid, headache subsided and he began again to enjoy the blessing of sleep. The physical improvement altered his tone of mind radically and for the better. Irritability vanished, he regained his cheerfulness and wanted resolution. This proved the first step in a rapid cure. Upon his arrival in Scotland, already vastly improved, he took pleasure in looking up relatives and old friends, his weight and strength augmenting day by day. When he again reached Philadelphia he felt almost as well as before his severe attack. He has continued well; his occupation keeps him much in the open air; his digestive functions are perfectly performed; his heart is as steady as a clock; his sturdy frame is well clothed with muscle and fat, and he weighs to-day about 260 pounds. This man's life or reason was probably saved by a few weeks upon the ocean. The effect of the voyage was no doubt materially enhanced by the pleasurable emotions arising from a visit to the land of his birth.

An ocean voyage is a valuable boon to one who has just recovered from an exhausting illness. Patients whose innervation has been profoundly depressed by epidemic influenza received signal benefit from a voyage down the coast to Florida and return by sea; the nutritive conditions had, in the meantime, undergone a complete revolution. After an attack of typhoid fever, likewise, a patient may be sent to sea in the confident expectation of rapid gain. Upon the course of acute suppurative processes I have never observed any favourable or abortive effect. If the exciting parasite of suppuration has obtained access to a fit soil for its development the chemical poisons which it elaborates perform

their work on the sea as well as upon land. Still, in the exhaustion due to suppuration a sea voyage is a most prompt and effective remedial agency. The tonic properties of ocean air encourage an active process, while at the same time they communicate resistant power to the system. A speedy termination of the case is therefore indirectly favoured. When, however, a suppurative disease is in its declining stage the restorative and curative virtues of salt air are apparent to the most careless observation. That ocean travel is highly beneficial after pneumonia I have the strongest personal reason to know and it is from this circumstance that my habit of crossing the ocean arose. Fourteen years ago I was seized with acute pneumonia, but upon leaving my bed and essaying to resume my interrupted work in the middle of a college session I found that I was unable to stand the strain. Duties which were not oppressive when in health became painfully burdensome. The air of anatomical and class rooms was unfavourable to resolution of the solidified lung. Cough continued and the sputum was at times bloody. I was compelled to reluctantly admit that I was in a precarious condition and that, unless work was suspended, should find my strength unequal to any task. I accordingly prepared to follow the advice which I had received and left for the south. Travelling leisurely I at length arrived at Jacksonville, Florida. Some, but not much, improvement had taken place and I began to fear that my fate would be to join the host of northern invalids who must flee to the south every winter. At this juncture an elderly physician whose acquaintance I had formed narrated his experience and that of his wife. Like myself he had suffered in the north from pneumonia. Complete recovery being tardy he was induced to go south by sea and found himself eminently improved by the voyage. His wife also, who was the subject of chronic bronchial catarrh, experienced like amendment. As the spring was now approaching I resolved to follow the physician's example. Now, I am not one of those who are naturally fond of the sea. I suffer considerably from sickness and feel much safer when my feet are planted on solid earth than when but a few planks divide me from the heaving main. Consequently, though I embarked I took advantage of the first opportunity to go ashore. I could not fail to be conscious, however, that the trip, short as it was, had done me good, so I summoned up my resolution and took passage upon the next steamer sailing north. Upon landing I went into the country, and when I returned to the city in the autumn I was thirty-five pounds heavier than when I had left for the south. From that day to this I have never had a sign of pulmonary trouble and from that time I date an abiding confidence in the curative virtues of old Neptune. Ever since, when enervated by a hard winter's work, I cross the Atlantic in the early summer, sojourn abroad for two or three months and return invigorated. A laryngitis, to which I have been frequently subject since an attack of diphtheria about twelve years ago, never makes its appearance when I am at sea. Others who are afflicted with laryngitis have experienced the same benefit. What influence has ocean climate upon the course of tuberculosis? To this question it is not easy to give a categorical reply. The individual patient, the stage of the disease, the time of the year, the direction of the voyage, are all elements which must be taken into consideration. In the early stage of pulmonary tuberculosis, when no active change is taking place in the consolidated area, when strength and digestive power are yet fairly well preserved and the patient has not lost much weight, an ocean voyage will often check the progress of the malady. The condition of the mucous membrane is, in my opinion, of some value as an index of the advisability of an ocean climate. If the glands of the gastrointestinal tract are active, the tongue tolerably clean and the bowels regular, it is probable that a voyage will be of benefit. In winter time a voyage in a southern sea—as, for instance, to Bermuda or the West Indies—will often afford relief and hæmoptysis has proved no contra-indication. It is not always possible to predict with confidence that a given case of tuberculosis will be improved by a voyage, but if doubt exists the patient may try the effect of a short trip up or down the coast, according to the season.

The effect of ocean climate is more conspicuous in scrofulosis. The eruptions to which scrofulous children are especially liable, the respiratory and gastro-intestinal catarrhs from which they suffer, are ameliorated by a voyage. The advantages of this therapy are most plainly seen in the glandular manifestations of the disease. Enlarged and hardened ganglia return to normal size and consistence. If caseation

has taken place, healing is rapid after evacuation. When the skin has broken spontaneously and the characteristic, unsightly ulcers with protruding, uneven surface, undermined edges and perhaps fistulae are present, cicatrisation advances much more rapidly, uniformly, and surely at sea than on land. Skin diseases occurring in scrofulous subjects are unusually amenable to medicinal means during an ocean voyage.

I have incidentally, in the course of this paper, alluded to various affections of the skin. Sea air promotes the secretory and respiratory functions of the skin. By removing the underlying and often obscure cause of the affection it not infrequently leads indirectly to subsidence of the disease. In papular and indurated acne the amendment is often very noticeable. The youth who begins his voyage with a blotched visage ends it, to his unspeakable satisfaction, with a complexion comparatively clear. The improvement inaugurated by sea air can generally be continued, by the aid of appropriate therapeutic measures, after the destination has been reached. Various local paralyses are benefited by ocean travel. The remote effects of hemiplegia, such as muscular atrophy and tremor, also receive amelioration. The cause of progressing muscular atrophy will probably be stayed by the same means and the darting pains of locomotor *taxia* may be assuaged.

Social conditions have decidedly limited the power and usefulness of the medical art. Many of our patients are either unable or unwilling to avail themselves of the advantages of physiological medicine. Bound to ill-paid toil, immersed in money getting or pledged to some important undertaking which scarcely permits relaxation, they have no time or opportunity for holidays and cannot go to sea. They demand that, while their conditions of work are unchanged, their systems shall be braced up from time to time by the use of drugs. But drugs, however well chosen, cannot take the place of rest, pleasure and relaxation. An occasional holiday is an economy of time. If time cannot be spared for a trip to Europe, the journey of a few hundred miles along the coast can be soon performed. If money fails, a trip upon a sailing vessel is very inexpensive.

A REPORT ON  
THIRTY-SEVEN CASES OF TUBERCULOUS  
DISEASE OF THE HIP-JOINT,  
FOR WHICH EXCISION OF THE JOINT WAS PERFORMED  
IN THIRTY-SIX CASES.

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(Continued from p. 190.)

CASE 12.—N. E—, aged three years. Disease of left hip began at two years of age after a fall; the patient was treated from an early date with a double Thomas's splint. Admitted to hospital eighteen months after the onset of the disease with a discharging sinus at the upper and the outer part of the thigh. The limb was everted, but otherwise in good position. The joint was excised through the anterior incision; head of femur, trochanter, acetabulum and os pubis in front of acetabulum were all diseased. The head and neck of the femur, with a loose sequestrum, were removed; drained with tube. Temperature irregular, but rarely over 100° F. The tube track did not heal. First secondary operation with removal of carious bone in the eighth week after excision; wound healed in six weeks. Recurrence. Second secondary operation eight months after excision; femur healthy, acetabulum carious; wound finally healed ten months after excision. A double Thomas's splint worn for seven months after excision, and single Thomas's splint for twelve months more. When the patient was last seen, one year and ten months after the excision, or one year after the final healing, the splint had been left off for three months. The child was in robust health and the limb not wasted at all. Scars firm; real shortening one inch, apparent shortening

half an inch, the difference being due to slight abduction. Limb could be extended to the vertical and flexed through 45° without movement of spine. Walks fairly well on sole of foot without any support. (Fig. 12.)

CASE 13.—W. R—, aged nine years. Disease of right hip began at seven years of age; no cause assigned. Admitted to hospital two years after the onset of the disease with an anterior and an iliac abscess; limb was shortened one inch and a half, flexed to 45°, adducted and rotated inwards. The joint was excised through an anterior incision; head and neck of femur carious and dislocated backwards; acetabulum covered with granulations; head and neck of femur removed and iliac abscess found to communicate with joint over brim of pelvis; drained for twenty-four hours; temperature never above 100.4°. Wound healed by primary union with a firm scar four weeks after operation; no secondary operations, but the patient was readmitted shortly afterwards for paralysis of the flexor muscles of the foot and anaesthesia supposed to be due to pressure of the splint on the sciatic nerve; a Thomas's splint worn for about eighteen months. When the child was last seen, one year and ten months after the operation, the splint had been left off for about four

FIG. 12.

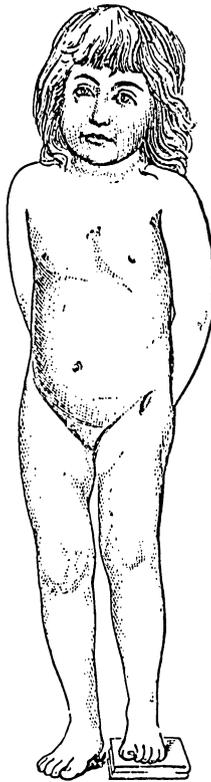


FIG. 13.

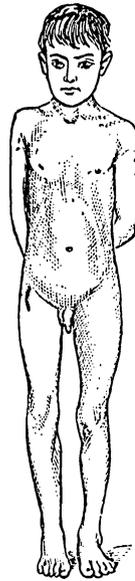
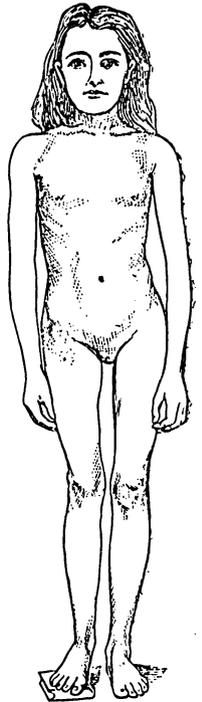


FIG. 14.



months. The child was in good health; scar firm and joint firmly ankylosed in good position without any flexion; real shortening one inch and a half, apparent shortening not made out owing to foot being in a state of equinus caused by paralysis mentioned above. Walks easily without any support. (Fig. 13.)

CASE 14.—E. S—, aged eleven years. Disease of right hip began at seven years of age after a fall; the patient was treated for some time with weight extension and splint. Admitted to hospital four years after onset of disease with abscess in front of joint. The limb was shortened one inch and a half, flexed considerably and slightly adducted. Joint excised by anterior incision; head and neck of femur diseased; acetabulum superficially diseased; head and neck of femur removed; drained for nine days; temperature never above 100.6°; primary union, except at tube track, which healed four weeks after excision; no recurrence of bone disease, but a small abscess, apparently residual in nature, opened fourteen months after excision. A Thomas's splint, worn for thirteen months after excision. When the patient was last seen, a year and nine months after the operation

the splint had been left off eight months. General health fairly good; joint firm; real shortening three inches, apparent shortening two inches and a quarter, the difference being due to slight abduction; limb could be flexed to 45° and extended to the vertical without movement of spine. Walks on sole of foot without support. (Fig. 14.)

CASE 15.—M. B—, aged five years. Disease of left hip began at two years of age; no cause assigned; no treatment before operation. Admitted to hospital three years after the onset of disease with a sinus on the outer side of the thigh. The limb was shortened two inches; flexed 20°; adducted and rotated inwards. Joint excised by anterior incision; acetabulum obliterated by fibrous tissue; head of femur and most of neck destroyed; sequestrum, consisting of head of femur, removed, and joint scraped (operation more an arthrectomy than an excision); no drainage; temperature normal after second week. Wound healed completely. Two secondary scrapings were done two and five months after the first operation; no further recurrence of bone disease; wound finally healed in six months. A double Thomas's splint was worn for fifteen months after the excision. When last seen, one year and six months after the operation, or twelve months after the final healing, the splint had been left off three months. General health good; joint sound; real shortening two inches, apparent shortening one and one-eighth inch, the difference being due to slight abduction; slight mobility of joint. The child did not walk well, but the difficulty in locomotion was dependent more upon weakness of the knee and ankle of the healthy limb than upon deformity of the one which had been diseased.

CASE 16.—F. S—, aged four years and nine months. Disease of right hip began at two years of age; no cause assigned. The patient was treated with a single Thomas's splint for about a year, and a double Thomas's for six months more before operation. Admitted to hospital two years and three-quarters after the onset of the disease with a large anterior abscess. The limb was then everted and shortened one inch. Joint excised by anterior incision; head of femur denuded of cartilage and carious; section of the head showed disease commencing in the epiphysal cartilage and spreading to the surface at one point; acetabulum also extensively diseased; head of femur removed; wound drained for thirty-six hours; temperature never high; wound healed by primary union in three weeks. A Thomas's splint (first double, afterwards single) was worn for twelve months. When the child was last seen, twelve months after the excision, the splint had just been left off. General health was good and the hip-joint and scar were quite sound; real shortening one inch and a quarter, apparent shortening one inch and one-eighth; slight movements of flexion and abduction could be made. This case was too recent to estimate the powers of locomotion.

#### GENERAL STATISTICS OF ALL CASES.

*Age at onset of disease.*—In 1 case the age at onset was between one and two years; between two and three years of age there were 7 cases; between three and four years 4 cases; between four and five years 3 cases; between five and six years 3 cases; between six and seven years 4 cases; between seven and eight years 5 cases; between eight and nine years 3 cases; between nine and ten years 2 cases; in 5 cases the date was unknown.

*Side affected.*—The right hip was affected in 19 cases, the left in 16 cases, and in 2 cases the side affected was not recorded.

*Cause assigned for exciting onset of disease.*—In 10 of the 37 cases the disease was assigned to a fall or blow on the hip; in 1 case the disease appeared whilst a double Thomas's splint was being worn on account of disease of the other hip.

*Duration of disease before operation.*—This was from three to six months in 5 cases; between six and twelve months in 8 cases; between one and two years in 14 cases; between two and three years in 2 cases; between three and four years in 1 case; between four and five years in 1 case; and between five and six years in 1 case. In the majority of cases therefore the duration of disease before operation was between six months and two years; in 5 cases the duration was unknown.

*Situation of abscess.*—In 29 cases the abscess was situated anteriorly to the great trochanter; in 15 of these it was altogether in front; in 14 it was partly anterior and partly to the outer side of the hip; in 3 cases the abscess was behind the great trochanter; in 1 case the situation is not recorded. Two cases had also an iliac abscess, which was found to communicate with the joint through the psoas

bursa. Four cases had discharging sinuses before the operation; 3 of these were situated anteriorly and one posteriorly. The sinus leading from the superficial abscess to the joint was usually found just above the neck of the femur. The abscess had apparently burst from the joint at the posterior part of the capsule and had subsequently passed forwards owing to the resistance being least in that direction. In one case the sinus passed directly backwards to the joint through the Y-ligament.

*Extent of disease at time of operation.*—In the large majority of cases—viz., 35—the head of the femur and the acetabulum were denuded of cartilage and the bone carious to a greater or less extent at the time of operation. In 5 cases the trochanter was also diseased; in one case the acetabulum only was affected; in one case the head of the femur was removed as a sequestrum.

*Nature of operation.*—In the large majority of cases the anterior operation was performed, posterior excision only being done in 4 cases. Of the 33 anterior operations 2 were of the nature of an arthrectomy—viz.: (1) the case in which the acetabulum only was diseased; and (2) the case in which the head of the femur was removed as a sequestrum. In 5 cases an operation was performed previously to excision; in 3 of these the operation consisted in simply opening and draining the abscess; in the other two cases a partial arthrectomy was attempted.

*Period of primary healing.*—Five cases died before the wounds healed. Of the remaining 32 cases, the wounds in 12 healed by primary union in three or four weeks and in 6 more healed by primary union except at the tube track, which granulated in two or three weeks more without suppuration. This makes a total of 18 cases, or nearly 50 per cent. of all cases in which the wound practically healed by primary union. These cases will be considered separately later on. In the other 14 cases the period of primary healing was from three to fifteen months after excision.

*Recurrence of disease.*—In 26 of the 32 cases recurrence of disease took place; no recurrence took place in 6 cases up to the time when last seen (it must be mentioned that one of the 6 died of diphtheria in four weeks and a half after excision). In other words, about 81 per cent. recurred and about 19 per cent. did not recur. In the 26 cases which recurred there was further bone disease in 12 cases, or 37·5 per cent. of the total number of cases (32).

*Secondary operations.*—These were required in the 26 cases which recurred, but in 14 of them, in which no recurrence of bone disease took place, the operations were of a simple nature as a rule and caused but little further pain or trouble to the child. However, in all cases the previous excision of the joint facilitated the secondary operations, for the situation and extent of the former disease were known, or, in other words, the geography of the joint had been learned beforehand. Recurrent disease quickly showed itself at the excision scar, and abscesses, instead of burrowing about and giving rise to sinuses in several situations, came to the surface along the track of the operation wound. This is a point to which we attach importance. A single sinus which leads directly to the joint readily admits of thorough treatment, whilst, if there are many and long sinuses passing amongst important structures, it is extremely difficult and often impossible to disinfect them. Consequently, when excision is performed late in the course of the disease and as a last resource, the wound quickly gets infected from the septic sinuses and prolonged and often fatal suppuration takes place.

*Influence of the operation on the general health.*—Excluding, of course, the cases which died, all the patients were considerably improved in their general health after the operation, and were as a rule quickly relieved from the pain from which they had previously suffered. In only 1 case of the 37 did general infection (tuberculous meningitis) ensue after the operation. One patient developed phthisis soon after his hip was excised, but when last seen, some nine months after he had left off his splint, no signs of phthisis could be detected, and, though still thin, the boy had decidedly improved in general health. In no case did any sign of amyloid disease appear; and, as may be seen from the detailed reports of the cases, amputation was required in none of them, although in several there was extensive pelvic disease.

*The fatal cases.*—The mortality directly due to the operation has been greater than it ought to be. Four, or 10·8 per cent., of the cases died soon after they had been operated upon. In 2 of the cases death was due to shock; with

greater care these deaths might not have occurred. The death of one child was most probably due to too hot water being used for irrigation. The water was very hot, but it was not too hot to be borne by the operator's finger, which was kept in the wound all the time the water was flowing. The pulse, which had previously been fairly good, failed at once and, notwithstanding the most persevering efforts to counteract it, intense collapse supervened and the child died in three hours. This patient was the first on whom we used boiled-water flushing. In another case the operation was too prolonged, owing to an iliac abscess being dealt with at the same time. The child did not rally from the shock of the operation and died in sixteen hours after it. In another case, of which the full notes are unfortunately lost, the death is entered as due to iodoform poisoning. In the absence of the notes our recollection of this case is imperfect, but if the entry upon which we rely is correct, we feel that the cause of death was one which should have been avoided. The fourth patient died from collapse on the eighth day after the operation. He was also suffering from spinal caries and was in a weak and very unhealthy condition before the operation. Four other patients are dead. In 2 cases death resulted from affections in no way connected with disease of the hip—viz., severe and long-standing heart disease in one and diphtheria in the other. One patient died of tuberculous meningitis eleven weeks after the hip was excised. The wound had not healed; it had not been drained in the first instance, and a tube had to be inserted later on owing to distension of the wound with inflammatory exudation. The fourth patient died three years and a half after the excision, the hip being soundly healed at that time. We are informed by the child's mother that death was attributed to abscess in the brain.

(To be concluded.)

## Clinical Notes :

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### TOXICITY OF EXALGINE.

BY REGINALD BROADBENT, M.B., C.M. EDIN.

In view of the fact that exalgine has recently been so highly recommended for neuralgia and allied affections—and I can add my testimony to the fact that it is frequently of great service in facial neuralgia and toothache—I think that the following case should be recorded as illustrating the dangerous symptoms that are sometimes met with. One remarkable fact with regard to this case is the rapidity with which the symptoms occurred, only a few seconds elapsing between the taking of the medicine and their onset.

A patient (male) aged twenty-six suffered from neuralgia over the left temporal region for a week. He was inclined to be anemic. He was ordered a dose containing four grains of exalgine, to be repeated in two hours if unrelieved; and if neither dose gave ease he was directed to take two doses (containing eight grains in all) the following morning after breakfast. The same evening the patient took one dose and obtained relief from the pain, but at the same time complained to his wife of feeling giddy, as if drunk. Next morning at 4.30, feeling a slight return of the pain, he took the rest of the medicine, which contained twelve grains of exalgine. He immediately became dazed, clutched at the bedstead, but fell prostrate on the floor, where he remained quite unconscious for half an hour, and during this time frothed at the mouth. On my arrival at this juncture, I found him on the floor making a feeble effort to vomit. The pulse was feeble and slow; eyes closed; pupils natural. He was with difficulty got to answer questions, when he complained of pain in the region of the stomach and noises in the head. One-tenth of a grain of apomorphia given hypodermically caused him to evacuate the stomach. Subsequently one-five-hundredth of a grain of strophanthin with ten minims of ether were administered in the same way, and the man slowly rallied. The pain in the stomach disappeared first, but the noises in the head remained for some time. Later the patient could not remember events which occurred half-an-hour subsequently to his regaining apparent consciousness,

and during this time he was constantly yawning. He had never had a fit in his life.

Twelve grains of exalgine must be regarded as an excessive dose, but if the toxic dose is three grains for every two pounds of body weight, as stated by some writers, these alarming symptoms ought not to have occurred.

Lelcester.

### SEQUEL TO A CASE IN WHICH TUBERCULOUS DISEASE OF THE KIDNEY WAS TREATED BY TUBERCULIN INJECTIONS.

BY W. GIFFORD NASH, F.R.C.S.

IN THE LANCET of June 6th, 1891, p. 1260, were published the notes of a case of supposed tuberculous disease of the kidney treated by tuberculin injections at the South Devon Hospital, Plymouth, and a further statement of the case was promised. The following is an account of the case since the man left the hospital. Dr. Torbock of Polruan, Cornwall, has very kindly seen the man and examined his urine.

On July 11th, 1891, the patient wrote: "I have no pain at all on passing urine, do not pass it at all by night, nor too frequently by day. I have been working hard since I went home." On May 19th, 1892, he wrote: "I am glad to tell you I am still in good health, only my weight is not increasing. It was 137 lb. when I left the hospital, and is now 133 lb. I have been working hard at farm work every day since I came home. I do not feel any pain in the loins and am free from pain everywhere. I feel as well now as ever I was in my life. I pass my urine very regularly about three or four times a day and once or twice by night. There is no pain on passing urine." Dr. Torbock on May 24th, 1892, wrote: "I have examined P—'s urine. Result: Appearance clear and of natural colour; sp. gr. 1020; reaction acid; no albumen; no sugar." Again on June 15th, 1892, he wrote: "I managed to get hold of P— yesterday. I consider him a perfect cure; no pain in kidneys or anywhere else. He looks and feels healthy and strong, eats, drinks and sleeps well. There are no signs of tuberculous disease anywhere."

Bedford.

### AN UNUSUAL CAUSE OF POST-PARTUM HÆMORRHAGE.

BY JAMES ARMSTRONG, M.B. EDIN.,  
HONORARY PHYSICIAN TO THE LYING-IN HOSPITAL, LIVERPOOL.

HÆMORRHAGE coincident with vomiting during the third stage of labour is a new experience to me. In this case chloroform had been used with benefit during the second stage, and until vomiting suddenly supervened everything was normal. With each effort to vomit there was gushing of blood to an alarming extent in spite of external compression. I offer the following explanation: that the vomiting which was most probably due to chloroform by increasing blood pressure in the abdominal and pelvic vessels interfered with the formation of thrombi in the uterine veins.

Liverpool.

### BIRTH OF A CHILD WEIGHING FOURTEEN POUNDS.

BY JOHN B. HARRIS, M.D. DURH. &c.

THE following account of a confinement which happened in my practice on June 7th, 1892, I think, will be of interest to the readers of THE LANCET.

A few months ago I was engaged by a lady to attend her in her confinement (the sixth), which she expected to take place at the end of April, the menses having ceased on July 17th, 1891. In August her husband went abroad for months. At the commencement of May my patient became alarmed at her condition. There were no signs of coming labour, but her size was then enormous, and it was with the greatest difficulty she got about. From that time she still increased in bulk, and during the last few days she has been obliged to keep her bed. Labour at last commenced at 5 A.M. on June 7th. I was sent for at 9. I found the waters had broken and labour so well advanced that in an hour the head was easily expelled. Then my difficulty commenced, and it was some considerable time before I

could extract the body owing to its immense size. The child (a girl), I am sorry to say, I was unable to save; it died during the birth. I have been in practice twenty-five years and my confinements now number thousands, but I have never had a case like this one for size of child. Its weight was 14 lb. (full); length 27 in.; chest measurement, 15 in.; thigh measurement, 9½ in. in circumference; arm measurement, 6 in. in circumference. I have been able to find records of only very few cases where the child weighed 14 lb. and over, and only one whose length was 27 in. (Dr. Dewees). I may mention my patient has previously had two children, weighing just over 12 lb. Apparently this pregnancy extended to 325 days.

West Norwood, S.E.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ST. MARY'S HOSPITAL.

##### TWISTED SPERMATIC CORD AND GANGRENE OF TESTIS; REMARKS.

(Under the care of Mr. HERBERT PAGE.)

WHILE the subject is fresh in the memory because of Mr. Bryant's recent contribution to the Royal Medical and Chirurgical Society on Torsion of the Spermatic Cord with Strangulation of the Testis,<sup>1</sup> it may be opportune to record a case which was lately under the care of Mr. Page, and which in many of its features was like that related by the former. We have also published notes by Mr. Nash of a case under the care of Mr. Whipple<sup>2</sup> in the Plymouth Hospital. A boy aged sixteen had sprained himself the day before admission, when a swelling in the left groin was present and he gave a history of vomiting. The swelling was hour-glass shaped. "The lower half of this was the left testicle lying in the upper part of the scrotum; the upper, lying over the external abdominal ring, about the size of a hen's egg, was very tense, quite dull on percussion and gave no impulse on coughing." In this case the epididymis appeared to be twisted twice on its own axis, and there was an omental hernia, the piece of omentum being attached to the testis. The testis was removed. Cases of this condition are certainly rare. Some worthy of mention have been recorded by Curling,<sup>3</sup> Jacobson,<sup>4</sup> Johnson<sup>5</sup> and Segond.<sup>6</sup>

A lad, aged seventeen, was brought to St. Mary's Hospital by Dr. MacGeagh on June 4th because of urgent symptoms presumably in connexion with a right congenital inguinal hernia, for which by his advice a truss had been worn with good effect for some considerable time. On the night of June 1st the boy had been awakened by severe scrotal pain, and putting his hand to the part he found it swollen and tender, and thought that the hernia must have come down. He was sick once, and once only, in the morning. Dr. MacGeagh saw him soon afterwards, and found the testis very tender and seemingly swollen. He thought the condition might perhaps be orchitis, although he failed to discover any evidence of gonorrhœa. Fomentations were ordered, and the patient was kept in bed, but, nevertheless, both swelling and tenderness increased and the scrotum itself became red and œdematous. Furthermore, there was constipation and very naturally suspicion arose that hernia and strangulation of bowel might, after all, be the actual state of things. So he was sent to St. Mary's Hospital, where Mr. Silcock, who saw him early in the afternoon of June 4th, excluded hernia from his diagnosis and leaned to the view that some form of orchitis was really

present. The swelling and tenderness of the testis and of the cord, also right up to the inguinal canal, the redness and œdema of the scrotum had by this time very much increased, but it was impossible to say what was the cause of so much inflammation. Once only had the boy been sick. His temperature was normal. He did not look ill, local trouble and pain were alone manifest, and when Mr. Page saw him late the same evening the general aspect and symptoms forbade more than a suspicion of hernia. He therefore laid the swelling open, thinking it clearly the proper course to explore, for, even with all that there was to be said against it, the possibility of a piece of bowel being down could not be put aside. The operation was therefore as for an inguinal hernia, and Mr. Page found the condition of parts that of the congenital variety, with the testis black and distinctly gangrenous and the epididymis greatly swollen and of a deep chocolate colour. Examination soon revealed that this had been produced by torsion of the spermatic cord, which was easily untwisted by two turns to the left—in the direction, that is, of taking out a screw. The site of the twist was at the external ring and there was no apparent cause for it. All the dead tissues were then removed and the open funicular portion of the peritoneum was closed, by ligature. The wound healed forthwith, without rise of temperature, and the boy left the hospital on June 24th.

*Remarks by Mr. PAGE.*—Difficulty in diagnosis was marked in this case as it seems to have been in others of the same kind. Nor could it well be otherwise, for in some respects there was a strange simulation of the symptoms of strangulated hernia, with differences, however, sufficient to create much doubt. The way to solve it was by obeying the rule—when in doubt operate—but yet even without an operation there seems no reason for thinking that the life of the patient need necessarily have been imperilled. Under subcutaneous and presumably aseptic conditions the gangrenous structures would presently have become atrophied and shrivelled and if in the future it had been possible to believe that the boy had ever had a testis on the right side, the singular conclusion would probably have been that in consequence of an acute attack of orchitis, due of course to gonorrhœa, the testis had atrophied and disappeared. It is questionable whether anyone would have thought of a twisted spermatic cord, and yet, as Mr. Bryant pointed out, complete atrophy of the testis may in other instances have thus had origin. How the twist comes I do not know, nor is it easy to explain it. After all it may be purely accidental and of no pathological significance, determined by the wearing of a truss and the frequent manipulation which a hernia and a truss entail. It seems as if some malposition of the testis, either congenital or induced by the wearing of a truss, in association with a congenital hernia, were an essential predisposing cause. One may never again meet with a case of such rarity as this, but it will be an act of strange forgetfulness if another case with like history and symptoms should not raise in one's mind the suspicion of twist of the cord and strangulation of testis. Certain diagnosis is out of the question. There was yet another and wholly different point of much interest in this case. Here was a gangrenous testis and epididymis, much pain and acute tenderness, great swelling and œdema and redness, all the old signs, in fact, of acute inflammation, and yet from first to last there was not a drop of pus in connexion with the gangrenous tissues or with the operation wound. I thank my dresser, Mr. W. J. Harris, for his careful notes of the case.

#### GENERAL HOSPITAL, BIRMINGHAM.

##### A SERIES OF CASES OF CONGENITAL MALFORMATION OF THE LARGE INTESTINE; REMARKS.

(Under the care of Mr. GEORGE HEATON.)

WITHIN the last eighteen months there have been under the treatment of Mr. Heaton four rather exceptional cases of so-called "imperforate anus," and a fifth in which the œcum had been arrested in its progress into the right groin. Cases of imperforate anus and other congenital malformations of the large intestine are not of very frequent occurrence, and two of the cases illustrate rather uncommon varieties of the deformity. It has, therefore, been thought that it might not be without interest to relate them in a series (reserving however, the conclusion until our next issue), illustrating, as they do, some of the difficulties met with in the treatment

<sup>1</sup> THE LANCET, vol. i. 1892, p. 472.    <sup>2</sup> *Ibid.*, vol. i. 1891, p. 1007.

<sup>3</sup> Diseases of the Testis, p. 8.

<sup>4</sup> System of Surgery (Holmes and Hulke), vol. iii., p. 470.]

<sup>5</sup> Boston Medical and Surgical Journal, 1888.

<sup>6</sup> La France Médicale, Jan. 14th, 1888.

of cases in which the left lower bowel is, in a greater or less part of its extent, absent. The clinical histories are as follows:—

CASE 1. *Imperforate anus with probable absence of rectum and descending colon; artificial anus made in left groin; death at the end of six weeks.*—A. B—, a male infant, was admitted into the General Hospital on Oct. 4th, 1891, two days after birth, with a history of having "passed nothing" per anum since birth. Note on admission: The upper part of the body is normal. The fornix is in a condition of hypospadias, the urethra being cleft to the root of the glans. The scrotum is normal and contains both testes, but is situated abnormally near the coccyx. The tuberosities of the ischium are very closely approximated, barely admitting two finger tips between them. In the situation of the anus are two small dimples, one on either side of the median raphe. Chloroform was given and a mesial incision was made into the perineum as far back as the tip of the coccyx. The inside of the pelvis was thoroughly explored for a depth of two inches and a half through the wound, but no trace of rectum could be discovered, nor was any bulging to be detected high up in the pelvis. A left inguinal colotomy was decided upon, but on opening the peritoneum and exploring the left iliac fossa with the finger no trace of sigmoid flexure or descending colon could be discovered, nor could any rectum be felt descending into the true pelvis. The finger was then passed across the child's abdomen and the cæcum felt for on the right side, but no trace of large intestine could be discovered. A distended coil of small intestine was then brought to the surface and united to the parietal peritoneum by six lateral and two terminal silk sutures. After all the sutures had been tightened, the intestine was opened and a free discharge of meconium took place. The operation lasted an hour and ten minutes.

Oct 4th.—The child slept well. There had been no further discharge of meconium and the edges of the intestine appeared dry. A small injection of olive oil was given through the wound, and this was followed in a few hours by a free discharge of meconium.

The child's after history was uneventful. The artificial anus gave no trouble, and the motions, consisting of partly digested milk, were discharged with ease. The child remained in the hospital a month and was then taken home; but it gradually became thinner and finally died of marasmus six weeks after the operation. No colon or sigmoid flexure could be detected by digital examination, but the relatives could not be persuaded to allow any post-mortem examination, and so the presence or absence of a colon could not be verified. It cannot be said that a cæcum and ascending colon were not present in an abnormal place; but the finger, when passed across to the right iliac fossa, could not detect them.

CASE 2. *Imperforate rectum, with penile fecal fistula.*—F. F—, a male infant, was admitted into the General Hospital on Feb. 12th, twenty-four hours after birth, with a history of having passed fæces by the urethra, but none through the anus. There was a well-marked anal depression in the normal position, but the depression lead into a blind cul-de-sac lined by normal skin. Some bulging could be felt high up when the child cried. The tubera ischii were normally situated and the scrotum well forward. On the under surface of the penis, in the median raphe, and about three-quarters of an inch from the end of the glans, was the opening of a fistula, which just admitted an eye probe, and from which meconium was discharged at intervals in small quantities. The child was in all other respects apparently healthy. The urethra appeared quite normal and urine was passed unmixd with meconium from it. On the evening of February 14th the child became uneasy and vomited. On the 15th chloroform was given and a mesial exploratory incision was made at the site of the natural anus, a probe having been previously passed through the urethra into the bladder. The rectum was found three-quarters of an inch from the surface and an opening made into it, allowing a free discharge of meconium. The mucous membrane of the intestine was brought down to the skin on the left side and sutured to it. A small eye probe was then passed down this penile fistula and found to enter the bowel on its anterior surface about half an inch from its blind extremity. The fistula was quite distinct from the urethra, but ran parallel and superficial to it. The child was at once relieved and gained in weight rapidly. The anus showed very little tendency to contract, and the only after-treatment adopted was the daily passage of a small flexible rectal bougie. The fistula remained patent

for some weeks. Suppuration took place at points along it, and after several small abscesses had formed and burst it is now finally closed. The child has been seen at frequent intervals since for infantile syphilis, from which several other members of the family have suffered, and is at present thriving and well.

(To be concluded.)

## Reviews and Notices of Books.

*A Text-book of Morbid Histology for Students and Practitioners.* By RUBY BOYCE, M.B., M.R.C.S. London: H. K. Lewis. 1892.

AN entirely new work upon morbid histology cannot fail to excite attention, for when we recall the great advance which has been made in this department of late years there seems ample scope for fresh writings upon it. It was therefore with more than common interest that we perused the treatise which has been produced by Dr. Boyce, who holds the office of Assistant Professor of Pathology in University College, London. The general plan of the work is rational and systematic. After an introductory chapter devoted to practical directions with regard to the methods of preparation of histological specimens the subject proper is dealt with under two main heads, which may be regarded as "General" and "Special." The chapters of the first division treat of Inflammation, Repair, Degeneration, Neoplasms; those of the second with the morbid changes in each system of tissues and organs. Undoubtedly the most striking feature of the book consists in the illustrations with which it is embellished. These are coloured plates produced from actual photographs, and we can truly say that we have never met with so complete and perfect a series of micro-photographs as those here given. There is no lack of clear definition, and each figure tells, as it should, its own tale. The value of such a collection of faithful reproductions of microscopic preparations must be inestimable to the pathological student. We have drawn attention to this part of the work in the first instance because it would seem as if the author himself intended that his text should be, to a certain extent, subsidiary to the carefully-selected series of preparations which are depicted in the volume. At the same time, it is only right to add that he has not thereby suffered the subject to lack completeness, and that he supplies ample matter which cannot be illustrated by figures.

Devoting a closer scrutiny to the text we note that the author gives a lucid account of the inflammatory process, which is illustrated in the first place by a study of the changes in croupous pneumonia, and then in turn of those in mucous and serous membranes. He uses the terms "croupous" and "diphtheritic" in the sense generally adopted by the German school—namely, as denoting merely two types of exudative inflammation of varying severity, and illustrates this by a preparation from the colon of a monkey in which at different parts of the same specimen these two types may be observed. In speaking of the fate of inflammatory exudates and repair he demonstrates the occurrence of macrocytes having a phagocytic property, and shows how the process of organisation and vascularisation proceeds from the fixed elements rather than from the exuded leucocytes. So, too, he draws a distinction between the leucocytic proliferation and that of connective tissue elements in the process of chronic inflammation, for, if we understand him aright, he attributes to the former the main source of giant cells, to the latter the formation of new tissue. And contrasting by this light the differing fate of the granulomatous formations of tubercle and syphilis respectively, it might be inferred that the virus of the former acts less on the tissues themselves than does that of the

latter. The subject of the Healing of Wounds is clearly stated, and comprises the topics of sponge grafting and the absorption of ligatures. The changes which ensue in muscle, nerve and bone after injury are also discussed, and there is an instructive plate contrasting an uninjured nerve with the peripheral end of a nerve one year after its section. After describing the various forms of degeneration the interesting question of the infective processes is dealt with. Of these we may especially direct attention to the text and illustrations of tubercle and syphilis, which present within small compass the essential features of these prevalent processes. The classification of tumours adopted by Dr. Boyce differs slightly from those hitherto drawn up. He makes four main groups: (a) "Simple tumours and tumour-like hyperplasias of the more highly specialised tissues" (neuromata, myomata, hæmangiomas, lymphangiomas, endotheliomas); (b) "simple tumours and tumour-like hyperplasias of the tissues of the framework" (fibromata, chondromata, osteomata, myxomata); (c) "the rapidly growing and malignant forms of the preceding group" (sarcomata); (d) "epithelial tumours, simple and malignant" (1, of epithelial surfaces, 2, of glands). This arrangement has its merits and also its disadvantages, since it serves to confuse the tendency of growths to become generalised or to remain local with their structure and origin. It is not therefore purely histological. Dr. Boyce does well, however, to treat separately of cysts, of which he has not attempted any genetic grouping. In the present state of knowledge it is perhaps advisable not to make this endeavour. Then follows a highly interesting chapter on Congenital Formations, in which there is a careful collection of examples of formations arising in vestigia or foetal rudiments.

Of the remaining chapters, which are assigned to the description of the lesions in each special system of tissues and organs, the blood and vascular organs are first treated, then the adenoid tissues, after which comes a chapter comprising Addison's disease, myxœdema, acromegaly and diseases of the bones and skin, a conjunction warranted only by the type of tissue which is the most affected in them. Necessarily these last-mentioned subjects cannot be dealt with exhaustively, but as they are rather overlooked by pathologists we may be grateful to the author for noticing them. As regards the rest of the work it suffices to observe that the morbid conditions of the liver are less amply treated in respect to illustrations than those of the kidney, whilst the section upon the changes in the brain and spinal cord is ample and excellent. It should be added that the work is prefaced by an introduction by Professor Horsley, with whose opinion we may coincide that the work is one "which cannot fail to be of much service to the student whether at home or in the laboratory, and of helpful suggestiveness to the original investigator." Lastly, we may highly commend the manner in which the book has been produced; we have already referred to the admirable illustrations, but we ought not to overlook the excellent type and paper, which, although increasing the bulk of the volume, add much to its readability. In a second edition, which cannot fail to be called for as time goes on, a few venial errors of omission and a few crudities of expression which we noted in the text will doubtless be rectified.

*On Contractions of the Fingers and on "Hammer Toe."* By WILLIAM ADAMS, F.R.C.S., Consulting Surgeon to the Great Northern Central Hospital &c. Second Edition. London: J. & A. Churchill. 1892.

In the main this is a reprint of the earlier edition of Mr. Adams's brochure on Dupuytren's Contraction and on a New Operation for Unsightly Depressed Scars. The essay on Dupuytren's contraction is very little altered, but we find some modifications in the after-treatment. The cause of this

deformity is now known to lie in the palmar fascia and its prolongations to the fingers, and Mr. Adams makes out an excellent case in favour of his method of dividing the fascial bands. A chapter is added on Congenital Contraction of the Little Finger or Crooked Little Finger, and Mr. Adams states that this curious deformity is due to shortening of the digital portions of the palmar fascia. When slight the deformity can be overcome by a very simple splint; when more severe, subcutaneous division of the tense fibrous bands in the finger is recommended. The essay on Hammer Toe contains an account of Mr. Shattock's specimens which were shown to the Pathological Society a year or two ago. Mr. Adams attributes the deformity to shortness of the lateral ligaments of the first phalangeal joint, and advises the division of these bands by a fine fascia knife as the appropriate treatment. We think that Mr. Adams hardly estimates highly enough the alternative method of treating this deformity. The chapter on the treatment of conspicuous depressed cicatrices is not materially altered in this edition, but Mr. Adams emphasises the value of the suggestion he previously made.

*Notes on Pathology, a Handbook for the Post-mortem Room.*

By the late R. E. CARRINGTON, M.D. Lond., F.R.C.P. Edited, revised and amplified by H. EVELYN CROOK, M.D., B.S. Lond., and GUY MACKESON. London: H. K. Lewis. 1892.

THIS is a useful little book, compiled by one who had the gift of teaching in no ordinary measure. Students will appreciate its value and be grateful to Dr. Crook and Mr. Mackeson for its production. In systematic fashion and in concise terms the chief facts in morbid anatomy are expounded, so that it constitutes a practical guide to the post-mortem room similar in kind and scope to the multifarious manuals devoted to the subject of clinical medicine. It might perhaps with advantage have been made to include a chapter on the technique of post-mortem examinations and the preparation of histological specimens. For the text itself we have nothing but commendation, although the terseness that characterises the descriptive matter is sometimes a drawback, and despite the fact that it hardly seems in keeping with the purport of the book to include under heart disease some paragraphs referring to its symptoms during life. Dr. Goodhart contributes an introduction, and points out that it is during his studentship that the practitioner has almost the only opportunity of becoming acquainted with the facts of morbid anatomy; he believes that this branch of knowledge is "more inspiring, more instinct with the gifts of a sober self-confidence and of comfort in the many exigencies of the practice of medicine than any" other source of information.

**BEQUESTS AND DONATIONS TO HOSPITALS.**—The late Mr. T. J. Evans, of Brecon, bequeathed £200, free of legacy duty, to the Merthyr General Hospital.—Mr. Edwin Smallwood, late of Redditch, bequeathed £15,000 for the erection and endowment of a Cottage Hospital in that town, and £3000 each to the General and Queen's Hospitals, Birmingham.—The Fishmongers' Livery Company has voted fifty guineas to the Royal Sea-bathing Infirmary at Margate.—Baron de Hirsch has forwarded to the committee of the Royal Hospital for Women and Children, Waterloo Bridge-road, a donation of £500 in aid of the funds.—The authorities of the General and Jaffray Hospitals, Birmingham, have received notice of legacies from the executors of the estate of the late Mrs. Mary Smith, of the Red House Inn, New John-street West, of £250 for the General and £200 for the Jaffray Hospitals.—The workmen of Sir William G. Armstrong, Mitchell and Co. at Elswick have contributed to the local medical charities £259 9s. 7d. for the quarter ending the 30th ult., of which £191 4s. 7d. was apportioned to the Royal Infirmary.—The late Mr. W. Reed, of York surgeon, bequeathed £100 to the York County Hospital.

# THE LANCET.

LONDON : SATURDAY, JULY 30, 1892.

THE thoughtful and suggestive address which Professor CUMING delivered on Wednesday at Nottingham opens up many questions of paramount importance in the study and pursuit of medicine. In the first place his protest against the inclusion of pure science in the medical curriculum is likely to find many sympathisers ; but it is a view which can only be advanced with qualification. No one can gainsay the statement that chemistry has advanced far beyond the limits in which it was confined when the scientific chemist was also the physician ; but this is true of all the sciences. They were in their infancy fostered by the only section of the community that was then cultivating the scientific spirit of inquiry ; and their early steps were guided by men who had attained eminence in the domain of physic. Hence it was that in the schools of medicine alone could either chemistry or botany find a place ; but now that they have an established position of their own and no longer need such fostering, there seems to be more than sufficient reason why they should no longer hamper the medical course. In this matter it seems to us that we are coming to a critical period in medical education, and that it is time to recognise more clearly than is our wont the value to all who intend to embark in a medical career of a sound preliminary training in the elements of the sciences. The system of preliminary scientific studies which obtains in all the Universities should be made general, and the subjects they include should be relegated to a period of the student's career antecedent to his embarking on the professional course, as has been recommended by the General Medical Council. We concur, therefore, with Dr. CUMING in his desire to rid the strictly medical curriculum of such subjects as chemistry and physics, but we do not believe—and he can hardly advocate—that the student should enter a medical school destitute of all previous training in subjects without a knowledge of which physiology would be an irksome, or rather impossible, task. There must be schools of science side by side with schools of medicine, and the training in the former must not be taken as part of the training in the latter. True this change would entail a greater expense on those responsible for the youth who desires to enter our profession ; but if he is to be an efficient member of it, and to hold his own in face of the ever-widening sphere of medical practice, he must build on strong foundations, and the eventual gain will be worth the needful expenditure of time and money.

The main part of the address was devoted to an able review of the present growth of knowledge in the most complex of physiological and medical studies—namely, that which embraces the higher functions of the nervous system. Dr. CUMING introduced this subject by a passing reference to the advances made in our conceptions of cellular pathology and the intimate processes of disease ; and this conjunction of topics at present uppermost in the minds of pathologists, curious as it may seem, yet demonstrates

the vastness of the field which comes under the purview of medicine. His reference to hypnotism was fair and cautious, but he did wisely in not discarding a subject which has the misfortune to be so largely mingled with trickery. Now, however, that its phenomena have attracted the attention of science, it is incumbent on those who study it to do so with purely scientific aims, and in particular to test again and again the allegations that physical changes may take place in the hypnotic state which cannot be induced apart from it. The conditions of modern life and the feverish activity among men to become rich or famous, quite as much as the greater fierceness of the struggle for existence, are responsible doubtless for the increasing amount of functional, nervous, and mental disease in these days. The profession is almost impotent to check this development, since its counsels of temperance in life, thought and action fall on deaf or unwilling ears. Nevertheless, if we cannot control the causes of nervous disease with the power that can be exerted in many another class of human afflictions, we can and ought to cultivate the study of normal mental action to enable us to comprehend more clearly the relationship that exists between the physical and the psychical, and thus possibly to gain some sounder knowledge of therapeutic measures for the mentally enfeebled. Herein we cordially support the arguments of Dr. CUMING, and consider that he has rendered the profession a service by pointing out how much there is still to be learnt in the region of psychical phenomena, and the best method to adopt in their study.

DR. HINGSTON in no way overstated the difficulty of his position in the opening sentences of his Address in Surgery at Nottingham, but he overcame them in so skilful and graceful a manner as to make it difficult to believe in their existence. Avoiding any one special topic he touched lightly and dexterously on many, and with equal wit and wisdom. His text he reserved for the end of his discourse, and few of those who listened to the address guessed how all was leading up to the one conclusion that the whole is greater than a part.

His opening plea for rest was worthy of greater elaboration, especially as in his view there is greater unrest and hurry on the other shore of the Atlantic than on this. There is great danger lest the want of time for calm and patient thought may soon beget the want of inclination for, and even the loss of power of, continuous thought. A replica of REYNOLDS' portrait of JOHN HUNTER might well be hung in every medical school and library in the kingdom, for it would be a silent and eloquent plea for calm and patient thought amid the ever-increasing rush and bustle of life. The mere prevention of hasty judgments, ill-considered opinions and erroneous views would not be the only result of such a frame of mind on the part of surgeons. All their work would be better done. It is a vain regret, however ; and while we reap such a rich harvest of advantage from all the modern discoveries and methods which so destroy mental rest we must be prepared to pay for it in full. Dr. HINGSTON'S defence of Transatlantic medical literature was, so far as it went, just. The local touches, the references to the special difficulties of surgical practice in a new country and to the special traits of character these difficulties create, were admirable and formed an excellent foil to the more

serious treatment reserved for the closing part of the address. Specialism in surgical practice has been a favourite theme with orators and writers, and it is noteworthy that a distinguished Canadian surgeon is as keenly alive to its evils as the most conservative of Europeans. Dr. HINGSTON spoke of it, however, not in terms of unmeasured condemnation. He pointed out that advantages have accrued from specialism and considered that a necessity for it had arisen from the enormous developments of knowledge in every department of medical science. His remarks on the cramping, narrowing and distorting influence of specialism ought, therefore, to receive the patient attention of those to whom they are addressed.

The best part of the address was reserved for the end, where Dr. HINGSTON pointed out the need for a proper mental outfit for every student and practitioner of surgery. The enormous development of the science and also of the art of surgery throws a much greater strain upon the student and heavier responsibility upon the practitioner than was formerly the case. Unless care be taken to prepare the mind for such work we cannot hope to find the strain well borne. How this preparation is to be attained it is difficult to say exactly. Some have recommended the study of science, others of the classics. Whatever it be the mind must be not a storehouse of facts alone, but an observatory and a factory. The student of surgery should never be a mere student of surgery, but always something more—a man who can look at the facts brought before him in their true relation to each other and to the whole; one who can regard even the all of surgery as but a single part of the great whole of life. Some may think it strange that such a call to raise the standard of general education of medical students should come to us from a Canadian; but this fact gives it additional importance. The colonies can fairly ask the mother country to show them the lead in such a matter, and we ought to be able boldly to do so. Something has been done, much more remains to be accomplished; and it will need the help of every discerning man. The immediate and direct influence of education is thought too much of; its indirect effect is valued far too little. We therefore hail Dr. HINGSTON'S closing remarks with special pleasure and satisfaction.

THE proceedings at Spencer House of those constituting the conference summoned by Lord SANDHURST to discuss the conclusions of the Lords' Committee on the Management of Hospitals and Dispensaries are rather significant. The chief conclusion of the Lords' Committee was in favour of a proposed Central Board with various powers and duties, such as the following: To publish an annual report giving a complete statement of the financial position of each medical charity, the sanitary condition of the same, the number of beds used and the number not used; the method of dealing with out-patients so as to secure the coöperation and coördination of all the medical charities; to report on proposals for building new hospitals &c. Such powers, of course, imply those of visiting the various hospitals and dispensaries and auditing their accounts. The Committee, while discouraging the idea of a Government inspector, distinctly recommended that the Central Board should have power to receive endowments, legacies and other contributions for distribution

among medical charities. It is around the proposal for a Central Board that most of the discussion on the work of the Lords' Committee is likely to turn. Already there are two strong diverse views, one for and the other against such a board. Those who are against it say, naturally enough, that it is an invasion of the voluntary principle, on which the whole of our hospital system is founded, and that it would be resented by the committees and subscribers of the individual charities who already give valuable time and money to the present system as a voluntary one. This diversity of opinion found a sort of negative expression the other day at Spencer House. Lord SANDHURST proposed that the conference "should appoint a committee to take into consideration the conclusions arrived at by the Lords' Committee on Metropolitan Hospitals, and to report as to the composition and duties of the proposed voluntary Central Board or such other scheme as may be arrived at after due deliberation." Sir DOUGLAS GALTON suggested that the motion should stop at the words "metropolitan hospitals." Lord SANDHURST adopted the suggestion, and it was agreed to. Of course this does not exclude the proposal from the purview of the Committee; but it gives a clear intimation that it is to have no special attention and has no special recommendation from the conference itself. The force of the objections to such a board is obvious, as well as the delicacy of any central control over free and voluntary institutions. On the other hand, there are strong counter-weighing considerations. We shall say little of the fact that a very intelligent public investigation into the hospitals question at Birmingham ended with a similar recommendation—the formation of a general council representative of all the public medical institutions of the city; nor of the fact that there is practically no alternative proposal for dealing with the difficulties of the situation. We would rather examine some of the plausible objections to the proposal, and then inquire whether they are really so forcible as to preclude a careful experiment in this direction. One great objection is that such a proposal might stop the flow of voluntary contributions. We doubt this. We would point out that under the existing system the flow of voluntary contributions is, if not abating, altogether inadequate to the needs of the case. There are two thousand vacant beds that cannot be used till the sum of £50,000 or £55,000 more is actually forthcoming.

This deficiency does not arise from want of wealth—spare wealth for such a splendid purpose. It arises partly from an impression that there is some carelessness or lavishness in the multiplication and administration of hospitals, which might be corrected by a little control from a friendly central supervising body. Too much centralisation may be a bad thing, but without it there is a tendency to excessive growth and unseemly competition which bring charity itself to pauperism and diminish respect for it. We incline to think that the central body, if properly constituted, would inspire confidence both in the public and in the managing bodies of existing charities, which so nobly discharge a laborious and unpaid duty, and thus lead to an increase in public support. There is another consideration. We cannot ignore what the Lords' Committee point out, that the hospital system of London at the present moment is not altogether a voluntary one. The creation of Poor-law infirmaries and rate-supported Asylums for infectious diseases has altered the position

greatly, and this alteration must be faced. We sincerely trust that nothing will ever obliterate the voluntary hospitals, which are the glory of England; but it is essential to consider that the other institutions affect both the feelings of the poor who use them and the ratepayers who have to support them.

The great thing is that the central body should be well chosen and should be chosen mainly if not entirely by the voluntary institutions of which we are all so justly proud. The hospitals and dispensaries have shown the greatest respect for the Hospital Sunday and Hospital Saturday Funds and have met their criticisms with every attention and desire to make improvements. This would be still more the case if the central body existed chiefly for the purpose of friendly supervision and the prevention of excessive growth of what is already too large for easy support. The proposal to give it powers of receiving endowments, legacies and contributions seems to us one for much reconsideration. It would tend to divert the income of individual hospitals and give rise to much jealousy. We cannot doubt that a central board elected by the medical charities would have their entire respect and might likewise command the respect of the benevolent on whom our voluntary charities depend. We shall await with much interest an expression of the views of the committee appointed at Spencer House, not only on the proposal for a Central Board but with regard to all the conclusions of the Lords' Committee.

THE volume dealing with the work of the Metropolitan Asylums Board during 1891 contains the reports of the Statistical and Ambulance Committees, as well as of the superintendents of the infectious and imbecile establishments of the Board. The Statistical Committee congratulate themselves on the incorporation in the London Public Health Act of 1891 of the amendments to the Notification Act of 1889 that they previously suggested, but still regret that notification does not apply to the royal palaces, barracks, police stations and prisons. The committee further regret that there is no central authority to trace outbreaks of infectious disease or to carry out measures of disinfection and revaccination, and draw attention to the fact that these duties are at present divided between the sanitary and Poor-law authorities of the metropolis, the County Council and the Local Government Board. They suggest that the Managers should petition Parliament to invest such a central authority with power, not only to remove and isolate the sick, but to disinfect "premises, bedding, &c.," to vaccinate those exposed to infection, to investigate the origin of outbreaks and to compensate persons detained in quarantine. These are far-reaching and bold suggestions, and, inasmuch as they seem to have been adopted by the Managers, they deserve more than casual notice. Without in any way decriing the useful work performed and being carried out by the Asylums Board, it is clearly open to objection that the Board as at present constituted could not with any satisfaction cope with the colossal task that the Statistical Committee would set it to do. To concentrate such wide powers in a body which many, rightly or wrongly, consider an administrative anachronism, inasmuch as its members are partly delegated, partly nominated, and in nowise representative of the ratepayers of London, would

be a step requiring the utmost consideration. The Board at present has neither the staff nor the appliances to carry out the several duties suggested, nor has it any responsible medical or hygienic advice upon which to act. Matters of disinfection and vaccination alone would involve the need of expert assistance of the highest kind, and so would questions of detention in quarantine stations, to say nothing of etiological investigation. The Board is in reality not a sanitary authority at all, but a removal and isolation authority. If there is to be any change, it would be altogether easier and more convenient to graft removal and isolation powers upon an existing superior sanitary authority than to cumber a removal and isolation authority with multifarious sanitary duties. Indeed, the suggestion of the Statistical Committee clearly involves the fallacy that cases removed are the only ones that occur. If the Asylums Board were to become such a body as that proposed it would have to take over the whole machinery of notification.

We are glad to find that the Statistical Committee do not agree with the remarks of the medical superintendent of the hospital ships as to the uselessness of tabulating records of the vaccination marks of small-pox cases. They point out that the kind of record was settled in conference with the Local Government Board in 1887, and quote Dr. EDWARD SEATON'S observations upon the value of such records. Dr. BIRDWOOD'S remarks on this subject appear open to grave question. He says, first, that "vaccinated small-pox patients afford evidence of the failure of vaccination to protect small-pox," without any reference to date of small-pox after vaccination, the nature and result of the attack, and the character of the vaccination. Then he minimises the evidence abundantly accumulated as to immunity of exposed persons who are vaccinated. Lastly, he decries measurement of scars, stating "we do not know the rate of growth of scars." Dr. BIRDWOOD is perhaps unaware of the fact that scars of infantile vaccination rarely increase after the third year, so that he should be able to record definite results concerning his vaccinated patients, most of whom will be over the age of ten years at least. It would be disheartening if valuable scientific material of this kind were wasted, and we are glad to find the Managers alive to the importance of the matter. Reference is made to the continuance of errors in diagnosis in cases sent to hospital and to the fact that all the hospitals are now available for clinical study. The need for an additional hospital in the north-east of London and of another convalescent establishment in the south is emphasised.

As regards the reports of the several medical superintendents, nothing of any general scientific interest is recorded, except the continued appearance of diphtheria in scarlet fever patients, which obtained during 1891 in five of the six fever hospitals. This is a subject of great importance, which deserves the attentive notice of the Local Government Board experts. Mr. MANN, of the Eastern Hospital, records nineteen recoveries from tracheotomy out of eighty-two operations, a very creditable record. He adds that in seventeen of these the trachea was undoubtedly invaded. Dr. BIRDWOOD gives some interesting illustrations of the subtle and intensely active manner in which small-pox spreads.

Numerous tables, diagrams and spotted maps are appended

to, and illustrate, the Board's report; they are neatly put together and presented. We notice that the percentage mortality of scarlet fever, diphtheria and enteric fever was lower in 1891 than in any year during the preceding quinquennium. This may reasonably be ascribed to the improvement in the nursing arrangements at the several hospitals of the Board.

A STRIKING example of the haphazard manner in which great questions are treated in this country is the appearance of an important opinion on medical education as an accidental incident in the course of inquiry into London hospital management at the very moment that a Royal Commission is considering how the problem of granting a Teaching University for London can best be solved. Whilst investigating the position and management of the London hospitals the Select Committee of the House of Lords examined the deans of the medical schools and other prominent members of the profession as to their opinions on medical education. The income and expenditure of each school was inquired into and the amount of fees paid to the teachers was also asked. We agree with the Committee that, "speaking generally, the remuneration of the teaching staff is certainly not high." The question of residential colleges for medical students was also referred to, and it would seem from the evidence of the deans of the Middlesex and St. Mary's Hospitals that they are not so popular or so eagerly sought after as is generally supposed. The discipline and general conduct appear to be very satisfactory, for "serious offences inside the hospital itself appear to be almost unknown." With regard to the formation of a central medical university in which anatomy, physiology, chemistry and other subjects should be taught by experts the opinions of the witnesses were of the widest range. Many urged its formation, whilst others took the view that medical teaching could best be carried out by teachers engaged in the actual practice of the profession, as it would then tend towards a practical outcome rather than have a merely scientific and theoretic bias. Most of the witnesses, although opposed to any interference with the larger of the existing medical schools, thought it advisable that some of the smaller ones should be amalgamated, or that there should be some central schools where their students could be instructed in the scientific or non-professional subjects. The Committee evidently are strongly in favour of a Teaching University, for they sum up the question in these weighty words: "The Committee consider it well worthy of consideration whether it would not be advantageous that the medical schools in London should affiliate themselves to a teaching university or organisation after the nature of colleges in a university, with the view to securing first-rate lecturers for the subjects which can be taught in classes as distinguished from clinical instruction." This expression of opinion on the part of their lordships should be brought to the notice of the Royal Commission and not be buried in a blue-book where few persons would be likely to see it or would expect to find it. At the same time it should be remembered that every branch of medical science has now to be taught practically, so that large classes are both undesirable and impracticable. The Committee are in favour of the opening up of the Poor-law infirmaries for

clinical instruction, but they do not suggest any reorganisation of the medical staffs of these institutions, and without some alteration it is obvious that proper clinical teaching cannot be given.

## Annotations.

"Ne quid nimis."

### THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

THE changes which were necessitated in the staff of the Medical Department of the Local Government Board in consequence of the resignation of Sir George Buchanan, F.R.S., and the appointment of Dr. Thorne Thorne, F.R.S., as principal medical officer have, after much delay, at last been effected. Mr. W. H. Power, as was always anticipated, has been promoted to the post of assistant medical officer. The appointment will be received with satisfaction by the many who have followed the able researches and investigations with which his name is associated, and even more so by those who have had personal experience of the valuable and courteous help which he is always so ready to afford to those who voluntarily seek his friendly criticism of their work and conclusions. Mr. Power's name will always be identified with the great progress which has been made in the study of the relation of diseases in man to ailments in the lower animals. Dr. H. F. Parsons has been appointed to the post of second assistant medical officer, and his addition to the permanent medical staff at Whitehall brings with it the advantage of many-sided skilled knowledge on a number of medico-scientific subjects in their bearing on public health. Dr. Parsons' special reports on such subjects as the various methods of disinfection and on epidemic influenza are recognised as standard works, and they show a great capacity for utilising for public purposes information which has heretofore been too widely scattered and too vague to be of practical service. The vacancy in the inspectorial staff which has thus been created has, we understand, been filled by the appointment of Dr. H. T. Bulstrode, who is honorary secretary to the Epidemiological Society, senior assistant medical officer to the Metropolitan Asylums Board hospitals, and an Examiner in Hygiene to the Science and Art Department of the South Kensington Museum.

### "TAKING THE OATH."

BEFORE the next issue of THE LANCET appears the newly elected members of the House of Commons will have met and some members will have taken the oath and their seats. Since the last general election took place the Oaths Act of 1888 has been passed. It allows those who have no religious belief as well as those who believe that oath-taking is contrary to their religious belief to make an affirmation. It also permits those who may prefer to do so to be sworn with uplifted hand in the form and manner in which an oath is usually administered in Scotland. A reference to THE LANCET of March 24th, 1888, page 586, and April 21st, 1888, page 800, will show that this clause is in conformity with the suggestions made by us. Whether this is a case of *post hoc ergo propter hoc* we will not presume to say, but the coincidence is at least remarkable. It was stated recently in the papers that advantage was taken of each new Parliament to have the mace regilded and new wigs supplied to the Speaker and Clerks at the table. Whether a supply of New Testaments and copies of the Pentateuch is also the rule we are not told. But it is probable that the Scotch members might wish to be

sworn as they are in their own country and that many other members might also prefer this mode of adjuration. We reproduce the clause in its entirety:—"If any person to whom an oath is administered desires to swear with uplifted hand, in the form and manner in which an oath is usually administered in Scotland, he shall be permitted so to do, and the oath shall be administered to him in such form and manner without further question."

#### A TEACHING UNIVERSITY FOR LONDON.

DURING the past week Mr. Watney of the City and Guilds of London Institute; the Rev. Prebendary Wace, D.D.; Sir Joseph Lister and Dr. Priestley of King's College; Sir James Paget and Mr. A. Milman from the London University; Drs. Liveing and Norman Moore on behalf of the Royal College of Physicians; Dr. Dykes, Professor Whitehouse and Dr. Reynolds for the various theological colleges; and Professor Emmett of Baltimore have given evidence. The delegates from the medical schools presented their case on Thursday, whilst there are many points of individual difference in opinion, they are agreed that (1) degrees in medicine should not be placed beyond the reach of the majority of their students; (2) that the teachers should have greater control over the curricula, syllabuses and arrangements for examinations in medical subjects than they at present possess; (3) that either a purely local university for graduation should be established, or that if a modification of the existing University of London be recommended no modification would be satisfactory which did not provide for the granting of degrees restricted to London students and under the substantial control of the London teachers. The London schools of medicine would also claim recognition and representation in any new or remodelled university, and they would ask for a share equal to that of any other faculty in the government of any such university. These demands seem to us to be absolutely prohibitive of any "professorial" scheme, in which the governing bodies of the medical schools would have no direct influence or power. The following are the names of the delegates who were examined on Thursday:—Dr. Shore (St. Bartholomew's), Mr. Stanley Boyd (Charing-cross), Dr. F. Taylor (Guy's), Dr. Dickinson (St. George's), Mr. Page (St. Mary's), Dr. Coupland (Middlesex), Dr. Payne (St. Thomas's), Prof. Schäfer (University College) and Mr. Spencer (Westminster). Mr. Stanley Boyd gave evidence as principal witness on behalf of the schools, and was followed by Prof. Schäfer, Dr. Dickinson, Dr. Shore, Mr. Page and others.

#### BURIED ALIVE FOR SEVENTEEN DAYS.

THE teaching of experience as illustrated by several recent instances of prolonged abstinence, though it may afford some idea of human endurance in this particular under special conditions, has yet provided no certain criterion of the vital resistance possessed by the average man when suddenly deprived of every form of sustenance. The measure of this force may nevertheless be gauged with approximate correctness from the history of recurrent instances of prolonged and accidental privation. As an example the following is remarkable even in this category. It is the narrative of three Bohemian miners who after being entombed by a fall of sand in the pit where they were working were finally rescued alive, though of course in an utterly prostrate condition, seventeen days later. During the period of their live-burial air was pumped down to them by bore-holes. On this they may be said to have lived without food and without water. The total want of the latter is what makes their survival so remarkable. But for this essential the longer fasts of professional fasting men would have been quite impossible. We can have no difficulty in understanding generally why this holds true if we bear in mind the fact that not only does water constitute by far the greater constituent of every tissue, but that without its due

proportion the circulation and nutrition of the blood and that needful if costly chemical change upon which all tissue repair depends would be alike impossible. In endeavouring to trace the *rationale* of a life persisting, as in the case of the buried miners, in spite of the absence of every natural condition we must notice one or two significant points. In the first place their condition was that of rest, their functional metabolism being proportionally less active, their waste of tissue diminished and their output of carbonic acid not so likely to overcharge the surrounding atmosphere. Further, we may take it for granted that a robust physique had no small share in the conservation of vital energy. Much depends in such cases on the amount of nitrogenous matter stored up, for the most part in muscular tissue, and available for destructive changes. We may safely assume that the amount of reserve nitrogen in the case of these men was not meagre. It is mainly, no doubt, to this circumstance that we must attribute, not only the fact of their existence, but the still more remarkable prospect of their convalescence and ultimate recovery.

#### "LIFEBOAT SATURDAY."

THE chairman of the Manchester and Salford Lifeboat Saturday Committee has made an appeal in *The Times* which appears worthy of attention by those who are interested—and who are not?—in the welfare of all "who go down to the sea in ships and do business in great waters." Lifeboat Saturday in Manchester and Salford resulted, we are told, in October last, in the raising of no less a sum than £5500; and Liverpool, Bolton, Oldham and Stockport have already followed the excellent example set by the first-mentioned northern cities. There is no reason apparent to us why so admirable a movement as that already started should not become a national institution like that of Hospital Sunday. True, the classes to be benefited in the two cases are diverse, but the relief of the destitute sick and the rescue of those in peril of shipwreck are objects which should equally command the sympathies and aid of humanitarians of all grades in society.

#### INFLUENZA IN NEW SOUTH WALES.

WE have received the official report on the Epidemic of Influenza in New South Wales during 1891 of the Chief Medical Inspector, Dr. Ashburton Thompson, to the President of the Board of Health, Sydney, dated May, 1892. This is a welcome addition to the history of influenza. The large area of the province invaded and, excepting in the capital, its sparse population show—in Dr. Thompson's words—"upon evidence sufficient to convince that the spread of influenza was by slow degrees, both over the metropolitan district regarded as a place by itself, over the larger towns considered as places by themselves, and over the country as a whole; and that it was in every respect accordant with what was known to be the habit of the communicable diseases." This conclusion has a foremost place in the report, opposing some old statements in the preamble of influenza spreading on the wings of the wind, of large districts suddenly invaded, of pandemic extensions due immediately to atmospheric changes; yet Dr. Thompson begins by saying—"The pandemic which began in 1889 reached New South Wales in 1890." The use of this term, though fairly represented in the sequel, is misleading, as two cases are reported from the remote village of Hillston in July and August, 1889, one at Albury before Dec. 10th, and one case in Sydney on Dec. 25th, 1889. The disease started as an epidemic in March, 1890, and took from ten to twenty-two weeks in its deliberate spread. As with us, a recrudescence of the disease occurred in the following year from July to October, 1891, but instead of beginning in Sydney "some places in the country began to suffer before the capital," supplying cases to the middle of August, while the reports from the metropolitan district stand blank. The report continues: "The new con-

flagration may in some country districts have relighted from embers still smouldering there unobserved; but the more extensive outbreak again followed that of the capital in a way to suggest connexion between the two such as would be expected in the case of an infectious disease by one acquainted with local conditions of trade &c." The disease subsided in November and again during the following April there was slight recrudescence. The seasons, though the reverse of ours, seem still related in some way to the prevalence of the disease. Whatever the condition of the air, the presence of an infecting particle is assumed throughout the report as necessary to influenza and the conditions under which it acts are well discussed. "A special mode of communication must be inferred, as proximity, though it may be necessary, is insufficient by itself."

#### SLANDER OF A MEDICAL MAN IN BANFF.

THE *North British Mail of Glasgow* contains a report of an action in the First Division of the Court of Session before the Lord President and a jury, brought by Dr. Barclay of Banff against Mr. Robert Duncan, merchant, of Banff, for £1000 damages for alleged slander. The plaintiff had practised in Banff and held various medical offices there since 1863. He was one of the visiting surgeons of Chalmers' Hospital, but owing to differences with the officials he had resigned, and sent his resignation to the defender. The pursuer complained that the defender had on various occasions slandered him by stating that he was guilty of using indecent familiarities with the nurses in the hospital, and that these statements were false, malicious and calumnious. In the course of the evidence it appeared that the word "familiarities" had been used with all its mischievous insinuations, but under cross examination the defender said he did not believe there was any "impropriety" on Dr. Barclay's part. The pursuer's manner was known to be frank and fussy. It is certainly rather hard on a respectable man, even if a little frank and fussy in manner, to be charged with "familiarities," and we are glad that the verdict was given to the pursuer, with damages at £200. The defender was let off mercifully, and will perhaps learn to speak with more caution where the character of medical men is concerned.

#### A SERIOUS NUISANCE.

HAMMERSMITH has been suffering from a serious nuisance. The owner of a piece of land has been engaged in digging out and selling gravel from it; and, the land being near the river, water has filled the hole which has thus been created, making a pond containing from one and a half to two million gallons of water. Into this pond has been pitched the refuse of the neighbourhood and this decomposing has poisoned the air with foul odours, which have driven those resident in the vicinity of the pond from their homes. How this has been permitted to occur is not evident, but the fact remains that a gigantic nuisance has been created which deserves all the condemnation it has received at the hands of angry rate-payers. When the nuisance had become patent the vestry of Hammersmith held an "emergency meeting" and served a notice upon the owner, calling upon him to abate the nuisance within seven days. The County Council then became cognisant of what was taking place and made inquiry into the matter; but the vestry, having instituted proceedings, were not in default, and the council, like everyone else, has to wait the result of the action of the vestry. In the meantime a correspondent of *The Times*, whose vexation evidently makes him ignore the fact that the council is limited by the terms of an Act of Parliament, attacks the council and the vestry alike, and later solaces himself with the statement that his published letter was the means of making the council undertake a duty which it was quite im-

possible they could perform before the vestry was known to have failed. The owner of the pond has now proceeded to take steps for the abatement of the nuisance and men are engaged in pumping the offensive water into the sewer, and in filling in the pond with earth. If his efforts should prove insufficient or should in any way relax the vestry must obviously summon him before the magistrate and this we anticipate they will not be backward in doing, for the eyes of the public are upon the Hammersmith vestry, and no sympathy will be felt for a sanitary authority which does not use all the powers it possesses for removing from its district so serious a menace to the public health.

#### CENTENARY OF "THE RETREAT" AT YORK.

A HUNDRED years have elapsed since the foundation of an Institution for the Insane which has excited admiration in all interested in their welfare, whether at home or abroad. The Medico-Psychological Association held its annual meeting at York this year on July 21st, to mark its appreciation of an event so beneficent in the reform of the treatment of the insane. The medical superintendent of the Retreat, Dr. Baker, was appropriately elected President on the occasion. Dr. Yellowlees moved a resolution, which was unanimously adopted, expressing the Association's warm appreciation of the work effected by the founder, William Tuke, and his fellow-workers in regard to this remarkable asylum, where chains were unknown at a time when it was supposed they could not be discarded with safety, and where gentleness and consideration were substituted for inhumanity and empiricism. The inestimable benefits conferred by the philanthropic and far-sighted founder well deserve the recognition it has just received in so striking a manner in the place of its birth. A very remarkable feature of the occasion was the number of congratulations which poured in from the psychological associations of America and Europe. The English, Scotch and Irish boards of lunacy paid a high tribute to the movement in the interests of the insane commenced in 1792. A highly interesting circumstance occurred at the meeting at York. The great-grand-nephew of Pinel, Dr. René Semelaigne, was present to speak for his nation and his family. It was a happy international recognition of benevolent action common to both countries and was responded to by Dr. Hack Tuke's proposing the health of the French physician, which was duly honoured. Belgium was worthily represented by Dr. Morel of Ghent, the President of the Medico-Psychological Association in that country.

#### THE PROGRESS OF CHOLERA IN EUROPE.

CHOLERA continues to make steady headway in Russia and we have now reached a stage when even the incomplete official returns admit about 1000 fresh attacks and some 550 deaths per diem. It is possible that south of the Caucasus the disease may have somewhat diminished, but, on the other hand, the disease has spread westwards round the Sea of Azov and to Kertch, and it is also reported to have invaded Roumania. No details are as yet to hand as to this last invasion, which, if true, is of serious import to Europe. A further extension of cholera northwards and along the branches of the Volga has also taken place, and at last there is no question as to the prevalence of the disease in Nijni-Novgorod, where the preparations for the great fair and the subsequent dispersion of caravans may serve as a medium for distributing the infection such as will be beyond control. The German Government are evidently very anxious as to their eastern frontier and their Baltic ports. At each such port and at frontier towns where traffic crosses the boundary inspection stations have been established and it has been decided that such articles as used linen, old clothes, rags &c., shall not be admitted. Some check seems also intended as

regards the emigration which is now going on from the western provinces of Russia. Prussia is also watchful on her eastern frontier, Paris being in this case the centre of suspicion. This suspicion must also be shared by us, for no proper account has ever been issued as to the actual cause of the cholera which has been going on in the northern suburbs of the French capital, and some of the official records have come to a standstill since alarm became general. In the suburbs the disease seems for the moment to have distinctly subsided in severity, and we earnestly hope that this abatement may be maintained. On the other hand, we have an account of Dr. Brouardel's inspection of the asylum at Chartres where forty patients have been attacked, of whom twenty are stated to have died within a week. One report says emphatically the disease is cholera nostras, but so long as half the people attacked die it matters very little what name be given to the cholera, whether in the Paris suburbs or at Chartres. For a similar reason we can attach but little importance to the announcement which comes by telegraph to the effect that Dr. Proust reports, "there is in France ..... no invading or imported cholera." We fear all Dr. Proust's utterances are not published, and under any circumstances the cholera which has prevailed is very fatal and hence very serious. We trust no invasion may ensue. And as regards importation, we shall look with great interest to Dr. Brouardel's and Dr. Proust's further announcements. They are both recognised authorities and their untrammelled utterances will be of the greatest value. One of the most remarkable features of this occurrence of cholera in France is the apparent absence of any history of importation. But the disease began in a district where cholera prevailed in 1884, and it may be either that the present outbreak is a recrudescence after a singularly long interval, or else that there is some history of comparatively trivial occurrences of a like sort in and about the same suburbs in past summers, and that these occurrences have served as a connecting link between the cholera of 1884 and 1892. This might explain the comparative feebleness with regard to diffusion which a somewhat exhausted infection would be expected to display.

#### THE SOCIAL EVIL.

By a coincidence the first lesson for the morning service on July 27th which generally comes in the height of the London season and which this year fell on a Wednesday is the seventh chapter of the book of Proverbs. It is the chapter which describes in stern language relieved in parts with beautiful passages the scene between the young man void of understanding and the woman with the attire of a harlot. It is terribly significant of the persistence of prostitution that the description of the sight witnessed by Solomon "in the twilight in the evening, in the black and dark night," nearly 2900 years ago should be read in our cathedrals and churches in the morning and be reproduced in our streets the same and every evening almost to the letter. The wise man endeavoured by warning to induce the young men of his day to adopt wisdom and to avoid vice. In the pages of THE LANCET similar advice has been frequently given, and the high moral tone adopted by Sir William Jenner, Sir James Paget, Dr. Gowers and many other leading physicians and surgeons must have its effects upon the present and future generations. It is the more necessary to repeat this since many excellent persons of both sexes have been too ready both to state and to persist in stating that young men have had medical sanction for believing continence to be dangerous to health and incontinence justifiable on physiological grounds. George Herbert's words, "Continence hath his joy," is not merely a poetical effusion, but a sober truth, of which most medical practitioners have both positive and negative evidence. The excellent advice given by the manly

author of "Tom Brown at Oxford," that "the best thing to do with wild oats is to put them into the hottest part of the fire and let them burn there," should be taken in conjunction with Sir James Paget's words, "Chastity does no harm to mind or body, discipline is excellent; marriage can be safely waited for." While heartily re-echoing these grand words we still lament that more is not done by legislation to remove temptations from young and thoughtless men who are compelled by their avocations to pass along the streets at night. That the streets should be permitted to remain the happy hunting ground of aggressive prostitution is an evil which cannot be justified, and calls loudly for vigorous measures of repression.

#### ESCAPE OF A SCARLET FEVER PATIENT.

LAST week we had to comment on the escape of a patient suffering from small-pox from a hospital for infectious diseases. This week a similar incident is reported at Aberdeen. A boy eight years old, suffering from scarlet fever, the day after defervescence, and while desquamation was going on actively, was restless and unruly, and was allowed by the staff nurse of the Aberdeen City Hospital to go to the lavatory at the end of the ward. As he did not return he was looked for, and it was then found that he had managed to escape by lowering the upper part of the window; the opening being at least seven feet and a half from the floor and the walls perfectly smooth. After freeing himself from the ward he succeeded in scaling a wall about nine feet high. The moral of such incidents is obvious, but it still needs to be pointed. Patients with exanthematous disease are not to be held responsible for their actions and nurses should allow them only that liberty which is sanctioned by their medical attendants.

#### GLANDERS IN MANKIND.

THE dangers attending the prevalence of glanders in horses in London and other parts of the United Kingdom have been brought prominently before the public by an inquest held before the coroner for the City of London last week, at St. Bartholomew's Hospital, on a woman aged twenty-four years, the wife of an ostler, residing at Compton-mews, Brunswick-square, who died at the above-mentioned hospital from this loathsome malady. There is nothing extraordinary in people dying from this essentially equine disease, and the only wonder is that more cases are not recorded considering the extent to which it prevails; the only matter of interest is in the way in which infection is supposed to have taken place, if we may judge from the evidence given before the coroner. It appears that the husband, wife and two children occupied two rooms over stables in the mews and in one of these stables horses were taken ill about a fortnight previously. The illness from which they were suffering was stated to be farcy (or skin glanders) and two of them were subsequently destroyed because of being so affected. The woman had nothing to do with the stables, but it was suggested that she might have become affected through using water conveyed in a pail upstairs from the stable. The house physician of the hospital was of opinion, when stating that the woman had died from glanders, that using water from a pail that had been contaminated by a glandered horse, if she had a superficial wound, would be sufficient to impart the disease. The use of public watering-troughs in London has long been suspected of spreading this disorder among horses, and it has been often suggested that resort to these should be prohibited until glanders is suppressed; but up to the present nothing has been done to ascertain whether there is any foundation for such an accusation against these refreshing places. We have already complained of the very perfunctory and lax manner in which this dangerous and destructive disorder is dealt with by the Government and the

great harm that results from considering 'glanders' [and farcy as different maladies, instead of two forms of the same disease, each equally infective and damaging. It is high time more energy and intelligence were displayed and this is rendered more palpable by the statement made at the inquest alluded to by the house physician that there was then another woman in the same hospital suffering from the same complaint. There is only too much reason to apprehend that not a title of the cases of glanders occurring among horses, in London and the provinces, are reported to the sanitary authorities.

#### LOCAL EPIDEMICS.

**DIPHTHERIA**, which had been prevalent in Heywood and which had been brought under control during the closure of the elementary schools, has, according to Mr. H. Wisken, the medical officer of health, reappeared soon after the resumption of school work, the disease being somewhat fatal in character. At Eccleshill, adjoining the borough of Bradford, measles is so prevalent that an epidemic diffusion of the disease is anticipated; and at South Kirby enteric fever shows a tendency to increase in connexion with a faulty and deficient water-supply.

#### LONDON DUST.

We commented some time ago on the decision of Mr. Justice Grantham in a case which came before him, and in which the owner of a house in Essex-street, Strand, claimed damages from the Strand District Board of Works for injury to his health, which it was alleged had resulted from the non-removal of dust. The plaintiff relied upon the provisions of the 125th section of the Metropolis Local Management Act of 1855, which requires the local authority either to remove the dust or contract for its removal, and Mr. Justice Grantham held that the responsibility of ensuring the removal lay upon the defendants and awarded the plaintiff £75 damages. From this decision the District Board appealed, and Lords Justices Lindley, Lopes and A. L. Smith have now reversed this decision, holding that the District Board had sufficiently discharged their responsibility in contracting with someone else to do the work. London householders would have much reason to regret this conclusion of the case if the Public Health Act had not already come into force and provided a remedy which is evidently more valuable than that which existed before.

#### AN INTERNATIONAL MEMORIAL OF SEMMELWEISS.

A PRELIMINARY meeting was held on Monday at the residence of Sir Spencer Wells, who occupied the chair, at which it was agreed to call a general meeting in October to consider the best way of promoting a memorial of Semmelweiss and his great services to humanity. There were present Sir Joseph Lister, Dr. Priestley, Dr. Playfair, Dr. Graily Hewitt, Dr. Glover, Dr. Black, Dr. Boxall and Dr. Duka. Letters expressing sympathy with the movement and regret at being unable to be present were read from several well-known members of the profession. Nothing can be more fitting than such a movement. Though originating abroad and in the native country of Semmelweiss, it appeals to all nations and especially to the medical profession of all nations, which alone can estimate the value of Semmelweiss's simple but fruitful work. He was the pioneer of antiseptic midwifery. Though, in point of fact, antisepticism in surgery was achieved independently of the work of Semmelweiss and on other lines, the presence of Sir Joseph Lister at the meeting shows his appreciation of the labours of that physician. Semmelweiss was the first to demonstrate that the origin of a large proportion of cases of puerperal fever was due to perfectly prevent-

able causes, often attached to the person of the accoucheur. It was in 1847 that Semmelweiss, as assistant to Professor Klein in the Maternity Institution at Vienna, laid down the rule that all persons, previously to the examination of a parturient patient, should wash their hands in a solution of chloride of lime. The mortality fell in a few months from 12 to 3 per cent. We need not here dwell on the significance of such facts. It is painful to think that, like the case of so many great benefactors, his proposals were met with such coldness and resistance and even personal animosity that his mind rapidly gave way and his career closed in 1865 at the early age of forty-seven. There is the more need for a later generation to do him justice and to accord him honour. We sincerely commend this movement to our fellow countrymen and to our readers. This is not an occasion for complaining of the number of demands for testimonials. If life-saving is the supreme achievement of medicine here is one of its finest illustrations. Countrymen of our own for like feats enjoy the fame of all nations. Let us be foremost in acknowledging the merit of a foreigner who has redeemed a branch of the profession from a great stigma and has saved thousands of lives from one of the most pitiful of all deaths.

#### PARENTAL NEGLECT TO NOTIFY, AND ITS CONSEQUENCES.

JESSE WALTON has been fined forty shillings and costs at the Wakefield Police-court for failing to notify an infectious case in his house—that of a little girl, whom the medical officer of health found, after information received, to be comatose from small-pox. She was removed, and died in six hours. Three other children were found to be suffering from the same disease, and the medical officer computed that ten cases had occurred from Walton's carelessness. During the illness he often went to a public-house at the other end of the town, and a relative of the publican took the disease. It is not stated whether the case had been notified by a medical man. The defendant excused himself by saying he understood the case was chicken-pox—a lame excuse under such grave circumstances.

#### A MEDICAL MAN AND HIS FEES.

AT Blackburn County Court lately Dr. Garstang of Blackburn brought an action against John and Martha Padgett, innkeepers of Leyland, to recover £65 for professional attendance, being the balance of an account of £92 10s. incurred between Nov. 2nd and Dec. 8th, 1891. The fee per visit seems large, but Dr. Garstang explained that the journey took him six hours, that he stated what the fee would be after the first visit, and that he could only attend "as a physician." Dr. Berry, physician to the Royal Infirmary, Manchester, spoke of the fees of physicians. His Honour Judge Coventry considered that Dr. Garstang attended "as a physician" and said that, although the charge seemed large, it was a physician's fee, and it was impossible for him to say it was an exorbitant one. He therefore gave a verdict for the amount claimed. It is obvious that when patients summon medical men from a distance they esteem the case one of gravity and ought to be prepared to pay accordingly.

#### PRIVATE FEVER HOSPITALS.

AN interesting point has just arisen which shows that the use of a private dwelling house in a street as a fever hospital can only be prevented by appeal to the High Court of Justice. A house in Marylebone was used for this purpose and application was made to the Local Government Board and to the London County Council asking for their intervention, but both bodies replied that they were not aware of the existence of any statutory enactment which empowered them to prevent the establishment of such an institution and the only remedy

was of the kind mentioned. Without knowing all the circumstances of the case it is impossible for us to express any opinion as to whether there would have been risk from the proposed hospital, but we presume the law as to small-pox hospitals is the same as that for fever hospitals and it is evident in the latter case that considerable danger to the neighbourhood might result. Under all circumstances it is desirable that institutions of this sort should not be conducted by private persons for profit, but should be in the hands of some responsible authority.

#### A. NEW ISLINGTON WORKHOUSE INFIRMARY.

THE question of building a workhouse infirmary for Islington at Tollington-park is a very warm one, and is exciting much opposition. It is uncomfortable to ratepayers to find that the fine infirmary buildings included in the present workhouse, and probably less than twenty years old, are inadequate. Besides, the owners of valuable residential property in Tollington-park are up in arms.

#### FOREIGN EPIDEMICS.

APART from cholera in Persia and in the east of Europe, we learn that plague has broken out in the former country, the province of Khorassan being affected. Yellow fever has also broken out and makes alarming progress in the State and city of Vera Cruz. Hundreds are daily quitting the city in alarm and are travelling to different towns and places in Mexico.

#### THE PREVALENCE OF SMALL-POX.

SMALL-POX, though exhibiting the usual seasonal diminution, does not disappear from some localities as readily as might have been hoped. We still hear of fresh attacks from the vicinity of Dewsbury, from Wakefield, Halifax, Knottingley, Middlesbrough and Handsworth in Yorkshire, and from Enfield, as also from the Dartford rural district, which abuts on the hospital ships. In the metropolis the fresh attacks have within the last few weeks diminished from ten to four, and only seventeen cases were last week under treatment in the floating hospital. The breathing time between the present period and the usual autumnal period of increase should be utilised by authorities in promoting vaccination and revaccination and in providing some permanent means of isolation to be in actual readiness for the reception of any first attacks of the imported disease which may appear.

#### PAPER MONEY AS A CARRIER OF INFECTION.

THE possibility of infection being conveyed to a large number of persons by means of paper money has often been suggested, and an examination of the notes of the Bank of Spain current in Cuba which has recently been published by Drs. Acosta and Rossi in the *Cronica Médico-Quirúrgica de la Habana* shows that this form of currency is indeed liable to contain septic germs. The notes chosen for their experiments were some that had been in use for a good while and were such as represented values of a few pence only. It was estimated that two notes, weighing altogether about fifteen grains, contained more than 19,000 germs of various kinds. Cultures were made in broth, gelatine and agar, and these were injected into the peritoneal cavity of rats and guinea-pigs, most of which died within twenty-four hours, the post-mortem examination showing signs of peritonitis and congestion of the liver and kidneys. The blood of the heart and peritoneum was made use of to inoculate solid media, in which colonies developed so rapidly that it was impossible to determine their precise nature, many different forms being intermingled.

THE following circular has been addressed by Major L. Flower, sanitary engineer to the Lea Conservancy, to the sanitary authorities in the Lea watershed:—"Cholera memorandum: In view of the probable importation of Asiatic cholera into this country, and the necessity of preventing pollution to sources of water-supply, may I ask that—as in 1884, when I made a similar request—you will kindly inform me of any contamination which may come under your notice; and that you will see to abatement of nuisances, such as offensive manure heaps, overflows from cesspools, privies, and such matters in detail, which may contribute to the fouling of the River Lea and the tributary streams thereof."

THE Royal Commission on Vaccination held a meeting at Great George-street on the 20th inst., Lord Herschell in the chair, when Dr. T. Whiteside Hime of Bradford gave evidence at considerable length. Dr. F. Barry, one of the medical inspectors of the Local Government Board, was recalled on the 27th inst. to further explain his special report on the outbreak of small-pox which occurred in Sheffield some years ago. The Commissioners then adjourned until October.

IN order to prevent importation of cholera the Board of Supervision of Scotland has issued instructions to the local authorities of ports that no rags from France, the Black Sea, the Sea of Azof, or from Russia, Roumania, Bulgaria or Turkey, shall be landed in Scotland. Ships having cholera cases on board are to be subjected to quarantine, and arrangements are made for the disposal of the bodies of cholera patients dying on board.

WE regret to have to record the fatal result of an accident to Dr. James Cameron, the medical officer of health for Hendon. Whilst driving in his brougham on Mill-hill the horse took fright and bolted. Dr. Cameron attempted to jump from the vehicle, but in doing so was thrown and fell heavily on his head fracturing his skull. Death resulted before it was possible to convey the unfortunate gentleman to his home.

MEMBERS of the profession who wish to attend the Intercolonial Medical Congress to be held in Sydney from the 26th to the 30th September may obtain information as to concessions in regard to fares &c. from the Peninsular and Oriental and the Orient Companies. Sir Dyce Duckworth, M.D., F.R.C.P., has consented to act as the representative of the Congress in England.

THE Local Government Board has approved the Sanitary Institute as a body whose certificate to the effect that a person has shown himself by examination to be competent for the office of sanitary inspector under the Public Health (London) Act, 1891, shall be sufficient for the purpose of the requirements in Section 108 (d) of that Act.

THE Duchess of Albany, attended by Lady Collins, on Wednesday last distributed, at the Parkes Museum, certificates of proficiency in domestic hygiene to ladies who have attended the classes on that subject at the Sanitary Institute in Margaret-street, W.

AT a meeting of the Middlesex County Council, held on Wednesday last, Mr. W. B. Gordon Hogg, M.D. Edin., was appointed coroner for the western district of the county of Middlesex.

THE medical teaching in Birmingham will from and after Sept. 1st be conducted in the Mason College and not in the Queen's College, which institution will then cease to have any connexion with medical education.

THE  
BRITISH MEDICAL ASSOCIATION.  
MEETING AT NOTTINGHAM.

THE first general meeting after the retirement of the ex-President, Dr. J. R. Thomson, and the installation of his successor, Mr. Joseph White, did not produce any very startling incidents. To be sure the adoption of the report of the Council was not allowed to pass without some protests as to the manner in which the Council assumed it had the voice of the members of the Association, when, as a matter of fact, many of the subjects dealt with had not been discussed in the branches. The reports of the special committees excited but few comments, but that on hypnotism was referred back and strong opinions were expressed against hypnotism, which, it will be seen, was not altogether tabooed by the learned physician who gave the address in medicine the next day. The decision to give more of the funds at the disposal of the Scientific Grants Committee in the form of scholarships is a step in the right direction.

DR. RANSOM, the President of the Section of Medicine, chose for his topic one to which some years ago Sir James Paget drew attention. Although perhaps more suitable for a section of pathology than for one of medicine, it cannot be denied that it is of great interest and possibly of some practical bearing. The reaction of the vegetable organism to external irritants and the processes of repair after injury are paralleled by those which take place in the animal body. There is certainly ample scope here for investigations which may prove to the practitioner a pastime affording him recreation, both bodily and mental, amidst the cares of busy practice.

PROFESSOR VICTOR HORSLEY did not hesitate to confess that the subject of which he is a professor, and which concerned the section over which he was presiding, has practically no existence in the schools. Pathology, he did well to remind us, is very different from mere morbid anatomy, with which it is confounded, and by which it is often replaced in teaching. We should have liked to have heard more reference to Cohnheim and his work, whose researches and teaching represented the essential basis of pathology proper. All will admit with Professor Horsley that pathology should be studied and taught with reference to physiology, that perverted function quite as much as damaged structure ought to be embraced within the ken of the pathologist.

AMONG the special features of the meeting one of the most interesting is an arrangement by Professor Victor Horsley of a series of lantern demonstrations of work that has been done during the year in pathological research. This Section afforded an opportunity to practitioners of seeing collected under one roof, in the course of two or three days, all the best work of the laboratories and of the wards of Great Britain demonstrated by the men actually engaged in the research. The idea was a happy one and was carried out with Mr. Horsley's characteristic vigour and ability. It is probable that the success of this departure will considerably influence the programme and course of the work at the leading pathological societies which has hitherto been too much in the nature of a mere demonstration of post-mortem condition, which, however, is by no means the be-all and the end-all of curative research.

DR. BROOKHOUSE, who presided over the Section of Pharmacology and Therapeutics, was justified in deprecating the unceasing introduction of new remedies with alleged specific effects, many of which are as unknown a year after

their introduction as they were before it. Nor can one admit that the present position of experimental inquiry upon toxins and protective agents in the least justify their introduction as yet into the treatment of disease. Dr. Brookhouse's testimony to the value of tracheal injection of menthol in phthisis was very strong, and he went so far as to aver that his results contrasted favourably with those of the tuberculin treatment. A most interesting discussion took place in the Section of Therapeutics on the subject of the action of medicines on the heart. Dr. Broadbent in an admirable paper discussed the indications for the use and the action of cardiac tonics. On account of the limitations imposed upon him by the nature of the subject he restricted his paper to the use of these drugs, leaving aside what he expressed himself as holding an equally or more important position in the treatment of cardiac disease—namely, rest, graduated exercise, elimination of the waste products and so on. Dr. Brunton laid stress on the extreme value of perfect rest in advanced cases of mitral disease, and advocated this combined with massage, graduated exercise and the use of mercury. He demonstrated Professor Gartner's ergostat as affording a means of exactly limiting the amount of exercise which a particular patient can take. Dr. Clifford Allbutt laid special stress upon the treatment of residual condition left behind by the action of disease. Dr. Oliver of Newcastle and others joined in the most interesting and instructive discussion which followed.

THE importance of adequate clinical instruction in the diseases of children cannot be too strongly or repeatedly enforced. It formed a topic of Dr. Cheadle's address two or three years ago, and it was selected by Dr. Marshall, who presided over the Section of Diseases of Children. The examples he quoted were to the point and the need for really systematic instruction in the hygiene as well as the therapeutics of infancy was thoroughly enforced.

IN the Section of Surgery, Mr. John Croft travelled over the ground of the discussions which were set down on the programme—i.e., the treatment of empyema—hepatic surgery, and the treatment of tuberculous disease of bones and joints. The debate on the Surgery of the Thorax which ensued was shared in by many well-known authorities on the subject.

THE Section of Psychology, which opened with a useful practical address from its President, Mr. Bevan Lewis, upon Asylum Administration, in which the appointment of clinical staffs and nurse-training schools were advocated, began its labours with a highly interesting debate on the Post-influenzal Psychoses, introduced by Dr. Althaus.

ONE of the most interesting exhibitions in connexion with the meeting was the display of the mode of saving life from fire by means of a tubular arrangement consisting of asbestos and sacking, through which descent could be made with absolute safety and with almost incredible speed. The arrangement invented by Mr. Lewis Anidjah was quite a feature of the meeting.

NINETY-FOUR members of the Association and others interested in medical missions sat down to breakfast on Wednesday morning in the Exchange Hall, under the presidency of Dr. Roberts Thomson, ex-President. At the close of the meal Dr. Thomson said that this was the first reunion of the kind that had been held at the annual meeting and Dr. H. Martyn Clark of Umritsur, who has a "parish" of 3,000,000, spoke greatly to the point in favour of medical missions as *the way to the native mind*; for while some might doubt if they had a soul, the body with its troubles made itself evident. The work was real and hard; he had had 60,000 patients and 3000 operations. He was followed by

Dr. Hörnlé, who urged the necessity of sending only the very best men to do medical mission work, as the natives were keen to detect inferiority and the medical missionary had no consultant to fall back upon. They must teach the people to love God by their love to man. Dr. Lock, a civil surgeon, said there was room for both classes of workers in so large a field. The Secretary of the Church Missionary Society added a few words, after which this, the first, and a most profitable and encouraging réunion, broke up.

OUR correspondent, writing on Wednesday, says: "The meeting of to-day is chiefly remarkable for the value of the work done in the Sections and for the very full representation of the younger school of scientific medicine. Among those present were Sir F. Bateman; Sir William Moore; Dr. Bristowe; Dr. Ransom; Dr. Lauder Brunton; Mr. Victor Horsley; Dr. Broadbent; Mr. Lawson Tait of Birmingham; Professor Gairdner of Glasgow, Dr. Maradoc Cameron; Dr. Byrom Bramwell, Edinburgh; Dr. John Macintyre, Glasgow; Professor Cuming, Belfast; Dr. Stokes, Dublin; Professor Semmola, Naples; Professor Baccelli, Rome; Professor Schrötter, Vienna; Dr. Hingston, Montreal; Dr. Stewart and Dr. Roddick, also of Montreal; and representatives and delegates from the whole of Great Britain. The attendance of Members has been up to the present fairly good, and already 800 medical men have visited the town of Nottingham."

NOTTINGHAM Castle was on Wednesday evening the scene of a very brilliant assembly. Fully 1500 guests had accepted the invitation of the Mayor of Nottingham to a conversation. The beautiful castle lends itself admirably to such a function and the hospitality of the Mayor and the Mayoress was much appreciated. The President's garden party at the Arboretum was also much enjoyed.

A NOTEWORTHY step was taken at the Third General Meeting on Thursday, when a resolution was carried to admit duly qualified women as Members of the Association. The decision at the Bath meeting thirteen years ago to the contrary effect may be recalled in this connexion.

#### FIRST GENERAL MEETING: REPORTS OF COMMITTEES.

THE first general meeting of the sixtieth annual meeting of the British Medical Association was held in the Mechanics' Institute at Nottingham on Tuesday, the 26th inst. The attendance of members, as is usual on the opening day of the meeting, was not very large. The retiring President, Dr. ROBERTS THOMSON of Bournemouth, in vacating the chair said that he had to renew the expressions of his warmest gratitude for the confidence which had been reposed in him and for the great honour done him when he was appointed President of the Association. To him it would be the proudest recollection of his life to have occupied that position. He expressed his warmest thanks to all the officers with whom he had been brought in contact for their unflinching kindness and for the courtesy which had been extended to him on all hands. The year which had gone had been an uneventful one and there had been no special or burning questions to consider; nevertheless, it had been a year of very steady progress. The Association had steadily increased in numbers and in usefulness and the amount of scientific work which had been accomplished through its agency was very marked. He had no doubt that the year would mark a distinct advance upon those which had preceded it. In vacating the chair he simply wished the members to accord to his successor the same regard for the authority of the chair which had been accorded to him, and he could have no better wish than that his successor should be able to look back to his period of office with the same pleasure as he had.

The incoming President, Mr. JOSEPH WHITE, senior surgeon to the General Hospital of Nottingham, on taking the chair, said that he thanked the members for the honour and conveyed to them as far as he could his sense of the responsibility which the appointment carried with it. He was quite sure of re-

ceiving at the hands of the members that support which they had always afforded to occupants of the chair, thus lessening as far as they possibly could the labours connected with it.

A vote of thanks to the retiring President was then moved by Dr. HOLMAN and seconded by Dr. SAUNDBY of Birmingham. The retiring President was further elected as Vice-President of the Association for life.

Dr. WITHERS MOORE then moved the adoption of the report of Council and official statement for the year; this was seconded by Sir WILLIAM MOORE, who considered that in it he saw signs of vitality and progress for the Association; he considered the finances were in very good order, the Association had £45,000 to the good, and the managers of the finance department of the Association deserved great thanks.

Dr. RENTOUL (Liverpool) called attention to the balance-sheet and asked that the Council of the Association should give more information to the members. He thought the amount of money spent for editorial expenses (£5000) last year seemed too much. He had asked the general secretary to tell him what amount had been paid for editorial articles, leading articles, correspondence articles, the writing of obituary notices and other special correspondence, but the general secretary in reply had informed him that it was not his province to give such information to members. Now Dr. Rentoul considered that the Association was a limited liability company, limited as it were by guarantee, and he hoped that in future the Council would supply more detailed information in their balance-sheet.

Mr. J. J. CURRAN (Killeagh, County Cork) desired to convey the thanks of the Irish dispensary medical officers to the British Medical Association for the warm interest they had taken on their behalf during the past year. He recapitulated the grievances under which these officers suffered.

Dr. LOVELL DRAGE (Hatfield) called attention to the manner in which subjects of importance to the Association were discussed and illustrated his remarks by reference to the mode in which the views of the Association had been obtained on the Midwives Bill.—Dr. SAUNDBY asked if this was due to the action of the Council or to the action of the Metropolitan Branch of the Association.—Dr. LOVELL DRAGE, continuing, said the Association had no right to use the name of the Association in connexion with legislation on which the views of the members had not been obtained.

Mr. GEORGE BROWN spoke of the way in which the interests of the members were laid aside by the Council of the Association. The Association as a whole had but few opportunities of expressing its opinion in public, or upon the more important questions which were brought before Parliament. What could be of greater importance to medical men than a legislation which would alter the conditions of the practice of midwifery in this country? yet no attempt had been made by the Association to give its members an opportunity of expressing an opinion on a question of such vast importance. It would be in the recollection of many members of the Association that some time ago attempts were made to reform the Medical Acts. On this subject no meeting of the Association could be obtained without the signature of fifty of its members. He thought the Council would be consulting its own dignity and doing justice to the members at large by convening a meeting in London to consider any important question that might arise.

Dr. SAUNDBY (Birmingham) entirely dissented from Mr. Brown's views on the ground that the members of the Council only represented a few of the various branches and could do nothing excepting what these branches asked them to do.

Dr. HUGH WOODS disagreed with the last speaker as to the position of the Council. He thought it was the duty of the Council to respect the rights of individual members, which did not at present exist in the methods adopted by the Association.

Dr. ROBERTS THOMSON suggested that the proper course of procedure would be for these gentlemen to bring their grievances before the Council and ask it to report upon them.

Surgeon-Major INOE observed that out of 14,000 members any question could be settled by the infinitesimally small number of forty-five. This was due to the operation of a by-law passed at the time the Association numbered tens instead of hundreds.

#### REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

Mr. HART moved the report of this committee. The subject of Parliamentary bills occupied every year part of the time of the Council and in no year had the work been

more onerous and more difficult, yet more promising, than during the last year. The first question he wished to mention was that of the dispensary medical officers in Ireland. The committee there had undertaken work which would require infinite patience, and if too much was expected from its labours disappointment must follow. He had consulted on the subject the Irish Secretary and had found him absolutely ignorant of the facts relating to the conditions under which these medical officers worked, and also opposed, on grounds which could not be tolerated in this country, to the legislation which he had proposed to him for their redress. The opposition of the Irish Secretary in this matter was monstrous and could not be sustained either by Parliament or by the sense of the country. Dealing with the subject of want of representation of views at the meetings of the Council, he said that those from whom the complaint arose had expressed their views at great length fifty times over.—Mr. WICKHAM BARNES, in seconding the adoption of the report, brought forward the case of the late Mr. Walters. The Poor-law Medical Officers' Association were in hopes that forcible representations would be made to the Local Government Board.—Mr. BRADLEY (Drogheda) thanked the Association for the interest they had shown in the Irish dispensary officers and suggested that they should get the Irish Members of Parliament to act on their behalf.—Dr. WARD SMITH considered that the English district medical officers were just as badly off as their Irish brethren and he would like the Association to give them a little attention.—Dr. LOVELL DRAGÉ drew attention to the fact that no mention had been made of the proposed New University Bill.—Mr. HART said that a committee of the Association had been appointed to consider the matter.—The motion was then put by the President and adopted.

#### REPORT OF INEBRIATES' LEGISLATION COMMITTEE.

Dr. NORMAN KERR, in moving the adoption of this report, called attention to the valuable testimony before the departmental committee now sitting and said they wished an amendment in the law in the following respects: (1) compulsion; (2) removal of hindrances to admission of voluntary applicants; (3) provision for the poor; and (4) provision for the treatment of alcoholic, opiate and all other forms of inebriety.—Dr. USHER of Melbourne seconded the adoption of the report and pointed out that any legislation that may be effected or brought about must receive the support of the profession. People naturally sought for some relief from the drink disease and if they could not get it from medical men the danger was present of taking secret cures offered to them. Sir George Dibbs, the premier of New South Wales, in a conversation a few days ago, intimated that he intended bringing in a Bill dealing with the whole question on his return to the colony. The report was adopted.

Mr. BUTLIN proposed the adoption of the report of the Scientific Grants Committee, which was duly seconded and adopted. It was recommended to apply more money to scholarships and less to investigation.

Surgeon-General CORNISH moved and Dr. BARRON seconded the report of the Committee on Scientific Investigation into the Condition of School Children. This committee was considered to be of the highest importance, as upon the integrity of the constitution of the children the future of the nation depended.—Mr. SHUTTLEWORTH said the London School Board had established special classes for backward children.

The report of the committee appointed to investigate the nature and phenomena of hypnotism and its value as a remedy recommended that if used it should be practised only by qualified medical men and under no circumstances should female patients be hypnotised except in the presence of a relative or a person of the same sex. The Committee strongly disapproved of public hypnotic exhibitions. In the course of the discussion Mr. GEORGE BROWN moved that the report be referred back, as there was nothing in hypnotism. Mr. ESDALE said the adoption of hypnotism was perfectly monstrous. Dr. NORMAN KERR thought the report the most striking condemnation of hypnotism that had ever been delivered, as the committee was composed mainly of advocates of hypnotism. The report was eventually referred back.

On the presentation of the report on medical charities Dr. KENTON moved that it be referred back on the ground that twenty millions of people should have medical attendance free. This, however, was not carried. The meeting then adjourned.

#### THE PRESIDENT'S ADDRESS.

At the adjourned general meeting, held in the evening, the President, Mr. JOSEPH WHITE, consulting surgeon to the Nottingham General Hospital, delivered an address on the subject of the development of the Association and of British medicine and surgery since the last meeting of the Association, which was held in Nottingham in the year 1857. In the course of his address he gave an interesting account of the geology of Nottingham and its neighbourhood; the natural facilities it afforded for drainage were described as uncommonly good; the town being built upon an inclined plane rising nearly 200 feet in little more than a mile and sloping directly towards the valley of the Trent. The water-supply, which was under the control of the corporation, was of good quality and abundant.

Having described the physical features of the district and spoken of the improvements being effected in the town, the President then gave an account of the last meeting of the Association at Nottingham thirty-five years ago, noting that at that period the number of members was 2065. Since then the number had grown to 14,000. He touched upon the advances which had been made in British medicine since then. In general medicine the work and writings of such men as Bright and Addison, of Latham and Hope, of Stokes and Graves, of Watson and Gull, and of William Jenner, had done very much to foster and develop that spirit of independent inquiry and accuracy of thought which, in an ever-increasing degree, characterised the progress of curative medicine five-and-thirty years ago; whilst in preventive medicine, which was then coming to the front, two men stood prominently forth as the pioneers in that still greater movement of sanitary advancement which was so soon to follow. These were Edwin Chadwick and John Simon. At the time of the last meeting Mr. Simon had just completed with the greatest distinction his seven years' labours as the first medical officer of health of the City of London, and was about to enter upon his more responsible position of medical adviser to the Privy Council; he then occupied the foremost position not only as a sanitary reformer, but as the most eloquent exponent of the aims and capabilities of preventive medicine in its truly scientific aspect. He and his fellow-labourers in the same field had in a few years so raised the importance of the work of sanitation in the estimation of the profession and the public that it was for the first time in the history of the Association made the subject of one of the special addresses at the last Nottingham meeting in 1857. Mr. White then referred to the advances made in surgery. The teaching of such men as Blizard and Abernethy, the great practical work of Cline, the bold achievements of Sir Astley Cooper, a few years later the still more brilliant operative work of Robert Liston, and later still of James Syme and William Ferguson, had raised surgery to the very foremost rank as an art; whilst the philosophic views of Brodie and of Lawrence, and the philosophic work of Sir James Paget, had done even more to elevate it to that truer position as a science which it was then rapidly achieving. The use of anaesthetics was discovered about this time. Perhaps the greatest achievements of modern surgery had resulted directly or indirectly from the introduction of the so-called antiseptic method, which the profession owed to the genius and labours of Sir Joseph Lister. This was not simple cleanliness in the ordinary acceptation of the term, but that special form of rigorous and refined cleanliness which the pathologist and the chemist alone could appreciate, that prevention and removal of everything of a septic kind which could possibly invade a wound, the attainment of that purely aseptic condition which could only be accomplished by the most scrupulous and watchful care, and no one has done so much to attain that end as Professor Lister. By these two great achievements—by the abolition of pain by anaesthetics and by the greater safety of wound treatment since the introduction of antisepticism—the whole practice of surgery had undergone an amount of development which twenty or thirty years ago could not have been believed possible. This development was very evident in the department of abdominal surgery, including such operations as the removal of the kidney, of the spleen, of the uterus and its appendages, of portions of intestine, of bladder tumours, and of various kinds of tumours within the abdomen and operations upon the liver and upon the gall-bladder. The surgical treatment of diseases of the brain afforded other proofs of development. The discoveries of Hitzig and Fritsch

during the Franco-German War in 1870 and subsequently of Ferrier—that when certain limited areas of the brain surface were stimulated by galvanism this stimulation was followed by contraction of definite groups of muscles in different parts of the body—became the basis of further researches and investigations, which had been carefully pursued. Year by year the knowledge of the localisation of brain function had become further extended and more and more precise until it had resulted in those great achievements of brain surgery which, at the hands of Horsley and Macewen, and since then of many others, had been attended with such marked success. Advancement was also manifest in the other fields of medical science, in the application of physical science to the investigation of disease, and in the more rational application of the laws of sanitary science to the promotion of the public health. The President referred to the work of Dr. Seaton and Sir George Buchanan as evidence of the great advances of sanitation in England. Regarding preventable diseases, he remarked that Sir John Simon was not content with inspection only or with the application of such knowledge as was then possessed. He felt and he pressed upon the Government the need of new knowledge—of knowledge only to be obtained by extensive laboratory investigations of the most careful and subtle kind and carried out by special observers of the highest scientific attainments; and it is to those investigations, made under the auspices of the Privy Council and conducted with the greatest care, that the profession were now so much indebted for many of the recent great advances in preventive medicine. In bacteriology also much important progress had been made. At no other time had a greater number of active and vigorous minds been engaged in original research, and never before had a more promising light dawned upon the future of medicine.

Professor HINGSTON of Montreal, in moving a vote of thanks to the President for his address, said that the name of Joseph White was synonymous with all that was honourable and dignified in the profession. His address was full of good sense. It was a pleasant duty to him to move the best thanks of the Association to Mr. Joseph White for his very interesting address.

Sir FREDERICK BATEMAN seconded, and the resolution was unanimously carried.

#### THE ANÆSTHETIC COMMITTEE.

Professor VICTOR HORSLEY (London) moved the adoption of the statement as to the work in progress under the Committee on Anæsthetics. He pointed out that it was rather a statement as to the work to be done and the hints that had already been received. It was intended to work clinically and he hoped experimentally. The clinical work had been organised and arranged according to the schedule which they held in their hands, and the experimental work, he hoped, would assist them in the discovery of impurities in anæsthetic agents.

Mr. CROFT said that, as an old hospital surgeon who had seen anæsthetics administered in nearly 14,000 instances, he thought he might claim to have some reason for supporting the resolution.

#### PAYMENT OF PARLIAMENTARY BILLS COMMITTEE.

Surgeon-Major INCE moved at great length a resolution condemning the principle of payment of members of the Parliamentary Bills Committee.

Dr. RENTOUL moved as an amendment: "That, while not recommending the payment of members of committee for services or time given, from henceforth each member attending the Parliamentary Bills Committee be paid first-class return fare out of the funds of the Association, which was following the course of payment of members of the Council." After prolonged and turbulent manifestations the meeting negatived both the amendment and the substantive motion.

The meeting then adjourned.

#### THE SECOND GENERAL MEETING.

The Association met in the Mechanics' Large Hall on Wednesday afternoon to hear the address in medicine delivered by Dr. Cuming of Belfast, which we publish in another column.

#### PLACE OF NEXT ANNUAL MEETING.

Dr. WITHERS MOORE, the President of the Council, announced that the next annual meeting would be held at Newcastle and Dr. Philipson was elected President for the coming year.

#### THE ADDRESS IN MEDICINE.

The address was listened to with manifest pleasure by a very large audience and Professor GAIRDNER of Glasgow moved a vote of thanks to Professor Cuming. In doing so he thought that the elementary sciences had held their own ground in medicine and no doubt would continue to do so. Sir CLIFFORD ALBUTT seconded the resolution. This concluded the business of the meeting.

#### THE SECTIONS. MEDICINE.

The President, Dr. RANSOM, Consulting Physician to the General Hospital, Nottingham, delivered an address at the opening of the Section of Medicine on the subject of "Some Diseases of Plants compared with those of Man." He thought nothing could be foreign to the student of medicine which touched upon perturbations in the organic world, and he devoted his address mainly to plant diseases which corresponded to the inflammatory processes of living organisms or the reaction of living cells to irritation. All such reactions in plants form "galls" or witch-knots. A gall he defined as a local hyperplasia or overgrowth of tissue, differing from local hypertrophy in diverging from the normal tissue or organ with which it is related. The irritants which produced these were sometimes mechanical or physical agents, inorganic substances, or arose from living organisms. Among the acari the phytopti or gall-mites were the best known. From whatever cause the disease is produced there is such a definite relation of the process to the irritant that the evolution of the gall is mainly directed by it and the product is therefore specific. Some of the parent insects, while depositing their eggs, wound and kill portions of the plant where the egg rests and the reaction occurs in the nearest living cells. Some of them do not wound the tissue where the ovum rests, while neighbouring parts are wounded. Although it was possible that the irritant is sometimes mechanical or physical, it more probably always is some organic liquid chemical substance, not very diffusible, produced in small quantities either continuously or at short intervals during a small part of the life and development of the parasite, and having a different composition in each species.

The lecturer exhibited some selected examples, some specimens, photographs and drawings to illustrate his subject. He showed that the common oak apple was due to the deposition of ova in a bud by the unisexual form *Biorhiza aptera* derived from a root gall; and it yielded the bisexual form *Teras terminalis*, which lays its eggs in the young roots and produces the root galls. The mode in which this change was brought about was described in detail. The common currant gall of the oak, as he showed, follows the deposit of an egg in a bud early in spring by the unisexual form *Neuroterus lenticularis*, itself hatched from the red spangle, and it yields in June the bisexual form *Spathogaster baccharum*.

He further demonstrated that the common red spangle was due to the deposition of an egg by the *Spathogaster baccharum* in a wound between the surfaces of the young oak leaf in June; and it yields the *Neuroterus lenticularis* in the following March. Parenchyma, fibro-vascular bundles and epidermis were all wounded, and a portion of the latter was killed at a little distance from the puncture on the lower surface of the lamina. The plant suffers very little injury. Often two or more species of spangles are met with at the same time on the same leaf, showing in the strongest manner the prepotent influence of the irritant in determining the character of the reaction. The common nut gall was caused by *Cynips kollari*, a parthenogenetic insect, which makes a wound, but leaves its egg upon an intact and very young bud. The wound heals and the young gall springs from the unwounded cells upon which the egg rests; soon it encloses the embryo by an embryonic meristome which is free from chlorophyll, and then develops into a complex structure which contains chlorophyll and is extremely heterologous. The artichoke gall illustrates a somewhat different mode of extension of the influence of the irritant beyond the true gall. The bud axis, which at its apex bears the gall, carries at its base a large number of modified scales and these serve as a protection to the true gall before it is thrown off by a sort of dehiscence. In this case the protecting scales and the basal part of the bud axis are not, as in the previous example, mere hypertrophies and they soon die and are cast off.

Having dealt with the willow galls, Dr. Ransom next

referred to "witch-knots" and allied formations. All the cases went, he thought, to show that the irritant was an organic chemical substance and to support the view that the process of irritation is some gentle persisting disturbance of the metabolism of the living cells, during which cell multiplication was inhibited where it first acted, but stimulated just outside that part. He did not know of any theory of inflammation comprehensive enough to include plants. The widest was that put forward by Metschnikoff, in his "Leçons sur la Pathologie comparée de l'Inflammation," but even that did not include plants. The lecturer ventured to suggest one which he thought sufficiently comprehensive, and which might be stated in the following terms: "In virtue of those necessary and inherent faculties by which all organisms repair damage, living cells react in response to true irritations by a proliferation with modification directed by the irritant, and not beneficial to the organisms in which the process occurs." This definition implied that all inflammations were specific, even if the phenomena ascertained were not sufficient to prove them to be so.

#### SURGERY.

In taking the chair in the Surgical Section, the President, Mr. JOHN CROFT, limited his preliminary remarks to a brief prologue on the subjects selected for discussion in this Section. He said: "Imagine that the surgical treatment of pleural effusions, whether serous or puriform, has been so far advanced during the last ten or twelve years that certain formulæ may now be admitted:—(1) That early evacuation is the best principle to act upon; (2) that the exclusion of air where practicable and the observance of aseptic or antiseptic technique should be rigidly observed; (3) that complete and perfect drainage of the cavity under treatment is essential, including counter-openings and large openings into the pleura or other pushing cavities; (4) that large cavities require adequately large openings; (5) that ribs and periosteum, intercostal vessels and nerves may be largely excised with advantage immediate and prospective, so long as ordinary precautions are observed; (6) that lack of early and adequate operations are important causes, though not the exclusive causes, of delay in the closing of cavities; (7) that lung abscesses and gangrenes and bronchiectatic cavities, with certain obvious exceptions, are amenable to surgical exploration and treatment; (8) that hydatid cysts in the lung or pleura may be successfully extracted or in other ways cured by thoracotomy. It will not be safe, at the present stage of our experience, to extend the formulæ. They reach as far as amenable cases go, but there remain to be mentioned those instances of disease and difficulty which are found to baffle the physician, whose province it is to define the disease and its locality, and the surgeon, whose province it is to bring surgery to assist medicine. 1. Difficulty of diagnosis, which may cause the physician to delay surgical assistance; for instance, the defining remote, small, pleural effusions and lung abscesses. 2. Procrastination for other reasons. For the latter one can offer no excuse, but for the former difficulty a surgeon can offer this amount of assistance—namely, repetition of exploratory incisions and punctures. 3. When a large cavity is placed under the scapula. 4. When an enormous pleural cavity is bounded on one side by a collapsed, movable, swinging, dangling lung, and on the other side by rigid bony wall. This is a most formidable difficulty to overcome, and particularly when there is little or no disposition to the formation of granulation or cicatricial tissue. Sponge-grafting has failed. Abstraction from the wall of the chest of a great portion of its bony rigidity does not necessarily succeed. This is a condition of things which we may hope that this meeting will enlighten. I would ask in this connexion this question: Would the removal of the useless swinging lung, at or near its root, be a safe and useful measure? I am disposed to think that its presence is an obstacle to the cessation of discharge from the pleura, and that its removal would be a step half way to cure. I am supposing that the lung is useless as a respiratory organ and that adequate measures for its fixation have failed of their purpose." The loss of such a spoiled organ should prove to be a gain." In speaking of the surgery of the liver and gall-bladder, Mr. Croft said: "Gentlemen, brilliant as are results obtained in the surgery of the liver and gall-bladder by Messrs. Lawson Tait, Mayo Robson, Knowsley Thornton, Jordan Lloyd, Pearce Gould, and others in this country, there remain difficulties yet to be overcome and questions yet to be settled. I here allude to (1) the treatment of hydatid cysts of the liver which

have already opened or which threaten to open into the chest; (2) the question of early operation in cases of cholelithiasis; (3) the desirability of suturing the incision into the gall-bladder and of then closing the abdominal incision and cavity; (4) when the gall-stone is impacted in the duct and cannot be reached through the gall-bladder, should the duct be incised and the incision sutured, the omentum being employed to strengthen the fastening? (5) the question of whether ligature of the cystic duct without cholecystectomy is to be preferred to other operations; and (6) the cases in which cholecystectomy is to be preferred to less radical proceedings. Lastly, the interesting topic of cholecystenterostomy will arise—when it is to be resorted to and the best mode of carrying out the operation."

The President also referred to the subject of the surgical treatment of tuberculous disease, the essential pathology of which is the same whether the neoplasm is in bones or joints of limited mobility—as in the spine—or in the bones or joints of the utmost mobility in the extremities.

#### PUBLIC MEDICINE.

In opening the proceedings of this Section Sir B. W. FOSTER, who presided, after some preliminary remarks went on to say that public medicine really meant the relation of certain members of our profession to the well-being of the community at large, founded on a scientific knowledge of the causes, distribution, methods of infection by disease and the mode of preserving the public health. There was no function so important to a medical man, even although it involved enormous responsibility, and if well performed it would meet with speedy recognition at the hands of the citizens among whom he laboured. Throughout the country the position of medical officers of health was obtaining this recognition both from local authorities and from the State. Recent legislation in connexion with the Local Government Board had been specially associated with developing the functions of these officers. In England they were as yet a little behind Scotland in the matter of sanitary legislation, and the good effects of the English legislation on the subject had been marred by defective clauses in connexion with the health government of large county areas. In Scotland they had better materials to work upon, and the late House of Commons had instituted certain clauses of the Local Government Act to Scotland which had placed the medical supervision of the county areas of that part of the kingdom under a very good and increasingly effective system of sanitary administration. In factory legislation for manufacturing districts and on all sides this branch of the profession was obtaining as it were a larger share in the management and the control of the complex civilisation in which we live. This he looked upon as very satisfactory to the members of the profession. One of the objections which reached him as a public man was that the increase of power would lead to a kind of medical tyranny. We had suffered in the past from clerical tyranny and was it not likely that we might suffer in the future from medical? He did not anticipate such an event. Supervision could not justly or appropriately be called tyranny, because the supervision would be made by local authorities who were elected by the people, and it would be under their control that the functions of the officer and the exercises for the attainment of a common object and not for the sake of his particular opinions. The very intimate relations of the medical man to the daily life of every individual in the land had been satisfactorily established. The medical profession had always maintained such a high standard of honour in connexion with these varied duties that it afforded no slight guarantee that the duties of medical officers would be performed without offending or prejudicing the public. Another argument against thus increasing the powers of health officers was that legislation tended more and more to interfere with the liberty of the subject. It was said that the Notification of Diseases Act interfered with that liberty, but it was with the liberty of spreading infectious disease. Individual liberty in a civilisation like ours, becoming every day more complex, must be interfered with when it becomes a detriment to the whole community. Legislation which tends to prevent such a danger was most beneficial. Effective legislation would bring about less ravage and destruction from many diseases which have for so long run riot among the public. For instance, effective isolation might stamp out infectious diseases like scarlet fever, measles and small-pox, under direct supervision and medical action, or, at any rate, might be reduced to a

comparatively small amount. On these grounds legislation in the future would have to proceed very much on the same lines as it has done in the past. The duties of the medical officers would become of greater and greater value to the public and be still more appreciated by the State, and the office of Public Health would become one of the most distinguished to which a medical man could aspire. In conclusion he hoped that the Local Government Board, the local sanitary authorities and the medical officers of health would be brought into closer relations and that a larger number of inspectors would be appointed to give advice to local officers—to act, in fact, as consultants sent from the central authority to aid and advise the local men. This would give them the highest scientific opinion without having too much power vested in the central authority.

Dr. F. F. BOND read a paper on Small-pox in Brighouse, Yorks. In the district affected there were three separate administrations. The origin of the epidemic was traced to cases which were not recognised; several separate centres had been infected before recognition. Vaccination and revaccination were carried on in infected houses and the effect of those operations on persons already infected with the disease was described.

Dr. JOHN W. MASON (Medical Officer of Health, Town and Port of Hull) also read a paper on Methods of Dealing with Town Refuse in the Midst of Populous Districts. He said that the subject was of paramount importance to the well-being of a community; the more frequently and efficiently it was collected and disposed of the better was the public health. The reports of the Health of Towns Commission and the Sewage of Towns Commission and the reports of the medical officers of the Privy Council and Local Government Board gave ample evidence on this head. With the natural growth of large towns the question of the collection and disposal of town refuse required the serious consideration of those responsible for the public health and welfare of the population. From the geographical position of some towns the water-carriage system commended itself, as being not only the most efficient from a public-health point of view, but as that which was least injurious; where there existed no natural outfall, from the low-lying position of the town or tidal influences, the introduction of auxiliary steam power effected that which had otherwise not been provided for by natural gravitation. In other towns irrigation or precipitation had to be resorted to in order to obviate or minimise the nuisance. Dr. Mason suggested that to deal effectually with the refuse of large and populous districts the area should be divided for purposes of sanitary administration into districts and that destructors should be erected, having, where procurable, railway and wharfage accommodation, to which all excreta and town refuse collected (including that from slaughter-houses and all condemned food) should be taken, and that of a manurial value disposed of; failing which, this matter, together with trade refuse, should be cremated.

#### PSYCHOLOGY.

The President, Mr. BEVAN LEWIS, Medical Superintendent of the West Riding Asylum, Wakefield, delivered an address at the opening of this Section on "Some Desirable Extensions of Asylum Administration." He proposed to deal with those eminently practical aspects of insanity and its treatment which embrace the functions of the medical staff, and especially of the asylum pathologist, their mutual relationships and common interests; and, in the next place, the organisation of a nursing staff, the possibility of extending their functions, of augmenting their utility, and of elevating their general *morale* and culture. The pathologist of these institutions was at one time looked upon as a 'sport' and had to give way to what was called the practical man, familiar with the condition of the crops, able to descant to a nicety on the probable yield of the dairy and familiar with the finances of the institution, but who would be involved if asked the differential diagnosis between chronic alcoholism and general paralysis, and to whom the tracts of the spinal cord and cerebrum would be *terra incognita*. He had heard it stated over and over again that a superintendent could foster and encourage pathological research in his institution without taking to himself an active interest in the work; this was open to the gravest doubts. Much of course in this case depended upon the community or sympathy existing between the other members of the assistant staff; but still, to suggest that he could wisely

supervise, guide and intervene where such guidance and advice were called for without a due appreciation of what the pathologist's work involved appeared as serious a fallacy as that of regarding him as an efficient supervisor in other departments wherein his knowledge may be faulty and his experience meagre. These young men required guidance, encouragement and advice from their superintendent, and naturally rebelled against the false position of being left to their work, to follow altogether their own bent and inclination. These considerations indicated the necessity that the head of a large institution should take a more real and personal interest in the work of his pathologist; and unless this want was more and more realised the results accruing from the labours of this official would not be equivalent to our expectations. The genuine man was not necessarily one of brilliant parts, nor one averse to undertaking wearisome investigation, but the quiet, unobtrusive, assiduous plodder who did not disdain a preliminary drilling of some years in the most arduous duties of the laboratory. Dr. Yellowlees had years since at Liverpool urged the necessity for some central laboratory to deal with asylum material, but at the time he (the President) was only too painfully conscious of the labour and magnitude of the work so involved to regard it as at all practicable.

Mr. BEVAN LEWIS then emphasised the establishment of a clinical staff of assistants in all large asylums and of an out-patients' department. It would be valuable to an assistant staff, and go far to break down the partition wall of sectarianism, so calculated to congeal their best faculties. He also advocated the promotion of nursing and ambulance lectures and outdoor private nursing. At present the only resource for the neighbourhood was to fall back upon the very limited number of superannuated officials residing there and who were fit persons for the service. The system adopted in the West Riding was as follows. A certain number of skilled nurses are chosen as a private nursing staff, temporarily resigning their post upon the regular staff, their names being struck off the books and their wages and incidental expenses being paid out of the private fund accruing from their earnings. Meanwhile the vacancies so created are filled up on the regular staff by probationers, who offer their services, unpaid, for instruction in nursing, and who succeed to the vacancies occurring from time to time from resignations and other causes. In conclusion, the President thought the scheme might be more generally applied.

Dr. RAYNER thought the best thanks of the meeting should be given for the address and that the nurses' scheme should be widely adopted.

Dr. LINDSAY also thought the meeting was indebted to Mr. Lewis for his scientific address and spoke in warm appreciation of the nurses' scheme and the improvements in clinical and pathological teaching. He said that if the President's suggestions were acted upon a distinct advance would be made in asylum management. He congratulated Mr. Lewis on the liberal spirit which influenced the West Riding Committee.

Dr. ALTHAUS opened a discussion on Psychoses after Influenza. He said that no true post-grippal psychoses had been described previously to 1890, for, with the exception of a case mentioned by Sir Crichton Browne, all other cases previously described have been those of initial delirium. He proceeded to consider these affections in connexion with other and better known post-febrile insanities, and exhibited a table showing the principal points in those psychoses which are apt to come on after rheumatic fever, pneumonia, ague, the acute exanthemata, erysipelas, cholera, and influenza—viz., the number of well-observed cases of these several affections, the influence of sex, age, and general and special predisposition, their duration, and the eventual result. He submitted the following points:—1. Relative frequency: He had found that they were not only absolutely, but also relatively to the number of cases of the parent affection, more frequent than the latter; and that the only acute disease which could at all compare with influenza in this respect was typhoid fever. 2. Sex and age: It was shown that the male sex was more liable than the female, and that most cases occurred between twenty-one and fifty years of age. 3. Predisposition: This was found to have been present in 72 per cent. of the cases, but Dr. Althaus drew attention to the tendency prevailing in medical writings to exaggerate that influence from sheer force of habit. Alcoholism was present in 11 per cent. 4. Relative importance of the fever and the special toxine of influenza. He considered the toxine the more important agent of the two.

more especially in the production of melancholia and general paralysis, the fever being neither sufficiently severe nor protracted to explain the symptoms observed. The fever was, however, of influence in the post-grippal delirium of collapse. 5. Duration: 12 per cent. recovered in a week, 32 within a month, and 56 lasted beyond a month. 6. Proportion of cured, uncured and fatal cases: 7.6 per cent. died, 56.6 recovered and 35.8 remained uncured. 7. Relationship between the severity of the feverish attack and the subsequent appearance of psychoses: The latter were most apt to appear after comparatively slight attacks—viz., 55.2, then followed severe attacks with 27.6, and last came those of medium severity with 17.2. 8. The length of time that may elapse between the feverish attack and the outbreak of the psychosis varied according to the form of the psychosis, the delirium of inanition following close upon a crisis, while melancholia supervened between a few days and weeks after, and general paralysis of the insane later still—viz., up to six months after the attack. 9. Is there any special form of psychosis—a true grippal insanity—caused by influenza which does not occur after other fevers? Four different groups of psychoses were described, none of which were absolutely peculiar to grip, but they differed from other post-febrile insanities by presenting a much greater variety in their clinical features, those most nearly allied to them being the post-typhoid psychoses. 10. How does influenza affect those previously insane? Various epidemics in asylums were referred to showing that insanity constituted in no way a protection against grip, and that in many lunatics the attack of influenza left their mental condition unchanged, while in others the latter was either improved or aggravated. Dr. Althaus thought that such various results might be owing to different vascular conditions. 11. The treatment was successively considered of melancholia, the delirium of inanition, special forms of insanity grafted on pre-existing neuroses or psychoses, and of general paralysis of the insane.

Mr. LEWIS, in inviting discussion, asked the views of others as to the line of demarcation which existed between the effects of influenza upon the sane and the insane in asylums. He had found in his asylum no alteration in mental symptoms after attacks. But outside he had seen profound psychosis very frequently. Why should not it occur inside the asylum?

Sir F. BATEMAN (Norwich) said he knew cases of obscure diseases occur through poisoning of the nerve cells by the special toxine, the ordinary symptoms of influenza being absent.

Dr. RAYNER (London) thought there was an increase in insanity from this cause.

Dr. GOODALL (West Riding) said that every form of psychosis may follow, including paranoia and general paralysis. He alluded to a chronic case of paranoia cured by influenza.

Dr. LINDSAY (Derby) said he had 130 cases, seven-eighths of the attendants having been attacked, but only one-seventh of the patients.

Dr. URQUHART (Porth) thought it would be a pity if this discussion stopped here without making a collective investigation of asylum experience, and mentioned a case in which simple mania had occurred without any known predisposition. Most of the cases would be found to be chiefly due to predisposing causes.

Dr. JULIUS MICKLE alluded to several cases of mental disease directly due to influenza. He criticised the admission into this group of those cases which occurred six months after convalescence, and said that very careful study of this history should be made before including these cases. He spoke of cases in which further inquiry disclosed other causes, such as alcohol.

Dr. BATEY TUKE said the paper was a very important one. He agreed with Dr. Mickle that the utmost care should be taken to ascertain all the causes, and said that if possible differentiation should be made between those due to toxine and to mere exhaustion. He related two cases in which conscious delusions were present.

Dr. CORNER said that at Bethlem 50 per cent. were melancholic, 50 per cent. excited. He added that a distinct class existed in which confusion was a marked feature.

Mr. RICHARDS (late of Hanwell) said it is now fashionable to have influenza, the reliability of the history is often doubtful, and at Hanwell no alteration in symptoms after influenza occurred.

Dr. RICHARDSON (Isle of Man) said that under the action

of influenza unruly patients became quite orderly. He thought one case was actually benefited by the disease.

Dr. ALTHAUS replied. He stated that the utmost care was taken about including cases occurring six months or less after the attack, and then only when some symptoms had occurred throughout the interval.

At the conclusion of the discussion Dr. URQUHART proposed and Dr. RAYNER seconded that this Section should recommend the Council to institute a special investigation into the effects of influenza in asylums.

Mr. St. JOHN BULLEN read a paper on Variations in Type of General Paralysis. He said that opinions were very varied on this subject. He had abstracted 250 cases from Wakefield Asylum; all were fatal and all were males. Sixty-four per cent. of his cases showed optimism, while only a small percentage were melancholic; 28 per cent. had dementia, primary and progressive, and this, he thought, appeared to be on the increase in certain districts. He said that several authorities did not think there was any variation in type among the upper class of patients. The average duration at Wakefield was two years and a half. Investigations showed that post-mortem adhesions were just as frequent now as previously, or 62 per cent.

Dr. JULES MOREL (Belgium) observed that general paralysis seemed to be increasing in Belgium.

Dr. MICKLE said his records were different. It was, however, very difficult to estimate the duration of the disease. With regard to change of type, he thought the percentages depended upon the failure to recognise clinical varieties in the past. He admitted that a change of type was possible on account of changes in the race due to evolution and civilisation, and this was towards depression at the expense of optimism. He said that the increase of dementia as well as the increase of melancholia was partly due to a failure to observe and record those varieties some years ago, the mind of the observer being influenced by previous ideas of the nature of the disease.

Mr. BULLEN, in reply, said that Dr. Mickle's remarks had gone far to show that a variation in the type of general paralysis was not so well established as many had supposed.

Dr. MOREL read a paper on the Psychological Examination of Prisoners, in which he urged that criminals becoming lunatic should be treated in separate institutions attached to the prisons and should be attended by specially trained attendants. He suggested that weak-minded prisoners should be preserved from association with the lowest class of people, and contended that there ought to be a medico-psychological service in all prisons.

Dr. URQUHART said that Belgians were foremost in investigating this subject, and that Dr. Morel had been appointed for this purpose and his experience had been great. In Scotland steps had been taken towards giving partial punishment to persons partly lunatic.

Mr. LEWIS thought there is an increasing demand for inquiry into the mental condition of criminals.

#### PATHOLOGY.

The President of this Section, Mr. VICTOR HORSLEY, in opening the proceedings made a few preliminary observations on the treatment of pathology by those who have to examine in it and teach it in this country at the present time. He said: "However absurd the statement may appear to some, I venture to assert that pathology, as such, is almost unknown among us. The fact is, that what is commonly spoken of as 'pathology,' taught as 'pathology,' and made the subject of examinations in 'pathology,' is nothing of the sort—it is not pathology, it is morbid anatomy. Suppose a student had paid to be instructed in physiology, and suppose that all his teacher did was, first, to describe the coarse or naked-eye structure of the healthy body, next its minute or microscopical structure, and, finally, to make some crude guesses as to how the various organs worked, should we not say that that student had been defrauded? Yet is not this picture a fair representation of what is usually done with pathology in this country? We have in London a society whose function, as defined in its title, is to promote the study of pathology, but, unfortunately, it has hitherto been only an emporium of morbid anatomy. Thus, even when during the last two years as many as 320 papers were communicated to the Pathological Society, not 10, and in 1890 not a single one, dealt primarily with the pathology of any disease. I shall not be misunderstood or thought to depreciate morbid ana-

tomy *per se*, but I regret that in the representative work of the Pathological Society this study should be allowed to usurp the place of pathology. The pathologist should be the student of disordered function as well as disarranged structure; morbid anatomy is therefore but one side of his work, pathology is the other. As, however, so far as I am informed, there are only three places in England where pathology is taught, the paucity of true pathological research among us cannot be regarded as a matter of surprise. It does not seem to be generally appreciated that what is required at the present day is the accurate determination of the aberrations of normal function, and, seeing what strides normal physiology as a science has made, no difficulty attends the pathologist in this new and fertile field. To take a concrete example, the vast range of diseases of the respiratory functions. What a mass of facts has been accumulated in elucidation of the various changes in the structure of the lungs produced by pneumonia, phthisis, &c.; but how many workers have been found to investigate the degree and effect of the loss of the respiratory function, of the disorder of the normal oxygen and carbonic acid ratios! Yet this is what kills, this is the whole work of the disease, and this is what must be solved before the treatment of such diseases can be worthy of mention other than as mere empirical palliation. This, the pathology of the diseases of the respiratory organs, is a subject before which the facts of morbid anatomy will seem more and more restricted as the intricacy and breadth of the problems it is often supposed to solve are properly considered and appreciated. To take another example—a much smaller one, but involving most fundamental considerations—I mean the condition spoken of as œdema or dropsy. What is more common at the present day than to hear this condition gravely ascribed to alterations in the blood pressure alone, and chiefly to venous stagnation? Even in this very year, in a great discussion on the point, and one which appeared to many to be fruitful in little but surmises, these notions were freely promulgated and confidently relied upon. Yet they have for more than twenty years been absolutely contradicted by experimental pathologists, and shown to be untenable. To what, then, are we to ascribe this surprising indifference to pathology? I have not the slightest hesitation in saying that it is due to want of familiarity with modern progress in physiological and chemical research. Fortunately, laboratories are springing up now on all sides, original investigations are being pushed forward, light and knowledge widely diffused. The reproach that we have been dead-house students rather than true pathologists will therefore soon be wiped away."

#### DISEASES OF CHILDREN.

Dr. MARSHALL, the President of this Section and Surgeon to the Children's Hospital, Nottingham, delivered an address on the need for systematic instruction in diseases of children. He said: "Children's work is still lightly regarded by the profession and the importance of the subject is not valued as it ought to be. Dr. Latham very pertinently remarked that 'any class of diseases not falling within the range of professional education and having no ready opportunities provided for its study, has a good chance of never being studied at all.' Nevertheless, three-fourths of our medical students will be actively engaged in the practice of their profession with the class of work which, according to some authorities, virtually occupies no place in the curriculum. The medical tyro, when he has to face these cases, readily yields himself up, and feebly remarks, as was said to me not long since, that 'of course, women know more about babies than we do.' With such a state of mind it can not be wondered at that children's diseases appear to some to be included in 'teething and worms,' water on the brain, and, last but not least in its frequency, consumption of the bowels. It is still less surprising that congenital hernia nearly always appears with a phimosus untreated, and, as once happened in a case sent to me, a large empyema on the right side, with the liver pushed downwards, to be diagnosed as a case of disease of the liver. Again, I received a case with a request to advise the best form of spinal jacket for a lateral twist in the dorsal region. One-half the chest was filled with fluid. On pointing this out by letter to the medical man by whom the patient was sent, I received a reply to the effect that he was perfectly aware of the effusion, but he hoped to produce absorption by the pressure of a jacket. This man deserved to succeed, but his shrewdness might be better applied.

I think we all here are agreed that the first step towards studying satisfactorily children's ailments is the acquisition of the necessary tact. The proper way of managing children is not acquired in the class-room, but can only come to those who seek to obtain it by constant association with sick children. This could not be done in an out-patient department. I have never been able to understand why it appears to be considered *infra dig.* to be acquainted with every detail of baby life. I do not think that I have suffered much because I have made it my business to be able to talk about most things connected with the diet, dressing and housing of a bairn, neither can I believe that I am justified in assessing the value of the life of my patient by his or her length and weight. A knowledge of these things, which would be included under the heading of 'Nursery Hygiene,' should be learnt as a student. To a man entering upon his career in general practice this knowledge would be of great value. If this had been so, would that wretched invention a baby's binder have been so long in vogue? Would the hand-rearing of children have so long continued to be a mere shuffling process of patent foods in the hope that one may prove to be trumps? Should we have had the persistent use of sleeping cordials with which the baby:

When crammed with food and tightened every limb,  
Is dosed to give him comfort?

It were well to add the concluding lines of the above, although the nurse is referred to and not the doctor:—

Soon may she spare her cordial; not a doubt  
Remains, but quickly he will rest without.

Crabbe in no way overstates the case, as everyone knows who sees much of children's work, and our profession must morally accept an adverse verdict."

#### THERAPEUTICS.

In the Section of Pharmacology and Therapeutics the President, Dr. BROOKHOUSE, Senior Physician to the General Hospital, Nottingham, delivered an address upon some points in pharmacology and modern therapeutics. Medicine, he said, using the term in its largest and broadest significance, was at once an art and a science based upon observation, experiment and practice. Science, he added, had given much, if in some instances it may have led to error; but in every field of experimental work error would be discovered, and truth was only revealed by long and patient watching. Most of our present remedies were the outcome of experiments made with natural products, animal, vegetable or mineral, or with compounds which the chemist has put at our disposal. For the chemist has not only separated the active principles from vegetable and animal substances, but he has produced hundreds of new compounds, both organic and inorganic, some of which have been found of the greatest value as curative agents—for example, bromide of potassium, chloroform and nitrite of amyl. It has long been known, however, that the action of even the simpler of these substances is the resultant of the properties of the atoms or groups of atoms of which they are composed; that, for example, the atom of bromide and the atom of potassium in bromide of potassium has each a special physiological influence on certain tissues and organs. The physiological action of these atoms can usually be traced in the various combinations which they are capable of forming. At least a score of new substances have been introduced during the past twelve months for the purpose of fulfilling some definite therapeutic want, and though doubtless many, probably the majority, would not be of practical service, still there was evidence that some might prove to be very useful medicinal agents, and there was great hope that with increasing knowledge new compounds would be formed, which would be of incalculable value in the treatment of disease.

Alluding to the use of the lower forms of life which are connected with disease, and respecting recent researches on toxins as protective agents, Dr. Brookhouse said: "It is quite possible that some methods of treatment, founded on the knowledge which has been gained by the influence of micro-organisms and toxins, may not prove capable of practical application; if, however, this be the case, certain facts as to this influence are proved, and we have good grounds for hoping that further experiments made on the use of micro-organisms and their products will before long put in our hands new therapeutic agencies for the cure of infectious diseases in man. Doubtless in this kind of experimental work difficulties may arise from the varying behaviour of

different animals under one and the same toxine, and that in man the results may differ from those seen in the lower animals. For this we are not unprepared, because the varying action of ordinary drugs in man and the animals and between families, such as the herbivora and carnivora, have long been known. But notwithstanding these differences, experimentation upon the lower animals has proved of the greatest value to man; and the outcry against this method and the prejudice against it which still largely exist are not creditable to the intelligence and candour of its opponents; whilst the progress, in this country at least, of scientific research has been materially hindered by this opposition and the advantages which would undoubtedly have resulted to man have been thus diminished and retarded."

Again, the conditions of physical strain and mental tension, due in great part to the conditions of social life, were provocative of nerve changes both coarse and subtle, but all degenerative in type. With these therapeutics had not and could not keep pace, although doubtless during the present century clear and distinct advances had been made in the treatment of disease. A notable example of this was found in the treatment of syphilis. In former times, yet within the memory of middle-aged men, it was not uncommon to see the recrudescence of this malady years after its initial signs and supposed elimination from the body. It was not considered necessary to prolong treatment much beyond the disappearance of the local sore and its induration, or at most after the disappearance of secondary symptoms, as they were commonly called. Dr. Brookhouse believed that the more careful clinical observation of comparatively recent times, which has resulted in the prolonged treatment of the disease by mercury and other specific remedies, has materially altered and improved our statistics, and that now it is somewhat exceptional to see its reappearance. The treatment of the restlessness with delirium in sthenic pneumonia afforded another example of advance. It was for those engaged in clinical observation to supplement the work of the chemist and pharmacologist who introduced new remedies. In conclusion he brought forward his experience regarding the use of menthol in the treatment of pulmonary phthisis. The method he adopted consisted in the introduction once or twice daily into the trachea of one drachm of a 12 per cent. solution of pure menthol in pure olive oil. This he effected with the aid of the laryngoscope and a syringe specially made with a curved tube; the tube is passed through the rima glottidis, about half an inch down the trachea. After a little practice and habituation the patient feels no inconvenience or discomfort whatever; on the contrary, there arises an agreeable sense of warmth in the chest. One very early result is a marked diminution of the cough and expectoration; the night sweats, if previously existent, cease, the hectic temperatures become much less marked, the curves often go to the normal, and the patient gains in weight.

Dr. BROADBENT opened a discussion on the subject of Cardiac Tonics and the indications for their Use. He restricted the paper to the discussion of the use of the so-called cardiac tonics, and did not touch upon what he expressed himself as feeling to be even more important in treating diseases of the heart—namely, rest, graduated exercise, and the elimination of waste products. He also spoke of the difference between these remedies in their action. It was claimed on the best authority for strophanthus, he said, that it increased the force of the systole of the heart without increasing the contraction of the arterioles. He did not find that drug to be as generally useful as digitalis in cardiac disease probably due to the fact that the preparations of strophanthus were not uniform, and a large proportion of them were comparatively inert. Occasionally however where digitalis failed to produce an effect or where it could not be tolerated strophanthus produced excellent results. Caffein was said to increase the solids in the urine while digitalis increased the fluids. That was not borne out by his own experience. The practical point at which he had arrived was that caffein and digitalis together would do a great deal more than could be accomplished by merely increasing the dose of digitalis alone. There was some difference in the action which made caffein an exceedingly valuable supplementary heart tonic.

Dr. LAUDER BRUNTON said that Dr. Broadbent had shown admirably how digitalis acted in affecting both the heart and the vessels. In digitalis as commonly used there is a curious combination of substances, because apparently digitaline and digitoline have more or less an antagonistic

action, the digitaline tending to cause strong contraction of the involuntary muscular fibres both in the heart and in the vessels, whereas digitoline tended rather to counteract this action. Where there is excessive contraction of arterioles in cases of cardiac disease it is well to combine with digitalis some other substances which tend to dilute the vessels—for example, the spirits of nitrous ether. One of the directions in which modern pharmacological research is likely to give aid in treating patients is in the discovery of some substances which would tend even more than strophanthus to contract the heart more powerfully than the bloodvessels. One such substance appears to be oxy-sparteine which acts strongly upon the heart, but very slightly upon the vessels, and in cases where digitalis does not act we find strophanthus seems to exert too strong an influence upon the vessels where the heart seems to be very weak in comparison to the resistance which has to be overcome. We may find that a substance like this could take the place of such a combination as digitalis and nitrous ether or strophanthus and spirit of nitrous ether. In cases of men who are accustomed to take alcoholic stimulants continuously and whose heart begins to fail, digitalis seems to have very little effect indeed either in increasing the force of the heart or in slowing it. This was rather in favour of the idea that digitalis did not act purely and simply upon the cardiac muscular fibre and that it has a certain action on the heart through the vagus. Experiment seems to show this to some extent, because in animals, when the heart is slowed by means of digitalis, its rhythm is very considerably affected by cutting the vagi. The heart was not always found to be in a state of tonic contraction. In a dog, which poisoned itself with digitalis leaves the heart became slowed to six per minute before death, and after death it was found to be in a state of diastole. One of the benefits which arises from digitalis is prolongation of the diastole, the period of rest both of the ventricles and the auricles. If the vagi be cut and intra-cardiac pressure thereby increased the heart almost immediately begins to beat very much more quickly than before, and therefore if we have increase of tension within the vessels we tend to counteract the restful influence of digitalis and the other cardiac tonics. Muscular exertion is, as everyone knows, a factor which increases the tension within the heart, and obviously if we wish to get the restful heart which we desire for its recovery from over-strain one of the best things we can do is to put the patient completely at rest. There is no mode of treatment of cases of mitral disease which seems to yield more satisfactory results both for the patient and the doctor than *complete rest*. As an adjunct to complete rest in bed, massage is of great use. It increases the nutrition of the patient without putting any strain upon the heart. When the patient recovers you wish him to get more than the passive exercise of massage, and at the same time you feel uncertain about allowing him to go outside and walk about. There is no doubt whatever that the treatment by graduated exercise is very useful, but it has the disadvantage of being difficult to prevent the patient from overdoing it. Dr. Brunton showed an "ergostat" which has been invented by Professor Gärtner of Vienna and which can be so adjusted that the resistance to the force of the patient could be increased or diminished at will. Another point to be noted was that of elimination. The waste products of muscular tissue gave rise apparently to a certain amount of contraction and also seemed to interfere with the action of the heart in the interchange between the blood and the tissues. As a result of mitral disease very often the liver is enlarged and the patient's general condition is improved by a purgative such as blue pill at night followed in the morning with a compound jalap powder. The combination of these points in the treatment would prove very beneficial.

Dr. CLIFFORD ALBUTT thought the knowledge on the subject was as yet very rudimentary and somewhat obscure; by the use of cardiac tonics the potential equilibrium might be attainable, but it had no good chance until the back reckonings were cleared away. He ventured to think that the "ergostat" would be an exceedingly dull performance and suggested that some kind of musical instrument might be attached to the handle.

Professor EBSTEIN joined in the discussion.

Professor OLIVER thought it mattered very little in the first instance what was the primary lesion of the heart, because the immediate effect of any lesion was to overload the heart with work. He maintained the utility of digitalis in aortic regurgitation.

Dr. LINDSAY said he would confine himself to general impressions, omitting details. He had tried digitalis and strophanthus largely, convallaria and caffeine much less often, casca and sparteine not at all. He regarded digitalis as much the most valuable of the group.

Dr. A. J. HARRISON made a few remarks about the point of absolute rest in cardiac diseases and especially in aortic regurgitation. By rest he meant absolute rest in bed for a period of six months. A case was related in which a girl with very marked aortic disease (double) was much benefited by this plan. At the commencement the girl was pale, anæmic and restless, the apex beats being two inches outside the nipple line. At the end of the time the heart beat was half an inch inside the nipple line. The appearance of the patient was markedly improved; she had colour in her cheeks, had gained flesh and was able to take gentle exercise with comfort and this condition was continuing when she was last seen a few weeks ago.

Dr. STOCKMAN drew attention to certain points in the action of digitalis in health and in cardiac disease mentioned by Dr. Brunton—viz., after poisoning a dog with digitalis its heart was found in diastole. Now if small enough doses are given this is invariably the case. The first effect of digitalis is to prolong the diastole and during this stage the heart chambers are better filled, but the blood pressure is only slightly raised or possibly not at all. In cardiac failure the symptoms which distress the patient are chiefly dyspnoea and dropsy, both of these being due to insufficient filling of the arteries and overfilling of the veins. If this be put right by any means the patient is relieved. Rest suffices often and therefore the blood pressure does not necessarily require to be raised, but only a redistribution of the blood is effected. Dr. Broadbent mainly lays stress on digitalis increasing the propulsive power of the heart, speaking of the left auricle as if it were quite passive, but it must be remembered that it shares in the slowing and therefore gets more time to propel its contents into the left ventricle and thus assist in restoring the balance of the blood distribution. In any forms of valvular lesions, where the blood is not properly distributed, digitalis, it seems to me, will do good if not given in too large doses. The bad results often obtained are probably frequently due to excessive doses.

Dr. BROADBENT, in replying, had no doubt that under certain conditions the amount of ventricular dilatation with aortic regurgitation would indicate digitalis being useful. The amount of regurgitation may be small, but the heart much dilated because of the habits and work of the patient. The action of the left auricle is merely passive; and the right side, where venous pressure is less and external influences more obvious, the contraction of the right auricle would be of service. It does not necessarily follow that because arteries are badly filled veins are too full, and in some cases aortic regurgitation might be first signalled by the patient dropping down dead, or by attacks of giddiness.

The Section then adjourned.

#### LARYNGOLOGY.

In this Section the President was Dr. HAYES (Dublin). He first thanked the members for the honour done to him and welcomed Professor SCHRÖTTER of Vienna and other distinguished visitors to the section. The first discussion was on the subject of the Etiology, Pathology, and Treatment of Nasal Neuroses, introduced by Mr. DONALD STEWART, who furnished an excellent bibliography of the subject, recounting observations from some 250 different observers. Both papers were deservedly well received. Throughout the discussion considerable variety of opinion was expressed as to the advisability of general as opposed to local treatment. A consensus of opinion, however, seemed to tend towards the statement that in certain cases local evidence was quite sufficient to account for the nervous phenomena. Professor SCHRÖTTER communicated a paper on the subject of Nervous Affections of the Throat, which consisted of a series of observations of three rare neuroses. While, of course, no one could question the excellence and accuracy of the distinguished Professor, still Dr. FELIX SEMON suggested another explanation to account for the observations. Professor SCHRÖTTER, in reply, said that they could not explain everything they saw in nature or in medicine, but the facts were as he had stated them. Some other papers followed.

#### THE EXHIBITS.

The museum of the British Medical Association has a special feature attached to it this year in the shape of a Sanitary Exhibition, which was to have been opened on Tuesday, the 26th inst., by Sir Walter Foster, M.P., who was prevented through a slight illness from attending. The President-elect of the Association, Mr. Joseph White, officiated in his stead. In opening the exhibition he said that for many years it had been the custom of the British Medical Association to have a museum showing the advance of medical knowledge in its application to sanitary science. This year it had been attempted to extend that department, and it was peculiarly appropriate that it should be at Nottingham that this departure should have been made, because Nottingham had stood in the front rank of those towns which had seen the importance of sanitary work and which had tried to improve the defects of ancient methods.

The Mayor of Nottingham, Alderman Blackburn and Dr. Boobyer, medical officer of health for Nottingham, also spoke.

In the exhibition there were in all nearly fifty stalls, on which the exhibits were placed, and in looking round them we note the various stalls as follows:—Stall 1: The Anidjah fire-escape, which consists of a tubular arrangement by which descent can safely be made from the highest building. The upper part of the tube is constructed of asbestos strengthened inside by metal bands and thus is protected from the action of fire. Stall 2: A Nottingham School Board exhibited a desk and seat, the construction of which is designed to promote an erect posture. Stall 3: Messrs. Emerson and Franks exhibit among other goods Dr. Boobyer's hospital locker, consisting of a small cupboard with drawer and trays surmounted by a cover, projecting downwards at the sides, and which serves the double purpose of a bed-table and shelf for food, medicine &c. This has been adopted in a Nottingham general hospital and in several other hospitals in the provinces. Stall 4: Messrs. Boyd and Co., Belfast, here exhibit their well-known doctors' ulsters and other goods. Stall 5: Messrs. John Humphreys and Co., Limited, of the Cavalier Soap Works, Nottingham, show as specialities their dry and paraffin soaps. Stall 6: Mr. W. Cook of Lenton Boulevard shows a twin pump and condensing engine for use in lifting water to great altitudes, and also artesian well apparatus. Stall 7: Messrs. Hughes and Lancaster, Great George-street, Westminster, exhibit a working model of the "Shone" hydro-pneumatic system of sewerage. Stall 8: Messrs. Foster and Cooper of Long-row, Nottingham, exhibit on their own account a large variety of hospital furniture as supplied to the General Isolation Hospital at Nottingham; for Messrs. Isaac Chorlton and Co. they exhibit operating tables, hospital bedsteads, bed-rests and other like specialities; and for Messrs. L. P. Whitfield the "Lawson-Tait" bedstead. Stall 9: Mr. H. Sulley, Wheeler-gate, Nottingham, shows his patent noiseless safety glass floors and pavement lights. Stall 10: Messrs. Duckett and Son, Burnley, display their well-known waste waterclosets in six varieties. These closets are all erected and in working order, so as to exhibit all working and structural details. Stall 11: Messrs. John Parker and Hassal, of Nottingham and London, show their safety joint for drain and other pipes, which is now used by some 150 local authorities in England and Wales alone. Stall 12: Mr. W. E. Allen, Gravelly-hill, Birmingham, shows automatic flush closets in several varieties. These closets are in working operation. Stall 13 contains an exhibit by Price's Patent Candle Company of candles which are stated to contain no organic or metallic impurities; they also exhibit soaps and disinfectants in many forms. A considerable number of exhibits arrived after the catalogue had been completed. (This account will be continued in our next issue.)

#### IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE provincial general meeting of the above Association, which now numbers nearly 700 members, was held on Wednesday, July 27th, at University College, Nottingham. In the absence of the President, Director-General Dick, C.B., R.N., Dr. Heath of St. Leonards was called to the chair. There

was a large attendance of members. The Council reported that since the anniversary meeting a signal victory over the monopolists of hospital appointments had been achieved at Hastings, where, by a majority of 78 to 33, the governors of the East Sussex Hospital had repealed the rule restricting honorary staff appointments to those holding London diplomas.

Professor Cuming, M.D. (Belfast), proposed, Dr. Douglas (Leamington) seconded and it was unanimously resolved: "That the Association records its satisfaction at the success of the Council's proceedings in reference to the rule formerly in force at the Hastings and East Sussex Hospital by which diplomates of the Irish Royal Colleges of Physicians and Surgeons were excluded from competition for honorary appointments on the staff of that institution." The Council also reported that Lord Sandhurst's Committee had published as an appendix to their lately issued report to the House of Lords a statement prepared on behalf of the Association setting forth the injustice of the restrictive rule as it exists still in the greater number of the large London hospitals. A vote of thanks to the Chairman concluded the proceedings.

## ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1890; WITH APPENDIX. VOL. XXXII., 1892.<sup>1</sup>

### [FIRST NOTICE.]

THE army medical report has been issued rather earlier this year than usual. It consists of 391 pages, 71 of which are in the form of an appendix to the report and contain papers on the Progress of Hygiene for the year 1891, a report from the medical and surgical divisions of the Royal Victoria Hospital, Netley, a paper on the Etiology of Malta Fever, and another on Six Cases of Lightning-stroke. The great bulk of the report therefore consists of the vital statistics of the troops at home and abroad and matter concerning the sanitary conditions by which they are surrounded. As the primary and fundamental object in the publication of these reports is for the information of the Houses of Parliament this must necessarily be the case and very properly so. But we think it is to be regretted that the more strictly professional and scientific portion of the volume appears to be a diminishing quantity. Medical officers scattered all over the world have so many opportunities of making original and interesting observations that we are curious to know what are the new diseases, if any, they have encountered and how those with which we are familiar at home comport themselves abroad under different conditions of climate, to say nothing of observations in medico-topographical reports on natural history, anthropology, climatology and the like. The departmental reports of the past contained many really valuable contributions to our knowledge in various directions. Without doubt the statistical portion of this volume is ably executed; the information is full, clearly arranged, and almost every point capable of being illustrated or elucidated by figures has been turned to account. But statistics and reports dealing with the sanitary details of places with which the reader has probably no personal acquaintance are not mentally more palatable than a water-free food diet would be. The point which is looked for is apt to be lost in a multitude of figures and ratios, and it is not always possible to say whether all the figures are really relevant to the subject to be elucidated. Statistically considered, however, these reports are admirable; and we should like to be able to say the same of the papers in the appendix in regard to their number, variety and quality.

With these few prefatory remarks let us now turn to the volume itself. The average annual strength of the troops serving at home and abroad in 1890, as computed from the returns, was 196,502 warrant officers, non-commissioned officers and men (exclusive of colonial corps); the admissions into hospital in this force were 208,014 and the deaths 1787. The rates represented by these numbers are for admissions into hospital 1058.6, and for deaths 9.02 per 1000 of the average annual strength, calculated as 198,154, which in-

cludes detached men. For the previous ten years (1880 to 1889) the ratios per 1000 of troops serving at home and abroad were for admissions into hospital 1058.2 and for deaths 10.28.

Examining the tabular results of sickness in the different commands we find that the mortality-rate per 1000 among troops quartered in the United Kingdom for the year 1890 was 5.53, at Gibraltar it was only 3.22, at Malta 9.77, in Egypt 12.47, 13.58 in Bermuda, nearly the same in Mauritius and 14.45 in India. Compared with the results for the ten years from 1880 to 1889 the death-rate per 1000 for troops serving in the United Kingdom was 6.10, in Gibraltar 6.13, Malta 8.66, Bermuda 10.04 and 15.66 for India, whilst the mortality rate for Egypt for the seven years 1883-89 was 25.66. The average strength of the troops serving in the United Kingdom during the year 1890 was 100,120, to which men detached from these corps, computed to average 1652, have to be added. For the United Kingdom, taken as a whole, the admission ratio was 810.6, the death-rate 5.53, the invaliding rate 16.72, and the constantly sick rate 44.29 per 1000 of strength. Compared with the corresponding ratios for the preceding ten years, a decrease is observed in all the rates of sickness and mortality, but there is a slight increase as compared with the results of the previous year. The total loss by death and final discharge from the service on account of medical unfitness was 2265 men, being in the ratio of 22.25 per 1000 of strength, which is higher than the ratio in the previous year by 1.79. Adverting to some of the more important statistics of sickness mortality and invaliding among the troops in the United Kingdom it is satisfactory to learn that there was not one case of small-pox recorded in the year. Out of 243 admissions for scarlet fever 225 occurred in England and Wales, none in Scotland, and 18 in Ireland. The greatest number of cases in any one station was 80, at Woolwich, of which one proved fatal; the disease was also very prevalent among the civil population. At Aldershot there were as many as 75 cases with 1 death, and at Devonport 28 cases with one death. These three stations gave three-fourths of the total number of admissions, the remaining fourth being scattered among as many as twenty stations.

As regards enteric fever the admissions numbered 126 and the deaths 30. The admission ratio was 1.3 and that of mortality 0.29 per 1000. The percentage of mortality to attacks was 2.39, as compared with 17.8 in the previous year and 23.1 the average for ten years. In Scotland there was only one admission from this disease, but that terminated fatally; the admission ratio was 0.3 per 1000. In only one of the administrative districts in England—viz., the Thames district—was there complete immunity from this disease and the number of stations in which it appeared was 30. As in several preceding years, the station showing the greatest prevalence of the disease was Dublin, but in this respect the year under report compares favourably with the preceding year, as the number of cases and deaths were 34 and 6 respectively, as against 63 cases and 8 deaths. This great decrease in the number of attacks is due to the fact that, on account of the notorious prevalence of enteric fever in the Royal barracks they were evacuated quite early in the year. Excluding the Royal barracks, the number of cases from the remaining barracks continued the same. The disease seems to have appeared in nearly all the barracks in Dublin, and the sanitary condition of some of them was considered so unsatisfactory that they were evacuated. This looks as if some extensive sanitary engineering works required to be undertaken for the disposal of the sewage of the city of Dublin as a whole. The station which shows the next largest number of cases is Aldershot, where there were 18 admissions and 4 deaths, as compared with 8 admissions and 1 death in the previous year. The cases came from different parts of the camp. At Caterham there were 15 attacks and 2 deaths; the cases came from four blocks of barracks and the outbreak was probably attributable to certain important sanitary defects, which were discovered and rectified.

Just at the close of the year 1889 a few cases of influenza had appeared in England, which were the commencement of the epidemic that spread all over the country within the first three months of the following year. The total number of admissions was 6584, with eight deaths. The ratio of admissions was 65.7 and that of deaths 0.08 per 1000. Every district was more or less affected with the disease, but the greatest number of cases occurred in the Home District. Influenza also appeared among the troops stationed in India and the colonies; in fact, throughout our foreign commands. Taking all forms of venereal disease together, the admis-

<sup>1</sup> London: Printed for H.M.'s Stationery Office, by Harrison and Sons, Printers in Ordinary to Her Majesty.

sions in the United Kingdom for these complaints numbered 21,262 and the constantly sick 1709.35. The total ratio of admissions was 212.4 per 1000, which differs only fractionally from the corresponding rate in the previous year, but is below the average rate for the preceding five years by 32.8. Under the head of "poisons" it may be incidentally remarked that there were eight admissions and two deaths. Two of the cases were of poisoning by oxalic acid, taken with suicidal intent, one of which proved fatal, and there was a fatal case of suicidal poisoning by cyanide of potassium. There were 21 cases of suicide during the year among the troops serving in the United Kingdom, as against 17 in the preceding year, the average number for the previous ten years being 20. The number of men discharged the service during the year as medically unfit was 1,702, being in the ratio of 16.72 per 1000, which is rather higher than the corresponding rate of the previous year, but lower than the average rate for the preceding ten years by 2.82 per 1000.

We must refer the reader to the tables showing the influence of age and length of service on sickness, mortality and invaliding among the troops serving in the United Kingdom during the year 1890. As might, we think, be expected the occurrence of sickness was greater among young soldiers than older ones, the mortality rate, on the other hand, being very low among men in their first year's service and the invaliding ratio being also low. The sick rate shows a steady decline during the third, fourth and fifth years of service, followed by a slight rise among men of between five and ten years' service and falling again considerably among men over that period of service.

There is an interesting table showing the statistics of sickness and mortality among troops quartered in the large camps at Aldershot, Colchester, Shorncliffe and the Curragh, as compared with those of troops quartered in thirty-seven large towns where the average strength was over 500 non-commissioned officers and men. According to the table the admission- and constantly-sick rates of men in camps differ very slightly from those among men quartered in towns. The mortality rate was a good deal higher among men quartered in towns than among men quartered in camps. This was also the case in the preceding year, but to a less extent.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5 P.M. on Thursday, July 21st, at 36, Grosvenor-street. Mr. George Pollock, the President, occupied the chair, and there was a full attendance of members of the committee. Mr. Vincent Bell of Rochester and Mr. J. J. Parnell of Streatham were introduced as new members of the committee. The minutes of the last meeting having been read and confirmed, letters expressing regret at being unable to attend were read from Mr. Holmes, Mr. George Jackson of Plymouth and Mr. G. F. Helm of Truro. A report was presented by the honorary secretary, Mr. Percy Dunn, in reference to the recent meetings and the annual dinner. After the payment of the expenses of the dinner a small balance remained and was handed over to the treasurer for the general fund. Some discussion ensued about holding a dinner in 1893 in consequence of the arrangements which have been made by the Council of the Royal College of Surgeons for a Fellows dinner on the occasion of celebrating the jubilee of the Fellowship. The decision of the matter was deferred. A similar result was arrived at in reference to certain points of reform at the College, such as the mode of procedure at meetings at the College &c., it being considered advisable not to press these matters upon the Council for the present.

Two letters from Mr. Holmes addressed to the President were read by Mr. Pollock. They referred to an incident which occurred at the meeting of Fellows of the College on the 7th inst. and to a collateral matter of some importance to the Association arising out of that incident. A prolonged discussion ensued upon these topics and ultimately a letter was drawn up to be signed by the President and Honorary Secretary of the Association and to be forwarded to the official referred to in Mr. Holmes's letters. The object of the

communication was to secure the correction of a misstatement which affected the Association. Further action was deferred till the next meeting of the committee.

On the motion of Mr. W. Allingham, a vote of congratulation to Mr. John Tweedy on his recent triumphant election to the Council of the College was unanimously passed. In thanking the committee for their congratulatory vote Mr. Tweedy said that he had been greatly influenced in persevering in the reform movement and continuing to work on the committee of the Association by the example set by Mr. Pollock as President of the Association. He hoped to be able to act on the Council of the College in accordance with the views and principles which he had supported in the committee of the Association. There being no other business the committee adjourned at 6.30 P.M.

## FOUNDER'S DAY AT EPSOM COLLEGE.

THE annual ceremony of perpetuating the memory of the late Dr. Probert, the founder of the Epsom Medical College, with which is associated the annual distribution of prizes to the boys, took place on Monday last. Favoured with fine weather, there was a large attendance of parents and friends. The head master, the Rev. T. N. Hart Smith, M.A., presided, and was supported by Dr. Lumsden Probert, son of the founder, Dr. Holman (treasurer), Sir Joseph Fayrer, K.C.S.I. (chairman), Sir Edward Sieveking, M.D., and other members of the council.

Prior to the distribution of the prizes the Head Master delivered a lengthy speech, in the course of which he reviewed the work of the school and the achievements of the scholars during the past year. He said they could point to a year of healthy progress, and he would like to say how thoroughly satisfied he was with the discipline of the school. They had had a fairly clean bill of health, but unfortunately they had to record many a sad loss from death. The council had supported the extension of the museum, and they had a most flourishing rifle corps, the members of which numbered seventy. The College was asking to be recognised as a school of science on the grounds that the teaching is sufficient, as shown by the list of distinctions gained, and it possessed all the requisites for science teaching. Recently out of ten boys who went in for the Preceptor's Scholarships nine passed, and out of twenty-seven boys who went in for the Cambridge Local Examinations twenty-one obtained certificates. One of the great disadvantages of the present system was that those boys who most required the discipline and teaching of school were very often sent up to the hospitals of London before they were really fit to go to them. If some means could be adopted to keep those boys and train them to pass the first examination, which they had to pass in London before they left school, he believed the advantages would be much greater than those of the present system. Six scholarships had been won by the College at Cambridge during eighteen months, and they had also passed two boys direct into the army class. He would be very sorry, however, if the application on their part that the school should be registered as a school of science should lead anyone to suppose that they wished to make any difference as to classical teaching. He felt and was sure that the members of the council considered that the school must always be conducted on a classical basis.

The awards were then handed to the successful scholars by the Head Master, the Probert Prize being presented by Mr. Lumsden Probert to F. G. Thompson and P. Levick, between whom it was divided, each receiving a bronze medal and £10. The scholarship of £50 a year called the Harvey Owen Scholarship, which had become available for the first time on this occasion, had been awarded to P. Levick, and the Doncaster Gift Scholarship to Senior Prefect F. G. Thompson.

Dr. HOLMAN expressed his delight at hearing such an excellent account of the work of the school. It was not the case, he said, of a new broom sweeping clean, as Mr. Hart Smith had not only begun to work when he came there, but had continued to work with great success. That school had won a repute for Epsom. A free medical scholarship to the London Hospital had been given to it that day and he congratulated the College upon the fact.

Sir JOSEPH FAYRER also addressed a few observations to

the scholars and congratulated the Head Master on the success the school had achieved.

The large company shortly afterwards adjourned to the lawn, where light refreshments were served.

## MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE fifty-first annual meeting of the above Association was held on July 21st at The Retreat, York, in honour of the centenary of the foundation of that institution. The proceedings commenced at eleven o'clock by a general meeting of members for the receipt of reports, the election of officers and the transaction of other business. Dr. Yellowces moved the following resolution: "That the Medico-Psychological Association of Great Britain and Ireland, assembled in its annual meeting at the York Retreat, desires to place on record its admiration of the spirit which animated William Tuke and his fellow workers a hundred years ago, its appreciation of the mighty revolution which they inaugurated, and its thankfulness for the beneficent result which their example has secured in the humane and enlightened treatment of the insane throughout the world." Various matters were discussed and committees were appointed to revise the rules and the question of proxy voting, to consider and report on the subject of public asylum dietaries, and to compile and reissue a handbook of instruction to attendants and nurses on the insane. It was resolved—"that a copy of the report of the Care and Treatment Committee be sent to each County Councillor and to each member of Committees of Asylums not managed by County Councils within the United Kingdom"; that application should be made to the Home Office for the prefix of the word "Royal" to the name of the Association; and that a board of education be appointed to consider all questions affecting medico-psychological teaching. Suggestions were also presented from a committee for the improvement of the rules for the training, examination and certification of attendants and nurses on the insane; these were discussed and for the most part agreed to. Dr. Needham and Dr. F6ré were elected honorary members. After luncheon, provided by the Retreat Committee, Dr. Baker, the President, delivered his address. He took for his subject Hospitals for the Insane, their power and influence in the treatment of mental ill-health. He considered that such hospitals were factors for good in two distinct ways: (1) They possess, or ought to possess, every possible power and appliance for the care, treatment and cure of the insane, and everything that brains and money can obtain; (2) all the money obtained from the remunerative patients being spent liberally and impartially in promoting the welfare, comfort and cure of the patients who are not remunerative, whether they pay anything or nothing. As a means towards the first object special accommodation for special cases of mental illness had been made and numerous villas had been built in the grounds of the hospital; an increased number of resident medical officers had also been appointed. In the evening the members and a number of invited guests, among whom were Dr. Morel (Belgium), Dr. Semchaigne (great-grand-nephew of the illustrious Pinel) and the City Sheriff dined at the Station Hotel. Numerous letters of regret for non-attendance and congratulations to the Association and the Committee of the Retreat on the completion of the centenary of its foundation from official bodies at home and abroad were read by the honorary secretary, Dr. Fletcher Beach.

## ROYAL BRITISH NURSES' ASSOCIATION.

THE fourth annual meeting of this Association was held in the Pavilion at Brighton on July 21st. Dr. Hollis, F.R.C.P., took the chair and a considerable number of members were present. The annual report of the General Council, presented by Dr. Bezly Thorne, showed that there were 2818 members now on the roll and more than 1800 on the register of trained nurses, the second volume of which was published in January. Reference was made to the petition presented by Princess Christian, the President, for a Royal Charter of incorporation

for the Association, and Her Royal Highness's constant interest and support were warmly acknowledged. It was pointed out that the select committee of the House of Lords in their report had expressed their opinion that no woman should be sent out as a private nurse unless she had received three-years' hospital training, thus corroborating the standard which the Association had from the first adopted and for which it had been so very strenuously opposed. As all hospitals will probably now adopt this standard it was confidently hoped that the opposition to the Association would soon disappear. The good work done by the Association in giving pensions and pecuniary grants to its members who were in indigence or temporary difficulties, and the steadily increasing support accorded to its registration scheme by medical men all over the country, were commented upon. Dr. Bedford Fenwick presented the audited accounts, showing that the Association had in four years made investments amounting to £1340, that the balance in hand was £255 and that all the schemes of the Association except the register were now more than self supporting. Various alterations were made in the by-laws which, amongst other things, provided that the General Council, which is the governing body and which consists of 100 medical men, 100 hospital matrons and 100 sisters and nurses, should be elected by voting papers sent to all the members in May of each year. Votes of thanks to the Mayor and corporation, the committees of the Sussex County Hospital and of the Home of Rest for Nurses, to others who had offered hospitality to the Association and to the chairman concluded the meeting. Luncheon was then served in the Banqueting Hall of the Pavilion, at which the Mayor (Dr. J. Ewart, F.R.C.P.) took the chair. After proposing the healths of the Queen and of the President of the Association the chairman gave the toast of "The Nursing Profession." He welcomed the Association to Brighton and warmly congratulated it upon the important public work in which it was engaged, and noted the opposition with which it had been met as a further proof of the value and necessity of its work. He thought that it was most fortunate that its opponents had prevented it from becoming registered under the auspices of the Board of Trade, as the importance of its work and of the nursing profession as an integral part of the medical profession demanded that the Association should be considered as something higher than a mere limited liability company. He felt confident that all medical men who learnt what the Association was doing in attempting to afford them and the public some means of distinguishing trained nurses from ignorant and incompetent women who called themselves such and to bring the whole nursing profession under professional control would give the Association their cordial support and assistance. Whether the Association obtained a Royal Charter this time or not he thought would matter very little, for if it persevered in its valuable work it would undoubtedly succeed, as truth always succeeded in the end; and it would obtain all the more support and sympathy the more it was opposed. The toast of "The Chairman" having been duly honoured the proceedings terminated. The members spent the rest of the day in various sea and inland excursions which had been planned for them on the invitation of the committee of the Sussex County Hospital, then inspected that institution and had afternoon tea in the garden, and later in the day enjoyed the hospitality of the Nurses' Home of Rest in Sussex-square.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6303 births and 3467 deaths were registered during the week ending July 23rd. The annual rate of mortality in these towns, which had been 17.1 and 17.9 per 1000 in the preceding two weeks, declined last week to 17.7. In London the rate was 19.0 per 1000, while it averaged 16.8 in the thirty-two provincial towns. The lowest rates in these towns were 11.1 in Cardiff, 11.5 in Portsmouth, 12.1 in Brighton, and 12.8 in Bradford; the highest rates were 19.9 in Hull, 20.1 in Birkenhead, 21.3 in Blackburn, and 21.5 in Bolton. The 3467 deaths included 625 which were referred to the principal zymotic diseases, against numbers increasing from 477 to 598 in the preceding four weeks; of these, 282 resulted from diarrhoea,

135 from measles, 81 from whooping-cough, 53 from diphtheria, 41 from scarlet fever, 27 from "fever" (principally enteric), and 6 from small-pox. No fatal case of any of these diseases occurred last week in Burnley; in the other towns they caused the lowest death-rates in Newcastle-upon-Tyne, Swansea and Wolverhampton, and the highest rates in Croydon, Leicester, London, Preston and West Ham. The greatest mortality from measles occurred in Huddersfield, Sunderland, West Ham and Halifax; from whooping-cough in Portsmouth, Salford, Croydon, Hull and Preston; and from diarrhoea in Blackburn, Croydon, Norwich, London, West Ham, and Leicester. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 53 deaths from diphtheria included 37 in London, 4 in Birmingham, 4 in Manchester and 2 in Liverpool. Four cases of small-pox were registered in London, 1 in Halifax, and 1 in Sheffield, but not one in any other of the thirty-three large towns; 11 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 4 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2671, against numbers increasing from 1226 to 2488 on the preceding seventeen Saturdays; 382 new cases were admitted during the week, against 301 and 323 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 185 to 168 in the preceding three weeks, further fell to 158 last week, and were 24 below the corrected average. The causes of 69, or 2.0 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Nottingham, Oldham, Sunderland, Newcastle-upon-Tyne and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Portsmouth, Bristol, Birmingham and Liverpool.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 19.3 to 17.2 per 1000 in the preceding four weeks, rose again to 18.4 during the week ending July 23rd, and was 0.7 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 6.9 in Perth and 10.4 in Leith to 20.0 in Edinburgh and 21.8 in Dundee. The 512 deaths in these towns included 28 which were referred to measles, 13 to whooping-cough, 10 to diarrhoea, 5 to scarlet fever, 5 to diphtheria, 5 to "fever" and not one to small-pox. In all, 66 deaths resulted from these principal zymotic diseases, against 62 in each of the preceding two weeks. These 66 deaths were equal to an annual rate of 2.4 per 1000, which was 0.8 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had declined in the preceding four weeks from 35 to 13, rose again to 28 last week, of which 25 occurred in Glasgow. The deaths referred to whooping-cough, which had declined from 27 to 18 in the previous four weeks, further fell to 13 last week and included 6 in Glasgow and 4 in Edinburgh. The 10 fatal cases of diarrhoea showed a decline of 6 from the number in the preceding week and included 6 in Glasgow and 3 in Edinburgh. The deaths from diphtheria, which had been 3 and 7 in the previous two weeks, declined to 5 last week, of which 3 occurred in Glasgow. The 5 fatal cases of scarlet fever were within 1 of the number in the preceding week and included 2 in Glasgow and 2 in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 71 and 65 in the preceding two weeks, further declined last week to 59, and were 21 below the number in the corresponding week of last year. The causes of 69, or more than 13 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21.8 and 24.2 per 1000 in the preceding two weeks, declined again to 19.8 during the week ending July 23rd. During the first three weeks of the current quarter the death-rate in the city averaged 21.9 per 1000, against 18.4 in London and 16.4 in Edinburgh. The 133 deaths in Dublin during the week under notice showed

a decline of 29 from the number in the preceding week, and included 7 which were referred to measles, 4 to diarrhoea, 2 to whooping-cough, and not one either to small-pox, scarlet fever, diphtheria, or "fever." In all, 13 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.9 per 1000, the zymotic death-rate during the same period being 4.4 in London and 2.4 in Edinburgh. The fatal cases of measles, which had declined in the preceding five weeks from 27 to 9, further fell to 7 last week. The 4 deaths referred to diarrhoea exceeded the number in any recent week. The fatal cases of whooping-cough, which had been 2 and 0 in the preceding two weeks, rose again to 2 last week. The 133 deaths registered in Dublin last week included 24 of infants under one year of age and 36 of persons aged upwards of sixty years; the deaths of infants showed a decline from those recorded in recent weeks; while those of elderly persons showed an increase. Three inquest cases and one death from violence were registered; and 36, or more than one-fourth, of the deaths occurred in public institutions. The causes of 17, or 13 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

### THE CHAIR OF PATHOLOGY AT NETLEY.

To the Editors of THE LANCET.

SIRS,—Not holding a medical commission in Her Majesty's Imperial or Indian Army I am privileged, with your permission, to draw attention to the passing over of the medical officers of the Services in the election of a Professor to the Chair of Pathology at Netley. It is to be borne in mind that the probationers who enter here are qualified and have already gone through a very sound course of ordinary pathology; now, as I understand, this chair was instituted especially with reference to the instruction in and elucidation of the pathology of those diseases incidental to armies and those living in tropical and sub-tropical regions. There are in the Army Medical and Indian Medical Departments gentlemen of very considerable renown, distinguished graduates and diplomates of their universities and colleges, men who have had greater experience of the pathology of the kind of diseases just indicated than any others on the face of the globe. What inducement is there, Sirs, for young men of professional distinction, with the potentiality of and desire for original research, to enter a service which entails long-continued residence in dangerous climates when posts such as these, to which they would be legitimately entitled to aspire in the lapse of years, are handed over to civilians? Taking all these circumstances into consideration and not wishing in any way to be personal, I think all those who view the matter impartially will admit that the present appointment is not only an anomaly *per se* but an injustice *de facto*, and will agree with me in saying: *Palam qui meruit ferat.*

I am, Sirs, yours faithfully,

E. KENNETH CAMPBELL, M.B., F.R.C.S.

Lincoln's-Inn-fields, July 25th, 1892.

#### THE LATE MR. THOMAS COOK.

The late Mr. Thomas Cook, to whose death we referred last week, was buried the other day at Leicester. He was the enterprising originator of the famous tourists' ticket system and his name was probably better known than that of any man of his time. It is not, however, in this connexion that we here allude to his loss, but the energy and good work which the firm of Cook and Son displayed in Egypt on behalf of the sick and wounded soldier deserve a word of grateful recognition from medical officers in particular. After the campaign of 1882 the firm placed a number of their Nile steamers at the disposal of the military authorities in Egypt. They were equipped and fitted out with everything necessary for the sick soldier in a remarkably short space of time and rendered most excellent service. Nor was this the only occasion on which Cook and Son rendered effective aid to the army in Egypt.

#### PRESIDENCY OF THE INDIA OFFICE MEDICAL BOARD.

Surgeon-General Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S., retains his appointment at the India Office until January, 1895.

## ARMY RECRUITING.

The number of recruits inspected during the year 1890 was 55,367. Of these, 22,005, equal to a ratio of 397.43 per 1000, were rejected as medically unfit for the service, the remainder, 602.57 per 1000, being found fit.

## ALDERSHOT.

Anyone who has recently paid a visit to this camp must have been struck with the transformation that has taken place owing to the very extensive reconstruction that has been carried out. The principal medical officer states, according to the Army Medical Report for 1890, that the new brick huts are well constructed, with sufficient superficial and cubic space, and have an air of comfort and light about them, and the accessory buildings, such as wash- and cook-houses, latrines, &c., are well placed and in every way suitable. The new married quarters are very good and have ample accommodation. Surgeon-Major-General Faught adds that a new hospital is required for the North Camp and a considerable increase to the Cambridge Hospital to provide for the future requirements of the garrison, and he alludes to a difficulty that has arisen regarding a proposed site for the new hospital in the North Camp, on account of its proximity to the sewage farm, which is still under consideration.

## THE PHYSICAL EXAMINATION OF ARMY CANDIDATES.

As our readers may be probably aware, intending candidates for the Army about whose physical fitness there might be a doubt were frequently allowed to appear before a medical board as a kind of preliminary examination, with the view of obtaining the board's opinion or decision for the guidance of the candidate or his parents. It was obviously of material consequence to the candidate himself and those concerned about him that he should not needlessly waste his time and money in preparing for a career for which he was unfit on account of some physical cause or defect. This practice has, however, it is understood, been found to be attended with difficulties and the decision could not be regarded as final; consequently it has not been deemed expedient to continue the custom. The regulations as to the physical tests required of Army candidates should, it is considered, suffice for the guidance of candidates and medical men whom they may desire to consult on the matter.

## MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Lieutenant-Colonel W. P. Bridges has succeeded Surgeon-Lieutenant-Colonel Beamish in medical charge at Weedon. Surgeon-Lieutenant-Colonel Macpherson has rejoined at Portsmouth. Surgeon-Major Gormley has taken over the medical charge of the Station Hospital at Limerick. Surgeon-Captain Hardy has proceeded on leave from Dover. Surgeon-Captain Burrows has joined in Dublin for duty. Surgeon-Captain Rowan has left York on leave. Surgeon-Captain J. Will has joined the Home district for temporary duty. Surgeon-Captains Beevor and Jackson have left London for duty at Aldershot. Surgeon-Captain Braddell has left York for duty at Strensall Camp. Surgeon-Captain Whiting has left South Africa for Home on leave of absence. Surgeon-Captain Perry has arrived in Ceylon for duty. Surgeon-Captain Thompson has re-embarked for India.

The criticisms which have appeared in certain quarters upon the appointment of Dr. A. E. Wright to the Chair of Pathology at Netley seem to ignore two essential points. The first is that the civilian element has been recognised as a distinct feature of the professorial staff ever since the establishment of the Army Medical School, and the second is that a teaching body must not only be composed of capable men, but of the very best that can be secured. It is surely no slur upon the Army Medical Staff, but emphatically the highest compliment which could be paid to it is that from its limited numbers three out of four professorships are supplied by men attaining to the highest standard of excellence. For the rest, Dr. Wright's qualifications as a pathologist and as a teacher would be with difficulty excelled.

## ARMY MEDICAL STAFF.

The Queen has been pleased to give and grant unto Surgeon-Captain Richard Charles Kirby Laffan, Army Medical Staff, Her Majesty's Royal licence and authority that he may accept and wear the Insignia of the Order of the Osmanieh of the Third Class, which his Highness the Khedive of Egypt, authorised by his Imperial Majesty the Sultan, has been pleased to confer upon him in recognition of his services whilst actually and entirely employed beyond Her Majesty's

dominions in the service of his Highness as Inspector of Hospitals to the Egyptian Sanitary Department.

**NAVAL MEDICAL SERVICE.**—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon Nicholas Charles Ridley has been placed on the Retired List of his rank, with a gratuity (dated July 13th, 1892).

## INDIAN MEDICAL SERVICE.

Surgeon-General Rice, Surgeon-General with the Government of India, goes on leave the first week in August.—Surgeon-Captain D. G. Marshall has been appointed to the officiating Medical Charge of the corps of Bengal Sappers and Miners, vice Surgeon-Lieutenant-Colonel J. Young.—Surgeon-Captain F. E. Murray, M.D., M.Ch., has been appointed to act as Civil Surgeon at Jacobabad, in addition to his own duties, to take effect from the 18th ult.—Surgeon-Captain R. Robertson has been appointed to act as Second Surgeon to the General Hospital, Madras, during the employment of Surgeon-Captain F. J. Crawford, M.D., on other duty.—Surgeon-General Pinkerton has been appointed an Additional Member of the Bombay Legislative Council for the remainder of the period for which Mr. Naylor, who has resigned, was appointed.

The Station Hospital for British troops in Alipur was struck by lightning on Tuesday, the 28th ult. The damage done was not very serious; one soldier patient, however, was hurt.

**VOLUNTEER CORPS.**—*Artillery*: 1st Argyll and Bute: Surgeon-Lieutenant J. Cunningham, M.B., to be Surgeon-Captain (dated July 23rd, 1892).—*Infantry*: 4th Volunteer Battalion (the Devonshire Regiment): Surgeon-Lieutenant J. R. Thomas, M.D., to be Surgeon-Major (dated July 23rd, 1892).—1st Surrey (South London): Surgeon-Lieutenant J. H. Edwards, M.D., resigns his commission (dated July 23rd, 1892); Walter Alexander Atkinson, M.B., to be Surgeon-Lieutenant (dated July 23rd, 1892).—2nd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Thomas Nesbitt Wright, Gent., to be Surgeon-Lieutenant (dated July 23rd, 1892).

## Correspondence.

"Audi alteram partem."

## "ASPIRATION IN PNEUMOTHORAX."

To the Editors of THE LANCET.

SIRS,—I was too much occupied with our University Final Examinations last week to be able to supply the few words which seem to me still needful, not indeed to form a full reply to Dr. Sutherland and Dr. Guthrie, but to enter a  *caveat*  against what still seems to me a dangerous error in practice. "Aspiration in Pneumothorax" is advocated on several grounds, which I may perhaps be excused, even by these gentlemen, for calling hypothetical, and into which I will not now enter as it would require a rather lengthened argument, with possibly a doubtful conclusion. But anyone can see that aspiration, so performed as "to produce such an exhaustion of air in the pleural cavity as would allow of the re-expansion of the sound lung, with return of the mediastinum and heart towards their normal position," must inevitably, and that suddenly, change the direction of the mechanical forces acting on the diseased lung, in the sense that, while before the operation the pressure was from without or on the surface of this lung, during and after the operation the pressure is reversed, the air tending from within outwards and towards the exhausted pleural cavity with a force exactly proportioned to that employed in the aspiration. Now, what happens after a quite recent pneumothorax, as I have ascertained in numerous instances, is this: the perforated pleura becomes overspread by a veil of soft lymph, which, when it gets fair play—i.e., when it is not torn up again and ruptured anew at every inspiration,—tends to seal up the opening and may even do so permanently, and thus allow of the air being in whole or in part reabsorbed. But when the aspirator comes into play to the extent indicated by Dr. Sutherland the very same traction which he expects to exert on the sound lung and mediastinum is at the same time, and quite unavoidably, exerted in a far greater degree and more directly on the diseased lung as well. Air rushes

in force along the still pervious bronchi and towards the pleural surface of this lung, just as it would do if one placed the lung under water and blew in the air from the main bronchus. If the lung were sound the aspiration would expand it again; but what happens instead—what must happen under the conditions supposed—is, that the perforation is opened up again and the kindly veil of lymph which nature was interposing is torn before it has had time to become organised and to seal up the opening. Apart from the theoretical questions raised by Dr. Sutherland, this seems plain enough; but I am not setting it forth as a theoretical risk, but as one which *I have known to occur*, not, indeed, in pneumothorax—for I have never aspirated in pneumothorax—but in pleuritic or empyematous effusions. I have known the aspiration of these *immediately* followed by pneumothorax, indicated by a succussion sound, which was not present before the operation. I therefore beg to repeat that in my opinion aspiration in pneumothorax is not a desirable or a safe practice, even in cases of urgency, and that if there is not pressure enough to cause the air to rush out spontaneously when a cannula is inserted fairly into the cavity there is no case for employing aspiration. If there is no urgency, it is better to leave well alone.

I am, Sirs, yours faithfully,

Glasgow, July 25th, 1892. W. T. GAIRDNER.

### "A NATIONAL DANGER."

To the Editors of THE LANCET.

SIRS,—Referring to my paper under the above heading which you kindly published in your last Saturday's issue, and to your leading article regarding the same, the widespread interest in the subject was manifested by leading articles in important north-country dailies and by an almost complete recapitulation of your leader and the contents of my paper. Your able editorial article, however, scarcely seems to me to grasp the situation as it at present exists in the manufacturing centres of the north. In these districts water is used for two purposes—viz., domestic and manufacturing, and by "chalking" the water as you suggest the industries of the districts would suffer. Then, again, even if the water were hardened, as you suggest and as proposed by many chemists, would its dangerous properties in relation to lead be destroyed? Personally I think not.

I remember some years ago walking through a field where there were some cows, in which a distinguished teacher of chemistry from a northern university had a financial interest. Coming upon the water trough, which was very large and lined with sheet lead, it was found coated with a sooty looking precipitate, which easily rubbed off on to one's fingers and stuck like blacklead. I ventured to suggest the danger of this water both to the cows themselves and also to consumers of their milk, and was met with the rejoinder that "it did not matter, the 'blacklead' did not mix with the water and did no harm unless stirred up." He said he would not hesitate to supply water for domestic purposes from leaden cisterns, provided they were not agitated, and that water containing less than one-tenth of a grain of lead to the gallon need not be condemned as unfit for drinking purposes. I regard the foregoing as a fair example of a non-medical chemical opinion. In considering the action of water on lead I believe we have to approach the subject from both a chemical and physical aspect, and I am not prepared to say the latter is not as important as the former. At the present moment (July 26th) I have standing before me a specimen of water from a neighbouring district, where lead-poisoning was said to be rife. I am informed that this water is now hardened with chalk; whether this is a fact or not I cannot say, but it acts like many other so-called hard waters. First let me state the test to which this water was subjected. On July 11th, to about half a pint of water was added a polished roll of metallic lead. To-day, July 26th, the lustre has left the metal, and there is a glistening white deposit at the bottom of the glass, about half an inch deep, which under the microscope, with a  $\frac{1}{4}$  in. Swift's objective, looks very much like epithelium plates, but apparently has no crystalline characters. The supernatant water is perfectly clear. This is what I call the physical examination of the water, and the results observed are characteristic of nearly all soft and many hard waters. Whether the action causing the disintegration of the lead is purely chemical or simply mechanical, or perhaps both, I will leave to the chemist and expert in metals to decide, but that this

action takes place no one can doubt who has studied the subject with simply his unaided eyes and the microscope. What the exact nature of the deposit is, except that it is lead, I do not know, but I get the following results by chemical analysis:—1. On sucking up a small quantity of the deposit with a pipette and adding distilled water I find a feathery looking material very readily held in suspension. It takes some time to settle and when a solution of potassium iodide or potassium bichromate is added no reaction takes place. The deposit is, however, immediately dissolved by hydrochloric acid, and the solution then gives a thick yellow characteristic precipitate with either of the foregoing reagents. 2. On testing the clear supernatant water I find this to contain barely a trace of lead; according to my colour standards about equal to  $\frac{1}{2}$  of a grain of acetate of lead to the gallon.

From the foregoing observations I am driven to conclude, therefore, that there are two dangers in using leaden piping for the service of water: (1) With soft water the lead is taken actually strongly into solution and also exists in a state of minute suspension; (2) with hard water, while not taking as much lead into actual solution, its disintegrating action is quite equal to soft water and its power of holding lead in suspension is greater.

With regard to the action of water on leaden piping I have before me at this moment several specimens of lead piping removed from houses where poisoning existed. These show conclusively that lead is a non-resilient soft metal. Several of these specimens have been subjected to a considerable pressure, having been removed from districts where water is supplied at high pressure. They show irregular dilatations and internally are deeply ploughed, giving evidence of gradual dilatation, and as a result a never-ceasing alteration in the surface of the lining of the pipe for the water to act upon.

To summarise:—1. Is it not imprudent to spoil good water and endanger industry by adding chalk? 2. If the foregoing remarks be correct deductions from facts, should not lead be absolutely and for ever condemned as a means of conveyance for water? 3. Lead, except for its ductility, is the most unsatisfactory metal for water-supply—bursting under frost, dilating and splitting under pressure, and, more than all, poisoning the water. 4. Iron piping is capable of being used everywhere, only requiring rather more time and skill in laying it than lead. It is harmless to the water. I have had for years at my house iron-service pipes, which have been again and again frozen, and have never burst. 5. Considering the fearful amount of human suffering entailed by lead poisoning, would it not be wise, as I suggested in your valuable journal on January 25th, 1890, to erect iron stand-pipes in every street where houses are known to be supplied through long leaden pipes, to give the inhabitants an opportunity of at least pleasing themselves whether they were poisoned or not? 6. And lastly, for the future to prohibit the use *in toto* of lead piping for the service of water for drinking and dietetic purposes.—I am, Sirs, yours faithfully,

July 26th, 1892.

ALFRED SWANN, M.D.

\*\* We may point out, with regard to Dr. Swann's valuable comments, that water is also used in London for both domestic and manufacturing purposes; yet, in spite of this, it is invariably hard, and cases of lead poisoning are of rare occurrence. When soft water is required for the purpose of manufacture—as for the making of steam—it is softened by preliminary treatment. The "chalking" process, after a fair trial, was reported upon favourably and regarded as satisfactory by the Sheffield corporation and also by authorities in other places where this remedy was adopted. Dr. Swann's experiments, however, are not in accordance with these practical results, for he reports that while hard water does not take as much lead into actual solution, yet its disintegrating action is quite equal to soft water and its power of holding lead in suspension is greater.—ED. L.

### THE HUNTERIAN LECTURES.

To the Editors of THE LANCET.

SIRS,—In your last issue you published a letter from Mr. Roger Williams, hardly polite in its tone and bristling with inaccuracies. When appointed to be a Hunterian lecturer nearly a year before, I selected duct cancer as one of

any subjects, the pathology of which disease I have worked at for the past five years, publishing several cases in the Transactions of the Pathological Society. My conclusions have been drawn from such work and my lectures were illustrated by sections from the cases that had come under my notice. Except for a collection of other people's cases illustrated by reprints of their diagrams, published in THE LANCET of April last, I am unaware of any special work done by Mr. Rogor Williams in connexion with this disease. The fact that, having published such a paper, he should now wish to pose as a pioneer in this branch of pathology is very astonishing. My ideas as to classification, which according to his letter I have had the "audacity to appropriate," are given in a paper of my own published some months before,<sup>1</sup> which communication is acknowledged by him. The justification of my statement that Mr. Rogor Williams has grouped together cases of duct papilloma and villous cancer as growths of a perfectly innocent nature is easily proved from his paper. He says: "It will be gathered from the above description that these growths are of a perfectly innocent nature, though often multiple; they have no tendency to local infection, nor do they ever disseminate in the adjacent lymph glands" &c. Now among these cases he includes one of mine which, with some warmth, he maintained at the Pathological Society was not one of villous cancer, as I considered, but innocent in its nature.<sup>2</sup> Following up his opinion he acts on this and draws statistics from it. How correct he has been in his surmise may be seen, since this same case has recurred locally and infected the axillary lymph glands. Further comment on Mr. Williams' frivolous letter is unnecessary; the readers of THE LANCET may easily draw their own conclusions from a perusal of the two papers and from a consideration of the work done by each to try to elucidate this interesting question in breast pathology.

I am, Sirs, yours faithfully,

Lambeth Palace-rd., July 26th, 1892. H. BETHAM ROBINSON.

## "CURES" FOR INEBRIETY.

To the Editors of THE LANCET.

SIRS,—It seems necessary to respect and maintain the professional rule against the use of secret remedies, but many of us do not see our way quite clearly as to the application of this rule. I have always refused to prescribe chlorodyne on the ground (1) that no necessity had been shown for using that nostrum; (2) that its popular use was enslaving and destructive. Here it seemed to me that the professional rule went in furtherance of the public good. But many eminent physicians have regularly prescribed this secret remedy. Are such men liable to be struck off the roll of the Royal College of Physicians? Despite urgent pressure from valued patients I refused to use Koch's tuberculin on the ground (1) that it was a secret remedy, (2) that to inoculate a patient's system with some derivative from tubercle was a proceeding of the gravest character. But, on Professor Lister making a visit of inspection at Berlin and reporting in your columns in favour of this secret remedy, I could no longer refuse to use it for patients who clamoured for it. Was I liable to be struck off the roll of the Members of the Royal College of Physicians for the use of that secret remedy? Recently I was asked by the Committee of the Church Army to watch and report upon some irreclaimable drunkards whom the committee had sent from their rescue department to a home at Putney established by the "Anglo-American Gold-Cure Company, Limited." I visited these men regularly at Putney and watched the performance with as much interest as when, chairman of the Committee on Spiritualism, I watched the performances of the spiritualist professors and others who came before that committee. At this Putney home I have seen, I think, twelve real gutter drunkards—some sent by the Church Army Rescue Department; some sent from the wood-chopping sheds of the Salvation Army Rescue Department; some sent by other benevolent rescue-workers in the slums of London. My rôle has been that of a passive and benevolent but observant spectator. I do not now propose to detail the cases because as yet (three months in all) time has not set its seal upon those results. But I should be dishonest or cowardly if I did not confess that I have been deeply impressed by the

results of the treatment which I have watched upon these poor broken-down brothers and sisters.

The methods of treatment and the remedies used by the "Anglo-American Gold-Cure Company" are admittedly only a modification of those worked out by Dr. Keeley at Dwight. The physician who has worked out these modifications of Dr. Keeley's methods was formerly a helpless inebriate, who was taken by his wife (also a Doctor of Medicine) to Dwight, and who there was cured in three or four weeks. He has been in active, useful work ever since, and is now a very prosperous man. His inspiration, therefore, came from Dwight. On Dr. Keeley's recently visiting London I went into what evidence I could get as to his wonderful clinique of drunkards and morphia-men at Dwight, and I became convinced that "there must be something in it." I received a card from the Church of England Temperance Society for the meeting at the Westminster Town Hall and I went. Dr. Keeley was there. He kindly made my acquaintance as one of the physicians of the Temperance Hospital and I took him over that hospital. He then offered me unrestricted access to the Keeley home near the Marble Arch, and I have watched the results of his treatment and remedies upon the patients there. I have had the privilege of long conversations with Dr. Keeley and I am convinced that he knows more about the handling of drunkards and morphia-men than all the doctors I have ever met before. In fact, upon a subject which has for years worried and sickened me, I feel now that from Dr. Keeley I have obtained new germinal thought. I am convinced also that the results of Dr. Keeley's methods of treatment and remedies are altogether beyond anything that has hitherto been achieved by the profession in regard to the treatment of these narcotics. In point of fact I last week recommended two lady patients who have scarcely been sober for years to go into Dr. Keeley's home. Will my now testifying to these convictions, and my confessing to these acts, make me liable to be struck off the roll of the College of Physicians?

I am, Sirs, your obedient servant,

Dover-street, W., July, 1892.

JAMES EDMUNDS.

To the Editors of THE LANCET.

SIRS,—It is quite true that I reserve for the present the details of my treatment for the crave due to the use of alcohol and narcotic alkaloids, and I submit to any comments which you may think proper to make upon that fact. But in other respects you have been misinformed and I am obliged to ask you to publish my reply.

2. As to my remedies, Dr. Kerr, in his speech (THE LANCET, p. 107), said that my remedy "was very dangerous and was compounded of a number of poisonous intoxicants." Yet a few minutes later Dr. Kerr produced "a careful analysis" (anonymous) which proved that my remedy contained nothing more poisonous than 27.55 per cent. of alcohol. It is not necessary for me to waste time in comment upon such crazy assertions.

3. Dr. Kerr's Society passed a unanimous resolution condemning the use of my remedy for inebriates, on the ground that it contained 27.55 per cent. of alcohol. Could anyone have more completely stultified his Society? My remedy is taken in teaspoonful doses in a wineglassful of water for three weeks only, precisely as any bottle of drops prescribed by any physician in London is taken. But such London drops, instead of containing 27.55 per cent. of alcohol, contain always 57 per cent., and often a great deal more. In point of fact my remedy is a tincture containing just enough alcohol to prevent decomposition. As to Dr. Usher's speech, if he will let us understand exactly what he has to say by a letter in your columns I will answer him. The pink injection does not contain atropine. Dr. Usher is reported as having asserted that three leading physicians from the eastern states visited my institute at Dwight while he was there, and that "six weeks later all their friends received circulars intimating that these gentlemen had been remarkable successes in the cure way." This statement is a sample of others that have been made. It is false. I ought to add that Dr. Usher merely stayed over one train at Dwight, a period of three hours and a half. My chemist is Mr. John R. Oughton. He was in Chicago on that day and Dr. Usher could not have seen him. The young man whom I sent to the treatment hall with Dr. Usher was an Irish bottle-washer. Our pharmacy is a very large one, containing

<sup>1</sup> Transactions of the Pathological Society, vol. xiii., p. 229.

<sup>2</sup> Ibid., vol. xii., p. 221.

a scientific laboratory, and is as perfectly equipped as any chemical laboratory in the United States. Dr. Usher's object in seeing me personally was ostensibly to ascertain if he could buy of me the right to use my remedies in Australia and to open a Keeley Institute there.

4. I do not know what you, Sirs, would have said if I had sent you a letter asking you to come to my lecture at St. James's Hall, and then, in order to get an audience, I had advertised that the Editors of THE LANCET had been invited to speak at the meeting. You would have denounced this as an impudent advertising trick. But this is precisely what Dr. Kerr did with my name. I request Dr. Kerr not again to put my name into his advertisements without having first obtained my permission.

5. As to the deaths which Dr. Kerr parades, they are as inconsequential as his other statements. Without now discussing these particular cases, I have only to demur to his innuendo. The veriest tyro in vital statistics will tell him that half-a-dozen deaths among 70,000 drunkards is an infinitesimal mortality. During the last thirteen years 70,000 drunkards and opium users have (from all parts of the world) come under the care of myself and my assistants. Among that procession of drunkards there have been some 2000 physicians. Of all those patients no one has ever sustained an injury at my hands or as a consequence of my remedies.

6. You have criticised the proceedings of the gentlemen who propose to found institutes in the United Kingdom for the cure of inebriates by means of my remedies and my methods. I have nothing whatever to do with those proceedings. Those proceedings are the acts of Englishmen, and those Englishmen, as I understand, intend to send communications of their own to some of their critics in reference to business matters. What I have to do is to vindicate my own professional position and to answer the charges which have been made against me and against my methods of treating my patients. The only thing which I did was to vindicate an eminent physician in Chicago who was thoroughly conversant with my methods of treatment and with the therapeutical action of my remedies upon inebriates, and to express the opinion that they would act wisely to retain the services of that gentleman as their medical director in England.

I am, Sirs, yours truly,

LESLIE E. KEELEY, M.D., LL.D.

Hotel Victoria, Charing Cross, July 20th, 1892.

\* \* We have omitted the paragraph of our correspondent's letter numbered 1, as it contains language the strength of which would probably in this country be deemed to be of a libellous character. Dr. Keeley's letter in no way removes our objections, and the objections of the profession, to the employment of secret remedies.—ED. L.

## DENTISTRY AND WORKHOUSE CHILDREN.

To the Editors of THE LANCET.

SIRS,—In your issue of July 16th you mentioned under the above heading how the Strand board of guardians had recently appointed a qualified professional dentist to attend the children at their schools at Edmonton, and that the chairman remarked that this was the first appointment of the kind made by any metropolitan or provincial board of guardians, and took credit to the Strand board of guardians for initiating such a necessary and beneficial advance. May I be permitted to say that more than six years ago—viz., April 29th, 1886—the St. Pancras board of guardians on my recommendation appointed a professional qualified dentist practising in London to attend the children in their schools here, which he has continued to do ever since? When pressing this matter on the attention of the board I mentioned how a similar appointment had been made at the North Surrey district schools at Anerley and at the Lambeth schools with the approval of the Local Government Board.

I am, Sirs, yours truly,

J. ADAMS CLARKE, Medical Officer.

St. Pancras Schools, Leavesden, King's Langley, July 25th, 1892.

\* \* Mr. J. Bond, clerk to the Westminster guardians, also writes, saying "the guardians of the Westminster Union appointed a dentist to their school in the year 1886."—ED. L.

## THE CHOLERA IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

LAST week I described the conflict of authority existing between the Prefect of Police and the Prefect of the Seine; and how the former authority, taking the bull by the horns, had constituted a Permanent Committee of Hygiene with a staff of medical inspectors. The object of this committee was to centralise the sanitary services with respect especially to disinfection and the removal of patients suffering from contagious diseases to the hospitals. So far so good; but the matter did not rest here. Formerly the public works for the town of Paris were all managed by M. Alphaud. Now that this great administrator is dead the necessity has arisen to divide the various services which he managed and put experts at the head of each department. M. Sauton has submitted to the Municipal Council a project of reorganisation which was discussed on July 21st. Without entering into the detail of the project and the debate I may say that what affects the present epidemic is the fact that the Article No. 2, as amended, was adopted. The following is the text of this Article:—

"Art. II. The Prefect (of the Seine) is invited to constitute, at the Direction of Municipal Affairs, whose action shall be purely administrative, a central service of hygiene and salubrity of dwelling houses, which shall be attached to the services, whether administrative or technical, that relate to the hygiene of the dwellings forming part of the ancient Direction of Works. For this purpose the Director of Municipal Affairs shall be assisted by a General Inspector and a Commission composed of hygienists. The composition of this committee shall be ultimately decided according to the advice of the Municipal Council."

The decree of the Prefect of Police forming a permanent committee of hygiene was issued on July 12th. On July 21st the Municipal Council decided that the Prefect of the Seine shall also have a committee of hygiene and a staff of inspectors &c. Of course some difference must be made between these two committees, and the difference rests on this fact, that the committee under the Prefecture of the Seine will only attend to the interior of houses, and therefore it is called a Central Service of Hygiene and Salubrity for Habitations. No sooner was this matter settled than an Inspector-General of Hygiene and Salubrity of Dwelling Houses was appointed, and Dr. A. J. Martin has been selected to fulfil this office. Certainly it would be difficult to make a better choice. No one has a wider practical experience of hygiene. In England Dr. A. J. Martin is a familiar figure. He was the Commissioner of the French Government for the French Section of the Health Exhibition held at South Kensington and was prominent at the recent International Congress of Hygiene which met in London.

At first sight it would appear as if the appointment of two committees, one under each of the rival Prefectures, would only add to the confusion actually prevailing. There is, nevertheless, every reason to hope that this will not be the case. The other day I had a good illustration of the manner in which the arrangement will work. There may be antagonism between the two Prefectures; there is no antagonism between the well-known and prominent medical men and sanitary reformers who are battling for the cause of hygiene in France. Thus, when I went to congratulate Dr. A. J. Martin on his appointment, I found he was expecting a visit from Dr. Dujardin-Beaumetz. Now Dr. Dujardin-Beaumetz is a member of the Council of Hygiene attached to the Prefecture of Police. When something had to be done in conjunction with the Prefecture of the Seine, a clerk of the Prefecture of Police was told off to communicate the fact to a clerk of the Prefecture of the Seine. These clerks, it must be borne in mind, lead a most tedious, monotonous life. For want of something better to occupy their minds they develop a sort of patriotism in favour of their particular office or branch of the administration. This engenders extraordinary susceptibilities; and just as courtiers used to quarrel as to who should walk first in a royal procession, so the clerks of the Prefecture of Police quarrelled with the clerks of the Prefecture of the Seine as to who should fulfil certain functions. Such squabbles relieve the monotony of the bureaucratic life; but, as I mentioned last week, they have been so acute that it is supposed a life may have been lost because it was below the dignity of one adminis-

eration to ask for an ambulance waggon from the other administration. Now, what do we see? Simply this, that instead of giving directions to clerks to write letters, dealing often with technical matters of sanitation which they do not understand, Dr. Dujardin-Beaumez calls on Dr. A. J. Martin to settle amicably—for they are the best of friends and thoroughly understand each other—what would probably have occasioned the outbreak of a fearful paper warfare between the clerks of the Prefecture of Police and the clerks of the Prefecture of the Seine. The fact that the two administrations are now represented by medical men and hygienists who are friends will do more than any amount of legislation to make matters work smoothly and efficaciously.

On inquiring from Dr. A. J. Martin what would be the nature of his new functions, he naturally expressed some ignorance as to an office which had only been created on the previous afternoon. He will have to deal with domestic sanitation, and this is much more neglected in France than public hygiene. Dr. Martin's ambition would be, in the course of time, to establish the sanitary record of every house in Paris. This has already been partially done, and done admirably, by M. Louis Masson, chief sanitary inspector of Paris. But M. Masson derives his authority from the Direction of Sewers, and only dealt with drainage. If any person is about to purchase a house or take a long lease of a house in Paris, I should advise him to go to the office, 6, Avenue Victoria, and ask to see the inspector's report on the house in question. The method of tabulating is so perfect that there will be no difficulty in finding this record, and the intending tenant or purchaser will know, from a disinterested public office, how the house he proposes to take is drained. But it has not been M. Masson's business to record how the house is built, whether the walls are damp or of the proper thickness, whether the rooms are well ventilated, or whether there are any unwholesome trades carried on in the dwellings. It is not one phase, but every phase, of the sanitation of dwellings which Dr. Martin has to watch. He will also have to see to the creation of a staff of competent inspectors to help in the work.

For the present the chief business is to secure the prompt and efficacious disinfection of all premises where cases of cholera occur. On Friday, the 22nd inst., the very day on which the new committee was created, seven premises within Paris had to be disinfected in consequence of cholera, and the mortality still continues to be very high. I have already described how the Prefecture of Police has a staff of disinfectors and the Prefecture of the Seine the disinfecting stoves. Now the Prefecture of the Seine has also created a staff of disinfectors, so that the entire operation can be done by the one authority. Better than this, the Prefecture of the Seine insists on doing the whole of the work, even though the agents of the Prefecture of Police have previously done half the work. Thus, for instance, a case of cholera occurs. The friends of the patient send to the Prefecture of Police and ask to have the premises disinfected. Disinfectors organised by the Prefect of Police come and disinfect the room. It is then thought necessary to send the bedding to be disinfected in the stove. For this an application must be made to the Prefecture of the Seine, which authority at once despatches a cart and a staff of disinfectors. Before removing the bedding they disinfect the room. They are told that the agents of the Prefecture of Police have already disinfected the room; but the agents of the Prefecture of the Seine reply that that does not concern them; they will not be responsible for what others do, and they have formal orders not to remove anything from a room without having themselves first disinfected it. Thus the work is done a second time. I think Dr. Dujardin-Beaumez and Dr. Martin, when they have a friendly chat over the matter, will contrive something more practical than this.

Paris, July 26th.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *Owens College.*

It is announced that Mr. W. H. Perkin, Jun., F.R.S., hitherto of the Heriot-Watt College, Edinburgh, has been appointed successor to the late Professor Schorlemmer in the chair of Organic Chemistry at Owens College.

### *The Infirmary and Owens College.*

The struggle between these two institutions has entered on a further stage. Last week the board of management of the Royal Infirmary met a committee of the memorialists, i.e., the signatories to the memorial deprecating any extension of building on the present infirmary site for these reasons—*viz.*, that the open ground now existing should be preserved for the general good of the town; that the infirmary area taken as a whole would only be large enough to give room for about 450 beds, a number probably considerably below that which will be needed in the near future to supply the requirements of Manchester; that a site in every way suitable for the building of a hospital, which shall be capable of being enlarged as occasion arises, has been offered in the shape of the Whitworth estate; and, lastly, that any addition to the present building would only tend to prolong the existence of an obsolete hospital structure. The majority of the memorialists, however, propose that for the present a hospital of only 120 beds be erected on the Whitworth estate, and that the present infirmary shall continue as before. The ultimate intention appears to be to enlarge the new hospital, the old one remaining as a receiving house for urgent cases of accident or illness arising in the centre of the town or brought there by railway. Teaching would then be carried on chiefly at the new hospital, for which Owens College would appoint professors of clinical medicine and surgery with hospital beds. The present infirmary board had prepared plans for additions to the present hospital amounting to 120 beds. The aforesaid meeting had no satisfactory result, each side standing its own ground, though it should be mentioned that the infirmary was, and has for some time past been, prepared, in the event of the present building being added to, to offer beds to professors of clinical medicine and surgery of the College's appointing, on condition that these gentlemen would conform to the rules at present laid down for members of the infirmary honorary staff. To-day a general meeting of the trustees took place, at which the proposals of the Infirmary Board were defeated by a close, though not a very large, majority, an amendment, practically negating the infirmary extension proposal, being carried. The Infirmary Board have demanded a poll of the trustees on the question and the result will be looked for with the greatest interest. There can be no doubt that upon this final decision of the trustees by poll depends the future of the infirmary as a teaching hospital.

### *Insanitary Dwellings.*

A curious prosecution took place on the 22nd inst., when about forty poor people were summoned at the city police-court for refusing to leave dwellings which had been condemned as being too unhealthy for human habitation. Notice to quit had in all cases been given long ago and it was proved that some of the tenants, after having left, had returned and others had been supplanted by newcomers. The corporation are making the greatest efforts to abolish all unhealthy dwellings and their task seems to be a difficult one, not only from the objections of landlords but from those of tenants of this class. Small fines were imposed in the majority of cases and the tenants promised to leave for good.

Manchester, July 27th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Will of the late Dr. G. Y. Heath of Newcastle: Munificent Bequests.*

THE will of the late Dr. G. Y. Heath, concerning which there has been so much speculation, has been at last proved. It will be seen that I have been correct in the main as to Dr. Heath's charitable and scientific bequests. Dr. Heath left personalty of the gross value of £89,641 5s. 5d., net value £88,401. He bequeathed to his three executors £1000 each, to one of whom, being his nephew, he left a further sum of £8000; to Miss Lily Everett, £2000; to his brother, Mr. Robert Heath of Heppersley, Cheshire, £5000; to his niece, Mrs. Rose of New Zealand, £1000; to his cousin, Miss Sothern, £1000; to Mrs. Francis Casson, £1000; to Miss Mary Jane Spenceley, £10,000 and his plate, pictures, furniture and household effects; to the Royal Infirmary in Newcastle-on-Tyne, £5000 (afterwards altered to £8000), towards building, completing, or furnishing a new infirmary;

and to the Northern Counties Home for Nurses £5000 (afterwards altered to £2000). He bequeathed to the Durham University College of Medicine, Newcastle, £5000 to found a chair or professorship of Comparative Pathology; to the Durham University College of Medicine at Newcastle £10,000, to provide residences for students; to the Kepier Grammar School at Houghton-le-Spring £5000, for scholarships for students of medicine at Durham University College at Newcastle-on-Tyne; £4000 in trust to Mr. Page and Dr. Arnison, to found a scholarship in the Newcastle College of Medicine, the income to be paid for two years to the author of the best essay on some surgical subject. He bequeathed to his pupil, Mr. Douglas, £100, and the executors are to expend £100 a year in completing his education. The testator left all the residue of his property in trust for Miss Mary Jane Spenceley. By an order of Court the bequests to the Infirmary and the Northern Counties Nurses' Home are to stand at £5000 each, as they appeared in the will before the alterations. It will be seen that the charitable and scientific bequests to Newcastle and district amount to £34,000.

#### *Stockton and Middlesbrough.*

At a late meeting of the Middlesbrough Fever Hospital Committee it was reported that the number of small-pox cases being treated at the hospital was nine, and at a meeting of the Tees sanitary authority it was stated that 141 vessels had been inspected during the month; all were in good order and free from infectious disease. The notices to captains mentioned in a former letter had been printed in various languages warning them not to send any sick ashore until they had been seen and sanction had been given by a medical man.—At a meeting of the Stockton and Middlesbrough Water Board, held last week, it was reported that the Hury reservoir contained water to a depth of 75ft. 6in., or within 14ft. of full depth. It could have been fully filled but for some finishing work which had to be done to the dams. The tender for an aqueduct across the Tees had been accepted.—The annual demonstration of the Stockton friendly and trades societies has been held on behalf of the town's hospital and has been very successful as regards numbers and the amount collected. The mayor, in an energetic speech, said that during the year two-thirds of the income of the institution had come from the pockets of the working classes, and very properly too, since it had been established, kept up and looked after chiefly on behalf of and by the working classes.—Another paraffin lamp fatality has taken place at Middlesbrough, where a child one year and ten months old was so badly injured by the breaking of a lamp that it died four hours and a half after admission to the hospital.—The South Shields guardians have decided to ask the sanction of the Local Government Board to the appointment of an assistant medical officer at a salary of thirty guineas per annum.

#### *Carlisle.*

A curious case was raised at Carlisle the other day as to the Inspector of Nuisances. It was shown that if the inspector always used a uniform he might convey about with him the germs of disease. After much discussion it was arranged that the inspector should wear what might be called a "dress suit" on certain occasions, but that when dealing with infectious cases he could use an old suit to be kept for this purpose.

#### *Death from an Illegal Operation at Kirkby Stephen.*

An adjourned inquest was held on Friday last at Kirkby Stephen on the body of a female domestic servant who died on the previous Monday under circumstances which were at first supposed to point to poisoning. The jury, however, found that death had resulted from wounds caused by some instrument, but by whom inflicted there was no evidence to show. We shall probably hear of this case again.

#### *The Weardale Guardians and their Medical Officer.*

At a late meeting of the Weardale guardians they discussed the application of Mr. Bourne for a pension after a service of forty-four years. It was asked to rescind the motion of censure passed upon him for absence from duty one day whilst acting at a poll booth. He claimed it on the ground of the day being one of the four days' holiday he was allowed, but the motion to rescind this unpleasant censure was not carried. The guardians, however, in all fairness, should remember that their surgeon had served them forty-four years before the elections.

At the last meeting of the North of England Branch of

the British Medical Association Mr. Blandford was appointed president-elect, and it was decided that the annual meeting should take place at Stockton.

Newcastle-on-Tyne, July 27th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

#### *The Health of Aberdeen: Town and County.*

THE return for last week for the town was: measles 29, scarlet fever 9, diphtheria 1, typhoid fever 1, typhus fever 1, whooping cough 8, erysipelas 3—total cases 52, being a decrease of 11 as compared with the previous week. For the county: scarlet fever 4, erysipelas 1—total cases 5.

#### *Public Health Prosecutions.*

Two householders in Torry, the fishing quarter of Aberdeen, were convicted last week of having wilfully concealed from the medical officer of health and the sanitary staff the presence of cases of measles in their houses and were fined 5s. each with costs. These cases were brought prominently before the public as a warning, owing to the rapid spread of measles in the locality and the successful attempts of the people to frustrate the efforts of the sanitary staff to eradicate the disease.

#### *Slander Case against a Medical Man.*

In the Scotch Court of Session, before the Lord President, an action brought by Dr. John Barclay, Banff, for slander was heard and decided last week. The defender was Mr. Robert Duncan, merchant, Banff, factor of the Chalmers Hospital, Banff. The statement complained of was that pursuer had taken liberties with nurses in Chalmers Hospital, Banff, of which he was at the time of the scandal a medical officer. The evidence went to show that Mr. Duncan had been the means of spreading the report complained of. The defendant, while admitting that the charge against Dr. Barclay was utterly groundless, maintained that the report had not originated with him. After evidence had been led, the Lord President charged the jury, asking them to dismiss from their minds all doubts as to the innocence of the pursuer, for all were agreed that the pursuer was absolutely innocent and blameless. What they had to decide was whether or not the defendant had issued the slander. The jury returned a unanimous verdict for the pursuer, and assessed the damages at £200.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Health of Dublin.*

DURING the five weeks ending July 2nd the deaths from the seven principal zymotic diseases were in the ratio of 4.16 per 1000. These included 117 from measles, 15 from whooping-cough and 3 from typhoid fever. During the month the admissions of measles patients into hospitals declined considerably, while those of typhoid fever cases increased largely. The death-rate was very high, higher than in any corresponding period during the previous ten years. The present epidemic of measles has caused up to June 30th no less than 390 deaths.

#### *Poor-Law Medical Officers' Association.*

At a meeting of County Cavan Poor-Law Medical Officers' Association, held recently, the following resolutions were adopted unanimously: "That Dr. Ryan of Bailieborough be requested by this Association to approach the future M.P.'s for the county, Messrs. Young and Knox, with a view of obtaining their Parliamentary influence on behalf of Poor-law medical officers of Ireland." "That in the opinion of this Association the Poor-law medical officers of Ireland are entitled to at least one month's annual holiday, irrespective of sick leave, their substitutes to be paid at the public expense; and that in the opinion of this Association Poor-law medical officers' salaries should be progressive, as in all other official and semi-official departments."

#### *British Institute of Public Health.*

The annual meeting will take place this year in Dublin on Aug. 17th and two following days, under the presidency of Sir Charles Cameron, medical officer of health for Dublin

The Vice-Presidents include the Lord Mayor of Dublin, the provincial mayors, the Presidents of the Colleges of Physicians and Surgeons, Sir. J. Banks, K.C.B., Sir George Porter, Bart.; Dr. Kidd, President Royal Academy of Medicine &c. The inaugural address will be delivered by the President at the Royal College of Surgeons on Wednesday morning, Aug. 17th, and the same evening the members will be entertained at dinner at the Lucan Hydro-pathic Hotel. The following day the annual dinner will take place at the Royal Marine Hotel, Kingstown, while on the third day of the meeting the Chairman of the Dublin Waterworks Committee (Sir Henry Cochrane) will entertain the members of the institute at the Varty Works at Roundwood. Among the papers to be read at the Congress will be one entitled "The Etiology of Typhoid Fever," which must prove of considerable interest to the citizens of Dublin, while a special discussion will take place on the Notification of Infectious Diseases. The honorary secretary to the meeting is Mr. Edgar Flinn, F.R.C.S.I., of Kingstown.

#### *Health of Soldiers in Ireland.*

The report of the Army Medical Department for 1890 has been issued to the public, but the unnecessary delay in its publication minimises considerably its value. The average strength in 1890 in Ireland was 24,857, of whom 18,607 were admitted to hospital, 377 were invalided, 1022 were constantly sick and 127 died.

#### *Belfast Hospital for Diseases of the Skin.*

From the report read at the annual meeting of the friends of this charity, held on July 19th, I learn that 1166 patients were treated during the past year, of whom thirty-two were received into the hospital. If the funds were larger more intern cases could be treated, but there has been a decrease in the subscriptions during the year and no new ones are coming in. The income for the year is £308 16s. 10d., and the expenditure £362 8s. 3d. Attention was drawn by some of the speakers to the fact that one-third of the patients came from the country, and a suggestion was thrown out that local secretaries might be appointed throughout Ulster and that if a ladies' committee were formed more interest in the institution would be taken by the general public.

The Lord Chancellor has appointed Mr. Richard Browne Carey, L.R.C.P.I. &c., of Borris, County Carlow, to the Commission of the Peace for County Carlow.

Dublin, July 27th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *The Cholera Epidemic.*

THE outbreak in the suburbs of Paris of cholera, or, to adopt the official nomenclature, "choleraic diarrhoea," is reported to be declining in intensity. Such is the report furnished on Monday last by the Commission of Inquiry appointed by the Comité Consultatif d'Hygiène Publique—a commission composed of Professor Proust, MM. Netter, Ogier and Thoinot. These gentlemen assert that the army and the city of Paris (!) remain free from the disease. I have already informed your readers that the examination by M. Netter of the excreta of patients who had succumbed to the disease in several Paris hospitals had revealed the presence of Koch's comma bacillus. M. Netter now (Société Médicale des Hôpitaux, 15th inst.) sums up the results of the bacteriological inquiries he has made on this subject. After recalling the fact that the discovery of the bacillus was first made by M. Léon, Professor Peter's chef de clinique, who found the cholera micro-organism in the intestinal contents of the body of a fireman of Grenelle who died in less than twelve hours after the onset of his illness, M. Netter stated that his own researches extended to forty-nine cases, in twenty-nine of which the *bacille virgule*, or comma bacillus, was discovered, that germ being absent in the twenty others. In seventeen of the twenty-nine cases the bacillus was found in the stools passed during life or in portions of mucus collected from the clothing, bedding or the margins of the anus. In three cases the intestinal contents were examined after death, while in the remaining nine cases both methods of examination were had recourse to. Not once was the bacillus found in the blood, but in one instance its presence was discovered in a patch of bronchopneumonia, associated, however, with the streptococcus

pyogenes. Although the suburban comma bacillus of 1892 exhibits certain differences of behaviour in culture experiments from the specimens preserved since 1883 (Calcutta) and 1884 (Toulon and Paris), these differences disappeared when the comparison was made between it and a specimen collected this year at Cochinchina. In the twenty cases characterised by the absence of the cholera bacillus, the bacterium coli was constantly present. Of these twenty patients, all treated in Paris, ten contracted the malady in the suburbs and ten within the walls of Paris. The symptoms were those of true cholera—diarrhoea, with often rice-water stools, vomiting, cramps, subnormal temperature, oliguria or even total anuria, feebleness of voice &c. Six of these patients died. These negative bacteriological results are only a repetition of what was experienced in 1888, 1889, 1890 and 1891. M. Netter states categorically that cases purely Parisian can be distinguished from suburban cases by bacteriological examination, the micro-organism present in the first class of cases being the bacterium coli, and in the other the true cholera bacillus. He further clearly states that, putting aside actual contagion, Seine water is the mode of conveyance of the germs in the infected suburbs, all of which are situated down stream—i.e., below Paris. M. Chantemesse confirms the assertions of M. Netter. Professor Dieulafoy informs us that between May 25th and June 2nd he has had four cases to treat at the Hôpital Necker. Since the latter date all cases have been isolated and placed under Professor Peter's care. Of the four cases two were of a light type and recovered in a few days. In their stools only the bacterium coli commune was discovered. The other two cases were much more serious. In one instance a man of twenty-seven years, living in the fourth arrondissement, which was then under the *eau-de-Seine régime*, was seized on May 26th with all the characteristic symptoms of cholera. On May 30th he was well again. The other patient was a woman aged forty-nine years, an inhabitant of Billancourt. She died in fifty hours. The stools of both these patients contained the true cholera bacillus. I am of opinion that the discovery of the comma bacillus in the stools of Professor Dieulafoy's fourth arrondissement patient effectually refutes M. Netter's contention that *l'épidémie cholériforme* is peculiar to Paris, whilst true cholera is strictly limited to the suburbs.

#### *The Dangers of Ice.*

Immense quantities of ice are, it is needless to say, consumed during the summer months in this city of cafés. The question of its purity has often been raised, most people, however, swallowing it in perfect faith. That some portion at least of the ice supplied is not above suspicion from a sanitary point of view is proved by the recent action of the Conseil d'Hygiène de la Seine in forbidding the extraction of that product from an ice pond situated close to the river Seine. Another resolution passed unanimously by the Council was that a service of superintendence, with if necessary an analytical branch, be instituted with a view of controlling the quality of ice sold in Paris. It was also decided to request the Prefect of Police to keep a vigilant eye on the manufacturers of artificial table waters, as also *ourafes frappées* (decanter containing a lump of ice), and to inquire as to the origin and quality of the water employed in the fabrication of these articles.

#### *M. Pasteur's Health.*

All the scientific world will rejoice to hear that this veteran *savant* was present at last Monday's meeting of the Académie des Sciences, of which body he is such a distinguished ornament. He appeared in excellent health and stated that the numerous deadly diseases from which he is supposed to have suffered have existed only in the fertile imaginations of enterprising journalists. Whilst being loud in his praise of Garches, where his château is situated, he could not refrain from regretting his temporary absence from his beloved laboratory.

Paris, July 27th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *The Cholera.*

THE authorities in the eastern provinces of Prussia are earnestly providing for the eventuality of cholera. A Königsberg paper stated the other day that Professor Koch had arrived there on the 19th inst., and at once proceeded *vis*

Eydtkuhnen to the cholera districts in Russia, taking several chests full of disinfectants with him. This news, however, was incorrect. The following letter from a medical man to the *Vassische Zeitung* (which I abridge) may perhaps interest your readers at this time: "The measures for the prevention of cholera consist in general hygienic precautions, the provision of hospital accommodation and medical help, and the earliest possible recognition and isolation of the disease. The germs of cholera are transferred in the main by the evacuations of the bowels of cholera patients. The certain diagnosis of cholera depends on the finding of cholera bacilli in the evacuations and their cultivation in nutritive solutions. It is therefore of paramount importance that when cholera breaks out there should be a medical man on the spot familiar with bacteriological methods. To a certain degree the Medical Administration has provided for this. After Professor Koch's return from his journey to Egypt and India, during which he discovered the germ of cholera, courses of instruction were instituted in the Imperial Office of Health in Berlin, in which medical officials from the frontier districts were taught the bacteriological methods of recognising cholera. Other medical officials have since had occasion to acquire the necessary knowledge of these matters. It is also not to be forgotten that, now that bacteriology has acquired special importance, and that hygienic institutes have been established in most of the universities, the knowledge of bacteriological methods has spread widely among practitioners. At the same time, however, there is no doubt that, in the event of an outbreak of cholera in Germany, all these bacteriological experts will not suffice for the necessary investigations, especially as the treatment of their patients will leave them no time. It is therefore desirable that the Medical Administration should inquire among the younger medical men whether they are willing in such an event to go to the frontier districts to help. Should, as is likely, the number of volunteers prove inadequate, courses of instruction in the investigation of cholera evacuations must at once be arranged."

*The Report of the Berlin International Medical Congress.*

Immediately after the close of the Tenth International Medical Congress, which met in Berlin in August, 1892, the preparation of the official report began, and it is now at last complete in five stately volumes, published by Hirschwald of Berlin, to which a general index in three languages is added. The first volume contains a history of the Congress, including the discourses of Bouchard, Axel, Key, Lister, Koch, Cantani, Wood, Meynert, Stokvis, and Virchow; the second, the discussions in the sections of anatomy, physiology, physiological chemistry, pathology, pathological anatomy, pharmacology, internal medicine and the diseases of children; the third, those in the sections of surgery, orthopædics and gynaecology; the fourth, those in the sections of neurology and mental disease; and the fifth, those in the sections of dentistry, hygiene, railway hygiene, medical geography and climatology, medical jurisprudence and military hygiene.

*Miscellaneous Items.*

Dr. du Mesnil de Rochemont, private lecturer in the University of Würzburg, has been appointed Head of the Medical Department of the City Hospital in Altona.

Dr. Georg Hoppe-Seyler, private lecturer on Internal Medicine in the University of Kiel, has been appointed Professor there.

The honorary title of Professor has been conferred on Dr. Moritz Schmidt of Frankfort-on-the-Main, one of the oldest and most eminent of the German laryngologists.

Dr. von Bayer, Professor of Chemistry, has been elected Rector of the University of Munich for 1892-93.

Berlin, July 26th.

## Obituary.

### FREDERICK LE GROS CLARK, F.R.C.S., F.R.S.

A WELL-KNOWN and striking figure has just passed away from us in Mr. Frederick Le Gros Clark, a former President of the Royal College of Surgeons, and Surgeon to St. Thomas's Hospital. Mr. Clark was born in Mincing-lane in 1811, and was educated in Iron Acton, in Gloucestershire. At the age of sixteen he commenced his professional studies as an

articled pupil under Mr. Travers, then senior surgeon to St. Thomas's Hospital; and three years later, at the close of his school curriculum, he obtained the Cheselden medal for proficiency in Surgery and Surgical Anatomy. After spending a session in Dublin he became an assistant demonstrator in the University there, and subsequently enlarged his sphere of experience in Paris, Berlin, Göttingen, and Edinburgh. In 1839 he was appointed assistant surgeon to his Alma Mater, in which post and as lecturer on Descriptive and Surgical Anatomy he remained until the death of Mr. Tyrrell in 1853, when he was promoted to fill the vacant place on the surgical staff. He next succeeded Mr. John Flint South in the chair of Surgery, and continued to lecture until, after thirty years of office, he terminated his active connexion with the hospital in 1873, retiring with the honorary title of consulting surgeon. His relation to the College of Surgeons was no less distinguished. He became a Member of the Council in 1864, and as Hunterian Professor of Surgery and Pathology delivered a course on "Surgical Diagnosis, especially in reference to Visceral Lesions," in the summers of 1867 and 1868. In 1872 he was elected a Vice-President, and in 1874 was chosen for the crowning office of President, delivering the Hunterian Oration from the presidential chair in the following year. He held in addition several important surgical appointments, and was also a prominent member of the Salters' Company, in which he twice filled the office of Master. As an author he was well known by his "Anatomy and Physiology of the Nervous System," published as early as 1836; his translation of Dupuytren's "Diseases and Injuries of the Bones"; his "Outlines of Surgery," which passed through a second edition in the hands of Mr. Wagstaffe in 1870; his Hunterian Lectures; and by numerous other works, all marked by wide research and a clear and polished diction. After his retirement from practice he built for himself a charming retreat at Sevenoaks, where he spent the rest of his days. He retained his activity and displayed a lively interest in the advance of his profession almost to the last. His strength began to fail about eighteen months ago, but he continued to enjoy the society of his friends and to make occasional journeys to town until the middle of June, when he was forced to take to his bed. He died on July 19th, and was buried at Riverhead on the 23rd amidst innumerable demonstrations of respect from his private friends and the public bodies with which he had been associated.

Mr. Clark was a splendid representative of the educated surgeons of the older school. A man of great general culture, versed in all the professional lore that the home and Continental schools of his time could teach, and amongst surgeons an accomplished operator in the days when the operator required faculties that modern science has rendered unessential. His personality was peculiarly attractive. All who knew him can easily recall the tall, strong, upright figure that retained its symmetry to the end, the clearly cut aristocratic features that only grew more handsome with the advance of years, and the dignified courtesy of manner that so perfectly harmonised with the stately physique; but it was not given to all to know the simplicity and gentle kindness of nature masked by the rather stern lines that early sorrow had graven on his face. His friends and patients always learned to love and trust him; and there are yet living many of his old pupils who have reason to cherish a grateful and affectionate recollection of the warm sympathy with which he continued to watch and aid their progress. He was a bold and successful surgeon of the school of Travers and Astley Cooper and a true gentleman after the bygone type that fiction has preserved for us in Sir Roger de Coverley and Colonel Newcome.

### J. HARRINGTON DOUTY, M.R.C.S., L.S.A.

WE regret to have to record the death of Mr. J. Harrington Douty, medical superintendent of the Berks County Asylum. Mr. Douty was in his usual health until July 5th, when he was suddenly taken ill, and died on July 12th. He was born in 1858 and received his medical education at the Middlesex Hospital, where he distinguished himself by obtaining the Senior Entrance and the Senior Broderip Scholarships. He qualified in 1881, after which he held the post of house physician at the Middlesex Hospital for one year. In 1882 he was appointed assistant medical officer to the Worcester County and City Asylum at Powick and in 1887 medical superintendent to the Berks County Asylum at Moulsoford. The zeal and devotion which characterised the whole of his

work in these appointments had procured for him the highest commendation of the various boards of managers under whom he held office. Mr. Douty was the author of several valuable contributions to the medical journals bearing on mental science. His able administration of the Berks County Asylum, no less than his kindness of heart and manner, had earned for him the respect and friendship of all with whom he came in contact, and his untimely death at the early age of thirty-four will be deeply regretted by everyone who knew him.

#### WILLIAM EDWARD BALKWILL, M.R.C.S., L.S.A.

MR. W. E. BALKWILL was born at Kingsbridge, Devon, on June 14th, 1849, being the eldest son of W. H. Balkwill, Esq., and a descendant of the celebrated George Fox. He was educated at the Kingsbridge Grammar School and at Amersham Hall School. His medical education was received at St. Bartholomew's Hospital, where he displayed great industry and marked enthusiasm, and was the leader of a large group of earnest and successful students. After obtaining his qualification to practise he was appointed house surgeon at the Royal Orthopaedic Hospital, and filled that office from 1872 to 1875. A vacancy then occurring on the honorary staff, Mr. Balkwill was elected to fill it, and he started in practice in Old Cavendish-street and devoted himself entirely to this department of surgery. He was very successful in it; he combined operative skill and mechanical ingenuity with great devotion and kindness to his patients, all of whom became his friends; and his modesty was as pronounced as his kindness of heart. Mr. Balkwill took great interest in athletic performances of all kinds, and was a recognised authority on such subjects. He was an admirable shot and generally spent his holidays on the moors. In the spring of 1891 he had a serious attack of influenza, and in January, 1892, he was again seized with the prevailing disorder. He appeared, however, to have regained his usual health, but on Sunday, July 10th, he was suddenly smitten down with cerebral hæmorrhage and passed quietly away on the morning of July 11th.

#### ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An ordinary meeting of the Comitia of the Royal College of Physicians was held on Thursday, the 28th inst., Sir Andrew Clark, President, in the chair. Dr. Donald William Charles Hood and Dr. John Ebenezer Ranking, who were elected Fellows in April last, were admitted. Dr. Edward Alfred Birch, being resident in India, was admitted a Fellow *in absentia*. The following gentlemen, having passed the required examination, were admitted as Members:—John Rose Bradford, M.D. Lond., Charles Petre Lovell, M.B. Oxford, Frederick John McCann, M.B. Edin., Solomon Charles Smith, M.D. Durham, Neville Thorold Wood, L.R.C.P. Licences to practise were granted to 134 candidates, and diplomas in public health to eighteen practitioners. A copy of the Japanese Pharmacopœia was received from the Foreign Office, as was also a case of drugs from Chefoo, the latter being referred to Dr. Mitchell Bruce and Dr. Hale White for report. An application from the Hospital for Women at Leeds for recognition as a place of instruction in gynaecology was referred to the committee of management, and a copy of the arms of the College was sent to the Yorkshire College at Leeds for the decoration of the hall of that College. Letters of thanks for copies of Harvey's Lectures *in fac-simile* were received from Dr. Brouardel, Professor Corradi, and Herr Joseph Körösi. An important report from the 'Censors' Board respecting the sale or transfer of a practice and the transfer of patients for a pecuniary consideration from a Member to a Fellow was read, and a resolution was unanimously adopted to the effect that such a transaction was contrary to the traditions of the College and derogatory to the position of a physician. The resolution will be sent to every Fellow and Member of the College. A report was received from the Fever Hospitals' Committee recommending that students should visit the small-pox hospital ships for a period of two weeks, but that this attendance should not be compulsory, and that the disciplinary measures should be similar to those in force at the fever hospitals. The College seal was set

to the lease from the Queen, as Duchess of Lancaster, of the ground in the Savoy, on which the buildings of the Royal Colleges stand. The Censors, Examiners, and other College officers were elected. The usual reports of the Examiners, of the Finance Committee, of the Library Committee and of the Curators of the Museum were read and adopted. The West Riding Lunatic Asylum was recognised for the attendance of students, and a list of the workers in the laboratories and of the work on which they were engaged was also presented. A proposal to establish a sinking fund to cover any liabilities which may arise on the termination of the lease in 1984 of the site on which the Examination Hall and the Laboratories are erected was referred to the Finance Committee. The College will be closed during the next two months for decoration, repairs and the installation of the electric light.

#### MEDICAL TRIALS.

##### HIGH COURT OF JUSTICE, QUEEN'S BENCH DIVISION. (BEFORE MR. JUSTICE WRIGHT.)

EX PARTE ALLINSON—IN THE MATTER OF AN ORDER OF THE GENERAL MEDICAL COUNCIL.

In this case the General Medical Council, under the Medical Act of 1858, section 29, had made an order to erase from the register the name of one Allinson for certain conduct of his, and he had obtained *ex parte* an order for an injunction to restrain them from publishing it in their proceedings.

Mr. Reid, Q.C. (with Mr. Muir Mackenzie), now moved, on the part of the General Medical Council, to discharge the injunction, which, he said, had been obtained *ex parte* and on statements which were contradicted and went to the merits of the case, which had been dealt with by the General Medical Council under their statutory authority, which had been recognised in several cases, one before the Court of Appeal ("*In re Allbutt*," 23 Q.B.D., 40; "*Ex parte Leeson*," 48 Ch. Div., 386; "*In re Partridge*," 8 *The Times* Legal Reports, 463). In these cases it had been settled that if the Medical Council acted honestly, then proceedings within their jurisdiction would not be interfered with. Mr. Justice Gainsford Bruce: They are the only authority to determine whether a man's name shall be erased from the register?—Yes, Mr. Justice Wright: We cannot try the case, which will be tried in the action, and if the plaintiff succeeds, then perhaps he may obtain an injunction, but we cannot try the case by anticipation.—The injunction would be very inconvenient, as it would prevent the half-yearly publication of the minutes of the Council's proceedings, which are of great advantage to the profession. In Leeson's case there was a hearing of the action. Mr. Justice Wright: This is an *ex parte* application before the hearing, which is quite different.—Just so. This is an application for an interim injunction.

Mr. H. S. Young appeared on the part of the applicant in support of the injunction. The judges, he said, who granted it read the advertisements. The erasure of the applicant's name prevents him from practising. Mr. Justice Wright: We cannot restore the name to the register; it is already erased.—It is not erased from the printed register. Mr. Justice Gainsford Bruce: The register is legal evidence.—Yes, and in the printed registers his name is not erased. Mr. Justice Wright: It cannot be erased from the thousands of copies in circulation, but if the question arises it will be tried by reference to the original register. Mr. Reid said it was erased there. Then the publication of the erasure there will prejudice the applicant. Mr. Justice Wright: It ought to be published; his name is erased from the register; otherwise he will be enabled to practise under false pretences.—It is only erased from the written register. Mr. Justice Wright: That is the register, though printed copies may be evidence.—If this injunction is not retained the plaintiff may be prejudiced and prevented from practising. Mr. Justice Wright: Your plea apparently is that if we continue the injunction he may continue to practise.—Yes, if the injunction continues he will be a registered medical practitioner. Mr. Justice Wright: Suppose we think otherwise and that he is not a registered medical practitioner until his name is restored, what substance will there be in your application?—It will prevent further publication of the fact. Mr. Justice Wright: Do you seriously maintain that, assuming we hold he is no longer a registered medical practitioner, we are to compel the Council to publish that he is?—No, certainly; that cannot be asked. The Council ought not to continue to publish the erasure. But the hearing cannot come on before the Long Vacation and unless the injunction is continued the applicant will be seriously injured.

The Court, however, discharged the injunction. Mr. Justice Wright said the continuance of the injunction was evidently pressed for under the impression that the effect would be to enable the applicant to practise, but that was quite an erroneous notion and, therefore, there was no real or substantial advantage in it. No one can suppose that we should order the Council, before the hearing of the case, to put back his name on the register from which it has been erased, so as to produce a false impression that he is still a registered practitioner when in truth he is not. If the plaintiff shall succeed in his action there will be time enough to apply for an injunction to prevent publication. At present the injunction must be dissolved.

Mr. Justice Gainsford Bruce concurred. It would require, he said, a strong case to justify such an injunction. The General Medical Council were intrusted by the Legislature with the duty of determining whether a name should be erased from the register. And the injunction would not restore the name already erased, but would only restrain them from publishing the fact. And why should they be prevented from making the public aware of it, thus producing a false impression that the applicant is on the register when in truth he is not?

Injunction dissolved.—*The Times*.

## Medical News.

**UNIVERSITY OF GLASGOW.**—The following candidates have passed the Fourth (Final) Professional Examination for the degrees of M.B. and C.M. :—

*Candidates who took Pathology in Fourth Professional Examination.*—

Harry Gleghorn Anderson, Charles James Babes, Thos. Barrowman, Edward Beck, Robert Bishop, John James Boyd, William Limont Brown, Archibald Chalmers, M.A., James Easton Chalmers, David Charters, John Cochraue, William Craik, John David Davies, Richard Gregor Dick, Thomas Divine, Jas. Fisher, William Fulton, Henry Niven Gardiner, James Gillespie, Peter Napier Grant, Thos. Hamilton, David Harris, William Sandilands Harrison, William Moffat Holmes, Robert King Howat, John Johnson, Hugh Kerr, M.A., David Clark Laird, Robert Langmuir, M.A., John Lindsay, M.A., James Buchan Littlejohn, Edward James Morris, William M'Niven Muat, Percy Hope Murray, Alexander Christie M'Arthur, James M'Glashan, James Angus Macintosh, Jas. M'Kay, Alexander John M'Kechnie, George M'Lauchlan, Peter Carmichael M'Robert, Charles O'Neill, William Adam Paterson, Robert Ramsey, William Robertson, Leonard Alfred Rowden, Thomas Leadbetter Shields, William Northcote Sime, Alexander Robb Smith, Charles Stewart, David Robert Thomson Strong, David Wallace, Andrew Watson, John Watt, John Whitehouse, Charles Frederick Wylie, Alfred Alex. Young, M.A., John Cameron Young.

*Candidates who passed Pathology in Third Professional Examination.*

William Henry Mason Alexander, James Ebenezer Bow, William Brodie Brodie, Wm. Mackenzie Brown, Archd. Prentice Campbell, David Birrell Campbell, James Carslaw, M.A., Andrew Cluckie, James Cochrane, Robert Cook, Alexander Baillie Craig, James Ritchie Dalrymple, John Stanley Davies, M.A., John Don, M.A., William Walton Don, Neil Downie, Alexander Robert Ferguson, Andrew Findlay, Alfred Forrest, M.A., Jas. Fisher Frew, Andrew Graham, Robert Guy, James Blair Hartley, Aeneas Henderson, Ernst Denny Scott Heyliger, Henry Edward Jones, Neil Keith, Thomas Kirkwood, M.A., Thomas Donald Laird, Hugh Lawrie, Hamilton Clelland Marr, Robert M'Farlane Marshall, Jas. Donald Rae Monro, M.A., John Morton, William Cochrane Murray, John Hardie MacArthur, William M'Call, Alex. Hutchison M'Cracken, John M'Donald, M.A., Alex. Stewart M'Pherson, Wm. M'Walter, George Nicoll, John Paterson, M.A., Wm. Findlay Paton, M.A., William John Richard, M.A., James Jenkins Robb, James Andrew Robertson, Maurice Tancred Stack, William Steel, Wm. Caldwell Steele, John Barr Stevens, Robert Taylor, James Thomson, John M'Donald Vallance, Andrew Wauchope, Charles Wilson, William Semple Young.

The undermentioned gentleman has passed the Final Examination for the degree of M.D. (old regulations):—

Robert Cook, L.R.C.S.E.

**SOCIETY OF APOTHECARIES OF LONDON.**—The following candidates have passed in the respective subjects:—

*Surgery.*—E. C. Adams, St. Barthol.; W. Ashby, Guy's; R. S. Berry, St. George's; F. Clarke, St. Barthol.; W. B. Clarke, Belfast; G. Cross, St. Thomas's; C. G. L. Dähne, St. Barthol.; C. P. T. Edwards, University Coll.; C. G. Hoysted, Charing-cross; E. A. Humphreys, Owens Coll.; G. C. Jeaffreson, University Coll.; F. Melandri, Bologna; H. W. Oborn, St. Thomas's; R. N. U. Pickering, St. Barthol.; H. Richardson, Owens Coll.; A. B. Rogers, Owens Coll.; R. L. Romer, St. George's; G. Schilling, St. Thomas's; T. A. B. Soden, Charing-cross; S. J. Stuck, Middlesex; A. J. Temperley, London Hosp.; L. P. Tomlinson, St. George's; W. E. Toyne, Edinburgh; C. Webb, St. George's; W. R. Willey, St. Mary's.

*Medicine, Forensic Medicine, and Midwifery.*—H. S. Elliott, St. George's; W. H. F. Noble, University Coll. and London Hosp.; E. Le F. Payne, St. Mary's; H. R. Phillips, Cambridge and Manchester; H. E. B. Porter, London Hosp.; J. H. F. Way, St. Thomas's; S. Wilkinson, Liverpool.

*Medicine and Forensic Medicine.*—F. Melandri, Bologna; A. L. Roper, Cambridge and Guy's Hosp.

*Medicine and Midwifery.*—F. A. Arnold, London Hosp.; W. R. Clarke, Belfast; G. Cross, St. Thomas's; W. D. Johns, Durham; G. W. Lilley, Yorks Coll., Leeds; J. N. Martin, St. Barthol.; G. A. Peake, Bristol.

*Medicine.*—H. J. van Leent, Guy's.

*Forensic Medicine and Midwifery.*—S. P. Hopewell, London Hosp.; J. A. Procter, King's Coll.; F. Spurr, Middlesex; A. J. Temperley, London Hosp.; J. B. Tindall, King's Coll.

*Forensic Medicine.*—H. F. Ransome, Owens Coll.; S. A. L. Sodipe, University Coll.; C. Webb, St. George's.

*Midwifery.*—W. D. Akers and F. N. Roth, St. Mary's.

To Messrs. Ashby, Hoysted, Humphreys, Phillips, Pickering, Porter, Ransome, Rogers, Romer, Sodipe, Spurr, Toyne, Way and Webb was granted the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery.

**MEDICO-PSYCHOLOGICAL ASSOCIATION.**—The following gentlemen have passed the examination of the Medico-Psychological Association of Great Britain and Ireland, entitling them to the certificate in Psychological Medicine:—At Aberdeen, on July 16th: Messrs. F. S. Ainley, G. Cruikshank, A. B. Dalgetty, A. Davidson, R. Ferguson, W. Hector, F. Kelly, T. B. Law, G. B. D. Macdonald, W. C. Pieris, W. H. de Silva and R. S. Trotter.—At Edinburgh, on July 18th: Messrs. S. C. Brush, C. R. Nair, D. A. Welsh and J. B. Yeoman.

**MEDICAL MAGISTRATE, AUSTRALIA.**—Dr. Victor Black, of Southern Cross, Yilgarw, West Australia, has been appointed a Justice of the Peace.

**THE General Practitioners' Alliance** have passed a resolution expressing the opinion that charities which bestow indiscriminate medical relief and levy fees upon the sick and needy should not be allowed to participate in the Hospital Sunday and Saturday Funds.

**COTTAGE HOSPITAL FOR NUNEATON.**—A cottage hospital is to be erected for this town and district on a site given by Messrs. J. Tomkinson and R. Stanley, situated near the Midland Railway Station. The estimated cost of the building is £2000. The subscriptions amount to £2388 18s.

**BRISTOL MEDICAL MISSION.**—The ceremony of opening the new premises in connexion with this mission in Redcross-street took place on the 19th inst. This much-needed enlargement will greatly add to and extend the sphere of the mission's usefulness.

**PRESENTATIONS.**—The members of the Aberdeen, Banff and Kincardine branch of the British Medical Association waited on Dr. Mackenzie Booth at his house on the 21st inst. and presented him with a pair of silver candelabra on the occasion of his approaching marriage.—Mr. T. M. Butler, M.R.C.S., of Guildford, has been presented by the members of the Loyal St. Mary's Lodge of Oddfellows, on his retiring from the position of the Lodge Surgeon, after upwards of thirty years' service, with a handsome silver salver.

**TRAINED MALE NURSES.**—The annual meeting of the Hamilton Association for providing Trained Male Nurses was held last week. The seventh annual report stated that the number of male nurses on the roll at the end of June was thirty-one. Of these, twenty-two were employed, three were off duty by their own request and six were available for duty. There had been an increase in the number of men employed in hospital work during the year. Both financially and in other respects the position of the Association was satisfactorily improved.

**ROYAL SEA-BATHING INFIRMARY, MARGATE.**—On Saturday the annual meeting was held in connexion with this infirmary. It was stated that of 220 beds in the institution 140 had been closed for want of funds. To this cause the present financial condition was chiefly attributed. The late Sir Erasmus Wilson made a gift to the infirmary of a new wing which he intended to endow, but died before completing the bequest, thus entailing upon the committee an outlay of £10,000 to finish the work and to purchase a new recreation ground in place of that built upon. The invested capital had in consequence been largely utilised, and it is estimated that by closing 120 beds £2000 a year will be saved and the income then will be about adequate to discharge the necessary expenditure.

**COLLEGE OF STATE MEDICINE.**—The annual meeting of the Fellows of the College of State Medicine was held on the 22nd inst., Sir Thomas Crawford, K.C.B., in the chair. The report for 1891 was read and adopted. The work of the college had been very successful during the year and the college had been self-supporting. Further efforts will be made to extend its usefulness as a teaching institution in connexion with public health. Sir Joseph Fayrer gave confident expression to his belief in an extended sphere of usefulness for the college. Established on sound principles, and supported and conducted by men with no motives of self-aggrandisement, it was certain of ultimate success. In this vast metropolis, crowded with institutions and societies of all kinds, it sometimes happened that the useful and deserving were temporarily overshadowed. But, whenever the basis was a sound one and the work done was honest and thorough, a full measure of success was only a question of time. Dr. Fleming suggested that greater efforts should be made to give publicity to the scope and work of the college. Although the numbers who took advantage of the teaching of the college were large and steadily increasing, he felt certain that if its educational advantages were better known the increase would be much more rapid. Professor J. Lane Natter brought before the notice of the meeting the large numbers who present themselves for examination in Hygiene under the scheme of the South Kensington Science and Art Department, and suggested that the teaching, which is at present confined to medical men, should in some way and in different classes be made available to teachers and others.

**HOSPITAL SATURDAY FUND.**—The total amount at present received on behalf of this fund has reached nearly £11,000.

**SCARLET FEVER AT SHIPLEY.**—In consequence of the prevalence of scarlet fever in Shipley district it has been decided to close all Sunday schools until the end of August.

**THE ISLE OF MAN HOSPITAL, DOUGLAS.**—The annual report for the past year shows that excellent work was done during the year and that there had been an increase in the subscriptions and donations.

**THE Princess of Wales** has forwarded to the British Home for Incurables a cheque for £150, being the second instalment on account of the sale of Canon Fleming's sermon, "Recognition in Eternity."

**THE GREAT NORTHERN CENTRAL HOSPITAL.**—At the opening ceremony of the bazaar recently held at Hampstead in aid of the building fund of the Great Northern Central Hospital it was announced that a gentleman, who at his own request remains for the present anonymous, had offered to subscribe £500 to the hospital if nine others would follow his example. The committee have since received two similar promises.

**EARLSWOOD IDIOTS' ASYLUM, REDHILL, SURREY.**—The forty-fifth annual report shows that steady progress had been made during the past year in all the departments. Cases from all classes in society are pressing for admission and from all parts of the kingdom applications are received seeking advice and direction. The largest number of inmates in residence in any year was attained in 1891. Scientific modes of training have been tried, both physical and mental, with marked success. Finance causes anxiety; the expenditure last year exceeded the income and left a liability of £500 to the bankers.

**SANITARY INSPECTORS' ASSOCIATION.**—Dr. B. W. Richardson presided at a general meeting of this Association held at the Carpenters' Livery Hall, London Wall, on Saturday. The report presented recommended, upon the question of examination for sanitary inspectors, that the Council should be empowered to confer with the Court of the Carpenters' Company with the view to arrange for lectures and examinations. A report was also submitted upon the Association's recent visit to Paris, which deals with the chief features and incidents of the journey. The chairman, in supporting a motion for the adoption of the respective reports (which was agreed to), stated that the Association had learned many important lessons on sanitation by their visit to Paris.

**LEAD IN TARTARIC ACID.**—At Woolwich Police-court, before Mr. Kennedy, Mr. George Mence Smith, oil and colourman, who owns a great number of retail shops, was summoned by the Local Board of Health for selling tartaric acid containing 0.0026 per cent. of lead, equivalent to 0.18 grain of lead per pound; and citric acid containing 0.037 per cent. of lead, equivalent to 2.59 grains of lead per pound. Mr. E. Hughes, M.P., supported the complaint, and Mr. Blanchard Wontner appeared for the defence. It was agreed to take the case of the tartaric acid first. Professor W. R. Smith, public analyst and medical officer of health for Woolwich, said he had analysed a sample of tartaric acid purchased from one of the defendant's shops, and certified that it was adulterated as alleged in the summons. Lead was an accumulative poison, and one twenty-fourth of a grain in a gallon of water would be injurious. Lead got into tartaric acid probably in the course of manufacture, either by the use of sulphuric acid or by the preparation of the article in leaden vessels. Care in manufacture would avoid it. For the defence Dr. John Muter was called. He agreed with Dr. Smith's analysis, but totally disagreed with his conclusions. An ordinary bottle of lemonade would contain eight grains of tartaric acid, and a man would have to take about 220 bottles per day, according to this analysis, before he consumed one-twentieth of a grain of lead. Mr. Connor, of Wandsworth, said he had large experience in whitelead colic, and considered that the quantity of lead in this tartaric acid was too small to affect health. Mr. Kennedy dismissed the summons, and the matter of the citric acid, together with several other cases of a similar character, was adjourned.

**BIRMINGHAM AND MIDLAND EYE HOSPITAL.**—The work accomplished by the institution during the past year is very satisfactory. The limit formerly placed on the number of beds occupied—namely, thirty-five—is now removed. This and the previous year's accounts showed a substantial balance of income over expenditure, and the conditions accompanying Miss Rylands' generous gift having been complied with, the committee were enabled to increase the work of the hospital by the treatment of an additional number of in-patients, for which the institution was adapted. The total number of patients treated was 22,478, an increase on last year of 1049.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

- DONAGAN, A. E., L.D.S. R.C.S. Edin.**, has been appointed Dental Surgeon to the Royal Institution for Deaf and Dumb Children, Birmingham.
- DRUMMOND, J. H. G., L.R.C.P., L.R.C.S. Edin.**, has been appointed a Public Vaccinator in South Australia.
- EKINS, A. E.**, has been appointed Public Analyst for the County of Hertfordshire.
- FARR, E. A., L.R.C.P. Lond., M.R.C.S.**, has been appointed Medical Officer to the Post-office, Andover.
- FENWICK, W. SOLTAU, M.D. Lond., M.R.C.P.**, has been appointed Medical Tutor to the London Hospital.
- HARKIN, C. F., M.B., B.Ch. Dub.**, has been appointed a Public Vaccinator for Wodonga, Victoria, Australia.
- HAYWARD, ARTHUR E., M.R.C.S., L.S.A.**, has been appointed Public Vaccinator for the Brixham and Churston Districts of the Totnes Union, vice Green, deceased.
- HILL, A. B., M.D. Glessen, L.R.C.P., L.R.C.S., D.P.H. Camb.**, has been appointed Public Analyst for the county of Warwickshire.
- HUXTABLE, L. R., M.B., C.M. Edin.**, has been appointed an Official Visitor to the Hospital for the Insane at Parramatta, New South Wales.
- KAUFFMANN, O. J., M.D. Lond., M.R.C.P., M.R.C.S.**, has been appointed Physician for Out-patients and Pathologist to the Queen's Hospital, Birmingham, vice Crooke, resigned.
- KEBHELL, C., L.R.C.P. Lond., M.R.C.S.**, has been appointed Honorary Visiting Physician to the Brisbane Hospital, Queensland.
- KERR, J. A., M.B., C.M. Glasg.**, has been appointed Health Officer for the District of Ellistoun, South Australia.
- LAKE, RICHARD, F.R.C.S.**, has been appointed Registrar and Pathologist to the Hospital for Diseases of the Throat, Golden-square, W.
- MARIS, C. F., M.D. Irel., M.R.C.S.**, has been appointed Honorary Visiting Surgeon to the Brisbane Hospital, Queensland.
- MCKINNON, A. A., M.R.C.S., L.R.C.P. Lond.**, has been appointed Assistant House Surgeon to the Royal Albert Hospital, Devonport, vice Dr. J. George, resigned.
- MORSHEAD, E. G. A., M.D. Brussels, L.R.C.P. Lond., M.R.C.S.**, has been appointed Surgeon to the Loyal St. Mary's Lodge of Odd-fellows, vice Butler, resigned.
- ROBERTSON, GEO., M.B., C.M. Aber.**, has been appointed Medical Officer to the Glenfoundland Lodge of Oddfellowes, Insch, Aberdeenshire, vice Dr. G. B. Currie, resigned.
- SCANLAN, C. E., M.B., C.M. Glasg.**, has been appointed Government Medical Officer and Vaccinator for the District of Port Macquarie, New South Wales.
- SPEECHLY, HARRY MARTINDALE, M.R.C.S., L.R.C.P. Lond.**, has been appointed House Surgeon to the London Hospital.
- STEELE, JONATHAN, I.R.C.P. & S. Edin., L.F.P.S. Glasg.**, has been appointed Medical Officer of Health to the Kingsgrove Local Board, Stoke-on-Trent, vice A. B. Great Rox, M.D., resigned.
- STURGE, W. HOWARD, M.R. Lond.**, has been appointed House Physician to the London Hospital.
- SYMONDS, HORATIO, F.R.C.S. Edin.**, has been appointed Consulting Surgeon to the Faringdon Cottage Hospital.
- TAYLOR, W. F., M.D. Canada, M.R.C.S., D.P.H. Lond.**, has been appointed Honorary Ophthalmic Surgeon to the Brisbane Hospital, Queensland.
- TEICHELHANN, E., I.R.C.P. Irel., F.R.C.S. Eng.**, has been appointed Surgeon-Lieutenant in the Medical Department, South Australian Military Forces, and also appointed a Public Vaccinator in South Australia.
- THOMSON, J., M.B., C.M. Edin.**, has been appointed Honorary Visiting Surgeon to the Brisbane Hospital, Queensland.
- TILSTON, E., L.R.C.P. Edin., M.R.C.S.**, has been appointed Honorary Visiting Surgeon to the Brisbane Hospital, Queensland.
- TURNER, N. H., L.R.C.P. Lond., M.R.C.S.**, has been appointed Surgeon to the Royal Institution for Deaf and Dumb Children, Birmingham.
- WARDEN, CHAS., M.D. Aberd., F.R.C.S. Edin., M.R.C.S.**, has been appointed Honorary Consulting Surgeon to the Royal Institution for Deaf and Dumb Children, Birmingham.
- WILSON, T. S., M.B. Edin., M.R.C.P. Lond., M.R.C.S.**, has been appointed Honorary Consulting Physician to the Royal Institution for Deaf and Dumb Children, Birmingham.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

- COUNTY ASYLUM, Shrewsbury.**—Junior Assistant Medical Officer. Salary £100 per annum and £8 in lieu of beer, with board, lodging and washing.
- DOCTOR, 2, New-rents, Ashford, Kent.**—Junior Qualified Assistant for a Medical Association.
- GENERAL HOSPITAL, Birmingham.**—Two Assistant House Surgeons for six months. Residence, board, and washing provided.
- LEEDS PUBLIC DISPENSARY, New Briggate.**—Junior Resident Medical Officer. Salary £85 per annum.
- LONDON LOCK HOSPITAL AND ASYLUM, Harrow-road, W.**—House Surgeon. Salary £100 per annum, with board, lodging and washing.
- MANCHESTER ROYAL EYE HOSPITAL.**—House Surgeon. Salary £70 per annum, with residence, board and washing.
- ROYAL UNITED HOSPITAL, Bath.**—Honorary Physician.
- TOTTENHAM HOSPITAL.**—Resident House Surgeon for one year. Salary £90 per annum.
- WREXHAM INFIRMARY AND DISPENSARY.**—House Surgeon. Salary £80 per annum, with furnished room, board, gas, coal, and attendance.
- WORK RETREAT.**—Senior Assistant Medical Officer. Salary £150 per annum, with board and lodging.

## Births, Marriages, and Deaths.

### BIRTHS.

- BROWN.**—On July 23rd, at Bedford House, Chiswick, the wife of James Brown, M.B., Tring, of a daughter.
- CUTFIELD.**—On July 25th, at Merton House, Ross, Herefordshire, the wife of Arthur Cutfield, B.A., B.Sc., M.R.C.S., of a daughter.
- LINDSAY.**—On July 3rd, at Heber City, Utah Territory, U.S.A., the wife of D. M. Lindsay, L.R.C.P., L.R.C.S.I., of a son.
- PAYNE.**—On July 22nd, at Wimpole-street, the wife of Joseph Frank Payne, M.D., of a daughter.
- PHILLIPS.**—On July 16th, at Grosvenor-street, W., the wife of John Phillips, M.A., M.D. Cantab., F.R.C.P., of a son.
- SCOFIELD.**—On July 17th, at Netherfield, Notts, the wife of Harold Scofield, M.B., B.Sc., of a son.

### MARRIAGES.

- BEALE—ATTWELL.**—On July 25th, at St. Mary's, Barnes, by the Rev. Dr. Wace, Principal of King's College, London, assisted by the Rev. B. Meredith Kitson, M.A., Rector of the Parish, Peyton T. B. Beale, F.R.C.S., of 61, Grosvenor-street, London, only son of Professor Lionel Beale, M.B., F.R.S., also of 61, Grosvenor-street, to Gertrude Louisa, youngest daughter of Professor Attwell, K.O.C., of Fern Lodge, Barnes.
- BENNETTS—KNOTT.**—On July 23rd, at St. George's Episcopal Church, Edinburgh, John James Bennetts, M.B., C.M., of Brompton, Chatham, to Gertrude Elizabeth, daughter of Tavernor Knott, Artist, Edinburgh.
- BENSON—COOPER.**—On July 26th, at St. Peter's, Eaton-square, Alfred Hugh Benson, M.R.C.S., L.R.C.P., of Wrington, Somerset, to Marie, second daughter of the late Richard Cooper, of Higham Court, Sittingbourne.
- BOSTOCK—PERRY.**—On July 21st, at St. Peter's, Eaton-square, Surgeon Robert Ashton Bostock, Scots Guards, son of Deputy-Surgeon-General John Ashton Bostock, C.B., Hon. Surgeon to the Queen, to Mary Catherine, eldest daughter of Brigade-Surgeon George Perry, of St. George's-square, S.W.
- HUTCHINSON—HUTCHINSON.**—On July 13th, at the Westminster Meeting-house, St. Martin's-lane, Procter Selby Hutchinson, M.R.C.S., second son of Jonathan Hutchinson, F.R.S., of Cavendish-square, to Alice Mary, eldest daughter of the late Edward Hutchinson, of Haslemere, Surrey.
- OWEN—DAVIES.**—On July 20th, at Llanymynech Parish Church, by the Rev. I. L. Wynne-Jones, Rector of the Parish, assisted by the Rev. W. Thomas, Vicar of Bwlch-y-Cibau, Owen Trafford Owen, M.B., C.M., of St. Albans-place, Blackburn, to Marian Elizabeth, eldest daughter of J. W. Davies, of Yrnyrn Bank, Llanymynech.
- PARSONS—PARKINSON.**—On July 21st, at Holy Trinity Church, Tunbridge Wells, Frederick George Parsons, M.R.C.S., to Maria, widow of the late John Lechmere M. Parkinson, of Ludford Park, Ludlow.
- WATERHOUSE—HARKER.**—On July 27th, at the Church of St. Lawrence, Middleton St. George, co. Durham, by the Rev. John Groves, Vicar of Redcar, assisted by the Rev. C. Jackson, M.A., Rector of the Parish, Herbert Furnival Waterhouse, M.D., C.M. Edin., F.R.C.S. Eng., of 81, Wimpole-street, Cavendish-square, W., eldest son of the late Rev. Charles J. Waterhouse, M.A. Cantab., to Edith Florence, only daughter of John G. Harker, Esq., Middleton St. George.

### DEATHS.

- HEIM.**—On July 17th, at 4, St. Ann's Villas, Royal-crescent, Notting-hill, Charles Mungo Heim, M.R.C.S. Eng.
- LOWER.**—On July 21st, at Olveston, Gloucestershire, Nynlan Holman Lower, M.R.C.S., L.S.A., eldest son of the late Mark Antony Lower, of Lewes, Sussex, aged 52.

*N.B.*—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

### CERVICAL RIBS.

*Editor.*—Our correspondent will find the literature on this subject in the various papers and works to which the following references apply, but may, we think, obtain most information from papers by Dr. Struthers. One of these is published in the *Monthly Journal of Medical Science* for 1858 ("On Rudimentary Ribs and their Relation to the Vertebrae"); another in the *Journal of Anatomy and Physiology* for 1874-5 ("Variations of the Ribs and Vertebrae in Man"—see Cervical Ribs, p. 32). There are papers also by Sir W. Turner in the *Journal of Anatomy and Physiology* for 1869-70 and 1882-83; Mr. W. Lane, *Guy's Hospital Reports*, 1833-34, p. 100; Professor R. W. Reid, *Proceedings of the Anatomical Society*, 1889-90; Dr. Dymock, *Edinburgh Medical and Surgical Journal*, 1883, p. 304; Dr. Willshire (case), *THE LANCET*, vol. ii, 1860, p. 633; Dr. Beavor (case), *Trans. Med. Soc. Lond.*, 1890, p. 505; Dr. Clarke, *Glasgow Medical Journal*, 1874; Mr. Cones, *Science*, Cambridge, 1884, vol. iii. ("On Free Cervical Ribs in the Human Subject"); Dr. Jewett, *Am. Anat. and Surg. Soc.*, Brooklyn, vol. i., 1878-80; Dr. Shepherd, *American Journal Med. Soc.*, Philadelphia, 1883. He might also consult Meckel's *Manual of Anatomy*; Gillette, *Bul. Soc. An. de Paris*, 1869, p. 72; Lebacqz, *Pascal, Romiti, &c.*

### AN APPEAL.

To the Editors of THE LANCET.

Sirs,—You were good enough in May, 1890, to insert an appeal from us on behalf of Mr. Thomas Comfield. He is a physician who has by advancing paralysis been wholly incapacitated for many years and confined entirely to his bed for more than six. The response to our letter placed at our disposal a total of £132 10s., which we have sent to him in sums of £5 per month. This fund is now exhausted, and as Mr. Comfield's circumstances remain as before we are obliged to make another appeal. He is almost unable to move, and needs the constant attendance of a skilled nurse. His relatives are not able to afford him anything beyond very trifling pecuniary help, and his case is one worthy of the active sympathy of those of our profession who can afford to render him assistance. We shall either of us be glad to take charge of donations for him.

We are, Sirs, yours faithfully,

J. HUGHLINGS JACKSON, 4, Manchester-square, W.  
July 16th, 1892. JONATHAN HUTCHINSON, 15, Cavendish-square, W.

The following subscriptions towards a second fund have been received:—

Sir Andrew Clark ..	£10 10 0	Messrs. Wakley, Editors	
Dr. Hughlings Jackson..	10 10 0	of THE LANCET ..	£10 10 0
Mr. Hutchinson ..	10 10 0		

### HOW TO OBTAIN DIABETIC FOODS ABROAD.

To the Editors of THE LANCET.

Sirs,—A diabetic patient wishes to visit Paris, Rheims and Bourges. Can you give me the addresses of any confectioners in those towns who sell gluten and almond breads?—I am, Sirs, yours faithfully,  
Melkham, Wilts, July 20th, 1892. S. GROSE.

\*\* Cormier, 18, Rue des Grands-Augustins, is the most reliable and best maker of gluten and other diabetic foods in Paris. We do not think it likely that there is any actual maker in Rheims or Bourges, but in those places it could be procured by parcel post from Paris and even without difficulty from London. If not obtained direct in this way, a pharmacist, and not a confectioner, would be the proper person to apply to for it.—ED. L.

L.S.A. Lond., if under the new examinations, is not likely to be molested if he calls himself "surgeon apothecary." The other title mentioned is due only to graduates of universities.

## INTERVIEWING MEDICAL MEN.

*Interviewer.*—For a medical man to suffer himself to be interviewed on medical questions would be contrary to the spirit and traditions of the profession. He would not only lay himself open to a charge of indirectly advertising himself and his opinions, but of setting a bad example in a profession which above all others is a quiet profession, and one dealing with delicate subjects that cannot be blatantly and dogmatically discussed to suit the newspaper style. Every medical man who sets his face against such practices deserves the thanks of his profession.

## "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS.—Your correspondent, Mr. J. B. Pike, does not seem to have grasped the situation. There is nothing to be gained by saying "the fact of the matter is this," and then putting forward one's own views, but I think we all agree that the fact that qualified men are found glad to accept the small salaries offered by medical aid associations is due to the still more extreme smallness of the salaries offered by medical men to their assistants, and to the want of capital which renders the latter unable to buy or found practices. The man who graduated at the very bottom of his class buys a practice soon afterwards, and pays his old classmate, the first man of his year perhaps, £125 a year to do work for which the patients pay £1000 a year. For £2000 suppose he buys £1500 a year net, puts two-thirds of the work and all the drudgery on his assistant, knowing that the work will be better done than if done by himself, and thus, besides the opportunity of earning £500 a year by his own work, gets 60 per cent. on his capital. The assistant feels that he is badly treated and yet cannot resist, but the patients, learning that they pay £1000 for what can be had for £125, form a medical aid association, give the former assistant a salary of, say, £250, and thus, though obtaining exactly the same services, save £300 or £700 a year. The late principal is of course vexed at losing a large part of his income and calls his rival hard names, a "degrader of the profession," a "public sinner" and so on; and forgetting that he himself had been a party to a contract in which a qualified man undertook certain work for £125 a year, denounces as "low" one by which twice that sum is earned for the same work. He has, however, only himself to blame, for had he been content with 20 or 25 per cent. interest on his capital his assistant would have had such a salary as would make him refuse the association's offer. It is hardly necessary to say that I am not referring to any particular case, but illustrating by an example the method of dealing with assistants which is, I believe, largely responsible for the formation of the societies mentioned. As to Mr. Pike's plan of forming a "strong trade union" among medical men, by which the action of "the House of Commons might be treated with contempt," I may say that popular feeling would be opposed to such a union among men who have comfortable incomes, that it would be called by the odious name of a "ring" and if it gave any trouble would be declared illegal. Finally, as to the "impression upon the mind of the public," I may point out that the public know the value of medical services from the salaries offered to qualified men by advertisements in the press. When they see that one medical man values another at £50 a year and food &c. their opinion cannot be lowered by seeing a third take a much larger salary from a lay association.—I remain, Sirs, yours sincerely,  
July, 1892. VERAX.

## THE CARPENTER AND DUKES FUND.

To the Editors of THE LANCET.

SIRS.—Dr. Arthur Carpenter, son of my lamented friend the late Dr. Carpenter, and myself beg to return sincere thanks for your kindness in so generously responding to the appeal made on our behalf to defray the heavy expenses of the action brought against us (for £2000 damages), which costs the judge ordered to be paid by the plaintiff. We also beg to thank our friends, Dr. Coles, the treasurer and Mr. Richardson, the secretary, of our Croydon Medical Society, for their kind assistance and generous support, the South-Eastern Branch of the British Medical Association, the Council of the British Medical Association, and all other medical brethren who have kindly contributed towards the fund.

We trust that the Parliamentary Bills Committee will succeed in their efforts to frame a Bill for altering the defects in the protective clauses of the Lunacy Act, so that in future medical men shall not be subjected to an action at law unless a guarantee be given that the costs shall be paid by the party to whom the verdict shall be decided against by the jury. I may add that Dr. Carpenter earnestly hoped that the publication of our case might be the means of the lunacy laws being altered. We hope that his wish may come to pass very soon.

I am, Sirs, yours faithfully,

Wellesley-road, Croydon, July, 1892. M. C. DUKES, M.D.

## A COASTING TRIP.

To the Editors of THE LANCET.

SIRS.—In answer to your correspondent "A. E." I may state that I have at different times travelled by several of the steamers which ply around our coasts. Last year I made the trip to which he refers. The boat was a good one of its class. The accommodation for ladies was at best only moderately good, but it strikes me that what a lady would feel chiefly in a society which is usually masculine is the want of congenial companionship. I should, at all events, strongly advise "A. E." to make his first coasting tour alone. Going by himself he should be very comfortable.

I am, Sirs, yours truly,

M.

## KILLED BY LEECHES.

A HORRIBLE story comes to us from Vallombrosa, "Milton's Paradise," as it has been called; a favourite summer resort in the Apennines for the residents in Florence. Among the inmates of the *Hôtel de la Savoie* there was the Commendatore Giordani, Director-General of Mines in the Ministry of Agriculture and Commerce. On the evening of the 14th he went out for a walk and, being known to suffer from impaired health, his friends were very anxious when, after the lapse of some hours, he did not return. A prolonged search was made by a number of domestics provided with lanterns, and they were about to abandon it as fruitless when one of them heard a feeble moan coming from a pit at the foot of a steep incline. A descent was made to the spot, and there the unfortunate gentleman was found, still alive, with no injury to bone or limb, but "literally beset by a myriad of leeches" ("letteralmente assalito da una miriade di sanguisughe"). He was at once removed to the hotel and attended by Dr. Cesare Paggi, afterwards assisted by Professor Del Greco. But the loss of blood inflicted on an enfeebled constitution proved fatal, and, in spite of assiduous care and skill, the Commendatore died within three days of his rolling down into the pit.

F. E. N.—We do not believe it was ever intended by the Act that a fee should be charged under the circumstances mentioned. Such a charge is a distinct hardship and ought to be resisted. Attention should be called to the case.

Mr. C. Gregory, Salford.—Any application of this sort should reach us through a medical man.

P. R.—It should be treated like the midwifery fees—divided.

Mr. L. Kidd.—Messrs. Leggett and Co., Bradford.

## THE LEGALITY OF MEDICAL STUDENTS ACTING AS ASSISTANTS.

To the Editors of THE LANCET.

SIRS.—Would you kindly inform me whether there is any law to prevent a medical student (unqualified) acting as an assistant to a duly qualified practitioner by visiting, dispensing and attending midwifery? Is an unqualified assistant (a student) liable to an action under the Apothecaries Act (1815) for visiting and prescribing?—Yours truly,

J. TAYLOR HANCOCK,

Amble, July 23rd, 1892.

Registered Medical Student.

\*\* To the first question we would say that, provided the medical student acts under the close supervision of the principal and resides under the same roof, neither he nor his principal is likely to be molested by the rules laid down by the Medical Council for the guidance of practitioners. We would refer our correspondent for these rules to THE LANCET of June 4th, 1892, p. 1209. To the second question we have to reply that we are not aware of any such action against an unqualified assistant, and that it is not likely to be commenced.—ED. L.

## "DURHAM CITY."

To the Editors of THE LANCET.

SIRS.—On page 232 of last Saturday's issue of THE LANCET I notice a paragraph headed "Durham City," in which your correspondent refers to the remarks made by the judge at the assizes recently held here with regard to some foul smell which existed in the court. I forward you a cutting from the *Durham County Advertiser*, of the 22nd inst., bearing on the point. I have made inquiries and am assured on the best authority that the explanation given in the paper is a perfectly correct one. Perhaps you will therefore be so good as to give publicity to the enclosed paragraph.—Yours obediently,

A. M. VANN,

Durham, July 26th, 1892.

Medical Officer of Health.

\*\* We append the paragraph enclosed by our correspondent.—ED. L.

"THE 'NUISANCE' AT THE ASSIZE COURTS.—In the remarks passed at the Assize Courts last week his lordship was considerably wide of the mark in his opinion as to the smell of which complaint was made. As a matter of fact there was not the slightest defect in the sanitary condition of the Assize Courts, and the unpleasant smell was created by the presence of a person who suffered from a peculiar disease. He was seated in front of Mr. Walton, Q.C., the complainant, and therefore the smell was likely to be more offensive to that gentleman than to anyone else. The true state of things was discovered shortly afterwards by the police and the man was asked to retire. He did so, and the nuisance no longer existed in court. His lordship's severe observations were therefore unmerited."

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. James Armstrong, Liverpool; Mr. W. Armstrong, Pontesbury; Messrs. Ash and Sons; Dr. Althaus; Mr. W. Anderson; Mr. Airey; Dr. Abram, Exeter; Mr. Brown, Douglas; Mr. Banerji, Calcutta; Messrs. Bishop and Sons; Mr. A. E. Broster, Wirksworth; Messrs. Bates, Henty and Co.; Dr. F. Beach, Darent; Mr. R. W. Barker; Messrs. Broome and Co., Oldham; Mr. Browning, Manchester; Messrs. Barker and Sons; Mr. Birchall, Liverpool; Mr. Burgess, Manchester; Mr. Byrne, North Devon; Dr. E. K. Campbell; Dr. G. Carpenter; Mr. A. Clark; Mr. Cornish; Mr. H. P. Dean; Dr. Dukes, Croydon; Dr. Dale, South Devon; Mr. Donnan, Beaconsfield; Dr. James Edmunds; Major M. L. Flower; Mr. Foy; Dr. Garman, Kendal; Dr. S. Grose, Wilts; Mr. C. Gregory, Salford; Dr. Garstang, Blackburn; Dr. Gilbert, Baden

Baden; Dr. C. A. Harvey; Mr. J. G. Horder; Messrs. Humphrys and Co.; Dr. Hedley, Cardiff; Mr. J. T. Hancock, Amble; Mr. Heywood, Manchester; Mr. Humphreys; Dr. A. D. Hughes, Solva; Mr. G. A. Hawkins-Amler; Mr. J. A. Eyton Jones, Bawtry; Dr. Robert Jones, Redhill; Mr. Judd, London; Mr. Keely, Nottingham; Messrs. Kegan Paul and Co.; Mr. Kirkham, Downham Market; Dr. L. Keeley; Surg.-Lieut.-Col. Keith, Hyderabad; Dr. Laserson, Tottenham; Messrs. Lee and Martin; Mr. Little; Mr. Lamb; Dr. R. Lewins; Messrs. Maythorn and Son; Surgeon-Major Mackenzie, Nairne; Dr. P. de Mazatbais, Rio de Janeiro; General A. MacDonald, Perthshire; Messrs. Macmillan and Co.; Mr. Morden; Mr. Moore, Liverpool; Messrs. McKeever and Co., Carlisle; Dr. Montgomery, California; Mr. Minett; Messrs. Negretti and Zambra; Dr. H. R. Oswald, London; Messrs. Orridge and Co.; Dr. Phillips, Birmingham; Dr. Posner, Berlin; Dr. T. H. Parke, Netley; Mr. F. Page, Newcastle-on-Tyne; Mr. H. F. D. Porter, Guildford; Mr. B. Robinson; Messrs. Rice Brothers; Mr. George Rendle; Mr. Shillingford; Mr. Smith, Ipswich; Messrs. W. H. Smith and Son, Nottingham; Mr. Sarll; Professor Sealey; Messrs. Street and Co.; Mr. Sell; Mr. Stockwell, Bath; Dr. Slater, Appledore; Dr. T. Shaw, Goona; Dr. Saumonier, Paris; Dr. Stewart, Dundee; Dr. W. Squire; Professor A. Stuart, Sydney; Professor Tait; Messrs. Taylor and Co.; Mr. Wm. Tallack; Dr. J. A. Thompson, Bolton; Mr. John W. Taylor, Birmingham; Dr. Hack Tuke, London; Messrs. J. and F. Usher; Mr. A. M. Vann; Dr. A. Wilson, Manchester; Dr. Dawson Williams; Dr. L. L. Wedekind, Chelsea, Mass., U.S.A.; Dr. B. Windle, Birmingham; Dr. J. S. Walker, Hanley; Messrs. Walker, Heckmondwike; M. S.; Interviewer; Verax; Query; M.R.C.S.; Kent Paper Works; Melvin; D. K. S.; G. Jasper-street, Hanley; Felix; A Firm of Solicitors; L. & N.W.R.; Scholastic Agency, Manchester; London Necropolis Co.; Erin; Common Sense.

LETTERS, each with enclosure, are also acknowledged from—Dr. Aitchison, Wallaseid-on-Tyne; Mr. Anderson, Carmarthen; Messrs. Allen and Wilson, Indianapolis; Dr. Bourke; Messrs. Burgoyne, Burbidges and Co.; Dr. Barker, Hungerford; Mr. Barker, Hackney; Messrs. Blondeau et Cie., London; Mr. Boulger, Wolverhampton; Dr. Butler, Castle Donnington; Mr. Ballachee, Macclesfield; Messrs. Brown, Gould and Co.; Mr. Bourne, Stourport; Dr. Carmichael, Barrow-in-Furness; Dr. Cross, Newcastle-on-Tyne; Mr. Davenport, London; Miss De Lüttichau; Mr. Dyson, Goole; Messrs. Duncan, Flockhart and Co., Edinburgh; Mr. Evans, Victoria; Mr. East, Pontrials; Mr. Fisher, West Hampstead; Mr. Fanshawe; Mr. Fiske, Aylesford; Dr. Griggs, Wheatthampstead; Mr. Gilyard, Bradford; Messrs. Gardiner and Co., Wisbech; Messrs. Greef and Co., London; Mr. Gant, Hastings Hospital; Dr. Harley; Mr. Hardy, Maidstone; Messrs. Hargrave and Doidge, Suffolk; Mr. Hayward, Brixham; Mr. Hauer, Dartmouth Park-hill; Mr. Jesse, Macclesfield; Messrs. Kilner Bros.; Mr. Lambert, Hull; Mr. Lancaster, Edinburgh; Mr. Lindsay, Park City, Utah, U.S.A.; Miss Messenger, Alton; Mr. Martindale, London; Miss Manley, Croydon; Mr. O'Connell, Tralee; Mr. Pickles, Leeds; Mr. Pead, Upper Norwood; Mr. Phillips, Hastings; Mr. Pierce, Milford Haven; Miss Rogers, Tramore; Mr. Ross, Ashton-under-Lyne; Messrs. Robbins and Co.; Mr. Ritchie, Oxford; Mr. Robertson, London; Mr. Shaw, Huddersfield; Mr. Saunder, Manchester; Dr. Swann, Batley; Mr. Thin, Edinburgh; Mr. Tyte, Minchinhampton; Mr. Tunnicliffe, Gosport; Mr. Woodhead, Huddersfield; Mr. Wilson, Leeds; Mr. Wylie, Kingsbridge; Mr. Watt, Worthington; Alpha; Vortex; Cascara; Queen's College, Birmingham; B. C. H.; Gerald, Cheshire; Jeyes' Sanitary Co.; Gamma; Doctor, Ashford; M.D., London; Secretary, Ingham Infirmary, South Shields; A. B.; X. Y.; Justice; Homo; M., South Devon; G. S.; J. S. S.; M.B.; Scalpel; Theta; Thorns; Medicus, Bristol; M.R.C.S., Weymouth; M., Hampstead; Veritas; Medicus, Loughborough; Vera; York; 252, Liverpool-road.

NEWSPAPERS.—Sheffield Independent, Newcastle Journal, Natal Mercury, Pontefract Express, Warminster Journal, East Essex Times, Kentish Mercury, Somerset Express, Southport Guardian, Manchester Weekly Times, Haslingden Guardian, Civil and Military Gazette (Lahore), The South Africa, Health Messenger, Oxford Times, Manchester Examiner, Somerset Standard, Ripley Advertiser, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 28th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar India in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
July 22	30.23	E.	60	50	94	72	53	—	Hazy
" 23	30.30	N.	62	57	118	77	60	—	Hazy
" 24	30.39	N.E.	53	54	98	62	60	—	Hazy
" 25	30.31	N.E.	57	52	107	65	63	—	Overcast
" 26	30.20	E.	60	50	112	71	56	—	Cloudy
" 27	30.22	E.	61	53	108	70	67	—	Overcast
" 28	30.24	E.	57	54	111	67	55	—	Overcast

Medical Diary for the ensuing Week.

Monday, August 1.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, August 2.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, August 3.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, August 5.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 6.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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## Address in Bacteriology,

Delivered at the Meeting of the British Medical Association at Nottingham,

By G. SIMS WOODHEAD, M.D. ED., F.R.C.P. ED.,  
DIRECTOR OF THE LABORATORIES OF THE ROYAL COLLEGES OF  
PHYSICIANS (LONDON) AND SURGEONS (ENGLAND).

MR. PRESIDENT AND GENTLEMEN,—Had it been announced twenty years ago that one of the annual addresses delivered before this Association would be devoted entirely to a review of the subject, or part of the subject, of bacteriology, such announcement would have been received as coming under the category of prophecies not likely to be fulfilled; and without claiming any very large share of modesty or self-depreciation, I cannot but feel that it is to the unexpected fulfilment of this imaginary prophecy that I owe my present position—a position that would be only too eagerly sought after from the honour that its occupation confers on the holder, were it not that the responsibilities placed on his shoulders must necessarily weigh heavily enough to interfere most seriously with the full enjoyment of the honour. Bacteriology, though a comparatively new science, has already made so deep an imprint on the science and practice of medicine that the enumeration in catalogue form of the various facts upon which, according to our present knowledge, the solution of important medical and surgical questions depends would occupy a much longer time than we have at present at our disposal; it will be my aim, therefore, to indicate very briefly the extension and limitation of bacteriology in its relation to medicine. It may be stated at the outset that in this matter extremists have little claim to be considered, and that, although most thoughtful men maintain that bacteria play a most important rôle in the production of disease, it is equally certain that no claim for anything beyond such important share can be claimed for the most virulent of pathogenic microbes. Outside the question of the relation of micro-organisms to the special forms of surgical fevers, a knowledge of the life history of bacteria and the relation of these organisms to specific infective disease is essential to every scientific student of medicine; so definitely, indeed, has this come to be acknowledged that in all our Public Health examinations a knowledge of bacteriology is insisted upon, whilst in many of our civil and military appointments both at home and abroad a fairly intimate knowledge of the theories as to the relations of bacteria to disease is looked upon as constituting a most important qualification in the case of candidates presenting themselves for examination. If, then, the public services are taking up this position, how much more necessary is it that an important Association such as that which I have now the honour to address should wish to encourage its study by such means as they have in their power. As you are aware, some of the earliest and best work on bacteriology has been done by your research scholars, and many of those who have begun this work under the auspices of our Association have made it part of their life work. To mention one example only out of many, Watson Cheyne's accurate work on the life history of the bacillus tuberculosis and on the special relation of this bacillus to tubercle of bones and joints forms a most valuable contribution to bacteriology and surgery.

It has been too much the fashion to look upon bacteriology as an art rather than a science. It was supposed that if we were able to obtain evidence that a definite micro-organism was associated with a specific disease, and that if we could find a means of destroying this organism, or of preventing its access to the tissues the limits of bacteriological teaching would be reached. Thanks, however, to the genius of such men as Pasteur, Koch and Lister, bacteriology is now looked upon as a branch of science the study of which may afford us help in the solution of even fundamental problems in biology; it has assumed such importance that into its service have been pressed the general biologist, the botanist and the pure physiologist; whilst all who practise medicine and surgery feel that they must, at least, be conversant with the principles that underlie its study. I know there are some who will not agree with this, and who will tell us that we are bacteria mad; and whilst acknowledging that in taking up this comparatively new subject we may have been led to attach undue importance to it, it must be conceded that,

studied in its broader aspects, bacteriology has enabled us to grapple with some of the most difficult questions in medicine. Can an astronomer be accused of narrowness of vision because sometimes he may be found looking through the telescope which covers a limited field and is studying with especial care a small area of the heavens? Which of us can tell of the boundless space and the countless worlds that are opened up by these seemingly narrow studies? The observer collects his data, applies the laws of physical science as at present set forth, formulates and proves new laws, and opens up and argues on a world so utterly beyond us that his facts to those uninitiated read like the wildest fiction, and his descriptions like poetry and romance.

It would be a waste of your time were I to attempt to trace the history of fermentation, of putrefaction, of septic conditions and of the relation of bacteria to certain diseases, but it may perhaps be of advantage to insist that there has been a continuous evolution and extension of our theories in regard to the nature of the action and interaction of bacteria on the tissues and organs of the human body. First, there was the mechanical theory, in which it was maintained that death of the host was due to the impaction of groups of micro-organisms in the capillary vessels; then came the theory that these organisms used up the oxygen so rapidly that the tissues received an imperfect supply and somatic death ensued. Both of these may be partial explanations, but we have now presented to us quite different explanations. The administration of phosphorus is followed by grave changes in the tissues, and fatty degeneration occurs—how this is brought about it is difficult to say; similar degenerations are found in certain diseases set up by micro-organisms. Do such organisms, then, when introduced into the body, act directly by taking up and using for their own purposes the oxygen which would otherwise be applied to the nutrition of the tissues? This appears to be very unlikely. Do they attack the tissues directly, making their way into the substance, and so devitalising them that they are unable to perform their proper functions? Do the products formed by these organisms act directly on the cells, and interfere with their functional activity, causing direct devitalisation and degeneration of the protoplasm? Do the cells, when called upon to perform extra work in getting rid of these organisms or of their products—both of which must be looked upon as foreign bodies—undergo such excessive stimulation that the supply of oxygen is not equal to the demand, and the functional activity of the cells being in excess of their facilities for nutrition, their protoplasm then undergoing changes described as cloudy swelling, which in turn are followed by fatty degeneration just as in phosphorus poisoning? At one time it would have been deemed impossible to answer these questions; but as the study of the chemistry of bacteria has been utilised, our information on these points has become more and more definite, and as this definite information has been obtained, it has become possible to indicate some at least of the processes that are going on in certain of the specific infective diseases, and to draw inferences, some of which, however, have still to be put to the proof, as to the methods to be adopted in waging war against bacteria. One of the most important outcomes of the study of the relations of bacteria to disease is that we have now a pathological chemistry which, though still in its infancy, has a great future. Hitherto physiological chemistry has merely been elaborated and extended in order that it might be applied to the examination of certain products and excretions met with as the result of diseased conditions of various organs; but beyond enabling us to make search for slightly modified physiological products, this physiological chemistry has helped us but little.

The influence that bacteriology has had on medicine and surgery is best appreciated when some special process or condition is followed in its etiology, progress and determination; for example, the study of bacteriology has revolutionised our conception of the whole subject of inflammation, and has enabled us to bring into harmony theories and interpretations of facts which hitherto have appeared to be diametrically opposed to one another. Virchow's observations on the changes in the fixed and parenchymatous cells were supposed to clash with those processes of emigration of leucocytes and changes in the walls of the vessels set forth by Wharton Jones, Waller, and Cohnheim and their disciples. A battle royal waged between those who held that there could be no inflammation without vascular phenomena and those who maintained that these vascular phenomena were merely secondary events. In connexion with this subject Metchnikoff has pointed out that

in the human subject and the higher animals, on which experiments were at first exclusively made, it is impossible to set up any definite irritative changes without calling to our aid traumatism or some form of chemical irritation; and also that in such experimental subjects even the tissues which in a normal condition are extra-vascular have, under the slightest irritation, a tendency to return to their embryonic vascularised condition. It was then found that certain bacteria when introduced into the tissues had the power of setting up rapid but easily followed inflammatory changes; and, lastly, the pathologist and the zoologist have combined to ascertain whether changes comparable to those set up in inflammation could be set up either by bacteria or through their irritant products, when brought in contact with lower unicellular organisms or with simple organisms in which no bloodvessels are ever developed, and another advance was made. Roser (quoted by Metchnikoff) maintains that inflammation is a disease due to infection by microbes and that the phenomena observed in repair are really the result of inflammation, or rather that they constitute those processes that end in resolution or the cure of inflammation itself. At one time such a theory would have been received with ridicule, and even now it is impossible to prove that inflammation is in all cases due to the presence of micro-organisms or their products.

It is only by a careful study of the processes described as occurring in lower organisms that we can gain any accurate conception of the differences in the processes set up by mechanical injury and those induced by the presence of micro-organisms. But we have now undoubtedly come to look upon inflammation as only one of a series of changes, all of which work towards a definite end: first, the getting rid of foreign bodies, whether organic or inorganic, whose presence might exert a deleterious influence on the tissues in which they are lodged; and, second, the repair of the breach that has been left at the point at which these foreign bodies have entered or been extruded.

The soluble products derived from pure cultures of micro-organisms are now known to be composed of a large number of different substances, to isolate which various attempts—many of them unsuccessful—have from time to time been made. None have been more successful than those carried on in this country by Burdon Sanderson, Sidney Martin, Halliburton, Brunton and MacFadyean, R. W. Philip, Hankin, Ruffer, Crookshank and Herroun, William Hunter, Cartwright Wood and others whose work, though not so frequently referred to, is still of great value. To no one was this fact more evident than to one whose loss to pathology we have now cause to deplore. I refer to Sir William Aitken, whose death deprives the profession of one whose greatest concern it was to advance and encourage the study of pathological chemistry—especially in the sense in which we are now using the term—amongst his followers. His address delivered before the Pathological Section of the Association at the meeting held in Glasgow was full of suggestion and of the results of research. He had grasped the true value of the subject, and although in recent years, owing to failing health, he had been unable to carry on original research himself, he was still able to leave the imprint of his mind on a subject the welfare of which he had so near at heart by the encouragement that he gave to younger men, both by his advice and by the enthusiasm which he still retained with his ripening experience. Another who had already done work at this subject, but who gave promise of much greater things, Dr. H. J. Tylden, whom many of us delighted to have as a friend and collaborator, has been cut off when his work still appeared to have been but begun. Dr. Tylden has gone, but the remembrance of his energy, cheerfulness and determination will remain as a help and stimulus to all who knew him and appreciated these features in his character. In order that we may focus more accurately the nature of the work which has been done in connexion with bacteriology let us confine our attention to a single disease—diphtheria—in which, as the result of the use of bacteriological and chemical methods in its study, we can now recognise with a moderate degree of certainty, not only that we have to do with a specific organism, but also how this organism acts. Loeffler, who first made pure cultures of the diphtheria bacillus, originally described by Klebs, found that, after removing the microbe from the liquid nutrient culture medium, by passing it through a cylindrical porcelain filter and injecting the filtrate into a guinea-pig he was able to determine not only the same kind of local reaction that was obtained when the organism itself was introduced into

the subcutaneous tissue, but also those paralytic symptoms so characteristic of the later stages of diphtheria. Then by extracting with a watery solution of glycerine, filtering, and dropping the filtrate into absolute alcohol he obtained a flocculent precipitate, which could be washed and re-washed with alcohol without passing into solution. This substance, readily soluble in water, still retained its power of setting up distinct local reaction after being washed, dissolved, re-precipitated, and again dissolved. Roux and Yersin, accepting Loeffler's statement that the poisonous material appeared to be a ferment-like body, repeated and extended his experiments. They made observations on the nature of the swelling set up at the point of inoculation by the organisms or by the poisons; they noted that, although there might be congestion and effusion into the serous cavities, evidences of fatty degeneration of the liver and kidney, and characteristic diphtheritic paralysis, no organisms could be found beyond the seat of inoculation. From this they argued that the poison formed at the seat of inoculation must be diffused by the lymphatics and bloodvessels into every part of the body; that it might attack the nervous and muscular tissues, especially apparently the peripheral nerves, so giving rise to degenerative changes in them and in those tissues which appear to be involved in the process of conversion, secretion, and excretion of the poisonous substances. These observations were entirely in accord with clinical experience. The degenerations that are met with in the kidney and in the liver in cases of diphtheritic animals are essentially similar to those found in children who have succumbed to diphtheria, whilst the symptoms of peripheral paralysis and the changes in the nerves appear in the two cases to correspond in the most minute features. These observers were convinced that it was some special part of the products of the diphtheria bacillus that gave rise to these symptoms, and they, after various experiments, came to the conclusion that the active substance was not actually precipitated by the alcohol, but that it was entangled and carried down by the alcoholic precipitate.

Sidney Martin, going a step further, succeeded in separating certain substances, each of which, appeared to exert a definite effect on certain tissues and functions, and to give rise to special symptoms and distinct pathological changes. He compared their physiological actions with those of similar or allied substances obtained from anthrax patients and cultures or from cases of ulcerative endocarditis and tetanus, and found that the albumoses—intermediate products between non-dialysable albumens and dialysable peptones, substances, comparable as regards their structure and chemical reactions to those formed during the process of peptic digestion, could be separated not only from the membrane of diphtheritic patients, but also from the spleen and blood of the same patients, and from pure artificial cultures, of the Klebs-Loeffler organism as cultivated by Klein and himself, and that they produced very definite local effects when injected subcutaneously—a condition that was usually accompanied by marked rise of temperature, paralysis, fatty degeneration of certain of the peripheral nerves—both motor and sensory—of the heart muscle and in a minor degree of certain other organs. These features were observable even when a single dose only was given, but were much more marked when small but oft-repeated doses were exhibited. The marked wasting and degeneration, which, in many cases appears to have been progressive and continuous, indicates that we have here to do with a direct poisonous action of the albumoses on the protoplasm of the tissues that they specially affect. Martin, who had previously described a powerful alkaloid or organic base in the products of the bacillus anthracis and in the blood and organs of anthrax patients, was naturally led to look for a similar substance in the diphtheria products; but here, as if to accentuate the difference that may exist between the poisonous substances produced by two different organisms, he found not an organic base, but a substance which he speaks of as an organic acid, as, although it was separable by the same processes as those used to isolate the base or alkaloid, it was found to have the characters of an acid. This organic acid had, however, the same—but markedly feeble—physiological action as the albumose, also giving rise to nerve degeneration.

In the diphtheritic membrane where—as in ulcerative endocarditis—the organism is growing on coagulated fibrin, a substance which is readily digested by and prepared for the nutrition of the organisms found in these diseases, albumoses are always found accompanied by an extremely

virulent substance entangled in the proteid of the membrane, and precipitated by alcohol. This substance is similar in all respects to the ferment-like body described by Roux and Yersin. It is attenuated by heat, destroyed by boiling, and is characterised by the same (but more intense) physiological actions as the albumose and the organic acid, extremely minute doses producing very grave symptoms. Diphtheria, then, is entirely dependent for its specific symptoms on the diphtheria bacillus, experiment corroborating clinical observation in a most remarkable manner. This bacillus does not readily attack healthy individuals, but where there is slight ulceration of the throat or slight fibrinous exudation on the surface of the tonsils or the posterior surface of the velum palati, diphtheria often makes its appearance. Sometimes the exudation appears to be associated with the local action of the diphtheria bacillus itself, but usually the diphtheritic process appears to be grafted on small patches of ulceration and exudations. Experiment offers the explanation of this fact. The diphtheria bacillus does not appear to have a very marked power of attacking healthy mucous membrane; but when it finds a nidus in devitalised cells and coagulated fibrin, it is able to produce its special secretion or "enzyme," part of which acting on the fibrin, just as the enzyme met with in the stomach acts on food, rapidly transforms the insoluble and undialysable fibrin into soluble albumoses, some of which in turn are utilised for the nutrition of the micro-organism, whilst the remainder of the enzyme and the products of its action on the fibrin, absorbed by the lymphatics and blood-vessels, are carried into the system, where they act on the tissues and organs already mentioned, and, after being broken down into lower molecular combinations, are excreted. Before, however, we can accept this ferment-like body as an enzyme, the power of conversion of a large quantity of proteid must be more definitely proved. It is to the presence of these three sets of products that the symptoms of diphtheria and the changes met with in the tissues are due, and, as Martin points out, all three sets of poisonous substances may be obtained from pure cultures of the specific diphtheritic organism. In diphtheria, then, the bacillus is the primary infective agent. It, as a result of its vital activity, produces a powerful enzyme—Martin's secondary infective agent. Part of this enzyme, acting locally on the coagulated fibrin on which the organism is subsisting, converts it into various soluble products known as albumoses; some of the enzyme, being absorbed, continues the process of conversion in those tissues and organs in which it is allowed to remain long enough in contact with the proteids contained in the fluids of the body. This conversion, as Martin indicates, is especially well marked in the spleen, through the spaces of which the blood passes extremely slowly, so that it is allowed to remain in contact with the enzyme for some time, during which the albumoses are broken down into much less complex chemical substances, the most important of these in diphtheria being the organic acid, whilst in anthrax it is an alkaloid or organic base, the less complex organic acid being less virulent than the albumose, whilst those bodies of still less complex molecular constitution appear to be little more noxious than ordinary effete products.

The semi-final product of the bacillus of anthrax is, however, the most active cause of death, the alkaloid exerting a far more powerful physiological action than the intermediate albumoses which in diphtheria act so much more energetically. It is interesting to note how the definite changes set up by these poisons correspond to those set up by inorganic poisons, such as phosphorus, antimony and by some of the organic compounds which induce fatty degeneration through a direct action on the protoplasm, which—unable to obtain extra-cellular material to carry on its functions under increased stimulation—has to fall back, as it were, on its own protoplasm, which is rapidly converted from proteid into fatty matter. Here, then, with the protoplasm overstimulated and wasted, and with the products of the micro-organism still present in the blood, the process of wasting becomes progressive; owing to the previous wasting normal stimulation is now excessive; the degeneration may go on even after the poison has been removed, and ultimately the patient may die of failure of certain organs when all danger from the direct action of the poison appears to have passed by. We now know that in the case of the microbes of suppurative, hog cholera, tetanus, tubercle and some other diseases the poison is actually combined with the protoplasm of the micro-organism, and it is quite possible that in these cases of "marasmus," or progressive wasting, the toxine may

be given up for long after the organisms themselves are dead, and thus may keep up well-marked irritation and stimulation of the protoplasm; the condition of "marasmus" continuing after the microbes are dead, and therefore—as was at one time supposed—innocuous. Bacteriological chemistry thus supplies another diagnostic factor in the detection of specific infective disorders. Martin points out that to Koch's four cardinal rules a fifth may be added—that is, that the secondary infective agent, the chemical poison separable from the tissues in the natural disease, should exert a definite physiological action, and that this poison should be similar, both chemically and physiologically, to the products obtained from a pure artificial culture of the primary infective agent—the micro-organism. Specific chemical differences may not always be present, but by combining what we know of the chemistry of these products with their physiological or pathological action we may still be able to determine how far a disease is specific, and how far, therefore, it is due to the presence of a primary infective agent. By the assistance of the above factor it may be possible to unravel the etiology of certain disorders which up to the present have defied the most pertinacious efforts of the pathologist and bacteriologist. It is not within the reach of everyone engaged in general practice to make chemical examinations; though, from the lucid way in which some of our recent workers have set forth their methods, it is a comparatively easy matter to carry on the first stages of the processes from which point the expert may continue the research. It is possible, however, as Roux and Yersin have pointed out, for everyone engaged in the attendance on patients in whom the presence of diphtheria is suspected to settle the question for themselves, and to gain information, not only for their own guidance in the treatment of the case, but also for the use of the medical officer of health, whose duty is often rendered both difficult and unpleasant, where any doubt as to diagnosis in such cases exists. Roux and Yersin find that if they remove part of the diphtheritic false membrane by means of a platinum needle flattened at the end, to form a kind of spatula, pass the same needle without recharging over the surface of a series of layers of specially prepared blood serum, and incubate at from 33° to 35° C., the diphtheria bacillus is the only one of the commoner micro-organisms that makes its appearance within twenty hours. Colonies visible to the naked eye as small rounded greyish-white points (the centre of which, owing to the somewhat greater thickness, is more opaque than the periphery) are then seen. So rapid is the further growth of these colonies that they are large, well-developed discs before any other organisms form colonies at all visible to the naked eye; from these pure cultures may be readily obtained, and may be examined at once or sent to some expert bacteriologist. The appearance and rapidity of the growth alone are quite sufficient to justify the medical attendant of the case in deciding that he is dealing with diphtheria, information which cannot be obtained by ordinary methods of diagnosis, especially in those very doubtful cases where the patches are comparatively small and ill-defined. Quite recently Shukaroff has utilised the boiled white of egg as a culture medium for this diagnostic purpose. He takes a boiled egg, carefully removes half the shell, and with a knife that has previously been heated cuts from the surface small strips just large enough to go into a test tube, which has first been sterilised by heat in the following manner. Put two-thirds of an inch of water into a test tube, plug the opening with cotton wool, and allow to boil briskly over a spirit lamp or Bunsen flame. As soon as a little more than half of the water has boiled away, put aside to cool; the egg is then placed in the tube. Cultures are made as on the serum, and incubated at from 35° to 38° C., and at the end of twenty-four hours small greyish growths, from which cultures or cover-glass preparations may be made, appear on the glistening surface of the coagulated albumen. This process may not be quite so accurate as the serum method, but it is so easy to carry out that it should prove invaluable as a diagnostic aid in doubtful cases of diphtheria.

I should here like to suggest that the Association for the Advancement of Medical Research, which has already done such valuable work, not only in encouraging but also in controlling research might undertake to assist in this matter. If properly supported by the profession it might supply media of various kinds to those who wish to engage in this kind of work, for, although it is entirely a matter of money at present, it cannot but be felt that a small subscription (if a large number of members of the profession would take this in hand) would be ample to enable such

a scheme to be carried out; and, moreover, although I do not see how the Conjoint Colleges could be expected to do more than they have done in facilitating research in this country, I am convinced (though I have not broached the subject) that if any well-matured plan, backed by sufficient funds to pay for a couple of young men who with slight training in experimental work would be able to prepare and do the rough examination of material, were put before them, they would not be unwilling to place some accommodation at the disposal of the Society in order that the scheme might have a fair chance of proving a success. A retaining fee might be paid to certain experts, whose duty it should be to give reports on specially interesting cases. At present there is no organisation or centralisation; specimens, badly preserved, are sent up in a haphazard way, accompanied or followed by a note to the effect that it is hoped that the person to whom they are sent will examine and send a report. If the expert happens to be interested in the special subject he will make a very thorough examination and will forward a report sooner or later; if he is not, the chances are ten to one that the specimen will be left until he has sufficient leisure after he has done his own proper work, and as young men of our profession are as a rule not endowed with too much of the good things of this world, they are usually so occupied with their own investigations and with trying to make both ends meet, that the examination is put off to the Greek kalends. If, however, men were specially retained and were paid a moderate fee for each investigation, they would be eager to do the work and would feel that they were not neglecting their own interest or the interests of those dependent upon them, whilst those for whom the examinations are made would have far less reluctance in sending specimens for examination were they but assured that they were taking up no one's time without making some adequate return. Not only so, but an investigation for which a fee is charged is always of more value both to practitioner and patient than an examination—done in the leisure moments of a friend or acquaintance—for which no charge is made. I should not have mentioned this matter did I not believe that pathology suffers very greatly from the want of some such organised plan of work; it is not a matter which any private individual can take up, but it is one that if taken up by the Association mentioned—especially if backed up by a grant from this Association—might prove of enormous value to the profession at large. It would, of course, be necessary to make a fixed charge for each examination, the charge varying with the nature of the work; but it might be that every subscriber of a guinea and upwards per annum should have the privilege of having his specimens examined for half the tariff price.

I had intended to deal to-day with the subject of anti-toxines—that is, substances which are said to be formed when bacteria or their poisonous products are injected into the fluids or tissues of an animal, and which are supposed to be the important factors, not in the production of immunity, but in the actual cure of specific infective diseases. I find, however, that Sternberg, in a recent address on the practical results of bacteriological researches,<sup>1</sup> goes into this matter very thoroughly, and gives a short summary of the results obtained in numerous experiments with anthrax, rabies, diphtheria, tetanus, croupous pneumonia, swine erysipelas, and also with ricin (the active poisonous principle in the castor-oil bean), and abrin (the similar product of the jequirity bean), all of which are brought forward to support the theory that wherever a poison is developed in the body an anti-toxine—a substance which is supposed to neutralise the effect of a poison—is rapidly developed, with the result that neither specific organisms nor their poisons can continue to have any effect on the animal host. Many of the experiments made by different observers who have laid claim to the presence of these anti-toxines have failed to give results in the hands of other workers. It cannot, merely on this ground, be assumed that the first results are inaccurate, for all who have experimented with bacteria know only too well that the results they have been able to obtain have differed so greatly when the conditions of the experiment have been only slightly modified, that the personal element of the equation in these problems, in which we are to a certain extent groping in the dark, must necessarily be a most important factor. On the other hand, it should be distinctly understood that until the crucial experiments have been repeated time after time, in different schools, and under known conditions by all who

are determined to obtain reliable data, we are not justified in accepting them as proved.

Allowing that many of the experiments are perfectly trustworthy the results obtained by various workers at different diseases have been so contradictory that it may well be asked what is the explanation of such divergences. In the first place there is not a sufficiently marked line of demarcation drawn between the curative action of the anti-toxines and the production of immunity; the two are perfectly distinct, though they are too frequently inextricably confounded in respect to the interpretation of experiments. For example, it is quite possible that an anti-toxine when introduced either into a pure culture of a specific organism or in the body of an animal in which this organism is growing may prevent or neutralise the action of the toxine formed by this same organism, whilst it may not exert the slightest influence in inducing an increased insusceptibility to the attack of the same organism; on the other hand, it is found, as Metchnikoff has recently demonstrated for hog cholera, that the serum from an animal vaccinated against this disease (which is then supposed to contain the anti-toxine), just as in the case of serum from an unvaccinated animal, allows of a most luxuriant growth of the hog cholera organism, and that it certainly exerts no anti-toxic action when injected into an animal suffering from the disease. But when the serum from a vaccinated animal is injected from time to time into the circulation of a non-vaccinated animal, it is found to confer, just as Martin found on injecting anthrax blood similarly treated, a very marked insusceptibility to the specific disease, whilst the serum of animals not previously rendered immune when injected into non-vaccinated animals exerts no protective influence, the disease being developed just as in animals previously unexperimented upon.

If now we consider that this serum from vaccinated animals serves as an excellent cultivating medium for the growth of the micro-organism of hog cholera, as, too, we find that when sterilised products of a culture of hog cholera bacillus or the blood taken from an immune animal do not interfere with the action of the special poison when introduced simultaneously into the circulation, it must be concluded that such sterile product does not act directly either on the bacillus or on the poison produced by the bacillus; on the other hand, as this same substance introduced into the circulation of the animal undoubtedly exerts a certain protective influence we are compelled to the conclusion that this serum—or rather some body present in it—must act directly on the protoplasm of the cells of the body. Metschnikoff argues that it must act as a stimulant, for it is generally accepted that there is a definite protection for most specific diseases. It is of course not necessary to assume that only the migratory leucocytes are so modified, for although the leucocytes, on account of their motility and powers of migration and emigration, are first called upon to resist the attacks of invading organisms and their products, all the cells—especially those in contact with the circulating fluids—must be modified as they come in contact with the poisons carried in these fluids, and thus be gradually inured to carry on their work, even under extremely disadvantageous conditions; for there can be little doubt that these other cells have frequently to help, under special stimulation, to join issue with the micro-organisms and their products that have passed beyond the sphere of operation of the leucocytes at the point where the primary invasion occurs. It is to this ultimate modification of the protoplasm of the cells of the body under the influence of organic or inorganic therapeutic agents that we must look for our future triumphs in the treatment of specific disease where vaccination has not been resorted to, or has failed. Of such direct action on protoplasm there are only two or three examples, but there can be little doubt that quinine and arsenic in malaria, and mercury and perhaps iodide of potassium in syphilis, act somewhat in this manner. Should it be definitely proved that anti-toxines are formed as the result of the action of certain bacteria on the tissues and fluids of the body, an anti-toxic method of treatment—as at present within our reach—could prove of little practical value, for in the cases where any definite results have been obtained very large quantities of the blood or serum from immunised animals have been used in order to obtain the results described, and it is difficult to imagine how it would be possible to obtain for our purpose sufficient of the specific anti-toxines from living animals, however vaccinated, whilst the risks to patients would be so great that such treatment would be unjustifiable. We may, however, still hope for something better, especially when in the British Institute

<sup>1</sup> International Journal of the Medical Sciences, July, 1892.

of Preventive Medicine men can devote their whole time and energy to the study and preparation of vaccines and anti-toxines, their nature, actions and doses. Such work is too difficult, and the results at stake are too important, to be left to share with other duties the attention of any man or body of men.

There is one point of view from which we must look at these chemical products quite apart from the organisms that produce them. One of the theories as to the effect of such chemical poisons in protecting an animal against the attacks of any but the most virulent organisms or against enormous doses of less virulent organisms must, so far as our knowledge goes, be based on what may be called the acclimatisation theory, according to which various cells and tissues of the body become so accustomed to the presence of certain poisons when administered in small but gradually increasing quantities, at definite intervals, that when large doses are actually formed within the body the tissue cells are still able to react, to carry on their phagocytic functions, and thus to treat pathogenic organisms as mere saprophytes. Such a consideration as this would at present lead us to classify the methods of inoculation into at least two groups: those where the tissues have to become accustomed to the presence of a poison only, as in diphtheria and endocarditis, in both of which the poison can be developed only at the surface of the body, where fibrin or some similar substance is present but is so far removed from the action of the cells that the organism is able to grow and produce its special poison, the local tissues being directly attacked by both bacilli and poison, but the general tissues having the poison only carried to them. Tetanus might also be included in this group, though the conditions are somewhat different. Here it may be possible to acclimatise the tissues (as also in the case of hydrophobia) that the poison which, under ordinary accidental conditions, finds its way into a wound would have practically no effect, in which case the organisms introduced at the same time would also be dealt with by the tissues. In the case of diphtheria and infective endocarditis, where an enormous quantity of poison may be formed, and where, as we know, products administered experimentally have devitalised the tissues instead of increasing their resistance, the hope of inoculation proving useful does not seem to be very bright, though it may be that the introduction of exceedingly minute doses at certain definite intervals may confer a certain degree of protection. Where, however, pathogenic organisms are able to make their way into the lymphatics and bloodvessels, the prospects of obtaining good results from inoculation are much more favourable, as, if once an animal can become accustomed to the presence of the poison, the microbe itself can have little chance with the leucocytes and the tissues.

The two processes—the anti-toxic and immunisation by specific acclimatisation—are perfectly distinct from those on which Koch's treatment of tuberculosis is said to depend for its success. If a certain quantity of a sufficiently dilute escharotic be injected under the skin slight inflammation accompanied by exudation of leucocytes, proliferation of the connective tissue cells and localised formation of new connective tissue, is set up. If, however, a first dose be followed by a second, a second by a third larger and more concentrated dose, the tissues may undergo necrotic changes, a slough is formed, and what is called reaction takes place; and the slough gradually separates from the reacting tissues in which connective tissue is formed. This is exactly what takes place when tuberculin is administered; the tuberculin alone is not sufficient to cause any serious damage to the tissues, but along with the poison that is formed by the tubercle bacilli in the areas affected, it intensifies the necrotic action associated with tubercle, especially in the immediate neighbourhood of the bacilli, and in this way the partially devitalised or dead tissues may be got rid of more rapidly by sloughing than in cases in which no treatment is attempted. Sad experience, however, has taught us that the increased dose of the poison so acts on the tissue in the zone some distance from the area of actual sloughing that in certain cases, at any rate, it becomes much more susceptible to the attacks of the tubercle bacilli, and thus the disease seems to spread more rapidly after the administration of tuberculin; and although it is possible, though certainly not yet proved or even probable, that very minute doses of tuberculin may have a salutary and perhaps a protective influence as regards the tissues, the clinical results up to the present have not been sufficiently satisfactory to encourage the hope that we have in tuberculin a substance that will exert any permanent favourable influence on the course of an attack of tuberculosis.

It is fitting that at a meeting of medical men whose aim is the advancement of science some slight attempt should be made to show that one of the greatest advances in the history of bacteriology has been initiated by members of this Association. It is only recently that in again going over the literature of anthrax I have come to a knowledge of certain facts, and although I was constantly associated for eight years with my friend and master Professor Greenfield, he never once mentioned a claim to what I now look upon as justly his due in connexion with the preventive inoculation of anthrax.

Duguid, as reported by Burdon Sanderson in 1880, had observed, in 1878, that when splenic fever or anthrax is transmitted by inoculation from cattle to small rodents, such as young guinea-pigs, and then back again to cattle, the character of the disease so transmitted is much milder than that of the original disease acquired in the ordinary way; the rodents die but the bovine animals inoculated with their blood or with the pulp of their diseased spleens recover. There seemed to be little doubt at the time these experiments were made that the question as to the attenuating effect of passing the bacillus anthracis from a cow to a guinea-pig had been settled, though from the fact that cattle appear to be much less susceptible to direct inoculation than they are to the bacillus when introduced by the alimentary tract, doubts have been expressed as to the real value of these experiments, as although the same anthrax when passed through a series of guinea-pigs appeared to have its virulence diminished, there was not sufficient proof given that the attenuating influence which appeared to exist extended to those cases where feeding experiments were conducted. These doubts, however, cannot detract from the value of the observations made, as they were, at so early a period. In view of Pasteur's success in the production of an attenuation of the microbe of fowl cholera this appeared to give promise of successful results in the production of immunity against the attacks of anthrax. In May, 1880, Greenfield, who at the Brown Institution had made careful cultivation and inoculation experiments on the anthrax bacillus, announced in "An Inquiry into the Nature, Cause and Prevention of Splenic Fever, Quarter Evil and other Diseases,"<sup>2</sup> that he had been able by artificial means to prepare a protective anthrax virus. After referring to Duguid's experiments and the results obtained by the direct method of inoculation, Greenfield says: "Seeing that the object of my experiments was to inoculate bovine animals with a virus modified by its transmission through the guinea-pig, it may appear that it would be desirable in order to have the full effect of such modification either to inoculate directly from the guinea-pig or from a cultivation not far removed from it. But there would be many practical advantages if it were found that having once transmitted the virus through one guinea-pig or a series of them, its modified property was subsequently maintained in the artificial cultivation. I have therefore kept this in view, and have tested the effect of successive generations of the artificially prepared poison." He further says: "It would have been a great advantage if I had been able to test side by side with these cultivations derived from the guinea-pig other cultivations derived direct from a bovine animal. But in every case cultivations from the latter have failed owing to the commencement of decomposition in the material sent to us."

Using an infusion of the hay bacillus or aqueous humour of the sheep or ox—more especially the latter—Greenfield made his cultivations in closed glass tubes about a quarter of an inch in diameter, drawn out at both ends to a fine capillary tube and sealed. These tubes, about an inch in length and half filled with cultivating fluid, were carefully inoculated with a capillary tube containing a minute quantity of the blood, or only rubbed on the spleen of the animal which had died of anthrax, were sealed immediately after inoculation and kept at a temperature of about 35° C. After carefully describing five experiments made on cattle and sheep, in which the results were certainly most satisfactory, Greenfield says: "It must be evident to anyone who considers the matter that there are many points which must be determined by experiments of a much more extensive character than any I am able to carry out at the Brown Institution. If, as I hope, it should prove on further experiment that the earlier

<sup>2</sup> Vol. xvi. of the Journal of the Royal Society of England. (I mention this paper because it was published rather earlier than the note in the Proceedings of the Royal Society, and because the evidence there given as to the success of this method is far more complete and satisfactory than that contained in the latter paper.)

results are confirmed and that the inoculation of bovine animals with the bacillus anthracis, cultivated artificially after transmission through guinea-pigs or some other animal, serves to render bovine animals totally or partially insusceptible to the disease when transmitted by the usual channels, one great step will have been taken. But there will yet remain the questions: Is the mortality from inoculation by this method a high one, or do even a small percentage of animals die? What are the conditions under which inoculations may be best performed? Does age exercise an important influence in the fatality? Lastly, for how long a period is protection from attack conferred?" "To settle these points the inoculation of a large number of animals will be necessary, and their subsequent exposure to sources of contagion at favourable periods." These facts and statements, taken in conjunction with the observations published in the Proceedings of the Royal Society for June of the same year, make it evident that in his serial cultivation experiments, during which he obtained attenuation of the virus, Greenfield's object was to obtain a vaccine which, when inoculated, would induce a milder but protective attack of the disease with which he was dealing; and whatever fault may now be found with the methods used—and it must be remembered that at this period bacteriology was an almost new science, and the methods were only in process of development—he obtained the results at which he was aiming. It has been stated that his results could not be relied upon; but these statements are not based on his experiments, or on those carried on in the way that he described, but on various modified experiments. I have therefore thought it necessary to repeat a number of his experiments, following his directions as accurately as possible; and as a result, although they are not yet completed, I have found that although I may not be able to agree with all the interpretations put on the observations, the main facts themselves are unassailable, especially as regards the modification of the appearance of the organism under cultivation in the media mentioned—modifications that have been said not to exist. At the time that Greenfield was obtaining his results with cattle Toussaint was working away on young dogs and sheep, and in July, 1880, he described the results that he had obtained on these animals, and a little later he gave his method of preparing the attenuated virus with which he protected animals against the action of a virulent anthrax. In connexion with Toussaint's experiments Pasteur, than whom few men have been less rash in drawing conclusions, was satisfied that his method of preparing vaccine was valueless; but Roux, an exceedingly accurate and careful observer, and one of Pasteur's disciples, repeating the experiments, corroborated the results obtained by Toussaint; he found that his earlier experiments, published immediately after those of Greenfield, were to be relied upon, and that although the bacilli were destroyed at 55° C., the spores remained alive, and, what was more important, their virulence was attenuated.

Owing to the conditions under which scientific work must be carried on in this country, and to the comparatively slight interest that is taken in these matters by our wealthy classes generally, and owing to the restrictions that were placed upon the most necessary experiments, Greenfield was unable to test on a large scale the value of his observations, but he had laid the foundation of what was ultimately to become one of the greatest discoveries in modern medicine, and there can be little doubt that Wooldridge, in working out his admirable and epoch-making researches on protective inoculation, was following and extending these original researches carried on in the Brown Institution, where so much valuable work has from time to time been carried out. In stating this I am not detracting in the slightest degree from the brilliant work done by M. Pasteur, who, thanks to the wonderful results that he had previously obtained in other departments of research, was able to command the opportunities of carrying on his work on a most magnificent scale; and his results, published in May, 1881, may be said to be an edifice built on a triple foundation of his own work on fowl cholera, and that of Greenfield and Toussaint on anthrax; for although, as Pasteur pointed out, the earlier workers had not been able to eliminate many fallacies, theirs was the rough pioneer work which opened up a new country, cut rough and often circuitous roads, and made possible the advance of those who were to build up and elaborate the work that has since been and is still being done.

There is an old fable that when Truth was sent by the gods, owing to some mishap it fell from the clouds of Olympia to the hard, matter-of-fact world below, and was smashed into

a thousand atoms. Not only had Truth been beautiful in itself, but the shattered fragments still retained so much beauty of form, colour and material that each became the desire of those amongst whom it fell. In the general scrimmage that ensued many took part, and some were successful, each bearing away in triumph his small fragment, he and his friends fondly imagining that it represented the whole beautiful image. Gentlemen, the first step towards reconstructing this image is for each one to acknowledge that his fragment is but part of a great whole; when this is done let each bring his own fragment, be it large or small, and submit it for examination and measurement, and to be fitted by himself and by others. From time to time men of deeper and wider views than ourselves, capable of fitting together not only their own fragments, but those of others that have been prepared to their hands, come forward, and the original form is being daily further and further outlined. We are now but gathering and combining the smaller fragments into larger pieces, and it may be that in this finite existence of ours we shall see the limbs or joints merely, but through the association and working together of many, all animated by the same desire, these smaller fragments will be gradually fitted together, so that even we, in our time, may gain some conception, however crude and imperfect, of the wonderful form of Truth as it left the gods.

### A REPORT ON THIRTY-SEVEN CASES OF TUBERCULOUS DISEASE OF THE HIP-JOINT, FOR WHICH EXCISION OF THE JOINT WAS PERFORMED IN THIRTY-SIX CASES.

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(Concluded from p. 256.)

#### STATISTICS OF THE COMPLETED CASES.

FOR convenience of reference we have given below the statistics of these cases in a tabular form. We shall here deal with the main points more in detail.

1. *Period of healing.*—Primary union (including cases in which the tube track healed by granulation shortly after primary union of the rest of the wound) occurred in 11 out of the 17 cases. Of these, 4 remained permanently healed and had no secondary operations, and 4 others remained healed for more than a year after excision before recurrence occurred. In addition to these we may add 2 cases (T. S— and J. A—) which also healed by primary union and remained healed for two years and one year and nine months respectively before recurrence, thus making a total of 10 cases which healed by primary union, and remained sound for a year or more. The date of first healing in the other cases was from three to fifteen months, as shown in the table. The period of final healing of course varies much according to the date of recurrence; this is given in each case in the table below.

2. *Recurrence of disease.*—In a total of 20 cases (including the 17 completed cases and 3 others which remained healed for more than a year after primary healing) recurrence of disease occurred in 16; in 9 of these further bone disease was found; in the others the bones were not further affected. In 5 cases there was only one secondary operation; in 5 cases there were two, in 3 cases three, in 2 cases four, and in 1 case five secondary operations. It will be seen by referring to the table that those cases which had most secondary operations performed were as a rule the cases in which further bone disease occurred.

3. *Real shortening.*—In the 17 complicated cases the actual shortening was between 1 and 2 in. in 9 cases, 2 in. in 5 cases, 2½ in. in 1 case, 3 in. in 1 case, and 3½ in. in 1 case.

The average shortening is 1.85 in. In the 2 cases which have 3 in. shortening part of the trochanter was removed.

4. *Apparent shortening.*—This, as seen in the table, was as a rule less than the actual shortening, the difference being due to slight abduction of the limb, or to some compensatory curve of the spine. The average apparent shortening is 1.3 in.

5. *Condition of joint.*—In 2 cases there was immobility of the joint, in 4 cases there was scarcely any mobility, in the remaining 11 cases there was more or less free mobility.

STATISTICS SHOWING THE EFFECTS OF FLUSHING AND DRAINAGE OF THE JOINT.

We shall here endeavour to show what bearing these points have on the time of primary and final healing. Cases admitted with sinuses are not included.

1. *Flushing.*—The treatment was adopted in twelve excisions, Mr. Barker's flushing curette being as a rule the apparatus used. In these, primary union occurred in 7 cases. One case died from shock after the operation. The remaining 4 cases were healed in three and a half, four and a half, twelve, and six and a half months respectively. Four of the flushed cases had no recurrence of disease up to the time when last seen; one of the 4 cases is that which died of diphtheria; 3 other cases remained sound for thirteen, fifteen, and twenty months respectively before recurrence; the remaining 4 cases are as yet too recent to consider in regard to final healing. The effect of flushing is therefore favourable as regards the primary healing of the wound, 7 cases out of 12 having healed by primary union, whereas only 11 out of 25 healed by first intention when flushing was not resorted to. Recurrence of disease appears to occur frequently whatever method of treatment be adopted.

2. *Drainage.*—In order to consider the effect of drainage

on the primary healing of the wound we may divide the cases into (a) those which were not drained, (b) those which were drained for from eighteen to forty-eight hours, (c) those which were drained for longer periods. As before, cases with sinuses are not included. Seven cases were not drained; of these, 5 healed by primary union. Eight cases were drained for from eighteen to forty-eight hours; of these, 6 healed by primary union. Thirteen cases were drained for periods varying from four days to several weeks; of these, 7 healed by primary union, with granulation of the tube track without suppuration. In short, healing by primary union occurred in 71.4 per cent. of cases not drained; in 75 per cent. of cases drained up to forty-eight hours; while 53 per cent. of cases drained for longer periods healed nearly by primary union. Cases therefore appear to heal almost equally well whether drained or not up to forty-eight hours, but there is a disadvantage in keeping up drainage for a longer period.

STATISTICS OF CASES WHICH HEALED BY PRIMARY UNION.

Of the 18 cases which healed by primary union, including those cases in which the tube track healed shortly afterwards by granulation without suppuration, in a clinical sense, 4 remained sound permanently and had no secondary operations; these cases were seen last two years and five months, two years, one year and eleven months, and twelve months respectively after excision. One other case remained sound up to the time it was last seen, but this was too early for the possibility of recurrence to be excluded. Six more cases remained sound for periods between one and two years. One case died early from an intercurrent affection. In the 12 cases in which recurrence took place there was further bone disease in only 5 cases. The table of these cases shows the date of recurrence after primary healing, the date of final healing, reckoned from the date of excision, and the number of secondary

TABLE OF CASES WHICH HEALED BY PRIMARY UNION.

—	Date of recurrence, reckoned from healing.	Date of final healing.	Number of secondary operations.	Drained or not.	Flushed or not.	Duration of disease before operation.
L. A. . . . .	3 weeks	13 weeks	1	0	0	1 year and 4 months
L. A. . . . .	0	—	0	0	0	1 year
G. P. . . . .	0	—	0	Drained 4 weeks	0	5 months
W. R. . . . .	0	—	0	Drained 24 hours	Flushed	2 years
E. T. . . . .	0	—	0	Drained 48 hours	Flushed	5 years
T. S. . . . .	0	—	0	Drained 36 hours	Flushed	2 years and 9 months
G. C. . . . .	0	—	0	Drained 48 hours	Flushed	5 months
E. M. . . . .	0 weeks	9 months	2	Drained 5 weeks	0	10 months
T. M. . . . .	2 months*	1 year and 11 months	3	0	0	9 months
C. K. . . . .	1 year and 6 months	1 year and 9 months	1	Drained 6½ weeks	0	2 years
C. R. . . . .	1 year and 10 months	3 years and 7 months	4	Drained	0	1 year
A. P. . . . .	1 year and 2 months*	1 year and 8 months	4	Drained	0	1 year
J. A. . . . .	1 year and 3 months*	—	1	Drained 18 hours	Flushed	2 years
T. S. . . . .	1 year and 11 months*	Not quite healed	2	0	0	1 year and 4 months
T. B. . . . .	6 months*	8 months	2	0	0	2 years
E. W. . . . .	8 months	Not quite healed	1	Drained 20 hours	Flushed	13 months
K. S. . . . .	1 year and 1 month	1 year and 3 months	1	Drained 9 days	Flushed	4 years
F. B. . . . .	4 weeks	—	1	Drained 4 weeks	0	1 year and 6 months

\* Recurrence of bone disease.

TABLE OF COMPLETED CASES.

—	Duration of disease before operation.		Date of primary healing.		Date of recurrence.*		Date of final healing.		Number of secondary operations.	Real shortening.	Apparent shortening.	Condition of joint.	Length of time without splint.		Time when last seen			
	Yrs.	Mths.	Mths.	Wks.	Yrs.	Mths.	Yrs.	Mths.					Yrs.	Mths.	Yrs.	Mths.	Yrs.	Mths.
C. R. . . . .	1	—	—	3	1	10	3	7	4	Ins.	Ins.	Free mobility	—	6	5	3	1	11
R. B. . . . .	—	3	—	—	—	1	—	5	1	2	2	Free mobility	4	—	5	2	4	9
E. M. . . . .	1	—	3	—	—	1	—	5	2	2	2	Firm union	—	—	4	4	3	7
T. M. . . . .	—	10	—	7	—	6 wks.	—	9	2	1	1½	Firm union	—	—	3	4	1	5
A. P. . . . .	—	9	—	3	—	2½	1	11	3	1	1	Free mobility	—	—	3	4	1	5
W. B. . . . .	1	—	—	0	1	2½	1	8	4	1½	1½	Free mobility	—	11	3	4	1	8
C. K. . . . .	2	—	15	—	—	4½	—	15	2	2½	1½	Firm union	—	9	2	6	1	3
L. A. . . . .	1	—	—	7	1	6	1	9	1	1½	1	Firm union	1	—	2	6	—	9
A. C. . . . .	1	—	—	3	—	None	—	3 wks.	0	2	—	Free mobility	—	(?)	2	5	2	4
L. A. . . . .	1	6	—	8	—	3½	—	8	3	1½	1½	Firm union	—	9	2	6	1	10
G. P. . . . .	1	4	—	3	—	3 wks.	—	13 wks.	1	1½	1½	Free mobility	—	(?)	2	1	—	11
C. N. . . . .	1	5	—	6	—	None	—	5 wks.	0	1½	1½	Firm union	—	11	2	—	1	11
C. N. . . . .	0 (?)	—	13	—	—	13½	—	3	5	3½	2	Free mobility	—	3	1	11	—	10
W. R. . . . .	1	6	—	14	—	6½	—	10	2	1	½	Free mobility	—	3	1	10	—	—
E. M. . . . .	2	—	—	4	—	None	—	4 wks.	0	1½	—	Firm union	—	4	1	10	—	9
M. B. . . . .	4	—	—	4	—	13	—	3	1	3	2½	Free mobility	—	3	1	9	—	6
E. S. . . . .	3	—	—	6	—	2	—	6	1	2	1½	Free mobility	—	3	1	6	—	—
F. S. . . . .	2	9	—	3	—	None	—	3 wks.	0	1½	1½	Mobility	1 week	—	1	—	—	11

\* Date of recurrence is calculated from period of primary healing, except where there was recurrence before primary healing.

† Recurrence in bone.

operations. The final results in those cases which are completed will be found by referring to the table of completed cases. The following conclusions may be drawn:—1. The primary healing must have been fairly complete and by no means limited to the superficial tissues in the majority of the cases, for the hips appeared to be quite sound and the scars continued healthy for many months even in the cases where disease subsequently recurred. 2. That it is desirable to secure primary union if possible, not only in order to prevent the risks of septic suppuration, but also with a view to the better subsequent progress of the case. Fifteen of the cases are sufficiently advanced to be considered in regard to recurrence of the disease; 5, or one-third of them, had further disease of bone. With these may be contrasted 14 cases which did not heal by first intention; 7, or half of them, had further disease of bone.

#### COMPARATIVE RESULTS OF EARLY AND LATE OPERATIONS.

In order to elucidate this point we have studied 20 cases which were operated on more than a year ago, more recent cases being excluded; cases which died and those admitted with sinuses are also excluded. The duration of the disease before operation is stated in each case in the two tables, the one of cases which healed by primary union, the other of completed cases. By referring to the former table it will be seen that the duration has little if any influence on the primary healing, as the list includes cases of various durations, from five months up to five years. Also, by referring to both tables, it is difficult to show that the duration of disease has much bearing on the final results. It should, however, be borne in mind that whether the case had progressed slowly or rapidly the same indications for operation were observed—viz., the presence of a superficial abscess and extensive disease of the joint.

We believe that the cases recorded and analysed above afford an average sample of the results which are obtainable by the mode of treatment which was employed. The immediate mortality, however, we believe to be higher than it ought to be, and higher too than it would be found to be if a larger number of cases were analysed. The results, if considered from all points of view, appear to us to be much less encouraging than the advocates of the methods followed were led to anticipate would be the case. But, whilst making this admission, we feel that no other plan of treatment can offer better results in similar cases—similar not only in regard to the stage to which the disease had progressed, but similar also in regard to the social position of the patients.

## THE ONTOGENY AND PHYLOGENY OF THE BREAST.

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### SECTION I.—INTRODUCTORY.

THE mammae are glandular organs destined to secrete milk for the nourishment of the young immediately after birth. Correlated with these important organs are other structural peculiarities, so that morphologists classify all animals having them in the same order under the name "mammalia." All such animals are viviparous; their young are brought forth naked, without any foetal envelopes or stored-up nourishment. Hence they usually depend for very existence upon the ability of the mother to nourish and protect them.

The origin<sup>1</sup> of the mammae is intimately connected with

<sup>1</sup> Mammalian animals are among the most highly organised and latest evolved. It was formerly thought that they came into existence at the commencement of the tertiary period; but it is now known that the leading types, as at present existing, were even then differentiated; and mammalian remains have since been found throughout almost the whole of the secondary or mesozoic rocks. As at present known mammals are completely isolated from all other groups of animals. Huxley believes we must go straight down to the amphibia for their nearest progenitors. According to Darwin (*Descent of Man*, 1879, p. 166) the descent of man from the lowest mammalia is through the ancient Monotremata to the ancient Marsupials, and from these to the early progenitors of the placental mammals. Thence to the Lemniridae and through these to the Simiidae. The latter then branched off into two great stems: from the catarrhine or old-world division, of which—after they had diverged from the new-world division—man, at a late period, proceeded. The time at which this took place is still a matter of controversy. It is, however, much more remote than historians and

this helpless condition of the young. Both sexes of human beings, like all other mammalian animals, possess mammae, but in males they are usually small and functionless. It is only in females that they develop into true milk-secreting organs. In this their perfect state, the mammae must therefore be regarded as appertaining essentially to the female organisation. It is, however, certain that it was not always so. We must remember that the earliest and most primitive sexual relation was hermaphroditism, and that the separation of the sexes as they at present exist was only secondarily effected, by division of labour, in the gradual progress of evolution. Hence in every male we still find rudiments of female reproductive structures, and *vice versa*. But it is chiefly in consequence of sexual selection that male animals differ so widely from their females, and that they tend to vary anatomically and pathologically in a different manner. Thus were developed the so-called "secondary sexual characters"; that is, those differences between individuals of opposite sexes which appear, not in the sexual organs themselves, but in other parts of the body, such as the beard of man and the breast of woman. It is certainly very remarkable that in every female all the secondary male characters, and in every male all the secondary female characters, exist in a latent state, ready to be evolved under certain conditions. Thus in men and male mammals the breasts occasionally attain a large size and secrete milk. To account for the existence of male mammae Darwin<sup>2</sup> suggests that long after the progenitors of the whole mammalian order had ceased to be androgynous, both sexes yielded milk, and that the males aided the females in suckling their offspring, but that afterwards, from some cause (as from the production of a smaller number of young), the males ceased to give this aid; disuse of the organs during maturity would lead to their being inactive, and this state would be transmitted to the males at the corresponding age. Curiously enough, the male mammae are much less completely aborted than are the other female reproductive-structures rudimentary in man. Having no use, the persistence of such structures is remarkable.

### SECTION II.—ONTOGENY OF THE GLAND.

The human breasts (mammae), like those of all other mammalia, are generally regarded as greatly enlarged and modified cutaneous sebaceous glands. The observations of Champneys<sup>3</sup> on the development of mammary functions by the axillary sebaceous glands of women during lactation, as well as those of Duval<sup>4</sup> on the nature of the secretion of the acinous glands of the areola under like conditions, show that the difference between sebum and milk is only one of degree. In all this it appears to me there is nothing to countenance the extraordinary view recently advanced, that in human beings highly specialised organs like mammae and teeth, which have taken immense ages to attain their present degrees of perfection, can be suddenly evolved as "sports" from ordinary sebaceous glands and cutaneous epithelial processes respectively. I must protest against this assumption, which is a contravention of the fundamental principle of heredity; and as I have elsewhere shown,<sup>5</sup> the evidence on which it is based is altogether delusive. The question has arisen whether the

chronologists have led us to believe. The oldest of such records prove that civilised communities and large states flourished in Egypt and some parts of Asia, prior to 4000 B.C. In these countries, therefore, man must have had far higher antiquity than this. In Europe his presence can be traced in this way only to about 2000 to 3000 B.C. Geologists have, however, proved his existence at much more remote periods. Geikie says (*Prehistoric Europe*, p. 2 et seq.): "We know now that many long centuries before the advent of the Romans our islands were occupied by a people whose knives and swords were fashioned of bronze; we know further that this people was preceded by a race or races ignorant of the use of metals, who lived during several considerable changes of climate and oscillations of the sea level; and we have also learned that at a still more remote period our country and the neighbouring parts of Europe were tenanted by tribes of yet ruder barbarians, during whose occupancy several extensive geological mutations occurred." Prestwichi's opinion on the subject is (*Antiquity of Man*, vol. II, 1888, p. 631) given thus: "If we can be allowed to form a rough approximate estimate—on data as yet very insufficient and subject to correction—we may give to Paleolithic man no greater antiquity than perhaps about 20,000 to 30,000 years; while should he be restricted to the so-called post-glacial period, this antiquity need not go further back than from 10,000 to 15,000 years before the time of neolithic man. The extreme antiquity of even 80,000 years (not to speak of 150,000 to 200,000 years)<sup>6</sup> assigned to man, seems to me based on very inappreciable evidence."

<sup>2</sup> *Descent of Man*, 1879, p. 163.

<sup>3</sup> *The Medical and Chirurgical Transactions*, vol. lxxix., 1880, p. 410.

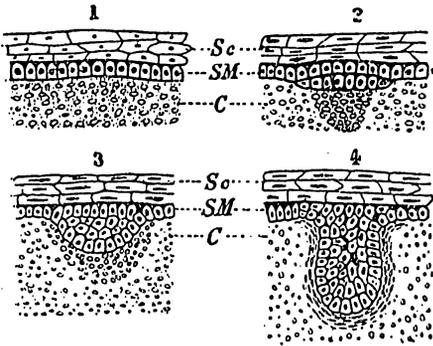
<sup>4</sup> *Du Mammelon et de son Auréole*. Thèse de Paris, 1801, p. 43.

<sup>5</sup> Polymastism, with special reference to "Mammae Erraticae" and the Development of Neoplasms from Supernumerary Mammary Structures. *Journal of Anatomy and Physiology*, Jan. 1891, vol. xxv., p. 225.

mamma is the homologue of a single sebaceous gland or of an aggregation of such glands. It appears to me that here we have but one reliable guide—viz., the ontogeny of the organ. Inasmuch as all observers are now agreed that the mamma is developed from but a single epithelial ingrowth, and that the form ultimately attained—in which the gland discharges by numerous ducts on the summit of the nipple—is due to secondary modification (kenogenesis), I am decidedly of the opinion that we must regard it as the homologue of but a single specialised sebaceous gland.

Like all other glands opening on the free surface of the body, the mamma is developed from the deep cells of the epidermis by a process of continuously progressive ingrowing gemmation, with differentiation. (Fig. 1.) The process begins at about

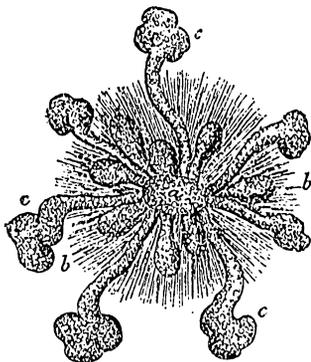
FIG. 1.



(After Weidensheim.)

the third or fourth month of intra-uterine life by certain of the columnar cells of the Malpighian stratum in the site of the future organ, proliferating more rapidly than those adjacent. (SM.) A solid knob-shaped mass of proliferous epithelial cells ingrowing into the subjacent dermis is the result (primary epithelial deposit). About this knob the small, round-celled, embryonic parablatic tissue aggregates and forms a zone from which the nipple is subsequently developed (nipple zone). A few weeks later, by repetition of the initial process, secondary buds arise from the primary ingrowth and likewise grow into the adjacent structures as solid cellular plugs (secondary epithelial deposit). These form the first rudiments of the ducts and lobes, and it is only subsequently that they become excavated. At this stage the nascent gland

FIG. 2.



(After Langer.)

consists of a single branching system of proliferous epithelial cells ingrowing into the surrounding tissues. In the dermis, beneath the nipple zone, there now becomes differentiated a fresh zone of embryonic parablatic tissue, from which the stroma of the gland is developed (stroma zone). In the next stage the primary epithelial ingrowth undergoes retrogressive metamorphosis, often with a certain amount of cornification, and these changes eventually lead to its complete disappearance. At the same time the secondary epithelial ingrowths undergo further development: they become hollowed out and give off numerous club-shaped buds at their extremities—the rudimentary lobules.

In connexion with these small aggregations of irregularly shaped epithelial cells subsequently appear, which constitute the matrix for the development of the true secreting glandular parenchyma—the acini. Towards the end of intra-uterine life each lobe has developed a single external opening or duct.

At birth the organ consists of from fifteen to twenty lobes, the excretory ducts of which are excavated and lined with a single layer of small cubical cells, the rest of the organ being still solid. (Fig. 2.) "In newly born children," says Langer,<sup>6</sup> "we rarely find anything more than the principal ducts, with some indications of ramification in the form of two or three club-shaped processes; and even if these be somewhat more developed, the terminal vesicles are always absent, even in those cases where fluid is secreted." This description has hitherto been generally accepted, but, according to De Sinéty,<sup>7</sup> it is true only for stillborn children and for those who have died shortly after birth. He says that during the first ten days of extra-uterine life considerable formative changes take place in the gland, so that if it be examined at the end of this period some acinous tissue will usually be found resembling that of the adult female mamma during lactation and capable under certain conditions of secreting milk. These changes occur in both sexes and Variot<sup>8</sup> describes them as attaining their maximum between the eighth and fifteenth days after birth. The male mamma being functionally inactive continue in this imperfectly developed condition throughout life, although they generally manifest some temporary disturbance at puberty. In females remarkable structural changes set in at this period, but it is not until after conception that the organ attains its full development. Before puberty the female breast consists chiefly of excretory ducts, but as this period approaches the true secreting structure arises by the abundant new formation of glandular acini. This wonderful post-embryonic transformation is brought about by progressive gemmation, in the same way as the initial embryonic development, of which it is but a superinduced repetition. This demonstrates that between embryonic and post-embryonic developmental processes there are no differences other than those of degree. In the words of Paget, "it is one and the same power which, being maintained continuously from the germ to the latest period of life, determines all organic formation." The commencement of this mammary rejuvenescence usually precedes the first catamenial period, and at every subsequent period more or less temporary sympathetic reaction is excited. But the most important changes are those induced by the stimulus of conception, which converts the previously functionless structure into an active milk-secreting gland. During this period the acini attain their highest degree of structural perfection. This, however, is but a transitory condition which ceases after a time, when the stimulus is withdrawn, and is again renewed on its repetition. During the intervals between these periods the breast remains in a functionless resting state.

These and many other similar facts show that normal tissues may remain quiescent for long periods, and then suddenly take on new phases of growth and development. In this way, then, the whole organ is gradually evolved from the columnar cells of the epidermis. A gland in its simplest form is merely a modification of a single epithelial cell; and according to Goodsir<sup>9</sup> each acinus of the more complex glands consists at first of but a single epithelial cell. It seems not improbable that the initial germ of the mammary gland itself may be of this simple nature. This account of the ontogeny of the breast is chiefly after Rein, Bowlby, Hüss, Kölliker, and Langer. Creighton<sup>10</sup> has given a very different description of the process. According to him the development of the mammary acini is step for step the same as that of the fat lobules, and the ducts arise from the same parablatic matrix; therefore the homologue of the mamma is not a cutaneous gland, but a "fat body." These heterodox views have not been confirmed by subsequent observers—e.g., Rein and Bowlby.

SECTION III.—ONTOGENY AND PHYLOGENY OF THE NIPPLE.

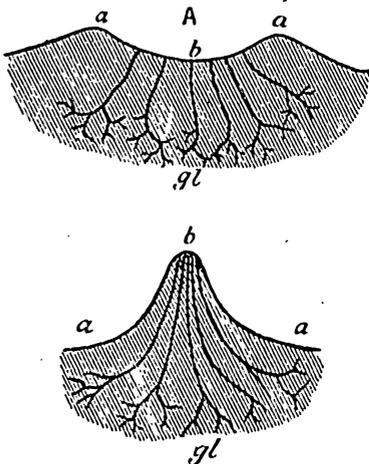
The nipples (*mammillæ*)—papilla-like outgrowths adapted for being sucked—do not develop until after the glandular

<sup>6</sup> Stricker's Histology, Sydenham Society's Transactions, vol. ii., p. 281, 1873.  
<sup>7</sup> Recherches sur la Mammelle des Enfants Nouveau-nés, Archives de Physiologie, p. 293, 1875.  
<sup>8</sup> Gazette Médicale de Paris, Oct. 4th, 1860: Remarques sur la Sécrétion Lactée chez les Nouveau-nés.  
<sup>9</sup> Anatomical Memoirs, vol. ii., p. 422, 1863.  
<sup>10</sup> Journal of Anatomy, vol. xi., p. 1; also Physiology and Pathology of the Breast, p. 33, 1873.

elements have been formed and sometimes they never arise. These ontogenetical phenomena are of great interest from the standpoint of phylogeny, because the lowest mammals—the monotremata—have no nipples. In them the milk simply emerges by numerous ducts through a sieve-like perforated patch of the abdominal skin, from which the young animals have to lick it. These ducts open either on a flat surface (ornithorhynchus) or into a pouch of the integument (echidna). From this it may be inferred—inasmuch as the ontogeny of organs generally represents and accords with their phylogeny—that our mammalian progenitors had no nipples, though they had the glands.

The marsupials differ from the monotremata in possessing nipples. According to Darwin<sup>11</sup> these structures were first acquired by marsupials after they had diverged from and risen above the monotremata, and were by them transmitted to the placental mammals. In human beings at an early stage of development the site where the nipple will subsequently appear is marked by a depression, towards the bottom of which the ducts of the gland converge (Fig. 3, a). Owing

FIG. 3



(After Gegenbauer.)

to arrest of development at an early stage this rudimentary state may persist throughout life and such malformations are met with both in the normally placed and in the supernumerary nipples. They remind us of the mammary pouch of Echidna. The further development of the nipple is effected by the area of skin, perforated by the ducts, being raised up into the form of a papilla, above the level of the rest of the integument (Fig. 3, b). When the whole of the cutaneous area perforated by the ducts of the nascent gland is not integrated with the developing nipple, then such of the ducts as are left behind, instead of opening on the summit of the nipple, do so on the areola, where they are to be found chiefly about the base of the nipple. Thus the so-called glands of Montgomery (*glandulae lactiferæ aberrantes*) arise. From the frequency of these and other somewhat similar malformations we may conclude that the mammae, like the lacrymal and salivary glands, are normally very imperfectly integrated organs. At birth the nipples are fairly prominent in both sexes. Their ducts generally contain disintegrating epithelial cells which sometimes deliquesce into a milk-like fluid.

Preston.

<sup>11</sup> *Descent of Man*, p. 102, 1870.

VICTORIA DENTAL HOSPITAL, MANCHESTER.—On the 27th ult. the distribution of prizes in connexion with this hospital took place at the Grand Hotel. The report for the eighth year of the institution showed that the present year seemed likely to prove an important one in the history of both the hospital and the dental school, inasmuch as the institution would shortly be established in the new and large premises, but which would only be temporarily utilised pending the building of the new hospital. The committee had recently drawn up a graduated scheme of instruction in operative dentistry which they believed to be more thorough and systematic than any at present in use at other dental hospitals in the kingdom.<sup>14</sup>

## ON MISSED ABORTION: WITH NOTES OF THREE TYPICAL CASES.

BY ARTHUR H. N. LEWERS, M.D., M.R.C.P. LOND.,  
OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

CASES of missed abortion are by no means uncommon; they are easily recognised if the possibility of the existence of the condition is kept in mind and proficiency has been acquired in the bimanual method of examination, especially so far as concerns the determination of the size of the uterus. Yet comparatively little prominence has been given to the subject by the majority of writers on gynaecology, with the notable exception of Dr. Matthews Duncan, whose classical lecture on Missed Abortion first led me to recognise cases of the kind. The history is usually of great importance. In most cases the patient, having been previously regular, misses one or more periods, and, especially if more than one period has been missed, most probably believes herself to be pregnant. If it should happen at this time that the medical attendant is called on to make an examination, the size of the uterus as determined by him may be of much value in making the diagnosis when other symptoms arise later on. We have, then, to begin with, an interval of amenorrhœa accompanied by the other symptoms and signs of early pregnancy. Generally the first indication of there being anything unusual in the case is the occurrence of hæmorrhage, usually at first slight and intermittent, the intervals between the losses being days or weeks; or it may be that there is a constant, blood-stained discharge, the proportion of blood varying from time to time. It is usually on account of this hæmorrhage that the patient seeks advice. It is obvious how valuable a previous examination of the patient may now prove, if a month or more has elapsed since the previous examination; for it may be found that the size of the uterus has remained stationary or has even somewhat diminished. It often happens, however, that we have no previous examination to guide us, and then it is best to compare the size of the uterus when the case is first seen with the size it should have been had the pregnancy been a normal one, reckoning from the beginning of the interval of amenorrhœa. The treatment depends on the amount or persistence of the hæmorrhage. In some cases bleeding is considerable till pains come on leading to the spontaneous expulsion of the ovum; the first case recorded below is an example of this class. In other cases bleeding is often rather free from time to time, and may be continued over a long period without the uterus showing any tendency to discharge its contents. In the second case described bleeding had lasted three months. In such cases the right treatment is to dilate the cervix and clear out the uterus. Hegar's dilators are particularly well suited for effecting the necessary dilatation, for the cervix is soft and readily dilates in a few minutes, without laceration, to the size of No. 20. Rapid dilatation is also to be preferred for another reason. The slightest disturbance of the contents of the uterus (such as is unavoidable when either a tent or one of Hegar's bougies is passed beyond the internal os) will often set up very free hæmorrhage. An instance of this is recorded in Dr. Matthews Duncan's lecture already referred to: "On the introduction of the tent, hæmorrhage began suddenly and proceeded to an alarming extent, two pints being the quantity estimated as lost within fifteen minutes," &c. Here, as in ordinary cases of post-partum hæmorrhage, it is to tonic contraction of the uterus we must look for the permanent cessation of the hæmorrhage. This contraction cannot occur till after the removal of the ovum; hence the advantage of that method of dilatation which renders the ovum accessible in a very few minutes. After the uterus has been emptied I usually swab out the endometrium with pure tincture of iodine, and then wash out the uterus with a hot douche of iodine water (one or two drachms of the tincture of iodine to a pint of hot water). Subsequently the patient has vaginal douches of iodine water for a week, and I am in the habit of ordering some preparation of ergot to be taken for two weeks after the operation. Cases treated in this way do exceedingly well. The following notes refer to three typical cases of missed abortion recently under my care.

CASE 1.—Mrs. H—, multipara, was seen on Oct. 2nd,

1891, desiring to know if she was pregnant. Her last confinement occurred on June 15th, 1890, and she was ill for some three or four months afterwards with phlegmasia dolens. She had not menstruated since the first week of July, 1891. On examination the size of the uterus indicated that she was a little more than three months pregnant. I saw her again on Jan. 4th, 1892, owing to there having been some slight hæmorrhage. *Although it was almost exactly three months since the previous examination, the uterus was little, if at all, larger than it had been then.* As the bleeding had only been slight, she was advised merely to keep quiet and send again if necessary. On Jan. 16th I was sent for to see her about 10.30 A.M., as pain and bleeding had come on during the night. On examination the os was found to be a good deal dilated, and the ovum projecting through. As there was no bleeding at the time, a hot vaginal douche of iodine water was given and the vagina packed with carbolised gauze. At 6 P.M. the gauze was removed and almost the whole ovum was found in the vagina. The fœtus was the size corresponding to a pregnancy of three months and a half. It was macerated, but not in the least putrid. The patient's subsequent progress was quite satisfactory.

CASE 2.—Mrs. S.—, a multipara aged forty-one, was seen in consultation on Jan. 15th, 1892. The history was that she had been losing blood nearly every day for the previous three months. Before that she had "seen nothing" for three months and believed herself to be three months pregnant. On examination the uterus was about the size corresponding to three months' pregnancy. The os uteri was somewhat patulous and blood was coming from it. As the patient was markedly anæmic, rapid dilatation of the cervix was recommended and agreed upon. Accordingly on Jan. 17th the cervix was rapidly dilated to the size of No. 20 (Hegar). Smart hæmorrhage occurred directly the first bougie was passed. When the finger was passed into the uterus a fleshy, firm mass was felt attached above, but lying loose at its lower part, and, as it were, flapping about in the relaxed uterus. It was removed partly with the finger and partly with polypus forceps. Bleeding was stopped by washing out the uterus with hot iodine water and by mopping the endometrium with pure tincture of iodine. The mass removed had a flattened, ovoid shape. On section it was found to have a central cavity lined by smooth membrane, but there was no trace of a fœtus. The wall of the cavity was composed of a firm placenta-like tissue, and was from a quarter to half an inch thick. The patient made an uninterrupted recovery. It will be seen that on Jan. 15th the uterus should have been the size corresponding to six months' pregnancy, but it was, in fact, only the size of the pregnant uterus at the end of the third month.

CASE 3.—Mrs. B.—, aged thirty-eight, a multipara, was seen on Jan. 26th, 1892, with the following history. The last confinement had occurred about three years previously. She had been regular up to the middle of September, 1891. She did not menstruate in October, but during November a slight "show" of blood, lasting only a few hours, was seen on two or three occasions. Bleeding came on again about Jan. 5th, and had continued daily till Jan. 26th, clots being passed on several occasions, but she had had no labour pains. On examination the uterus was found to be rather smaller than the pregnant uterus at the end of the third month, and it had the usual characters of the pregnant uterus at that time. The patient, however, did not believe herself to be pregnant. A diagnosis of missed abortion (or mole) was made. Had the pregnancy been a normal one the uterus should have been nearly up to the level of the umbilicus, but nothing of it could, in fact, be felt by palpation of the abdomen alone. She had been taking a mixture containing ergot for a few days before I saw her. The cervix was rapidly dilated on Jan. 27th and the ovum removed, the various procedures being the same as those adopted in Case 2. In this case, however, there was a fœtus of about ten weeks' development; it was macerated, but not putrid. The patient subsequently did well.

Wimpole-street, W.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The following candidates passed the examination of proficiency in Psychological Medicine at Bethlem Hospital on July 7th and were awarded the certificate:—Frank Belben, E. Milliken Goldie, W. A. Inslam, R. J. Hutchinson, Robert H. Lloyd, J. H. Sprout and W. P. Umney. Dr. George M. Robertson obtained the medal and prize of ten guineas for the best essay, and Drs. Nathan Raw and George R. Wilson were bracketed equal for the Gaskell Prize.

## Clinical Notes :

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### UNUSUAL EFFECTS FROM THE USE OF ATROPINE AND HOMATROPINE EYE-DROPS IN INFANTS.

By GEORGE CARPENTER, M.D. LOND., M.R.C.P.,  
SENIOR PHYSICIAN TO OUT-PATIENTS TO THE EVELINA HOSPITAL FOR SICK CHILDREN.

THAT children bear belladonna well and much better than adults is an established fact, and that they can absorb large doses of the drug without physiological reaction is sufficiently recognised. Like everything else, however, there is a *but* attached to the above statements, and as the result of my clinical observations that "but" is as follows. For some years now it has been my practice to make free use of the ophthalmoscope for diagnostic and other purposes. The combination of a pin-point pupil, a roving eye, a screaming infant and a large out-patient clinique not being conducive to rapid ophthalmoscopic examinations, I have been frequently compelled to make use of atropine or homatropine to facilitate matters. It is quite agreed that dilatation of the pupils is one of the most characteristic symptoms of belladonna. Ringer says he has often given to children two or three years old as much as ten minims of the tincture every hour, and this quantity usually produces no effect, neither dilating the pupil nor making the throat dry. The only symptom he has ever noticed from these large doses is dilatation of the pupil. With these remarks I cordially agree.

As the result of my observations on young infants I find :  
1. The pupil not infrequently in infants' remains for a long time undilated, sometimes for hours. The reaction is often tardy, and then the pupil may not dilate to its full extent. This is quite apart from iritis, iritic adhesions, or what not. 2. Physiological symptoms in infants not seldom occur; whether from absorption by the ocular conjunctiva or passage down the lacrymal duct and so on, I am not prepared to state—possibly both causes are in operation.

In support of these statements I give the following instances as examples, but I have met with more than these cases.

CASE 1.—T. M.—, aged three months, a congenital syphilitic suffering from double congenital cataract. When atropine drops were put in his eyes he soon afterwards flushed. His mother said the features became swollen, the breathing seemed to be stopped and he remained in a distressed condition for the rest of the day. The pupils did not dilate at all satisfactorily.

CASE 2.—H. S.—, aged two months, a congenital syphilitic affected with rickets, attended on March 28th, 1889. On June 3rd he had two applications of atropine to the eyes; the pupils did not dilate. He developed a bright-red flush and gaped. On June 17th several applications of atropine were made to the eyes, but the pupils refused to dilate to more than half their extent. The child became considerably flushed both as to his eyes, face and chest. The mouth, though moist, was drier than usual. His mother said that he slept very heavily for about an hour. There is a note on July 1st to the effect that the pupils were much dilated for three days and did not become so until two days after the application of the drops.

CASE 3.—A. H.—, aged seven months, a congenital syphilitic; proptosis dating from birth. The nystagmus was chiefly to the right; there were no fundal changes and no iritis. The pupils took a very long time to dilate at all, and then they were not large.

CASE 4.—M. A. M.—, aged four months, a congenital syphilitic. Homatropine drops were used in order to examine the fundi. Shortly afterwards the child became flushed and drowsy. There were no changes in the fundi or traces of old iritis.

Exception may be taken to my first conclusion on the ground that the cases I quote were syphilitic; *ergo*, iritis or iritic adhesions were in action. My reply to that is: Putting aside the rarity of iritis in infantile congenital syphilitics in my experience, from systematic observation in a large number of such cases, they presented neither iritis

1 I have not noticed these effects in those over one year of age.

nor iritic adhesions to focal or ophthalmoscopic examination. Moreover, I think that assumption is quite out of court, for I have noticed it in others not syphilitic. As regards my second, a too liberal allowance of drops may be suggested. Putting aside the fact that the phenomena narrated soon supervened they had no larger quantity—and possibly less from the difficulties attendant—than older children who show no such symptoms. The atropine drops contained 1 per cent. or four grains to the ounce; the homatropine drops also contained 1 per cent. or four grains to the ounce.

St. Ermin's Mansions, S.W.

#### PNEUMONIA SUCCESSFULLY TREATED BY BRIN'S OXYGEN.

BY ROBERT WATERING BATEMAN, M.R.C.S., L.S.A.

I SEND the following note for publication in THE LANCET, as I believe I am right in saying that this case is among the first treated by Brin's oxygen, as suggested and carried out by Dr. Lauder Brunton in the case of a clergyman in London.

Mrs. W—, aged sixty-three. I was called in whilst on my rounds on Jan. 31st of the present year to see this lady, and found her suffering from the prevailing epidemic (influenza), with a temperature of 103°. After administering quinine the temperature came down, and all the influenza symptoms were subsiding until Feb. 6th, when pneumonia of the left base appeared, the temperature going up again to 102° and the breathing to 36. Consolidation appeared next at the right apex behind; and, the patient becoming in a very dangerous state, I called Dr. Image of Bury St. Edmunds in consultation, and he advised Brin's oxygen. On administering the oxygen on the following day it was remarkable how the cyanosis disappeared after five minutes' inhalation. The inhalation was kept up for ten minutes the first time and given for a longer period subsequently. After that the oxygen was given twice daily, twenty minutes' inhalation at a time, until March 25th. The effect of the oxygen was very marked: after one administration, when at her worst, the patient remarked that it made her feel quite hungry. It always removed the cyanosis, refreshed her, and kept her going. The apex of the right lung commenced to clear first and then the left base, until March 5th, when they were quite well. The administration of the oxygen was continued afterwards, as the convalescence was extremely slow, and it always did her good. There is one thing which ought to be well borne in mind—viz., that inflammations following epidemic influenza are of a very ataxic character and require free stimulation; for drugs, ether, ammonia and senega are the most useful, hyoscyamus when the cough is very troublesome. A good jacket poultice wrapped round the aching inflamed lung is the best local application, and it is best to put the water in the basin first and then add the linseed, stirring the while to make the poultice. The nurses I had from London last winter almost invariably made them in the opposite manner at first, making a lumpy poultice; whilst the other way, putting the hot water in first and then adding the linseed, makes the poultice of an even consistence. There is another matter to be noticed in the pneumonia of influenza—viz., the erratic character of the inflammation. Commencing in one part—say, the base of one lung—it jumps, so to speak, right over to the other lung, and attacks perhaps the apex. There is no doubt that the influenza germ poisons the lungs, and it being erratic in its general behaviour may perhaps explain its attacking different portions of the lungs. In giving the gas it is best, when the valve has been turned on, to allow it to stream into the mouth direct, and not fill the bag which is in connexion with the tubes. It is a good thing to paint the chest with iodine liniment when the poultices are left off.

Wickhambrook, Newmarket.

#### A CASE OF INFANTILE LACTATION.

BY J. HILTON THOMPSON, M.D. VICT.,

LATE SENIOR RESIDENT MEDICAL OFFICER IN THE CHILDREN'S HOSPITAL, PENDLEBURY.

THE following case is of interest if only on account of its rarity. A healthy, well-developed male child, born at full term, showed about fourteen days after birth well-marked

swelling of the mammary glands. The skin over the glands was congested; on pressure a thin, yellowish, milky fluid escaped drop by drop from the nipples. About two days after the condition was noticed a small, badly defined hardness could be felt in the left breast external to the nipple; moderate pressure caused no pain; the hardness remained for two days, gradually becoming less manifest. Lactation ceased in the right breast in five days and two days afterwards in the left. The general condition of the infant appeared to be unaffected.

Bolton, Lancashire.

#### CASE OF SWALLOWING FISHBONES.

BY J. R. WHITE, M.B.

ON March 8th last I was requested to attend Mr. D—, and on arrival found him in bed complaining of some abdominal pain and also considerable thirst and retching; the temperature and pulse were, however, normal, but the tongue was coated. The history which he gave was that about a month previously he was partaking of fish in company with his wife, when suddenly a somewhat large piece of fishbone slipped down his throat. He immediately rose from the table, and, feeling choked, endeavoured to eject the offending substance, but without success, and it eventually passed into the stomach. Since the date of the occurrence he had not felt much inconvenience, but occasionally suffered from pain in the bowels and also found he could not exert himself or stoop much without causing pain. At last, as the pain got somewhat worse and sickness commenced, he sent for me. The symptoms daily increased in severity. The pulse rose to 120, also the temperature three or four degrees. The vomiting became constant and was accompanied by purging; there were also pain and tenderness in the abdomen, especially in the ileo-cæcal region, and considerable perityphilitis; the stools were of a typhoid character. The case was one in which the symptoms of gastro-enteritis and typhoid fever were closely combined. I had the advantage of the assistance of Dr. Frederick Carter in consultation. In about a week several pieces of fishbone were passed per anum; the largest was a piece of the backbone about an inch long, with spines attached. Amelioration of the symptoms at once began, convalescence being established in a couple of weeks. A sequel which I consider of interest in this case is that the patient was insured in an accident company and claimed compensation for the accident which he had met with, which he obtained.

Grays, Essex.

#### PYROGALLIC ACID.

BY U. BANERJI, M.R.C.S., L.R.C.P. LOND.

ON May 15th last at about 3.30 P.M. two patients, husband and wife, took pyrogallic acid. From the statement of the husband and from the appearance of the bottle I consider that much more than a drachm of the acid was taken by each. The man told me that he swallowed two handfuls of the poison. On arriving at the house at 4 P.M. I found the male patient under the influence of liquor, and taking a bath under a water-tap. I administered an emetic to each, mustard and hot water. The male vomited, but the female did not. The vomit appeared to consist of water, mustard, mucus and a white matter looking like pyrogallic acid which I at the time held in my hand. Finding that the patient did not complain of anything, I simply ordered twenty drops of dilute nitro-muriatic acid to be taken every two hours, and at night six ounces of olive oil to be taken in three equal doses. Next morning (the 16th) I found the patients in their usual good health, but in both cases the tongue was stained deep black. The urine and stools passed over-night were quite normal. I did not order any medicine. On the 17th I took the following notes from the male patient (the female, I might have mentioned, never complained of anything abnormal): "Sensation of drowsiness coming on at intervals; the patient likens it to that produced by opium. There is nausea, but no vomiting; slight paroxysmal numbness about the extremities and face; slight palpitation and dryness of the throat; tongue moist, still black; no abnormal sensation in the abdomen; passed a natural stool in the morning; heart sounds normal; pulse 62 in the minute; urine normal; perspiration rather scanty;

no headache; slept well." Since the above date the patients have been continuing in their usual good health. No one was present to see the acid actually swallowed, but the patients said that they took it in handfuls. The bottle which contained the acid was as large as a Howard's quinine phial; two-thirds of its contents had disappeared. In the *Medical Record* (page 49) a case is recorded in which a patient suffering from psoriasis was poisoned by pyrogallic ointment applied to one half of his body, whilst to the other half chrysophanic acid ointment was applied for comparison. The difference can be explained only by the supposition that the acid acts differently when applied and when taken internally.

Calcutta.

## A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

### ST. BARTHOLOMEW'S HOSPITAL.

CASE OF HYSTERICAL PARALYSIS OF THE ABDUCTORS OF  
THE LARYNX AND OF THE DIAPHRAGM, ASSOCIATED  
WITH PECULIAR MOVEMENTS OF THE PALATE.

(Under the care of Dr. S. WEST.)

THE following is an interesting account of a patient suffering from paralysis of most important muscles due to hysteria. It is said, and with reason, that this disease may simulate almost any other known disease; but there are usually certain conditions accompanying it which enable the physician or surgeon to recognise the origin of the trouble. Here "the very irregularity of the affection" enabled the physician to come to a correct diagnosis. Had it not been for the careful examination of the larynx and the instructions based on the conclusion arrived at, it is possible that tracheotomy would have been performed for the urgency of the dyspnoea and a considerable element of danger introduced into the case as a result of the performance of the operation. The onset of bronchitis or of pneumonia might have proved fatal where the diaphragm was already paralysed.

The patient, a woman aged thirty-eight, was admitted into the hospital on account of dyspnoea. She stated that she had been in her usual health until Christmas time, when she was attacked with bronchitis, from which she had suffered once or twice before during the last three years. She had had a cough, but her breathing had not become difficult until a week before admission, in the middle of February. The patient was of medium height and well nourished. She was evidently suffering from dyspnoea, for the breathing was laboured and somewhat hurried, the *alae nasi* dilating, the face flushed, but without much cyanosis. The movements of the chest were peculiar, the breathing being entirely with the upper parts; the diaphragm was apparently paralysed, for it did not descend at all on inspiration; and the abdomen, instead of being made prominent by inspiration, was retracted, as if the diaphragm was sucked up into the thorax, the lower intercostal spaces and the lower ribs being at the same time drawn in, as were also the supra-clavicular and episternal spaces; the larynx remained fixed and showed no respiratory excursion. On auscultation nothing was to be heard out of the normal except a little wheezing. Inspiration was rather noisy, evidently owing to laryngeal stridor.

On examining the throat the movements of the palate were seen to be extreme, but of a peculiar kind, for on expiration it was raised with considerable violence as high as it could be, becoming on expiration quite flaccid, and falling down as if suddenly paralysed. The vocal cords, on laryngoscopic examination, were found to be in close approximation and separated by a chink not wider than half a line during inspiration, while on expiration they separated and assumed the cadaveric position. The cords themselves were quite white, though the patient spoke with a hoarse voice. As

already stated, there was no respiratory excursion of the larynx at all, in spite of the laryngeal obstruction. The arytenoid cartilages did not move towards the middle line on inspiration, when the cords approximated, so that at that time a triangular chink was left in the posterior part of the glottis; on phonation, however, they moved freely towards each other and took their proper place. The condition of the larynx was clearly this, that the abductors were completely paralysed. Of the glottis closers the crico-arytenoidei laterales contracted on inspiration, possibly alone or in conjunction with the crico-arytenoidei to some extent. The arytenoidei postici and obliqui were not paralysed, for on phonation they contracted, bringing the arytenoid cartilages into approximation, though as the voice was hoarse it is probable that their contraction was not perfect, and the same was the case with the crico-arytenoid. The action of the larynx was to a great extent perverted, as was that also of the palate, while the diaphragm was paralysed. The very irregularity of the affection suggested the correct diagnosis—viz., that of hysteria. This diagnosis was supported by the history obtained from the patient, that at the age of twenty-three she had suffered from a contraction of the throat and neck, so that she could not open her mouth, on account of which her front teeth were drawn and she was fed for some weeks by means of a stomach pump. The patient was now put under chloroform, but without any relief to the breathing. Perhaps she was not completely anaesthetised, for the breathing became unsatisfactory, and it did not seem prudent to push the chloroform further. Having formed the opinion that the affection was hysterical, Dr. West's instructions were given that the patient was on no account to be tracheotomised, but that if the dyspnoea became urgent intubation should be performed. This was done two days later, but without much success, for the tube was not long retained in position.

The interrupted current was then applied two or three times during the next two days externally to the larynx. The condition remained much the same until the 22nd, when it was found that the arytenoid cartilages moved on inspiration about half way towards the middle line, thus increasing the dyspnoea somewhat. The breathing had from her admission been noticed to be much quieter during sleep. The patient was able to take solid food, but vomited at irregular times after taking it.

On the 26th, on examination in the morning, the condition was the same, but about mid-day it suddenly changed and the breathing became perfectly quiet. The diaphragm moved naturally, though not freely; the palate ceased to move at all on inspiration. The vocal cords occupied their normal position on quiet respiration and on deep inspiration separated widely as they ought to do; and it was observed that they were in constant oscillation, as if uncertain what exactly to do, sometimes being somewhat approximated and sometimes extremely retracted. On phonation the movements were natural, though approximation seemed to be hardly complete, for the cords were not quite tense enough; and from this cause, as well as from a little laryngitis, the result of the intubation, the voice was still husky. The interrupted current had been used daily and the patient objected greatly to its application. On the 29th the approximation of the cords had returned, though not quite to the same extent as at first and there was but little dyspnoea. On expiration, however, the cords did not recede more than a little and could not reach the cadaveric position by a long way. The same uncertainty about the contractions was evident, which was previously observed, so that on no two consecutive respirations were the positions exactly the same. The palate was stationary and the diaphragm moved now and then, but seemed to be equally uncertain what to do. This condition remained much the same whenever examination was made until March 2nd, and then during the application of the battery to the abdomen the action of the diaphragm became normal, and on applying it to the larynx, and making the patient speak, the voice became quite clear, and both breathing and speaking remained natural till March 4th. On that morning the symptoms had returned, but an application of the battery caused their prompt disappearance, and at Dr. West's visit in the afternoon he found the diaphragm and palate acting naturally, but the action of the cords was peculiar, the uncertainty of their movements being greatly exaggerated—in fact, almost choracic—on quiet respiration, though deep inspiration steadied them for the time, as did phonation also. Phonation, however, appeared to be perfect, for the voice was clear and steady.

The patient, having a great dislike to the battery, and being otherwise not content, declined to remain longer in the hospital. A fortnight later she was admitted in the same condition, and was afterwards sent to a convalescent home. Altogether she was under observation for nearly three months. The symptoms varied from time to time, and often were entirely absent, but when they occurred they were the same as described above, except that the paralysis of the diaphragm and the perverted movements of the palate were never again so marked.

### GENERAL HOSPITAL, BIRMINGHAM.

#### A SERIES OF CASES OF CONGENITAL MALFORMATION OF THE LARGE INTESTINE; REMARKS.

(Under the care of Mr. GEORGE HEATON.)

WE published in the last issue of THE LANCET, p. 257, the first two cases of this series. Case 1 was an example of imperforate anus with probable absence of rectum and descending colon; an artificial anus was made in the left groin and the patient lived six weeks; no post-mortem examination could be obtained. Case 2 was one of imperforate rectum, with penile fecal fistula. After incision the mucous membrane of the bowel was brought down and sutured to the skin. The child recovered and was quite well when last seen some months after operation. We would refer our readers to the remarks by Mr. Heaton.

**CASE 3.** *Imperforate anus, with malformation of the large intestine.*—This patient was sent for examination by Dr. Purslow, who kindly allowed the case to be reported. The child, a male one, lived only a few hours, and was the subject also of a double talipes equino-varus, extroversion of the bladder and a parasitic foetus attached to the dorsal spine. On making an examination, a large pouch was found situated in the middle line behind and projecting externally below the attached foetus. The small intestines were natural, but several coils were contained in this hernial sac. The cæcum was fixed centrally to the posterior wall of the sac and from it the large intestine passed vertically downwards and entered the rectum in the middle line over the lumbo-sacral promontory. The ascending, transverse, descending and sigmoid colon were thus represented by a piece of large intestine two inches and a half long and both loins were empty of large intestine. The rectum itself ended about two inches from the skin of the anus in a dilated pouch. Passing from this pouch along the back of the bladder to the anus was a dense fibrous band. Externally there was a slight depression marking the situation of the anus. The tuberosities of the ischium were very closely approximated. The other deformities do not need description here.

**CASE 4.** *Imperforate anus with vaginal fecal fistula.*—A. X—, aged seven days, was admitted into the General Hospital on May 20th last with a history of having passed all her motions through the vagina since birth. An examination showed the anus to be absent, no depression or marking of the skin being present to indicate its position. The labia majora and minora were swollen, tender and covered with an acute eczematous rash. On straining or crying yellow fecal matter escaped from the vulva. Chloroform was given and an examination made. On drawing the labia minora apart the orifice of a fecal fistula was seen, situated posteriorly in the middle line just at the attachment of the hymen. A bent probe was passed through this into the rectum and made to project in the perineum. This was cut down upon and a free opening made into the dilated rectum. The mucous membrane of the bowel was brought down without difficulty and stitched to the edges of the skin incision. The eczema quickly disappeared from the vulva and faeces were discharged normally through the anus. The child left the hospital on June 11th owing to measles, but is to return later to have the fistula closed.

**CASE 5.**—This case is interesting as illustrating an arrest of the cæcum in its passage from the umbilical region into the right iliac fossa. R. M— was admitted into the General Hospital on Aug. 18th, 1890, four hours after birth. The infant was a well-formed female child. Protruding from the umbilical region was a membranous sac about the size of a large orange, with walls,—thin and transparent in most of their extent, but thickened on the right side, where the umbilical cord entered. The intestinal coils could be plainly

seen through the sac walls. Taxis utterly failed to reduce any of the contents. Two hours after admission the child was given chloroform. The sac and abdominal wall were freely laid open by a vertical incision, and the contents partly reduced into the abdominal cavity. Several coils of small intestine, one with the remnants of Meckel's diverticulum attaching it to the sac wall, were reduced. The cæcum and vermiform appendix were also present in the sac, and reduced after some difficulty, owing to their adherence to the sac wall. The line between sac and skin was well defined externally, but internally the membranous sac was lined for about an inch by a vascular velvety membrane. It was to this membrane that the cæcum was adherent. The sac, with the attached umbilical cord, was cut away and the opening closed with silk sutures.

Aug. 19th.—The child vomited "coffee-ground" matter all that evening, and throughout the night. The vomiting continued at intervals during the day. At 4 P.M., as no urine or meconium had been passed, a small catheter was passed and urine drawn off. The anus was then examined and thoroughly dilated with dressing forceps. This gave vent to a large quantity of meconium. The vomiting ceased from that time and the child rapidly convalesced. The remnant of the umbilical cord separated on August 24th and the child was sent home with the wound soundly healed on August 31st. She has been seen lately, eighteen months after, and is a strong healthy girl. She has never since leaving the hospital had any intestinal trouble.

*Remarks by Mr. HEATON.*—In Cases 1 and 3 it was not possible to find the rectum through an incision in the perineum—in Case 3 certainly, and I feel sure also in Case 1, though post-mortem evidence was not obtainable in this case, both the ascending and descending colon were absent from their normal situations. The question of colotomy, in cases where the rectum cannot be reached through an exploratory incision in the perineum has been ably discussed by M.M. Huguier and Robert, and by Mr. Marrant Baker. Amussat's operation in the loin is open to the objections that the space is extremely limited, the distance between the iliac crest and the lower ribs being in these cases very small and that the thickness of subcutaneous fat makes the wound a very deep one. Again, the descending colon is frequently at such an age attached by a complete meso-colon, and the risk of opening the peritoneal cavity is thus considerably increased. M. Huguier, in his paper on the subject, advocated a colotomy in the right loin. He had noticed that in cases of complete absence of the rectum, the descending colon frequently took a sharp bend to the right and ended to the right side of the middle line. In such cases the operation would undoubtedly be simpler on the right than on the left side. But presuming both ascending and descending colon to be present in their normal positions, as they are in the majority of such cases as far as I can gather from an examination of museum specimens, it seems unreasonable to operate on the right, expecting to find the abnormal rather than first of all to look for the descending colon in its normal position. In Case 1 a diligent search in the left inguinal region failed to find the colon and the exhausted condition of the patient rendered it unadvisable to make a second exploratory incision on the opposite side. In future in a case where a careful perineal exploration failed to find the rectum I should be disposed to make a small median abdominal incision. The iliac fossæ could then be explored and the position of the colon ascertained, then a left or right inguinal colotomy could be performed, as the case might be, and the original wound closed. In the rare event of failure to find any large intestine, the exploratory incision could be converted into an artificial anus by bringing up a distended coil of small intestine and opening it *in situ*. Case 2, in which together with an imperforate rectum there existed a fecal fistula at the end of the penis, is a rarity not often met with. The urinary passages were quite separate and perfect. The fusion of the hind gut with the proctodeum had failed to take place and in its stead there existed a long narrow fistula connecting the blind end of the gut with the skin of the penis. Case 4 is a common variety of the deformity, and I have seen two other instances. The fistulous communication is, as a rule, a free one and so the patient does not suffer from intestinal obstruction. In fact cases are on record where the subjects of this deformity have grown up without being aware of there being anything the matter. Attention, however, is usually called to the case by the irritation which the fecal matter sets up in its passage through the vulval outlet. Case 5 is an example of an arrest of the

cæcum in its passage from the umbilical region to the right iliac fossa. Mr. Lockwood has shown that this part of the large intestine, which originally protrudes into the umbilical sac, passes first of all from the umbilical region upwards towards the left hypochondrium. It then passes across the abdomen into the right hypochondrium and finally descends into the right iliac fossa. In this case the cæcum was detained in the umbilical sac, probably owing to intra-uterine peritonitis, of which the florid granulations described as present in the sac are an evidence. This detention would then, of course, prevent the closure of the umbilicus and thus produce the hernial sac. The after-treatment of cases of imperforate anus is of the greatest importance and persevering attention is required for a long time. The tendency of the newly made opening is always to contract and unless kept in check the patients will be left with an extremely troublesome and intractable stricture with all its sequences. In many cases no doubt it is impossible to bring down the mucous membrane of the bowel to the skin without undue tension, but when this can be done I consider it of the greatest importance to get union between it and the edges of the skin incision. In one of my cases I obtained such union all round and in another I was able to get union on one side. Very little contraction of the anal outlet has taken place up to now in either of these cases; and the occasional passage of a small bougie is all that is necessary to counteract this.

## Reviews and Notices of Books.

*Watts' Dictionary of Chemistry.* Revised and entirely Rewritten by H. FORSTER MORLEY, M.A., D.Sc., Fellow of University College, London, and Professor of Chemistry at Queen's College, London; and M. M. PATTISON MUIR, M.A., Fellow and Prælector in Chemistry of Gonville and Caius College, Cambridge. Assisted by eminent contributors. Vol. III. Longmans, Green & Co. 1892.

THE publication of this most important and valuable work proceeds with commendable punctuality, and the new volume, which is larger than either of the first two, is fully equal to them in merit. It will be remembered that, owing to the rapid progress of discovery and the alterations of plan which were found necessary, little has been left beyond the name of the original editor. Almost the whole has been rewritten, and, although the work has been lightened by the exclusion of analytical and applied chemistry—to the last of which a separate dictionary in three volumes has been devoted—the editors have been compelled to use the utmost possible condensation.

As before, the bulk of the work has fallen on the editors, Mr. Pattison Muir taking the inorganic and Dr. Forster Morley the organic portions. Even the slightest examination will show how enormous the labour and how thoroughly conscientious the work of the editors has been. Quotation is next to impossible, for the contractions employed are so numerous that a large proportion of the book is more like a lexicon than a treatise. In regard to all important substances, the greatest pains have been taken in the statement not only of chemical but of physical data. Thus in the article on nitrogen we find an account not only of the formation, preparation, properties and combinations of the element, but also its boiling point as liquid, its specific gravity as gas and liquid, its specific heat, its coefficient of expansion, its absorption, coefficients, its heat of combustion, and many other most important physical constants. A similar example is afforded in the article on naphthaline, which opens with a long string of physical constants. References to original authorities are incessant throughout the volume, and are greatly assisted by a list of abbreviations printed on a book-marker. One of Mr. Muir's best articles is that on "Molecular Weights," in which the important law of Raoult, which states the relation between molecular weight and the lowering of freezing point produced by solution, is clearly stated and illustrated. It forms as it

were an appendix to the articles on atomic and molecular weights in vol. i.

The following special contributors have assisted the editors:—Professor H. E. Armstrong ("Isomerism"), Mr. Carnegie ("Periodic Law"), Mr. Crookes ("Rare Metals"), Mr. C. F. Cross ("Lignone"), Mr. Fletcher ("Mineralogical Chemistry"), Professor Halliburton ("Milk and Muscle"), Professor Huntington ("Metallurgical Chemistry"), Dr. Hutchinson ("Isomorphism"), Professor Japp ("Ketones and Lepidine"), Dr. Rideal ("Paraffin and Petroleum"), Mr. Shenstone ("Ozone"), Professor Tilden ("Pentinen"), Professor J. J. Thomson ("Molecular Constitution of Bodies"). It is evident that in many cases no other authors equally suitable could have been chosen for the articles. Thus, for example, what other chemist could have written on "Rare Metals" with authority equal to that of Mr. Crookes? Detailed criticism of a book like this is of course impossible, and a few words on articles likely to be particularly interesting to our readers must suffice. Mr. Cross, who, with his colleague Mr. Bevan, has worked more than anyone else in this branch of research, has contributed under the heading of "Lignone" a very valuable history of the present state of our knowledge in regard to the process of lignification. It may be regarded as supplementary to the article on Cellulose in vol. i., but it brings the history of discovery well down to the present time. The complex group of carbohydrates is gradually revealing its mysteries in response to the patient labour of chemists. Since the first synthesis of glucose new hopes have grown in the minds of investigators. Many of Dr. Morley's articles—for example, those on Lactic Acid and Phenol—will be interesting to physiologists as well as to chemists, especially as some analytical details are given. Professor Halliburton's articles are somewhat sketchy. Doubtless more details will be given in regard to the constituents of muscle in the article on "Proteids," which has not yet appeared.

When these two important dictionaries shall have been completed, or even before that time, we hope the publishers may undertake the preparation of that much needed work, a dictionary of analytical chemistry. It would form a most valuable supplement to the other two.

*Indigestion.* By GEORGE HERSCHELL, M.D. Lond. London: Baillière, Tindall, and Cox. 1892.

THE majority of cases met with in practice are probably those which may be classed under "dyspepsia," and perhaps no subject receives less attention in our medical schools. Cases are so common in the out-patient rooms of hospitals, and the treatment of them is so unsatisfactory, that students give little heed to them, and it is only on entering into practice that the deficiency in knowledge of such an important group of diseases is discovered. On referring to the ordinary textbooks the practitioner will find but a meagre account of the symptoms and treatment of the all-prevailing complaint, indigestion. The volume we are now considering well supplies the want which has been felt for a concise account of this disorder. Seldom have we met with a work better arranged or more easy of reference. The book consists of less than 200 pages, yet in it the reader will find a very fairly complete account of the subject. The first chapter is preliminary and treats of the process of normal digestion, an intimate knowledge of which is essential to the correct understanding of disorders of the digestive tract. The student is not harassed with numerous theories as regards the processes of digestion, but the facts are stated simply and comprehensively. The causes of indigestion are then considered, special stress being naturally laid on the alterations in the quality or quantity of the gastric juice. The symptoms of dyspepsia are

notably numerous and uncertain, but the author of this work has not shirked his task, and has chronicled them in a most satisfactory manner. He draws attention to some that are but little recognised or rarely referred to their true cause, such as a "feeling of constriction at the root of the nose," which Dr. Herschell states is a very distressing and not uncommon sensation, and adds that it is relieved at once by the insufflation of a little menthol or cocaine. The objective examination of the digestive organs is fully detailed, and then the clinical varieties of indigestion, with special reference to diagnosis, are discussed, the chief points which are considered being the main differences between chronic catarrh of the stomach and functional gastric indigestion—"atonic dyspepsia." The chapter on treatment is naturally the one to which readers will turn with most interest. It will well repay close perusal and study. Diet holds the first place and exact directions are given for the management of the meals in the different varieties of dyspepsia which are met with. Here we should like to offer one suggestion, and that is that the few excellent French formulæ should in the next edition be given in their English equivalents. We congratulate the author on his work, and recommend it to all who wish to successfully combat that most troublesome complaint—indigestion.

*The Pathological Histology of Bronchial Affections, Pneumonia and Fibroid Pneumonia.* By A. G. AULD, M.D. London: J. & A. Churchill. 1892.

THIS work is manifestly the outcome of much patient research and thoughtful reflection. It embodies several newly noted facts in the normal and morbid histology of the air passages and lungs, and is outspoken in criticism of current teaching on certain points. Indeed, it is not often that the study of the structure of the bronchi is so fully treated. The author shows that the earliest stage of bronchial inflammation involves no change in the epithelial elements, but is purely a condition of vascular engorgement and subepithelial exudation. Then comes swelling of the surface cells, an increased outpouring of mucus, and at the end of twenty-four hours the characteristic process of proliferation and degeneration of the epithelium. Although he admits the difficulty in the way of obtaining proof that there is also actual diapedesis of cells from the vascular territory to the surface, he is not inclined to agree with Hamilton that this does not occur, and indeed he describes the transit of leucocytes through the basement membrane. In addition to these phenomena there are of course changes in the mucous glands, which are succinctly described. In the later stages Dr. Auld finds evidence of proliferation of the connective tissue cells, and he boldly traverses Cohnheim's views of the origin of pus. In respect to the pathology of chronic bronchitis he prefers to attribute the hyperplastic changes which are to be observed in the epithelial as well as in the fibrous elements to an atypical growth rather than to simple inflammatory processes; and he has found that this overgrowth also concerns the muscular and even the cartilaginous structures. Subsequently in this disease atrophic and degenerative changes set in. The section on Bronchiectasis contains also several points of original observation, such as the detection of "aberrant" smooth muscle fibres in the wall of bronchiectatic cavities, and the transformation of the epithelial lining of the bronchi into a layer of flattened cells and duct-like processes which can be seen in the inner walls of the sacculations. The duct-like formations are, he thinks, derived from the acinous glands. He inclines to the view that the chief causes of bronchial dilatation are collapse and atrophy of the pulmonary tissue. There is a chapter on Bronchial Asthma in which the congestive theory is disputed; but the most interesting portions of the book are those which

deal with broncho-pneumonia, acute pneumonia and fibroid pneumonia. On the last-named subject Dr. Auld has much to say that is of value, and his conclusions are, in the main, justified by the observed facts. Altogether the monograph is a creditable piece of work.

#### OUR LIBRARY TABLE.

*Plutarch's Life of Themistocles.* With Introduction, Critical and Explanatory Notes, Indices and Map. By HUBERT ASHTON HOLDEN, LL.D. Third Edition, rewritten and enlarged. London: Macmillan and Co. 1892.—Those of our readers who wish to retain or revive a working knowledge of Greek could not do better than make this compact little volume the companion of their holiday. Its publication as a first edition some years ago anticipated, and indeed promoted, the present reaction in Plutarch's favour in our schools and colleges, and it has been followed up by others of the same delightful author's Lives—those of the Gracchi, for instance, of Sulla, of Nicias and of Timoleon—all edited by the same highly accomplished scholar and teacher—brother, we may incidentally remark, of Mr. Luther Holden, the veteran anatomist and demonstrator. Every help will be found by the intelligent reader to have been judiciously provided for him, just so much having been left to his independent judgment as to keep it in wholesome exercise during the process of translation. Besides the charm inseparable from Plutarch's work, the Greek in which he writes is of special value for the light it throws on the language of the New Testament.

*The Life of Francis Duncan, C.B., R.A., M.P., late Director of the Ambulance Department of the Order of St. John of Jerusalem in England.* By HENRY BIRDWOOD BLOGG, M.A., Vicar of Frodsham, Cheshire; with an Introduction by the Lord Bishop of Chester. London: Kegan Paul, Trench, Trübner and Co., Limited. 1892.—This is a memoir of the late Colonel Duncan, R.A., who was well known in connexion with ambulance work in this country and Egypt. Colonel Duncan spoke in the House of Commons on one occasion in favour of the medical department of the army, urging that its officers had to serve too long abroad and recommending that they should be allowed leave every six or seven years for the purpose of study; also that field hospital work should receive more attention in their ordinary training. Colonel Duncan was an energetic, enthusiastic, and most excellent man and this little memoir of him is an interesting one.

*Illustrated Lectures on Nursing and Hygiene.* By R. LAWTON ROBERTS, M.D. Lond., D.P.H. Camb., M.R.C.S. Eng., Associate of the College of State Medicine &c. Second Edition. London: H. K. Lewis. 1892.—The general scope of the second edition of this work remains unaltered, but additional information is given on the artificial lighting of rooms, the dietary of the sick and other matters. Its contents are mainly arranged on the plan of the syllabus of the advanced nursing course of the St. John Ambulance Association, and call for little in the way of description or comment. It is a very useful book and enters more fully into details than most works of the kind with which we are acquainted. The lectures on the sick room, food and drink, contagious or infectious fevers and on observation of the sick are good. The information supplied is clearly if rather diffusely given, and the directions are plain and sensible, and, with the aid of the illustrations, easily comprehended. The book has a fairly copious index, which adds much to its usefulness and to facility of reference.

*Lip Reading.* By WILLIAM VAN PRAAGH. London.—In this little pamphlet the author conveys some useful hints for instruction in lip reading, and speaks with authority on a subject which he has long taught and expounded. The instinct which leads those deprived of hearing to utilise the

other senses, especially sight and touch, to gain information more easily conveyed by sound, is the foundation of the subject. It is, in short, a refinement and development of gesture speech; and the proficiency attainable by scholars is dependent largely on the state of their general intelligence, which rules the acquisition of articulate speech as a whole. Sometimes cases are observed in which vocal expression, resulting from lip reading, is painfully defective and is often peculiar. There is in many cases an almost distinctive tone and manner of speech; but the fact, which we have ourselves observed, that the deaf mute may acquire a provincial accent shows to what a degree of perfection an intelligent pupil may attain in lip reading. Not merely deaf mutes, however, but adults who have from any cause become incurably deaf may be restored to communion with their fellows by this means.

*The Journal of Physiology.* Edited by M. FOSTER, F.R.S. Vol. XIII., Nos. 3 and 4. Cambridge: Cambridge Engraving Company. 1892.—The following are the contributions to the present number of this journal:—1. A Contribution to our Knowledge of Taste Sensations, by L. E. Shore. 2. On the Respiratory Changes of the Intra-thoracic Pressure measured in the Mediastinum Posterior, by S. J. Meltzer (with two plates). 3. On Retractable Cilia in the Intestine of *Lumbricus Terrestris*, by M. Greenwood (with a plate). 4. On a Large-fibred Sensory Supply of the Thoracic and Abdominal Viscera, by F. H. Edgeworth (with a plate). 5. On the Nature of Cobra Poison, by A. A. Kanthack. 6. Further Observations on the Influence of Calcium Salts in promoting Heat-coagulation of the Albumins, by Sydney Ringer. 7. The Protective Functions of the Skin of Certain Animals, by W. B. Hardy. 8. On the Excretion of Uric Acid and its Estimation by Hayercraft's Process, by A. Haig. 9. On the Fibres of Retiform Tissue, by R. A. Young.

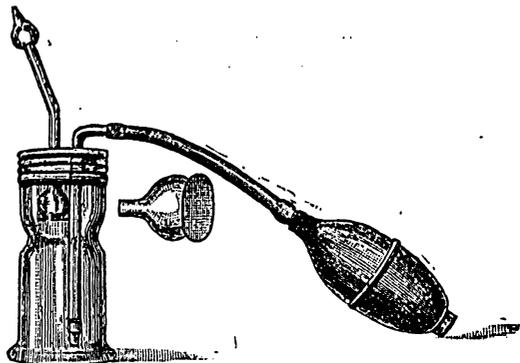
*Guide to the Administration of Anæsthetics.* By HENRY DAVIS, M.R.C.S. Second Edition. London: H. K. Lewis. 1892.—The present edition contains some additional matter, but in the main is a reprint of the first. The relative safety of anæsthetics receives special attention. The practical details of his subject occupy Mr. Davis's attention rather than the more recondite questions of physiology, and he has endeavoured in his book to present his facts, descriptions and directions clearly and succinctly.

## New Inventions.

### THE "PULVERFLATOR."

THIS is an apparatus designed to facilitate the efficient use of the compound zinc stearate combinations in the treatment of the naso-pharynx. It consists of a glass reservoir for a powder, closed by a rubber-fitted screw-cap, carrying two glass tubes—namely, a valved blowing-tube with a rubber bulb attached and a distributor. The latter is a glass tube with a conical end adapted for applying to the nostril; this may be replaced by other tubes designed for the larynx or urethra. The cloud of powder raised by the air current forced in by the rubber bulb is screened through a small glass funnel, over which a piece of fine "bolting" cloth is attached. In this way the discharge of the powder in an extremely fine cloud is effected; in fact, when projected into the air, it very closely resembles ordinary smoke. When an antiseptic, a stimulant, a drying or other medicament is mixed with the compound stearate and applied to the diseased area the latter is not only covered and protected by the powder, but, owing to the adhesiveness and persistence of the stearate, it is subjected to prolonged therapeutical action. From its specific lightness, its power of clinging to the membrane and its impenetrability by aqueous liquids the compound stearate is claimed to be

specially useful for the medication of the mucous membrane of the nose and throat. We have examined a specimen of pure stearate of zinc and find that it exhibits no tendency to become rancid or to decompose. It is therefore eminently adapted as a vehicle in the treatment of skin affections, or in morbid conditions of the mucous membrane of the nose and throat. Compound zinc stearate is prepared containing also various active therapeutical agents, such as boric, sali-



cylic and tannic acids, bismuth subgallate, cocaine, exalgine, ichthyol, menthol, tar, salol, resorcin, sulphur &c. Messrs. McKesson and Robbins of New York have recently introduced the "pulverflator" and have given special attention to the preparation of the compounds for the administration of which it is designed. The zinc compounds, together with the apparatus, may be obtained of the London agents, Messrs. Maw, Son and Thompson.

### TIN-LINED IRON PIPES FOR THE CONVEYANCE OF WATER.

WE have received the following communication from Messrs. Walker and Co., of Heckmondwike, Yorkshire:—"Our attention has been directed to your remarks in *THE LANCET* of July 23rd on tin as a metal for conducting water, and we note—though you admitted the suitability of this metal for such purpose—you go on to state 'that, if it did not possess certain other disadvantageous properties which preclude its practical employment, no better material could be found.' This fact we have proved to our full satisfaction by long and careful experiments some time since, and we have therefore set to work to try to overcome the very objections you mention, and we now venture to assert that in the tin-lined iron we have succeeded. We are sending a small sample, from which you will see we have the full benefit of a pure tin pipe at the least possible cost, yet combined with the greatest strength. All the fittings—such as T-pieces, elbows, bends &c.—are lined through and all tested to over 2000 lb. to the square inch before leaving the works. No soldering being required, it is both cheaper and easier to fit than lead and gives great satisfaction." In the article referred to, whilst it was admitted that no better metal than tin could be employed, especially as regards its power of resisting the solvent action of water, the drawbacks to its use—namely, its hardness, its inflexibility and its expense—were also pointed out. The "tin-lined iron pipe" overcomes one difficulty, that is in respect of expense. At the same time the invention is a valuable and an ingenious one. Such a pipe is for all practical purposes equal to the pure block-tin pipe; and, if it were adopted, no more would be heard of the contamination of drinking water with poisonous metal. Of course, if it can be shown that no other remedy is forthcoming, then lead-piping must be abolished and an innocuous substitute be used. Tin-lined iron-piping might be employed with advantage, we suggest, in certain manufacturing operations, as, for example, in distilling processes and in the preparation of aerated beverages.

# THE LANCET.

LONDON: SATURDAY, AUGUST 6, 1892.

"BOIL your ice." Such is the counsel given by Dr. DAREMBERG to the Parisians in view of impending cholera, and the lesson which underlies the somewhat quaint saying contains the pith of the advice which is necessary for the prevention of cholera. It is now many years since we found that freezing does not destroy the ordinary contagia of the diseases of man. We learnt from Massachusetts of the first epidemic of enteric fever, which was traced to the use of ice from a sewage-polluted pond; and only the other day Dr. GEORGE TURNER presented to the London County Council a most interesting report on the prevalence of enteric fever in the East-end of London through the consumption of "ice-creams," bought from itinerant Italian vendors, whose ingredients were stored under conditions that leave but little doubt as to where the infection came from. "Boil your ice," being enlarged in the scope of its application, becomes for us "cleanliness in all things"—in food, in drink, in all our surroundings. This is the true means of cholera prevention.

In one form or another we have promulgated this doctrine again and again for the last two months; and it is because we attach such enormous importance to it that we avail ourselves of Dr. DAREMBERG's pithy saying to recur to it once more. The lesson has been taught in every official memorandum issued by the Local Government Board; it was to secure cleanliness in advance of all danger of cholera that in 1883-85 the Government "Cholera Survey" was instituted; and the avoidance of filth in old garments and bedding was the object that recently led to a prohibition on the importation of "rags" into this country from France and from the ports in the Black Sea and the Sea of Azov. Sir ROBERT RAWLINSON, eminent in engineering, but naturally not so skilled in preventive medicine, writes to the public press and says he is "ashamed" that our Government should take such a step as this in its aim after cleanliness. Privy Councillor Dr. HIRSCH, on the other hand, with a world-renowned fame as a student of epidemiology, and with ability to appreciate to the full the immense value of public sanitary works, sends word from Berlin to this effect:—"The importation of rags constitutes a most serious danger and should be prohibited from any infected and even suspected district." On the same day comes an account of four fatal cases of cholera at Gonesse, owing to the fact that a disobedient attendant had taken the clothes of a cholera patient to his own house instead of burning them. Anyhow, we prefer the advice to maintain cleanliness in all things and in no way to limit the application of the doctrine to mere constructive matters such as deal with water-supply and drainage.

We have already given our reason for recurring to this subject, and wish to avoid all appearance of panic-making. There does not appear at present to be more danger to this country than we should at all times be prepared to face. In this connexion we may again refer to

Dr. HIRSCH. He tells the inhabitants of the German capital that he has but "little fear as regards Berlin." And his ground for this is that the sanitary system of the city has within modern times become so much "perfected" that, whilst isolated cases and importations may occur, he sees no danger of an epidemic. Here, again, it is on the advance towards cleanliness, of air breathed, of water consumed and of the soil on which Berlin is built, together with the security taken against the importation of filthy articles, such as rags &c. from infected areas, that Dr. HIRSCH relies. To some of us the message may seem a little over-confident—indeed, it may have been transmitted without some of the cautions with which it should have been accompanied. Indeed, in calling the attention of our sanitary authorities and fellow countrymen to the lesson it conveys we would approach the subject from another point of view. We rather are credited amongst the nations of the world for having made greater strides towards cleanliness, both public and private, than any other country. But those who have taken part in this invaluable work and progress are, of all others, best aware of the large arrears that have yet to be made up and of the ample room that remains for further progress. There are spots in abundance that seem almost to be waiting their opportunity to impress more emphatically the lesson that epidemic cholera and filth go hand in hand. There is the barbarous and revolting middenstead system of our northern counties, polluting air and soil by its emanations and soakage; there are similar systems in the south and elsewhere under which it has become a custom to dig two holes in every man's garden and then to pour all liquid filth into one which is called a cesspool, whilst the drinking water is drawn from the other one which goes by the name of a well. There are houses by the thousand in which the drinking water is drawn from a cistern which also serves a water-closet, and which is also placed in direct communication with the house-drain by means of its overflow pipe; and there are houses in every town by the score and even by the hundred in which there is no such proper disconnection of house-drain and waste-pipes from the public sewer as to free them from risk of the ingress of that sewer air from public culverts, which may at any moment be a means of conveying the contagium of imported cholera. Our communities are the more to blame because they can no longer plead ignorance. There are members of sanitary authorities who will not provide proper means of sewerage and of water-supply because they fear to lose their seats on the boards at which they sit; there are communities who deliberately elect opponents of sanitary reform because they prefer a risk which seems somewhat remote to a certainty of increased rates; there are public bodies who leave individual inhabitants to perform works of cleanliness and scavenging which they are aware they cannot properly carry out; and there are householders who live on year after year in dwellings into which they know sewer air can make its way by one channel or another—indeed, such people can be everywhere found in abundance. It is communities and persons such as these who will be among the first sufferers if cholera should come, and it is the towns and localities in which they live which will constitute a standing danger to the community at large. On the other hand, if they will but amend their ways, they will be the first to benefit, for, whether cholera should come or not, we have ample experience to show that

permanent measures adopted against that disease have contributed more than anything towards a diminution of those infectious diseases—and notably of enteric fever—which we have always with us, and which are so costly a burden owing to the sickness and death by which we are deprived of the lives and labour of the breadwinners, who constitute the most remunerative element of the State.

THE selection of such a subject as bacteriology for one of the three general addresses delivered at Nottingham before the British Medical Association is a sign of the times. It clearly demonstrates how firm a position has already been gained in medical thought by one of the collateral sciences, besides testifying to the importance of the place which it occupies among them. It is little more than a decade since this subject gained any prominence, and the remarkable researches of which it has been the source have flowed in such abundance as to overwhelm the slower progress of other branches. The subject is so fascinating and the way is so open to new investigations that its rapid advance is hardly matter of surprise; and although in more than one direction the path has seemed closed, and steps have to be retraced, yet on the whole the amount of actual progress within the memory almost of the youngest follower of medicine has been surprisingly great. The opportunity for taking stock of the knowledge already possessed and for indicating the lines upon which research has still to be pursued in this subject has been wisely seized; whilst the exposition of the matter could not have been entrusted to a bacteriologist better qualified for the task than Dr. SIMS WOODHEAD, whose address will be found in another column. He was justified surely in pointing with something like pride to the recognition that bacteriology has obtained; and his survey must have impressed his hearers with the fact that the confidence placed in bacteriology is fully justified. This it could never have received had the study of bacterial life been merely that of the botanist. It is on account of its intimate relationship with the vital processes, normal and deranged, of higher organisms, because of the light it sheds on parasitic action and the intimate processes of cell nutrition, that it has laid hold of the scientific imagination and revolutionised pathological ideas.

It is not surprising that bacteriology should have paved the way to many theories concerning the method of action of bacteria upon the organism in which they flourish. As Dr. WOODHEAD reminds us, the earliest notions were based on the effects produced by mere mechanical arrest of the circulation through accumulation of the microbes in the bloodvessels; but when this view was found to be insufficient theories were propounded as to the parasites requiring for their maintenance the oxygen which the cells of the infected organism could not lose without being devitalised. Still this view lacked general confirmation, and hence it has come to pass that the chief rôle of bacteria in respect to disease is now considered to be played in connexion not with deoxidation but with the formation through their action of chemical substances inimical to cell nutrition. The various morbid processes with which we are familiar in the facts of pathological anatomy, have thus

many of them an origin in parasitic organisms. Inflammation, as Dr. WOODHEAD pointed out, has been largely explained in this way; and it is by no means improbable that some at least of the forms of neoplasms may be initiated through such agencies. It is, however, in the class of infective diseases that the influence of micro-organisms has been most clearly shown, thus bearing out the truth so long only guessed at that there are germs of disease, although the meaning to be attached to such a phrase is materially different from that assigned it by the earlier theorists. Dr. WOODHEAD selected diphtheria as an example of the affections in which the mode of action of the infective microbes has been most fully studied. He reminded his hearers that the early experiments of Professor LOEFFLER, who separated the bacilli from their products by filtration, and the subsequent observations of Professors ROUX and YERSIN yielded results in complete harmony with the interpretation of the clinical phenomena of the disease, in which the profound general disorder of tissues and organs ensues upon the primary local manifestations. These observers established the fact that the diphtheritic organisms are not to be found in the body beyond the site of inoculation, and that the general effects were produced by their products. Dr. SIDNEY MARTIN succeeded in isolating the poisons thus produced. He showed that the essential chemical agencies which exert so powerful an influence on the tissues in diphtheria were albumoses, and it is remarkable that he also failed to detect any alkaloid as in anthrax, but a feeble organic acid which had a poisonous effect on the tissues similar to, but far weaker than, that of the albumoses. The mode of formation of these substances from the fibrinous exudation that forms on the unhealthy mucous membrane which serves as the point of attack of the diphtheria bacillus has been admirably worked out by Dr. MARTIN, and was clearly summarised by Dr. WOODHEAD. In this chain of processes, commencing with the specific bacillus, its appropriate media, its power of producing a ferment or enzyme, and the further effect of this in the conversion of fibrine into albumose, we find the most complete presentation of the mode of action of pathogenic bacteria which can be desired; and the field, previously explored by Dr. MARTIN as regards anthrax, is open for multifold inquiries on the same lines throughout the whole range of infective disease. It is indeed true that in chemistry lies the solution of many a pathological problem, as was clearly foreseen by the late Sir W. AITKEN, to whom appropriate reference was made by the lecturer. Incidentally Dr. WOODHEAD suggested some improvements in the way of making greater use of opportunities for the application of bacteriological knowledge to immediate practical purposes, being led thereto by the advocacy of Professors ROUX and YERSIN of culture observation in the diagnosis of diphtheria. We commend his suggestions to the notice of the profession.

Yet so far in his address Dr. WOODHEAD had not touched upon the matter which was doubtless uppermost in the minds of many of the medical practitioners who were listening to his exposition. He had sketched, with a clearness which all could appreciate, the steps whereby we have attained to our present conception of pathogenic organisms and their action. May not some have asked themselves whether this increase of knowledge of the nature and action of bacteria had any light to throw

upon the means of counteracting their effects, whether insight into treatment was to follow on insight into pathology. Dr. WOODHEAD did not leave them long in doubt, but presented as clear a statement of the question of protective inoculations. That "anti-toxines" do exist in some of these infective diseases, if not in all, must be admitted from the evidence; but that they act in any other way than as stimulating and reinforcing protoplasmic reaction to bacterial poisons is improbable. Again, in some diseases the protective influence of previous attacks or of repeated non-fatal inoculations may be ascribed as the "acclimatization theory"—that the cells of the body gain in their powers of resistance under the action of the poisons themselves. He showed, too, how different this action was from that which occurs in the tuberculin treatment, where necrotic changes are set up by the agent acting in conjunction with the bacillary poison itself, and he did not hold out much hope of such a process having a permanent effect. Lastly, preventive treatment by inoculation with attenuated virus was dealt with and due credit given to our own countryman, Professor GREENFIELD, whose labours on anthrax have been overshadowed by the work of M. PASTEUR and his school. We believe that there is a great future in store for bacteriology, and it is likely enough that many views now held on the subject will in course of time receive much modification. Still it is impossible to be unaware of the very striking and, in the main, harmonious results that are being gleaned from all the laboratories in the study of the subject; and it is gratifying to our national pride to know that, in spite of many and great difficulties, some of the most notable advances have been made by workers in British laboratories.

It was foreseen that the Notification of Infectious Diseases Act would in various ways raise difficult and delicate questions between the medical man and his patient, the medical man and the public, and even between one medical man and another. In the actual working of the Act these views have been realised. Those who keenly opposed this Act may see in its results a confirmation of their objections, and may still wish that it had never been passed. A closer view, however, of the subject will show that such wishes are futile. It is clear that the public is bent on reducing to a minimum those diseases with which the Act deals. Even a change of Government is not likely to alter the determination to make it compulsory instead of, as at present, optional. There are various reasons for this. Mere economy is one. The cost of the cure of infectious diseases is being more and more thrown on the public. The fever hospitals are being used by an increasing number of persons and by classes of a higher social position than formerly. If the State sees its advantage in receiving such patients into isolation hospitals, it will also see to the best means of limiting the number of cases to be admitted. Society is determined on restricting individual liberty. It will not, if it can help it, allow the individual to contract infectious disease, or, having contracted it, to freely diffuse it. This may be a great inconvenience to the individual, but it is clearly right. Under these circumstances we have to consider, as medical men, our own duty in respect to the Act, which may be strengthened but will not be repealed.

Our first duty, in the light of the requirements of the Act, is to perfect our skill in diagnosis. Legislation has emphasised the importance of this art and any mistake therein is calculated to bring our defects into special prominence. There are some cases in which diagnosis is not urgent. We may take time to make up our minds. There are other cases in which promptitude of diagnosis is a virtue, provided that it be sound. We must not be understood to recommend any undue haste. Diagnosis cannot in any case be hurried. Time must be given for the development of the symptoms on which it must be based. Typhoid fever is especially a case in point. By exclusion of other diseases the practitioner may have a shrewd suspicion that his patient, with the persistency of a certain pyrexia, is suffering from this disease; but it would scarcely be judicious to consign him to an isolation hospital before the appearance of rose spots or of characteristic diarrhoea. Still there may be undue delay in forming a diagnosis till cases have multiplied and avoidable mischief has been done. Mistakes in diagnosis are inevitable, especially in regard to infectious diseases. The managers of the fever hospitals say that they are even on the increase. Four hundred and eighty-eight patients were sent to these hospitals in the course of 1891 who were found not to be suffering from the diseases mentioned in the certificates on which they had been received. The percentage of errors in the diagnosis of patients sent to these hospitals is alleged to have increased during the past five years from 2.4 to 6.2. This, if correct, is a most unsatisfactory result, but it is not altogether unintelligible. The duty of notification has been thrown on the profession somewhat suddenly and failure in the discharge of the provisions of the Act has been severely punished. In some respects the opportunities afforded to students of seeing the infectious class of diseases have been reduced, first by the abolition of pupillage, and secondly, by the increasing tendency to exclude such diseases from general hospitals. When the intrinsic difficulty of diagnosis is considered—a difficulty experienced by experts, who make their share of mistakes—the wonder, indeed, is that only a few errors are made in dealing with so many thousands of cases, many of which occur under circumstances very unfavourable for a careful observation. Still we must not regard those mistakes lightly, and they should be reduced to a minimum. One of the medical officers of the Metropolitan Asylums Board, Dr. BIRDWOOD, medical superintendent of the small-pox ships, has, with this view, suggested that in small-pox cases—and we presume he would apply the rule to other diseases—the ambulance conveying the patient should be accompanied by a medical man, having experience of the disease, to confirm the diagnosis. The suggestion is in some respects of a rather impracticable nature, although to many it may seem no excess of precaution to require that before consigning a person to the risks of an infectious hospital two medical men—as in the case of insanity—should certify to the nature of his disease. But even if such a regulation should be made, it is alike the duty and the interest of every practitioner to be acquainted with the essential symptoms of the notifiable diseases. Such an acquaintance can only be obtained by careful and minute clinical study. There is but little excuse now for medical students who do not make this acquaintance. The hospitals of the Asylums Board have

been opened to them through the efforts of the College of Physicians and the action of the General Medical Council. Medical men in actual practice can by taking due pains eliminate all but a few doubtful cases. Deliberation must be practised in taking the history of the case and ascertaining the chances of exposure to infection, though this often cannot be traced. The clinical thermometer must be used invariably. He would be a rash practitioner who would fail to use it before notifying, or would send a patient into a hospital for infectious diseases with a temperature under 100° F. To an observant practitioner nothing will be lost. The symptoms at the onset will be well studied as well as those of the fully developed disease, and his carefulness will in this way be matured. There is no royal way to infallible diagnosis. It is only by multiplying good reasons for a diagnosis that it can be sustained or justified, and these good reasons can only be obtained by observation and by reflection on the possibilities of error.

There remain the doubtful cases. What is the practitioner's duty in regard to these? Every day increases his responsibility. He cannot notify till he is satisfied that the patient is suffering from a notifiable disease; but he is by no means free from risk of blame if such a disease is before him and he fails to see it when he should be aware of its presence. To prevent such an error, and the perhaps greater one of notifying that which does not exist, the most reasonable course is in doubtful cases to seek the advice of another practitioner. This is one of the cases for the opinion of an expert. If a patient cannot pay a fee for such a consultation, an experienced friend is generally available, with whom counsel should be taken. When reasonable doubt still remains, or if the consultant or the experienced friend hesitates to pronounce the presence of notifiable disease, it is obviously right to give the patient the benefit of the doubt. But in all such cases the possibility of a spread of infection should be carefully guarded against by as complete an isolation of the patient and disinfection as is feasible. The great point of ethics in this matter is to cultivate accuracy of judgment, and in doubtful circumstances to do to others as we should wish them to do to us. The mere fear of being detected in an error of diagnosis is not a high consideration, but together with others of a higher nature it should prompt us to vigilance and care in the discharge of one of the most important of our functions.

It may be not inopportune, at a time when the distribution of the great annual collection made by the religious bodies of the metropolis on behalf of our accredited medical charities is announced, to call attention to a great evil, none the less serious because pertaining to that large class of wrongs which are "wrought by want of thought" rather than by "want of heart." The evil to which we allude is that of the promiscuous lending of names—done in all goodfaith and with the best intentions, but so hastily and so unreflectingly as to be productive of incalculable harm. For our present purpose it will suffice if we select two examples of the mischief resulting from this practice, and ample evidence of its existence can be found any morning in the advertisement columns of our contemporaries. A would-be benefactor, for some reason or other—we put it pur-

posely as indefinitely as possible—proposes to add one more to the already excessive number of London medical charities. For this purpose the first thing to be done is to secure the names of a number of influential and well-known people to figure on the list of patrons, vice-presidents, council and the like. The facility with which this object can be attained is astonishing. Holders of the proudest titles—persons of all others, it might be thought, who would be most jealous of the dignity of their names—out of pure good nature, and for the mere asking, sanction their use by the first applicant who comes pleading the cause of what is apparently charity. The "Hospital for Diseases of the Great Toe" (to take a humorous illustration once suggested by Sir ANDREW CLARK) is no sooner started than it commands the patronage of half the aristocracy and a respectful following of City magnates and plutocrats. It is perhaps doubtful whether any one of these gentlemen directly contributes a single penny towards its endowment or support, but the lending of a name costs nothing, and no active measures are required, save perhaps the pleasant labours involved, especially on the part of the ladies, in the holding of a fancy dress bazaar or a private theatrical entertainment. People who lend their names in this unthinking fashion never pause to consider whether the object in view, however meritorious at the first blush, is either necessary or desirable. In the case cited if these nominal patrons were to consult their medical advisers they would probably at once learn that, owing to the want of funds, many of the general hospitals in London have beds unoccupied, and even closed wards, whilst the money their names will attract into the coffers of the "Hospital for Diseases of the Great Toe"—for

"Some to the fascination of a name  
Surrender judgment hoodwinked"—

would have placed these beds and wards at the disposal of many applicants who now, alas, have to be turned away. Moreover, they would be told that the multiplication of special hospitals is viewed with disfavour by the profession as a body, and is quite unnecessary, seeing that the general hospitals are provided with special departments. We have no hesitation in saying that, speaking broadly (for there is no rule without exceptions), the rivulets of the stream of charity—and even the smallest of these, properly directed, may prove of eminent service to suffering humanity—if diverted from the legitimate channels of the general hospitals and allowed to irrigate the comparatively unnecessary pastures of highly specialised institutions not only run to waste, but serve to obliterate the landmarks which indicate the more useful and, in our opinion, more deserving harbours of refuge always open to sufferers, be they the victims of a general constitutional disease or of a purely local trouble affecting, let us say, the distal phalanx of the great toe!

The other example of the injudicious "lending of names" which we had in mind is of a different nature, and one in which those who err are of a less distinguished class of society. We refer to the published testimonials of the efficacy of quack remedies, cure-all nostrums *et id genus omne*. The reader of this remarkable species of literature is naturally inclined to believe that such testimonials are not genuine, and to regard them as merely the ingenious outcome of the fertile brains of enterprising and irresponsible advertisers. It has been proved, even

we fancy, in courts of law, that many of them are; in fact, instances either of misplaced gratitude of an evanescent nature or of fortuitous circumstances. Still, this does not by any means increase their value. The subject has undoubtedly a certain psychological interest; for what bent of mind must those persons have who, by iteration and reiteration, are convinced that the claims of quack medicine vendors, outside stockbrokers and turf prophets are worthy of credence? The cynical remark of CARLYLE that there are so many millions of people in the world—mostly fools—would, we fear, appear to be not less applicable now than in his days, for of a certainty the cost of these advertisements is eventually paid out of the pockets of the British public and not out of the purses of their shrewd authors.

In conclusion we would appeal to members of our profession to acquaint their patients and their friends, as they may have opportunity, with the real worth of the claims of those magnificent institutions, our great general hospitals; and to impress on them the folly—nay, rather, the positive harm—of lending their names “because they are asked” and, we may add, because they are too good-natured and sometimes too indolent to refuse.

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### Annotations.

“Ne quid nimis.”

#### THE METROPOLITAN HOSPITAL SUNDAY FUND DISTRIBUTION.

IN the course of a very brief report the Committee of Distribution appointed by the Council of this Fund have dealt with the claims of a hundred and seventy-six institutions and the awarding of £40,118. It appears that the investigation made by the committee has resulted in adverse criticism in sixteen cases, one of which proved upon examination by the light of explanations afforded by its committee to be open to no reproach and has accordingly received an award upon the full merit basis. The remaining fifteen have been less able to meet the criticisms of the committee. Seven of them appear to have acquiesced in the strictures passed upon them, five others have tendered explanations but without fully convincing the Distribution Committee of their freedom from blame, and three have been altogether refused any participation in the Fund. It is well that these facts should be generally understood, for it is plain that the effect of such criticism must be most salutary, and the public will place confidence in the administration of the Fund when they perceive that the supervision exercised by the Council through the Distribution Committee is very far from being a dead letter. Another point of equal importance is that to which, in moving the adoption of the report, Sir Sydney Waterlow called attention—namely, that the awards are made not simply upon the basis of the work done by the various hospitals, but also and even more directly in proportion to their needs. Of two institutions doing practically the same amount of work one may stand greatly in need of help and the other in little or no need at all. It is most proper that this aspect of the case should receive the consideration of the Distribution Committee, and we should have supposed that it was generally understood that this is, and must be, the fact, if it had not been that the House of Lords' Committee manifests some imperfect appreciation of its being so. We have repeatedly stated this in the pages of THE LANCET, and have again and again explained the

manner in which the committee proceeds; but there is still occasion to repeat the statement, since some, at least, whom it most concerns to understand these matters appear still to be under some misconception respecting them. In connexion with the Hospital Sunday Fund we may be allowed to express our gratification at the honour conferred by Her Majesty on the Lord Mayor in appointing him Knight-Commander of the Most Distinguished Order of St. Michael and St. George. Sir David Evans has been most assiduous and courteous in all the functions of his high office, and has well sustained the character of the Mansion House, not only for hospitality, but for ready and sympathetic help to the needy in their distress. When honours are a reward for such services they benefit alike the State which gives and the citizen who receives them.

#### HEAT STROKE IN AMERICA.

THE phenomenal heat-wave which for upwards of a week visited the chief cities of the United States not only deranged traffic and business to a remarkable extent, but was the cause of much sickness and mortality. It was stated that July 28th was the hottest day that had been experienced in that city for twenty-one years, and the death-roll then was such as to exceed the highest mortality ever known in twenty-four hours. On the 29th a temperature of 107° in the shade was registered, the deaths numbered 223, including 111 children under the age of five. Although on the 30th there was a fall in temperature the death-rate still remained excessively high, and it is stated that the total mortality in New York for the week ending at noon on the 31st amounted to 1434. Similar reports came from Chicago, and the same intense heat, with all its attendant discomforts and dangers, was generally experienced in the districts east of the Mississippi. No doubt the effects were the more severe since associated with the excessive temperature there was an abnormal degree of moisture in the atmosphere. The effects of heat on the human organism are not only seen in the occurrence of heat apoplexy or sun-stroke where the attack is sudden, the patient becoming comatose and hyperpyrexial, but in less severe cases it produces great nervous prostration and even cardiac depression. It was noted in New York that the worst effects were observed in the more densely populated districts of the city, and it is to be observed that not only did the human population suffer, but there was also a great mortality among the horses from the same cause—on one day as many as 1 in 5 of the horses employed by the tramway lines succumbing to the heat. As part explanation of these dire results it must be remembered that the conditions of life and habits of these large cities are ill-adapted to defend the inhabitants against such an abnormal rise of temperature.

#### “IN AID OF SICK CHILDREN.”

ON Friday, July 22nd, there was held in the Edinburgh Music Hall an exhibition of wild flowers, gathered all over Scotland by children, to whom prizes were given for the most effectively arranged specimens. Sixteen hundred was the number of the juvenile competitors, and there were on view in the hall 1642 exhibits, of which no fewer than 881 were bouquets of wild flowers prepared by children; while there were, in addition, 185 bouquets arranged by seniors, to say nothing of 254 bouquets of grasses. The spectacle was admired by numerous relays of visitors of all ranks throughout the day, to whom it was matter of equal surprise and delight that the highways and byways, the mountain sides and the river valleys, the moors and the marshes, could be made to yield so rich an assortment of floral colour at once delicate and glowing, and that the artistic taste and neat-handedness that grouped the flowers in such a variety of graceful forms were

so widely diffused among the humblest of the population. Nature herself was on exhibition in her freshest and most attractive *pose*, not only in her infinite wealth of outline and hue as represented by the flowers, but in the versatile contrivance and design manifested in the original, unsophisticated art of her child-votaries. Alternating with the vast array of hand-bouquets—combining heather, thistles, bluebells, wild roses, honeysuckle and white heather—were baskets and wreaths of the same, only less attractive in colour and arrangement; while the assortment of dried foliage from common British trees gave to the exhibition a scientific value dear to the botanical visitor. The prizes awarded by the umpires (among whom the chief place was appropriately held by Mr. Lindsay, curator of the Royal Botanic Gardens, and Mr. Dunn of the Palace Gardens, Dalkeith) amounted to 200, and consisted of watches, books and other articles of use to the fortunate competitors. But the real prize, in which all had more or less a share, was the education of mind and eye and hand conveyed in the gathering, the selecting and the arranging of the flowers into groups which by their artistic grace redoubled the native attractiveness of the flowers themselves, as they undoubtedly refined and stimulated the sentiment, the taste and the manipulative address that were expended on the handiwork. And, having served this most valuable of educative functions, the articles comprised in the exhibition were finally put on sale and the proceeds, mostly of small sums for the bouquets and flower baskets, were devoted to the funds of the Sick Children's Hospital. The chairman of the exhibition, Mr. John Leng, M.P., announced that in seven years as much as £1321 had been contributed by such means to children's hospitals; and Sir William Muir, Principal of Edinburgh University, dwelt on the beautiful thought which sent the healthy children of Scotland over the hills and dales of the native flora to gather flowers in aid of their little brothers and sisters lying in hospital. Charity and education were thus made to go hand in hand, teaching the lesson that nature-worship and art and science are never so admirable as when linked with the sentiment of humanity. Among the most effective promoters of the exhibition was Mr. Charles Jenner, whose propagation of wild flower culture and domestic gardening among our urban and suburban populations has already done much to refine and sweeten their lives. A munificent contributor to the floral decoration of the exhibition and also to the funds in aid of which it was promoted, Mr. Jenner confirms and enhances the honour attaching to a name, well-known in days past as well as present for its association with the science and the art of medicine.

#### HOME FOR EPILEPTICS.

THERE was published in *The Times* recently an influential signed letter calling attention to what it is hoped may one day develop into something like the well-known epileptic colony in Germany. The need for a home or refuge of some kind to which epileptics could be sent has long been felt by those who have been brought much into contact with such patients. Every convalescent home is closed against them, they are frequently incapacitated by their unfortunate malady from occupying positions for which in other respects they are well fitted, and they cannot be regarded, except temporarily, as suitable for treatment in hospital, even in those institutions which more particularly deal with such cases. A charitable lady, impressed with the wonderful success of the German colony, is making a laudable effort to imitate it in this country. A large house and grounds, we understand, have been purchased close to New Godalming, and the house has been suitably furnished to accommodate fifty or sixty patients. The management has been entrusted to a committee, but, although the house is now ready the

committee do not consider it prudent to throw it open until at least £500 are in the bank ready to be applied to the maintenance of patients. An appeal is made to the public for this sum. We cannot too strongly recommend such an object to a charitable public, and we wish the promoters every success in their efforts to alleviate the miserable lot of some of the most unfortunate amongst us. The inmates of the home are to be all females, and one of the best features of the undertaking is that it will be, to a certain extent at least, self-supporting. The patients are to be provided with suitable employment and are to be encouraged to assist towards their own maintenance; so that on the one hand they may be benefited physically by the light work which they would have to do, and on the other retain that self-respect which the objects of charity too often lose. We cordially wish the scheme every success, and we trust that it may be the means of bringing hope and cheerfulness to many a miserable existence. Messrs. Coutts and Co., 59, Strand, will receive donations or subscriptions in aid of the institution, which is to be called "The Meath Home of Comfort for Epileptics."

#### THE SHELLEY CENTENARY.

THE anniversary of the hundredth year since Shelley's birth was solemnised on Thursday last at his native town, Horsham in Sussex, by the foundation of a "Shelley Library and Museum" as the most fitting memorial that could be raised in the poet's honour. The institution in question is destined to absorb the libraries already existing on the spot and "to be governed in such a manner as to secure the support of all sections of the community." In addition to general literature, every work bearing directly or remotely on Shelley will be included in the library, while the museum will offer a home for such personal relics of the poet as the committee may be able to acquire. As a man and as a poet Shelley had his failings and defects—the failings and defects of his special and in some respects unique qualities. He was too ecstatic to be always sound; too impulsive to be always wise. But he was a high-souled, self-sacrificing "paladin in the liberation of humanity," whose heart beat responsive to the yearnings of his brethren for "the ampler ether, the diviner air" of social and individual freedom, and whose services were ever at the command of any cause, desperate though it seemed, that strove to make "all men's good each man's rule." There is, we understand, a corresponding movement in Italy to commemorate the good work rendered by the poet during his brief stay on the Tuscan seaboard in 1821-2; and in the monument erected at Viareggio, to mark the spot where his dead body was washed ashore and recognised by his friend Byron, a tribute will be paid to his generous espousal of the Italian cause in those dark years that followed on the reactionary treaty of Vienna. Over and above the historic deeds that link his name with the peoples' emancipation, political, social and religious, of which the latter decades of the nineteenth century are witnessing the fruits, his writings reveal a philosophic spirit in harmony with the most momentous findings of science, a spirit which under happier auspices might have worked itself clear of the crudities and morbid developments that vitiated his teaching and retarded his mission. The Greek culture to which his moral and intellectual being took so kindly fed his mind and soul with influences that required only scientific sustenance to make their practical outcome and their literary expression sound and clear. How susceptible he was of profiting by such sustenance may be seen in the wonderful generalisation that struck the keynote of his philanthropic life:—

"Nothing in this world is single;  
All things by a law divine  
In one another's being mingle."

What is this but a dim, poetic forecast of the axiom that

the universe is indissolubly connected with its minutest parts—that “the simple germination of a lichen is, if we apprehend it rightly, linked directly with the grandest astronomical phenomena, nor could even an infusory animal-cule be annihilated without altering the equilibrium of the universe”? The congenial gifts that made him one of the profoundest Platonists of his time doubtless prepared him for the teaching of the “Philebus” that the world is one huge animal organism, “the manifestation of some transcendent life, with which each separate individual life is related as is the part to the whole.” It is the undeveloped potentialities of his rich and many-sided nature that make his career and his writings at once so interesting and so tragically pathetic, and that qualify the physician, even more than the votary of any other calling, to share with special sympathy in the memorial tribute intended to “perpetuate his name and inspiration in the locality of his birth.”

#### THE FLY PLAGUE OUT OF DOORS.

LAST week we had occasion to discuss briefly some of the contrivances usually employed to combat the annoyance caused by house flies. We also noticed the fact that out of doors during the present hot weather a similar pest has to be encountered in a pre-eminent degree. Road, pasture, wood and mountain-side swarm with insects which attack the unprotected face the live-long day. The traveller cannot rest, the fisher cast his line, or the sportsman set himself to shoot but this *Musca volitans*, half a dozen at a time, is on his eyes. How best can the plague be met? Perpetual movement is impossible, and no degree of facial mobility would secure immunity; the hands have other duties. By common consent the veil, in one or other form, has been accepted as the surest and most ready means of defence. A correspondent mentions a visor of this kind as a suggested remedy. We cannot remember having met with this invention, but there seems to be no reason why it should not satisfy the needful requirements. Supported on a light wirework and made large enough to cover both head and neck, it could hardly fail to prove efficient. Still more simple is the contrivance adopted by our soldiers in Egypt—namely, a circular veil attached to the rim of the helmet, and falling down over the chest and shoulders. Health and convenience alike would gain by such additions to the armoury of comfort. That the bites of flies, in one at least of its species, may be the source of more than mere inconvenience has been already shown in our columns; and we record this week another example of the fatal results sometimes attending the attacks of these noxious pests.

#### SEASONABLE SANITARY WARNINGS.

A NUMBER of cautions are just now being issued by medical officers of health. Dr. Sedgwick Saunders in the City of London urges that care be taken as to water-supplies and as to milk. Diarrhoea is steadily on the increase, and in infants this often means contamination of milk in the wretched places in which it is stored—such as pantries opening out near dustbins. In the Trent Valley, certain inhabitants of the Gainsborough rural district are, notwithstanding the protests of Mr. H. Wright, the local health officer, and of the Local Government Board, still obliged to drink from the polluted river. In Essex Dr. Thresh issues notices of warning to the Maldon rural authority. In their district Latchingdon, Purleigh, Tiptree, Tillingham, and other places are in considerable difficulty. At Purleigh people who are willing to pay for a bucketful of water cannot get it; and all the while 40,000 gallons a day of excellent spring water near by at Danbury are running to waste. At Latchingdon the water is described as being like pea soup and as stinking. The truth is that many of the parishes in question are on the London clay, which is some 300 to 400 feet thick, water being procurable only by

deep wells bored through it or by surface ponds. The latter are all failing. The springs at Danbury would supply a large number of hamlets if the water were impounded. This would necessitate some twenty miles of piping, but the boon conferred would be immense and the outlay doubtlessly, in the end remunerative. Dr. Thresh has often given sound advice which has been followed with the best results, and we trust that his counsel in this important matter of a pure water-supply for the Maldon villages will receive the favourable consideration which it so evidently calls for.

#### TREATMENT OF HABITUAL ABORTION.

ASSAFCETIDA has been recently recommended in cases of habitual abortion. Dr. Turazzo gives it in pills containing a grain and a half as soon as it becomes clear that a new pregnancy has commenced. At first only two pills are prescribed, but later on the number is gradually increased to ten daily. The treatment is continued until the labour is over, and then the daily dose is gradually diminished. By this method cases where as many as five successive abortions had occurred have been successfully treated, and where in one instance a miscarriage appeared to be imminent during the seventh month it was averted and the patient was delivered at full term.

#### THE ARROW POISON IN THE NEW HEBRIDES.

M. DANTEO has examined and experimented with the arrow poison used by the natives of the New Hebrides. He finds that it contains neither vegetable poison nor serpent virus, but consists of earth impregnated with vegetable matter taken from marshy places and containing Pasteur's *vibrio septique*, or bacillus of malignant œdema and also the bacillus of tetanus. If the arrows have been kept a long time or have been much exposed to the sun the *vibrio septique* may have been destroyed; the danger then is from tetanus. When the arrows have been freshly prepared and the *vibrio septique* is still active a wound from them causes death in a guinea-pig from septicæmia in from twelve to fifteen hours; tetanus, which takes longer than that period of time to develop, does not under these circumstances show itself. It is interesting to remark that the horse is unknown in these islands, consequently the theory of the equine origin of tetanus would seem to be negatived by these researches.

#### THE VALUE OF NOTIFICATION.

THE rural sanitary authority of the Newton Abbot Union have been urged by a deputation from the inhabitants of Torquay, Paignton, St. Marychurch, Ashburton, and Cockington to adopt the Infectious Diseases (Notification) Act. The matter was referred to their medical officer of health, Mr. Harvey, who advised against it. He may have excellent reasons for this advice. Thus, the authority may have no means of isolating cases of infectious diseases when they hear of them, or their sanitary staff may be insufficient to do the work which would become necessary as the result of the increased sources of information as to disease in their midst. But the reasons which have been published in the local press appear to be singularly defective. One is that a subordinate inspector of nuisances would be more useful than the knowledge which the Act would provide; another seems to be that “notification meant quarantine.” We assume this to imply that an extra inspector might prevent disease, whereas notification would only give information after its occurrence. There is of course some reason in this; but everyone who has knowledge of a rural district must be aware that there are a number of diseases which are terribly fatal, which no action of a sub-inspector of nuisances can prevent. At all events, Mr. Harvey, knowing what is the state of the sanitary administration of this rural district, declares that notification would hardly be effective, and that it would lead

to considerable expence. The latter plea, which tells also in the direction of there being many cases of disease to report, seems to have carried the day, for the motion to adopt the Act was rejected. Newton Abbot must apparently wait till the Act is made universally applicable.

#### FRENCH CHOLERA PRECAUTIONS.

THE Prefecture of Police for the Department of the Seine have at last issued precautions against choleraic diarrhœa. As regards the actual sick the advice is given under three headings:—1. As to restoring warmth to the patient. 2. As to combating diarrhœa. 3. As to staying the vomiting. Then follow a number of preventive measures dealing with the water supplies, cleanliness, &c., and with the isolation of the sick, the disinfection of ejecta and of infected localities. Simple medical prescriptions are given in detail, and there is a statement as to the whereabouts of ambulances and appliances for disinfection.

#### INHALATION OF OXYGEN.

DR. GONZALES ALVAREZ of Madrid, in a paper on "Oxygeno-therapeutics" (*La Independencia Médica*, June 23rd, 1892), states that he has found oxygen inhalations of peculiar value in many of the diseases of childhood. A tube from the washing bottle of the generating apparatus can be placed in close proximity to the child's mouth and nose so that respiration is carried on with air containing a large proportion of oxygen, and of course it does not matter whether the child is awake or asleep. This plan has been found very advantageous in congenital debility, in asphyxia of newborn infants, in early scrofula, and in anæmia arising from any cause. In phthisis in adults Dr. Alvarez appears to have had more success from oxygen inhalations than has fallen to the lot of physicians in this country who have tried them. He mentions, too, a grave case of malarial cachexia in which this treatment was remarkably successful, the extravasation of blood simulating purpura hemorrhagica with extensive ecchymoses, epistaxis and mæna all passing off. Oxygenated water has also proved useful in the author's hands in many forms of gastric and throat disorder both in children and adults. Most patients cannot take more than a quarter of a glass without experiencing some nausea, but one old lady who suffered from dyspepsia and anæmia took for a considerable period a whole syphonful of the water with every meal, with the best results.

#### "MEDICAL HERBALISTS."

THE "National Association of Medical Herbalists" held its annual conference recently in Liverpool, and the President delivered an address which is certainly instructive, inasmuch as it gave some indication of "what they were, what they aimed to be, and what they desired to be." They are "medical dissenters" and they are employed by vast numbers as their "family medical advisers." They wish, in most praiseworthy fashion, to protect the people against unlicensed quackery; but *il faut vivre*, and the President has therefore made grave researches into the burning question of the penal clauses of the Apothecaries Act, and he announced, as the result, his belief that they were safe so long as they practised "without the assumption of medical titles." It is truly delightful to hear that we are not on the eve of a general convulsion of the universe; the "medical herbalists" are not advised to petition for the repeal of the old Acts, but they hope to level up until they gain some sort of official recognition. Here the logic becomes a little mixed. They proudly claim to have "erected no exclusive barriers," but they clearly hope to do so some day. They ask for no "selfish monopoly," but they denounce "the quacks who practise under the assumed names of herbalists." They are

yet (until they get the official recognition they desire) anxious to confirm the "medical rights" of the people, meaning by this platform-sounding phrase that "whoever they, the people, should call in to attend them should have a legal right to do so, irrespective of school, professional caste, or therapeutic belief." "Medical herbalists" are so often heard of at inquests and in other official inquiries that we gladly welcome the news of their high aims and also most cordially agree with the resolution passed at this conference—viz., that it was not advisable for members to use *medical titles* unless the said titles were English and the members were legally entitled to do so. So long as they continue to "make war upon" and to denounce the fundamental principles of their opponents, the allopaths, it is really difficult to see what medical titles they could desire to assume. If it were not for the sadness of the conditions under which "medical herbalists" are mostly heard of, it would be possible to be vastly amused with this unconscious burlesque of the proceedings of other associations.

#### SCOTCH SANITARIANS.

THE eighteenth annual Congress of the Sanitary Association of Scotland has been held at Aberdeen. Delegates from upwards of a dozen Scotch towns were present and Dr. E. Duncan of Glasgow was appointed president of the Association. A number of medical men, sanitary inspectors, borough engineers, and surveyors were present. In view of the forthcoming discussion on the Public Health Bill for Scotland, it is very necessary that sanitary reformers should unite and come to a clear understanding as to what they desire. A complete measure is necessary, and the Scotch sanitary authorities should consist of persons technically qualified. Mr. Peter Fyfe of Glasgow, ex-president of the Association, read a long paper on the necessity of reforming the central sanitary administration of Scotland. He protested against the evils of extreme decentralisation and the optional character of sanitary legislation, and thought the direct responsibility should be placed in Imperial hands. Thus at Aberdeen, as well as at the meeting of the British Medical Association, the cry has gone up for a Ministry of Public Health. This coincides also with the unanimous demand of the French Workmen's Sanitary Congress. The day is therefore, perhaps, not far distant when in every civilised country there will be a Ministry of Public Health. In the meanwhile Scotland has not even a Local Government Board such as exists in England, and certainly in many important respects has not shared in the sanitary progress accomplished in England. There can be no doubt that a Scotch Public Health Act is much needed. The Sanitary Association of Scotland are doing good work in pressing this matter forward.

#### MORE DEATHS FROM GLANDERS.

LAST week we drew attention to the increasing prevalence of glanders and the consequent greater risks of human beings becoming contaminated from diseased horses, giving as some evidence of this the result of a coroner's inquest on the body of a woman who had resided over a stable in which were glandered animals, by which she was infected through using water carried in the stable bucket, it was supposed. On the 1st inst. another inquest was held at Hornsey on the body of a coach-builder who had also succumbed to this loathsome disorder, which he had acquired from contact with a horse he had purchased for a few pounds and which had been allowed to die of glanders. Other cases of death among people from this equine scourge have come to our notice, and considering the extent of the malady among horses, especially in London, it is surprising there are not more coroners' inquests. It is to be apprehended that the disease will become still more extended, for though there is good reason to believe that only a few of the cases occurring are reported by the officials entrusted with the duty of sup-

pressing some of the contagious diseases of animals there are indications that few of the large studs of horses are free from it; while it may be presumed that in the stables of the poorer class of cabmen and carmen infection is rampant. A few days ago one of the largest tramway companies in London was heavily fined for having eight glandered horses at one depôt (a driver in their employment had died from glanders), and an omnibus company has been summoned for the same offence. We have complained of the imperfect measures in force for dealing with the disease and the very lax manner in which they are carried out; and until the authorities are compelled to exhibit more intelligence and energy matters will certainly not mend. All glandered and farcied horses should be at once destroyed, and those animals which have been in contact or cohabiting with them ought to be treated as suspected and isolated from healthy horses. No sales or transfers of horses should be permitted from infected stables or studs, and compulsory notification of the existence of the disease should be imposed on horse-owners and veterinary surgeons. Inspection of infected stables and horses ought also to be carried out by independent authorities, who should also see that contaminated premises are properly cleansed and disinfected. All public water-troughs should be prohibited and horses watered with their own buckets filled from stand-pipes, which might be placed where the troughs now are or where the street water-carts are now replenished. Whatever is done should be done quickly, for the present state of affairs, due more to apathy and indifference than ignorance, is most discreditable and injurious.

#### INTERCOLONIAL MEDICAL CONGRESS.

THE third session of the Intercolonial Medical Congress of Australasia will, as we have already announced, take place at Sydney, N.S.W., from September 26th to 30th inclusive. The president of the Congress is Dr. P. Sydney Jones, F.R.C.S., and Dr. Thomas Chambers is vice-president. There are five sections—viz.: 1. Medicine, including Pathology and Diseases of the Skin, presided over by Dr. Jas. Robertson of Melbourne. 2. Surgery, including Diseases of the Eye, Ear and Throat, of which the president is not yet announced. 3. Midwifery and Diseases of Women and Children; president, Dr. W. Balls-Headley of Melbourne. 4. Public Health, to include State Medicine, Forensic Medicine, Psychological Medicine and Demography; president, Dr. H. H. Whittell of Adelaide. 5. Anatomy and Physiology; president, Dr. H. Brookes Allen of Melbourne. The honorary secretaries of the Congress are Dr. T. P. Anderson Stuart and Dr. Samuel T. Knaggs.

#### CHLOROFORM FATALITY AT A DENTAL HOSPITAL.

AT the Coroner's Court, Dale-street, Liverpool, an inquest was held on the body of Sarah Smith, a woman aged thirty-four. The patient had been suffering from toothache and sought advice at the Dental Hospital, Mount Pleasant, where she was seen by the house surgeon, Mr. Gilmore. She was told all her upper teeth and some of the lower were decayed and required removal. An appointment was made for her to attend on the following day, and the house surgeon requested Dr. J. E. Gemmell to attend to administer an anæsthetic. The woman's husband vainly endeavoured to dissuade his wife from the operation, as he considered she was a very delicate woman, upon whom the shock would act prejudicially. He appears, however, not to have communicated his apprehensions to Dr. Gemmell; and as that gentleman, after examining the patient considered her sound, chloroform was administered. Dr. Gemmell in his evidence says he gave the anæsthetic slowly, and when thirty drops had been taken her pulse became weak and she had an epileptic fit, during which the heart failed. A necropsy re-

vealed a flabby heart and enlarged diseased kidneys. We find no mention made of the posture of the patient or whether her clothing was removed. Dr. Gemmell, as an expert and careful anæsthetist, can hardly be made to bear the brunt of this accident, although we think he probably would have acted wisely to have selected another anæsthetic and, if necessary, had the operation divided. The question whether the patient was a known epileptic appears not to have been asked. Possibly we should understand the fit to have been epileptiform.

#### SIR JOSEPH LISTER.

LAST week this most distinguished surgeon—whose name is synonymous with modern advance in scientific surgery, and who, by his observations and discoveries in the application of the antiseptic treatment of wounds, has added a lustre to British surgery which will never die—closed his career as a clinical lecturer in King's College. According to the regulations of that institution a professor must, except at the special request of the Council, on attaining the age of sixty-five, resign his professorial duties, although there is no apparent diminution of his mental or physical energy. Sir Joseph Lister seems as active and able now as when, twenty-three years ago, in the midst of his early experiments on antiseptic dressings, he resigned his chair of Systematic Surgery in Glasgow to become the successor of Syme in the Clinical Surgery chair of Edinburgh University. The authorities of King's College, recognising the eminence and great ability of this distinguished surgeon, have so far relaxed the rules of the institution that they have determined to retain his services in the wards of the hospital for another year, his duties as a clinical teacher, however, being transferred to younger hands. His last lecture consisted of an excellent *résumé* of the present aspect of the essential parts of the antiseptic treatment of wounds. At the conclusion he spoke with some degree of sadness of the termination of his course as a lecturer, and expressed to the students the hope that in the practice of their noble profession their main object would be to promote the good of their fellow men—a principle which Sir Joseph Lister has ever had present to his mind during his long and brilliant career.

#### THE PROGRESS OF CHOLERA.

WHILST cholera continues to make advances in Eastern Europe there is reason to believe that it is still confined to Russian territory. The outbreaks in Galicia and in Roumania are not only denied, but no further intelligence of an incriminatory character has followed the original statement as to its existence in these countries. Warsaw may or may not be a seat of the disease, but otherwise even Poland seems as yet to be free. Still there is a steadily increasing diffusion of the disease in South-Eastern and in Eastern Russia, the tendency of the diffusion being more and more in the direction of Central Russia. In the Astrakan district and south of the Caucasus some diminution in severity and in the number of those attacked is apparent; but, on the other hand, a very severe outbreak is in progress in the towns bordering on the north-eastern portion of the Sea of Azov and on the river Don, and a number of fairly central provinces, such as Poltava, Voronij, Tambov, Riazan, Orel and Moscow have been invaded. Western Russia as yet remains free. In the Don territory the Government of Rostoff is severely affected, and it is stated that in the last day of July there were no less than 1055 attacks and 447 deaths. The epidemic in the vicinity of Paris shows signs of abatement. Both in Paris, at St. Denis, at Gonesse and at Clichy fresh and fatal attacks are still occurring, but in these places and at Donnoval the tendency seems to be towards a diminution of the outbreak. In Persia the epidemic has markedly subsided at and near Meshed. But

cases have occurred at Yezd and a smart outbreak has taken place on and near the south shore of the Caspian Sea, where Resht, Enzoli, Lahijan and Mengil remain seats of the disease.

#### HEALTH OF MR. GLADSTONE.

WE understand that the illness from which Mr. Gladstone has been suffering during the past week was a feverish bronchial catarrh. On Thursday he was sufficiently recovered to be able to be present in the House of Commons to second the motion for the appointment of Mr. Peel as Speaker of the House.

#### THE OPENING OF PARLIAMENT.

THE thirteenth Parliament of Queen Victoria was opened on Thursday by Royal Commission. The opening ceremony took place as usual in the House of Lords, where there was a large attendance both of members and of the general public. The proceedings, which lasted only a few minutes, were entirely formal. In the House of Commons the Right Hon. Arthur W. Peel was nominated Speaker for the fourth time. The nomination was made by Sir Matthew White Ridley and seconded by Mr. Gladstone, while words of congratulation were offered by Mr. Balfour.

#### GRADUATION DAY AT EDINBURGH.

"*Quæ regio in terris nostri non plena laboris?*" was never more justly the boast of the Edinburgh School than on Monday last, when no fewer than 263 students in medicine, representing every quarter of the habitable globe, closed their academic curriculum, duly qualified to practise throughout an empire on which the sun never sets. The influx of students to her medical class-rooms, which received so great an impetus since the memorable tercentenary celebration of 1884, reached its height two or three years ago, and an unprecedentedly small number of students were registered at the opening of last winter session. So far as can be foreseen the causes of this decline are not likely to be weakened in force. The efficiency of the metropolitan and provincial schools will probably increase. Many of the teaching and examining bodies of these qualifying centres are Edinburgh men, but it is no consolation to that *alma mater* any more than it was to the mythical deity—that it is her own children who devour her. The resuscitated activity of the older English universities is another cause which impairs the prestige of Edinburgh on the side where she used to be exceptionally strong. As Sir G. M. Humphry indicated in a recent paper the preliminary training that can be offered by Cambridge, and, we may add, by Oxford, nowadays is not to be surpassed by any seat of learning north of the Tweed. Nay, we believe the thorough and systematic grounding to be obtained at these schools is, thanks to their tradition of *multum non multa*, intensive rather than extensive culture—a distinct point in their favour, which is gradually becoming appreciated by an ever-increasing public. The formation of a young and energetic university in the north of England and the vigour displayed by the authorities of the University of Durham have also begun to tell their tale. With such formidable competition in the early stage of professional study, Edinburgh presents no countervailing advantages in the opportunities afforded by her clinics, for the number of beds at the disposal of teachers however eminent is unfortunately limited. Practical medicine will seek its qualifying experience rather in the metropolitan and great industrial centres than in comparatively stationary provincial capitals whose population does not multiply in equal ratio.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Berlin.*—Dr. Strassman will undertake the duties of the chair of Forensic Medicine during the next semester, no appointment having been made since Professor Liman's death. Dr. Siemerling of the Charité has been promoted to an extraordinary professorship of Mental Diseases.

*Bern.*—Dr. von Speyer has been appointed Extraordinary Professor of Mental Diseases.—Dr. A. Santi has been recognised as *privat-docent* in Dermatology and Syphilis.

*Buda-Pesth.*—Dr. Ernö Emil Moravcsik has been promoted to an Extraordinary Professorship of Forensic Medicine.

*Cordova (Argentina).*—Drs. Pinero, Mariño and Freyre have been appointed professors.

*Gratz.*—Dr. H. Buchner of Munich has declined the offer of the new Professorship of Hygiene.

*Kazan.*—Dr. Fenomenoff, Extraordinary Professor of Gynecology and Midwifery, has been promoted to an Ordinary Professorship.

*Kiel.*—Dr. Georg Hoppe-Seyler has been appointed to the chair of Medicine.

*Montpellier.*—The chair of Medical Chemistry has been declared vacant.

*St. Petersburg (Medical Academy).*—The principal, Professor Pashutin, having gone abroad, his place has been taken by Professor N. P. Ivanovski. The selection made by the professorial senate of Professor Bellin of Kharkoff for the chair of Forensic Medicine has not been approved by the Government, who have appointed Dr. N. P. Ivanovski, the acting principal, who has hitherto held the chair of Pathological Anatomy, which chair has been conferred on Professor Vinogradoff of Tomsk.—Dr. Trapeznikoff has been recognised as *privat-docent* in Syphilography in the Military Medical Academy.

*Tomsk.*—Dr. Repreff has been promoted to the Ordinary Professorship of General Pathology; Dr. Obratsoff of Kazan has been appointed Extraordinary Professor of Dermatology and Syphilis.

*Vienna.*—The professorial senate have unanimously recommended Dr. Richard Freiherr von Kraft-Ebing *unico loco* as successor to the late Professor Meynert in the professorship attached to the First Psychiatric Clinic in the General Hospital.

*Warsaw.*—Dr. Tauber, Professor of Operative Surgery and Topographical Anatomy, who was deputed by the Russian Government to report upon the English and Scotch Schools of Surgery (*see THE LANCET*, vol. i., 1890, p. 857), has been appointed to the chair of Clinical Surgery.—Dr. Vassilief has been recognised as *privat-docent* in Surgical Pathology and Dr. Sienez as *privat-docent* in Special Pathology and Therapeutics.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Valerian Podwysotski, Professor of Pharmacy and Pharmacognosy in the University of Kazan, at the age of sixty-nine. The deceased professor was originally a lawyer and as such held various official positions; and it was not until he was nearly fifty years of age that he began the study of medicine at Dorpat, where, after taking his doctor's degree, he became assistant in the Pharmacological Institute and *privat-docent* in the University. From thence he was called to the professorship at Kazan. He wrote a good deal in the medical journals on various topics connected with pharmacognosy; amongst which may be mentioned emetin and podophyllin.—Dr. F. L. Thuram, formerly Inspector of the Odessa Sanitary Council, at the age of eighty-five.—Dr. G. W. J. von Düben, formerly Professor of Anatomy in the Caroline Institute, Stockholm, in his seventieth year. After completing his medical studies at Lund in 1844 he was appointed by the Academy of

Sciences to the *Prinz Karl* during an expedition to Africa, India and China. After his return he became Professor—first of Pathological and afterwards of Normal Anatomy—at the Caroline Institute. His chief work is on Lapland and the Lapps. He was also for many years editor of the chief Swedish medical journal, *Hyggea*.—Dr. Hermann von Meyer, formerly Professor of Anatomy in Zurich, at the age of seventy-seven.

WE have to announce the death on the 2nd inst. of a well-known surgeon, Mr. Samuel Armstrong Lane, at the great age of ninety. Mr. Lane was for many years lecturer at the Grosvenor Place School of Anatomy and was elected surgeon to St. Mary's Hospital on its foundation in 1852. It was mainly due to him that the Medical School attached to St. Mary's Hospital was opened in 1854 and to him must be largely attributed the success which it has attained. Mr. Lane was for many years a member of the Council and of the Court of Examiners of the Royal College of Surgeons. He had retired from practice for some years past but to the last he took the greatest interest in all matters relating to his profession. Those who knew "Honest Sam," as he was called by his contemporaries, will remember him as an upright, kind and sincere friend, a sound, thoughtful surgeon, and a practical and earnest teacher.

WE regret that pressure on our space prevents us giving an account of the first general meeting of the British Association held in the hall of the United Presbyterian Synod, Edinburgh. The President, Sir A. Geikie, was introduced by Dr. Huggins, and delivered the presidential address on the subject of the origin of the earth. He referred in this connexion to the views of James Hutton communicated to the Royal Society in 1785, and which Playfair had succeeded in popularising. The views of Werner, of Sir James Hall and Lord Kelvin were subsequently detailed. The address was listened to with the deepest attention, and it was generally regarded as one of the most interesting discourses on geology ever delivered. Lord Kelvin moved, and Lord Provost Russell seconded, a vote of thanks for the address.

ON Capping Day, August 1st, 169 new graduates were enrolled on the scroll of the Edinburgh University. Dr. Pringle presided at the dinner of the Edinburgh University Club at the Holborn Restaurant in the evening. The attendance, considering the time of year, was large. Dr. Pringle made an able speech on the University and on the club itself. The toast of his health was proposed by Sir Edward Sieveking, and heartily responded to. The music and other entertainments of the evening were exceptionally good.

OWING to the spread of the cholera epidemic, an order has been issued from the Ministry of Education of St. Petersburg prohibiting the resumption of examinations in all educational establishments until Sept. 1st next. Also the lectures to medical students in their last term are not to be continued until Nov. 1st, so that students may be free to offer their services in the cholera districts.

THE following names have been added to the list of honorary presidents for the International Congress of Obstetrics and Gynaecology:—England: Drs. Robert Barnes and Thomas Keith, Mr. Lawson Tait and Professor John Wallace. Scotland: Drs. Murdoch Cameron and Berry Hart. Ireland: Drs. Arthur V. Macan and More Madden.

PROFESSOR RUDOLF VIRCHOW was elected Rector of the University of Berlin on Wednesday evening, August 3rd.

THE Queen has been pleased to appoint Sir William Stokes, F.R.C.S.I., Professor of Surgery, Royal College of Surgeons Ireland, to be Surgeon in Ordinary to Her Majesty in Ireland, in the room of William Colles, Esq., M.D., deceased.

THE John Lucas Walker scholarship in Pathology at Cambridge University will shortly become vacant by the election of Mr. Kanthack to the medical tutorship of the University College Medical School at Liverpool.

## THE BRITISH MEDICAL ASSOCIATION. MEETING AT NOTTINGHAM.

IN the Obstetrical Section on Friday, the 29th ult., Mr. Knowsley Thornton opened a discussion on the Treatment of Uterine Fibroid Tumours. He held that the treatment of these depended on their structure, situation and symptoms. If the tumour be small it was absolutely unnecessary even to tell the patient of its existence, as her peace of mind was disturbed. He considered that the treatment by electricity was highly unsatisfactory. In the more severe cases he advocated the operations of hysterectomy or oöphorectomy, and only decided when the abdominal cavity had been opened. Dr. Murphy of Sunderland was in complete accord with Mr. Thornton's statement, but thought that he underrated enucleation per vagina, and related an interesting case where four tumours had been removed from the same woman during a period of five years. Mr. Lawson Tait also agreed with Mr. Thornton's conclusions, but was surprised that he had been so lenient on the electrical treatment. Dr. Horrocks stated that he had obtained very satisfactory results from the electrical treatment and had never seen a death from hæmorrhage in a case of fibroid tumour, and believed the mortality of the operation to be higher than that from the morbid condition. Drs. Tidy, M'Clure, Leith Napier, Michie and Bishop joined in the discussion.

IN the Public Health Section Dr. Tatham of Manchester, the senior medical officer of health present, presided in the absence of Sir Walter Foster, M.P. Dr. Willoughby read a paper on the Nomenclature of Notifiable Diseases. He very justly condemned the tendency to disguise the truth by speaking of "varicella" instead of "small-pox," of "scarlatina" instead of "scarlet fever," "diphtheritic throat" or "croup" instead of "diphtheria," and "septicæmia" instead of "puerperal fever." The result of so doing was that strict isolation and efficient disinfection were neglected. He demanded that definitions should be more strictly applied and suggested that measles be included among the diseases for notification. Dr. Groves said that when certificates were given for the benefit of the Government departments these departments ought to pay for them. Dr. Boobyer testified to the good results from notification and isolation, and Dr. Tew of Nottingham pointed out that in rural districts the medical officers were practically required to assist in the diagnosis of all doubtful infectious cases.

THE interest taken in the question of the admission of women to the membership of the Association was evidenced by the large attendance at the extraordinary general meeting held on the 28th ult. The tone of the speeches of the mover of the resolution (Dr. Galton) to expunge the words from Article 4 of the Association declaring females ineligible and the consequent alteration in the by-laws, and of Mrs. Garret Anderson, who seconded the resolution, was moderate and

their arguments well sustained. We have no doubt that the meeting, in the decisive vote it passed in favour of the resolution, was influenced by the temperate manner in which the subject was brought forward, and although Mr. Lawson Tait hinted at the possibility of the decision being reversed at the confirmatory meeting which is appointed to be held on the 24th inst., we do not imagine that this will happen.

DR. F. A. DIXEY of Oxford read a paper on the Influenza Epidemic of 1891-92 and connected the epidemics with the winter season and special meteorological conditions; while, on the other hand, Dr. Whitelegge argued that the weather had no influence on the epidemic.

THE discussion in the Psychology Section on insanity as a plea for divorce, raised by Dr. Weatherly, although brief, was of importance on account of the fairly unanimous agreement in favour of the plea being sustained in cases of incurable insanity, and after a specified period of time had elapsed since either party had to be placed under legal care and control. Dr. Weatherly in his remarks placed this period at seven years; but Mr. Stewart considered this too short and that it should be at least ten years. The same speaker also pointed out that the legal and medical definitions of insanity were not in accord. It may be noted, however, that such experienced alienists as Dr. Hack Tuke and Dr. Rayner expressed their dissent from Dr. Weatherly's views.

THE outspoken remarks of Professor Gairdner in the Therapeutic Section upon the manner in which new remedies are introduced to the notice of the profession, and the total lack of machinery for scientifically testing their value, will be endorsed by all who feel how much the true interests of the medical art are made to suffer from this growing evil. It is much to be regretted that he should have felt it incumbent on him to resign his position as President of the Therapeutic Committee, but he took the opportunity of the sectional meeting to explain the grounds on which he had acted. He admitted that the main reason for his withdrawal was that the policy which he had advocated—namely, that of obtaining satisfactory inquiries on a large scale upon the action of remedial agents—had not been seconded by the branches; whilst his proposed establishment of local committees of inquiry was frustrated partly by lack of publicity. The reason for this involved considerations of policy outside those of pure scientific inquiry.

THE social functions in connexion with the meeting at Nottingham comprised three garden-parties, two conversations, the annual dinner, and an "at home." A brilliant assembly of the members of the Association and townspeople of Nottingham took part in the conversazione at the University College, given by the Mayor and Corporation. The Association was also entertained by Mr. Leaver, J.P., and Mrs. Leaver at the Hermitage. During the week excursions took place to Buxton and to Lincoln, where Viscount Oxenbridge heartily welcomed the party. At Denton Manor Sir William Welby acted with similar hospitality. Belvoir Castle was visited, and the members were hospitably entertained by the Duke of Portland at Welbeck Abbey and at Haddon Hall by the Duke of Devonshire.

THE annual breakfast given by the National Temperance League to members of the Association took place on the 28th ult. in the Albert Hall and was well attended. The chair was taken by Mr. T. E. Ellis, M.P., and speeches were delivered by the Chairman, Professor Horsley, Mr. Pearce Gould, Dr. Norman Kerr, Dr. M. Cameron and Dr. Cohen.

### THE GENERAL MEETINGS.

WE resume our report of the proceedings of the British Medical Association meeting held at Nottingham last week.

#### EXTRAORDINARY GENERAL MEETING.

##### *Admission of Women to the Association.*

At an extraordinary general meeting of the Association held in the Albert Hall, Nottingham, the question of the admission of women to the Association as members was considered. There was a large attendance, and the tone and feeling of the meeting were very pronouncedly in favour of the proposal. Dr. S. H. GALTON moved that Article 4 of the Articles of Association be altered by expunging the words "No female shall be eligible for election as a member of the Association." Dr. Galton said that out of 140 medical ladies 22 were graduates of the London University. For eighteen years they had borne with this disability. He appealed to them to join with him in removing it from their articles, for it was a blot upon the fair fame of the Association, it was a stain left from the high tide of rank prejudice, and he hoped that the righteousness of Nottingham would wipe out the injustice of Bath.

The resolution was carried *nem. con.*

We understand that an extraordinary general meeting will be held on Wednesday, August 24th, at 2 o'clock, at the offices of the Association, to consider and, if thought necessary, to confirm this resolution.

#### THIRD GENERAL MEETING.

##### *Address in Surgery.*

At the third general meeting Dr. W. H. HINGSTON, of Montreal, delivered his address on Surgery, which was published in our last week's impression. The address was well delivered and well received.

At its conclusion Mr. LAWSON TAIT (Birmingham), in moving a vote of thanks to Professor Hingston, said no better example of the progress of surgery in Canada could have been presented to them than in the person of Professor Hingston. The professional work of the Dominion was quite equal to anything in Europe.

Mr. JOHN CROFT seconded.

##### *The Profession and the Local Government Board.*

Mr. D. B. BALDING moved, in accordance with notice, "That, in the opinion of this Association, the decision of the Local Government Board in reference to the case of the late Mr. Walters of Cheltenham was unjustifiably severe, and that it is incumbent on this Association to use its best endeavours to procure a reconsideration of the case."

After conversation a suggestion to refer the matter to the Parliamentary Committee was agreed to.

The meeting afterwards adjourned.

#### FOURTH GENERAL MEETING.

##### *The Address on Bacteriology.*

The interest of the annual meeting culminated in the able and eloquent address which was delivered by Dr. German Sims Woodhead. At its conclusion—

Surgeon-Colonel HARVEY moved that the best thanks of the Association be given to Dr. Sims Woodhead for his address, which was full of interesting information. Bacteriology had so developed that it required experiments to pursue it. The great *raison d'être* of the profession was to heal the sick, but the love of science would not give a man food and raiment or help him to meet the exigencies of life. The man, he said, who teaches the bacillus should live by the bacillus.

Dr. EDDISON (Leeds), in seconding, said this was the first occasion on which an address on this subject had been delivered at this Association. What struck him about Dr. Woodhead's address was the way in which he constantly emphasised, not what he had done, but what other men had done.

##### *Experiments on Living Animals.*

Mr. HUTCHINSON then moved a resolution in the following terms: "That this general meeting of the British Association records its opinion that the results of experiments on living animals have been of inestimable service to man and to the lower animals, and that the continuance and extension of such investigation is essential to the progress of knowledge, the relief of suffering, and the saving of life." He said it was scarcely necessary to move a resolution which he believed to be a simple

truism. He thought that the agitation which prevailed some twenty years ago against vivisection was rapidly and steadily dying out. Most of them had been brought into contact here and there with little attempts of vexatious opposition, which sometimes fell with peculiar severity upon one or two hapless individuals. There was about to be held a congress of clergymen at which this subject would be brought forward, and medical men had been invited to take part in the discussion. He had not the slightest objection to clergymen discussing that question. Some of the leading members of the profession had been invited to take part in the discussion, but they had declined. Sir James Paget had declined, and so had Sir George Humphry, on the ground that the discussion was not one in which those educated in medical matters could meet clergymen on common ground. They were right; they did not object to its being discussed, but it was useless to talk to people, however well informed on other matters, on a subject of which they could have but little knowledge. The British Medical Association, he hoped, representative as it was of all branches of the profession, would pass this resolution unanimously. They were not personally engaged in this work, but they could understand what valuable results were obtained from it. It was a matter of duty and of justice that the Association should stand by those who had performed experiments and who had thereby incurred considerable odium, and perhaps in some instances even damaged their reputation and success in life, in consequence of their appearing in public as advocates of this method of investigation. He was one who for twenty years past had never made any experiment on living animals. He had nothing to do with that department of investigation and he spoke for the large majority of those present at this meeting; but it would be a matter of cowardice if they stood aside and did not back up thoroughly those who were engaged in the pursuit of the clinical and particular aspects of the profession, or if they failed to express their deep gratitude to those investigators. As practical men the profession availed themselves of their discoveries. They applied their knowledge, and therefore they were bound to stand shoulder to shoulder with them. They were not only doing that which is not cruel, but they were doing their duty and conferring inestimable services upon the progress of science. They claimed to go before the laity and say the medical profession is a profession of humane men to whom every form of cruelty is detestable. We are fairly well informed as to the scientific aspects of this question. It is, indeed, part of our duty to be informed; and it is only common sense that you, the laity, who do not possess the especial information that we do, should listen to us. He did not object to legitimate forms of restriction. Indeed the medical profession was glad, if there should be some erratic individuals in whom the sentiment of humanity was lost in a matter of this kind, to have judicious State legislation. In this there was no cruelty, because nothing came under that definition which had for its object the diminution of suffering. Sir William Gull was asked by a lady if he did not consider experiments on animals as cruel. "Madam," he said, "there is no cruelty comparable to ignorance." Of course there would be in the medical profession a very small minority who would object.

The resolution was carried unanimously. This concluded the business of the general meetings.

## THE SECTIONS.

### MEDICINE.

#### *Ascites.*

Dr. W. J. TYSON read a paper on Ascites. "In reading over the subject of ascites in various text-books there is an absence of a good description of those cases which for a better name may be called 'simple ascites.' There always will be, and I think there ought to be, an objection made to the word 'ascites' without an accompanying distinctive adjective designating the cause of the ascites. In the same way one should object to the word 'meningitis' or 'peritonitis' as a final diagnosis. This is not at all a matter of sentiment, for the constant use of the above words as indicating a disease instead of a symptom lead some men to be satisfied with this, and hence in many cases the real cause of the disease remains untreated. The class of case to which I wish to call the attention of the members is that in which no cause can be discovered to account for the ascites, and yet with ordinary treatment of diuretics and aperients,

with tapping if necessary, recovery takes place. Two cases lately under my care at the Victoria Hospital, Folkestone, will illustrate the class to which I am referring. A. B—, a boy aged sixteen, was admitted on July 6th, 1891, with a good family history; he was quite well until his present illness, which commenced two months back with enlargement of the abdomen, which had been gradually increasing. On admission there was very considerable ascites, the abdomen measuring at umbilicus thirty-one inches in circumference, and between the umbilicus and ensiform cartilage thirty-three inches. There was no valvular disease, but the heart's apex was pushed up, beating opposite the nipple. There were signs of pleuritic effusion in both pleural cavities as high as the angles of the scapulae. There was no œdema in the legs or scrotum. The urine was non-albuminous, pale, with a specific gravity of 1006. The treatment adopted was the outward application of linimentum hydrargyri, whilst internally the patient was given tincture of digitalis with acetate of potassium; he was kept in bed. After a month all the ascitic fluid had disappeared and he became apparently quite well and has remained so since. The second case was that of a woman aged twenty-two, who had been married for six years, and had never had any children or any miscarriages. Her family history is a good one; her father, mother, two brothers and three sisters are all living and well. In 1884 she had typhoid fever, at which time the abdomen swelled, but went down again and, she stated, it has remained more or less swollen up to the present time of admission into Victoria Hospital on May 3rd, 1892. On admission the abdomen measured in circumference at the umbilicus thirty-seven inches and a half and it was very much distended. No cardiac, lung, or kidney disease could be discovered. On account of the great distress in breathing it was necessary to use paracentesis on May 10th, when twenty-two pints of ascitic fluid were drawn off. After the operation the abdomen was carefully examined for any enlargement &c., but nothing was found to account in any way for the ascites. The circumference was now twenty-nine inches at the umbilicus and has remained the same up to the present time. She was treated from the commencement of her stay in the hospital with digitalis, iodide of potassium and sulphate of magnesia, and Addison's pills night and morning, but with no result until after the tapping, when the urine passed, and was rapidly increased in quantity. The two foregoing cases are only examples of a large number in which the ordinary explanations of ascites are absent, for there is no cardiac, pulmonary, renal or hepatic disease present which would account for the ascites—not that we must forget that cases of ascites, when due to the foregoing causes, frequently get well, for I feel sure that our hospital experience often is fallacious as regards prognosis, inasmuch as the disease upon which the ascites depends occurs in subjects of much lower vitality, and therefore less under the influence of treatment, than those met with in private practice. I know of two cases of ascites, one due to kidney disease, the other due to cardiac disease, in which immense distension of the abdomen existed for some weeks. In the first there has been no return of the dropsy for six years, although a large quantity of albumen is still passed; and in the second there has been no return for a twelve-month. But in the so-called simple cases, to which I am particularly referring, the prognosis is very hopeful. Of course there is a cause to account for the ascites in the cases, but it is very difficult to find. Some of these, no doubt, are tuberculous in origin, others perhaps are due to that most convenient of causes—namely, exposure to cold. Still the important fact remains that there are a fair number of cases of ascites to which no cause can be assigned and which on treatment get perfectly well."

### SURGERY.

#### *Discussion on the Surgery of the Liver and the Gall-bladder.*

The discussion in the Surgical Section of this subject took place on Thursday morning and was opened by Mr. Mayo Robson. He said his conclusions were based on a personal experience of seventy cases of operation and upon many others in which no operation had been performed. He divided his paper in two sections, the first dealing with those injuries and diseases of the liver amenable to surgical treatment, and the second with gall-stones. Injuries of the liver attended by free and dangerous hæmorrhage can be successfully treated by exposing the injury either through an already existing wound or by an abdominal incision and plugging the liver and wound with iodoform gauze—a drainage-tube should

be afterwards inserted and the external wound closed. Abscess of the liver is a more common disorder than is generally believed. He had met with several cases and had dealt with some of them by operation. The diagnosis of this condition was always difficult and sometimes impossible until the abdomen had been opened. When the abscess has been found by an exploring needle the abdomen should be opened and the liver carefully sewn to the parietal peritoneum before opening the abscess cavity. In some cases this is impracticable, and then the cavity of the abscess should be cleaned carefully and thoroughly packed with iodoform gauze through the open external wound. Mr. Mayo Robson showed a simple and rapid way by which a drainage-tube can be introduced into an abscess of the liver where a patient is too ill to allow of the more systematically arranged operation. Free drainage is the real secret of success in these cases. Abscesses of the liver which have opened into the pleura, lung, pericardium &c. should be treated at their source by hepatotomy. A subphrenic abscess may be best opened through a lower intercostal space. Hydatid cysts are most safely dealt with by hepatotomy. Statistics prove that this operation gives better ultimate results than puncture. Other varieties of cysts are met with—examples of which were given in detail and the nature of some of which it is difficult to understand. Excision of a part of the liver has been successfully practised and may be called for in a limited number of cases. Mr. Robson thought that the elastic ligature would be found of service in this operation. He approved of the principle of exploratory working in all doubtful cases, and referred to some in which tumours, solid in their nature and malignant in their naked-eye appearances, have entirely disappeared after this procedure. Mr. Robson had operated in more than fifty cases of cholelithiasis with a mortality of three cases only, and each of these had been complicated by malignant disease. None of his simple cholecystotomies had died at all. He referred at length to the many disorders for which gall-stones are mistaken and gave examples of such cases which had been under his care. It was of first importance to locate the exact presence of gall-stones, and he thought in most cases this could be done. He referred to the occasional occurrence of pain in the left side and in the left scapula, and explained this fact by the presence of adhesions to the stomach. Sounding for gall-stones by acupuncture needles he regarded as dangerous, and aspiration of a distended gall merely for purposes of investigation was not to be commended. He referred to the free bleeding, which is often seen during operations on jaundiced cases, and recommended the previous administration of chloride of calcium as an internal hemostatic. With regard to the operation of cholecystotomy, he thought the operation in which the opening in the gall-bladder was sewn to the external wound was better than the ideal operation, in which the opening in the bladder was sewn up and the whole returned into the peritoneal cavity. When it becomes necessary to open the cystic duct, suture of the opening to the parietal peritoneum or the introduction of a large drainage-tube are the best procedures. He does not recommend supra-pubic drainage, as advocated by Mr. Knowsley Thornton. Gall-stones in the common duct may be crushed with fingers or forceps and left to pass into the duodenum. Cholecystectomy is occasionally a necessary operation, but should not be performed unless absolutely indicated, and when jaundice is present it should never be performed. Cholecystenterostomy has been successful in his hands and occasionally called for. It is best made into the duodenum and by means of a new form of decalcified "bobbin," which he described.

Mr. LAWSON TAIT agreed entirely with the views enunciated by the previous speaker, many of which were confirmatory of views advanced by himself a few years ago. Difficulties of diagnosis are constantly encountered and stand in the way of treatment. Hepatotomy is a safe operation if performed early enough. Delay gives the operation its dangers. Resection for cancer had no sympathy from him. In his operations for gall-stones death had only occurred in cases where cancer was also present. Gall-stones do not form again after operation, and cholecystectomy is therefore rarely necessary. He was glad that Mr. Robson had confirmed a previous statement of his (Mr. Tait's) that certain tumours of the liver which looked like cancer occasionally disappeared in a mysterious way after a simple exploratory operation. Mr. Tait presented a table of cases which showed twenty-one exploratory incisions with four deaths, eighteen hepatotomies with two deaths, and seventy-one cholecystotomies with four deaths.

Mr. JORDAN LLOYD called attention to the importance of

diagnosing before operation, not only the presence, but the exact locality of gall-stones, for the reason that the dangers of cholecystotomy depend more upon the position than the number, size or chemical composition of the stones. Cholecystotomy is a safe operation so long as the calculi can be removed through the opening made in the gall-bladder; but if the common duct has to be opened because of the position of the stone and the contracted condition of the gall-bladder the risks of the operation are enormously increased. Such a diagnosis can usually be arrived at by bearing in mind, firstly, that hepatic colic without subsequent jaundice and without a tumour, as a rule, locates a stone strictly within the gall-bladder; secondly, that hepatic colic, without subsequent jaundice, but with a subsequent tremor, locates a stone within or at the mouth of the cystic duct; thirdly, that the hepatic colic, with ague-like paroxysms, rigor, high temperature and sweating, followed by jaundice, locates a stone in the common duct. If a tumour be not present the gall-bladder is probably puckered up by chronic inflammatory changes. Persistent jaundice, generally, is the equivalent of malignancy.

Mr. CHILCOTE thought that in abscess of the liver the method of wound dressing was of great importance. He said that most liver abscesses were divided up by soft interlacing trabecule, which required thoroughly breaking down before free drainage could be secured.

The PRESIDENT said that these cases are, as a rule, brought too late under the surgeon's notice. He thought that the present satisfactory results should encourage physicians and practitioners to call in the aid of the surgeon at an earlier period.

Dr. GEORGE HARLEY said that physicians and surgeons had a common object—to cure disease; and in liver disorders each of them looked at their cases from a different standpoint. Surgical operation should be the very last measure to be adopted. He believed that the large majority of liver cancers were secondary to gall-stones.

Mr. BRUCE CLARKE referred to the two methods of treating hydatids by tapping and by drainage. He called attention to the fact, too, that hydatid cysts could be shelled out of the liver substance if they had not been left long enough to form strong adhesions. The early operations in these cases would always be the more satisfactory if only for this reason.

Mr. F. EVE referred to a case of actinomycosis of the liver which he had diagnosed during life and which might have been removed by operation. He referred also to a curious form of loculated abscesses which he had seen, and suggested that these tumours which disappeared after simple exploratory operations might have been navi.

Mr. MAYO ROBSON, in replying, thanked the members for their patient hearing. He said that when an incised duct cannot be closed by suture drainage with a large tube will suffice. The mortality of all cholecystotomies ought to be less than 5 per cent. The tumours which disappeared could not be navi for the reason that they were quite hard, like scirrhus when examined with a finger or a needle.

The discussion then terminated.

A paper was read by Mr. EWENS on Overgrowth of the Inner Tuberosities of the Tibia as a cause of Genu Valgum independent of Elongated Inner Condyle of the Femur, illustrated by photographs. Having alluded to the silence of some eminent surgical authorities on this subject, and the slight reference as regards the distinction between this affection and other forms of genu valgum made by other writers, Mr. Ewens directed attention to two cases by which his observations were illustrated, in which the inner tuberosities of the tibia were enlarged and elongated without any corresponding change in the inner condyle of the femur.

Mr. E. LUKE FRIBER read a paper on the Treatment of Scoliosis. He stated that in his opinion the two chief causes of scoliosis were: bad positions acquired at school or work during childhood and adolescence, and muscular debility. In Birmingham he found that a large number of cases occurred among the working classes, and to these cases he gave the name of "Trade Curvatures." He held very strongly that when once a curvature was developed to the extent of bony alteration no cure could be effected, although the curvature could be prevented from getting worse. The principles of treatment which he adopted were those enunciated by Dr. Roth, consisting in the practice of what might be called medical gymnastics. This treatment, which he had for years adopted, could not be carried out satisfactorily in Birmingham, in consequence of the neces-

sarily imperfect hygienic conditions of a large town, but the very best results were obtained from it when practised at Llandudno, where he now resided. The treatment consisted in an improvement of the general health in the correction of bad postural positions and in the re-education of weakened muscles by systematic exercises. Mr. Preer gave a detailed account of the exact course of muscular training through which he caused his patients to pass.

#### OBSTETRICS.

##### *Post-partum Hæmorrhage.*

Dr. HERMAN, on opening a discussion on the subject of post-partum hæmorrhage, emphasised the importance of compression of vessels as the rational means of stopping hæmorrhage. For prevention of hæmorrhage the main points were (1) avoidance of delivery when the uterus was inactive; (2) careful supervision of the third stage of labour. In treatment he advised (1) kneading by the abdominal hand. If this did not succeed, (2) putting the hand in the uterus to make sure that it was empty; (3) washing out the uterus with hot water. If these means failed, persistent bi-manual compression of the uterus. The application of cold he considered a temporary substitute for kneading. Putting the child to the breast was a useful and harmless adjuvant. The injection of perchloride of iron brought with it danger of (1) sudden death from distension of the uterus, (2) embolism, (3) peritonitis, (4) septicæmia. It left the uterus filled with clot. Although its effect was to check hæmorrhage, yet it sometimes failed. It was therefore neither safe nor certain. Packing the uterus with gauze sometimes failed, brought with it danger of entrance of air into veins, and the uterus could not properly contract when filled with gauze.

Dr. JOHN BYERS read a paper discussing the question, "Does Chloroform promote Post-partum Hæmorrhage?" In this paper the author, while pointing out the great advantage of chloroform in obstetric practice, draws attention to the fact that it is not so frequently employed by accoucheurs as might have been thought to be the case. In explanation of this circumstance two reasons are assigned and discussed:—1. The deterring effect produced on the profession by the alarming and disastrous results which have too often followed the use of chloroform in surgical practice. 2. Its alleged effect in promoting post-partum hæmorrhage. In support of this view he discusses the two arguments usually put forward—(a) The teaching of authorities; (b) personal experience. In reference to (a) he shows that there is no unanimity amongst teachers on this point, and hence the question can only be settled by (b) personal observation and experience. He shows the fallacy of the argument that, because chloroform was given and hæmorrhage followed, it was cause and effect—the *post hoc ergo propter hoc* style of reasoning—and argues that the great majority of cases of alleged flooding after delivery occurring when the anæsthetic was used can be explained as being due, not to the chloroform, but to rapid delivery and to a want of proper management of the third stage of labour. Those who take the other view must, when they report cases, give all the details of them—such as the age of the patient, the number of her previous confinements, the extent to which, and the method by which, the anæsthetic was given, the cause for which it was employed and the plan of delivery and the method employed in the management of the third stage of labour. In conclusion the author gives his own experience of an extensive and increasing employment of chloroform in obstetrics, which warrants him in stating that this anæsthetic has no effect in causing post-partum hæmorrhage, provided that in all cases care is taken not to effect delivery too rapidly and also to manage the third stage of labour according to modern teaching.

In the discussion which followed Dr. WALTER (Manchester) had much pleasure in hearing Dr. Herman's paper, and as so many members wished to take part in the discussion he would confine his remarks to three of the methods of treatment referred to by Dr. Herman in dealing with post-partum hæmorrhage arising from inertia of the uterus. 1. The intra-uterine injections of hot water was a mode of treatment which he had frequently tried; and whilst in many cases it would be found to act efficiently yet it was not always reliable. Much, however, depended upon exactness in the temperature used, as had been amply proved by the experiments of Max Rüinge on animals, which showed that uterine contractions followed if the temperature of the water used was from 112° to 115° F., but if the temperature was raised

above 120° F. no uterine contraction followed, the muscular fibre remaining paralysed. In those cases where hot-water injections failed Dr. Walter had often found that injections of vinegar and hot water in equal parts were followed by permanent uterine contraction. 2. Dr. Herman had spoken of the difficulty attending the use of electricity; this he had also found to be the case until he discarded all the ordinary batteries and used instead a small, but very powerful, magneto-electric machine, made for him some years ago by Weiss, with an intra-uterine electrode that unscrewed into four pieces and fitted into the box. The coarse interruptions produced by this machine had a remarkable power in inducing uterine contraction. 3. Intra-uterine plugging with gauze was not a method which he could advise, unless after abortions or miscarriages, when the expansile power of the uterus was limited. In one case, in which he had seen the uterus plugged after labour at full term, the uterus expanded after the plug had been inserted and hæmorrhage recurred. On removing the plug and washing out the uterus with hot water and vinegar the hæmorrhage was at once checked.

Dr. CULLINGWORTH thought there was a danger of the main object of the discussion being lost sight of. It was of great importance that we should have clear and definite rules for treating ordinary cases of post-partum hæmorrhage. The first step to take is to endeavour to excite uterine contraction by external manipulation. If this fails the aseptic hand should be passed into the interior of the uterus, the cavity emptied and the external manipulations supplemented by internal. Should the hæmorrhage continue the next means to employ is injection of hot water, at a temperature not lower than 110° F. The water should be injected in considerable quantity and the nozzle should be inserted sufficiently far to ensure the whole inner surface of the uterus being bathed with the fluid. It will not be often that these methods will be found insufficient to check the hæmorrhage or that recourse will be necessary either to plugging the uterus or swabbing with iron. He wished to enter a protest against Dr. Murdoch Cameron's suggestion that the vagina should be plugged. He had hoped that this method of treatment was as obsolete as it was dangerous. He agreed with Dr. Byers as to the absence of any clear evidence that chloroform exerts any influence in promoting post-partum hæmorrhage.

Dr. ROBERT BARNES advocated the seizing of the uterus with the hand, the injection of hot water, and in extreme cases of perchloride of iron, which he had found of the greatest benefit. He was satisfied of the benefit to be got from ergot.

Dr. WILLIAM DONOVAN said: "I have practised obstetrics continuously for the past twenty-four years, and am able to say that I have not had in that time a serious case of post-partum hæmorrhage. I look on post-partum hæmorrhage as the revenge of an outraged uterus. The uterus, like other muscular structures, when overstrained loses for a time the power of contracting. If the uterus is allowed to go on contracting after the fœtus has ceased to advance with the pains we are preparing the way for an attack of hæmorrhage. If we give ergot to force the uterus to still more active contraction we are only increasing the danger. In my opinion ergot should never be given in a case of difficult labour, and I have no hesitation in expressing my strongest disapproval of the heroic (to say the least of it) manner in which certain practitioners have recommended its use. I consider ergot not only useless but absolutely dangerous, and, given in the enormous doses recommended by certain men, improper and unscientific. When I find that the head does not advance with the pains and that there is an arrest for, say, half an hour, I invariably put on the forceps and deliver the head; then I give the uterus time to contract on the trunk and lower limbs, assisting their expulsion gently. The legs and feet I allow the uterus to expel without assistance. If this plan is followed the uterus will contract and expel the placenta. I think it a safer and better practice to allow the uterus to do this itself; and if this is done I think there will be little danger of post-partum hæmorrhage. The sudden emptying of the uterus by a quick withdrawal of the lower limbs of the child and worrying of the uterus immediately after by compression or expression all favour hæmorrhage. I am inclined to agree with Dr. Playfair when he says that 'he looks with suspicion on the obstetrician in whose practice post-partum hæmorrhage occurs often.' The points I wish to lay stress on are—Never force a willing uterus. Help it all you can; do not worry it with ergot. If the

child remains unmoved, with pains of fair strength, put on the forceps, do not hurry over the delivery of the body and limbs, and leave the placenta alone; do not press and knead and worry the tired uterus. If you are inclined that way give a dose of ergot. When the head is delivered give the uterus time to recover after the strain of expulsion, so that it may gather contractile power to expel the placenta, or, at least, to force it into the vagina; after that take it away. As to the question of chloroform increasing the tendency to hæmorrhage I think there is no ground for the fear. Do not give ergot, it is a bad and dangerous substitute for the forceps. Remember the old saying, 'Never spur a free horse,' and of all things, assist nature and do not force her, and when you do assist, do not half do it—do not allow the uterus to exhaust itself so that it loses its power to contract, and, far worse, have post-partum hæmorrhages, and do not worry it with compression and kneading, or it may take its revenge and relax.'

Mr. E. STANMORE BISHOP (Manchester) said: The question of post-partum hæmorrhage was one of what was called, in surgical parlance, concealed hæmorrhage, and in treating it a surgeon would naturally first think of a tourniquet. The ultimate process upon which we depended was the deposition of fibrin in the open vessels, and it was useless to expect this as long as the full force of the heart's action was driving blood through them. Although blood was apparently coming from innumerable jets the supply to the uterus, from which it was derived, was only through two main arteries, the uterine and ovarian. The uterine—the larger—arose from the internal iliac, and therefore was controllable by pressure upon the aorta near or above the sacral promontory, the most easily reached point. The ovarian artery, although arising higher up, was practically in the grip of the surgeon who held the fundus uteri. If, therefore, the ulnar surface of the closed left hand be pressed firmly against the aorta, compressing it against the spine, whilst the right manipulated and kneaded the uterus, the whole blood-supply was under control. This was not mere theory, the speaker having seen the blood gushing freely one moment and stopping suddenly as though the tap had been turned off directly this manoeuvre was executed; and this not once, but more than fifty times in cases where the patient was utterly blanched by the suddenness and severity of the flood. The aortic pulse, which could scarcely be felt at first, gradually came back, becoming slowly firmer and stronger, until it beat with normal force against the proximal side of the hand; whilst no loss, or scarcely any, occurred whilst the pressure was kept up. This procedure was productive of several good results. It gave time to the patient to recover; it dammed up the blood in the upper half of the body, so keeping up the vitality of the more important organs; it gave time for fibrinous plugs to form in the patent vessels; it allowed the exhausted muscular fibres of the uterus—the ligatures, so to speak, of the vessels—time to recover their contractile powers, and it permitted the surgeon, if necessary, to apply with more ease and power any local hæmostatic measures he might deem advisable.

Dr. WALTER of Manchester read a paper on a case of Tubal Gestation in which both tubes were gravid, with recovery after operation, and showed the specimen as well as drawings. On August 7th, 1891, Mrs. S—, aged twenty-nine, was admitted into St. Mary's Hospital for Women, complaining of abdominal pain, painful defecation and painful menstruation. The patient had been married ten years and had had five pregnancies, the last four years previously. In July she menstruated as usual, but the periods in May and June were missed, during which months she suffered from morning sickness, pains in her breasts and abdominal pain during defecation, and in the month of June she could not leave her bed. The physical signs on her admission to hospital proved the uterus to be normal in size and position, but its mobility was slightly impaired. In the left broad ligament and close to the uterus was a mass the size of an orange, but owing to the tenderness that existed the swelling could not be accurately outlined. No swelling existed on the right side. Abdominal section was recommended, but before the operation could take place the hospital had to be closed for repairs, and the patient returned home. She again came to the hospital on Dec. 14th, 1891. There was no alteration in the physical signs, and she menstruated regularly. She was suffering, however, from bronchitis, and her cough was very severe and frequent; on this account the operation was again postponed. On Feb. 19th,

1892, she was readmitted and it was then found that she had missed a period in January, but began to menstruate on Feb. 17th, or two days before admission, and that during the seven or eight weeks of amenorrhœa she again suffered from sickness. On Feb. 21st, her period being over, a physical examination was made; the swelling in the left broad ligament was found to exist as before, but in addition a swelling could now be felt on the right side and behind the uterus. The uterus was still normal in size. It was decided to operate on Feb. 26th, and on the afternoon of Feb. 25th the patient was given some aperient medicine; during the evening her bowels acted five times, and at 11 P.M. she was suddenly seized with abdominal pain and vomiting; her pulse was 110 and very weak. She quickly rallied and, with the exception of increased abdominal tenderness and rigidity of the muscles of the abdominal wall, no alteration was found to have taken place in the physical signs. The next morning abdominal section was performed and a quantity of fluid and clotted blood was found loose in the peritoneal cavity. Both tubes were found enlarged, distended with blood-clot and closely adherent to the neighbouring parts. The uterus was normal in size and position. The right tube and ovary were removed together. The tube on the left side was removed also, but the ovary was not disturbed, it being closely adherent to the side of the pelvis at some distance from the tube. The abdominal cavity was irrigated with hot water and a glass drainage-tube inserted. The abdominal incision was closed with silkworm-gut sutures, and dry dressings of corrosive sublimate wool were applied over the wound. The patient made an excellent recovery and left the hospital on March 26th. On July 28th, 1892, she reported herself to be very well, and stated that soon after leaving the hospital she was able to perform her own housework and that she menstruated regularly. In a note appended to the paper Mr. Bland Sutton says: "As far as my knowledge of the subject extends this is the first indisputable example of a tubal pregnancy occurring concurrently in both Fallopian tubes of the same individual. There are three cases in which it was probable that this accident had happened, but the facts are not completely demonstrated—viz., Dr. T. Rowan (*Australian Medical Journal*, 1890, p. 265), Mr. A. Doran (*British Medical Journal*, 1891, vol. ii., p. 789), and Dr. Savage (*British Medical Journal*, 1892, vol. i., p. 556)."

P.S.—Since the above report was written an undoubted case of bilateral tubal pregnancy has been published by Mackenrodt. (*Zeitschrift für Geburt. u. Gyn.*, Bd. xxiii., Heft i.; *Die Verhandlungen der Gesellsch. für Geb. u. Gyn.*, at Berlin, s. 301.)

#### *Morbid Conditions of the Fallopian Tube.*

Dr. CULLINGWORTH gave a special lantern demonstration on some of the more common Morbid Conditions of the Fallopian Tube in the physics lecture theatre of University College. The room was well filled. The slides, most of which were coloured, were about twenty-five in number, and consisted of illustrations taken from actual specimens of the conditions known as hydro-salpinx, pyo-salpinx, and hæmato-salpinx; also of tubercular disease of the Fallopian tube, of suppurating tubo-ovarian cysts, and of tubal gestation. The drawings had for the most part been made immediately after the removal of the parts from the body by operation, and therefore while the tissues retained their natural colour.

#### PUBLIC HEALTH.

##### *Hospitals for Infectious Diseases.*

Dr. II. TIMBRELL BULSTRODE, of the South-Western Fever Hospital, London, read a paper on Hospitals for Infectious Diseases. He condemned wooden and corrugated iron huts, and, while demanding better hospitals, thought there should be a graduated charge for admittance. He believed that in many fever hospitals the nursing was not good and many of the nurses had no special training. The utmost should be done to tempt patients to come to the hospital. Dr. Bulstrode concluded by advocating the creation of a Ministry of Public Health.

Dr. BOOBYER, Medical Officer of Health of Nottingham, said that payment for admission to the fever hospital had been tried and found to be a failure. It was now left to the goodwill and good feeling of each patient, and one gentleman had recently and voluntarily given three guineas a week. But at Nottingham there was the strongest feeling

against accentuating class distinctions, yet they tried to put the clean, respectable, decent patients in one ward. The removals of notified cases amounted to 85 per cent. last year; the number of fresh cases in the houses from which patients had been removed amounted to only  $\frac{3}{4}$  per cent.

Dr. HILL of Birmingham thought the idea of payment for fever hospitals altogether exploded.

Dr. GROVES (Isle of Wight) pointed out that in health resorts they were especially liable to the introduction of infectious disease, and yet its notification might frighten people away and ruin the locality.

Papers were read by Dr. W. L. HUNTER on Small-pox in Pudsey a Century Ago; Dr. G. SCOTT TEW on Endemic Typhoid Fever; Dr. J. C. THRESH, on Notification of Erysipelas and Puerperal Fever.

Dr. R. PRINGLE mentioned a district in India where 95 per cent. of all the population was marked with small-pox; but where vaccination was practised that malady had been kept out. These assertions were confirmed by Surgeon-Colonel Hardy.

#### PSYCHOLOGY.

##### *Neural Action corresponding to the Mental Functions of the Brain.*

Dr. FRANCIS WARNER opened the discussion on the above subject. He argued that during the period of inhibition there occurred a bracing together of those nerve cells of the cortex which were concerned in the production of the microkinesis, and that this bracing together was antecedent to the purposive movement which followed. When a bright object was placed before an infant a few months old, upon many successive occasions, it was found that the purposive movement to clutch at it which followed the exhibition of the object occurred much more rapidly after a few days than at first, and this, he concluded, was dependent upon the development of a more intimate connexion between nerve cells than had originally obtained.

Mr. BEVAN LEWIS (the President of the Section) considered that Dr. Warner's conclusions were based upon sound observation and were substantially correct. He also pointed out that these signs of attention were of real use in diagnosis, that it is characteristic of alcoholics that the signs of attention are exaggerated, that attention itself cannot be long maintained, and that these points are of assistance in diagnosing this condition from general paralysis of the insane, for in the former there are marked twitchings about the brow and upper part of the face.

Dr. MICKLE contended that the action which resulted from a stimulus was largely dependent upon congenital structure. The mechanism concerned in swallowing was inherited from parents, and in like manner was that concerned in producing the more complex movements to which allusion was made.

Dr. RAYNER made a few remarks.

Dr. CAMPBELL maintained that will and attention could be brought into one line. In support of this he stated that all parts of the body are represented in the higher cortical centres, and that if we examine carefully the accompaniments of any simple act of attention certain changes would be found in the part to which attention is drawn. He claimed that during a voluntary act attention was emphatically directed towards the muscles, and that consequently attention and volition are both related to the dynamic changes in the parts.

Dr. WARNER, in replying, stated that at birth idiots did not present normal spontaneous movements, and that in these subjects they were either absent or irregularly grouped together, and spasmodic in character.

Dr. HARRY CAMPBELL read a paper upon Minor Psychological Disturbances in Women. He began by saying that cases such as his were about to describe came to the London hospitals in their thousands, and that they very rarely if ever became insane. Such patients were, as a rule, not hysterical. The symptoms which he described in detail were as follows:—(1) Depression of spirits, worse in the morning, often relieved by weeping. He discussed the reason why such depression should be worse in the "cold grey dawn," as one of his patients expressed it, and considered that it was largely due to the antecedent sleep. In one-third of his cases, however, depression was worse in the evening. He considered that the principal cause of the symptoms was abnormality of blood plasma and of blood pressure, and that ptomaines and other morbid bodies had an important

influence. He discussed the question as to how far the nerve-cells themselves were healthy. He thought that recovery depended rather upon the building up of impoverished blood than upon the repair of any defective nerve structure.

Dr. URQUIHART (Perth) thought that the study of borderland cases was of the utmost value in the study of insanity. In speaking of morning depression he alluded to the sad and gloomy words of self-depreciation used by Ruskin in concluding one of his works, which words were written in the small hours of the morning.

Dr. ROBERTSON (Edinburgh) alluded to the anabolic activity of the cortical cell during sleep, so that the cell was built up again for further work. He argued that under morbid circumstances the contraction of the bloodvessels might hinder access of red blood discs to the cells, the capillaries being so contracted that the nerve-cells might be in part deprived of oxygen during the hours of sleep, resulting in exhaustion of the cells. This might be the cause of the depression and mental pain occurring shortly after sleep.

Dr. FRANCIS WARNER thought that delusions and ocular illusions were more common than Dr. Campbell had stated, and that hospital patients withheld them for fear that they should be considered insane.

Dr. DUNN (Wakefield) considered that in hospital patients the principal cause of the depression was a deficiency in the supply of food-stuffs to the brain, as in the morning food had not been taken for a long time, and that he had found an early breakfast valuable in relieving depression.

Dr. JOHNSTON-LAVIS (Harrogate) said morning depression was common in Italy where late breakfasts were taken. He found that it was also to be met by giving caffeine, which caused increased circulation, deficient quality being made up by increased quantity.

Dr. CAMPBELL, in reply, said the question of whether delusions were common was dependent upon the nature of delusions. He thought that many persons of late had suffered from political delusions. The influence of coffee, he thought, was a striking confirmation of Dr. Haig's views on the question of morning depression, that it was due to excess of uric acid in alkaline blood during the "alkaline tide." Caffein undoubtedly decreased the alkalinity of the blood. He considered that Dr. Haig's explanation was correct in many cases of morning depression, but it did not by any means explain all.

Dr. MACPHERSON read a paper entitled "Remarks upon the Influence of Intestinal Disinfection in some forms of Insanity." After some preliminary remarks as to the harm that is often done by narcotics in acute cases of insanity he stated that he had found brisk purges often of great value, especially in warding off recurrent attacks. The visceral symptoms in melancholia were next alluded to, and these had suggested to him the means described for their removal. He began upon a suitable case by washing out the stomach, the administration of calomel at night, followed by a laxative in the morning, and then regular doses of some antiseptic. He had tried naphthalin and  $\beta$ -naphthol, and found the former the better. Nitrogenous diet was restricted and peptonised gruel administered. The lecturer had found prolonged treatment essential to success, and then quoted in some detail four cases, in all of which decided improvement followed the treatment described, which he thought could be only ascribed to this treatment. Thirty other cases were also summarised. In no case was the general health interfered with; in most cases the body weight increased steadily—in no case did it fall. Sleep was very markedly improved, and this improvement was maintained without increasing doses of the drug, and was never followed by increased restlessness; in no case was there any change in the nature of the mental symptoms, and it did not shorten the period of illness, but it modified the illness materially, lessened the motor irritability and the tendency to suicide, and generally ameliorated the symptoms. Dr. Macpherson considered the drug safe, for though it failed in some cases it, as a rule, promoted nutrition and induced a normal sleep while the psychical disorder was not affected.

Dr. GOODALL thought the influence of toxines was one of increasing interest. He considered that the naphthaline would hardly injure the micro-organisms if it reached them, but he doubted whether it ever did so. He stated that the French observers had shown the difficulty of destroying saprophytes of the intestinal tract with reagents more powerful than the naphthaline in the doses used.

Dr. JOHNSON-LAVIS related a case in which he had advised intestinal disinfection after general treatment had failed. Calomel was regularly administered with marked success. He also quoted another case in which obstinate constipation, associated with chronic mental derangement was relieved by the injection of mentholised oil.

Dr. ROBERTSON agreed with the remarks of Dr. Goodall as to the importance of ptomaines in insanity. He stated that it was not necessary to destroy the germs, but only to limit their functional activity. At Morningside they had used  $\beta$ -naphthol with advantage and he had seen it successfully employed by Dr. Voisin in Paris.

Dr. RAYNER thought the treatment was likely to be of great value.

Dr. URQUIHART said that twenty years ago he had tried hyposulphite of soda for a similar purpose, but it had not been satisfactory. He suggested the use of eucalyptus.

Dr. MACPHERSON replied. He thought that Dr. Goodall was incorrect when he alluded to the failure of naphthaline to disinfect the intestinal tract. It had been shown by competent authorities that the combined sulphates vanished from the urine after administration of repeated doses of naphthaline; that, moreover, in such cases the fæces were entirely devoid of smell.

Dr. FRANCIS WARNER enumerated the chief points of a report of the committee appointed to investigate the physical and mental condition of children in schools. The results given were obtained from the examination of 50,000 children. Some of the more notable of the conclusions were as follows: As regards nationality it was found that the Irish children presented a proportionately greater number of developmental defects, their nutrition was poorer, and the number of dull children was greater and they had a greater tendency to nervous disturbance; whilst the Jewish children were decidedly superior to the English in each of the above respects. As regards the social class, it was found that the poorer classes presented a superiority to the upper in nearly every respect, and that in comparing children within public institutions to those in Board schools it was found that though the former were, on the whole, better nourished, in other respects they were decidedly inferior to the latter.

Dr. RAYNER read Dr. Frank M. Pope's paper, entitled a note on the Establishment by the Leicester School Board of a special Class for Feeble-minded Children, in which interesting details of the formation and management of this class were given.

Mr. CLARK, President of the Nottingham School Board, alluded to the large number of children of the upper classes who presented physical defects, and said that he considered that this was due to these children escaping, through social advantage, the struggle for existence. He thought that the improved morality of Jewish parents and the care which their religion demanded as to food, was largely the cause of their superiority over English children.

Dr. SHUTTLEWORTH congratulated the Association upon the work done by its committee, and hoped that the committee would be encouraged to accumulate more information, especially in the north of England.

Dr. RAYNER moved and Dr. LINDSAY seconded a resolution to the effect that the Council be invited to publish Dr. Warner's reports.

#### PATHOLOGY.

Dr. ADAMI (Cambridge) contributed a paper upon the Variability of the Bacteria. He pointed out that while it was generally held that the species of bacteria are definitely fixed, possessing properties that are constant, year by year more investigators are recording facts not in harmony with this view. The subject is one of such great importance that he had repeated a large number of the observations made by Schottelius, Laurent, Gessard, Charrin, Wasserzug, and others upon the variability of chromogenic bacteria &c. and had determined their correctness. He demonstrated variations occurring in the bacillus pyocyaneus, *B. ruber* (Kiel), *B. ruber* (Plymouth), *microbacillus prodigiosus*, *M. indicus*, *sarcina erythromyxa* and *torula rubra*, and showed that the amount of modification impressed upon the microbe and the durability of the same depend upon the extent to which the media of growth, temperature &c. are modified. A comparatively slight alteration of environment, if continued over several generations (or more truly cell multiplications), or a powerful stimulus applied for but a short time to one generation, may bring about the production of a race which for months—that is to say, countless generations—retains

the acquired characters and would seem to be permanent so long as it is propagated upon ordinary bacteriological media with ordinary precautions. Dr. Adami pointed out that while this was true it could scarcely be said that a new species had been developed in that a further alteration of environment might bring about reversion to the type. While the ordinary media of the bacteriologist might suffice for the growth and preservation of characteristics of both race and type, and while on these the race might show no tendency to reversion, an alteration of the media &c. in the direction of procuring optimum conditions of growth tends towards such reversion. Evidently therefore there must be not a little latitude in our conception of species among the bacteria; we must be prepared to discover considerable variations in the properties of any one species. The author then proceeded to show how these principles may throw light upon certain difficulties in connexion with pathogenic bacteria. He pointed out that, in addition to what we know as to the production of artificial races of pathogenic microbes, we possess a very fair body of evidence as to the existence of natural races of several species, and he considered that Cunningham's remarkable observations upon the various spirilla showing slight differences of mode of growth to be obtained from cases of cholera in Calcutta, Babes' and Cassedebat's pseudo-typhoid bacilli, Loeffler's pseudo-diphtherial bacilli &c., are all capable of explanation on the assumption that here we are dealing not with distinct species, but with races or modifications due to change of environment. He would, in part, explain the differences in the symptomatology of successive epidemics of one disease by differences in the pathogenic properties of the specific microbe, and in such diseases as diphtheria and typhoid fever would frequently see differences in the pathogenicity of the microbes gained from successive cases.

Dr. VAUGHAN HARLEY, Grocers' research scholar, read a paper on the Pathogenesis of Pancreatic Diabetes. This was another of the new school of chemical pathological papers in which the theory of the pathogenesis of the disease was not only supported by chemical data, but by clinical evidence, as well as by experimental pathological results, showing that whenever the pancreatic functions are totally destroyed a fatal form of diabetes is the result. The disease was shown by tables to be most common in the human subject in persons below the age of thirty. It was likewise shown that as the human body uses up every day in the performance of its normal functions from three to four pounds of sugar, and in the fatal form of the disease rarely more than one-eighth part of this amount is lost to the system by the urine, it cannot possibly be the sugar loss that kills, but some entirely different factor. As regards the cause of the disease, Dr. Vaughan Harley gave a variety of different kinds of clinical and experimental data, which he considered justified him in saying that the presence of sugar in the urine in cases of pancreatic diabetes most probably arose from a deficiency in the blood of normally present pancreatic glycolytic ferments to split up and prepare the sugar for the purposes of tissue nutrition; while the nerve prostration and great muscular weakness which are invariably associated with all cases of pancreatic diabetes, whether occurring as the result of disease in man or as the effects of operative procedures in animals, Dr. Vaughan Harley regards as mainly due to the retention in the organism of certain excrementitious substances, which, forming toxic ptomaines, act as ordinary poisonous materials do, and so interfere with normal tissue nutrition as to give rise to great functional disturbances and even end in death.

Dr. VAUGHAN HARLEY also read a paper on the Pathology of Obstructive Jaundice. In this communication, which embodied the results derived from a long series of chemical, pathological and experimental biological researches on the antagonistic effects, from a jaundice point of view, of ligaturing both the thoracic and common bile-ducts in animals, the author said the following justifiable conclusions might be drawn: 1. That, contrary to the accepted pathological doctrine, the bile which is eliminated by the urine and deposited in the skin and other tissues in cases of obstructive jaundice does not find access into the general circulation of the blood-capillaries at all. 2. In cases of obstructive jaundice it is the lymphatic system of vessels alone which absorbs biliary matters, and it is wholly and solely through the instrumentality of the thoracic duct that the bile finds its way into the bloodvessels. 3. After the thoracic duct has been for some time ligatured an adventitious supplementary chyle duct forms by the coalescence

of either newly developed or pre-existing collateral lymphatics from a point of the thoracic duct below the seat of ligature, through which its chyle and lymph are transmitted into the right innominate veins, and thus perform vicariously the transporting functions of the thoracic duct. 4. These facts, taken collectively, account, first, for the absence of bile acid and bile pigment from the urine in cases of obstructive jaundice, when the thoracic duct is ligatured. Secondly, for the reappearance of both the bile acid and the bile pigment, in spite of the closure of the thoracic duct, in the cases where dogs lived sufficiently long for the lymphatic anastomotic communication between the duct and general circulation to develop. Thirdly, for the animals thriving so well after both bile and thoracic ducts had been ligatured, as well as conclusively showing that, as the blood capillaries had during the time these changes occurred been totally uninterfered with, they cannot be the agents of the absorption of the pent-up bile either from the hepatic bile-ducts or from the biliary appendages; while, on the other hand, they equally conclusively show that the absorption of bile is entirely dependent on the lymphatic system of vessels. 5. As bile is freely eliminated by the blood capillaries, though it is not absorbed by them, this proves that the endothelium of the blood capillaries has only the power of permitting bile to pass through it in one direction. 6. That after the common bile-duct is obstructed the constituents of the pent-up bile do not pass out of the bile tubes and gall-bladder, to be absorbed by the lymphatics, in the same relative ratio; but, on the contrary, the mucin and cholesterin remain behind and become far more concentrated than either the lecithin, fat, soap, or taurocholate of soda. And this fact probably explains why cholesterin gall-stones are so much more commonly met with in the human subject than any of the other varieties. 7. That from the hepatic bile capillaries branch out fine bile canaliculi among the liver cells, some of which are seen to enter and terminate in the interior of individual hepatic cells in blind extremities. 8. As the dogs experimented upon not only lived, but gained in weight, after bile was prevented finding access into their intestines, I am led to the opinion that under judicious feeding the presence of bile in the intestines is neither necessary to the digestion nor assimilation of certain alimentary matters, and consequently not indispensable to life. 9. That ligaturing of the thoracic duct in dogs not only prevents obstructive jaundice occurring after ligature of the common bile-duct, but that it actually checks the signs and symptoms of jaundice after they have appeared.

#### *Researches in Cancer.*

Dr. H. SNOW read a paper on Cancer. In further illustration of his discovery that mammary carcinoma insidiously infects the marrow of the bones, Dr. Snow exhibited a sternum and part of the humerus from a patient with that disease. He pointed out the opaque-white colour of the infected marrow and the decalcification of the bony structures. The development of "the sternal symptom" (a slowly progressive prominence of that bone between the second costo-sternal articulations) by lymphatic infection of an adherent thymus was referred to. The genesis of "melanotic cancerous disease" was next considered. This arose invariably from pigment-secreting cells. Under the common title "melanotic sarcoma" two distinct varieties were confounded. The first, affecting the eyeball, sprang from connective-tissue cells and was therefore a true sarcoma, not infecting the lymph glands *per* the lymphatic vessels. The second form was an epithelial product derived from the deep columnar cells of the rete Malpighii and, as usual with such, it quickly contaminated the proximal lymph glands. All cases of melanotic cancer growth on the integument belonged to this class; they commenced in the redundant epithelium of a pigmented wart or mole. A number of crayon drawings showing the transitional development of the latter species were exhibited.

Dr. SNOW further produced two series of coloured sketches, of which the first demonstrated the characters of rodent ulcer as a malignant reproduction of hair-follicle structure, with an origin from the cells of the outer root-sheath. The second illustrated the production of globes *épidermiques*, not by endogenous cell formation as formerly taught, but by the vacuolation of cells over a large area. The epithelial cells concerned had an inherent tendency to secrete mucus; the protoplasm of one or more of their several nuclei became gradually converted into a minute vacuole or intra-cellular cyst. This was the first stage of the globe formation. These

vacuoles had lately been described by Dr. Armand Ruffer as parasitic bodies, but there was no evidence in favour of such a hypothesis. Traced further, the contents of the affected cells were seen to become more and more replaced by fluid, and eventually became blended into the laminated or imbricated corpuscles known as "*globes épidermiques*."

#### DISEASES OF CHILDREN.

##### *Ringworm.*

Dr. PHINEAS ABRAHAM read a note on Ringworm and its Treatment. He alluded to the legion of published "cures" concerning which each author had virtually cried "Eureka!" but, in spite of these certain cases of tinea tonsurans were still as intractable as ever, and mentioned a method of treatment which for some years past he had found very useful. An ointment, containing carbolic and salicylic acids (of each half a drachm to one drachm to the ounce), was rubbed in with a stiff brush twice daily, the scalp being shaved occasionally, kept closely cropped and always greasy, a cap being worn and changed daily, and the head washed with an antiseptic soft soap once a week. A number of cases had thus been cured in a comparatively short time though the majority has required several months. Additional applications, after washing, of carbolised liniment of iodine, have occasionally been made in obstinate cases or mercuric chloride or iodide (one to two grains to the ounce) has been added to the ointment. The doctor's experience had been that the more intractable instances had occurred in blonde children and in girls, and two of the most troublesome cases were in young albinos. He had met with three cases in adult women, one being very extensive and difficult to cure. He doubted whether Dr. Unna's method would be much used in hospital practice in this country on account of the time and manipulations required in applying the dressings, and alluded to the use of chrysarobin for many years by Mr. Hutchinson, Mr. Tay and others. He observed that the prophylaxis of this disagreeable disease was insufficiently attended to. Although every source of contagion could not be always guarded against, one recommendation, long ago made by Dr. Liveing, should be generally adopted—viz., that children going to the hairdresser should always take their own brushes and combs with them. The *British Medical Journal* in 1885 sounded a note of warning in reference to the extensive dissemination of ringworm by our Board schools, and Dr. Stowers and Mr. Malcolm Morris have since called attention to the subject. The matter seems of such importance that it should not be allowed to drop. It has been suggested that the school children be periodically examined by competent experts and the affected ones kept apart, but nothing has as yet been done in this direction. Children affected with tinea tonsurans still going to school are quite common at the two skin hospitals attended by the author, and it is easy to understand how the disease must thus be spread.

Dr. ALFRED EDDOWES read a paper on the Treatment of Ringworm of the Scalp. After referring to the success which Dr. Unna had obtained by his method with chrysarobin, he proceeded to describe a modification of the method which he himself now employs in out-patient practice. The essential preparations are a mild sulphur ointment and a compound chrysarobin ointment. During the first week the scalp is washed every two or three days with soft soap or soda and water and dressed daily with sulphur ointment. For as many weeks as necessary afterwards the scalp is systematically treated by the chrysarobin and the sulphur ointments according to a plan which the author described in detail. In private practice and when thorough supervision could be exercised, he recommended the plan as carried out by Dr. Unna himself; but for out-patient hospital practice he found his own modification was more suitable, though not so rapidly successful. When the ringworm occurred in schools he did not consider it at all necessary that children should lose the advantages of education and be prohibited from attending their classes because they happened to have ringworm of the scalp. In his opinion they could be treated by a simple method, which he described, until the vacation or other convenient time, and then be taken in hand more thoroughly if still uncured. He mentioned a case which illustrated the futility of attempting to treat ringworm piecemeal and showed the advantage which the taking of cultivations of fungus had over other methods as a test of the progress of the treatment. Against the general or extensive employment of mercurials he felt very strongly, and for reasons which he gave he much preferred even dirty-looking and somewhat

irritating substances to such as might contain poisons and not be so readily controlled.

Dr. P. MURRAY BRAIDWOOD read a paper on Nervous Disorders following secondarily certain Acute Infectious Diseases of Children. In this paper Dr. Braidwood considered the pathology and treatment of nervous disorders following croup (including diphtheria), influenza, measles, mumps, whooping cough, röteln, scarlatina and chicken-pox. He stated his belief that convulsive and epileptiform disorders following secondarily on acute infectious diseases in children were generally due to some accidental cause as a fright or the over-pressure of school work. Paroxysms of eclampsia infantilis closely resemble in their symptoms those of epilepsy in the adult. The convulsions may be repeated three or four times, while in the intervals the comatose condition and complete loss of consciousness and sensation may continue. The persistence of the reflex sensibility may in such circumstances easily mislead, for touching the conjunctiva produces contraction of the oricularis and sprinkling with cold water excites reflex contractions. Dr. Braidwood also considered the causes and treatment of chorea, Jacksonian epilepsy, unilateral spasms and tetanus. Massage in Dr. Braidwood's hands had yielded good results in cases of infantile paralysis, especially when he had combined it with electricity. The paper was illustrated by an interesting table of the chief nervous affections met with after the various infectious diseases.

#### THERAPEUTICS.

##### *Touting in the Medical Profession.*

Professor GAIRDNER of Glasgow said: I have asked permission to introduce some remarks into the business of this Section. Last spring it happened that I was appointed without my own concurrence in the least degree and by the unanimous voice of the committee to be the chairman of the Therapeutic Committee of the British Medical Association. I accepted the appointment under certain reserves and with certain misgivings, but these were entirely overcome when I found, some time afterwards, that the committee were at one with me in desiring that I should accept the chairmanship upon the conditions and with the reservations that I had myself made. About a year later it was discovered that the branches I had hoped to engage in the work did not, as it were, come to the rescue, and accordingly I found myself in the position of a defeated Minister. I had accepted for a particular purpose and with a particular policy in view, and I had found that the policy had broken down completely and therefore it appeared to me that the proper course was to resign the chairmanship, which I did. The resignation has been accepted with regret, but the circumstance which has made me address this Section is that I did not think all through the proceeding that the matter had been brought fairly before the public. I did not think the Sections who were written to and engaged in the matter were properly informed as to what my wishes were. I do not think the public knows, or that the members of the British Medical Association know, anything about it, and this has happened because the papers that I myself issued as indicating the policy I wished to follow have never been published. Now, mind, I am not blaming anyone. I am not wanting to raise a storm or make a personal point of this at all. I am not wishing to make any sort of mischief or disagreeableness, I am only stating as a matter of fact that I am standing here on the footing of a defeated Minister, having resigned my portfolio to the Association without its knowing why I have resigned it. It is quite true that a short circular letter from Dr. Sidney Martin was issued to each branch, but the papers in which I indicated more or less the lines which I considered it desirable to follow have never been published. Not only so, but I have received a letter from the Committee of Reference to the Journal to say that in their opinion they are not to be published. Now I am not quite willing to acquiesce in this, and all I want this Section to do is to listen to a few passages out of these papers and to say whether my views were not reasonable or, at all events, worthy of coming before the public more deliberately and more decidedly than they have done. I omit everything that is not essential, and I begin here:—

"Of the therapeutic work of the committee it may be said to begin with, that it not only constitutes, or ought to constitute, the larger part of our work, but from the very necessities of the case it must be conducted on lines differing essentially from the pharmacological work. The latter is

capable of a very direct initiative and can be carried out on a general plan by physical investigation with experiments planned in the laboratory or otherwise, so as to obtain quite definite results and subject them to all the necessary corrections; but in therapeutic inquiries, strictly so called, you must of necessity pursue quite a different method, and be contented with much less satisfactory results. You must, in the first instance, secure a field for observation. You cannot make, according to preconceived arrangements, the particulars you want in respect of diseases on which to test your medical agents. Secondly, you must have men of skill known as such to perform your experiments and more or less precisely to record the results; but the point to which I wish your attention generally directed now is that not only must you have a wide field of competent men, but you must, as the first step thereafter, cause these men individually and collectively (to whatever extent you apply the collective method) to be impressed with the idea *a priori* that the experiment you wish to be made falls within the line of their duty, and is indeed obligatory on them as dealing with sick humanity. In other words, the men whose assistance you wish to secure are physicians first and therapeutic experimentalists afterwards, and it is not competent for you to require of them to subordinate the first of these characters to the second. Hence it arises that the collective method of investigation is only in a very limited degree applicable to the kind of inquiries with which we are now concerned. You cannot, as a rule, advise in London and put into the form of a schedule an inquiry as regards a particular remedy—say, a new remedy—which will have the force of an appeal carrying the conviction that the experiment so advised is the right one to be made, as viewed from the physician's point of view; but unless this conviction is obtained your experiment cannot be made at all, or, if it is made, it will be in a very half-hearted fashion. Hence it arises that in this element of personal conviction you have a barrier at the outset to what many call 'control' experiments on a considerable scale. The men who will give you a remedy are, by a kind of natural selection, predisposed in its favour; the men who are not so predisposed will usually abstain from giving the remedy and in general will be quite right so to abstain. You must in the end take the results with this bias of what may be called 'natural selection,' or you will have no results worth speaking of at all." I omit here a paragraph which is not important. "If you have followed me thus far in this line of argument and the committee are convinced of it because all agreed with it, you will see why my mind inclines to a multiplicity of small local committees rather than to one only, guided and governed mostly from London as the absolute centre of suggestion and reference. Not but that I believe that a central therapeutic committee will have its functions greatly enhanced and its way cleared for advance by coöperating in advising and by controlling rather than initiating the great variety of research of the local committees. You have obtained the necessary starting point and, having done so, it would remain for the central committee to record the conclusions and the results which have been arrived at by the local committees. If the central committee found the results unsatisfactory they might say so, or open up the question again on other grounds, or refer to another committee, or remit the conclusions back again to the original committee. In any case the central committee would have still more important functions in becoming the medium of communication between local committees at a distance, or between these and the Association. Very important inquiries might thus be made. The local committees would be safe from the premature and biassed judgments which were now put forth upon certain drugs and which are the mere despair of therapeutics." Now, my complaint is that all this pleading never reached the Association; it not only was not published in the Journal, but it was deliberately kept back, owing to the machinery by which the work of committees is confined to the committees. The new start initiated by the Therapeutic Committee ought to have received the largest possible publicity in the Journal, to have been discussed by the Association at large at the very commencement, in which case there might have been some sort of hope of getting these local committees constituted and of their doing something. Instead of this the result has been that, except in Glasgow (where the committee has been constituted, but could hardly be induced to meet) and in Dublin (where the committee is still in existence, although it has not done anything yet) all the branches that were applied to simply

ignored or left the matter alone, and the policy has come to a state of dead failure and utter stagnation. That is attributable entirely to the Journal having either declined, or at all events having not published the basis of the remarks upon which the local committees were called for and asked for. Now, gentlemen, I am not complaining. This is not to me a matter of personal importance; in reality I am not inclined to press it, especially when I consider the severe labour and occupation which would have been imposed upon me had I continued chairman of the committee. Unless a position of that kind is filled *con amore* no good ever can come of it. I do not think, therefore, that the policy has had fair play; and I will go further, and I may say that sooner or later something of this kind will require to be done. I am perfectly satisfied that without therapeutic organisation in all our great medical centres therapeutics will go to the dogs. We are all getting more and more in therapeutics to be the victims of what in American politics is called "the machine." It is either a scientific machine, such as Dr. Sidney Martin or Dr. Lauder Brunton and all the great authorities in London who are working away at therapeutics in their libraries and laboratories—a kind of "machine" that is highly honourable; or it is a kind of machine that has found its way even into this room. It is the latter I am most afraid of. It is the "touting" machine. We see touting right and left, so much so that we are not allowed now to make up our own prescriptions. It is this apothecary in London and that physician in New York who keep urging upon us combinations of remedies used by themselves, and there is no ill to which human nature is heir that has not got its sole and universal remedy advertised all over the world. Any medical man requires simply to send his attestation that he has tried this remedy in numerous cases and always found it effective, to secure to himself that his name will get all over the world. It is that "touting machine" that is perverting all our therapeutics and lying at the root of biased judgment. How all these great advertising firms manage to "noble" the profession is a mystery to me. A good many years ago a whisky used to be advertised under the patronage of all the medical journals in this country, but it is never heard of now. But, still, it is just one instance among many of the touting plague. The evil consists in this, gentlemen, that if a firm or a man, pharmacist or doctor, chooses to take, what up to a certain point is legitimate means of advertising and puffing, if he simply chooses to put it into the proper channels for acquiring a certain amount of publicity in connexion with his name, but chiefly, and above all, to connect his name with a remedy, it is not of the slightest consequence whether the remedy is absolute and unmitigated trash—nay, whether it is dangerous or whether it is the greatest possible boon to mankind, it is not of the slightest consequence, because before it is found out he will have made his money, if he has only puffed and touted it well, before there is time to find out whether it is good, bad or indifferent. Well, before there is time to find out whether it is good, bad or indifferent, he will have made an indescribable number of guineas. That is a great snare. There is a constant golden bait held out to the man who will manage to get even a certain temporary or makeshift presentation of a particular therapeutic agent, and in consequence of that golden bait (I am not attributing anything to the honourable members of the profession, but it is applied to the advertising firms) it is of far less consequence that the remedy should be good than that it should be something that can be well touted and well advertised. I had hoped that by constituting a nucleus of therapeutic inquiry in London and by attaching to this nucleus a number of largely independent and self-regulating centres of inquiry and investigation in the provinces, so that local errors might be effectually controlled, I had hoped that we might form a kind of barrier, a protection against the constant invasion of bad, useless and worthless things, and, on the other hand, advance the interests of true therapeutic science.

#### Discussion on "Dyspnœa" and its Treatment by Drugs.

Professor GAIRDNER, in introducing the subject, said an objection to a discussion on this matter was that the term did not refer to an individual and simple fact. It was not even the name of a disease. A second objection would have been that the treatment by drugs is not the whole treatment. As the therapeutics of one form must be distinguished from that of another kind he would endeavour rather to indicate the line of treatment by drugs than to indicate any particular drug as being of any more importance than another. The

great physicians recognised three types of dyspnœa which were put in brief form by Celsus, thus: When the difficulty of breathing is moderate and not suffocating it is called "dyspnœa"; when it is more vehement, so that the breathing is suffocating, it constitutes apnœa; and when the breathing can only take place in the erect position it is termed "orthopnœa." All these words still remain with us. Orthopnœa is obviously something which differs in kind from mere dyspnœa—no doubt very often associated with it, but still containing in its differences something that was worthy of investigation. Apnœa in the last century was the general term for all kinds of dyspnœa. It is now limited to what is called "spasmodic asthma," and thus has obtained a somewhat different sense from that which was given to it originally. At all events it may be said that it is vain to discuss the treatment of dyspnœa by drugs without some kind of preliminary definition, however imperfect, to show you in what particulars cases of dyspnœa differ *inter se*. Dyspnœa, however arising, may be manifested in three distinct ways:—Firstly, by the presence of a peculiar sensation—*le besoin de respirer*; secondly, by a chemical change in the blood corpuscles, which leads to cyanosis; thirdly, by decreased activity of the respiratory reflexes and the respiratory movements. Not infrequently all these groups of phenomena coexist, though not necessarily in equal proportion. In some patients cyanosis is not apparent, while in others, as in cases of congenital malformation of the heart, cyanosis is the leading phenomena. The *rationalis* of these discrepancies is not always clear, but the following considerations may help towards its clearing up, especially in a practical sense. The minimum degree of dyspnœa which can be called pathological is what is termed "shortness of breath." In some it would appear that either from the organisation in which the excess breathing power is always low, or from an undue sensitiveness of the respiratory reflexes, the least exertion brings about a sensation of dyspnœa and with it an increased shortness of breath. The converse of this is that in other cases very serious invasions of the respiratory mechanism are comparatively little affected by breathlessness. For example, I have seen a man with the pleura so full on one side that he had been tapped several times, but he had never the slightest sensation of dyspnœa; and, to mark that more emphatically, I had counted his respiration at sixteen per minute. The sensation of dyspnœa, the cyanosis with increased efforts of breathing, are facts or manifestations which may lead to different and sometimes separate indications for treatment. Further, dyspnœa itself, being a mere group of symptoms and not a disease, the removal or mitigation of the cause is often the only real key for the effective treatment. Dyspnœa may be purely of hæmatic origin, as in anæmia, in which the blood corpuscles or oxygen carriers are both deficient, and the tissues consequently are not properly fed with oxygen. In this variety there is no cyanosis and even little of the sensation of dyspnœa. So far as my observation goes there is never orthopnœa. The patient is perfectly contented, sitting or recumbent. The respiration is as often slow as rapid and the circulation also may be languid. In this case the therapeutic indication is manifestly to restore the hæmoglobin to the corpuscles and to increase the number of these. Iron, arsenic, regulated exercise and all the remedies for anæmia are also the remedies for dyspnœa, which is a consequence of the anæmia. Failing this, inhalation of oxygen gas may be employed to bring about, *pro tempore*, the just balance between the blood and the tissues. None of the ordinary cardiac drugs can be expected to give relief. Again, dyspnœa may be due to pulmonary causes. In the first instance it may be exclusively pulmonary, and detection of the nature of the causes will, more than anything else, dominate the treatment. The typical cause here is bronchitis with emphysema. In these cases cyanosis is present and may be even extreme during an exacerbation. There may be also found a distinctly paroxysmal element, which, however we account for it physiologically, is designated "spasmodic asthma." The breathing is not so much accelerated as it is laborious, and the whole disturbed mechanism of the respiratory act shows that a patient is under the mechanical or vital necessity of making every single respiration as effective as possible by inspiring to the full extent of his vital capacity. Inhalation of oxygen gas might be suggested as a palliative, but it can only go a short way. It is very good as a temporary expedient, and I have on various occasions recommended it with advantage; but the one great therapeutic indication is to remove as far as possible the obstruction to the air

which exists in the tubes or air cells. Hence the general recognition of expectorants. Now, many people use the phrase without clearly knowing what is an expectorant. I hold that an expectorant is a remedy that acts upon what I call the scavenger muscles of the air tubes. I say that the bronchial ramifications below the cartilages are under the domination to a great extent of the muscles that line them, and that these muscles are engaged, both in health and in disease, in the perpetual process of scavenger work—clearing out, not only the mucus, but the dust and offensive matter which we are inhaling. I have endeavoured to convince myself that this is a necessary function, and, if so, there is some apparatus for its performance, and that I believe to be the muscles that line the bronchial tubes. An expectorant, therefore, is a remedy that acts upon, quickens, regulates and renders normal that which was abnormal—this scavenger function is that of the bronchial tubes. Dr. Benjamin Ward Richardson has been the first to use the term "pneumoparesis," and he applies it exclusively to the vascular system of the lungs—paralysis of the small vessels. What I wish to state here is that if I had adopted the term I should have applied it to the paresis of these scavenger muscles, and I believe that the large part of the bad effects that lead to dyspnoea is either caused or aggravated by the accidental failure on the part of these clearing muscular agents to do their duty. The science of therapeutics consists in using such remedies or drugs as act upon these muscles, quicken their expulsive methods and clear a free passage to the air. The remedies are the normal constituents of an expectorant mixture. There is quite a distinct group of causes of dyspnoea of pulmonary origin, the typical instance of which is what is absurdly called "acute croupous pneumonia." Here the obstruction is in the air vesicles, and accordingly no strained efforts of the muscles of respiration can be of any avail except in supplying those parts of the lung which are not affected. A patient with bronchitis almost always has orthopnoea; he sits up, makes great efforts, inspires to the top of his bent, but the respiration is not always quickened in proportion; but the patient with pneumonia, whether in one, two, or three lobes of the lung—that is, with pneumonia and nothing else—lies flat on his back. There is not the slightest orthopnoea; he may be more cyanotic than the other man, but he lies upon his back and breathes rapidly—50, 60, and 70 in the minute. The respiration reflexes act in the direction in which they are wanted. Expectorants here are of comparatively little use except as keeping clear the avenues of such parts of the lung as are capable of admitting air. The treatment is the treatment of pneumonia, and in this treatment opium is notoriously a drug which requires to be used with great caution. Opium no doubt acts by paralysing the scavenger muscles. Why did opium check expectation? It did not check the secretion of the skin. It checked lung secretion by paralysing the action of these scavenger muscles.

The third group includes the cases in which the initial lesion is not essentially of the lungs, or at least is not within the air passages and air cells, but which lies outside of the pulmonary apparatus altogether. It included cardiac dyspnoea, pleural and peripheral effusions, dropsical swellings, asthmatic dyspnoea &c. In this third group the working point in therapeutics is and must be in favour of the removal of the cause, whether fluid or otherwise; in cases of cardiac origin strengthen the heart by cardiac tonics to overcome the difficulty of breathing. With respect to the removal of obstructing matters which cannot be dealt with through expectorants, remember always one of these true sayings: "In morbus pulmonum ad vias urinae ducendum: in disease of the lungs act upon the kidneys"; and if time is allowed by the urgency of the symptoms—the well-known and recognised diuretics are available here, and even the so-called cardiac tonics are most effective in producing diuresis. I have been accustomed to say in administering these tonics—digitalis, strophanthus and so on—"Look well to the kidney secretion; take a note of the quantity of urine before you begin to use the drug and see whether in two, three, or five days it increases—doubles, triples or quadruples itself. If so, the action of the remedy is safe and satisfactory; if not, the opposite is the case. I would here interpolate that cream of tartar—an old friend of mine—which was long before my day championed by Cullen, is one of the best and safest diuretics. In jaborandi or pilocarpin we have a remedy of most unquestionable power, of efficient and extremely rapid action, which is ever ready to hand and requires to be mentioned only with a caveat, because in some cases of cardiac dyspnoea it may be open to

abuse and danger. Finally, there is venesection, a disused and much abused remedy, but which is still applicable to those cases in a higher degree than any remedy I know; but I dare not open up the question.

Professor LEECH, continuing the discussion, divided the cases of dyspnoea into two groups—those which are chiefly connected with the respiratory apparatus and those of cardiac origin; a third might be added—those connected with hæmatic conditions, either from alterations in the blood or from poisons. The remedies for these cases are widely different. He pointed out the value of the nitrites in lung cases with dry sounds. With a suitable preparation, for instance, nitro-glycerine, he could confidently predict relief. He described the difference between nitrite of amyl and other nitrites. Nitrite of amyl was briefer in its action, consequently not so useful in these cases. In cases of turgidity and moist sounds no relief could be afforded by those drugs. The remedies in such cases were expectorants, such as antimony or lobelia. Regarding the use of chloral or opium he agreed with Dr. Gairdner. The dangers were great in cases of dry rhonchi, and still greater when the sounds were moist. If chloral, however, were given the heart should be carefully watched. He had found ammonia to be of great use in relieving very markedly the craving for air. He also had tried the fumes of various-makers. These, on being analysed, were found to contain either nitrites, pyridine or mydriatics. He handed in a table showing this.

Dr. HANDFORD referred to one form of dyspnoea which was of a narcotic origin and closely allied to gout. It depended upon digestive disturbances. That was the dyspnoea which occurred in attacks of megrim.

Dr. HAYWARD remarked that in his earlier days he had been rather frightened with the results of pilocarpine injections, and asked particulars for its use in private practice.

Professor OLIVER said he had observed many cases of pleurisy with effusion where there had been absolutely no dyspnoea, and illustrated this by one case from which twenty ounces of fluid had been removed.

Dr. WILBERFORCE SMITH suggested that "succus belladonnae" might be used with advantage instead of the fumes.

Dr. PEARCE referred to the use of aconite in the spasmodic form of asthma.

Dr. NORMAN KERR stated that he was a sufferer from dyspnoea and had tried all the drugs to be found in the Pharmacopœia, ranging from whisky to belladonna and aconite. He had generally found the first dose of these drugs to be efficient, but their action was not kept up. He had only taken three medicinal doses of whisky in his life.

Dr. WALKER (Pollokshaws) referred to dyspnoea due to overloaded stomach and bowels, which he had seen cured by the use of strong purgatives. He had also used iodide of potassium combined with belladonna and digitalis with good results. He thought the mistake Dr. Kerr had made with the whisky was that he had not taken enough of it. He recommended him in case of another attack to try it in larger doses.

Dr. SINCLAIR COGHILL divided the remedies into those which were directed to relieve pulmonary asthma and those which were directed to relieve cardiac dyspnoea and reflex dyspnoea. It was a very important thing for the practitioner to have a variety of remedies and if possible to use them with reference to the causes of dyspnoea and condition of the patient. Iodide of potassium was frequently very efficacious, and the late Principal Barclay of Glasgow, who suffered for many years from this affection, was cured by it. Another remedy which he mentioned as being largely used at the Hospital for Consumption at Ventnor was the tincture of the Virginian prune and the compound spirits of chloroform.

Professor GAIRDNER briefly replied and the discussion terminated.

#### LARYNGOLOGY.

In this Section Dr. MACINTYRE gave an interesting demonstration of Micro-organisms in Throat Disorders. He began by alluding to the term "catarrh" itself, and pointed out that for the most part it was merely a manifestation of something else which caused it. He drew some pictures of typical cases which should be classified under the heading of catarrh, and then passed on to the consideration of the causes of these. He began by referring to the etiology, and made reference to the ordinary conditions which are described in the text-books

as producing or modifying catarrh. He wished to pay special attention, however, to the question of bacteriology, which was influencing so much every branch of medicine and surgery. He pointed out how catarrh may be produced from bodies applied to the external substance of the membrane and from constitutional poisons injected at a distance, and led up to the conclusion that certain agents applied from without and other agents brought from within might result in the production of signs in the throat and nose which, when grouped together, give rise to the term "catarrh." Under favourable circumstances the causes were ultimately cast out and local changes disappeared, but too often secondary changes were set up of a detrimental nature. The etiology was demonstrated by specimens and drawings of all the known organisms which produce a morbid influence and are found in the nose and throat. The important point which he wished to advance was that inflammation and even purulent inflammation might result from the absorption of inorganic materials, of which the best example was afforded by sterilised chemical substances which were the products of micro-organisms themselves. Local inoculations of these products might cause irritation or even death at the part, but they also set up inflammation in the vicinity. Older surgeons got rid of a foreign body and expected the secondary inflammation to disappear. But they knew nothing of microbial invasion, and hence catarrh itself was too often treated instead of the cause. This important point had a great bearing upon the treatment. If catarrh were really a manifestation of disease, and to be interpreted as a method of nature of getting rid of a difficulty, the practitioner's whole efforts ought to be to relieve the cause upon which catarrh depended. Where this could not be done every aid should be given to the *vis medicatrix nature*, and there was no use hampering it by applying sprays, gargles or other agents in trying to remove organised structures. The etiology was further referred to with special reference to the various diatheses. Some important points bearing upon anatomy and physiology were noted and the pathology carefully gone into. Special attention was paid to the treatment of secondary results which must naturally follow obstruction to the breathing.

## EXHIBITS.

(Continued from p. 278.)

WE resume our notice of the Sanitary Exhibition held at Nottingham last week. At Stall 14 Mr. John Barker of London exhibits an operating table, bed-rests, and orthopedic contrivances. Stall 15: Messrs. J. Tylor and Sons of Newgate-street, London, have a very large and interesting display of closets, Ariston's lavatories and everything appertaining to this department of sanitary science. Stall 16: Mr. G. Jennings of Lambeth, London, exhibits his improved sanitary appliances. Stall 17: Mr. John Greenall, Portland-street, Manchester, shows a large variety of steam washers and laundry specialities. Stall 18: Mr. F. Cook of Nottingham, sanitary engineer, shows a large variety of sanitary apparatus of various kinds, including Messrs. Farmiloes, Twyford, Woodhouse Osborne Company's specialities. Stall 19: Messrs. Solory and Son, sanitary engineers, Nottingham, have a stall mainly devoted to matters of domestic hygiene, containing Messrs. Bostel's, Farmiloes', Walshe's and others' specialities. Stall 20: Messrs. Quirk and Sharpe of Liverpool show an excellent patent joint which affords one solution to the difficulty of joins for earthenware and metallic drain-pipes. Stall 21: Mr. Joseph Shaw of Huddersfield shows a health water-pipe which consists of a wrought-iron tube lined with block tin. Dr. T. Maccall of Southport exhibits on Stall 22 a portable Turkish bath for use in private houses, hotels, hospitals &c. It is a complete chamber, heated and ventilated, giving a thorough Turkish bath on a small scale. A very neat and pretty display of cycles is made by Messrs. F. Pearson and Son of 12, Angel-row, Nottingham. Mrs. Philip Monkhouse, London, S.W., occupies Stand 24 with her patent Excelsior Bed Lift, as supplied to the Admiralty and leading hospitals. On Stall 25 Messrs. F. C. Calvert and Co. of Manchester are showing quantities of carbolic acid for medicinal, surgical, and disinfectant purposes, preparations from carbolic acid, carbolic soap and carbolic dental preparations. A speciality is the carbolic vaporiser for purification of the air in sick rooms, removal of mosquitoes and other insects, and for general use where an aerial disinfecting and purifying agent is required. Mr. Henry Ellison, jun., of

Cleckhenton, Yorkshire, shows on Stall 26 a number of carboline and carbolic disinfecting fluids and powders. Messrs. Thomas Danks and Co., Limited, of Thurland-street, Nottingham, have a large stand (No. 27), on which is a very good display of lavatories of the most approved kind; also a large and varied assortment of ventilators of the newest designs, including Boyle's, Sherringham's, Tobin's &c., a Moule's patent earth closet, designed for houses where a water-supply cannot be obtained; a collection of Cheavin's gold medal filters, the filtering parts of which can be easily removed for cleansing. The Wilson drawing and dining room gas-stoves in all varieties are also on view. In addition Messrs. Danks and Co. exhibit an assortment of the latest domestic appliances, comprising vegetable slicers, revolving graters, boot cleaners, a drip-tin with revolving grid, patent dustbins &c. Altogether the stand makes a most interesting display. Mr. J. Jones of Chelsea shows automatic seal air-tight manhole covers, bag, drain and pipe stoppers, screw expanding drain-plugs, inlet ventilators &c., on stall 28; and Messrs. John Watts and Co. of Bristol exhibit a patent asphyxiator for applying the smoke test to drains for disinfecting purposes and for the destruction of vermin in holes, on Stall 29. The Sanitas Company, Limited, of Bethnal Green, London, show various disinfecting fluids, oils, fumigators, &c., on Stall 30; and No. 31 is occupied by Messrs. Billington Brothers of Liverpool with institution bedsteads, which can be adjusted in various ways. The Longford Wire, Iron and Steel Company, Limited, of Warrington, display some strong wire mattresses on Stall 32. A very nice assortment of earthenware and enamelled goods for hospital use is exhibited by Mr. Fred Henry, of Derby-road, Nottingham, on Stall 33. Stall 34 is occupied by the Leather Rubber Boot Company of Leeds, who display the excellent leather and rubber boots and shoes of Scafe's patent; whilst Stall 35 is tenanted by Messrs. I. and R. Morley of Nottingham, Mr. Darby being in charge. The firm make a very fine exhibition of natural wool pure undyed goods. There are a few white merino articles of pure wool and copper, and there are also silk goods. In some of the cotton stockings the sanitary black dye has been used; this is harmless, clean and fast, so that it does not soil underlinen. The Ceres Automatic letter and card files are seen on Stall 36. The file consists of a box or cabinet of drawers made to any size, and the letters are arranged standing up at a convenient slope against a sliding support, which moves easily by pressure applied at any distance from it, but jams automatically by the slight weight of letters against it. There are movable alphabetical division boards, and the letters are dropped in between them in dictionary order, the letter of the latest date being in front. Mr. J. A. Robertson, jun., of Peterborough, shows a doctor's bicycle on Stall 37 and on Stall 38 Surgeon-Lieutenant-Colonel W. H. MacNamara of Aldershot exhibits a model of a water-closet. The object is to cut off pan and fittings from the interior of the house when the closet is not in use, so that gases escaping from the pan or fittings might escape outside. The Trent Gas Engine Company, Limited, of New Basford, have one of their One Trent gas engines at work on Stall 38. Stall 39 is occupied by Mr. L. Worthington of Westminster, with prize drawings and detailed specification of model lodging-houses for the London County Council. On Stall 40 Messrs. Merryweather and Sons, Limited, of London, exhibit a new patent hydraulic sewer flusher, "microbolisers," and pumps. On Stall 41 Messrs. J. Stone and Co., Deptford, have a glass model of their patent field automatic syphon cistern. On Stall 42 the Nottingham Corporation exhibit water meters, pipes, joints and other fittings; and on Stall 43 the Wales Carriage Engineering Company, Limited, of Sheffield, display an automatic flush tank and hough closet, a high-pressure side valve &c. An account of the museum exhibits is reserved for our next issue.

## BRITISH MEDICAL TEMPERANCE ASSOCIATION.—

The annual prizes of £10 and £5 offered to medical students in their third year by the British Medical Temperance Association for a written examination on Alcohol have this year been awarded as follows:—First prize: Mr. D. F. Harris, B.Sc. Lond., of Glasgow University. Second prize: Miss E. J. Moffatt, London School of Medicine for Women. Honourable mentions to Messrs. S. J. G. Carré, F. Chown, W. A. MacKay and M. A. Saltmarsh. The examiners were Professor McKendrick, Dr. Moir, Dr. Morton, Dr. Richardson, Professor Simpson and Professor Sinclair.

ARMY MEDICAL DEPARTMENT REPORT  
FOR THE YEAR 1890;  
WITH APPENDIX. VOL. XXXII., 1892.

## [SECOND NOTICE.]

A TABLE is given on p. 22 of the report showing the admissions, deaths, number of men invalided and number constantly sick from each arm of the service in the United Kingdom, with the ratios per 1000 of strength, and, by way of comparison, the corresponding ratios for the previous ten years. From this we gather that the highest admission ratio was in the cavalry, 912.9, the next being 905.8 in the Foot Guards, which stood highest in this respect for the average of the previous ten years. The Royal Engineers appear to have the lowest admission, as well as a low ratio of constantly sick rate. With regard to constant inefficiency through sickness the Foot Guards had the highest ratio, 64.44 per 1000 for 1890, and the average of the previous ten years 58.83 per 1000. As regards the mortality rate, the highest, 6.73, was in the regimental depôts in 1890, as well as on the average of ten years; the lowest ratio was 4.10 in the Household Cavalry, and 4.81 in the Infantry. The Royal Artillery death-rate, 6.45, was the next highest to that of the regimental depôts in 1890. Invaliding was highest in the Household Cavalry and next in the Foot Guards in the same year; and in that preceding and in the decennial average the highest ratios were in the same arms of the service, but their relative position to each other was reversed. Of the battalions of Foot Guards, the 1st Battalion Coldstream Guards, stationed in London, gave the highest admission and constantly sick rates, whilst the 2nd Battalion, stationed four months in London and eight at Windsor, gave the lowest ratios. The highest annual mortality rate, 14.34 per 1000, was in the 2nd Battalion Grenadier Guards; in the 2nd Battalion Coldstream Guards there was no mortality. Invaliding rates ranged from 34.43 per 1000 in the 1st Battalion Grenadier Guards to 15.03 in the 2nd Battalion Coldstream Guards.

The average strength of officers in the United Kingdom, calculated from the annual returns for 1890, was 3963, among whom there were 1553 attacks of illness and 23 deaths. The rate of sickness was 391.9, and that of mortality 5.80 per 1000, a slight increase on the corresponding rates of the previous year.

In an average strength of 10,591 women there were 4349 cases of sickness, exclusive of ordinary parturition, and 61 deaths in 1890, the rate of mortality being 5.76 per 1000. The average strength of the children was 21,371 and there were 10,914 cases of sickness and 493 deaths, being in the ratios of 510.7 and 23.07 per 1000.

As regards the section of the report devoted to recruiting we may remark that nearly half the total number of recruits passed fit for the service were between eighteen and nineteen years of ages; that nearly 14,000 were between 5 ft. 4 in. and 5 ft. 6 in. in height and only 1143 between 5 ft. 10 in. and 6 ft. upwards, out of a total of 33,362 recruits approved; excluding boys enlisted under seventeen years of age, the average age of recruits finally approved during the year 1890 was 19.1 years, the average weight 120 lb. and the average chest measurement 33.5 in. In the two latter respects the corresponding measurements were slightly less than those of the previous year.

As regards the army abroad we must be content to take a few stations as samples and by way of illustration. The health of the troops serving in the Mediterranean during 1890 seems to have been satisfactory. At Gibraltar the death-rate was only 3.22 and 1 had declined by 2.45 per 1000, as compared with the preceding year; and there was also a decline in the admission, constantly sick, and mortality rates, as compared with the corresponding rates for the previous ten years. Enteric fever caused twenty-six admissions and four deaths during 1890, being in the ratio of 5.6 and 0.86 per 1000 respectively. There was, as usual, much inefficiency from a continued form of fever. Some of the cases were severe and suffered frequent relapses; the two deaths recorded under this heading did not present any obvious distinguishing characteristics of enteric fever. Rheumatic complications were frequently met with and convalescence was often very protracted. Influenza appeared in an

epidemic form in the early part of the year and caused a large amount of inefficiency. An elaborate scheme of main drainage and water-supply has been put forward for Gibraltar, which has, however, been the subject of some criticism and opposition on the part of the civil population. The sanitary services effected during the year were very numerous, particularly as regards improvements in drainage, ventilation and the concreting of the floors of barracks and huts. The station hospital having been divided and a part handed over to the navy the accommodation for the sick of the garrison has been found insufficient and a proposal for a new station hospital has been put forward. At Malta the average strength for the year was 7055, and the death-rate 9.77 per 1000. There were sixty admissions and twenty deaths from enteric fever, being in the ratios of 8.5 and 2.83 per 1000 respectively. All the cases returned as enteric fever were of a severe type, and it is probable that many of its milder forms were returned as simple continued fever which caused an admission-rate of 85.5 and a death-rate of 1.28 per 1000 respectively, and was characterised by a tendency to frequent and severe relapses and to be followed by rheumatism, sciatica and prolonged convalescence. The principal medical officer considers that on sanitary grounds no soldier under nineteen years of age should be sent from England to any Mediterranean station for duty. One third of the troops during the summer months slept in tents, as heretofore the practice, and with excellent results as regards their health. A large number of wooden huts sent out in the previous year were taken into use and highly approved of. The civil authorities have contributed towards improving the sanitary state of the towns, in which many of the barrack buildings are situated, by the construction of additional large ventilators to the main sewers and improving the ventilation of houses.

At Bermuda enteric fever was very prevalent among the troops stationed there. There were sixty-two admissions and ten deaths, being in the ratios of 40.1 and 6.47 per 1000 from that disease in 1890. The cases were distributed through the garrisons occupied, with the single exception of Ireland Island. The immunity of this place is attributed to free exposure to the wind and to its having little or no communication with the insanitary towns of the mainland. The senior medical officer considers that until the sanitation of Hamilton and St. George's are radically improved, there will be a great liability on the part of soldiers visiting these towns to contract enteric fever. With this cause of sickness and mortality removed Bermuda should be one of the healthiest of the British colonies. It is a popular winter resort with the Americans. The strength of the British troops serving in Egypt was 3209. The relative sickness in Cairo and Alexandria was as follows:—At Cairo, with an average strength of 2304, the ratio of admissions was 913.2 and of deaths 6.51; at Alexandria, with a strength of 905, the rates were for admissions 1185.6 and for deaths 26.52 per 1000 respectively. Compared with the corresponding rate of the previous year there was a decided decrease in the rates of sickness and mortality at Cairo and a marked increase in both ratios at Alexandria. Much of the sickness at the latter station was attributable to the prevalence of enteric fever in the 2nd Battalion Suffolk Regiment, a newly arrived regiment in Egypt.

## CYCLING AND VITALITY.

It was recently announced in the daily papers that a rider had, on an "ordinary bicycle," covered 413 miles in twenty-four hours. The feat seems incredible; and it would be interesting to know what the philosopher who predicted some thirty years ago that a cyclist could never travel faster on two wheels than he could on his two feet would think of this achievement. Anyway the thing has been done, and, what is more, there are many cyclists, men of experience in the art, who look upon it quite calmly, and predict boldly that good as this "record" is, it has been made to be beaten as certainly as it has beaten those which have gone before it. Where is pace in cycling to end? we exclaim. Well, that is impossible to say. We know a cyclist—a member of our own profession—who declares that if he could be protected from the impeding influence of the wind and could be put on a line of railway—properly laid for the purpose—he could, if placed behind an engine tearing away at the rate of twenty-five miles an hour, keep up with the engine for one hour at

least. At one of the meetings of the Society of Cyclists, over which Dr. B. W. Richardson presided, he gave a new reading to these feats. He saw in them the first true efforts leading to the practical accomplishment of aerial flight. These are subjects for the future. What we have now to do is to accept what is achieved, and estimate the cost at which the present rapid movements on wheels have been secured: the cost of vitality in the efforts of the rider, less the risk of accidents to which he is subjected.

In the month of May in this present year the value of despatch cycle riding was put to the test, in order to show that military messages can be carried by the relay bicycle more rapidly than by horse riding. A despatch was sent by a bicyclist from General Miles in Chicago to General Howard in New York, over a distance of 1000 miles, with the expectation that the work could be done in 100 hours. It was done in 108 hours, a success that could not have been approached by the best mounted rider on horseback. But again comes the question, At what cost? The cost to the rider is, we say at once, altogether unwarrantable, for during the twenty-four hours in which a rider is occupied in covering 400 miles his heart knows no rest from full activity, and the elastic coat of every artery in his body is in full tension. In some instances such is the tension that the man literally propels himself in what may be called blindness. His legs work automatically and his course is directed in a manner very little different. When a bicyclist was unfortunately killed from an accident caused by fast riding, a witness said, on oath, that the rider was going so fast and was so intent on the race he did not hear witness until it was too late, that is to say, until he got within two yards of a cart into which he ran, when he altered his whole position, called out "Oh!" and coming into collision received the fatal injury. In another instance, where one of the long and sleepless rides was carried out, the rider was seized with vomiting, which never ceased during the whole of the effort. He, too, lost the guiding power of his senses, and for some miles tugged on as if he were blind, tearing away, in fact, in a kind of trance, his higher nervous centres paralysed and his body retaining its life and mere animal power, held living by the respiratory centre and the heart, they also being taxed to the very extremity of danger.

When we, in these columns, tell plain and unvarnished facts of this character, we are sometimes accused of being alarmists. We care nothing for that harebrained stigma. We have our duty to perform, and it is our duty to declare, from a knowledge of the bodily powers and function, that the risk implied, even when there is escape from immediate accident, is dangerous up to the verge of insanity. We do not deny that every now and then a young man in the bloom of health and full of vital energy is able, during his short physical prime, to complete these remarkable feats and stand out for the moment the model of physical power in this one direction of it. Watching him in the plenitude of his strength, his companions will jeer at us and will ask us to tell them whether we can detect in him any demonstrable change for the worse. We are prepared to say "perhaps no," for we have not yet at our command the knowledge and means for detecting the first and minor indications of organic injury from physical strain. We admit, further, in all fairness, that a man may one or more times pass through the strain and not be so much injured as to be left bearing, necessarily, a life so shortened that the period of the shortening will admit of correct measurement. But with so candid an admission we must claim to hold with equal candour the facts that, although we may be unable to determine the infliction of injury by our present refined methods of diagnosis, we have the best and most common-sense reasons, derived from experience, for assuming that the body at any age and in the finest condition cannot be exposed to the strains to which we refer without being oppressed beyond the bounds of safety; whilst we are absolutely certain that the oppression often repeated is of necessity a serious cause of organic degeneration. On this last head experience of the clearest kind is our guide and monitor. We have watched the fate of those who, in the brief period of the history of these violent exercises of strength, have excelled and have run through their short day and generation, and we regret to record that no experience is more painful or more instructive for purposes of warning. Man is not an engine of iron and steel, but an organism of flesh and bone and blood that has to be renewed from day to day and from hour to hour, and his energy is not roughly

chemical but vital in its nature; he is constructed for other and nobler purposes than mere engine labour; and if he throws himself into mere engine work he will soon become an engine so disabled that his better self will fall into death before he has reached what in others better trained would be the prime period of vital strength and activity.

## THE AMERICAN MEDICAL ASSOCIATION.

### [FIRST NOTICE.]

THE recent meeting at Detroit was probably one of the most important and best organised which the Association has ever held. Considerably over 1000 medical men were present from all parts of the States, and not only the general meetings, where what may be called medical politics are for the most part discussed, but also the meetings of the various sections, which occupied themselves with matters of purely professional or scientific interest, were conducted with a vigour and energy which showed how intent the members were on the various matters which had to be discussed. There were in all twelve sections, each with a chairman and a secretary of its own, and although occasionally a meeting of one or more sections had to be adjourned out of consideration for the absorbing interest which surrounded a few of the general meetings the amount of work which was accomplished was by no means small.

The meeting was opened in the Detroit Opera House. The stage was beautifully decorated with flowers and palms, and the house was filled with an audience which was evidently keenly interested in all the proceedings. After Bishop Davies had offered prayer and General Alger had in a few appropriate words welcomed the Association to Detroit the President of the year, Dr. Marcy, of Boston, delivered an address, the subject being "Evolution in Medicine." This somewhat technical title scarcely conveys an adequate idea of the scope and bearing of the interesting address which was delivered. It was indeed more a description of the development of the American Medical Association and an indication in outline of the direction in which it should proceed in the future, with the view of drawing closer together the various associations and societies throughout the country and of strengthening the hands of those who are endeavouring to press on reforms in regard to medical matters. One subject was referred to in the address in which the orator evidently carried with him his entire audience—viz., the proposed establishment of a national board of health presided over by a secretary of public health who should be *ex officio* a member of the Presidential Council. Such a board would take cognisance of all that affects the public health of the community, especially of epidemic and infectious diseases, and there seemed to be a universal consensus of opinion that such a central board would, in coöperation with the State boards of health, be the means not only of enforcing sanitary regulations but also of educating the people to recognise their importance and desirability.

A most interesting and instructive address on Surgery was delivered on the second day by Dr. John B. Hamilton. His subject was "The General Principles of the Surgery of the Brain and its Envelopes," and the plan which he adopted of stating concisely the object and the result of numerous cranial operations carried out by various operators was probably the most telling way of putting his arguments for free interference on general principles with the brain and its envelopes. A glance over the cases enumerated by him is sufficient to show the enormous strides which brain surgery has made in the last few years. At the conclusion of his address he strongly advocated the principle which has been laid down by Horsley and Hayes Agnew, that all depressed fractures, slight or severe, ought to be surgically treated with the view of preventing the too frequent sequel of such accidents—viz., traumatic epilepsy. In this way alone, it was urged, will traumatic epilepsy be satisfactorily grappled with.

The address in Medicine on the third day was delivered by Dr. A. L. Gihon of the United States Navy, who discussed in an admirably suggestive way the relation of bacteria and their products to disease, dwelling especially on the views as to protection against the influence of microbes recently brought forward by Dr. Sternberg of the United States Army, and others.

Such were the addresses delivered to the Association as a whole. We reserve for a subsequent notice a short account of the work of the sections.

## PICTURES AND BUSTS IN THE ROYAL COLLEGE OF SURGEONS.

THERE has just been published a catalogue, compiled by Mr. F. G. Hallett, of the portraits and busts in the Royal College of Surgeons of England, with a short biographical notice of each. In the introduction to this catalogue Mr. Hallett writes: "A wish has been expressed on several occasions that a catalogue of the pictures and busts in the possession of the Royal College of Surgeons of England should be compiled, and although from time to time attempts have been made to supply the want, no one has hitherto been able to give the time necessary for searching the minutes and other records of the College. In publishing this catalogue it is hoped that the short biographies may lend additional interest; and although it is not intended that they should be exhaustive, an endeavour has been made to give as complete a record as possible of the appointments held by those who have assisted in creating the history of the College." There is no doubt that the catalogue has not been compiled without considerable research and that the various notices of the distinguished men represented in the College collection are accurate and carefully compiled. There is an index at the end of the catalogue which enhances its value. The catalogue may be looked upon as authoritative as regards dates and events in the lives of those mentioned in its pages. There are some thirty-one busts and thirty-seven portraits in the possession of the College, and various plaster casts of busts, engravings, miniatures, sketches &c. The portrait groups include amongst them one representing His Majesty Henry VIII. granting the Act of Union to the barbers and surgeons, the figures of which are attributed to Hans Holbein; a painting, "The Dissecting-room," by T. Rowlandson, said to represent William Hunter demonstrating to his class in the Great Windmill-street School-dissecting-room; a copy of the picture by Rembrandt, in the national gallery of the Hague, of Nicholas Tulp and his pupils; a group of the Council of the College in 1884, painted by Henry Jamyn Brooks. It will not be surprising to find that the memory of John Hunter has been more honoured than that of any other, and we find there is a life-size statue by Weekes, a portrait by Sir Joshua Reynolds, a copy of this by Muller, a miniature copy in enamel of the same picture by Bone and engravings of it by Sharpe; a medallion by Tassie, busts by Harman and Sir Francis Chantrey, a plaster cast of the above, and a pencil portrait by Sir N. D. Holland, Bart. There are busts of their Majesties George III. and George IV., by Sir Francis Chantrey; of the "Right Honourable Lord Grenville," by Thomas Phillips; and of "Dr. Georg Friedrich Louis Stromeyer," by W. Englehard; but with these exceptions we find none but those whose work has contributed to the fame of the Royal College of Surgeons, the names of the majority of whom are known throughout the world. The catalogue is well printed on excellent paper, and leaves nothing to be desired. We understand that the price of the book was fixed at half-a-crown at the recent Council meeting, so it is within the reach of all taking an interest in the College.

## INTERNATIONAL CONGRESS OF EXPERIMENTAL PSYCHOLOGY.

THREE years ago the first Congress of Experimental Psychology met in Paris. The second Congress was opened on Monday at University College, London, with Professor H. Sedgwick as President. The Vice-Presidents are Professors Bain, Baldwin, Ebbinghaus, Ferrier, Hitzig, Liégeois, Preyer, Delboëuf, Richet and Schäfer. The honorary secretaries are Mr. F. W. H. Myers and Mr. James Sully. The Congress numbers about 270 members, including distinguished representatives from Germany, France, Holland, Roumania and the United States, as well as from this country.

The feature of the first day was the inaugural address of the President. After welcoming the members of the Congress to this country, more especially those who formed a con-

necting link with the Congress of three years ago, he said that the selection of this country for the second Congress, while not in need of any defence, suggested the admission that England rather lagged behind in the matter of experimental psychology—if the term experimental were taken in the narrow but usual sense to denote investigation under artificial conditions. If, however, the term were taken in its wider sense to mean the whole science of mind, so far as it was based upon observed facts, then, looking at the long line of English psychologists from Locke and Hume down to Bain and Spencer, no one, he thought, would contest the claim of England to be regarded as the ancient home of psychology. The term "experimental" for the purposes of the Congress, was to be taken as intermediate in meaning between the stricter and more lax meanings alluded to, so that it included all investigations in which the reasoning was based upon observations methodically pursued for a special purpose, even if they were not in the strictest sense experimental. Reference was made to the connexion between physiology and psychology, and it was pointed out that the antagonism between what may be called the neurological and psychological platforms, which was so strong twenty or thirty years ago, had now to a great extent disappeared, for the crude materialism which refuses any recognition to the results of introspection and the psychology which claims a realm in which psychical processes are unaccompanied by nervous processes are equally out of date. Thus it had now become clear that the issue between materialists and psychologists related to the nature of the causal nexus which linked each successive double fact with physical and psychical antecedents and consequents. But the empirical psychologist might leave this [discussion on one side and content himself with tracing uniformities among the psychical phenomena which he studied with their physical accompaniments, without entering on the question of their causation. For this task physiology was extremely useful, and they recognised this by constituting a section in the Congress for papers mainly physiological in character. There was also a section for "Hypnotism and Cognate Subjects" and they were fortunate in having so many French hypnotists among them and especially from the Nancy school, where the work had been conducted on the broad lines which have been generally followed in Europe.

The first paper was that of Professor Bain. This dealt with the relations of introspection and psycho-physical experiments as mutual aids in psychology. In comparing the two methods it was pointed out that in the qualitative analysis of mental facts introspection must take the lead; while in quantitative analysis, or the mensuration of psychological quantities, the experiments of psycho-physics can render important service. Researches were enumerated in which the two methods concur, and it was pointed out that in all experiment any come as an aid to introspection, but cannot profitably supersede it.

Professor Grüber of Roumania read an interesting paper on Colour Hearing, explaining, however, that his subject was more extensive than the name implied, as it comprehended all cases in which the stimulus of one sense evoked images belonging to another. Reference was made to the careful observations of these phenomena by Mr. Francis Dalton, and the belief was expressed that the inquiry was still one of purely scientific interest, although the persistency of the phenomena suggested the possibility of a law which might in the future have some practical bearing.

A paper by Professor Ribot was read by Professor Richet, and subsequently one by himself entitled "L'Avenir de la Psychologie." It was pointed out that the first problem of psychology was the physiology of the brain and the imperfect character of our knowledge of this was emphasised. The difficulties of the studies were alluded to and it was pointed out that by means of comparative psychology some light might be thrown on the causes of madness and crime, and in conclusion the importance and vastness of the psychological field were alluded to.

At the meeting of the Congress on Wednesday several important papers were contributed in Section A. These were the more strictly physiological papers. They were as follows:—The Visual Centre in the Cortex of the Calcarine Fissure, by Professor Henschen; the Degree of Localisation of Movements and Correlative Sensations, by Professor Horsley; the Anatomical and Physiological Relations of the Frontal Lobes, by Professor Schäfer; and the Functional Attributes of the Cerebral Cortex, by Dr. Waller.

On the third day papers were read in Section A. by Dr.

Verriest, Dr. Mendelssohn, Professor Heymans and M. Binet, and in Section B by Professor Delbœuf, Professor Hitzig and Mr. Myers. In the afternoon Professor Baldwin discoursed on "Sensibility and Will" and reports were given of the Census of Hallucinations. To these we hope to refer more particularly in our next issue.

## THE CENTRAL LONDON DISTRICT SCHOOL.

DR. SYDNEY STEPHENSON presented to the Board of this school at their last meeting his third annual report, in which he states that the new buildings for the accommodation of children suffering from ophthalmia, sanctioned by the Board, had been completed and that they had been now occupied by such patients for two years. The greater number of admissions had come direct to the ophthalmic school from the various institutions belonging to the parish of St. Saviour's. The largest group of children, numbering no less than forty-three, were admitted on Nov. 16th, 1891. He advocates the removal of children affected with ophthalmia from the work-houses and infirmaries of London, because no proper accommodation exists for such cases and the treatment is consequently in many instances rendered nugatory. If granular lids were an affection admitting of rapid cure detention of the cases in the metropolitan infirmaries would be a matter of little moment, but the fact that the disease is very persistent meant serious interference with the proper functions of a workhouse or Poor-law infirmary. The ophthalmic school at Hanwell was built specially for its purpose two years ago, at a cost of nearly £30,000, and has accommodation for 134 boys and the same number of girls and of infants. Now out of fifteen available wards only eight were occupied, and the accommodation designed for 400 children contained only 111 ophthalmic cases. The nursing staff, which consisted originally of seven nurses in charge and fifteen assistant nurses, has been reduced to three charge and five assistant nurses. The education of the children is not neglected, one master being appointed for the boys, one mistress for the girls, and one assistant mistress devoting her mornings to the infants. The present arrangements, which have in great measure been thought out and carried into execution by Dr. Stephenson, appear to be excellent; and his report was regarded by the members of the Board as highly satisfactory.

## METROPOLITAN HOSPITAL SUNDAY FUND.

THE following annual general report of the Committee of Distribution to the Council of the Metropolitan Hospital Sunday Fund has been submitted to and adopted by the Council of the Fund:—

Your committee have the honour to recommend the payment of awards to the 173 institutions enumerated in the appendix to this report (see page 77), being one more than last year, and an increase of sixty-eight since the first awards were made in 1873.

The total amount available for distribution, after allowing for liabilities and the usual current expenses, is £40,228. Of this total £40,118 15s. is now recommended to 120 hospitals and fifty-three dispensaries.

Five per cent. of the total collected—viz., about £2000—is set apart to purchase surgical appliances, in obedience to Law XII., in monthly proportions during the ensuing year.

Your committee recommend that all payments to the Fund after Aug. 1st be carried to the credit of next year's Fund.

In compliance with an Order of the Council, and for the special use of its members, tables of statistics have been prepared as usual, showing an analysis of the number of beds in hospitals, the cost of patients both at hospitals and dispensaries, the proportionate expense of management, as well as other valuable information, and copies are sent to every member of the Council.

The number of deputations representing committees of various hospitals &c. invited to confer with your committee and to offer explanations on matters of apparently unsatis-

factory character was sixteen. Of these, seven elected to leave their awards entirely in the hands of this committee. Nine were invited to send deputations to meet your committee. Of these, one is recommended for award on its full basis, five on a reduced scale, and three are not considered to be entitled to anything.

Awards are therefore recommended to 157 institutions on their full bases, to thirteen institutions on reduced bases, and three institutions which have made applications are not recommended for any award.

DAVID EVANS, Lord Mayor, President and Treasurer.

SYDNEY H. WATERLOW, Vice-President.

JOHN D. ALLGROFT.

OWEN ROBERTS.

H. COSMO BONSOR, M.P.

W. SEDGWICK SAUNDERS, M.D.

HERMAN HOSKIER.

JAMES WHITEHEAD.

F. H. NORMAN.

ALFRED WILLETT.

Mansion House, July 20th, 1892.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Worcester Urban District.*—The death-rate for the city of Worcester during 1891 was 21·6 per 1000 living, the excess over the average being largely due to fatal whooping-cough; but there is also an excess of death amongst infants under one year of age. Some satisfactory method of dealing with the refuse of the city is evidently needed, for it seems to be deposited under circumstances calculated seriously to damage health. The arrangement of the report is inconvenient. It is signed by Dr. Mabyn Read on an early page; then follows an account of the census, remarks on statistics, on notification, disease occurrences, the hospital, water-supply &c.; but there is nothing to indicate their authors. We assume, however, they are written by Dr. Read, since other added matter is signed by the inspector of nuisances and by Dr. Horace Swete. Anyhow, we are glad to learn that the state of the river as a source of drinking water is receiving serious consideration, for this has long appeared to constitute a grave element of risk to the city.

*Willesden Urban District.*—Dr. Skinner aids his reader by an excellent table of contents. He discusses in some detail the questions of drainage and water-supply, and explains that offensive sewer emanations have been dealt with by means of high shafts. The general death-rate on a population of over 62,000 inhabitants was 13·8 per 1000 last year, and the zymotic rate was 1·6, a result that may on the whole be regarded as satisfactory. But when the zymotic diseases are considered, it becomes evident that the absence of any proper means of isolation is a source of great weakness in the sanitary circumstances of the place, and Dr. Skinner does not go too far when he foretells that possibly there may be an utter breakdown in consequence.

*Swinton Urban District.*—Dealing with the question of infantile mortality, Dr. Jones refers to the unsatisfactory term "convulsions" in death-certificates, a term which he finds to cover improper feeding, opium poisoning and allied neglect. The report deals mainly with special occurrences of disease and the statistical bearing of these. But it is added that the water-supply is deficient in quantity and not what it ought to be in quality. As so often happens in this neighbourhood, people cling to the antiquated practice of storing up in close proximity to their dwellings and windows heaps of excremental and other refuse to the extent in some cases of "hundreds of cubic feet" per midden. The system is barbarous and some of our northern towns reek with the consequent filthy odour in the neighbourhood of the backs of houses. The general death-rate was 20·1 and the zymotic rate 2·9 per 1000 living, both rates much too high for a small population of under 12,000.

*South Shields Urban District.*—Dr. Eustace Hill points out that during the year 1891 much active sanitary work was carried out. The notification of infectious diseases came into operation, active steps were taken to improve insanitary property, an assistant inspector was appointed, and a number of the abominable midden privies were abolished. Among the more pressing requirements of the borough are further additions to the inspectorial staff, new by-laws as to build-

ings, slaughter-houses, and offensive trades, and means for isolating cases of small-pox. The latter question is one which involves much difficulty; unless, indeed, some of the schemes by which the infected air of hospital wards is consumed within the building turn out to be feasible in practice, the general death-rate was 22.0 per 1000 living. Infectious causes to the number of 139 were isolated in the borough hospital.

*Igham Urban District.*—The population of this district was 4656 at the last census and the death-rate for 1891 was 19.7 per 1000. During the past two years the mortality rate has been excessive, but it is not always right to base too much on a rise, which may be temporary only, in such a small district as this. The zymotic diseases, indeed, caused but little death, whereas epidemic influenza is credited with an excess of deaths. Improvements as to the disposal of sewage are in contemplation and a new mortuary is in prospect. As regards general sanitary administration Mr. A. M. Eason's report must be looked upon as satisfactory.

*King's Norton Rural District.*—According to Mr. Hollinshead's last annual report the general rate of mortality for last year was 12.4 per 1000 on a population of 28,300, the zymotic rate being only 0.7; indeed this district has for many years exhibited a satisfactory saving of life in connexion with careful sanitary supervision. Scarlet fever was somewhat seriously prevalent, 109 cases being notified; but it is especially noteworthy that 95 of the cases in question were removed to the isolation hospital, and that Mr. Hollinshead is able to report a practical cessation of the epidemic. Drainage works are under consideration; much has been done in this matter as regards individual houses and as to local water-supplies; but the "worst of sanitary evils," the filthy midden-privy system of the old type, remains to foul the air and to constitute an incessant risk of disease. We earnestly endorse Mr. Hollinshead's plea for the abolition of these revolting structures.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6589 births and 3374 deaths were registered during the week ending July 30th. The annual rate of mortality in these towns, which had been 17.9 and 17.7 per 1000 in the preceding two weeks, further declined last week to 17.3. In London the rate was 17.5 per 1000, while it averaged 17.1 in the thirty-two provincial towns. The lowest rates in these towns were 6.3 in Burnley, 10.3 in Brighton, 11.8 in Croydon, and 12.9 in Gateshead; the highest rates were 20.5 in Salford, 20.6 in Leicester and in Wolverhampton, 22.8 in Sunderland, and 25.9 in Liverpool. The 3374 deaths included 585 which were referred to the principal zymotic diseases, against numbers increasing from 477 to 625 in the preceding five weeks; of these, 286 resulted from diarrhoea, 127 from measles, 56 from whooping-cough, 54 from scarlet fever, 41 from diphtheria, 18 from "fever" (principally enteric), and 3 from small-pox. No fatal case of any of these diseases occurred last week in Huddersfield; in the other towns they caused the lowest death-rates in Burnley, Hull, Newcastle-upon-Tyne, and Blackburn, and the highest rates in West Ham, Leicester, Sunderland, Cardiff, and Preston. The greatest mortality from measles occurred in West Ham, Croydon, Birkenhead, Salford, Halifax, and Sunderland; from scarlet fever in Preston; from whooping-cough in Swansea and Nottingham; and from diarrhoea in London, West Ham, Derby, Birmingham, Preston, Leicester, and Cardiff. The mortality from "fever" showed no marked excess in any of the large towns. The 41 deaths from diphtheria included 25 in London, 3 in Liverpool, 2 in West Ham, 2 in Norwich, and 2 in Manchester. Two fatal cases of small-pox were registered in Bradford and 1 in London, but not one in any other of the thirty-three large towns; 6 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 3 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2864, against numbers increasing from 1226 to 2671 on the preceding eighteen Saturdays; 382 new cases were admitted during the week, against 323 and 382 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 185

to 158 in the preceding four weeks, further fell to 155 last week and were 23 below the corrected average. The causes of 55, or 1.6 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Norwich, Bradford, Newcastle-upon-Tyne, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Croydon, Birmingham, and Liverpool.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17.2 and 18.4 per 1000 in the preceding two weeks, declined again to 17.5 during the week ending July 30th, but slightly exceeded the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13.4 in Leith and 14.3 in Aberdeen to 19.4 in Glasgow and 22.3 in Greenock. The 488 deaths in these towns included 19 which were referred to measles, 14 to whooping-cough, 10 to diarrhoea, 5 to "fever," 3 to diphtheria, 3 to scarlet fever, and not one to small-pox. In all, 54 deaths resulted from these principal zymotic diseases, against 62 and 66 in the preceding two weeks. These 54 deaths were equal to an annual rate of 1.9 per 1000, which was 1.1 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 13 and 28 in the preceding two weeks, declined again last week to 19, of which 11 occurred in Glasgow and 6 in Aberdeen. The deaths referred to whooping-cough, which declined from 27 to 13 in the previous five weeks, were 14 last week and included 11 in Glasgow. The 10 fatal cases of diarrhoea corresponded with the number in the preceding week and included 7 in Glasgow. The deaths referred to different forms of "fever," which had been 2 and 5 in the previous two weeks, were again 5 last week, of which 2 occurred in Glasgow. The deaths from diphtheria, which had been 7 and 5 in the preceding two weeks, further declined last week to 3, of which 2 were recorded in Leith. The 3 fatal cases of scarlet fever also showed a decline from recent weekly numbers and included 2 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 71 to 59 in the preceding three weeks, rose again last week to 114, and were 49 above the number in the corresponding week of last year. The causes of 44, or 9 per cent., of the deaths in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24.2 and 19.8 per 1000 in the preceding two weeks, rose again to 28.3 during the week ending July 30th. During the first four weeks of the current quarter the death-rate in the city averaged 23.5 per 1000, against 18.2 in London and 16.4 in Edinburgh. The 190 deaths in Dublin during the week under notice showed an increase of 57 upon the number in the preceding week, and included 8 which were referred to measles, 3 to diarrhoea, 1 to whooping-cough, 1 to "fever," and not one either to small-pox, scarlet fever, or diphtheria. In all, 13 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.9 per 1000, the zymotic death-rate during the same period being 3.7 in London and 1.2 in Edinburgh. The fatal cases of measles, which had steadily declined in the preceding six weeks from 27 to 7, were 8 last week. The 3 deaths referred to diarrhoea were within 1 of the number in the previous week. During the first four weeks of the current quarter the rate of mortality in Dublin from the principal zymotic diseases has not exceeded 2.2 per 1000, while it averaged 4.9 per 1000 during last quarter. The 190 deaths registered last week in Dublin included 35 of infants under one year of age and 41 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded the number recorded in the preceding week. Ten inquest cases and 9 deaths from violence were registered; and 75, or more than one-third, of the deaths occurred in public institutions. The causes of 21, or 11 per cent., of the deaths in the city last week were not certified.

### CALCUTTA.

According to the latest reports from Calcutta—viz., the health officer's sick return for the week ending May 28th

last—the total number of deaths registered was 206, against 219 and 270 in the two preceding weeks, and lower than the corresponding week of last year. There were 37 deaths from cholera, against 39 and 55 in the two preceding weeks; only 1 death from small-pox and 3 from tetanus. The general death-rate of the week was 23·0 per 1000 per annum against 20·1, the mean of the last five years. The total number of deaths in the amalgamated area of suburbs for the same week was 119. There were 16 deaths from cholera against 44 and 38 in the two preceding weeks; the number is lower than the average of the past three years. There were no deaths from small-pox. The general death-rate of the week was 28·8 per 1000 against 31·2, the mean of the last three years. The general death-rate of the combined area is equal to 24·8.

## THE SERVICES.

### NAVAL PRACTICE IN THE LANDING OF WOUNDED.

OUR contemporary the *Army and Navy Gazette* reports that recently and for the first time in the German Navy there has been a special exercise in the landing of wounded. The experiment took place at Kiel in the presence of the Emperor and the Grand Duke of Mecklenberg-Schwerin. Admirals Von der Goltz and Knorr with Dr. Wenzel, surgeon-in-chief to the Imperial Navy, were officially present. The idea was that the squadron had just suffered heavy loss in an engagement and that four line-of-battle ships had arrived at the port each with 500 wounded. The wounded were transferred to four steam transports and carried, under the care of the naval surgeons and attendants to four appointed places on shore, where they were placed in ambulance waggons and taken to the hospitals. This manœuvre in medico-naval drill is said to have been well and promptly executed.

### MAGAZINE RIFLE FIRE.

The Intelligence Department of the Horse Guards has published a paper giving details of the experiments recently carried out at Spandau to illustrate the effect of German rifles. The experiments were undertaken at the suggestion of the Surgeon-General of the Army and conducted in the presence of a number of army surgeons.

### MOVEMENTS OF THE MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Ferguson has arrived from Gibraltar and been posted to Portsmouth for duty. Surgeon-Lieutenant-Colonel Barrow has arrived in England on completion of a term of service in Hong-Kong. Brigade-Surgeon Temple has been appointed to succeed Surgeon-Major Roe on the recruiting staff of the London district. The deaths of Surgeon-Captain W. H. Bennet and W. H. Ball are reported. Surgeon-Major Wolseley has arrived at Chester for duty and Surgeon-Captain Wills at Burnley. Brigade-Surgeon-Lieutenant-Colonel Kilroy has been transferred from Limerick to Dublin. Surgeon-Captain Hubbard has joined at Woolwich from the Western district. Brigade-Surgeon-Lieutenant-Colonel Maunsell has left Mauritius for England on being relieved by Brigade-Surgeon-Lieutenant-Colonel Clapp. Surgeon-Major Chester has resumed his duties in Egypt from leave. Surgeon-Captain Swan has reported himself in Dublin on return from temporary duty.

For the first time, as we believe, for many years, the ratio of competitors for the British and Indian Medical Services, severally, is the same, there being two candidates for each appointment. There can be no doubt that the issue of the new rule limiting the number of occasions on which a candidate may compete to two for each Service has kept down the supply of competitors by excluding several who had no chance of success, and probably to this fact rather than to any decline in the popularity of the Services may be attributed the reduction of the aspirants.

### ARMY MEDICAL DEPARTMENT.

Brigade-Surgeon-Lieutenant-Colonel William Johnston, M.D., leaves on retired pay (dated Aug. 3rd, 1892).

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Major George S. Elliston to be Surgeon-Lieutenant-Colonel (dated Aug. 3rd, 1892). Brigade-Surgeon-Lieutenant-Colonel J. S. MacAdam, Army Medical Staff, attains the age of fifty-five on the 3rd inst., and will be placed on retired pay. The Commander-in-Chief has sanctioned an exchange between Captain J. Flint, 1st Dragoon

Guards, and Captain H. P. Levita, 4th Dragoon Guards. Major G. V. Ames, 1st Dragoons, is, on the completion of seven years' service as a Regimental Major, accepting promotion to a half-pay Lieutenant-Colonelcy. Brigade-Surgeon-Lieutenant-Colonel W. Johnston of the Army Medical Staff, is retiring from the Service. Surgeon-Lieutenant-Colonel C. E. Dwyer, now with the Medical Staff in London, has been ordered to join the staff in Ireland. The following Surgeon-Captains of the Army Medical Staff, having completed, on the 31st ult., twelve years' service, attain promotion to the rank of Surgeon-Major:—G. H. Sylvester, W. J. Macnamara, D. O'Sullivan, E. O. Milward, C. R. Woods, M. F. Macnamara, J. O. G. Sandiford, R. L. Love, H. W. Murray, M. W. Kerin, A. Peterkin, J. Harran, E. L. Maunsell, W. Heffernan, R. W. E. H. Nicholson, J. G. W. Crofts, W. Dugdale, D. L. Irvine, E. R. Cree, M. O'C. Drury, J. H. Nicholas, D. F. Franklin, and H. Saunders.

### INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant-Colonel S. M. Salaman, M.D., and Surgeon-Captain H. W. Stevenson respectively delivered over and received charge of Yerrowda Central Gaol on July 5th, 1892. Surgeon-Captain J. K. Kanga, of the 17th Regiment Madras Infantry, to the officiating Medical Charge of the regiment. Brigade-Surgeon-Lieutenant-Colonel S. B. Hunt, Surgeon, 3rd district, to be officiating Principal Medical Officer, Rangoon district during the absence on furlough of Surgeon-Colonel C. Sibthorpe. Surgeon-Major J. Anderson, M.B., Civil Surgeon, Bareilly, is appointed to be in Visiting Medical Charge of the Budau district during the absence on leave of Surgeon-Major J. C. C. Smith, M.B. Surgeon-Captain H. E. Drake-Brockman, Civil Surgeon, is transferred from Etah to Mirzapur, on being relieved by Mr. W. H. Harding. Surgeon-Captain C. H. Leet Palk is appointed to be, from May 17th, 1892, Civil Medical Officer, Mandalay Shore, in addition to his military duties, vice Surgeon-Captain S. C. Dallas, transferred. Surgeon-Captain W. D. Sutherland is appointed to be, from April 21st, 1892, Civil Medical Officer, Fort White, in addition to his military duties, vice Surgeon-Captain C. L. Williams, transferred. Surgeon-Captain H. W. Pilgrim, Second Resident Surgeon, Presidency General Hospital, is appointed to act as First Resident Surgeon of that institution during the absence on leave of Surgeon-Captain J. H. T. Walsh, or until further orders.

Brigade-Surgeon-Lieutenant-Colonels Flemming and Cullen have been awarded the two extra pensions of £100 per annum allotted to Bengal during 1892-93, both having recently retired from service.

Surgeon-Captain Wilson, Indian Medical Service, died at Mandalay of cholera. This is the third officer who has died at Mandalay within the fortnight.

NAVAL MEDICAL SERVICE.—Surgeon Eric E. Kershaw to the *Nelson*, lent (dated July 26th, 1892).

VOLUNTEER CORPS.—*Artillery*: 6th Lancashire: Surgeon-Lieutenant R. H. Jones resigns his commission (dated July 30th, 1892).—1st Cheshire and Carnarvonshire: Surgeon-Lieutenant D. L. Hubbard resigns his commission (dated July 30th, 1892).—*Infantry*: 2nd Volunteer Battalion, the East Yorkshire Regiment): Surgeon-Captain W. Stephenson to be Surgeon-Major (dated July 30th, 1892).—4th Volunteer Battalion, the Cheshire Regiment): Surgeon-Captain K. Maclean resigns his commission (dated July 30th, 1892).—1st Volunteer Battalion, the Duke of Wellington's (West Riding Regiment): Surgeon-Lieutenant E. D. Wellburn resigns his commission (dated July 30th, 1892).

### THE LATE SURGEON-GENERAL H. W. BELLEW, C.S.I., C.I.E.

We regret to announce the death of this officer of the Indian Medical Service at Farnham Royal, Bucks, on the 26th ult., aged fifty-seven. He was a distinguished Oriental scholar, a man of indomitable energy and industry, a great traveller, and well known as an able political officer and linguist. His career was altogether a remarkable one, and worthy of the Anglo-Indian school to which he belonged. He had a great taste for historical, antiquarian, and ethnological subjects, an aptitude for acquiring languages and a keen appetite for hard work of any kind. The services of a political nature he rendered to the Indian Government were so many and marked that it is surprising that they did not attract more notice and receive greater reward. He was the son of the late Major H. W. Bellew, Assistant Quarter-master-General of the Indian Army. In 1854 he went to

the Crimean war, and in 1856 to India, where he joined the Guides, and was sent on the mission to Candahar, of which he subsequently published an account. He did good service in the Ambeyla campaign. In 1871 he accompanied Sir Richard Pollock on a political mission to Seistan and proceeded to the Persian capital. In 1873-74 he went on the Embassy to Kashghar and Yarkand. Selected for the purpose by the late Lord Lytton, he filled the post of chief political officer at Cabul during the Afghan war in 1879. He possessed and exercised much influence with the hill tribes. He was afterwards Sanitary Commissioner for the Punjab, and in 1885 he published a large volume of nearly 1000 pages on the history of cholera in India, but it was not as a doctor that he won his spurs and his name. His published works were "From the Indus to the Tigris," a narrative of a journey through Belochistan, Afghanistan, Khorassan and Iran in 1872, with a grammar and vocabulary of the Brahoe language; "Kashmir and Kashghar," a narrative of the journey of the Embassy; "The Races of Afghanistan"; and a dictionary and grammar of the Pukhto—or Pukshto—language. The late Surgeon-General was married to a sister of that thorough soldier, General Sir Charles MacGregor, whose relatively early death in Egypt a few years ago was regarded as a great loss to India.

THE LATE DR. JOHN FORBES WATSON.

We regret to announce the death of Dr. Forbes Watson, M.A., M.D., LL.D., on the 29th ult., after a protracted illness. The late officer belonged to the Bombay Medical Service, which he joined in 1850. He was educated at the University of Aberdeen, of which he was a graduate. Whilst in India he served on the Scinde frontier and afterwards filled the post of lecturer on Clinical Medicine at Grant College, but ill-health compelled him to return to England. At home he took up a number of questions—all of some public utility and some of them important. On his recommendation a commission was appointed to inquire into the nutritive value of the food grains of India. A large amount of valuable information was obtained, which led to several practical reforms. In 1858 he was appointed reporter on the products of India and director of the Indian Museum, and he acted as referee to the Secretary of State on all questions connected with Indian products and manufactures. He took an active part in most of the international exhibitions of late years, and his labours in this and other respects connected with India and the Indian Museum prepared the way for the Imperial Institute. In 1879 his department was broken up and he retired from the service. He was a man of scientific attainments and great knowledge of all subjects connected with India, more especially in relation to its industrial, commercial, artistic and ethnological aspects.

GUARDS BARRACKS AT BERLIN.

The Army Medical Blue-book just published contains a paper on the progress of hygiene for the year 1891 by Brigade-Surgeon-Lieutenant-Colonel J. Lane Notter, Professor of Military Hygiene at Netley, in which, among other subjects, allusion is made to the barracks of the 3rd Regiment of Guards at Berlin. The barrack buildings enclose a large square, which serves as a parade ground. They are described as compact and well built and arranged on the corridor system—i.e., all the rooms open on to corridors running the whole length of the building. The rooms are small and do not appear to be well ventilated. The men sleep in cots arranged in double tiers on one side of the room. The only ventilation aperture seems to be in the lower panel of the door opening on to the corridor and the openings of the windows. The allowance of air space for each man is not more than 16 cubic metres.

ARMY MEDICAL SCHOOL, NETLEY.

The sixty-fourth session of this school was brought to a close last week, when the distribution of prizes took place, Colonel Hanning Lee, late Assistant-Adjutant-General, Netley, performing the ceremony. The proceedings were carried out in the Lecture Theatre of the Royal Victoria Hospital, in the presence of a numerous gathering of the staff connected with the hospital, together with the ladies of their families and friends of the Army Medical School, including Colonel H. A. Bushman, C.B., Assistant-Adjutant-General; Surgeon-Major-General G. L. Hinde, C.B., Principal Medical Officer; Sir Joseph Fayer, K.C.S.I.; Sir Thomas Longmore, C.B.; Surgeon-Major-General S. A. Lithgow, C.B., D.S.O.; Surgeon-General Crookshank, Deputy-Surgeon-General

H. Cayley, Surgeon-Colonels Hamilton and Godwin; Lieut.-Colonels Haldane and Stokes and the other members of the Army Medical Staff stationed at Netley. Professor J. Lane Notter announced that all the gentlemen who presented themselves at the recent examination, both for the Indian and British services, had qualified for commissions. He then read the following lists of Surgeons on probation who were successful at both the London and Netley examinations. The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions are determined by the marks gained in London added to those gained at Netley.

INDIAN MEDICAL SERVICE (Seventeen).

Combined Marks.		Combined Marks.	
*Haig, P. B. . . . .	0082	Smith, G. M.I. C. . . . .	5418
Fullerton, T. W. A. . . . .	5008	Earle, H. M. . . . .	5388
†Maddox, R. H. . . . .	5841	Hulbert, J. G. . . . .	5237
†Hugo, E. V. . . . .	5819	Swinton, F. E. . . . .	5172
McVillie, H. G. . . . .	5780	Burnett, S. H. . . . .	5109
Hubbard, A. O. . . . .	5031	Jackson, T. . . . .	5102
Robson Scott, C. G. . . . .	5604	Gabbott, P. C. . . . .	5076
Smith, H. A. . . . .	5450	Macrae, J. L. . . . .	4003
Green, D. R. . . . .	5428		

\* Gained the Montefiore medal and prize of 20 guineas, with the Martin memorial gold medal and the prize in clinical medicine presented by Surgeon-General W. C. Maclean, C.B.

† Gained the De Chaumont prize in hygiene.

‡ Gained the prize in pathology presented by Sir Joseph Fayer, K.C.S.I.

BRITISH MEDICAL SERVICE (Twenty-five).

Combined Marks.		Combined Marks.	
†Hinge, H. A. . . . .	5600	Erskine, W. D. . . . .	4907
*M'Naught, J. G. . . . .	5040	Thompson, A. G. . . . .	4790
Bray, H. A. . . . .	5841	Chambers, A. J. . . . .	4793
McDermott, T. . . . .	5515	Moore, G. A. . . . .	4082
Slayter, E. W. . . . .	5841	Lewis, R. C. . . . .	4088
Thurston, H. S. . . . .	5191	Austin, E. F. E. . . . .	4012
More, L. P. . . . .	5042	O'Reilly, W. H. . . . .	4552
Hodgens, C. O'C. . . . .	4944	Marder, N. . . . .	4498
Tyrell, A. F. . . . .	4889	Condon, E. H. . . . .	4476
Ryall, W. F. . . . .	4851	Mansfield, G. S. . . . .	4483
Jones, T. P. . . . .	4843	Faichnie, F. . . . .	4399
Walker, G. S. . . . .	4833	Read, H. W. K. . . . .	4307
Smyth, W. J. . . . .	4820		

\* Gained the Herbert Prize of £20.

† Gained the Montefiore Second Prize.

Colonel Hanning Lee then distributed the prizes and said he should like to thank the Senate and officers and members of the school for their kindness in asking him to come to present the prizes. He hoped that every officer he saw before him, whom he was sorry to part with and whom he sincerely congratulated, would be far more successful even than they had been at Netley. Dr. Alchin pointed to the different circumstances under which the profession was learnt by the private and the military doctor and alluded to the disadvantages met with in civil practice as compared with military practice. Sir Joseph Fayer also spoke and, in the course of some eminently practical remarks, paid a touching tribute to the memory of the late Sir William Aitken, whose form, he said, seemed to rise before him there. The guests then adjourned to the Medical Staff Mess for afternoon tea.

THE CHAIR OF PATHOLOGY AT NETLEY.

We have already directed attention to the question of the professorships at Netley as affecting the interests of both the Army Medical Service and its school; and we then said that it seemed to us to be distinctly in the interest of the public service that such professorships should be regarded as prizes for medical officers who should be encouraged to develop a high standard of professional knowledge, and qualify themselves for appointments in their own special institutions. If we may judge from the communications we have received on the subject of the appointment of the late Sir William Aitken's successor at the Army Medical School it is causing strong dissatisfaction in the minds of many medical officers. Against the personal, scientific and professional qualifications of the gentleman nominated there is not a word to be said; they are undoubtedly of a high order; but that is not the question; it is one of principle. It is not pathology in its general sense, such as is taught at our medical schools and Universities, that is the point at issue; the appointment at Netley is a special one and has for its main object the consideration of climatic and other forms of disease incidental to military life and service, concerning which, it is urged, army medical officers must be better qualified, from the nature of their duties and personal experience, to speak than a civilian without these advantages. The views of the founders of the Army Medical School were

evidently in accordance, too, with those we have expressed above. At the time the school was moved from Chatham to Netley, early in the year 1863, they reported they were all agreed that the professorships should be held by army medical officers when men of sufficient competence offered themselves, and they trusted that they would all be so held when it could be done with advantage to the school. These views received the approval of the then Secretary of State for War. The question about the successorship to a post at Netley resolves itself, therefore, into whether there are medical officers of sufficient competency in the army or among those who have retired from it. It cannot, surely, be seriously maintained that among the ranks of the Indian and British medical services no one could be found to fulfil all the requirements of the post in question.

## Correspondence.

"Audi alteram partem."

### CLASSICAL CULTURE AND THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—I hope it may not be thought captious, as it certainly is not superfluous, to point out an important error into which Professor Cuming has been betrayed in the course of his admirable Address in Medicine at the late meeting of the British Medical Association. "I come to bury Cæsar, not to praise him" is a text which would fairly describe Professor Cuming's attitude towards the two learned languages which for so many centuries have formed the basis and the instrument of intellectual culture throughout Europe, and which are inextricably interwoven with the structure of all scientific language—not least with that of Medicine itself. Still it may be that the tendency of events is, as Dr. Cuming alleges, that the mental condition of our professional successors will be one of complete denudation as regards all knowledge of Greek and Latin, as well as of Chemistry. These are debateable points, and I trust their realisation may be as far distant as the exhaustion of our coal fields or the approach of a glacial epoch; but that to which I desire to call attention is not debateable, though it is unfortunately obscured by certain inveterate and long-standing prepossessions in the minds of the educated public. "Greek seems doomed past recall," says Dr. Cuming: "Latin will make a harder fight to retain its place, and will probably succeed in retaining it." Now, these are certainly very curious *obiter dicta* on the part of a speaker who shows so much evidence of learning and culture as Dr. Cuming, seeing that Latin is a hopelessly dead language, while the tongue of Greece is as much alive and as unbroken in its continuity as that of England. Greek at the present day is not only the national speech of the Hellenic kingdom, but is the universal daily medium of communication throughout the east of Europe and a large part of Asia; in Egypt it is more generally spoken than any language except Arabic; numerous excellent journals possessing a wide circulation are printed in it, and it can boast a considerable current literature both in serial and book form. A distinguished Hellene has lately translated the whole of Dante's "Divine Comedy" into Greek, and this very year the University of Edinburgh has established a fund for the purpose of enabling a certain number of its students to go to Athens to acquire the native tongue. These facts do not look like the symptoms of approaching dissolution, but, on the contrary, betoken healthy growth and vitality; and I hope they may serve as an adequate excuse for my entering a *caveat* against Professor Cuming's too sweeping generalisation that "Greek seems doomed past recall."

I remain, Sirs, your obedient servant,  
Sussex Gardens, July 31st, 1892.

T. FITZ-PATRICK.

### VACCINATION AND PUBLIC SCHOOLS.

To the Editors of THE LANCET.

SIRS,—It may possibly prove interesting to some of your readers to learn the result of an inspection of a large number of children attending the public elementary schools of this

town. The Cardiff board of guardians, having received information that small-pox in an epidemic form had occurred in various parts of the kingdom, instructed the public vaccinators to visit the schools and inspect the children's arms with a view of discovering those who had escaped vaccination. The School Board and the managers of the sectarian schools readily gave their assent to this course, and the various masters and mistresses cordially assisted me in my work. Altogether the number of children inspected by me amounted in round numbers to 8000, and the total number of those children who had no marks whatever amounted to 270. The parents of these were communicated with by the vaccination officer, and most of them have complied with the notices served on them. In addition to those who had no marks of any kind there were at least 15 per cent. of the total number who had either very imperfect marks or only one or two well-defined marks. Although the latter could not be said to be well protected, it was thought advisable only to recommend their parents to have them revaccinated. I apprehend there would have been some difficulty if these imperfectly vaccinated children had been ordered to be vaccinated again. It was an easy matter to distinguish those children who had been vaccinated at a public vaccination station from those who had been done by private practitioners. I am more than ever convinced that all vaccination should be in the hands of gentlemen specially appointed for the purpose and who should at the same time be restricted from practising any other branch of the medical profession. Until some scheme of that kind is adopted we can never expect to find the public properly protected from the ravages of small-pox. At the present time private practitioners are somewhat jealous of the public vaccinators; but if they (the private practitioners) could be assured that there was no chance of their patients being interfered with this jealousy would soon cease to exist. There would not be any great difficulty in carrying out such a scheme if the medical profession were in favour of it. The public must not have any ground of complaint. Their children would not be operated upon unless the sanction of their family doctor had been obtained, and they would have the satisfaction of knowing that the operation had been thoroughly well done. Those who wished to have their children done privately could still do so on paying a stipulated fee, and it would be easy to arrange for vaccination direct from the calf at regular times.

I am, Sirs, yours faithfully,

Cardiff, July, 1892.

T. GARRETT HORDER.

### THE DIAGNOSIS OF HEAD INJURY FROM DRUNKENNESS.

To the Editors of THE LANCET.

SIRS,—In looking over some of the back numbers of THE LANCET I notice an article by Dr. J. H. Waters (Sept. 26th, 1891) regarding the difficulty of diagnosis of head injury in police practice and his method of removing the effects of alcohol sufficiently to permit of a diagnosis. As he suggests, a cell, or even a police station, is not a good place to form a correct diagnosis, and the frequency with which one finds symptoms very much obscured by alcohol is well known to police surgeons. A method which I employed while engaged in a very active emergency service in New York City, and which to-day is in extensive use in this class of cases, answers every purpose desired, and is more easy of application and devoid of the danger attendant upon the inhalation of ammonia. By pressure upon the supra-orbital notches, compressing the nerve, a diagnosis of alcoholism may with absolute certainty be made in a few seconds, thus differentiating on the spot between coma due to alcoholism, injury or disease. Where no result is obtained, one may, with almost positive certainty, look for some other cause of coma. In no case have I failed with this method, and so certain became I of its infallibility that, without waiting to further examine for head injury where no result was obtained, I took the patient to the hospital sure of a "case." A case of alcoholism pure and simple will, upon the application of this pressure, immediately show very evident signs of life, and, be the coma ever so deep, the effect of the alcohol will for a short time be sufficiently removed to permit a thorough and rapid examination. The absence of result from this method should at once cause great suspicion of some cerebral trouble due to injury or disease. I would add, that to quiet hysterical convulsions,

in hiccough, in alcoholic mania and for the detection of emalingerers, there is, to my mind, nothing superior.

I am, very truly yours,

L. L. VON WEDEKIND, M.D., U.S. Navy.

U.S. Naval Hospital, Chelsea, Mass.

## PERFORATION OF INTESTINE IN TUBERCULOUS PERITONITIS.

To the Editors of THE LANCET.

SIRS,—The interesting paper by Drs. Fenwick and Dodwell, which appeared in THE LANCET of July 16th and 23rd has recalled to my mind a paper I read before the Leeds and West Riding Medico-Chirurgical Society two winters ago on "Four Cases of Tuberculous Peritonitis, three being treated by Operation," and some suggestions I ventured to make upon them. Two of the cases, one operated upon by Dr. Kilner Clarke and the other by myself, died, the first some six weeks later of fœcal fistula, which developed before the abdominal incision had healed my own case, some months after operation, rupture of the intestine and of the abdominal wound occurring three months after the latter had soundly healed and the patient had been going about. In my case and another on which I successfully operated about the same time diarrhoea was a marked symptom, which nothing in the way of treatment seemed to control. Immediately I had cleaned out the abdomen, however, the diarrhoea ceased and did not recur, the recovery being uninterrupted. I asked if this was commonly the case and if it was unreasonable to suppose that the presence of pus in the peritoneal cavity had not set up such irritation of the intestine as would encourage a settlement of bacilli in an exhausted area, which would be more liable to fall a prey to the germ under these conditions. That there is a close physiological connexion between the peritoneum and the intestines there can be no doubt, and, directly or indirectly, the bowels remove the fluid collections from the peritoneal cavity as from other parts of the body. The singular and immediate cessation of diarrhoea in these and other cases of the operation, the steady improvement in most up to a certain point, seem to lend plausibility to the idea that the intestine being relieved from its overwork is either protected from the formation of a tuberculous ulcer, or is enabled to throw off the disease and recover itself if the products of tuberculous inflammation are removed from the peritoneal cavity before the process has gone too far. In the two cases first quoted this was evidently not the case, but in the second case it was almost done soon enough.—I am, Sirs, yours truly,

GEORGE A. HAWKINS-AMBLER, F.R.C.S. Edin.

July 20th, 1892.

## "THE SMOKE NUISANCE IN LONDON."

To the Editors of THE LANCET.

SIRS,—So far from an apology being necessary for introducing at this season the subject of the smoke nuisance in London, I think the community should thank you for the timely remarks of your leading article, for it is now that one of the chief remedies indicated can be most easily applied—the substitution, namely, of gaseous for solid fuel in our houses. Everyone who takes an interest in this important question is aware that many methods have been proposed for obviating the intolerable evils of London smoke fogs. But of all these there can be no doubt, it seems to me, that, according to our present knowledge, means and opportunities, the adoption of gas fires is the most feasible, and one which there is no difficulty in applying during the summer months, when fires are not being burnt. If householders are to wait before adopting a new plan till some ideally perfect substitute is invented for the barbarous and wasteful coal fire, the Greek kalends will be here before London is freed from its annually thickening pall of winter filth. I would therefore urge every inhabitant of this great city to combine to relieve it of what is little short of a disgrace to its appearance and a slur on its reputation. This could be done by bringing pressure to bear on the County Council and the metropolitan M.P.'s, whose successful endeavours would stamp them as true public benefactors. It is wonderful that enthusiasm has not been already aroused. The evils of London smoke and smoke fogs are universally admitted and bewailed: the damage to valuable books, furniture and pictures, the grimy appearance of our public edifices, the greasy black mud of

our streets, the flight of wealthy people from town for many months, the gloomy depressing skies, the choking atmosphere, the pallid looks of the regular denizen, the direct injury to health, increased mortality, the interruptions to traffic, the loss to trade, the dangers of accident, the encouragement of crime, the diminution of sunlight, the consequent decrease of animal and vegetable vitality and other almost innumerable bad results. Is it not strange, then, that the community, though loudly complaining, takes no active steps to heal this ever-magnifying sore? London, which from its size, wealth, position and constitution, is the leading city in the world, seems content at the same time to remain, at least during winter, the most hideous and repulsive. I would appeal especially to the medical profession, which in the past has conferred such immense boons on the people by teaching the remedy for various dangers to the public health, to continue its philanthropic efforts in dealing with the nuisance of London smoke. The field may be wide, but it is worthy the attention of scientific men. There is no reason why the metropolis should not all the year round be one of the fairest and most attractive of towns, and it is equally certain, while coal is consumed in our grates, that it will remain the very reverse.

I remain, Sirs, yours faithfully,

Thurloe-place, S.W., July 20th, 1892. H. R. OSWALD, M.D.

## "THE SIGNIFICANCE OF FLY BITES."

To the Editors of THE LANCET.

SIRS,—Having read your annotation on the above subject in THE LANCET of July 23rd, I think the following case may be of some interest to your readers.

S. W—, aged twenty-five, was admitted to the Devon and Exeter Hospital on July 11th, under Mr. Bell, with the following history. He was a compositor by trade. Eight days previously, when at a breakfast, he was bitten on the proximal phalanx of the left index finger by a fly, presumably a gad-fly. No notice was taken at the time, but the finger began to swell and the wound to ulcerate, and for three days before admission he had had great pain. On admission the man looked very ill indeed. Temperature 103.6°; respiration 60; perspiring freely. On the finger was a yellowish sloughing wound the size of a two-shilling piece; the hand was swollen and œdematous; there was well-marked cellulitis up the arm; no swelling in the axilla. Examination showed pleurisy at the left base of the lungs. Mr. Bell made free incisions into the arm and wound and ordered copious stimulation; but in spite of all efforts the patient died within eleven hours of admission, apparently of acute septicæmia. Post-mortem examination showed a very fluid condition of the blood and all the organs macroscopically healthy, with the exception of the lungs, which were riddled with very large infarcts and where there was extensive pleurisy at the base. The case is interesting in view of the sad occurrence reported in a former number of THE LANCET.

I am, Sirs, yours faithfully,

Exeter, July 26th, 1892. G. STEWART ABRAM, M.B., B.C.

## "CURES" FOR INEBRIETY.

To the Editors of THE LANCET.

SIRS,—Since Dr. Keeley's letter in your issue of July 30th utterly fails to deal with the real question at issue, I fear that most of your readers will consider it unworthy of any reply. As, however, he has introduced my name rather prominently therein and as entire silence on my part might under the circumstances seem strange, perhaps you will be good enough to grant me space for a few words. What I would say to Dr. Keeley is this: If his remedy is a genuine cure for inebriety, and on his own showing it has been used for thirteen years, why does he not prove its efficacy to the satisfaction of the profession in Great Britain by submitting it fairly and openly to the opinion of a committee of British physicians? Does he imagine for one moment that such a committee would refuse to recognise his work or the merits of his drugs, providing the claims he aims at establishing are sustained? Let Dr. Keeley approach the leaders of the profession here in a proper spirit, and he may rest perfectly assured of fair and unbiased treatment. Either his remedies are really useful and deserve praise, or they will not stand the light of investigation.

With regard to the latter alternative I need not proceed further. If the remedies are valuable, then the maintenance of the secrecy now shrouding them is, both professionally and scientifically, indefensible. Analyses, reported here and in America, have failed to detect gold in the composition of the mixtures sold, so that a lack of confidence in the whole system has arisen.

With regard to the charges of inaccuracy which he endeavours to advance as to the narrative of my visit to Dwight, I may mention that I propose dealing with that matter in my work on "Alcoholism and its Treatment," which will be published in a few days. Without bandying words with him, however, I beg to say that it is entirely incorrect that I have said that "three eastern physicians visited Dwight while I was there," &c., or "that I went there to purchase the right of using his remedies in Australia." If I had found that a new and successful treatment was in use there under the same circumstances of openness and professional rule as elsewhere, I should have been quite prepared to bring such treatment before the profession in Great Britain and Australia. I went to the place with that purpose in view and was disappointed with what I found. During the conversation with Dr. Keeley at Dwight he intimated that he would get his nephew (Dr. Keeley) to take me to the treatment hall. A little later we passed into the main building and met Dr. Blaine, "chief of staff," to whom Dr. Keeley introduced me. I accompanied Dr. Blaine to the treatment hall, the nephew having gone out. If Dr. Blaine was an "Irish bottle washer," he deserves praise for the position he has attained to. On the other hand, if he still is entitled to be called a "bottle washer" and fulfils the functions of "chief of staff" as well, he is to be congratulated on the infinite variety of his talents.—I am, Sirs, your obedient servant,

J. E. USHER.

Wimpole-street, W., Aug. 3rd, 1892.

\*\* A continuance of this correspondence would be as unsatisfactory to the disputants as it would be unprofitable to our readers. We have already, in our desire to be fair, accorded more space to these unprofessional methods of treatment than we had intended, and, so far as we are concerned, the correspondence must now definitely terminate.—ED. L.

## THE CHOLERA IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

DR. DAREMBERG, the well-known correspondent of the *Journal des Débats*, has had the courage to declare that genuine cholera prevails in Paris and the neighbourhood. A summary of his article has been telegraphed to the English press, and it completely confirms the information I had already forwarded some weeks ago. Dr. Daremberg says (and this was not mentioned in the telegraphic summary of his article) that Dr. Netter, working in Dr. Proust's laboratory, Dr. Chantemesse in Dr. Cornil's laboratory, and Dr. Roux at the Pasteur Institute, have all found, in the dejections of the Paris cholera patients, the comma bacillus which Dr. Koch discovered in India, which Dr. Straus found during the cholera epidemic at Toulon in 1884 and which Dr. Calmette is now cultivating in Cochin China. It is difficult to see what better proof is required than this; but it is urged that in some case the comma bacillus has not been present. Dr. Daremberg replies that this only shows that other microbes can produce the same choleraic symptoms. In this respect it may be mentioned that Dr. Peter, of the Necker Hospital, has also made bold to defy the authorities in their attempt to conceal the true character of the present epidemic. To him political and administrative considerations are of no concern—he has to deal exclusively with the scientific aspect of the question, and as a man of science he is bound to say that the cases described in official documents as "choleraic diarrhoea" present very clearly marked characteristics of Asiatic cholera. In Dr. Peter's laboratory the comma bacillus was discovered some time before it was found by Dr. Netter. It was on July 5th last that I wrote stating that the comma bacillus had been seen in the dejections of the patients; and in those days it was little short of high treason to make such an assertion. Now, however, its truth can no longer be denied.

Dealing with the cause of the epidemic Dr. Daremberg propounds a theory which is open to question. On the one hand he adopts the germ theory, and yet he condemns the irrigation works at Gennevilliers, where a third of the Paris sewage is utilised for agricultural purposes. He seems to think that sewage farms may become mere cholera beds; but the water of the Paris sewers, after it has been utilised for the fertilisation of Gennevilliers, is collected by underground drains and falls into a brook. On analysis this water is found to be absolutely free from microbes. It is drunk by the visitors who go to Gennevilliers. I have drunk the water and have seen hundreds of other people drink it. The water the people receive who have had the cholera is the water of the Seine and there the sewage has no means of purification, but mixes with the water or forms heavy deposits on either bank. Not only the present epidemic, but the epidemics of 1884 and 1866 commenced in the suburbs of the west of Paris; that is to say, in the districts situated near the portion of the river receiving the principal outfalls of the Paris sewers. The river, it seems, rather than the sewer farm, is the cause of contamination, particularly if we consider that this contamination occurred before the sewer existed.

The number of deaths from cholera in and about Paris are now supposed to exceed 400, yet the epidemic has not yet taken root in Paris itself. In the suburbs it exists only in the north and west of Paris, just by that bend of the Seine which seems to be especially contaminated; but within the walls of Paris the cases are scattered in every direction. For instance, there has been a death from cholera at No. 11, Rue des Isles in the Goutte d'Or district—that is the extreme north—and another at 63, Rue Blanche. This latter is in the centre of Paris and to the south of the other case. A man aged twenty-nine died in the Rue Tiphoin, at Grenelle (S.W.), and another in the southern centre of Paris, Rue Notre Dame des Champs. There have been deaths at 3, Rue Rennequin in the Ternes (N.W.); impasse Boudran in the extreme south of Paris; 31, Rue Francois-Gérard, at Auteuil, extreme S.E.; another at Grenelle in the same direction, but not so far. Then there were deaths at Clignancourt, Necker, Porte Dauphine, and Combat, districts which are respectively to the north, the south, the west and the north-east of Paris. I could continue the list, but I have mentioned a sufficient number of cases, all of them ending fatally, to show how scattered is the disease. It has not as yet created in Paris any particular focus, and the cases are as widely spread out in respect to time as they are geographically. This is very different to the experience of the epidemic of 1884 when once it got within the walls of Paris. The disease ran its course in the following manner:—On November 3rd, 1884, there was 1 death, on the next day 3 deaths and the day after 18. The number of deaths for each of the following days was as follows:—On the fourth day, 14; on the fifth, 28; and then, for each succeeding day, 76 deaths, 94, 97, 78, 83, 66, 70, 45, 36, 47, 28, 34, 26, 17, 19, 10, 14, 8, 3, 11, 2, 7, and after that at intervals, a few more cases bringing the total number of deaths up to 955, which, with the cases brought into Paris from the outskirts, made a grand total of close upon a thousand deaths. On that occasion the first cases in Paris occurred in the central districts of the Arsenal, near the Bastille; the Art et Metiers, close to the Boulevard Sebastopol; and the Halles. After that the asylum, or Hôpital Breteuil, in the south-west of Paris was infected and the rag-pickers' quarters in the Cité Jeanne d'Arc.

Warned by the past, the authorities have been looking sharply after the rag-pickers, and have discovered a nest of rag-sorters in the Clichy district, who were living in such conditions of filth and overcrowding as to seriously endanger the public health. These unfortunate people have received peremptory orders to quit their present quarters, and they have only been allowed ten days to remove. But they cannot find any other lodgings. No one will take rag-pickers as tenants; also their trade does not bring in sufficient profit to enable them to pay high rents. As it is, they only pay from 1s. to 2s. a week for a room and some 3s. a week for a ground floor of two rooms, where they accumulate and sort the rags, paper and the other refuse they pick up in the streets. It is difficult to blame these rag-pickers for their endeavours to utilise waste products; but undoubtedly they render the houses in which they live filthy and unhealthy. Such people fall ready victims to any epidemic—they were the principal sufferers at the last cholera epidemic—and it is only natural and right that the authorities should take measures against them. At the same time their lot is a hard

one, and it is with much pleasure that I am able to announce Baron Rothschild has sent £200 for their relief. The rag-pickers are certainly suffering for the public good, and it is only fair the public should come to their assistance.

Paris, Aug. 2nd.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *Sunderland Infirmary.*

THE ninety-third annual report of the Sunderland Infirmary has been issued. It states that 2065 in-patients were treated during the past year; of which number 1206 received surgical treatment (394 being from accidents of a serious nature) and 857 were medical cases. The mortality was 5.1 per cent. The number of out-patients treated (such as minor accidents &c.) was 2649. The total subscriptions received from the working classes amounted to £4403. The Sunday schools collection shows a gratifying increase of £39. The expenditure during the year was over £9260, an increase of £417, caused chiefly by certain alterations rendered necessary by the erection of the isolation block.

### *The New Infectious Diseases Hospital at Wallsend.*

The building of this hospital is being rapidly pushed forwards. The site of the new building which is being erected in accordance with a mutual agreement between the joint authorities of Wallsend, Willington Quay and Howdon, is on a breezy eminence about a mile on the north side of Wallsend and is equidistant from the joint townships named above. The erections within the enclosure cover two acres. I hope in a future letter to give you a fuller description of the hospital, which comprises four blocks of buildings.

### *The Walker Hospital.*

The annual meeting of the Walker Hospital has been held. This is principally a workmen's hospital, treating about 500 cases in the year, and it is pleasant to record that more than one-half of the income is derived from working men's collections.

### *Darlington.*

A great demonstration of the Darlington Friendly Societies was held on Sunday last in the public park, in aid of the Convalescent Home at Grange-over-Sands, which was in every way a success. I think, however, that the *Northern Echo* made the following remarks upon somewhat insufficient information, asking—viz.: "Where were the Darlington medicos yesterday? No doubt some had 'part work' to do. It seems odd that the good object sought to be attained by the gathering in the park was not better patronised by those who remained at home. I believe that very few got home from the meeting from such distant points as Darlington to commence their work on Sunday. Many on the other hand made Nottingham the starting point for their short and well-earned holiday. At a late meeting of the sanitary authority a letter was read from the Local Government Board with regard to a resolution passed by the authority asking the Board to withdraw measles from the list of infectious diseases (Notification Act), which stated that it appeared to the Board that the sanitary authority had not taken full advantage of the opportunity of repressing measles, and of instructing the people how they may themselves assist in checking its spread. The Board could not but think that if that had been done more satisfactory results would have been obtained.

### *Middlesbrough.*

The Middlesbrough Friendly Societies' demonstration in aid of the North Riding Infirmary, Ormsby Cottage Hospital and the Middlesbrough Nursing Association had to be abandoned owing to the inclement weather on Sunday last so far as the usual procession went, but a large and successful meeting was held in the Town Hall; so it is to be hoped that the local charities will not suffer.

### *Poisoning Cases.*

A fatal case of poisoning by carbolic acid has occurred

at Consett. A nurse, wishing to give a patient a dose of medicine (in the dark), gave carbolic acid instead. Death took place after much suffering in a few hours. A child aged six died in Newcastle the other day from hemlock poisoning. She and another child aged four were playing in a lane in one of our suburbs, where they saw some hemlock lying and, picking it up, ate a little of the flower; they became rapidly ill and the elder child expired in one hour. The other child fortunately vomited freely and was soon brought round. I do not remember a more rapid case than the above, but of course the plant is at its period of activity at present.

### *Asylum Accommodation in Yorkshire.*

At the latest meeting of the West Riding County Council Alderman Woodd moved that the Asylum Committee be empowered to provide additional accommodation at the Menston Asylum, in view of the increase in the number of pauper patients requiring care and treatment in the West Riding. The committee in its report expressed its belief that, though the number of such patients had risen from 3272 in 1890 to 3394 in the last year, "it would not be safe to assume an abnormal increase in lunacy in the West Riding." Mr. Woodd's resolution was adopted.

Newcastle-on-Tyne, Aug. 3rd.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

### *Congress of Sanitary Association of Scotland at Aberdeen.*

THIS annual Congress was held at Aberdeen on July 27th, 28th, 29th and 30th. The meeting on Wednesday was formal. On Thursday the Marquess of Huntley, honorary president of the Association, occupied the chair and delivered the opening address. He referred to the question of grants in aid of public health, holding that, in fairness to Scotland, such grants should be continued and even increased. He believed that if the powers conferred by the Housing of the Working Classes Act were more generally known, they would be taken advantage of by district committees and proprietors in removing insanitary dwellings and substituting good cottages in their place. He attributed a good deal of the immigration of rural labourers to the towns to the condition of their dwellings. Resolute progress had been made in sanitation; but the feeling that more could and ought to be done was spreading, and when really called into action would become an irresistible force. Four papers were read and discussed: Consumption in Relation to Public Health, by Dr. Neil Carmichael, Glasgow; The Period of Infectiousness in Scarlet Fever, by Dr. R. M. Beattie, Aberdeen; Worm Nodules in the Lungs of Sheep, by Dr. J. T. Wilson of Aberdeen University; and Diseases transmissible from the Lower Animals to Man, by Mr. J. McL. Young, M.R.C.V.S. of Dundee. On Friday, papers were read by Dr. Macdonald (Aberdeen) on Tuberculosis in Common or Barn-door Fowls; and by Dr. Rennet, (Aberdeen) on the Progress of Typhoid Fever in Aberdeen and other Principal Scotch Towns. After addresses by Mr. Gilbert Thomson (Glasgow) and Mr. K. Cameron (Aberdeen) a paper was read on the Progress of Cremation, by Mr. John Mann (Glasgow). This led to a motion being carried to the effect that cremation of the dead, especially in cases of infectious disease, was a rational hygienic process, and that local authorities should be empowered by Parliament to build crematoria. Saturday was devoted to the inspection of places and appliances of interest.

### *Aberdeen Medical Staff Corps.*

Last week fifty men of the 7th (Aberdeen University) Company, Volunteer Medical Staff Corps, left Aberdeen for a week's training at Aldershot. They were under the command of Surgeon-Captain MacGregor and presented a smart soldierly bearing as they marched from their new headquarters to the railway station.

### *Public Health Prosecutions at Aberdeen.*

A house proprietor was convicted last week of permitting drains to remain foul in his houses after repeated notices from the sanitary staff to get them cleaned. A light fine was imposed. Another householder at Torry was convicted of having failed to notify to the authorities the existence of cases of measles in his house. The magistrate dwelt on the

dangerous nature of the offence and imposed a fine of five shillings.

#### *The Health of Aberdeen.*

||The following is a return of the zymotic cases noted last week:—Town: Measles, 29; scarlet fever, 21; diphtheria, 2; whooping-cough, 25; erysipelas, 6; total cases, 83; being an increase of 31 as compared with last week. County: measles, 2; scarlet fever, 20; typhoid fever, 3; erysipelas, 1—total 26.

#### *Aberdeen University Medical Graduation.*

The ceremony of "capping" the successful students was performed on July 27th, when twelve gentlemen proceeded to the degree of M.D. and thirty to those of M.B. and C.M. Three gentlemen received the D.P.H. and one the degree of B.Sc. In addressing the graduates Principal Sir William Geddes spoke of the extension of the University buildings scheme. He mentioned that over £70,000 of the £80,000 required was already promised and that soon the scheme would be workable. He sketched the history of the scheme and warmly eulogised the various friends of the University who had furthered its interests.

#### *Graduation Ceremonial at Edinburgh University.*

Mr. Robert Murray Leslie, M.A., B.Sc., M.B., C.M., was awarded the Ettles Scholarship as the most distinguished graduate in Medicine, and the Stark Scholarship of £100 in Clinical Medicine. Mr. Leslie previously graduated M.A. and B.Sc., with the highest honours and obtained the Baxter Biennial Science Scholarship (of £142) as the most distinguished graduate in science.

Aug. 3rd.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Royal College of Surgeons.*

A MEETING of the Fellows will be held on Thursday, pursuant to the provisions of the Supplemental Charter, to witness the election of six examiners for the diploma in dentistry—viz., three Fellows of the College and a similar number of registered dentists.

#### *Death of Henry Croly, Sen., M.D., J.P.*

This gentleman died at his residence, Greenfield, Rathfarnham, on Sunday last, at the ripe age of eighty-six years. He was of a kind and genial disposition and enjoyed the respect and esteem of all with whom he came in contact. He practised for over half a century at Rathfarnham, where he was for many years medical officer of the district, and retired some years ago on superannuation. He enjoyed wonderfully good health and looked hale and hearty until shortly before his death. For some years he examined in midwifery in the Royal College of Surgeons. The deceased leaves two sons, both members of the profession—Henry Gray Croly, the well-known Dublin surgeon and late President of the College of Surgeons, and Albert Croly, medical officer to the Rathfarnham Dispensary.

#### *North Dublin Union.*

At a meeting of the guardians last week a communication was submitted from the Local Government Board enclosing a copy of orders which they had put in force, prohibiting the importation of rags into Ireland from France, the ports of the Black Sea, the Sea of Azov, and parts of Turkey in Asia. They requested the Board to see that the orders were carried out by the medical officers of the union.

#### *Health of Dublin for June Quarter.*

The births registered in the Dublin registration district for the June quarter numbered 2625, or 30 per 1000, while the deaths amounted to 2730, or 31·2, the rate being 4·6 over the average for the quarter. Zymotic diseases caused 502 deaths, or 23 above the previous quarter, the rate being 4·1 above that for the corresponding quarter of last year. Over 64 per cent. of the total number of deaths from zymotic diseases was due to measles, which caused 322 deaths, the disease being far more fatal in the city than in the suburbs. Whooping-cough caused 60 deaths, against 73; enteric fever 14, a decided decline; typhus fever 4, or an increase of 3; while scarlet fever only caused 1 death, against an average of 23. Among the remaining deaths from zymotic diseases were 27 from influenza, 4 from

diphtheria and 18 from diarrhoea and dysentery. In 249 instances the cause of death was not certified and of these 180, or 72 per cent., were deaths of children under five years of age, these 180 deaths forming 17·5 per cent. of the total number of deaths of children of that age. Of the deaths of 115 children under one month old registered, there were 55, or 48 per cent., in which the cause was uncertified.

Sir W. Stokes has been appointed surgeon-in-ordinary to the Queen in Ireland, in the room of Mr. Colles, deceased.

The Local Government Board will hold an inquiry in Drogheda next week regarding the alleged insanitary condition of Chord burial ground.

Aug. 3rd.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *Artificial Feeding of Infants.*

M. BUDIN has lately conducted some experiments on the above subject in his wards at the Charité Hospital, and communicated the results to the Académie de Médecine on the 19th ult. The system followed in his practice is to administer to all the newborn children, for the first three days, cow's milk sterilised by means of Soxhlet's apparatus; this sterilised milk supplementing or replacing the maternal supply according to circumstances. The milk is given undiluted with water. Should the quantity of the mother's milk be sufficient the artificial product is not given. If the maternal supply is deficient, or absent, the sterilised milk is continued wholly or partially. Notes were taken of these three categories of infants under observation from April 1st to June 28th, 1892. Of 89 fed exclusively at the breast after the third day the average daily gain of weight was 28 grammes 17 centigrammes. The average daily gain of weight from the second day of 91 infants submitted to the mixed diet was 18 grammes 16 centigrammes, the corresponding average in 11 infants fed on sterilised milk only being 14 grammes 24 centigrammes. The average daily increase in weight for the 191 infants, taken together was 22 grammes 59 centigrammes. Of the 89 breast-fed children 6 had diarrhoea, whilst 7 such cases occurred amongst the 91 mixed-diet infants and none amongst the 11 artificially fed. In no instance was the diarrhoea severe, and all the little patients recovered. It will be noticed that the development of the nursing, as judged by the daily increase in weight, was most marked in the case of the breast-fed, less in the partially breast-fed and least of all in the artificially fed. The total absence of gastro-enteric complications amongst the children brought up exclusively on sterilised cow's milk is an important feature of M. Budin's communication. That physician is, however, very emphatic in his preference for breast feeding and pronounces strongly in favour of daily weighings as being the most reliable means of ascertaining its physical progress.

#### *Treatment of Fractures of the Patella.*

M. Berger related to the Société de Chirurgie the details of an operative procedure for procuring osseous union in fracture of the knee-cap. The subject of the operation was a little girl whose patella was fractured transversely, the upper fragment comprising four-fifths of the bone. The limb was put up in a plaster-of-Paris splint and maintained in a raised position. No union having taken place at the end of forty days, suture of the fragments was decided upon. Unfortunately, after the opposed surfaces of the parts had been pared, the lower and very diminutive piece broke into two unmanageable portions in the attempt to bore through it for the passage of the silver wire. M. Berger very ingeniously surmounted the difficulty by encircling the patella with a silver wire, which, after traversing the triceps tendon, at the level of its insertion into the bone, was taken along the sides of the bone and finally brought to the point of departure after having transfixed the ligamentum patellæ. The periosteum and the skin wound were then sutured, and the limb fixed in a gypsum apparatus. The results were admirable, all the joint movements being perfect and the union all that could be desired.

#### *The Cholera in France.*

The cholera epidemic appears to be making no further progress in the suburbs situated to the north of Paris. At Clichy blocks of buildings, which sheltered about 300

families of ragpickers have been condemned on account of their insanitary state and the wretched denizens have been promptly evicted. The brothers Rothschild have, with characteristic kindness, forwarded a sum of 5000 francs to be distributed amongst these victims of sanitation. The epidemic at the lunatic asylum of Bonneval, in the Department of Eure-et-Loir, which broke out on the 17th ult., is almost extinct. It is a curious fact that, although the male and female inmates lived under identical hygienic conditions, only the women were attacked, every man escaping. In the first few days of the outbreak the symptoms were exceedingly violent, and were sudden in their invasion. They consisted of nausea and vomiting, colics, pains in the extremities, with cramps, pale, profuse and involuntary stools. Then came algidity with blueness, slight œdema of the extremities, and an imperceptible radial pulse. From the very onset the features were drawn and the choleraic physiognomy was quite characteristic. A fatal result ensued in from twenty-five to thirty-six hours—sometimes in twelve or fifteen hours, in one instance in only four hours and a half. In a few days after the beginning of the outbreak the disease assumed a milder type, and recovery or death took place after some days of illness. Up to Saturday last the number of inmates attacked was forty-one, no less than twenty of these succumbing. Cases as they occurred were promptly isolated in a special building and every drop of water consumed or used for toilet or domestic purposes was previously boiled. As your readers know, Seine water has been very generally held responsible for the epidemic which has been creating such havoc since April in the suburbs of Paris. The following facts lend support to this theory. The faubourg of Mazagrán is situated partly in the town of Argenteuil, partly in the village of Sannois. The houses touch, all the inhabitants belong to the working classes and the sanitation is equally bad in all the habitations. On the Argenteuil side, the Mazagránais are supplied with Seine water, whilst the people living at the other, or Sannois end, drink only water derived from the River Oise. Amongst the first class numerous (and often fatal) cases of cholera have occurred, while the people who drink Oise water have hitherto remained immune.

Paris, Aug. 3rd.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

### *The Cholera.*

THE Prussian Ministry of Ecclesiastical, Educational and Medical Affairs has caused the following statement to be published in the papers of what it is most necessary for all and sundry to know regarding cholera, an example well worthy of imitation by all similar authorities throughout the world: "1. The virus of cholera is in the evacuations of the patients, and can be transferred with them to and into other persons and in the most various things with them and be carried about. Such things are, for instance, linen, clothes, articles of food, water, milk and other drinks; and with all of them, even if only the slightest traces of the evacuations, not perceptible to the natural senses, exist on or in them, the pestilence can spread. 2. It easily happens, therefore, that the contagion is carried from place to place by persons who are or have been ill of cholera or have come into contact with such, and who leave their places of residence in order, as they think, to escape the danger that threatens them there. This is all the more to be warned against, as, on the one hand, one may be already infected before departure, and, on the other, one can protect oneself better at home than elsewhere, especially when travelling, by taking the following precautions. 3. People should not be received into houses from places where cholera exists. As soon as cases of cholera have occurred in a place, persons coming from it must be regarded as possible bearers of the germ of the disease. 4. Lead as regular a life as possible. Experience teaches that all disturbances of digestion make one specially susceptible to cholera. Be on guard, therefore, against whatever can produce such disturbances, such as excessive eating and drinking and indigestible foods. Avoid especially whatever causes diarrhoea or irritates the stomach. In case of diarrhoea, however, consult a doctor at once. 5. Eat and drink nothing coming from a house where cholera is present. Things by which the disease can easily be transmitted—for instance, fruit, vegetables, milk, butter, fresh cheese—must be avoided or taken only after being boiled. Especially the drinking of

unboiled milk is to be avoided. 6. All water which may be polluted by excrement, urine, kitchen refuse, or other dirt must be most rigorously avoided. Water taken from the ground under inhabited places, or from swamps, ponds, drains or rivers, is suspicious, because impurities generally flow into them. Water polluted in any way by the excrements of cholera patients is especially dangerous. Special care must be taken that water that has been used in cleaning vessels or dirty linen does not get into or even near wells or standing and running waters. The best protection against the pollution of well water is afforded by iron tube wells driven straight and sufficiently deep into the earth (Abyssinian wells). 7. If it is impossible to get free from suspicious water, it must be boiled, and only boiled water drunk. 8. All this applies not to drinking water alone, but also to all water used for domestic purposes, because germs of disease can be communicated to the body by water used in cleansing kitchen utensils, cleansing and cooking food, washing, bathing, &c. In general, the belief that drinking water alone is to be regarded as the bearer of the virus and that one is completely protected if only unexceptionable water is drunk, is urgently to be warned against. 9. Every cholera patient may become the starting-point for the further spread of the disease, and it is therefore advisable to send such patients to hospitals. If this is impossible, nobody must be permitted to approach them without necessity. 10. Never enter a house with cholera in it except at the call of duty. Never visit places where many people are assembled in cholera times. 11. Never eat, drink, or smoke (even for one's own sake) in rooms in which there are cholera patients. 12. As the evacuations of cholera patients are specially dangerous, clothes and linen soiled with them must either be burned at once or disinfected in the manner stated in the instructions for disinfection published simultaneously with this. 13. The most scrupulous care must be taken that cholera evacuations do not get near wells or rivers serving as sources of water-supply. 14. All articles coming into contact with patients which cannot be destroyed or disinfected must be rendered harmless by means of hot vapours in special disinfecting establishments or not used for at least six days, during which they are kept in a dry and airy place exposed as much as possible to the sun. 15. Persons who come into contact with a cholera patient or with his bed or clothing should wash their hands at once, especially if soiled with the excrement of the patient. Do not touch food with unwashed hands or put into the mouth eating and drinking utensils, cigars, or anything else that may have been soiled in the sick room. 16. In case of death the corpse must be removed to a mortuary as soon as possible. If it cannot be washed there it ought not to be washed at all. The funeral should be as simple as possible. The guests should not enter the house of death or take part in any funeral feast. 17. Articles of dress, linen and other things that have been used by cholera patients or been in contact with the corpses of such patients must on no account be used or given to others till they are disinfected. Especially they must not be sent to other places unless disinfected. The receivers of packages containing such articles from cholera places are urgently advised to send them at once, if possible, to a disinfecting establishment, or to disinfect them themselves with the necessary precautions. Cholera linen ought not to be received for cleaning till it has been disinfected. 18. No other preservatives against cholera are known, and the public are advised not to use the medicaments—cholera-brandy &c.—which are always puffed in cholera times."

Berlin, Aug. 2nd.

## Obituary.

W. F. CUMMING, M.D. EDIN.

A TYPICAL specimen of the accomplished physician has just passed away in the octogenarian Dr. Cumming, who died on Wednesday, July 27th, at Loch Baa, Mull, Argyshire. A cadet of the clan Cumming of Altyre, he was born on the banks of the Findhorn on Oct. 26th, 1805, and like his two brothers—one of whom was a distinguished colonel of the 21st Fusiliers and the other an able and much-employed surgeon—he was destined to make his mark in the world. He

studied medicine at the Edinburgh School, graduated as doctor and shortly thereafter entered the medical department of the East India Company's service. His health, at no time robust, declined in the tropical climate. He came back to Scotland, and in 1836, after consultation with his professional friends, set out on a prolonged tour which included Italy, Greece and the Ottoman Empire as far as Egypt. A record of his travels is embodied in his once popular and even now eminently readable "Notes of a Wanderer in Search of Health," of which the first volume was inscribed to his chief, Sir W. G. G. Cumming, Bart., of Altyre, and the second to his accomplished fellow traveller, V. F. Campbell, Esq., of Islay. The book, which teems with a racy sagacity characteristic of the author, is notable for its anticipation of the now general opinion as to the value of Egypt as a resort in chest disease, from which he himself was a sufferer. Coupled with this shrewd appreciation of the steady, dry, pure, restorative air of the desert was his not less emphatic recommendation to study prudence under medical advice—the two conditions of real and lasting benefit derivable from any climate whatever. He was in himself a striking confirmation of the soundness of this rule, and, though more than half an invalid till long past middle life, he kept himself in health of body and mind sufficient for all the requirements of a physically and mentally active life. Later in his career he visited Germany and Belgium and—always a keen observer—he made their lunatic asylums an object of special study. His experience fructified in a work of high merit entitled "Notes on Lunatic Asylums in Germany and other parts of Europe"—a work which contributed effectively to the introduction of the non-restraint system now so largely and so profitably practised at home and abroad in the treatment of the insane. Dr. Cumming's connexion with the Argyll family led to his acting as body physician and as travelling companion to the Marquis of Lorne (the present duke)—a post which none could have filled better than he, having regard to the cultured and refined tastes which he divided with his accomplished pupil. The friendship then formed and cemented drew still closer the intimacy between them, and when the duke became Lord Privy Seal in the Earl of Aberdeen's cabinet Dr. Cumming was made his private secretary, a post he again took when his Grace accepted office under Lord Palmerston. Not long after the second of these appointments the doctor, who was a keen angler, paid the penalty of his enthusiasm by contracting a paralytic affection of the lower extremities due to prolonged exposure in an open boat to cold and wet. This he never got over; but he did not allow it to lessen his indulgence in sport. In his summer quarters on Loch Baa, Mull, from the door of his lodge to the shore of the loch, he had a tramway constructed, and along this he was conveyed in a basket-carriage, from which he was easily transferred to a boat in which he landed quite as many salmon as in his prime. With all this passion for open-air life he was a reading man of fine taste and exemplary assiduity, his favourite authors being Milton and Johnson among the English and Burns and Scott among his compatriots. "He never passed the Scott monument in Prince's-street," writes one who knew him well, "without lifting his hat and insisting that anyone with him in the carriage should pay the same homage to the Wizard of the North." His independence in matters of opinion political and religious made him indifferent, as Byron says in "Don Juan":

"To Trojan or to Tyrian,  
And, like his sires, a moderate Presbyterian."

For his *alma mater* he retained to the last an overflowing affection—appropriately typified in his donation of the fountain which adorns the University quadrangle. For many years he was the guest of his sister Lady Coxe (wife of Sir James Coxe, the accomplished Commissioner in Lunacy for Scotland) whose beautiful residence at Kinellan he occupied after their death, making it in turn the scene of much kindly and cultured and highly appreciated hospitality. To the last he took a lively interest in political contests, in the Midlothian election of 1880 being "lifted from his carriage into a basket-chair, which was wheeled into the polling station. But," adds the friend to whom we are indebted for most of the above details, "the chair could not be got into the polling booth." In this dilemma an appeal was made to the polling sheriff, who, at his wit's end to meet a contingency not provided for under the Ballot Act, yielded at last to the doctor's insistence and had a ballot-paper brought out to him. The doctor then made his "X" on the crown of his hat.

He was never married, and his lovely suburban residence at Kinellan passes into the possession of Sir J. Coxe's daughter, Mrs. Rose-Innes. Dr. Cumming's funeral, starting from Kinellan, took place at Edinburgh on Tuesday, August 2nd, and was attended with every mark of respect by a large number of professional friends and of the general public.

## THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At an ordinary meeting of the Council of the Royal College of Surgeons, held on Monday, the 1st inst., the minutes of the quarterly meeting of the Council held on July 14th were read and confirmed.

The Secretary reported the death on July 19th of Mr. Frederick Le Gros Clark, F.R.S., past president, past member of the Council and of the Court of Examiners of the College. A resolution of condolence was unanimously passed and directed to be sent to Mrs. Clark and the family on their sad loss.

The museum and library will be closed as usual during the month of September for the purpose of a general cleaning.

Sir W. Mac Cormac was re-elected a member of the Court of Examiners in Surgery and Mr. J. C. N. Davies-Colley was elected an Examiner in Surgery in the vacancy caused by the retirement of Mr. Bryant.

Dr. H. J. Campbell was elected a Professor of Comparative Anatomy and Physiology in the vacancy left over from the last meeting. A letter from Dr. Liveing reporting the proceedings of the Royal College of Physicians on July 28th was received and read.

It was agreed that the annual meeting of Fellows and Members of the College should be held on Thursday, Nov. 3rd, at 3 P.M., and that the usual notices should be issued.

A committee was then appointed to consider and report on the standing rules and to submit a revised copy to the Council; also to consider any resolution of the Council at present extant on the proceedings of the Council. The members of this committee are the President and Vice-Presidents, Messrs. Macnamara, Rivington and Tweedy.

Mr. Macnamara moved, and Mr. Langton seconded, the following resolution, which was agreed to:—"That it be referred to the Nomination Committee to consider and report to the Council whether any, and if so what, alterations are desirable in the arrangements for the museum and other lectures." The next meeting of the Council will be held on Thursday, October 13th.

## Medical News.

**EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.**—The following gentlemen, having passed the necessary examinations, have been admitted by the two Royal Colleges Diplomates in Public Health:—

Aldridge, Arthur Russell, M.B. Edin. (Edinburgh), Southampton.  
Armin, Henry Charles Laffler, L.R.C.P., M.R.C.S., Surgeon Captain  
Indian Medical Staff (Charing-cross), Hyde-street, W.  
Bailey, W. Henry, M.B. Lond., M.R.C.S. (St. Barth.), East Dulwich.  
Best, William Jenner, M.R.C.S. (London), Louth, Lincolnshire.  
Coates, Henry Honiton, L.R.C.P., M.R.C.S. (St. Barth.), Soho sq., W.  
Gay, John, L.R.C.P., M.R.C.S. (St. Barth. and King's Coll.), Putney.  
Gibson, James Hill, M.D. O.U.I. (Dublin and Belfast), Maiden-vale.  
Hall, John Moore, M.B. R.U.I. (Belfast and King's), Old Ford road.  
Hoyle, James Collings, L.R.C.P., M.R.C.S. (St. George's), Homerton.  
Mann, Harold Edward, L.R.C.P., M.R.C.S. (St. Barth.), Homerton.  
Orr, William Young, M.B. Edin. (Edinb. and King's), Putney.  
Preston, George, L.R.C.P., M.R.C.S. (Manchester), Saltash, Cornwall.  
Priest, James Damer, M.R.C.S. (St. Barth.), Waltham Abbey.  
Ricketts, Thomas Frank, L.R.C.P., M.R.C.S. (Guy's), Cheltenham.  
Schorstein, G. Isidore, M.B. Oxon. (Oxford and Lond.), Portland-pl.  
Scott, Sack Roy, L.R.C.P., M.R.C.S. (Charing-cross), Lushington.  
Tratman, Frank, M.B. Lond., L.R.C.P., M.R.C.S. (Lond. and Bristol),  
Bristol.  
Wilkie, John, M.B. Lond. (Univ. Coll. and St. Barth.), Buckingham-  
street, Adelphi.

Eight candidates were referred.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentleman, having previously passed the necessary

examinations and having now attained the legal age (twenty-five years), has been admitted a Fellow of the College:—

Drew, Douglas, M.B., L.R.C.P. Lond., Gloucester-place, W.; diploma of Member dated July 28th, 1890.

The following Licentiate of the Royal College of Physicians of London, having previously passed the necessary examinations and having conformed to the by-laws and regulations, have been admitted Members of the College:—

All, Subban, Islington.  
 Acherley, John, Leeds.  
 Baker, J. Charles, Kentish Town.  
 Ballance, H. Ashley, Hampstead.  
 Banham, C.W.R., Snifron Walden.  
 Barnes, H. Cooper, Philpot-street.  
 \*Blake, H. Elliot, Guy's Hospital.  
 Bliss, E. W., Brerley Hill, Staffs.  
 Bond, W. Ernest, Little Britain.  
 Bowie, R. Arthur, Store-street.  
 Brimacombe, R. Wm., Worcester.  
 Brown, H. Corser, Tipton, Staffs.  
 Bull, Stanley Arthur, Kensington.  
 Bunch, F. V., Gloucester crescent.  
 Buttar, Charles, Stratford-place.  
 Carwardine, Thomas, Willesden.  
 Cazale, Grenville W., Guilford-st.  
 Charles, B., South Hampstead.  
 Cross, Geoffrey, Brixton.  
 Cutcliffe, M., Witheridge, Devon.  
 Darker, Geo. F., St. George's-sq.  
 Davies, Richard, Hereford.  
 Dixon, Charles Arthur, Leeds.  
 Dove, Frank, Colchester.  
 Dunderdale, R. H. W., Blackpool.  
 Eames, E. T. Philip, St. Johns.  
 Edwards, Frederic W., Forest Hill.  
 Fowler, Jas. Stewart, Edinburg.  
 Fraser, Herbert St. John, Sutton, Surrey.  
 French, H. C., Shoeburyness.  
 Fyfe, Reginald J., Forest Hill.  
 Gaskell, Arthur, Dartmouth.  
 Gedgo, A. Syd., South Clapham.  
 Girdlestone, Howard E., Brixton.  
 Gladstone, R. J., Old Aberdon.  
 Goodwin, T. H. J. C., Paddington.  
 Graydon, A., Philbeach-gardens.  
 Griffiths, R. C., Upper Woburn-pl.  
 Griffiths, S. A. R., Corinne-road.  
 Hague, John, Ashton-under-Lyne.  
 Hainworth, E. M., Blackheath.  
 Hamlen-Williams, T. R., London.  
 Harris, Frank Drew, Clapham.  
 Hartnell, E. Bush, Borough.  
 Harvey, J. Harold, Little Haven, Pembroskshire.  
 Heath, Arthur Douglas, Exeter.  
 Hemsted, E. Spencer, Whitchurch, Hants.  
 Henry, Robert, Putney.  
 Hepburn, M. L., New Kent-road.  
 Hessey, Jas. D., Mornington-pl.  
 Hogg, R. H., Albert-street, N.W.  
 Jaffé, C. S., Westbourne-terrace.  
 James, R. B., Stratford-on-Avon.  
 Jenkins, John E. M., Wimbledon.  
 Jones, John, Mornington-cresc.  
 Kent, Sydney, Sevenoaks.  
 Killery, St. John B., Chiswick.  
 Knapp, M. Henry, Paddington.  
 Langford, Morris Chas., Padstow, Cornwall.  
 Lightfoot, J. Parker, Brixton.  
 Loos, W. Chris., Upper Norwood.  
 McCormack, C. Vincent, Liverpool.  
 Mackeson, Guy, Courthope-rd.  
 Milnor, A. E., Lansdown-place.  
 Milton, A. R. Octavius, Lambeth.  
 Morley, G. Frederic, Sinclair-rd.  
 Morton, J. Leyden, Kilburn.  
 Musgrave, C. B. T., Notting-hill.  
 Nellen, G. F. Marshall, Brighton.

Newton, H. W., West Hampstead.  
 Nicol, James Main, Leeds.  
 Ortlepp, Albert J., Harrow-rd.  
 Osborn, Francis A., Falmouth-rod.  
 \*Parker, William, Holloway.  
 Parrott, Albert Geo., Chingford.  
 Perry, S. Herbert, Frederick-st.  
 Perry, W. Arthur, Bournemou-th.  
 Pethybridge, W. Ley, Plymouth.  
 Pickering, R. Neville, Lewisham, Upper Berkeley-st.  
 Posnett, Edward, Leeds.  
 Potter, Walter, York.  
 Powell, W. A., Batterssea Rise.  
 Randall, Martin, Hendon.  
 Ransome, H. F., Altrincham.  
 Renny, Eustace Geo., Pimlico.  
 Rock, Cecil Howard, Lewisham.  
 Russell, J. Ronaldson, Dartford.  
 Savers, J. Lorimer, Blackheath.  
 Shearer, J. Geritt, Highbury-park.  
 Scotson, Fredk. C., Warrington.  
 Selby, E. W., Albert-street, N.W.  
 Selby, William, Croydon.  
 Shaw, A. Band, Wandswoth.  
 Sims, J. Hadley, Osborn-terrace.  
 Smith, Edwin, Wandswoth.  
 Smith, Norman Ireland, Windsor.  
 Smith, Wm. Robt., King's College Hospital.  
 Spencer, Chas. Geo., Norland-sq.  
 Spront, Jas. Hugh, Birmingham.  
 Squibbs, R. E. P., Albert-street.  
 Staddon, Henry Ernest, Ipswich.  
 Steggall, S. L. J., Queen-square.  
 Stewart, Jas. Allan, Notting-hill.  
 Strange, A., Knebwoth, Herts.  
 Sutcliffe, Wm. G., Larkhall-lane.  
 Swabey, Maurice, Bath.  
 Sylvester, H. Mayris, Caroline-place, W.C.  
 Templeton, George, Kilmarnock.  
 Thomas, R. S., Starcross, Devon.  
 Tipping, Henry Hubert, Alcester, Warwickshire.  
 Toller, Neville Percy F., Lambeth.  
 Tweedy, R. C., Redruth, Cornwall.  
 Vincent, Wm. James Nathaniel, Newcastle-on-Tyne.  
 Vinaco, M. H., Birmingham.  
 Wall, Frank, Totteridge.  
 Walter, E. Arthur, Woburn-sq.  
 Walters, A. Radclyffe, Reigate.  
 Walters, F. Wilfred, Sydenham.  
 Watkins, W., Turner-st., Mile End.  
 Wesley, F. W., Burlington House.  
 West, W. Goldsborough, Thaxted.  
 Wheatcroft, E. Woodiwiss, Derby.  
 White, Jas. A. H., Birmingham.  
 Williams, George C. Waldemar, Peckham.  
 Williams, H. J. E. Hutchins, Lee.  
 Williams, Herbert Whitley Skey, Holywell, North Wales.  
 Wilcock, E. Hulse, Norwood.  
 Willson, J. Wherry, Bernard-st.  
 Windsor, Frank N., Manchester.  
 Winter, Laurence A., Woodford.  
 Withers, F. Ernest, Reading.  
 Wright, S. F., Bickley, Kent.  
 Wroughton, Wm. Chas. Haulton, Highbury-hill.  
 Wysard, Alex. T., Denmark-hill.

The following gentlemen have also been admitted Members:—

\*Austin, J. H. E., L.R.C.P. Edin., Chiswick.  
 \*Council, Richard Watson, L.S.A., Lorrimore-square.  
 \*Hancock, H. R., L.R.C.P. Irel., Burslem, Staffordshire.  
 \*Hawley, Frederic Hulme, L.S.A., Timberland, Lincolnshire.

\*Miche, W. A., M.B., C.M. Aberd., Greenwich.  
 \*Soden, T. Armand Bourne, L.S.A., Newcastle-on-Tyne.  
 \*Soilloux, Garnet, M.B. Moll., Clements-lane.  
 \*Young, John C., M.D. New York, Bernard-street.

\* Candidates who have not presented themselves under the Regulations of the Examining Board in England.

**VICTORIA UNIVERSITY.**—The degrees of M.B. and Ch.B. were conferred by the Vice-Chancellor of the Victoria University at Owens College on July 30th:—

*First Class Honours:* J. H. Crocker, Owens. *Second Class Honours:* C. R. Marshall, Owens. *Pass, First Class:* J. C. Buckley and F. J. H. Coultis, Owens; W. E. Davies, University; A. Greenhalgh, Owens; W. M'Lolland and J. B. Mawdsley, University; Alfred Murgatroyd, Owens; A. J. Partridge, University; O. H. G. Ramsbottom, Gruner Stowell, W. H. Waddington, and W. A. Williamson, Owens.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.**—At the July sittings of the above Conjoint Board the following candidates passed the Final Examination:—

Janet M. C. Gray, London; John C. Edwards, Oswestry; Joseph M. Roche, Liverpool; Hugh N. A. Taylor, B.A., Cambridge; Daniel MacCarthy, Cork; Robert A. Potterton, Dublin; Jas. G. Willis, Portarlinton; William P. Willis, Shettleston; Geo. Ellis, Ossett; John James Brennan, Kilkenny; William R. Thrower, London; Henry C. Darby, Stourbridge; James P. T. Burke, Thurles; Cuthbert Rutherford, Glasgow; Alexander Wheeler, Edinburgh; Henry J. Cosgrove, Dumfries; Samuel E. Jones, Mold; Thomas Young, Irvine; Thomas W. Bartlett, London. *Division I.*—W. C. Alexander, C. R. Huxley, *Division II.*—W. Owen, R. T. Clark, W. W. Forrester, W. C. Alexander. *Division III.*—L. Burges, Wm. Owen, C. R. Huxley, A. A. D. Parke.

**UNIVERSITY OF GLASGOW.**—The following gentlemen received the degree of M.D. on July 28th:—

\*Hugh Highet, M.B., C.M.; \*Alexander Glen Park, M.B., C.M.; James Duncan, M.B., C.M.; Peter Fraser, M.B.; Robert Alex. Morton, B.Sc., M.B., C.M.; James Muir, M.B., C.M.; J. F. Muir, M.B., C.M.; John Stewart McConville, M.A., M.B., C.M.; Alex. Shanks, M.B., C.M.; John Pollock Simpson, M.B., C.M.; John Somerville, M.B., C.M.; William Callender Taylor, M.B., C.M.; Andrew Stewart Findlay, M.B., C.M.

\* Received commendation.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.**—The following have passed the Third Professional Examination:—

G. H. Ayres, Jeremiah Behane, A. C. Callaghan, Henry Carre, W. J. Coneys, L. F. Corbet, J. J. Dolan, C. P. Haman, R. J. Harvey, E. L. Hunt, H. Hunt, P. K. Joyce, H. H. Moffat, C. E. Murphy, H. McDermott, J. G. Lanahan, M. J. O'Brien, W. F. Pigott, T. A. Poitrot, J. H. Power, W. F. Roe, C. R. Rothwell, R. Somerville, H. Sweeney, W. Taylor, Elizabeth A. Tennant, and H. G. Thompson.

**NEW CONVALESCENT HOME.**—Mr. Passmore

Edwards having given a convalescent home to his native county, Cornwall, it was formally opened by Mrs. Edwards on the 1st inst. It is located at Perranporth, about nine miles from Truro, on the north coast and near to Blackwater. The home contains twenty beds for patients. Besides building and furnishing it Mr. Edwards has given £3000 towards its endowment. Mr. Edwards was present, and formally handed it over to the Governor of the Royal Cornwall Infirmary, Truro.

**DEATH UNDER CHLOROFORM.**—An inquest was

held at Uxbridge-road, on the 2nd inst., on the circumstances attending the death of Mr. J. M. M. Bishop, which took place in St. Bartholomew's Hospital whilst undergoing an operation for the removal of a deep-seated abscess of the liver. The deceased was put under the influence of chloroform previously to the surgical procedures, and all went well until the operation had been almost completed, when the respiration suddenly ceased and all the means adopted to restore animation were found unavailing. The jury returned a verdict of "Death by misadventure."

**THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.**—At a meeting of medical men

residing in the north of London, held at Tottenham on Thursday, June 30th, it was resolved to establish a division of this Society for the north of London. The following officers and council were elected subject to confirmation by the Central Council:—Divisional President: E. Hooper May, M.D., F.R.C.S. Vice-Presidents: D. Fairweather, M.R.C.S.; Frank Godfrey, L.R.C.P., L.R.C.S.; Frank Greaves, M.R.C.S., L.S.A.; G. Greenwood, L.R.C.P., M.R.C.S.; George Henty, M.D.; Charles P. Langford, M.R.C.S., L.S.A.; T. Boswall Watson, M.D.; W. T. Watson, M.D., M.R.C.S. Council: W. B. Benjafield, M.B., C.M.; J. B. Cook, M.R.C.S., L.R.C.P.; James Dawson, M.D., L.R.C.S.; W. Donston, L.D.S., R.C.S.I.; L. Grant, M.D.; Arthur Greenwood, L.R.C.P., M.R.C.S.; James Heath, M.D.; G. T. Penny, M.A., M.D., M.R.C.S.; J. J. Pitcairn, L.R.C.P., M.R.C.S.; G. H. Vos, M.B., M.R.C.S.; A. O. Ward, M.D., M.R.C.S.; E. Wood, L.R.C.P., M.R.C.S. Hon. Secretary: Lloyd G. Smith, M.D., C.M. It was resolved that three ordinary meetings of the Divisional Council should be held each year in the months of January, May and October, and that the annual meeting of the members of the division should be held in June of each year. Instructions were given for the issuing of circulars to all medical men residing in the district, inviting them to join the Society. The secretary was directed to lay the names of all applicants for membership before the Divisional Council previously to their being submitted to the Central Council for election, in order to assure the eligibility of the candidates.

**DR. R. J. WHITE (Brentwood)** has received notice that the Local Government Board have awarded him the Government grant for public vaccination for the third time.

**HOSPITAL FOR THE LUDDENDENFOOT DISTRICT.**—The local boards of Midgley, Luddendenfoot and Warley have agreed to jointly establish a hospital for infectious diseases. Each authority is to contribute to the cost and expenses of the hospital on the basis of the population.

**OPEN SPACES.**—The Trustees of the London Parochial Charities, at their last meeting, resolved to grant £2000 towards the fund for the acquisition of Hackney Marshes, and £1000 to the fund for the acquisition of the Paddington Recreation Ground.

**DR. THOMAS N. BRUSHFIELD** has been elected President of the Devonshire Association for the Advancement of Science, Literature and Art at the annual gathering to take place next year at Torquay. Sir S. Bowring, S. A. Froude, and the Rev. C. Kingsley are in the list of past presidents.

**ST. BARTHOLOMEW'S HOSPITAL.**—On July 28th, at a meeting of the governors of the hospital, at which Mr. Wire presided, the Lord Mayor proposed and Sir William Savory seconded the nomination of Sir Trevor Lawrence as treasurer of the hospital, in the room of Sir Sydney Waterlow, who has retired. There being no opposition, Sir Trevor Lawrence was elected.

**BASINGSTOKE COTTAGE HOSPITAL.**—The thirteenth annual meeting of subscribers to this institution was held in the Town Hall, Basingstoke, the Rev. A. G. Barker, president, being in the chair. The report stated that during the year seventy patients had been treated at the hospital, forty of whom were discharged cured and seventeen more or less improved. The balance-sheet, which was also submitted, showed the income to amount to £441 16s.

**THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN.**—On July 30th the Lady Mayoress handed over to Mr. Edwin Lawrence, the chairman, and Mr. R. G. Kestin the secretary, of the Royal Hospital for Children and Women, Waterloo-bridge-road, a cheque for £1028 9s. 9d., being the net profits from the rose show recently held at the Mansion House in aid of that institution. The committee have presented the Lady Mayoress with an illuminated address of thanks inclosed in a handsome album, and have elected her an honorary life governor of the hospital.

**PRESENTATION.**—A testimonial consisting of a claret jug and spirit stand has been presented to Dr. Robert Jones, medical superintendent of Earlswood Asylum, by the officers and staff "as a token of their admiration of his brave act in saving the life of a little child at the risk of his own." Dr. Jones sucked the tube in a case of tracheotomy for diphtheria in the child of an asylum employé, when an obstruction threatened the death of the patient. This heroic act was happily accomplished without contracting the disease.

**FOOD ADULTERATION IN SHEFFIELD.**—The health department of this borough is taking active steps for the protection of the public against adulteration of food, especially in respect to milk. Last week four milk-sellers were fined, in sums varying from £6 and £1 each and costs, for selling impoverished milk. A farmer was amerced in a penalty of 10s. and costs for want of cleanliness in the cow-shed in which his milk vessels were kept. In two cases for selling butter which contained a large percentage of margarine fines of £1 each and costs were inflicted.

**PUBLIC HOSPITAL AND DISPENSARY, SHEFFIELD.**—The work of this institution during the past year shows a satisfactory increase. The in-patients treated were 51 in excess of the previous twelve months. The expenditure had exceeded the ordinary income by £1058. The capital account had by legacies been increased by £3048 14s. 5d. After deducting the aforesaid deficiency the net increase was reduced to £1990 13s. 7d. The anticipated commencement of the new hospital had been delayed entirely from a desire to comply with the express wish of the corporation; but the difficulties had now been overcome and steps would shortly be taken for building the first block.

**SANITARY INSTITUTE, LONDON.**—The Duchess of Albany distributed, at the Parkes Museum, on Wednesday, the certificates to the ladies who had passed the examination following the lectures delivered at this institute on domestic hygiene. Sir Douglas Galton, the chairman, presented the report of the examiners, which spoke satisfactorily of the work accomplished.

**ANCOATS HOSPITAL, MANCHESTER.**—The annual report for the past year records a steady and increasing interest in the institution on the part of friends and subscribers. The number of beds available have been increased by the opening of No. 5 Ward, which leaves one ward only (the Memorial Ward) empty. This too could be filled, thus utilising the whole of the ward space in the Albert Victor wing, but the state of the funds forbid the committee incurring further expenditure. The small convalescent home at Wilmslow has been a boon to over 100 women patients. The financial statement shows a balance due to the bankers of £690. But the treasurer has received since the accounts were made up, a check for £1000 in memory of the late Mr. Oliver Heywood, and also a check for £1000 from Mr. Jardine.

**PROPOSED NEW INFIRMARY, ISLINGTON.**—On the 28th ult., at a meeting of the Islington guardians, the proposal to acquire a site for a new infirmary for the parish in Tollington-park came up for discussion. The chairman (Mr. J. S. Furlong) said a new infirmary was urgently needed, and the proposed site was a good one. It was objected to on the ground that the property in the neighbourhood would be depreciated, and he explained his reasons for deeming the objection a mistake, adding that in other parts of London such buildings did not damage the neighbourhood. Some discussion ensued, which resulted in a postponement of the further consideration of the question until the committee appointed by the opponents of the scheme could see the plans and lay their views before the board.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

**BISHOP, HENRY DRAPER, L.R.C.P. Lond., M.R.C.S.,** has been appointed House Surgeon at the London Hospital, Whitechapel.

**BOYD, JAS. D., M.B., C.M., L.F.P.S. Glasg., L.R.C.P. Edin.,** has been appointed Public Vaccinator, Bendigo, Victoria, Australia.

**BRYAN, FREDERICK, M.B., M.R.C.S., L.S.A.,** has been appointed Senior Assistant Medical Officer to the London County Asylum, Colney Hatch, vice W. H. George, deceased.

**BURLAND, H., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Officer for the Finedon Sanitary District of the Wellingborough Union.

**CHARLES, W. H., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Officer to several Collieries in the Swansea Valley.

**DOLAMORE, W. H.,** has been appointed Assistant Dental Surgeon to the Dental Hospital of London.

**DOWLING, N., L.R.C.P. Lond., M.R.C.S.,** has been appointed Health Officer for the Borough of Portland, Victoria, Australia.

**FLINN, J. J., L.R.C.P. Edin., M.R.C.S.,** has been appointed Medical Officer for the Belmont-road Workhouse of the West Derby Union.

**GRATTE, C. B., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Officer for the Marshfield Sanitary District of the Newport (Mon.) Union.

**GURNEY, HAROLD, L.R.C.P., L.R.C.S. Edin.,** has been appointed Medical Officer of Health to the Borough and Port of Harwich, vice W. W. Hardwicke, resigned.

**HEARNDEN, W. C., M.R.C.S.,** has been reappointed Medical Officer for the Headley Sanitary District of the Epsom Union.

**HECTOR, E. B., M.B., C.M. Edin.,** has been appointed Medical and Vaccination Officer for Drighlington, Tong, and East Bierley.

**HILL, T. E., M.B., C.M. Edin., B.Sc.,** has been appointed Medical Officer of Health for the County of Durham.

**HIRST, S. C., M.D. St. And., M.R.C.S.,** has been reappointed Medical and Vaccination Officer for Thornbury and Tyrosal.

**HOWES, H. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg.,** has been appointed Medical Officer for the Hemingby Sanitary District of the Horncastle Union.

**JESSOP, J. W., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Officer for the Horncastle Sanitary District and the Workhouse of the Horncastle Union.

JONES, R. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Penrhyn Sanitary District of the Falmouth Union.

KENNY, G. G., M.B., C.M. Glasg., has been reappointed Medical Officer to the Walkato Hospital, Australasia.

LA TOUCHE, E. D., L.R.C.S. Irel., has been appointed Public Vaccinator at Wood's Point, Victoria, Australia.

MALCOMSON, J. A., M.D., M.Ch. Irel., has been appointed Medical Officer for the Middlesbrough Sanitary District of the Middlesbrough Union.

MCFARLANE, A., L.R.C.P. Lond., L.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Aylesbury Union.

MORTON, WM. BRITAIN, M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer at Wonford House Asylum, Exeter.

OSMOND, E. B., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Pontefract Sanitary District and the Workhouse of the Pontefract Union.

PERKINS, H. A., M.D. Edin., M.R.C.S., has been appointed Honorary Medical Officer to the Totnes Cottage Hospital.

PHILLIPS, D. W., M.R.C.S., has been appointed Medical Officer for the Second Sanitary District of the Winslow Union.

POGSON, W., F.R.C.S. Eng., has been reappointed Medical Officer of Health to the Leeds Rural Sanitary Authority.

SMITH, K. R., M.D. Lond., B.Sc., M.R.C.S., has been appointed Honorary Medical Officer to the Totnes Cottage Hospital.

SUGDEN, H. C., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Senior House Surgeon to the Bury Dispensary Hospital, Bury.

VICKERS, C. W., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Paignton Sanitary District of the Totnes Union.

WICKHAM, O. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Parish of St. Mary, Islington.

WILLIAMS, E. R., M.R.C.S., L.E.C.P. Lond., has been appointed Surgeon to H.M. Prison, Carmarthen, vice W. L. Hughes, resigned.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM CITY ASYLUM.—Clinical Assistant. Board, lodging and washing provided.

BURY DISPENSARY HOSPITAL, Bury, Lancashire.—Junior House Surgeon. Salary £60 per annum, with board, residence and attendance.

COUNTY ASYLUM, Shrewsbury.—Junior Assistant Medical Officer. Salary £100 per annum and £8 in lieu of beer, with board, lodging and washing.

KENT AND CANTERBURY HOSPITAL.—House Surgeon. Salary £90 the first year, with board &c., rising to £100 the second year.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House Surgeon for six months. Board and lodging provided.

LONDON COUNTY COUNCIL.—Assistant Medical Officer of Health. Salary £600 a year, rising by annual increments of £50 until it reaches £600 a year. (Apply to the Clerk of the Council, Spring-gardens, S.W.)

MANCHESTER ROYAL EYE HOSPITAL.—House Surgeon. Salary £70 per annum, with residence, board and washing.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT.—Honorary Assistant Medical Officer.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer, for one year. Salary £150 per annum, with board and residence.

MESSRS. MUNK & ADIE, Solicitors, 27, Clement's-lane, E.C.—Medical Man to act as Director on the Board of a small Provident Company.

MOULSFORD ASYLUM, near Wallingford, Berks.—First Assistant Medical Officer. Salary £130, rising by £10 per annum to £150, with rooms in Asylum, and board.

ROYAL UNITED HOSPITAL, Bath.—Honorary Physician.

STOURPORT MEDICAL AID ASSOCIATION.—A qualified Assistant. Salary £120 per annum (out-door). (Apply to Mr. Bourne, Station House, Stourport.)

STURMINSTER UNION.—Medical Officer and Public Vaccinator for the Hinton District. Salary £40 per annum, with fees for Vaccination; the ordinary Midwifery cases, attended under orders, 10s., and extra medical fees for treatment of fractures &c. (Apply to the Clerk, Poor-law Offices, Sturminster Newton.)

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds. House Surgeon. Salary £100, with board, lodging and washing.

THORNBURY UNION.—Medical Officer for the Almondsbury District. Salary £70 per annum, with extra fees for midwifery cases, and for the operations and services specified in the Orders of the Local Government Board, and also at per case for public vaccination, under contract. (Address to the Clerk to the Guardians, Thornbury.)

YORK RETREAT.—Senior Assistant Medical Officer. Salary £150 per annum, with board and lodging.

## Births, Marriages, and Deaths.

### BIRTHS.

BEACH.—On July 30th, at Darenth Asylum, Dartford, the wife of Fletcher Beach, M.B., F.R.C.P., of a son.

COPNER.—On July 21st, at Capstone Lodge, Ilfracombe, the wife of Arthur L. Copner, M.R.C.S., of a son.

DAVENPORT.—On June 5th, at Chung-King, W. China, the wife of C. J. Davenport, F.R.C.S., prematurely, of a son, stillborn.

HORDER.—On or about July 28th, at Pak-how, S. China, the wife of Dr. E. G. Horder, C.M.S., of a son.

ORMEROD.—On July 26th, at Greenhill, Bishop's Waltham, the wife of Joseph Arderne Ormerod, M.D. Oxon., F.R.C.P. Lond., of a son.

ROCKLIFFE.—On Aug. 2nd, at 9, Charlotte-street, Hull, the wife of William Craven Rockliffe, M.A., M.D., of a daughter.

STONE.—On July 25th, at Sandfield, Belgate, the wife of Dr. Stone, of a daughter.

VACHER.—On July 28th, at Glamford, Birkenhead, the wife of Francis Vacher, late Medical Officer of Health, Birkenhead, of a son.

WESTON.—On July 31st, at Groveley House, Handsworth, the wife of S. T. Darby Weston, of a son.

WOMACK.—On July 30th, at Dennington-park-road, West Hampstead, the wife of Fredk. Womack, M.B., of a son.

### MARRIAGES.

BATTERHAM—CAMPBELL.—On July 23th, at All Souls', Clive Vale, Hastings, John Williams Batterham, M.B., F.R.C.S., to Mabel Caroline, only daughter of the late Bruce Campbell, Esq., of the Inner Temple, Barrister-at-law.

BIDEN—GRUMMANT.—On July 30th, at St. Saviour's, Denmark-park, S.E., George Henry Biden, L.R.C.P. Lond., of Plas-y-n-dre, Newtown, Monk., to Kate Sarah, youngest daughter of John Grummant, of Bavens, Champion-hill, S.E.

BOOTH—SHAW.—On July 28th, at the Parish Church of St. John's, Pinner, Middlesex, by the Rev. Marcus Rainsford, James Mackenzie Booth, M.A., M.D., C.M. Aberd., to Margaret Mackenzie, daughter of the late James Shaw, Esq.

MACKEITH—GADD.—On July 23th, at St. David's Church, Exeter, Alexander Arthur Mackelith, M.B., C.M., of St. Thomas, Exeter, to Alice, eldest daughter of Henry Gadd, J.P., St. David's-hill, Exeter.

MUSPRATT—KNOX.—On Aug. 3rd, at the Church of the Ascension, Balham-hill, Charles Drummond Muspratt, M.D., F.R.C.S., of Bournemouth, to Mabel, daughter of Ralph Henry Knox, C.B., of Trouville-road, Clapham-park.

MOXEY—TYSON.—On Aug. 2nd, at Vienna, near Washington, U.S.A., David Anderson Moxey, M.D., M.E.C.P. Lond., to Anna M. Tyson.

ROBERTS—PARKER.—On July 20th, at Enderby Parish Church, Dr. Hugh Leslie Roberts, of Rodney-street, Liverpool, to Kate A. C. Parker, daughter of the late S. Parker, Esq., Royal Engineer Department of Mandeville, Gosport.

THOMAS—SPENCE.—On July 27th, at Huntly, N.B., by the Rev. Dr. Semple, W. Thelwall Thomas, F.R.C.S., of 75, Rodney-street, Liverpool, to Anabel Roxburgh, youngest daughter of A. Spence, Esq., Huntly.

WAKELAM—LUPTON.—On Wednesday, Aug. 3rd, at St. Peter's Church, Ashton-under-Lyne, by the Rev. J. Gouldie French, M.A., assisted by the Rev. J. M. Muzzell, B.A., Edgar Wakelam, L.R.C.P. &c., Waterhead, Oldham, late of Willenhall, Wolverhampton, to Emma, youngest daughter of James O. Lupton, Esq., of Richmond House, Ashton-under-Lyne.

### DEATHS.

BARRETT.—On Aug. 1st, at Merchiston-place, Edinburgh, William Barrett, M.B., Surgeon-Major, late 71st Regiment, aged 70.

BELL.—On July 28th, suddenly, at Preston, William Howard Bell, M.R.C.S., Surgeon-Captain in the Army Medical Staff, aged 31.

BELLEW.—On July 20th, at his residence, Farnham Royal, Bucks, Henry Walter Bell, Surgeon-General, C.S.I., C.I.E., aged 57.

BENNETT.—On July 20th, at Longford, Surgeon-Captain William Halloran Bennett, M.B., Army Medical Staff, second son of the late Major-General R. Bennett.

CUMMING.—On July 27th, at Benmore Lodge, Mull, William Fullarton Cumming, M.D. (Logie, Morayshire), of Kinellan, Murrayfield, Edinburgh, aged 87.

FORBES-WATSON.—On July 29th, at Belvedere-road, Upper Norwood, John Forbes-Watson, M.A., M.D., LL.D., late Reporter on the Products of India to the Secretary of State for India and Director of the India Museum, aged 65.

LANE.—On Aug. 2nd, at St. Mary's, Madoley-road, Ealing, Samuel Armstrong Lano, F.R.C.S., in his 91st year.

SOUTER.—On July 28th, at Cumberland-terrace, Finsbury-park, N., Mansfield Collier Souter, M.R.C.S., A.K.C. Lond., aged 48.

VASEY.—On July 31st, at Cambridge-gardens, North Kensington, Chas. Vasey, L.F.P.S., L.D.S. R.C.S. Eng., Consulting Dental Surgeon of St. George's Hospital, in his 70th year.

### IN MEMORIAM.

In loving memory of Edmund Overman Day, M.R.C.S., L.S.A., who was suddenly called to his rest on the 4th August, 1891, interred at Flamstead, Herts, on Aug. 10th, 1891, and reinterred at Norwood Cemetery on the 6th July, 1892.

N.B.—A fee of 6s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Leotures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### THE STUDENTS' NUMBER.

WE beg to call the attention of the Deans of Medical Schools and the Secretaries of Hospitals to the announcement that the Students' Number of THE LANCET for the session 1892-93 will be published on Saturday, Sept. 3rd. We also invite from them and from the members of the profession information regarding hospitals, institutions for medical education &c.—such particulars as are of importance to students generally, both in connexion with the general medical qualifications, the dental qualifications, and the qualifications in public health. This should be sent to the Sub-editor, THE LANCET Office, Strand, not later than the 25th inst.

### THE FRENCH HOSPITALS AND THE TAX ON BETTING.

THE only form of betting sanctioned on French racecourses is that of the *pari-mutuel*. This form of betting is organised by agencies duly recognised by the police. The speculator purchases a ticket indicating the horse he has backed. If the horse wins, the money placed on other horses is given over to the winner, with a deduction, however, of 7 per cent. Two per cent. is kept by the agent as his commission for organising the *pari-mutuel* and the remaining 5 per cent. is handed over to the Assistance Publique—that is to say, the Government administration for the relief of the poor. By this means, out of the pleasures (perhaps we should add the follies) of the public, a considerable sum has been obtained for the promotion of useful or charitable works. Recently a sum of £39,160 has been distributed, which was thus derived from the *pari-mutuel*. It may be of interest to mention what institutions profited from this tax on betting. This is the list:—For the Released Prisoners' Help Society and the creation of an asylum, 24,000 fr.; for a *crèche* in the Rue de l'Ouest, 4000 fr.; for the assistance of the poor and the creation of a workshop for the unemployed of the Batignolles district, 15,000 fr.; for female prisoners and children morally abandoned, 40,000 fr.; for a workshop to train apprentices at Tracy (Oise), 10,000 fr.; to help workmen and create a workshop in the Sixth District of Paris, 10,000 fr.; to the free fund for the purchase of workmen's tools, 3000 fr.; to the building of a new pavilion for the Maternity of Rueil, 50,000 fr.; and to the Society for the Assistance of the Blind, 400,000 fr. The above are, it will be seen, Parisian institutions. The blind come in for the largest share (£10,000), and a lying-in hospital gets £2000. A much larger share of the money given in the provinces goes to purely medical institutions. For the hospitals of Montbelliard and La Force (Dordogne), 50,000 fr.; for the new hospital at Bagnières de Luchon in the Garonne, 100,000 fr.; for the Hospital of Pour-le-Pin in Isère, 40,000 fr.; for the Rouen Asylum, 12,000 fr.; for the d'Aumale Asylum in the Seine Inférieure, 15,000 fr.; for the Labour Assistance Society of Lyons, 50,000 fr.; for the Nérat Asylum in the Lot et Garonne, 6000 fr.; for the poor of the town

of Chaulonay, 15,000 fr.; and for the Maritime Hospital of Pen Bron, Loire Inférieure, 40,000 fr. These gifts, with one or two other items, make a total of 978,500 fr., or nearly £40,000. But there is still more money in hand. There is the question of creating on the shores of the Mediterranean a hospital where the scrofulous children from Paris may enjoy seaside treatment during the winter months. The decision as to what should be given for this purpose has been postponed. Considering the mischief that results from excessive betting on English racecourses many persons will be tempted to inquire whether, as we have frequently suggested, some means could not be devised by which this evil could be turned to the advantage of hospitals and similar institutions.

C. W.—Our correspondent's question is not a medical one and we are unable to reply to it. He had better inquire of the clerk to the authority.

### SMALL-POX AND CHICKEN-POX.

*To the Editors of THE LANCET.*

SIRS,—The cases of small-pox at Saffron Walden bring to my recollection a somewhat similar occurrence when I was practising many years ago in the country. I was sent for late one evening to see the son (aged seventeen) of a farmer, about four miles from my residence. I found him suffering from a well-marked eruption of what I considered to be "chicken-pox." Just as I was leaving the house I accidentally discovered that he had returned from London that day, where he had been a clerk in a large establishment for about three weeks. As small-pox was then very prevalent in London I immediately corrected my diagnosis and on inquiry as to vaccination I found that none of the children—five in number—had ever been vaccinated, as the father had a rooted objection to vaccination. Fortunately I had two tubes of vaccine in my pocket-case and I quickly vaccinated every person in the house. (It may be worth mentioning that to eke out the vaccine I mixed it with a little glycerine.) The wrath of the father on his return home was great, and I was duly threatened with all sorts of legal horrors. The poor boy had a severe attack of confluent small-pox and succumbed on the eighth day. A small panic took place in the village, the house being situated in the very middle of the one street, and it was difficult to get proper help, but I proposed to revaccinate the six bearers engaged to carry the coffin to the church, about a hundred yards from the house. All but one consented and, singular to state, this man contracted the disease in a mild form. The rush of villagers after this to be revaccinated was startling and reminded me of my grandfather's days, when the votaries of venesection waited in a row outside the surgery door for their annual "blood-letting," a custom, by the bye, sadly abused, but one that in some cases might well be employed even in the present day. Exactly a fortnight after the burial of the boy, the father, who had attended the market at the neighbouring town on the previous day, and was noticed then to be in a "queer state," was seized with the complaint in its most malignant form and died from variola hæmorrhagica after forty-eight hours' illness in a comatose state. He was a man of enormous size, weighing over eighteen stone, a free liver and a spirit drinker, and I had literally to roll him from the bed into the coffin, no one save the nurse (who was pitted with small-pox) daring to touch him. It was not a pleasant office. No other case of small-pox occurred. All this happened before the laws of sanitation existed, but I have thought it worth recording.

I am, Sirs, yours faithfully,

London, July 23rd, 1892.

B.

### "BIRTH OF A CHILD WEIGHING FOURTEEN POUNDS."

*To the Editors of THE LANCET.*

SIRS,—A similar case to the one recorded in last week's issue of THE LANCET under the above heading has recently occurred in my own practice. The patient was well known to me and nothing unusual was noticed during pregnancy. She was confined within a few days of the expected date (June 10th), the labour being perfectly normal in every respect. The child (a girl) appeared of excessive size and weight. I did not take any measurements. The weight reached thirteen pounds and a half. The mother and child have progressed excellently. I may add that previous children have been unusually large. Another case, occurring on June 24th, is worthy of remark. The child three days after birth weighed twelve pounds—normal labour and recovery.

I am, Sirs, yours faithfully,

Bexhill-on-Sea, Sussex, July, 1892.

RICHARD WATTS WHITE.

### MICROSCOPY: SARCINÆ.

*To the Editors of THE LANCET.*

SIRS,—Would some microscopist give me a few directions how to mount "sarcina" as a permanent preparation for the microscope. I have tried mounting them in Canada balsam, but they shrivel up; then a coll was made with dammar varnish and filled with Boate's syrup and glycerine, the sarcina mixed and, when the cover-glass was put on, edged round with Holler's glue. Here, again, their contour was broken up. Finding all my efforts fruitless, some were tried in an ordinary glass cell, but again they were all spoiled. It is stated that they can be stained with fuchsin, but I cannot succeed with the red. They would be very beautiful if stained. Any suggestion will be a great favour.

I am, Sirs, yours faithfully,

July, 1892.

A NOVICE.

## QUARANTINE A CENTURY AGO.

AMONG the terrors of the deep enumerated by Horace in his famous address to the ship which conveyed his friend Virgil to Athens quarantine has no place any more than sea-sickness. We know that the latter was familiar to seafaring antiquity, while the former existed, if at all, only in an occasional and arbitrary guise and was enforced against other visitations than those of disease. But practised as it was down to the most recent date, not only on ships of great tonnage, but on the small coasting craft peculiar to Mediterranean waters, it was found to be vexatious in the last degree. A light fishing smack, for instance, the *San Nicolò*, hailing from Hydra, one of the Cyclades, Zuanne Mechze, master, on its way from Naples to the Romanian coast, underwent in 1793 a quarantine of four months and ten days' duration off the island of Poveglia in the Adriatic. During that time ten of its crew died of *pestis bubonica*, but its cargo, consisting of nine thousand cheeses, was unloaded immediately and conveyed to the neighbouring Venice without the diffusion in the city of contagion of any kind. The date, 1793, is noteworthy; for not long after, and certainly during the nineteenth century up to its last decade, quarantine was enforced on cargo as well as on crew, to the very serious prejudice of commercial interests. In fact, in the decennium 1876-85 Italian trade was paralysed, and that country is now congratulating herself on the "Ordinanza," whereby, even in presence of cholera, the restrictions on the unloading of cargo are minimised—reduced, in fact, to little more than a medical inspection, followed, if need be, by disinfection. For this happy change the *Opinione* thanks the Sanitary Congress lately held at Venice.

## "FRIENDLY MEDICAL AID SOCIETIES."

To the Editors of THE LANCET.

SIRS,—Allow me to contribute a page from the life history of a very dear friend of mine, who, like some of your correspondents, held a somewhat erroneous view as to the incompatibility of holding an appointment under a friendly society and a due regard for the "dignity of the profession." In July, 1852, he passed his finals and left his *alma mater*, having graduated with honours. With a view to getting a good insight into general practice, he engaged as an in-door assistant at £70 a year to one of the largest firms of general practitioners in —shire. In a few months he was put in charge of a branch practice at a distance of nine miles from town. In two years' time he had worked it up from £150 a year to £350, when it was sold from under him and he was politely discharged. At this time he had some thoughts of applying for an appointment under a friendly society in the adjacent town of —, but was persuaded that such an engagement would be *infra dig.* In 1855 he obtained an out-door assistantship in the south of England at £140 and an unfurnished house. He married and spent his little savings in furnishing the house, only to hear in six months' time that he must make way for the nephew of his principal, who had recently qualified as L.S.A. Selling up his furniture at a loss of £40, he incurred a further expense of £20 in obtaining and removing to a new situation in —, at the magnificent salary of £100 out-doors, plus half midwifery fees. Refurnishing his little cottage with what remained of his slender capital he enjoyed eighteen months' peace and hard work, only to be then told that his principal was about to retire and to sell his practice. Again breaking up his little home, he, with wife and child, had to seek another situation, and eventually found himself the accepted out of fifty-seven candidates for the position of manager of an East-end practice at the salary of £100 a year, out-doors, plus 5 per cent. on all takings. He recently died of acute rheumatism, brought about by exposure to severe weather in the fulfilment of his duty. Who dares to say that the subject of this brief sketch—alas, typical of hundreds of others—would not have acted more wisely in accepting the fair salary offered by the "Friendly Society" than by slaving himself to death in order to enrich the various "principals" whom he served. Sirs, I affirm that so long as qualified assistants are only offered the equivalent wage of a coachman, a third-rate French cook, or a gouty butler, they are perfectly justified in accepting appointments that will at all events ensure them bread and cheese. A young practitioner who has spent his all in obtaining his degrees or diplomas has to choose between perpetual slavery as an assistant (getting possibly 4 or 4½ per cent. on the proceeds of his work) or the tolerably good wage and free hand of a "club doctor."

I am, Sirs, yours obediently,

Aug. 2nd, 1892.

COMMON SENSE.

## MUSHROOM "POISONING."

To the Editors of THE LANCET.

SIRS,—Never does a mushroom season come round but one meets with cases of so-called poisoning. The best treatment seems to consist in the exhibition of copious draughts of warm water, which provoke easy vomiting; and, then, what does one see? Almost invariably that true mushrooms have been swallowed in chunks unbiten. These large flabby masses cannot be coaxed through the pylorus so must return through the œsophagus. And this is a case of "poisoning"! Let those of us who delight in the delicious ocellated fungus attend to the detail of well biting before swallowing and we run small risk of being poisoned by mushrooms.—I am, Sirs, your obedient servant,  
McKisham, Wilts, July 23rd, 1892.

S. GROSE.

## BOYS WITH FIREARMS.

It is sincerely to be hoped that the magistrates will deal seriously with boys in the possession of firearms. For that matter the possession of firearms by irresponsible adults of all kinds has long become a question of great importance, but in the case of boys the offence is without excuse.

*Mr. C. B. Statham* (Battersea-park).—The best way would be for our correspondent to apply to the Military Secretary, India Office, for the information. We have occasionally published samples of the questions put at the examination.

## MEDICAL ETHICS.

To the Editors of THE LANCET.

SIRS,—Hitherto the medical "gentlemen" practising their profession in the town in which I reside have always borne a high character for their gentlemanly conduct towards their professional brethren; but I am sorry to say it appears that we are now on the eve of losing our previous unblemished reputation, as the following will show. I have been for a long time medical officer to one of the largest railway clubs in — and have always tried to do my duty to its members when requiring my assistance. Of course, in club practice (as in private) it is not always possible to please every member, and sometimes it is not always policy for every member to consult their club doctor. But when that is the case, and when another practitioner is consulted, surely it is most unprofessional on his part to say, "If any of your members have a wish to change their doctor I will be glad to take his place." "Several members of your club appear anxious to have a change, as they are not satisfied with Dr. —," and so on. Conduct of that kind is reprehensible, and I hope you will mark your sense of its injustice in the usual manner.

I am, Sirs, yours truly,

Aug. 2nd, 1892.

M. D. &c.

ERRATUM.—In the letter which we published under the heading of "Cures" for Inebriety the word "vindicate" in the last line but five of Dr. Keeley's communication ought to be *indicate*.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Astley, Portobello; Dr. J. G. Adami, Cambridge; Mr. W. S. Andrew, Brixton Hill; Mr. Argo, Warrington; Mr. Anderson, London; Dr. G. Stewart Abram, Exeter; Mr. H. Andrews, Exeter; Mr. Armstrong, Walker-on-Tyne; Mr. Bonner, Suffolk; Mr. Behnke, London; Messrs. Bishop and Sons, London; Mr. Birchall, Liverpool; Messrs. A. P. Bush and Co., Boston; Dr. Brimacombe, Bristol; Mr. C. Beesley, Waltham Abbey; Dr. Bourke, London; Mr. Byrne, Wortham; Messrs. Burgoyne and Co., London; Mr. James Base, London; Dr. James Bays, South Hampstead; Mr. Alfred Browne, Osmotherly; Messrs. Challis and Co., Brighton; Mr. E. H. Collins, London; Mr. W. Watson Cheyne, London; Mr. Chibnall, London; Mr. Cotman, London; Mr. Thomas F. Chavasse, Birmingham; Mr. Bruce Clarke, London; Mr. Edward Cornish, Walthamstow; Mr. Carruthers, India; Mr. Cornish, Manchester; Mr. Davies, Birmingham; Mr. Eddington; Messrs. Eason and Sons, Dublin; Dr. Frank, Germany; Dr. Fitzpatrick, London; Professor Gafrdnor, Glasgow; Dr. S. Grose, Wilts; Mr. A. Gordon, Dublin; Mrs. Horn, Folkestone; Mr. Hutchinson, London; Dr. A. D. Hughes, Pembroke; Mr. Heywood, Manchester; Messrs. Hopkinson and Co., Nottingham; Messrs. Humphreys, London; Mr. Hunt, Manchester; Mr. F. G. Hallett, London; Mr. Jahucke, London; Dr. L. E. Keeley, London; Mr. Langley, Waterford; Dr. Lambert, British Columbia; Mr. W. Arbutnot Lane, London; Mr. Loveland, New York; Dr. Mackay, Devizes; Dr. W. V. McVey, Boston; Mr. Jabez Hogg, London; Mr. G. L. Morrigan, Weybridge; Messrs. Matthews Bros., London; Dr. B. G. Morison, London; Messrs. Mabbett and Edge, London; Mr. J. H. Morgan, London; Messrs. Mitchell and Co., London; Dr. T. G. H. Nicholson, Liverpool; Messrs. A. Newton and Co., London; Dr. Oswald, Thurloe; Messrs. Oppenheimer and Son, London; Mr. J. B. Pike, Loughborough; Mr. Platt, Hammer-smith; Dr. Rao, Southport; Mr. C. Robertson, Alcedale, Cape Colony; Dr. Ridge, Enfield; Mr. R. Reid, Balmeston; Dr. W. Russell, Edinburgh; Mr. T. R. Russell, Liverpool; Messrs. Reynolds and Branson, Leeds; Professor Stuart, Sydney; Messrs. H. Sarson and Sons, London; Mr. D. W. Samways, Southsea; Messrs. Street and Co., London; Dr. Snow, London; Dr. Sturges, London; Dr. Steele, London; Messrs. Sells, London; Mr. Saunders, Manchester; Mr. Statham, Battersea; Messrs. Usher, Bristol; Mr. J. H. Williamson, Manchester; Mr. Welch, Nantwich; Mr. Webb, Bury; Mr. Roger Williams, Preston; Dr. J. R. White, Brentwood; Messrs. Wright and Co., Bristol; Dr. Waring, Northwich; Mr. Wand, Leicester; Dr. Hugh Woods, London; Mr. Williams, Oswestry; Dr. Stanley Yeoman, Morpeth; A. A., London; Associated Press, London; Cantab; Cortland Wagon Co., London; Enquirer, Wilts; Isis, Cheltenham; International News Co., London; Kent and Canterbury Hospital; M.A., London; M.D., Dublin; Nurse, London; National Hospital for the Paralyzed, London; Surrey, London; Vera, London; Yorkshire College, Leeds.

LETTERS, each with enclosure, are also acknowledged from—Mr. Ager, Peterborough; Dr. Alderson, London; Mr. Adkins, Banbury; Miss Blott, London; Mr. Bigg, London; Dr. Bury, Wigan; Messrs. Beaman and Street, Ashton; Dr. Burgess, Cricklewood; Messrs. Blondeau and Co., London; Mr. Brickwell, Watford; Dr. Bobardt, Newbury; Mr. Booth, Pinner; Mr. Browne, Isle of Man; Mr. Bourne, Stourport; Mr. Cochrane, Greenock; Dr. Cressy, Mansfield; Dr. Crook, Margate; Mr. Clowes, Colchester; Mr. Copner, Ilfracombe; Mr. Dixey, Strathepeffer; Mrs. Danks, Wolverhampton; Messrs. Eckorsley and Co., Manchester; Miss Edwards, Worthing; Mr. Fitness, Harborne; Mr. Fox, Chesterfield; Mr. Fiske, London; Mr. Grant, Somerset; Dr. Gunnell, Wrexham; Mr. Harman, Taunton; Mr. Hamilton, Harthill; Mr. Hornbrook, London; Dr. Hare, Durham; Mr. Hicks, London; Dr. Holmes, Manchester; Mr. Hunt, Biggleswade; Mr. Halford, sen., London; Messrs. Hooper and Co., London; Mr. Jeffreys-Powell, Brecon; Dr. Korr, London; Mr. Kerr, York; Messrs. Lloyd and Co., Leicester; Mr. Merry, Hemel Hempstead; Mr. Mainwaring, London; Dr. Michael, London; Mr. McKelvie, Norwich; Miss Manley, Croydon; Mr. Price, Cardiff; Mr. Platt, London; Mr. Rains, Matlock; Mr. Rutter, Cape Town; Messrs. Richards and Co., London; Dr. Rockliffe, Hull; Dr. Slatyer, Devon; Messrs. Squire and Sons, London; Messrs. Stanley, Rotherham; Messrs. Slinger and Sons, York; Dr. Skardon, Evershot; Dr. Stacey, Leeds; Dr. Smith, Kettering; Mr. Shipley, London; Dr. Spowart, Chesterfield; Dr. Tonge, Kettering; Mr. Tyte, Minchinhampton; Mr. Thomas, Liverpool; Mr. Todd, Selby; Mr. Vacher, Birkenhead; Mr. Van Praagh, London; Miss Vicary, Somerset; Mr. Wood, Hull; Messrs. Walker and Co., Yorkshire; Mr. Wylie, Kingsbridge; Mr. Weston, Handsworth; Mr. Wills, Halton; A., Kirkburton; A. B. C., London; Alpha, London; Beta, London; Birmingham Daily Post; Country G.P., London; C. C., London; Chirurgus, London; Mrs. C., London; Class Rooms, Edinburgh; Dalhaby, Aberdeen; Driving, London; Duplex, London; Ellis, London; Erin, Bradford; Erin, London; F.R.C.S., Dublin; Gerald, Cheshire; Graduate, London; Great Eastern Railway, London; Hanover Institute for Nurses, London; Homo, London; Isis, London; L. M. E., London; Maltine Co., London; Modious, Crewe; Medicus, London; M.B., Leamington; Nemo, Birmingham; Nemo, London; Nucleus, London; O. R., London; Pharmacy, Derby; Querulus, London; R. N. U. P., London; R. T., Clapham; Radcliffe Infirmary; Royal Albert Hospital, Devonport; Ryde Nursing Institution; Student, Birmingham; Solicitor, London; Vaccine Lymph Association, London; Venator, London; Wrexham, London; X. Y., London; Zeno, London; Z. A. P., London.

NEWSPAPERS.—Birmingham Daily Post, Newcastle Daily Journal, Yorkshire Post, Civil and Military Gazette (Lahore), Leeds Mercury, Liverpool Daily Post, Kingston Express, Freeman's Journal, Glasgow Herald, Argus (Brighton), Birmingham Post, Manchester Courier, Leicester Mercury, Nottingham Guardian, Scottish Leader, Insurance Record, Hertfordshire Mercury, Reading Mercury, Weekly Free Press and Aberdeen Herald, Scotsman, Le Temps (Paris), West Middlesex Standard, Surrey Advertiser, Windsor and Eton Gazette, Local Government Chronicle, City Press, Mining Journal, Western Morning News, Dundee Advertiser, Builder, Vegetarian, West Middlesex Advertiser, Windsor and Eton Express, Record, Donegal Vindicator, Gortcott's Penny Mail (Cape Colony), Ovan Times, Donegal Independent, Chichester Observer, Australian Medical Journal (Melbourne), Brighton Guardian, Architect, Australian Medical Gazette (Sydney), Melbourne Age, Malvern Advertiser, Suffolk Chronicle, Hull News, The Welshman, The Child's Guardian, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, AUG. 4th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. Shado.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
July 29	30.20	E.	57	53	114	72	52	--	Bright
" 30	30.18	E.	57	54	114	75	54	--	Overcast
" 31	30.11	W.	68	59	109	77	56	--	Cloudy
Aug. 1	29.93	N.W.	65	61	101	71	60	.78	Cloudy
" 2	30.16	N.	57	58	100	65	63	.01	Bright
" 3	30.10	W.	60	50	110	72	56	--	Cloudy
" 4	30.07	N.W.	61	50	108	65	50	--	Cloudy

Medical Diary for the ensuing Week.

Monday, August 8.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
 Tuesday, August 9.  
 KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, August 10.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.  
 Friday, August 12.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 13.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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Quarter Page	..	..	..	1
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ABSTRACT OF A PAPER ON  
**EXCISION OF THE BREAST  
 FOR CANCER.**<sup>1</sup>

By **W. WATSON CHEYNE, M.B. ED., F.R.C.S. ENG.,**  
 PROFESSOR OF SURGERY AT KING'S COLLEGE; SURGEON TO  
 KING'S COLLEGE HOSPITAL, ETC.

[REFERENCE was in the first instance made by Mr. Cheyne to work done on this subject, especially from the pathological side, by various writers, notably by Dr. L. Heidenhain<sup>2</sup> in Germany and Mr. Harold Stiles<sup>3</sup> in Edinburgh, the methods advocated being based in the main on Mr. Stiles' work. A few remarks having been made on the question of the constitutional or local origin of cancer, Mr. Cheyne went on to discuss the exact nature and mode of spread of a cancer of the breast as follows:]

The view which I think is generally held is that the carcinoma begins as an overgrowth of epithelium in the acini or ducts of the breast, and that it spreads partly by epithelial projections from these acini or ducts pushing their way into the surrounding tissues and partly by fresh infection of neighbouring ducts or acini; and further, that the same overgrowth of gland epithelium which produced the original disease is liable to occur in other parts of the breast, giving rise to multiple breast tumours, and that it is to this fresh overgrowth that local recurrences are most commonly due where portions of breast tissue are left behind. The latter part of this view is, I believe, incorrect. No doubt the earliest commencement of a cancer must be in connexion with the gland epithelium, but I believe that once the disease has commenced the epithelial overgrowth soon pushes its way through the wall of the duct or acinus and passes then into the lymph channels and vessels surrounding it, and that having arrived there the subsequent growth of the tumour occurs entirely by multiplication of the original epithelial cells and their derivatives along these lymph channels. The cancerous tumour is, in fact, a growth in lymphatic canals, and the alveolar spaces are in the main dilated lymph vessels and spaces. Hence the cancer cells are in direct communication with the lymph stream from a very early period of the tumour formation, and are constantly liable to be carried away with the fluid lymph; and may either stick further on, giving rise to secondary nodules in the breast or surrounding fat and fascia, or may be carried to the nearest lymphatic glands, causing infection and tumour formation there. The neighbouring acini around a tumour do not form fresh growth; but, as can be frequently seen in microscopical specimens, they are simply pushed aside, undergo atrophy, and disappear. It can also be readily seen in recurrences in connexion with remnants of breast tissue left behind that although the glandular epithelium shows irritative changes, the cancerous growth has begun in the lymphatic vessels around; and Mr. Stiles has in a number of instances found plugs of cancer cells in lymphatic vessels in apparently healthy breast tissue far away from the primary tumour. Hence the main point to be considered in connexion with the spread of a cancerous growth in an organ is the disposition of the lymphatic vessels in that organ and the paths along which the lymph leaves it.

According to M. Sappey, the mamma is supplied with extremely numerous lymphatics. They commence in connexion with the acini in the form of a plexus around them; they then collect on the surface of the lobule, completely enveloping it in a close plexus, and the plexuses of neighbouring lobules communicate. From the lobules they run along the ducts, still in a plexiform arrangement around them, and so they pass from all parts of the breast towards the nipple. Under the areola the vessels, now of considerable size, form a plexus, called by M. Sappey the sub-areolar plexus, which is also joined by the vessels from the skin of the areola and its neighbourhood. From this sub-areolar plexus the lymph is carried towards the axillary lymphatic glands by larger

vessels, of which he describes four, two from the centre and one from the upper and lower part of this sub-areolar plexus respectively. According to M. Sappey, the whole of the mammary lymph follows the above-mentioned course, but subsequent observers have stated that there is also a plentiful return from the under surface of the gland through the pectoral fascia, and this corresponds with the pathological facts, which leave no doubt on that matter. It follows, however, from Sappey's investigations that at whatever part of the breast a cancerous tumour is formed, though some of the infective material will be carried directly in the pectoral fascia and fat to the axilla, part may also pass through the gland itself towards the nipple. Even where the tumour is at the extreme axillary end of the breast—under which circumstances some surgeons advise removal of the tumour alone, although there may be direct flow towards the axilla—there is also a flow backwards through the mamma towards the nipple and infective material may thus very readily be left behind if the tumour alone is removed. Hence, I believe, that in the case of the breast it is absolutely necessary to remove the whole organ wherever the tumour be situated, because it is quite impossible to say what parts are free from the disease and what are not, and I see no reason for running any risk of recurrence by leaving portions of the breast behind. It is, however, easier to speak of complete removal of the breast than to do it, for it turns out that the breast is a much more diffuse and extensive organ than has been supposed. This has been demonstrated by Mr. Stiles by a very simple method, which I must refer to as it is one of great practical value in determining during the course of an operation not only whether the whole breast but also whether the whole disease has been removed. Mr. Stiles found that when a cut surface on which masses of cells—e.g., epithelial masses—were present was first washed free from blood, then immersed for five minutes in a 5 per cent. solution of nitric acid and then washed under the tap for five minutes, the epithelium was readily differentiated from the other tissues by the naked eye, presenting the appearance of dull white spots or masses, while the fat became yellow and the fibrous tissues welled up and became semi-transparent. By treating the breast in this way after removal it is easy to determine whether lobules of the breast or nodules of cancer have been cut through. In practice, as soon as the breast is removed, it is handed over to an assistant, who puts it through the above process while the operator is going on with the dissection of the axilla. By the time the axilla has been thoroughly cleared out the breast is ready for inspection and can be carefully examined before closing the wound, and if any portion of breast tissue or of disease is detected the remaining part is at once sought for and freely removed. I have always used this plan since Mr. Stiles told me of it; and in one very advanced case I found by means of it that I had cut through a nodule of disease in the fat at the outer border of the axilla, which I would certainly have overlooked otherwise, and on searching I found the rest of the nodule and removed it. Mr. Stiles' nitric acid method is also applicable to tumours elsewhere; and in one case, where I was removing an epithelioma on the inner side of the cheek, and involving the lower jaw, I detected by means of it a narrow strand of disease running backwards beneath the ramus of the jaw, which I had not observed on dissecting away the growth. I consider this method a very valuable addition to our operative means, the only objection to it being, I think, the length of time that it takes. In the case of the breast it is necessary to cut off the breast from the axillary fat before clearing out the contents of the axilla in order to have it tested, whereas I find that I can get the axillary fat and glands away much more readily by leaving the breast attached, the weight of the mamma hanging over the side pulling down the axillary contents more easily than can be done by the hand. This is, however, a minor objection, and Mr. Stiles may perhaps be able to meet it.

To return now to the extent of the breast, it is found to reach laterally in all directions, especially upwards and towards the axilla, much further than has been supposed, and it is impossible to remove it completely by the small elliptical incision figured in the older text-books. In order to take away the breast completely it is necessary that the incisions should extend well beyond it at each end and that a large amount of skin, I believe an amount coextensive at any rate with the bulging portion of the breast, should be removed. For another reason it is necessary that large portions of skin should be included between the in-

<sup>1</sup> Read at the Nottingham Medico-Chirurgical Society on April 20th, 1892.

<sup>2</sup> Langenbeck's Archiv, vol. xxxix., 1889.

<sup>3</sup> Edinburgh Medical Journal, June and July, 1892.

cisions—viz., in order to ensure the removal of the sub-areolar lymphatic plexus and the vessels proceeding from it towards the axilla, and also to take away as far as possible the bands of fibrous tissue which pass from the breast to the skin, the suspensory ligaments of the mamma, which have been found very frequently to contain breast tissue as well as lymphatic vessels coming from the breast, and which are therefore a source of risk. Further, the skin over the tumour wherever situated should be widely removed, even although it is not actually involved in the disease, and that for the same reason—viz., that the bands of fascia running from the neighbourhood of the tumour to the skin are very likely indeed to be infected with the disease. Where the skin has itself become involved in the disease—to however small an extent—it must be very freely removed; I should say, some three or four inches clear on each side of the nodule, for the lymphatic plexuses in the skin are very numerous, especially at the deeper part, where the vessels are largest. Hence, as regards the skin incisions, no absolute rule can be laid down; they must be planned so as to ensure complete removal of the breast and to get wide of the disease, and must usually be irregular in shape. As I said before, they should include practically all the prominent part of the breast and when the growth is above or below the centre of the breast further incisions must be made at right angles, so as to include it. As a rule, even where the removal of the skin has been very extensive, I have generally succeeded in bringing the edges together and thus getting union by first intention by undermining the skin widely and by using button stitches and relaxation sutures of silver wire. Where, however, the skin cannot be brought together at all, or where the patient is very spare and the traction is likely to lead to sloughing, the wound can be readily closed by Professor Thiersch's method of skin-grafting, as described by me in THE LANCET last summer, the grafts being either applied at the time or, if the patient is at all collapsed, after an interval of about ten days.

Although Mr. Sappcy was of opinion that the whole of the mammary lymphatics ran forwards and joined the sub-areolar plexus, it seems clear from the researches of Mr. Langhans, Dr. Heidenhain, Mr. Stiles and others, and also from clinical experience, that many lymphatics must leave the breast on the under surface and run in the pectoral fascia, generally along with bloodvessels, towards the axillary glands; some, however, I believe, also go towards the anterior ends of the intercostal spaces, where they pass into the thorax and join the anterior mediastinal glands, communicating also, I think, with lymphatics about the sternum. Hence it is essential to remove the pectoral fascia thoroughly coextensive with the mamma and right on to the sternum. Besides the presence of lymphatics Dr. Heidenhain and Mr. Stiles have found that many lobules of the breast are intimately connected with the pectoral fascia, and would certainly be left behind if the breast is simply torn off as is sometimes done. Indeed, so intimately is the pectoral fascia connected on the one hand with the breast and on the other with the pectoral muscle, that Dr. Heidenhain states that it is necessary in all cases not merely to try to dissect the fascia off from the muscle, but also to remove a thin layer of the surface of the pectoral muscle. This is certainly necessary under the tumour and under the central mass of the breast; I doubt if it is so necessary under the peripheral parts of the breast. Dr. Heidenhain found that where the skin was freely removed the recurrences practically always took place in connexion with the pectoral fascia.

If the tumour has become adherent to the pectoral muscle the free removal of the affected part is of course indicated, but we must bear in mind that the majority of the lymphatics in muscle run parallel with the muscular fibres, and hence the mere cutting a circular piece out of the muscle will not suffice; the whole strip of affected muscle must be removed. Dr. Heidenhain points out that the muscular contractions tend to force on any infective material along the lymphatics, and he holds that once a muscle is attacked, even at one place only, the whole muscle should be looked on as diseased, and should therefore be removed. I doubt, however, whether with a small involvement of the pectoralis major it is necessary to remove the whole muscle. I should in such a case only remove a quantity of muscular tissue on each side, being careful, however, to take the whole length of the fibres as far as possible. The spread of cancer in muscle is a matter of great importance in cases of the malady affecting muscles elsewhere, especially in the case of the tongue, where, as we know, recurrence is extremely apt to occur, mainly, I

think, because the whole of the muscles affected is not removed.

In the axillary space the main lymphatics run in the fat towards the glands, but some also, I think, run in the fascia over the serratus magnus, and some upwards between the pectoralis major and minor to enter the axillary space above the latter muscle. It is well, I believe, always to remove the fascia over the serratus as far back as the latissimus dorsi, where I have more than once found nodules of cancer, and also to remove the layer of fat and fascia which one finds between the pectoralis major and minor towards the outer part, where also I have found disease. Lastly, it is imperative in all cases to remove all fat and glands from the axilla whether there is any noticeable disease or not, for the glands are usually very early affected, and the mere absence of hardness does not necessarily imply absence of disease. Further, it is not sufficient simply to pull out the glands which are felt to be enlarged, the fat and glands must be removed completely by careful dissection, and that for three reasons. In the first place, as I have mentioned, in the early stage the infected glands are not noticeable, and the removal only of enlarged glands does not necessarily mean removal of all the disease; in the second place, if only the glands are taken away, the lymphatic vessels are left in the fat and these are often found plugged with cancer cells some distance from the glands; and thirdly, it is advisable to remove all the fat, because Mr. Stiles has shown that fresh formation of lymphatic tissue frequently occurs around certain fat lobules under the irritation from the breast disease, and these new lymphatic glands may subsequently become the seat of disease. These fat lobules arc, according to Mr. Stiles, lymphatic glands which have undergone fatty involution and again become lymphoid in consequence of changes in the mamma set up by the presence of the tumour.

To sum up: in all cases there should be free removal of the skin, especially over the tumour, very free indeed if the skin is actually the seat of disease; complete removal of the breast, bearing in mind its great extent; removal of the pectoral fascia coextensive with the breast and right on to the sternum, along with a thin layer of the muscle behind the tumour and the main part of the breast; removal of the fascia over the serratus magnus in the axillary region and of all glands and fat from the axilla, not by pulling out the glands, but by clean dissection; further, if the tumour is adherent to the pectoral muscle, removal of large strips of that muscle. This may seem a very extensive operation where the tumour is small, but the object of the operation is not to remove the tumour but to rid the patient of her disease, and that can only be done by removing, as far as possible, all the probable seats of recurrence. The operation is fortunately one in which, if performed aseptically, the question of mortality does not come into play, and the results of this very free removal seem to me to promise well. Although I have been brought up to deal more freely with these cases than used to be the fashion, my impression is that there has been an improvement as regards recurrences since I began to act closely in accordance with these recent pathological researches. During the last two years I have operated in this free manner in over twenty cases, and, so far as I am aware—and I know about the majority of the cases—recurrence has only as yet taken place in three instances, in one case being intra-thoracic, and in another—the second of the cases of skin grafting which I published in THE LANCET of last year—in the form of a small nodule in the skin over the angle of the scapula, three inches and a quarter away from the edge of my former incision in the skin—a striking instance of the necessity of free removal of the skin once it has become involved in the disease.

**THE PROPOSED ISOLATION HOSPITAL AT EPSOM.**—Mr. Jacob, the medical officer of health, has reported on the respective merits of the two proposed sites for the isolation hospital intended to be erected at Epsom. Of these, that in the Dorking-road is, in Mr. Jacob's opinion, inferior to that in Kingston-lane, and this view was adopted by the local board.

**SEWERAGE OF ST. ANNE'S-ON-THE-SEA.**—The Local Board has adopted plans for an extensive new sewerage scheme, which includes all that part of the town not built upon and likely to be utilised for building purposes for some years to come. The central authority has sanctioned the borrowing of £9783 for carrying out the scheme.

# Post-graduate Lecture ON ABORTION.

Delivered at Charing-cross Hospital,

By WILLIAM DUNCAN, M.D.,  
OBSTETRIC PHYSICIAN TO THE MIDDLESEX HOSPITAL.

GENTLEMEN,—As the subject I have chosen for this lecture is one of such great importance, both to the community at large as well as to us medical practitioners, I feel it is unnecessary for me to apologise for bringing it before your notice to-day. Unfortunately, however, the time at my disposal will not permit me to treat of it exhaustively, but I shall endeavour to discuss it in a practical manner. Abortion may be defined as the separation and expulsion of the contents of the gravid uterus at any time before the seventh month (i.e., before the viability of the fœtus). It is said to occur more often in young girls; also in women approaching the climacteric. Multiparous women are more liable to abort than primiparae, and women who have once aborted are prone to a recurrence at the same period in subsequent pregnancies. This is accounted for either by (a) the recurrent death of the fœtus or by (b) the persistence of the cause which produced the first (as flexions, uterine tumours, or endometritis). In some cases no local cause can be found, and then it is thought that some undefined constitutional irritability exists, which only permits the uterus to reach a certain degree of development. Abortion is said to occur most frequently between the ninth and sixteenth weeks; doubtless, however, many unrecognised early abortions take place when a woman misses a period, and then has an excessive one, accompanied by clots, she probably has been pregnant without knowing it.

The causes may conveniently be arranged under the headings "pathological" and "accidental," as follows:—

Abortion	Pathological	Reflex	Lactation, gastric irritation, neuralgia, toothache, rectal irritation, operations.
		Systemic	Scarlet fever, typhus fever, typhoid fever, relapsing fever, small-pox, cholera, syphilis, chorea, noxious gases inhaled, plumbism, pertussis.
	Local	Uterine flexions, fibroids, polypi, endometritis and cervicitis, lacerations of cervix, pelvic adhesions, diseases of the ovum or its membranes.	
	Accidental	Physical	Blows, falls, excessive coitus &c.
Psychical		Fright, anxiety, fear, anger &c.	

Most of the causes under the first head act by inducing the death of the fœtus. The reflex causes act by irritation of the excito-motor nerves. Lactation is a common cause, as about 17 per cent. of the women who suckle whilst pregnant abort. According to Tyler Smith, this is due to the double excentric irritation of the diastaltic function proceeding from the uterus and the breast; doubtless the woman's anæmic condition is also a factor. Gastric irritation giving rise to obstinate vomiting may end in abortion, so also may severe neuralgia. Strong purgatives causing rectal irritation have been known to produce expulsion of the uterine contents. The same result may follow operations performed during pregnancy, especially if done on the genito-urinary organs, and at a time corresponding to what would have been a menstrual period. The result is due to shock, and not to pyrexia following the operation. On the other hand, it must be remembered that many operations (even single and double ovariectomy) have been performed on the gravid woman without interfering with gestation; but care should be taken to choose a time between the menstrual epochs. I have operated on an extensive perineal rupture when the patient was two months pregnant; she did not abort, neither did the new perineum give way during the subsequent parturition.

Many systemic diseases (as seen from the table) are liable to produce abortion, but the most potent of all is syphilis, especially if both father and mother be syphilitic. The effects of syphilis are so far reaching and long continued that if the general public had any idea of them it can hardly be

doubted but that they would demand that the Contagious Diseases Act (which was repealed owing to the agitation of some sentimentalists and would-be upholders of the "liberty of the subject") should be again put in force. The effects of lead on the gravid state are interesting, for the pregnant woman is liable to abortion not only when she suffers from plumbism, but also, when being herself free from the taint, her husband is a lead worker. Any local disease which interferes with the proper development of the uterus or its lining membrane may cause abortion—retroflexion more often than pathological antelexion, as in the latter condition the woman is frequently sterile; if, however, she does conceive, abortion is likely to follow. A series of early abortions is due to either retroflexion or syphilis. Endometritis and endocervicitis are, according to Whitehead, common causes of abortion. Out of 378 abortions he traced 275 (nearly 73 per cent.) to disease of the lower part of the uterus; hence the importance of treating well-marked endocervicitis during pregnancy. Extensive laceration of the cervix in a former labour is given as a cause, and there is no doubt that pelvic adhesions (the result of a peritonitis) which bind down the uterus in the pelvic cavity may prevent its growth and evolution.

With regard to the accidental causes, there is no doubt that a great mental shock may bring on an abortion, not only by inducing uterine contraction, but also by causing the sudden death of the fœtus. In bygone times, under the influence of terror and pain, martyred women are said to have aborted at the stake, and condemned women have been known to abort prior to execution; indeed, in some women the dread of a miscarriage may bring it about (Priestley). Up to the end of the third month the ovum comes away in its membranes, but after that time in the usual way with pains, escape of the liquor amnii, then expulsion of the fœtus followed by the placenta. The symptoms are essentially two—hæmorrhage and pain. In the first two months the hæmorrhage is like a profuse menstruation; the pains are due partly to uterine contraction and partly to the expulsion of clots through an imperfectly expanded cervix. These symptoms may last three or four days, and, as the ovum either passes in pieces or is surrounded by clots, these early abortions are often looked upon as merely retarded and profuse periods. After the second month other symptoms are met with, as bearing-down pains in the pelvis, a watery discharge takes place, and then the hæmorrhage and pain set in. The hæmorrhage may be slight and soon stop, or it may gradually increase in amount. In some cases it stops for a short time and then recurs; the uterine contractions become more and more severe until the ovum is expelled. Sometimes the pain precedes the hæmorrhage. In other cases there may be no pain; and these are more hopeful with regard to checking the threatened abortion. When the abortion occurs in the early months and the fœtus has died some time previously, there is often no trace whatever of it to be found. When the extravasation is considerable it sometimes breaks through the decidua vera and gets between it and the decidua reflexa, or it may take place outside the reflexa, dissecting it up. The pressure upon the ovum causes rupture of the sac and escape of the amniotic fluid; then, if the uterine contents be not expelled, the fœtus and membranes surrounded by coagulated layers of blood form what is called a "mole"; when the coagula are fresh it is called a "blood mole"; but when they have undergone more or less organisation it is called a "fleshy mole." These moles are seldom bigger than the fist and are usually expelled between the third and fifth months.

If in any case there be abnormal adhesions between the decidua and uterine wall, when abortion occurs the ovum escapes and then it frequently happens that retraction of the uterus on its contents takes place, the cervix closes and the patient has an incomplete abortion. In a case of this kind the following terminations may result: (a) The hæmorrhage continues and the retained products of conception are gradually thrown off by being loosened from the uterine wall owing to retrograde changes taking place in them; or (b) the hæmorrhage may cease altogether for days or weeks, and then sudden uterine contractions with profuse hæmorrhage take place and the uterus is emptied. (c) Putrid decomposition of the retained products sets in, especially when they are completely separated from the uterine wall. This decomposition is brought about either by the entrance of air by the introduction of the finger, or when part of the ovum hangs through the os uteri, the decomposition extending upwards from the vagina. Septicæmia does not often occur,

as the decomposition usually takes place late when there are granulations on the uterine surface and the sinuses are closed. In these cases high and irregular temperature with perhaps attacks of flooding set in, and these continue until the uterus is emptied either naturally or artificially; sometimes pelvic peritonitis and cellulitis occur. Numerous examples of this result of incomplete abortion have come under my care at various times. (2) Lastly, there may be formed a so-called "placental polypus." In these cases a bit of placenta or decidua remains firmly attached to the uterine wall and has some fibrin deposited upon it from the extravasated blood, or the fibrin may be deposited on the rough placental site, and thus form a polypus. These polypi give rise to sudden floodings, or they may decompose and set up septic absorption. After an abortion the uterus undergoes involution as after labour at term; and as women take little care of themselves after an abortion, as a rule, this accident often results in chronic uterine disease.

The diagnosis of abortion is made from the hæmorrhage, pain and dilatation of the cervix; perhaps part of the ovum may be felt; this might be mistaken for a soft polypus, but in the latter there is no history of pregnancy. All clots passed should be carefully broken up in water, because the embryo may be inside one, and thus be easily missed without a thorough examination. If there be no clots to examine and we find the hæmorrhage and pain have ceased, then we cannot be certain whether the uterus is empty or the threatened abortion has been staved off; but if later on hæmorrhage recurs and the uterus has not gone down in size, or an offensive discharge sets in, then we know an incomplete abortion has taken place.

The prognosis of abortion (when not criminal) is very good if it be properly managed. Death, however, may result from hæmorrhage, septicæmia or peritonitis. Two hundred and thirty-four cases were treated at the Rotunda Hospital with only one death, which was due to heart disease. After criminal abortion death is common; thus of 116 such cases collected by Tardieu 60 women died.

The treatment of abortion may be considered under the following heads:—(1) The Prophylactic Treatment; (2) the Treatment of Threatened Abortion; (3) the Treatment of Inevitable Abortion; and (4) the Treatment of Incomplete or Neglected Abortion. The prophylactic treatment is most important. Whenever a patient gives a history of having had one or more previous abortions a thorough investigation of both her and her husband must be undertaken, and if any constitutional disease be found it must be carefully treated. Syphilis is the most frequent and important disease, and whenever it is suspected both husband and wife should undergo a thorough course of antisiphilitic treatment before the risk of pregnancy is again incurred. The results are often most gratifying. A patient contracted syphilis from her husband and had four miscarriages within the first two years of her married life. She had marked endometritis, which I treated by the local application of the acid nitrate of mercury. At the same time she and her husband underwent a six months' course of treatment, with the result that she now has two healthy children. Diday maintains that it is not sufficient to give mercurials before pregnancy takes place, but that they should also be administered during each successive pregnancy, even though the woman shows no signs of syphilis. Personally I believe in combining iodide of potassium with perchloride of mercury in these cases, and even if there be no syphilis the above combination exerts a beneficial action on the uterine mucous membrane.

If a patient be gouty or rheumatic, treatment appropriate for these conditions must be ordered. Anæmia requires iron in some form or other. A course of water and baths at Schwalbach or Kissingen often proves most beneficial. Any local malcondition should be remedied. If there be uterine displacement it must be set right and a suitable pessary introduced. This should be removed after the fourth month, when the uterus has risen out of the pelvic cavity. Marked endocervicitis with erosion of the os uteri should be treated by the careful application of carbolic acid or nitrate of silver. In some diseases of the placenta causing intra-uterine death of the fœtus, the late Sir James Y. Simpson thought that the administration of twenty grains of chlorate of potash three times a day during pregnancy averted abortion by increasing the oxygen in the mother's blood. In women who abort at the same period in several successive pregnancies, and in whom no disease of

ovum or uterus can be discovered, absolute rest in bed at the approaching period of danger must be enforced, whilst nerve sedatives such as bromide of potassium and tincture of sumbul should be administered. When abortion is threatened a vaginal examination must always be made in order to find out the state of the uterus. If any portion of the membranes has been passed it is hopeless to attempt to check the abortion, so also if any portion project through the os uteri or be in the vagina. If we can touch the ovum with the finger in the cervical canal, the case is desperate but not hopeless; if the os uteri be closed, the hæmorrhage slight and the pains mild or disappearing, the case is very hopeful. The patient must be kept absolutely at rest in bed in the horizontal position; no pillow under the head but one under the pelvis helps to drive the blood away from the pelvis. The room is to be kept cool; the patient should be given liquid food, to be taken cold; no stimulants must be given; and the bowels are to be regulated by a gentle laxative, such as cascara sagrada or a drachm of glycerine injected into the rectum. The practice of applying cold to the lower abdomen and the vulva is not a good one, as it is likely to bring about what we wish to avoid—viz., uterine contraction. With regard to drugs, my rule is that if both hæmorrhage and pain be present I give a mixture to be taken every three hours, each dose consisting of liquor morphia hydrochloratis, 20 min.; compound tincture of chloroform, 20 min.; acid infusion of roses to 1 oz. If, however, there be no pain whatever, but simply the hæmorrhage, I find the liquid extract of ergot given in ten-drop doses every two or three hours to be of the greatest use in causing gentle tonic contraction of the uterus and controlling the hæmorrhage. The American physicians largely use and believe in the efficacy of one-drachm or two-drachm doses of the liquid extract of viburnum prunifolium (or black haws) given every few hours. If the treatment adopted stops the threatened abortion the patient should be kept in bed for a week after all symptoms have disappeared. If, however, the hæmorrhage becomes more copious with clots, and accompanied by pains increasing in severity, together with a dilated cervix and the escape of the liquor amnii, or if the ovum or pieces of the decidua be found in the vagina or in the clots passed, then it is almost certain we cannot prevent abortion taking place. It is, nevertheless, remarkable how in some cases the gestation may go on when one would imagine it could hardly possibly do so.

At the present moment a patient is daily expecting her first confinement; when she was between two and three months pregnant she had severe hæmorrhage, with pains. On examination the os uteri was dilated to the size of a shilling and the ovum was readily felt by the finger inserted through the os uteri. As rest and sedatives for two days caused no change I concluded nothing could stave off abortion, so I gave drachm doses of ergot every three hours, expecting this to be followed by the expulsion of the uterine contents, instead of which the hæmorrhage ceased, the os uteri closed and the patient has gone on to full term. Last year I saw a lady in consultation with my friend, Mr. Walker of Willesden. When between three and four months pregnant she was seized with hæmorrhage and pain, and had a profuse watery loss, so that it was thought the liquor amnii had escaped and that of course the abortion was inevitable. As, however, there was no dilatation of the os uteri, we decided to keep the patient absolutely quiet and to give sedatives. This treatment was carried out for some weeks, and the patient ultimately was delivered by Mr. Walker of a fine, healthy child by means of forceps. Scanzoni mentions the case of a woman who, when three months pregnant, had profuse hæmorrhage with clots; as all hope of staving off the abortion was abandoned, large doses of ergot were administered; the vagina was plugged for thirty-six hours, the sound was passed and the uterine contents stirred up. Lastly, at the end of three weeks' flooding a solution of perchloride of iron was injected into the uterus; but notwithstanding all this the woman quickened two months later.

The treatment of inevitable abortion depends on how far the gestation has advanced. In the first two months it is rarely necessary to do more than keep the patient at rest and give one-drachm doses of ergot three or four times a day. If, however, the hæmorrhage continues, showing there is incomplete detachment of the decidua, it is essential to dilate the cervix (in the manner to be presently mentioned) until the forefinger can be introduced into the uterine cavity and the uterine contents removed. During this manœuvre the uterus must be held steady by

the other hand placed over the abdominal wall. In cases where the decidua are very adherent it is necessary to curette the uterus carefully and completely with every antiseptic precaution. After the second month the ovum is either thrown off entire or the sac ruptures and the ovum escapes; the treatment in either case is to empty the uterus. If the cervix be dilated one or two fingers (thoroughly cleaned and dipped in a perchloride solution) are passed through the os. In order to do this it may be necessary to introduce the whole hand into the vagina, but this is a painful procedure and, as a rule, requires anæsthesia. Having got one or two fingers into the uterine cavity, they are gently insinuated along one side up to the fundus and then down the other, so as to completely surround the ovum and effect its expulsion, all the while keeping up steady pressure on the uterus externally. If the cervix be undilated (and this is one of the difficulties) it must be dilated. A very good plan is to tampon the vagina; by this means the hæmorrhage is checked, and in seven cases out of ten, on removing the tampon in about twelve hours, the os uteri will be found dilated and the ovum projecting. Plugging the vagina, to be of any use, must be done properly; on an emergency a soft towel, handkerchiefs, or strips of linen will do, but sponges are bad. The best method is as follows: Tie about a dozen pieces of cotton wool (each the size of a Tangerine orange) on a piece of string, each plug being about six inches from its neighbour; put them in a 1 in 3000 perchloride or 1 in 50 carbolic solution. Next irrigate the vagina with some of the solution, and with the patient in the left semiprone position pass a Sims' speculum. Take the plugs out of the antiseptic solution, squeeze them dry and then pack the vagina, first of all packing carefully all round the cervix in the cul-de-sac and then the vagina below the level of the cervix, using more plugs if necessary. The tampon is removed after twelve hours, and if then the cervix be undilated some recommend re-tamponing once or twice more, but to this there is the grave objection that the plugs may become offensive and the patient runs the risk of septic poisoning. The tampon is exceedingly useful if the patient is collapsed from excessive hæmorrhage, as it gives her time to rally, and stimulants as well as nourishment can be administered; but if there be no collapse, or if after using the tampon once the cervix be still undilated, I am confident that no plan of treatment can compare with rapid dilation by means of Hegar's dilators. This is done as follows: the dilators, speculum and vulsellum forceps are placed in a perchloride solution; the patient is then placed either in the semiprone or lithotomy position, and it is not absolutely necessary, unless she be very nervous, to give an anæsthetic; next Sims' speculum is passed and given to a nurse or assistant to hold, the anterior lip of the cervix is seized with a pair of vulsellum forceps, and a douche given; then one dilator after another is passed with perhaps a minute's interval between each, until the cervical canal will readily admit the finger; then the uterine contents are carefully removed either with the finger or a curette, the cavity is well douched with the perchloride solution by means of a double catheter, and a pencil consisting of twenty grains of iodoform is passed up the cervical canal, the vulsellum removed from the cervix, and a couple of cotton-wool plugs soaked in glycerine pushed up the vagina; the speculum is removed and the patient put back to bed. As a rule she suffers practically no subsequent pain, and it is rarely necessary to give a one-third of a grain of morphia suppository; the plugs are allowed to remain in about twelve hours, then removed and an iodine douche given night and morning for about a week after. Having carried out this routine treatment in dilating the uterus and removing its contents in (I may say) hundreds of cases, I feel justified in asserting that it is practically devoid of risk. The use of tents is, if possible, to be avoided as they may set up septic trouble and they have been known to cause death from tetanus as well as from septicæmia. If ever employed, the tents should have been previously soaked in an ethereal solution of perchloride of mercury. The use of the ovum forceps is, I think, dangerous, but careful and gentle curetting is, in my experience, quite safe.

In the treatment of incomplete abortion, when the uterus has been completely emptied all hæmorrhage ceases, but if after the patient begins to get about she suffers from recurrent losses of blood, and especially if the discharge be at all offensive, it is pretty certain that some foetal product remains behind. Sometimes the remains may be removed by disintegration or suppuration, but the patient runs great risks

of septic absorption with pelvic inflammation and a fatal result may ensue; but even in cases where there is nothing but repeated losses the patient's general health and strength becomes seriously impaired, so that in all cases of hæmorrhages continuing after an abortion has taken place, and where a week's trial of ergot in one-drachm doses every three hours with perfect rest does not effect a cure, the proper treatment is to dilate the cervix in the manner already described and to remove the retained products either with the finger or curette. It is remarkable how an extremely small bit of placenta left adhering to the uterine wall will give rise to profuse hæmorrhage. I have treated several cases where the piece was not larger than the little finger nail. An excellent example of the kind I saw a few weeks back in consultation with my friend Dr. Waterhouse of West Hampstead. A patient of his in her second pregnancy aborted about the third month (during his absence from town); the ovum and membranes were not found, and notwithstanding rest and ergot the hæmorrhage persisted on and off for some weeks. When Dr. Waterhouse first examined the patient he found the os uteri closed and the uterus only slightly larger than normal. On my examining her I found the condition exactly as above, but looking at the fact that the hæmorrhage recurred sharply I thought most likely something remained behind and I recommended dilatation and curetting. This I did with Dr. Waterhouse's help, and we removed a distinct but small bit of placenta about half the size of a hazel nut. All hæmorrhage ceased from that day and the patient was well in a week. It is well to remember that in the fourth month of gestation two fingers can be introduced, at the sixth month half the hand, and after the seventh month the whole hand, into the uterine cavity.

### DANUBIAN (?) FEVER.

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THE interesting paper which appeared in THE LANCET of June 18th upon "Fever prevalent on the Shores of the Mediterranean and Red Seas" has suggested to me the advisability of bringing under the notice of the profession a type of fever which sailors and others who have recently visited the Danube have exhibited either when there, during the voyage homewards, or after reaching this country. The important point which Dr. Hutchinson Milnes in the paper just alluded to wishes his readers to remember is that the same kinds of fever occur in all parts of the basins of these two seas—in other words, "a case of fever at Sawakin or Massowah will not present features essentially different from those of a case treated at Malta or Naples. These fevers, excluding the exanthemata, typhus fever and influenza, comprise typhoid and malarial fevers as well as a febrile disease which is called by some local name in every district of the area under consideration, and is regarded by the inhabitants as peculiar to each locality, but which," Dr. Milnes feels convinced, "is actually the same throughout the whole region. This is the Malta fever of Malta, the Rock fever of Gibraltar, the Cretan fever of Crete and the local fever of the Red Sea ports, including Massowah. It has been thought by many to be malarial, by some to be closely allied to typhoid fever, or, indeed, to be typhoid fever in a masked form, and by others to be a compound of typhoid fever and malaria which they have called typho-malaria." Dr. Milnes' long service as a naval surgeon in the Mediterranean and Red Sea has given him an experience of this particular kind of fever which is neither typhoid nor malarial, and allows him to speak with authority upon a subject to which he has given considerable attention.

Within the last few months six or seven cases of fever contracted upon the Danube have come under my observation, which for brevity's sake when demonstrating them to my clinical class I have spoken of as Danubian fever. The first case I saw was in South Shields in consultation with Dr. James Drummond of that town, and was that of a young gentleman aged twenty-five, who had undertaken a voyage up the Mediterranean, the vessel ultimately making its way to the Danube, where it remained a few weeks. Here the patient was seized with an illness which was regarded as "fever and ague," and on reaching Malta he was transferred to the

hospital, where he lay for a few weeks, there being at this time vomiting and diarrhoea. Frequently the stools contained small quantities of blood. He recovered sufficiently to sail to South Shields, where he was seen by Dr. Drummond. At our consultation two days afterwards we found him bathed in perspiration. There had been rigors. The temperature was 104° and 105° in the evening. There were œdema, hæmaturia and an enlarged spleen, the other organs being apparently healthy. The case was not one of acute nephritis. There was something about it which made us both regard it as a type of malarial fever. We gave him large doses of quinine every three hours, and in a few days afterwards liquor arsenicalis. Within ten days blood and albumen had entirely disappeared from the urine, the temperature had fallen to the normal, œdema had disappeared, and the patient was quite well. Since then Dr. Drummond has had a similar case from the same river with more pronounced ague-like symptoms, accompanied by hæmaturia, in whom, although badly borne at first, the symptoms rapidly subsided upon the administration of small but increasing doses of quinine.

My second case is that of G. L.—, aged twenty-seven, a seaman, who was admitted into the Newcastle-on-Tyne Infirmary complaining of pain in the abdomen with giddiness and sickness of five weeks' duration. His father died of heart disease, his mother from an illness the name and cause of which are unknown, whilst a brother died at the age of twenty-six of phthisis and a sister of the same disease at the age of twenty-four. Eight weeks before admission the patient was on the Danube at Ibraila. The drinking water was very impure; it had a peculiar taste. The ship had run short of water, so the tanks were filled from the Danube. Twelve days after drinking this water the patient was seized with a colicky pain in the abdomen; a few hours afterwards he became delirious, and remained thus for two days. This attack lasted eight days, vomiting as a symptom being absent from first to last. Two weeks after his recovery he landed in England. Within the next few days he had a return of the fever and suffered much from pain in the front and back of the head. He was extremely prostrated by it. Vomiting now occurred, and during it he brought up a small quantity of blood. There was diarrhoea, accompanied by the presence of blood now and again in the stools. He recovered fairly well from this, but felt extremely weak. He could not walk without feeling as if he were going to fall, owing to vertigo. It was in this condition that he was admitted into the infirmary. There was considerable sallowness of the skin, but this, he said, was natural to him. The tongue was furred, the appetite good, the bowels irregular, sometimes as many as three stools daily and then perhaps no stool for a day or two. The highest temperature was 100°; the pulse ranged from 60 to 72. The heart and lungs were healthy. The area of hepatic dulness was normal, whilst that of the spleen was much increased. The urine was acid, but did not contain albumen.

The only other case that I shall mention is that of O. I.—, a Swede aged thirty-two, admitted into the infirmary a few days after the last patient, complaining of pain in the abdomen, of weakness and loss of flesh. On board the ship he had partaken freely of vegetable food and lime juice. Seven weeks before admission he had "fever" whilst at Ibraila on the Danube. There were diarrhoea and vomiting. He sailed to Gibraltar, where he was admitted into the hospital, and after a short residence there he came to the Tyne. When I saw him his tongue was very furred, he was sallow and anæmic; the bowels were regular, his gums were spongy, but had not bled; the liver dulness was enlarged and the area of splenic dulness was very much increased. On microscopical examination the blood did not exhibit any peculiarity except that the red cells did not form rouleaux. The urine contained albumen. In a few days after the administration of quinine the albumen disappeared from the urine and the patient was soon well.

The patients whose histories I have briefly recorded were seen by me some time after the original attack had been passed through, so that it is impossible to be perfectly accurate in regard to the exact nature of the illness at its commencement; but when observed later on it was clear that whilst they presented symptoms suggestive of malarial poisoning, the disease was neither pure malaria nor was it typhoid fever. In one of the cases, if not in all, the drinking water was apparently the cause of the illness; but the interesting point is that all the patients had been for some time, longer or shorter, on the Danube, and when they came under observation

they presented some of the symptoms of malaria, accompanied in almost every instance either by hæmaturia or albuminuria and presenting enlargement of the spleen. The tongue, too, as in Dr. Milnes' cases, was very furred. Whether they are to be regarded as cases of local fever to which the term "Danubian" may be applied, just as we speak of Malta, Gibraltar, or Cretan fever, will depend upon the experience of the profession and their record of a sufficiently large number of cases drawn from the same area and presenting symptoms similar to my own. The largest number of cases came under my notice in October of last year. That they were due to the entrance into the system of some poison there can be no doubt and the success of the treatment, it seemed to me, depended in very large measure upon the fact that they were regarded as a peculiar form of malaria and received quinine.

The hæmaturia which was present in four of the cases deserves more than simple mention. Davidson<sup>1</sup> speaks of hæmorrhages and spongy gums as sometimes met with in the relapsing fever of Cyprus—the spongy gums, he will remember, in cases of genuine relapsing fever, where scorbutus was out of the question. Many of these cases, however, were attributed by Davidson to malarial poisoning. Hirsch<sup>2</sup> draws attention to the Danubian basin as the seat of malaria. At certain places along the river malaria, it would appear, is always endemic. In what is called "remittent" malarial fever there is hæmaturia and in some instances jaundice. Besides, there is another form of malarial fever—the typho-malarial. It occurred among the American troops during the War of Secession. Woodward, whilst stationed with the army on the Potomac, noticed the peculiar form which malarial poisoning assumed amongst the soldiers, and drew attention to a series of symptoms not unlike those met with in typhoid fever—viz., diarrhoea, abdominal tenderness, meteorism, delirium and dry brown tongue. The cases did well as a rule when treated by quinine. In the few that died post-mortem examination showed only a catarrhal condition of the mucous membrane of the intestine with swelling of Peyer's patches. The spleen was enlarged to a greater extent than in typhoid fever; so also was the liver. His description of the disease might apply to some of my own cases, but in using the term typho-malaria we would be now, as then, no nearer a solution of the question. It is quite possible that impure drinking water induced illness and developed symptoms of an enteric type, upon which was grafted malarial infection. I am more inclined to regard these cases, however, as simply hæmorrhagic forms of malarial poisoning, there having been in nearly all of them blood in the urine and stools, and in one spongy gums. This is just the form of malarial poisoning in which we may or may not have typical ague seizures. Febrile exacerbations may not occur, and yet malarial hæmaturia in certain localities and in certain seasons of the year may be so severe as to prove fatal.

Newcastle-on-Tyne.

## THE SKIN ERUPTIONS WHICH OCCUR IN SEPTICÆMIA FOLLOWING SCARLET FEVER AND DIPHThERIA.

BY N. S. MANNING, F.R.C.S. IRELAND,  
MEDICAL SUPERINTENDENT OF THE CITY HOSPITAL, BIRMINGHAM.

IN 2.1 per cent. of nearly 6000 cases of scarlet fever and diphtheria treated under my care in the City Hospital, Birmingham; and in 4.8 per cent. of the cases under five years of age a condition supervened which was accompanied by a characteristic skin eruption, increase of temperature, wasting of the tissues and loss of power, and which, on account of the high mortality that followed it, may well be considered one of the most important complications that can become superadded to these diseases. The exciting cause of the condition or disease appeared to be the absorption into the system of a toxic agent or poison which was engendered by tissue necrosis taking place in septic surroundings; and though in the cases at present under consideration it followed the process of ulceration which took place in the throat, nose and nasal cavity in scarlet fever and diphtheria, it may also be brought about by many other conditions, such as sloughing

<sup>1</sup> Geograph. Pathol., vol. i., p. 206.

<sup>2</sup> Geograph. Pathol., vol. i., p. 210 (New Sydenham Society).

and suppurating burns or other wounds, in the puerperal state, in the third week of enteric fever, or, broadly speaking, by purulent infection from any cause. The following figures show in a tabular form some particulars as to the numbers, ages and mortality in the cases under notice.

Age.	Total number of cases treated in the hospital.	Number of cases of septic rash that occurred.	Number of deaths.	Percentage occurrence on the total numbers treated.	Percentage mortality of the cases attacked.
Under 1 year .. ..	64	12	11	10.0	91.6
"  2 years .. ..	391	41	35	10.4	85.3
"  3  "  " .. ..	587	33	27	5.6	81.8
"  4  "  " .. ..	577	15	14	2.6	93.3
"  5  "  " .. ..	671	9	3	1.3	33.3
Total under 5 years	2200	110	90	4.8	81.8
5 years and upwards	3022	18	12	0.5	66.6
Total .. ..	5912	128	102	2.1	79.6

As will be seen in the above table the age of the patient exerted the most powerful predisposing cause in determining the disease; nearly 60 per cent. of the cases were under three years old. The reason of this is very obvious when we consider how difficult it is to keep the throat lesions in patients of such tender years in anything like an aseptic condition, and how prone they are to swallow the discharge that exudes from the ulcerated surfaces. The attack came on usually during the second week of the scarlet fever illness; in 80 per cent. of the total cases it was noticed from the seventh to the fifteenth day, but it may appear as early as the fifth day or as late as the thirtieth. The invasion was gradual rather than sudden, and in many cases was even insidious in its onset. As a rule, however, in severe cases from twelve to twenty-four hours before the eruption came out there was an increase of temperature, with restlessness, sleeplessness, and an exacerbation of the throat lesions. The eruption appeared as red or dark pink coloured spots or blotches with well-defined margins in the skin over prominent bony points, such as the ankles, finger-joints, elbows, outer sides of the feet, and the extensor surfaces of the toes; occasionally a crop of small red papules on the arms and legs preceded the blotches. The spots or blotches when first seen varied in different cases from about the size of a sixpenny piece to large irregular-shaped patches; they disappeared on pressure and quickly reappeared when the pressure was removed. In about 80 per cent. of the cases the eruption appeared in the order given above, but sometimes it was first seen on the face, in which situation the most usual distribution was the upper eyelids and malar eminences. I might remark here that I have found this distribution of the rash so uniform in its early stages and so characteristic of the disease that in cases where I suspect its occurrence I look most carefully in these situations for its existence.

In many cases, after the appearance of the rash, what seemed a halt in the progress of the disease took place; no manifest change occurred for some days or the spots faded and again appeared, and in some slight cases the disappearance was permanent. In severe cases this check, as a rule, was not seen. The rash extended rapidly over the limbs, in some instances as large irregular-shaped maculæ, red or pinkish in colour and slightly raised above the level of the skin; in others in the form of diffuse patches of various shapes and sizes. It usually invaded the trunk on the second or third day from its first appearance, in which situation the macular or blotched form was replaced by a diffuse erythema. About this period of the eruption—second or third day—it also became diffuse on the limbs by the rapid increase in size and confluence of the spots. In a less numerous class of cases the eruption remained macular for a longer period; but if the attack were severe and the patient survived long enough, the tendency always was for the rash to become general. The time which the eruption took in reaching its maximum point of development is thus seen to have varied considerably in different cases, and when this was attained a decline or fading took place, which was followed by a profuse desquamation of the cuticle; this subsidence, scarcely ever permanent, was quickly followed by a recrudescence; the temperature, which usually declined with the fading of the rash, again went up, and in from twelve to twenty-four hours

a second eruption came out, which more rapidly than the former spread over the body. There was also an aggravation of all the local and general symptoms, and the cycle was completed by another desquamation of the cuticle. In this way I have been able to raise three distinct parchment-like layers of the epidermis on the hypothenar eminence of a child's hand which could be turned over like the leaves of a book—(1) scarlet fever desquamation, (2) septic fever, (3) relapse of septic fever.

The temperature was essentially irregular and was seen to vary much in different cases. Usually, however, the temperature curve was within the limits of from 100° to 104° F., but even in the same case the extreme limits often varied from 98° to 105°; the diurnally up and down or "spiked" temperature seen in enteric fever or hectic conditions was never observed. As already mentioned, a defervescence took place in many cases with the decline of the rash, which was followed by a rise before each recrudescence, and at this point, which one might term the invasion of the relapse, death frequently occurred. The heart's action was rapid, beating from 130 to 200 per minute. Nervous disturbance indicated by such symptoms as restlessness, sleeplessness and muscular tremors was commonly met with, and in some instances marked drowsiness prevailed. The progress of the disease was always accompanied by rapid wasting, in a few days the sufferers presenting quite an emaciated appearance. In cases where the urine could be obtained for examination albumen was sometimes found. Septic pneumonia, diarrhoea, or obstinate vomiting frequently supervened where the patient survived beyond four or five days, and rapidly proved fatal. To the welfare of the patient the condition of the throat was most important all through the attack; the ulceration spread over the tonsils, pillars of the fauces, pharynx and soft palate, and in many cases to the tongue and gums, engaging the deep tissues in the region of the throat, and often producing large ragged perforations of the soft palate. There was also a profuse discharge of muco-pus from the throat and nostrils and a foul-smelling colourless otorrhoea. In fatal cases, as the end approached, the secretions of the mouth dried up, sordes formed on the teeth, the tongue became glazed, the lips cracked and bled on the slightest touch; there was also suffusion of the conjunctive and more or less fixation of the eyeballs, which gave the eyes a staring expression, the patient finally lapsing into a marked ataxic condition. When this stage was reached the sufferers presented a very repulsive appearance and in addition a sickly odour pervaded their immediate vicinity. The duration of the attack varied greatly, the extremes in fatal cases being from two to thirty days; but between 70 and 80 per cent. died during the first week. In non-fatal cases the eruption disappeared in over 80 per cent. within five days, in 15 per cent. from five to ten days; in one case it remained until the fourteenth and in another until the twenty-second day. The most constant morbid appearance found post mortem was an inflammatory zone one or two lines wide round the attached margin of the mitral and tricuspid valves of the heart; in this situation in many cases the endocardium was found thickened and injected. The post-mortem coagulation of the blood seemed to take place in a normal way. More or less congestion of the lungs was seen in every case, and in cases where pneumonia was present the anatomical appearances of that disease were found; the kidneys also were usually congested and, where microscopic examination was made, "cloudy swelling" was seen. In the other organs no changes were noticed.

The treatment may be divided into prophylactic and curative. In the former much can be done by careful attention to the state of the throat; the removal of the exciting cause by keeping the ulcerated parts in as clean and aseptic a condition as possible is all important. This, in my experience, can best be attained by irrigation. The use of caustics or other irritants during the inflammatory stage cannot be too strongly deprecated. Healthy surroundings, proper diet and good nursing are of course most essential. In the way of curative treatment little can be done except to follow up the lines already indicated and support the patient's strength by every means possible. The administration of drugs, except for the relief of special symptoms, I have not seen attended with any beneficial results.

The question of diagnosis is most important, but want of space prohibits me going into the subject fully. The disease with which this condition is most frequently confounded is scarlet fever, and indeed its occurrence even during an attack of this exanthem is regarded by most authorities as a relapse of the disease. The invasion, the distribution of the rashes in

the early stage and the course which the two diseases run are so entirely different that a diagnosis is easily made; moreover, in cases that arise in the course of other diseases, in addition to the differences just stated, there is an absence of the throat lesion and that characteristic condition of the tongue—signs that should guide us almost more than any other in determining an attack of scarlet fever. There is no doubt but that the eruption, when fully developed, resembling so closely as it does the intense or blotched rashes often seen in scarlet fever, and the subsequent desquamation combine to render a correct diagnosis difficult if the primary symptoms have not been carefully observed. It is also confounded with measles, röteln, eruptions produced by drugs, urticaria, crupelias, &c., and although the rash sometimes resembles that of measles and röteln, by careful attention to the invasion, the early distribution of the eruption, and the absence of the catarrhal symptoms found in these diseases—more especially measles—it is always easy to arrive at a correct diagnosis. In the other conditions named the differences are so many and so manifest that a diagnosis should present no difficulty.

Birmingham.

## TWO CASES OF RETRO-PHARYNGEAL ABSCESS IN INFANTS.

By W. F. BROOK, F.R.C.S. ENG.

THE notes of the following two cases may be of interest, as they not only closely resemble the cases which form the basis of Mr. Bilton Pollard's paper on the above subject in THE LANCET of Feb. 13th, but also bear out his remarks as to their etiology and treatment. I believe I am right in saying that these were the only two cases of the kind which presented themselves at the Hospital for Sick Children, Great Ormond-street, during the fourteen months that I was house surgeon there.

The first case—M. G—, a female child aged one year and seven months—was brought to the hospital on Oct. 13th, 1890, suffering from difficulty of breathing and swallowing and a "lump" in the neck. The history given was that a swelling had been noticed in the neck a fortnight previously, which gradually increased in size. Breathing and swallowing became difficult and continued to get worse until admission. She had had whooping-cough the previous February, since which she had suffered from discharge from the nose. There had been no pain or stiffness in the neck before the swelling was noticed. Four months previously she fell from a chair, striking her head. On examination, in the right side of the neck was a diffuse non-fluctuating swelling, situated behind but extending under the sterno-mastoid and pushing it and the carotids forwards, with a more defined lump in the centre, apparently a gland rendered prominent by the subjacent swelling. The right tonsil was seen to be pushed towards and beyond the mid line, obscuring the view of the parts beyond. Chloroform was given, with a view to making a more thorough examination and doing what might be required. A gag was introduced into the mouth for the more complete examination of the pharynx, when the breathing suddenly stopped, the child becoming cyanosed. The trachea was immediately opened and the patient brought quickly round by artificial respiration. With the tube in the trachea, the swelling in the pharynx could be examined at leisure. It extended from the right tonsil across the back of the pharynx nearly to the left. Its upper limit was at the base of the skull, its lower limit below the level of the glottis. It was so tense that fluctuation could barely be made out. Although, had the abscess been opened from the pharynx, the presence of the tracheotomy tube would have removed the danger of asphyxia, the impossibility of keeping the cavity aseptic under these conditions led me to prefer to drain it from the neck. Accordingly a small incision was made along the posterior border of the sterno-mastoid and the dissection continued beneath it until a wave of impulse could be distinctly felt between a finger at the bottom of the hole thus made and another on the swelling in the pharynx. With a blunt director and a pair of dressing forceps the abscess was then speedily emptied, the swelling in the pharynx at once subsiding. No bare bone could be felt by the finger introduced into the abscess cavity. The latter was washed out with perchloride of mercury (1 in 2000), a drainage tube introduced, and the incision closed at

the ends with sutures. The tracheotomy tube was removed and the wound sutured also. The breathing was now in every respect normal. The temperature, which on admission was 98·8°, on three occasions within the next few days reached 100° F. With a view to keeping the injured parts at rest the patient was fed for the first twenty-four hours per rectum. The discharge from the wound in the neck was slight and the tube was gradually shortened and removed entirely on the seventh day. The tracheotomy wound did not heal by first intention, but gave no trouble. The child was discharged on Nov. 3rd, with both wounds healed and no sign of spinal caries.

The second case was that of W. L—, a male child aged six months. He had been ill a fortnight with a "swelling in the neck and wheezing." There had been a slight discharge from the nose during the previous week, but not any discharge from the ear. The history did not suggest spinal caries or syphilis, but there was a history of phthisis on the father's side. On admission on Dec. 23rd, 1890, the notes describe him as an emaciated and rickety child, breathing with some effort. The crying was feeble. There was retraction of the lower ribs and to a less degree above the clavicles. In the neck on the left side was a fluctuating swelling beneath the sterno-mastoid. In the upper part of the pharynx, on the left side, was a fluctuating swelling extending up behind the soft palate and across the middle line. As the sterno-mastoid muscle seemed unusually wide and thin and pus was evidently immediately beneath it, I opened the abscess by a small vertical incision through the muscle. The finger introduced through the opening passed behind the carotid sheath and the pharynx beyond the middle line, and could feel the base of the skull above. There was no bare bone to be felt. An inch and a half of small drainage-tube was inserted and the cavity washed out with perchloride of mercury (1 in 2000). Immediately after opening the abscess breathing was relieved and the cry became stronger. In three days' time the tube was removed and the child was discharged on Jan. 4th, 1891.

In both these cases there was a history of irritation and inflammation of the nasal or naso-pharyngeal mucous membranes, and in neither was the abscess associated with cervical caries or of tonsillar origin. The analogy between this form of retro-pharyngeal abscess and subacute or chronic ischio-rectal abscess so common in feeble and cachectic subjects is very striking. Both occur in weakly and debilitated individuals and seem to result from apparently slight irritation of the adjacent mucous membranes, and in each case, too, it is in the submucous tissue that the suppuration occurs and not in glands (or at all events those demonstrated in naked-eye anatomy) which drain the corresponding area of mucous membrane.

The above cases were under the care of Mr. Morgan and Mr. Owen respectively, to whom I am indebted for permission to publish them.

Swansea, S. Wales.

## ANGEIO-LEUCITIS AND DEATH FROM INFECTION BY MICRO-ORGANISMS DERIVED FROM THE ADHESIVE SURFACE OF BUNION PLASTER.

By A. S. MYRLE, M.D. EDIN.

Mrs. —, aged forty-nine, enjoyed good health and led an active out-door life since childhood; regular in all functions; she had seven children, the youngest being aged thirteen. About the 16th of May, to protect a bunion on the right foot, she applied a felt plaster; this was worn for a fortnight, when the bunion got red and painful, and a small ulcer was found on the great toe, where the hardened gelatine had worked its way through the skin. The sore was a quarter by one-eighth of an inch. About the end of May she felt "seedy," listless and nervous; her appetite had failed, and her nights were disturbed. She then consulted me. I found her, as I thought, very much below par; she was worrying herself about going to the Continent. I advised her to remain at home and prescribed a tonic, and, as the bunion was inflamed and painful, ordered lead and opium lotion. The ulcer, which looked sluggish and void of healthy granulations, I covered with iodoform and salicylic cotton-wool, and ordered the foot to be kept at rest.

On June 6th my son saw her. She complained of pain in the centre of the right patella, slight pain and swelling on the inside of the left wrist, and pain in the palmar aspect, first phalanx, of the forefinger of the left hand. She looked and felt ill, but there was no constitutional disturbance and the temperature, pulse and functions were normal. He thought the symptoms indicated either rheumatism or gout as their cause. He saw her again on the 7th; the symptoms were then unchanged. On the 8th I visited her and could discover nothing fresh. I inquired about the sanitary condition of her surroundings, and these were thought to be perfect, but she admitted she had felt that the stable in which some pet ponies were kept was in a most vile state and that the stench, when she had been there for ten minutes, almost made her sick. On the 12th she came to Harrogate. She was much exhausted by the long drive and complained of severe pain in various groups of muscles, in the calves, the soles of the feet, the hips and intercostal muscles on the right side. Pulse 72; temperature 98.5°. Any attempt at movement aggravated pain; and on the 14th this was so great that she took to her bed. On closer examination I found the lower extremities much wasted. I could almost wrap the skin of the calf round the shin-bone. This I attributed to trophic nerve disturbance. She was able to take food well. As the ulcer was still unhealed I applied creolin lotion. On the 17th the ulcer had healed, but the nurse called my attention to a slight redness on the left great toe and the dorsum of the foot; this was clearly erysipelatos; and on examining the leg I found it greatly swollen, the skin cool but tense, the swelling, elastic and involving the whole leg and thigh, did not pit on pressure. I told the patient she had what is usually called a white leg, and that I had never met with such a case.—18th: Pains more severe than ever.—19th: Much the same.—20th: Slight erysipelas on the back of the left thigh; pulse and temperature normal; taking plenty of nourishment, with brandy and champagne.—21st: Patient worse. I called Dr. Eddison of Leeds in consultation, but told him nothing, as I wished to have his own opinion unbiased by mine. He examined her most carefully, got her out of bed, but as soon as her feet touched the ground the pain was so severe we had to put her back. Dr. Eddison admitted he had never seen or read of such a case. He saw her again on the 22nd, when she was in much the same condition. As to treatment, excepting morphia hypodermically, nothing proved of the slightest use.—30th: The upper and posterior left thigh looked as if pus was forming, the erysipelas had extended, and I put her on solution of perchloride of iron, chlorate of potash and boric acid, and wired for Mr. Jessop, as I wished for a surgical opinion. At 4.30 he saw her, pronounced the case to be one of inflammation of the lymphatics, and thought it most critical.—July 1st: All pain gone from the left limb; also erysipelas abated; but pain and swelling in the right thigh had developed; pulse 84; temperature 100°. I doubled the amount of brandy and continued the iron mixture and morphia.—2nd: Mr. Jessop came again; everything seemed to be going on as favourably as we could expect, so much so that he proposed to meet me on the 4th.—3rd: She had passed a restless night and rambled slightly; still she took plenty of nourishment; pulse 90; temperature 100.3°. At 8 p.m. I found her in the same state, and administered the usual dose of morphia; at 10 she took soup and brandy. At 12 I was called and found her dying. She died ten minutes after my arrival.

What puzzled me was the severity of the pain, the suddenness of its attacks and the total absence of heat, swelling, inflammation or constitutional disturbance. I looked on it as acute neuralgia. Until June 17th there was no local change, and then the mischief showed itself not in the leg where the ulcer had been but in the other. Before coming to any conclusion as to the cause of death I had all the drains of the dwelling-house, out-houses and stables thoroughly examined by Mr. Slater, sanitary engineer, Leeds. He sent me a full report, and added: "In conclusion there appears to be no serious sanitary defect in the system of drainage," which is borne out by the fact that all the inmates of a very large establishment and even the stablemen, who spent hours in the ponies' stable, were in good health. Blood-poisoning we had here without doubt, and I am driven to the conclusion that some pathogenic micro-organisms buried in the gelatine took possession of the denuded surface and so infected my patient. Considering that all sorts of animal refuse are made use of in the manufacture of glues &c.—diseased hoofs, horns, parings of hides &c.—

the wonder is that more cases of infection by such germs have not been met with, and if I am right in my view, a Government inspector should be appointed, so as to prevent the utilisation of diseased animal refuse in the production of articles of commerce which must be brought into contact not only with the skins, but with the lips and mucous membranes of all classes of the community.

Harrogate.

## THE PLACE OF ANTHROPOLOGY IN MEDICAL EDUCATION.

By HAVELOCK ELLIS, L.S.A.

VIROHOW, who adds to his other claims to fame that of being the first of living anthropologists, has recently confessed that his attention was directed to the science of anthropology by the difficulties he encountered in the study of the insane. Charcot, again, frequently impresses on his pupils the importance of studying the healthy nude, and of an acquaintance with anthropometric canons, as an aid to the diagnosis of abnormal conditions. These utterances of two of the most honoured of our teachers in very different fields suggest that there is a defect in our medical courses, as they exist at present in England, which demands, at the least, some consideration. As evidence of the close relationship between anthropology and medical practice, it is enough to mention that in spite of the difficulties we at present place in the way, with a few exceptions (in which zoology alone led up to anthropology), the chief anthropologists of the last half century have been medical men—in not a few cases very distinguished in the profession; at the least, they have started as students of medicine. It is sufficient to mention in France Broca, Topinard, Lacassagne, Manouvrier, Collignon and Letourneau; in Germany, around and below Virchow, Ranke, Schaeffhausen, Ploss, Bartels and many others; in Italy, Mantegazza, Lombroso, Sergi; in our own country, Galton, Beddoe, Sir Wm. Turner, Flower and Garson, while to a somewhat earlier period belong the great names of Prichard and Thurnam. While every medical man would find a slight acquaintance with anthropology some help in practice, there are certain branches of practice in which some knowledge of anthropology is of especial assistance; for example, practice abroad and asylum practice. No country sends out so large a body of medical men into all parts of the world, but the amount of scientific work done among the races of our great empire by these men is so small that it is scarcely perceptible. French medical men have done far more for their few colonies, and the medico-legal and anthropological studies which have come from the Lyons school, under the inspiring influence of Lacassagne, are especially worthy of honour.

What is true generally of the English medical man abroad is equally true of the English alienist at home, and must be so, since the study of anthropology is largely the study of the manifestations of the brain and nervous systems. In the practical treatment of the insane England stands before every other country; in the scientific study of the insane no leading country is so backward. Elsewhere the exact study of madness is making rapid progress; it is beginning to be recognised that the great truth that knowledge means measurement (*scire est mensurare*) fully applies to the brain and nervous system. But in this country the rule-of-thumb method still reigns nearly everywhere. In the hands of a master in psychiatry the rule-of-thumb method more often than not leads to perfectly reliable conclusions as to the mental status and condition of the subject before him, but it has two obvious disadvantages: it can only be trusted in the hands of a master; while even a master's mere impressions, however trustworthy, add nothing to the common stock of scientific knowledge. In actual practice, with our present knowledge of neurology, it is becoming a great advantage to the alienist to be able to demonstrate that his subject is twisted in anatomical structure and perverted in physiological action; while, so far as science is concerned, in the end it is only accurate observation that counts.

All that can be said as to the state of psychiatry generally in England applies in even a stronger degree to that special branch of it which deals with the criminal. During a period of nearly twenty years no contribution to criminal anthropology of any value appeared in this country, and although of late there may be said to have been some revival of the science among us, it is still in an infantile stage. Of this a striking proof is furnished by the non-appearance of English representatives at the International Congresses of Criminal Anthropology, which have been attended by delegates from all parts of the world. Maudsley and others have, indeed, preached concerning the desirability of an exact study of criminals; but while in Italy Lombroso, Marro, Ottolenghi and Rossi have alone examined according to modern scientific methods over 3000 criminals, English alienists have been content to leave the first tentative practical efforts to a prison chaplain. It would, however, be unjust to put this down merely to apathy. It is largely due to ignorance. My own extensive correspondence with prison surgeons (as well as with medical officers of asylums) has shown that they often possess genuine scientific interest in the phenomena presented to them, but that they do not know how to observe rightly and record the facts that come before them and would gladly receive hints that would enable them to bring forward results of value to scientific medicine. It should be part of the business of medical education to give these hints.

We are often told that the medical student of to-day is overburdened with study; and, although it must be remembered that the period of his studies is now being enlarged, there is no doubt truth in this statement. It becomes the more necessary, on the one hand, to place in a period antecedent to medical studies proper the preliminary scientific courses; and, on the other hand, to cut away without remorse those branches of knowledge which have ceased to possess any close connexion with modern medicine. In certain directions it is probable that the studies of medical students might with advantage be abbreviated or rendered optional. The study of botany, however valuable and fascinating, no longer possesses any special advantage as a preparation for medical practice, now that the physician is very clearly differentiated from the herbalist and "medical botanist." An exact knowledge of the pharmacopœia also, which once embraced almost the largest part of the doctor's work, may now safely be left to the medical antiquarian. If it is necessary to make room for anthropology by the omission or contraction of other preliminary courses, it is not difficult to put one's finger on studies which for the student of medicine have come to possess a value which is merely traditional.

The point at which anthropology comes into medical study is very clear. Human anatomy and comparative anatomy both lead directly up to it. The study of human anatomy we cannot afford to contract. The comparative anatomy course, however, might well be arranged so as to afford a general view of the province of anthropology, while passing lightly over those earlier stages of animal life which have less concern for the medical man. With these lectures should be associated a brief course of practical demonstrations. We can scarcely expect at present that individual medical schools should be at the expense of fitting up laboratories of physical anthropology. This point would be much simplified if the excellent suggestion of Sir Andrew Clark was adopted—namely, that there should be a common centre for the teaching of the non-medical branches of medical education. In the meanwhile there are existing centres which by arrangement might no doubt be utilised. There is Galton's Anthropometric Laboratory in active operation; there is the Anthropological Institute, which might become a centre of work; and, above all, there is the Museum of the College of Surgeons, so rich in objects of anthropological interest, and which has not seldom been presided over by eminent anthropologists.

The time seems to have come when some small preliminary step in the direction here indicated should at length be taken. In Paris the anthropological Musée Broca, with its active laboratory and the anthropological school, has long formed part, as it were, of the medical schools. It is not necessary for the medical man of to-day to know much of the lower animal forms; still less necessary is it that he should have any thorough knowledge of plants. But it is increasingly necessary that he should understand the science of man.

St. Mary's-terrace, Paddington W

## THE TREATMENT OF FILARIA SANGUINIS HOMINIS.

BY SURGEON-LIEUTENANT-COLONEL A. CROMBIE, M.D. ED.,  
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IN the beginning of 1891 Surgeon-Lieutenant-Colonel E. Lawrie<sup>1</sup> reported two cases of filaria sanguinis hominis, in which the immature parasites disappeared from the blood under the use of thymol internally; and in December of the same year Dr. Walsh<sup>2</sup> of the General Hospital, Calcutta, recounted a case of chyluria in which they disappeared from the urine under the same treatment. Surgeon-Lieutenant-Colonel Lawrie gave one grain, and after a fortnight two grains, of thymol every four hours in one case, and two grains, increased to five grains, thrice daily in the other case; and after two and one month's treatment respectively the filaria could no longer be found. Dr. Walsh followed the treatment adopted in Surgeon-Lieutenant-Colonel Lawrie's second case, and in a fortnight the urine became clear and no filaria could be found in it.

I have recently given this drug in two cases. The first was a young man aged eighteen years, who was sent into hospital for lymphatic varix of the left spermatic cord. A history of periodic fortnightly fever, with lumbar pain accompanying the spermatic enlargement and a recent phlebitis affecting the left basilic vein, led me to suspect that he was infested with the filaria, and three immature worms were found in one preparation of his blood. I began by giving him on Feb. 2nd 5 grains of thymol thrice daily and rapidly increased the dose till on the 18th he was taking 200 grains daily, and this dose he took on Feb. 18th, 19th and 20th. The blood was examined every second or third night, and on the night of the 20th there were seven active and lively worms under one cover-glass. This large dose of thymol produced little or no effect on the patient beyond a little giddiness occasionally during the three days on which he took 200 grains daily.

Another patient, aged sixty-seven, of no occupation, who had resided fifty years in India, was admitted on Dec. 7th, 1891, with a contused wound of the scalp and an old-standing anterior curvature of the spine. Towards the end of February she had fever, accompanied by pain and swelling of the right leg, and on the blood being examined it was found to contain the filaria sanguinis hominis, about four to each drop. The treatment with thymol was begun on the 14th of March in doses of 5 grains thrice daily, rapidly run up to 15 grains four times a day. These doses produced a sensation of heat down the track of the œsophagus after taking the medicine, but she could take 45 grains daily without inconvenience. After a fortnight's treatment the filariæ were found in considerable numbers and very active.

It is evident that in neither of these cases did the thymol, even when pressed to the limit of toleration, have any effect on the filaria. Thymol is so exceedingly insoluble that it is improbable that any appreciable quantity of it left the intestinal canal. As an intestinal anthelmintic I have the very highest opinion of thymol, using it with the greatest success in tapeworm as well as against the smaller worms of the bowel, but I am afraid we must abandon the hope that we had found in thymol a cure for the parasites of the blood. The second patient submitted herself for treatment with other drugs, and she was given in succession for a fortnight at a time the following:—Two minims of creosote three times a day; 2 minims of benzol, gradually increased to 5 minims, three times a day; 2 minims of guaiacol, increased to 5 minims, three times a day; and, lastly, 5 grains of gallic acid, increased to 10 grains, thrice daily, but at the time of writing the nematodes are as numerous and lively as ever.

Calcutta.

<sup>1</sup> THE LANCET, Feb. 14th, 1891.

<sup>2</sup> Indian Medical Gazette, December, 1891.

THE SEWAGE OF HALIFAX, YORKS.—A report has been issued by the borough engineer of a scheme for dealing with the town sewage at SALTERHEBBLE. It is proposed to construct settling and precipitation tanks, also sludge filter beds, and to chemically treat the sewage. The entire estimated cost is £19,683.

A Mirror  
OF  
HOSPITAL PRACTICE,  
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ROYAL FREE HOSPITAL.

PRIMARY TUBERCULOUS ULCERATION OF LARGE INTESTINE.

(Under the care of Dr. SAINSBURY.)

W. E—, aged nineteen, brass finisher, was admitted into the Royal Free Hospital on Oct. 28th, 1890, suffering from diarrhoea. On his father's side the family history was good, but three relatives of his mother had died of "consumption." He has never been very strong, but up till about thirteen years of age he had been fairly well. Ever since then he has been subject to attacks of diarrhoea and abdominal pain, accompanied by giddiness and frontal headache. These attacks vary in length, lasting from one to two weeks. The motions have been generally light, and have never been mixed with blood. These attacks have recurred at varying intervals, but the longest interval has been only six weeks. He has also been subject to a cough, especially troublesome in the morning, and markedly worse in the winter; there was much expectoration, but never any blood. A fortnight before admission an especially severe attack of diarrhoea occurred, with pain in the abdomen, headache, chiefly frontal, giddiness and flushes of heat and cold. The abdominal pain had for the most part been diffused, but occasionally it had been located in the right iliac region. The diarrhoea had continued up to admission and for the last week the patient had been confined to bed. On admission the patient was small for his age and looked by no means strong. His lips and nails were distinctly bluish; pulse 120; respiration 39; temperature at 6 P.M. 102°. The appetite was bad and the tongue furred. He complained of pain in the abdomen, especially in the right iliac fossa. The bowels acted generally twice a day; the stools were liquid but normal in colour. There was no abdominal tenderness. Neither liver nor spleen could be felt. Sibilant râles could be heard all over the chest, but nothing else abnormal could be found. The cough was somewhat troublesome. The urine was rather scanty, but contained no albumen or sugar. The patient was put on a diet of three pints of milk, and given a simple linctus for the cough.

Oct. 29th.—He has had a bad night, the cough disturbing him greatly. He has passed two liquid stools. The temperature fell this morning to 97°, but has risen again this afternoon. The pulse is markedly dicrotic.

Nov. 2nd.—He complains of some sharp pains in the right iliac region in addition to the previous dull pain there. His temperature rises every evening to 102° or even 104°, obtaining the maximum about 6 P.M., and falls the next morning to below 98°, with profuse sweating.

8th.—No marked change in his condition. He still sleeps badly, the cough being troublesome. The daily variations of temperature still continue. Some beef-tea is added to the diet.

18th.—The temperature did not rise above 100.5° for two days, but has since resumed its former course.

24th.—An enema of oil of turpentine in thin gruel was administered. The diarrhoea continues, and on the 27th five minims of tincture of opium were given every four hours, but it seemed to have but little effect on the diarrhoea.

Dec. 5th.—His right ear commenced to discharge slightly on Dec. 1st. This continues. To his milk diet have been added some eggs, milk pudding, and bread, and two ounces of pounded meat. As the diarrhoea was still very troublesome, he was ordered ten minims of aromatic sulphuric acid in an ounce of decoction of logwood.

6th.—He feels better for the solid food, though the diarrhoea is rather worse. The daily variations of temperature still continue, but are of smaller extent. Ordered five grains of compound ipecacuanha powder and ten grains of compound kino powder, three times a day.

9th.—The diarrhoea still continues. He was put on a diet of milk and eggs again, and an enema was given twice a

day of two grains of sulphate of copper and twenty minims of tincture of opium in four ounces of mucilage of starch.

11th.—The enema seemed to have had no effect on the diarrhoea, so it was discontinued, and five grains of lead and opium pill were given, and turpentine stupes ordered to the abdomen.

28th.—On Dec. 12th the temperature fell to normal, and has remained so, except for two temporary rises, until now. The diarrhoea has diminished in frequency and the general condition of the patient has much improved; but to-day the diarrhoea was again troublesome, and he was ordered five minims of castor oil and five minims of tincture of opium to half an ounce of camphor water every hour.

29th.—The diarrhoea is decidedly better, but the temperature has risen to 103°. As the medicine seemed to cause nausea, it was stopped.

Jan 12th, 1891.—The diarrhoea varies greatly in severity from day to day. The patient is very tired of milk diet, and so has been given some eggs and milk pudding.

15th.—The patient complains that his throat is very sore, and that swallowing is painful and difficult. His cough still continues, but nothing abnormal can be detected in the chest. His general condition is worse. He was ordered essence of beef and three ounces of brandy a day.

20th.—The diarrhoea still continuing, the patient was ordered one drachm of liquid extract of bacl and ten minims of liquid extract of opium three times a day.

21st.—Slight hæmorrhage appeared in the stools to-day. An enema of ten grains of nitrate of silver in four ounces of mucilage of starch was ordered. The diarrhoea is increasing in frequency, the bowels acting seven or eight times a day. He has been ordered subnitrate of bismuth with opium and kino.

30th.—He is certainly better and the diarrhoea has diminished. The throat continues to be sore.

The patient's general condition did not materially alter until May 15th. At times he was well enough to get up for some hours. The diarrhoea continued, the bowels acting from six to eight times a day. The cough was all the while troublesome, but there was little sputum.

The temperature from Jan. 18th remained about normal until death; there were indeed occasional rises to 100° or a little more, but these were at long intervals. He slowly wasted. On May 16th he was seized with severe pain in the left axilla, but on examination no adventitious sounds could be heard. Œdema, especially of the left foot, came on. On May 19th he had severe dyspnoea in the early morning, was unable to take any food, and died the same evening.

At the post-mortem examination the left pleural cavity was found to contain about half a pint of serous effusion and the parietal and visceral surfaces of the pleura were coated with recent lymph. The right lung, except just at the apex, was extensively invaded by small caseous masses, most marked on the surface. In the lower part of the upper lobe was an irregular cavity with very offensive contents; in the lower lobe was a patch, solid from catarrhal pneumonia and tuberculous infiltration. Patches of catarrhal pneumonia were found in many parts of this lung. The left lung was also extensively diseased, the only free part being the apex. A large irregular cavity existed in the lower part of the upper lobe, with offensive contents. The lower lobe was almost solid with catarrhal pneumonia, but numerous caseous tuberculous masses also existed. The heart was small. The liver showed venous congestion. The large intestine, from cæcum to rectum, had its walls much thickened and very extensively ulcerated. Many of the ulcers were large and deep, with overhanging edges. A considerable number of small abscesses existed in the wall of the bowel. The small intestine only exhibited a few tuberculous ulcers, notably two near the ileo-cæcal valve. The œsophagus was ulcerated for a length of about three inches, beginning half an inch from the cricoid cartilage. The other organs were normal and showed no tubercles.

*Remarks.*—The case here recorded is of interest for the following reasons: 1. The frequent recurrence during six years of attacks of diarrhoea and abdominal pain. 2. The marked, but irregular, pyrexia which for more than two months accompanied the attack for which the patient was admitted into hospital. 3. The essentially abdominal characters of this attack, which were such that, in spite of the irregularity of the pyrexia, it was difficult during the earlier stages to exclude typhoid fever. 4. The absence of any definite signs in the chest, though this was frequently examined. Reviewing the whole case, though it must be

admitted that it is often difficult to estimate the relative ages of tuberculous lesions of different parts of the body, yet the evidence here is strongly in favour of a primary intestinal tuberculosis, with secondary implication of the lungs. It will be noted that both lungs, though extensively diseased, were free or nearly free at their apices; also that in the rest of the lungs the foci, though numerous, were very scattered. The question arises of what nature were the preceding attacks of diarrhoea—tuberculous or simple?

### NORTH RIDING INFIRMARY.

PNEUMOTHORAX.—TUMOUR (FIBRO-ADENOMA) OF THE MALE MAMMA.

(Under the care of Dr. MUNRO.)

WE publish the following account of a case of pneumothorax, as the question of treatment is being discussed in the correspondence columns of THE LANCET. The course of such a case is usually as described below—a feeling of something giving way, sudden severe pain and difficulty of breathing, and the abnormal physical signs in the chest on the side affected, with displacement of the heart, and the cause, tuberculous disease of the lung, the most common one. Treatment by aspiration again failed to give relief. For the notes we are indebted to Mr. G. Victor Millar, resident surgeon.

CASE 1.—R. H.—aged twenty-four, seaman, was brought to the North Riding Infirmary on April 20th, 1892, suffering from severe pain in the left side of the chest and great difficulty of breathing. The patient had a somewhat cyanotic appearance, the face wore an anxious expression, and he looked like a person suffering from pneumonia of several days' standing. He stated that three days previously, whilst standing quietly on the deck of his ship, he felt something give way in his left side and was suddenly seized with severe pain, of a stabbing character, in that region, and with great difficulty of breathing. He said he had suffered from a cough for the last two or three years, but did not think he had been losing flesh. He had not spat up blood or suffered from night sweats; in fact, up to the present illness he had enjoyed fairly good health.

On physical examination the left chest was found markedly distended. Percussion over that region gave a hyper-resonant or tympanitic note all over. On auscultation the breath sounds were markedly diminished or absent, vocal resonance was also diminished or absent, and the same may be said of the vocal fremitus. Percussion with two coins combined with auscultation gave the bell sound or bruit d'airain. On the right side posteriorly a small patch of dullness was found over the root of the lung on percussion, and auscultation revealed bronchial breathing, increased vocal resonance, and moist sounds. Over the rest of the right lung, both in front and behind, harsh breathing accompanied by moist sounds and an occasional bronchial r le was heard. The heart was displaced to the right, for the cardiac impulse could not be felt either in its usual situation or anywhere else, and on auscultation the heart sounds could not be heard at the left of the sternum, or, at any rate, only very faintly, but were well heard just at the right margin of it. All these symptoms, pulmonary and cardiac, pointed to the case as being one of pneumothorax and the sudden onset, together with the lung symptoms, seemed to indicate that serious lung mischief was the cause of the patient's state on admission. The diagnosis, then, was pneumothorax probably due to phthisis. The left chest was aspirated and a quantity of air allowed to escape. This confirmed the diagnosis, but gave no relief to the patient. He was placed on a stimulating plan of treatment, but died about fifteen hours after admission.

*Necropsy.*—The left lung was found to be collapsed and the pleural cavity distended with air. The lung on being cut into was seen to be riddled with what may be called abscesses for want of a better term, varying in size from a lentil to a nutmeg. These points of suppuration were probably tuberculous in origin and put the question of the cause of the pneumothorax beyond doubt. The right lung was in an exactly similar condition.

CASE 2.—Before describing this case a few remarks, from an account of "Fibro-adenoma of the Mamma," given by Dr. C. Schimmelbusch in the *Archiv f r Clinische Chirurgie* of this year, may not be uninteresting. He says: "They were first described by Cruveilhier as growths furnished with a connective tissue capsule, freely movable, never forming con-

nexions with the muscles or pectoral fascia, and only forming adhesions with the skin when some special irritation exists." Schimmelbusch, in addition, says: "The size of these tumours varies very much, some being as large as a child's or man's head. There is no relation, however, between the size and the age of the tumour. Some of the very small ones had existed for years and several of the largest had developed in less than a year. Consistently hard, almost cartilage-like. The large ones, however, are generally softer. Fibro-adenoma is more frequent in early life, but seen sometimes in patients over fifty and sixty years of age. Cruveilhier named them 'fibroma' at first, subsequently admitting their glandular character." "Pure fibroma" of the breast is extremely rare, hardly ever occurs. During the last three years all the mammary tumours in Bergmann's clinic have been carefully examined, and during that time not a single fibroma has been found. Schimmelbusch also describes their minute structure as follows:—"They are composed of epithelial elements whose type is that of the glands of the mamma, and of a firm or loose connective tissue lying in more or less broad tracts between the epithelial constituents. The connective tissue in firm tumours is fibrous with spindle cells; in the soft rapidly growing, of a loose myxomatous character. Only three or four acini may be found in one field under the microscope."

The following is an account of the case: E. L.—aged twenty-seven, labourer, was admitted into the North Riding Infirmary on June 14th, 1892, suffering from a swelling of the right breast in the region of the nipple. He stated that twelve months ago he received a kick directly on the nipple. The force of the blow knocked him over, otherwise he did not feel it very much. The breast was swollen and tender for a day or two, but this passed off, leaving no trace of injury. Six months ago he noticed that a small swelling had appeared just behind the nipple. This gradually increased in size, and he thinks it grew more rapidly a month prior to admission into hospital. The tumour was circular and a little larger than a crown-piece, the nipple being over the centre of it. It was firm, even to hardness, especially in its centre. It was freely movable under the skin, except at the nipple. It appeared to be somewhat lobulated and felt not unlike a mammary gland or a fatty tumour, only harder than either of these. It was not painful on pressure, except when directly applied over the nipple. It was thought to be either a fibroma (Dr. Munro had not then read Schimmelbusch's account) or a hypertrophy of the remains of the mammary gland due to the application of an irritant. However, as there was a history of rather rapid growth, and with this the possibility of its being malignant, it was decided to remove skin and tumour all away together. This was done, and the wound practically healed by first intention, allowing the patient to leave the hospital in a few days. The tumour was forwarded to Professor Greenfield of Edinburgh for examination. His report is as follows: "The tumour is composed of very dense fibrous tissues, with here and there a few scattered gland-like acini lined by columnar epithelium. It is, therefore, a fibro-adenoma, in which the stroma is very dense and approaches in nature a chronic inflammatory hyperplasia of the fibrous tissue of the gland. Now that it is removed it should give no further trouble."

### Reviews and Notices of Books.

*Lectures on Diseases of the Digestive Organs.* By C. A. EWALD. Translated from the latest German Edition by ROBERT SAUNDBY, M.D. Edin., F.R.C.P. Lond. Vol. I.: Lectures on Digestion. Vol. II.: Lectures on Diseases of the Stomach. London: The New Sydenham Society. 1891-92.

THE New Sydenham Society has been the means of bringing before the notice of the English reader many works of high merit which have appeared in foreign countries. The selection of Professor Ewald's classical treatise upon digestion has been no less happy than many others that have preceded it, whilst the assignment of the task of translating it to Dr. Saundby was fitting and could not have been better, for it was Dr. Saundby who twelve years ago published an English translation of the first edition of the Lectures on Digestion, and several years elapsed before the author produced his second volume. That there has been a considerable addi-

tion to our knowledge of the physiology of digestion since the first edition appeared is seen in the vast amount of new material now incorporated in the lectures. Professor Ewald has rendered a great service both to physiology and to practical medicine by his writings on this subject, for there are few conditions in which hitherto the gap between physiological knowledge and the practical application of such knowledge has been more evident than in that of digestion and its derangements. No doubt there is still much to be learnt, and it is true that in this country we do not practise to the same extent the new methods of examining the quality of the gastric juice in our patients as is done in Germany. Professor Ewald, who rightly regards physiology as the basis of pathology, is very sanguine of the future of these methods. He gives full directions for their pursuit, and were it not that their indications are at times uncertain they might gain more general adoption. The twelve lectures which compose the first volume cover the whole ground of the process of digestion, those of the second volume are confined to the diseases of the stomach. These latter lectures form an excellent conjunction of the scientific and the practical. The practitioner will find many suggestive remarks and valuable therapeutic hints in all the lectures, and even subjects so familiar as ulcer and cancer of the stomach are treated in a manner which lends them fresh interest. Of equal value are the descriptions of gastric dilatation and of the neuroses of the stomach, which latter, as Dr. Goodhart recently showed us, were often overlooked or disregarded. There was a distinct need for such a work as the present, and it will doubtless be taken as the type and pattern of the right method of treating the subject. We need hardly add that the translation is excellent.

*The Wife and Mother: a Medical Guide to the Care of her Health and the Management of her Children.* By ALBERT WESTLAND, M.A., M.D., C.M. London: Charles Griffin and Co., Limited. 1892.

THIS book, according to the preface, is addressed to women who are desirous of fulfilling properly their duties as wives and mothers. It is a difficult task to write a book with this aim which deals with medical subjects, as the knowledge conveyed by the writer is usually purely professional and the mode of treatment is apt to be too technical. On careful perusal of this volume of 282 pages we are inclined to think that the author has not altogether escaped this danger; but in saying this our fault-finding is at an end, because the book is well arranged, and though sometimes a little too verbose it is on the whole clearly written. The first part is concerned with early married life, and pregnancy and its attendant symptoms and effects are described. Motherhood is discussed in the second part. The development of the child and the common maladies of infancy are somewhat fully dealt with in the third division, the chapter on the nutrition of the child being very carefully written and the hints as to artificial feeding of infants reliable. The fourth part is taken up with the change of life and its discomfords. The book is well printed and contains a very full index.

*The Medical Pathology of Tuberculosis (Pulmonary Tuberculosis and Tubercular Phthisis).* By GEO. F. CROOKE, M.D. Edin. London: Baillière, Tindall, and Cox. 1891.

THIS little volume is composed of six lectures delivered to a post-graduate class at Queen's College, Birmingham. They cover ground which has been well trodden by pathologists in all countries for the past half century; but nevertheless they are fresh and original, and show that the author has arrived at his conclusions after much personal research. He rightly holds that we can only form correct notions on morbid processes by considering diseases in their clinical course as well as in the results brought to light by the morbid anatomist; and he attributes some of the divergences of opinion on the subject of tuberculosis to the too great stress

occasionally laid on the results of experimentation, rather than on those of bedside observation and pathological anatomy. His discussion of the histology of pulmonary tuberculosis is characterised by common sense, and his dictum that in phthisis there is a commingling of pneumonic lesions of various types and the specific growth of tubercle is accurate. The confusion of ideas on the subject has been brought about by the endeavour to see in all the phthisical process something specific, whereas, as Dr. Crooke says, the only absolute test of a tuberculous lesion is its conjunction with the bacillus. He holds, too, that in the majority of cases of phthisis the tuberculous infection primarily attacks the lungs, but that in a certain number there is antecedent local inflammation, whilst in others the lungs are secondarily infected, through blood or lymph streams, from a more or less distant focus. All who desire to have in compact form the essential points of the relationship of tubercle to phthisis will do well to peruse these highly instructive lectures.

*The Pathology of Mediastinal Tumours; with Special Reference to Diagnosis.* By JOHN LINDSAY STEVEN, M.D. London: H. K. Lewis. 1892.

THE institution of post-graduate instruction has been the means of enriching our literature with more than one monograph of value. The lecturers, recognising what is required of them, often select some special subject of interest, and having thoroughly analysed it, present the results of their study in a form capable of being weighed and appreciated. The volume before us arose in this way, being based upon a course of lectures delivered by the author in Glasgow two years ago. Although not so exhaustive in a bibliographical sense as the monograph by Dr. Hare of Philadelphia, it is in some respects a better study of the subject, and is especially valuable in giving full clinical details of cases illustrative of the various forms of mediastinal neoplasm. These growths are classified by the author under the headings of (1) sarcoma and lympho-sarcoma, (2) cancer, (3) fibroma, (4) tubercular and other specific new growths, and (5) miscellaneous varieties. He does well to emphasise the difference between Hodgkin's disease, in which the mediastinal glands may be extensively involved, and the primary more localised lympho-sarcomata which form a large proportion of mediastinal tumours, although the latter class may give origin to metastatic growths. There is a careful study of the relationships of mediastinal sarcomata to the various tissues and organs which may be implicated by them; and two cases of secondary mediastinal sarcoma are given, in one of which the primary growth was in the testicle, in the other in the femur. As regards carcinoma, we should concur with him in his statement of the rarity of the primary disease (endothelioma), and we hardly think that cancer of the oesophagus is strictly of this class. It is, however, doubtless included, since it arises in one of the structures contained within the posterior mediastinum, and the details of one of the recorded cases are of especial interest. In this case the cancer was situated at the usual site—viz., opposite the bifurcation of the trachea—and it caused death by ulcerating into the aorta. The rare condition of fibroma of the mediastinum—which is apparently different from callous mediastinitis, another rare condition associated with pericarditis and productive of pressure signs like those of tumour growths—is illustrated by one remarkable case where there were also subcutaneous nodules and a history of recurrent rheumatism. Not much space is devoted to other formations; indeed, more might with advantage have been said about bronchial gland tuberculosis, and the final chapter deals with the subjects of diagnosis and treatment. With regard to the latter none but palliative measures are available except in the rare case of syphilitic disease, for the mediastinum is beyond the reach of the knife and no internal treatment at present known can influence the growth of these tumours.

# THE LANCET.

LONDON: SATURDAY, AUGUST 13, 1892.

A FEW weeks ago we referred to an interesting report by Dr. J. KING WARRY, the acting medical officer of health of Hackney, on an outbreak of scarlet fever in Clapton. Dr. WARRY was able to associate this outbreak with the distribution of a particular milk-supply, but he could find no evidence as to the manner in which the milk became infected. There was no reason for believing that the milk was infected from a human source, but he noted that some of the cows whose milk came under suspicion had an abnormally high temperature and suffered from abrasions and cracks of their teats. We have now received a report by Dr. W. H. HAMER which has been presented to the London County Council and which gives an account of several outbreaks of scarlet fever in London and in districts adjoining London during the months of March and April of the present year. These outbreaks were also traced to the distribution of an infected milk-supply. In these cases the milk which came under suspicion, instead of being received from the country, was derived from a London cowshed in the possession of a contractor, who also received milk from some forty farms. The London shed milk was distributed locally and was also used to supplement other supplies when these were insufficient for the purposes of customers situated in different districts in the neighbourhood of London. Unfortunately, owing to the absence of sufficient record of the distribution of these numerous supplies, it was impossible for some time to discover which was at fault, and it was only after painstaking investigation that evidence was finally obtained that the London shed milk was to blame. In the meantime outbreaks of scarlet fever due to this cause occurred in Charlton, Plumstead, Bexley, Greenwich, Deptford, Chislehurst and Sidcup, all of which were carefully investigated by the medical officers of health of these districts and the results of the inquiries were freely placed at the disposal of Dr. HAMER, who has been able to show that the London shed milk from March 25th or 26th to some day in the first week of April was causing disease in these localities.

As in the case of Dr. WARRY at Clapton, so in that of Dr. HAMER careful inquiry failed to show that the persons employed in the milk business or their families had recently suffered from scarlet fever. Dr. HAMER, however, in considering the question of bovine contagion, comments on the fact that on March 25th a black-and-white cow was noticed to have a cough, to be "off her feed," and to be yielding milk which was "ropy." The ropy character persisted for seven or eight days. This cow and four other cows which were milked by a particular milkman presented on examination of their udders and teats certain scabs and excoriations. The fact that the more serious disturbance of the black-and-white cow's health, which was attributed to a cold, had led to interruptions in the continuous use of its milk caused Dr. HAMER to notice whether there were any coincidences between the behaviour of scarlet fever in the different

districts and the times of these interruptions. He observes that the six days on which the black-and-white cow suffered from a cold were the six days of maximum infective power of the milk supplied to the several infected localities, and that after April 1st, the day when the treatment of the cow was first commenced and after which date the milk of this particular cow was on several occasions excluded from the business, the infective property became less marked. On April 8th the milk of this cow and that of the other four cows which had eruptions in their teats and udders were excluded from the business and all evidence of further milk infection ceased, but on this day also the milk of all the other cows was "scalded" before being distributed, and it is therefore impossible to say whether this cessation was due to one or the other circumstance.

Dr. HAMER has contented himself with an account of his investigations without drawing any conclusions as to the manner in which the milk became infected, and in this he has no doubt acted wisely, although the history of the outbreak may seem to be suggestive of the view that infection resulted from some condition of the cow. Evidence of this nature would appear to be by degrees accumulating, and should lead eventually to a more detailed study of the minor ailments of the cow than these maladies have hitherto received. The subject is one which especially concerns the veterinary profession, and it may be hoped that the publication of these reports will have the effect of demonstrating the necessity for more knowledge than at present exists. Similar careful investigations of other outbreaks will no doubt throw further light on this question.

If not yet a science criminal anthropology is now a subject of scientific discussion, and as such has asserted its right to a place in the programme of the British Association. Year by year the problem with which it has to deal is so far approaching solution that its limits are more clearly defined and the conditions under which it can be solved more practically appreciated. Many workers for a generation and more have been in the field, and among these, as Dr. CLOUSTON reminds us, there were three compatriots who signally facilitated the inquiries of their successors. These were Dr. BRUCE THOMSON, of the Perth Penitentiary, Dr. DAVID NICOLSON, of the Broadmoor Asylum, and Dr. WILLIAM WILSON. By these physicians it was established beyond the reach of criticism that criminals inherit their qualities and transmit them, often aggravated seldom diminished, in their turn; that they constitute a distinct and, under easily recognisable features, a numerous class; and that the only effectual way of dealing with them is, primarily at least, to disperse them and, by preventing their cohabitation, to check the reproduction of their kind. Schooled in this teaching, the French followed it up by observation and induction which went far to strengthen it and to diffuse its acceptance. In connexion with the police system of Paris medico-psychological experts, like the late Dr. BERTRAND DU SAUL, were appointed to examine in the morning the persons arrested over-night, and very often to relegate to the asylum cases which would merely have been sent to prison. Incidentally we had occasion, when commenting on that

great physician's life-work, to adduce striking instances in which his timely intervention saved the victim of cerebral disease from condemnation to criminal society—cases in which the victim so rescued returned to thank him for restoration to moral health and for delivery from an atmosphere and from influences in which the temporary lapse from mental soundness would have been fostered, if not stereotyped, past recall. Later still, the profession in Italy—mainly in the sub-Alpine and Neapolitan schools—utilised its unique opportunities of observing and analysing crime and its causes so as to extend the teaching of the British and the practice of the French pioneers, and, in the well-known works of LOMBROSO and COLAJANNI, to make the beginnings at least of a science of criminal anthropology. Nor must the labours of the distinguished neurologist and alienist, Dr. BENEDIKT, of Vienna, be omitted in this connexion. It is to him we owe mainly the now widely recognised principle of "studying criminals in different types," and of thus gradually building up the materials of an induction of which the next step would be the establishment of criminal anthropology as a science.

Dr. CLOUSTON was very lucid in his exposition of the factors of which criminal anthropology must take cognisance. Three in number, these are—first, the heredity of the criminal; second, the criminal's brain, with its reactive and resistive qualities in each case; and third, the criminal's surroundings, with their effects, both immediate and permanent. The first of these takes account of the past history, chiefly the neuropathic history, of the criminal's family and the transmutation of its inherited diseases into other diseases in offspring. Malnutrition, privation, sense of insecurity, all the incidents of a lawless struggle for existence come within the inquirer's purview, "while atavism and reversion of many sorts" might furnish a clue to the problem in any individual case or family. The second factor, that of the essential qualities of the brain, its receptivity and reactive power, its resources in self-control, especially in withstanding pain, fear, temptation and such trials of the moral sense, comes next to be considered. This covers a wide field and presents the greatest difficulties to the investigator—a field in which, intelligibly enough, the Italian school has made the most valuable contributions, as the abolition of capital punishment in Italy, by preserving the lives of the most typical class of criminals, has furnished the best means of studying them *intus et in outo*. In the Medico-Psychological Museum recently founded by Professor PAOLO MANTEGAZZA at Florence we find a further aid to research in this department, especially in the grooves in which the energising brain is apt to run, sensually, morally and even intellectually. The third factor includes the mental and social atmosphere in which the subject of crimino-anthropological inquiry has been brought up and must comprise early companionship, moral and religious influences—all, in short, that contributes to motive in its less healthy issues. Those tracts of the brain cortex organised for mental processes are the field in which the future character of the individual—criminal or non-criminal—germinates and grows; they are, as Dr. CLOUSTON well puts it, "the fullest of hereditary qualities, the most powerful, yet the most notable, by far the most physiologically valuable part of man," and the question that confronts the student of criminality he formulates thus: "Have we among us' men and women whose mental

cortex is of such quality that in its ordinary environment the conduct of its possessors must necessarily be anti-social and lawless? and if so, what anatomical, physiological and psychological signs are there to distinguish this criminal cortex and its possessor?"

The Italian and some of the German school assert that such signs exist and are not difficult to recognise—that, in fact, the criminal was a criminal potentially long before he was one actually. With characteristic caution, British jurisprudence is slow to admit this; nay, virtually denying it, it takes no measures to meet it; while on the Continent, wherever the abolition of capital punishment has been agitated or placed on the Statute-book, it has been largely appealed to as a rationally ascertained fact. Between the cautious attitude of the British law and the confident procedure of the Italian there is surely a *via media*, and this, we think, Dr. CLOUSTON has well indicated. Criminals, it will be admitted, generally come far short of a high or ideal standard of brain, body and mind. That being accepted, the next step is to work in the field it prescribes, taking all that enthusiasts like LOMBROSO or MANTEGAZZA or BENEDIKT can offer of sound or even suggestive material, and utilising every opportunity afforded by our more intimate cognisance of the life, normal and abnormal, seething around us to accumulate the observations and the facts on which a sound induction must be based. Inhibitory paresis, for instance, may be admitted to be a pathological condition without expecting for it judicial or even forensic acknowledgment, while all that the medico-psychologist can hope to do is steadily to accumulate such evidence of it as science can accept, and gradually to conquer for it and for the class of truths which it typifies the concurrence of popular opinion and ultimately of the law itself. The President of the Anthropological Section, Professor MACALISTER, had a good word to say in this connexion for the draconian law, which, by extending capital punishment to petty larceny, stamped out the criminal class on the threshold. CARLYLE, in his "Latter-Day Pamphlets," has similar recommendations for what he calls "the devil's regiment of the line." But science will work on the more humane view that society is responsible for its degenerative types, and that it must leave no effort untried for their rehabilitation till, with the establishment of sounder and healthier conditions, it creates a social organism in which crime will become as preventable as disease.

THE discussion at Nottingham on cardiac tonics, if not materially advancing our knowledge of an important chapter in therapeutics, was valuable as serving to "mark time" and to suggest lines for future inquiry and research. Dr. CLIFFORD ALBUTT was no doubt right in affirming that our knowledge on this question is still rudimentary and obscure, but the general assent accorded to most of the positions taken up by Dr. BROADBENT in his thoughtful and philo-sophic address shows that a considerable measure of agreement has been reached upon many points. Thus, clinical observers are practically unanimous that of the large group of cardiac tonics digitalis is much the most potent and trustworthy member, that strophanthus is also a valuable agent, though on the whole much inferior to digitalis, and that the utility of convallaria, caffeine, casca and spartein,

though occasionally striking, cannot be highly rated. It is when we come to the more minute points regarding the precise mode of action of these remedies and the indications and contraindications for their use that the widest divergence of view is found to exist. To some of these still disputable points we may profitably direct attention.

Digitalis naturally claims priority of attention, not only as the most efficient of cardiac tonics, but also as the agent to which the ordinary practitioner almost invariably gives the first trial. It is now practically certain that digitalis is not a simple substance, but a composite of several active principles, of which the action upon the vascular system is by no means uniform. Professor KOBERT has described three such principles—viz., digitalin, digitalein and digitoxin—and affirms that, whereas the first of these contracts all the vessels, the latter two dilate the vessels of the kidneys. Dr. LAUDER BRUNTON confirms the view that in the foxglove we have antagonistic principles at work, and it is obvious that until these have been isolated and separated we are still using a clumsy and inexact, although most valuable, weapon. Another point around which much doubt still lingers is the comparative action of digitalis upon the cardiac muscle and the arterioles. Dr. BRUNTON and most British authorities believe that digitalis acts powerfully both on the heart and the arterioles; but many good observers, especially on the Continent, doubt its direct action on the arterioles. This is a point of great practical importance upon which greater precision of knowledge is highly desirable. Assuming the correctness of the former view, many pharmacologists have directed their efforts to the search for an agent that would stimulate the heart without contracting the arterioles, and it is claimed for strophanthus and oxy-sparteïn that to some extent they fulfil this indication. This claim must still be regarded as of doubtful validity.<sup>1</sup> Another important point is whether digitalis, which so manifestly increases the fluids of the urine, also increases the solids, and if not, whether any agent could be found having such action which might be advantageously combined with digitalis. Caffeine has been supposed to fulfil this indication, but apparently on very insufficient grounds. Casca and convallaria are, we imagine, relatively but little used, and we are not aware of any recent evidence tending to raise our estimate of their utility.

When we come to inquire into the indications for the use of the various cardiac tonics, and especially their applicability to the different valvular lesions, we engage in a difficult search. A considerable measure of unanimity has, however, been attained on several points. It is hardly doubtful that the brilliant successes of digitalis are chiefly found in cases of mitral regurgitation and in aortic disease with sequential mitral involvement. The utility of the drug is certainly much less evident in obstructive disease, whether mitral or aortic, and in the former case—i.e., in mitral obstruction—some observers deny its value altogether. The point around which controversy chiefly rages is the mode of action and therapeutic value of digitalis in aortic regurgitation. On this point we must declare our decided preference for clinical experience over mere theoretical considerations. The plausible argument that, inasmuch as digitalis prolongs the diastole, during which in the affection in question a reflux current of blood is flowing into the left ventricle, it must necessarily act injuriously is really of little weight when put side by

side with the hardly questionable fact that many patients with pure aortic regurgitation manifestly improve under digitalis. Further, this theoretical argument, apparently so conclusive, is really open to several objections. It is quite possible that digitalis might so strengthen the ventricular systole as to promote the efficiency of the cardiac contraction to an extent that would more than counterbalance the presumable loss during diastole. Apart from theory, there seems decisive clinical evidence that digitalis is often beneficial in aortic regurgitation, even when there is no discoverable co-existing mitral failure. Another broad clinical rule that seemed to find general acceptance was that in aortic regurgitation accompanied by mitral symptoms digitalis acts well, but that if the symptoms were distinctively aortic—such, for example, as thoracic oppression, vertigo &c.—its utility was much less manifest. It was suggested in the course of the discussion that sudden death in aortic regurgitation had become more frequent since the general introduction of digitalis and other cardiac tonics into practice. Any precise evidence on this question would be valuable, but the point is very difficult of determination.

It is to be hoped that the great attention now given to cardiac tonics will not withdraw the minds of practitioners from those other agents in the treatment of heart disease upon which Dr. BRUNTON wisely laid so much stress—viz., rest, graduated exercise and the elimination of waste products. The wise apportionment of rest, the cautious but not too timid resumption of regular exercise, the occasional administration of a mercurial purge and other eliminants—these are points of the first magnitude in the management of cardiac disease.

To denounce the Church, particularly the mediæval Church, for its antagonism to rational medicine is an easy task, so easy, indeed, that the denunciation has long been one of the *loci communes* of positivist rhetoric. True enough, the ecclesiastical mind, both before and after the Renaissance, studied nature and nature's laws from the schoolmen's travesty of ARISTOTLE. It eyed with more than suspicion the lay practitioner who dared to look disease in the face and who, having satisfied himself that it was neither more nor less than a departure from health conditions rationally observed, set himself to treat it accordingly. It is also true that the Church opposed to this appeal to natural law its invocation of the saints, and that it sought by the dearly purchased intervention of these mediators to cure the sick—a practice which put money into its purse and riveted its hold on the popular imagination. Equally true is it that it saw, or professed to see, in lunacy or epilepsy only demoniacal possession, and that it preyed upon the superstitious relatives of patients so visited by claiming the power to exorcise the demon and by exacting heavy fees for the operation. That it encouraged personal uncleanliness is also true—indeed, the encouragement is not yet extinct, for only a few years ago it canonised one LABBÉ of Boulogne for no other apparent reason than that ages ago he had "crucified the flesh" by leading the life of a hog in such places as the arches of the Coliseum in Rome. Not, indeed, till sounder views of Nature and of the mode of interpreting her aright arose with GALILEO, BACON, and DESCARTES did the Church abate her pretensions to supernatural cure and allow rational medicine, though with

a bad grace, to pursue its course unfettered. All this, we repeat, is a more than thrice-told tale—become so tiresome by repetition that a reaction in favour of the Church has for some time set in, and historians of medicine (like HAESER and PUSCHMANN) have been at pains to show wherein the healing art is indebted to the Church, and how all denunciations of her undue pretensions ought to be tempered by an equally strong exposition of the blessings she has conferred. We have been led to write in this strain by an article contributed to the *Albemarle Review* by the Rev. ALFRED MOMBRIE, D.D., wherein he inveighs against the mediæval Church for her attitude towards medicine, in apparent forgetfulness, if not ignorance, of what the ecclesiastical—aye, and even the medical—apologist can say or has said in her vindication. Against his unrelieved invective we might quote the brilliant chapter in PUSCHMANN'S "History of Medical Education," which puts in the strongest and most convincing light the revolution in the estimate of man and of human nature wrought by the Church. A patient in the "valetudinaria servilia" of heathen Rome was cared for and cured, not out of brotherly love, but out of his owner's reluctance to part with a negotiable chattel, which might yield him gain, either by service or by sale. Not so the Christian view. The growth of its essentially humanitarian spirit lies at the root of hospital creation and extension in the modern sense; and few chapters in the history of medicine are more instructive and at the same time more romantic than those in which a HAESER or a PUSCHMANN traces the rise and spread of these beneficent institutions to the brotherly love as enjoined by the Church. The "Storia della Medicina" of the great Tuscan physician and jurist, FRANCESCO PUCCONOTTI, devotes many pages to proving how much that was sound in ancient medicine owed its rescue and conservation to fathers of the Church who were also, like S. BASIL, founders of hospitals and indirectly therefore creators of the modern clinique. Not till patients were massed and grouped on the scale represented by the mighty infirmary at Cæsarea was the observation of disease adequate for the purposes of pathological and therapeutic induction; not, in a word, till the multiplication of hospitals which followed that typical anticipation of the modern institution was the foundation of clinical research and practice properly laid. In taxing the Church with her baneful influence on medicine, the Rev. Dr. MOMBRIE tells us but half the truth, leaving it to the medical historian to make good his omission and to enable the impartial reader to "look on *this* picture and on *that*." Curious are the developments of modern polemical literature when an able and accomplished ecclesiastic like Dr. MOMBRIE indulges in an unrelieved indictment against the Church's demeanour towards medicine, and when the defence of the Church proceeds from medically trained apologists whose historic fairness forbids their ignoring the blessings it has conferred on their art.

In consequence of the retirement of Sir Joseph Lister from the Professorship of Clinical Surgery at King's College Hospital it has been necessary to make certain alterations in the appointments. The Chair of Systematic Surgery, which for the last year has been held conjointly by Professor William Rose and Professor Watson Cheyne, is now occupied solely by Professor Cheyne, while Professor Rose has been appointed to the Chair of Clinical Surgery.

## Annotations.

"Ne quid nimis."

### CHOLERA: ITS PROGRESS AND PROSPECTS.

SINCE our last account of the diffusion of cholera in Russia a further spread of the disease has taken place, and although the prevalence is still, in the main, confined to the eastern half of Russia, yet a slow extension westwards still goes on. At the beginning of the month Saratoff, Jaletz in the province of Orel, Riasan and Moscow were amongst the places either newly infected or subject to a large increase of attacks; there was also a considerable increase of the disease in the Don territory and in the government of Rostoff. At least one suspicious case had also occurred at Battonya in Eastern Hungary and a few in the eastern quarter of Pesth, but there have been no similar recurrences in Austria-Hungary. The disease next appeared at Kursk in Central Russia, extended at Moscow, at Nijni-Novgorod, at places along the Moscow-Kasan railway, and reappeared at Jamboff and at Jaroslav; and from certain districts definite statistics came in. Thus on Aug. 2nd there had been in Rostoff and Nakhitchevan and the neighbouring districts no less than 1150 fresh attacks and 559 deaths, and for the two days Aug. 1st and 2nd the Russian official records gave a total of 4107 fresh cases and 2073 deaths. Gradually the cases in Moscow were increasing and a severe outbreak took place in the province of Rostroma and at Ekaterinoslav. On the 5th inst. the total cases officially recorded for Russia had reached 6076 and the deaths numbered 2901. On the 6th inst. the cases were 4123 in number and the deaths 2493, the disease being most severe in the Don territory, at Saratov and Samara. One fatal case had occurred in St. Petersburg; the patient is, however, alleged to have been brought into the city ill and no known extension has occurred. Thus far the most westerly provinces affected are Yaroslav, Moscow, Orel, Kursk, Poltava and Ekaterinoslav. The progress westwards therefore is not rapid, and we are still of opinion that, so far as Russian cholera is concerned, there is a substantial chance that, for this country, no immediate emergency may arise this summer and that the greatest fear lies in a recrudescence next year of the widely scattered cholera contagium over the eastern and central portions of the Russian empire. In Asia the disease has made some further advance in the Persian empire. Lahijan, near the southern coast of the Caspian, has been attacked, and a daily mortality of some twenty-five is prevailing in Teheran. Around Paris the disease which has now for some time prevailed, and to which different authorities give different names, is still maintained, although a substantial diminution in its extent has set in. So far as the capital itself is concerned Dr. Proust declares the danger to have passed, and even in the suburbs there are strong indications of a subsidence. In Paris itself Dr. Proust asserts that no case of true cholera has arisen, and he also declares that during the four months' prevalence in the suburbs the disease has lacked the characteristics of imported cholera. We are not quite clear as to the precise meaning of this latter statement, especially in view of the fact that the suburban cholera has been held by some to be a recrudescence of the imported cholera of 1884. And it is very significant that M. Netter, Bacteriologist to the Laboratoire d'Hygiène de la Faculté de Paris, should at the same moment issue a report in which he speaks of cases of "le choléra vrai à bacille virgule" which have been contracted in the suburbs. Dr. Proust's statement, that the disease is everywhere due to Seine water, seems to imply that the cholera bacillus is not regarded as a necessary means of infection, for M. Netter also announces that there are no comma bacilli in the water-supply distributed to Paris, even in the quarters where Seine

water is delivered. The several reports do not, in point of fact, clear up any of the difficulties which have arisen as to the true meaning and the causation of the cholera in the suburbs of the French capital. Germany, it is announced, has stopped the immigration of Russian Jews into her territory; but nothing is said as to the transport across Germany of these people into this country. This latter subject has attracted the attention of the Government in view of a risk of cholera importation, and we understand that Dr. Theodore Thomson of the medical department of the Local Government Board has been making inquiries as to this immigration in the Port of London, in the London Docks, and at some of our eastern ports.

#### THE HYGIENE OF THE TEETH.

THE value of preventive measures against the attacks of disease cannot be too strongly insisted upon, and one class of case where these measures are to a great extent within the control of the individual is in regard to the teeth. All caries of the teeth begins from the outside, no such thing as internal caries having ever been demonstrated; hence if the surfaces could be kept absolutely clean no decay could take place, however poor the texture of the teeth. This is of course impossible, but much towards such a desirable end can be attained by attention to hygienic rules. Parents often ask their dentists and medical attendants with reference to their babies: "When ought teeth to be cleaned?" The answer assuredly is: "As soon as there are teeth." A very small toothbrush charged with some precipitated chalk flavoured with an aromatic drug to make it pleasant is perhaps the best means,—not a towel, which only removes the secretion from the labial and lingual surfaces and not from between the teeth, where decay is most rife. Yet how few children's teeth are so treated, and how rarely the habit of doing it for themselves when they are old enough is inculcated. But if it be acquired the very desirable result is likely to follow of an immunity from dental trouble—at all events to any large extent. Later on something more can be done, by passing a piece of waxed dental floss silk, which can be obtained of most chemists, between the teeth every day, and the value of this can be easily demonstrated after thoroughly using the toothbrush by passing the silk between the teeth, when a certain amount of accumulated matter will be brought away. "Do toothpicks do harm or good?" is another question often asked. They may do harm if abused, undoubtedly, by causing irritation of the gum between two teeth and its subsequent absorption; and, if made of wood, splinters are liable to be left behind, which have in many recorded instances caused even the loss of a tooth; but used judiciously they are of great value in routing the attacking forces in caries—namely, accumulations of food and mucous secretions. It has been urged against them that they might dislodge a stopping. But if a stopping is so insecure it must be faulty, and the sooner it is replaced the better, for decay, due to the impossibility of keeping the surface clean, must be going on underneath it.

#### "MEDICAL MEN AND STIMULANTS."

"A CLERK in Holy Orders" asks to be allowed "to protest against a practice of the faculty which he says is by no means uncommon," alluding to the indiscriminate prescription of alcoholic stimulants in disease. Unfortunately our space is too limited to give insertion to all the communications which reach us from medical men, and we should be hopelessly embarrassed if we once opened our columns to the discussion of lay views of medical science and art. Still we entirely appreciate the good motive of our correspondent and the tone of respect and moderation with which he speaks. We do not differ from him in his disapproval of the "indiscriminate" use of alcohol, or in thinking the results of such

use highly pernicious. We do not doubt that alcohol is sometimes prescribed indiscriminately. Even medical men are fallible and they have to work upon material which is often very faulty and which brings even a good remedy into discredit. What we maintain is that all practitioners and all medical writers of authority treat this subject gravely. They give no countenance to the "indiscriminate" use of alcohol. Mr. A. Pearce Gould protested strongly at Nottingham against the excessive use of alcohol in his earlier days. He testified that he had practised such surgery as came to him almost entirely without the use of alcohol, and that he could not see where the value of alcohol came in except in the most unusual cases. Professor Victor Horsley followed in the same strain. If there is one set of diseases in which alcohol is specially valuable it is in the continued fevers. Let anyone glance at the classical work of Dr. Murchison and his views on the therapeutic use of alcohol in fevers or the various writings of Dr. Gairdner on the same subject, and he will see how judiciously they write, and how they both testify that many cases of typhus fever do perfectly well without alcohol, and that even bad cases are injured by more than very moderate quantities. Dr. Murchison said "that patients under twenty do best without alcohol," and "that it is very rarely necessary to give more than eight ounces of brandy (that is of course in the twenty-four hours)." In Dr. Gairdner's practice, with a very low mortality, nine-tenths of the patients had no stimulant at all, and the whole quantity consumed gave as an average to each patient in twenty days and a half two ounces and a quarter of wine and two ounces and a half of whisky. We have no right to believe that there are any considerable number of medical men treating these diseases on other principles. The same is true of other diseases. A delusion that alcohol antagonised tubercle has been exploded by Dr. Dickinson and others. Sir William Gull and many others have shown that even moderate quantities of alcohol have to be taken with care by many people if harm is not to result. To suppose that any number of practitioners prescribe alcohol recklessly without remembering its power for evil over gland and nerve tissues, and the weakness of human nature with regard to it, is to be guilty of uncharitableness to a great profession. We never lose an opportunity of pointing out the responsibility of prescribing alcohol either in hospital or private practice. We must remind our lay critics that the medical man is often blamed when the patient really is at fault.

#### THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

AN Italian correspondent writes: "Dr. Baccelli, whose presence with Professor Mariano Semola at the Association meeting at Nottingham gave such satisfaction to his compatriots, has returned to Rome and resumed with redoubled energy the preparations for the international *réunion* of the profession to be held in the last week of September, 1893. In addition to the work of mapping out the agenda of the various sections and appointing their *personnel*, he is engaged in pushing forward to completion the great hospital of the Policlinico Umberto I., which has been slowly rising from its foundations outside the Porta Pia, at the south-eastern quarter of Rome. The building, over and above its many novel and striking features, some of them unique in hospital construction and all of them calculated to facilitate its working as a clinique of the first order for research, for treatment and for tuition, will also present not a few artistic details peculiarly interesting to the profession at large and to its British representatives in particular. The façades of the two sections devoted to clinical medicine and clinical surgery will each have a memorial, sculptured in bas-relief, of the most momentous innovations in these departments—one of them devoted to Morgagni, the father of modern pathology,

the other dedicated to Lister, the pioneer of antiseptic practice. These designs, which for many months, I believe, have been in the hands of competing sculptors and are shortly to assume definite shape in the two weeks finally approved by the adjudicating committee, will not be the only ornament of an artistic kind which will lend attraction to the Policlinico Umberto I. Its administrative offices, constituting the Palazzo dell' Amministrazione del Policlinico, will also have the façade adorned by a group in bas-relief representing some characteristic event or incident in the history of therapeutics. A programme, drawn up by the Superior Council of Public Works, to regulate the competition for this art product has just been approved, the competitors to be drawn from the sculptors who either reside or have their studios or professional residences in Rome. Their work must be sent in and the successful group decided on in time to occupy its place on the façade in the autumn of 1893, just before, that is to say, the assembling of the International Congress. With regard to the other hospitals in which Rome abounds, and the unsatisfactory state of which has frequently been described in THE LANCET, it is reassuring to know that the Government is fully alive to the necessity of rehabilitating them, so as to make them at least 'presentable' when, a year hence, the heads of the chief European clinics commence to arrive. The Commendatore Silvestrelli, who acted as Royal Commissioner to inspect, report upon and improve these hospitals, has resigned, mainly, it is said, on account of the insufficient pecuniary subvention placed at his disposal for the carrying out of his suggestions. A substitute for him has been found in the Senator Colucci, sometime Prefect of Palermo, and Dr. Baccelli and his colleagues have drawn from the Prime Minister, Signor Giolitti, assurances tending to allay their doubts as to the provision afforded under the new arrangement for keeping the actual *personnel* of the hospitals up to its normal strength, so as in no wise to impair their efficiency in the interests of the public or the profession. Amid the many demands on the State purse of Italy none are more justified than these of her medical and surgical services, no country in Europe being in greater need of such adjuncts to national wellbeing or possessing greater ability to turn them to profitable account for the healing art as a whole."

#### THE ORIGIN AND DIFFUSION OF CHOLERA.

SURGEON-GENERAL CORNISH, C.I.E., has contributed a paper to the current number of the *New Magazine* on the Origin and Diffusion of Cholera. Apart from the obvious interest which the subject possesses at the present time, when European countries are threatened with the prospect of a new cholera invasion on a large scale, the paper merits attention from the fact that its author has acquired a practical knowledge and experience of the disease in the East from the official position he held in India. Allusion is made, first of all, to the great value of the late Mr. J. Netton Radcliffe's labours during his lifetime in having conscientiously chronicled and recorded the facts about the progress and geographical distribution of epidemic cholera from year to year, whenever that disease overflowed the limits of its natural home in the great river deltas of Lower Bengal and India. Reliable information from health officials regarding the progress of epidemic cholera is essential to a correct judgment regarding the liability of any particular area to invasion. So far as can be gathered, Surgeon-General Cornish says, the epidemic which now threatens the whole of Europe appeared in March or April of the present year in the North-Western Provinces of India, attacked with great violence the pilgrims at the great Hurdwar fair near the source of the Ganges, spread through Cashmere and Afghanistan, reached Persia in

May or June, crossed the Caspian Sea and spread amongst the population of Asiatic Russia, from whence it is making rapid progress in European Russia. The epidemic since April has travelled in a north-westerly direction and has covered or overflowed many thousands of square miles of territory. The history of the progress of the great epidemic of cholera of 1829-33 should be closely studied by those who wish to understand the significance of the present epidemic. Cholera history is very apt to repeat itself, and the circumstances which happened in 1831 are therefore very likely to happen again in 1892 and succeeding years. The route taken by the present epidemic is almost identical with that which invaded Europe in 1831. It is quite a mistake to suppose that since India is the natural home of cholera the disease is everywhere present there and ready to take an epidemic form. An epidemic of cholera follows the same laws in India as in any other country. It is endemic only in certain and limited parts, from which an epidemic advances occasionally, with intervening intervals of uncertain duration. Its progress is influenced by season and atmospheric conditions and after lasting a period of about three years the epidemic dies out. Surgeon-General Cornish questions whether the cholera in the suburbs of Paris, with its peculiar and circumscribed topography and weak infective power, can be attributable to the same cause as that which has invaded and is now advancing in Russia. He alludes to that country's half-civilised acquisitions in Asian soil as a source of difficulty and danger in this direction, and considers that, as far as the safety and happiness of her people are concerned, the wealth now spent on the maintenance of a huge army and on ambitious schemes for extension of territory would have been more efficiently laid out in the improvement of the sanitary and social condition of the populations under her rule. As regards land quarantine and sanitary cordons, which European nations are so ready to enforce against their neighbours, these have never been successful in keeping out cholera. In India, with ample military aid at hand, they have been tried again and again unsuccessfully. The only provisions on which any reliance can be placed are sanitation, a good water-supply, efficient drainage, surface soil cleanliness, wholesome food and habitations. The invading cholera, if it does not reach this country in the present autumn, is, in Surgeon-General Cornish's opinion, likely to do so in 1893. Happily the early accession of cold weather has apparently had the effect, to which he alludes, of repressing the progress of the disease for the present. The moral of this matter lies on the surface. What we have to do in the meantime is to seek out and repair the weak places in our sanitary harness.

#### THE DANGERS OF SCIENTIFIC RESEARCH.

THE death of Dr. H. J. Tylden from typhoid fever, contracted during the progress of an investigation upon this disease that he was making at the Embankment Laboratories, leaves hardly room for doubt that he contracted it directly from the bacillary cultures which he was studying. We understand, moreover, that coincidentally with his illness one or two inmates of the building were also attacked, and that one of these cases proved fatal at an early stage of the disease. No doubt the matter will be thoroughly inquired into, and it is of course quite possible that neither Dr. Tylden nor the others contracted the fever as supposed. On the assumption that it was so contracted it illustrates the risks which those who devote themselves to scientific researches run, and the need for the exercise of every possible precaution by those who deal with infective viruses. Obermeier, the discoverer of the spirillum of relapsing fever, fell a victim to the disease contracted in his investigations; and although we believe that the case of the late Dr. Tylden is the first on

record where typhoid fever has been contracted from cultures of the bacillus simply (always supposing that he did so contract it), yet there are many instances of physicians becoming attacked by it when engaged in examining the dejecta of patients. Indeed, the martyr-roll of medical science is of greater length than we are wont to imagine, and it is, alas, generally those who are on the threshold of their careers who are cut off in the midst of their beneficent labours.

### BALDNESS AND ITS TREATMENT.

THERE are two classes of patients who resort either to the profession or to quacks—generally to the latter—for aid in the production or reproduction of hair in those parts of the scalp or face where it ought to grow, but owing to age or disease fails to do so. There is, first, the youth, who from vanity or a desire to improve his chances of employment, wishes to do before his time those hirsute appendages which are universally regarded as the outward sign of manhood: To him, in spite of the confident assertions of nostrum advertisers, we can offer little beyond the poor consolation of which he is well aware, that time is not only the sure, but almost the only remedy. No doubt those means which promote an increased circulation in the skin of the face will also promote the nutrition of the hair, and therefore, but only within narrow limits, increased growth in the more vascularised region. This doubtless is to a large extent the *modus operandi* of shaving, which, it is well known, increases the vigour of the hair in the region operated upon. The good effect of the slight irritation of the razor on the callow chin must not, however, be used as an argument for the application of stronger irritants, and the young man who, in his eagerness to hasten a natural process, painted strong acetic acid on his cheeks in the then approved mutton-chop shape, not only excited inflammatory redness and brought ridicule on himself, by publishing his youthful yearnings to all beholders, but also, by the inflammatory exudation produced, injured the nutrition of the follicles and hindered rather than helped forward the growth he so much desired. On the whole, patience, *plus* the adoption of all means which promote general invigoration of the system, and the avoidance of excesses of all kinds is the best advice that can be given to the beardless boy. The second class, apart from those who have a definite disease like alopecia areata, comprises those who are losing their hair prematurely, or even as a result of advancing age, and it is among these that the vendors of hair restorers find a ready market for their wares. It would take up too much space to discuss all the causes of baldness, which may be either of local or general origin, or of the two combined; but it is too much the custom, instead of investigating carefully into the general health and circumstances of the patient, and the exact condition of the skin of the scalp, to prescribe a hair lotion, in which may generally be found as the principal ingredient cantharides in some form or other. This, by attracting an increased blood supply to the part, is often useful, no doubt, where the baldness is due to mere sluggishness of the cutaneous circulation, but it fails altogether to reach the cause of that very large class who lose their hair from seborrhœa capitis. This is benefited by microbicide remedies—sulphur, mercurial applications of almost all kinds, and many other anti-septic drugs, both new and old. We do not know what particular microbe, among the legion which may be found in the greasy and dry scales in seborrhœa, produces the proliferation of epithelium, which, according to Unna, is directly due to an inflammatory process; but the effect on the follicle is such that it leads to atrophy of the hair, and if the disease is not arrested atrophy of the whole follicle and consequent permanent alopecia. Where the damage to nutrition is not so great the hair is lustreless and more or less marked canities ensues, and then the hair restorers, which colour the

hair from without and not from within, are eagerly resorted to. Sulphur and acetate of lead form frequent ingredients of these applications, while perchloride of mercury is too frequently the leading ingredient of a large number of vaunted remedies. No doubt it is of high value as a microbicide when employed in suitable cases, but used indiscriminately for months or even years injurious effects may be, and sometimes are, produced. Pilocarpine, hypodermically injected or given internally as tincture of jaborandi is certainly of value as a direct promoter of the growth of hair, but it is too powerful a remedy for indiscriminate use, and the copious perspirations and sometimes the cardiac depression it induces should keep its employment within narrow limits. Less direct means may be found in tonics of iron, strychnine, quinine &c.; but more powerful are cod-liver oil and change of air, generally to a bracing climate. It will be seen from the foregoing remarks that baldness is a symptom of such diverse conditions that there is no routine treatment for it, but the cause must be carefully sought out and intelligently treated, while the local treatment must be diligently and perseveringly carried out, as when due to its most common cause, seborrhœa, relapses are the rule, and constant watchfulness against recurrence is accordingly required.

### SANITARY PROCEDURE IN THE MEDITERRANEAN.

THE International Conference at Venice has not been tardy in showing its salutary results in Mediterranean waters. The jealous system of quarantine that paralysed commerce and added a fresh discomfort to travel is well nigh at an end. To effect this reform much local prejudice had to be overcome—prejudice for which we in Great Britain find it difficult to make due allowance. When an epidemic like that of cholera descended on the Mediterranean seaboard it found the harbour towns in so insatiable a state that it soon gained a foothold, and, thence reinforced, as from a base of operations, proceeded to advance inland. No such hygienic surveillance as prevails at British ports existed at those of Italy or France, and the ravages of the epidemic, instead of being ascribed to the auxiliary it found on landing, were set down to its native virulence, against which the only trusted safeguard was quarantine. The experience of a century has demonstrated that quarantine is no safeguard at all, and its supposed advantages are dearly purchased by the check it imposes on trader and traveller alike. A stricter sanitary system enforced at Mediterranean harbour towns will gradually inspire the confidence felt on British shores at the rumoured advance of an epidemic, and meanwhile the visitation of the sanitary officers with their disinfecting operations is about all the trading or travelling public in those waters have to dread. In bringing about this innovation the Italian Government have had to take into account impediments of which we in Great Britain can scarcely form a notion, chief among them being the ignorance and the consequent prejudices of a backward civilisation. A judicious middle course has been pursued, and while the procedure taken has, in point of thoroughness, been less than British it has, in point of courage, been considerably more than Italian. An illustrative case has just been reported to us from Neapolitan waters. The Prefect of Naples had been apprised that the British steamship *Albany*, on board which some cases of cholera had been announced, had been interdicted from landing at Malta, and that it was making for the port of Torre Annunziata with a cargo of grain. Conformably to the instructions of the Italian Home Office he telegraphed to every seaport in the province of Naples, Torre Annunziata included, that immediately the *Albany* hove in sight her captain was to be told either to pursue his voyage to England or to pass to the sanitary station on the island of Asinara. In virtue of this message the captain of the *Albany* cast anchor two miles from the Nea-

politian seaboard and signalled that he was in want of coal, of provisions, and of medicines. Before the understanding arrived at by the Venice Conference his intimation would have been ignored, and he would have had to await the passing of a friendly ship for the requisites he wanted. But thanks to that understanding the Prefect of Naples had no difficulty in satisfying his needs. The coal, provisions and medicines demanded were put on board a barque and conveyed from this to the *Albany* without any actual contact between the crews of either craft. Its service once rendered, the barque was thereupon burnt, and the *Albany* put off for the station at Asinara to undergo the visitation and the disinfecting processes which remain in force. Prejudice still counts representatives enough in Italy to censure the prefect for this humane and neighbourly act. Should cholera appear in Naples—a nidus in which it has hitherto found the welcome that a low standard of public hygiene invariably holds out—he will be blamed for his “recklessness” or “culpable indiscretion.” On the other hand, he will have the support of a more enlightened public opinion, embodied in the official understanding come to between Italy and Great Britain at Venice. That this latter consideration has now its due weight may be gathered from the leading Italian journals which have commented on the incident. The prefect, according to the *Nazione*, acted in observance of a policy “which meets all the requirements of the public health and, at the same time, all the exigencies of a country reputed to be enlightened and civilised. That the incautious should, on the one hand, criticise or declaim, asserting that Naples would have run no risk of cholera had the *Albany* been allowed to touch at Torre Annunziata; that, on the other, the timid should grumble or cry aloud that such weak-kneed tolerance as the prefect’s must favour the spread of cholera in the Mediterranean—all that,” adds the *Nazione*, “may be disregarded. Such mingled criticism and protest may fill the air, but will find no echo and soon die away. Acting in such a spirit and on such lines the Government will commend themselves to all just and sound-minded men at home or abroad, and with that commendation it may well rest content.”

#### REMOVAL OF BOTH OVARIES IN THE THIRD MONTH OF GESTATION; DELIVERY AT TERM.

AN interesting communication by M. Polaillon to the Académie de Médecine has reference to a woman who, in spite of a double ovariectomy performed in the third month of pregnancy, was nevertheless safely delivered at term. The history of the case is briefly as follows. First symptoms of the existence of an ovarian cyst appeared at the age of twenty-three, the patient being nulliparous. At the age of twenty-nine, menstruation having ceased for several months and symptoms suggestive of early pregnancy having appeared, severe pains in the abdomen suddenly developed. Examination revealed the presence of an enormous ovarian cyst, probably suppurating, the state of the patient being so serious that, despite the suspicion of pregnancy, it was decided to perform ovariectomy at once. At the operation, M. Polaillon came upon a large cyst of the left ovary, adherent to the intestine and to the Fallopian tube of the same side. The adhesions were ruptured, the proceeding giving rise to profuse hæmorrhage. The left ovary having been removed it was found that the right tube was the seat of hæmorrhage and that the right ovary, which had attained the size of an apple, was likewise affected with cystic degeneration. The right organ was in its turn removed. Recovery proceeded satisfactorily and the woman was in due time delivered, the labour presenting no unusual features and the placenta being normal. The cicatricial line was not injuriously distended during the evolution of pregnancy. The lesson deduced from this case by M. Polaillon is that pregnancy may continue after

the removal of the upper portions of the broad ligaments and despite the interference with the uterine and placental circulations entailed by the suppression of the superior uterine bloodvessels. He attributes the excessive hæmorrhage which occurred during the operation to the extra vascularity of the parts due to the gravid condition of the uterus.

#### FURTHER SAFEGUARDS AGAINST FLY BITES.

As we have repeatedly observed, the bite of an insect may entail much graver consequences than mere temporary annoyance. The irritable swelling which commonly marks the affected part is itself suggestive of blood poisoning, and this unfortunately is not in every case a purely local condition. It is this fact especially which gives to various insecticide skin lotions now in use a value which more than counterbalances the natural objection to their employment on the score of cleanliness. It is needful, however, to remember that all such applications are amenable to certain rules of composition. They must be themselves non-irritant, while at the same time antiseptic, and devoid of any sweetness of flavour which might attract the pest they are intended to combat. We should say that a mixture of one in four of carbolic acid recently recommended as a wash for clothing worn next the skin is too irritating for the integument of many persons if regularly used. An “insecticide scent” of lavender, eucalyptus &c., advised by the same authority as a face wash, conforms more nearly to the requirements above mentioned. We cannot, however, enter into the details of suitable preparations. The rural pedestrian should have no difficulty in acquiring these from any intelligent practitioner. Most persons could not do better than avail themselves of the protection afforded by a circular veil dipped in some antiseptic solution.

#### ANÆMIA AND MOUNTAIN AIR.

THAT *mal de montagne* is as distinct an ailment as *mal de mer* may be realised by all who make mountain ascents with great rapidity. *Puna* is its name on the Cordilleras and the high tablelands of Mexico, where, moreover, it has been known to cause death in subjects unseasoned to it by habit. It is due to the lower pressure of the atmosphere incident to lofty altitudes, or rather to the reduced oxygen pressure, whereby the gas is no longer capable of being dissolved in sufficient quantity in the blood of individuals accustomed to live in the plain. In such individuals, however, acclimatisation gives immunity from the *mal de montagne*, the circulation gradually increasing the number of the blood globules which, in greater mass, dissolve ever greater quantities of oxygen, and more than make up for the reduced pressure of the gas. It is to M. Paul Bert that we owe the experimental proof of this. Examining the blood of the llama or Peruvian sheep, he found that for every 100 cc. it absorbed, on an average, 20 cc. of oxygen, while in the herbivora of the plain the respiratory capacity of the blood did not exceed 15 per cent. Viault, with identical results, repeated the experiment on the spot. Müntz had the same experience on the Pic du Midi, where he left rabbits of the plain to live freely, and after a year found their blood much richer in hæmoglobin than that of the rabbits kept for comparison on the lowlands. To the experiments above mentioned, however, it may be objected that the increase in the hæmoglobin might be due to cold, to the open-air life, in short to the special conditions of the atmosphere which stimulate appetite and assimilation in animals. In answer to such objections Regnard, in his laboratory, subjected a rabbit, enclosed under a bell-glass, to a continuous atmospheric depression, two bell-glasses being so placed together as to admit of the rabbit passing from one to the other when it became necessary to effect certain cleaning and disinfecting operations. After

a month of this incarceration, where the atmospheric depression was such as to correspond with that of the Great St. Bernard or of Santa-Fé de Bogota (height about 3000 metres), the rabbit emerged, not very lively indeed, but to some small degree fatter. On the blood being examined, it was found that it absorbed 21 cc. per cent. of oxygen—that is to say, as much as that absorbed by the blood of the Peruvian sheep; while the blood of rabbits kept under normal conditions in the plain absorbs only 17 cc. It is therefore the atmospheric depression which increases the respiratory capacity of the blood in animals. Regnard's confirmation of his predecessors' results serves to explain the efficacy of certain climatic resorts in Switzerland, particularly in anæmic and chlorotic patients and in sufferers from neurasthenia. It is the atmospheric depression which, in conjunction with good hygienic conditions, acts on those invalids and promotes in their blood the formation of new sanguineous globules fit for the assimilation of oxygen. The more abundant nutrition and the augmentation of the appetite observable in a sojourn in the mountains are not the cause, but a consequence, of the improvement which such sojourn brings. Indeed, even admitting that the hæmatogenous action of elevated sites may owe something to other causes, as Viault contends, it is difficult to resist the induction of Regnard that climatic establishments are in general to be preferred to mineral water resorts—certainly to those whose reputation is chiefly built on fashion, on entertainments, or on the *ensemble* of adventitious attractions, from which health pure and simple has little or nothing to gain.

#### VENTRO-FIXATION OF THE UTERUS.

DR. SPAETH of Hamburg has now published reports of twenty-five cases in which he has performed the operation known as "ventro-fixation of the uterus." None of the cases proved fatal. In seventeen permanent anteflexion was obtained; in fourteen there was, besides the retroflexion, a diseased condition of the uterine appendages necessitating their removal. Of the cases that were not so complicated all except one were successful. Dr. Spaeth rarely fastens the stump of the broad ligament into the abdominal wound, usually stitching the fundus uteri directly to the parietal peritoneum. In the later cases he adopted Schede's method—that is to say, silver sutures were drawn through the whole thickness of the abdominal walls at intervals of about an inch and a half, but they were not at first tied. In the intervals finer silver sutures were inserted through the sheaths of the recti, the peritoneum and the fundus uteri, and tightened, twisted and cut short, the whole of course being beneath the skin; the thicker sutures were then tightened and twisted and the lips of the wound brought together with superficial catgut sutures. The subcutaneous silver sutures remained, but never gave any trouble. Dr. Schede and Dr. Spaeth are both of opinion that this method is the best for preventing any hernia, and that when it has been employed abdominal binders are unnecessary. Dr. Spaeth does not perform or recommend ventro-fixation in cases of retroflexion unless there is either disease of the appendages or chronic peritonitis.

#### POLLUTED WATERS IN CHESHIRE.

THE county analyst for Cheshire, Mr. J. Carter Bell, reports very strongly on some of the water-supplies which are in use in the county of Cheshire. He says that of twenty-nine samples which he has analysed, only ten could be regarded as good from the chemical point of view, whilst twelve were bad and seven exceeded in impurity the effluents from the Salford sewage. Having next referred to the causation of disease in connexion with the use of such waters, he deplors the fact that some elementary technical education is not given to cottagers as to the best way of fitting their water

for consumption, in so far as filtration will do this. And he explains that a filter efficient for this purpose can be made by means of a flower-pot, partly filled with sand and partly with magnetic oxide of iron or polarite, which may be purchased for about 1*l.* per pound. Where the water is very bad he advises boiling and then filtration; in other cases he advocates mere filtration; and he records that, as the result of his experiments with such means of filtration, purification was effected which amounted to something like 90 per cent. For such purposes as Mr. Carter Bell indicates we concur with him that substantial improvement would be effected, and we are practically content with the scheme which advocates boiling and then filtration, provided it be distinctly understood that the measure is adopted as a temporary one. The removal of 90 per cent. of matters which are undesirable unfortunately leaves a noticeable percentage behind, and unless we could feel assured that the 10 per cent. in question contains nothing like the specific material of disease, the practice cannot possibly be recommended as in any way taking the place of the provision of a water-supply which shall not run the risk of containing dangerous material. When risky contamination is involved, filtration is not a remedy; it is a mere palliative which serves to diminish not to remove risk. Hence arises the objection to relying for the purposes of health on domestic filtration. Water which calls for such filtration by reason of its being subject to risk of pollution is a water that needs to be replaced by a wholesome supply, and the sanitary authorities of places where such water exists should be pressed to adopt the proper remedy.

#### HOSPITAL MONDAY!

IT looks as if every day in the week, on one ground or another, would soon become sacred to hospitals. Mr. Edward White, in the *City Press*, gravely proposes that a "Hospital Monday Fund" be established with a Metropolitan Hospital Aid League without interfering with either Hospital Sunday or Hospital Saturday. It is really difficult to believe that such a proposal can be meant seriously. It is time to say that this belief in "days" has been carried far enough and that what is wanted is a deeper conviction of obligation on the part of both rich and poor to our hospitals. If Mr. White will persuade—and few men are more likely to do so—both rich and poor to crowd the churches and chapels and other meeting-places of the various religious bodies on Hospital Sunday he will do more to help the hospitals than by the multiplication of hospital days.

#### INTRA-OCULAR AFFECTIONS AS SEQUELÆ OF NASAL DISEASES.

DR. ZIEM of Dantzig publishes in the *Münchener Medicinische Wochenschrift* an interesting case in which intraocular symptoms had supervened on nasal disease. A man sixty-eight years old was suffering from a tumour which obstructed the nose on both sides, especially the left. An irregular excrescence was felt in the left half of the nose, and the left half of the naso-pharyngeal cavity was almost filled by a similar tumour of irregular shape. The left eyelid was tumid and hanging down as if paralysed. The eyeball protruded downwards and was only very slightly movable. The conjunctiva was injected, the pupil dilated and fixed, and partial amaurosis was present in the right eye with venous hyperæmia of the retina and considerable shortening of the focus. The patient, who suffered severe pains in the left eye, begged for its removal, but no operation could have been of any benefit. Injections into the nose helped to remove a large quantity of badly smelling pus and gave the patient great relief, and continued treatment also restored the focus almost to its normal length. In about ten weeks the patient died from the progress of the malignant tumour. The success of the

treatment made it plain that the case was not one of retro-bulbar neuritis, but that the interior of the eye became congested through the swelling of the nasal mucous membrane. In the words of Dr. Ziem the restoration of normal nasal respiration and increase of the respiratory capacity of the lungs re-establish free circulation in the vascular system of the nose and neighbouring organs as well as in the rest of the body; so that after the depletion of the orbits, the eyeball and ciliary bodies, the current of blood becomes normal again within the retina and the ophthalmic nerve and restores the function of these organs.

#### CARRIER-PIGEONS AND VACCINATION.

At the last meeting of the Académie de Médecine, Dr. Hervieux, who presides over the Public Vaccination Department at the head-quarters of that learned body (vaccinations from the calf are performed gratuitously at the building in the Rue des Saints-Pères every Tuesday, Thursday and Saturday) read a report by an army surgeon, M. Stroebel, on the transport of vaccine by carrier-pigeons. It appears that one pigeon is capable of conveying in one journey from five to six tubes. The utility of this means of transport in times of war is very obvious, and one can imagine the joy of the representatives of the Army Medical Department at the apparition of a flock of these swift vaccine carriers in a besieged town.

#### THE FUNCTIONS OF THE PANCREAS.

THE profession is too apt to regard the pancreas as a mere secretor of that composite digestive juice—the succus pancreaticus—forgetting that the gland may have other and equally important rôles to play in the animal economy. The part it takes when diseased in the production of diabetes has for years been insisted on by that careful pathologist and clinician, Dr. Lancereaux, the correctness of whose opinion can no longer be denied after the positive results obtained experimentally by M. Hédon of Montpellier. That gentleman has for some time past been studying the effects of grafting the pancreas of the dog under the skin of the abdominal parietes. His method consists in drawing out the greater part of the gland and fixing it in the subcutaneous tissue, without interfering with the vascular connection between the extruded portion and the part still remaining *in situ*. After the lapse of a few days, this pedicle is cut, and the grafted gland generally continues to live in its abnormal situation. During the first few days of the extra-abdominal existence, the organ swells up, and a tumour is formed which is filled with a clear colourless liquid—the pancreatic juice, in fact. The sac having been emptied a few times, there only remains a fistula through which the liquid continues to flow. Later on, the fistula closes and the graft continues to live, its secreting powers having been suppressed. When the graft is examined no departure from the normal structure of the pancreas is discernible. In the animal arrived at this stage of the experiment there exist then an intra-abdominal and an extra-abdominal pancreas, of which the former remains in connexion with the intestine, pouring into it its characteristic secretion, the pancreatic juice. The extra-abdominal pancreas has ceased to be a secreting organ and has acquired the functions of a vascular gland. Pushed still further the experiment yields most instructive results. The removal of the intra-abdominal pancreas alone is not at all injurious to the dog's health, the urine being normal both in quantity and constitution. When, however, the subcutaneous organ is, in addition, removed, the animal becomes quickly diabetic, the quantity of urine passed being greatly augmented and containing a notable proportion of glucose. Death ensues rapidly. These interesting experiments go to prove that over and above its digestive functions the pancreas is useful and even necessary in other ways.

#### THE DANGERS OF READY-MADE GARMENTS.

No term, perhaps, possesses a more familiar meaning than the word "parasite." Happy, indeed, would be that animal which, however unconscious of etymology, had not the most intimate relation with it. It seems an almost hopeless task to search for this enviable creature. We should despair of finding it even among the animalcula or in the cell world of histology.

"So, naturalists observe, a flea  
Has smaller fleas that on him prey;  
And these have smaller still to bite 'em,  
And so proceed *ad infinitum*."

It is not numbered with the greater beasts. It is not man, whether of high or low degree. The Scottish poet describes, in a humorous poem which is frequently quoted for the pointed lesson it conveys, the career of one well-known parasite which he observed, "plump and gray," strutting on a lady's bonnet at church. A correspondent, writing in a somewhat similar vein, confesses to a like experience. She dilates upon "some exceptionally dainty and befrilled hand-made *lingerie*, snowy, spotless, crisp, and garnished with lace," but, she pathetically adds, with "a something half hidden under a tuck." It was, in her servant's *patois*, a "death louse." Need we be surprised that our correspondent adds to her graphic description the warning that all bought underclothing should before wearing be made to undergo "the full laundry process," the more especially since it appears to be quite customary (may the custom early become extinct!) for firms to send even such articles "on approval" to be tried on? What possibilities does this practice open up, not only of parasitic migration, but of the actual communication of disease. It is a veritable method of infection and it has doubtless acted as such more often than we are aware of. The only real remedy of course consists in its entire discontinuance. Less than this ought not to satisfy a wholesome public opinion. Until, however, the usage of trade in this particular is above suspicion a careful examination and free ventilation of all purchased clothing should not be omitted, while such further measures as "the full laundry process," and, beyond this, antiseptic fumigation, can never be superfluous.

#### MEDICAL NARROWNESS IN SWITZERLAND AND FRANCE.

It is lamentable to think how illiberal the law of Switzerland is in reference to foreign medical men. It is said that an English physician has lately been prosecuted or threatened with prosecution for attending his own mother in a hotel in Switzerland. The Republic of France has passed, or is on the point of passing, a law almost as narrow. The hardship of such legislation is the greater to English-speaking people when we consider the fact that they visit the health resorts of France and Switzerland so freely. It is to the medical men of both countries that we have a right to look for some mitigation of this most unsatisfactory state of the law, and it is certainly they who are considered responsible for it. There is nothing so narrow in our own law. A memorandum has lately been prepared by direction of the General Medical Council for submission to foreign governments, showing the conditions under which foreign medical practitioners are allowed to practise in England as determined by the Medical Acts of 1858 and 1886, and with a view to induce these Governments to reconsider the regulations by which English qualified practitioners are excluded from practising on the Continent even among their own countrymen. Foreign practitioners, though they cannot register or hold appointments, can practise here without restriction so long as they use no name or title implying their registration. Hospitals established for foreigners may be attended by foreign practitioners entitled to practise in their own country and not engaged in other medical prac-

tice. The Act of 1886 goes further. In its provision is made for reciprocity in the recognition of foreign degrees at the instance of the Privy Council, and subject to the approval of them by the Medical Council as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery and midwifery. The holders of such degrees are entitled to registration in the colonial or foreign register.

#### THE HOME FOR EPILEPTICS AT GODALMING.

WE recently referred to the establishment of this home and took occasion to recommend it as an institution calculated to do an immense amount of good. Under the most favourable conditions it was opened a few days ago by the Duchess of Albany. Her Royal Highness was accompanied by Miss Heron Maxwell and Sir Robert Collins. Outside the Town Hall she was presented by the town clerk, Mr. T. P. Whateley, with an address of welcome from the Mayor and Corporation of the borough. A consecration service by the Bishop of Guildford took place in front of the home, in presence of a large company, and the Countess of Meath gave an address in which she explained the origin of the movement and the objects of the home. Dr. Russell Reynolds pointed out how great was the need in this county for some institution such as this and what an amount of good it was capable of doing, while the Bishop of Guildford expressed the satisfaction of the Bishop of Winchester that the house was situated in his diocese. The Duchess of Albany then declared the home open and a vote of thanks was proposed to her Royal Highness by Viscount Midleton. The home—which is to be known as the "Home of Comfort for Epileptic Women and Children"—has been founded by the Countess of Meath, who has taken a fine old house, with ten acres of ground, and has adapted it for the purpose for which it is intended. It is hoped that it will be in every way suitable, and there is every reason to believe that it will. Before the opening there were over 100 applicants for admission and we hope funds will soon be forthcoming to enable the committee to maintain as many free beds as possible. Everything is to be done to render the home bright and attractive and the surroundings pleasant. The inmates will as far as possible be provided with suitable employment, and it is hoped that the work accomplished will materially lessen the expenses. We cordially wish the undertaking all success.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Copenhagen.*—Dr. O. Wanscher has been appointed Extraordinary Professor of Clinical Surgery.

*Halle.*—Dr. Wollenberg has been recognised as *privat-docent* in Psychiatry and Neurology.

*Lille.*—Dr. Morelle has been appointed to the chair of *Materia Medica*.

*Stockholm.*—Dr. Magnus Moeller has been appointed Lecturer on Skin Diseases and Syphilis.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Artigas, Lecturer on Skin Diseases, Toulouse.—Dr. Josef Fischl, *privat-docent* in Medicine in the German University of Prague.—Dr. J. Snydam Knox, Professor of Midwifery in Rush Medical College, Chicago.

AS anticipated in a recent number of THE LANCET (July 9th), the chair of Clinical Medicine left vacant in the Istituto di Studi Superiori of Florence by the death of Dr. Cesare Federici has been definitively accepted by Professor Grocco of the University of Pisa.

THE International Convention of Hygiene at Venice has been followed in Italy by energetic measures for the protection of public health, so imperfectly safeguarded by quarantine. The Director-General of the Sanitary Board has just concluded a visit to Asinara with a view to establishing on that island a number of new disinfecting machines, to be applied to the cargoes of ships hailing from suspected ports.

WE regret to learn that the condition of Sir Richard Owen, K. C. B., the well-known and veteran anatomist, is causing some anxiety. He is over eighty-eight years of age, and though suffering no pain has some indications of failing strength.

THE Lord Lieutenant of Ireland has conferred on Sir Philip Crampton Smyly the well-deserved honour of knighthood. Sir Philip Smyly is the nephew of the late Sir Philip Crampton.

DR. GEORGE FLEMING, C. B., the well-known veterinary surgeon, was on July 30th appointed honorary foreign member of the Académie Royale de Médecine de Belgique.

THE library of the Obstetrical Society of London will be closed from Aug. 22nd to Sept. 22nd.

### THE BRITISH MEDICAL ASSOCIATION. MEETING AT NOTTINGHAM.

WE conclude our report of the proceedings of the British Medical Association meeting held at Nottingham.

#### THE SECTIONS.

##### OBSTETRICS.

##### *The Treatment of Uterine Fibroids.*

On Friday, July 29th, Mr. KNOWSLEY THORNTON opened the discussion on this subject. The treatment of uterine fibroids depended on their structure, situation and symptoms. Those accidentally discovered, which gave rise to no symptoms and were generally from the size of a filbert to a hen's egg, should be left alone. It was even cruel and unnecessary to inform the patient of their existence, as once she knew she had a tumour of the uterus her peace of mind was gone, and she wandered about from doctor to doctor. Attention to food and rest was necessary, with a well-fitted abdominal belt in cases which protruded above the pelvic brim, so as to give support and prevent rubbing of the tumour against the abdominal wall. Iron was generally unsuitable as a medicine, but ergot was of great service. In more severe cases dilatation of the uterine cavity up to No. 16 was of much use. The uterus should be well washed out and swabbed with iodine or hamamelis, and in still more serious cases a free curettage, more especially in the corners of the uterus near the Fallopian tubes, was of great use. Baths were of considerable service; they did good in many cases but they never cured. The foreign baths were preferable to the English ones, as a complete change in every way was desirable. He had no faith in electricity, which had been recommended and practised in so many ailments; in some cases it might slightly improve the patient's condition, but did not answer so well as simpler, safer and less painful methods. If it were capable of curing cases, these should now be reckoned by the hundred. Where were they? Most men who had used electricity had abandoned it. In spite of various treatments a small percentage of cases of uterine fibroids had to be submitted to operation owing to pain, hæmorrhage &c. Vaginal enucleation was unsatisfactory; other fibroids were likely to grow, and its employment should be reserved for those developing into the uterine cavity. Rapid dilatation did good. Mr. Thornton had never used iodoform gauze plugs with success. Two methods of treatment were highly successful—hysterectomy and oöphorectomy. He never decided which he would do until the abdomen was opened; if he found that he could remove every portion of

ovarian tissue he did so and left the fibroids. In these cases the majority were relieved at once and the cure could be absolutely depended on in time. The mortality was only 4 per cent. The patients were kept in bed for three weeks after operation. The best time for operation was a few days after menstruation. The patient had had a rest and was at her best. Where every particle of ovarian tissue could not be seen hysterectomy must be performed, either by the intra-peritoneal method adopted by Schröder, where an elastic ligature was used as a temporary tourniquet and the stump was sewn together, uterine tissue to uterine tissue and peritoneum to peritoneum; this, theoretically, was the best method; but in practice it was found that the extra-peritoneal treatment of the pedicle gave the best results. Mr. Thornton used Kœberlé's serre-nœud. Often a good deal of enucleation was first required; the bladder might have to be peeled off in front and the rectum behind. The wire should be applied about the level of the internal os. The ovaries must sometimes be removed separately, but when they could be left behind he did so, as the removal was unnecessary and interfered with the sexual proclivity of the patient.

Dr. MURPHY thought the Section most fortunate in having had the subject put before them in such a masterly and complete manner. He was in complete accord with Mr. Thornton in everything he said, except that he preferred Tait's clamp to Kœberlé's, and that he removed fibroids by the vagina more frequently than perhaps Mr. Thornton would approve of. A patient had just left the Sunderland Infirmary from whom he (Dr. Murphy) had during the past five years removed four fibroids per vaginam, whilst one had sloughed out of its own accord. He further related the notes of a case where he had removed successfully an enormous fibroid per vaginam that completely blocked the pelvis and reached above the umbilicus. This he was enabled to do by M. Péan's operation of *morcellement*. Having incised the capsule he seized the growth with powerful forceps and removed a portion about the size of a small Tangerine orange with powerful scissors; he then removed another similar portion; and thus, working always from the circumference to the centre, he removed the whole mass in small pieces. M. Terillon had obtained excellent results with a permanent elastic ligature.

Mr. LAWSON TAIT practically agreed with all Mr. Thornton had said, except that he did not attach so much importance to the complete removal of every scrap of ovarian tissue, and he was surprised he had been so lenient on the use of electricity; he himself had spoken very strongly on the subject.

Dr. W. J. TIVY had for five years used Apostoli's treatment in all cases of small bleeding uterine fibroids and was of opinion that it was both a scientific and successful treatment, curing many and diminishing the bleeding in all. In no cases treated by him had it been necessary afterwards to perform hysterectomy or ovariectomy. He applied from six to twelve positive electrifications at first to control hæmorrhage, using from 100 to 150 milliamperes for ten minutes and at intervals of not less than ten days. After the hæmorrhage had been controlled, from six to twelve negative electrifications were suggested, using never more than 100 milliamperes. He advocated the obstetrical position as most convenient and the use of a large Fergusson's speculum when applying the electricity, as permitting a full view of the cervix and a more gentle insertion of the electrode. Aseptic syringing was done before and after each electrification and also daily between the sittings. He used a Gaiffe's galvanometer and a water rheostat, and found forty small modified Leclanché cells with dry elements sufficient to give from 100 to 150 milliamperes. He mentioned three cases.

Dr. HORROCKS had obtained good results from electrical treatment. He had never seen a death from hæmorrhage from fibroid, and he believed the mortality of the operation to be much higher than that of the disease.

Dr. LEITH NAPIER begged to corroborate what Dr. Horrocks had stated with regard to hæmorrhage; great hæmorrhage might occur without fatal results. Sometimes menstruation was unduly protracted, menorrhagia and metrorrhagia continuing as a consequence of the tumour. As to the therapeutic influence of electricity, of which Dr. Horrocks had spoken with some appreciation, it was no doubt true that electricity arrested hæmorrhages in a considerable number of cases; its method of action, however, was probably like that of other intra-uterine counter-irritants, and the benefit derived from its employment was probably

due to the improvement it effected on the chronic endometritis associated with fibro-myomata.

• Dr. MICHIE, speaking from his own observations, had no hesitation in saying that myoma of the uterus, as soon as it gave rise to symptoms, became a serious disease, and should be arrested at once if possible, always provided that reasonably safe means only were adopted to this end; that is to say, he should reserve hysterectomy, for instance, for large and rapidly growing tumours threatening to terminate the life of the patient at an early date. Although no doubt it did at times happen that the disease was arrested or cured by nature at the menopause, he had not yet seen such an event, but he could recall to mind at least four cases that ended fatally in one way or another as the result of myoma of the uterus. He had seen only very temporary benefit from any form of dietetic or medicinal treatment and that only in so far as the hæmorrhage was concerned. He considered, however, that in the operation for the removal of the appendages, if properly and completely performed, there was a method of dealing with this disease attended by the happiest results.

Dr. ELDER said that in the main he agreed with the remarks made by Mr. Knowsley Thornton on the treatment of uterine fibroids. For a very considerable period of time after visiting Apostoli's clinique he gave the treatment a fair trial, and must confess that his first impressions were distinctly favourable. In the majority of cases it proved an efficient hæmostatic; the pains were relieved and the general condition of the patients was marvellously improved. But even at that early period it was found that now and again cases presented themselves which the treatment totally failed to influence. Still, on the whole the results were so encouraging that for nearly two years he pursued the treatment, and only finally abandoned it as a routine practice on finding that, in addition to being uncertain and tedious, the permanence of its good effects could not be relied upon.

Mr. STANMORE BISHOP remarked that it was generally admitted that of the two methods of dealing with the stump in supra-vaginal hysterectomy, the intra-peritoneal, or, as Dr. Priestley Smith called it, the sub-peritoneal, method was ideally the best, whilst statistics unhesitatingly declared that the extra-peritoneal method was practically the safest. Any detail, therefore, that would tend to render the former operation safer was worthy of consideration. The dangers which beset a patient after intra-peritoneal treatment of the stump were twofold—secondary hæmorrhage and sepsis. In these days the temporary elastic ligature allowed sufficient time for the surgeon to secure the vessels involved, and it was seldom that much anxiety arose from this source; but the danger from sepsis was far more subtle. It was taken for granted that all the usual precautions were taken, but there always remained one source which it had been so far impossible absolutely to guard against—the mucous surface of the cervical canal. Many methods had been devised to get rid of this risk. After removing the body of the uterus through the abdominal opening, one surgeon removed the cervix by vaginal hysterectomy, another removed the entire uterus by laparotomy, another cauterised the cervical canal with pure carbolic acid, whilst another, after carefully suturing the flaps together, left these sutures long, and opening Douglas' pouch, passed them into the vagina, drawing down and inserting the stump through this. The modification he would suggest was: laparotomy, with delivery of the tumour through the abdominal opening.

#### *Anatomy of the Hymen.*

Dr. CULLINGWORTH read a Note on the Anatomy of the Hymen and on that of the Posterior Commissure of the Vulva, in which he maintained that the ordinary text-book description of the hymen was erroneous, and that the hymen of the adult virgin normally consisted, not of a fringe of membrane surrounding a circular or oblong aperture with its edges lying apart, but of a long vertical fold of mucous membrane with its edge (when a patient is lying in the dorsal position) directed forwards, and divided, along about three-fourths of the summit of the fold, by a vertical slit. This slit constituted the orifice of the vagina. Normally no actual opening was seen either into the vagina or into the urethra. The orifices of both were vertical slits, bordered by lips, the inner surfaces of which were in close apposition and the edges of which were like those of the labia minora, directed forwards. The point had a very important practical bearing, for it was the anterior extremity of this hymeneal fold that, being prolonged forwards and partially concealing the aperture of the urethra,

constituted that fleshy caruncle which was recommended as a guide to the urethra when passing the catheter. It was obvious that when, from any cause, the vaginal orifice had become dilated the relations of the hymeneal fold would be permanently disturbed and its anterior apex could no longer be relied upon as a landmark. The only reliable guide to the urethra was obtained by passing the forefinger of the disengaged hand into the vagina and placing its palmar surface against the anterior wall, where the urethra could be felt as a cord-like prominence imbedded in its tissues. This method not only had the merit of being universally applicable, but had the further advantages of preventing the slipping of the catheter into the vagina, of avoiding the contact of the finger with the sensitive parts in front of the urethra and of enabling the finger to feel and direct the instrument in its course along the whole length of the urethra. In his twenty years experience as a gynaecologist Dr. Cullingworth had never yet seen a case where the hymen was absent, or even where it failed to be easily demonstrable. Occasionally the lips of the hymen were so deeply notched laterally that the edges came together in a cruciform manner. A cribriform hymen he had never seen, and he did not believe that it existed. In the latter part of his paper Dr. Cullingworth confirmed from clinical observation the statement of Luschka that the structure of the fourchette, or anterior border of the perineum, was continuous with that of the labia minora and not of the labia majora. He also called attention to the fact that the duct of the vulvo-vaginal, or Bartholin's gland, did not, as was often asserted, open into the fossa navicularis, but by the side of the vaginal orifice in the groove between the attached border of the hymen and the labium minus, a little nearer the vestibule than the fourchette.

#### PSYCHOLOGY.

##### *Reaction Measuring.*

Mr. BEVAN LEWIS, President of the Section, described in detail an improved instrument for measuring reaction-time, and explained the various improvements. The object of these was to enable a very slow reaction time to be correctly measured, and he considered that he could now accurately measure any period of time up to one second within the one-hundredth of a second. Another feature was the noiseless release of the rod which gave the signal; this was suspended by an electro-magnet instead of by a hook, as in the old instrument, and the remainder of the rods used in measuring the time were severally suspended by electro-magnets, each being successively liberated by the preceding rod breaking the current as it fell. Mr. Lewis said that Dr. Bedford Pierce had assisted him in certain details.

##### *Paranoia and its Relationships.*

Dr. E. L. DUNN read a paper on Paranoia and its Relationships. He gave an abstract of the French and German opinions and descriptions of paranoia, and described in detail the variety paranoia persecutoria, giving the three stages of this disorder, and discussed the diagnosis between it and melancholia. This he summarised by saying that in melancholia a patient thinks he suffers justly on account of his wickedness, whilst in paranoia persecutoria the patient thinks he is a victim and suffers from no fault of his own.

Dr. HACK TUKE alluded to the destructive criticism which the German term "Primäre Verrücktheit" had received, and now the word "paranoia" had been substituted. He said the clinical descriptions given abroad of this condition were very conflicting. Even the three stages were very variably described, and he doubted whether they were at all constant. He thought the term ought to be avoided, at any rate for the present, and that the older name, "systematised delusion," was much better; but he would prefer still to use the English nomenclature and include all similar cases under the head of delusional insanity.

Dr. MICKLE said he, in the first place, divided such cases into the expansive and depressed, which groups were subdivided further. In his opinion the majority of cases did not follow the course described, though in a small minority the description was accurate. Generally megalomania was earlier evolved than in the description given. He considered that some cases of paranoia eventually recovered.

Mr. RICHARDS deprecated the use of fresh names, and wanted to know why we do not stick to our Anglo-Saxon. He thought that if we divided and subdivided in this way it was *prima facie* evidence that we knew very little about the conditions in question.

Dr. RAYNER thought the general health of such patients was on admission generally imperfect, and he ascribed much of the subsequent feelings of well-being to improved general health.

Dr. GOODALL thought paranoia was a good name for systematised insanity of the type described, and that it would be helpful to students in distinguishing it from conditions superficially resembling it.

Mr. BEVAN LEWIS said it was a good tonic to be in good company, and that he always had an English prejudice against the term. He fully recognised the conditions described, but included it in delusional insanity. He stated that in all forms of insanity there was present an affective disorder, and that with depressed object consciousness there is a rise of subject consciousness. In most cases the parentage was of great importance, for such patients inherited a negative condition of mind in which violent outbursts could not readily arise, but in whom systematised delusions were easily developed. He would look for typical cases in prisons rather than in asylums.

Dr. DUNN then replied. He stated that he had collected the literature of the subject in order to ventilate the question and to hear the opinion of others, and he still thought that the word "paranoia" was of value to describe the limited group of symptoms that he had detailed, and defended its use in this limited sense.

##### *Insanity as a Plea for Divorce.*

Dr. WEATHERLY then read a paper opening the subject for discussion—viz., Insanity as a Plea for Divorce. He began by saying that in a discussion upon this subject which took place ten years ago he expressed opposite opinions to those he now holds, and that ten more years of asylum practice had shown him much that had modified his views. It was very rare that insanity in the eye of the law could be proved, even though the person might be certifiable as insane. He then denounced the withholding from anyone about to marry the fact that the other had been insane or came from a stock insane or otherwise unsound. He considered that such marriages were fraudulent, but as the law now stood it was impossible to dissolve the marriage. With regard to the question whether insanity occurring after marriage should ever be a plea for divorce, he summed up the leading objections under four heads, which he severally discussed: (1) That in nearly all cases the prognosis presents some doubtful features; (2) that the marriage service, where it says in sickness or in health, represents the sanctity of the marriage contract; (3) that it might be argued that if in one disease divorce is justifiable, why not in others, such as cancer or phthisis? (4) that it placed undue responsibility upon medical men.

Mr. STEWART (Clifton) said the word "incurable" should be inserted. It must be understood that incurable insanity is referred to. He thought that legal authorities would require much evidence to establish incurability and that a longer time should elapse than seven years—he would suggest ten years—before proceedings could be instituted. He thought every case should be examined by a medical expert appointed by the Government.

Dr. RAYNER was convinced that insanity should never be a plea for divorce, and that the existing law tended to a careful examination into the history of disease before marriage.

Dr. HACK TUKE sympathised strongly with the preceding speaker and said he could not go further with Dr. Weatherly than the remarks he made in reference to what he had rightly termed fraudulent marriage.

Dr. SUTHERLAND thought in any case the question should be considered by medical experts.

In reply, Dr. WEATHERLY was very glad that the meeting had agreed with him on the first two points he had proposed for discussion. He emphasised his original proposition that insanity might become a plea for divorce, and not a warrant for wholesale dissolution of marriage. He asked that the President should take the opinion of the meeting on the three questions he had raised, which was done, and it was found that the first two were decided without any dissentient: (1) that divorce could be granted in all cases in which one of the contracting parties at the time of marriage was certifiably insane; (2) that all cases of fraudulent marriage, as described in the paper, could also be rendered void. On a vote being taken upon the third question, whether incurable insanity after examination by experts appointed by the Government be a legitimate plea for divorce, it was decided in the affirmative by 17 to 13.

*Acute Encephalitis.*

Dr. GOODALL read a paper entitled *Notes on the Pathological Anatomy of Acute Encephalitis*. This paper contained an account of certain preliminary experiments, undertaken with a view to determine the nature and relationship of the spider-cell element of the connective tissue of the brain. Incidentally the alterations undergone by the nerve cells in acute encephalitis were touched upon. The author employed rabbits in these experiments, producing cerebral irritation by puncture of the brain with a platinum needle and by application of dilute cantharidin to the pia mater. Staining of the sections was chiefly performed with aniline blue-black and they were cut by the fresh method. Thus the spider cells were particularly well brought out. The chief results and conclusions reached were as follows: The morbid development of spider cells proceeded in a particular order; the first to show signs of growth were the subcortical ones, next came those between the pia mater and the cortex, then those of the outermost layer of the cortex, and lastly those situated in the rest of the cortex starting in the deeper parts. Apparently the most prominent in health were the first to show morbid growth in inflammation. The author stated reasons which led him to conclude that the spider cells of inflammation were developed from pre-existent cells and not from leucocytes, at any rate in the earlier stages of that process (up to the end of the first week). Even at the end of the twelfth day he had been unable to satisfy himself of the leucocytal origin of the spider cells. As long as the theory of the development of the connective tissue of the brain from leucocytes remained a possible one it would be difficult to deny the possibility of a leucocytal origin for these cells in inflammation. His experiments appeared to show that the fixed connective-tissue cells were in large measure the progenitors of the spider cells seen in the diseased cortex of general paralysis and alcoholism.

*Hypnotism.*

Dr. LLOYD TUCKEY gave an abstract of a paper upon the Value of Hypnotism in Chronic Alcoholism. He reviewed thirty-one cases of chronic alcoholism he had treated with post-hypnotic suggestion. He had had three successful results in cases of over two years' standing, five in cases of over one year's standing, and five patients, some of whom are still under treatment, are better. In some the influence was nil; in others relapses occurred. He came forward as a general practitioner and claimed that hypnotism should take its place in therapeutics by the side of other agents, such as massage and hydro-therapeutics. He was quite satisfied that a certain proportion of cases were cured. The only alternative treatment was confinement to a retreat which not only broke up the home, but tended to induce a habit of loafing and idleness. He said that casual hypnotisation was quite useless and that regular treatment under supervision for a month was necessary to success. He related two cases in low-class women who eventually relapsed. He had seen no ill effects from the practice of hypnotism by qualified persons.

Dr. ROBERTSON followed with a paper upon the Use of Hypnotism in the Insane. After describing several cases, giving reasons for its use, the following summary of its use among the insane (excluding physical diseases) was given:—  
A. It may be used as a direct therapeutic agent: (1) in insomnia success may follow in intractable cases, where drugs have not succeeded, hypnotic sleep being a more natural sleep than that induced by drugs; (2) as a sedative in excitement, it may be here of direct therapeutic value in preventing an outburst of excitement from passing into mania in a brain which is in a highly unstable condition; (3) to dispel fleeting delusional states and the minor psychoses. The lesser degrees of mental derangement having been entirely removed by suggestion. B. It has indirect therapeutic uses for purposes of management: (1) to overcome the morbid resistance of patients for their own benefit, as in taking medicine or food; (2) as a substitute for restraint, where it may be of great value in controlling violence, a mental restraint being substituted for mechanical or chemical restraint.

In the discussion which followed, Mr. DRAPER said he had used hypnotism in general practice for some years. In five or six cases he had seen the pain of labour disappear and unconscious delivery result under the influence of hypnotism. He had been able to delay sending recurrent cases of insanity to the asylum and had also treated successfully a case of epileptic insanity by hypnotic suggestion.

Dr. HACK TUCKEY alluded to Dr. Percy Smith's cases at

Bethlem Hospital upon which hypnotism was practised and was found not to have any value, but he thought it quite possible, under more favourable conditions, the result might be different. He also mentioned some cases in Switzerland in which hypnotism had been of value.

Dr. BEDFORD PIERCE said he did not wish to criticise in any hostile sense, but would like to ask Dr. Tuckey if he thought his percentage of cures was any greater than that obtained in an average Salvation Army meeting. It was well known that cures were so obtained; but without touching upon the religious side of the question he doubted whether Dr. Tuckey's care, advice and attention had not more to do with the recovery than hypnotism.

Mr. STEWART criticised the use of hypnotism in chronic alcoholism and thought the proportion of recoveries quoted by Dr. Tuckey was too small to warrant much in the future. He questioned whether hypnotism ever assisted the will power to recover, but it might facilitate the natural means of recovery by helping for the time the patient's resistance to temptation.

## THERAPEUTICS.

*Discussion on Anæsthetics.*

Dr. DUDLEY BUXTON opened a discussion upon the "Anæsthetic Action of Chloroform viewed from the standpoint of recent Physiological and Chemical Research." He said that at no time more than the present was attention directed to anæsthetics, for while opinions might differ as to the action or merits of this or that anæsthetic, there was unanimity as to the importance of a more accurate and exact knowledge of the subject. He indicated that accidents occurred under chloroform in several ways and were attributed to various causes by different observers. The phenomena of these accidents he proposed to examine, and, as far as possible, to indicate the physiological facts which underlay them. Deaths were reported to take place from the following causes. 1. Before an operation had commenced, when they were variously referred to fright; reflex inhibition of the heart's action conveyed from some sensory nerve and through the vagus; syncope brought about through direct action of the chloroform itself, or possibly of some impurities contained in it; through interference with respiration arising from mechanical causes—e.g., the constraining effects of tight clothing, voluntary holding of the breath or spasm of the larynx &c. 2. During an operation, they were then attributed to shock—either simple, the direct effect of the operation upon an imperfectly anæsthetised subject, or shock as understood when surgical procedure was so severe as to make itself felt through chloroform anæsthesia properly and thoroughly established. Deaths were also reported as being due to direct syncope, on the one hand, or to failure of respiration on the other. These cases were attributed by some to nervous origin—action of chloroform upon the medullary centres—respiratory failure being primary and cardiac failure being secondary; while, on the other hand, it was thought by others that there was an initial action on the heart muscle leading to respiratory failure as a secondary result. 3. Deaths occurring after the operation was completed were in some instances attributed to the effects of the anæsthetic. Passing to the physiological side of this question, Dr. Dudley Buxton said that experiment upon the batrachian and mammalian heart muscle had shown that both the vapour and dilute solutions of chloroform were able to completely paralyse it, causing it to lose alike its contractility and irritability; but it might be said that either intravenous injections or inhalations of chloroform could never so act upon the human heart, because before sufficient chloroform had entered the circulation death from respiratory paralysis would have occurred. However, this argument had been shown to be invalid, since Drs. Gaskell and Shore had proved that when blood laden with chloroform entered the medulla and circulated through the respiratory and other centres the blood pressure did not fall, whereas when the chloroform perfused the heart but was excluded from the nervous system blood pressure rapidly fell. Again, the direct proof of the action of chloroform upon the heart muscle had been demonstrated by the researches of Dr. MacWilliam and other observers, who had found that repeated inhalations led to degenerative changes in the muscular fibres of the heart. It had been attempted to prove that impurities in the chloroform were responsible for the toxic effects of that agent. Upon this point he thought the work of Professor Du Bois Reymond, jun., had failed to establish that ordinary

impurities actually increased, much less caused, the lethal effects of chloroform. How far the nervous system was the origin of death under chloroform was then considered. So-called "reflex death" was probably seldom, if ever, brought about. Professor Wood's experiments had shown that liquid chloroform poured into the larynx when that structure was separated from the trachea, although it was in nervous communication with the medulla, did not materially affect the heart. The experiments of the Hyderabad Commission showed further that vagal inhibition following sensory stimuli is most rare in the lower animals, and the same applies to shock. The experimental evidence would here appear to be in conflict with that advanced in clinical records; and this was pointed out as a reason for not accepting as proved for human beings what was shown to occur in lower animals, unless corroborative proof, either actual or inferential, existed for human beings. The researches of Drs. Gaskell and Shore were taken as proving that the toxic effect of chloroform was less pronounced upon the nervous system than upon the heart. The fall of blood pressure, usually accepted as a sign of vagal action, had been shown to be a more complicated matter, since it occurred when the nervous system was intact and not when it was under the influence of chloroform. It thus appeared that of the deaths grouped under (1) fright possibly acted in some cases in human beings, but never among the lower animals; reflex inhibition of the heart among human beings possibly occurred, but never in the lower animals; mechanical impediment to breathing probably acted both in the lower animals and in man; likewise direct action of chloroform upon the heart was demonstrable in man and in the lower animals. In the last case the actual dilatation of the viscus could be seen, while in the former symptoms existed which were explicable by such an anatomical change taking place. To the deaths grouped under (2) much of what has been said already applied with equal force. It must be added that in the case of the lower animals shock, hæmorrhage, operation, and so on, appeared to have less effect than in man. Of cases coming under (3) the experimental evidence which seemed to indicate a progressive impairment of the muscle of the heart appeared to explain post-operation deaths occurring with the symptoms of syncope after some hours of resumption of consciousness. Such cases were hardly to be explained under any other hypothesis.

Mr. JOSEPH WHITE, F.R.C.S. Edin., President of the British Medical Association, dwelt upon the importance of the subject. He had carefully studied it for many years. He gave his personal observations upon the size of the pupils under chloroform, believing that when they could be kept fairly contracted the patient was in safety.

Dr. LAWRENCE TURNBULL (Philadelphia) addressed himself to his own and his fellow countrymen's experience upon the relative safety of anaesthetics. He read an interesting report of the way in which patients were anaesthetised in the Johns Hopkins clinics.

Dr. FREDERIC HEWITT acquiesced in Dr. Dudley Buxton's conclusions. He felt strongly that very many of the phenomena met with constantly when human beings were chloroformed were not reproduced when looked for among the lower animals—fright and dread of death were absent from these. He thought vagal influence could not be explained away in human beings, and he described some cases in which vagal inhibition appeared.

Mr. ROWELL spoke upon Dr. Kirk's "theory" of chloroform poisoning, and suggested that in cases of impending death under chloroform a valvular opening should be made below the cardiac apex and the heart rhythmically grasped by the sterilised hand and emptied so as to maintain the circulation.

Mr. RUMBOLD, from an experience of 400 cases of administration of nitrous oxide extolled its merits in minor surgery. He exhibited an apparatus.

Dr. RALPH STOCKMAN had used samples of chloroform rejected as "bad" by the makers for anaesthetising animals, and his experience led him to think that impurities played little or no part in chloroform deaths.

After a few words from the CHAIRMAN, and a brief reply from Dr. DUDLEY BUXTON, the discussion closed.

#### EXHIBITS.

THE Exhibition of Foods, Drugs and Medical and Surgical Appliances was a very interesting one and attracted a considerable number of visitors. In the centre of the

Museum were to be seen the pharmaceutical products manufactured by Messrs. Oppenheimer, Son and Co., Limited, which comprise palatinoids, bi-palatinoids, concentrated liquors, cream of malt preparations, &c. Numerous specimens of palatinoids were displayed and great interest was shown in the formation of pure ferrous carbonate, phosphate, arseniate and the hypophosphites in the bi-palatinoids. Among other preparations we noticed the cream of malt oil and hypophosphites, a preparation which has proved very useful in the treatment of wasting diseases; also their concentrated Liquor Euonymin et Pepsinæ Co.; and Liquor Caulophyllin et Pulsatillæ Co. Their exhibit was one of the largest in the Museum. The 150 microscopes used in the demonstrations included in Section B in the department of Pathology were supplied by Mr. Robert J. Beck. This firm also showed an improved form of their star microscopes with the addition of an Abbe condenser on a swinging arm; also their new microscope, with an improved sub-stage, new air-tight capsules for cultivation and for mounting specimens, razor-stropping machines and compact microtomes, &c. Mr. Helbing's selection of pharmacological preparations excited considerable attention. In this exhibit were drugs derived from the distillation of coal-tar and other productions for which this firm is well known. The Amidjah fire escape is the invention of Mr. Lewis Amidjah, first introduced in 1888 at the Fire Rescue Exhibition held at the Portman Rooms, London, which was arranged by Dr. Danford Thomas to bring to public notice inventions having for their object the prevention of fire and the saving of life from fire. This invention has been introduced into St. Mary's Hospital, the Hospital for Sick Children and other benevolent institutions, and has secured the commendation of authorities in barracks and other Government buildings. Root's Cuca Cocoa and Chocolate, also Bush's Liquid Beef, a concentrated raw food, condensed by an entirely new process which preserves all the nutritive principles of carefully selected beef, were exhibited. Samples of water from the Flitwick chalybeate spring in Bedfordshire were shown, an account of which was published in THE LANCET of Oct. 24th, 1891. The preparations of the Maltine Manufacturing Company, Limited, in conjunction with Carrick and Co., were exhibited. Their well-known combinations with maltine were shown, such as those with cod-liver, lime, pepsine &c., and other useful forms of food for infants or invalids. The exhibit of Messrs. Hurst and Co. of Great Tower-street was interesting from the fact of its comprising specimens of batteries in a modified form for the supply of electricity for medicinal purposes. This firm dispenses with the primary acid battery, with its many disadvantages, and substitutes either dry Leclanché cells or accumulators. These are supplied in a neat and portable fashion for either cauterly or lighting purposes. A large collection of galvanometers, rheostats &c. were also on view. An apparatus for examining the keenness of eyesight by the unexpected and quite accidental appearance of various test types was much noticed. The illuminating instruments comprised an improved form of photophore, which permits of examinations being made in daylight, and several instruments for internal illumination on rather a novel principle, by which the diseased parts of the body are made transparent and allow of external examinations. The stall supplied by Messrs. Allen and Hanbury was furnished with a specimen of Mr. Emile Andreoli's apparatus for the generation of ozone, the production of which has until lately been attended with great difficulty. This firm also exhibited a series of foodstuffs to meet the requirements of infant feeding during the various stages of development of the assimilative function. Among the general exhibits the byno-hypophosphites attracted considerable attention. Messrs. W. H. Bailey and Son had a capital display of silk, cotton and elastic stockings of fine texture, hardly to be distinguished from ordinary fine hose, and yet affording efficient support. They also showed clinical thermometers which have been certified at Kew, and an excellent collection of trusses, abdominal belts so constructed that "rucking up" is entirely avoided, and steel wire braided pillows and cushions. The American Braided Wire Co. had a choice selection of their goods; and Mr. F. J. Robman showed some physiological models. The tabloids of Messrs. Burroughs and Wellcome were well displayed, and their merits and variety excited great interest. Messrs. Downs Brothers exhibited Samway's tourniquet clips in various patterns, an improved ophthalmoscope, and a new splint for the treatment of fractures of the elbow-joint. The pulver-

flator, an instrument for use in naso-pharyngology and dermatology, was shown by Messrs. McKesson and Robbins, New York. (This invention was described more fully in our issue of last week.) They also showed their preparations of the stearate of zinc in combination with various drugs. The stearate differs from the oleate in being made from suet instead of oil.—Woods' patent invalid bedstead and other appliances were exhibited by the Longford Wire, Iron, and Steel Company, Limited. A stall was also occupied by the Liquor Carnis Company, who had a large display of their patent foods. The exhibit of Messrs. Parke, Davis and Co.'s products were of a varied nature: a small assortment of fluid extracts, gelatine and sugar-coated pills (oval and round) in many colours, tablet triturates, and a pepsin which they label and sell as one grain, capable of dissolving 4000 grains of albumen, according to the usual test for showing comparative strength of pepsin. For this purpose a unique pepsin tester was in working order on their exhibit table. This tester is made to work automatically by the use of a small stream of water and is intended to show the different strengths of pepsin under similar circumstances. They also exhibited Weld's syrup of chloride of iron and Mosquera's beef products. The practical use of the Remington typewriter was demonstrated by Mrs. Marion Marshall, and a large number of the members of the Association availed themselves of her aid. Hartmann's Sanitary Wood Wool Company, Limited, exhibited their well-known preparations, including wood wool wadding and tissue, which are now used in almost every hospital in the United Kingdom; also their Hartmann's hygienic towlelettes, largely used after accouchement as well as for ladies' general use, and Hartmann's guinea accouchement outfit, which contains all the necessary sanitary appliances and is claimed to afford a great saving of time and trouble in supplying to young mothers the various articles they require for the time of confinement. A new revolving operating table was exhibited by Mr. John Carter. This table can be fixed at any angle or detached and used as a stretcher. Mr. Carter also exhibits the "Stanmore Bishop" hip-disease bed which was devised for use in severe cases of morbus coxæ, but is also useful for any condition in which prolonged confinement to bed is required, as the patient can constantly alter the plane of pressure. Messrs. Krohne and Sesemann exhibited their Hyderabad chloroform inhaler, the regulating inhaler and many others.

### THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE ANNUAL MEETINGS OF FELLOWS AND MEMBERS.

It will be in the recollection of our readers that the proceedings at the annual meeting of Fellows and Members of the Royal College of Surgeons of England, held on the 5th of November, 1891, and the subsequent delay of the Council to return an answer to the request of the meeting, "that a copy of the Report of the Council should be sent by post to each Fellow and Member a fortnight before the annual meeting," led us to entertain the fear that the Council might be induced to abolish the annual meeting altogether. The extreme brevity of the reports of the proceedings of the Council of the College which are vouchsafed to the Fellows and Members prevents the profession from learning the nature of the discussion which took place in the Council on the 1st inst. on the question of holding the annual meeting of Fellows and Members of the College in November next, and to what extent our fear was well grounded. We are glad, however, to be able to congratulate the Council on the result of their deliberations, and to learn that it was agreed that the annual meeting of Fellows and Members of the College should be held on Thursday, Nov. 3rd, at 3 P.M., and that the usual notices should be issued. A contrary decision would have been derogatory to the dignity of the Council and have placed it in a false position. The annual meeting of Fellows and Members was instituted deliberately by the Council in 1884 in response to a resolution unanimously passed by a general meeting of Fellows and Members and from a conviction that it was right to place before the members of the Corporation once a year the record of the proceedings of the Council, and

to afford them an opportunity for criticism and an expression of opinion on the management of the affairs and finances of the institution. The mere facts that this criticism occasionally exceeds the limits of propriety and good taste, and that the voluntarily assumed attitude of the members of the Council who group themselves in the well of the theatre and constitute a butt for the shafts of the assembled Fellows and Members is not altogether as pleasant as they would wish it to be, are not sufficient reasons for cancelling the conceded privilege. Men who hold public offices must not be too thin-skinned and wince under criticism, just or unjust. To any misrepresentations and attacks it is open to the members of the Council to reply at the time and any irregularities can be checked at once by the President. To deprive the great body of Fellows and Members of the privilege of reviewing the proceedings of the Council and making suggestions for the more efficient administration of the affairs of the College on account of the ebullitions of a few ill-regulated spirits would be inexpedient and unjust, and would amount to an open confession of inability on the part of the Council to maintain order. It would be playing the part of rulers whose only remedy for disaffection is to "make a solitude and call it peace." Happily, the Council of the College have decided—if not unanimously, at least by a majority—to meet the Fellows and Members as usual, and we shall be greatly mistaken and disappointed if the tone and conduct of the general meeting in November be not such as to convince the members of the Council that their decision has been a wise one. The settlement of the recent action in the Court of Chancery has removed a cause of irritation on both sides and ought to lead to the establishment of friendly relations between the Council and the Members of the College. If the spirit of distrust of the constituency is laid aside, and if the Fellows and Members are called together by the Council with a sincere desire to consult them and meet their wishes so far as is compatible with the fulfilment of its obligations and the honest convictions of its members, the meeting in November may prove a fresh starting-point—the closing of an old chapter of disunion and conflict and the commencement of another chapter of unity and concord. The preparation of the annual report, we observe, has been entrusted to a committee, and we presume that this committee will consider the request of the last annual meeting that a copy of the report of the Council should be sent by post to each Fellow and Member a fortnight before the annual meeting. If the Fellows and Members of the College as a body were in the habit of studying the calendars of the College or keeping themselves acquainted with the progress of affairs by reading the published minutes of the Council, it would be unnecessary to circulate the report beforehand; but this duty is so often neglected or interfered with by the pressure of daily practice that it is desirable to leave the Fellows and Members of the College without excuse for ignorance of the events of the year and for maintaining that apathy and indifference which are the sole obstacles to their securing their proper weight in the administration of collegiate affairs. The cultivation of an interest in the progress and wellbeing of the College on the part of the Fellows and Members should be one of the deliberate aims of the Council, for it would strengthen the hands of the executive and tend to enlarge the usefulness of the College as a scientific institution. We should therefore consider that £50 or even £100 spent in the circulation of the report would be well spent, even if it should be like bread cast upon the waters and only found after many days. A more immediate return might in all probability be the effect of the distribution—the diffusion of a spirit of loyalty and contentment with a council which responds so promptly to the wishes of its constituents, and a quickened interest in the institution itself, manifested, it may be, in due season by a better attendance at the lectures of the College and more valuable donations to the museum and the library.

### THE AMERICAN MEDICAL ASSOCIATION.

#### [SECOND NOTICE.]

In the previous notice of the important meeting at Detroit of this Association we gave a short account of the general addresses which were delivered; but the chief scientific interest of the meeting was centred in the matters discussed in the various sections. Of these there were in all

twelve—viz., Surgery and Anatomy, Practice of Medicine, Obstetrics and Diseases of Women, Neurology and Medical Jurisprudence, Ophthalmology, Laryngology and Otology, Materia Medica and Pharmacy, Physiology and Dietetics, Diseases of Children, State Medicine, Oral and Dental Surgery, and Dermatology and Syphilography. Although the attendance at all the sections cannot be said to have been large, at most it was satisfactory, and at some both the attendance and the interest in the proceedings were all that could be desired.

At the sectional meetings of the first day no subject of very engrossing interest came up for discussion. An important address was delivered by the chairman in the State Medicine Section dealing with the responsibility of the National and State Governments for the protection and purity of water supplies. The importance of the purity of a water-supply to a community was pointed out, as well as the neglect and laxity which had been observed up till recently with regard to it in America, and in conclusion an energetic plea was urged that in dealing with this question local and political jealousies and inherited prejudices should be subordinated to the higher considerations of the interests and happiness of human life.

In the Section of Diseases of Children in the course of a paper on Scorbutus in Children, Dr. Brush made a strong protest against the too common departures from natural feeding in the case of infants and children. His argument was based upon the statement that every living creature requires some raw living food and he regarded sterilisation and such processes as likely to deprive aliment of some of its necessary qualities. But he certainly overstated his argument when he implied that scurvy is the result of the deprivation of fresh living food. Surely he must have forgotten that vegetables are as a rule boiled before they are eaten, and they can scarcely be imagined to retain their vitality after the fiery ordeal.

A paper which evoked some discussion in the Neurological Section was that of Dr. Chaney of Michigan on Responsibility in Will-making. He referred to numerous cases which had recently occurred involving the question of testamentary capacity, and in criticising them he called attention to the unsatisfactory legal definitions of insane delusions as well as to the doubt which existed as to the effect of various disturbed psychical conditions on testamentary capacity.

Perhaps the most interesting paper on the second day was that of Dr. Rockwell of New York on Electrical Execution. Dr. Rockwell may be regarded as an authority on this subject, for he was one of a commission of three appointed by his State to determine whether disfigurement by heat or chemical action was likely to be a result of execution by electricity. From the numerous experiments which he made upon animals, and from his experience of electrical execution so far, Dr. Rockwell is firmly of opinion that this mode of execution is at once the most instantaneous and the least objectionable in all other respects. The same position was taken up by Dr. Fell in his communication on the same subject and he advocated this mode of execution as the least objectionable in every way. As is well known, these are not the views held by THE LANCET on this subject.

On the third day of the meeting, among the papers which had most interest was that of Dr. Shepard of Brooklyn, urging the more general employment of baths and pointing out their efficacy as a preventive of disease. This paper was read at the State Medicine Section, and excited a good discussion. The general opinion seemed to be in favour of the establishment of public baths on a large scale. At the Neurological Section the paper which excited most interest was that of Dr. Dewey.

Reference has been made to but a few of the numerous and interesting papers which were read. Enough, however, has probably been said to indicate the valuable nature of the contributions as a whole and the stimulus which was sought to be given in the general addresses. American science is young, but it is vigorous, and if it is a little narrow and provincial in the conception which some of its exponents have of its functions, that is a fault which will almost daily diminish. The advances which are being made in every direction, thanks to the opportunities which the munificence of its millionaires have made available, are beyond all parallel remarkable, and it augurs well for the future of American medicine that such keen and universal interests should be evoked as were evident at this meeting.

The exhibits of medical books, instruments and appliances

generally were extensive and varied. Preparations of all kinds of drugs were displayed in various forms, and one of the most interesting "shows," if we may use the word, was the manufactory of Messrs. Parke, Davis and Co., who gave every facility to the members of the Association to visit and inspect their laboratories.

The social side of the meeting was of the usual kind. There were a few dinners of Sections; there were receptions by the medical men of Detroit and by others, and an excursion on the Detroit River and Lake St. Clair afforded much pleasure, if it did leave the Sections to languish a little. In short, everything which the people of Detroit could do was done, and with a heartiness and geniality which enhanced the hospitality.

## ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1890; WITH APPENDIX. VOL. XXXII., 1892.

[THIRD AND CONCLUDING NOTICE.]

As regards the vital statistics of the British Army in India the following table embodies the facts and ratios for the three Presidencies.

	Average annual strength.	Ratio per 1000 of mean strength.				
		Admitted.	Died.	Invalld home.	Invalld discharged.	Constantly sick.
Bengal.. ..	41,143	1589·5	10·18	25·18	17·16	89·16
Madras .. ..	18,551	1409·2	18·07	22·95	15·05	88·71
Bombay .. ..	12,762	1898·4	10·35	28·83	18·40	78·00
Total .. ..	67,456	1517·1	14·45	25·42	16·09	86·06
Ten years 1880-80.	507,058	1470·0	15·06	27·00	13·53	71·17

In Bengal the loss to the command by death and invaliding was 1673, being at the rate of 40·66 per 1000, and the loss to the army by death and final discharge as medically unfit for further service was 1372, equal to 33·34 per 1000, an increase of 4·09 on the return of the previous year. The highest admission rate was among men in their second year of service in the country. The mortality ratio was high among men in their first year of service, fell during the second, and fell still further during the third year of service, after which the rate of mortality increased and kept increasing up to over ten years' service in the country.

As regards enteric fever, it occupies much the same prominent position as a cause of sickness and mortality as heretofore, and the influence of youth and recent arrival in the country is fully recognised and dwelt upon. In some cases the occurrence of the disease was attributed and traced to insanitary conditions, in many others it was not, although want of success in that direction does not, of course, prove their absence. No material advance has been made with regard to the etiology or pathology of typhoid fever in India. The system of water filtration in barracks long ago gave rise to misgivings in our minds. There is only one safe way with water supply, and that is to be satisfied that its source is pure and that the water is not and cannot be contaminated from the time it leaves that source until it reaches the lips of the consumer. Large filter beds, properly designed and systematically used and superintended in connexion with waterworks at the main are one thing, but filtration in detail carried out and supervised by a multitude of human agents with all their liability to carelessness and error is quite another. In the same way it is easy enough to lay down excellent regulations on paper for a method of barrack-room filtration, but it is not easy to place implicit faith in their fulfilment in practice. However, we propose to omit all further reference to the etiology and pathology of enteric fever in India on the present occasion, as there will be an opportunity for considering it later on when dealing with the annual report of the Sanitary Commission with the Government of India for 1890, where these subjects are more fully entered upon. Cholera caused 50 admissions and 41 deaths in the Bengal command, being in the ratios of 1·2 and 1 per 1000 respectively.

The disease occurred in fourteen stations. The greatest number of cases in any station was 18 in Lucknow, where there were 13 deaths. Cholera was unusually prevalent in the district and city during the year. Lucknow appears to have been an increasingly unhealthy station of late. Single fatal cases of cholera occurred, as usual, at various stations during the year. More than half the cases and deaths took place in the third quarter and about a fourth in the last quarter of the year. This disease has a special interest at the present time, seeing that the epidemic now prevailing in Russia has followed the same route that it did in 1831-2 and on other occasions when it reached this country and America. The ratio of those constantly sick from venereal diseases in the Bengal command was 36.87 per 1000 during the year, which implies that as many as 1516.79 men, or rather more than a battalion and a half, were lost to the efficient strength of the army in Bengal from this cause. The constitutional form of the disease has, moreover, increased in prevalence, and this is particularly noticeable in comparing the ratio of admission for secondary syphilis in 1889 and 1890—52.3 and 60.2 per 1000—with the ratios in the previous three years, 1886-8—viz., 33.1, 27.2 and 30.8 per 1000 respectively. The reports of medical officers at several of the large stations allude, we are told, to this increased prevalence of constitutional disease.

Comparing the health of officers generally with that of the non-commissioned officers and men, it does not appear that the former enjoyed any advantage over the latter in this respect. The average strength of officers in the Bengal command was 1146, the number of attacks of illness 1123, the number of deaths 27, and there were 77 officers invalided to England. The ratio of sickness was, therefore, 979.9 per 1000, that of mortality 23.56, and that of invaliding 67.19 per 1000. Still, compared with last year, the mortality rate has declined by 3.72, those of sickness and invaliding having, however, increased; 65 officers were attacked with enteric fever, and 6 died. The death-rate among the women was 14.22, and that of the children 52.42 per 1000 during the year.

In the Madras command the death-rate among the British troops, 13.07, for 1890, was rather below that of the previous decennial average and 7.50 below that of the preceding year. It must be remembered, however, with regard to the decennial comparison that the year under report and the preceding year include the sickness and mortality among the troops in Upper Burma which previous years did not. There was only one case of cholera which terminated fatally during the year in the command. Enteric fever caused 126 admissions and 49 deaths, an admission-rate of 9.3 and a death-rate of 3.62 per 1000 for the year. Dysentery caused 558 admissions and 10 deaths, being in the ratios of 41.2 and 0.74 per 1000 respectively. In Bombay the loss to the command by death and invaliding was 490 men and the loss to the service by death and final discharge from the service as medically unfit was 368, being in the ratio of 28.84 per 1000 of strength, which is rather lower than the corresponding rate of the previous year. Cholera caused 7 admissions and 7 deaths. Enteric fever caused 131 admissions and 24 deaths, being at the rate of 10.3 and 1.88 per 1000 respectively. Dysentery gave rise to 252 admissions and 8 deaths, being in the ratios of 19.8 and 0.62 per 1000 respectively. The tables at pages 250, 259 and 268 give the relative prevalence of dysentery, diarrhoea, hepatitis and abscess of the liver in the several districts of the Bengal, Madras and Bombay commands respectively. It may be mentioned that influenza prevailed extensively in the Indian as in other commands during the year 1890.

The first paper in the Appendix to the Report is on the Progress of Hygiene during the year 1891, by Brigade-Surgeon-Lieutenant-Colonel J. Lane Nottter, M.A., M.D., Professor of Military Hygiene at the Army Medical School, Netley. After alluding to the work done at the various sections of the late International Congress of Hygiene and Demography, the subjects of sanitary legislation, literature, work of societies, special points of hygiene, foods, water analyses, alcoholic beverages and military hospitals in Berlin are all passed in review. The remarks on disinfection, considered under the heading of special points of hygiene, are worth reading. Steam heat is well known to be the most satisfactory and least injurious method of applying heat as a disinfectant. With regard to carbolic acid, attention is called to two points in order to obtain good results—viz., that the solutions should be sufficiently strong and that these take a considerable time to act. Any strength under 5 per cent. is unreliable and will not be effective within twenty-four hours.

All observers agree that mercuric chloride is the most active microbicide; a solution of 1 in 1000 destroyed anthrax spores within a few minutes. It is the only known disinfectant which, without any previous moistening or other preparation of the articles to be disinfected, destroys, says Koch, the most resistant organisms in a few minutes by a single application of a highly dilute solution. In the case of albuminous fluids, however, the sublimate may be precipitated and rendered ineffective or inert. Where it is desirable to use gaseous disinfectants chlorine is the best. As regards aerial disinfectants, although it may not be wise to discontinue their use altogether, they are nevertheless unreliable agents and their efficacy is often illusory. Any attempt to disinfect the air of sick-rooms by chemical means is useless, as if they are present in sufficient quantity they render the air of the room unbreathable. Nor should the fact that the contagia of different diseases possess different properties be overlooked. The poison of typhus becomes inert when diluted with air, and does not spread to any distance, whilst recent evidence goes to prove that small-pox is capable of transmission and does not lose its virulence by free dilution with air, but, retaining its power, can infect those living in the neighbourhood. The results of some experiments on "Morris's circulating filter" are given. The filter is favourably spoken of; the tests to which it was subjected were severe, and it is said to answer all the requirements necessary for a field-service filter. Professor Nottter concludes his paper with the notes he made while at Berlin in 1890 on the military hospitals and some of the barracks in that city.

The second paper is by Brigade-Surgeon-Lieutenant-Colonel C. H. Y. Godwin, Professor of Military Surgery at Netley. It gives a list of operations performed at the Royal Victoria Hospital during the year 1891, together with short abstracts of the most important cases. Several of these cases were interesting and instructive. The results obtained in the cases of empyema—in the second case particularly—were very good. The Assistant Professor of Military Medicine, Surgeon-Lieutenant-Colonel W. F. Stevenson, B.A., M.B., follows with a report from the medical division of the hospital, in which some interesting clinical facts are related in the abstracts of cases. Surgeon-Captain D. Bruce, the Assistant Professor of Pathology, contributes a paper on the Etiology of Malta fever, in which he details the steps he took to establish the presence of a definite micro-organism; he further deals with the morphology and the cultural characters of the micrococcus of this fever and the transmission of the disease to animals. A report of six cases of lightning-stroke at Aldershot by Surgeon-Captain J. E. Trask, and one on a case of recovery with useful limb after a compound fracture of the tibia and fibula into the knee-joint, with rupture of the internal saphenous vein and ligamentum patellae, by Surgeon-Captain J. F. S. Fowler, M.B., followed by the usual annual abstract of meteorological observations taken at Netley and foreign stations, conclude the volume.

## ROYAL COLLEGE OF PHYSICIANS.

At the quarterly comitia, held July 28th, 1892, the following report of the Censors' Board and the resolution appended thereto were adopted without a dissentient voice:—

"The President and Censors beg leave to report to the College as follows:—

"The Board has recently had under consideration, on reference from the Council, the case of a Member of the College whose name was proposed for the Fellowship in April last, and of whom it was then alleged that he had entered into an arrangement for the transfer of a practice from a Fellow of the College to himself for a pecuniary consideration.

"The correctness of the allegation has since been admitted by both the Fellow and Member concerned, but they have pleaded ignorance of any written or unwritten law or common understanding of the College against such a practice, and say that if such an understanding has existed in London it has never extended to the country.

"Under these circumstances the Censors' Board desires to call the attention of the Fellows to the transaction, which it regards as a contravention of the traditions and practice of the College, and one which should not be allowed to take place among Fellows or Members, whether residing in town or country.

"The Board thinks it further desirable that the College should express a clear opinion on the subject by way of obviating such transactions in future, and it therefore suggests for adoption by the College the following or some such resolution: 'That this College regards the sale and purchase of practices, or the transfer of patients from one physician to another for a pecuniary consideration, among Fellows or Members of its body, as contrary to the traditions and practice of the College, interfering with the freedom of patients and derogatory to the position of a physician.'

(Signed)

"July 11th, 1892"

"ANDREW CLARK, President.

'It was further resolved that the foregoing report and resolution be printed and that a copy be sent to every Fellow and Member of the College.

August 1st, 1892.

EDWARD LIVEING, Registrar.

## THE BRITISH ASSOCIATION OF SCIENCE IN EDINBURGH.

### THE PRESIDENT'S ADDRESS.

THE first general meeting of the members of the British Association of Science was held in Edinburgh in the Hall of the United Presbyterian Synod on Wednesday last. All departments of science were well represented. The retiring President, Dr. Huggins, was supported on the platform by Lord Kelvin, Lord McLaren, Sir D. MacLagan, Professor Roscoe, Professor Sir G. Stokes, Professor H. E. Armstrong, Sir F. Bramwell, Sir William Turner, Mr. Preece, Mr. Griffiths and Professor Bonny. The new President, Sir A. Geikie, who was cordially received, was briefly introduced by Dr. Huggins. He then delivered the presidential address, of which the following is a short outline:—

"Literature, philosophy, science," said the President, "have each in turn been guided by the influence of the great masters who have lived here, and whose renown is the brightest gem in the chaplet around the brow of this 'Queen of the North.' A hundred years ago a remarkable group of men was discussing here the great problem of the history of the earth. James Hutton, after many years of travel and reflection, had communicated to the Royal Society of this city, in the year 1785, the first outlines of his famous 'Theory of the Earth.' Nowhere was the profoundness of his insight more astonishing than in the clear, definite way in which he proclaimed and reiterated his doctrine, that every part of the surface of the continents, from mountain top to seashore, is continually undergoing decay, and is thus slowly travelling to the sea. He saw that no sooner will the sea floor be elevated into new land than it must necessarily become a prey to this universal and unceasing degradation. He perceived that, as the transport of disintegrated material is carried on chiefly by running water, rivers must slowly dig out for themselves the channels in which they flow, and thus that a system of valleys, radiating from the water-parting of a country, must necessarily result from the descent of the streams from the mountain crests to the sea. He discerned that this ceaseless and widespread decay would eventually lead to the entire demolition of the dry land, but he contended that from time to time this catastrophe is prevented by the operation of the underground forces, whereby new continents are upheaved from the bed of the ocean. And thus in his system a due proportion is maintained between land and water, and the condition of the earth as a habitable globe is preserved. Fortunately for his fame, as well as for the cause of science, his devoted friend and disciple Playfair at once set himself to draw up an exposition of Hutton's views. After five years of labour on this task there appeared the classic 'Illustrations of the Huttonian Theory,' a work which for luminous treatment and graceful diction stands still without a rival in English geological literature. Though professing merely to set forth his friend's doctrines, Playfair's treatise was in many respects an original contribution to science of the highest value. It placed for the first time in the clearest light the whole philosophy of Hutton regarding the history of the earth and enforced it with a wealth of reasoning and copiousness of illustration which obtained for it a wide appreciation. Then came the philosophy of Werner, who believed the rocks of the earth's crust to have been

chiefly chemical precipitates from a primeval universal ocean. The battle of these two contending schools raged fiercely here for some years, but the Wernerian doctrines were eventually abandoned even by Jameson himself. Again, Hutton had asserted that under the vast pressures which must be effective deep within the earth's crust chemical reactions must be powerfully influenced, and that under such conditions even limestone may conceivably be melted without losing its carbonic acid. In this he was followed by Sir James Hall, who succeeded in converting limestone under great pressure into a kind of marble and even fused it, and found that it then acted vigorously on other rocks. These admirable researches, which laid the foundations of experimental geology, constitute not the least memorable of the services rendered by the Huttonian school to the progress of science." Amongst the many other intensely interesting points alluded to by the President was the idea of boundless antiquity. "Playfair, re-echoing and expanding Hutton's language, had declared that neither among the records of the earth nor in the planetary motions can any trace be discovered of the beginning or of the end of the present order of things; that no symptom of infancy or of old age has been allowed to appear on the face of nature, nor any sign by which either the past or the future duration of the universe can be estimated; and that although the Creator may put an end, as He no doubt gave a beginning, to the present system, such a catastrophe will not be brought about by any of the laws now existing, and is not indicated by anything which we perceive. Lord Kelvin, in the writings to which I have already referred, first called attention to the fundamentally erroneous nature of these conceptions. He pointed out that from the high internal temperature of our globe, increasing inwards as it does, and from the rate of loss of its heat, a limit may be fixed to the planet's antiquity. He showed that so far from there being no sign of a beginning, and no prospect of an end to the present economy, every lineament of the solar system bears witness to a gradual dissipation of energy from some definite starting-point. He was inclined, when first dealing with the subject, to believe that from a review of all the evidence then available some such period as a hundred millions of years would embrace the whole geological history of the globe. Subsequently, however, and guided by physical inquiry, Lord Kelvin is willing, I believe, to grant us some twenty millions of years, but Professor Tait would have us content with less than ten millions."

The address from first to last was listened to with the deepest attention, and it was generally regarded as one of the most interesting discourses on geology ever delivered. At the conclusion of the address Lord Kelvin rose to move a vote of thanks. Lord Provost Russell seconded the motion, and the President's acknowledgment terminated the proceedings.

In the Section of Biology Professor M'Kendrick exhibited a newly devised apparatus for showing the curve traced by a contracting muscle and an apparatus for recording the time of voluntary movements. Professor G. Fritsch read a paper on the Origin of the Electric Nerves in the Torpedo, Gymnotus, Mormyrus and Malapterurus. Dr. Musgrove gave an exhibition on the screen of very finely injected retina of man and of the ox. The vegetable cells were considered by Dr. J. Clark.

In the department of Zoology Professor Lloyd-Morgan read a paper on the Method of Comparative Psychology, and the Rev. Dr. M'Cook of Philadelphia discussed the capability of spiders as weather prophets. He mentioned that this belief was as old as the time of Pliny, who stated that when a river was about to rise the spiders in the neighbourhood built their webs at a greater elevation, and that it seemed to have been almost universally believed. He concluded from his own observations that there was no ground for the theory. Professor Cossar Ewart exhibited the right fore foot of a horse with two complete hoofs and supporting fingers, as well as a splint-like remnant of the fourth metacarpal bone and a rudiment of the thumb with its corresponding carpal bone. This was interpreted as a reversion to the condition seen in three and four toed fossil horse-like animals. A paper on the Cause of Physiological Action at a Distance was contributed by Professor Errara of Brussels.

In the Section of Anthropology Dr. Clouston gave a long review of the progress made in criminal anthropology. Professor Struthers gave a description, illustrated by skeletons, of the articular processes of the vertebrae of the gorilla compared with those of man, and of the costo-vertebral variation in the gorilla. He exhibited two skeletons, and said he had

examined eighteen others. In the gorilla the chest was planted a vertebra lower than in man. The seventh vertebra presented all the characters of the normal sixth, the eighth all the characters of the seventh. In man he had seen the whole chest a vertebra too high. He had met with three cases of a rib more than usual. It was common enough in the human body. The cervical rib was more frequently met with than a supernumerary rib in the lumbar region. In the cases of three out of fourteen gorillas the extra rib was in the lower part of the chest. The gorilla had one more rib than man, but Professor Struthers had never met with the cervical rib in the gorilla in the upper part of the chest. The tendency in the human chest was to move upwards; the tendency in the gorilla's chest was to move downwards. The use of narcotics in the Nicobar islanders was explained by Mr. E. H. Man. Among many of the races of Trans-gangetic India and the Archipelago the habit was common of taking frequent quids of betel-nut and quicklime throughout the day. So firm a hold had this practice on both sexes that "betel quid-taking time" was a recognised expression, signifying an interval of some fifteen minutes' duration. Betel-chewing was commenced at the early age of ten or twelve, but instances were by no means rare of children who had acquired the habit before attaining six and even four years of age. Professor Macalister gave interesting descriptions of skulls from the Upper Congo, of the features of the brain of an aboriginal Australian, and the facial characters of ancient Egyptians as illustrated by skulls of undoubted antiquity.

## INTERNATIONAL CONGRESS OF EXPERIMENTAL PSYCHOLOGY.

[SECOND NOTICE.]

In our last issue we gave a brief account of the proceedings which took place at the meetings on the first two days of this Congress. On the third day, in Section A, several papers were read bearing upon psycho-physical questions, among them one by Dr. Verriest on the Physiological Basis of Rhythmic Speech, and one by M. Binet, who is peculiarly qualified to speak on such a subject, on the Psychology of Insects. In Section B, where hypnotism and kindred subjects formed the basis for discussion, Professor Delboeuf read a paper on the Appreciation of Time by Somnambulists. His observations were carried out on two subjects—youth, robust and healthy countrywomen, whose names frequently crop up in works on somnambulism. These subjects, he said, were incapable of reducing exactly into hours and minutes a number of minutes, such as 1000 or even 350, and still less of calculating at what hour the 1050th minute after, e.g., 6.35 p.m. would fall; but yet they received suggestions which they were to perform after 350, 900, 1600, 1150, 1300 and 3000 minutes! No conclusions were sought to be deduced from these results, but Professor Delboeuf said they were such as to merit attention and study. Other papers were read, one by Professor Hitzig on Attacks of Sleep and Hypnotic Suggestion, and one by Mr. F. W. H. Myers on the Experimental Induction of Hallucinations. Professor Janet discussed this paper at some length and mentioned some curious experiences. Thus one day a young female patient had an attack of somnambulism, during which she had written a letter which she had afterwards torn up and the contents of which she had forgotten. By causing her to gaze upon a shining surface he succeeded in making her read by hallucination the whole of the letter. Another patient, a young man, was in constant fear without knowing why. If he gazed on a shining surface for some time he would see the flames of a fire, and after listening for some time to a monotonous sound he would hear the sound of a fire-brigade bugle, and in this way was revealed the persistent idea which he had of a fire which he had witnessed some time previously. To explain such facts different causes were to be looked for in different cases. Professor Baldwin, in a paper on Suggestion and Will, endeavoured to find out the period in childhood at which will commences. He classified all responses of the infant in movement as preimitation, imitation and persistent imitation suggestions. In the first four weeks of life the infant's movements are largely organic and instinctive, but it then begins to respond to suggestions from others and from its environ-

ments. As soon as the child begins to see the inadequacy of its spontaneous imitations and to make efforts to improve them, will arises. He also argued that the loss of the mental functions in disease is by stages which form a series the reverse of that required for their acquisition. Some discussion, followed, and then the president read part of a report of the census of hallucinations which since the last meeting in 1889 has been actively carried on in England, and to some extent in the United States, France, Germany, Russia and Brazil. To the question "Have you ever, while in good health and believing yourself to be awake, seen a figure of a person or an inanimate object, or heard a voice which in your view was not referable to any external physical cause?" 17,000 answers were received in England. It appears that about one in ten of persons taken at random had experienced hallucinations of some kind, the apparitions being mostly those of living people or unrecognised human figures. A remarkable class was that of collective apparitions, the same hallucinations being simultaneously perceived by two or more different people, although in some of these instances there seemed to be a possibility of verbal suggestion from one to another. But after all deductions for possible sources of error there was a strong presumption against chance coincidence, if ordinary accuracy on the part of informants was to be assumed.

On the concluding day of the Congress Dr. Pilchener read a paper on Binocular Effects of Monocular Stimulation, and Dr. H. Donaldson gave in some detail his observations on the anatomy of the blind deaf-mute, Laura Dewey Bridgman. Dr. Berillon's paper on Les Applications de la Suggestion Hypnotique à l'Éducation, in which it was stated that cases of nervous insomnia, somnambulism, stammering, inveterate idleness &c. had been successfully treated by hypnotism, raised considerable discussion and some adverse criticism. Dr. Van Eeden considered that it was undesirable, for example, to paralyse a child's arm by suggestion and that moral suggestion alone should be employed, and Dr. Bernheim expressed the opinion that regular hypnotisation was not often needed in young children, the mother being able to inspire the needed suggestions at times of special susceptibility. Suggestion, he thought, had a rôle in correcting the perversions of moral sense, the result of bad companionship, but it could not create either an intelligence or a moral sense not born in a child. Dr. Berillon's reply was to the effect that the result of treatment alone would show whether the lack of moral sense in a child was due to original defect or to subsequent perversion.

Mrs. Sidgwick read a paper on Thought Transference. Numerous experiments had been made, and the successful percipients had been seven in number and were generally hypnotised. One percipient had succeeded in the experiments with numbers, when divided from the agent by a closed door and a distance of about seventeen feet, and the ideas had reached the percipient, as visual impressions recurred with closed eyes, or as hallucinations on a card or paper, and in other ways. Attention was drawn to the fact that only some persons are capable of acting as agents or percipients, and that there is variation in this peculiar ability in the same person on different days, and even at different times on the same day. Several other papers were read, among them one by Dr. Wallaschek on the Effect of Natural Selection on the Development of Music, and with a paper on a System of Psychological Interrogation, by M. Marillier, the scientific business of the Congress ended.

It was decided that the next congress should be at Munich in 1896, but a suggestion was made to hold a special meeting in America next year. When the usual votes of thanks had been passed, including one to the President and Council of University College for the use of the rooms, the Congress was formally dissolved.

## THE LOCUM TENENS.

THE question of a holiday to a general practitioner is so inseparably connected with that of securing a satisfactory locum tenens that in many cases the one may be said entirely to depend upon the other. Those who are in the habit of going away annually gain by experience a knowledge of the *modus operandi* and are in no need of advice from us. Those, on the other hand, who have only recently commenced practice, or who have had no experience of what leaving the care of

one's patients to a stranger implies, may be glad of some few hints on the subject. If the services of a personal friend can be obtained, so much the better; if not, resort must be had to advertisements, medical agents, or perhaps to some friend on the staff of the practitioner's old hospital. Answering advertisements implies some little delay, for of course references are necessary. Too much reliance must never be placed on these, for though testimonials may be given in perfect good faith they are generally written immediately the engagement is concluded and before any but the most serious causes of dissatisfaction have come to a principal's knowledge. Some agents request all principals to whom they have sent a locum tenens to fill up forms concerning him at the end of the year, and in this way they manage to purge their lists of unsatisfactory men, who, it is only fair to say, form but a small minority. The lowest terms generally offered to a locum tenens are three guineas a week, with, of course, board, lodging, and travelling expenses to and fro. The agent charges a small fee, generally 10s. 6d., to each party.

Supposing all arrangements made and the day fixed for going away, care should always be taken to secure a sufficiently long interview with the locum tenens to show him all the surgery and other arrangements, and to have a good talk with him over the cases under treatment or likely to be so. Of all these he should jot down notes unless the principal has already done so. Many memoranda are required which would not be found in the notes of a hospital clinical clerk—e.g., whether visits should be paid daily or otherwise and whether any particular period of the day is unsuitable. Care should be taken that every bottle in the surgery and store cupboard is properly and sufficiently labelled, and, if private formulæ are employed, that they should be easily accessible. If private abbreviations are used in the day-book, the locum tenens should be told what they mean; vaccination arrangements also must be explained to him. He should be shown where all the dressings, splints and instruments are, and told what neighbouring practitioners he should apply to for assistance, and what to do if drugs or dressings run short. The stable arrangements should be shown him, and it should be clearly settled whether he or the groom is to drive. The night bell, speaking-tube and slate for messages must be shown him, and, if possible, a map of the district left with him.

The confinement list will be worthy of a few minutes' conversation, and he must know how many after-visits are expected in a normal case. The scale of fees must be told him and he must understand whether he has authority to give receipts. It is often better to let the locum tenens send an acknowledgment of money received, with a promise that a formal receipt will be sent by the principal on his return. In case payments have to be made to the groom or surgery boy or for postage, some money should be left with the locum tenens. Where appointments are held the duties should be clearly explained, and he should be told how to distinguish between club and private patients who may call at the surgery, otherwise the day-book may be filled by the names of those who do not pay, while those of private patients are omitted. If possible, a definite date should be given for the principal's return, so that the locum tenens may take another engagement.

As to household arrangements, a locum tenens should be treated with consideration and his tastes should be as far as possible consulted. In conclusion, it may be said that though difficulties and unpleasantness do at times occur during the absence of a principal, the probability of anything taking place at all seriously damaging to a practice is exceedingly small if ordinary care be exercised in making the arrangements, and especially if the holiday be limited to three or four weeks.

#### DERBYSHIRE ROYAL NURSING INSTITUTION.—

The annual meeting of the Derbyshire Royal Nursing and Sanitary Institution was held on the 5th inst. at the St. James's Hall, Derby. The Mayor (Mr. T. H. Harrison) presided. The twenty-seventh report gave a satisfactory account of the working of the institution with regard to both its financial condition and the benefit conferred on the poor by means of the Society. Since 1865 (when the Association was established) 219 nurses had been supplied to the public. The services of Dr. Ogle as honorary secretary for twenty-seven years were duly acknowledged.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*St. Luke's, Middlesex.*—In this metropolitan district the death-rate for 1891 reached as high as 30.1 per 1000. The corresponding rate for 1886-89 was only some 21 per 1000, and the great increase is found by Dr. Yarrow to be mainly due to bronchitis and pneumonia brought about by the influenza epidemic. The ordinary zymotic diseases were by no means exceptionally prevalent and it seems that special attention is given as regards those which are notified. It has been suggested in St. Luke's that erysipelas might be eliminated from the list of such diseases, and that measles should take its place. To the latter proposal Dr. Yarrow takes exception. He holds that it is practically of no use having notification without means of hospital isolation. We imagine that anything like hospital isolation of erysipelas does not exist; whilst, on the other hand, a number of medical officers of health have found that considerable advantage has accrued as the result of their being able to deal with the spread of measles through the agency of elementary schools, as they obtain thus early knowledge of its existence in individual households.

*Bollington Urban District.*—According to Mr. James Allen the death-rate of this district during 1891 was 15.6 per 1000 living. The unsatisfactory condition of the privies and midden-privies is maintained, but it is stated that a different method of scavenging has been inaugurated. Another defect lies in the reception of sewage into the bed of a stream which becomes dry, the result being an obvious nuisance.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5782 births and 3395 deaths were registered during the week ending Aug. 6th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 17.9 to 17.3 per 1000, was last week 17.4. In London the rate was 17.2 per 1000, while it averaged 17.5 in the thirty-two provincial towns. The lowest rates in these towns were 9.4 in Wolverhampton, 10.0 in Gateshead, 10.8 in Croydon and 10.9 in Burnley; the highest rates were 21.0 in Salford, 21.1 in Birkenhead, 21.4 Cardiff, 23.9 in Sunderland and 25.2 in Liverpool. The 3395 deaths included 623 which were referred to the principal zymotic diseases, against 625 and 585 in the preceding two weeks; of these, 300 resulted from diarrhoea, 126 from measles, 61 from scarlet fever, 57 from diphtheria, 54 from whooping-cough, 25 from "fever" (principally enteric) and not one from small-pox. These diseases caused the lowest death-rates in Halifax, Brighton, Croydon and Newcastle-upon-Tyne, and the highest rates in Liverpool, Sheffield, Sunderland, Birkenhead and West Ham. The greatest mortality from measles occurred in Bristol, Salford, West Ham, Oldham and Sunderland; from scarlet fever in Swansea and Plymouth; from whooping-cough in Preston, Burnley and Birkenhead; from "fever" in Sunderland and from diarrhoea in Derby, Bolton, Sheffield, Portsmouth, Leicester, West Ham, Liverpool and Cardiff. The 57 deaths from diphtheria included 42 in London, 3 in Birmingham and 2 each in West Ham, Preston and Sheffield. No death from small-pox was registered either in London or in any of the thirty-two provincial towns; 7 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 4 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2995, against numbers increasing from 1226 to 2864 on the preceding nineteen Saturdays; 346 new cases were admitted during the week, against 382 in each of the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 185 to 155 in the preceding five weeks, further fell to 143 last week and were 47 below the corrected average. The causes

of 69, or 2.0 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Nottingham, Bolton, Newcastle-upon-Tyne and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Brighton, Birmingham, Leicester and Bradford.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18.4 and 17.5 per 1000 in the preceding two weeks, rose again to 18.5 during the week ending Aug. 6th, and exceeded by 1.1 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14.0 in Greenock and 16.3 in Edinburgh to 18.9 in Perth and 19.9 in Glasgow. The 514 deaths in these towns included 31 which were referred to diarrhoea, 23 to measles, 11 to whooping-cough, 8 to scarlet fever, 7 to diphtheria, 3 to "fever" and not one to small-pox. In all, 83 deaths resulted from these principal zymotic diseases, against 66 and 54 in the preceding two weeks. These 83 deaths were equal to an annual rate of 3.0 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had been 10 in each of the preceding two weeks, rose to 31 last week, of which 16 occurred in Glasgow and 5 in Dundee. The deaths referred to measles, which had been 28 and 19 in the previous two weeks, rose again last week to 23, and included 16 in Glasgow, 4 in Edinburgh, and 3 in Aberdeen. The 11 fatal cases of whooping-cough were within 3 of the number in the preceding week and included 7 in Glasgow. The deaths from scarlet fever, which had declined from 6 to 3 in the previous three weeks, increased to 8 last week, of which 5 occurred in Glasgow and 2 in Edinburgh. The 7 fatal cases of diphtheria exceeded those recorded in recent weeks, and included 3 in Glasgow and 2 in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 59 and 114 in the preceding two weeks, declined last week to 77, but exceeded by 17 the number in the corresponding week of last year. The causes of 49, or nearly 10 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19.8 and 28.3 per 1000 in the preceding two weeks, declined to 21.5 during the week ending Aug. 6th. During the first five weeks of the current quarter the death-rate in the city averaged 23.1 per 1000, against 18.0 in London and 16.3 in Edinburgh. The 144 deaths in Dublin during the week under notice showed a decline of 46 from the number in the preceding week, and included 6 which were referred to measles, 5 to diarrhoea, 2 to whooping-cough and not one either to small-pox, scarlet fever, diphtheria or "fever." In all, 13 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.9 per 1000, the zymotic death-rate during the same period being 3.5 in London and 1.8 in Edinburgh. The fatal cases of measles, which had been 7 and 8 in the preceding two weeks, declined to 6 last week. The deaths referred to diarrhoea, which had been 4 and 3 in the previous two weeks, rose again to 5 last week. The 144 deaths registered last week in Dublin included 26 of infants under one year of age and 26 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from those recorded in the preceding week. Seven inquest cases and 5 deaths from violence were registered; and 46, or nearly one-third, of the deaths occurred in public institutions. The causes of 9, or more than 6 per cent., of the deaths in the city last week were not certified.

#### VITAL STATISTICS OF LONDON DURING JULY, 1892.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during the month of July in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in London during last month, it appears that the number of persons reported to be suffering from one or other of the ten diseases specified in the accompanying table was equal to 12.2 per 1000 of the population, estimated at 4,263,294

persons in the middle of this year. Owing to the increasing prevalence of scarlet fever in the metropolis this rate shows a further increase upon those recorded in the preceding five months, which had steadily risen from 5.1 to 9.9 per 1000. Among the various sanitary districts the rates last month were considerably below the average in Paddington, Fulham, St. James (Westminster), Hampstead, Clerkenwell, St. Luke and Lewisham; while they showed the largest excess in Westminster, City of London, Bethnal-green, Whitechapel, Limehouse, Mile-end Old Town, Poplar and Plumstead. The prevalence of small-pox in London showed a further marked decline during July, an average of only 5 cases weekly being notified, against 27 in May and 16 in June; of the 18 cases notified during last month 8 belonged to Plumstead and 2 to St. Giles sanitary districts. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained 9 small-pox patients at the end of July, against 108 and 40 at the end of the preceding two months; the weekly admissions averaged 5, against 29 and 11 during May and June. The prevalence of scarlet fever during July showed a considerable further increase upon that recorded in recent months. This disease was proportionally most prevalent in St. George (Hanover-square), Holborn, City of London, Whitechapel, Limehouse, Mile-end Old Town, Poplar, Newington and Plumstead sanitary districts. The Metropolitan Asylum Hospitals contained 2763 scarlet fever patients at the end of July, against numbers increasing from 1142 to 2117 at the end of the preceding five months; the weekly admissions averaged 335, against 170, 200 and 238 in the previous three months. Diphtheria showed the highest proportional prevalence during July in Hammersmith, Chelsea, Westminster, Hampstead, City of London, Bethnal Green and Whitechapel. There were 283 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of July, against numbers increasing from 198 to 255 at the end of the preceding five months; the weekly admissions averaged 56, against 33, 41 and 49 in the previous three months. Among the various sanitary districts enteric fever was proportionally most prevalent in Hackney, Bethnal Green, Poplar, Newington and Rotherhithe. The Metropolitan Asylum Hospitals contained 77 enteric fever patients at the end of July, against 47 and 57 at the end of the preceding two months; the weekly admissions averaged 16, against 8 and 10 in the preceding two months. Erysipelas showed the highest proportional prevalence during July in Westminster, Marylebone, St. Giles, City of London, Bethnal Green and Battersea.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed among the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data that can be secured upon which to calculate reliable rates of mortality. During the four weeks ending Saturday, July 2nd, the deaths of 5837 persons belonging to London were registered, equal to an annual rate of 17.8 per 1000, against rates declining from 24.2 to 16.9 in the preceding five months. The lowest death-rates during July in the various sanitary districts were 9.8 in Hampstead, 11.3 in Lewisham, 11.9 in St. George (Hanover-square), 12.4 in Plumstead, 12.5 in Wandsworth and 14.5 in Kensington and in Woolwich; in the other sanitary districts the rates ranged upwards to 23.8 in Newington, 24.0 in Whitechapel, 24.1 in Rotherhithe, 27.9 in St. George-in-the-East, 28.4 in St. Luke and 29.6 in St. Olave (Southwark). During the four weeks of July 1277 deaths were referred to the principal zymotic diseases in London; of these, 627 resulted from diarrhoea, 300 from measles, 129 from diphtheria, 100 from whooping-cough, 88 from scarlet fever, 29 from "fever" (including 25 from enteric fever, 2 from typhus and 2 from simple fever) and 4 from small-pox. These 1277 deaths were equal to an annual rate of 3.9 per 1000, against 3.3 and 3.1 in the preceding two months. Among the various sanitary districts the lowest zymotic death-rates were recorded in St. James (Westminster), Hampstead, City of London, St. Saviour (Southwark), Lewisham and Woolwich; and the highest rates in Westminster, Holborn, St. Luke, Mile-end Old Town, St. George (Southwark) and St. Olave (Southwark). Four fatal cases of small-pox belonging to London were registered during July, of which 2 belonged to Plumstead, 1 to Mile-end Old Town, and 1 to Battersea. The 300 deaths referred to measles exceeded by 81 the corrected average number in

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—JULY, 1892.  
(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1892.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths of infants under one year to 1000 births.					
		Small-pox.	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other continued fevers.	Fuerepal fever.	Krypselas.	Group.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.		Diphtheria.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.
LONDON .. .. .	4,263,284	18	2555	632	2	197	18	12	493	13	8	3975	12.2	4	300	33	129	100	2	25	2	627	1277	3.9	6887	17.8	182
<i>West Districts.</i>																											
Paddington .. .. .	119,199	—	79	15	—	—	—	5	12	1	4	72	7.9	—	13	2	3	1	—	—	—	16	34	3.7	142	15.5	242
Kensington .. .. .	166,721	—	88	23	—	—	—	8	12	—	—	74	9.6	—	18	3	6	1	—	—	—	14	40	3.1	185	14.5	219
Hammersmith .. .. .	100,412	—	28	4	—	—	—	11	8	1	—	38	6.0	—	13	—	—	—	—	—	—	27	35	4.6	156	20.2	215
Hulst .. .. .	98,195	—	28	4	—	—	—	11	4	—	—	33	5.0	—	3	—	—	—	—	—	—	20	33	4.4	146	19.4	238
Chelsea .. .. .	97,800	—	57	20	—	—	—	11	7	—	—	112	15.0	—	2	—	—	—	—	—	—	20	33	4.4	128	16.9	238
St. George (Hanover-square)	76,946	—	57	0	—	—	—	11	7	—	—	73	12.4	—	2	—	—	—	—	—	—	2	8	1.4	70	11.9	102
Westminster .. .. .	55,203	—	30	40	—	—	—	11	7	—	—	85	20.1	—	2	—	—	—	—	—	—	11	28	6.6	100	23.6	247
St. James (Westminster)	24,568	—	5	2	—	—	—	2	11	—	—	11	5.9	—	1	—	—	—	—	—	—	1	3	1.9	33	17.7	190
<i>North Districts.</i>																											
Marylebone .. .. .	140,799	—	87	21	—	—	—	24	1	—	—	142	13.1	—	8	—	—	—	—	—	—	25	43	4.0	218	20.1	295
St. Pancras .. .. .	71,652	—	161	52	—	—	—	29	3	—	—	47	8.5	—	10	—	—	—	—	—	—	42	74	1.5	64	9.8	192
St. Pancras .. .. .	231,692	—	161	52	—	—	—	29	3	—	—	47	8.5	—	7	—	—	—	—	—	—	42	74	1.5	64	9.8	192
Islington .. .. .	231,451	—	97	52	—	—	—	14	2	—	—	219	8.8	—	7	—	—	—	—	—	—	45	63	2.7	376	15.1	124
Hackney .. .. .	235,870	—	143	43	—	—	—	19	1	—	—	232	12.8	—	10	—	—	—	—	—	—	32	61	3.5	231	15.6	182
<i>Central Districts.</i>																											
St. Giles .. .. .	39,071	—	15	5	—	—	—	12	1	—	—	37	12.3	—	2	—	—	—	—	—	—	9	15	5.0	69	23.0	226
St. Martin-in-the-Fields .. .. .	14,204	—	7	2	—	—	—	3	1	—	—	22	11.8	—	—	—	—	—	—	—	—	1	6	3.2	21	10.3	190
Strand .. .. .	24,256	—	15	3	—	—	—	3	1	—	—	22	11.8	—	—	—	—	—	—	—	—	1	6	3.2	21	10.3	190
Holborn .. .. .	32,912	—	31	6	—	—	—	5	4	—	—	40	15.8	—	5	—	—	—	—	—	—	8	17	8.0	58	23.0	271
Clerkenwell .. .. .	65,852	—	11	6	—	—	—	5	4	—	—	35	7.0	—	5	—	—	—	—	—	—	10	15	8.0	111	21.1	105
St. Luke .. .. .	31,850	—	13	1	—	—	—	5	5	—	—	24	7.5	—	5	—	—	—	—	—	—	14	23	7.2	51	23.4	247
City of London .. .. .	36,692	—	43	11	—	—	—	10	1	—	—	65	23.1	—	1	—	—	—	—	—	—	14	23	7.2	51	23.4	247
<i>East Districts.</i>																											
Shoreditch .. .. .	123,683	—	70	16	—	—	—	18	2	—	—	114	11.9	—	8	—	—	—	—	—	—	27	46	4.8	187	19.5	166
Bethnal Green .. .. .	129,408	—	77	56	—	—	—	24	2	—	—	178	17.9	—	19	—	—	—	—	—	—	15	65	5.8	196	19.7	163
Whitechapel .. .. .	74,853	—	42	29	—	—	—	12	1	—	—	137	23.9	—	6	—	—	—	—	—	—	12	31	5.4	138	24.0	231
St. George-in-the-East .. .. .	45,343	—	29	4	—	—	—	16	1	—	—	44	12.6	—	6	—	—	—	—	—	—	19	31	4.4	137	23.9	206
Lincoln Inne-shed .. .. .	57,489	—	63	4	—	—	—	15	2	—	—	76	17.2	—	10	—	—	—	—	—	—	20	36	5.2	194	23.9	208
Mill-end Old Town .. .. .	107,811	—	92	19	—	—	—	15	1	—	—	138	16.4	—	11	—	—	—	—	—	—	20	48	5.8	186	23.5	204
Poplar .. .. .	167,857	—	151	21	—	—	—	12	4	—	—	206	16.0	—	14	—	—	—	—	—	—	21	60	3.9	239	13.6	167
<i>South Districts.</i>																											
St. Saviour (Southwark) .. .. .	26,973	—	15	8	—	—	—	3	—	—	—	91	10.1	—	1	—	—	—	—	—	—	2	3	1.4	33	13.4	151
St. George (Southwark) .. .. .	59,846	—	40	14	—	—	—	10	—	—	—	130	14.5	—	7	—	—	—	—	—	—	10	27	5.9	105	22.9	213
Nevington .. .. .	116,649	—	6	4	—	—	—	14	—	—	—	132	13.2	—	6	—	—	—	—	—	—	1	40	6.1	213	23.8	242
St. Olave (Southwark) .. .. .	12,787	—	6	1	—	—	—	14	—	—	—	32	19.2	—	10	—	—	—	—	—	—	1	26	4.0	127	29.6	233
Bermondsey .. .. .	84,440	—	68	7	—	—	—	14	—	—	—	107	12.7	—	10	—	—	—	—	—	—	15	36	4.0	127	29.6	171
Rotherhithe .. .. .	39,459	—	17	1	—	—	—	18	—	—	—	36	11.9	—	3	—	—	—	—	—	—	15	36	4.0	127	29.6	171
Lambeth .. .. .	277,917	—	170	38	—	—	—	22	2	—	—	241	11.3	—	14	—	—	—	—	—	—	16	71	10.6	73	24.1	250
Battersea .. .. .	166,313	—	92	20	—	—	—	22	4	—	—	194	12.8	—	14	—	—	—	—	—	—	26	40	3.3	359	16.8	172
Wandsworth .. .. .	164,003	—	63	20	—	—	—	22	4	—	—	194	12.8	—	14	—	—	—	—	—	—	26	40	3.3	359	16.8	172
Camden Town .. .. .	241,465	—	147	26	—	—	—	22	4	—	—	117	9.3	—	9	—	—	—	—	—	—	31	31	2.5	157	12.5	157
Greenwich .. .. .	169,734	—	105	17	—	—	—	20	2	—	—	215	11.5	—	34	—	—	—	—	—	—	36	87	4.7	334	23.0	161
Lewisham (excluding Penge) .. .. .	74,673	—	32	3	—	—	—	9	—	—	—	151	11.6	—	9	—	—	—	—	—	—	10	12	4.1	230	17.7	169
Woolwich .. .. .	41,376	—	27	31	—	—	—	3	—	—	—	44	7.7	—	1	—	—	—	—	—	—	8	51	6.5	113	16.3	163
Plumstead .. .. .	91,704	—	101	1	—	—	—	2	—	—	—	113	16.8	—	2	—	—	—	—	—	—	6	17	1.9	46	14.5	109
Port of London .. .. .	—	—	1	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	3	6	2.4	87	12.4	—

the corresponding month of the preceding ten years; among the various sanitary districts this disease showed the highest proportional fatality in Hammersmith, Holborn, Bethnal Green, Limehouse, St. George (Southwark) and Camberwell. The 88 fatal cases of scarlet fever were only 7 above the average; it is remarkable that the mortality from this disease shows so small an excess, considering its epidemic prevalence at the present time; among the various sanitary districts scarlet fever was proportionately most fatal in Chelsea, Whitechapel and Plumstead. The 129 deaths referred to diphtheria exceeded by 52 the corrected average; this disease showed the highest proportional fatality in Westminster, St. Giles, City of London, Bethnal Green and Whitechapel. The 100 fatal cases of whooping-cough were less than half the average number; this disease was not prevalent last month in any of the sanitary districts. The 29 deaths referred to different forms of fever were 23 below the corrected average; the mortality from this disease showed no marked excess in any of the sanitary districts. The 627 fatal cases of diarrhoea were as many as 298 below the average; this disease was proportionately most fatal in Fulham, St. Giles, Holborn, St. Luke, Newington and Greenwich. In conclusion, it may be stated that the mortality in London during July from these principal zymotic diseases in the aggregate was as much as 20 per cent. below the average, owing principally to the fact that the fatality of summer diarrhoea was unusually low.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 182 per 1000 during July; the lowest rates of infant mortality were recorded in St. George (Hanover-square), Hampstead, Islington, St. Martin-in-the-Fields, Woolwich and Plumstead; the highest rates in Kensington, Chelsea, Holborn, St. Luke, Newington and Rotherhithe.

## THE SERVICES.

### THE MOVEMENTS OF THE ARMY AND THE HEALTH OF TROOPS ON SHIPBOARD.

SOME idea may be obtained of the movements of the British army from the following returns for the year 1890. The troops proceeding on service abroad numbered 18,786, and those returning from abroad 12,206. The troops proceeding from one station abroad to another were 6772. The invalids returning to England numbered 2118, of whom 22 died on the voyage home. The sanitary condition of the different vessels and troopships, and the accommodation provided for the troops on the various voyages, were generally reported to be satisfactory.

#### SOME OF OUR INDIAN HILL STATIONS.

According to the latest official reports Darjeeling seems to maintain its reputation as a sanatorium for troops whose health has suffered in Calcutta, the Presidency District and the plains of India. The great majority sent up recovered after a few months' residence. The general sanitation of the cantonment—so difficult to maintain in the case of many of our hill stations—was well looked after. Gnathong, situated at an elevation of 12,030 feet above the sea level, on the eastern frontier of Sikkim, is reported to be a healthy station, notwithstanding the great rainfall during the summer months and the great cold in winter. The troops live in wooden huts, situated inside a stockade built on the slope of a hill, and arranged in terraces. The water-supply is from a spring on the hillside a few hundred yards distant from the fort and is excellent. The great cold during the winter necessitates the ample supply of blankets and warm clothing. There should be material at this station for some interesting observations for a medico-topographical report.

#### MOVEMENTS OF THE MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel MacAdam has been struck off the strength of the Southern District prior to retirement. Surgeon-Captain Dixon has joined the North-western District for duty. Surgeon-Captain Birrell has rejoined at Hamilton from temporary duty at Piershill. Surgeon-Captain Woodhouse has obtained leave from Woolwich. Surgeon-Major Lauprey has joined the Home District for duty after a tour of service in West Africa on colonial service. Surgeon-Captain Will has taken up duty at Oxford. Surgeon-Lieutenant-Colonel Gabbett and Surgeon-Captain Farmer-Bringhurst have obtained sick leave from Madras. Surgeon-

Captain Clarkson has reported himself for duty at Dover. Surgeon-Captain Nicolls has joined at Omagh. Surgeon-Captain Cotterell has arrived at Gibraltar on return from leave. Surgeon-Captain Baird has proceeded on leave prior to embarkation on foreign service. Brigade-Surgeon O'Brien has obtained leave from Christchurch. Surgeon-Lieutenant-Colonel Dwyer has reported his arrival in Dublin for duty.

#### PROFESSORSHIP OF MILITARY SURGERY.

The Professorship of Military Surgery at the Army Medical School, Netley, vacant by the resignation of Surgeon-Colonel Godwin, has, we understand, been conferred upon Surgeon-Lieutenant-Colonel W. F. Stevenson, Assistant Professor of Clinical and Military Medicine.

#### GOOD SERVICE PENSION.

We learn that the good service pension of £100 a year, which has fallen in by the death of Surgeon-General Hassard, retired pay, has been bestowed upon Surgeon-Major-General J. B. C. Reade, C.B. This officer served throughout the Crimean campaign, including the battle of Alma, sortie of Oct. 26th, battle of Inkerman, assaults on the Redan of June 18th and Sept. 8th, and siege of Sebastopol. He was wounded and has medal with three clasps and Turkish medal. He served in the Indian Mutiny, including the action of Cawnpore, siege and capture of Lucknow, attack of Fort Rooyab, action of Allgunge, battle of Newsbyunge, passage of the Goomtee, &c., and the Oude campaign, and received the medal with clasp.

#### INDIAN MEDICAL SERVICE.

Surgeon-Captain Bird, now at Kohima, has been appointed to succeed Surgeon-Major Owen as Surgeon to the Commander-in-Chief. Surgeon J. Battersby, Medical Staff, has been selected as Cantonment Surgeon for the station of Rawul Pindi. The new hospital system introduced by Lord Roberts for the care and treatment of all followers and nations living within cantonment limits supplies a want long felt, and is already being attended with marked success.

*Government of India.*—Surgeon-Captain J. A. Burton, Madras Establishment, is appointed to officiate as Civil Surgeon, Amraoti, vice Surgeon-Captain R. B. Roe, on leave. Surgeons-Captain T. Grainger, M.D., and J. G. Jordan, M.B., C.M., Bengal Establishment, are placed temporarily at the disposal of the Bengal Government. Brigade-Surgeon-Lieutenant-Colonel L. D. Spencer, M.D., I.M.S. (Bengal), Residency Surgeon and Chief Medical Officer, Rajputana, is replaced at the disposal of the Military Department. Surgeon-Captain W. G. Thorold, Bengal Establishment, is replaced at the disposal of the Government of the North-West Provinces and Oudh from May 31st. Surgeons-Captain W. Vost, M.B., and H. W. Elphick, Bengal Establishment, are placed temporarily at the disposal of the Government of the North-West Provinces and Oudh. Surgeon-Captain E. Hudson, Bengal Establishment, is placed temporarily at the disposal of the Chief Commissioner, Burmah. Surgeon-Lieutenant-Colonel J. H. Newman, M.D., I.M.S. (Bengal), Civil Surgeon, Ajmere, and Medical Officer of Merwara Battalion, is appointed Residency Surgeon and Chief Medical Officer, Rajputana, vice Brigade-Surgeon-Lieutenant-Colonel L. D. Spencer, M.D. Surgeons-Captain C. E. Sunder, M.B., A. H. Nott, M.B., and J. T. Calvert, M.B., Bengal Establishment, are placed temporarily at the disposal of the Bengal Government.

It is notified that, on the recommendation of the Government of India, Her Majesty's Government has been pleased to confer a good service pension on Surgeon-Colonel Archibald Hamilton Hilson, M.D., I.M.S.

*Bengal Government.*—Surgeon-Captain F. A. Rogers is appointed to officiate as Civil Surgeon of Darbhanga, vice Surgeon-Major R. R. H. Whitwell. Surgeons-Captain T. Grainger, M.D., and J. G. Jordan, M.B., C.M., Bengal Establishment, are placed temporarily at the disposal of the Government of Bengal. Mr. W. Forsyth, Officiating Health Officer, Port Calcutta, is confirmed in that appointment from the date on which Dr. R. McLeod assumed permanent charge of the office of Superintendent of Emigration and Protector of Emigrants, Calcutta. Surgeon-Major R. R. H. Whitwell, Officiating Civil Surgeon of Monghyr, is appointed to officiate as Civil Surgeon of Muzaffapur, vice Surgeon-Captain E. S. Peck, on furlough. Dr. C. Banks is appointed to officiate as Civil Medical Officer of Monghyr. Surgeon-Captain T. Grainger is appointed to officiate as Civil Surgeon, Champaran, vice Surgeon-Major E. Bovill. Surgeon-Captain J. G. Jordan acts as Civil Surgeon, Jessore.

**Punjab Government.**—Surgeon M. A. Ker assumed charge of Jhelum district on May 10th, vice Surgeon-Major K. M. Downie. Surgeon-Major W. A. Mawson, 11th Bengal Lancers, is appointed Civil Surgeon, Rawul Pindi, vice Brigade Surgeon-Lieutenant-Colonel Ross, on leave. Surgeon-Captain J. A. Cunningham, Civil Surgeon, from Mooltan to Lahore, as Civil Surgeon, Superintendent of Lunatic Asylum, Professor of Midwifery and Forensic Medicine, in the Lahore Medical College and Medical Officer in Charge, Government College, Lahore, on May 6th, relieving Surgeon-Colonel W. Center. Surgeon-Major S. Little, Civil Surgeon, from Ferozepore to Mooltan from May 16th. Surgeon-Lieutenant-Colonel G. Davis assumed charge of the Civil duties of Hazara district on June 2nd, relieving Surgeon-Major J. A. Nelis.

**Madras Government.**—Surgeon-Captain R. Robertson acts as Civil Surgeon at Guntur. Surgeon-Major H. Allison, M.D., Fort Surgeon, Madras, also acts as Chemical Examiner. Surgeon-Major S. C. Sarkies acts as District Surgeon, Nollore. Surgeon-Major G. L. Walker, M.D., acts as District Surgeon, Malabar. Surgeon-Major W. F. Thomas acts as District Surgeon, Chingleput. Surgeon-Major W. H. Browning is appointed *pro tem.* Surgeon to his Excellency the Governor.

**Bombay Government.**—Surgeon-Captain T. E. Dyson, M.B., I.M.S., is placed permanently at the disposal of the Government for the Civil Department. Surgeon-Captain T. D. C. Barry, I.M.S., is placed at the disposal of the Government permanently in the Civil Department. Surgeon-Captain John Crimmin, V.C., and Surgeon-Major F. F. MacCartie, M.B., delivered over and received charge of the office of Health Officer of the Port of Bombay on May 17th. Surgeon-Captain S. E. Prall, M.B., B.S., acts as Civil Surgeon, Sukur, vice Surgeon-Captain W. A. Corkery. Surgeon-Captain T. D. C. Barry to be Professor of Chemistry and Medical Jurisprudence, Grant Medical College and Elphinstone College, vice Brigade-Surgeon-Lieutenant-Colonel I. B. Lyon, C.I.E., retired. Dr. D. MacDonald, B.Sc., C.M., to be substantive *pro tem.*; also Lecturer in Experimental Physics, Elphinstone College, vice Mr. N. A. Moos.

**Central Provinces.**—Surgeon-Colonel J. G. Pilcher and Brigade-Surgeon-Lieutenant-Colonel W. Center, M.B., made over and assumed charge of the office of Deputy-Surgeon-General and Sanitary Commissioner, Central Provinces, on May 11th. Brigade-Surgeon-Lieutenant-Colonel Peter Cullen, M.D., Civil Surgeon, Narsinghpur, Central Provinces, retires from June 1st.

**North-West Provinces and Oudh Government.**—Surgeon-Major P. J. Kreyer, Civil Surgeon, Moradabad, to hold Visiting Charge of Bijnor district, vice Surgeon-Captain G. H. Fink. Surgeon-Major J. Sykes, Civil Surgeon, Saharanpur, to the Visiting Charge of Muzaffarnagar district, vice Surgeon-Major E. Mulvany, on leave. Assistant-Surgeon E. H. Thomas, M.B., from Prince of Wales's Hospital, Benares, to Najina Hospital, Bijnor district.

**Burma Government.**—Surgeon-Major W. G. King, I.M.S., is posted to the Officiating Charge of the 25th Regiment M.I., vice Surgeon-Captain C. Donovan, relieved. Surgeon-Captain S. A. C. Dallas, I.M.S., in charge of Shore Hospital, Mandalay, to proceed to Rangoon and report himself to the Administrative Medical Officer, Rangoon district, and Surgeon-Captain C. H. Leet-Palk, I.M.S., to assume charge of Shore Hospital, Mandalay. Surgeon-Captain E. O. Weight, M.S., is attached to Station Hospital, Mandalay, for duty.

**General Orders.**—2nd Sikh Infantry: Surgeon-Captain E. Wilkinson to Officiating Charge of Regiment, vice Surgeon-Captain J. W. Rodgers.—2nd Battalion, 5th Gurkha Rifles: Surgeon-Captain W. Henvey to Officiating Charge of Battalion, vice Surgeon-Captain G. Duncan.—24th Punjab Infantry: Surgeon-Captain H. F. Whitechurch, from Officiating to Charge of Regiment, vice Surgeon-Lieutenant-Colonel H. J. Linton.—26th Punjab Infantry: Surgeon-Captain J. K. Close, from Officiating Charge of 21st Punjab Infantry, to Charge of Regiment, vice Brigade-Surgeon-Lieutenant-Colonel J. M. Fleming.—4th Bengal Cavalry: Surgeon-Captain W. W. White, from Officiating to Charge of Regiment, vice Surgeon-Lieutenant-Colonel C. W. Calthrop.—2nd Bengal Lancers: Surgeon-Captain F. Okineally to Officiating Charge of Regiment, vice Surgeon-Captain A. W. Dawson.—15th Bengal Lancers: Surgeon-Captain A. G. Hendley, to Officiating Charge of Regiment, vice Surgeon-Captain E. Hudson.—2nd Bengal Light Infantry: Surgeon-Captain B. C. Oldham, to Officiating

Charge of Regiment, vice Surgeon-Captain W. J. Buchanan.—13th Bengal Infantry: Surgeon-Captain B. H. Deare to Officiating Charge of Regiment, vice Surgeon-Captain F. P. Maynard.—31st Punjab Infantry: Surgeon-Captain J. S. S. Lumsden, to Officiating Charge of Regiment, vice Surgeon-Captain J. G. Jordan.—52nd Pioneers: Surgeon-Captain S. B. Smith, to Officiating Charge of Regiment, vice Surgeon-Captain T. Grainger.—40th Pathan Regiment: Surgeon-Captain H. R. C. Barber, to Officiating Charge of Regiment, vice Surgeon-Captain W. Vost.—42nd Gurkha Rifles: Surgeon-Captain R. Bird, to Officiating Charge of Regiment, vice Surgeon-Captain F. A. Rogers.

**Assam Government.**—Surgeon-Captain R. Bird, M.D., Officiating Medical Officer, 42nd Gurkha Rifles, appointed to Charge of Civil duties of Naga Hills district, from date of taking charge from Surgeon-Captain F. A. Rogers, D.S.O.

**Bombay Medical Establishment.**—Surgeon-Lieutenant-Colonel James Davidson to be Brigade-Surgeon-Lieutenant-Colonel (dated April 2nd, 1892).

The Queen has approved of the transfer of the under-mentioned Officer to the Half-Pay List:—Surgeon-Captain Wm. Wilfrid Webb, Bengal Medical Establishment (dated Aug. 22nd, 1892).

Surgeon-Captain W. H. Quicke and Surgeon-Major James S. Wilkins respectively delivered charge of the Kira District Gaol on July 14th, 1892.

The services of Surgeon-Captain G. J. H. Bell, Bengal Medical Establishment, are placed at the disposal of the Chief Commissioner of Burmah.

Surgeon-Captain C. Donovan, M.D., to do duty, Madras district. Surgeon-Captain S. A. C. Dallas, to do duty, Madras district.

Surgeon-Lieutenant R. H. Elliot, on arrival from England, to do duty, Secunderabad district.

Surgeon-Major E. Mair, Officiating Inspector-General of Prisons, N.W. Provinces and Oudh, on being relieved of the duties of that office, is appointed to revert to his substantive appointment as Superintendent, Central Prison, Bareilly.

Surgeon-Captain C. MacTaggart, Honorary Surgeon, Ghazipur Light Horse, to be Honorary Surgeon of the Agra Volunteer Rifle Corps.

#### ARMY MEDICAL STAFF.

Surgeon-Major W. Barrett, M.B., Retired List, Army Medical Staff, died at 8, Merchiston-place, Edinburgh, on the 1st inst., aged seventy-six years. He joined the army Oct. 20th, 1843; became surgeon March 24th, 1854; surgeon-major Dec. 16th, 1864; and retired June 20th, 1865.

**NAVAL MEDICAL SERVICE.**—Surgeon Eric E. Hershaw, to the *Nelson*.

**VOLUNTEER CORPS.**—*Artillery*: 1st Forfarshire: Surgeon-Lieutenant D. Laing, M.D., is appointed Lieutenant (dated Aug. 6th, 1892).

## Correspondence.

"Audi alteram partem."

### THE PATHOLOGY AND TREATMENT OF CHOLERA.

To the Editors of THE LANCET.

SIRS,—Epidemic cholera is now causing great mortality in various parts of Europe and may not unlikely invade our own country. The subject naturally excites much general interest. The time therefore seems favourable for directing the attention of the profession to certain disputed points regarding the nature and treatment of the disease. In *The Times* of Aug. 5th, 1892, the Vienna correspondent of that paper states that Professors Nothnagel and Kahler, acting under instructions from the Minister of Education, have issued a circular advising people of the precautions they should adopt in case of an outbreak of cholera. They accept Koch's comma bacillus as the cause of cholera, and amongst some directions which would be generally accepted without controversy there is one which I deem to be in the highest degree unwise and dangerous—viz., that "cases of choleric" (that is, choleraic diarrhoea)

"are to be treated immediately with opium preparations, red wine, cognac, or rum-arrack in boiled water." They also declare that "the immediate cause of death in cholera is asphyxiation, consequent upon the thickening of the blood." On the contrary, I maintain—and I have completely proved—that the blood thickening in cholera is not the cause, but a consequence of the asphyxiation, which results from the greatly impeded pulmonary circulation.

Mr. C. N. Macnamara, in his recently published small treatise on "Asiatic Cholera: its History, Causes, and Treatment," says on page 59: "With reference to the poison which we believe the cholera bacillus produces, several theories have been advanced to explain its action in connexion with the pathological changes found after death. Among these theories, that advocated by Sir George Johnson takes a prominent position, and by many pathologists is held to be best capable of accounting for the symptoms and the changes found after death from cholera." He then gives a brief, but, so far as it goes, a clear and correct statement of my explanation of choleraic collapse. But it appears from a subsequent paragraph that he still believes that what he calls "dehydration of the blood and tissues" is the most important factor in the pathology of cholera. And this theory of dehydration, unfortunately as I think, is his main guide in the treatment of the disease. He says, under the head of "Treatment," p. 63: "In the early stages of Asiatic cholera we may frequently stay the further progress of the disease by opium combined with acetate of lead or with dilute sulphuric acid. Twenty drops of laudanum with three grains of acetate of lead, or twenty minims of diluted sulphuric acid, should be given and repeated every hour for three doses (in the case of adult patients) if the purging continues."

If Mr. Macnamara, before publishing this last treatise on cholera, had read the chapter on cholera in my "Medical Lectures and Essays," which, in a recent conversation with me, he admitted that he had not done, he would have seen that I have adduced abundant evidence to prove that the repressive treatment of choleraic diarrhoea by opium, so far from staying the further progress of the disease, often tends to prolong the diarrhoea and frequently leads on to collapse. Mr. Macnamara, at p. 42, quotes the well-known and most instructive experiments by Dr. Koch for the production of cholera in guinea-pigs.<sup>1</sup> Dr. Koch found that he failed to produce cholera in these animals by introducing the cholera bacteria into the stomach unless at the same time he injected into the peritoneal cavity a narcotic dose of tincture of opium, his object being "to render it possible for the comma bacillus to remain longer and gain a footing in the intestine." In this manner he induced fatal cholera in thirty out of thirty-five guinea-pigs experimented upon. Koch's experiments have been repeated by Dr. Neil Macleod,<sup>2</sup> who killed thirty-eight out of fifty-four guinea-pigs by the injection of cholera bacilli into the stomach, and opium injections into the peritoneum to check peristalsis and so allow time for the multiplication of the organisms. Now it appears to me passing strange that Mr. Macnamara and those who agree with him in advocating the repressive opium treatment of choleraic diarrhoea fail to see that in adopting this practice they are imitating on the human subject the fatal experiments which Koch and others have performed upon guinea-pigs.

In the chapter on cholera to which I have referred I have reported numerous cases in my own practice and in that of others in which the abrupt arrest of the discharges by opium has been followed by fatal collapse; while in no single instance, out of a very large number treated in the early stage by evacuants, has the disease passed on to the stage of collapse.

Mr. Macnamara mentions the fact of his having himself gone through a severe attack of cholera. This occurred when he was assisting me in the cholera wards of King's College Hospital in 1854; and, as his life was probably saved by the evacuant treatment which he then adopted, I here reproduce *verbatim* the notes of his case with which he furnished me soon after his recovery:—"On Monday night, at about eleven o'clock I awoke with violent pain and spasm in my stomach and a most distressing state of oppression, with an inclination to vomit. These symptoms were quickly followed by cramps in my hands and feet. I, at once got up and took an emetic, and as soon as the

vomiting which it excited had ceased I took an ounce of castor oil. In about half an hour's time I was violently purged, and so much relief did I experience from it that I repeated the dose of castor oil during the following hour. From this time until eight o'clock in the morning I was purged, and vomited so frequently that I became quite exhausted; yet I suffered little pain, and had lost that dreadful sense of oppression to which I before alluded. I had then two hours' sleep and awoke much refreshed. Throughout the day my bowels were opened several times, and I vomited once or twice after taking food; but in the evening I went down to Blackheath, passed a most comfortable night there, and the next day returned to town ready to resume my duties, although much pulled down by my severe though short illness.—C. N. M., M.R.C.S., King's College Hospital, September, 1854."

The dreadful sense of oppression which he describes was probably due to the commencing embarrassment of the pulmonary circulation by the action of the cholera poison. From this he was speedily relieved by his prompt recourse to evacuant treatment. If instead of the emetic and castor-oil, of which, however, he took at least twice as much as was necessary, he had taken repressive doses of opium, the result might have been very different.

In the earlier period of my professional career I made great sacrifices by persistently advocating a theory and treatment of cholera which the profession generally looked upon as erroneous. At the present time I have nothing either to gain or to lose by discussing the subject, but so long as I can wield my pen I deem it a public duty to protest against theories which have been proved to be false and methods of practice which ample experience has shown to be injurious.

I am, Sirs, yours faithfully,

Saville-row, Aug. 8th, 1892.

GEORGE JOHNSON.

## A CASE OF DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS.—A fatal result from the administration of chloroform recently occurred at the Royal Victoria Hospital, Netley. The patient, a man aged twenty-one, had been in hospital over twelve months with tubercular disease of the hip-joint, and was in consequence completely broken down in health. Excision of the head of the femur had been performed in November, 1891; the disease, however, progressed in the acetabulum and the patient was being gradually worn out with the chronic discharge and hectic fever from a large pelvic abscess which had formed. The operation in prospect was to give an outlet to this abscess. The heart was carefully examined beforehand and nothing was found to contraindicate the use of the anæsthetic. The lungs had also been examined, but no evidence of organic disease was present. Krohne's Hyderabad safety inhaler was used for the administration, into which half a drachm of chloroform was placed. For the first few respirations the patient, who was in a highly excitable state, breathed well and took the anæsthetic quietly without struggling, but suddenly, without warning, he became extremely pallid, the pupils widely dilated and, with the exception of a few short gasping breaths, respiration entirely ceased. The heart's action continued very feebly for some few seconds after. On the first indication of danger the inhaler was immediately removed, the tongue drawn forward, the chin kept elevated, the head lowered and artificial respiration commenced and continued for about half an hour. Electricity was at once applied to the phrenic nerve and over the region of the heart and half a drachm of ether injected subcutaneously, but all with no avail, the patient showing no further sign of life. No operative procedure had been started, as barely one or two minutes had elapsed from the commencement of the inhalation until death occurred.

An examination was made forty-eight hours after death. The heart was normal in size, its walls pale and thinner than natural; there was no valvular disease and no coagula were present in either of the ventricles. The lungs were found to be somewhat congested, but there were no signs of any tubercular disease. The liver was slightly enlarged, pale and flabby, giving no reaction with iodine, and in the intestine three small tubercular ulcers were found just above the ileo-cæcal valve. An iliac abscess gave issue to a large collection of pus.—I am, Sirs, yours faithfully,  
Netley, July, 1892. C. H. Y. GODWIN (Surgeon-Colonel).

<sup>1</sup> Vide Brit. Med. Journ., Jan., 1880.

<sup>2</sup> THE LANCET, March 9th, 1889.

## “CLASSICAL CULTURE AND THE PROFESSION.”

To the Editors of THE LANCET.

SIRS,—As one of those who consider it a great advantage to the profession that its students should not be compelled to spend valuable time in acquiring an elementary knowledge of languages which are practically useless to them, and of which they speedily forget even the rudiments, I trust you will allow me to point out that Dr. Cuming was perfectly correct in saying that as an element of medical education “Greek seems doomed past recall,” and that Latin is making a bolder fight for its place. Even the Greek alphabet is unknown to most medical men, and of the numerous licensing bodies in the kingdom only a few of the universities exact an acquaintance with it from their medical graduates, whereas some knowledge of Latin is required in a student before he can pass the threshold of any medical school. It may be quite true that a language connected with Greek, as that which we speak is with Anglo-Saxon, is spoken by a few millions of semi-civilised Orientals, that this language boasts of a current literature &c. ; but what has this to do with our professional education? A student of medicine may now become a Fellow of all the Colleges of Surgeons and Physicians and an M.D. of several universities without having wasted a single moment on the Greek grammar, and this fact proves Dr. Cuming’s assertion.

In this connexion it may be remarked that the little knowledge of Greek which they possess proves a really dangerous thing to its medical possessors, for in their anxiety to display it they frequently betray a lamentable ignorance of the laws of their own language. Thus, in showing that they know the Greek word for “head” by pronouncing its derivation with a “k” sound they expose their ignorance of the rule that “c” before “e” is soft in English, and also that lexicographers pronounce such words as “cephalic” and “hydrocephalus” with the sibilant sound of “c.” Moreover, they are generally inconsistent enough to pronounce “hydrocele” and “cœliac” as spelled, showing that their knowledge of Greek is too meagre to enable them to find the derivation of these words. That medical men should attempt to alter the English language and force us to pronounce such words as “ocean,” “hydrogen,” “gynecocracy,” and “gynecology” with a hard sound of “c” and “g” seems the height of absurdity, and yet, through an elementary knowledge of Greek and a gross ignorance of English, some of us seem to be attempting this feat. In Greek, as in many other subjects, it would be well to follow the advice of Pope—

“Drink deep, or taste not the Pierian spring.”

I remain, Sirs, yours faithfully,  
TROJAN.

Aug. 8th, 1892.

## THE CHOLERA IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

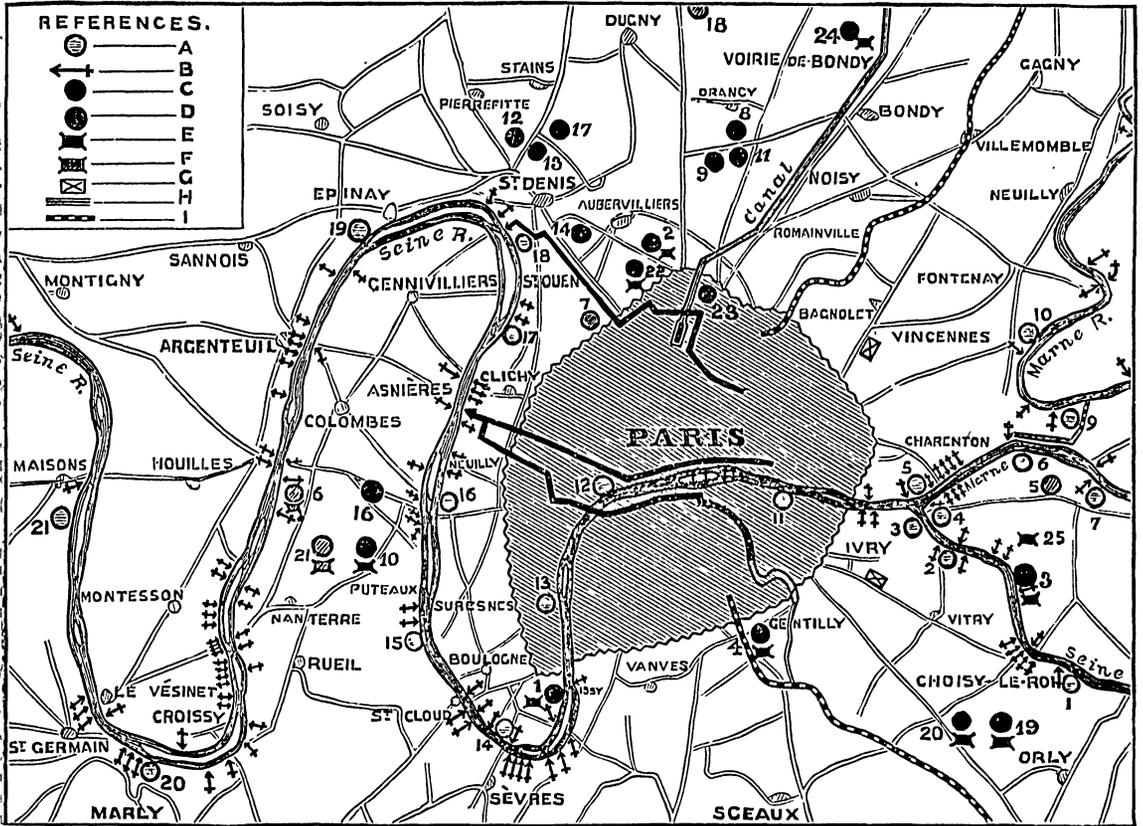
(Illustrated.)

### CONTAMINATION OF THE SEINE.

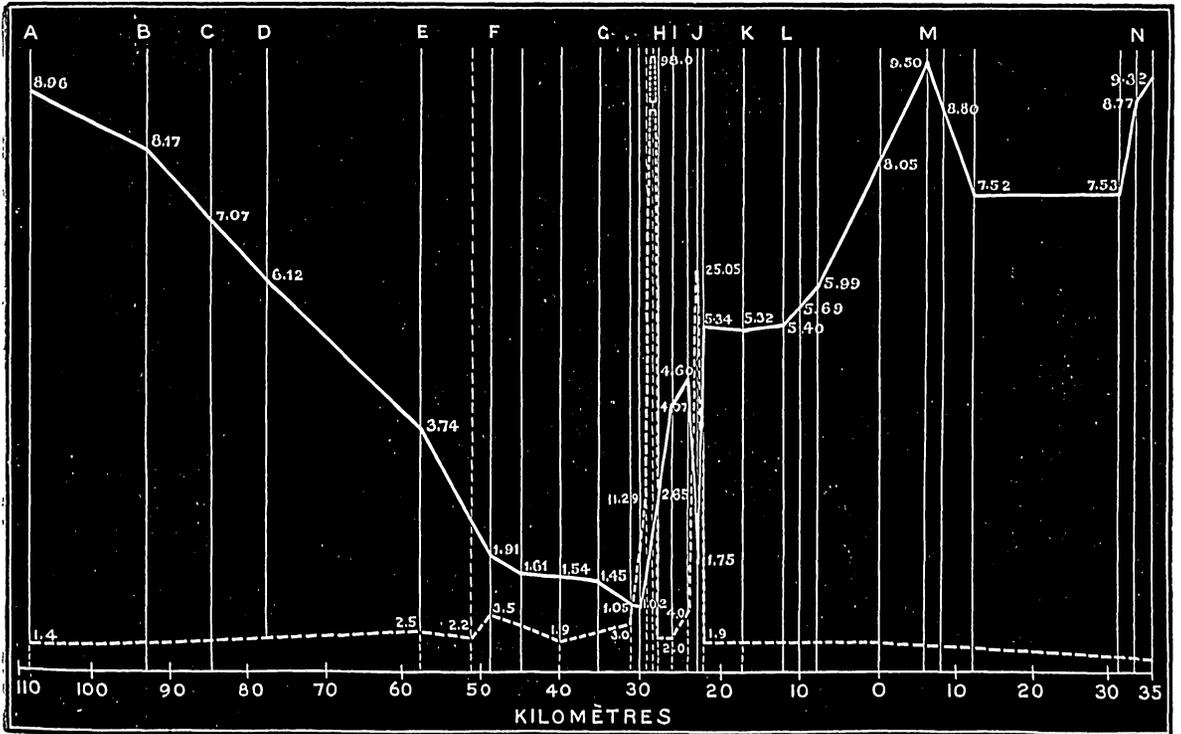
ON all sides evidence accumulates to show that the cholera epidemic has been spreading through drinking the water of the Seine. But it is also very evident that the water of the Seine consumed within the walls of Paris has not caused the epidemic. The mischief arises from the use of water taken from the river after it has passed through Paris. To render the state of affairs thoroughly intelligible I append to this letter a portion of the map of the Seine, published in the official report No. 1303, drawn up at the order of the Chamber of Deputies and illustrating the contamination of the river. Some twenty-two miles up the river and before it reaches Paris—that is, a little beyond Corbeil—the Seine water is limpid, transparent and of agreeable flavour. The experiments which were made by the commissioners appointed by Parliament showed that before reaching Corbeil the Seine water was pure; but at this little town the two rivulets, the Juine and the Essonne, fall into the river. The former of these tributaries, which has its spring near Étampes, is polluted by the drainage from various factories, dye works, paper mills, iron works &c. The waters of the Juine before reaching the Seine are little

better than sewage water. A greasy scum floats on the surface, the water is of a dark colour and bubbles of gas may be noticed. The proportion of oxygen contained in the Juine water is only 6.29 cubic centimetres per litre. Then round and about Corbeil there are fourteen small sewers which fall into the river. These, however, for the most part convey slop water and surface drainage only. As the Seine flows on to Paris it receives other sewer outfalls, but not many, and the water improves in quality. By the time the Seine reaches Choisy-le-Roi and is within seven or eight miles of the walls of Paris it has been found on analysis to contain from 7 to 9 cubic centimetres of oxygen per litre and only some 300 microbes per cubic centimetre. As in the reservoir at Montsouris the extremely pure and excellent waters of the Vanne have generally from 120 to 280 microbes to the cubic centimetre, the Seine water on reaching Choisy-le-Roi may be considered in a fairly good condition. But at Choisy-le-Roi half a dozen local sewers fall into the river, and further down the river, five miles and a half from Paris, there is a large human guano manufactory; these works drain directly into the river and are situated on the water’s edge. A little farther from the river but nearer to Paris there is another dépôt at Maison-Alfort which receives the contents of the Paris cesspools. Then we arrive at the junction of the Marne with the Seine at Charenton. Here, immediately before the Seine meets the Marne, are three water intakes. One of these provides Paris with its supply of drinking water—that is to say, when and where, within the fortifications of Paris, the Seine water is given for drinking purposes it is drawn from the intake close to Charenton. By that time the river has received the foul water from several mills, factories, some guano manufactories and thirty-three sewer outfalls. This water when consumed in Paris generally occasions an outbreak of typhoid fever; and now, when it is supplied to any district in Paris, due warning is published in all the papers and official posters are affixed to the walls. Still, so far this water, though undoubtedly dangerous, does not seem to have occasioned any cases of cholera.

At Charenton the Marne joins the Seine, and in its winding course from Brie-sur-Marne to Paris it receives the contents of twenty sewers. There are numerous water intakes on the Marne, but with one exception they are all beyond Charenton, where the principal sewer contamination occurs. The water from the Marne is employed for local consumption, excepting what is withdrawn from the river at St. Maur, and this is sent to Paris. Finally, it should be observed that there are three intakes of water in Paris itself—one close to the Pont d’Austerlitz and the other two at the other end of the town. However important all these facts may be, they do not seem to bear upon the present epidemic. From a general point of view the water intakes to the east and south-east of Paris are most injudiciously situated, and it is not surprising that typhoid fever should be endemic where such water is drunk; but it is in the suburbs to the north and west of Paris that the cholera has broken out, and there we shall see, by referring to the accompanying map, that the water is much more contaminated than the Marne and the Seine, to the east and south-east of Paris. On both sides of the river, having passed through Paris, it receives the main sewers of the city. Only smaller sewers fall into the river as it goes through the town, and several of these have recently been suppressed. The two islands, the Ile de Paris and Ile de St. Louis, used to drain into the Seine, but the old sewer from the Hôpital de la Salpêtrière has now been connected with the main sewer and no longer falls into the river. Nevertheless, the water does not improve as it passes through Paris, and perhaps the washing of dirty linen in the running stream may have introduced infective materials. Numerous washhouses are constructed on barges which float on the Seine. In any case, as the river issues from the fortification at Auteuil to the south-west of Paris, it already contains from 6000 to 7000 microbes per cubic centimetre and only 6 cubic centimetres of oxygen per litre. Then we come at once to a large dépôt of faecal matter at Billancourt; but at this point, on each side of the Seine, two main sewers have been constructed, which receive the contents of seventeen branch sewers and protect the Seine as it passes through St. Cloud and Boulogne, so that this saves to some extent the water of the two intakes near Boulogne and Suresnes. Between Suresnes and Puteaux these two main sewers fall into the river, and there at once the proportion of oxygen is lowered to 5.3 cubic centimetres to the litre,



A, Water intakes. B, Sewer outlets. C, Sewage depository. D, Sewage depository (closed provisionally or definitely). E, Works for the treatment of human guano. F, Works for the treatment of human guano (closed provisionally or definitely). G, Mud deposits. H, Canal de l'Ourcq. I, Water-supply from the Dhuis and the Yanne.



A, Mautes. B, Pont de Meulan. C, Pont de Triel. D, Pont de Poissy. E, Pont de Maisons. F, Bourival. G, Pont d'Argenteuil. H, Pont de St. Denis (outlet of two northern sewers). I, Pont de St. Ouen. J, Opening of the great sewer. K, Barrag de Suresnes. L, Pont de Sèvres. M, La Seine (Pont d'Ivry). N, Corbeil.

NOTE.—The continuous line represents the proportion of oxygen and the interrupted line that of nitrates in the river Seine at various points in its course

and analysis shows the presence of one gramme of nitrates per cubic metre. This varying proportion of oxygen and nitrates is well illustrated in the accompanying diagram showing the progressive alterations in the composition of the Seine water. A little way beyond this gross contamination, at Neuilly, there is another intake of water; and it is just in this neighbourhood—at Suresnes, Puteaux, Nanterre, and Neuilly—that the cholera epidemic began.

From St. Cloud the Seine follows a northerly course and thus reaches Asnières and St. Denis to the north-west of Paris. Here, at Asnières and St. Denis, are the two outfalls of the main sewers of Paris. At Asnières about a third of the sewage is pumped across the river on to the plains of Gennevilliers, where it is used for irrigation purposes; the rest, without any attempt at purification, goes into the river. The result is simply appalling; all the fish are killed and the water thoroughly befouled. The surface of the river is covered with greasy foam. As much as 25 grammes of nitrates (see diagram) have been found per cubic metre of water and the oxygen has almost entirely disappeared; it only amounts to 1 cubic centimetre per litre. As for the microbes they are estimated at 200,000 per cubic centimetre. Heavy deposits of black, foul mud, in some places 10 ft. deep, have been made and there continue on the banks of the river for a great distance. Yet between Clichy and St. Denis, just where these deposits abound, there are two water intakes. From St. Denis the river curves round and again flows in a southerly direction. Round this curve, at a distance of two miles and a half from the Paris main sewer outfall of St. Denis, is the intake of drinking water supplied to the inhabitants of Argenteuil, where the cholera has recently broken out with such violence. Water from this, the Epinay intake, is also supplied to the inhabitants of Sannois and Montmorency, making, with Argenteuil, a total population of about 40,000 persons.

The deposits from the main sewer outfalls, which vary in depth from 10 ft. to 2 ft., are still to be found as far off as Marly; where, by the way, there is another intake of drinking water. The distance by river from the sewer outfall at Asnières to this water intake at Marly is sixteen miles and a half, and at that point the river Seine has received the contents of more than a hundred separate local sewers and all the main drainage of Paris. So great is the contamination of the river that the navigation has been blocked by the sewer deposits. It has been necessary to expend large sums of money to dredge out of the water the heavy filth brought by the sewers.

Referring again to the accompanying diagram it will be seen that as the Seine flows away from Paris the sewage becomes more and more diluted, the population on either bank is less dense and the sources of contamination are less frequent. A little beyond St. Germain the proportion of nitrates has fallen to 2·5 grammes per metre cube, and there are now 3·7 cubic centimetres of oxygen per litre. At Poisy there are 2·2 grammes of nitrates, and 6 cubic centimetres of oxygen. At Mantes there is 1·4 gramme of nitrates to the cubic metre, and the Seine has recovered the proportion of oxygen it contained before reaching Corbeil—namely, 9 cubic centimetres to the litre, or 0·9 per cent. Mantes is at a distance by river of fifty-four miles from the outfall of the Paris main sewers. But though the water at Mantes has recovered the proportion of oxygen it loses after passing Corbeil, traces of infection are to be found much further, and they daily continue to extend their influence. Thus in 1875 the contamination was not found beyond the lock of Mézy, a distance of forty-six miles; but in 1880 it had already reached Port Villey, a distance of seventy-six miles. Thus we may conclude that Rouen will soon be contaminated by the sewage of Paris.

As I have already explained (see THE LANCET, July 9th) the districts outside Paris are at the mercy of water companies which possess monopolies according to treaties drawn up twenty and twenty-five years ago. These treaties contain no clause by which the companies can be prevented from supplying the Seine water. When the treaties were drawn up the Seine was not contaminated as it is to-day, nor was the danger of such contamination so fully realised. These treaties in some instances have still thirty-five years to run. The city of Paris will soon have spring water sufficient to render unnecessary the use of water from the Seine. But what will become of those suburban districts where the cholera has prevailed since the month of April and where many hundred deaths have already occurred from this cause? The accompanying map explains, more eloquently than any words I can write, how the water is contaminated and

how there are intakes of water just where the contamination is most intense. Such a danger cannot be allowed to continue, whatever may be the terms of the treaties with the water companies.

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## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

### *“Moving with the Times.”*

THE thirst for change and variety exhibited in the present day is a prominent feature in town populations. No doubt it is in some measure the outcome of the rapid rate of living, the excitement and high pressure under which the conditions of life are fulfilled, and the crowding together in limited areas. Rest and desire for a brief period of tranquillity is the necessary aspiration after nerve wear and tear prolonged through many months, hence the migration to the coast and the desire to wander far from the busy hive of industries and the noise of ceaseless work. The facilities afforded by railway companies increase the wish to remove away from toil and care, the supply in some measure raising the demand, and though “these English people take their pleasure sadly,” often spending the greater part of the time at their disposal in travelling, they appear to be satisfied, and to flatter themselves that they have created a reserve of health by madly rushing about in midnight trains and subjecting themselves to physical discomfort and self-denying restraints. This time of the year affords abundant examples of ill-regulated change.

### *The Queen's Hospital.*

An interesting ceremony took place at this hospital on the 8th inst., when the Rev. J. C. Blissard was presented with a life-size portrait of himself, to be hung in the board-room of the hospital. For ten years as chairman of the committee Mr. Blissard has rendered exceptional services to the hospital, the portrait being intended to remain as a memento of his valuable aid to the institution. Alderman Clayton made the presentation in appropriate terms and highly eulogised the work done by the late chairman. Mr. Bennett May, chairman of the Medical Committee, endorsed the remarks, and observed that the relations of that committee with Mr. Blissard had always been of the most satisfactory and cordial character. Lord Leigh also presented an illuminated address to Mr. Blissard expressing the confidence and respect with which he had conducted the affairs of the hospital. A suitable reply was made by the ex-chairman.

### *Medical Magistrate.*

Among the recent additions to the Commission of the Peace for the city is the name of Dr. Charles Warden, who for many years has been one of the surgeons to the orthopaedic hospital—a compliment well deserved and upon which he received the congratulations of many friends.

Aug. 10th.

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## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *Crematorium.*

FOR some years past a crematorium has been under construction at the Manchester Southern Cemetery. The building is now finished, and last week an experimental cremation took place there with satisfactory results. It is anticipated that the crematorium will shortly be in complete working order. It has been built by a private company.

### *Victoria University.*

At the recent final examination for the degree of Bachelor of Medicine a larger number of candidates presented themselves than has hitherto been the case. The proportion of men who passed was fairly large; that of honours gained was small. It is a striking feature that many men who have within the last two or three years proceeded to this degree have not taken the double qualification of the London colleges, so that it appears as if in the future the degree will be looked upon by Manchester students as the M.B. Edin. is regarded by students of that school—their qualification as well as their academical degree.

*Infirmary Extension.*

The voting papers for the poll of trustees which is to decide whether or not the infirmary is to be extended in its present situation were sent out last week, and are returnable by the end of the present one. The press is taking an active part in the controversy by means of leading articles, and nearly every day there are published numerous letters from private correspondents on both sides of the question, showing a deep interest, not only on the part of the medical men directly concerned, but on that of the general public.

Manchester, Aug. 10th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*The British Medical Association Meeting in Newcastle, 1893.*

THE news that the British Medical Association has accepted the invitation to Newcastle in 1893 has been received here with great pleasure. It is now, I believe, about twenty-six years ago since it met there. Newcastle has since then been transformed from an ancient town to a modern city and its population has doubled. Together with the sister borough, Gateshead, from which we are separated by the Tyne, but with which we are connected by some magnificent bridges, we make up, with suburbs, about 500,000 inhabitants; but taking the neighbouring towns from Durham to North Shields and within fifteen minutes or so by rail, we can include a population of over 1,000,000. I hear that a meeting is to be held on the 12th inst. (under the genial auspices of the President-elect, Professor Philpson) to make all preliminary arrangements, and it is certain to be well attended.

*County Medical Officers of Health.*

At a late meeting of the North Riding County Council it was resolved that, on an application being transmitted to the clerk of the County Council from any sanitary authority that their medical officer of health may be assisted by the medical officer of health of the Riding in making an inquiry into the cause of an outbreak of infectious disease, such application should be forthwith transmitted to the chairman of the Sanitary Committee, who, if he thinks it desirable, shall have power to direct the medical officer of health to proceed and assist in making such inquiry. The question of appointing a county medical officer for Northumberland came up last week before the County Council. In a forcible speech Dr. Trotter of Blyth said that they would soon be in Northumberland, in this respect, the one dark spot on the sanitary map of England. Last year, he said, there were thousands of cases of typhoid fever due to bad sanitary conditions, and if the Council did not do all the Local Government Board gave them power to do, they would be morally responsible for any deaths that resulted from disease which was allowed to exist in consequence of their neglect. The Council, however, did not see their responsibility in this matter, so that the appointment of a medical officer was for the present not carried.

*The Measles Epidemic at Jarrow.*

At the last meeting of the Jarrow Town Council reference was made to the epidemic of measles which still exists, and it was stated that during the month of July alone there had been 114 cases.

*Small-pox at Middlesbrough.*

At a meeting of the Middlesbrough Sanitary Committee, held on August 2nd, it was stated by Dr. Malcomson, the medical officer of health, that there had been seven cases of small-pox in two centres since the last meeting. The medical officer further reported that he had not been able to trace any connexion between either of the centres of infection and any of the cases reported previously.

*Northern Friendly Societies' Demonstrations.*

These demonstrations of our friendly societies in aid of local hospitals and other charities are bearing good fruit. At the last meeting of the Hartlepool Hospital Dr. Gourley stated that the result of the last parade enabled him to hand over about £60 to the hospital.

*Sunderland.*

Mr. A. E. Harris, medical officer of Sunderland, whose services the borough is about to lose, in his annual report mentions that there has been a decrease in the marriages to the amount of 124 as compared with 1890, and there has also been a decrease in the births of 359—in other words, the birth-rate was 37·7 per 1000 in 1891, while the average rate from 1874-90 was 40·4. As to the increased fatality from measles, Mr. Harris thinks that the great circumstance at work has been the increased aggregation of children at schools, and he thinks that less zeal on the part of the School Board officers would undoubtedly tend to the greater health of the children, and would also lessen the number of cases arising from such diseases as measles. Mr. Harris is in favour of the appointment of a School Board medical officer to whom parents could send their children for examination when they appeared to be ill. On Monday night last as a number of pauper children were proceeding from school to the Sunderland workhouse they commenced to pick berries from the laburnum trees in the grounds, and a quantity were thus eaten. Several of the party became seriously ill, and when medical aid was sought it was necessary to use the stomach pump, four girls being in a collapsed condition on Tuesday morning. Many were still ill, but it was hoped they would all recover.

*The late Dr. Maclagan of Berwick.*

The promoters of the memorial of the late Dr. Philip Maclagan of Berwick have agreed to perpetuate his memory in the border town by erecting a drinking fountain and bronze medallion, to cost not less than £150. The residue of the fund is to be placed at the disposal of the Misses Maclagan. I understand that the fund reaches about £600.

Newcastle-upon-Tyne, Aug. 10th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*Royal College of Surgeons.*

At a meeting of the President, Vice-President and Council of the Royal College of Surgeons in Ireland, held on Thursday, Aug. 4th, the following were elected Dental Examiners: John Barton, F.R.C.S.I.; Henry Gregg Sherlock, F.R.C.S.I., L.D.S.; William Stoker, F.R.C.S.I.; Thomas Studley, L.D.S.; Charles Wall, L.D.S.; Montgomery A. Ward, F.R.C.S.I. The examinations are held in November, February and May.

*The late Dr. Henry Croly.*

The following resolution was adopted at the last meeting of the guardians of the South Dublin Union:—"That the board has learned with deep regret of the death of Dr. H. Croly, who for a long period discharged with ability and skill the duties of medical officer in the Rathfarnham district of the union, and had during all that time proved himself a kind and considerate friend to the poor; and that copies of this resolution be sent by the clerk to the relatives of the deceased."

*"Charming" Erysipelas: Charge of Manslaughter.*

On Saturday, July 30th, an inquest was held in Lurgan on the body of David Archer, a builder, who had died on the previous day after a brief illness. From the evidence it would appear that deceased had suffered from erysipelas of the right leg. He was attended by Dr. Agnew and Dr. Magennis, both of Lurgan. They saw and dressed the patient's leg on Sunday night and Monday morning. On the Monday evening they noticed that Archer was a great deal worse, and on examining the limb they found that their dressing had been removed. It would appear that Owen McIlmurray, who is a "charm doctor" and saw sharpener, was sent for on the Monday after the doctors paid their morning visit to say a "charm" for the removal of the disease. Archer's sister objected, but he and his wife were agreeable. He pulled off the dressings and applied butter and flour and then bandaged the limb in flannel. The two doctors, in the very difficult circumstances in which they were placed, retired for a consultation, and as they were thoroughly agreed that the alteration in the treatment had been attended with very serious consequences, and as the life of Archer seemed to be in extreme danger, he being himself delirious, they told his sister plainly their

opinion, and, after speaking to Archer's wife, they were instructed to take charge of the case again. They removed the new dressings which the "charmer" had applied and resumed the original plan of treatment, and gave such remedies as they considered suitable to the case. On the Tuesday and Wednesday the disease remained stationary, but on Thursday the patient became worse and died on Friday from the effects of the erysipelas. The jury returned a verdict of manslaughter against McIlmurray, who was arrested and brought up at the Lurgan Petty Sessions and returned for trial, bail being accepted. It would appear that McIlmurray not only repeated a charm, but tore away the dressing applied by the doctors to the limb and put on a layer of butter and flour, which he rubbed until sores were produced. The medical men found a flannel bandage embedded in the sores, and, notwithstanding all they could do, Archer died from aggravation of the disease, Dr. Magennis swearing that death was caused by McIlmurray's interference.

#### *Queen's College, Belfast.*

The results of the summer examinations of the Royal University, which were published last week, show that Queen's College, Belfast, again obtains the first place among the affiliated colleges. The students from our local College have won twenty-eight first honours and forty second honours, with thirteen first-class exhibitions and twelve second-class, the aggregate value of these being £662. Indeed it is doubtful if the College has ever been so successful, as a few facts will show. Thus, at the first University Examination in Arts one of its students was first in Latin, another first in experimental physics, but in mathematics the Belfast men carried off all the firsts (including a first) which were given except one—that is, five out of six. At this examination the successful Belfast students were awarded six exhibitions of £30 each and three of £15. At the second University Examination Queen's College won every first honour in mathematics that was given, together with other firsts in French, in mathematical physics and in experimental physics (first of first), and was awarded three exhibitions of £36 each and four of £18 each. The successes at the B.A. degree are still more brilliant. A Belfast Queen's man is first of first in ancient classics, another first of first in mathematical science and a third in experimental science. One of them wins the first of the first-class exhibitions, a valuable prize of £42, while two others follow closely and carry off exhibitions of similar value, and three others obtain £21 (each) exhibitions. A Belfast student gains a first in logic, metaphysics, ethics and history of philosophy, and another a first in civil and constitutional history, political economy and jurisprudence. At the LL.B. degree two of the Belfast alumni carried off all the prizes awarded, one of them gaining a first-class and £42 in money and another a second with £21. In the School of Engineering the College won an exhibition, and at the First Examination in Medicine gained all the firsts in zoology (including, of course, the first of first) and in experimental physics, as well as a first in botany and a first-class exhibition of £20. The foregoing record is one to be proud of and is most satisfactory to all those who take an interest in Queen's College, Belfast. The fact, that at these recent University examinations—examinations conducted by experts in the several subjects, and at which candidates from colleges in every part of Ireland presented themselves—Queen's College, Belfast, has gained the premier position, shows that at no time since its foundation in 1849 was this school of learning in a more efficient condition than at present.

#### *Handsome Donation.*

The Cork hospitals have received £1000 from Sir John Arnott, D.L., a well-known Cork citizen.  
August 6th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *The Cholera Epidemic in Paris and its Environs.*

THE most notable contribution to our knowledge of this disquieting outbreak made since my last letter is undoubtedly the official report of the Committee of Investigation of the

Comité Consultatif d'Hygiène de France handed in on the 8th inst. This committee is composed of Professor Proust and Drs. Netter, Thonot and Ogier, all men of acknowledged competence in sanitary science. Optimism is the prevailing note of the report, the terms of which are certainly calculated to reassure the most timid. Take for example the opening sentence: "A l'heure actuelle on peut dire que l'épidémie a presque totalement disparu de la banlieue [suburbs] et de Paris." The report goes on to state that the last fortnight has brought no modification to the curious and characteristic topography of the epidemic. Those suburbs which draw their water-supply from the Marne and the Oise have remained absolutely free from the disease, which has only made its appearance in suburban districts supplied with Seine water. This observation is rendered more important by the fact that the epidemic raged with most intensity in those parts (Saint-Denis, Saint Ouen, Aubervilliers and Argenteuil) where the Seine water distributed for consumption was at its maximum of pollution. The committee comes therefore to the conclusion that the sole factor in the determination of cholera *vidi* is the drinking of Seine water, this indispensable condition explaining the non-diffusibility of the disease. The report states unambiguously that not a single *legitimate* case of cholera has originated in Paris itself, every undoubted case having been proved to have been contracted in the suburbs. In four instances, at most, these imported cases have given rise to fresh cases, but the tendency to further propagation of the epidemic has been *nil*. "Paris doit donc être considéré comme indemne." After reminding us that up to the present the army (which is supplied either with spring water or with water that has undergone a process of boiling and filtering) and the employés of the great companies and the seaports have escaped the disease, the report concludes with this encouraging sentence: "Il ne nous est pas permis de préjuger l'avenir, mais nous pensons qu'à l'heure actuelle nous pouvons considérer tout danger comme écarté." Let us hope that this pronouncement will not be falsified by the expansion of the dread disease in the near future. I may add that in the last official mortality tables for Paris (issued on the 4th inst.), and having reference to the week ending July 30th, twenty-one deaths of persons above five years of age are attributed to diarrhoea, as against fourteen for the preceding week and an average for the last five years of six cases. The cholera column remains as usual—blank.

Paris, Aug. 10th.

## NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

#### *Quarantine at New York.*

THE report of the health officer for the year 1891 has just appeared and some of its statistics are of general interest. The number of emigrants from transatlantic ports inspected during the year was 445,290. This number was largely in excess of the former year, showing that emigration from Europe is on the increase. The health officer is of opinion that unless the civil authorities exercise greater care in the inspection of emigrants in relation to their sanitary, physical and moral status, the country will in the near future be subjected to sanitary conditions and social and political evils much worse than those which now exist among the populations of the old world. With the exception of one case of typhus fever, the only quarantinable diseases found on board vessels during the year were small-pox, scarlatina, diphtheria and measles. During this period 2730 passengers were removed from vessels to the hospitals for observation, owing to their exposure to infectious diseases other than yellow fever. Thirty vessels arrived from Brazilian ports, which gave a history of sickness and death from yellow fever, either when in port or within the first few days after departure. An earnest effort has been made to ensure that vessels which trade at these ports should anchor at such a distance from the wharf that the infected atmosphere which prevails near them may not affect the people on board, and to have the cargo lightered from the wharf to the vessel, and thus to minimise the danger of infecting the vessel from the dirt which is frequently taken on board with the cargo when it is carried directly from the dock. The total number of cases of yellow fever on vessels arriving at New York in 1891 was seventy. These were received upon a vessel anchored in the lower bay, where they

were treated. The health officer explains at length his management of the cholera ships which arrived in 1890. The facilities for the care of such cases at that time were very defective and gave rise to much criticism. Great improvements have since been made, and he now believes that the quarantine arrangements can meet any emergency.

#### *Precautions against Cholera.*

Amongst other precautions against cholera is a provision requiring our consuls to secure the disinfection of rags at foreign ports, from which they are baled and sent to this country. Our consul at Ghent has issued a circular letter explaining the regulations for disinfection as follows: (1) Boiling in water not less than one hour; (2) exposure to steam not less than one hour, the steam to be of a temperature not less than 100° C., or greater than 115° C.; (3) exposure not less than six hours to sulphurous acid gas made by burning not less than 3 lb. of roll sulphur to each 1000 cubic feet of space; (4) exposure not less than six hours to an atmosphere containing 3 per cent. of sulphurous acid liberated from its liquid state (liquid sulphur dioxide). The Secretary of State has instructed our consular officers in Eastern European Russia, Persia, Calcutta and the western shores of the Red Sea to require rigid disinfection against cholera and to discourage exportation to the United States from infected districts.

#### *Vaccination of Steamship Passengers.*

A passenger on board a Cunard steamship prosecuted the company for what was alleged to be forcible vaccination. Small-pox had appeared on the vessel, and vaccination was recommended to passengers by the surgeon as a means of protection, and also to prevent detention at quarantine. The Court decided that vaccination of an immigrant passenger on a steamship coming from a foreign country is not an unlawful act when his whole conduct indicated that he desired it to be performed, so that he might receive a certificate which would save him from detention at quarantine.

#### *Health of New York for 1891.*

The total number of deaths for the past year was 43,695 in an estimated population of 1,680,000, which is equivalent to a mortality rate of 25.9, against 24.5 in the previous year. The heavy increase in the death-rate is ascribed to the ravages of influenza, but as that disease was epidemic in 1890 the explanation does not appear sufficient. Scarlet fever caused 1220 deaths against 408, and measles 1663 as compared with 730. The *New York Medical Journal* believes that the steady increase in the death-rate of the city was referable in great measure to preventable causes; other influences may expand the death-rate, but none more surely than incompetent sanitation.

New York, Aug. 3rd.

## AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

#### *The Outbreak of Small-pox.*

A SENSATION was caused in Melbourne some days ago by the announcement that a case of small-pox had been discovered at a large hotel in Collins-street. The patient was an Englishman, who had only a few days previously landed from a mail steamer. On receiving notice that the disease was really small-pox, the health officers immediately placed a cordon of police around the hotel and imprisoned the inmates until such time as they were all vaccinated and the whole place fumigated. The patient was removed to the Contagious Diseases Sanatorium, his effects burned, and all papers, books &c. in the reading-room of the hotel treated in a similar manner. Those of the inmates who objected to vaccination were held prisoners until they submitted, which in the end they all did. A notice was issued by the Board of Health calling on all passengers by the steamer in question to report themselves to the medical officers throughout the country and to be vaccinated forthwith. Instructions were issued to the medical profession to carefully watch these passengers and to report at once to headquarters any sign or symptom indicative of small-pox. A close scrutiny of the other passengers resulted in the finding of a girl suffering from the dire disease

and she and her family were at once isolated in their own house. The girl was then transferred to the sanatorium, the rest of the family were vaccinated and the house and its contents fumigated. Telegrams were sent to the health authorities at Sydney, whither the steamer had proceeded, and to the other colonial governments, officially informing them of the outbreak. The steamer had already landed her Sydney passengers before the information was received from Melbourne, but the vessel and crew were at once placed in quarantine. The New South Wales Board of Health immediately issued notice to all passengers as to vaccination and reporting themselves, as the Victorian Government had done, and published the names of the defaulters in the daily newspapers. These very strict precautions have had the effect of confining the disease to the passengers and of enabling the authorities to deal with it satisfactorily. The Queensland passengers who transhipped at Sydney were all stopped at Brisbane and the whole of them quarantined. Up to the present not more than a dozen of the crew and passengers have developed the disease, and they are all isolated in the quarantine grounds of Melbourne, Sydney, Brisbane and Adelaide. There has been one death, a seaman who died at Sydney.

People at home who are familiar with small-pox cannot very well understand the extreme sensitiveness of the Australians on the matter. Small-pox is not endemic here, and it only occurs when brought from other countries. We rely on our health regulations to keep the disease away, and on the whole the precautions taken at the different ports have been successful.

As a consequence of this immunity vaccination has been very much neglected. In my last letter I drew attention to this matter in connection with the statistics lately issued by the New South Wales Government. I pointed out that we were growing up practically an unvaccinated nation. It is only when small-pox is at our doors that we submit to be vaccinated, and in proportion to the amount of public terror does the percentage of the vaccinated rise. I have no doubt that if this present visitation had spread the whole of the population would have desired to be vaccinated.

The steamer's last call before reaching Australia was at Colombo, where small-pox was rife, on May 30th. The passengers landed, and there can be no doubt the disease was contracted there. There was no sign of small-pox on the steamer's arrival at Albany ten days later, and she was granted a clean bill of health, which was endorsed at Adelaide a few days afterwards, and on this clean bill she was passed at Melbourne. The health authorities at Melbourne blame the officials at Adelaide and the ship's surgeon for concealing the fact of small-pox being on board. But, as the surgeon on board points out in a communication to the press, if the disease were contracted at Colombo its period of incubation would only have elapsed on arrival at Melbourne.

There is one thing this outbreak clearly proves, and that is the utter uselessness of the single examination at Albany, where it is proposed to establish the Federal Quarantine station. I have no doubt that for the future the oversea ships arriving from the East will be carefully examined at each port of call along the Australian coast, and that the intercolonial bills of health, even if clean, will not be received as a guarantee of the state of the ship carrying them.

June, 1892.

## MEDICAL TRIALS.

#### ALLINSON v. THE GENERAL MEDICAL COUNCIL.

THIS action came before the Master of the Rolls, Lord Justice Bowen and Lord Justice Kay on Monday last. It is, as our readers are aware, a declaration that the erasure of the plaintiff's name from the Medical Register was invalid and void, and a demand for an injunction to restrain the defendants from erasing the name or publishing the decision or sending a notification of it to the Royal College of Physicians, Edinburgh. The facts of the case are familiar. The Divisional Court, upon the application of the defendants, dissolved the interlocutory injunction, and from this order the plaintiff appealed. Mr. H. S. Young stated the case for the plaintiff. The counsel for the defendants (Mr. R. T. Reil, Q. C., and Mr. Muir Mackenzie) were not called upon. The Master of the Rolls said that the defendants were a body which had a duty to perform imposed upon them by statute, a duty which was somewhat like a judicial duty. The defendants had performed that duty and apparently published the result of their decision. There was no evidence upon which it could be suggested that they had performed their duty dishonestly. They could not, therefore, be held liable for the publication, because the occasion would be privileged. Nevertheless it was argued that the Court ought at this stage of the action to restrain the defendants from publishing their

decision and notifying it to the Royal College of Physicians at Edinburgh. Such a contention was hopeless. The appeal must therefore be dismissed. In this decision Lord Justices Bowen and Kay concurred.

#### ACTIONS AT DERBY BY THE APOTHECARIES' SOCIETY.

##### JUDGMENT.

At the Derby County Court on Tuesday his Honour Judge Kenelm Digby gave judgment in the three actions brought by the Apothecaries' Society against Christopher Jones, herbalist, of Derby, to recover three separate penalties of £20 against the defendant for three alleged offences against the provisions of the Statute "for better regulating the practice of apothecaries throughout England and Wales." The case, which was tried at length a fortnight ago, and in which his Honour reserved judgment, has excited considerable attention among the medical men of the neighbourhood. After detailing the evidence and observing that according to the defendant's card he removed tumours, cancers and abscesses without cutting, also removed the germs of consumption even when the case was given up, the judge went on to say he had stated the evidence in detail in order to make it clear that the special case relied on as "acting or practising as an apothecary" was not an isolated instance of advice asked and given as to an appropriate medicine for a particular ailment, but, as he found in fact, was one of a series of acts. His Honour thought this was a case where the plaintiff acted as an apothecary within the meaning of the Act and therefore in this (the first of the three actions) he gave judgment for the plaintiffs for the penalty of £20.

With reference to the other two cases His Honour said the plaintiffs had made each instance of the visits to the defendant by different persons the foundation of a separate action and claimed three penalties as for three distinct offences. It was not necessary for him to attempt to define what would constitute a separate offence under the Act of George III. All that it was necessary for him to say in the present case was that he felt bound to follow the ruling of Lord Tenterden in the case of "Apothecaries' Company v. Bentley," and to decide that the advising and prescribing to three different patients consecutively on the same day constituted but one offence under the Statute; and therefore that the judgment which he had already given in the first of these cases was a bar to the recovery of further penalties by the plaintiffs in the second and third cases. In these cases, therefore, there would be judgment for the defendant; and in each case the costs would follow the decision.

On the application of Dr. Rogers and Mr. Potter His Honour granted leave to appeal.

#### PROSECUTION OF DRUGGISTS.

##### TINCTURE OF OPIUM OR LAUDANUM?

At the Nottingham Guildhall on Tuesday last three local druggists were charged, under the Act for the Prevention of Adulteration of Food and Drugs, with selling laudanum which was not of the nature, substance and quality demanded by the purchaser. Mr. F. E. Harris (from the office of the town clerk) appeared to prosecute.

In the first case the accused was charged with selling six ounces of tincture of opium which was not of the nature demanded. The inspector of nuisances for the borough deposed that he paid 1s. 6d. for six ounces of the tincture, which he divided into three parts and submitted to Dr. Truman, who certified that the fluid contained no morphia at all. In answer to the defendant, witness stated that he did not ask for tincture of opium, but simply for tincture of laudanum. Dr. Boobyer, medical officer of health for Nottingham, said that the only opium permitted to be used by the British Pharmacopoeia was that obtained from Asia Minor, which contained about 10 per cent. of morphia. Anything sold as laudanum without specifying any particular laudanum should be made according to the Pharmacopoeia prescription. If the quality was allowed to vary children might be poisoned in some cases and in others they might be treated ineffectually. The defendant said that in the course of an experience extending over twenty-one years he had, in company with others, always regarded tincture of opium and tincture of laudanum as two distinct drugs, laudanum only being supplied to the general public. The preparation supplied to the inspector was asked for under the name of laudanum and it was a preparation made on the premises from crude opium instead of dried opium, and to that extent it might be possibly weaker than the Pharmacopoeia prescription. He did not admit that the drug contained no morphia. On cross-examination, he said that he had not had his sample analysed because he thought he was right. If the inspector wanted tincture of opium he should have asked for the Pharmacopoeia prescription. The Bench said the case was proved, and defendant would be fined £5.

In the second case the druggist was charged with a similar offence, the analyst's certificate showing that instead of 754 of morphia there was but 206 in the drug. In answer to a question raised by the defendant, Dr. Boobyer said that he did not recognise any legitimate distinction between tincture of opium and laudanum. Laudanum was the popular designation and synonym. The Pharmacopoeia was a classic work and did not recognise popular designations. The defendant said that he had circulars in his hands from some of the largest wholesale chemists in the country, in which tincture of opium and laudanum were quoted separately. The magistrates said that in this case they would give the defendant the benefit of the fact that the drug contained a little morphia, and he would be fined £3.

In the third case the accused was summoned for selling five ounces which only contained 51 instead of 754 of morphia. The inspector stated that defendant said to him, "Do you want the B.P.?" and witness replied, "Yes, certainly." For the defence Mr. Lindford, F.C.S., chemist to Messrs. Lofthouse and Salmer of Hull, said that he analysed every chest of opium which came into his laboratory, and the tincture of opium in question was of full strength. The analysis of opium was not a very easy one, and he had doubts about the analysis submitted to the Court. The defendant said that when he ordered the drug he specially mentioned that he wanted B.P. quality, and he paid the market price, 3s. 2d. per pound, for it. He sold the article in good faith, and he would ask that the third part in the possession of the inspector might be

analysed by the Government analyst at Somerset House. The magistrates said that they were inclined to believe that the article was in good faith, and they would inflict no penalty.

#### MEDICAL NOTES IN PARLIAMENT.

##### *The Housing of the Working Classes.*

MR. CHANNING has given notice that during next session he will introduce a Bill to amend the Houses of the Working Classes Act, 1890, and to give further powers to local authorities for the provision of houses or cottages with land attached in rural sanitary districts.

##### *The Government of Egypt.*

Sir Charles Dilke will call attention next session to the declarations of successive administrations with regard to the future government of Egypt and move an address to Her Majesty praying that she will be graciously pleased to direct the resumption of the negotiations of 1887 for the neutralisation of Egypt under conditions which will enable Her Majesty's Government to secure the permanence of the arrangement.

##### *Dangerous and Unhealthy Labour.*

Mr. Thomas Bayley has tabled a motion for next session, declaring that the working hours of persons employed in dangerous and unhealthy trades should be regulated by law.

##### *Death from Anthrax in Sussex.*

In the House of Commons on Thursday Mr. Chaplin stated in reply to Admiral Field that he had received reports from the medical officer of health and the sanitary inspector as to an outbreak of anthrax on a farm at Chalvington, Sussex. There were attacked by the disease twenty-one cattle and two horses, all of which had died. He regretted to say that a farm servant, by whom one of the animals was killed, became affected with the disease and with a fatal result.

##### *Typhus Fever in Lewis.*

Mr. Galloway Weir addressed a question to the Lord Advocate with reference to an epidemic of typhus in the island of Lewis. The Lord Advocate replied that no information had reached any of the officials concerned as to the alleged epidemic, but inquiry was being made, and if necessity arose steps would at once be taken to deal with it.

##### *The Prevention of Pleuro-pneumonia.*

Mr. Chaplin, in reply to Mr. William Field, said it was not his intention to recommend the institution of scientific experiments to try the efficacy of inoculation as a preventive of pleuro-pneumonia. Numerous investigations had already been made.

##### *The Seizure of Unsound Meat.*

Mr. Chaplin, answering another question by Mr. Field, said it was a mistake to suppose that animals were passed as sound in open market by any Government inspector. The power of the medical officer to seize meat which appeared to him to be unfit for the food of man, was contained in Section 116 of the Public Health Act, 1875, and meat which had been so seized might be destroyed by order of the justices.

##### *The Proposed Fever Hospital in Tottenham.*

Several questions were addressed to Mr. Balfour with regard to the proposed erection of a fever hospital in Tottenham by the Metropolitan Asylums Board. The President of the Local Government Board, he said, had given the matter the most careful consideration and had sanctioned the acquisition of the site.

## Medical News.

UNIVERSITY OF LONDON.—At the Intermediate Examination in Medicine recently held the following candidates passed:—

*Entire Examination.—First Division:* Alfred Armer, of Guy's and St. Bartholomew's Hospitals; Dorothea Calne, of London School of Medicine for Women; Thomas Varley Cunliffe, Joseph Percy Hall, and Percy McDougall, B.Sc., of Owens College; Percy J. Edmunds, B.Sc., of University College; Joseph Ganner, of Queen's College, Birmingham; Sinclair Gillies, of St. Bartholomew's Hospital; Henry Gwynne Lawrence, of St. Mary's Hospital; Fredk. Charles Sprawson, of King's College; Edwin Claude Taylor, of Guy's Hospital.—*Second Division:* Henry Russell Andrews, of London Hospital; E. Louise C. Appel, B.Sc., and Helen Swatman, of London School of Medicine for Women; Joseph Ashton and Daniel Edward Evans, of St. Mary's Hospital; George F. Bergin, of Bristol Medical School; John Smedley Boden, of King's College; James Jordan Coleman, Henry William Collier, James H. Horton, Benjamin Arthur Richmond, Phillip Northcott Vellacott, and Christopher Frank Wakefield, of Guy's Hospital; Percy Robert Cooper, B.Sc., and Charles Herbert Melland, of Owens College and Manchester Royal Infirmary; Francis G. Crookshank, T. Villiers Crosby, Archibald Hugh P. Dawnay, Joseph Cooto Hibbert, Richard Llewellyn Jones, John Polo Kitson, David Morrison, Ernest Elias Murray, and George Harold C. Way, of University College; John Carmichael Edgar, Thomas Gregory, and M. J. O'Flanagan, B.Sc., of Owens College; George Gilbert Genge, Alfred Lucette Hoome, and Win. Douglas Knocker, of St. Thomas's Hospital; Henry Tregolles Gillett, Thomas Percy Legg, and

Fredk. W. Robertson, of St. Bartholomew's Hospital; Archibald G. Gullan, of University College, Liverpool; Robert Hunter Steen, of Queen's College, Belfast.

**Excluding Physiology.**—*Second Division:* Joseph Norwood Brown, Geo. Wilfrid Gostling, Arthur Hunnard, Austin Edward Reynolds, Sidney Edward Shoppee, and Joseph Edward Walte, of University College; John Samuel Chater, of St. Bartholomew's Hospital; Matthew L. G. Hallwright, of Queen's College, Birmingham; George Robert Harcourt, of St. Thomas's Hospital and King's College; Sydney Price James, of St. Mary's Hospital; Amella M. Le Pélley, of London School of Medicine for Women; W. Matthews Price, of Guy's Hospital; William Smith, of Bristol Medical School; Arch. Young, of Sheffield Medical School and University College.

**Physiology only.**—*First Division:* Wm. Branson, of Sheffield Medical School and University College; Courtenay Rossiter Colley and Edward F. H. Hardenborg, of Guy's Hospital.—*Second Division:* Richard Babb, of London Hospital; D. Arnold Chaning-Pearce and Noel Instone, of Guy's Hospital; Seymour Farrage Gibbs, of St. Bartholomew's Hospital; T. Oates Halliwell, of St. Thomas's Hospital; Herbert Wheatley Hart, of Westminster and Guy's Hospitals; and King's College; John Nicholson, of Yorkshire College; Hugh Stanley Revell and William Henry Stoddart, of University College.

The following candidates passed in Honours in the respective subjects:—

**Anatomy.**—*First Class:* Francis James Stoward (Gold Medal), of Guy's Hospital.—*Second Class:* Leonard J. Miskin, of St. Thomas's Hospital.—*Third Class:* Robert Corie, of St. Mary's Hospital; Joseph S. Bolton, B.Sc., and George Bortram Hunt, of University College; and George Herbert Sowry, of St. Bartholomew's Hospital.

**Physiology and Histology.**—*First Class:* Forbes Fraser (Exhibition and Gold Medal), of St. Bartholomew's Hospital; Francis James Stoward (Gold Medal), of Guy's Hospital; Albert Ruskin Cook, B.Sc., of University of Cambridge.—*Second Class:* Harold Nolan, William Sampson Handley, and Alfred Salter, of Guy's Hospital; Edwin Josiah Toye, of St. Bartholomew's Hospital.—*Third Class:* Joseph Shaw Bolton, B. L. Abrahams, B.Sc., and H. J. Scharliob, of University College; Arthur Bousfield, B.Sc., of King's College.

**Organic Chemistry.**—*First Class:* Francis James Stoward (Exhibition and Gold Medal) and Harold Nolan, of Guy's Hospital; Arthur Bousfield, of King's College.—*Third Class:* Wm. Sampson Handley, of Guy's Hospital; Joseph Shaw Bolton, of University College; Edwin Josiah Toye, of St. Bartholomew's Hospital.

**Matéria Medica and Pharmaceutical Chemistry.**—*First Class:* Harold Nolan (Exhibition and Gold Medal), of Guy's Hospital; R. Smith Hardman, of Owens College and Manchester Royal Infirmary.—*Second Class:* Joseph Shaw Bolton, of University College; S. W. Brook, of Owens College.—*Third Class:* Edwin Josiah Toye, Forbes Fraser, and John Currie, of St. Bartholomew's Hospital; Richard J. Warrington, of Owens College; Richard Henry Norman, of Westminster Hospital; Thomas Albert Starkey, of University College.

**UNIVERSITY OF ABERDEEN.**—The following candidates received degrees in Medicine and Surgery on July 27th:—

**Degree of M.D.**—James M. Bett, M.B., C.M., Richmond, Victoria; John H. Brooks, M.B., C.M., London; Alfred Brown, M.A., M.B.; C.M., Manchester; Jas. F. Craig, M.A., M.B., C.M., Birmingham; Leslie Durno, M.B., C.M., Brechin; Alfred C. Ferguson, M.A., M.B., C.M., Thirsk, Yorkshire; James A. Macdonell, M.B., C.M., West Port, New Zealand; Wm. Milligan, M.B., C.M., Manchester; James P. Phillip, M.B., C.M., Morpeth; William S. Robertson, M.B., C.M., Port Said, Egypt. Graduated under old regulations: Frederick W. Robinson, M.B., C.M., Huddersfield; Alexander Simpson, M.A., M.B., C.M., Preston.

**Degrees of M.B. and C.M.**—Alex. S. Adams, Aberdeen; Alexander Anderson, M.A., Elgin; Wm. Boddie, M.A., Aberdeen; George G. Bothwell, Topsham, Devonshire; Riley Cunliffe, Acrrington; Charles M. Dawson, Rathen; Henry T. Dawson, Williamston, Insh; Robert Ferguson, M.A., Old Aberdeen; James Fraser, Ardersier; George Geddes, Portgordon; \*Jas. Gillespie, Aberdeen; Frank B. Graham, Manchester; Alfred Hogg, M.A., Laurencekirk; Alexander Innes, Auchnagatt; Walter S. Joss, M.A., Drumblade; Thomas B. Law, Aberdeen; Duncan A. McCombie, Aberdeen; James Marr, Tarves; Claude W. Marshall, Greenock; Thomas Massie, Torry, Udry; Arthur D. Milne, Fyvie; Chas. Mitchell, Aberdeen; Harry M. Mitchell, Castledearg, co. Tyrone; Duncan Neil, Aberdeen; Arthur W. Paterson, Aberdeen; William H. de Silva, Ceylon; William Sinclair, M.A., New Pittsigo; \*A. Tennyson Smith, Banff; James Sutherland, Newcastle-on-Tyne; \*John T. West, Dinnet.

\* Honourable distinction.

The John Murray Medal and Scholarship was awarded to William Troshwan.

**Diploma in Public Health.**—Jas. S. Cooper, M.B., C.M., Newmachar; William Thomson, M.B., C.M., Montrose; David M. Tomory, M.B., C. M., Constantinople (with credit).

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.**—The following candidates have passed the Fourth Professional (or Final) Examination, and obtained Licences in Medicine, Surgery and Midwifery:—Acheson Aiken, W. H. Best, W. Black, E. L. Camble, A. J. S. Cooper, C. F. D. Cowell, O. W. Elmer, J. K. Freyer, E. T. Good, E. W. A. Guinness, Giulio Hamilton, R. B. Hunt, W. S. Kane, H. G. P. Lofanu, J. P. Marnell, H. Moore, R. McCombe, V. E. J. McDonough, R. H. Olvor, J. M. O'Callaghan, S. J. C. Perry, J. M. Redington, Frederick O. Stoker, and J. Trumbull.

The following candidates passed in the subjects indicated:—

**Medicine.**—W. H. Anderson, C. R. Chichester, J. F. Elliott, H. G. Falkner, G. A. Fleming, Myles Jordan, W. H. Parr, N. J. Townsend, and F. Warren.

**Surgery.**—W. H. Anderson, H. G. Falkner, F. M. Golding, F. A. Madden, W. G. Posnett, N. J. Townsend, and F. Warren.

**Midwifery.**—C. R. Chichester, F. M. Golding, P. Peacocke, and S. W. Wilson.

**MEDICAL MAGISTRATES.**—Mr. John Moore, M.R.C.S., and Mr. William Japp Sinclair, M.D., have been placed on the Commission of the Peace for the City of Manchester.

WE understand that the cost of the splendid celebration of the recent Tercentenary of Trinity College was £10,000. The sum is large, but Tercentenaries do not occur every day, and the distinguished guests were gathered from all quarters.

**PRESENTATIONS.**—Dr. S. Clark of Blantyre House, Cullen, has been presented by his pupils of the ambulance classes with a case of surgical instruments.—On Saturday, the 6th inst., Dr. Burroughs of Crondall, Hampshire, was presented with a testimonial from friends and patients, consisting of an illuminated card with the sum of £126.

**HOSPITAL SATURDAY FUND.**—At a meeting of the Council of this fund, held at the central office on the 4th inst., the secretary (Mr. W. G. Bunn) reported the result of the recent ladies' street collection to be £5448 19s., being an increase upon last year of £506. The amount of the workshop collection was £5798, making a total of £11,246 19s.

**DR. WILLIAM GARDNER,** late Senior Surgeon to the Adelaide Hospital, and Lecturer on Surgery in the Adelaide Hospital Medical School, has, since his return from Europe, resigned his appointments in Adelaide. He has been elected President of the Surgical Section of the forthcoming Congress in Sydney.

**LADY ROBERTS' HOME ON THE HILLS FOR NURSING SISTERS.**—The annual statement regarding this institution in India gives a satisfactory account of the good work being done by these benefactors of the sick. Funds, however, are required in larger amount to make the endowment fund more adequate to the work designed to be accomplished.

**INGHAM INFIRMARY, SOUTH SHIELDS.**—At the annual meeting of the governors of this institution, held on the 10th inst., the report of the committee exhibited features which were not wholly satisfactory. For instance, the workmen's subscriptions for the past year suffered a diminution of £95 as compared with the sum received (£661 in 1891-92); whilst the number of subscribers and the amounts contributed at places of worship &c. have also diminished. It is satisfactory, however, to learn that whilst the income was somewhat less, the efficiency of the institution has been fully maintained.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

**BAILEY, J. HAROLD, M.B., Ch.B. (Vlct.),** has been appointed House Surgeon to the Wirral Children's Hospital, Birkenhead, vice J. D. C. Allen.

**BELL, W. K., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Officer for the Sheldon Sanitary District of the Newton Abbott Union.

**BRADBURY, J. A., M.R.C.S.,** has been appointed Medical Officer for the Wigan Sanitary District and the Workhouse of the Wigan Union, vice Martland, resigned.

**BRASH, E. A., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Officer for the First Sanitary District of the Exeter Union.

**BRUCE, L. C., M.B. Edin.,** has been appointed Assistant Medical Officer to the Derby Borough Asylum, vice J. C. M. Given, resigned.

**CORNER, F., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Superintendent for the Parish of Kensington.

**FIGGIS, S. BRADLEY, M.B., C.M. Edin.,** has been appointed House Surgeon to the Tottenham Hospital, vice Olaf Kloster, M.B., C.M., resigned.

**HEWAT, MATTHEW L., M.B., C.M. Edin.,** has been appointed Medical Officer of Health for Mowbray, Cape Colony.

**HOPKINS, G. HERNERT, M.R.C.S., L.R.C.P. Lond.,** has been appointed Honorary Medical Officer and Ophthalmic Surgeon to the Swansea and South Wales Institution for the Blind.

**HOWES, H. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg.**, has been appointed Medical Officer for the Hemingby Sanitary District of the Horncastle Union, vice Hadden, resigned.

**KAUFFMANN, O. J., M.D. Univ. Lond., M.R.C.P. Lond., M.R.C.S.**, has been appointed Physician to the Out-patient Department of the Queen's Hospital, Birmingham.

**KIRK, WILLIAM, M.D., M.Ch. Irel.**, has been appointed Fleet Surgeon to the Pel Yang Squadron of the Imperial Chinese Navy.

**LONGBOTTOM, WM., L.R.C.P., L.R.C.S. Edin.**, has been appointed Medical Officer for the Brightside Sanitary District of the Sheffield Union.

**MACALISTER, CHAS. J., M.B., C.M. Edin.**, has been appointed Honorary Physician to the Stanley Hospital, Liverpool.

**MACLENNAN, D. U., M.D., C.M. Edin.**, has been appointed Medical Officer for the North Widnes Sanitary District of the Prescott Union.

**MONK, H. G., M.R.C.S., D.P.H.**, has been appointed Medical Officer of Health for the Borough of Shrewsbury, vice Taylor.

**NEVBOLT, G. PALMENSTON, M.B. Durh., F.R.C.S. Eng.**, has been appointed Honorary Surgeon to the Stanley Hospital, Liverpool.

**PROSSER, FRANK, M.B., C.M. Glasg.**, has been appointed Medical Officer for the Rainford Sanitary District of the Prescott Union.

**REES, J. L., L.R.C.P. Lond., M.R.C.S.**, has been appointed Senior Resident Surgeon to the Royal Sea-bathing Infirmary for Scrofula, Margate, vice W. T. Rees, resigned.

**SIMMONS, HAROLD, M.R.C.S., L.S.A., L.R.C.P. Lond.**, has been appointed Assistant Medical Superintendent to the Fulham Infirmary, vice Dr. A. Scott, resigned.

**SMITH, E. N., M.B. Lond., L.R.C.P., M.R.C.S.**, has been appointed Assistant Medical Officer at the Infirmary, Fulham Union.

**SOMMERVILLE, JOHN, M.B., C.M. Edin.**, has been appointed House Surgeon to the Hospital, Auckland, New Zealand.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

**AMPTHILL UNION (RURAL SANITARY AUTHORITY), Ampthill.**—Medical Officer of Health for the District. Salary £52 10s. per annum. The appointment will be for one year.

**BOROUGH OF SUNDERLAND (PORT OF SUNDERLAND)**—Medical Officer of Health and Public Analyst. Salary £500 as Medical Officer for the Borough, £20 for the like office for the Port, and £5 as Public Analyst. (Apply to the Town Clerk; Town Hall, Sunderland.)

**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.**—Assistant Physician.

**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.**—House Physician for six months. Board and residence and allowance for washing provided. (Apply to the Secretary, Office, 24, Finsbury-circus, E.C.)

**COUNTY ASYLUM, Lancaster.**—Assistant Medical Officer. Salary £100 per annum, with board &c.

**DEVONSHIRE HOSPITAL, Buxton.**—House Surgeon. Salary £100 per annum, with furnished apartments, board and washing.

**GENERAL HOSPITAL, BIRMINGHAM.**—Assistant House Surgeon for six months. Residence, board and washing provided.

**JAFFRAY SUBURBAN BRANCH OF THE BIRMINGHAM GENERAL HOSPITAL, at Gravelly-hill.**—Resident Medical and Surgical Officer.

**KENT AND CANTERBURY HOSPITAL.**—House Surgeon. Salary £90 the first year, with board &c., rising to £100 the second year.

**KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.**—Senior Assistant Medical Officer. Salary £250 per annum, increasing by two annual instalments of £25 each up to £300, with furnished quarters, attendance, coal, gas, washing, garden produce and milk.

**KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.**—Second Assistant Medical Officer. Salary £180 per annum, with furnished quarters, attendance, coal, gas, washing, garden produce and milk.

**LINCOLN UNITED FRIENDLY SOCIETIES' DISPENSARY.**—Qualified Medical Assistant (out-door). Salary £130. (Apply to the Secretary, Arboretum-avenue, Lincoln.)

**LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.**—House Surgeon for six months. Salary at the rate of fifty guineas per annum, with residence in the hospital, board and washing.

**LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.**—Junior House Surgeon for six months. Residence in the hospital, board and washing provided, and an honorarium of five guineas on satisfactory completion of the term of appointment.

**MANCHESTER ROYAL INFIRMARY.**—Resident Medical Officer, for one year. Salary £150 per annum, with board and residence.

**MOULSFORD ASYLUM, near Wallingford, Berks.**—First Assistant Medical Officer. Salary £130, rising by £10 per annum to £150, with rooms in Asylum, and board.

**NOTTINGHAM BOROUGH ASYLUM.**—Second Assistant Medical Officer. Salary £100 per annum, with apartments, board and washing.

**STURMINSTER UNION.**—Medical Officer and Public Vaccinator for the Hinton District. Salary £40 per annum, with fees for Vaccination; the ordinary Midwifery cases, attended under orders, 10s., and extra medical fees for treatment of fractures &c. (Apply to the Clerk, Poor-law Offices, Sturminster Newton.)

**WANDSWORTH PROVIDENT DISPENSARY.**—Medical Officer. Salary 200 guineas, with Midwifery, extras and residence. (Apply to Mr. G. Moody, 18, West-hill, Wandsworth.)

## Births, Marriages, and Deaths.

### BIRTHS.

**BLACKLER.**—On Aug. 3rd, at Kingsclere, Hants, the wife of H. J. Blackler, M.B., of a son.

**CORBIN.**—On Aug. 5th, at Morivale, Beckenham, Kent, the wife of E. R. St. Clair Corbin, M.B. Lond., M.R.C.S., of a daughter.

**HEFFERNAN.**—On Aug. 10th, at Barkston-gardens, S.W., the wife of J. J. Heffernan, Surgeon-Major, late Indian Army, of a son.

**MAC DONALD.**—On Aug. 7th, at the County Asylum, Dorchester, the wife of P. W. Mac Donald, M.D., of a daughter.

**PHILLIPS.**—On Aug. 2nd, at Grove-place, Falmouth, Cornwall, the wife of Arthur R. Phillips, L.D.S. R.C.S. Eng., of a daughter.

**SHILLINGFORD.**—On Aug. 5th, at Park House, Rye-lane, Peckham, the wife of Dr. H. Bartlett Shillingford, of a son.

### MARRIAGES.

**BRANFOOT—MALDEN.**—On Aug. 4th, at the Parish Church, Crowborough, Henry Seymour Branfoot, M.B., M.R.C.P. Lond., of Lansdowne-place, Brighton, to Emily Scott, eldest daughter of Henry C. Malden, M.A., of Windlesham House, Brighton.

**BURT—BARNES.**—On Aug. 4th, at Christchurch Priory, Hants, Robert Francis Burt, M.B., C.M., of Stroud-green-road, Finsbury-park, to Emma Jane, elder daughter of the late Rev. J. W. Barnes, M.A., Vicar of Kendal.

**CHEADLE—MANSELL.**—On Aug. 4th, at the Church of St. Matthias, Richmond, Surrey, W. B. Cheadle, M.D., F.R.C.P., of Portman-street, Portman-square, London, to Emily Mansell, eldest daughter of Robert S. Mansell, J.P., formerly of Rothbury, Northumberland.

**EVANS—DICKINSON.**—On Aug. 4th, at St. George's, Hanover-square, James William Evans, Surgeon-Major I.M.S., to Mary Florence, youngest daughter of William Howship Dickinson, M.D., of Chesterfield-street, Mayfair.

**FRANCIS—KING.**—On Aug. 4th, at St. Saviour's, Paddington, Louis Arthur Francis, M.R.C.S., L.R.C.P. Lond., youngest son of Fredk. J. Francis, Warwick-crescent, W., to Ethel, only daughter of the late H. King, of London and Manchester.

**GRAY—HENDERSON.**—On Aug. 3rd, at the Friends' Meeting House, Glasgow, Albert Alexander Gray, M.B., St. Alban's-place, Blackburn, to Mabel, youngest daughter of James Henderson, Glenval, Pollokshields.

**MORISON—MORISON.**—On Aug. 3rd, at the Parish Church, Broad-hempston, by the Rev. F. Townshend Chamberlain, Vicar of the Parish, Fred. Hughes Morison, M.B., C.M. Edin., D.P.H., of West Hartlepool, to Lizzie, second daughter of Capt. Morison, of Elm Park, Broadhempston.

**NEEDHAM—MONTGOMERY.**—On Aug. 10th, at the Parish Church of St. Mary, Carlisle, Joseph Needham, M.B., M.Ch., M.R.C.P., M.R.C.S., of Clapham-park, Surrey, to Alicia A. Montgomery, L.R.A.M., daughter of John Wilson Montgomery, M.R.I.A., Downpatrick, co. Down, Ireland.

**RISDON—CARSBURG.**—On Aug. 3rd, at Christ Church, Crouch End, by the Rev. C. W. Edmonstone, M.A., William Elliot Risdon, M.D., B.S. Lond., of Chancery-lane, to Pamela Maude (Daisy), only daughter of G. N. Carsberg, Esq., of Hornsey-lane, Highgate.

**RUSSELL—MICHELL.**—On July 28th, at Kenwyn Church, Truro, J. Rislen Russell, M.D., Queen Anne-street, W., second son of the late Hon. William Russell, of Elgin, Scotland, to Ada Gwenllian, fourth daughter of R. F. Michell, J.P., Glan Mor, Truro.

**SIMMONS—LEVI.**—On Aug. 4th, at Capetown, South Africa, Frederick Simmons, M.R.C.S., L.R.C.P., to Jennie, only daughter of the late Joseph Levi, of London.

**SMALLPEICE—PHILLIPS.**—On Aug. 9th, at St. Margaret's, Westminster, William Donald Smallpeice, L.R.C.P. Lond., of Queen Anne's-gate, Westminster, to Cicely, eldest daughter of the Rev. Sir J. Erasmus Phillips, Bart., Vicar of Warmistur.

**WOOD—RONALD.**—On June 22nd, at Christ Church, South Yarra, William Atkinson Wood, M.D., third son of the late Rev. Wm. Wood, of Hawthorn, to Janet Gardener, fourth daughter of Robert Bruce Ronald, of Pembury Grange, Kent, and Nap-Nap, New South Wales.

### DEATHS.

**BOOT.**—On Aug. 2nd, at Edinburgh, suddenly, Alfred Boot, Surgeon-Dentist, of Dunedin, New Zealand.

**CALLENDER.**—Between Aug. 1st and 4th, at Kimberley, South Africa, the result of an accident, Gerald Callender, M.R.C.S. Eng., L.R.C.P. Edin., Resident Medical Officer to the Kimberley Hospital, in the 82nd year of his age. (By cable.)

**COCK.**—On Aug. 1st, at Kingston-on-Thames, Edward Cock, J.P., F.R.C.S., aged 87.

**CREWE.**—On Aug. 4th, suddenly, at Rochester, William T. Crewe, F.R.C.S., L.R.C.P. Lond., of Nottingham, aged 38.

**CULLIMORE.**—On Aug. 7th, at the North-West London Hospital, Kentish Town-road, Daniel Henry Cullimore, Esq., M.D., of Welbeck-street, Cavendish-square. R.I.P.

**MACFARLANE.**—On Aug. 3rd, at Stoney-green Hall, Great Missenden, Alexander William Macfarlane, M.D., F.R.C.P. Edin., of 6, Manchester-square, W., aged 40.

REID.—On Aug. 5th, at Goldsmith-street, Nottingham, James Reid, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., aged 86.  
 WEBB.—On Aug. 3rd, at Mutley-park-terrace, Plymouth, Stephen Massett Webb, M.D., Surgeon-Major, A.M.D., and late of the 38th and 23rd Regiments, in the 64th year of his age.

*N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.  
 The Surgical Treatment of Neuralgia of the Fifth Nerve. By William Rose, M.B., B.S. Lond., F.R.C.S. 1892. pp. 85. Price 4s. 6d.  
 Cancer of the Mouth, Tongue, and Oesophagus; their Pathology, Symptoms, Diagnosis, and Treatment. By F. B. Jessett, F.R.C.S. Illustrated. 1892. pp. 183. Price 6s.  
 CASSELL & Co., Limited, London.  
 London Charities (unendowed). By R. Chignell, Barrister-at-Law. 1892. pp. 64. Price 1s.  
 CHURCHILL, J. & A., New Burlington-street, London.  
 A Dictionary of Psychological Medicine. Edited by D. H. Tukey, M.D., LL.D. Vols. I. and II. 1892.  
 CORNISH, J. E., Manchester; and CHAS. GRIFFIN & Co., Exeter-street, Strand, London.  
 Ambulance Lectures. By G. H. Darwin, F.R.C.P. Edin. 1892. pp. 95.  
 FAIRCHILD & Co., New York.  
 Transactions of the American Pediatric Society. Third Session. September, 1891. Edited by W. Perry Watson, A.M., M.D. Vol. III. 1892. pp. 255.  
 GRIFFIN & Co., Exeter-street, Strand, London.  
 The Structure and Functions of the Brain and Spinal Cord. By Victor Horsley, B.S., F.R.C.S., F.R.S. Illustrated. 1892. pp. 223.  
 LEA BROTHERS & Co., Philadelphia.  
 Ptomaines, Leucomaines, and Bacterial Proteids. By V. C. Vaughan, Ph.D., M.D., and Fred. G. Novy, Sc.D., M.D. Second Edition. 1891. pp. 391.  
 LEWIS, H. K., Gower-street, London.  
 Anesthetics; their Uses and Administration. By D. W. Buxton, M.D., B.S. Second Edition. 1892. pp. 222.  
 MACMILLAN & Co., London.  
 Asiatic Cholera: History up to July 16th, 1892. Causes and Treatment. By N. C. Macnamara. 1892. pp. 71. Price 2s. 6d.  
 PERCIVAL & Co., King-street, Covent-garden, London.  
 The Hygiene, Diseases, and Mortality of Occupations. By J. T. Arlidge, M.D. Lond., F.R.C.P. 1892. pp. 563. Price 21s. net.  
 SAUNDERS, W. B., Walnut-street, Philadelphia.  
 Essential of Diagnosis, arranged in the form of Questions and Answers. By S. Solis-Cohen, M.D., and A. A. Eshner, M.D. Illustrated. 1892. pp. 382.  
 WOOD & Co., New York.  
 A Treatise on Diseases of the Nose and Throat. In Two Volumes. By F. H. Bosworth, A.M., M.D. Vol. II.: Diseases of the Throat. Illustrated. 1892. pp. 832.

Troisième Congrès d'Anthropologie Criminelle tenu à Bruxelles en 1892. 1er, 2me et 3me Fascicules (F. Hayez, Bruxelles).—Die Syphilis und die Venerischen Krankheiten; von Dr. E. Finger (F. Deuticke, Leipzig und Wien, 1892).—Résurrection des Cholériques: Précautions à prendre contre la Mort Apparente; par le Dr. A. Netter (M. Hüsson-Lemoine, Nancy; M. A. Netter, Strasbourg, 1884).—The Changes in the Optic Tracts and Chiasma in a Case of Unilateral Optic Atrophy; by R. T. Williamson, M.D. Lond., M.R.C.P. (J. Bale & Sons, London, 1892).—Hysteromyomectomy, with a Report of Four Cases; by H. Robb, M.D. (from the Johns Hopkins Hospital Bulletin, No. 23, June, 1892).—Army Medical Department: Report for the year 1890; Vol. XXXII. (printed for Her Majesty's Stationery Office, by Harrison & Sons, London).—Wagner Sketches, 1810: A Vindication; by W. Ashton Ellis (Kegan Paul, Trench, Trübner & Co., London).—Annales de l'Institut Pasteur, publiées sous le patronage de M. Pasteur; par M. E. Duclaux; No. 7, Juillet, 1892 (G. Masson, Paris).—Brain: a Journal of Neurology, edited by A. de Watteville; Part LVIII. (Macmillan & Co., London); price 8s. 6d.—Index-Medicus: Authors and Subjects; Vol. XIV., No. 6, June, 1892 (Trübner & Co., and Lewis, London).—Les Eaux Minérales de Chianciano comparées avec celles de Contrexéville, de Wildungen et de Driburg; par le Docteur H. Gilbert (Lœscher et Seebler, Florence, 1892).—London County Council: Public Health Department; Dr. G. Turner's Report on an Outbreak of Enteric Fever in the South-East of London, May, 1892 (Steel and Jones, London, S.W.); price 1s. 2d.—Magazines for August: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Aug. 11th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Aug. 5	30.11	S.W.	50	54	120	72	58	—	Cloudy
" 6	29.06	W.	04	50	120	74	54	—	Cloudy
" 7	30.08	S.W.	01	60	119	72	50	—	Cloudy
" 8	29.03	S.W.	03	60	122	73	59	—	Cloudy
" 9	29.00	N.	58	57	100	68	57	—	Rainy.
" 10	30.23	N.E.	54	53	97	64	52	—	Cloudy
" 11	30.23	S.W.	57	52	103	65	50	—	Hazy

Medical Diary for the ensuing Week.

Monday, August 15.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, August 16.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, August 17.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Ophthalmic Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 8 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, August 19.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 20.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### THE STUDENTS' NUMBER.

WE beg to call the attention of the Deans of Medical Schools and the Secretaries of Hospitals to the announcement that the Students' Number of THE LANCET for the session 1892-93 will be published on Saturday, Sept. 3rd. We also invite from them and from the members of the profession information regarding hospitals, institutions for medical education &c.—such particulars as are of importance to students generally, both in connexion with the general medical qualifications, the dental qualifications, and the qualifications in public health. This should be sent to the Sub-editor, THE LANCET Office, Strand, not later than the 25th inst.

### SUICIDE ON ACCOUNT OF REJECTION AT AN EXAMINATION.]

THE increasing severity of the pass examinations of medical students in Italy multiplies the number of rejected candidates, some of whom have been found to put an end to their studies and even to their lives. A deplorable case of the latter "desertion of the post," as Plato puts it, is announced from the Bologna School. A student of medicine, known to be industrious and very popular with his class fellows, was found dead on the evening of the 6th inst. in his bedroom. He had committed suicide by severing with a razor the carotid artery of the left side. Failure to satisfy his examiners had, it seems, induced profound melancholia, under an acute accession of which he had thus made away with himself. There never yet, said Dr. Samuel Johnson, was a case of suicide which half an hour's well-inspired talk on the part of a friend and confidant might not have averted. Such opportune intervention appears to have been withheld from this poor student, whose fate ought surely to counsel a closer surveillance by the University authorities of their young charges, many of whom live in hired chambers, far from home and from the salutary corrective of that "sweet reasonableness" which family solicitude applies to the desponding or the disappointed in early life.

*Exhibitor.*—We sympathise with our correspondent in his complaint, which seems based on reason. But the matter complained of hardly comes within our province.

*Anxious.*—Our correspondent will most certainly be infringing the terms of the bond.

*Nemo* has not enclosed his card.

### FATAL CASE OF UNRELIEVED STRANGULATED HERNIA AT THE CAPE.

A CORRESPONDENT forwards us the following extract from the *Cape Argus* of June 8th:—

"One of the most painful and saddest of cases that has happened in the district of Tarka occurred on Saturday last to Mr. Enslin of Rictoley, a married and family man, thirty years of age. The circumstances are as follows:—On Saturday, May 22nd, he was working with a waggon, when on Sunday a serious rupture took place. A messenger was at once sent to Tarkastad for medical assistance, which could not be procured. On Tuesday, the poor fellow being in distressing agony, a medical man was again sent for to Tarkastad, but with the same result. On Wednesday the complaint took a more aggravated form; the patient became worse, and, to use the words of one who visited the house, 'It was heartrending to hear the poor man's cries for a doctor.' A messenger was for the third time despatched to Tarkastad for a medical man, only to be greeted as on the two former occasions. On Thursday, the patient being in such intense pain, the family, as a last resource, sent to Adelaide for the necessary medical attention. On Friday, 27th, at 11 A.M., this poor fellow passed away, having for the previous twenty-four hours suffered beyond description, the last few only being delirious, leaving a wife and family of three children utterly unprovided for, simply for the want in the first instance of a few moments' medical skill."

Ozæna should consult his usual medical adviser. We do not recommend practitioners.

Messrs. Harold Smith and Gorrings.—The correspondence is closed.

### "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—This agitation against men who accept medical aid associations' appointments is, of course, the work of the general practitioners. But, as "Verax" points out in your issue of July 30th, they are themselves alone to blame. And how, I should like to know, does the officer of a medical aid association offend more against "medical ethics" than he who accepts a Government colonial appointment at even smaller pay and has to go to the ends of the earth to earn it? Both alike are guilty of accepting inadequate remuneration from paymasters who can afford to pay better. So is the assistant, though he cannot help himself, poor fellow! So is the parish doctor, and so are nine-tenths of the medical officers of health, if it comes to that. But the general practitioner does not propose to boycott these. What they do does not affect his pocket, and therefore he does not consider that they offend against medical ethics, or, if they do, it is "no business of his." For the average general practitioner seems to hold the saving faith that medical ethics exist only for his protection and advantage and for nobody else's. He does not consider it at all improper for him to take 10s. 6d. or 15s. for a confinement or 1s. 6d. for a visit, if thereby he can undersell his neighbour. That is not "degrading the profession," or "creating the impression in the mind of the public that medical services are worth little or nothing"; but he considers it beyond all expression wicked and horrible that any man should dare to undersell him. Of course, there are very many honourable men to whom such a description does not apply. At all events, the men who pay their assistants fairly, and treat them honourably, and recognise them as "brethren" are very few. Of the truth of this any impartial man can convince himself by simply watching your advertisement columns for a week or two. I say nothing of the men who make a practice of employing unqualified assistants. Their claws, no doubt, will soon be cut by drastic legislation.

If general practitioners recognise the indisputable fact that medical aid associations are surely ruining general practice in towns, let them band themselves together to render it impossible for these societies to obtain skilled medical aid at an unfair rate, not by still further oppressing the unhappy assistant class, but by themselves paying their assistants fairly and treating them honourably.

It is perhaps well for me to add that I am not a medical aid association's officer, and that though I have been an assistant I am now, I thank heaven, one no longer. I am, in fact,

Your obedient servant,

August, 1892.

A GENERAL PRACTITIONER.

### A POMORPHINE.

To the Editors of THE LANCET.

SIRS,—The question is sometimes asked, How long will a solution of apomorphine keep? I have some by me that was prepared ten years ago. It is dark-green in colour, but as efficacious as ever. Its strength is one-twentieth of a grain of the alkaloid in five minims. On the 28th of last month I was called to a man who had swallowed an ounce of tincture of opium about an hour before he was found at 1.30 P.M. I at once injected five minims of the solution into the right arm, and in less than three minutes free vomiting took place. The man recovered. Age apparently does not affect the potency of this useful drug.

I am, Sirs, yours faithfully,

Peterborough, Aug. 5th, 1892.

W. EASBY, M.D.

PROPOSED DISCIPLINARY POWERS OF THE MEDICAL COUNCIL  
OF NEW SOUTH WALES.

*Mr. H. M. Doyle* is thanked for his letter. We quite perceive the force of our correspondent's representations. We are still of opinion that it is essential in a profession to enforce a high ethical standard of manners and conduct, and to regard many things as wrong which the common law does not condemn, and we should be sorry to admit that what is found good in the mother country is impracticable in her colonies. At any rate, members of British colleges might be expected to uphold their traditions. It is, of course, vital to this theory that the Medical Council itself should be composed of men of exemplary conduct and honourable position. This will not be obtained by lowering the standards, but by raising them and by bringing the best professional opinion and influence to bear on the elections to the Council.

*L. A. S.*—Professor Mosso's brilliant lecture on the Physical Education of Woman, on which we commented shortly after its delivery in Rome before the Queen of Italy, is now published in a revised and convenient form under the title of "Sulla Educazione Fisica di Donna" by Messrs. Treves of Milan.

THE ETHICAL ASPECT OF AGREEMENTS TO SERVE  
MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—In answer to your request for fuller information I beg to state that the association with which I am connected charges a small entrance fee, and before any person is admitted each applicant has to present himself or herself to me, and as I find their state of health and age I classify them into three separate degrees—the first, those in good health and of reasonable age; the second, those aged but in good health, and those who require a little attention; the third, those in absolutely bad health or ailing at the time they present themselves. Some cases of persons in bad health I refuse altogether, and they, if they still wish me to attend, have to pay under dispensary rules and fees. Class 1 pay 5s. per year and entrance fees; class 2, 10s. 6d.; class 3, £1 1s. Children in proportion, so that we have one family of five persons paying about four guineas per year. There is no wage limit, but I exercise my discretion, and I will undertake to say we have no one in the association whose wages exceed £2 per week or a few shillings over (the wages in the railway works here being paid to the best workman by piece work, so that they vary from week to week). The fees in the dispensary are comparable to those procured by the majority of practitioners in the poorer districts of London. I was in practice there for several years, and I am not speaking from hearsay. Of course it is disagreeable to work for a committee, and it requires backbone to withstand their efforts to put matters on a very queer basis; but I submit that it concerns the person holding the appointment solely and wholly. It is not true that the whole profession here are dead against the association; the leading practitioner, Dr. —, meets me if I desire a consultation, and is friendly. Again, my predecessors, with the exception of the last gentleman before my time, were certainly not desirable personages, and had I been in private practice I should have shunned them myself. But why the sins of my predecessors should be visited on me I cannot say. Much as I should desire the dignity of my profession to be kept up I cannot see that I am lowering it by attending poor persons for a given sum; it is medical insurance for the poor to the core. I conduct my duties with as much decorum, attention and skill as in me lies; of course the insurance attracts the poor, and doubtless it touches the pockets of my professional brethren here, but I submit in these days that is an argument that will not stand. The discrepancy amongst private practitioners in their charges sets aside the fee question. The misdeeds of my fellow men are no excuse, I know, for any misconduct on my part, but no unqualified assistant here is ever allowed to prescribe for any patient; but an unqualified assistant of one of the "scoffers" did visiting throughout the winter and spring. Our agreements may be hard on us, but many of us are anxiously waiting for you, who have such a large circulation in our profession and so much influence, to put the pros and cons before the many. I do not think the members of the medical calling understand the position thoroughly, and if you will only point out the abuses and the virtues plainly we, through a society we are now forming, solely consisting of members of the profession attached to friendly societies, can point to our committees an authoritative statement of the abuses, and I undertake to say that I for one can get them remedied where I am placed. It is hardly up to the dignity of our profession to form a "trade union," as a correspondent has suggested in your columns. The matter must be faced as long as members do not "trade," and so long as reasonable precautions are taken that people who can pay dispensary fees do so. So long as I conduct my profession fairly and do not poach other men's patients, and uphold, as I am enjoined by my agreement with my college, the dignity and honour of my profession, wherein do I err? Does the dignity of my profession consist in charging high fees which the poor cannot afford and then putting them in the county court?

I remain, Sirs, your obedient servant,

August, 1892.

H

MEDICAL ADVERTISING IN SYDNEY.

Two very bad specimens are sent us in newspaper slips from Sydney—one in which "Dr. A. Paterson, A.M., M.D., C.M., F.R.C.S. Ed., and M.R.C.S. Eng." boasts that "no medical man advertising in these colonies has medical degrees which can be compared with his," and ends by offering to send for 2s. 6d. his book on the male generative organs &c.—In the other, by "Dr. M. Perry, M.R.C.S. and L.S.A.," a permanent and complete cure is suggested of everything, from nervous weakness to tumours and diabetes.

W.—The subject is treated in another column of our present issue.

WORKERS IN CO-OPERATIVE STORES.

To the Editors of THE LANCET.

SIRS,—I should be glad to have the experience of your readers as to bad health and mortality amongst stores workers. My own practice shows that the rate in one of London's chief establishments (I believe the largest) is enormous, notwithstanding the fact that all workers are, before entering service, medically passed, and after entering are tended by doctors specially retained. Certain of them (patients of mine) confirm my experience without suggestion from me, and say that in the stores it is commonly remarked, "The stores are killing their men." They attribute it to (1) overcrowded rooms; (2) work underground, gas, and general stuffiness; (3) chills on leaving the buildings. They dare not complain, because the situations are well paid and the hours good. Certainly these men are not of the order of grumblers and only lament loss of health as necessary to existence. As the stores show large profits, surely public opinion or public authority should compel them to provide more room, ventilation, and electric light, as well as medical help. Could a return be got, I believe their sickness and mortality rate would be startling. To get some such return is the object of this letter.

Aug. 2nd, 1892.

I am, Sirs, yours faithfully,

CANTAB.

"BIRTH OF A CHILD WEIGHING FOURTEEN POUNDS."

To the Editors of THE LANCET.

SIRS,—Having read with interest in THE LANCET of July 30th (p. 250) the account of a labour case given by Dr. Harris in which an infant weighing over 14lb. was born alive, I beg to say that a similar case occurred in my practice last week. The presentation was a breech, and the appearance of the patient's abdomen led me at first to conclude it was a case of twins. By abdominal palpation I came to the conclusion it was not, but an infant of excessive size. Labour was very tedious, and I procured the assistance of my friend Mr. Duke, and by our united efforts we succeeded in delivering the patient of a very large infant, of which I give the measurements from my note-book:—Weight, 14lb. 2oz.; chest measurement, 16½ in.; arm circumference, 5½ in.; thigh circumference, 8 in.; length, 25 in. The infant was asphyxiated when born, but Mr. Duke, by his plan of producing artificial respiration, succeeded in a very short time in fully resuscitating the infant.

I am, Sirs, yours faithfully,

Rathmines, Dublin, Aug. 2nd, 1892.

ALEXANDER GORDON.

ACUTE SPINAL MENINGITIS.

To the Editors of THE LANCET.

SIRS,—The following case of acute spinal meningitis which came under my notice a few months ago may be of interest to your readers. I was called to a young man suffering from trismus and slight pain in the lumbar region which were not due to any local disease or injury. Within a few days acute spinal meningitis set in and ran a severe course for seven days without any improvement, although the usual remedies had been prescribed. On the eighth day I gave antipyrin in 5 gr. doses every two hours for twenty-four hours. The patient experienced slight relief after the first dose and continued to improve rapidly to perfect convalescence. I should be glad if any of my fellow practitioners who have used antipyrin in the treatment of acute spinal meningitis would give their experiences of its effects.

I am, Sirs, yours faithfully,

Aberystwith, Aug. 9th, 1892.

G. R. E. BONSALL.

TREATMENT OF CARBUNCLE.

To the Editors of THE LANCET.

SIRS,—Whether the use of Listerian methods is common in treating gangrene, carbuncle &c. as well as abscesses I do not know. I have, however, had a case of large carbuncle in which the careful use of the perchloride solution and sal alombroth gauze has, after a free crucial incision, greatly expedited the cure. On the eighth day I had to deal with a granulating wound, the sloughs having rapidly softened and discharged and the dressings being repeated daily. The skin flaps were then drawn into close apposition, except at the centre of incisions, where there was a deficiency of the size of a threepenny piece, and the wound healed at once. *Bis curat qui citò curat.*

I am, Sirs, yours faithfully,

Aug. 9th, 1892.

ANTHRAX.



## Clinical Lecture

ON A CASE OF

HEAD INJURY FOLLOWED BY HEMIPLEGIA  
AND DILATED PUPIL,

Delivered at St. Mary's Hospital on March 5th, 1892,

By HERBERT W. PAGE, M.A., M.C. CANTAB.,  
SURGEON TO THE HOSPITAL.

GENTLEMEN,—I will ask you in half an hour to go over with me to the post-mortem room that we may look inside the head of a man who died yesterday and whose case presented several symptoms of unusual interest. I am glad of the opportunity of talking to you about it before the necropsy is made. We shall be able to consider the case unfettered by any knowledge of what has been already found, and shall be free from the temptation of fitting our diagnosis to the revelations of the post-mortem room. That is a very easy and comfortable procedure, and I shall adopt the much more profitable course of telling you what were the arguments which led us to the conclusion that in this particular instance no good was likely to follow a resort to surgical measures. In every case of severe head injury that comes before him the surgeon has to ask himself whether by any operation that he can do he may save the patient's life. That question was forcibly put to us by the symptoms of this patient, whose head will presently be opened, and whose case has provided a good example of those sorts of problems and difficulties which seek for a solution in most cases of cranial injury. I will briefly describe the case. I will tell you what I believe to have been the lesions. I will ask you to weigh over again with me the arguments which occurred to us at the bedside, and we will then go and find out the mistakes we made as to matters of fact, of conjecture and of conclusion.

The patient, fifty years of age, was admitted at five on the afternoon of the 2nd March, half an hour after he had been thrown from the box-seat of a hearse, the horses of which had bolted. The man had been thrown violently on his head, and the abrasion and swelling and closure of the right lids told that he had alighted on the right fronto-temporal region of his skull. He had bled slightly from the nose. No fracture of any kind was to be felt, and there was no wound of the scalp. He was unconscious, deeply so, but by no means to the fullest extent; shouting at him evidently produced an impression, although no answer came, and when the hairs of his beard were pulled he resented the insult, raised his arms, comforted his face and slightly groaned. I was under the impression at the time that he was rather more inclined to move his left arm than his right, but there was no other indication of one-sided palsy. There was no facial paralysis, and the pupils were equal. That from the manner of his fall and the character of his symptoms the man had probably met with some serious brain injury there could hardly be any doubt, but so soon after the accident it was manifestly impossible to say how much of his unconsciousness might be due to concussion alone. Clearly at that time there was nothing whatever to call for the use of the trephine; there was no fracture or depression, no evidence that hæmorrhage in any quantity or in any reachable place was going on inside the skull. Late in the evening my house surgeon, Mr. Low, sent for me, and I saw the patient again at eleven, seven hours and a half after the accident. We failed to discover any change in his mental condition, and the pulse and respiration were the same as upon his admission, 70 and 18 respectively. Two symptoms, however, of vast importance and interest had now become developed—viz., undoubted right hemiplegia, leg, arm and right half of face being all paralysed; his arm dropped helpless when it was raised, differing altogether from the behaviour of the left arm; and the left angle of his mouth was decidedly drawn, whilst his right cheek and lips remained placid and expressionless. Further, there was dilatation and immobility of the right pupil, the left being small as it had been at first, and naturally responsive to the stimulus of light.

Let us consider these various symptoms separately and collectively and then I will tell you why, in spite of them, I

No. 3599.

was induced not to trephine. Remember that the man had fallen on the right side of his head, and that he now had right hemiplegia. The degree of the paralysis affecting the face as well as the limbs made it practically certain that there was a lesion somewhere in the opposite left hemisphere. What might the lesion be? Either extensive laceration and contusion of brain from *contrecoup*—a thing in the circumstances by no means improbable—or hæmorrhage upon the surface of the brain or at some place within its substance. Now we argued that even if a *contrecoup* surface lesion were the cause of the right hemiplegia, no operation that one could do would be of the smallest use in remedying the condition. To expose and remove the bruised part of a brain could really be of no practical good whatever. Was hæmorrhage, however, the lesion, and might we hope to remove a large clot, to the pressure of which the symptom hemiplegia was due? I answered No, because I felt sure that if the hemiplegia were due to a surface and reachable extravasation, such extravasation must of necessity be large—large enough to do something more than produce the considerable degree of hemiplegia we found, to cause general indications of brain compression as well. Like other organs of the body the brain is unable to perform its various functions, unless it be properly supplied with blood. A compressed brain, however, is a bloodless brain, blood cannot find the needful room to circulate through it, and after death you will find it pale and with its blood squeezed out of it; and so the symptoms of brain compression are those of annihilated function; mental processes are impossible, and coma becomes profound, the pulse and respiration become increasingly slow and laboured, the breathing is stertorous, all vital processes are put an end to, and death ensues. Our patient showed none of these conditions; he was certainly not more, he was perhaps rather less, comatose than on admission, and his pulse and respiration were not altered in the least. He ought, in my opinion, to have shown some more decided evidence of his brain being compressed, and I could not believe that his hemiplegia was the result of a hæmorrhage such as could be got at through a hole made with the trephine. I feared rather that there was hæmorrhage in some unreachable place in the centre of the hemisphere. Had there been a superficial widely distributed extravasation of blood in the so-called subarachnoid space, I thought it highly probable there would have been some sign of surface irritation in twitching of the right limbs and face rather than the decisive hemiplegia which we saw. Taking all these facts into consideration I definitely gave up any idea of using the trephine on the left side of the man's head. We had, however, still to do with a symptom of not less importance than the one I have named. This was the dilatation of the right pupil, and we had to consider whether that was a fact of such significance as to warrant operative interference at any other part of the head. I daresay you know that in cases of hæmorrhage from the middle meningeal artery dilatation of the pupil on the side of the hæmorrhage is a symptom which may be of much value in diagnosis. Mr. Hutchinson was, I believe, the first to call especial attention to it, and Mr. Jacobson, who has written an exhaustive monograph on this variety of intracranial hæmorrhage, even speaks of it as "Hutchinson's pupil." How is this dilatation brought about? By supposed gravitation and extension of the blood-clot, which, of course, lies between the dura mater and the bone, to the base of the skull, so as to interfere, by direct pressure upon it, with the function of the third nerve.<sup>1</sup> In some of the recorded cases a widely dilated pupil on the same side as the hæmorrhage has been a marked phenomenon. It was very necessary, therefore, to apply our knowledge of this fact to our own patient. The blow had been received, as you remember, on his skull at that part which I have spoken of as the right fronto-temporal region, not so very far from the place where the middle meningeal artery lies in contact with the anterior inferior angle of the parietal bone, and it is by no means impossible that the vessel may have been ruptured here, even though no fracture of the bone was to be felt. In one at least of the recorded cases of middle meningeal hæmorrhage the vessel had given way at the site of a fissure fracture—a mere crack in the parietal bone, which was quite undiscoverable from the outside. I was met, however, with this great objection to the likelihood of middle meningeal hæmorrhage having occurred in our patient by the entire absence of those general symptoms or

<sup>1</sup> On this point, however, the reader will do well to consult a recent paper by Dr. Dear on Cerebro-spinal Pressure: Journal of Pathology, No. 1, p. 51.

compression which had already made us conclude that his right hemiplegia was not the resultant symptom of any gross hæmorrhage on the opposite surface of the brain. It seemed to me a most unlikely thing that a hæmorrhage of such extent as to gravitate and extend to the base of the cranium and there cause pressure on a nerve should have failed to cause indications of compression of the whole brain, and so produce the symptoms of which I spoke a few moments ago. In all the cases where this dilatation of the pupil has been met with on the same side as a middle meningeal hæmorrhage the hæmorrhage has I believe been large and the coma has been increasingly profound. The symptoms have indeed been of such urgency that trephining was imperatively called for to rescue the patients from impending death. Our patient showed no such indications, and I came to the conclusion that his dilated pupil was due either to some small basal hæmorrhage, or, more probably, to a direct injury of the nerve in a fracture of the base of the skull running from before backwards and passing in the immediate neighbourhood of the clinoid processes where the third nerve lies. I felt therefore that no good whatever was likely to accrue from a trephine hole being made over the site of the middle meningeal artery, and we resolved to leave the man alone. Here let me interpolate a word as to fractures of the base. Commonly transverse in one or other of the fossæ a fracture may sometimes be found which runs from before backwards, all depending on the mode in which the injury has been inflicted. A fracture of the base is not in itself of much moment; its only importance lies in the fact that a basal fracture cannot well occur without grave concomitant injury to the brain. This it is which makes such cases frequently fatal. Could you succeed in fracturing a base without brain injury the fracture need not cause you more concern than fracture of the tibia or fibula.

The progress of our patient's case presented no new features of importance. The hemiplegia and the pupil remained the same, while the unconsciousness decidedly was less, during the whole of the next day (Thursday, the 3rd); and it was not until the morning of the 4th that his respiration became embarrassed, either because of pulmonary engorgement or because of concussion effects on the medulla. He died at mid-day, forty-four hours after the accident. These, then, were the facts of his case, and I hope it will not be without advantage to you to have tried with me once again to solve the problems which, like so many head cases, it presented. We may have been wrong in refraining from operation, but although trephining is not in itself dangerous one ought to have good reason for resorting to it, and not even appear to trephine for trephining's sake. I doubt in this particular case if anyone could have said where exactly he ought to have trephined had the question been put to him. I put it to myself and could not answer it, and I believe I had the full agreement of Mr. Low in what we did and refrained from doing. Before I end let me, then, say what I think it probable we shall find when the man's head has been opened. Contusion of the brain immediately beneath the site of the blow on the skull; contusion, and possibly severe laceration from *contrecoup* in the opposite left hemisphere; some inconsiderable hæmorrhage upon the surface and in the neighbourhood of this contusion, but more probably a larger intra-cerebral hæmorrhage which has destroyed some part near the corpus striatum and the great motor tract on the left side; some small hæmorrhages at the base of the cranium, not from the middle meningeal artery, which may have interfered with the third nerve, but more probable than this I think will be the existence of a basal fracture running from before backwards and directly injuring that nerve in the neighbourhood of the clinoid processes. Now let us go and see whether we were right or wrong in not using the trephine, even though we were in face of two such prominent facts as homiplegia and a dilated pupil.

*Abstract from notes of necropsy by Mr. J. J. Clarke.*—Abrasion over the right frontal eminence, with ecchymosis on both sides of the cranial aponeurosis corresponding to the abraded region. The pericranium separated more easily than usual over the frontal region. No fracture was to be seen at any part of the exposed calvarium. The dura mater was throughout abnormally adherent to the bone. Over the posterior parts of the occipital lobes there was a small amount of blood free beneath the arachnoid. In the anterior, middle and posterior fossæ of the right side of the skull there were a number of small clots, and in the posterior fossa a considerable quantity, say 2 oz., of liquid blood. When the dura mater had been removed from the base a fissure

fracture was discovered which started from near the external angular process of the frontal bone (right), crossed the right orbital plate, the right optic foramen and the anterior border of the sphenoidal fissure at its inner end, and detached the anterior clinoid process. The right third nerve was torn (?) in removing the dura mater, and its precise condition was therefore undetermined. No gross lesion was seen in the optic nerve. In the frontal lobes of both hemispheres—in that of the right more especially—there were numerous small areas of hæmorrhagic softening bruises, but there was no evidence of contusion from *contrecoup* in the occipital lobes. In the middle of the left internal capsule there was a hæmorrhage the size of a horse bean. There was no blood in the ventricles.

These notes speak for themselves, and the only point to which I would especially refer is the internal capsule hæmorrhage. Here was a hæmorrhage such as is commonly seen quite independent of injury in the usual place and with the usual symptoms. The brain was not bruised to any degree at this spot; it was not, indeed, the spot where it was likely to be affected by *contrecoup*, and *contrecoup* lesions were markedly absent just where they had been expected. It seems probable therefore that the man had a diseased vessel at the time of the accident, and that the violence of the concussion caused it to give way. In favour of this view is the fact that the man looked much older than his years, that his kidneys were undoubtedly cirrhotic, and that there was atheromatous thickening of his aortic valves.

## Clinical Lecture

ON THE

### DIFFICULTIES AND DANGERS WHICH MAY ARISE FROM INDISCRIMINATE ATTEMPTS AT THE REDUCTION OF STRANGULATED HERNIAE BY MANIPULATION.

*Delivered in St. George's Hospital Medical School,*

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GENTLEMEN,—It is, I assume, a matter of common knowledge that many methods of treatment in themselves excellent, and when properly used of much practical utility, may under certain conditions be not only harmful but perhaps disastrous, especially if applied without discretion by any person who does not possess the knowledge or skill requisite for their safe employment. The means available for the reduction of a strangulated hernia without operation form no exception to this rule, and by an unusual chance there are now under my care two patients lying in the Harris ward, separated from each other by a single bed only, whose cases illustrate this fact in a remarkable way.

CASE 1. *Strangulated inguinal hernia; prolonged unsuccessful taxis; herniotomy; gut found partially lacerated; suture of bowel; radical cure; recovery.*—W. F., a man aged twenty-seven, was admitted on Nov. 18th. 1891. In the previous April he found for the first time that he was ruptured on the right side. The hernia was always reducible, and a truss was continually worn. On the morning of the day before the patient came into the hospital the spring of the truss broke and he was therefore obliged to work without it. The hernia soon came down, and he was unable to reduce it. Vomiting thereupon set in, and during the night occurred many times. A few hours before his admission an attempt, lasting about a quarter of an hour, was made to reduce the hernia by manipulation, but without success, the patient suffering great pain, especially during the latter part of the attempt. The bowels acted regularly up to the morning of the 16th. On admission the man had an anxious look and was evidently in very acute pain. There was occasional retching, by which a small quantity of sour-smelling gastric contents was brought up. The tongue was white, but moist; the pulse 100 and fairly full. In the right side of the scrotum and running up to the groin was a large, acutely painful and tender swelling, very tense, resonant and entirely without impulse. There was much

gain about the umbilical region and also some tenderness over the hypogastrum, but no distension. Having regard to the prolonged taxis to which the hernia had been already subjected, no further attempt at reduction by manipulation was made, herniotomy being at once performed. Upon opening the sac several ounces of reddish fluid, containing air, escaped. A large knuckle of greatly distended gut then came into view, deeply congested and gently glued to the lower part of the sac by very recent peritonitis. On freely exposing this gut, by laying open the sac from end to end, there was found over its most prominent part (i.e., at the anterior aspect of its lower end) a longitudinal laceration involving the peritoneum for about an inch; over half its length this rent passed through the subjacent muscular coat, from the opening in which the mucous membrane protruded, and seemed on the point of bursting. The stricture, which was at the inner ring and extremely tight, was then very freely divided with the hope that the tension in the gut would be thus sufficiently modified to allow of the wound in the bowel walls being sutured. This, however, was found to be impracticable, as the stitches immediately cut their way out, the tension not being sufficiently relieved spontaneously. It was at the same time clear that any attempt to reduce the tension by pressing the air contained in the bowel back into the abdomen would result in the rupture of the protruding mucous membrane, which I was particularly anxious to avoid for reasons to be presently discussed. I therefore selected the healthiest available spot on the bowel, and there punctured it with an exploring trocar, afterwards emptying the knuckle of gut of the contents, which consisted principally of altered blood, through the cannula. This having been done the gut naturally collapsed. The wound in its walls was then brought together with perfect ease and safety by means of five Lembert sutures of silk. A single suture of the same kind having been passed across the small peritoneal wound made by the trocar, the bowel was finally thoroughly cleansed and returned into the abdomen. The neck of the sac was then isolated, ligatured, and severed from the scrotal portion; the pillars of the ring were closed by kangaroo tendon sutures, a drainage-tube inserted, and the superficial wound united with silkworm gut. On the 20th four loose motions containing altered blood were passed. The bowels acted daily after this, and by Dec. 18th the patient was walking about the ward apparently in perfect health. In fact, he was practically well by Dec. 4th, but being very apprehensive about himself he was allowed to remain in bed longer than was really necessary. In addition to the points specially relating to the main subject of the present lecture, this case affords a good illustration of the successful treatment of cases of the kind by a method to which I wish to call particular attention. In all instances of strangulated hernia in which the laceration of the bowel does not involve the whole thickness of its walls, so that the intestinal canal is not opened up, the gut as the result of the strangulation is of course greatly distended. In attempting to bring together the edges of the wound under these circumstances difficulty generally arises in consequence of the sutures cutting their way so readily through the peritoneum, that sufficient traction cannot be made upon them to effect the closure of the laceration with any safety. This tendency on the part of the stitches to cut their way out is due partly to the unyielding tension of the bowel and partly to the softening of its coats from pathological changes. Not only therefore is very little pressure required under such circumstances to increase the rent in the peritoneum, but when the tear involves the whole thickness of the muscular coat the mucous membrane bulges through the wound, and extremely slight force only is necessary to cause the protruding portion to give way, thus converting an incomplete laceration into a wound opening up the intestinal canal.

In cases of this sort it is sometimes also found that even after free division of the stricture no sufficient alteration in the tension occurs until digital pressure is used, which may be quite sufficient to burst the stretched and protruding mucous membrane—an accident which it is most important to avoid if possible, not only because it must of necessity allow the bowel contents to escape over the wound, but also because the protruding membrane is usually so thin and injured that if it is damaged further by laceration, incision or puncture, ulceration, and perhaps sloughing, is prone to occur later on, and give rise to trouble which may possibly be serious. In order to diminish the tension of the bowel and to allow of its shrinking of its own accord and without any necessity for inflicting further injury upon the protruding

mucous membrane, I adopt and confidently recommend the following plan, which, it will be noticed, was used in this case.

The stricture having been freely divided, and the distended knuckle of gut carefully cleansed, an exploring trocar is passed into the bowel through the portion of its walls which appears most healthy (i.e., at a point which is certain to be somewhat remote from the laceration). The contents of the gut, consisting generally for the most part of altered blood, pass out easily through the cannula into a suitable receptacle, and are thus conducted quite away from the peritoneum, which therefore remains entirely unsoiled, as the muscular coat at the point of puncture clings so closely to the cannula that no leakage takes place. On the other hand, if the puncture be made in the protruding mucous membrane, leakage is certain, and soiling of the whole rent occurs, in addition to the injury inflicted by the puncture on the damaged structures. The collapse of the gut which follows spontaneously makes the approximation of the peritoneal surface over the laceration perfectly easy and safe, no matter how softened the intestinal walls may be. The gut may then be returned without hesitation, after it has been finally cleansed and a single Lembert suture placed across the little nick in the peritoneum at the seat of the puncture. This last detail is perhaps hardly necessary, but it is a source of additional safety during the return of the bowel, and adds nothing material to the length of the operation. The method here described of relieving tension in damaged or partially lacerated bowel by puncture through the healthier parts rather than through those which are most injured has, so far as I know, not been previously insisted upon but I am sure it is worthy of adoption.

CASE 2. *Inguinal hernia with large hydrocele; attempted reduction by patient; rupture of wall of hydrocele, which was thus converted into a hamatocele.*—W. B.—, a labourer aged fifty-three, was admitted into Harris ward on Nov. 21st, 1891, with the following history. Three years previously he commenced wearing a truss, as he was told he had a rupture; and about eighteen months later he noticed some swelling of the scrotum which, upon applying to the Truss Society, he was told was not a hernia. On the day before he came to the hospital he felt some pain about the groin and noticed more swelling there than he had previously seen. Thereupon, thinking it was the hernia which had come down, he attempted to put it back by seizing the whole scrotal tumour in his hands and using considerable force. No immediate alteration was produced in the swelling, but acute pain followed directly, and in a few hours the whole scrotum became almost black. The pain gradually decreased, but much tenderness followed, on account of which he applied for treatment. On admission the patient was a big, strong-looking man. The left side of the scrotum was much discoloured and distended by an oval swelling, very tense, tender, and non-translucent. Its upper end was quite free from the abdominal ring, which was large, and through it a hernia came down when the patient coughed. The bruising slowly disappeared, and the swelling decreased a little in size after rest in bed. On Dec. 17th I laid open the scrotal tumour, letting out a quantity of hydrocele fluid and altered blood. On examining the walls of the cyst there was found at the upper and inner part a large rent, admitting the ends of three fingers, which passed into a considerable space beneath the scrotal integuments. The parts about this were matted together with recent inflammatory material and the walls of the hamatocele were covered with new lymph. The hernia was not exposed in the operation, as it was thought wiser, considering the inflamed condition of the tissues, to postpone its radical cure, which the patient was anxious to have performed, until a subsequent date. The patient naturally made an uninterrupted recovery.

The main point of individual interest in this case is the fact that the injury was self-inflicted. Although the lesion produced here by the patient's manipulation was not a serious one it may sometimes be so. I have myself had an opportunity of seeing an instance in which taxis applied by the patient resulted in a small rent in the gut through which some fecal material had escaped into the sac. It is true that the gut at the seat of injury had obviously been adherent and the laceration had resulted from the tearing away of the adhesion by the force applied; the fact, however, is significant that laceration of the bowel itself was produced by no more violent manipulation than that applied by the patient himself, who was perfectly accustomed to reduce his rupture.

The main possible disasters which may immediately follow upon attempts at the reduction of herniæ by taxis may be summarised as follows:—(1) Bruising of the bowel; (2) rup-

ture of the bowel walls, complete and incomplete; (3) laceration of adhesions; (4) rupture of the sac; (5) hæmatocele (in cases complicated with hydrocele); (6) Hæmatoma of scrotum and surrounding parts; (7) reduction of the whole hernia with the sac (reduction *en bloc*).

1. *Bruising of the bowel.*—Some bruising, as shown by sub-peritoneal extravasation, of large or small extent, about the herniated bowel will be found in the majority of cases which have been submitted to taxis unless extreme gentleness only has been used. The extent and severity will naturally depend, for the most part, upon the amount and direction of the force applied and to a considerable degree upon the condition of the gut, which bruises more readily when greatly distended, especially in neglected cases which have been allowed to continue for a long period without treatment. It is interesting to note that bruising of the bowel, if in any way extensive, although without any apparent breach of surface on the peritoneal aspect, is almost invariably associated with bleeding into the intestinal canal, a fact conclusively demonstrated in many cases by the characteristic appearances of the first motion passed after the relief of the stricture, which nearly always contains altered blood. It may, in fact, be accepted without reserve that attempts at reduction by manipulation produce some bruising of the bowel in the great majority of cases of strangulated hernia. At the same time it may be fairly admitted that as a rule, unless great carelessness has been used, no permanent harm results. It is nevertheless necessary to insist on the occurrence of injury of the kind in order to give weight to the fact that attempts at reduction by manipulation are liable at times to cause injury. Taxis therefore should not be regarded, as it seems to be by some people, as a plan of treatment which if it fails to reduce the rupture, at least can do no harm. This last remark must not be taken to imply any objection to the proper practice of this method, but merely as a warning against its use carelessly and without due regard to possible evils which may under certain conditions result.

2. *Laceration of the bowel.*—This may of course involve the whole thickness of the intestinal wall or only one or more of its coats; the former is naturally the most serious since it allows of the escape of feces into the sac. The latter condition may vary in degree from an almost imperceptible crack in the peritoneum to a laceration in the peritoneal and muscular coats inches in length, in which case the mucous coat protrudes, hernia-like, through the opening in the muscular wall. Whether the laceration is partial or complete the treatment is identical. The edges of the wound must be brought together with Lembert sutures, care being taken that the end stitches—if the lesion is of any extent—are placed a short distance beyond the extremities of the rent. When the gut is too tense to allow of approximation of the peritoneal surfaces it should, if necessary, be emptied in the way I have described in the first of the cases which form the text of this lecture. However small the crack in the peritoneum is, even if it be hardly perceptible to the eye, a single suture should be passed across it. If the condition of the patient in cases of partial laceration is so desperate that the delay entailed by the suturing process is not justifiable the gut should be cleansed and returned into the abdomen, an unperforated drainage tube of large calibre being left lying in the canal in the way I have recommended in a lecture published in THE LANCET in 1890.

A point of great interest to which sufficient attention has not, I think, of late been paid arises here with reference to the situation at which laceration from injury occurs in these cases. There appears to be an idea, which is traditional and supported by the teaching of the schools now, that the tear produced by injury in the gut of a strangulated hernia takes place *at the seat of stricture* in consequence of the way in which the sharp edges of the constricting tissues, as it were, cut into the distended bowel when pressure is exerted upon it.

Now I have seen several cases myself in which a rent in the gut was undoubtedly produced by taxis, and in two of these the lesion was *not at the point of constriction but on the prominent bulging and most distended portion of the bowel*. Both of these cases were recent, and in each the rent was in the long axis of the gut. The same result followed in some experiments made by me on the cadaver, artificial strangulation in two cases of old hernia having been produced by inflating the bowel from the abdomen and forming a stricture by ligaturing the neck of the sac together with its contents. The hernia was in one instance then violently crushed and in the other struck sharply with a stick; in both the laceration occurred

on the prominent part of the strangulated knuckle and in the long axis of the gut. On consideration, this result, so far as the situation of the injury is concerned, is, I think, precisely what should be expected in recent cases, for in such the rent begins in the peritoneum, which under pressure naturally gives way at the weakest point (that is to say, where it is most thinned and stretched by distension). A sudden blow, therefore, or prolonged hard pressure would as a matter of course lacerate the peritoneum in the part most stretched and thin—i.e., over the end of the distended knuckle rather than at the seat of constriction, where not only is it unstretched, but where it is actually supported by the surrounding parts.

In cases far advanced and neglected the state of affairs is altogether different, because in them the gut at the seat of stricture is indented by the edge of the constricting tissues, partially eaten through by ulceration from within, or perhaps gangrenous and on the point of giving way. Then the weakest point is at the strictured part, and very little force may be necessary to complete the perforation which has already commenced. It is, I presume, in connexion with cases of this latter kind that the traditional teaching has been fostered, for in recent cases of strangulation it certainly does not apply.

3. *Rupture of adhesions in the sac.*—The tearing of recent adhesions during attempts at reduction by manipulation need not have any serious result, but free hæmorrhage into the sac may thus be produced so as to fill it completely with blood, although no serious lesion may be apparent. In old irreducible hernie, in which band-like adhesions sometimes exist between the bowel and the sac wall or between different parts of the bowel itself, no harmful results need follow if the adhesions themselves give way, but if, as may happen, an adhesion brings away some of the intestinal peritoneum with it, a partial laceration of the gut results, which is, if at all extensive, a serious condition, especially if the case has been neglected and operation long deferred.

4. *Rupture of the sac.*—This, although a recognised injury and classed as one of the modifications of the reduction *en masse*, must be a very rare sequence of taxis, as the amount of force required to tear the sac is very great and would hardly be intentionally applied. Bruising of the sac is, however, common and I have seen a portion of its wall torn away with an omental adhesion; this, however, is not a rupture in the sense under discussion—i.e., a splitting of the sac wall from sudden or gradual pressure. In the post-mortem room I have not been able in artificially strangulated hernia to rupture the sac without also bursting the gut. Rupture of the sac is therefore probably too rare to be other than a curiosity; indeed Sir Astley Cooper, after his large experience, says that it “scarcely ever” occurs from any cause. Formerly spontaneous rupture of the sac was also a recognised condition, but actual evidence of its existence seems wanting, or at all events is not convincing.

5. *Hæmatocele.*—A good example of this accident is afforded by Case 2, described in this lecture. After what I have said concerning the difficulty in causing rupture of a hernial sac it may at first sight seem strange that the sac of a hydrocele should give way so easily. There is nothing inconsistent, however, in this, for it must be borne in mind that the sacs of hydrocele sometimes undergo pathological changes which result in softening and thinning, so that they become weak in parts.

6. *Hæmatoma from rupture of a large vein or veins outside the sac.*—Enormous blood extravasation may be thus produced and occasionally upon the application of comparatively slight force, especially in elderly people. I once had an opportunity of seeing a large blood swelling involving the scrotum and groin, which were nearly black from discoloration, said to have followed upon nothing more violent than the manipulation necessary for the adjustment of a truss to an easily reducible hernia in a subject nearly eighty years old.

7. *Reduction “en bloc”*—i.e., the reduction of the sac, together with its contents, the strangulation being therefore unrelieved.—The only point to which I need here call attention in this respect is the singularly small amount of force which sometimes seems necessary to produce this accident. I have personally seen only one case, and that was not in my own practice. The hernial tumour seemed to disappear almost the moment the hand was laid upon it and certainly before there was time for the application of any methodical violence. So much was this the fact that I cannot help feeling that there must be in such a case some kind of spontaneous action from

above which contributes to the reduction. Is it possible that extreme irregular spasmodic attempts at peristalsis may act in this way?

It is only fitting that such an ominous list of casualties, which are not only possible, but actually occur in practice as the result of the use of taxis, should be followed by some indication as to when and how the reduction of an irreducible hernia by manipulation may be attempted without risk. The relative safety of this plan of treatment is dependent on three conditions. (1) The manner in which the taxis is applied; (2) the period during which the manipulation is persisted in; and (3) the state of the hernia.

1. *The mode of applying taxis.*—This may appear such a purely elementary point as to render its consideration hardly justifiable outside the pages of a student's text book. It is nevertheless true that practitioners, otherwise intelligent and trustworthy, do at times manipulate a hernia in the manner best calculated to cause injury to the contents of the sac, whilst it affords the least possible chance of effecting reduction. I do not propose to occupy time now with a description of the method by which the taxis may be applied safely and with a fair prospect of success, as it can be more usefully learnt from practical demonstration at the bedside, but some of the details of the process are so important and essential that they require a passing notice. The details referred to are as follows: (α) All manipulations should be conducted only with thoroughly warm hands; (β) the neck of the hernia should be firmly supported by one hand whilst the other manipulates the body of the tumour. (γ) In using the fingers all pressure from the finger-ends should be made by *the front of the digital pad and never by the actual tips*. (δ) The pressure necessary in the manipulations should be gentle, firm and regular, not forcible, unsteady and spasmodic. The necessity for warm hands, for the support afforded to the neck of the hernia, and for the avoidance of the use of the actual finger tips, is, I cannot help feeling, not so universally acknowledged as it certainly should be, for I have more than once seen attempts made at the reduction of a rupture by grasping the body of the tumour with hands almost blue with cold, the neck of the hernia being left entirely unsupported, and then with a punching and rolling movement, during which the finger tips have been deeply pressed into the parts, the force has been gradually increased until further persistence in the attempt has been rendered impracticable by the protests of the patient. Where injury is possible it is from some such faulty plan as this that it is most likely to result. The cold hands excite every resistance in the way of muscular action; the want of support to the neck of the hernia makes its reduction very unlikely by allowing the gut to bulge over the margins of the constricting ring, and, beyond this, in neglected or long-standing cases, when the bowel has commenced to ulcerate from within, the pressure of the sharp edges of the stricture acts at a great advantage in further injuring and perhaps bursting the thinned and weakened intestinal walls. Finally the sharply indenting finger tips are admirably adapted for causing an unnecessary amount of bruising and possibly laceration of the gut.

2. *The time which should be occupied in taxis.*—Judging from my own experience, and from what I have seen in the practice of others, five minutes should be taken as the outside limit during which manipulation of a hernia in cases of apparent strangulation or when impulse on coughing is absent may be with safety persisted in, no matter how gently it is applied. In unstrangulated cases the same time should always be considered as sufficient, for, although no actual harm need result, if the time be extended it may very easily produce it; moreover, if success is not attained by the end of five minutes it is very unlikely to result at all, and further attempts are practically useless.

3. *The condition of the hernia.*—When properly applied and with the precautions just mentioned taxis may be used with safety—(a) in all cases in which the true hernial impulse is present, provided always that there is neither any marked tenderness nor inflammation in the sac or its contents, when its employment would of course be entirely negated; (b) in very recent cases of strangulation where the tension is not extreme. This latter is a recognised principle and is therefore worthy of respect, but I very much doubt whether it is possible, excepting perhaps in infants, to reduce by manipulation any rupture in which the hernial impulse is not present. For myself at least I must admit that I have never been able to return with any reasonable application of

force a hernia in which I could detect no impulse. This impulse, it is true may have sometimes been slight, but it was present all the same in the cases where reduction was possible, although it must be admitted that I could not always demonstrate it to my house surgeons in the hospital patients. A large distended hernia universally resonant should be treated with more than usual gentleness, for in such cases the bowel is far more liable to injury than in any other kind, especially if adhesions happen to exist in the sac. Hernial tumours dull on percussion, with omental or fluid contents, may be manipulated with greater freedom without much risk of damage being done, but in these reduction is entirely out of the question in the absence of impulse, the utility therefore of persistence in the attempt at all under these circumstances is not plain. Every case of apparently strangulated hernia must necessarily be treated upon its individual merits, but, for my own part, I am sure that, as a general principle, it is better in herniæ which are obviously strangulated and entirely without impulse to perform herniotomy at once rather than make attempts at reduction by manipulation, because I have no doubt whatever that early herniotomy in fairly competent hands is infinitely less hazardous than an unwise persistence in fruitless attempts at reduction by taxis. If due regard be paid to the patient's welfare, one thing at least is certain—viz., that a strangulated hernia which has once been subjected to taxis should be operated upon at once, and no further manipulation used until after the tumour has been explored and the stricture freely divided.

It must not be imagined that all risk of lacerating the bowel during attempts at its reduction necessarily ends after the sac has been laid open in herniotomy, or indeed in every case after the stricture has been divided, for, although to the best of my knowledge the accident has not occurred under these circumstances in my practice, I have been present at an operation in which a surgeon of experience certainly did produce a laceration in the peritoneal coat of the bowel, whilst attempting to reduce it after the division of the stricture which obviously gave rise to the strangulation. This difficulty sometimes experienced in reducing the hernia after the stricture has been cut is undoubtedly as often as not due to the division being not sufficiently free, the little nick so commonly recommended being too slight for securing the necessary relaxation of the constricting band. I am sure, from my own observation that harm is more often likely to arise from too slight a division of the stricture than from one which is too free. Free division of the parts about the neck of the hernia as a rule entirely obviates any chance of injury to the gut, whilst the possible anatomical dangers entailed in this free incision have been, I have no hesitation in saying, unduly exaggerated.

Although I make a practice of dividing the stricture freely, I have never had the slightest cause to regret it, and certainly have never seen any hæmorrhage which has given the least anxiety under these circumstances. The only case in which I have had any trouble whatever on account of bleeding after herniotomy was a strangulated umbilical hernia, in which alarming hæmorrhage took place into the abdominal cavity from a torn omental vein. This vessel was almost certainly burst by the force which was necessary for the return of the hernia through a ring which had been only slightly divided; had the division been altogether more free the hernia could have been reduced without any force and the vessel would, I believe, have undoubtedly remained intact.

I now come to a point which is especially interesting in connexion with a further difficulty which occasionally arises in the reduction of a hernia, even after the stricture has been freely divided. At first sight it is a singular fact that any difficulty should occur at all under these conditions, still it is quite certain that it is sometimes met with. For instance, in a case of inguinal hernia under my own care I was unable, after repeated division of the stricture, to reduce the intestine, although on passing the finger, as is my habit, through the canal into the abdominal cavity, I could feel nothing in any way constricting the bowel. The only noticeable thing to be felt was a loose membranous fold which, springing from the outer wall of the canal, lay quite flaccid upon the gut, and allowed my finger to pass by it with perfect ease. Whilst I was attempting to return the bowel, the end of one finger being placed on it just below this fold, I noticed that as the gut was pushed against the flaccid flap the latter seemed to grip the bowel after the manner of a sling. I therefore divided the fold, and then returned the hernia without the least trouble. Here, then,

the obstacle to reduction was clearly this loose sling-like fold. The existence of membranous flaps like this and the manner in which they sometimes resist the return of the gut in operation for strangulated hernia have not of late received the attention they merit. Bands and flaps of this kind, which are not very rare, should invariably be divided whether they seem to compress the bowel or not, for if they do not actually prevent reduction it will be much more easily effected after their division. The history and mode of formation of these interesting folds may be conveniently reserved for consideration in another lecture.

### A CASE OF CEREBRO-SPINAL FEVER FOLLOWED BY RECOVERY.

By WM. ARMSTRONG, L.R.C.P., L.R.C.S. EDIN., L.S.A.

I WAS called shortly after 6 A.M. on May 11th to see A. B—, aged eleven years, who had been suddenly seized with intense pain in the head. The history of the case is as follows. On May 9th the patient was apparently well, and played football in a hot sun. After returning home he complained of feeling tired, and shortly after vomited bilious matter; he was hot and feverish. His mother, thinking he was bilious, administered a purgative draught. During the next day he remained in much the same condition, but on the following morning at 6 A.M. he was suddenly roused by a loud blast from a hooter, and at once complained of intense pain in the head, and became very restless and excited. I could obtain no history whatever of pain or discharge from either ear. On my seeing the patient he presented the following appearance. He lay on his back with his head on one side, the lower limbs being flexed on the abdomen. The face was flushed, conjunctivæ injected, pupils unequal, dilated, and sluggish, with great intolerance of light. Temperature 103·8°, pulse 120, very excited. On examining the chest, the heart was seen beating violently with a forcible impulse. The abdomen was rather retracted; no tenderness or pain on pressure; no tympanites. No other abdominal symptoms. Slight diarrhoea, which was probably due to the purgative which had been administered. Tongue very furred in the centre and red at the edges. The patient kept crying out "Oh, dear!" in a very distressed way, and did not seem to understand questions put to him. He said that the worst pain was over the temples. He vomited green matter whilst I was there. By way of treatment, I ordered the head to be shaved and an ice-bag applied and prescribed three grains of calomel and a mixture containing five-grain doses of bromide of potassium, the diet to be milk with soda-water or lime-water. During the first week the temperature ranged between 101° and 104° and the pulse between 108 and 120. The headache was much the same, but considerably relieved after each dose of medicine. The patient complained of pain in the back of the neck, down the spine, in the arms and at the pit of the stomach. The position he assumed was one of partial flexion; the head was thrown well back and there was marked stiffness of the neck. There was also marked hyperæsthesia all over the body. The tongue remained very furred; bowels rather constipated; there was no enlargement of the spleen. He continued very restless and delirious, at times being in a condition of stupor. There was great intolerance of light; sluggish pupils with strabismus of the left eye. A large quantity of pale urine was passed. The lower lobes of both lungs became congested. During the second week the patient improved a little and took nourishment well. There was now marked retraction of the abdomen. As he passed very wakeful restless nights I prescribed a draught containing fifteen grains of bromide of potassium and five grains of chloral hydrate with success. Temperature about 102°. At the end of the third week the temperature fell to normal; pulse 80; bowels constipated; there was a good deal of pain in the hips, down the spine, in each leg and also in the neck; a small mustard poultice placed behind the ear relieved the latter; general condition improving; diplopia and strabismus occasionally present. On May 30th the patient became very much worse. Temperature 104·8°; pulse 120. Herpes round the mouth, with sordes on the teeth and tongue; the latter was very dirty looking. He vomited, complained of his head, and lay in a stupor. As an error in diet was traced I ordered a tablespoonful of castor-oil, and on June 1st he was much

better, with a normal temperature. After this the improvement continued. The appetite was very good. He occasionally complained of frontal headache, but there were no other pains. The intolerance of light gradually lessened, but diplopia of the left eye was present until June 8th. Ordered to have a farinaceous diet with a little fish.—June 10th: Patient very much improved; convalescence rapidly advanced.—July 9th: Went away to the seaside, apparently quite well.

*Remarks.*—The patient is said to have lost a sister aged four years of acute meningitis, death taking place in twenty-six hours; the supposed cause was a chill. There is no tubercular history on either side of the family. During the whole of the present attack careful examination failed to detect any sign of pulmonary tuberculosis. The patient is an intelligent, precocious lad, very fond of books. Last December, whilst on a visit at Congleton, he had an attack of illness, in which the following symptoms were present: frontal headache, vomiting, constipation, fever, with loss of appetite for seven days. The case was diagnosed by the medical man as "slow fever." With respect to the term of "diplopia of the left eye" used in the description of the case, the following are the facts. When the left eye was closed vision was normal; when the right eye was closed the patient said he saw two doctors or two mothers with the left eye.

Pontesbury, Salop.

### THE CONDITION OF TWENTY-FOUR CASES OF EMPYEMA IN CHILDREN AFTER CURE BY RESECTION OF RIB.

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THE operation of resection of a portion of a rib, with free drainage of the pleural cavity, is one now generally performed in empyema after other treatment has failed; but the ultimate results of the operation as regards deformity, &c., are not well known, because the patients are not, as a rule, kept under observation after the wound has healed, although there are still abnormal physical signs in all cases. With the view of ascertaining what is the condition of cases of empyema in children after a considerable period has elapsed from the date of discharge from hospital, we have examined as many old patients of the East London Hospital for Children as were accessible. All the patients in the hospital books for the last eight years have been written for, but the great majority having changed their residences since leaving the hospital the letters addressed to them have been returned undelivered. In a few other cases no notice was taken, although the letters were apparently delivered. We have been able to examine 24 cases, all of whom had had a portion of one rib excised, and notes of their present condition are given below. The following figures show the periods which have elapsed since the operations were performed: Seven years in 2 cases, four to five in 4 cases, three to four in 2 cases, two to three in 7 cases, one to two in 6 cases, and less than one year in 3 cases. The ages of the patients at the time of operation were as follows:—One year in 2 cases, two years in 6 cases, three in 2 cases, four in 3 cases, five in 3 cases, six in 3 cases, seven in 1 case, eight in 1 case, nine in 2 cases, thirteen in 1 case.

The causation of the empyema is in most of our cases doubtful, the patients having been brought to the hospital only when the disease had reached a more or less chronic stage; but it is stated to have been the result of pleuro-pneumonia in some of them, and it was probably a sequela of this disease in most cases. It is difficult to obtain an accurate account of symptoms, as most of the children are too young to give a statement of their own symptoms, and their mothers are either unobservant or, being at work all day, ignorant of them. It is impossible to get an account of the symptoms without putting leading questions, and the description of them must therefore be taken with some reserve. There was pain in the affected side in two cases, but only occasionally. In eight there was a history of cough, but in only one was it stated that the cough was severe.

Four of these eight cases had slight bronchitis when examined, and another had granular pharyngitis, to which the cough was probably due. Two of the eight were said also to suffer from shortness of breath. One child was stated to be wasting. In her case the wound continued to discharge for nearly two years; the child had scarlet fever during this time, and the physical signs now suggest dilatation of bronchi. (*Vide* Case 24, A. T.—.)

Coming now to the more certain ground of physical examination, we find that the results are better than the account given by the mothers would have led us to expect; the completeness of the recovery in the great majority of cases has indeed surprised us. The general nutrition was good in 19 cases, and fair in 5. Not one of them looked wasted or ill. In the majority of the cases inspection of the chest gave no indication of disease beyond the presence of the scar. The spine was straight in 19 cases, slightly curved in 3, and distinctly curved in the remaining 2. In 15 patients the shoulders were on the same level; in 7 the shoulder on the side on which the empyema had been was slightly lower, and in 2 the shoulder was distinctly lower. In no case was there distinct and obvious flattening of the chest wall; in 16 there was complete absence of flattening, and in the remaining 8 there was a slight degree of flattening. The gap made in the rib by the operation appeared to be closed with bone in all. No difference could be made out between the movements of the two sides in 14 cases; in 8 the expansion was slightly less on the diseased side, and in 2 there was a distinct deficiency of movement. The results from percussion were as follows: Complete absence of dullness was found in 8 cases; in 7 there was some dullness in the immediate neighbourhood of the scar, no doubt due to the inflammatory thickening and increased rigidity of the parts there; in 5 there was slight dullness over a more extensive area; and in the remaining 4 there was distinct dullness. The breath sounds were unaltered in character and equal on the two sides in 10 cases; in 2 they were rather weaker in the situation of the scar; in 10 there was weakness of breath sounds over a considerable area of the diseased side as compared with the breath sounds on the healthy side, the difference being only slight in 3 cases; in the remaining 2 the breath sounds were distinctly weak on the affected side. In only one case did we find any adventitious sounds limited to the affected side, and in this case only at the end of a deep inspiration; but four patients had slight general bronchitis when examined. The position of the heart's apex beat was noted in twenty of the cases equally divided between the right and left empyemata. It was found to be close to the left nipple line in 17 cases. In 2 cases of left empyema the apex beat was one inch and three-quarters of an inch respectively outside the left nipple line, probably from imperfect re-expansion of the left lung. In 1 case of right empyema the apex beat was three-quarters of an inch to the left of the left nipple line, presumably the result of adhesions formed before the pleura was drained, for imperfect re-expansion of the right lung would cause the position of the heart to be moved to the right. The altered position of the heart's apex and the scar left by the operation were the only abnormal physical signs that we could discover in the last-mentioned case. In 2 cases the impulse was noted to be in the fourth intercostal space, in 15 it was in the fifth interspace; in some the position could not be defined. The lowest and most external point at which the heart's pulsation could be felt has been taken as the position of the apex beat. The result points to good recovery of the lung in nearly all the cases. The completeness of the recovery is very surprising when we consider how severely ill a child generally is before operation, how profuse is the discharge of pus after operation, and to what an extent the physical signs are altered even when the wound has healed. When discharged from hospital deformity and impaired movement of the chest and dullness and weakness of breath sounds are generally quite distinct; but in the majority of our cases these physical signs of disease have become either very slight or quite absent with the lapse of time—in no fewer than seven the presence of the scar, with a slight alteration in the percussion note in its immediate neighbourhood, being the only remaining evidence of the disease. In many cases the healthy appearance of the children was very striking, especially when it is considered under what unfavourable hygienic conditions the poor of the East-end of London, who constitute the bulk of our cases, live; and hardly any of them could be described as unhealthy looking. In only one case were there any signs suggestive of

phthisis, and in this case the signs were not sufficient to warrant more than a suspicion of that disease, while the general condition of the patient was decidedly opposed to it. We did not discover any evidence of lardaceous disease, but the urine was examined in only a few cases. There was no œdema in any case. To save repetition we give full notes of only 3 cases, which may each be taken as a type of a group, although the divisions between the groups are not very sharply defined. The case of A. T.—stands by itself as the least satisfactory of all. The terms "slight" and "slightly" are several times used in this paper. They have been applied only to conditions in which the alteration from the normal or the difference between the physical signs on the two sides was so little that careful examination was required to detect it, and that in ordinary clinical work it would hardly have been noticed.

*Case 1.*—W. C.—, aged two years, admitted May 11th, 1889, with a history of three weeks' illness. Causation of empyema doubtful. A history of phthisis on mother's side. There were signs of a pleural effusion on the left side. May 14th, chest aspirated, and eight ounces of pus withdrawn. On May 17th the chest was opened, a portion of a rib being resected and the pleura drained. The patient left the hospital on June 4th. Condition on May 15th, 1891, two years after the operation:—Occasional cough, but not short of breath, and able to run well. He holds himself erect as he walks. Appetite good; well nourished. The spine is straight, and the shoulders are on the same level. Chest of good shape; no flattening. Movements equal on the two sides. Percussion note everywhere equal on the two sides, except in the neighbourhood of the scar, where it is slightly higher pitched. Breath sounds equally good on both sides; no adventitious sounds. Apices of lungs normal. Cardiac impulse felt in fifth space as far as a quarter of an inch outside the left nipple line. Liver felt just below the edge of the ribs; spleen not felt; fingers not clubbed; no œdema.

The following 6 cases closely resemble the above, and only the points in which they differ from it will be mentioned:—

*Case 2.*—W. W.—, aged two years and eight months at time of operation. Examined sixteen months later. Chest rather barrel shaped; liver felt three fingers' breadth below the ribs.

*Case 3.*—P. B.—, aged three years and six months at time of operation. Examined two years afterwards.

*Case 4.*—G. B.—, aged seven years at time of operation. Examined four years and nine months afterwards. History of occasional pain in right side passing to umbilical region.

*Case 5.*—L. A.—, aged eight years at date of operation. Examined seven years later.

*Case 6.*—J. J.—, aged nine years at time of operation. Examined seven years later.

*Case 7.*—J. A.—, aged two years and six months at time of operation. Examined three years and nine months later. Said to have pain occasionally and frequent cough.

In the following 13 cases the recovery is not quite so perfect, all showing either slight deformity, dullness, or weakness of breath sounds.

*Case 8.*—H. J.—, aged three years when admitted on Feb. 13th, 1888, with signs of pleural effusion on the left side. "Very scrofulous-looking, with clubbed fingers." Feb. 17th: A part of seventh rib in posterior axillary line excised, and about six ounces of thick greenish pus removed.—April 29th: "Discharged with contraction of left side." Examined three years afterwards, and the following note made:—The mother says that the wound did not heal until two months after leaving the hospital, but child well now in every way. Looks very well; face a good colour; fingers not clubbed; no œdema. Spine a little curved, with convexity to the left in the dorsal region. Shoulders and scapulae on the same level on the two sides. Some very slight flattening at the left anterior axillary base. Movements of chest equal on both sides behind, in front rather better on the right side. At extreme left base and near the scar the percussion note is very slightly higher pitched, with rather weak breath sounds; Elsewhere percussion note and breath sounds perfectly good. Apices normal. Cardiac impulse felt out as far as a quarter of an inch to the left of the left nipple line. Systolic murmur at apex. Liver and spleen not felt.

The following 12 cases resemble Case 8 and, as before, only the differences will be mentioned:—

*Case 9.*—A. E.—, aged two years when admitted for operation. Examined four years and a half later. Systolic murmur at apex, probably hæmic; no flattening of chest.

*Case 10.*—B. F.—, aged eight years when admitted for

operation. Examined nearly five years later. At right apex in front bronchial breathing and slight increase of vocal resonance; general condition very good; no flattening of chest walls.

*Case 11.*—A. M—, aged two years when admitted for operation. Wound continued to discharge for eight months according to mother. Examined two years later. Heart normal.

*Case 12.*—S. W—, aged two years when admitted for operation. Examined nearly two years later. Considerable prominence in left mammary region, but spine nearly straight; movements and percussion note the same on the two sides; heart normal.

*Case 13.*—C. A—, aged nine years when admitted for operation. Examined six months afterwards. No flattening of chest. Heart normal.

*Case 14.*—J. B—, aged seven years when admitted for operation. Examined ten months afterwards. No flattening of chest. Heart normal.

*Case 15.*—W. S—, aged four years and six months when admitted for operation. Examined seven months afterwards. No flattening of chest. Heart normal.

*Case 16.*—R. H—, aged two years when admitted for operation. Examined seven months later. Heart normal.

*Case 17.*—F. T—, aged six years when admitted for operation. Examined one year and nine months later. A few small râles are heard at the left base at the end of a deep inspiration. Heart normal.

*Case 18.*—A. P—, aged two years and six months when admitted for operation. Examined four years and three months later. No dulness. Liver three fingers' breadth below edge of ribs. Heart normal.

*Case 19.*—A. H—, aged five years and six months when admitted for operation. Examined eleven months later. Cough troublesome. Has enlarged tonsils and granular pharyngitis, which probably explain the cough. No flattening of chest. Heart normal.

*Case 20.*—C. D—, aged six years when admitted for operation. Examined one year and six months later. Said to be in better health than before illness. Front of chest rather flat. Small râles at both bases. Heart normal.

In the three cases which form the next group the permanent alteration in the physical signs is rather greater, although the general condition is good in all.

*Case 21.*—F. C—, aged thirteen years, was admitted on Nov. 5th, 1888, with a history of pain in the right side for two months, and signs of a pleural effusion on the right side. No family history of phthisis. On Nov. 12th aspiration was done and six ounces of straw-coloured fluid drawn off. On Dec. 17th twenty-seven ounces of pus were withdrawn. On Jan. 4th, 1889, the chest was opened, a portion of the seventh rib being resected at the angle of the scapula. On Feb. 12th the patient was sent to a convalescent home; there was still a fair amount of pus discharging from the wound. In June, 1890, the wound was still discharging, but, after scraping the sinus and removing a piece of necrosed bone from one of the cut ends of rib, it healed; it had been discharging about eighteen months. The patient in May, 1891, about two years and four months after operation, looked very well. Nutrition good. No cough, pain or dyspnoea. Hands and feet always cold, but said to have been the same before the illness; fingers not clubbed. Slight convexity of dorsal spine to left. Right scapula and shoulder rather lower than left. Respiratory movements better on left side than on right. Veins slightly dilated on right side. Slight flattening on right front. Percussion note dull, with increase of resistance, at right base from level of scar downwards; diminished resonance in right axilla; the same on the two sides in other situations. Breath sounds weaker over dull area and over whole right front. No adventitious sounds. Heart's apex in fifth space just internal to nipple line. No murmur.

*Case 22.*—M. B—, aged six years at the time of operation. Examined two years and three months afterwards. Spine straight; slight tendency to pigeon breast; some general bronchitis. In other respects the physical signs are much the same as in Case 22.

*Case 23.*—R. R—, aged seven years, when admitted for operation. Examined two years and six months later. Spine straight. Very slight flattening at right front. Dulness at extreme posterior base on right side with weak breath sounds; dulness at right axillary base, with weak breath sounds and prolonged expiration. Systolic murmur at apex and base of heart, probably hæmic.

*Case 24.*—A. T—, aged four years at time of operation. She had scarlet fever shortly after leaving the hospital, and the wound did not heal for about two years. Examined two years and nine months after operation. Coughs a great deal and brings up a large quantity of phlegm; no hæmoptysis, but sometimes epistaxis. Breath very short, and patient cannot walk fast. Losing flesh. General nutrition very fair. Spine straight. A little flattening at left anterior axillary base. Left shoulder rather lower than right. Movement of left side of chest a good deal diminished. At the left base the resonance is diminished and resistance increased from angle of scapula downwards; at extreme base quite dull. Respiration weak all over the left base, with râles. In the axilla the breath sounds are weak and bronchial, almost tubular; apices normal. Cardiac impulse in fifth space half an inch outside left nipple line; double thrill felt at apex; double murmur, loudest at apex, but heard all over the left side of the chest. No history of rheumatism or chorea could be obtained. Spleen one finger's breadth and liver two fingers' breadth below edge of ribs. No œdema. Fingers rather clubbed.

## PSYCHO-THERAPEUTICS.

A SCIENTIFIC FRAGMENT.

BY WM. DALE, M.D. LOND.

"As the state of the mind is capable of producing a disease another state of it may effect a cure" (John Hunter). In this article I wish to consider, imperfectly though it must be, these questions—(1) The influence of the mind on the body in producing diseases; but especially (2) the influence of the mind in curing or removing diseases. The subject is doubtless beset by difficulties, among which perhaps the most formidable are, first, that we are obliged to depend for information on the subjective feelings of the sufferers themselves; secondly, on the often very garbled and misleading statements made respecting these feelings. The gist of our subject is contained in these lines of Churchill:—

"The safest way to health, say what you will,  
Is never to suppose we shall be ill;  
Most of those ills we poor mortals know  
From doctors and imagination flow."

The influence of the mind on the body is well burlesqued in the following story. Sir T. Moore being visited by Erasmus, the former endeavoured to convert him to a belief of the real presence in the Eucharist, and assured him that if he would *only believe* he would be satisfied of its truth by unquestionable evidence. On leaving Moore's home he borrowed his pony, and finding it useful did not incline to return it, but sent certain Latin stanzas as under:

"Quod mihi dixisti,  
De corpore Christi,  
Crede quod edis, et edis;  
Sic tibi rescribo  
De tuo palfride,  
Crede quod habes, et habes."

Which have been thus freely translated:—

"Remember you told me  
Believe and you'll see,  
Believe it a body and a body 'twill be;  
So should you tire walking  
This hot summer-tide,  
Believe your staff's Dobbin  
And straightway you'll ride."

Not only does the imagination play us strange tricks, but our affections and passions are liable to become inordinate and abnormal, and they lead to many bodily disorders. Not only may this be said of fear, anger, revenge, grief &c., but also of love, hope, joy, friendship &c.; so that even our enjoyments and duties as well as our vices may become "scorpions to whip and sting us." The poets have not overlooked these facts, as in the following examples:

"She never told her love,  
But let concealment, like a worm I' th' bud,  
Feed upon her damask cheek: she pined in thought,  
And, with a green and yellow melancholy,  
She sat, like Patience on a monument  
Smiling at grief."—*Shakespeare*.

"Dum spectant oculi lesos lædantur,  
Multique corporibus transiitio nocent."

Or thus in English :

"Viewing sore eyes, eyes to be sore are brought,  
And many ills are by transition caught."

"For deadly fear can Time outgo,  
And blanch at once the hair."

"O how fear did make her colour rise!  
First red as roses that on lawn we lay,  
Then white as lawn the roses took away."

I hold the views of Mr. Herbert Spencer, who believes in "the constant coöperation of all the leading nervous centres in every thought and emotion," and therefore, in my judgment, our division of the mind into various faculties or powers is merely to facilitate our conception and study of mental acts—or, more strictly speaking, is an attempt to analyse the thing which is an entirety, and to divide that which is indivisible. According to this view an act of the intellect or an act, say, of volition is in either case an act of the whole mind, and we love or fear &c. with the whole mind, not with a single part or parts of it; and in this sense in what follows I shall endeavour to consider the mind's action on the body in the production and in the removal of diseases. There are very many instances of the hair turning grey or white in a few hours, through sudden fright or grief, but on these I shall not dwell, since I am not aware that we possess any mental influence that can undo this misfortune; for we know of no other power whatever that can make "one hair white or black."

Sir Thomas Watson says that diabetes may be caused by distress or anxiety, and Dr. Copland states that mental exertion and the depressing passions may give rise to the disease. It has also been observed that in families where the disease is hereditary, if one member of the family should suffer from it fear will hasten its onset in other members. The following statements concerning the influence of anxiety and disappointment on the inhabitants of France during the Franco-Prussian war are on record. "A young lady was standing with her father at the window when the Prussian soldiers came down the *tranchée* and she was seized with shivering; her father, who could feel her trembling, said—'You need not be frightened; they will not hurt you.' But she had received a shock from which she became quite blanched and lost her sleep and flesh, and she has never been able to keep her feet warm from that day, now two years since." In a letter to THE LANCET, dated June 21st, 1871, the writer states: "The true hope of the Parisians, which they fondly cherished, and which in a great measure kept them alive during the siege, was most cruelly blighted—and you may imagine their disappointment when the capitulation of the city was announced; the mental shock to some was such that they almost lost their reason. But the most remarkable effect of the siege was the aged appearance of some of the inhabitants. Men and women alike seemed to have passed over at least ten years of their existence in half as many months." There are many well-authenticated instances of hydrophobia being produced by fear: for example, "A boy was bitten by another boy in anger. There was no evidence of rabies in the biter, but the boy died. He was seized with hydrophobia forty-eight days after the bite and died in twenty-four hours."<sup>1</sup> It is recorded by Gaubius that "a soldier quarrelled with a woman, who thereupon bit his hand. He was seized with rigor and died." An enraged Italian youth, unable to revenge himself, bit his own hand and was seized with a deadly fear of water, as if bitten by a rabid dog. Malpighi asserts that his own mother died of hydrophobia a few days after being bitten by an angry epileptic. To Carlyle is attributed the saying, "Conscience is very much a matter of the condition of the liver," and at all events one may safely say that bile and bad tempers, or even melancholy, go together. Anxiety and grief, fear and anger will all produce jaundice. So it would seem that mental states are produced by disorders of the liver and disorders of the liver by mental states—they mutually react on each other. Dr. Carpenter remarks that "it is perhaps not an ill-founded opinion that melancholy and jealousy have a tendency to increase the quantity and to vitiate the quality of the biliary fluid;" and that "it is certain the indulgence of those feelings produces a decidedly morbid effect by disordering the digestive processes, and thus reacts upon the nervous system by impairing its healthy nutrition." The influence of sudden fright in checking the secretion of bile and so occasioning jaundice is adduced by Bichat as a striking proof of the connexion of mental states and the secreting organs; and so Juvenal writes, "Quid referam quantû succum

jecur aident via." Dr. Murchison observes that "there is good evidence that nervous influences may not only cause functional derangement but cure structural disease of the liver." Diseases of the spleen are also said to have been caused by certain states of the mind, as "thought, anger, care, sorrow, fear, or grief," or worry about many matters. The ancients believed that anger and desire resided in the gall, fear in the heart, and joy in the spleen, so the poet—

Cor ardet, pulmo loquitur, fel commovet iras  
Splen ridens facit, cogit amore jecur.

Excessive joy as well as excessive grief may even cause death. Wives on receiving their husbands back safe and sound, who had been reported as certainly lost, mothers on embracing their sons who were thought to be dead, poets on coming to sudden honour and fame, and prisoners on being pardoned or suddenly released, have died from the shock of sudden joy. Rheumatism has been produced by fright, and this oftentimes seems to be the only exciting cause; and gout is proverbially dependent on mental influences; fretting, worry, domestic vexation, joy, anger, terror and excessive mental strain are all exciting causes of this disease.

Sydenham observes that "melancholy is pre-eminently the inseparable companion of gout. Hence, those who are liable to it are so wont to tire and overwhelm the animal spirits by long and deep thought, that excessive exertion of this sort, even without the artificial aid of reading, makes the proper preservation of the economy of the body an impossibility, for which reason (as it seems to me) gout rarely attacks fools. Those who choose may except the present writer." Joy, grief, or disappointment will, according to many writers, occasion fever. The following instances may be named. Dr. Rush observes that "the attendants upon the sick in bilious yellow fever in Philadelphia in 1798 were materially influenced by the prospect of the patient's recovery; so long as there was hope they often escaped, but when hope was extinguished they were frequently attacked by the disease." Dr. Jackson states that "the garrisons of Savannah and York Town remained healthy so long as these towns were besieged, while Savannah became affected with fever when the French and American armies retreated from it, and York Town when it capitulated. In both instances the mental tone of the inhabitants ceased to be wholesomely maintained; joy in the former did not prevent the deleterious influence of their action; and grief and disappointment in the latter produced their natural fruits."

Sir Samuel Baker, in his "Albert Nyanza," after describing the symptoms of the fever which prevailed and proved frequently fatal in Africa, and was of an intermittent type, observes that "any severe passion of the mind, such as grief or anger is almost certain to be succeeded by fever in this country, just as full occupation of the mind was found to act as a prophylactic against it." Several examples of the power of the will over the bodily functions are recorded—e.g., of a man named by Dr. Darwin who could stop the motion of his heart when he pleased and of another who could by voluntary effort cause the action of the bowels at any time in half an hour.<sup>2</sup> Colonel Townsend's case, so often quoted, is doubtless very remarkable. It is said of him that he possessed the remarkable facility or power of throwing himself into a trance at pleasure. "The heart apparently ceased to throb at his bidding, respiration seemed to be at an end, his whole frame assumed the icy chill and rigidity of death..... his mind during the trance was as utterly devoid of consciousness as his body of animation. In this state he would remain for hours, when these singular phenomena wore away, and he returned to his usual condition." The celebrated John Hunter had great will power. Speaking of animal magnetism, to which his attention had been drawn, he observes: "If any person is affected by it, it must be by the imagination being worked up by the attention to the part expected to be affected." In this belief he went to be magnetised and observes, "When the magnetiser began his operations and informed me that I should feel it at first at the root of the nails of that hand nearest the apparatus I fixed my attention on my great toe, where I was wishing to have an attack (fit of the gout). Whenever I found myself attending to his tricks I fell to work with my great toe—working it about &c.,—by which means I prevented it having any effect upon me." During an alarming attack of spasm, attended by unusual depression of

<sup>1</sup> THE LANCET, July 14th, 1890

<sup>2</sup> Philosophical Transactions, p. 39.

the heart's action, Hunter is said to have been able to keep up the respiration, as he thought, by a voluntary effort; but I am disposed to think that, whatever may have been the state of the heart at the time the respiratory centres were unaffected, and therefore he breathed naturally, and not by any voluntary action he himself put forth. The case of Colonel Townsend is singular in many respects, and among others that he is said to have discovered by accident the power he had to suspend the action of the heart; it is probable, therefore, that the cardiac suspension he could produce voluntarily was the result of some peculiarly nervous state, which by repetition had previously become automatic; and this same feeling or sensation rendered it possible for him at times to precipitate the act. Colonel Townsend's cases teach us nothing—merely exciting our wonder; but Hunter's power of attention, as described in his mode of dealing with the magnetised, really contains, as has been said, "the gist of all that has been written since on the influence of expectant attention on the imagination." Shakespeare has two lines in "King John" of gravest import:—

"How oft the sight of means to do ill deeds  
Makes deeds ill done."

And on the ludicrous side of the thought we have the following experience of John Hunter. "I went," he says, "to see Mrs. Siddons' acting. I had full conviction that I should be very much affected, but unfortunately I had not put my handkerchief in my pocket, and the distress I was in for want of that requisite when one is crying, and a kind of fear I should cry, stopped up every tear, and I was even ashamed I did not, or could not, cry."

Next notice certain cases of disease which go under general and arbitrary names. Hysteria, which doubtless often proceeds from some anomalous action of the mind and feelings, but which likewise is often mere perverseness and little understood; disappointed love, or ambition, or social hopes and expectations, or inordinate passions or desires in any direction, and an inordinate craving for sympathy or undue attention; and, in some instances, disinclination for any kind of employment or even amusement, are among the most prominent exciting causes of hysteria. In other instances in connexion with it, and as a part of this disease, we meet with deception and cunning without apparent purpose or end; but, I conceive, for the most part to arouse sympathy or to avoid work or exertion. A case came under my notice some years ago where a young woman lay in bed two days apparently in a state of deep insensibility, inasmuch that the medical man in attendance thought she had serious brain disease; but on being freely doused with cold water over the head and face she speedily came to her senses and called out, "I'll tell my father!" In another case, that of a lady's maid seen by a medical friend of mine, to whom he was called at midnight, the free use of cold water brought her out of a severe fit in which she was violently struggling, and jumping up she cried out in a rage, addressing the medical attendant, "You're a devil!" In another case the patient was a half-drunken woman who had fallen down in a fit opposite my house, and by her struggles was exciting much sympathy, but on my pouring over her face a can of cold water she leaped up and said, "You're Dr. —; give us a drink." Other cases yet more strange would seem to be produced for some purpose or from some morbid feeling by imitation. Thus the hip, the knee, the ankle, the shoulder, the elbows, the wrist or the fingers may become immovable and highly painful, as if from severe disease of the joints; yet, as the subsequent history has shown, they have become instantly well again under some emotional or impulsive effort of the patient, and that to the general surprise of experienced medical attendants. "Expectation of the action of a remedy causes us to experience its action beforehand."—Umzer. "I am confident that I can fix my attention on any part until I have a sensation in that part."—John Hunter.

In the preceding remarks I have given numerous instances in proof of the influence of the mind in producing various diseases of the body; and I have now to show its power, and the limits of that power, as a psycho-therapeutic agent. I shall exclude from consideration mesmerism, or animal magnetism, as it is designated, and also Braidism, another form of animal magnetism, as they were employed by Dr. Elliotson and Mr. Braid as agents in the treatment of disease; for their effects even in the hands of these and other able observers were for the most part uncertain, often illusory, and always more or less mysterious. I shall also pass over the wonderful stories which are told concerning "tractors" (pieces of wood or metal &c.) which, after having

been employed by certain enthusiasts in hospital practice, have long been laid aside in England as, if not useless, at least as quite undeserving the praise once bestowed upon them. I shall deal in the same manner with the administration of "bread pills" and other inert substances, whilst assuring the patient that they are new and most powerful remedies, inasmuch as, requiring to be used both on the part of the patient and the physician with much mystery, untruth and quackery, the whole procedure is repugnant to every right and honest feeling.<sup>3</sup> These things being excluded from consideration, either as unworthy or uncertain methods of treatment in disease, we find that the influence of the mind in curing bodily ailments is extremely limited. I shall now proceed to illustrate this influence by examples, seek to define its limits and inquire to what extent it may be legitimately employed.

"A young lady, in other respects healthy, had gastric nerves so wayward that they would permit only a small amount of food to remain on the stomach. This condition produced great debility and inconvenience. Her physician told her that she might by a strong mental effort free herself from the ailment. She tried her best, but failed. It became apparent that she did not possess sufficient will power for the task. The physician, therefore, decided to assist the will by inducing strong emotion with respect to the ailment, and this he effected in the following manner. Going to the future husband of the lady he urged him to inform her that their union could not take place until she was cured. The time fixed for the marriage was close at hand, and the shock of such news had an immediately beneficial effect. Her gastric nerves began to resume their normal functions from the moment of that interview." "The wife of a scientific man was seized with what is called hysterical paralysis of the lower limbs. She was informed that her inability to walk was not the result of any organic change, but merely of nervous debility, and she received the usual routine advice—that she must fight against her feelings, and make constant efforts to overcome the paralysis by force of will." She followed this advice for a long time, but getting gradually worse she gave up all attempts at walking and resigned herself to the ignominy of a Bath chair. One summer's day she was left on the seashore by her husband, who went a short distance for a newspaper. During his absence a half-intoxicated Highlander approached the lady and threatened to kiss her. In terror she jumped from the Bath chair and made off in search of her husband. From the date of that incident she gradually recovered the power of locomotion."<sup>4</sup> "A patient suffering from hypochondriasis, who thought he was dying from liver disease, upon receiving information of the death of his brother, who actually died of a scirrhous liver, immediately staggered and fell down, crying out that he was dead. Dr. Crawford of Baltimore being sent for, he immediately attended, and on being informed of the notion which had seized the hypochondriac exclaimed: 'Oh, yes, the gentleman is certainly dead and it is more than probable his liver was the death of him. However, to ascertain the fact, I will hasten to cut him open before putrefaction takes place.' He called for a carving knife, and, whetting it as a butcher would when he proceeds to open a dead calf, he stepped up to him and began to open his waistcoat. The hypochondriac became so terribly frightened that he leaped up with the agility of a rabbit, and, crying out, 'Murder! murder! murder!' ran off with a speed that would have defied a score of doctors to catch him. After running a considerable distance, until he was almost exhausted, he halted, and not finding the doctor at his heels soon became composed. From that period this gentleman was never known to complain of his liver, nor had he for more than twenty years afterwards any symptoms of this disease."

Hydrophobia, it is thought, may be prevented or cured by a firm determination to resist it. A Mr. C— was severely bitten by a cat which died the same day hydrophobic. He appears to have thought little of the circumstance, and was certainly not nervous or imaginative in regard to it. Three months, however, after he had received the wound he felt one morning great pain in the arm accompanied by extreme thirst. He called for a glass of water. The sequel will be best told in his own words: "At the instant that I was about to raise the tumbler to my lips a strong spasm shot across my throat. Immediately the terrible conviction came to my mind that I was about to fall a victim to hydrophobia—

<sup>3</sup> Another "ism"—hypnotism—is on its trial, but I fear nothing will be gained in medicine by its employment.

<sup>4</sup> The Nineteenth Century, November, 1887.

the consequence of the bite that I had received from the cat. The agony of mind I endured for one hour is indescribable; the contemplation of such a horrible death as that from hydrophobia was almost insupportable; the torments of hell could not have surpassed what I suffered. The pain, which had first commenced in the hand, passed up to the elbow, and thence to the shoulder, threatening to extend. I felt all human aid was useless, and I believed that I must die. At length I began to reflect on my condition. I said to myself either I shall die or I shall not; if I do it will only be a similar fate which many have suffered and many more must suffer, and I must bear it like a man; if, on the other hand, there is any hope of my life, my only chance is in summoning my utmost resolution, defying the attack and exerting every effort of my mind. Accordingly, feeling that physical as well as mental exertion was necessary, I took my gun, shouldered it, and went out for the purpose of shooting, my arm-aching the while intolerably. I met with no sport; but I walked the whole afternoon, exerting at every step I went a strong mental effort against the disease. When I returned to the house I was decidedly better; I was able to eat some dinner, and drank water as usual. The next morning the aching pain had gone down to my elbow; the following day it went down to my wrist, and the third day it left me altogether. I mentioned the circumstance to Dr. Kinglake, and he said he certainly considered that I had had an attack of hydrophobia, which would possibly have proved fatal had I not struggled against it by a strong effort of mind." If it be true that hydrophobia, or symptoms closely resembling it, may be produced by fear and excitement after being bitten by an animal, rabid or otherwise, and that by a strong mental effort these symptoms may be subdued, as in the case which has just been referred to, it is most important that the fact should be generally known. There is good evidence to show that this is by no means an isolated case, and the physician should be careful at least not to encourage the idea of hydrophobia in a patient who has been bitten by a suspected animal; but indeed it would be well for him rather to scout the notion so that the fears of his patient may be as far as possible allayed. One case is recorded in which a man, who had been bitten by a dog, through fear remained in bed for several days, believing he was the victim of hydrophobia, but he became speedily well on being told by his physician that hydrophobia caused death much within the time he had already remained in his bed. "If it were understood," says Dr. Spitzka, "that fear and expectant attention may not only develop serious nervous symptoms, but actually cause death, many who are threatened with hydrophobia would cultivate healthful self-control. .... A number of cases are on record in which patients suffering from the most agonising symptoms of rabies recovered on hearing that the dog which bit them was alive and well."

Hysteria is evidently a disease over which the mind has much power; hence in many phases of this malady it has been thought a sufficient explanation of the symptoms to say "she won't will." The following example is recorded by Mr. Skey, late surgeon to St. Bartholomew's Hospital: "A young lady of sixteen, who for many months had been suffering from an inversion of the left foot, which was twisted at right angles with the other, was treated by orthopædic surgeons with an elaborate apparatus of splints. Neither they nor Mr. Skey (though he recognised the nature of the affection) succeeded in curing it. Psychological agents, however, effected a cure in a few minutes. She willed to use her foot like other people, and she did. She accompanied her family to a ball, her foot as she entered the ball-room being not yet restored to its normal position. She was invited to dance, and under this novel excitement she stood up; and to the astonishment of her family she danced the whole evening, having almost suddenly recovered the healthy muscular action of the limb. She came to see me," adds Mr. Skey, "two days afterwards. She walked perfectly well into my room, and paced the room backwards and forwards with great delight. The actions of the limb were thoroughly restored, and all trace of the previous malady had disappeared." The good effects of a resolute bearing on the part of the physician and the free use of cold water in hysterical fits have already been mentioned. Another case comes vividly before me, that of a young woman who, as I entered the house, having been hastily summoned, was said to be dying from some imaginary swelling of the throat. In this case also a firm demeanour and a plentiful dousing with cold water quickly effected a cure, though the doctor was said to be cruel and unfeeling.

Faith and hope are doubtless valuable adjuncts in the treatment of disease. Hence besides the many well-authenticated cures effected by visiting religious houses, the shrines of saints, strong faith in the prayers of holy men and women, relics, holy water, charms &c., there is every reason to believe that the physician who by his personal bearing and firmness gains the entire confidence of the patient has an infinitely better chance in the treatment of disease than one whose demeanour and character fail to impress him favourably. The above instances must suffice to illustrate the subject of psycho-therapeutics. Many more might be given, but they would be similar in character. On considering the whole subject I think it must be admitted that while the influence of the mind in the causation of diseases is very great, its influence in curing diseases, or the use the physician can make of it for this purpose, is very small and limited. Fear, like mesmerism or tractorism, can very rarely be resorted to, for it has been well observed, "Who can calculate the effects of fear; and, consequently, who would dare to make use of it as a curative agent?" For example, it is possible that a rough intoxicated Highlander may cure a lady of hysterical paralysis; the shock of a railway accident stave off an attack of rheumatic fever, as it is said to have done in one instance, or the threat to dissect a hypochondriac perform a cure. But what practical use can be made of such knowledge? It appears to me, then, that the sum total of what can be done by psycho-therapeutics must be effected by a firm self-reliant bearing on the part of the physician in dealing with cases of hysteria and nervous diseases generally. I have shown already that many hysterical disorders, and even hydrophobia itself, may be cured by encouraging the patient to exert a strong determination (volition) to conquer his disease. Faith and hope too may be stimulated in the sick; this the physician can do, not by inducing them to visit the shrine of a saint or exciting superstitious feelings within them, but by his mode of addressing his patients in the hope and confidence which he endeavours to inspire and in the removal of everything calculated to depress them. One of our noblest poets has said,

"Mirth, music, friendship, love's propitious smile  
Chase every care."

And to whatever extent one may be disposed to discount the saying of the poet I think that the influence of music has not been utilised in the treatment of disease as it might have been. Whoever has visited the theatre or the opera must be familiar with the soothing and generally pleasant influence that music possesses, and all the more so if some contrivance has been made so as to have the musicians out of sight and that the music may sound as if at a distance; the distant sound of bells, of a waterfall or of singing is alike pleasant and soothing, and all the more so if it be heard at night or in quiet places which invite to meditation. An ancient writer says of music: "It makes a child quiet; the nurse's song, and many times the sound of a trumpet on a sudden, bells ringing, a carman's whistle, or a boy singing some ballad tune early in the street, alters, revives, recreates a restless patient that cannot sleep in the night."<sup>5</sup>

I am persuaded that in some form and in suitable cases, of which the physician would be the best judge, music might be made more serviceable in treatment, provided it were judiciously employed and kept from assuming the garb of quackery or mystery, and in this manner becoming ridiculous. Music was employed, as we know, so far back as the days of the first Israelitish king, for the Scriptures state: "When the evil spirit from God was upon Saul, David took an harp and played with his hand; so Saul was refreshed and was well, and the evil spirit departed from him." It is strange, therefore, that in this day it has been so greatly neglected. There is an article in a periodical of the day on "Rest of Nerves," and among other means the writer advises men who are harassed with many business or other cares in this busy worrying age to rest in bed, at least one day in the week, that the overworked, jaded nervous system may be refreshed and recuperated—and the advice is sound and judicious, although it may perhaps seem absurd and a mere jest to the healthy and vigorous. This plan, however, is only suggested by the writer as a preventive against the evil effects of the worry and cares of business or the bustle of life in these days; but the mind has many other things to bear besides these, which, I fear, neither one day's rest in the week in bed, or even two, will

<sup>5</sup> The influence of "sweet sounds," or, in other words, of music, is now being tried for certain diseases in some of our large hospitals.

help us to sustain with fortitude and calmness. In that very learned and witty book, "The Anatomy of Melancholy," the writer, quoting from Roger Bacon on the way to prevent the ill effects of mental troubles on the body, observes: "If it be any disgrace, abuse, temporal loss, calamity, death of friends, imprisonment, banishment, be not troubled with it, do not fear, be not angry, grieve not at it, but with all courage sustain it. If it be sickness, ill success, or any adversary that hath caused it, oppose an invincible courage, fortify thyself by God's word, or otherwise, set prosperity against adversity (as we refresh our eyes by seeing some pleasant meadow, fountain, picture, or the like), recreate thy mind by some contrary object, with some more pleasing meditation divert thy thoughts. A philosopher was bitten by a mad dog, and as the nature of that disease is to abhor all water and liquid things and to call up the picture of a dog before those affected by it, he went for all this reluctantly to the bath, and seeing there (as he thought) in the water the picture of a dog with reason overcame the conceit—*quid cani cum balneo*. What should a dog do in a bath? A mere conceit." It appears then finally that Faith and Hope are the two great principles which the physician must encourage or seek to evoke in his patient. The diseases to which man is liable may be looked upon as so many enemies which lay siege to the citadel of his life, and often he is so fiercely assailed by them that he finds no help or defence in himself; and it is then that the physician, coming to his rescue with the powerful allies, Faith and Hope, may perchance create within him a courage which will enable him to make, at least, a brave stand against his foes; and he who expects more than this from the influence of the mind in the removal of bodily diseases will, I think, be disappointed.

Bishop's Telfington.

## GUNSHOT INJURIES TO THE EYE: THE POSSIBILITY OF THEIR MORE CONSERVATIVE TREATMENT.

By GEORGE FERDINANDS, M.D., C.M. ABERD.

THE shooting season invariably confronts us with the *pros* and *cons* of enucleation by its presentation of cases where doubt is entertained whether a foreign body exists in the eye or whether the injury sustained by that organ is sufficient to demand its removal. Professor Theodor Leber, in his recent address before the Ophthalmological Society, very lucidly demonstrated how different chemical substances seem to possess different pus-producing qualities depending upon the amount of irritability each was capable of producing. We are told that "purulent inflammation set up by the action of chemical substances has not the same power of extension as that due to the action of microbes." This is an important statement, and its importance is enhanced, since clinical observation strongly supports Professor Leber in his further remark that "the inflammation caused by chemical agents remains more or less limited to the affected area." These facts, viewed in conjunction with the theory of germ transmission along the lymph channels of the optic nerves, undoubtedly demand a reconsideration of the bases generally accepted as justifying enucleation. Especially is this so in those cases where only an aseptic inflammation may with reasonable grounds be anticipated. Such reconsideration may lead to modified measures in a large proportion of gunshot injuries to the eye. A shot is a comparatively aseptic body, and usually produces little disturbance when lodged in the eyeball.<sup>1</sup> In these cases the period of observation might with safety be prolonged. In fact, the hasty removal of eyes thus injured is to be deprecated. An attempt should be first made to extract the foreign body from the exudation around, from which, as suggested by Professor Leber, cultivations may be made, to discover the septic or aseptic nature of the injury. Another advantage from delay may be gained in cases where doubt exists as to the presence of a shot in the eye. The following instances which have come under my own observation may exemplify this.

CASE 1.—R. B.—, in August last, had his left eye struck

<sup>1</sup> Unfortunately Professor Leber makes no mention of lead.

by a spent shot. The case was seen by me a week after the accident. The upper eyelid was slightly swollen and ecchymosed, and right in the centre, nearer the nasal end of the lid, was a well-marked wound, almost healed. It was difficult to judge whether the wound had extended to the whole depth of the lid. Beyond these, there were no perceptible signs of external injury. V. = barely  $\frac{1}{8}$ ; and on examination the fundus showed a large subretinal hæmorrhagic patch below the macula lutea—i.e., just on a line with the wound on the eyelid. The appearance the hæmorrhage presented was certainly suspicious, for it consisted of a dark central spot, slightly elevated, and surrounded by an irregular zone of a lighter shade. The vitreous near the hæmorrhage was slightly hazy. No other evidence of internal injury could be noticed in spite of careful examination, especially of that part of the fundus lying adjacent to the injured eyelid. The hæmorrhage retained its character and size for over three weeks, and then suddenly became absorbed in a few days, leaving only pigmentary traces, and when the case was last seen V. =  $\frac{1}{8}$ .

CASE 2.—A. M.— was also accidentally shot just below the left eye, one centimetre from the lower lid, where there was a well-marked punctured wound, almost hidden by the swelling externally; the appearance round the eye was that of a typical "black eye." On careful palpation, rendered difficult by the swelling, no foreign body could be felt beneath the skin. The eyelids were with difficulty separated, and the external examination of the eyeball revealed only slight subconjunctival hæmorrhage towards the outer side. The examination of the fundus proved difficult, especially as the pupil was small; but a distinct subretinal hæmorrhage could be made out a little way below the disc. Ice and atropine were ordered. After three days the swelling subsided considerably, and a thorough examination of the fundus revealed only the single hæmorrhage seen before; it presented, however, the same peculiar appearance of a dark, jagged central spot and a lighter zone around it. On palpation over the wound a week after the accident the presence of a pellet embedded deep beneath the skin in the subcutaneous tissue could with a little trouble be felt. This discovery removed all doubt as to there being any foreign body in the eye itself. The hæmorrhage rapidly diminished in size and density, and a fortnight after the accident vision had improved from the perception of only fingers at 6 ft. to  $\frac{6}{6}$ .

CASE 3.—I am unfortunately unable to give precise notes of this case. A few years ago I was asked to assist at an enucleation. As far as I can remember, the history of the case was as follows. About a month before the date of operation the patient, while out shooting, was accidentally shot in the face. He distinctly felt something strike the eye. On examination there was either no apparent wound of the eyeball or only a slight abrasion. However, a well-marked hæmorrhage near the disc was easily recognised, looking very much as if a foreign body was lodged in its centre. The case was carefully examined from time to time by two medical men, but the persistence of the hæmorrhage without any apparent diminution of its size or density only served to confirm the suspicions entertained that the foreign body was present; and as the patient and his relatives were anxious about the matter it was decided to remove the eye. This was done, and on examining the eyeball no foreign body was found, neither was there much evidence of any hæmorrhage left.

The first two cases were evidently instances of mere concussion of the eyeball, the hæmorrhage being caused by *contrecoup*. In fact, injury to the fundus by this peculiar phenomenon is by no means uncommon, and is especially noticeable in blows or injuries received over the eyeball. The third case must have been identical with the two former. It may have been a case in which the shot had traversed the eyeball and entered the orbit, but there seems not to have been sufficient evidence to suggest this. The case serves to show how necessary it is that a final examination of the eye should be made immediately before it is excised. Had too precipitous measures been adopted in the first two cases useful eyes would have been unnecessarily sacrificed.

The whole subject is replete with difficulties. Each case has to be treated on its own merits, and consequently depends on the judgment of the surgeon who has had drilled into him all the dangers of sympathetic ophthalmitis, and who naturally resorts as early as possible to extreme radical treatment. It is well, therefore, to remind him that there are

certain cases which do not require these radical measures, and that they can only be recognised by an extension of the period of observation usually considered necessary in such cases.  
Aberdeen.

## NOTE ON DIASTASIS THROUGH NECK OF FEMUR.

BY DAVID WALLACE, F.R.C.S. EDIN.

DIASTASIS through the neck of the femur is described as a rare injury in our text-books, and Dr. Hamilton refers to only three problematical examples.<sup>1</sup> In the "Archives of Surgery"<sup>2</sup> the author refers to the detachment of the upper epiphysis of the femur, and specially directs attention to its absence from museum collections, no specimen being extant, and he also refers to the rarity of any clinical descriptions of the injury. Mr. Hutchinson, however, states that he is "confident that it is an accident which is not infrequent." In the first week of April of this year, a few days before I saw Mr. Hutchinson's account of this injury, one of my students asked me to see a case of supposed old-standing dislocation of the hip. On examination of the patient I concluded that it was probably a diastasis through the neck of the femur, not a dislocation at the hip-joint. The history and condition were as follows:—

M. B—, aged eleven years, a girl of good build, tall and strong for her age, was said by her mother to have been a well-nourished child, who walked before she was nine months old. When nine months of age she fell out of her cot, and the mother believes that when falling the right foot caught between the bars, so that the leg was severely twisted. The child cried, and refused to stand up or allow the leg to be moved. There were pain and swelling in the neighbourhood of the hip. Hot fomentations were applied during the first few days, but in the course of two or three weeks (?) a doctor was called in, who said the hip-joint was dislocated, and attempted to reduce it, but failed to do so. Two or three years later the child walked with a distinct halt, and the hip was prominent. At this time the mother showed the girl to a "bonesetter," who tried "to put the bone in," but also failed. The swelling and lameness have persisted until now, but the girl walks, runs, and jumps without any pain as a general rule, although after much romping she now and then complains of pain at the hip. No other injury has been sustained, and there is no history of joint or chest disease in the patient or in other members of the family.

*Present state.*—The patient complains of no pain or discomfort, but says she is lame and that the "leg comes out at the haunch." She walks with a distinct limp, and when she stands the right foot is observed to be a little more everted than the left, while there are marked drooping and rotation forwards of the right anterior superior iliac spine. The right limb is evidently shorter than the left.

*Measurements.*—1. From anterior superior iliac spine to internal malleolus: right, 27 in.; left 29½ in. 2. From anterior superior iliac spine to tip of patella: right, 14 in.; left, 16 in. 3. From tip of trochanter major to external condyle: right, 13½ in.; left, 14½ in. Nélaton's line on the right side passes 1½ in. below the tip of the trochanter; on the left side it is normal.

*Movements.*—The right thigh can be flexed on the abdomen, but not quite so fully as the left. Rotation of the right is greater than the left. Abduction is equal on the two sides. When the right leg is flexed on the thigh and the thigh on the abdomen the trochanter major is felt as a distinct prominence midway between the anterior superior spine of the ilium and the ischial tuberosity, and moves through a much wider radius than the left. No rounded prominence corresponding to the head of the femur can be felt, but there is a distinct mass of bone projecting internally to the trochanter, which moves with the trochanter. (Is it the atrophied head of the femur in an old-standing dislocation, or a short process representing the neck thickened by osteophytes?) When rotary movements are carried out a rough grating is felt deeply seated. The right leg is thinner than the left, but is muscular and shows no sign of malnutrition.

From a consideration of the above points in this case I

conclude that it is a diastasis of the neck of the femur, chiefly because of—(1) a history of injury at an early age, but subsequently to the child walking; (2) no history or appearance of tuberculous disease; (3) marked displacement of the trochanter major upwards, associated with very free movement and eversion of the foot; and (4) a slight degree of shortening of the femur.

Edinburgh.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### MIDDLESEX HOSPITAL.

A CASE OF SUICIDAL WOUND OF THE THROAT COMPLETELY SEVERING THE LARYNX AND OPENING THE GULLET; SUTURING OF EACH; SURVIVAL DURING SEVERAL HOURS.

(Under the care of Mr. HULKE.)

A POINT of forensic and physiological interest in this remarkable case is the allegation that the patient was able to speak in a whisper so as to be understood by the constable called to him soon after the infliction of the wound, although the upper portion was separated by an interval of several centimetres from the lower part of the larynx and one vocal cord was damaged. Closely questioned on this point, the constable's testimony remained unshaken. The absence of respiratory embarrassment in the presence of the deep retraction of the lower part of the larynx is another notable circumstance. Its probable explanation lies in the free access of air through the widely gaping external wound, the rigidly patent lumen of the severed cricoid cartilage and the diminished call on the lungs in presence of the very great loss of blood, and the deep shock. The insensibility to pain shown by the patient during the examination of his wound and the suturing of the gullet and larynx merits a passing notice; it is a not uncommon circumstance in shock from injuries, and as a matter of common experience it seems to be more pronounced in instances of self-inflicted wounds, where it appears to be largely dependent on the mental condition attending these injuries. That this patient was not suffocated by the copious entrance of blood into the trachea may have been due to the widely gaping external wound affording free outlet for the flowing blood, the external escape of which might have been favoured by his lying on his side. It was remarkable that the great cervical bloodvessels escaped injury, as did also the thyroid gland. The retraction of the trachea towards the chest gives some measure of the longitudinal elastic tension of this tube under normal conditions. Owing to the jagged irregular manner of severance of the larynx and the detachment of small pieces the upper and lower parts could not be everywhere adjusted with perfect accuracy. Stout silk sutures were used for sewing the larynx together, being better able to withstand the great downward pull of the trachea and becoming more slowly disintegrated than catgut, and therefore holding longer.

A. C—, aged twenty-three, was received into Founder ward in the early morning of April 15th, 1891. He had very shortly before been found on the floor of a room with his throat cut. His clothes were soaked with blood, which in small quantity was still trickling from a gash in the front of his throat at the level of the cricoid cartilage. The surface of his body was cold, and had the colour and translucency of white wax. His pulse was scarcely perceptible (it was so small and weak); its beats were 60 per minute; respiration 16 (shallow and noiseless). His face had an anxious expression. He was perfectly conscious. When spoken to he tried to answer; his lips moved, but he was voiceless and no sound was emitted. He had swallowed, we were told, a little brandy-and-water, but most of this had run out through the wound. In the casualty receiving-room a hypodermic injection of ether had been given him before it was deemed prudent to move him to the ward. The police

<sup>1</sup> Hamilton: *Fractures and Dislocations.*

<sup>2</sup> Vol. III., No. 12, April, 1892.

constable who brought the patient to the hospital said that he found him lying in a pool of blood on the floor of a room in a house in a neighbouring street. A razor lay on the floor about a yard distant from him. He was conscious and breathing quietly. He asked "Where am I?" To the question "Who did it?" he answered in a loud whisper "Me." On the table in the room was a note in his handwriting leaving his body to the hospital, "as it is not worth burial." The gash was not quite central, but it reached rather more to the left than to the right side of the neck. Its length was about five centimetres and it gaped about two centimetres at its middle. Its edges were ragged, and when drawn apart a deep irregular hollow was apparent, the back of which was formed by the prevertebral muscles and vertebral column, on which were seen the lowest part of the pharynx and the œsophagus. The former of these, near its junction with the latter, had in it a wound two centimetres long, opening its lumen. When the upper tegumental margin of the deep gash was raised the upper part of the severed cricoid cartilage came into view; it, with the higher laryngeal structures, had been drawn up within the mandibular arch. The division of the cricoid cartilage had been effected by a succession of sawing cuts, which had also detached completely several small pieces of it which were lying loose in the wound. The lower part of the cricoid cartilage in connexion with the trachea had retracted so much towards the root of the neck that it could not immediately be seen, but with a laryngeal mirror it was recognised at the level of the upper opening of the thorax. First, bleeding having been completely arrested, the cut in the gullet was closed with three sutures. Next, the lower part of the cricoid cartilage was seized with a vulsellum forceps, pulled up and drawn forwards to the level of the margins of the tegumental wound, which made it possible without risk of suffocation to flush out the deeper recesses of the wound with mercuric perchloride solution. This done the upper and lower parts of the larynx were united with two stout silk sutures on each side passed through the cartilages. These held the parts of the larynx firmly together. A large Trousseau's tube was previously inserted in the trachea. A little iodoform was dusted upon the cut surfaces of the wound and this was protected from direct exposure to ward atmosphere by a couple of layers of carbolised gauze strained over an improvised wire cradle serving as a respirator. Little pieces of ice from time to time placed in his mouth seemed to assuage thirst, which by signs he indicated to be very great, nutrient suppositories and enemata were ordered. Throughout the day he was quiet, but at 11.30 p.m. he grew restless, and he tried to leave his bed. For this one-third of a grain of acetate of morphia was hypodermically injected. After this he was again quiet. At 2.30 a.m. on the 16th (next day) death occurred.

At the necropsy, in addition to the laryngeal injuries mentioned, several cuts were found in the thyroid cartilage, especially on the right side, passing completely through it; the arytenoid cartilages had been severed from the cricoid and the right true vocal cord was divided. The bronchi and lungs were found congested, the right lung deeply so, and the left lung emphysematous. In the anterior mediastinum were calcified remains of a caseated lymph gland. The aorta was slightly atheromatous. The left testis had not descended; it was atrophied.

### MORPETH DISPENSARY.

#### CASE OF ACUTE YELLOW ATROPHY OF THE LIVER; NECROPSY.

(Under the care of Mr. STANLEY YEOMAN.)

ON account of the extreme rarity of the above disease and the unprecedented age at which it occurred, a record of the case will prove of value. Bristowe writes: "Cases of malignant jaundice have been observed chiefly in adults and in women more frequently than in men. But children are now and then attacked with it, and we have recently seen a typical case in a child two and a half years old." Groves described a case in a child aged twenty months. The characteristic symptoms of the disease in Mr. Yeoman's patient were well-marked absence of febrile temperature with the presence of hæmorrhages in the skin and from the mucous membranes and an unusual amount of jaundice. No

cause could be ascertained for the onset of this rapidly fatal disease, the etiology of which is still unknown.

M. M—, aged ten months, was first seen on Monday, Feb. 23rd, 1891. The family history was good, except that a sister and brother of the father had died of phtthisis. The mother had always had good health although she was a thin and weakly-looking woman with little colour. This was the eighth child; she had lost only one previously. The child had always been considered healthy, but had had a slight attack of bronchitis two months ago. The infant, a fine, healthy-looking child, was suffering from jaundice, which had been noticed by the parents the day before (Sunday). Up to that time she had been in good health. There had been some slight vomiting on Sunday, but nothing serious enough to make the parents uneasy. On examination the child appeared remarkably fine for its age and was well nourished, but suffering from well-marked jaundice, the conjunctivæ being more markedly stained than the skin. There had been some slight vomiting the day before, but none since. The tongue was slightly coated; the bowels had been opened the previous day, the motion being soft and of a pipe-clay colour; pulse and temperature normal; abdomen normal; lungs and heart normal. On Tuesday (the 24th) the jaundice had increased in intensity, and there was some hæmorrhage from the gums, the blood being particularly dark in colour; several petechiæ were observed on the back. The edge of the liver could be made out well under the ribs, and the area of hepatic dulness was diminished. The skin was cool and dry; temperature normal. The pulse varied in frequency. No vomiting. Only a very small quantity of urine (about one drachm) was obtainable, which was of a yellow colour with a greenish-yellow sediment. A play of colours was obtained with nitric acid. The child was evidently worse, and inclined to be restless. The next day the jaundice was still more marked; the child was considerably worse, and very drowsy. The bowels had not acted. The tongue was black, there was considerable hæmorrhage from the gums, and dark blood was issuing from the mouth and nose. Besides the petechial spots on the back there were now several on the arms and legs. The temperature was subnormal and the liver dulness appeared less. No vomiting. The child rapidly sank, and died in the afternoon. During the attack the pulse varied considerably, being usually over 100 per minute. The highest was 120, the lowest 60, per minute. The head symptoms were not marked. There was some slight restlessness at the commencement of the attack and drowsiness towards the end. The treatment at first consisted in large doses of sulphate of magnesia and carbonate of magnesia. On the Tuesday five grains of mercury with chalk were given. The bowels only acted once after the child was taken ill; this, no doubt, was partly due to the fact that the parents neglected to give the medicine regularly.

*Necropsy, eighteen hours after death.*—A well-nourished child with marked jaundice. There were six large extravasations of blood on the back, from about the size of half a crown to a four-shilling piece. There were fifteen small spots on the left leg, two on the right leg, two on the left arm and seven on the right arm. These were from about the size of a threepenny piece to a sixpence. The heart and lungs were normal. The liver was well under the ribs and very small slightly wrinkled and flabby. The wrinkling increased a few hours after removal. The gall-bladder contained a small quantity of light-coloured fluid. There was no obstruction in the ducts. The lobules were obliterated. Weight seven ounces. The spleen weighed one ounce and a half. There was a small supplementary spleen. The right and left kidney weighed one ounce and three-quarters each. The heart weighed an ounce and a half. The stomach and intestines contained a fair amount of blood, and there were slight extravasations into the coats of the intestines. The large intestine contained hard grey fæces. Other organs were normal in appearance. Mr. Shattock examined a specimen of the liver microscopically and reported thus: "The sections show no trace of hepatic tissue, but simply granular detritus. I should consider it certainly an example of acute yellow atrophy."

*Microscopic appearance of the blood.*—The red corpuscles were very granular and irregular, and showed no tendency to form rouleaux. The white blood cells were greatly increased in number. There were crystals of tyrosine and cholesterine.

*Remarks by Mr. STANLEY YEOMAN.*—This case I consider shows in a remarkable manner the close similarity that subsists between phosphorus poisoning and acute yellow atrophy of the liver, a similarity that has led some to

suggest that the two are identical. In arriving at the diagnosis a careful exclusion of the possibility of phosphorus poisoning was perhaps the most important evidence. This was carefully confirmed at the post-mortem examination, since there was not even a minute trace of phosphorus in the stomach or intestines. Another point in the case was the absence of vomiting, which is so characteristic of phosphorus poisoning. On the other hand, the cerebral symptoms were not so marked as might have been expected. One of the most interesting points noticed during life was the remarkable variation in frequency of the pulse. The temperature, nevertheless, never rose above the normal. Considering the readiness with which the temperature rises in children from slight causes, this was well worth noting. Unfortunately, a fair specimen of the urine could never be obtained for careful examination. Finally, I may say that the extremely rapid change in the hepatic tissue, the quick termination of the case, the absence of vomiting, the unlikelihood of a child of that age obtaining phosphorus, and the rarity of phosphorus poisoning, all negative the idea of any foul play. Dr. Philip very kindly attended the case throughout with me, and I have to thank him for many of the above notes, which, unfortunately, I feel are far from complete, as the circumstances surrounding the patient considerably handicapped us.

### GOONA HOSPITAL, INDIA.

#### ABSCESS OF THE LIVER; OPERATION; RECOVERY.

(Under the care of Surgeon-Captain SHAW.)

THE following case illustrates the treatment of hepatic abscess by direct incision and drainage from the side through the abdominal wall, adhesions having taken place between the apposed surfaces of peritoneum. It has been stated by Kartulis that the pus of hepatic abscesses following the dysentery of hot countries does not contain micro-organisms, and that therefore, should any escape into the peritoneal cavity during operation, peritonitis is not likely to ensue. It is almost impossible to exclude dysentery as a cause of the abscess, for not infrequently, although there has been no history or symptoms of that disease in fatal cases, it has been found that dysenteric ulceration of the bowel was present.

L. C.—, aged thirty-four, was admitted on April 19th in a feeble and emaciated condition with the following history. Eighteen months before admission he had a severe attack of fever (malarial) lasting three months. He completely recovered, excepting that after meals he was troubled by a sense of weight and uneasiness in the gastric and hepatic regions. Some months afterwards, whilst kneading his abdomen, he noticed a swelling over the liver, and there was slight pain. More than a year elapsed when the pain became so severe that he was obliged to come into the hospital for treatment. He had never had dysentery or syphilis. His condition on admission was as follows:—Very thin, emaciated, and so weak that he could not sit up in bed; pulse 120 and thready; severe constipation, with scanty clay-coloured stools; tongue flabby and pale, except where discoloured with dark patches; complexion muddy looking. No vomiting or cough had troubled him at any time; no purulent matter had been passed per anum. The hepatic dulness reached downwards to the level of the umbilicus, but was not increased upwards. The enlargement was wholly confined to the right lobe. The patient complained of severe headache, and his temperature rose every evening to 100° or 101°. He was ordered a purgative and some "hepatic mixture," with quinine. A severe burning pain in the liver was eased for the time by a blister. Some days later the assistant surgeon tapped a very distinct bulging just below the ninth rib, drawing off twenty-four ounces of pus, and thereby giving much relief.

May 6th.—Again tapped, thirty-two ounces of pus being drawn off.

10th.—Tapped; twenty ounces taken out.

12th.—Eleven ounces more drawn off, making a total of eighty-seven ounces evacuated by the trocar.

After this the pus continued to ooze out of the trocar openings, until the patient was seen by Surgeon-Captain Shaw on May 17th. He was then terribly pulled down, could not sleep, but had no night sweats. The skin over the liver was tense and red and was bulged out, but fluctuation was absent. The pus discharged was very foul. Over the base of the right lung rough friction sounds and small

crepitations were heard, but there was no dulness. As no opening had established itself between the liver abscess and the intestinal canal or the lung, and as the pus would force a passage for itself sooner or later, it was determined to drain the cavity. A probe put into one of the trocar openings followed a sinus running subcutaneously upwards and backwards for three inches and a half. Under chloroform the abscess cavity was explored through one of the openings just below the ninth cartilage, which was about four inches and a half long, two inches and a half broad, and ran obliquely backwards and inwards; its mouth was about one-third of an inch in diameter. A three-inch incision was made parallel to and just below the thoracic margin. The peritoneum was adherent to the abdominal wall; one small vessel was tied, and the necrosed tip of the ninth cartilage, which lay close to the opening, was snipped off. With the operator's finger the walls of the cavity were felt to be ragged and slimy, and about six or eight ounces of chocolate-coloured pus gushed out, mixed with what looked like lumps of white fibrin and with large blood-clots. The cavity was then washed out with 1 in 4000 sublimate solution, half an ounce of iodoform and strips of lint soaked in iodoform emulsion put in, and finally a large drainage-tube and dry dressing, which completed the procedure. Speed was imperative owing to the critical condition of the man. His temperature rose that evening from 97.6° to 100.8°.

21st (the day after the operation).—Morning temperature normal, evening 102.2°; pain much less. A little pus was syringed out of a small recess, which was opened into by the probe. There was no foul smell. The remainder of the case can be shortly stated. For two days after this the temperature rose to 101.2° and 99.8° in the evening, being normal in the morning. The cavity was syringed out daily, the discharge soon ceased, but the drainage-tube and strips of lint were kept in, chiefly to prevent the mouth from closing. Surgeon-Captain Shaw is of opinion now that they might have been removed long before they were. The tube was shortened as the cavity got shallower and narrower. The man himself frequently took out the tube when the surgeon's back was turned and persisted in squatting on his "hunkers" to eat his meals. Thinking himself quite well he left the hospital on the night of June 9th, but was taken back next day none the worse for his exertions.

June 18th.—Tube removed; cavity almost filled up. Liver dulness quite normal and base of right lung quite clear of adventitious sounds. The man has got quite stout. There is now only a very small opening left, through which a little serous discharge comes. He is about to return to his field work in a few days. He will have been about eighty days under treatment.

*Remarks by Surgeon-Captain SHAW.*—There is nothing definite to point to the exact cause of the disease. The frequency with which the pus had to be drawn off shows how quickly it accumulates in these abscesses and, what is more important, shows, I think, how likely any incomplete measure, such as tapping or aspiration, is to prove a failure. In my opinion waste of time and tissue might have been saved in this case by early incision and drainage. I do not quite understand why the opening of a liver abscess externally below the ribs should be looked on with so much alarm, for, I should suppose, peritoneal adhesions are almost certain to have had time to form.

**HULL ROYAL INFIRMARY.**—The chairman and managing committee of the Hull Infirmary have received a communication from Messrs. Reckitt, in which the writers express their intention of presenting the Withersna hotel and grounds to the hospital as a convalescent home. The authorities, in acknowledging the generous gift, express their sense of the benefit the donation will confer on the sick poor of the neighbourhood.

**THE NEW HOSPITAL AT HALIFAX.**—After some delay the work of erecting the new infirmary seems to have entered a more satisfactory phase. A site, fourteen acres in extent, has been purchased, and the subscriptions already promised, along with the proceeds of the sale of the old infirmary, will, it is believed, be sufficient to cover the cost of the new hospital. The scheme formulated at the outset provides for from 130 to 150 beds, and it is proposed to build an administrative department on a scale sufficient for a hospital of 300 beds should funds be available for that extension.

## Notices of Books.

*How to feel the Pulse and what to feel in it: Practical Hints for Beginners.* By WILLIAM EWART, M.D. Cantab., F.R.C.P. London: Baillière, Tindall and Cox. 1892.—*Die Untersuchung des Pulses, und ihre Ergebnisse in Gesunden und Kranken Zuständen.* Von Dr. M. v. FREY. Berlin: Julius Springer. 1892.—The study of the pulse is as old as medicine itself, and in the two works named above we possess as complete a view of the subject as is possible; but the standpoint of the English and of the German author is very different. Dr. Ewart confines himself strictly to the limits imposed by the title of his book; Dr. Frey aims at presenting a complete physiological exposition of the mechanism of the circulation as regards the heart beat and the pulse wave. The one is of immediate utility in daily practice; the other shows us how far science has succeeded in elucidating the various phenomena of cardiac action in health and disease. Each work has its special value and the one complements the other. Dr. Ewart's little work, although addressed to beginners, will be read with pleasure by older men who have been feeling pulses all their lives. In systematic arrangement of matter, in minute attention to detail, in taking nothing for granted but explaining each point as it arises, the book is a model clinical manual. Opening with a description of the methods of feeling the pulse, and then considering briefly the essential facts of its physiology, the author describes in turn the qualities and varieties of the normal pulse, and then the abnormal conditions. A short chapter is devoted to capillary pulsation and another to venous pulsation. There is a very useful glossary of terms employed in the description of the pulse, and a list of Latin terms appended to the volume. We doubt if anyone could find fault with a book written with such laudable intent and so admirably adapted for its purpose, whilst to the student it must be invaluable. Dr. Frey's more ambitious monograph dismisses in a few pages the information to be gained by the time-honoured method of palpation. He is more concerned with describing the sphygmograph and its congeners, which have been devised to record not only the character of the pulse wave but the degree of tension and the volume of the pulse. The cardiac movements are studied very thoroughly, both as regards the pressure conditions and the cardiographic record. The arterial pulse is then studied as to its characters in different regions, and the separate variations it undergoes under varied circumstances. In a word, the book represents the advanced physiology of the time, whilst its value is enhanced by the ample bibliography appended to each chapter.

*Diseases of the Nervous System.* By J. A. ORMEROD, M.D. London: J. & A. Churchill.—This is the latest addition to Messrs. Churchill's Students' Guide Series. In the execution of such a work, novelty and originality are not to be expected, or even desired; but an author who sets before himself the object which Dr. Ormerod had in view must possess a wide and intimate knowledge of nervous disease, an intuitive perception of the difficulties which a student is likely to meet amid the intricate problems of neurology, and at the same time the ability to describe in clear and precise language the various phenomena of the different diseases. The author of the work before us evidently possesses all those requisites in an eminent degree, and he is to be congratulated on the judicious use which he has made of his knowledge and wide experience. The book is divided into eight chapters; the first two are devoted to an account of the anatomy, normal and morbid, of the nervous system; the third, fourth and fifth treat of the symptoms, general and special, of nervous

disease; the sixth, of diseases of the nerves and cord; the seventh, of cerebral diseases; and the eighth of functional diseases. In some parts the work is necessarily sketchy, but on the whole it is admirably fitted for the purpose for which it is intended.

*The Surgical Diseases and Injuries of the Stomach and Intestines.* By F. BOWREMAN JESSETT, F.R.C.S., Surgeon to the Cancer Hospital. London: Baillière, Tindall and Cox. 1892.—The title chosen for this little book is not a very happy one. It should have been "The Surgical Treatment of Diseases and Injuries of the Stomach and Intestines." The investigations and writings of Senn have greatly advanced this department of operative surgery, and while it is absurd to anticipate that his work will be crowned with the same measure of success as has followed the labours of the early ovariologists, there is no doubt that a large number of cases that have been hitherto allowed to die unrelieved will in the future obtain a prolongation of life and diminution of suffering through the art of the surgeon. Mr. Jessett has repeated many of Senn's experiments, and has himself worked further on the same lines, and has tested some of the results he has obtained in animals in patients under his care. The results have certainly been encouraging. In the book before us an account is given of the work he has himself done in this department of surgery and of the work of Senn and many other surgeons in America, Great Britain and Germany. The various operations that have been suggested are described and criticised and the reader will find gathered together what has been hitherto scattered in surgical literature. It is not new material that is here given—most of it has already appeared in transactions of societies or in periodical literature, but it is very convenient to have it in book form. There is a certain amount of repetition that ought to have been avoided and in some places a little confusion between experiments on animals and operations on man. As a surgical handbook it is interesting and will be useful.

*The Mediterranean Shores of America: Southern California.* By P. C. REMONDINO, M.D. Philadelphia and London: F. A. Davis and Co. 1892.—We are quite prepared to recognise Southern California as possessing one of the best climates in the world and as an excellent sanatorium for some types of phthisis, but we confess that we feel obliged to take many of Dr. Remondino's statements with several grains of salt. For instance, he analyses the deaths from phthisis at San Diego for a period of ten years. The total number was 258. Only nine of these, we are informed, were born at San Diego, and of these eight were females. The author does not believe that these eight were true cases of tuberculosis, because (1) "the cases were attended at the end with a general breakdown, the lungs from their importance doing so (*sic*) prominently," and (2) "no one was ever infected or fell a victim to the disease by being with them." No necropsies were made. Comment is needless. Dr. Remondino is fond of classical allusions, but either he is often at fault or his printer has been unkind to him. In "Eulesis" it is a little difficult to recognise the seat of the Eleusinian mysteries and "Dionysius" is not the Greek equivalent of Bacchus.

*Our Temperaments: their Study and their Teaching.* By ALEXANDER STEWART, F.R.C.S. Edin. Second Edition. Crosby Lockwood and Son. 1892.—This work, the first edition of which was favourably noticed in these columns, is an attempt to throw light on one of the most obscure, but assuredly most interesting, chapters in anthropology. The author has accumulated a mass of information from philosophers, medical men, poets, artists and others to prove the existence of recognisable types or temperaments

and urges that practical lessons of great importance may be drawn from his conclusions. For ourselves we should deny the existence of even the four leading so-called temperaments—viz., the sanguine, the bilious, the lymphatic and the nervous—or rather we should maintain that the existence of intermediate types is so universal as to deprive this classification of practical value. Nevertheless, there is truth mixed up with much doubtful theory in the speculations that have been made on the question of temperaments, and anyone anxious to look into the subject will find much to interest and instruct him in Mr. Stewart's pages. The illustrations, printing &c. of the work are excellent.

*The Rationale of Mesmerism.* By A. P. SINNETT. Kegan Paul, Trench, Trübner and Co. 1892.—Mr. Sinnett is very severe on those who have questioned the right of Mesmer to be regarded as a great thinker and discoverer, and maintains that "the records of mesmerism, both early and recent, teem with illustrations of the way in which magnetic influence from a distance has been successfully exerted upon persons quite unprepared to receive it." It is strange that the men most qualified by training and ability to establish a new scientific fact still remain quite incredulous regarding the existence of this "magnetic influence," while freely admitting the reality of the phenomena of hypnotism. It is the explanation of the phenomena that is the disputable point. Mr. Sinnett has, of course, his *argumentum ad hominem* ready for all who question his special creed. "The incredulity of unspiritual mankind is Nature's own protection against those unfit as yet to use her higher gifts." The book is in fact an attempt to revive the belief in animal magnetism as the explanation of the mesmeric or hypnotic trance and the well-known attendant phenomena. We regard that theory as decisively disproved and see little advantage in reviving an obsolete controversy. Hypnotism is a curious chapter in psychology and, although hitherto practically barren, may yet prove helpful to mental science, if not to therapeutics. But we feel sure that "animal magnetism" in the strict sense is a chimera.

*Zwölf Vorlesungen über den Bau der nervösen Centralorgane.* Von Dr. LUDWIG EDINGER. Dritte umgearbeitete Auflage. Leipzig: F. C. W. Vogel. 1892.—It is only a few months since we had the pleasure of welcoming the appearance of an English edition of Dr. Edinger's well-known lectures on the anatomy of the central nervous system. The high appreciation which the work enjoys in Germany is evidenced by the appearance of a third edition in which the author has made valuable additions to the letterpress and also to the illustrations. The book in its present form furnishes one of the most complete and reliable accounts of the structure of the nervous system which we possess, and the publication of an edition which incorporates all the latest knowledge in this department of research is an event of interest and importance.

*Handbook for Travellers in Northern Italy.* Sixteenth Edition; carefully revised, with a Travelling Map and numerous Plans of Towns. London: John Murray. 1892.—The tourist season and the autumn months will find many of our compatriots at the Italian lakes and in the chief cities of the subalpine and Lombardo-Venetian provinces. For them there is no better guide than the time-honoured "Murray," brought up as it is to the latest and most trustworthy information. The present edition, however, is less strong in some departments than it might be—notably in that of the mineral-watering places and health resorts. Abano, for instance, and Battaglia, both in the Venetian territory, while receiving ample justice as regards their hotel accommodation and local attractions, are quite inadequately dealt with in respect of their mineral waters.

*Yellow Fever: a Monograph.* By JAMES W. MARTIN, M.D. Edinburgh: E. & S. Livingstone. 1892.—Although the essay on which this monograph was founded formed a paper "read before the Royal Medical Society of Edinburgh some years ago," it is by no means old-fashioned in its treatment of the subject. Besides giving a very clear and concise account of the chief facts about yellow fever and its congeners among the malarial fevers of the tropics, it discusses its etiology at some length. The author seems to be favourably impressed with the results reported by Dr. Freire of his treatment by inoculation, and ventures to predict that medical science "in the near future" will do much to deprive this scourge of the tropics of its terrors. We sincerely trust that his prophecy may be verified.

*Differentiation in Rheumatic Diseases (So-called).* By HUGH LANE, L.R.C.P., M.R.C.S. Second Edition. London: J. & A. Churchill. 1892.—We need merely note the appearance of a second edition of this little book, the substance of which originally appeared in these columns. It is written in a purely practical spirit and points out with success the leading features of chronic rheumatism, rheumatoid arthritis and gout, besides discussing with commendable detail the main lines of treatment of a class of painful affections which so often defy our powers in this direction. The plan of thermal treatment in the baths of Bath is stated and judicious hints given as to their prescription.

*Nervous Exhaustion.* By WALTER TYRRELL, M.R.C.S. London: Kegan Paul, Trench, Trübner and Co.—It is a pity that Mr. Tyrrell should have applied this title to his little book. Nervous exhaustion is now so generally used as a synonym for neurasthenia, which is daily becoming a more definite clinical entity, that it is a pity to complicate matters by embracing under the title such diseases as epilepsy, hysteria, neuralgia and "suppressed gout," whatever that may be. The author holds that these conditions are all the result of the exhaustion of what he calls "nervous force," and his treatment is directed to building this up by means of tonics &c. If his pathology is correct his therapeutics are rational, but we doubt whether his theories will meet with general acceptance.

*Transactions of the Medical Society of the State of Pennsylvania.* Philadelphia: Wm. J. Dorman. 1890.—Many excellent papers are contained in this number. It would be impossible to criticise the whole of them here, but we would specially draw attention to the "Address in Hygiene" delivered by Dr. Thomas J. Mays on "The relation between Artificial Inoculation and Pulmonary Consumption," although we cannot agree with one of the sentiments expressed—namely, "that never was an *ignis fatuus* pursued which left more promises broken and greater anticipations unfulfilled than the bacillus theory, so far as it stands related to the prevention and treatment of pulmonary consumption." Interesting also are the papers on "The Management of Obstinate Dropsies," by Dr. James Dyson, and "Prolapsus of the Rectum in Children," by Dr. K. R. Wharton. As a chronicle of local epidemics and diseases the reports from various county societies are worthy of note.

*The Veterinary Journal.* August 1892. Edited by GEORGE FLEMING, C.B., LL.D., F.R.C.V.S. London: Baillière, Tindall and Cox.—The articles in this number are of full average interest, and comprise, amongst others, a description by Mr. J. Clarke, F.R.C.V.S., of a disease in cattle commonly called grass disease, which seems to have hitherto escaped distinct notice. A paper by Veterinary-Captain J. A. Nunn, F.R.C.V.S., on the use of Cocaine in Masking Lameness, is also worthy of perusal. An editorial article in this number deals with a subject which is now exciting considerable attention—namely, the prevalence of glanders. The editor suggests that recourse might be had to mallein as an aid to diagnosis in this disease.

## Analytical Records.

### COMPRESSED PELLETS OF CASCARA SAGRADA AND OF PEPSINE.

(WYLEY'S, LIMITED, COVENTRY.)

AN examination of both these preparations proved very satisfactory. The contents of the compressed pellets of pepsine were, on experiment, shown to be remarkably active on coagulated albumen, rapid digestion ensuing, the liquid subsequently exhibiting the reactions for peptones. We regard the pepsine pellets, therefore, as a suitable and elegant form of digestive. On examining the cascara pellets they were found to dissolve gradually in cold water until a brown mass of extract was exposed which was not entirely soluble in water, but almost completely in spirit. Seeing that the pellets contain all the desirable ingredients of the "sacred bark" they are calculated to serve a useful purpose, and are especially adapted for the administration of this drug to those who in other forms find it unpleasant to take. Both pellets are coated with pure cane sugar.

### TRITICUMINA FOOD AND BREAD.

(MEABY'S TRITICUMINA COMPANY, READING.)

The preparation of these farinaceous foods is evidently based on sound scientific reasoning. Triticumina is described as a wheaten food malted under conditions specially ascertained for the purpose of rendering the product most suitable for use as a digestible food. This statement is borne out by our analyses, which elicited that the food contains twice as much soluble carbohydrate as ordinary wheaten flour, while it was particularly rich in valuable phosphatic constituents, the total mineral matter amounting to 1.32 per cent. This proportion of valuable mineral constituents is doubtless secured by the use of the entire wheat in its preparation. The specimen of bread made from this flour is an excellent brown loaf of uniform texture, having a sweet nutty smell on fracture and keeping moist and fresh several days. The microscope showed the presence of branny particles, but so small in size as to be hardly distinguishable by the unaided eye. We have not examined a better specimen of bread or one that approaches more closely to the ideal.

### DORINA BISCUITS.

(H. B. CHIBNALL, 77 AND 79, KING-STREET, W.)

These biscuits, which more nearly resemble cakes, are suitable for invalids because they contain a high percentage of soluble carbohydrates, a suitable proportion of fat and a corresponding quantity of mineral salts, including soluble phosphates. They make an excellent sop when prepared with milk in the manner directed, and being largely soluble little effort is required to masticate them. They contain more phosphate than ordinary bread and an increased amount of dextrin and maltose. The microscope shows wheaten starch cells, which have undergone certain changes consequent on well-regulated cooking. The biscuits, no doubt, possess distinct nutritive value.

### LIQUOR PAPAIN ET ACID GLYCERINE: PAPAIN TABLETS AND LOZENGES, &c. (DR. FINCKLER AND CO.)

(B. KÜHN, 36, ST. MARY-AT-HILL, E.C.)

The action of papain, or, as it may be called, vegetable pepsine, very closely resembles that of ordinary pepsine, inasmuch as it not only dissolves fibrin but converts it into true peptone. Moreover, papain possesses a distinct advantage over pepsine in that it is equally active in acid, neutral, or alkaline menstrua, so that there is every probability that it is effective as a digestive agent throughout the whole alimentary tract. True papain is obtained from the juice of the trunk and fruit of the carica papaya by treating it with alcohol, which precipitates the ferment. So obtained it is quite uniform in its action. The papain forming the basis of the above

excellent preparations is evidently prepared in this way. The digestive action of this curious substance is admirably demonstrated when the above glycerine extract is used for experiment. It is seen to rapidly digest white of egg when warmed to blood heat with a little water in a test tube. The lozenges, tablets and pilules afford very convenient forms for the administration of this valuable digestive, and in view of the important advantages papain possesses it is deserving of more extended trial.

### SUN-CURED VIRGINIA CIGARETTES, ALL TOBACCO.

(T. P. & R. GOODBODY, LONDON AND DUBLIN.)

In a report of THE LANCET Analytical Commission,<sup>1</sup> which was instituted in consequence of prevailing rumours that the tobacco in cigarettes contained opium, and other injurious substances, the analytical evidence showed that there was no foundation for such suspicions, the only possible thing that could be objected to being the copper lettering used on the paper wrapper to indicate the brand. As was then pointed out, if the lettering containing copper were objected to, no doubt manufacturers could be induced to adopt some other means of indicating or distinguishing their own particular wares. Recently<sup>2</sup> it was reported from America that deaths had actually occurred from the excessive smoking of cigarettes, the paper wrappers of which were stated to contain arsenic and phosphorus. We are inclined to doubt whether either phosphorus or arsenic has ever been found in the paper used for cigarette making, unless in exceedingly minute and therefore negligible quantity. None of these charges, at any rate, can be brought against cigarettes when the tobacco contained in them is wrapped in nothing but pure tobacco leaf. Cigarettes have been submitted to us by the above firm made in this way. We have not obtained a tittle of evidence that they contained anything but pure tobacco. The only alkaloid detected in the cigarettes when they were suitably treated was the one normal to tobacco—viz., nicotine; search for substances of an injurious nature procured only negative results. When smoked they compare very favourably with the ordinary cigarette; they were cool and sweet and appeared to burn more slowly.

### CANADIAN CLUB WHISKY.

(WALKER AND SONS, ONTARIO, CANADA; LONDON OFFICE, 18, COCKSPUR-STREET, TRAFALGAR-SQUARE, S.W.)

This whisky will not suit all palates, inasmuch as it is strongly impregnated with the peculiar and somewhat aromatic flavour of the wood in which probably it has been stored. It is very dark in colour, but in spite of this it is particularly soft to the palate, having been allowed to mature, according to Excise guarantee, for a period of five years. It blends well with aerated waters. Analysis showed the presence of a slight excess of tannin and extractive matters, but in other respects the results were quite normal. Absolute alcohol 42.50 per cent. by weight, 50 per cent. by volume, equal to 87.60 per cent. proof spirit; extractives, 0.21 per cent. The sample was quite free from all raw and injurious products.

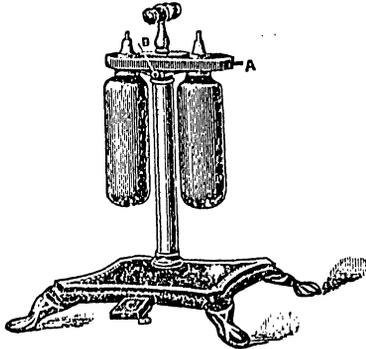
## New Invention.

### THE PEDAL LEVER GAS STAND.

THE various forms of apparatus in ordinary use for the administration of nitrous oxide gas possess some disadvantages, which become especially apparent when it is desired to give the gas for an operation lasting some minutes. Until recently the choice of apparatus has been restricted to the gasometer arrangement or some form of metal bottle with a screw foot-

<sup>1</sup> Vide THE LANCET, Oct. 20th, 1888, p. 785.  
<sup>2</sup> Vide THE LANCET, April 2nd, 1892, p. 709.

key. In the former the holder is generally too small and requires refilling from the metal bottle during the operation, while in the latter the screw arrangement invariably in use is not the mechanism best adapted for easy manipulation by the foot. It is often difficult to turn on and off, and the bottles are held in the horizontal position. To do away with these disadvantages Mr. Walter Smithard, L.D.S., has invented the apparatus figured below. The stand consists of a hori-



A, Screw for clamping bottles to valves. B, Aperture for indiarubber tube conveying gas to bag. C, Pedal.

zontal base 12 in. in diameter, raised by four feet 2 in. from the ground. In the centre of the base is fixed an iron tube cased with brass. In the upper end of this pillar and in the pillar itself are arrayed the valves and springs, and projecting from the side of the base is the pedal (c). The bottles are fixed to the valves in the upper end of the pillar and held in position by a powerful screw clamp, and the gas is turned on at each bottle. The apparatus is then ready for use, and requires only the slightest pressure of the foot on the pedal to liberate the gas into the bag as it may be required. It possesses the following advantages. The stand will carry any sized bottle from a fifty gallon steel to a hundred gallon iron. The bottles are held in the upright position, which facilitates the easy and regular escape of the gas. When the bottles are once fixed and turned on, the slightest pressure of the foot on the pedal liberates the gas into the bag. There is no turning the foot round or slipping of the key, the supply of gas is under perfect control with a minimum of trouble, leaving both hands and the whole attention of the administrator to be devoted to the patient. This apparatus has been in use at the hospital for some months, and has been found most convenient, compact and easy to work.

ALEXANDER WILSON, F.R.C.S.,  
Administrator of Anæsthetics, Victoria Dental  
Hospital, Manchester.

## GRAVES' OR BASEDOW'S DISEASE IN ANIMALS.

THE morbid condition with which the names of Graves and Basedow are associated is not very rare in mankind, but it is only recently that an affection closely allied to, if not identical with, it has been observed in animals. In man, as is well known, goitre is frequently accompanied by exophthalmos and cardiac disturbance, and indeed it is these three symptoms which constitute the characteristics of Graves' disease. In later years we find mention now and again in veterinary literature of cases of goitre in different species of the domesticated animals, but until 1888 the malady under consideration was not reported as having been observed in them. In the *Archives of Veterinary Medicine*, published at St. Petersburg in that year, Jeswjenko describes the case of a four-years old thoroughbred horse which, after a long gallop, exhibited abnormally strong and frequent arterial pulsations, cardiac palpitations, and progressive weakness; it had tumefaction of the thyroid body, and in sixteen days there was very marked double exophthalmos, the ocular globes being so protruded that the eyelids could no longer cover them. The animal died in about a month. The same observer had witnessed a somewhat similar case in a small pet bitch aged seven years, but it was cured in three months on being treated with iodine. In the annual veterinary report for the kingdom of Saxony for 1890 Roder alludes to a cow which had severe

palpitation of the heart, frequent and violent arterial pulsations, a thyroid body hypertrophied to the size of a man's fist and very intense double exophthalmos. This condition had been in existence for four years. Another instance—the best hitherto described—was brought before a meeting of the Paris Central Society of Veterinary Medicine not long ago by Professor Cadiot of the Alfort Veterinary School. This case was that of a horse (gelding) about fifteen years old, which had been taken to the school as a patient. The owner had been in possession of it for only six weeks and knew nothing of its history, but he had noticed that it was gradually becoming feebler. On examination the animal was found to be emaciated, very weak and apparently exhausted, with a swollen and painful fore-limb and œdematous infiltration into the dependent parts of the body, as well as several small tumours in various regions. At the upper and front part of the neck, on the trachea, was a hard and indolent hemispherical tumour adhering to the inner surface of the skin, which appeared to be constituted by hypertrophy of the left thyroid body; situated on the left side of the trachea, it advanced to the middle line. On the right side there was only slight enlargement. A very striking symptom was noted on the course of the superficial arteries; this consisted of very strong and perfectly rhythmical movements of the skin over these vessels, similar to those occurring in certain cases of aortic insufficiency; when the hand was placed over these arteries, bounding pulsations could be felt. These phenomena were more especially observed over the course of the glosso-facial, temporo-maxillary, posterior auricular, occipito-muscular, carotid and gluteal arteries. On each side of the croup and over the course of the latter vessel sudden jerkings of the skin and subjacent muscular layer were remarked at equal intervals—powerful pulsations synchronous with the cardiac systole. At the glosso-facial artery the pulse numbered from seventy to eighty beats per minute, and on compressing the superficial veins they assumed large dimensions. When the hand was applied to the præcordial region violent, precipitous and palpitating shocks were perceived, which, as it were, shook the thoracic wall. Auscultation also revealed serious cardiac disturbance, mainly marked by violent contractions of the heart which appeared to cause the animal pain. Rectal exploration of the posterior aorta and its terminal vessels gave evidence of their increased dimensions and abnormal pulsations. Inspiration was normal, but expiration was interrupted. The temperature was 38.4° C. The urine did not contain either albumen or sugar. The visible mucous membranes were slightly infiltrated, and an examination of the blood gave no reason for suspecting the existence of leucæmia. The symptoms increased in intensity and the thyroid body augmented in size until death ensued in three days after admission to the hospital. A necropsy showed the heart to be hypertrophied; it weighed seven kilogrammes; there were insignificant valvular alterations; the large arteries had an enormous calibre—they were about double their ordinary diameter—but their walls were thin; all the viscera were congested; the left thyroid body was more than ten times its natural size, measuring twenty-three centimetres in circumference and nine in diameter, and had a very vascular and fibrous aspect; it was surrounded by a thick capsule of connective tissue; there was only slight hypertrophy of the right thyroid body. In this case, related by Cadiot, one of the characteristic signs of Graves' disease—exophthalmos—was absent; but the others—cardiac palpitations, bounding pulse and hypertrophy of the thyroid—were certainly present. The absence of abnormal prominence of the eyeballs in this horse rather militates against the supposition that it was the malady in question; but then, as Cadiot pointed out, even in mankind all the symptoms enumerated are not equally conspicuous in every case, the goitre or the exophthalmos may at first be trifling and only become noticeable at a late period and successively, or be altogether absent. What predominate in this syndrome are the circulatory troubles, which appear to be dependent on an obscure lesion of the sympathetic nervous system or of the vaso-motor centres; and if it generally assumes a typical form easy to recognise, it also appears in masked or abortive forms which render diagnosis difficult. In this case it was admitted that there was something more than a mere coincidence between the cardio-vascular disturbance and the hypertrophy of the thyroid body, and that it had at least a close relationship to Graves' or Basedow's disease, of the existence of which in animals the instances recorded leave scarcely any room for doubt.

# THE LANCET.

LONDON: SATURDAY, AUGUST 20, 1892.

THE Tables (which are specially compiled for THE LANCET, and which we publish monthly) giving an analysis of statistics of sickness and mortality in London may be consulted with great advantage by our readers. They indicate not only the number of deaths from the principal infectious diseases, but the number of notifications of cases of such diseases for all the London districts. To be forewarned is to be forearmed, and to know that certain diseases are abroad is a stimulus to early and correct diagnosis. Such Tables, too, are a valuable guide to the health of different districts, and should afford comfort or dissatisfaction to the sanitary authorities according as their record of health is good or otherwise.

They are useful to us to-day as showing at a glance the importance of a much-despised complaint in the list of the causes of summer mortality. It cannot be too often pointed out that the diseases which cause the largest number of deaths are frequently those which are least feared. The following is a list of the "deaths from principal infectious diseases" that occurred in London during July in numerical order: diarrhœa, 627; measles, 300; diphtheria, 129; whooping-cough, 100; scarlet fever, 88; enteric fever, 25; small-pox, 4; typhus fever, 2; other continued fevers, 2.

Our more particular purpose just now is to invite attention to "diarrhœa," which is classed among the zymotic diseases and stands at the head in prevalence and mortality at the present season. In any summer it would be right to emphasise this disease and its lessons, but it is especially so at a moment when the invasion of Eastern Europe by cholera excites anxiety. So far as cholera is concerned we may be comforted by the better knowledge of the laws of the diffusion of the disease and the better powers of sanitary authorities for resisting it. But the more we study allied diseases and learn to effectually cope with them the greater confidence may we feel in contemplating the invasion of a disease which admits of so little satisfactory treatment. Our Tables show that, whereas the mortality in June from diarrhœa in London was 200, that of July rose to 627. It is satisfactory to know that, large as is this number, it falls short of the average by 298. This may be set down to some extent to the comparative moderation of summer heat, and to the general improvement in public health due to the development of sanitary legislation and the greater diffusion of sanitary knowledge. Be this as it may, we are in the very height of the season for such disease. The temperature of the earth is at 56.5°, which Dr. BALLARD has ascertained to be the temperature at which the disease prevails, and any study of it is opportune. It may be premised that most of the mortality from diarrhœa is among infants. "Choleraic diarrhœa" jeopardising life in adults is relatively rare, and probably much rarer than it used to be in England. The older members of the profession will remember that it used to be not uncommon to see very severe cases of "English cholera" in this country with evacuations that

produced collapse and sometimes suppression of urine. Even in a healthy season diarrhœa still causes in London in one month 627 deaths. The pathology of these cases has always been more or less obscure. The older authors used to say that in many of the cases the necropsies revealed no lesions, and that the flux was a merely functional one attended with no change of structure. Of late years the accounts of the morbid anatomy have been more definite and serious. In cases that are without inflammatory symptoms, severe and yet not fatal, it is probable that there is some turgescence of the intestinal glands. The glands are more distinct than usual. Dr. J. LEWIS SMITH of New York, to whom we owe good descriptions—clinical and anatomical—of infantile diarrhœa, says the solitary follicles of the large intestines especially are in most cases elevated and their central depression distinct; the patches of PEYER are also prominent. In the graver cases, attended with pyrexia and lasting a week or more, serious lesions are found, and the disease is a genuine enteritis. Dr. SMITH says: "The 1500 cases of so-called cholera infantum, reported every summer in this city, are, with now and then an exception, cases of inflammation generally protracted." He adds the following suggestive sentence: "In like manner the excess of reported cases of infantile marasmus in the second half of the year over those reported in the first half should be added to the statistics of intestinal inflammation." He made eighty-one post-mortem examinations of such cases, and remarks that the lesions he found resembled those described by BILLARD, who says: "In 80 cases of inflammation of the intestines that I examined with great care there were 30 of entero-colitis, 36 of enteritis, and 14 of colitis." Dr. EMMETT HOLT, an American physician, found that in his experience infantile diarrhœal diseases were associated with distinct lesions. Of fifty-seven such necropsies follicular ulceration existed in nineteen, or 33 per cent., and in almost every case the solitary follicles were very much enlarged. The extreme heat of American summers, the indifferent sanitation of American cities, and the lax and excessive feeding of American children, account for the great prevalence of this disease in America as well as for the amount of thoughtful study it has there evoked. The great thing for a practitioner to do in regard to any case of infantile diarrhœa is to ascertain whether it is of the simple or inflammatory order. The temperature should be carefully taken. In young children it is best taken in the rectum. If persistent pyrexia be present together with emaciation after profuse vomiting and purging in young infants the case should be regarded as serious; but in many cases, even though of inflammatory origin, the temperature may be subnormal and the appearance may indicate collapse. The causes of such attacks are chiefly high temperatures of the air and earth, improper or unsound or excessive food, chills, and insanitary environment. To enumerate the chief causes of such a serious disease is to indicate its chief remedies, which must consist in moderation of heat, with flannel bandaging of the abdomen; in food, the nearest to that of mother's milk; in the removal of everything unhealthy in the dwelling, or of the child from the crowded city, where such diseases are most fatal, to the seaside or a country air. The feeding is often the

most difficult problem, and must be worked out in each case. In some cases with persistent vomiting it is well to suspend milk for a time and substitute barley water. The milk used should be perfectly fresh and sweet, and it is often safest to use it boiled. A mixture of barley water and milk, with or without a little lime water, is frequently beneficial, but in severe cases meat juice, from scraped raw beef, with a little glycerinum boracis, will often give satisfactory results. A linseed poultice on the abdomen is often signally useful. Medicines play a secondary part, but they have their uses. Purgatives are rarely necessary, owing to the excessive evacuations with which we have to deal, while opium has to be used with very great caution. A few drops of brandy in food are often beneficial. All sorts of drugs have been recommended, but the simpler sort are the best, and probably few are more useful than a teaspoonful or two of chalk mixture, with a few grains of bismuth. The individual judgment of the practitioner in each case, formed in the light of ascertained facts of causation and pathology and guided by previous thoughtful consideration and experience in dealing with infants, is, however, the sheet anchor of safety in the treatment of a disease which is so frequently full of danger.

THE powerful articles on the future water-supply of London which have lately appeared in *The Times* are, we are glad to find, in perfect accord with the views so often stated in these pages. The writer, evidently no friend to the London County Council, yet agrees that the London County Council alone, or in coöperation with the City authorities, must undertake the control of the future supply. He holds that in London "our county councillors, our School Board representatives, our guardians and so forth are sheer products of the influence of the wire-pullers upon the gullible and ignorant voter." Yet he urges that the metropolitan water-supply must either be entrusted to this Council or to a vaguely defined analogous body. It is somewhat premature to discuss the question now while it is under the consideration of a Royal Commission, but it is our plain duty to repeat and emphasise the remarks which we made when this body was appointed not many months ago. The considerations involved are complex, but may be ranged under three heads—viz., sanitation, justice and economy. Each would require a volume for its complete consideration: all that can be offered here is an imperfect synopsis. First, as to the sanitary aspect of the case. For more than twenty years we have urged that the present metropolitan water-supply is unsatisfactory in quality. Whatever care may be used in the protection of the sources of supply, danger of accidental and serious pollution must always exist when the supply is drawn from rivers flowing through populous districts. We have repeatedly pointed out the dangers to which the Upper Thames is exposed; and, although at ordinary times no ill effects can be traced to such pollution, any zymotic epidemic might render the danger urgent. Filtration is at present our only safeguard, and the value of efficient filtration has been abundantly shown by modern bacteriological research. But, to say the least, it would be premature to assert that the most careful sand filtration would render water that had recently been polluted with the cholera or typhoid bacillus safe as a London water-supply.

Secondary to, but hardly less important than, the quality of the future supply is its quantity. The development of London in late years has been so gigantic that it is not possible to form any accurate judgment in regard to its future extension. Upon any reasonable estimate the requirements of the metropolis will soon be greatly in excess of its water-supply. Very little more water can be drawn either from the Thames or the Lea, and supplementary contributions from deep wells are problematical not only as to quantity but also as to their possible effect upon local centres, a consideration which leads us to the second of our headings.

Justice in regard to water-supply must be considered from two points of view. First, existing rights must be respected. Anything approaching to confiscation of money fairly invested, not only by original speculators but by *bona-fide* investors, would be repudiated by the conscience of the country. We know by experience that the price paid when property is acquired by compulsory purchase is always in excess of the real value, and this is in accordance with strict equity. Extravagant over-payment is unjust to the public, but under-payment or very mean payment is unjust to thousands of individuals. We may be sure that in the future, as for the most part in the past, these opposite errors will be avoided. Justice to local centres outside the metropolis must also be carefully observed. To denude another town or even a village of its water-supply without reparation would be manifest injustice, and the avoidance of this injustice is probably the gravest difficulty which the Royal Commissioners have to face.

With the economic considerations involved in this great question we have no immediate concern. They are for the statesman rather than the man of science. Every friend to his country will admit that the blessing of a free supply of pure water, obtained without interference with the rights of others, is worth purchasing even at a high price. Most people are by this time convinced, as we have long been, that a great ultimate economy, and no extravagant outlay, will follow the adoption of a wise reformation in our London water-supply. As for the future sources of supply which are still open to us, we must for the present, for lack of space, reserve our opinion.

THE article on "The Art of Dining" which appears in the current number of the *Nineteenth Century* from the pen of Colonel KENNEX-HERBERT contains many hints not only interesting from the social point of view, but also important dietetically. The proper choice, preparation and serving of food is not a matter to be handed over to gourmets or gluttons, or to be regarded as merely interesting from the æsthetic and gastronomic point of view. It is in reality a national question of the very first magnitude, touching the public health in one direction, the public purse in another, and not indirectly affecting the well-being and happiness of every rank and every individual. National food customs, on the one hand, reflect and, on the other, to a material degree influence national character. They are the growth of ages, and are largely affected by questions of race and climate. Hence sudden and thoroughgoing reforms are not to be expected, and are hardly desirable. Still it is wholesome to have our national failings in this regard indicated, and to have lines

of possible development and amendment pointed out. It can hardly be said that our national record in the matter of *cuisine* is a good one. Few are the foreign authorities which have ever been found to praise British cookery, and, with all our national self-complacence, we do not select this topic as one on which we can justifiably plume ourselves. Yet those who have travelled most will be the readiest to agree that on one point we probably excel the civilised world—viz., attention to the quality of meat. It may be questioned whether any beef or mutton quite equals that of the British islands, and assuredly, with all our failures in the gastronomic art, no other people are so careful to secure the fineness of quality and condition of the meat brought to the tables of the wealthy and well-to-do. This deserves to be remembered when our errors and defects are under review.

Colonel KENNEY-HERBERT treats mainly of the formal or elaborate dinner, and finds much to condemn in the profuse and ostentatious style now widely prevailing amongst us. He is for simplicity, and lays down as sufficient for all purposes the following *menu*:—A soup, a piece of fish, a *relevé*, an *entrée*, a roast bird, an *entremet de légume*, a sweet *entremet*, a savoury morsel and dessert. The important point in this arrangement is the place of the *relevé* after the fish and before the *entrée*. There can be little doubt that, contrary to current custom, this is the natural order of things. The *relevé* is the principal item in the repast and should not be later than third on the list. The diner begins with soup, because, if wearied by fatigue or long fasting, nothing is so quickly absorbed or so readily excites the digestive powers as a small quantity of warm meat essence, such as are the best soups. Fish follows, not of necessity, but because it is a light and wholesome article of diet, which from its comparative absence of flavour could not be relished after the more savoury meats. At this point it is obvious that the principal item of the meal should be served, and the interpolation of a trumpety *entrée* is (if we carefully interpret our needs) really an obviously unnatural arrangement. On the other hand, when the appetite has been fairly satisfied with the substantial *relevé*, there is much to be said for following it with a delicate and attractive *entrée*. The roast fowl, vegetables, sweets and dessert seem, on the whole, a natural arrangement, which it would be impossible to alter for the better. The course composed simply of vegetables is almost always found on the Continent, and may be made one of the most attractive and wholesome features of the meal.

The writer makes merry, and not without cause, regarding the curiosities of nomenclature presented by the orthodox bill of fare. He relates how on one occasion whitebait was announced as *à la Madras*. "Happening to know something of the Southern Indian capital I waited for a new experience, for as they have no whitebait they have no special way of serving it there; when lo! the small fry appeared plentifully besprinkled with raw curry powder... No sane person uses curry powder in the form of pepper in the land of Ind." The writer's strictures might extend further in the same department. The phraseology of the ordinary *menu* is more frequently than not a hideous hotch-potch of French and English, a meaningless jumble of arbitrary and often ill-chosen terms. We would not plead for reducing the *menu* to pure Anglo-Saxon, for it must be admitted that for many indispensable terms that language

furnishes no equivalent for the French terms in ordinary use. Such words as *entrée*, *entremet*, *relevé*, *fricandeau*, *macédoine*, *soufflé*—to mention a few out of many—have no satisfactory equivalents in English, and we seem obliged to borrow from our neighbours, whose culinary genius has so manifestly surpassed our own. But we do earnestly plead for some restriction upon the multiplication of needless and often senseless novelties in such expressions. It would surely be possible to limit the number of accepted French culinary terms and to attach to each a definite and limited meaning.

Colonel KENNEY-HERBERT condemns in strong terms the current craze for making things look pretty. "We have become the victims of a decorative mania ..... The use of fancy colours, without consideration of their congruity, for the sake of prettiness, to tint the maskings used in savoury cookery, is surely preposterous; for how in the natural order of things can a fillet of fish be green or a cutlet of chicken pink? ..... Who can see without pity in the window of some fashionable culinary professor a noble salmon that never did anyone an intentional injury put in the pillory and exhibited as a peepshow to the passer-by, with his back bristling with prawns like the 'fretful porcupine'; crayfish disporting themselves about him, his sides outraged by a gruesome tattooing of truffles and divers devices in patterns like a Maori masher, and, lastly, to complete the atrocity, an impalement of hideous 'hatchet' skewers? Surely this is as bad as the desecration of 'dead Hector' with the garish bedizenment of a circus clown." Perhaps the most revolutionary point in the article in question is the suggestion that the modern dinner should be brought to an end within an hour. This would, indeed, be a relief, but it seems too much to hope for. For the purpose of expediting the progress of the dinner the writer suggests that the various component parts of the meal should be served ready helped from the *buffet*. He also recommends the abolition of the service of cheese. There are many other points in Colonel KENNEY-HERBERT'S article which invite attention, but we advise our readers to study it for themselves. Whatever may be advanced *contra* from the social or æsthetic side the teaching of the article is thoroughly sound dietetically.

IN a striking and suggestive paper read before the recent meeting of the British Medical Association at Nottingham, Dr. A. J. HARRISON of Clifton described a new treatment for lu us, which, so far as it has at present been tried, holds out every promise of success. We have ample evidence that tuberculosis is curable. At post-mortem examinations old tuberculous nodules are frequently found at the apices of the lungs, and the investigations of Drs. KINGSTON FOWLER, SIMS WOODHEAD and SIDNEY MARTIN have shown that though some of them may still prove infectious to animals, others are completely innocuous. Hitherto, although numerous attempts have been made to cure tuberculous affections, no specific has as yet been discovered. So many failures have there been that any new announcement of a remedy for tubercle is received with scepticism, amounting almost to contempt. These feelings were greatly increased after the unfortunate fate of tuberculin. Warned by the disappointment which followed the discovery of the eminent Berlin investigator, who was forced against his own inclination and

better judgment to prematurely announce to the world the result of his labour, Dr. HARRISON was careful to avoid prediction, and confined himself to suggestion. This is a safer path, and will not detract from the merit due to the originator of a new departure in therapeutics.

The process is a strictly logical and scientific one. The germicidal action of sulphurous acid is well known, but hitherto it has only been taken advantage of for disinfecting purposes. An outbreak of tuberculosis occurred among the monkeys in the Clifton Zoological Gardens. On burning sulphur in the house further infection was stayed for a considerable period. This was the first in the series of ideas which led to a trial of the treatment now under consideration. The second was the powerful action of gases in their nascent condition. It is remarkable that more advantage has not been taken of this property in medicine. PERBIRA, in his book on *Materia Medica*, published in 1849, in speaking of the treatment of certain skin affections, refers to the use of the hyposulphite of soda to which a little sulphuric acid has been added; but for the purpose of destroying germs *in situ* it has never before been used. The first part of Dr. HARRISON'S process consists in saturating the affected tissues with a solution of hyposulphite of soda, forty grains to the ounce, and then applying a lotion consisting of five drops of strong hydrochloric acid to the ounce of water. An improvement in the patient's condition is speedily noticed, islets of healthy scar tissue first making their appearance. The process of healing rapidly extends, producing a healing surface unequalled by any that has yet been obtained by other methods, except perhaps after frequent scrapings; but there is no loss of substance. Some ten cases have been thus treated, all with satisfactory results. One case, which was exhibited at Nottingham, was so advanced that operative measures were out of the question, but after six months' treatment a series of healthy scars is now all that remains. In some of the cases the treatment was purposely suspended for two months, before all the lupoid tissue had disappeared. At the end of this period there were no signs whatsoever of any breaking down in the scar, and even the lupoid tissue which remained was contracting, as if the pabulum upon which the germs fed had been rendered unsuitable for their further extension. This was especially marked in one case, where previously there had been an ulcerated surface the size of a five-shilling piece. With the exception of three small points this had entirely healed and only a healthy white scar remained.

Logically there would appear to be no reason why this treatment should not be equally beneficial in cases of phthisis, although the difficulty of satisfactorily causing vapours to penetrate deeply into the lung is well known. Indeed, Dr. HARRISON has under his care one case in which sprays of the two solutions were used with marked decrease of physical signs and symptoms and considerable improvement in the general condition. It remains to be seen, of course, how long the improvement already noticed will continue, but the result in lupus affords encouragement for further trial of this treatment by other competent observers.

Our report of the proceedings of the meeting of the British Medical Association at Nottingham may fitly be supplemented

by a word of congratulation on the success of the symposium dedicated to the discussion and promotion of medical missions. THE LANCET, as its readers are well aware, has taken a special interest in this development of professional activity abroad, and has from time to time drawn attention to the salutary progress it has made, particularly under the auspices of its long-established and now flourishing school at Edinburgh. Gratifying evidence was given by the speakers at Nottingham—especially by Dr. MARTYN CLARK—of the greatly enhanced proficiency of the medical missionary in the science and practice of the healing art as compared with his equipment in these essentials when the movement was still young, and further testimony not less gratifying was adduced as to the benefits that must be reaped by the profession at large through the observation and the experience of its members in regions abounding in native products as yet imperfectly analysed, and in climatic sites capable of being utilised in many disorders of the system, hæmatogenic and neurotic. In the latter respect the reports of the medical missionary in Africa, southern and even central, are full of interest, showing how anæmia and mal-nutrition can be effectively combated by residence on elevated plateaus where oxygen and sunlight combine to produce an alterative and stimulating effect highly restorative to the patient. As to the former consideration—the addition of new therapeutic agents to the pharmacopœia—the outlook for medico-missionary research is quite as promising. The civilised world has lately been celebrating the fourth centenary of the discovery of America, and in the cities—Spanish, Italian and Transatlantic—associated with the life and enterprise of Columbus, museums organised for the occasion have been rich in specimens of the medicines, from the quinine-bearing cinchonas downwards, contributed by naturalists in fields made accessible by the great explorer. What has been done in America will one day be achieved on the Dark Continent. Medical science, represented in its newly opened-up interior by missionaries professionally trained, can derive nothing but gain from its search for new products, vegetable, animal and mineral—products which may yield “weapons of proof” to the armoury of therapeutics, or combine effectively with the old for the alleviation or cure of disease. Anticipations of this kind rise irresistibly to the mental view from such related or recorded experiences as those lately heard at Nottingham, and gain outline and complexion from the contemplation of England's colonial expansion and from the honourable careers to which it invites an already amply stocked profession. Hand in hand with political advance and with the absorption of new or virgin territories under the British flag proceeds the beneficent activity of the medical mission, reclaiming the less favoured peoples of the earth to civilised life and adding fresh tributaries to the main stream of an ennobling evolution.

**UNDERPAID MEDICAL OFFICERS.**—The chairman (Mr. S. Trevail) of the Sanitary Committee of the Cornwall County Council, in a report of that committee, states that in too many instances the medical officers are inadequately paid. Parliament has constantly imposed additional work upon them without making any provision for payment of services that were not thought of when the office was created. Consequently in too many cases beneficent sanitary legislation, requiring proper supervision, has remained a dead letter.

## Annotations.

"Ne quid nimis."

### A MEDICAL MEMBER OF THE NEW MINISTRY.

WE are gratified to be able to announce that the office of Political Secretary to the Local Government Board, over which Mr. H. H. Fowler will preside, has been offered to, and accepted by, Sir Walter Foster, M.D., F.R.C.P. Lond. &c. This is the first occasion on which a member of our profession has been included in the ranks of Her Majesty's Ministry. We have long advocated the establishment of a distinct department of Public Health, and we venture to regard Sir Walter Foster's appointment as another step towards that desirable consummation. Sir Walter Foster is a representative member of our profession, and during his Parliamentary career has rendered valuable services to medicine and largely advanced the interests of the public health. We feel sure that his term of office will be marked by still further important progress in this direction. It is as yet too early to forecast what effect the change of Government may have with regard to those great health questions with which we are more immediately concerned, but the appointments of Mr. H. H. Fowler as President of the Local Government Board and of Sir Walter Foster as Secretary augur well, we feel convinced, for the future efficiency of that very important department. The advantages which will accrue to the department, the profession and the public by the post of Secretary being filled by a member of the medical profession, and especially by one so well qualified for the work as Sir Walter Foster, are so obvious that it is unnecessary for us to dilate on them at greater length on the present occasion.

### THE NEW HONOURS.

THE QUEEN has been pleased to approve the appointments, amongst others, of Professor William Henry Flower, C.B., F.R.S., F.R.C.S. Eng. &c., Director of the Natural History Museum, to a Knight Commandership of the Civil Division of the Most Honourable Order of the Bath; and of Richard Thorne Thorne, Esq., F.R.S., M.B. Lond., F.R.C.P. Lond. &c., Medical Officer of H.M. Local Government Board, to a Companionship of the same Order. This is the first occasion on which the Medical Officer of the Local Government Board has had any honour conferred on him during his tenure of office, although Sir John Simon was made a C.B. and Sir George Buchanan was knighted on the occasions of their respective retirements. In the present case the department of public health, as well as Dr. Thorne Thorne personally, receives recognition. Doubtless the honour bestowed upon Dr. Thorne is also in some measure due to the conspicuous value of his services as British delegate at the recent sitting in connexion with the Venice International Sanitary Conference at Paris, when the previous results of the Conference underwent very considerable and highly necessary modifications. We heartily congratulate Sir William Flower and Dr. Thorne Thorne on the well-merited honours which Her Majesty has been pleased to confer on them.

### CHOLERA INTELLIGENCE.

SINCE our last issue cholera has continued to spread in Russia, although the area of its diffusion has not been materially increased. The most important extension of the disease is that which is reported from St. Petersburg itself; an extension which may at any moment open up the question of the transmission of the disease by means of sea traffic between the Baltic and this country. On the 16th inst. there were 44 cases and 9 deaths in the Russian capital. Some

further extension of cholera in the central provinces of Russia has also taken place; but perhaps the most serious news from that empire is the large increase in the number of attacks and deaths which daily come under official notice. Thus whereas a week ago the fresh attacks and deaths per diem hardly exceeded some 4000 and 2000 respectively, they have now risen until they have reached some 8000 and 4000 respectively. On the 15th inst. the official records announced 8601 cases and 4288 deaths, on the 16th the numbers were 7600 and 3900 respectively, and on the 17th they were 7809 and 3742; it being at the same time announced that returns from many places were not received and hence that these numbers do not represent the total cholera in Russia. In Astrakan, at Baku, at Nijni-Novgorod, in the Transcaspian districts and even in Moscow a diminution of the epidemic has shown itself, the abatement being in some places very marked; but, on the other hand, the disease is still spreading fatally in the Don provinces, at Saratoff, Samara, Simbirsk, Orenberg and Viatka, and the province of Taurida north of the Crimea is also now an infected district. A further important extension of the epidemic is into Austria-Hungary, the province infected being Galicia. Seven cholera deaths are reported from Szkló, near Jawaroff, in the north of the province, and one such death near Kolomea in the south-east. "Cholérine" is also stated to have broken out at Lemberg. This extension is under any circumstances a matter of some gravity, but had it occurred earlier in the hot season its significance, for this year would have been even greater. From Paris the news is much more satisfactory. With the onset of cooler weather, the cholera has materially abated, and unless the rumour of its recurrence at Surcelles and at Clichy-la-Garonne turns out to have any foundation in fact, it appears practically to have subsided in France. There is, however, a serious outbreak of so-called cholérine at Havre. All along, the infection seems to have lacked much of its ordinary power for spread, and we earnestly trust that a period of immunity from the disease will now set in, and that it will be found practicable during that period to take such steps as will prevent the chance of any recrudescence next year. As we anticipated in our last issue the Local Government Board have taken some steps to prevent the importation of cholera as the result of the Russo-Jewish immigration into and across this country. The knowledge that cholera can be conveyed in bedding, linen &c., combined with the fact that these people nearly all carry with them bedding which is, to say the least, the reverse of cleanly, rendered it necessary to stop the importation of such materials, whether the emigrants reach us after travelling across Northern Germany, *via* Hamburg, or whether they come from Baltic ports. Hence the prohibitory order which has been issued as the result of Dr. Theodore Thomson's inquiries concerning this Russo-Jewish traffic in the ports of London, Grimsby and Hull.

### DEATH ON THE OPERATING TABLE.

A CASE has recently come under our notice which, if carelessly observed or vaguely reported, would probably be ascribed to the anæsthetic, but which in reality was the result of several causes, the effect of the anæsthetic probably being the least important. The patient, a weakly boy of thirteen years of age, was originally admitted into the Royal Free Hospital suffering from enlarged cervical glands; these were successfully removed and for a time he did well. Gradually, however, a swelling suggestive of a psoas abscess appeared in the left iliac region, and at the same time an exostosis developed on the knee. It was thought advisable to open the abdominal swelling, and for this purpose the patient was taken into the operating theatre on the morning of Saturday, Aug. 6th, and was anæsthetised with the A.C.E. mixture. A careful dissection was required in order to reach the abscess

cavity, which proved to be a very large one, containing between thirty-eight and forty ounces of thick creamy pus, and which was rapidly evacuated; no communication between this cavity and the abdomen or with a carious spine could be detected. The abscess was accordingly washed out, the anæsthetic withdrawn and the dressings applied. The patient was under the influence of the anæsthetic for between thirty-five and forty minutes and rather over an ounce of the mixture was administered by the semi-open method—i. e., on a sponge contained in a leather mask. The application of a rather elaborate dressing occupied about eight or ten minutes, and signs of returning consciousness became apparent; in another five minutes sickness supervened. It was then noticed that the lividity of the face was becoming more marked and that the pulse could not be felt at the wrist. The breathing continued quite regularly, but was somewhat shallow. This condition of affairs continued for about another five minutes, but gradually the breathing became more irregular and spasmodic in character, finally ceasing between twenty-five and thirty minutes after the time of the withdrawal of the anæsthetic. All possible means of resuscitation were employed, but with no result. At the post-mortem examination the heart was found to be pale, thin-walled and flabby, but beyond this the necropsy furnished no particular information as to the cause of death. The immediate cause of death in this case was undoubtedly cardiac syncope. This syncope may have been due (1) to the feeble constitutional condition of the patient; (2) to the rapid emptying of such a large abscess cavity in such a region; and (3) to the sickness which may or may not have been induced by the anæsthetic. Most probably all these causes had a share in the production of the fatal result, and certainly no particular one of them can be considered to be solely to blame.

#### THE ITALIAN TRADE IN COSMETICS AND DYES.

AT a recent sitting of the Consiglio Superiore di Sanità a list of unhealthy industries was drawn up, but a good deal of discussion had to be got over before it could be decided upon. One difficulty was that of not unduly interfering with manufacturing interests, and a very clear case of danger to the public health had to be made out before any of the industries suspected could be included in the list in question. Finally, the "catalogo" as approved was sent up for revision to the Superior Council of Agriculture and Commerce, and from that body it will return in the state in which it is intended to be put in force. Immediately connected with this discussion was the trade in perfumes and dyes, and on this the Consiglio Superiore di Sanità announced that cosmetics and tinctures used for colouring the skin and its appendages, if they contain poisons, can be sold only in compliance with the law on public health and hygiene which in terms of Article 32 prescribes certain precautions. On the phials and on the paper packets containing such cosmetics or dyes and in the advertisements of the same addressed to the public there must be indicated the quality and the quantity of whatever poisonous substances enter into their composition; on the phials and paper packets, moreover, must be put a label inscribed "poison." By this law the cosmetics and dyes in question are not withdrawn from the market, but the public are simply warned of the nature of the articles offered for sale. This is a salutary innovation on the legal disabilities affecting the chemists and druggists of Italy. It was certainly a grievance that, while they had to observe the minutest restrictions in making up small doses of poisonous substances and had to give every guarantee to the public that specialties of their own as well as medical prescriptions should duly certify the nature and amount of their contents, even when these specialties were innocuous, the vendors of cosmetics and dyes should have been allowed to ply their trade without supervision or regulation of any kind, launching on the public any quantity of such *objets de toilette*,

charged as these were with acetate of lead, with nitrate of silver and other ingredients quite as dangerous. This decision of the Consiglio Superiore di Sanità is another of the many salutary proofs of the care with which the public health of Italy is now safeguarded. In the not less important matter of foods and drinks the activity of the officers appointed to detect and expose adulteration is very reassuring. For the month of July, and in Rome alone, the seizures made by these "Vigili Sanitari" included 13,567,850 kilogrammes of articles unfit for consumption. In the same month and in the same city there were 2733 shops and storehouses visited by these officers, 1419 "confirmations" of saleable articles were made, twenty-one "specimen" samples of food were sequestered, five flagrant contraventions of the sanitary law were denounced, fifty-one local regulations were imposed, in eighty-one cases "acqua potabile" had to be laid on by proprietors of premises, and reports as to fifty-seven suspected contraveners of the law were submitted. All this must be very gratifying, not only to the English-speaking resident or visitor, but also to the Italians themselves, who have suffered far too long under abuses in the matter of their food and drink for which there is no other adjective but "scandalous."

#### CANCER "CURES."

THE announcement of an exposure by a committee of medical investigators of the Count Mattei cure for cancer is satisfactory. The faith in the alleged remedy was probably very shallow, and those who believed in it will be quite capable of disbelieving in the exposure. Evidence to those who believe in cancer "cures" by pretenders and dealers in secret remedies is very much thrown away. Even if one fraud is exposed another will quickly take its place. The fresh spurt of energy in a newspaper announcement of a provincial remedy is probably to be explained on this principle. The public in these matters is willing to be deceived. It cannot await the slow development of regular medicine. The serious thing is that both in the Mattei business and in others medical men are involved whose professional qualification gives colour to the pretension. It will be interesting to see how a certain journalist will take the Mattei exposure. The remedy was accorded a publicity by this gentleman, to which no doubt it owed a certain amount of success. Credulity is not a very safe quality in a journalist, however well meaning and benevolent; but the very least we can expect from him will be that he will give a cordial publicity to the exposure, exhibit some improvement in the critical faculty, and not lightly again lead the public into the indulgence of false hopes of impossible results from distilled water.

#### THE NEW FEVER HOSPITAL FOR LONDON.

THE proposal of the Metropolitan Asylums Board to establish a fever hospital on a site near St. Anne's-road, Tottenham, has excited the keenest opposition on the part of the surrounding inhabitants, individually, collectively and in their several corporate capacities. The Local Government Board have, however, given their consent to the scheme after receiving a report from Dr. Bridges and Mr. Hedley. The consent is subject to the following conditions:—  
(a) That no buildings for the reception of patients shall be erected except on such land as the Board may direct to be used for that purpose; and (b) that the land and buildings shall, during the twelve months next following the date of the order, be used for the reception of patients suffering from fever, and of no other patients, and at the expiration of that term shall cease to be used for the reception of patients unless the Board, by order, otherwise direct. Both the inhabitants of the district in question and the managers of the Asylums Board are placed in a very difficult position. No neighbourhood cares to have close

at hand a great fever institution, especially when it is erected for the benefit of a population other than its own. But the Metropolitan Asylums Board have a statutory duty to perform, and they have an emergency to face which the Government and the metropolis expect them to meet by some appropriate action; and when the question of these several specific fevers, other than small-pox, is concerned, they have the authority of abundant experience to show that in the case of hospitals situated in densely populated parts of London no spread of disease and no cause of ill-health result to the surrounding community if the hospital is properly administered. We cannot, therefore, blame them for their insistence on securing the site in question; neither is there any aspect of public health as to which they could have been expected to hesitate in the action they have taken. But, so far as the neighbourhood of the hospital is concerned, we fear that the limitation of the Order of the Board to one year will have but little meaning. A site once devoted to such a purpose will probably acquire a vested right to be retained for similar purposes, and, in face of the necessity of additional means of isolation for the metropolis, the prospect of an abandonment of this site after the expiration of any definite term of months is not a hopeful one for the locality. \_\_\_\_\_

#### MATERIA MEDICA IN SCOTLAND.

WE regret to find that, for the present at least, the appeal of the professors of materia medica in Scotland has been unsuccessful, and that, as the regulations now stand, students will be required to pass an examination in materia medica and therapeutics at the end of the third winter session, or at the end of the succeeding summer session. Professor Cash from Aberdeen, Professor Fraser from Edinburgh, and Professor Charteris from Glasgow lodged a formal "humble petition" against the proposed changes, and the committee appointed by the Privy Council heard counsel on their behalf. Under the new regulations it is enacted that students should attend a class of twenty-five meetings for instruction in practical pharmacy in lieu of the existing class of fifty hours of instruction in practical materia medica; that the title of the class of materia medica shall be changed to that of materia medica and therapeutics; and that the subject of materia medica and therapeutics shall be grouped along with the subjects of anatomy and physiology for the purposes of examination. The vexed question of the definitions to be assigned to materia medica, to therapeutics and also to practical pharmacy, yet remains for the decision of the professors of materia medica in the three Scotch universities. In their petition they indicated their view that practical materia medica should include not only practical pharmacy, but also "the practical study, by chemical testing and other means, of the characters of medicinal substances, in order that there may be acquired a knowledge of their chemical and physical characters sufficient to enable the student afterwards to combine these substances in prescriptions, and properly employ them in the treatment of disease." The new enactment which reduces the practical course from fifty to twenty-five classes must necessarily interfere with the efficiency of the teaching. We will not say that a great deal may not be done in a systematic course of instruction extending over twenty-five classes, but it will obviously be impossible that the same amount of detail and thoroughness can be compressed into half the time which has hitherto been devoted to this branch of study. The further contention of the professors of materia medica, that it will be difficult to teach therapeutics, with much hope of advantage, to students who have no knowledge of pathology seems also to be based upon due consideration of the students' requirements, and it is to be regretted that the committee of the Privy Council have not been able to modify the regulations in accordance

with their views. As matters stand at present, the professors will have to organise classes in practical pharmacy, but students will not be examined in this subject at any stage in their course, and they will have to teach therapeutics to students who are still working at anatomy and physiology and who have not necessarily any knowledge of morbid processes or of the pathological terms employed. The scheme appears to have been the result of undue haste, and it seems to be doomed before it has properly come into existence. There can be little doubt that after a short time of trial the scheme will require revision. If practical pharmacy is to be properly taught it must be accompanied by the stimulus of an examination. If the subject of therapeutics is to form an integral part of the course on materia medica, students should come to the lectures prepared by some clinical experience and by some pathological training, otherwise the lectures might almost as well be delivered in an unknown tongue. \_\_\_\_\_

#### MOSQUITOES IN FLEET-STREET.

IF only the parallel were more exact, one might appreciate in personal comfort and security the humorous contrast implied in the present visitation of London by a swarm of mosquitoes. It is suggested that these have been imported from Algeria with shipments of esparto grass for paper-making. However they have travelled, it strikes one as somewhat singular that while so many citizens with their families are enjoying a country holiday, the insect multitude has come to town, and on serious business. Unfortunately the mutual displacement is at best imperfect. A luckless residuum of mankind who must spend the season in town cannot evade the unpleasant invasion of these uninvited visitors. Untrained by custom in such matters they can but adopt haphazard, in mere self-defence, any arrangements which may most readily suggest themselves. In recent articles we have referred to some of these, and there can be no doubt that in the prospect of attentions which are always most irritating nothing could be much more appropriate than the veil, well saturated with some antiseptic. Of the value of suitable face washes we have also already spoken. Yet one other contrivance, even more easy of use because automatic, might be mentioned. This consists in the familiar practice of suspending some rather pungent antiseptic, such as carbolic acid or eucalyptus, in a vessel over a small gas jet, lamp or candle so that the fumes may impregnate the air of apartments which are all too close to accommodate both men and mosquitoes. Human endurance may well sustain the feather weight of such trifling impedimenta, and even enjoy the incense of unwonted odours when they bring deliverance from an acquaintanceship as trying as it is unhappily seasonable. \_\_\_\_\_

#### BOILED MILK AS AN ALIMENT ABROAD.

THE practice of subjecting milk to boiling heat before consumption has of late been widely adopted in European countries, whose public hygiene has hitherto been such as to counsel every means of minimising the conveyance of infection. British travellers, in Latin countries especially, will be reassured by this salutary innovation, experience having taught them that the milk supplied in hotels and pensions and added to their morning meal of tea or coffee, has too often been tainted with the micro-organisms of infectious or contagious disease, chiefly from being diluted with impure water, or, not seldom, from containing the desquamatory debris of convalescents from scarlet fever. Sanitary truth progresses slowly in those regions, and when the public health officer at length succeeded in establishing the unwelcome fact that milk was one of the surest channels by which infectious diseases were diffused, he had to encounter the objection that the boiling process to which

he insisted on its being subjected deprives it of its nutrient properties and also its digestibility. Again, however, he has been able to show that reason was on his side and that milk after boiling is not only more easily digested, but has actually a higher nutrient value than in the crude state. We allude especially to Dr. Chamouin's experiments, in which he fed a number of kittens on boiled milk and an equal number of kittens on the same milk as it came direct from the cow or the goat. Those of the former category he found to be twice again as fat and healthy as those of the latter. A kitten, however, which was left to its mother was the fattest and healthiest of all, though this was due to the assiduous attention which the maternal instinct supplied and which the experimenter pleasantly admitted was beyond the resources of the laboratory. Following up his demonstration, Dr. Chamouin examined the statistics officially issued by the Town Council of Paris as to the infantile mortality of that city, and finding that the chief cause of this was, directly or remotely, intestinal ailments, he prosecuted his researches still further, so as to include a comparison between those infants that had been fed on boiled and those that had been fed on unboiled milk. As he anticipated, he found a remarkable diminution in the death-rate of the former. His investigation was continued long enough to show that thousands of infants are annually safeguarded from intestinal disease and death by the precaution of boiling the milk on which they feed.

#### THE PREVENTION OF "OVERLAYING."

THE Registrar-General, in his last annual report, notices the fact that more than twice as many infants are suffocated by "overlying" on Saturday than on any other night in the week, and this he attributes, no doubt with perfect justice, to the intoxication of the parents during the previous waking hours. This is not the first time that a connexion between drunkenness and what, in view of obvious risks, is really a form of infanticide, has been commented on. Unfortunately the whole process of causation in respect of the latter cannot thus be explained. Even if this were possible we could hardly hope by any near or general advance of the temperance movement to reduce materially this heavy tribute of child life, but something should certainly be possible by another and more direct procedure. Rather more than a year ago, in treating of this subject, we took occasion to denounce the common custom which allows mothers and infants to occupy the same bed. We fail to see why this practice should be any longer permitted. Unless perhaps in certain exceptional cases of low infantile vitality there can be no excuse for its continuance. Over and over again it has been shown to be directly and almost inevitably accountable for a certain constant loss of infant life. Why, then, should not a young child, like any other, sleep in a separate cot? The cost of providing this is trifling. The necessity is imperative, and we see no reason why the absence of such an arrangement should not be held to be as punishable an offence as ordinary overcrowding.

#### MINUTE ANATOMY OF THE LUNG.

DR. W. S. MILLER of Clark University has done some useful work on the minute anatomy of the lung, and has thus added to the investigations previously carried out by Ewart and others. A paper by Dr. Miller is published in the *Anatomisches Anzeiger*, Nos. 7 and 8, April, 1892.<sup>1</sup> The lung was studied in various ways—by injections, corrosions and reconstructions. The last-named method was carried out as follows: For the more complex lungs the reconstruction method of Born was resorted to, by which, after the devolution

of nearly two years to a single specimen, the desired effect was produced. The lung was first prepared by making a triple injection by which the capillaries were filled with Prussian blue, the arteries with vermilion and the veins with ultramarine-blue gelatine. A single lobule was then removed, imbedded in paraffin and cut into sections twenty micro-millimetres thick. The magnifying power employed in reconstruction was one hundred, and each section was drawn on a wax plate two millimetres thick. As long as the terminal bronchus was in the section it was quite easy to locate all the air cells from section to section. Beyond the terminal bronchus the location of the bloodvessels and the shape of the air vesicles served as guides. In this way all the air cells communicating with one bronchus were drawn on wax plates and the sections carefully cut out. The framework left, when piled up, gave an exact model of the air sacs, and the pieces piled gave a "corrosion" of the same. The models were now cut in various directions in order to study the relation of the air sacs to the terminal bronchus. These studies, which were made on a dog's lung, gave the following result:—A terminal bronchus gives off a number of passages called vestibules, each opening into an expansion called the atrium. From this three or more air sac passages run to as many air sacs, which are much larger than the atria. Around the air sacs lie the air cells—to be accurate, it should be said some of the air cells, for there are others arising from the bronchi and from the atria. The air cells do not communicate directly one with another. Dr. Miller states that the walls of the atria are thin, like those of the air sacs, having a network of capillaries enclosed in them. From this it may be inferred that these parts, as well as the air cells, serve for respiration. The branches of the pulmonary artery follow the bronchi. Somewhat beyond the terminal bronchus the vessel divides into as many terminal branches as there are atria. Their ramifications cover the central side of the air sacs, the capillary network which arises from them enveloping the whole system, and emptying into veins which lie on the peripheral side. In the lobule each air sac has a vein running at right angles to the direction of the artery. For the most part the veins keep on the periphery of the lobule. Each air sac has an artery on its central and a vein on its peripheral side, with a rich capillary system between them.

#### THE ITALIAN CONGRESS OF INTERNAL MEDICINE.

ON October 25th next and on the ensuing days up to the 28th inclusive the "Società Italiana di Medicina Interna" will hold its fifth annual Congress in Rome. Its President will once more be Dr. Guido Baccelli, professor of clinical medicine at the Sapienza, and its proceedings will this year have the special interest of forming, so to speak, a prelude to the "Congresso Medico Internazionale di 1893," which, according to the Italian press, will constitute the most significant event which scientific Italy has witnessed since the revival of learning. The agenda paper for the meeting of Oct. 25th next includes three subjects of the highest importance, theoretical and practical—subjects fixed upon at the Congress of last year, and, according to the commendable Italian custom, consigned to special "relatori" (reporters), two for each subject, who have already proved themselves experts or proficient in the same. These are: (1) Inflammatory Alteration of the Cerebrum and its Treatment, by Professors L. Bianchi and F. Vizioli; (2) Climate as a Therapeutic Agent, by Professors C. Forlanini and B. Luzzatto; and (3) Rheumatic Infection, by Professors A. Riva and T. Gualdi. Besides these central themes a number of subsidiary ones will be introduced, several of which have already been announced by intending participants at the Congress, while others will be intimated to the organising committee before the 15th prox., after which no communica-

<sup>1</sup> Abstract in the Boston Medical and Surgical Journal, June 30th, 1892.

tions of the kind can be received. The terms on which the profession in Italy are invited to assist at the Congress are liberal enough to show the interest taken by the Government in its success—a ten-franc subscription entitling the subscriber to travel by railway at reduced fares and to receive a copy of the official "Atti di Congresso." Representatives of the profession from foreign countries are also, as we can testify, cordially welcomed on these occasions by their Italian brethren, and British practitioners or consultants whose autumnal holiday may find them in Rome during the last week of October would find much to interest and gratify them in the proceedings of the Congress. With this view, applications for tickets of membership should be made to Dr. Edoardo Maragliano, professor of clinical medicine in the Genoese school (Via Galata, 39, Genoa), who has been commissioned by the organising committee to furnish all applicants with the required information.

#### LAVATORIES AT RAILWAY STATIONS.

ANYTHING that seriously affects the comfort of the larger half of the English people can hardly be a matter of trivial consequence, and this is of course the more true if the health of so many persons is at the same time involved. Such a matter is public lavatory accommodation, respecting which complaints have recently been heard that due provision has not been made for the larger—that is, the female—section of the community. A lady writes to us objecting to the penny tax imposed on those of her sex who make use of this form of convenience at railway stations. We confess that we can to some extent appreciate, though we do not perhaps entirely sympathise, with her view on the subject. In so far as the needful relief of physical discomfort is concerned the railway companies are certainly bound to provide amply for it. This, we allow, is not done at most railway stations, and herein there is clearly room for improvement. At the same time it must not be forgotten that sometimes even passenger trains are fitted with needful appliance for securing a fair measure of comfort. Curiously and also culpably enough the purpose of cleanliness is apt to be more evident than its practice in this case, for many of the lavatories are by no means well kept. When, however, we come to questions of copious water-supply and the finding of well-washed linen towels we confess that the right to charge a trifle seems to us to be fully justified. The lesser, coarser, and in many ways inferior male half of the population are in this respect no more highly favoured than their feminine betters.

#### INJECTION OF MILK INTO THE VEINS.

A CORRESPONDENT writes to ask us whether the statement contained in Cope's *Natural History* of 1864 be true that "if milk be injected into a vein it will quickly become fatal, and that with more certain destruction than even the venom of the viper." Our correspondent also wants to know, if this be true, how is the danger brought about. It is not the first time these questions have been submitted to us for answer, and we admit they are difficult because the evidence is conflicting. It would seem that in some cases new milk injected into a vein undergoes coagulation and by the immediate plugging of the veins which it induces causes rapid death from mechanical arrest of the circulation. We have reason to know that this has been proved by experiment, and also that on injecting fresh milk into the peritoneal cavity of a narcotised animal, in order to ascertain if there would be absorption of the fluid from the peritoneal surface, absorption of the saline and watery part, with coagulation of the casein in rather a dense layer over the intestinal surface has been demonstrated. These facts would seem to give credence to the statement that milk cannot be safely injected into the system; but there are other experiences that

modify that view. In 1854 the late Dr. W. Bird Herapath of Bristol suggested that milk should be injected into the veins of persons in the collapse of cholera; and it is the fact that Dr. James Bovell of Toronto did inject milk in such cases in the cholera sheds of Toronto in the same year, acting independently on his own suggestion. Dr. Bovell reported on six cases in which he injected fresh cow's milk and two of the cases recovered. It was objected by ourselves and by others at the time that two cases afforded insufficient evidence of a direct advance in practice, and that the quantities of milk transfused—twelve ounces in one case and eight ounces in the other—were too small to give assurance of positive results apart from other influences that were at work and that would account for the recoveries. At the same time the experiences proved that there are circumstances under which milk can be injected into the venous circuit without danger, and that one of those circumstances is a condition when this remedial measure is most demanded and most promising. For the moment we may leave the matter with two suggestions—namely, that the danger which may result from the presence of milk in the veins is not septic, but is from coagulation of the milk and the plugging arising therefrom; and that if this danger could be prevented very important results might be obtainable from transfusion of milk in collapse of the choleraic type.

#### FUNCTIONAL NERVOUS DISEASES.

DR. W. H. THOMSON of New York recently read a paper before the Association of American Physicians on the above subject. An abstract is given in the *Boston Medical and Surgical Journal* of June 30th. The term "functional" has been applied in general to nervous diseases in which no characteristic organic changes have yet been demonstrated. Most writers, however, regard the term as only provisional, on the assumption that some kind of structural change in nervous matter must underlie every definite nervous disorder and that such change will in time be found. Dr. Thomson has long been of opinion that there are intermittent nervous disorders which cannot be explained by any hypothesis of changes in nervous matter, whether molecular or otherwise, but are to be explained by the varied states of the blood. By a proper selection of functional poisons some close imitations of functional neuroses can be artificially induced and cause neuralgia, paralysis, delirium, convulsions and all intermittent symptoms of the kind, and then it is noted that these symptoms disappear in about the time and order that the functional nervous attacks decline. Another correspondence between functional poisons and functional neuroses is that in both pathological anatomy affords no assistance in the explanation of the results. Modern chemistry has shown that in the healthiest processes of our digestion a whole series of poisons are elaborated which are of the same nature as the functional poisons with which we have been long familiar, and are quite sufficient to cause every variety of functional nervous derangement and even to kill, without the microscope or scalpel being able to tell why. Against the perils of auto-infection the system is provided with a variety of safeguards. One of the most efficient seems to be the antiseptic properties of the digestive secretions, which keep the putrefactive processes in the alimentary canal in check. The liver also subserves a preservative function against auto-infection. But the complex chemistry of these secretions is liable to numerous disturbing influences, notably nervous irritations. If nervous influences are capable of deranging the chemistry of the body, why may not such perturbances of nervous origin, occurring now and then as nervous actions characteristically do, suffice to produce either increased amounts of alkaloidal poisons or else to diminish the effectiveness of the normal

antidotal processes? These considerations seem to offer us a hint of the explanation of the intermittency in functional neuroses. The bearing of this view on treatment is as follows: First, instead of vaguely expecting help from structural anatomy to show him the pathology and treatment of this difficult class of diseases, and meanwhile choosing his remedies according to the old empirical methods, the physician should look for aid from the knowledge of the chemistry of diet; second, gastro-intestinal antiseptics should be studied as a particular branch of therapeutics. Lastly, the investigation of leucemias, of which lithemic states are an example, is of equal importance in a great variety of morbid states with functional disturbances. Directed by these three principles, suggested by the progress of organic chemistry, Dr. Thomson thinks that the treatment of functional diseases would be much more effectual than if we continue to seek for mere drugs with specific properties or to wait fruitlessly the verdict of pathological anatomy.

#### THE NOTIFICATION OF INFECTIOUS DISEASE.

DR. RAYNER D. BATTEN, of Campden Hill, has been fined at the West London Police Court for not sending a notice or certificate to the medical officer of health—as required by the fifth-fifth section of the Public Health (London) Act—in the case of John Weston, aged fifteen, who was suffering from diphtheria. Mr. Blanco White said the result was that for five days the premises were not disinfected. Mr. Curtis Bennett said that two notices were necessary, one for the hospital authorities and one for the medical officer of health. The medical man ought to have sent the notice himself as required by the Act. The magistrate regarded the fault of Dr. Batten as due to carelessness and not wilful negligence, and imposed a fine of only 10s. with 12s. costs. A report of the case is published in another column.

#### RUPTURE OF THE INTESTINE.

CASES of injury to the abdomen in which laparotomy has been performed for rupture of the intestine without external wound are as yet so few in number that a record of each is important. The diagnosis is usually so difficult that the surgeon hesitates to open the abdomen for fear he may be mistaken and subject the patient to what may prove to have been an unnecessary operation. Yet if the intestine be ruptured certain death will ensue without operation, and operation will probably not be of avail should it be deferred until the onset of septic peritonitis. A patient aged twenty-four was admitted to St. Thomas's Hospital on the 10th inst. suffering from the effects of a kick in the lower abdomen from a horse. He was suffering from shock, and had an anxious expression and pale face; he lay on his right side with his thighs flexed, complained of pain in the abdomen, and vomited frequently. The abdomen was excessively hard and very tender, moved very little with respiration, and on percussion was found to be quite dull over the anterior part. Urine was expelled through a catheter with some force and was quite normal. A faint bluish discolouration over the left rectus muscle indicated the part struck by the hoof of the horse. A probable rupture of intestine with rupture of omentum or mesentery was diagnosed and operation was decided on when he had rallied somewhat from the shock. About six hours after the infliction of the injury Mr. Battle performed median abdominal section, the incision extending a short distance above the umbilicus. Much blood was found in the peritoneal cavity, and there were three complete transverse ruptures of the small intestine with lacerations of the mesentery. The extent of the injuries necessitated excision of about thirteen inches of intestine with a good deal of mesentery. After

the resection there were two lesions of intestine to be united. This was done by means of Senn's bone plates; in one instance the lateral method was employed, in the other end to end. During the operation, which was necessarily a prolonged one, it was found advisable to transfuse with saline solution, and great improvement resulted. The abdomen was irrigated and drained. With the exception of some vomiting, the cause of which was not apparent, progress was good until 7 P.M. of the 15th inst., when the patient had acute pain in the abdomen, with shock and vomiting. As this was supposed to be due to the giving way of a stitch and the consequent escape of intestinal contents leading to peritonitis, the wound was opened and extended. This diagnosis unfortunately proved to be correct, and the parts which had been united end to end, gave way as the intestine was brought up to the surface. An artificial anus was rapidly formed through a new incision, the peritoneum washed out and the median wound closed, a glass drainage-tube being inserted. The patient did not rally from the shock and died at 5 A.M. of the 16th inst. At the post-mortem examination it was found that the first rupture had taken place about twelve inches from the duodenum and the second point of union was thirteen inches beyond that. The edges where the rupture had taken place looked somewhat dusky and the vitality was low—a fact not surprising when the severity of the contusion and the extensive damage to the mesentery are considered. We hope to be enabled to publish in a future issue a detailed account of the case.

#### INFLUENCE OF MIND ON BODY.

IN another column we publish an interesting and suggestive paper—a paper full of “wise saws and modern instances”—by Dr. Dale. In this is illustrated on the one hand the production of disease by psychological disturbance, and on the other the cure of what may be called morbid conditions by some profound mental effect. The efficacy of strong emotion in producing, or in helping to produce, such conditions as diabetes, chorea, and epilepsy is well recognised, and we venture to say undoubted; but it is always difficult to estimate correctly the influence of such accidents, or to say how much may be due to them and how much to an underlying instability which such a disturbance merely makes evident. That a depressed physical and mental condition also renders the bodily organs more susceptible to the influence of some poison, such as that of the specific fevers, is well recognised, and when the inseparable connexion between mind and body and the profound alterations which fear or joy bring about in, for example, secretory organs are taken into account it is not surprising that violent emotion should, as it were, open the gate to allow the admission of sundry toxic influences. It is an interesting question how much of the general—but by no means invariable—immunity which medical men enjoy from infectious disease is due to the calmness and unconcern with which they regard such diseases in relation to themselves. They forget to be afraid, and so they are clothed with an invisible and often an invulnerable cloak. The influence of mental effort in overcoming diseased conditions is not so well authenticated. The instances which Dr. Dale adduces are for the most part so-called hysterical conditions, and it is open to doubt how much such conditions have underlying them any actual change in structure. The helpless and paralysed lady who is frightened into activity by the threat of a drunken man to kiss her is a familiar type, but that of the man who reasoned himself out of an attack of hydrophobia is not so common, and would certainly require careful looking into. Of the efficacy of music and the “influence of sweet sounds” in producing that feeling of restfulness and comfort which is so conducive to recovery from any morbid state

Dr. Dale has a high opinion, but he enters a judicious *caveat* against allowing it to assume the garb of quackery or mystery. The consideration of the whole matter leads to an eminently rational view of the duty of the physician in relation to the mental attitude of the patient. That duty is to instil by means of faith and hope a courage which will enable him to bravely resist his foes, and Dr. Dale is of opinion that nothing more than this is to be expected from the influence of the mind in the removal of bodily diseases.

#### PROSECUTION FOR FALSE CERTIFICATE OF DEATH.

WE regret to have to record that another practitioner has been proceeded against for giving a certificate of death in a case which he had not personally seen, but which had been attended by an unqualified person. The defendant was Mr. Stephen Francis Smith, L.S.A., of Seven Sisters-road, Holloway. The offence was admitted and even regretted. An attempt was made to represent it as an inadvertent and not a wilfully misleading act, but the magistrate of North London Police-court (Mr. Haden Corser) fined the defendant £10 and £3 3s. costs, or twenty-one days' imprisonment. The prosecution was conducted by Mr. Charles Townley, superintendent registrar of Islington. Dr. A. G. Bateman, honorary secretary of the Medical Defence Union, attended and watched the case on behalf of that body.

#### FUNCTIONS OF THE CORD.

IN the summer number of *Brain* Dr. Mott gives the result of observations and experiments he has made with the view of discovering the relations and functions of especially the ascending antero-lateral tract, commonly known as Gowers' tract in the spinal cord. In summarising his results he states that the peripheral portion of the anterior and lateral columns consists in great part of ascending and descending cerebellar fibres. The former, the ascending, may be divided into a ventral and dorsal portion, and these should be named the ventral and dorsal ascending cerebellar tract instead of the antero-lateral and direct cerebellar tracts, the latter being the names by which they are now generally known. The ventral portion, it is said, may be completely divided in monkeys apparently without producing analgesia. The ascending cerebellar tract, he says, forms a connecting bridge between the superior vermis of the cerebellum and cells in the cord, the dorsal portion connecting the cells of Clarke's column with the dorsal part of the superior vermis, while the ventral portion connects certain cells of the cord with the ventral part of the superior vermis. Section of the antero-lateral column was found to produce much denser degeneration amidst the arciform fibres than could be accounted for by the slight injury to the direct cerebellar fibres. The extensive tract of degeneration corresponding to Gowers' antero-lateral tract (which he thinks, with Löwenthal, should be called ventral cerebellar) has been traced in the monkey to the superior vermis by way of the superior cerebellar peduncle, forming in its course a curious loop over the fifth nerve.

#### DUST, UPHOLSTERY AND DISEASE.

HOUSEHOLDERS in furnishing would do well to remember that the ordinary practice of covering a floor with carpet is not without its disadvantages, even its dangers. The particles which give substance to the pure search light of a sun-beam as it penetrates the window pane are of the most varied character. Harmless as are very many of them, there are also many more possessed of true morbid energy and capable of almost unlimited multiplication. Anyone can see therefore how, when sheltered in dusty woollen hangings, chair upholstery and carpets, they render these articles veritable harbours of disease. The less we have of such the better, especially in bedrooms. Some practical deductions naturally

suggest themselves. As to curtains and carpets, it is but rational that they should, as a rule, consist of the smoother and harder fabrics which will bear thorough and frequent brushing. If thicker floorcloths and rugs be used, they should be such in size and arrangement that they can be readily taken up and beaten. It is but part of the same argument to say that as much of the floor as possible should be either varnished or laid with oilcloth, so as to allow of frequent cleansing. Cane and leather, for a like reason, are incomparably superior to the richest upholstery when we come to speak of general furniture. Some, perhaps, may imagine that in making these observations we treat this matter too much as a hobby. Only one circumstance, however, is required in order to convince any such of their real and practical significance, and that is the actual presence of infectious disease. When this appears all forms of cumbrous comfort in the apartment must give place not merely to a freer and simpler arrangement, but even to bare, sunlit, and airy desolation.

#### HYDROCHLORATE OF PHENOCOLL.

HYDROCHLORATE OF PHENOCOLL has, since its introduction, been known to have a certain influence in fever, rheumatism and neuralgia and to favour the elimination of nitrogen. To define this influence more exactly a series of experiments was made in Professor Eichhorst's clinic in Zurich by Dr. P. Balzer, who published the result of these experiments in the *Therapeutische Monatshefte* of last June. The hydrochlorate of phenocoll did not produce any dangerous symptoms or any disagreeable effects in any of the cases experimented on, except in two patients who suffered from cyanosis, though the remedy was administered in daily doses of a drachm or a drachm and a half. In doses of fifteen grains it is a good and speedily acting antipyretic, but not preferable to phenacetin or antipyrin. In proportion to its antipyretic effect, the pulse generally becomes slower, but not in a corresponding ratio to the decline of temperature. In the large doses above mentioned it is an effective anti-rheumatic remedy, and may be administered when salicylic acid is contraindicated. It also acts beneficially in those cases of neuralgia which have their origin in sudden cold. Phenocoll increases considerably the elimination of nitrogen in health, but does not seem to influence the rhythm of the pulse in any way.

#### THE TREATMENT OF ANGINA PECTORIS.

ANGINA PECTORIS and arterial sclerosis are two very common diseases in Russia. This statistical connexion is hardly surprising when it is considered that the former affection is probably due to sclerosis of the coronary arteries of the heart. The severe and prolonged paroxysms of angina pectoris may be explained by the presence of a thrombus or embolus in these arteries. Dr. Kernig, who gave a lecture on the treatment of angina pectoris before the Medical Association of St. Petersburg, which was published by the *St. Petersburg Medicinische Wochenschrift*, speaks of two cases in which the post-mortem examination confirmed the above-mentioned opinion of the etiology of the affection. In both cases sudden death had followed a severe paroxysm, and a well-defined softening of the cardiac muscle, with incipient demarcation of the focus of disease, was present. This view of the causation of the paroxysms is supported by a clinical observation which Dr. Kernig made—namely, that in some cases, in a few days after the paroxysm, pericarditic symptoms were observed, which might be understood as proving that the centre of softening had reached the pericardium. Consistently with this belief, he enjoins absolute rest for about two weeks after an attack, so as to favour the cicatrization of the softening centre in the cardiac muscle. This absolute rest

must be maintained even when the patient feels quite well after the paroxysm and has a good pulse. He is, nevertheless, always in great danger immediately after the attack; but with complete rest and prudent avoidance of all unnecessary exertion of the heart he may escape this danger, which will be passed when the softened cardiac muscle has cicatrised. Dr. Kernig treated several extremely grave cases according to this rule without a single relapse, though one of the patients had remained for four years under observation. Patients must be particularly careful at such times, when from previous experience a paroxysm may be expected. Walking in heavy clothes must be absolutely avoided. With the first symptom of an approaching attack the sufferer must rest immediately, and if possible assume the recumbent position. When the attack occurs in the street the patient must immediately be removed to his home and should certainly not attempt to continue walking. At the same time Dr. Kernig does not fail to appreciate the value of regular and rational exercise when no fresh attack is imminent and sufficient rest has been taken after the last paroxysm.

#### COMPULSORY SANITARY WORKS.

THE Local Government Board are taking proceedings under Section 299 of the Public Health Act, 1875, to compel Worcester so to deal with its sewage as no longer to contaminate the river Severn. The city had been given a definite time in which to carry out the necessary works; nothing had been done in the matter, and now application has been made to the Court of Queen's Bench for a rule nisi for a *mandamus* to compel the Corporation to carry out the order of the Local Government Board. A similar rule was asked for against the Corporation of Rochester, but oddly enough it was limited to the village of Borstal. Why this comparatively insignificant and outlying part of the city has been selected for the exercise of compulsory powers it is a little difficult to understand. We have shown what is the state of Rochester city with its liquid filth soaking away into multitudinous cess-pools, and the place has become notorious for its maintained default in regard to sewerage. The city as such is left out and Borstal alone is attacked. It may be that the lives of the prisoners and of those who are under Government control at Borstal are regarded as of especial importance in Government circles; but the general public are hardly likely to look upon any such differentiation in the same light.

#### PSEUDO-BULBAR PARALYSIS.

IN the inaugural dissertation of Dr. Max Anderlya is related at length a case of this character. A brief account of it is given in the last number of the *Neurologische Centralblatt*. The patient was a joiner who had enjoyed good health until he was forty. At that age he had an attack in which the power of one side (he could not remember which) was impaired and he had some difficulty in moving his tongue and in articulating. He soon regained the lost power and was practically as well as before. Nine years later he had a sudden attack, losing power in his right side and experiencing a good deal of difficulty in swallowing. He improved very much, but the right arm and leg remained permanently weak. Two years later he lost power in his left side and he had considerable difficulty in talking and also in swallowing. A year after this last attack he was admitted into the hospital and he was then found to be very weak on the right side and almost completely powerless on the left. He also had much difficulty in swallowing; articulation was difficult and was nasal in character. The reflexes were present. There was loss of sensibility on the left side and the patient was unable to move his eyes to the left of the middle line. The fundi were normal. His condition remained the same as regards power; he wandered a little during the day, rather more during the night; the respiration became of the Cheyne-Stokes variety and he died

eight days after admission. A careful and thorough examination, both at the time and after the specimen had been preserved, revealed a condition of softening in the right lenticular nucleus and internal capsule and a somewhat atrophied condition of the right frontal lobe. A similar but smaller area of softening existed in the left lenticular nucleus, while the medulla, pons and cord appeared normal, except for some descending change in the right pyramidal tract. The kidneys were granular and the heart dilated. The case is an interesting one and forms a valuable addition to a now well-recognised variety of paralysis in which the symptoms closely resembling those of ordinary bulbar paralysis are due to a lesion on each side of the cerebrum.

#### TABES DORSALIS AND SYPHILIS.

IN a recent number of the *Berliner Klinische Wochenschrift* Professor Erb gave additional support to his well-known views in regard to the close connexion between tabes dorsalis and syphilis. These again have lately been called in question by Professor Leyden, and now an abstract of Professor Erb's reply appears in the *Neurologische Centralblatt*. Professor Leyden had called in question the reliability of Professor Erb's statistical proofs, but to this the latter retorts that if in a number of patients suffering from certain conditions 80 to 90 per cent. of those are found to have suffered from syphilis, while in a similar number suffering from other diseases only 20 per cent. have had syphilis, there seems to be good ground for postulating a causal connexion between the two conditions. Professor Leyden's second objection is the inefficacy of anti-syphilitic remedies in tabes dorsalis, but to this Professor Erb's answer is that the success of such drugs is not necessary in order to establish a diagnosis of syphilis, and that there are many cases of tertiary syphilis affecting the brain and spinal cord in which mercury and iodide of potassium are quite inefficacious. Professor Leyden's third point is the dissimilarity of the morbid anatomy in cases of tabes dorsalis and tertiary syphilis, but, as Professor Erb points out, it is a matter of extreme difficulty, even impossibility, to say in such cases what is syphilitic and what is not in the various morbid conditions found; and he finally concludes by expressing the opinion that in the great majority of cases of tabes dorsalis there is a distinct causal connexion between that condition and syphilis.

#### REJECTION OF NOTIFICATION AT NEWTON-ABBOTT.

AT the recent meeting of the Newton-Abbott rural sanitary authority, which, on the advice of the medical officer of health, declined to adopt the Infectious Diseases (Notification) Act, 1889, some very remarkable arguments were used and statements made. One of these statements had reference to the number of cases of scarlet fever passing without medical attendance. The medical officer of health said that in that district three-fourths of the cases have no medical attendance. He said that, in an experience of nineteen years, in which he had seen scarlet fever in farm-houses and dairies in the large and populous district of 180 square miles, no instance had occurred of the conveyance of the disease. Does it not strike him that as cases are not reported and not even attended by medical men such an experience cannot go for much or be set against the positive contrary experience of others. The argument of some of the speakers was that the Notification Act was preferred to the Act of 1890 because notification involved a small fee to the medical men. This is a gross and rude misrepresentation. We must confess our surprise at the attitude of the medical officer in dwelling on the fact that his authority would have to pay fifteen shillings for notifying six cases of the disease in one family, and generally that the disease was so mild in the county as to be beyond recognition and almost beneath notice. Does it not occur to him that under

an efficient system of notification, in which the *parent* was made responsible for not reporting such facts, six cases would not occur in one family? We cannot believe that such representations can be finally accepted, even on the authority of a medical officer of health. Notification is a means to an end; and it is not easy to see how isolation and other measures are to be initiated until an authority has definite material for judgment.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Dorpat*.—Dr. Karl Schmidt, Professor of Chemistry and Senior Professor of the Physico-mathematical Faculty, is about to retire. He studied medicine and took his M.D. degree in Göttingen, and was for many years engaged especially in physiological research. He has also made a study of the modes of propagation of cholera.

*Freiburg (Baden)*.—Dr. Kiebel has been promoted to an Extraordinary Professorship of Anatomy.

*Halle*.—Professor Arthur von Hippel of Königsberg has been appointed to succeed Professor Alfred Graefe in the chair of Ophthalmology.

*Jena*.—Drs. Leubuscher and Ziehen have been promoted to Extraordinary Professorships.

*Naples*.—Dr. Schoelein, Professor of Physiology in Santiago, Chile, and formerly *Privat-docent* in Würzburg, has been offered the chair of Physiology.

*Toulouse*.—Dr. Herrmann, Professor of Morbid Anatomy at Lille, has been appointed Professor of General Pathology and Therapeutics.

*Würzburg*.—The chair of Chemistry vacated by Dr. Fischer, who goes to Berlin, has been offered to Professor Curtius of Kiel, but he has declined to migrate.

THE salutary *rapprochement* between Germany and Italy reacts beneficially on the latter in no direction more conspicuously than in medical education. The system of *feriencursus* (holiday courses) in clinical medicine and semiology, long in vogue in the schools of the Fatherland, is now being introduced into those of Italy—the University of Genoa having led the way in this commendable innovation. From Aug. 20th to Oct. 10th practical courses in these subjects will be given in the latter school, under the superintendence of Professors Lucatello and Devoto. All students and recently qualified medical practitioners may attend.

DR. J. S. BILLINGS of the United States Army writes to say that in the report of the proceedings of the Dublin Tercentenary he is referred to as being Surgeon General, U.S.A. The Surgeon-General of the U.S. Army is General Charles Sutherland, while Dr. Billings is simply a surgeon in the army with the rank of Major. He requests that the error should be corrected in justice to General Sutherland as well as to himself.

THE question of the extension of the Manchester Royal Infirmary having been submitted to the general body of trustees, the result of the poll has been shown to be in favour by 130 votes of the amendment of Sir William Houldsworth—namely, "That the trustees are of opinion that, whilst it is manifestly important that the infirmary should be retained on its present site in the utmost state of efficiency, any extension of accommodation thereon is very undesirable."

OPHTHALMIA in workhouse schools is often a disease difficult to deal with satisfactorily. In Liverpool it appears some difference of opinion has arisen as to the expediency of admitting to an industrial school children suffering in a slight degree from affections of the lids.

## REPORT OF The Lancet Special Commission ON SANITATION IN RELATION TO THE LAW AND PRACTICE OF HOUSE-LETTING.

NOTWITHSTANDING the enormous strides that have been made in sanitary science during recent years and the many Acts of Parliament that have been passed, and sanitary by-laws that have been framed by local authorities to secure healthy homes for the people, we have been much impressed with the difficulty constantly experienced by householders in ascertaining the sanitary history and scheme of drainage laid down in the houses which they may propose to lease and occupy from time to time. The information that has been acquired by us in our inquiry has very clearly demonstrated the reason for this anomaly; for it has proved that, with the exception of those whose work compels a knowledge of sanitation, the general public, including many landlords, affect a complete indifference to the subject,—the latter mostly from pure ignorance, the former because bitter experience in the shape of illness have never obliged them to seriously study the matter. In order to obtain the views of those best qualified to express an opinion upon this important subject as to what is or can be done under existing conditions to protect the public against insanitary homes, and what improvements (if any) in the law and practice of house-letting are desirable and should be attempted, we have submitted to 1000 house agents and surveyors in different parts of the country a series of questions for answer. Our appeal has met with a prompt and courteous response from those to whom it was addressed, and such a mass of information has been placed at our disposal and so many valuable practical suggestions put forward, that we have been able not only to appreciate the causes of the present unsatisfactory state of affairs, but also to offer for discussion some methods by which pressing evils may be remedied.

It too frequently happens that a tenant signs the agreement or lease of a house without the slightest inquiry having been made as to the drains, and such essential points as the ventilation and proper jointing of the house drain and the disconnection of waste-pipes are completely overlooked. He is not seldom imbued with the idea that "good drainage" is a variable and elastic term, and that so long as the drains are not obtrusively offensive he had better leave the matter alone. The prevalent notion that even in the minds of sanitarians uncertainty still lingers as to what points should be kept in view to render a house well drained, accounts largely, we feel sure, for the disinclination, on the one hand, of the landlord to consider carefully the drainage of his houses, and, on the other hand, for the apathy and indifference of the tenant, who usually remains passive until roused to a sense of his danger by an outbreak of illness in his home. The evidence of our correspondents goes to show that somewhat of the blame for this erroneous belief must be fixed on those who undertake the surveying of houses and the advising of tenants as to their sanitary requirements. More than one house agent has informed us that what one surveyor has assured a tenant is sanitary perfection a second has pronounced sanitary imperfection; while not a few have said that calling in a surveyor means the employment of some particular "system" of drainage. In a word, drainage is for the public a "mysterious subject." The foregoing remarks of course apply to houses which were erected before the passing either of model by-laws or Improvement Acts. Houses built after such laws have been enforced would conform to the plan required by the Act, and would therefore be drained after modern methods. But the large majority of houses now standing would be included in the category of houses erected before this date, and, as by-laws are not retrospective, would be unaffected by them, until some nuisance had been proved to exist. It is therefore desirable, if possible, to attain to some scheme of uniformity in the drainage of this class of pro-

perty, which, while not weighing too heavily upon the landlord, would enable the tenant to live in safety and comfort. We shall point out later on how we think this end may be achieved.

The points to which our inquiries have been directed are the following:—

I. Whether the information usually supplied by clients to house agents respecting the sanitary history and condition of the property they are asked to let is sufficient.

II. (a) The sort of information usually supplied; (b) the kind of information which could and should be furnished.

III. Whether the house agent was prepared to make or obtain an efficient survey of a house and its sanitary arrangements.

IV. Whether Section 12 of the Housing of the Working Classes Act, which renders it necessary that tenements to be let shall be reasonably fit for human habitation, should be extended to all houses without distinction.

V. Whether the opinions expressed on the above would apply to houses and lodgings let for short periods at seaside places and health resorts.

VI. Whether there is anything not covered by the foregoing suggestions which should be considered.

We shall now point out, first, what in our opinion are the essential conditions which should be fulfilled before the drainage of any house can be passed as satisfactory; secondly, a brief *résumé* will be given of the opinions that have been expressed under each of the first five heads; and under the sixth will be added the most important suggestions that have been put forward for the improvement of the present state of affairs; thirdly, we shall quote some of the most representative replies that have been received; and, lastly, after discussing the most important facts that have been brought into prominence, we shall explain what appear to us to be the lines to adopt for future improvement. At the end of the report will be found a table showing the numerical results of the investigation.

We should recommend that the following points be attended to in laying down the drainage of a house:—

1. As far as possible drainage should be outside the house. The soil pipe should pass directly from the closet trap through the wall and down the outside of the house to the house drain. The soil pipe should be a four-inch lead or iron pipe; its diameter should never be less than three inches.

2. The house drain should be made of glazed stoneware or iron pipes, the diameter of which is usually six inches. It should always, when possible, be carried outside the house to the sewer, but in some cases—e.g., when houses are built in terraces—this is not possible, and the drain has then to pass underneath the basement. The drain should be laid on six inches of concrete and be surrounded with it. The joints should be carefully cemented all round, so that when tested with water and smoke no leakage should occur, and oil of peppermint poured down the top closet should not be perceptible to smell anywhere along the drain. The fall should be about 1 ft. in 40 ft. and not less than 1 ft. in 50 ft.

3. Between the house and sewer there should be constructed a manhole. Into this chamber there should pass by channel pipes the house drain, rain water and waste pipes from sink, bath &c. The manhole should be kept covered with an air-tight iron lid, which it is very important to remember should be removed at intervals for the purpose of ascertaining that no obstruction exists between the house drain and sewer. It is not an uncommon thing for the stoneware syphon trap into which the channel pipes discharge to become choked and for the sewage to be backed up behind the obstruction. It is a good plan where practicable to build two manholes, one to be placed at the front of the house drain as described, and the other at the back, so that a view can be obtained of the drain along its entire length and any obstruction be readily detected.

4. Ventilation of the drain. From the house side of the manhole there should pass a vertical ventilating pipe which should open to the air above ground. The soil pipe should be carried up full bore, without bends, to a point above the roof, and end quite clear of windows and chimneys. Where two or more closets are in use and placed one above the other and opening into a common soil pipe, an anti-syphonage pipe should always be employed to prevent unsealing of traps.

5. The kind of water-closet that should be employed is a matter of opinion, "the valve," "short hopper," or "wash out" being all in use. The pan closet is now prohibited in new houses. Closets should be provided with separate

cisterns, holding from two to four gallons of water, by which they should be effectually flushed after each use. The closet should be well ventilated and have external windows.

6. The rain water pipe should be disconnected at the foot, and discharge into an open stoneware gully.

7. The waste pipes from sinks, baths and lavatories should be trapped and discharge either into channels leading to open gullies or into "heads." The overflow pipe from the cisterns should be carried into the open air, and on no account into the traps of closets.

These are the essential points, the elaboration of details and the expensiveness of fittings and materials to be employed being matters for the individual to settle for himself. We are confident that this scheme can be carried out without the incurring of exorbitant expense.

#### THE SUBJECTS OF THE INQUIRY.

I. The prevailing opinion amongst our correspondents appears very decidedly to be that the amount of information placed at their disposal by landlords for the benefit of proposing tenants is quite insufficient to enable them to give an accurate and trustworthy opinion of the houses they are asked to let or sell. The majority regard the silence of the landlords as due to ignorance, and not to the wilful suppression of defects, although some maintain that the question of sanitation is passed over on account of the ruinous expenditure which drainage alterations entail upon the landlord. In some towns, such as Leicester, Eastbourne, Brighton and Hastings, where houses are efficiently inspected by the local authority, the fullest information is obtainable, and landlords have little to gain and much to lose by the concealment of sanitary defects. Some house agents inform us that they always advise the proposing tenant to have the opinion of an independent surveyor; while one or two admit that the bare mention of sanitary defects may cause the agent the loss of his client. On the other hand, it is a significant fact when we are told that once a landlord has been compelled to put his drains in order and holds a certificate to that effect, he loses no opportunity of putting this forward as an additional attraction to his house.

II. From what we have said above it will be gathered that the sort of information doled out to agents is in the majority of cases not of a very valuable kind. In a few instances the landlord can show a plan of the drains and a certificate testifying to the good drainage of his property. In the generality of cases the agent has to be content with such statements as "drainage good," "sanitation perfect," "lived in the house many years and experienced no annoyance," "no case of illness occurred during last tenancy through the drains," "spent a lot of money lately on drains," &c. One of our correspondents informs us that he always advises the owner not to guarantee the drainage, but to say, "It is believed the drainage is good"! As regards the sort of information which should be furnished the majority declare that the landlord should be able to assure his tenant that the drainage of the house has been laid down in accordance with the scheme we have sketched above. In order that the tenant should be more completely satisfied and secured against drainage defects, we have received the following suggestions: (a) That there should be hung in the house a plan of the drainage; (b) that the landlord should produce a builder's certificate; (c) that the local authority should make periodical inspections of all houses in their district, and that certificates should be granted with date of last inspection if found in good order; (d) that the landlord should have the option of asking the local authority to make a survey of his house upon payment of a fee, that the local authority may advise what (if any) alterations should be carried out, and that if these be done to their satisfaction a certificate should be granted; (e) that plans of the drainage of each house should be kept by the local authority, which should be open to inspection on payment of a fee; (f) that the "sanitary history" of houses should be preserved by the local authority, so that the nature of the infectious diseases which have occurred in the house could be known; (g) a large number have suggested that the state of the drains should be ascertained by the tenant for himself by calling in an expert opinion, the fee for the report to be paid by the tenant.

III. As regards the surveying of houses, the majority of our correspondents have expressed themselves as perfectly competent to undertake the work, though many of them are unwilling to do so. Still the prevailing opinion is that most emphatically the survey should never be neglected before the

letting or leasing of a house. While advising the necessity for a survey, some maintain that the person to make it should not be the house agent, for the landlord being the client whose interests the agent is primarily retained to serve, an unfavourable report of the drainage may tell to his disadvantage. Again, others assert that being retained for the landlord, the agent's report of the drainage if favourable might be viewed with suspicion by the tenant, who would probably refuse to be convinced until satisfied by his own surveyor. Another objection appears to be that the house agent is disinclined to accept the responsibility of giving a definite opinion with the present uncertainty as to what constitutes "good drainage." The last and most practical objection which has been urged against the agent acting as surveyor also is that, being enlisted on the side of the landlord, he is at the same time acting on behalf of the tenant; and when the time has arrived for the agent to receive his fee, landlord and tenant have become "sicklied o'er with the pale cast of" doubt as to which of them should pay. In many cases the agent never receives a solution of the difficulty. We are informed that in Blackpool every tenant can procure a survey of his drains by application to the medical officer of health.

IV. The question as to whether Section XII. of the Housing of the Working Classes Act should be extended without distinction to all classes of dwellings is by the greater number again answered in the affirmative, although, as was to be anticipated, many hang back on account of the vagueness of the term "reasonably fit." Some would extend the provision only to houses of a rental below £40 a year, either because they consider that the rich man is well able to take care of himself, or for the simple reason that tenants of the better class prefer to be satisfied about the drainage by employing their own surveyor. A few of our correspondents think that by making the application of this section general some injustice would be done to landlords, for two reasons: (1) Because a tenant may receive a house in perfect sanitary repair, and then, maliciously destroying pipes or fittings, bring an action to recover damages from the landlord. Even in the absence of wilful damage to drains it suggests itself to the minds of some that the mere application of this section to better-class property may prove to the tenant a direct incentive to litigation; (2) because a landlord may let his house in perfect good faith, having been informed by a surveyor that the drainage was good, and then be afterwards sued for damages when defects are found out. One of our correspondents would have the Act apply to all houses except those let out to weekly tenants.

V. Opinion has been expressed with no uncertain voice that the condition in which houses and lodgings are let for short periods at seaside places and health resorts is urgently in need of reform. Nearly all are agreed that as affecting the public health of the country this is a class of property than which none is more important. We are assured by some of our correspondents that instead of being health resorts many of these houses are "veritable death-traps," and it is within the personal experience of many that the w.c. accommodation is most defective and inadequate. Some have pointed out the possibility of these houses being centres of infection unless controlled by stringent regulations. A great many agents have suggested that hotels, lodging and boarding houses should be under the control of the local authority, by whom they should be licensed, periodically examined and certificated. Others, without going the length of handing the property over to the complete control of the local authority, insist that these houses should be passed by this authority as fit for habitation, and that a certificate to this effect should be hung up in the hall or some conspicuous place. It appears that the sanitary authorities of many health resorts have already become aware of their responsibilities, and are taking active measures to ensure the safety of the public. Thus we are informed, through the courtesy of Mr. Reginald Dudfield, M.A., M.B., medical officer of health of Eastbourne, that "the corporation issues a sanitary certificate on conditions which rest with this department to decide. A draft scheme for the instruction of the sanitary inspectors and other officials has been prepared by me, but has not yet received the approval of the corporation. The building by-laws are also under consideration, and a new draft has recently been prepared. A very great improvement has been effected during the last two years in all classes of property; and the certificate being recognised by visitors as a safeguard, the number of houses fulfilling the stringent con-

ditions of the same is daily increasing." In 1890 Mr. Alderman Bray of Hastings advocated "that a system of registration on the voluntary principle be established by the Town and County Council, granting annual certificates on payment of a small fee by occupiers or owners of houses on the acquirement by the latter of a certain standard of sanitary excellence." One correspondent has objected to houses and lodgings at seaside places being brought under the same regulations as other property on the ground that the period for which these houses are let is too short and therefore visitors must take the risk!

VI. The following are amongst the most important suggestions that have been offered other than those already detailed under the preceding five sections:—(1) That all districts, urban and rural, which do not at present work under Local Improvement Acts should adopt them as soon as possible; (2) that a code of by-laws should be published by the sanitary authority as to requirements for efficient house drainage; (3) that a Bill should be passed on the same lines as the Sanitary Registration of Buildings Act introduced by Dr. Farquharson into the late Parliament; (4) that the local authority shall inspect all houses on vacation by the last tenant, the work of inspection to be carried on by the appointment of "inspectors of buildings;" (5) that the local authority shall be the sole authority to survey houses; (6) that careless laying of drains be made a punishable offence; (7) that owners letting insanitary houses be rendered liable to be sued for damages; (8) that the medical officer of health shall not be a local practitioner, and that he shall devote his whole time to the local authority and be remunerated accordingly; (9) that the work of sanitary associations shall be encouraged and extended; (10) that vestries and local authorities shall appoint qualified surveyors whose services may be available for moderate fees, as many people object to societies and associations because they believe them to be interested in pushing certain fittings and systems; (11) that schools, public and private, be inspected and reported on as regards their sanitary condition.

We here introduce the views of some of our correspondents. (The numbers refer to the questions in the circular which we sent out.)

*Messrs. Alder and Co., London.*

1. We do not consider sufficient information is given to agents on this point. It is our rule not to accept particulars for letting houses where we know the sanitary arrangements are defective. Frequently our constituents know very little on the point.

2. Information of a most superficial kind. We always feel that there is a great necessity for some independent authority to have power to inspect all sanitary appliances, whether in factories, warehouses or private residences; and that a certificate be granted only where such are in a satisfactory condition. When we speak of an independent authority we have in view an authority not bent on simply putting owners to an unreasonable expense to the benefit of certain faddists and makers of certain kinds of appliances, but one who, once having decided which are the best, will act accordingly.

3. Sometimes asked to make a survey, but do not consider the agent's position between landlord and tenant a satisfactory one, unless acting independently.

4. Certainly yes. We cannot see why persons should be allowed to let insanitary tenements any more than a tradesman is allowed to sell food unfit for consumption.

5. This is a question of great importance, and one which cannot be too carefully looked into. All such places should be compelled to exhibit in a prominent position a properly authenticated certificate as to the sanitary condition.

6. We feel sure that the ordinary sanitary inspection can be much improved. Too much is left to the fads of the inspector instead of a proper scheme of sanitary laws fixed by a competent authority. We should say this authority has yet to be formed.

*Messrs. Ball, Norris and Hadley, London.*

1. No.

2. None beyond "drains all right."

3. Would be prepared to obtain, but not to make, a survey, as this should always be done by a specially qualified person, and one who has no other interest in the transaction.

4. No. The excuse for the provision in the case of working-class dwellings is that the tenants are unable to protect themselves; but the supposed benefit is a very doubtful one, and

redress can only be obtained by an expensive process of law after the mischief has been done.

5. The opinions given would apply to all classes of property.

6. We are of opinion that the true solution of the question is to be found in a system of sanitary registration as advocated by the Sanitary Assurance Association and provided for in the Sanitary Registration of Buildings Bill introduced by Dr. Farquharson, M.P., and the other medical members of the late House.

*Mr. Thomas Chaponau Barralet, Surveyor, Richmond.*

1. The average client is usually profoundly ignorant of the sanitary history and condition of the house he wishes to let or sell, unless he happens to be the builder of it or lives in it himself. As a rule the particulars we get are decidedly meagre. If sanitation be mentioned at all—and in five cases out of six it is not—it is in such general terms as “gravel soil,” “good drainage,” “drained into main sewer,” or more frequently the sweeping assertion “drainage perfect,” on the assurance of the builder from whom the house was purchased. I think more information on such points is desirable. That we do not get it is due to three causes: (1) Ignorance of client; (2) natural antipathy of owners to acknowledge defects; (3) neglect of agents to ask for information on such points.

2. Views coincide in the main with our scheme of drainage sketched above.

3. Yes; but considers that the surveyor should not be the house agent at the same time.

4. Personally favours the extension of the Act, but foresees it would bring a plentiful crop of litigation.

5. Legislation should fix responsibility on the owner and not on lodging-house keeper.

6. Local authority should keep a register, with plan of drains and special information relating to survey. Building by-laws should be compulsorily adopted throughout the country.

*Messrs. Thomas Bate and Co., Kilburn.*

1. Information insufficient.

2. From ignorance; property generally described as being in good sanitary condition when the converse is the case.

3. Yes; we are prepared to make an efficient survey.

4. Consider that in every case the owner of a house should be responsible for sanitary condition when the tenant enters into occupation, and that the local authority should be paid by the owner for efficient survey and certificate.

5. Remarks apply completely. This class of property should be certificated.

6. A survey should be made before tenant takes possession and at the cost of the owner.

*Mr. Frederic H. Boulton, Liverpool.*

1. In Liverpool and the out-townships the by-laws are very strict as to the responsibility of landlords to keep dwelling houses in sanitary repair. Tenants appear unwilling to pay the fees necessary for an expert's examination. It should be incumbent upon every health committee or local board, at the request in writing of a tenant or proposed tenant, to inspect and report upon the sanitary state of any property within their jurisdiction, and this report should be registered and a copy sent to the applicant and to the owner. If necessary a small fee might be charged on receipt of application, and the report be available for reference at any time on payment of the same.

3. Yes, but think reference to local authority a better plan.

4. Yes; “reasonably fit” should be clearly defined.

5. These houses should be examined by the local authority.

*Messrs. John and A. Bray, Hastings and St. Leonards-on-Sea.*

1. Not in the case of properties built before the application of the present by-laws and building clauses in the Hastings Improvement Act, except where from choice or necessity sanitary arrangements have been remodelled.

2. Our proposed sanitary certificate from the Town Council would, we submit, lead to all requisite matters being in proper order, to the satisfaction of house or apartment seekers.

3. It is generally a condition of hiring that houses shall pass such survey.

4. Yes, provided that in the case of lodging and boarding houses now held under leases varying in period the outlay does not fall on the tenant in making sanitary alterations.

5. Our opinions apply equally here.

*Mr. S. S. Bromhead, London.*

1. No.

2. (a) General statements like “drainage good”; (b),

periodical certificate from official inspector, which should be given free of cost.

3. No; because it would involve agent in trouble, and he would, besides, have difficulty in recovering his fee. It ought to be done by a public official, who would be responsible.

4. Yes, subject to official inspection.

5. These should be inspected annually.

*Mr. Samuel B. Clark and Son, London.*

1. Information insufficient.

2. (a) Unless a certificate is produced of recent sanitary improvements drains are pronounced to be sound; (b) in the case of furnished houses, a plan and certificate should be produced, but in unfurnished houses it may be assumed the tenant would have an inspection made.

3. We could not undertake the responsibility; and, as we should be acting on behalf of the owner, it is questionable whether the tenant would accept our survey.

4. No.

5. Furnished houses and lodging houses should have their sanitary arrangements periodically examined and certificated.

6. We would suggest that the various vestries should appoint a certain number of qualified surveyors in each district, whose services would be available to the public without fees. Many people object to the advertised societies or companies, under the impression that they are interested in pushing some particular system or fittings.

*Mr. John Douglas, London.*

1. In very few cases.

2. (a) The sort of information received is that no illness having occurred it is presumed the drains are all right; (b) plan of the main drain, with name of the surveyor who passed it.

3. I always make it a rule that all offers are subject to a sanitary report.

4. Yes, but it can be foreseen that the general application of the Act would lead to a good deal of litigation.

5. Every house let out for short periods or as lodgings should be under the supervision of the medical officer of health or district surveyor, and his certificate should be hung in the hall or passage. No lodging at seaside resorts should be countenanced without this certificate.

*Messrs. Driver and Co., London.*

We only let as a rule the vacant houses on the large estates for which we are agents and receivers. In these cases we inspect the sanitary arrangements on behalf of the owners, and, if found to be defective, they are put in order at the expense of the owner, the lessees and occupiers keeping them in order. When the estate comprises houses only, occupied on three years or yearly tenancies, the landlord first puts the estate in sanitary order and also keeps it in order at his own expense. When we undertake the letting of one or more houses for special clients for whom we are not agents or receivers, we make it our business to find out whether the sanitary arrangements are right, and where found to be out of order we advise the owner to have them put right before letting. In letting houses we never guarantee the sanitary arrangements, but inform the applicant that as far as we are aware they are fit and proper, and that it rests with the intending occupier to test the drains before taking the premises, and, if not satisfactory, the matter is thoroughly discussed between us and special arrangements come to in respect thereof. Before going into possession of a house a tenant should satisfy himself upon the question of the sanitary arrangements; but we find as a rule they object to pay a fee to an expert, and, that being so, they must put up with the consequences. Our experience of experts is this:—That there are many systems of drainage; and each expert naturally thinking his own scheme the best, some “defect” in the system of others is generally found. Thus, if any intending lessee wanted a certificate from us on behalf of the owner that the sanitary arrangements were fit and proper, we should decline to give it by reason of the difference of opinion which might exist between various experts if found necessary to call one in to decide the question of the soundness or otherwise of the sanitary arrangements.

*Messrs. Ellis, Morris and Co., London.*

1. As regards unfurnished houses of a rental of over £80 a year no change in the present custom is requisite. The public, however, should take the precaution of having the system of drainage inspected by a competent architect before signing any contract.

2. For a smaller class of house we should think legislation might be necessary, but as this does not come within the scope of our practice we leave it to others to suggest what is requisite.

3. For furnished houses, both in London and country, we are very strongly of opinion that some legal enactment is desirable. We would suggest that before letting apartments or furnished houses it should be compulsory for the owner to take out an annual licence, such licence to be only granted after the drainage has been inspected by some properly appointed official.

4. In taking permanent residences, we find that people are well able to look after themselves, but in securing temporary abodes, and perhaps more especially at the seaside, they are in too great a hurry to take more than a superficial inspection, and no doubt more illnesses are contracted this way than any other.

*Messrs. F. S. Jennings and Co., London.*

1. Information insufficient. If there be anything specially advantageous in regard to the sanitary arrangements it is generally very strongly impressed upon us and very often in terms which the result does not justify. In ordinary cases this is not referred to, or if mentioned it is only in very general terms, from which the agent has to draw his conclusions for the benefit of his client.

2. Our opinion is that it should be absolutely necessary for a landlord to obtain a certificate from some public official to be appointed for the purpose.

3. If any doubt arise, we suggest that a survey should be made by an independent person at the expense of the tenant. Not in one case in fifty would the owner offer to pay the expense.

4. Certainly.

5. It is, in our opinion, desirable that the Act referred to in the foregoing question (No. 4) should be also applied to such lettings as these.

6. The desired reform can only be brought about by legislation. Agreements between firms of leading house agents would be difficult to bring about; and if concluded would not be binding on anyone except themselves; with the result that if the combined firms who declined to deal with a house in which the sanitation was unsatisfactory, the owner would employ an agent outside the combination, with the result that his unscrupulous conduct in dealing with it would perpetuate evils.

*Mr. W. A. Hall, London.*

1. Information insufficient.

2. The tenant should obtain the necessary information at his own expense.

3. Yes.

4. No. Would lead to endless litigation.

5. Not able to express an opinion.

6. The present state of affairs can be better remedied by more effective administration of existing Acts than by recourse to further legislation.

*Messrs. Horncastle and Pember, London.*

1. No. Usually our first question; and the replies returned are generally vague.

2. That the house has been drained in accordance with the modern system, which our surveyor could verify.

3. Yes. A sanitary surveyor is a member of our staff.

4. No dwelling should be let that is not reasonably fit for human habitation; but nothing should be taken for granted, and the tenant should be satisfied by an independent survey.

5. We should like the above rule to be applied here; but we fear the in-going tenant would shirk the expense in the case of a short let.

6. No hard-and-fast legislation will be entirely satisfactory and every case of letting should stand on its own merits. We wish to point out that a great many so-called surveyors have had little or no practical experience.

*A Firm of Estate Agents at Bournemouth.*

The necessary reform can be best accomplished by legislation. Where not in force, Local Improvement Acts should be adopted, compelling owners of buildings erected before the passing of the Act to bring the drainage of their houses into conformity with the requirements of the Act. When the necessary alterations have been carried out, application should be made to the local authority to inspect the drainage. If found satisfactory a certificate to that effect should be granted. A fee should be paid for certification.

*Messrs. Fred. Long and Sons, London.*

1. No.

2. (a) Either no information or information in such general terms as makes it necessary for the proposed tenant to satisfy himself as to the sanitary condition of the premises; (b) in our opinion the only information that would be of any real value would be the certificate of some competent authority as to the sanitary condition of the premises.

3. We are not prepared to make a survey of the sanitary arrangements of property placed in our hands for letting, but we are prepared to obtain an efficient and independent sanitary survey of such property—indeed, we recommend it. We are of opinion that our position as agents interested in the letting of the property is better kept free from responsibilities for the sanitary condition of the same.

4. We do not think it would be wise to make Section 12 of the Housing of the Working Classes Act apply to dwellings. The provision in question is much too general, and might lead to great injustice. What is wanted is definite information as to the sanitary condition of each and every house occupied; not an implication which is inoperative until a serious disaster results, followed by a long and expensive legal process to recover damages. The first step towards securing the desired information would appear to be the sanitary registration of buildings as certified by duly qualified sanitary licentiates in manner provided for in the Sanitary Registration of Buildings Bill, introduced into the last Parliament by Dr. R. Farquharson, M.P.

5. Our opinion as given above would apply to all buildings alike, except that with regard to hotels and houses let in lodgings. We think the proposed changes in the law should be made operative at once, while with other property let for any long term the proposed change might be made in a more gradual manner.

6. We are of opinion that it would—at all events at present—be a mistake to attempt to throw upon the community the responsibility for the sanitary condition of private property, as would be the case if the sanitary arrangements of all houses came under the care of public officials. We, nevertheless, hold that it should be the duty of the State in the interests of the community to insist on proper attention being given by the owners to the sanitary condition of all occupied buildings.

*Mr. John Marsden, ex-Chairman of the Health Committee, Corporation of Blackpool.*

1. No information is ever given by the owners of property about sanitation.

2. No house should be let by a landlord or agent unless he produces a certificate from the medical officer of health that a recent inspection has been made of the premises.

3. Yes, if desired by the incoming tenant and with the permission of the landlord. In this town any tenant can have his house inspected on application to the medical officer of health.

4. Most certainly.

5. I consider that seaside houses ought to be put under the most rigid control as regards sanitation, and that such control ought to be in the hands of the State, and not in the hands of local authorities.

6. In many seaside places certificates are granted by the local authority; but these are most misleading, as I have known them to be.

*Messrs. Lovtan and Sons, London.*

We consider that generally speaking the public can only be effectually protected against insanitary houses by legislation, and not by agreement between the leading firms of house agents. Some owners do not disclose the insanitary condition of their houses when instructing agents to dispose of them, but the public are now so alive to the necessity of proper drainage that an inquiry as to the condition of the house in that respect is one of the first made by an intending tenant. We would never allow a client who consulted us to purchase or lease a house without first having a proper survey made of the sanitary arrangements, but while such an expense can easily be borne by wealthy people it presses very hard on those who are in search of small houses. We feel very strongly that it should be incumbent on all owners of house property to put the drainage into proper condition, and we therefore give a very emphatic "Yes" in reply to your fourth suggestion. Inasmuch as those seeking houses or lodgings at

seaside places and health resorts have so little time to make the necessary survey our opinions expressed above would apply with greater force if possible to houses of that description. In some seaside places we think the local sanitary authorities have by-laws giving effect to what we so much desire.

Legislation on such a subject is doubtless fraught with many difficulties, but they should be overcome when the health of the public is at stake.

*Mr. Samuel Reynolds, Bognor.*

1. Yes. So far as Bognor is concerned, there has been a house to house inspection by the local authorities during the last few years, and all defective drainage has been compelled to be put right. Any person taking a house can go to the local authority and obtain accurate information as to what has been done under order of the surveyor to any house in the district.

2. I should apply to the medical officer of health as to the past history of the house.

3. Yes.

4. Yes; but I fear in some cases the official authorities are apt to overstrain the necessity, causing landlords unnecessary expense, and serving notice to put the house in sanitary condition, and refusing to supply any detailed information of what they require. This is a weak point in the Act, and leads to much arbitrary proceeding.

5. As a rule persons letting lodgings or houses where there are proper local authorities will for their own sakes have them in good order.

6. Unprincipled people not uncommonly try to get out of an agreement by making false statements about the drainage. More than half the complaints are much beyond the truth.

*A Firm of Surveyors in London.*

1. Information insufficient, through ignorance and not from wilful suppression of facts within the knowledge of the landlord.

2. The tenant should satisfy himself regarding the sanitary condition of his house, and himself do what is necessary to put it into thorough order.

3. Yes.

4. It would be most undesirable to extend this provision to all houses.

5. A furnished house should always be let in a condition fit for habitation, because a person taking a house for a short period cannot reasonably be expected to deal with the drains.

*Mr. J. Stopher, London.*

1. No. It frequently happens that owners have no knowledge either of the condition or plans of the drainage.

2. (a) General statement that the drains are in good order; (b) plan of the drains with necessary description.

3. Yes; but of course this is a matter for an intending tenant. Always advise a thorough sanitary inspection before taking a property.

4. Yes; an owner of property should take every reasonable precaution to ascertain that his house is fit for human habitation.

5. From observation I believe that, except in houses erected during the past ten years, there are more death traps at the seaside and health resorts than in some of the worst parts of London. I consider that there is need for most stringent examination before taking a house at the seaside.

6. For the protection of house agents it would be advisable to agree that a house should not be recommended unless when information is given that a certificate from a competent surveyor of the efficiency of the sanitary condition has been shown. Every water company should be compelled to give continuous water supply. This evil of insufficient water supply is the cause of frequent stoppage of drains.

*Mr. T. G. Wharton, London.*

1. No.

2. Usual to state whether the house has been drained into the main sewer or cesspool, and if the premises have recently been put in order. I think there is considerable risk to the owner in making statements which might be construed into a guarantee.

3. Yes.

4. No, I consider it would be unfair. An owner as a rule conscientiously believes his drains are in good order, and probably as a matter of fact they were so when the house was built; or even if they were not his architect or builder certified that they were. Why should an innocent owner,

having no knowledge of the case, be made subject to actions for damages? Of course if he knowingly let a house in an insanitary condition it is a different matter. Having regard to the powers of the local authority and to the facility for inspection always given to an intending tenant, I consider he should look out for himself.

5. Furnished house or apartments should imply good drainage also.

6. I suggest it would be useful if an owner were compelled every seven years to have the drains and fittings tested by the local authority, or at his option by a properly qualified surveyor. In the case of a property let for longer than seven years this duty should devolve on the lessee.

*Mr. E. H. Winkworth, Brighton.*

1. In an ordinary case where the letting of an unfurnished house is concerned the intending tenant invariably stipulates for the drainage to be approved by his surveyor and any necessary work done. In furnished houses I am supplied with all available information. It would be advisable to have a proper certificate from a thoroughly qualified surveyor.

2. The sort of information which would be valuable could be furnished by a plan of the sanitary arrangements, water-supply and fittings, together with a proper certificate of efficiency from time to time. Many of my clients have an annual inspection, including a test of the drains by water-pressure. I consider this a good arrangement.

3. Yes, certainly.

4. This is an implied covenant with furnished houses.

5. I consider that if the drainage or water-supply is defective in any way it should be remedied irrespective of whether the house is for letting as a whole or in part, or for long or short periods.

6. The course which appears to work best is to offer every facility to tenants or purchasers to have a thorough inspection and test made by their own surveyor. All houses building in Brighton have to expose the drain, and test with water to the satisfaction of the town authorities. Even in a properly drained and fitted house trouble will occur unless servants are carefully instructed, and I think it essential to have printed directions.

*Messrs. John D. Wood and Co., London.*

1. Owners find it advantageous to themselves to put forward sanitary conditions when of approved plan and construction as one of the attractions of their places. Buyers and tenants are increasingly particular as to sanitary conditions, and make their offer subject to a sanitary survey, carried out by a surveyor at their own expense.

2. (a) In our printed form we ask the questions, Are the sanitary arrangements on the modern principle, and who planned and superintended the works? (b) Has the house been drained on modern principles?

3. We advise buyers or tenants to supplement by a detailed survey.

4. Should be extended to property having a rental of £40 per annum, but not further. For better class property sanitary condition should be a matter of mutual agreement.

5. Fully. All hotels and houses where lodgings are let should come under Section 12 of the Housing of the Working Classes Act.

6. For the last fifteen or eighteen years great stress has been laid on sanitary conditions, and in the West-end it is almost impossible to let a furnished house unless the sanitary arrangements have been reconstructed. This also applies to country houses, but to a less extent. Speculators in house property recognise this fact, and take care that the sanitary arrangements of a house are in good order. We think that a recognition of a minimum of sanitary requirements (legal or otherwise) would be helpful in inducing owners to bring their houses up to the required standard, leaving for private agreement the elaboration of details, such as irrigation, grease traps &c.—antisiphonage, disconnecting and inspection chambers.

It should be imperative that all who execute sanitary works or superintend their execution should give a certificate showing works executed and manner of execution, illustrated by a plan, this certificate and plan to be producible on demand.

#### SUMMARY.

From the amount of information which we have placed before our readers two facts must have become apparent to them. (1) That there is a vast amount of ignorance abroad, both amongst landlords and tenants, as to what sanitary

conditions should be fulfilled before a house may be considered habitable; (2) that sanitary defects are largely prevalent in houses in all parts of the country, especially in those erected before the adoption of the Local Improvement Acts or Model By-laws, and that some reform is necessary in the law and practice of house-letting for the better protection of tenants, and, we think, in the end for the advantage of landlords also. To attain this desirable result, however, some plan must be evolved, which, while affording effectual protection to the tenant, will not inflict a positive injustice on the landlord. Some of our correspondents have urged that the matter is entirely in the hands of the tenant, and that as it is the duty of every man to look after himself no further legislation is desirable. It is contended by them that all a proposing tenant has to do is to call in his own surveyor and be satisfied by an expert opinion that the drainage is in good order. One gentleman, insisting strongly on this plan, compares the taking of a house to the purchase of a piano, in which he says a man takes the precaution to satisfy himself that he is getting his money's worth, and he asks why he should not apply the same laudable rule in the matter of his house. It appears to us, however, that whereas in the former case a man may get his opinion gratis, in the case of a house he must pay in order to find out whether the article offered is genuine. We must confess that we cannot see why a landlord who spares no trouble to put the rest of his house in order should systematically overlook the condition of the drains, or pass them over with the statement that they are "all right" or "have given no trouble." Nor are we able to appreciate the logic of the rule which says that the tenant must pay for the privilege of pointing out to the landlord that he is letting a house with the drains out of repair.

Granting, then, that reform is necessary, it appears to us that the desired improvement might be obtained in one of three ways: (1) By a combination of house agents and surveyors; (2) by further legislation; (3) by awakening sanitary authorities to a sense of the power already entrusted to them, and requiring them to develop their latent authority for the public benefit.

Regarding the first suggestion it has been pointed out that agreement between the leading firms of house agents would be difficult to accomplish, and when effected would not be binding on anyone except themselves. Moreover, the owner would always have it in his power, supposing the verdict were against him, to appeal to some firm outside the union. With this opinion we entirely agree.

In the event of the desired end being attained by further legislation we presume that some such Act as the Sanitary Registration of Buildings Bill, introduced by Dr. Farquharson into the late Parliament, would be requisite. Probably before a house could be put on a "sanitary register," the landlord would be compelled to place the drainage of his house in conformity with the requirements of the Bill. This would effect the improvement by a sweeping and revolutionary change, and, while meeting with disfavour amongst landlords, would probably entail no little trouble on the sanitary authorities. We would suggest that some more gradual innovation should first be attempted.

We are now left only with the law as it stands, and we are driven to ask whether, in spite of the evils which appear to flourish under it, it does not hold out any hope of assistance by more efficient administration and a more complete use of its powers. We venture to think that it does; and in the course of this report we have already instanced cases where it has done so. Under the Metropolis Local Management Act, 1855, Section 202, the London County Council is empowered to make by-laws "for regulating the dimensions, form and mode of construction, and the keeping, cleansing and repairing of pipes, drains and other means of communicating with sewers, and the traps and apparatus connected therewith." Other sections of this Act empower the vestries and district boards to require houses to be drained, and by Section 82 the sanitary authority is granted power to inspect at any reasonable time during the day any drain after twenty-four hours' notice in writing had been given to the occupier of the premises. By Section 39 of the Public Health (London) Act the County Council is required to make by-laws with respect to waterclosets, earth-closets, privies, ashpits, cesspools—whether constructed before or after the passing of the Act, and the sanitary authority to make by-laws with respect to the keeping of waterclosets supplied with sufficient water for their effective action. Every sanitary authority is moreover required to observe and carry out the by-laws under this

section. By Section 40 of the same Act the sanitary authority is given the same power of entry and of inspection of waterclosets, sinks, traps &c. as was conferred by Section 82 of the Metropolis Management Act in respect of drains, and they can enforce whatever alterations appear necessary. By the Public Health Act, 1875, Section 157, every urban authority was empowered to make by-laws "with respect to the drainage of buildings, to waterclosets, earth-closets, privies, ashpits and cesspools in connexion with buildings, and to the closing of buildings or parts of buildings unfit for human habitation" &c. Again, the Public Health Acts Amendment Act of 1890 enables these by-laws to be made to affect buildings erected before the Local Government Acts came into force in the district. We see, then, that in the matter of sanitation the law makes the local authority practically supreme if it cares to exercise its rights, for it is not only permitted entry at any reasonable time during the day if dissatisfied with the sanitary condition of any house, but it may frame by-laws and enforce them with respect to sanitary appliances.

Now the plan which appeals to us most strongly, and one which appears most likely to secure the desired end most easily and smoothly, is that which has already been put in action with successful result at Eastbourne. By this method the local authority offers to grant certificates to landlords if their houses come up to their standard of sanitary excellence, and houses so certificated are put upon the register of the local authority. The sanitary authority has acted most wisely by making the registration a voluntary one, for by so doing they have converted what might have been looked upon as a grievous hardship into a mark of distinction. As was to be anticipated, landlords have not been slow to avail themselves of the privilege, for it necessarily affords them a better chance of letting their houses; and we have little doubt that in time the majority of houses will have been put on the register.

Having agreed that it is desirable that the local authority shall institute a plan of registration of houses after the granting of their certificate, we have next to consider how this certificate shall be gained. The various means of certification that we have come across in this inquiry are: (1) By the builder; (2) by the surveyor; (3) by sanitary associations; (4) by the local authority, who shall be the sole surveyors. We scarcely think it advisable that the local authority should accept certificates from builders, surveyors or sanitary associations as qualifications for registration; for however honourable are the majority of men engaged in these professions, such a plan has of course very evident shortcomings. Much as we should disapprove of this suggestion being carried into effect, we still more dissent from the one which constitutes the local authority the sole surveyor; if by surveying be meant the planning and laying down of drains, for this would evidently strike at the root of private enterprise, and would be an intolerable injustice. We should rather suggest that every sanitary authority should issue a code of by-laws setting forth its standard of sanitary excellence. The work should be carried out by private agency, but when finished should be passed by the surveyor or sanitary inspector of the local authority; and if the report be satisfactory a certificate to that effect should be granted and signed by the person who inspected the house. It would also be advisable on obtaining the certificate that a plan of the drainage should be deposited with the local authority, which should be open to inspection at some future time on payment of a small fee.

While we would advocate the system of voluntary registration for private houses, we think that in the case of hotels, lodging and boarding houses registration should be compulsory. Our remarks would apply with especial force to seaside places and health resorts, whither people go in search of health, and find perchance, instead, a sick bed or something worse. In houses of this class the public have not the opportunity, however capable they may be, of satisfying themselves about sanitary conditions, and it is therefore only fair that they should be protected to the fullest extent. Once having gained a certificate from the local authority, how long shall it be considered to hold good? We would suggest that in the case of hotels, lodging and boarding houses the renewal should be annual, the fresh certificate being granted provided no nuisance has arisen in the interim. Private houses, we think, might be certified at each change of tenancy, notice being sent to the local authority when this occurs, or, in the case of long tenancies, at intervals of not more than seven years' duration.

A TABLE SHOWING THE OPINIONS OF 136 HOUSE AGENTS UPON THE SEVERAL QUESTIONS SUBMITTED TO THEM FOR THE PURPOSES OF THE LANCET INQUIRY.

Questions.	Yes. No.	No answer.	No. asked or given.	Vague information.	No answer.	Certification.	No answer.	Plans and certificates.	History of houses.	Sanitary tests.	Improvement Acts.	Yes.	No.	Yes, No.	No answer.	Apply equally.	Do not apply.	No answer.	Make suggestions.	No suggestions.
	I.	I.	II. (c)	II. (c)	II. (a)	II. (a)	II. (b)	II. (b)	II. (b)	II. (b)	II. (b)	III.	III.	IV.	IV.	V.	V.	IV.	VI.	VI.
I.—Do you consider that in an ordinary case you are supplied by your clients with all the information which is desirable concerning the sanitary history and condition of houses entrusted to you for letting? ... ..	9	107	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
II.—Would you illustrate by imaginary examples (a) the sort of information on these points which you are accustomed to receive, and (b) the sort of information which in your view could and should be furnished?... ..	—	—	7	81	41	7	81	34	81	12	4	103	14	—	—	—	—	—	—	—
III.—Are you prepared, of course with the client's permission, to make and obtain an efficient and independent survey of the house and its sanitary arrangements? ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IV.—Do you consider it desirable that the provision of Section 12 of the Housing of the Working Classes Act of 1885, which makes it an implied condition in the letting of a tenement that it shall be reasonably fit for human habitation, should be extended to all dwellings without distinction? ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
V.—How far would your opinions expressed above apply to houses and lodgings let for short periods at seaside places and health resorts? ... ..	—	—	—	—	—	—	—	—	—	—	—	94	23	19	—	—	—	—	—	—
VI.—If any points occur to you in this connexion which are not already covered please mention them here. ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107	3	26	—	80
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	56

A landlord having satisfied his tenant by the production of the certificate of the local authority, that the drainage of his house is in thorough order, we hold that he should be exonerated from all responsibility in the event of mischief occurring during the tenancy. On the other hand, should the tenant wilfully cause a stoppage of a drain the landlord is protected by Section 15 of the Public Health (London) Act, which imposes on the tenant a penalty of £5; while for damage to sanitary appliances he is by Section 41 of the same Act liable to a fine of £10; and if he does not abate the nuisance within fourteen days to a fine of twenty shillings for each day during which the offence continues. It has been suggested that schools, public and private, should be inspected and reported on as regards their sanitary condition. This is an important suggestion, and one which we should be glad to see carried into effect.

Through the kindness of several house agents we have had forwarded to us copies of the printed form of agreement usually employed by them in the letting of furnished houses, and we have been much impressed with the fact that none of them contains any direct allusion to the subject of drainage, although space is left in some in which the tenant may make conditions regarding sanitation. We would submit that stipulations regarding the drainage should enter into every agreement in the letting of a furnished house, and would suggest the following as a model form:—

Memorandum of an agreement made and entered into this.....day of.....one thousand eight hundred and....., by and between..... of....., auctioneer and valuer, house and estate agent, acting as agent for..... of the one part and..... of....., heirs, executors, administrators or assigns of the other part as follows—that is to say, the said..... hereby agrees to let, and the said..... hereby agrees to take all that messuage or dwelling-house and premises, situate and known as....., together with the furniture, glass, china and effects now therein, as per inventory, from the..... for the period of....., the landlord guaranteeing that the sanitary arrangements of the said messuage, dwelling-house, and premises are in thorough order.....; and the said..... further agrees to pay the said rent..... (Here follow the usual stipulations regarding rent and right of re-entry of the agent in case of default of payment.)

The Editors of THE LANCET have pleasure in acknowledging the receipt of replies to their circular from the following firms of house agents and surveyors, and thank them for the kind assistance they have afforded them during the work of the Commission:—

Mr. J. Adam, Dublin.  
Messrs. Alder and Co., London.  
Messrs. Baker and Son, Hastings.  
Messrs. Ball, Norris and Hadley, London.  
Mr. H. Barnwell, Birmingham.  
Mr. T. C. Barralet, Richmond.  
Messrs. Barratt and Co., Leamington Spa.  
Mr. H. H. Barton, Folkestone.  
Messrs. T. Bate and Co., London.  
Messrs. Beeston and Burmester, London.  
Messrs. J. D. Betts and Son, London.  
Mr. D. Briant, Brighton.  
Messrs. Bocquet and Co., London.  
Mr. J. B. Body, Plymouth.  
Mr. J. G. Bond, Liverpool.  
Mr. F. H. Boulton, Liverpool.  
Mr. T. Brackstone, Colwyn Bay.  
Messrs. John and A. Bray, Hastings.  
Mr. W. G. Banner, Liverpool.  
Messrs. Brock and Co., Exeter.  
Mr. S. S. Bromhead, London.  
Messrs. T. Broome and Co., Oldham.  
Messrs. Bullock and Sadler, Brighton.  
Messrs. Carter and Howard, Blackpool.  
Mr. C. Challen, London.  
Messrs. Challis and Co., Brighton.  
Mr. D. J. Chattell, London.  
Mr. F. Child, London.  
Messrs. Samuel B. Clark and Son, London.  
Messrs. Cockett and Henderson, London.  
Mr. E. Cohen, Brighton.

Mr. W. H. Collier, London.  
Mr. Henry Cousins, Hastings.  
Messrs. Cowton and Sons, London.  
Mr. Thomas Daniels, Liverpool.  
Messrs. D. Day and Sons, Ventnor.  
Mr. W. H. Derbyshire, Dunstable.  
Messrs. Diplock and Son, Brighton.  
Mr. John Douglas, London.  
Mr. G. W. Dowlay, London.  
Messrs. Driver and Co., London.  
Messrs. Ellis, Morris and Co., London.  
Mr. J. F. Fear, Creve.  
Mr. H. H. Fuller, London.  
Mr. E. James Gairdner, London.  
Messrs. Frank Giles and Co., London.  
Messrs. Grogan and Boyd, London.  
Mr. W. Hall, London.  
Mr. W. B. Hallett, London.  
Mr. J. Hardcastle, Boroughbridge.  
Mr. E. Harland, Scarborough.  
Mr. W. Haughton, London.  
Messrs. G. Head and Co., London.  
Messrs. Heaps, Son and Reeve, London.  
Mr. E. F. Higgs, Isle of Wight.  
Messrs. Hill and Weaver, London.  
Messrs. Hind and Son, Ramsgate.  
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Mr. W. Knight, London.  
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Mr. E. H. Winkworth, Brighton.  
Messrs. John Wood and Co., London.  
Mr. F. Woodman, St. Albans.

## ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR 1890.<sup>1</sup>

THESE voluminous reports which are annually drawn up in the office of the Sanitary Commissioner with the Government of India embody a vast amount of information. They deal with the sickness and mortality among the European troops, native army, prisoners, and general population of India, and the tables and returns are so compiled and arranged and ingeniously thrown into such groups and forms as to afford information to a statesman, Government official, or medical officer on a variety of subjects about which it is sometimes very essential for him to know a good deal. Information regarding the birth, death and sick rates of the enormous native populations of India—over 280 millions of people—is confessedly unreliable. Our systems of registration are at present so imperfectly carried out there that it cannot be otherwise. But the statistical data obtained from the British and native troops and the gaol population are trustworthy and serve as a gauge and check on the returns furnished from native sources. The late Dr. Bryden may, we believe, be credited with having created the statistical department and with having in a great measure designed the valuable tabular statements that have been continued in these reports since his time. If the reader turns to that portion of the report and appendix appropriated to the European troops in India, he will see—to take a few samples of the kind of information afforded—that the geography and topography of diseases, the influence of season, the comparative ratios of sickness and mortality of the armies of the three presidencies and of the different districts and chief military stations in them, the vital statistics of hill stations, the relation of disease, and of certain diseases in particular, to age and length of service, the gain and loss of strength of corps, and the vital statistics of the women and children of European regiments, are all set forth. To proceed, however, to the report itself. After the usual summary of the meteorological phenomena for the

<sup>1</sup> Government Printing Office, Calcutta, 1892.

year 1890 we come to the section on the European army in India as a whole. The sickness was greater than in the previous year, though the mortality was much less. But for the epidemic of influenza the year would have been a fairly healthy one. Influenza caused an admission rate of 33 per 1000, pneumonia one of 4.6, against 2.6 in the previous year, and other respiratory diseases 35, against 29 per 1000 of the previous year. Venereal diseases caused 33 per cent. of the total sickness, and ague 23 per cent. In all three presidencies venereal diseases head the list, show higher ratios than in the previous year, and much higher than in the decennium. Enteric fever caused 36 per cent. of the total deaths, against 37 per cent. in the preceding year. Of the three presidencies Bombay shows the lowest ratio of sickness and of deaths, Bengal the highest in both these respects.

In 1890 India shared in the pandemic of influenza, which first showed itself epidemically in Russia in September-October, 1889, and thence spread over Europe, reaching its height there in December. The facts set forth in the report are interesting, and we may therefore briefly advert to them. The first cases in Egypt were noticed in the last half of December. In India a few cases are returned as influenza every year, and in 1889 the cases so returned amounted to 5 among European troops, 7 among native troops and 33 among prisoners, the last representing a curious isolated outbreak in August, 1889, among the prisoners of the 'Thayetnyo gaol; and not only were the prisoners affected by it, but members of the gaol guard and gaol establishment also. In Bombay and Calcutta cases were first noticed in February, 1890, in Rangoon and probably Madras in the middle of March; but the Sanitary Commissioner, North-Western Provinces and Oudh, states that influenza was epidemic in the Jalaun district from the middle of January and in the Bijnor district from February. The area covered by the disease was very large, extending, in fact, over nearly the whole of India. It affected European and native troops and prisoners and the natives themselves, only the statistical evidence in regard to the latter is necessarily meagre and unreliable. Its general prevalence was confined within very narrow limits of time, commencing with few exceptions in March, attaining its maximum in April and then disappearing. It seems to have been less prevalent among the women and children than among the men of European regiments. There was, of course, a great increase of pneumonia and pulmonary disease concurrent with or immediately following the epidemic. The disease was attributed to importation by many observers. The number of admissions to hospital affords no idea of the numbers affected by it. At one station the medical officer estimated that as many as 30 per cent. of the garrison was affected; at another the estimate of the medical officer was even 80 per cent. Although the general mortality of the European army was not raised by influenza directly, the death-rate from pneumonia and respiratory disease was markedly increased and no doubt attributable to it as a cause. In some cases it is noted that the Europeans suffered much less severely than the natives in the same station. It is of interest to learn, on the authority of the principal veterinary officer in India, that there was no preceding or concurrent epidemic, like or unlike influenza, among horses.

Passing over other diseases, we turn to the grave and important subject of enteric fever. The remarkable liability of the young and newly arrived soldier in India to this fever—and especially of the soldier recently arrived there—is an acknowledged fact which has been thoroughly threshed out. But the true cause has still to be sought. It cannot be imperfect drains and sewer air, because there are no sewers in India to befoul the air or leak into the water-supply, and it has never yet been actually demonstrated that the natives of India commonly suffer from the disease—at any rate, to anything like the extent that Europeans do—and distribute its germs broadcast over the bazaars and native villages. Still, the opinion among medical officers in India is that the enteric fever of that country, however masked its clinical features may sometimes be by climatic conditions, is essentially the same in pathology as the corresponding fever in Europe. In this opinion they are no doubt right, and it seems only logical to suppose that the self-same cause which produces the disease in the one country must be operative in the other also if we could only find it out and, having discovered it, track it home to its haunts and show what it is, how it originates, in what and under what conditions it grows and develops, and how it gains an introduction into the human body.

Our thoughts naturally turn to the latest discovered typhoid bacillus. If this proves to be the *vera causa*, or the agent through whose instrumentality a process is set up in the tissues productive of a poison or ptomaine, then we may possibly have found a pathway leading to an assured basis of scientific fact to which we can relegate the etiology of typhoid fever and learn the why and the wherefore of the disease and the best way of preventing it.

Since the last report specimens of three more cases occurring among European soldiers in Lucknow and Fyzabad were submitted, we are told, to Professor Fischer of Kiel, in one of which he had found the bacillus, but had not yet reported as to the others. Specimens of spleen and mesenteric glands from the case of a native soldier who died of a fever diagnosed as enteric were also forwarded, but Professor Fischer failed to demonstrate the presence of the bacillus in a number of sections he had made. The truth of the assertion that the same enteric fever occurs among natives as among Europeans has therefore yet to be demonstrated in this direction. On the other hand, Dr. Justyn Karlinski has published two cases in which the symptoms were anomalous and no intestinal lesions were present, and yet a bacillus was found by cultivation from the spleen and other internal organs; and another in which with only an old cicatrix in the intestine the bacilli were recovered from the blood by cultivation. This observation opens up a wide field of inquiry, and we quite agree with the Sanitary Commissioner with the Government of India that, if confirmed, it will still more emphasise the need of bacteriological examination of Indian cases. These investigations, it is pointed out, can only be carried out in properly equipped institutions by trained observers with the necessary combination of leisure and apparatus. It is time that the sea-saw of asseveration and the promulgation of hypotheses should be replaced by results obtained by some exact and systematically pursued methods of inquiry. We have all along contended that something of this kind should be done, and, what is more, we consider that it would be well at the same time to set about some practical sanitary inquiry and to organise some sort of public health department in India, with local head centres at the several districts or larger military stations, to undertake and report upon any outbreaks of this disease at the time of their occurrence. We should also like to hear that samples of water taken indiscriminately from barrack-room filters had been chemically analysed and submitted to bacteriological tests. A primary question that requires to be practically decided is as to the prevalence or not of enteric fever among the native population. Is it among them a disease of infantile life or not? Our own personal experience is rather corroborative of the opinion of those who hold that true enteric fever is relatively rare among infants and young children in England. To what is the alleged immunity of the native as compared with Europeans from enteric fever attributable? To an acquired tolerance or what? The sanitary commissioner has himself suggested numerous subjects for inquiry, and it should not be difficult to formulate instructions for conducting such an investigation. We earnestly hope to see it done. In the following table the admission and death-rates per 1000 from enteric fever in the European troops, native troops, and gaols of India are compared:—

—	1877 to 1880.		1890.	
	Admissions.	Deaths.	Admissions.	Deaths.
European troops ..	8.0	3.15	13.6	4.01
Native troops .. ..	0.2	0.10	0.1	0.07
Gaol population ..	0.2	0.10	0.2	0.00

The percentage mortality of enteric fever in deaths from all causes in 1890 was 35.5 for European troops and 0.4 for native troops. Of one thing there can be no doubt in the meanwhile—viz., that the soldier recently arrived in India is far more apt to die from enteric fever than he who has been longer in the country, and that with increased service in India the liability to death from enteric fever rapidly diminishes. In 1890 the percentage of liability in the case of soldiers during their first and second years of service was 66.47, as compared with 14.13 of those from the sixth to the tenth year of service—a very striking difference.

Passing on to the section dealing with the general population of India, we find that cholera was widely distributed in the year 1890. No province was exempt from epidemic

cholera, and the only large area that entirely escaped was the north-west frontier of the Punjab: 'There were only a few cases in the eastern parts of the central provinces and the coast districts north of Madras. The total number of deaths recorded was 297,443, which is much less than in the previous year, viz., 428,923, though rather more than in 1888. The report contains a table of the annual deaths from cholera in India from 1887 to 1890, from which it will be seen what a terrible scourge this disease is in India. For the year 1890 the province of Bengal (excluding Calcutta) heads the list in the number of population and deaths from cholera; next the North-West Provinces and Oudh; and Madras stands third in mortality; Berar, Lower Burma and Coorg, where, in a population of over 178,000, there were only five deaths from cholera during the year, stand at the bottom of the list. With regard to the causes assigned by different observers for various outbreaks of this disease we may mention that unprotected water-supply and contaminated water, importation of the disease, its more rapid distribution by the agency of railways and pilgrims are among the more important alluded to. It is to be regretted that in several instances the evidence in favour of a given conclusion is not as precise and complete as could be desired, and the Sanitary Commissioner calls attention to the fact. In the history, for example, of a remarkable outbreak which occurred at a place called Bilaspur the date of the feast is not given. We are not told whether cholera was present in the sixteen villages before the return to these villages of persons who had been at the feast or whether it afterwards broke out among those who had never been there. Again, with regard to the details connected with the alleged more rapid distribution of the disease in the Punjab by railways, it is significantly pointed out that the almost simultaneous appearance of cholera in widely separated districts of a province is no new fact, and that this feature in the spread of the disease through the Punjab is certainly older than most if not all the railways. Cholera, moreover, was already present in Umballa and other districts through which the pilgrims had to pass. At page 148 of the report there is a table, in continuation of those given in past years, showing the percentage of attendants on cholera cases attacked by that disease—viz., 3.15, which seems high. We infer from the report, however, that the circumstances connected with these attacks were not such as to warrant the conclusion that they were attributable to such attendance. The curious instances of localisation of the disease on the one hand and the beneficial results attending the movement of human beings from an affected locality into camp on the other would rather seem to indicate the influence of place instead of persons in the matter.

In the short section headed "General Remarks," Surgeon-Major-General Rice, the Sanitary Commissioner, gives a summary of the events connected with the outbreak of cholera at the Haj in 1890 after an interval of six years' freedom from that disease; of those connected with the quarantine at Camaran; of the interesting circumstances connected with outbreak of cholera in the s.s. *Deccan*, the only vessel attacked of thirty ships during the pilgrim season; and of an outbreak on board the s.s. *Malacca* while on her way from Jeddah to Constantinople in August, 1890, at the close of the pilgrim season. The concluding paragraphs of this section deal with the scientific memoirs published in connexion with the report. Surgeon-Captain G. M. Giles has, it appears, added in a series of notes some collateral investigations connected with his inquiry into the nature of the disease known as kala-azar and its relation to the life-history of the *Dochmius duodenalis*. In some of these notes this medical officer has traced out a similar life-history of a closely allied equine parasite, which he believes, in conjunction with two other closely allied species, to have been the cause of a serious mortality among horses and mules at Shillong, and in others he has described a parasite which gives rise to disease of the intestine of sheep, together with a description of two newly observed ovine parasites. Lastly, allusion is made to Surgeon-Captain Charles' account of some specimens which illustrate the life-history and morphology of the Guinea worm. We have only touched on some salient points in our analysis of this report, which contains, as we have said, a vast amount of information ably and lucidly arranged and set forth.

DR. J. DAVIDSON (Uxbridge) has been awarded the Government grant for public vaccination for the first time.

## COLOUR-BLINDNESS.

IT was appropriate that Professor Rutherford, the President of the Biological Section of the last meeting of the British Association for the Advancement of Science, at Edinburgh, should select this subject for his address, since colour-blindness was first shown to be of high practical importance by Professor George Wilson of Edinburgh. The lecture was brilliantly illustrated by means both of diagrams and of demonstrations with the magic lantern, which materially added to its interest. After describing the sensory mechanism of sight, including the retina, optic nerve, and the centre for visual sensation, Professor Rutherford showed how the ether waves of a beam of white light can be dispersed by a prism or diffraction grating, and that those able to stimulate the retina are comprised within a range of rather less than one octave, extending from a frequency of about 395 billions per second at the extreme red end to about 757 billions at the extreme violet end of the visible spectrum. The ultra-violet waves in the spectrum of sunlight extend through rather more than half an octave. These, though mainly revealed by their chemical effects, are not altogether invisible, but have a bluish-grey colour. Colours, he pointed out, are commonly defined by three qualities or constants—hue, purity, and brightness. The hue depends on the chromatic effect of frequency of undulation or wave length; purity or saturation depends on freedom of admixture with sensations produced by other colours or by white light; and brightness or luminosity depends on the degree to which the sensory mechanism is stimulated. He admitted the great difficulty that is offered to any attempt at explaining the phenomena of colour-blindness. He adverted to the cases of apoplectic seizure in which partial or complete unilateral or bilateral loss of the colour sense had been observed, and showed how the symptoms supplied evidence: first, that a sense of light does not imply a sense of colour; and, secondly, that the colour sense involves a more highly refined action of the sensory cell than the mere sense of light and form, and is on that account more liable to be lost when the nutrition of the sensory cell is interfered with. Professor Rutherford described the usual method of ascertaining the existence of colour-blindness by means of coloured wools, and showed that the confusions of brown, orange, green, and grey with bright red; of pale red, orange, yellow, and grey with green; and of blue, violet, and green with pink, had all their explanation in the fact that the red-green blind have only two colour sensations, yellow or blue, with a grey or white band in what should be the green part of the spectrum. Another and more striking method of ascertaining what fundamental sensations are absent in the colour-blind—that method, in fact, which was long ago termed "simultaneous contrast" by Chevreul—consists in throwing a beam of coloured light on a white screen, whilst an opaque object is interposed in its path, when the shadow will be found to show the complementary colour. If the light be red, the shadow appears green-blue; if it be green, the shadow appears purple or red, according to the nature of the green light employed. If the light be yellow, the shadow is blue; if it be blue, the shadow is yellow. It must be remembered that the part of the screen on which the shadow falls is not entirely dark; a little diffuse light falls on the retina from the shadowed part, so that the retina and vision centre are slightly stimulated where the image of the shadow falls. The question constantly recurs, Does light stimulate the optic terminals by inducing vibration or by setting up chemical change? Now, from Lippmann's recent researches on the "Photography of Colour" it appears that all parts of the spectrum can be photographed on films of albuminobromide of silver, to which two aniline substances, azaline and cyanine, have been added. It seems, therefore, reasonable to suppose that a relatively small number of substances can enable all rays of the visible spectrum to affect the retina. Apparently the question becomes narrowed down to this: Do the nerve impulses arise from mere vibration or from chemical change in the molecules of the nerve terminals? The photo-chemical hypothesis has much in its favour. We know how rapidly light can induce chemical change in photographic films, and we know that light induces chemical change in the vision purple in the outer segments of the rod cells of the retina. The fatigue of the retina produced by

bright light is best explained on a chemical theory, but it could also be explained, Professor Rutherford thinks, on a mechanical theory; for even if the nerve impulses produced in the visual cells be merely a translation of the energy of light into vibration of nerve molecules, the nerve impulse has to pass through layers of ganglionic cells before reaching the fibres of the optic nerve, and in these cells it probably always induces chemical change. In concluding what Professor Burdon Sanderson afterwards eulogised as a lecture of the highest interest, Professor Rutherford eloquently observed that in the progress of scientific thought it is especially necessary to keep our minds free from the thralldom of established theory. Theories are but the leaves of the tree of science; they bud and expand, and in time they fade and fall, but they enable the tree to breathe and live.

## THE CIVIL MEDICAL DEPARTMENT OF H.H. THE NIZAM OF HYDERABAD'S GOVERNMENT.<sup>1</sup>

SURGEON-LIEUTENANT-COLONEL LAWRIE'S report states that at the close of the previous year, 1299 Fasli, the number of students on the Register of the Medical School was seventy-nine, and that during the session 1891-92 (1300 Fasli) the total number of students on the roll was eighty-nine.

"The Medical School buildings were vastly improved during the year by additions made to them by the British Government. Three commodious lecture rooms were constructed in one handsome block built of granite, and were opened at the commencement of the school session on June 6th, 1891. The old anatomical theatre and lecture room were converted into spacious and well-lighted dissecting rooms, and water was laid on throughout the whole of the school premises from the waterworks of the Residency Bazaars. A large room was built on to the old anatomical lecture room and fitted for a students' library and dining room. A new and convenient room for carrying on animal vaccination from the calf was also constructed and proved a great boon. For the previous five years animal vaccination has been carried out in Hyderabad in accordance with the method of the London Local Government Board; the accommodation both for animals, patients and staff has been insufficient. The work was therefore carried on under extraordinary difficulties, which have disappeared with the opening of the new premises. A new school museum and chemical laboratory were designed by His Highness's Public Works Department in the year 1299 Fasli. They have not been built as the requisite funds have not been provided by his Highness's Government. These additions are urgently needed to complete the school buildings. .... The usual grants of the British and Nizam's Governments were fully utilised during the year, and the library and museum have been kept well supplied with new books, periodicals and appliances."

Under "Hospitals and Dispensaries," Surgeon-Lieutenant-Colonel Lawrie says: "During the prevalence of cholera in Hyderabad, towards the close of the year, four temporary dispensaries were opened in different quarters of the city, and were much appreciated by the poor. The scope of these dispensaries was not confined to the special disease which had called them into existence; but with the subsidence of the cholera epidemic Government directed that only two should be maintained for a year, and that tentatively. .... Considering the density of the population of the city and the distance of many of the most crowded parts from the Afzul Gunj Hospital, which is the only general hospital to which the sick poor can resort, two dispensaries are quite inadequate for the needs of the inhabitants of Hyderabad. The suburbs, which are scattered over a wider area but have a smaller population, contain 7 dispensaries." The number of patients treated in all the "Civil Hospitals" in the Dominions during the year was in excess of that of the previous year by 49,602. The number of deaths was 339, as compared with 277 of the year before. Of the numbers treated in Fasli 1301, the city hospitals returned 108,518 out-patients and 1955 in-patients, the districts 276,142 and 2314 respectively. 20,111 operations were performed during the year.

It is stated that the number of successful vaccinations performed during 1891 was 76,880. Only one of the four divisions of His Highness's Dominions—viz., Gulburga—is provided with an inspector of vaccination.

"During the year under report the supply of lymph was kept up by means of seventy-four calves; 2167 vaccinations were performed direct from the animals, of which 95.2 per cent. were successful, and lymph was supplied in capillary tubes to every vaccinator in the Dominions and to anybody else who applied for it. The transfer of the vaccination staff in the districts to the control of the revenue officials has been

productive of benefit and has secured, as was anticipated, the active co-operation of the revenue authorities.

"In the Afzul Gunj Hospital the number of in-patients, not including the Zanana department, treated during the year 1890 Fasli (1891) was nearly double the average annual number treated up to 1296 Fasli (1886). In 1885 the number of in-patients was 900, including the Zanana department; in 1891 it was 1794 exclusive of the Zanana department. The principal diseases for which patients were admitted were fever and dysentery. The number of fever cases admitted was 884 with 15 deaths; and there were 210 cases of dysentery with 71 deaths. All the dysentery cases which terminated fatally were suffering from the chronic form of the disease. They were, as a rule, brought to the hospital in the last stages of exhaustion and emaciation and nothing whatever could be done to benefit them.

"In the hospital 888 major and 6716 minor operations were performed during the year. In the year 1884 (1292 Fasli) there were 140 major and 1100 minor operations. The increase in the number of operations during the last seven years is due in a great measure to the free and safe use of chloroform. Formerly patients dreaded chloroform more than the operation itself and the sight of the chloroform bottle was generally the signal for the patient to bolt.

"Twenty-six cases of abscess of the liver were operated on by aspiration and antiseptic incision during the year 1891. Of these cases four died."

Dr. Lawrie gives a table to show the method of treatment and the results in the twenty-six cases. He adds:—

"The table shows in the most remarkable manner the value of aspiration in liver abscess. The rule in the Afzul Gunj Hospital is to aspirate all cases of abscess of the liver unless the pus is pointing at the surface, and many cases are cured in this way without exposure to the risk of an incision. If incision subsequently becomes necessary, the previous aspiration of the abscess is not found to prejudice the patient's chance of recovery. I may add that tartar emetic is used very freely with excellent results, in large and small doses, in all cases of liver abscess which are not of specific or septic origin."

Dr. Lawrie would appear to be strongly in favour of the treatment of organic stricture of the urethra by Holt's method of dilatation, employing a modified form of dilator designed by himself and manufactured by Messrs. Arnold and Sons. He remarks, "Under no circumstances whatever is *internal urethrotomy* a justifiable operation. It is an unsurgical and unscientific procedure which ought to be banished altogether from practice."

The use of antimony in frequently repeated small doses in mucous diarrhoea depending on catarrhal inflammation of the small intestine in children is alluded to in the report.

"We now," it proceeds, "use antimony in combination with the liquid extract of coto in this disease with very satisfactory results. The extract of coto appears to be almost a specific in acute enteritis, nearly as much so as ipecacuanha is in acute dysentery. In young infants of four or five months old the extract of coto may be given in five minim doses every hour, made up with the mucilage of yusut root instead of water. Two or three minims of antimonial wine are added to each dose if the temperature rises above 101° F. Surgeon-Lieutenant-Colonel Ross, who was formerly civil surgeon of Delhi, first called my attention to the value of coto in mucous diarrhoea, and, judging from my own experience of its beneficial action, it ought to be very widely known. No disease is more common among European children in India than acute enteritis and it causes an immense number of deaths every year. It is comparatively rare among Hindu and Mahomedan children. I believe this comparative immunity of Indian children is largely due to their habitual use of opium."

On the subject of opium Dr. Lawrie states his opinion that opium eating or smoking to excess is very uncommon in India. "I came out to India twenty years ago with violent prejudices against opium, which it took a long time to uproot. If opium eating is a vice, it is not to be compared in the harm it does with alcohol. Alcohol destroys the health and leads to crime; opium does neither the one nor the other. All men, and more especially all women, in health are much better without alcohol than with it; but I very much doubt if the same can be said in India about opium. On the contrary, an immense number of people in this country owe their health to opium, and would not only fall an easy prey to disease but would actually suffer in general health if they did not take it."

Dr. Lawrie gives some interesting particulars of the practice of midwifery and of diseases of women and children in the city of Hyderabad, where it is almost entirely in the hands of uneducated dhais:—

"To give an adequate idea of the barbarities habitually practised by these women is impossible. We are only able to judge of a few of them by the cases which from time to time came under our notice. In midwifery the treatment they adopt for cases of hard presentation is either to take a wisp of dry grass and set fire to it and burn the child's hand in order to make it withdraw it into the uterus, or else to wrench it off. If post-partum hemorrhage occurs the patient is made to stand up against a wall and an old woman butts at her abdomen with her head, like a goat. Numbers of cases of peritonitis and injury of the abdominal and pelvic viscera produced in this way come under our observation every year. The city dhais (midwives) have a superstition that breech presentations foreshadow evil to themselves and hence the child is always born dead from asphyxia in breech cases. The manner in which counter-irritants are employed in the shape of the actual cautery and powerful corrosives like the marking nut is truly shocking.

<sup>1</sup>Annual Report for Fasli 1300, by Surg.-Lieut.-Colonel E. Lawrie, M.B., Residency Surgeon, Hyderabad.

Hundreds of young women are mutilated and die, or are rendered unfit for further existence as married women, by sloughing and faulty cicatrization of the external organs of generation, owing to the application of the cautery and the marking nut.

"One of the commonest diseases in Hyderabad is supposed, according to the uneducated hakims who flood the city, to be dislocation of the navel. So firmly rooted is the idea that this is a real disease that patients who have severe stomach-aches and are persuaded that they are suffering from dislocation of the navel, will submit cheerfully to the most painful treatment for its reduction. Quite recently a patient who was suffering from what was said to be an unusually intractable form of dislocation of the navel, was so roughly pulled about by means of a rope passed round his waist and fixed securely by the ends to two pillars that he died of rupture of the spleen."

The two principal events of interest during the year are stated to have been the visit of the Leprosy Commission to Hyderabad and the completion of the report of the Hyderabad Commission on Chloroform. The Leprosy Commission were the guests of His Highness' Government. One case was shown to the commission which Dr. Lawrie thinks ought to have gone far to convince them that the bacillian theory of leprosy is untenable.

"A sepy in the regular troops was admitted into the Afzul Gunj Hospital, while I was in England on privilege leave, on account of anæsthetic leprosy of the whole of the right ulnar area, which, owing to the loss of power, prevented him from using his right hand. He could not cock the hammer of his rifle or pull the trigger. In my absence the operation of nerve stretching was performed, and a portion of diseased tissue from the neighbourhood of the ulnar nerve was submitted to microscopic examination, and found to contain the bacillus leprose (?) in large numbers. On my return from leave I found a note to the effect that there was no improvement whatever in the patient's condition. The ulnar nerve was enormously thickened and there was considerable inflammatory thickening of the lymphatics in its neighbourhood. The patient was therefore again placed under chloroform and a fresh incision was made, exposing the ulnar nerve for six or eight inches as well as the deep parts of the former incision. The previous incision was found to lead into a nearly dried up abscess cavity in connection with the lymphatic gland above the internal condyle; the ulnar nerve was intact. The thickened part of the ulnar nerve was now laid freely open throughout its entire extent and a quantity of brownish granular material was removed from its interior. When every particle of this deposit had been scraped away the wound in the nerve was sutured with catgut, and the external wound in the skin with horse-hair. The deposit taken from the nerve was examined microscopically by Dr. Bomford, and no bacilli were found in it. When the Leprosy Commission came here this sepy was convalescent. He is now quite well and performing his duties. He can cock the hammer of his rifle and pull the trigger and the right hand is almost as strong as the left. Sensation is nearly completely restored. In this case the removal of morbid tissue containing bacilli caused no change in the patient's condition. But the removal of morbid tissue containing no bacilli, but which by pressure on the delicate nerve fibres had destroyed the function of the nerve, cured the disease. The bacillian theory of anæsthetic leprosy is in my opinion entirely destitute of foundation. Anæsthetic leprosy is a granulomatous disease of the nerves in and between the nerve fibres. All the symptoms such as the loss of sensation, the atrophy of the muscles, the sores and eruptions of the skin and the loss of tissue by ulceration and sloughing are merely the result of, and are fully accounted for by, loss of function from pressure in the affected nerves, which gives rise to profound alterations of nutrition in the parts the nerves supply. I have operated on the nerves in hundreds of these cases, and have cured a considerable number, and no bacilli have ever been found in any of them. The natives of Hyderabad regard leprosy as the fourth stage of syphilis. The difference between the two however is so self evident that it is surprising how this belief ever arose. If leprosy were a stage of syphilis it would be, as syphilis is, universal in Hyderabad; but it is by no means as common as syphilis, nor is it inoculable. There is little doubt that it is hereditary, and that though lepers may have healthy children, the majority of them must have tainted constitutions."

With regard to the Hyderabad Chloroform Commission Dr. Lawrie very justly and properly alludes to the fact that "the unexampled liberality of his Highness the Nizam has made it possible for the Hyderabad Commission, not only to carry on its investigations, but also to publish them to the world." We gladly avail ourselves of the opportunity of again expressing our own appreciation of H.H. the Nizam's princely and enlightened action in the interests of science. Dr. Lawrie is further of opinion that "this, however, is not sufficient, and if these investigations are to be made of permanent benefit to mankind—if, in fact, the use of chloroform as an anæsthetic is to be continued—the time has come for an interference on the part of the supreme and home Governments, who by means of a Royal Commission could authoritatively lay down the principles which should be followed, and thus remove this most important question from the field of professional controversy and jealousy." We are so anxious that the blessings of chloroform should be secured to the fullest extent for the general good of mankind that we gladly reproduce Dr. Lawrie's remarks and afford them all the publicity at our command. At the same time he will, we feel assured, pardon us if we take exception to the phrase "professional controversy and jealousy," and to the somewhat combative spirit which pervades his writings on this subject. There should be no such thing as polemics in science—no taking of sides or strong personal feeling,

but rather a patient and earnest searching after truth. The facts that Dr. Lawrie has done such great and good service in the past, is doing such admirable work at the present time, and has such excellent opportunities before him, cause us all the more to regret that he is so far carried away by his enthusiasm as to speak constantly of fellow-labourers in the field of science who happen to hold views not in accordance with his own as "our opponents." There must be no internal dissensions amongst those who fight for the same good cause; and we should be indeed glad to see a more wholesome attention being paid to "discipline" by all those who have buckled on their armour to take part in the righteous war which we would all fair wage against disease and suffering.

## THE BRITISH DENTAL ASSOCIATION.

The British Dental Association recently held its thirteenth annual meeting at Manchester. It was welcomed to that city by the mayor, who gave a reception in the Town Hall.

Mr. Smith Turner, the retiring president, was succeeded by Mr. Quinby of Liverpool. The reports of the executive showed the Association to be financially and numerically successful, and also that it had by its efforts caused some attention to be paid to the wants of the Navy from a dental point of view, but that the steps so far made were inadequate both to the wants of the service and to the opinion expressed by the dental profession.

The investigation into the teeth of school children is also bearing fruit and should lead to the appointment of a dental surgeon at all large schools.

The discussion on the best method of relieving crowding of the front of the mouth, whether by removal of the first molars or by extraction of the first or second bicuspid, was a valuable contribution to dental knowledge, the general result being that when any choice were possible the bicuspid, as being nearest the deformity, should be sacrificed.

Some beautiful slides were exhibited on the screen, illustrating the micro-organisms of dental caries and phagocytosis. A large number of demonstrations of a purely technical character were given. The development in this direction is full of danger and should be carefully regulated; only original demonstrations should be admitted, and the ordinary methods of filling or crowning teeth which have no originality should be excluded.

A museum illustrating irregularities of the dental arch and abnormalities in shape and form of individual teeth was carefully prepared and much valued. A report which we understand is to be made should produce some valuable addition to knowledge on the questions.

The microscopic exhibition was exceptionally good and the organiser deserves much praise.

The social part of the meeting was very successful and the Association received every hospitality it could have hoped for. The garden party at Peel Park given by the Mayor of Salford, the conversation by the Manchester Odontological Society, and the entertainment by Mr. Quinby, the President, at the excursion to Buxton, were each in their turn only characteristic of that generous hospitality that is always found in the midlands. A large number of the medical practitioners of the district were present at the dinner.

## LUNACY INQUIRY AT DOVER.

An inquiry was held at the Lord Warden Hotel, Dover, on the 30th ult., before Master Bulwer, Q.C., and a special jury of twenty-three, under a commission and order of the Lords Justices of Appeal as to the alleged insanity of the Rev. F. J. Ramsden of Uffington, near Stamford, Lincolnshire.

The medical and other evidence in the case was not called in question. Mr. Ramsden, jun., gave evidence to the following effect. His father in 1875 had an accident in the hunting field, injuring his spine. Previously to that he was perfectly sound in mind and always conducted himself as he ought to do. Some months after the accident he had a paralytic seizure, and it was at once manifest that his mental powers had been impaired. By the seizure his face on one side was drawn, and he had a difficulty in his speech. After

this he took no notice whatever of his affairs. He kept no account and would frequently carry large sums of money about with him. He would also order a quantity of furniture, for which he had no use whatever. Sometimes witness countermanded the order; at other times he had great difficulty in doing so. His father also sent home large quantities of fish, flowers, fruit and other articles. The food was given to the dog, but sometimes there was such a large quantity sent that it could not eat it, and they had to bury it. His father then had a craving for drink, which increased in 1889, and he frequently got intoxicated. He had kept no account in bulk as to the extent of his father's extravagance, but it had been a large sum, and considerably over £2000 beyond his income, which was about £2000 a year. His conversation at this time was very rambling. He could not talk coherently for any length of time. In the spring of 1891 he was taken to Tunbridge Wells, and after that to St. Leonards. His father treated his mother and himself and sisters with general unkindness and utterly neglected them. He also used very strange language towards them. On some of the hottest days in summer he would insist in making large fires all over the house. While at St. Leonards he wanted to walk about during the daytime with only his night-shirt on and a dress-coat over it. His memory had failed him, more especially since 1889. He had seen his father smoking his fingers and puffing under the impression that they were cigars, and they frequently took them out of his mouth. It was found necessary to have an attendant with him. He would sometimes go to bed with all his clothes on, and had on more than one occasion taken a red-hot poker to his bedroom in order to keep the fires alight. It was found necessary to send him away somewhere, and he was sent to a place near Brussels, to the asylum there, on May 24th, 1892. Witness accompanied his father, and had since corresponded briefly. Witness was the means of saving the sale of a large number of stocks.

The evidence of a number of medical men, both English and Belgian, who had been consulted about the case went to show that Mr. Ramsden suffers from progressive general paralysis of the insane from which he is not likely to recover, and that he is totally incapable of managing his own affairs.

The Master briefly summed up the facts. He said it was a great satisfaction to have heard that it was not drink that always caused these cases of insanity. In this case it was the disease that caused the craving for drink. The law was such now that it provided for cases of this kind, and every sixpence was taken care of.

The jury at once returned a verdict that they were of opinion that the Rev. F. J. Ramsden was of unsound mind, and the Master made the order accordingly.

## THE EXHIBITS AT NOTTINGHAM.

To the list of noteworthy exhibits in the museum at the meeting of the British Medical Association at Nottingham which we published last week, may be added the following which we were obliged by considerations of space to hold over:—Messrs. Lynch and Co. had an unusually large and varied show of surgical instruments and appliances of all kinds, showing modifications of instruments and adaptations to various forms of disease. Messrs. Coxeter and Son, had a very important assortment of improved surgical and electrical apparatus; while Messrs. Salmon, Ody and Co., exhibited some excellent single and double trusses, artificial limbs and specimens of all kinds of instruments used in orthopedic surgery. Messrs. Mayer and Meltzer had a large exhibit of instruments, showing recent improvements in apparatus for the treatment of diseases of the ear, nose and larynx. Among other miscellaneous instruments were their nickel-plated metal splints. Messrs. Richardson and Co., besides having a large display of elegant drugs in all forms, showed medicine chests in wood and leather, and also the dispensing cabinet which we described last year. Messrs. Arnold and Son had also a very large exhibition of new and improved instruments, among which was a new form of a tonsil guillotine. Messrs. S. Kutnow and Co. had an excellent display of drugs, including their anti-asthmatic powder and their improved effervescent Carlsbad powder;

while Messrs. W. R. Warner and Co. enlisted the attention of the members by their exhibits of antalgic saline, bromosoda, ingluvin and pills and granules. Messrs. Johnson and Johnson showed their modifications of dressings and surgical appliances of all kinds, particularly those of an antiseptic and absorbent nature. Messrs. Armour and Co. exhibited their well-known pepsine preparations and beef juices. The Maltine Manufacturing Company had a large display of maltine preparations and beef peptones. In this department we also noted the exhibits of the Bovinine Company, and of Messrs. Wyeth and Brother. Messrs. Christy and Co. showed improvements in the manufacture and preparation of oiled silk. They had also a show of spring bougies. The Palma Christi (Standke) a preparation of castor oil, devoid of nauseating or emetic properties, attracted a good deal of attention.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6605 births and 3517 deaths were registered during the week ending Aug. 13th. The annual rate of mortality in these towns, which had been 17·3 and 17·4 per 1000 in the preceding two weeks, further rose last week to 18·0. In London the rate was 17·4 per 1000, while it averaged 18·4 in the thirty-two provincial towns. The lowest rates in these towns were 12·5 in Wolverhampton, 13·7 in Sunderland, 14·0 in Huddersfield and 14·2 in Cardiff; the highest rates were 21·5 in Salford, 22·4 in Bolton, 22·8 in Manchester, 23·3 in Liverpool and 24·2 in Burnley. The 3517 deaths included 681 which were referred to the principal zymotic diseases, against 585 and 623 in the preceding two weeks; of these, 364 resulted from diarrhoea, 121 from measles, 62 from whooping-cough, 52 from scarlet fever, 45 from diphtheria, 35 from "fever" (principally enteric) and 2 from small-pox. These diseases caused the lowest death-rates in Huddersfield, Newcastle-upon-Tyne, Swansea and Gateshead, and the highest rates in Liverpool, Plymouth, Bristol, West Ham, Bolton and Portsmouth. The greatest mortality from measles occurred in Croydon, Sunderland, Oldham and Bristol; from scarlet fever in Cardiff and Plymouth; from whooping-cough in Birkenhead, Preston, Burnley and Portsmouth; and from diarrhoea in West Ham, Portsmouth, Leicester, Burnley, Liverpool and Bolton. The 45 deaths from diphtheria included 35 in London and 3 in Manchester. One death from small-pox occurred in Halifax and one in Sheffield, but not one in any other of the large towns. Five cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 3 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3088, against numbers increasing from 1226 to 2995 on the preceding twenty Saturdays; 376 new cases were admitted during the week, against 382 and 346 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 185 to 143 in the preceding six weeks, rose to 174 last week, but were 15 below the corrected average. The causes of 59, or 1·7 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Bolton, Bradford, Leeds, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in Halifax, Newcastle-upon-Tyne, Preston, Oldham and Burnley.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·5 and 18·5 per 1000 in the preceding two weeks, declined again to 17·0 per 1000 during the week ending Aug. 13th, and was 1·0 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·1 in Leith and 14·9 in Edinburgh to 19·8 in Greenock and 20·6 in Perth. The 474 deaths in these towns included 32 which were referred to diarrhoea, 19 to measles, 16 to whooping-cough, 13 to scarlet fever, 7 to "fever," 6 to diphtheria, and not one to small-pox. In all, 93 deaths resulted from

these principal zymotic diseases, against 54 and 83 in the preceding two weeks. These 93 deaths were equal to an annual rate of 3.3 per 1000, which was 0.2 per 1000 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had been 10 and 31 in the preceding two weeks, rose last week to 32, of which 20 occurred in Glasgow and 5 in Greenock. The deaths referred to measles, which had been 19 and 23 in the previous two weeks, were 19 last week, and included 13 in Glasgow and 5 in Edinburgh. The 16 deaths from whooping-cough showed an increase of 5 upon the number in the preceding week, and included 9 in Glasgow and 3 in Edinburgh. The deaths from scarlet fever, which had been 3 and 8 in the preceding two weeks, rose to 13 last week, and 11 of these occurred in Glasgow. The 6 deaths from diphtheria were one less than the number last week, and included 3 in Glasgow and 2 in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had been 114 and 77 in the preceding two weeks, further declined to 74 last week, but exceeded by 20 the number in the corresponding week of last year. The causes of 27, or nearly 6 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28.3 and 21.5 per 1000 in the preceding two weeks, was 21.6 during the week ending Aug. 13th. During the first six weeks of the current quarter the death-rate in the city averaged 22.9 per 1000, against 17.9 in London and 16.1 in Edinburgh. The 145 deaths in Dublin during the week under notice showed an increase of one upon the number in the preceding week, and included 6 which were referred to diarrhoea, 5 to measles, 2 to whooping-cough and not one either to small-pox, scarlet fever, diphtheria or "fever." In all, 13 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.9 per 1000, the zymotic death-rate during the same period being 3.2 in London and 2.6 in Edinburgh. The fatal cases of measles, which had been 8 and 6 in the preceding two weeks, declined last week to 5. The deaths from diarrhoea, which had been 3 and 5 in the preceding two weeks, rose to 6 last week. The 145 deaths registered last week in Dublin included 29 of infants under one year of age and 32 of persons aged upwards of sixty years; the deaths of infants showed an increase of 3 and those of aged persons an increase of 6 upon the numbers in the previous week. One inquest was held and 1 death from violence was registered; and 41, or 28 per cent., of the deaths occurred in public institutions. The causes of 7, or about 5 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

#### VOLUNTEER MEDICAL OFFICERS.

A Volunteer Medical Officer writes:—"Under existing Regulations Volunteer Medical Officers are required to serve fifteen years before becoming eligible for Field Rank. whereas their brethren in the Militia and Regulars (not counting the Army Medical Reserve) are granted the same after ten or twelve years' service respectively, which appears to be rather unfair to those who give all and receive nothing. Besides this there are many Volunteer Medical Officers who have in previous years held combatant commissions, none of which time is allowed towards promotion. Mindful of all you have done in the past through your columns for the Military Medical Service, it is to be hoped that you will not withhold a helping hand to the junior branch of the service by getting the time for promotion put upon an equality with their comrades in the senior services and by obtaining recognition of *all* commissioned service, whether combatant or otherwise, towards promotion."

#### ASSISTANT PROFESSORSHIP OF MILITARY HYGIENE AT NETLEY.

We congratulate the army and the Medical School at Netley on the appointment of Surgeon-Captain Firth, F.R.C.S. Eng., to the post of Assistant Professor of Military Hygiene. The officer in question has shown by his prize essays in connexion with the Alexander Memorial Fund, and

his contributions to the army medical reports, that he possesses scientific qualifications of a high order, and we feel confident that he will prove an acquisition to the school.

#### INDIAN TROOPSHIP PROGRAMME.

The programme of movements of Her Majesty's Indian troopships for the season 1892-93 has been published. It is, of course, extremely difficult to arrange the movements of a large number of troops with a limited number of steamers at disposal so that all the men should arrive in India and at home at the most favourable season. As regards those outward bound, it is desirable that young soldiers should not arrive at Bombay too early and highly advisable that they should not arrive too late in the season—that is to say, at the beginning of the hot weather there. We notice that the first outward steamer leaves Portsmouth on September 3rd and arrives in India at the end of that month, which is the very earliest date that can be deemed desirable; the last steamer arrives at Bombay on March 27th, which, as far as considerations of health are concerned, is late for the landing of a number of young soldiers for their first time in India, for they will almost immediately have to encounter the hot season there, and the change imposes a severe test on the constitution. But we suppose that with the amount of transport at command it is very difficult, if not impossible, to arrange it otherwise. We hope that, as far as practicable, the newly-arrived troops will be sent to the hills. As regards the homeward-bound troops, on the other hand, it is important that invalids and sickly men should arrive in this country so as to escape the rigours of this climate in winter and obtain all the benefit they can from the cool season of the climate they are leaving; and it is only right to add that the arrangements are, we believe, made, as far as practicable, with this end in view.

#### AFGHANISTAN AFFAIRS.

There are a number of officers belonging to the medical staff and Indian medical service who retain a lively, and probably some of them not an altogether pleasant, recollection of Afghanistan from their having taken part in one or other of the expeditions into that country during the last war. Service in Afghanistan is attended with a good deal of sickness and hardship, and many medical officers had a very rough time of it in those wars. It is just as well, perhaps, that the Ameer has requested that the special mission under Lord Roberts should be deferred for the present. Things are evidently very unsettled in Afghanistan—the tribes are opposed to one another and to the Ameer's rule, as well as extremely jealous of any interference on the part of the British.

#### MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Captains M. O'D. Braddell is transferred from the Station Hospital, Sheffield, to Derby, for temporary duty, vice Surgeon-Lieutenant-Colonel Francis, M.M.S. Surgeon-Captain Dixon proceeds from Aldershot to the North-Western district on temporary duty. Surgeon-Captain Kirkpatrick has returned to the Station Hospital, Glencarse, from duty at Lanarkmuir. Surgeon-Captain Woods has proceeded from Weymouth to Portland, for duty.

#### ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel John Stannard MacAdam is placed on retired pay (dated Aug. 3rd, 1892). The undermentioned Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels (dated Aug. 3rd, 1892):—William F. Stevenson, vice J. S. MacAdam, and Robert N. Macpherson, vice W. Johnston, M.D., retired. Surgeon-Lieutenant-Colonel Charles Barromeo Jennings is placed on temporary half-pay on account of ill-health (dated Aug. 10th, 1892). The undermentioned Surgeon-Captains to be Surgeon-Majors (dated July 31st, 1892):—George H. Sylvester, F.R.C.S. Eng.; William J. Macnamara, M.D.; Daniel O'Sullivan, F.R.C.S.I.; Edwin O. Milward; Chas. R. Woods, M.D., F.R.C.S.I.; Michael F. Macnamara, F.R.C.S.I.; John O. G. Sandiford, M.D.; Robert L. Love, M.D.; Henry W. Murray, M.B.; Michael W. Kerin; Alfred Peterkin, M.B.; James Harran; Edwd. L. Maunsell; Wm. Heffernan; Ronald W. E. H. Nicholson; Jas. G. W. Crofts; William Dugdale; Delaware L. Irvine; Edwd. R. Cree; Maurice O'C. Drury; James H. Nicholas; Denham F. Franklin, F.R.C.S. Edin.; and Herbert Saunders. The undermentioned Surgeons on Probation to be Surgeon-Lieutenants (dated July 27th, 1892):—Harry Alexander Hinge; James Gibson McNaught, M.B.; Hubert Alaric Bray; Thos. McDermott, M.B.; Edwd.

Wheeler Slayter, M.B.; Hugh Stanley Thurston; Lancelot Paxton More, M.B.; Charles O'Connor Hodgkins; Arthur Frederick Tyrrell; William Phayer Ryall; Theophilus Percy Jones, M.B.; George Stanley Walker, M.B.; William Johnson Smyth, M.D.; William Douglas Erskine, M.B.; Albert George Thompson, M.B.; Alexander Jasper Chambers; George Abraham Moore, M.B.; Richard Crump Lewis; Reginald Francis Edmund Austin; Henry Wm. Hutchinson O'Reilly, M.B.; Nicholas Marder; Edgar Hunt Condon, M.B.; Gerald Stewart Mansfield, M.B.; Frederick George Faichnie; and Harold William Kingcombe Read.

Surgeon-Major Stephen Massett Webb, M.D., late of the 36th and 23rd Regiments, who died on the 3rd inst. at Plymouth in the sixty-fourth year of his age, obtained his appointment as an Assistant Surgeon in the Army on May 19th, 1854, and retired in July, 1876, with the rank of Surgeon-Major. He served at the siege of Sebastopol during the winter of 1854-55, and was awarded the medal with clasp and Turkish medal.

NAVAL MEDICAL SERVICE.—The following appointments have been made:—Surgeons William H. Norman to the *Blonde*, John S. Fogerty, M.D., to the *Banterer*, and Fredk. W. Parker to Plymouth Hospital (all dated Aug. 13th, 1892).

VOLUNTEER CORPS.—*Rifle*: 1st (Hertfordshire) Volunteer Battalion, the Bedfordshire Regiment: Surgeon-Captain D. B. Balding (Honorary Surgeon-Major) to be Surgeon-Major (dated Aug. 13th, 1892).—1st Volunteer Battalion, the Gordon Highlanders: George Maitland Edmond, M.D., to be Surgeon-Lieutenant (dated Aug. 13th, 1892).

## Correspondence.

"Audi alteram partem."

### "ASPIRATION IN PNEUMOTHORAX."

To the Editors of THE LANCET.

SIRS,—I have read with great interest Professor Gairdner's further communication on the above subject in your issue of July 30th, and regret to find that he still considers the treatment I employed "a dangerous error in practice." Dr. Gairdner states that on the removal by aspiration of intrapleural pressure, which in the case related was the same as that of the atmosphere, there is a reversal of pressure, which, instead of being from without, is now from within the lung. To this it may be replied that the intrapulmonary pressure is constant, being the same as that of the atmosphere, as long as tranquil breathing is maintained. Consequently air does not "rush in force along the still pervious bronchi," and far less is there a positive pressure in the lungs such as is present in the example cited, that of a lung placed in water and forcibly inflated by air blown in through a bronchus. This last illustration is applicable only when cough is present—that is to say when the principle of the force-pump is brought into action by forcibly compressing the lungs, and at the same time closing the glottis. In the case related there was no cough during or after the aspiration. Dr. Gairdner's argument is based on the supposition that the pleural cavity was suddenly emptied of air, and the collapsed organs suddenly re-expanded, and as this was far from being the case it may be as well to describe the method employed more minutely. A very slight exhaustion of the receiving bottle was made, the connection was opened to a small extent, and a short puff of air was heard to enter the bottle. The heart and pulse were then examined and the process repeated, until from the condition of the pulse and respiration it was concluded that the immediate danger of syncope had been averted. The dangers anticipated by Dr. Gairdner are theoretical, for he has never aspirated in pneumothorax, but instead he is content to argue from the occurrence of pneumothorax after aspiration in pleuritic effusion. Is this at all a parallel case? The presence of air in the pleural cavity during or after aspiration in simple pleuritic effusion is usually ascribed, not to a rup-

ture of the visceral pleura, but to the entrance of air from outside through the parietal pleura, owing to a faulty apparatus or a faulty operator, or both.

I am, Sirs, yours obediently,  
Carlton-hill, N.W., Aug. 1st, 1892. G. A. SUTHERLAND.

To the Editors of THE LANCET.

SIRS,—In your issue of July 30th Professor Gairdner condemns this operation as "a dangerous error in practice." His chief objection is the oft-quoted one, that aspiration in pneumothorax tends to reopen the fistulous track, which is in process of closure by lymph deposit. He says:—"I am not setting it forth as a theoretical risk, but as one which I have known to occur; not indeed in pneumothorax—for I have never aspirated in pneumothorax—but in pleuritic or empyematous effusions. I have known the aspiration of these immediately followed by pneumothorax, indicated by a succussion sound which was not present before the operation." In the absence of further evidence, and as Professor Gairdner expressly states that these were not primarily cases of pneumothorax, I fail to see that the presence of a succussion sound after aspiration for fluid is proof that a "kindly veil of lymph," protecting an opening from the lung into the pleura, has been torn. The succussion sound might equally well be due to the entrance of air into the pleural cavity from outside, during or at the end of aspiration, an accident which frequently attends aspiration, which always occurs after free incision, and which is unimportant provided that the air is pure.

If, on the other hand, a true pneumothorax in cases of effusion was produced in the manner which Professor Gairdner describes he would be justified in condemning aspiration for fluid as strongly as he condemns aspiration for air. Professor Gairdner further denies that aspiration in pneumothorax can produce re-expansion of the collapsed lung. But aspiration in Dr. Sutherland's case was followed at once by re-expansion of the lung and return of the heart and mediastinum to their normal position, with prompt relief from the symptoms which threatened death. I am far from advocating the indiscriminate use of aspiration in all cases of pneumothorax, but as I believe that the object of treatment should be to procure re-expansion of the collapsed lung and relief to the heart, which threatens to fail from its sudden malposition, so I think it is justifiable in urgent cases where simple puncture is of no avail to aspirate even at the risk of reopening the fistula. The death-rate from pneumothorax is too high to warrant us in adopting the expectant method of treatment. At the same time if the urgent symptoms are relieved by puncture I should be only too glad to leave well alone.

I am, Sirs, yours truly,  
LEONARD G. GUTHRIE.  
Upper George-street, W., Aug 7th, 1892.

### NOTIFICATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—You remark that "our first duty in the light of the requirements of the Act is to perfect our skill in diagnosis," and you lament an apparent increase of errors in diagnosis among the cases notified. Your suggestions in dealing with the means of improving the accuracy of our diagnostic faculty are good as far as they go, but the fact remains that as long as students are imperfectly taught the things relating to infectious diseases the results of their future attempts, by consultation and otherwise, to ensure accuracy in diagnosis are not likely to become more successful. It is by examination of the causes of imperfect instruction in diagnosis that the remedies for deficient skill may be found. Most truly do you say that the abolition of pupillage is one cause, but you might have gone a little farther and found more to say in this direction. Able students, just qualified, unless compelled by circumstances, avoid more and more the drudgery of private assistantship, and in this they are encouraged by the multiplied inducements held out to them of late years to take junior appointments about hospitals. These appointments afford valuable instruction, but not in that sort of knowledge which is required in general practice, especially in the matter of these infectious diseases; so that from year to year more and more doctors, untrained either by pupillage or private assistantship, find themselves struggling at a disadvantage with the exactions of compulsory notification. You admit that general hospitals show an "increasing ten-

dency to exclude" these diseases, but seem to think that the admission of students to the hospitals of the Asylums Board may compensate for this drawback. If the regulations I saw last year regarding the attendance of students at these hospitals continue in force, I make bold to doubt whether many students can be attracted to avail themselves of this privilege. I find that students are now required by the English Conjoint Board to produce, besides various certificates from their general hospital, evidence of instruction by a teacher of vaccination, and of attendance at a fever hospital and a lunatic asylum, as well as at an eye hospital if the general hospital possess no special eye department. This conjures into the mind's eye a picture of the student, already harassed by frequently recurring examinations and constant attendance at lectures, classes &c., for certificates, further wasting his time in a weary tramp from one (special) institution to another in search of yet more certificates. In fact, Sirs, students are so pestered with examinations and official preparation for them that they cannot be expected to devote their time to any other thing, and as they are not likely to be set down to the diagnosis of cases of diphtheria and small-pox in the examination room, they will pay but little attention to such diseases.

The causes of want of skill in diagnosis of infectious diseases are, then, besides abolition of pupilage—first, the growing unpopularity of private assistantship, to some extent favoured by multiplication of junior hospital appointments; second, the elevation of success at examinations to the first and almost only place among objects to be aimed at by the student; and last, but not least, the unhappy increase of special hospitals, instead of increase of special departments and wards of general hospitals, fruitful of many abuses, but of none more disastrous than its narrowing influence on the education of students. The remedy for this and other evils is to be found in a radical change in medical education and hospital organisation. We have got on to a bad road, and every further step involves us more deeply among the stones and mire.

I am, Sirs, yours obediently,  
Derby, Aug. 10th, 1892. G. H. MILNES, M.D. Cantab.

\* \* Pressure on our space has obliged us to omit the opening paragraphs in this letter, in which Dr. Milnes laments the passing of that portion of the Notification Act which throws the duty on the medical practitioner.—ED. L.

*To the Editors of THE LANCET.*

SIRS,—Kindly allow me to call your attention to a case which may be of some interest to the medical profession. The facts are these:—

On July 29th a lad, John Weston, aged sixteen, was brought to me at the Queen's Jubilee Hospital by the mother, suffering from diphtheria, for which I duly filled up the notification form and at once handed it to the secretary of the hospital, requesting him to attend to it immediately. The secretary at once telephoned to the Metropolitan Asylums Board, Norfolk-street, Strand, giving them the full particulars of the case, and inquired whether he should "forward the notification as usual," being told in reply, "No, hand it to the nurse when she calls for the case." This was done shortly after. On Aug. 4th a letter was received from Mr. J. E. Cooney, the medical officer of health for Fulham, stating that no certificate had been received, and in reply to which I requested the secretary to say I should be happy to send a duplicate if desired, notwithstanding the fact that the notification had been sent direct to the Metropolitan Asylums Board as directed by them. Mr. Cooney's reply to my letter was a police court summons taken out before Mr. Curtis Bennett. The summons was heard to-day, when Mr. Curtis Bennett held that by handing the notification to the secretary of the hospital I was disobeying the Act and imposed a fine upon me of 10s. and costs. It is thus held that a medical man is compelled to either post or deliver the notification himself in person, and failing to do so is responsible. I contended that, having handed the notification to the secretary, a responsible hospital official, who, acting rightly or wrongly, but at all events according to the directions of the Metropolitan Asylums Board, handed the notification to a Metropolitan Asylums Board nurse, my duty of "sending" was properly carried out. As a matter of fact, at the time of certifying I left my clinique to hand the secretary the notification at once, so that no time might be lost, and I can-

not help regarding the action taken as being discourteous, especially after my offering to send a duplicate notification if desired.

I am, Sirs, yours truly,  
RAYNER D. BATTEN, M.D., B.S. Lond.  
Finsbury-circus, E.C., Aug. 12th, 1892.

SCARLET FEVER.

*To the Editors of THE LANCET.*

SIRS,—A short time since I received a statement from Mr. Munro, the sanitary inspector of the Enfield Board of Health, on the results obtained from supplying the eucalyptus disinfectant for inunction in fifty-four cases of scarlet fever amongst the poor in houses where there were other children. Directions were given for the inunction to be carried out as advised by me in my paper on Disinfection of Scarlet Fever, and although some of the mothers did not do it efficiently because the children objected to the smell, forty-three of the primary cases were not followed by a second. In the other eleven three occurred on the sixth and seventh days after the first, and were most probably infected before the use of the disinfectant; the other eight occurred from two to eight weeks after the first. Most of these may have been infected from other sources, as an epidemic was then prevailing, and all of them occurred after the disinfectant was discontinued. The above shows a percentage of twenty fresh cases occurring in houses within eight weeks where the eucalyptus was used, but with little medical supervision. At Nottingham Dr. Boobyer stated lately that in 100 primary hospital cases 23 per cent. additional cases occurred in the houses from which they were removed within three weeks; and for every 100 home cases treated, nearly 60 per cent. additional ones occurred. The superiority of this imperfect trial of disinfection by eucalyptus inunction is thus shown to be 40 per cent. better than any other form of house disinfection and 3 per cent. better than that obtained by prompt removal of the cases to hospital and the disinfection of their homes. If the Enfield cases were limited to those that occurred within four weeks after the first (as there was one at five weeks' and two at eight weeks' interval) then only 14 per cent. of additional cases occurred, or 9 per cent. better than under the present system of removal; and if the three already infected cases are also excluded, the fresh cases are reduced to 9 per cent. From all the reports that I receive from medical men who carefully carry out this method of disinfection on the cases and on the children that have been exposed to the infection it is seldom that a second case occurs, and from my own experience a second case does not occur except in those already infected.

I am, Sirs, yours faithfully,  
Teddington, Aug. 15th, 1892. J. BRENDON CURGENVEN.

ANTHROPOLOGY FOR MEDICAL STUDENTS.

*To the Editors of THE LANCET.*

SIRS,—I am glad to see Mr. H. Havelock Ellis suggests, in conformity with a resolution of the recent Congress on Criminal Anthropology, that anthropology should form a part of the professional training of medical students. From my twenty years' connexion with anthropological work I am convinced that anthropology would be a popular subject with medical men if they were taught its objects and methods when they were students. There is a great deal of good work being done by medical men which is practically lost to science for want of a central organisation to which it can be referred for examination and publication; and there is a good deal of work being done which is comparatively useless from a lack of elementary knowledge as to the methods, objects and work already done. The need for coördination in anthropological inquiries is shown by the unexpected, and I must add the improbable, results of Dr. Warner's inquiries into the prevalence of physical defects in children in different strata in society. His observations show a higher percentage of defects in the selected, well-nurtured and well-cared-for upper classes than among the poorer classes, whose children are subject to rickets, scrofula, bad or insufficient food and bad sanitary surroundings, results quite opposed to those obtained by the Anthropometric Committee of the British Association, as shown by its final report (drawn up by myself) published in 1883. Mr. Havelock Ellis refers to

various existing institutions where medical students might be taught elementary anthropology, but none of them are available for the purpose at the present time. A few years ago I drew up a scheme for such a school and submitted it privately to some of our leading anthropologists, but I received no encouragement; and later, when the laboratories at the Examination Hall of the College of Physicians and Surgeons were being organised, I suggested that room should be found for an anthropometric laboratory, but to no purpose, as in the present state of medical science it is useless to place the study of the whole living human being in rivalry with the study of a blood-corpuscle, a nerve cell or a bacterium. The museum of the College of Surgeons would be an ideal place for anthropological teaching, as Mr. Ellis suggests, but the present conservative council of the college is not likely to provide such instruction without a good deal of pressure from without. The Anthropological Institute is a learned society which is engaged in collecting and publishing the work of experts, and has no convenience or staff for giving elementary instruction; while the laboratory at South Kensington is rather a collection of models and new inventions which require the hand of the inventor to set them in motion. What is immediately wanted is a scheme showing the relation of anthropology to medical science. Mr. Ellis thinks anthropology would help the students of insanity and other diseases of the nervous system, and this is among the chief uses it has been put to; but it would be of still greater use to the students of public health, especially that branch of anthropology dealing with measurements which is known as anthropometry. Medical men are more immediately concerned with the variations of the complexion, of the senses and of the physical proportions of the body in civilised races and their relations to the conditions under which different classes live, and all these variations can be, and ought to be, defined by measurement; but prehistoric and antiquarian anthropology and the details of the habits and customs of savage tribes are only interesting indirectly to them as travellers or practitioners abroad. Criminal anthropology, about which we have heard so much lately, is based on measurements of healthy, and it may be degraded, but not diseased, individuals, and a comparison of them with other classes of society, especially the class from which they come. (Dr. Clouston, by the way, was in error when he said recently in Edinburgh that no attention had been given to the classes from which criminals come, as he will find if he consults the various reports of the Anthropometric Committee.) It is of little use, therefore, to write papers and make speeches on the desirability of including anthropology in our medical education to lecturers and examiners, who have already too much work on their hands to admit of their entertaining any change if they can possibly avoid it. What is wanted is that Mr. Havclock Ellis, Dr. Clouston and others, who have come to see the importance of such an addition to the medical student's studies, should draw up a scheme of what they want teaching, and submit it to the authorities most likely to carry it out. They must also be prepared to say what part of the curriculum can be omitted to make room for this new subject. Mr. Ellis suggests that botany might be left out, but botany has long since disappeared from the medical schools, and it should be, I think, the anatomy and physiology courses which should make room for anthropology. Might not sufficient time be carved out of that which is at present devoted to microscopic work? The student certainly should be taught that it is a whole living being, and not an infinite fragment of one, that he has to deal with in practice.

I am, Sirs, your obedient servant,

CHARLES ROBERTS, F.R.C.S.

Eccleston-street, W., Aug. 15th, 1892.

## THE CLOSING OF THE PUBLIC CATTLE DRINKING TROUGHS.

To the Editors of THE LANCET.

SIRS,—The confession of helplessness conveyed in the circular letter of Aug. 8th from the Secretary of the Metropolitan Drinking Fountain and Cattle Trough Association, stating that "the committee have reluctantly decided to close all their troughs in the metropolitan district for a period of two months" really publishes to civilisation the most scathing reproach on the public health sanitary arrangements of the present day. When we think that this relates

to the capital city of the nation which justly stands at the head of all nations for its sanitary appliances and regulations for the protection of the public health I feel that all sanitarians should consider themselves placed on their mettle to remove this reproach without delay. Horses and cattle will now be taken to the troughs attached to many public-houses, which, so far as I can see, are not constructed so as to afford any protection from the spread of the infectious diseases traceable to these troughs; the action therefore, of the committee of the Metropolitan Drinking Fountain and Cattle Trough Association will, it is to be feared, only tend to the spread of glanders, instead of its decrease. Having had, as sanitary officer of a large sanitary circle in India occasion to take special steps for the prevention of the spread of foot-and-mouth disease and glanders among the Government horses and cattle under circumstances which enabled me to exercise a complete supervision over these measures, I can state that, as the result of this practical experience, with a water supply such as is available in the metropolitan district, nothing is more simple than the construction and maintenance of a cattle drinking trough, at a very moderate cost, which will effectually remove the risks complained of as regards the spread not only of glanders but of foot-and-mouth and other infectious diseases. The present pattern of public cattle drinking troughs, though in some respects ill suited to meet the present emergency as regards the prevention of the spread of glanders can yet, I feel certain, by some slight alterations in the mode of admitting the water so far remove these risks as to admit of their being again soon opened. The accompanying pamphlet on the subject, describing the cattle drinking trough on which I experimented in India and which, when exhibited in London, secured the highest award, a silver medal, in the Health Exhibition of 1884, and a special certificate at the Congress of the Sanitary Institute of Great Britain in the following year, fully explains the principles I recommend, and which to a certain extent are capable of adaptation to the present public cattle drinking troughs, and would certainly reduce to a minimum the risk now so generally felt, and thus remove the necessity which has culminated in an action the full consequences of which it is difficult to over-estimate.—I am, Sirs, yours truly,

ROBT. PRINGLE, M.D., Brigade-Surgeon.

Blackheath, S.E., Aug. 11th, 1892.

## THE DENTAL PROFESSION.

To the Editors of THE LANCET.

SIRS,—At the last gathering of the British Dental Association, which has just concluded its annual meeting in this city, the following appropriate remarks are reported to have been made by Mr. J. Smith Turner, ex-president: "They now had an Act of Parliament constituting them a legal profession, and they wished to take that position, not because that Act of Parliament was passed, but because they wished to educate themselves in such a manner as to entitle them to that legal position." May I venture to suggest that (1) towards gaining that desired position one of the first steps to be taken by those in authority is to put a stop to the unprofessional practice of advertising in the lay papers. The proof that many of these advertisements are injurious to the dignity of the profession and offensive to the more respectable portion of its members is the fact that they repudiate and strongly condemn them. (2) Now that the dental branch has been recognised and accepted as part and parcel of the medical profession it must conform to the rules and usages of that profession if it would gain the end spoken of by Mr. Turner. Neither physicians nor surgeons are allowed by their Colleges to advertise or do anything to lower the dignity of the profession, and although it is humiliating to witness the expedients practised by some of our own members to make known their disgracefully low charges, they are far exceeded by the trashy advertisements which outrage all professional decency, by setting forth the cheap and other advantages which this or that dentist offers to the public. Our public conveyances even are not free from these objectionable and glaring assertions—in fact we meet with them on every hand.

What would the public think of a physician or a surgeon or a lawyer who advertised that his advice, skill or drugs were the very best that could be had for the money, and if they did not give every satisfaction they would be taken back,

exchanged or money returned? If an enterprising and pushing collector of debts happens to write a letter savouring too much of legal phraseology he is pounced upon and fined; and if a person ventures to style himself doctor, surgeon or apothecary without holding the necessary licence, diploma or degree, he courts the same fate and is justly punished. But, more than that; if either a qualified lawyer or doctor is suspected of an unworthy or unprofessional act he is interviewed by his College, and, if found guilty, forfeits his diploma or licence, which alone gives him the legal right of styling himself doctor or lawyer as the case may be, along with all rights and privileges pertaining thereto. If these laws, then, hold good with the legal and medical professions, surely—now the dentists have obtained an Act constituting them a legal profession—they cannot claim exemption from the pains and penalties which follow any wilful disobedience or infraction of the laws made for their guidance and safe personal conduct as members of that profession. If, therefore, any man without a diploma, or who has forfeited the one he held, styles himself “dentist,” or uses any name, abbreviation or title leading the public to believe him to be a dentist, he ought to be subject to the same prosecution and consequences which affect the lawyer or doctor. Good, honest, sound work needs no puffing, and the public as a rule do not altogether believe in cheapness. If therefore we, as professional men, hold our work and ourselves “cheap,” that is the value at which the public will accept us; and justly so too.

In conclusion I wish to assert that for a member of a legal profession to advertise his name, capabilities or charges is unprofessional, and to advertise himself what he is *not* is illegal. Such men must not be allowed to cast a reflection on the character of the whole body of the profession; and if they cannot intuitively understand the requirements of the profession they must be taught; and if they refuse to learn they must be exorcised from the profession altogether. Advertising “quacks” have been all but stamped out from our particular branch by the strong arm of the law—for where is the man who now dares to call himself physician or surgeon without holding the necessary documents?

I am, Sirs, yours faithfully,

Manchester, Aug. 10th, 1892. HENRY CARTMEL, Surgeon.

## THE NEW LUNACY ACT, 1890.

To the Editors of THE LANCET.

SIRS,—Having lately had some practical experience of this monument of legislative skill, I shall be glad if you will allow me to point out a few of the special beauties thereof. It was lately my duty to receive into my house a young lady whom I found, on visiting her, to be in such a condition as rendered her being placed under certificates—a necessary preliminary of my receiving her. At this time she was under the care of a medical gentleman who occupied the position of “usual medical attendant,” to quote the words of the Act. Now Section 31 of this Act distinctly reads as follows: “One of the medical certificates accompanying a petition for a reception order shall, whenever practicable, be under the hand of the usual medical attendant, if any, of the alleged lunatic.” In accordance with this requirement the gentleman mentioned above signed one of the medical certificates which accompanied the petition to the magistrate. The petition itself was presented by the father of the patient. In course of time the patient was placed under my care, and as in the eye of this law I was no longer a medical man, only a “person having charge of a single patient,” it became necessary that a medical attendant under the Act should be appointed. Naturally the father of the patient was desirous that the usual medical attendant, who was resident in my immediate neighbourhood, should undertake this duty. But I had to point out to both these gentlemen that the fact that the usual medical attendant had signed one of the medical certificates deprived him of the right of any longer acting as such, at least in the sense implied in the Act, and that some third medical man would have to be appointed. This appointment was left in my hands, nothing in the Act in any way preventing its being so if the friends of the patient chose. Thus, Sirs, with the intelligence worthy of Earlswood, our legislators, acting entirely, as was supposed, for the protection of the patient, ordain, and rightly enough, that the usual medical attendant shall sign one of the certificates if practicable, and immediately afterwards say to

him, “Now you have so signed you are no longer trustworthy; you cannot any more be medical attendant; only strangers now can be trusted by us. So that practically all the protection from ill treatment which the presence of the patient’s friend and doctor might bring to bear is carefully eliminated, and had I been a rogue nothing would have been easier than for me and the man whom I had selected to do as we liked with the patient. Her only other protection would have been the Commissioners. But these gentlemen need not visit the patients for twelve months after their reception as lunatics, and when they do so visit them, their apparent object is not so much the wellbeing of the patient as to study in what way the task of the “person in charge” may be made more onerous. In the course of my care of this patient I had one or two more instances of the “ingenuity of stupidity” displayed by the English lunacy law. The patient became much worse, and it became manifest that it was not possible to exert proper control in a private house. Now provision is made in the Act for such an eventuality, another procedure is laid down. A transfer can be effected by the authority of certain persons, among others that of the person who presented the original petition with the consent of the Commissioners.

On the case becoming worse and distinctly urgent, so far as the wellbeing of the patient was concerned, I wired to her father and received in reply his full authority to act as I thought best. I then wired to the Commissioners asking for their immediate consent and stating that I had such authority, also stating the urgency of the case. No reply was received. Time was of high importance. I determined to discharge my patient and have a fresh magisterial order for her reception into a more suitable establishment. To do this I had to find a magistrate. I looked to the Act and found that the persons qualified to act in this capacity in regard to lunatics were “a justice of the peace specially appointed as hereinafter provided, or a judge of the county courts, or a magistrate having respectively a jurisdiction in the place where the lunatic is.” I knew that the justice of the peace who had signed the original order was away from home, and I knew no other justice of the peace in the neighbourhood. I therefore went to the nearest police court. I was civilly received and a list of gentlemen qualified to act as justices of the peace, specially appointed, was handed to me, but I was given to understand that they and they only could act in the matter. I went and called on every one of them and not one was to be found. Meantime my patient’s case was becoming more dangerous and urgent. It was not until late in the evening of the day that one of these gentlemen was kind enough to come to my house, a distance of nearly two miles, and do what was required. The more credit is due to this gentleman as he was not bound to see the patient, and he had just had a long journey. I was able in consequence of his prompt action to transfer my patient the same night.

Next morning I received a note from the Commissioners to the effect that I must have the enclosed form filled up by the patient’s father if her transfer was desired. Of course I could have used an urgency order; but that is a thing to be avoided by all who are acquainted with the Whitehall Board for reasons which need not be recited here. But, Sirs, I think you will agree with me that if justices of the peace are specially appointed and they alone have power to act, as I was informed by the magistrate at the police court, then some arrangement should be made by which they are immediately accessible. Particularly should this be the case in view of the difficulties connected with the urgency order procedure.

Among other improvements of the law which this Act of 1890 was supposed to effect was the protection given to medical men. Let the experience of the late Dr. Carpenter and his partner testify how fallacious this hope has proved. There is absolutely no protection. It is quite true that action may be stayed by application to the High Court, but what protection is this? A medical man may in all honesty sign a certificate, but there is nothing to prevent a scheming attorney from setting the law in motion against him. The very fact of doing so entails considerable expense; counsel must be employed to make the application to the court and other legal expenses incurred even if the application is successful. If, however, it should happen that the judge chooses to think that there is “reasonable ground for alleging want of good faith or reasonable care,” we may find ourselves involved in costly proceedings, which mean not only loss of money—and to most doctors this means ruin—but loss of valuable

time also. The protection afforded by the Act is a figment, and what wonder is there that men decline to have anything to do with such affairs.

I am, Sirs, yours faithfully,  
A GENERAL PRACTITIONER.

Aug. 14th, 1892.

## THE CHOLERA IN PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

In my previous letters I described the conflict between the rival authorities, the Prefecture of the Seine and the Prefecture of Police. In spite, however, of the confusion this occasions the disinfection of private dwellings is carried out in a scientific and careful manner by these authorities. The same cannot be said of the districts that lie outside their jurisdiction. These are the suburbs beyond the fortifications of Paris, where most of the cases of cholera have occurred. Here the authorities, the mayors and municipalities of the various communes, have been called upon to rigorously disinfect all places where cases of cholera have arisen. In most instances the greatest willingness to carry out this duty has been displayed, but, at the same time, complete ignorance has prevailed as to what ought to be done. At Aubervilliers, where the epidemic has caused so many deaths, the disinfection as at first practised was not only inefficacious, but likely to increase the danger. For the use of this commune there is provided a portable disinfecting stove which is brought to the door of the contaminated house. The bed is taken downstairs and disinfected by steam under pressure. No exception can be taken to this, as it is the most efficacious process known. But precautions should be observed in bringing the infected linen downstairs. I know a case, however, where the bedding was carried down by men deputed for this purpose who had no knowledge whatever of the principles of disinfection. They came to do the work in their ordinary everyday clothes. They freely handled the soiled bedding. After it had been disinfected by exposure to steam under pressure they brought the bedding back to the room. They then proceeded to disinfect the room after having reinfected the bedding by throwing it down on the dirty floor. To disinfect the room they burnt sulphur, but they did not notice that one of the window-panes was broken and that the door fitted so badly that fingers could be passed between the door and the floor. Thus there was a through draught all the time the sulphur was burning. When the operation was over it was possible to enter the room without taking any precautions. The sulphur fumes were not sufficiently strong to cause any inconvenience—they had escaped by the broken window and by numerous apertures. The disinfectors, having concluded their task, without changing clothes or taking any other precautions, went to the nearest wine-shop to refresh themselves. In other cases, when sulphuric acid is not employed, but the room is disinfected by a mercurial solution, complaints have been made that, in the houses of the poor the work is done in a very perfunctory and inefficacious manner. A sort of portable pump should be employed, by which a fine spray of mercurial solution is thrown with considerable and penetrating force on all the furniture, walls, floor, ceiling, corners &c. But instead of doing this the disinfectors have contented themselves with merely wiping over the surfaces with a wet rag. I do not say or wish to infer that such neglect or incompetence is in any wise general. It has existed, nevertheless, much to the surprise and alarm of the newly nominated members of the Permanent Committee of Hygiene, constituted by the Prefect of Police, who inquired on the spot how these things were managed. Of course efforts were at once made to instruct the local authorities and the disinfectors in their employ. The epidemic has now lasted so long that doubtless by this time these lessons have been satisfactorily learnt.

The rag-pickers' quarter at Clichy is, I have already mentioned, about to be pulled down, and from a sanitary point of view this is a most necessary measure. But there are several such quarters in Paris. There is la cité Germain, la cité Dorée, la cité Maupy, la cité Jeanne d'Arc, le Petit-Mazas, le passage Trouillet ou du Soleil, l'île des Singes and la cité Foucault ou la cité de la Femme-en-culotte. The latter place

means, if translated literally into English, the "City of the Woman with the Breaches on." The history of the place is most curious. Mademoiselle Foucault was the cousin of a marshal of France and the daughter of a large manufacturer; but in 1830 her family were ruined. At first, with the assistance of Alexandre Dumas the elder, she obtained some pupils. Finally, however, she had to seek other and manual work, and became a compositor, earning 2 fr. 50 c. per day. But she found that in the next shop men did identically the same work and received 4 fr. a day. Thereupon she dressed herself in trousers, coat and cap, and, a cigarette in her mouth, applied for work in the men's shop. The foreman pretended not to recognise her, and forthwith she earned 4 fr. a day. On this she saved money; and having discovered that huts for rag-pickers did not cost much to build, but brought in good rents, built the rag-pickers' quarter in Clichy, now known as la cité Foucault, or la cité de la Femme-en-culotte. When Mdlle. Foucault died, she left this property to the municipality of Clichy, which had been the witness of her misery and of her fortune. The structures, such as they stand, are now estimated at only £600, yet they bring in rents to the amount of £480 per annum. They are principally inhabited by rag-pickers, but they also house some street musicians, men who dance on eggs, swallow swords, castrate dogs and cats, and follow other bohemian occupations of this description.

It is a rectangular place, or narrow street, with a long house two stories high on each side, and containing about thirty single-room tenements on each floor. Each room has a door, which serves the double purpose of door and window, and each room is a little larger than an ordinary prison cell. The furniture very often consists of old rags, and a broken chair and table, but there is almost invariably a stove. Very often straw, picked up in the street when there are removals of furniture, constitutes the bedding. On this straw the rag-picker, his wife, his children and his dog, all sleep together. They are content, for they only pay 1s. 3d. to 2s. a week for this lodging, and are free to be as dirty as they please. The rag-picker sleeps when he returns from work—that is, at the dawn of day. By that time he has walked a very long distance; he is thoroughly exhausted, so he poises his great basket, full of the rubbish he has picked up, against the wall and, without attempting to take off his clothes, drops on the straw to sleep. When he has rested he empties his basket on the floor of his room, and sorts the rags from the paper, subdivides the rags in four piles—those of wool, cotton, linen, and silk. Each of these piles are divided into the clean rags and the dirty rags. The same has to be done for the paper—the clean from the dirty, the white from the coloured paper. Then the bones are separated from the glass; the tin, the old shoes, the bits of iron &c. all form different heaps. Out of all this he also selects remnants of food—the head of a chicken, leaves of cabbage, crusts of bread, bones that have still some meat adhering. All this he scrapes with a knife and washes carefully, and then it all goes to make the national "pot-au-feu," or soup, which is the Frenchman's delight.

There are a great number of rag-pickers who are known and kindly treated by domestic servants. They then receive direct from these domestics what would otherwise have been thrown out into the streets, and sometimes more than this is given to them. Thus they return to their quarters with a very strange mixture of leavings from rich men's tables. On this they make good meals. One rag-picker once remarked that the only difference between his class and rich people was that they had their food mixed before eating it, whereas the rich mixed their food after eating it. Needless to remark that men and women living in such a manner are very likely to contract and to convey disease.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*Tyne Port Sanitary Authority,*

At a late meeting of the Tyne Port Sanitary Authority the matter of the medical officer's salary came up for discussion. Dr. Armstrong asked for an augmentation owing to the great increase in his work. At present he has only £80, with an allowance of £20 for an assistant at South Shields. The chairman, in reference to the increase in Dr. Armstrong's

work, mentioned the magnificent improvements which had taken place of late years in the sanitary arrangements of vessels, the water-supply, and the state of the forecastles &c., which, he thought, justified an increase in Dr. Armstrong's salary. Liverpool paid £100 to its medical officer, and there were only half the visits paid to vessels in the Mersey that were paid in the Tyne. It was explained that although the vessels entering the Mersey were larger those entering the Tyne were twice as numerous. The salary question was deferred to a future meeting.

#### *Ingham Infirmary, South Shields.*

The annual meeting of the governors of the Ingham Infirmary, South Shields, has been held and the report showed that the total number of patients who received treatment was 6,156, while the total income was about £1,800 and the expenditure about £100 less. The decrease in income was not considered serious, taking into account the great disputes between capital and labour during the past year leading to depression in the trade of the district. The working men's subscriptions showed a decrease of nearly £100.

The Newcastle Town Moor management have decided to plant a belt of trees thirty feet wide which will practically surround this fine expanse of open ground, proving at once useful and ornamental, for the truth must be told that for most of the year the moor is rather bleak owing to its northern exposure. It is to be hoped that the plantations will give the necessary shelter. It is estimated to cost from £7000 to £8000.

#### *Scarborough.*

Scarborough has just made the appointment of a medical officer of health, and out of forty-one applicants the post fell to Mr. G. H. Monk of Shrewsbury, who will have to devote his whole time to the duties of the office which include those of surgeon to the police, borough analyst, meteorologist and medical attendant to the fever hospital. The salary is only £325 per annum for all this. "The Queen of Yorkshire watering-places" might well have been a little more liberal in this matter.

#### *Serious Accident to Dr. Cook of Gateshead.*

It was reported here last week that Dr. Cook of Gateshead had met with a serious accident while touring in Norway. A passenger who arrived in Newcastle on Friday last has supplied the following particulars. Dr. Cook with two friends who had been on the Hardanger Fjord had been driving in one of the cars of the country from Lattefos to Odde on the return journey. All went well until they came near the latter village, when the horse shied at the sight of the white umbrella of an artist sketching on the road; the conveyance, swerving against one of the boulders which mark the course of the road, was overturned and fell upon the passengers, who were held fast beneath the vehicle. One of Dr. Cook's fellow-passengers was considerably bruised about the face, but escaped with this and a severe shock; but it was unfortunately otherwise with Dr. Cook, upon whom the greater force of the upset seemed to fall. It was found he had three ribs fractured, one of them in two places, and he was otherwise considerably bruised and shaken by the collision. As soon as possible Dr. Cook was carefully removed to Bergen; he has been placed in a private hospital, where he is receiving every surgical care and is reported to be doing as well as could be expected. This last news has given satisfaction to his numerous professional friends here. Dr. Cook is, I believe, one of the oldest medical officers in the Volunteer service.

#### *Cumberland.*

The Keswick Cottage Hospital, built for the Monk-Hall estate, adjoining the beautiful Fitz-park (so well known to visitors to the lake district), by Mr. Henry Hewitson, is to be opened on Friday next by Lady Jane Spedding of Mirehouse.

#### *A Cumberland Lady's Charitable Bequests.*

The will of Mrs. Jane Dover of Skiddaw Bank near Keswick has lately been proved. Amongst various bequests she leaves £3000 Two-and-three-quarter per cent. Consols to the Royal Society for the Prevention of Cruelty to Animals, £1000 to the Liverpool Branch of the said society; also £500 each to the Scottish Society for the Prevention of Cruelty to Animals, the Liverpool Temporary Home for Lost and Starving Dogs, the Royal Albert Asylum for Idiots and Imbeciles at Lancaster, all free of legacy duty. The residue of her estate she directs to be divided in equal shares amongst various religious societies and the institutions

above mentioned, so that the dogs are well provided for by this kind lady. The net value of her estate in England was proved at over £12,000.

The committee of the Darlington Cyclists' Parade have announced that they will distribute the net proceeds, amounting to about £56, amongst the Darlington Hospital and other local charities.

Newcastle-upon-Tyne, Aug. 17th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Epidemic of Scarlet Fever in Glasgow.*

THE supplementary hospital for epidemic diseases in Parliamentary-road had to be opened recently on account of a smart outbreak of scarlet fever in one of the southern divisions of the city, which had been traced quite clearly to a particular dairy and a particular farm. This epidemic was of a novel kind, at least in Scotland, inasmuch as it arose not in connexion with preceding human disease in the dairy in question or in the farm, but apparently from disease of some kind on the teats of the cows, not easily distinguishable from cow-pox. The Health Committee of the Town Council, aided by the Renfrewshire authorities are making a rigid inquiry into all the circumstances; they intend also to ask the assistance of the Local Government Board of England, as they are understood to be familiar with inquiries of this particular kind. Meantime it is satisfactory to note that the epidemic, except for possible secondary cases, is at an end, the dairyman and the owner of the farm concerned having given every assistance to the sanitary authorities in checking its spread.

#### *Edinburgh University.*

The University authorities have received intimation of the approval by the Queen in Council of Ordinance No. 16 of the Universities Commission (Edinburgh No. 1—Regulations for Degrees in Medicine). The provisions of the Ordinance will come into operation at the beginning of the ensuing winter session.

#### *Medical Education of Women in Glasgow.*

The experiment made by the directors of the Royal Infirmary in opening certain of their wards for the clinical teaching of women has turned out a failure, and the governing authorities of the infirmary and also those of St. Mungo's College have now determined to exclude females both from the wards and from the college classes. It is about two years since the students of Queen Margaret College were granted facilities for obtaining clinical and pathological instruction in the infirmary, and at the same time the ladies attending medical classes in St. Mungo's College and other lady "medicals" were afforded the same opportunities, the Queen Margaret students, however, having their instruction separately, while the others attended mixed classes both in college and in the wards. The arrangement, however, has come to grief over the dispensary question, it having been found inconvenient, if not impossible, to carry on the very essential dispensary work of the curriculum either in mixed classes or separately, the objection to mixed dispensary classes having come, not from the women, but from the male students. To get over this deadlock the managers have decided to exclude ladies at once from St. Mungo's College and from the wards, the only exception made being in favour of Queen Margaret students, who will be permitted to attend pathological and clinical classes till the end of the summer session of 1893. All this comes as something of a shock to the friends of medical education for women in Glasgow, as unless some new arrangement is speedily made such teaching must come to an end in this city. Queen Margaret College in particular will be in a difficulty and will specially feel the hardship; it has been prospering to the satisfaction of its friends, and has only recently been affiliated to Glasgow University, which has taken over its buildings and endowments and with them all duties and responsibilities. Amongst other things it must provide clinical facilities for its lady medical students, and at first sight it is not easy to say where these are to be found. The Royal Infirmary is shut to ladies and the Western Infirmary, already much overcrowded with male students, refused some time ago to make room for ladies, and

it is not likely that recent events will make it more ready to admit them. Two ways out of the difficulty offer themselves. The enormous amount of clinical material, hitherto practically unused, to be found in the Town's Hospital, the large pauper hospital of Glasgow, might be made available. But a much better field for study would be found in the Victoria Infirmary, opened about two years and a half ago, and situated in one of the prettiest parts of the environs of Glasgow. The Victoria Infirmary is fully equipped as an institution suitable for medical education, having an ample number of beds and a newly inaugurated out-door department in which all forms of practical training could be carried on. Further, so far, it is not connected with any medical school, and this opens a field for clinical instruction free and uncomplicated by the presence of male students. If the governors of the Victoria Infirmary are willing to admit them, lady students will have in their wards opportunities for clinical study unrivalled in Scotland. One obstacle suggests itself, the great distance which intervenes between Queen Margaret College and the Victoria Infirmary, the former being in the extreme west of Glasgow, the latter in the extreme south. This obstacle would really be a fatal one were it not that there lies at hand a ready means of obviating it. A few years ago Dr. Muirhead of Cambuslang left a sum of about £40,000 (no mean legacy) for the erection and endowment of a medical school for women on the south side of Glasgow and near the Victoria Infirmary. So far this sum has not been applied to the purpose for which it was left by its donor. Queen Margaret College, however, notwithstanding the very specific direction given by Dr. Muirhead as to the exact locality of the new school, has made persistent efforts to obtain possession of it. And to some extent its action is justified, as it would be nothing short of a misfortune were two medical schools for women to be opened in Glasgow. An attempt at competition would probably lead to the failure of both. But the way of escape from difficulty is easy. Queen Margaret College, with its affiliation now completed and its £15,000 of endowment, should join hands with the Muirhead trustees, and send their entire medical faculty to the south side of the river, keeping their arts and literature classes in their western buildings as at present. With their conjoined funds they could build and endow a suitable school near the Victoria Infirmary, where the theoretical and practical portions of medical training could easily and satisfactorily be undertaken. If this were done, and suitable terms made with the governors of the Victoria Infirmary, Glasgow would possess a medical school for women second to none in this country. The university authorities would be well advised if they considered carefully such a plan as that sketched here, otherwise they will have some difficulty in providing the indispensable hospital facilities for their newly acquired members, the lady medical students.

Aug. 17th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

### *City of Dublin Hospital.*

THIS institution having proved inadequate to accommodate the numerous applicants, the board have determined to erect a structure which will about double the present accommodation. An excellent design has been selected and estimates made showing that a hospital according to the plans adopted may be constructed at a cost of from £9000 to £10,000. Lord Pembroke has promised £6000, and the subscriptions up to June last were close on £2000, so that the board look forward with confidence to the amount still required being obtained at no distant date.

### *The late Samuel Chaplin, J.P., F.R.C.S.I., of Kildare.*

It is proposed to erect a memorial window in Kildare Cathedral to the memory of the late Mr. Chaplin as a mark of esteem, he having been mainly instrumental in raising a sum of £7000 for the restoration of the cathedral. The cost of the memorial window will be £250, towards which about £150 has already been subscribed.

### *Death of Mr. Denis D. Redmond, F.R.C.S.I.*

Mr. Redmond died last week after a short illness. He was ophthalmic and aural surgeon to St. Vincent's Hospital,

assistant surgeon to the National Eye Infirmary, an examiner in the Royal University and a member of the Royal Dublin Society.

### *National Hospital for Consumption for Ireland.*

The total collected up to date to erect an institution for the treatment of phthisical patients is £10,231 19s. 1d. As, however, it is contemplated to have a hospital capable of accommodating 100 patients almost as much again may reasonably be expected to be required. Among those who have contributed liberally may be named Lord Iveagh, who has given £1000; Mr. T. P. Cairnes, £1000; Earl Fitzwilliam and Mr. Mitchell Henry of Galway, £500 each, while a considerable number of gentlemen have given £100 each. It is gratifying to state that at last a suitable site has been settled on for erecting the hospital—a place which no one can cavil at and which has been unanimously approved of by the medical men on the committee of management. The situation of the new hospital is in the county Wicklow, between Newcastle and Newtown Mount Kennedy, on a dry soil, well sheltered from adverse winds. Earl Fitzwilliam, who is the principal owner of property in this county—the most beautiful in Ireland—has very generously presented a site of nearly twenty acres, and this selection of a site will undoubtedly have a large influence on the donations, as a large number have abstained from contributing until the locality for the proposed hospital had been agreed upon. I see no reason to doubt that before the year closes a sum of £20,000 will be obtained for an institution with so many claims for support on the charitable.

### *Sir Francis Xavier MacCabe.*

On Saturday His Excellency conferred the honour of knighthood on Mr. MacCabe, Medical Commissioner Local Government Board. Sir Francis MacCabe's services in various departments—in Irish Prisons and Reformatory Schools, as Inspector and afterwards Medical Commissioner Local Government Board—have been of immense value to the community. He is a thoroughly competent official, and the distinction conferred upon him has been well earned by good and faithful service.

### *British Institute of Public Health.*

The first meeting of the Hygienic Congress will take place to-morrow (Wednesday) at the College of Surgeons, when the President, Sir Charles Cameron, will deliver an address, and afterwards a discussion will take place on the causation of typhoid fever. On the following day the subject of Compulsory Notification of Infectious Diseases will be discussed, and Sir C. Cameron will exhibit carbonic acid snow and point out its antiseptic properties.

### *Death from Arsenical Poisoning.*

A lady died at Ballintemple, county Cork, last week from a poisonous dose of arsenic. The deceased had made more than one previous attempt on her life. She appeared to suffer no pain, and was unconscious for two days before death; but the strange absence of certain definite symptoms in some cases of poisoning by arsenic are not altogether uncommon, and exceptions and anomalies of the most perplexing kind are occasionally manifested.

### *Cork City Hospitals.*

The generous donation—£1000—of Sir J. Arnott has been distributed among the following hospitals—viz., South Infirmary, £250; North Infirmary, £200; Fever Hospital, £150; Mercy Hospital and Women and Children's Hospital, £100 each; Blind Asylum, £75; Lying-in Hospital, £50, and some other institutions £25 each.—At the monthly meeting of the governors of the South Infirmary last week Dr. A. W. Sandford was appointed ophthalmic surgeon to the hospital, and a vote of thanks was accorded to Mr. Corbett, surgeon dentist, who had resigned, for services for many years to the hospital.

Mr. Hengler, the well-known circus proprietor, has promised to distribute the receipts of one evening performance this week among the City medical charities.

Mr. Albert Croly, F.R.C.S.I., of Greenfield, Rathfarnham, county Dublin, has been placed on the commission of the peace for the county Dublin.

On the 25th inst. the governors of the Richmond Hospital will elect an assistant-surgeon to hold office for three years. There is no salary attached to the post.

August 16th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Laborde's New Method of producing Artificial Respiration.*

To the methods of resuscitation in suspended animation associated with the names of Marshall Hall, Silvester and Howard there must now be added yet another invented by Dr. Laborde, who presides over the physiological laboratory of the Paris faculty. The value of the new method is enhanced by its extreme simplicity and facility of application. It consists in drawing the tongue well out of the previously opened mouth and then imparting to that organ energetic and rhythmic backward and forward movements. This manœuvre has the effect of stimulating the respiratory reflex through the traction on the tongue and the excitation of its basal portion. The idea of applying this method to the human being was suggested to Dr. Laborde by its success in the laboratory. In cases of suspended animation in animals under experiment—whether due to syncope, accidental asphyxia, or to chloroform or chloral—Dr. Laborde has long been in the habit of supplementing electrification (the passage of interrupted currents from the mouth to the anus) and ordinary artificial respiration with this method of rhythmic tongue-traction, which of itself was often sufficient to determine respiratory movements after a series of loud hiccoughs, which at first passive—*i.e.*, provoked by the manœuvre only—soon became spontaneous. Dr. Laborde cites (*Académie de Médecine*, July 5th) the case of two individuals whose lives he saved by his method. The *modus operandi* is very simple. A spoon, the handle of a knife, or any such instrument is utilised for the double purpose of keeping the jaws apart and pressing on the base of the tongue. The tongue is then seized between the finger and thumb—which, to avoid slipping, are enveloped in a handkerchief—and pulled forcibly forwards out of the mouth. The organ is then subjected to the rhythmic to-and-fro movements, eighteen to the minute, until success crowns the operator's efforts. Whilst advising recourse to the methods usually employed, Dr. Laborde believes that his own proceeding is the most effectual, and that it will often succeed even when all hope is apparently fled.

*Dr. Brouardel on "Submersion."*

In connexion with the above readers of THE LANCET will be interested by some remarks of Dr. Brouardel:—"In deaths from submersion three mechanisms may come into play. The fatal result may ensue suddenly, at the very instant of the plunge. Here instantaneous inhibition of the respiratory, and perhaps also of the cardiac, centres occurs, probably through reflex action exerted by the cold, the principal afferent nerves being the superior laryngeal. In such a case the individual expires without a drop of water having entered the trachea. In another class of cases death may not be due to reflex inhibition at all. The submerged one may be unable to rise to the surface, being entangled at the bottom of the river by boulders or weeds. Experiments on animals show that here nothing penetrates into the respiratory tree during the first minute, the glottidean sphincter being in a state of spasm. But this spasmodic state is soon succeeded by relaxation and water then enters freely. A dog weighing five kilogrammes has been known to absorb thus in one minute no less than 400 grammes of liquid. In both the foregoing classes of cases artificial respiration either by the Silvester or the Laborde methods, together with, in the latter instance, evacuation of the water aspirated into the lungs, may suffice to save the individual. Unfortunately, the third and much more frequent mechanism by which fatal drowning may occur is much more dangerous in its effects, and the means at our disposal are too often inadequate to avert the consequences. Here, the drowning man, before he is finally engulfed, struggles and reappears once or twice at the surface. His efforts at respiration introduce into his lungs not only water largely mixed with air, but also the contents of the stomach expelled from that organ by the violent contractions of the diaphragm. In addition there enters into the circulatory system a quantity of water equal to the fourth or even the third of the volume of blood, a fact easily proved by examination of the blood with the hæmocytometer. Then, again, the presence of water in the ultimate alveoli causes the prompt exfoliation of

the pavement epithelium with which they are lined, a circumstance which damages their respiratory functions. We have thus three conditions which render the chances of recovery problematical—*viz.*, the obliteration of the bronchial tree by water, the hæmremia, and the spoilt state of the alveoli."

*A Venerable Student.*

Fifty-nine years is a long time to wait before emerging out of the pupil stage and beginning the practice of medicine. Such a feat has, however, just been accomplished by M. Vouillemin, mayor of his native town, Bourmont, member of the board of health of his department, the Haute-Marne, and pharmacien de première classe. Fired with the praiseworthy ambition of rising in the professional and perhaps social scale, the worthy mayor applied himself to the assiduous study of his new art at the Nancy Faculty, where he went through the examination mill like his beardless comrades, and the other day crowned his work by triumphantly passing his thesis for the doctorate. The final ordeal over Monsieur le Maire was presented by the youngest of the first year's men with a bouquet, on the ribbon ornamenting which was borne the following device:—"Au doyen des étudiants ses camarades de la Faculté de Nancy."

Paris, Aug. 17th.

## VIENNA.

(FROM OUR OWN CORRESPONDENT.)

*The Action of Nuclein.*

To the number of the lymphagoga—now better known on account of the experiments of Heidenhain, Roemer and Goertner—a new substance has been added by the recent researches of Professor Horbaszewski of Prague. In the course of his researches on the origin of uric acid in the mammals he made the interesting discovery that leucocytosis was increased in the animals by the injection of nuclein. Further experiments proved that nuclein could be administered in man in doses of from five to ten grammes without producing any evil effects. It has now been proved by recent experiments that inflammatory processes going on in the organism are considerably augmented by the injection of nuclein. In cases of lupus, local and general reaction (rising of temperature up to 39.90 C.) was produced by the internal administration of a half to three grammes of nuclein per diem. The symptoms of reaction remained as long as the nuclein was used and disappeared when the administration of the nuclein was withdrawn. It must be remarked that the same reaction could be obtained again by using the same dose of nuclein as before, while it is necessary to increase the dose of tuberculin, as is well known, in the course of treatment. It was also found that torpid varicose ulcers of the leg healed quickly under the internal use of one to two grammes of nuclein per diem. In cases of carcinoma and of large abscesses the administration of nuclein did not produce any effect, while in syphilitic ulcers granulation could be observed to occur. The effect of nuclein has been most marked in cases of skin affections, but the general reaction only occurred in cases of lupus, perhaps on account of the resorption of the tuberculous matter which is present in the lupous growths. The nuclein used by Professor Horbaszewski was prepared from the pulp of the spleen of calves which had been subjected to digestion by pepsin and hydrochloric acid and subsequent deputation.

*Surgery of the Brain in Epilepsy.*

According to a communication received recently, in the case of one of the two epileptic patients who were operated on by Professor Benedict this year the epileptic fits returned again after cessation for a few months. The microscopical examination of the extirpated parts of the cortex did not reveal any pathological condition. It seems that this surgical method of treatment of epilepsy requires prolonged observation of the patients after the operation before its value can be sufficiently estimated.

*Cholera and Infectious Diseases.*

Up till now no cases of cholera have occurred in Austria-Hungary, and the rates of prevalence and mortality of the other infectious diseases are not higher than in previous years at the same season. Sanitary examinations are now

carefully made throughout the whole empire and sometimes reveal gross nuisances which would otherwise have escaped public attention.

Vienna, Aug. 15th.

## Obituary.

DENIS D. REDMOND, F.R.C.S.I.

A WELL-KNOWN Dublin practitioner died on the 11th inst., after a short illness. He pursued his medical studies at the schools of Dublin, London, Paris and Vienna, and then commenced practice in his native city. He quickly made his way, and at the time of his death enjoyed an unusually large measure of success as an ophthalmic and aural surgeon. Mr. Redmond possessed a most complete knowledge of physical science which helped him in no inconsiderable degree to reach the high position he undoubtedly held. He occupied many public positions, being ophthalmic and aural surgeon to St. Vincent Hospital, examiner at the Royal University, lecturer on ophthalmology at the Catholic University, assistant surgeon to the National Eye and Ear Infirmary and member of the Council of the Ophthalmic Society, &c.

## MEDICAL TRIAL.

### MEDICAL MEN AND THE NEW PUBLIC HEALTH ACT.

DR. RAYNER D. BATTEN of Notting-hill-square, Campden Hill, appeared at the West London Police-court on Friday to answer a summons for having on July 29th attended, at the Queen's Jubilee Hospital, Earl's Court, a patient named John Weston, aged fifteen years, of 30, Dymock street, Fulham, who was suffering from diphtheria, without sending a notice or certificate to the medical officer of health as required by the Public Health (London) Act, 1891. The summons was issued on the application of Mr. Cooney, the medical officer of health for Fulham, and Mr. Blanco White appeared in support of it. Mr. A. O. Scott was for the defence.

Eliza Weston, of 32, Wandsworth Bridge-road, Fulham, said that on July 28th she took her son to the Jubilee Hospital. She took the child again on the 29th and saw defendant, who told her that the child was suffering from diphtheria and would have to go away. She consented to his being sent away.

Mr. Cooney was called and said that he had not received any notice from the defendant that he had attended the child in question and that it was suffering from diphtheria.

Mr. Scott: From whom did you receive this notice?—Witness: I have not received any legal notice.

Who gave you the information?—The last witness and I received notice on Aug. 2nd from the Asylums Board that a child had been received suffering from diphtheria and that the child came from the Jubilee Hospital.

Mr. Blanco White: I believe that in consequence of this notice not having been received there was a delay of five days in disinfecting the premises and during that time serious consequences might have arisen.

Mr. Cooney: That is so, but not only that. I have not yet been able to send in the papers which I am obliged to do and I cannot obey several sections of this Act.

Mr. Scott, for the defence, said that Dr. Batten was one of the medical gentlemen attending the Jubilee Hospital without any reward of any kind, and in the course of his attendance there saw a large number of patients. He first saw the child in question on July 29th, and in his opinion the case was not very serious, but still it was a case of diphtheria. He told the mother that it would have to go away, and without waiting at once filled up the proper notice to be sent to the medical officer. Dr. Batten handed the notice to the secretary of the hospital and told him to do what was necessary.

Mr. Curtis Bennett: The Act of Parliament says nothing about instructing someone else to do it. The words are "he shall forthwith send."

Mr. Scott submitted that Dr. Batten had, in fact, sent within the meaning of the words of the section the notice to the medical officer. Instead of sending it himself he had handed it to the secretary of the hospital to do so.

Mr. Curtis Bennett: It is for the medical practitioner to send it himself, not to give it to someone else and ask him to send it.

Mr. Scott: Handing the notice to the secretary of the hospital is sending.

Mr. Curtis Bennett: No, it is not. To give the notice to a person who is not under compulsion to send it is no more sending it than if you gave it to someone else in the street.

Mr. Alfred J. Schneidan, the secretary of the Jubilee Hospital, was called and said the notice was handed to him by Dr. Batten with the request that he would send it on at once.

Mr. Curtis Bennett: To whom?

Mr. Schneidan: To the medical officer, I suppose. I called up the telephone to the Metropolitan Asylums Board and asked if I should send the certificate as usual and they said, "Hand it to the nurse."

Mr. Curtis Bennett: They meant that you should hand to her the certificate for the patient's admission to the hospital, not the notification to the medical officer of health.

Mr. Schneidan said that he handed it to the nurse, believing that he was acting rightly.

Mr. Scott submitted that, although the secretary to the hospital had made a mistake, the defendant had done his duty in regard to sending the notice.

Mr. Curtis Bennett: You must show me, then, that the doctors of the Jubilee Hospital are exempted from the requirements put upon all other medical practitioners.

Dr. Batten was called as a witness in his own defence and corroborated the statement made by Mr. Scott on his behalf. He said that at the time this certificate was filled up some twenty-five patients were waiting for his attention to them.

Mr. Curtis Bennett said it was quite clear that the defendant, without intentionally going round the Act of Parliament, had not done what was required of him. Had it been the case that the defendant had wilfully flown in the face the full penalty of a forty-shilling fine and costs would have been imposed. No doubt the authorities at the Jubilee Hospital, now that what was required of them by the Act had been pointed out, would see that in future it was complied with. Under the circumstances only a modified penalty of a fine of 10s., with 12s. costs, would be inflicted.

## Medical News.

ST. JOHN AMBULANCE ASSOCIATION.—H.R.H. Princess Beatrice, who has recently obtained the first aid certificate of the St. John Ambulance Association, has consented to become the president of a new Deeside centre, to include Balmoral, Crathie and neighbouring places.

THE SEAMEN'S HOSPITAL.—As a result of the privilege accorded by the directors of the Peninsular and Oriental Steam Navigation Company of throwing open to the public their magnificent vessel the *Himalaya* the funds of the Seamen's Hospital have benefited to the extent of £120.

A SICK HOSPITAL FOR THE LUNATIC ASYLUM, INVERNESS.—The Inverness District Board of Lunacy has resolved to erect a sick hospital in connexion with the asylum, to accommodate about 150 patients, on the plan of the hospital lately erected at Montrose. This scheme is adopted to relieve the overcrowded state of the institution.

DRAINAGE WORKS (WEYBRIDGE DISTRICT).—The Chertsey Sanitary Authority has purchased twenty-eight acres of land, at a cost of £6000, for the drainage of the Weybridge district, on a site in the valley of the river Wey. The system to be adopted will be chemical precipitation and filtration through land.

OUTBREAK OF GLANDERS AT BEDDINGTON.—The Croydon Rural Sanitary Authority has reported a serious outbreak of farcy and glanders on the Corporation Sewage Farm at Beddington, where seventy or eighty horses belonging to various owners are located for grazing purposes. The local veterinary inspector detected two serious cases of glanders, and the animals were shot and buried.

SOCIETY OF APOTHECARIES OF LONDON.—At the recent Examinations for the prizes given annually by the Society of Apothecaries the successful candidates were as follows:—*Dobsony*: 1st, Edward Guy Dru Drury, student of St. Bartholomew's Hospital, a Gold Medal; 2nd, Stanley Bean Atkinson, student of St. Bartholomew's Hospital, a Silver Medal and a Book. *Materia Medica and Pharmacy*: 1st, Richard Henry Norman, student of Westminster Hospital, a Gold Medal; 2nd, William Douglas Knocker, student of St. Thomas's Hospital, a Silver Medal.

MEDICAL MAGISTRATES.—Mr. William Wright Hardwicke, M.R.C.P. Edin. &c. and Mr. Samuel Evans, L.R.C.P. Lond., M.R.C.S., have been placed on the Commission of the Peace for the Borough of Harwich.—Mr. Charles W. Browne, M.R.C.S., L.S.A., of Bushman's Kop, Orange Free State, has been appointed a justice of the peace for the districts of Rousville and Wepener. His Excellency the Lord-Lieutenant has assigned Her Majesty's Commission of the Peace for the Borough of Dublin to Mr. G. F. Blake, Registrar of the Royal College of Surgeons in Ireland.—Mr. John Keys, L.R.C.P., of Whitehall House, Dublin, has been placed on the Commission of the Peace for the Borough of Dublin.—Mr. William Mitchell Banks, M.D. Edin., F.R.C.S. Eng., has been placed on the Commission of the Peace for the city of Liverpool.

**SMALL-POX AT LEEDS.**—Considerable alarm prevails at the continued extension of the outbreak of small-pox at Leeds. The number of patients is gradually increasing.

**SUPERANNUATION GRANT.**—Dr. G. R. Barnes, medical officer of the Ewell sanitary district of the Epsom Union, has been granted by the Epsom Board of Guardians a superannuation allowance of £35 per annum, and, pending the sanction of the central authority a further sum of £15.

**THE JUBILEE NURSES' ASSOCIATION.**—At a meeting of the Brechin branch of this Association on the 10th inst. a letter was read from Mr. Robert Duke of Bareshill offering a donation of £500 to the funds of the branch from his sister, Miss Duke of Eskpark, and a similar donation from himself. Mr. Duke further intimated that Miss Duke and himself intended subscribing £10 annually to the branch.

**THE NORTH WALES MEDICAL ASSOCIATION.**—The annual meeting of this Association was held at Barmouth on the 10th inst., and the usual elections were proceeded with. Dr. John Roberts, J.P., was chosen as president for the ensuing year, Mr. S. Griffith was re-elected treasurer, and Dr. Jones-Morris hon. secretary. After the reading of papers the members of the Society dined together.

**LLOYD COTTAGE HOSPITAL.**—The useful work carried out during the year at Bridlington in connexion with its cottage hospital was recounted in the report read at the annual meeting of its friends and supporters last week. In-patients to the number of 109 have benefited during the past year by the resources of the hospital, whilst 110 out-patients received medical and surgical treatment at the hands of the physicians and surgeons attached to the institution.

**A NEW PARK FOR TOTTENHAM.**—The grounds attached to an historic building at Tottenham, known as Bruce Castle, have recently been purchased by the Tottenham Local Board of Health, and on the 13th inst. they were formally thrown open to the public. Addresses were afterwards delivered from a temporary platform in the park by Mr. Howard, M.P., and others. Later on there was a display of fireworks.

**TESTIMONIAL.**—Last week the friends and patients of Dr. George Wilson of Huntly assembled at a banquet, under the presidency of the mayor, to do honour to their fellow-townsmen, who for sixty years had carried on medical practice in Huntly, and who has signified his intention of retiring from the cares and anxieties of professional life. On the occasion in question an address, followed by 450 signatures, was presented to Dr. Wilson, accompanied by a silver tea service and a portrait in oil of their venerable guest.

**MANCHESTER AND SALFORD LOCK HOSPITAL.**—A general meeting of the trustees and friends of the Manchester and Salford Lock Hospital was held on the 11th inst. The committee, in their report, spoke of the result of two years' steady work, in which the number of cases treated had been larger than usual. In 1890 the death of Dr. Alfred Blackmore removed an honoured name from the staff, and left a vacancy which the committee filled by the appointment of Mr. Alexander Wilson, F.R.C.S. Eng. The report was adopted, together with a statement of accounts showing a balance on the right side.

**LANCASHIRE ASYLUM BOARD.**—A meeting of the Lancashire Asylum Board was held recently at the County Offices, Preston, and the Rev. C. T. Royds, who presided, presented the report of the Subcommittee on Additional Asylum Accommodation. There were, he said, three sites brought before the committee as combining all the requisites desirable for the proposed new asylum, either of which, he thought, would meet the approval of the Lunacy Commissioners. The first site was Duxbury Hall, near Chorley, containing 512 acres; the second was Penwortham Priory, 147½ acres; and the third was Winwick Hall, near Warrington, with an area of 130 acres. It was resolved that the committee ascertain and report the best terms on which the Duxbury Hall site could be obtained; and a similar resolution was adopted with regard to the Winwick estate. It was agreed that £700 be granted from the asylum fund for additional accommodation at Prestwich Asylum; and £5500 for a similar purpose at Rainhill Asylum.

It is officially announced that the Queen has nominated Professor Sir George H. B. Macleod, M.D., Surgeon in Ordinary to the Queen in Scotland, to be, for five years from the 15th of September, 1892, a member of the General Council of Medical Education and Registration of the United Kingdom for Scotland.

**PRESENTATION.**—Dr. M. T. Mackenzie of Scolpaig House, North Uist Inverness, where he has been the parochial medical officer for the past seven years, was last week the recipient from the inhabitants of the island of a testimonial consisting of a handsome Stanhope gig and a set of silver-mounted harness.

**RETREAT FOR INEBRIATES.**—The twelfth report of the Inspector of Retreats under the Inebriates Acts 1879 and 1888 for 1891 deals with seven retreats licensed by local authorities during the past year. The licences of all the establishments existing in the foregoing twelve months were received with one exception, and a licence was granted to a new retreat for female patients at Westgate. The general condition of the establishments was described as satisfactory. In 1890 the number of the inmates was 109, and last year there had been an increase over that figure of six.

**POLLUTION OF THE AIRE.**—On the 10th inst. representatives of the various local authorities of Yorkshire met at Keighley, by invitation of the mayor, to confer on the best means of effecting an improvement in the river Aire, which had been gradually exhibiting signs of increasing pollution. The testimony of several of the speakers pointed clearly to trade refuse as the chief source of that pollution, and in the end a motion was agreed to that the Sanitary Committee of the West Riding County Council be asked to employ a chemical expert who should advise local authorities as to the best way of treating trade effluents.

**DEATH DURING THE ADMINISTRATION OF CHLOROFORM.**—An inquest was held at the Town Hall of Portsmouth on the 15th inst. respecting the death of a girl aged thirteen years who died whilst being prepared for an operation for the removal of a nevus on the back. Three medical practitioners attended at the parents' house for the purpose of proceeding with the operation, but, according to the report of the evidence given at the inquest, during the process of administering the anæsthetic the respiration of the patient became embarrassed and the pulse failed. Sustained efforts to restore animation were found to be ineffectual. The jury returned a verdict of accidental death.

**NEW INFIRMARY, SOUTHPORT.**—Very satisfactory progress has been made towards the proposed scheme for erecting a new infirmary at Southport. The necessary plans for the building have been adopted, and although the committee at first decided to limit the cost of it (exclusive of furnishing) to £12,000, the expenditure will considerably exceed that sum. The beneficiaries of the Scarisbrick Estate have given the site on Scarisbrick New-road, and the promises of donations and subscriptions now amount to £15,400. The mayor (Alderman G. A. Pilkington, M.R.C.S.), the chief originator of the scheme gave at once £1000 and asked for nine other contributions of a similar sum. So far eight have been forthcoming towards the building and endowment funds respectively.

## MEDICAL NOTES IN PARLIAMENT.

THE short session of Parliament was brought to a close this week. The House of Lords met on Monday, when Lord Salisbury formally intimated that he had resigned office. Both Houses met on Thursday. In the Lower Chamber writs were issued for the election of members to the seats vacated by Mr. Gladstone, Sir William Harcourt, Mr. John Morley, and others on their acceptance of office under the Crown. Some formal business was transacted in the House of Lords. Late in the evening of the same day Parliament was prorogued.

### *Drinking at Elections.*

Mr. Caine has given notice that in the course of next session he will introduce a Bill to close public-houses and beer-houses on the day of polling in Parliamentary elections.

### *The Visitors in Lunacy.*

There has been presented to Parliament a report of the number of visits made, of patients seen, and of miles travelled by the Visitors in Lunacy between January 1st and June 30th of the present year. These visits are made in pursuance of the provisions of the Lunacy Act of 1890.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

- BRADSHAW, ROBT., L.A.H., L.M.Dub., has been appointed Medical Officer for the Ninth Sanitary District of the Hexham Union.
- BRIGGS, W. P., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Aspatria Sanitary District of the Wigton Union.
- BURBIDGE, J. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Upper Sanitary District of the Lewes Union.
- COLEMAN, M. O., M.D. Aberd., M.R.C.S., has been reappointed Medical Officer of Health for the Surbiton Urban Sanitary District of the Kingston Union.
- CONNON, C. J., M.B., C.M. Aberd., has been appointed Medical Officer for the Third Sanitary District of the Hexham Union.
- DOYE, EMILY L., M.B. Lond., has been appointed Resident Clinical Assistant to the Holloway Sanatorium Hospital for the Insane, Virginia Water.
- EWART, C. THEODORE, M.D., M.Ch., has been appointed Senior Assistant Medical Officer for the Female Department of the London County Asylum, Colney Hatch, vice W. H. George, deceased.
- FAWSETT, F., M.B. Lond., B.S., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the outlying part of the St. John's Parish of the Lewes Union.
- GIBSON, E. VALENTINE, M.D. Edin., has been appointed Superintendent and Resident Medical Officer to the Victoria Infirmary, Glasgow, vice Dr. Mackintosh, resigned.
- GOW, WILLIAM J., M.D. Lond., M.R.C.P., has been appointed Obstetric Physician to the Royal Hospital for Women and Children, Waterloo-bridge-road, vice W. Duncan, M.D., resigned.
- HARMAN, ALBERT B., M.R.C.S., L.S.A., has been appointed Assistant House Surgeon to the Royal South Hants Infirmary, Southampton.
- HAWLEY, F. H., M.R.C.S., has been appointed Medical Officer for the Blankney Sanitary District of the Sleaford Union.
- JAMES, JOHN, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Aberystwith Union, vice Turner, resigned.
- LAING, G. MACKAY, L.R.C.S. Irel., L.R.C.P., L.M., has been appointed Medical Officer and Medical Officer of Health to Ballina Dispensary District, and Medical Attendant R.I.C.
- LEYS, JOHN, M.B., C.M. Aberd., has been appointed Medical Officer for the Norton Sanitary District of the Leak Union.
- NEUBOLT, GEO. PALMERSTON, M.B. Durh., F.R.C.S. Eng., has been appointed Honorary Surgeon to the Liverpool Stanley Hospital.
- PEARSE, F. E., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Horsley Sanitary District of the Guildford Union.
- PRICE, W. E., M.B. Durh., M.R.C.S., has been appointed Medical Officer for the Sellershope Sanitary District of the Ross Union.
- SANDFORD, H. V., L.R.C.P. Lond., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for the Rural Sanitary Districts of Bromyard, Hereford, Ledbury, Leominster, and Weobley Unions.
- THOMPSON, P. W., M.B. Toronto, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Assistant Medical Officer at the Infirmary of the Woolwich Union.
- THORNE THORNE, BERTHOLD B., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Royal Portsmouth Hospital.
- WILLS, CHAS., M.R.C.S., has been reappointed Medical Officer of Health for the Southwell and Worksop Rural Sanitary Districts.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

- BOROUGH OF SUNDERLAND (PORT OF SUNDERLAND).—Medical Officer of Health and Public Analyst. Salary £500 as Medical Officer for the Borough, £20 for the like office for the Port, and £5 as Public Analyst. (Apply to the Town Clerk; Town Hall, Sunderland.)
- CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's-inn-road, W.C. House Surgeon. Rooms, coals, and lights provided.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Board and residence and allowance for washing provided. (Apply to the Secretary, Office, 24, Finsbury-circus, E.C.)
- DOCTOR, 2, New Rents, Ashford, Kent.—Qualified Medical Assistant for a Medical Association.
- GENERAL HOSPITAL, BIRMINGHAM.—Assistant House Surgeon for six months. Residence, board and washing provided.
- HOUSE SURGEON, THE LANCET OFFICE, 423, Strand, W.C.—House Surgeon for a small County Hospital near London. Salary £50 a year.
- KENT AND CANTERBURY HOSPITAL.—House Surgeon. Salary £90 the first year, with board &c., rising to £100 the second year.
- KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Senior Assistant Medical Officer. Salary £250 per annum, increasing by two annual instalments of £25 each up to £300, with furnished quarters, attendance, coal, gas, washing, garden produce and milk.

- KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Second Assistant Medical Officer. Salary £180 per annum, with furnished quarters, attendance, coal, gas, washing, garden produce and milk.
- LEITH HOSPITAL.—House Physician for six months. Salary at the rate of £50 a year, with board in the hospital.
- LEITH HOSPITAL.—House Surgeon for six months. Salary at the rate of £50 a year, with board in the hospital.
- LEITH HOSPITAL.—Surgeon for the Out-door Department for six months. Salary at the rate of £50 a year, with board in the hospital.
- LONDON FEVER HOSPITAL, Liverpool-road, N.—Assistant Resident Medical Officer.
- LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—House Surgeon for six months. Salary at the rate of fifty guineas per annum, with residence in the hospital, board and washing.
- MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Honorary Assistant Medical Officer.
- M. W., at Shelley's Advertising Offices, 39, Gracechurch-street, E.C.—A qualified Medical Man for the Employes of the Gie Appanto Gold Mining Company, on the West Coast of Africa. Salary £240, all found.
- NOTTINGHAM BOROUGH ASYLUM.—Second Assistant Medical Officer. Salary £100 per annum, with apartments, board and washing.
- ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow.—Assistant House Surgeon. Salary £30, with board and lodging.
- ROYAL SURREY COUNTY HOSPITAL, Guildford.—Resident House Surgeon. Salary £80 per annum, with board, lodging and washing.
- ST. MARY'S HOSPITAL, Paddington, W.—Physician-Accoucheur in charge of out-patients, for five years.
- SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—House Surgeon. Salary £100, with board, lodging and washing.
- SUSSEX COUNTY HOSPITAL, Brighton.—House Surgeon. Salary £120, rising to £140 per annum, at the discretion of the Committee of Management, with residence and board in the hospital.
- UNIVERSITY OF GLASGOW.—Assistant Examiner in Medicine. The annual fee for the Examinership is £30.

## Births, Marriages, and Deaths.

### BIRTHS.

- ADAMS.—On Aug. 7th, at Kilcrome, Oxford, the wife of G. D'Arcy Adams, M.D., of a daughter.
- ARNOLD.—On Aug. 13th, at Park-road, Forest-hill, the wife of Ernest C. Arnold, M.B., F.R.C.S. Eng., of a daughter.
- ASKIN.—On Aug. 10th, at Alderton, Woodbridge, Suffolk, the wife of T. Cuming Askin, M.D., of a son.
- LARDER.—On Aug. 14th, the wife of Herbert Larder, Medical Superintendent Whitechapel Infirmary, of a daughter.
- MARRINER.—On Aug. 12th, at Westbourne Tower, Poole-road, Bournemouth West, the wife of W. H. L. Marriner, M.B. Lond., of a son.
- SANDWICH.—On Aug. 15th, at 7, Queen's Gate, S.W., the wife of Fleming Sandwith, of Cairo, of twin daughters.

### MARRIAGES.

- BOLSTER—BELL.—On Aug. 16th, at the Parish Church, Stoke-next-Guildford, Surgeon-Major J. McM. Bolster, F.R.C.S.I., Army Medical Staff, to Violet Mary, elder daughter of the late Arthur Bell, M.B., Surgeon 30th Regiment.
- CHAPMAN—LEWIS.—On Aug. 10th, at the Priory Church, Brecon, Paul Morgan Chapman, M.D. Lond., M.R.C.P. Lond., to Alice Elizabeth, only daughter of the late Rev. J. R. Lewis, of Cascob Rectory, Radnorshire.
- COX—LANE.—On Aug. 10th, at the Church of St. Mary, Woodborough, Wilts, by the Rev. J. Sturton, assisted by the Rev. Mills Robbins, cousin of the bride, Dr. A. E. Cox, of Southport, son of E. B. Cox, Esq., of Nottingham, to Rose Matilda Lane, youngest daughter of E. Lane, Esq., Manor House, Woodborough.
- HORTON—EVANS.—On Aug. 13th, at St. Mary's, Stoke Newington, Wilfred Winnal Horton, M.D., youngest son of William Horton, late of Stanway Manor, Shropshire, to Ellen Fanning (Nellie), youngest daughter of the late Rev. Edward J. Evans, 16, Roseligh-avenue, Highbury.
- OSMOND—ROTHERY.—On Aug. 17th, at all Saint's Church, Pontefract, by the Rev. E. S. Horo, M.A., Edward Bartrum Osmond, M.R.C.S., L.R.C.P., son of Arthur Osmond, late P. and O., to Marguerite Alice, youngest daughter of William Rothery, late of Harrowgate.
- SHEEHY—LANNES.—On July 26th, at St. Bartholomew's Church, Sydenham, W. H. Patmore Sheehy, L.R.C.P. Lond., &c., of Claremont-square, London, to Frances M. S. Lannes, of Castledine, Upper Norwood.

### DEATHS.

- ALLEN.—On Aug. 15th, at Greasley House, Belper, aged 5 years, William Douglas, the darling child of Dr. and Mrs. R. G. Allen.
- CROOKES.—On Aug. 16th, at Augusta-gardens, Folkestone, John Furrar Crookes, F.R.C.S., in his 82nd year.
- HALL.—On Aug. 6th, 1892, at Dalton House, Dalton-in-Furness, Edward Hall, Surgeon, aged 84 years. (Interred at the Dalton Cemetery on the 10th inst.)

N.B.—A fee of 6s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### THE STUDENTS' NUMBER.

WE beg to call the attention of the Deans of Medical Schools and the Secretaries of Hospitals to the announcement that the Students' Number of THE LANCET for the session 1892-93 will be published on Saturday, Sept. 3rd. We also invite from them and from the members of the profession information regarding hospitals, institutions for medical education &c.—such particulars as are of importance to students generally, both in connexion with the general medical qualifications, the dental qualifications, and the qualifications in public health. This should be sent to the Sub-editor, THE LANCET Office, Strand, not later than the 25th inst.

### A "TRAVELLER'S TALE."

THE following remarkable illustration of credulity has appeared in the lay press under the title of "A Medical Mystery at Ath." A pottery workman of Rebaix some time ago noticed a swelling in front of the wall of his abdomen, which gradually increased, and which was opened by a leading practitioner at Ath, who discovered a large snail inside the swelling, of a kind common in the gardens round about! The snail has been preserved and is being exhibited by the ingenious and enterprising patient to the townspeople at the small charge of one franc per head. We are certainly inclined to attach more credence to the latter than to the former part of this latest instance of the craze for the marvellous.

*An Enquirer.*—In all cases where there is any doubt as to the cause of death, and especially where the necessary evidence can only be obtained from a medical man, we are of opinion that such should be required by the coroner. In the case mentioned by our correspondent, however, the facts appear so clear that we think the coroner acted with discretion. It must be remembered that the funds at his disposal are the property of the community, whose interests he is bound primarily to serve, provided it be consistent with the demands of justice.

### TREATMENT OF RINGWORM.

*To the Editors of THE LANCET.*

SIRS,—Having recently read several articles as to the treatment of ringworm, and as I have had much experience in the treatment of this affection in India, where it is very prevalent, I would suggest the following—*viz.*: The affected region should first be washed with soap and warm water containing a little carbonate of soda and then well dried. Acetic acid should then be thoroughly applied with a small brush, and in the lapse of about five minutes, when the acid will have soaked into the part, an ointment composed of sixty grains of chrysophanic acid to an ounce of lanoline should be rubbed in. This treatment should be carried out daily for such a period as may be necessary.

I am, Sirs, yours faithfully,

Dublin, Aug. 13th, 1892.

CRAWFORD WARREN, F.R.C.S.I.

### A MEDICAL NOVELIST.

THE prose fiction of all countries owes much to its medically trained contributors. In Great Britain it can point to Tobias George Smollett, Oliver Goldsmith, John Moore (whose once famous "Zeluco" even yet repays perusal), and Charles Lever, to say nothing of Albert Smith and Conan Doyle. France can boast of Eugène Sue, the last of a long line of anatomists and surgeons, and now Italy sustains the part with Leonzio Capparelli, whose death on March 20th last deprived Naples of an able and much-esteemed consultant. Dr. Capparelli was known to the profession as the author of carefully-thought-out and well-written books on debatable points of medicine and surgery, the first of them published in 1856; but not till five years ago (in 1887) did he give the world a specimen of his powers as a novelist. His "Dr. Pietra," the work referred to, is a singularly interesting story, conveying in a vivid yet chastened style the experiences of a life fraught with adventure and dramatic incident. Its success was such that its readers regretted that its author did not cultivate his genius for prose fiction more assiduously; but an agreeable surprise was in store for them. His daughter, the Signorina Clotilde Capparelli, found among his posthumous papers a completed tale entitled "In Illo Tempore," and this she has just edited for the publishing firm of G. Barbèra in Florence. The plot is laid in the fever preserves and criminal substrata of Naples during the worst period of the demoralising reign of Bomba, and it presents the reader with a powerfully drawn picture of the struggle for existence in surroundings characterised by Mr. Gladstone as "the negation of God upon earth." Concurrently with this tale the Signorina Capparelli has sent forth a revised edition of "Dr. Pietra," containing its author's latest improvements on the original text, and both works ought to find many readers among those who have watched the Italian "Risorgimento" from its apparently desperate beginnings to its bright consummation in "Italy one and independent." All who, in view of the International Congress to be held in Rome next year, are desirous of getting up a working knowledge of Italian could not do better than initiate themselves in the attractive and uninvolved periods of Dr. Leonzio Capparelli's two romantic stories.

*Dr. Thurefield.*—The note on the arrow poison of the New Hebrides was taken from *Les Nouveaux Remèdes*, June 24th. M. le Dantec's paper was communicated to the Société d'Anatomie et de Physiologie de Bordeaux, and will doubtless be found in the Proceedings of that body.

*Mrs. F. M. Keeling.*—Our correspondent should consult his medical attendant.

### LOCUM TENENS AND FEES AT INQUESTS.

*To the Editors of THE LANCET.*

SIRS,—Would you kindly give me your opinion, or the general ruling of the profession on the following?

A gentleman whilst acting as locum tenens is called to attend on a case which involves a coroner's inquest, but the locum tenens' time expires one day before the inquest takes place. He, however, calls the next day to see when the inquest is to be held, and being told at 10.30 of that morning, he receives the coroner's order and duly attends and gives evidence. To whom does the fee of one or two guineas belong, the locum tenens or the gentleman who engaged him?

I am, Sirs, yours truly,

Aug 16th, 1892.

M.D.

\*.\* In the first place, whether the principal or his locum tenens shall receive coroners' fees depends upon the terms of agreement. If no special arrangement is made, clearly all fees earned by the locum tenens belong to his employer. The above case, as given by our correspondent, is somewhat different. The engagement having been contracted by the locum tenens during his tenure of duty, the consequences, including the fees, would naturally fall to the principal; but inasmuch as the services of the locum tenens were required after his time had expired, we are of opinion that division of the fees would be an equitable settlement.—ED. L.

### MEDICAL ADVERTISING IN DUBLIN.

A CORRESPONDENT complains that in the higher ranks of medical practice in Dublin there is a disposition to use the fashionable newspaper as a medium of announcing one's whereabouts, whether at home or from home, and he sends us cuttings which support his complaint. *Verbum sapienti*, &c. It is idle to expect the rank and file of the profession to be more exemplary in this respect than their leaders. They have a right to look for an example of reticence and quietness in the upper ranks of practice. Paragraphs, obviously inspired or supplied, giving the movements of medical men are a violation of this spirit, and ought to be rigidly suppressed both in London, Dublin, and elsewhere by all who respect the traditions of the profession.

## THE HOURS BETWEEN CONTERMINOUS EXAMINATIONS.

A CORRESPONDENT writes:—"In the universal system of examination under which this country is at present groaning there is one source of strain which has hitherto escaped notice. I refer to the short interval between conterminous periods of examination. Up to twenty years ago that interval was always two hours. Now it is seldom more than an hour. In the Oxford and Cambridge local examinations, in the examinations of the Scotch universities, of the Civil Service Commissioners and of the University of London it is only one hour. "In the examinations of the University of Cambridge the length of the interval curiously varies. In the pass examination it is one hour; in the examinations of the classical and minor triposes it is an hour and a half; in the examination of the mathematical tripos it alternates between two hours and three hours and a half. On what principle the Cambridge practice is based I do not know; but as a matter of health an interval of two hours after an examination lasting three hours is desirable. An average examinee of either sex requires an hour for fresh air and rest of brain and an hour for food before resuming labour. By inferior candidates the longer interval may be, of course, applied to some process of special cramming—learning by heart parts of a 'crib,' strings of dates, mathematical or chemical formulæ, for instance—which may produce injustice; but the extent to which it would produce this effect would be, I conceive, very trifling. The most experienced coach can seldom forecast with much success the contents of even a pass examination paper. On the other hand, serious injury may result from 'bolting' a hasty meal after crouching for three hours over a desk or table in a more or less impure atmosphere, and then resuming for three hours more the same constrained position."

*L.R.C.P. Lond.* (Warrington).—Our correspondent might address a communication to the Secretary of the Prison Department, Home Office, and to the Permanent Under-Secretary of the Colonial Office respectively.

## "ELECTRIC BELTS."

To the Editors of THE LANCET.

SIRS,—Will you kindly let me ask through your columns any medical men who may have patients who have complaints to make of certain so-called electric belts to communicate with me, if they so desire, in reference to this matter? The public-spirited action of the editor of the *Hawk* deserves the support of our profession.

I am, Sirs, yours faithfully,

A. GEORGE BATEMAN,

Hon. Secretary, Medical Defence Union.

64, Longridge-road, S.W., Aug. 16th, 1892.

## A PAINFUL INCIDENT.

A CORRESPONDENT of the Vienna *Aberndblatt* is responsible for the following statement:—"One morning the medical superintendent of a large lunatic asylum requested an attendant to hand him a pair of scissors. Perceiving something unusual in the aspect and demeanour of his chief, the attention of one of the physicians was drawn to the circumstance, when he was both surprised and alarmed by the announcement from the lips of the superintendent that it was his intention to open the skulls of some of his patients in order to ascertain the exact condition of their cerebral development. It thus became evident that the brain which had been for so long responsible for the medical oversight of the afflicted inmates of his asylum had itself become deranged, a circumstance not unique in the history of neurological research."

*Dr. Allen.*—The circumstances of such cases as that referred to us by our correspondent are so varied and complicated by domestic detail and questions of expediency that the lunacy and other laws—e.g., those relating to the appointment and powers of guardians and trustees—would have to be undergoing a continuous process of amendment if the exceptional points in individual cases had to be legislated for. A suitable guardian and trustee is usually supposed to be able to look after the best interests of his ward on a consideration of all the circumstances of the case.

*A. B.* will see that we have not overlooked the question.

## FUCUS VESICULOSUS.

To the Editors of THE LANCET.

SIRS,—I shall be obliged if any of your readers who have had experience with extract of fucus vesiculosus would give me some information about it. I believe there are some precautions to be used in its administration, but do not know what they are. Does it reduce superfluous fat? Or does it only act like iodine? Is there any wasting of glandular structures produced by it? Has it any influence on the shortness of breath which most stout people complain of? Any information will oblige,

Yours truly,

INQUIRENS.

## MEDICAL ADVERTISING.

A CORRESPONDENT sends us the following cutting from the *Liverpool Daily Post* of the 16th inst., and pertinently suggests that the idea seems to be rather a new one.

"*The Doctors in Liverpool.*—Services will be rendered first three months free of charge. A staff of eminent German and American Physicians and Surgeons have permanently located in Liverpool, corner of Benson-street and Mount Pleasant (entrance on Benson). All who visit these eminent Doctors before September 1st will receive services first three months free. All forms of chronic diseases and deformities are treated, especially male and female weakness, catarrh, catarrhal deafness, &c., but no incurable cases will be accepted. The doctors will examine you thoroughly free of charge; and, if incurable, will frankly, kindly tell you so. The object in pursuing this course is to become rapidly and personally acquainted with the sick and afflicted. Catarrh and catarrhal deafness is positively cured by their American treatment. Office Hours—9 A.M. to 8 P.M.; Sundays, 10 to 12."

Here is another specimen from Saturday's *Huddersfield Examiner*:—

"*Kirkheaton.*—*Medical.*—Mr. Benjamin S. Lockwood, son of Dr. Lockwood of Kirkburton, who passed the final examinations held at Edinburgh in April last, and was granted the diplomas of the Royal College of Physicians, the Royal College of Surgeons, Edinburgh, and Licentiate of the Faculty of Physicians and Surgeons of Glasgow, has, we understand, commenced to practise near the Kirkheaton Railway Station, at the very spot where his grandfather, old Doctor Lockwood, commenced, nearly eighty years ago.—ADVT."

We certainly commend this latter unblushing notification to the attention of the Colleges mentioned above.

*Mr. H. Button* (Manchester).—Our correspondent would probably obtain the information by application to the Emigrant's Information Office, 31, Broadway, London, S.W.

## THE FLY PLAGUE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of this week is mentioned the plague of fly bites. I am a great sufferer, and cannot sit under my fig tree in summer without suffering this penalty. Last year, whilst in North Wales, I tried iodine soap and then carbolic, but found them useless. The only relief was obtained from a compress of a solution of carbonate of ammonia. If any of my professional brothers would advise me, I should be very grateful.—I am, Sirs, yours obediently,

Aug. 16th, 1892.

A SENIOR F.R.C.S.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Ackerley, Ashburton; Dr. Barlow, London; Dr. Bateman, London; Dr. James B. Ball, London; Mr. W. G. Black, Newcastle; Messrs. Benger and Co., Manchester; Mr. S. H. Boulton, Liverpool; Messrs. Bonthron and Co., London; Mr. Birchall, Liverpool; Messrs. Burroughs, Wellcome and Co., London; Mr. T. B. Browne, London; Messrs. Boulton and Paul, Norwich; Dr. Beaumont, Southampton; Messrs. Blondeau and Co., London; Mr. Bedborough, London; Dr. D. di Bona, Naples; Mr. H. Button, London; Messrs. Barker, London; Messrs. Blackie and Son, London; Mr. Buxey, Southampton; Mr. Sherman Bigg, London; Mr. Cocking, Sheffield; Dr. Cox, Southport; Dr. H. Martyn Clark, Edinburgh; Mr. Cooke, London; Mr. Henry Cartmel, London; Dr. Andrew S. Currie, Tallsplatte; Dr. G. D. Dreping, Southend; Mr. J. C. Davis, Ruabon; Mr. J. Davidson, Uxbridge; Messrs. Davies and Co., London; Mr. Davies; Mr. J. E. Emerson; Mr. Fraser, Glasgow; Mr. W. F. Ferry; Dr. J. H. Garrett, Cheltenham; Dr. W. Austlin Gosford, London; Mr. Gordon, Selby; Dr. Garman, Kendal; Mr. W. F. Greenhalgh, Leeds; Messrs. Humphreys, London; Mr. Adrian Hope; Mr. Hornibrook, Bloomsbury; Messrs. Hockin, Wilson and Co.; Mr. Hunt, Manchester; Mr. Haviland, Edinburgh; Messrs. W. and A. K. Johnston, Edinburgh; Messrs. Krolne and Sesemann, London; Mr. Kirby, Ben Rhydding; Messrs. Knight and Co., London; Mr. J. Lewis, London; Mr. Lamb, London; Mr. Thomas Leeds, London; Mr. Livingstone, Edinburgh; Mr. Larcombe, Sunderland; Mr. Mosse, London; Dr. D. C. McVail, Glasgow; Dr. Keith Norman MacDonald, Skye; Mr. Marshall, Pontefract; Mr. Milner, Kennington; Messrs. McKeever, Carlisle; Messrs. MacL-hose and Sons, Glasgow; Mr. T. S. Mill, Wakeford; Messrs. Mitchell and Co., London; Mr. H. Widenham Maunsell, London; Mr. E. J. May, London; Mr. McMurtrie, Glasgow; Dr. S. P. Newbolt, Liverpool; Messrs. Oppenheimer, Son and Co., London; Dr. W. F. Prout, Gold Coast; Mr. Pentland, Edinburgh; Mr. Purser, Belfast; Mr. Stephen Paget, London; Messrs. Potter and Sacker, London; Mr. H. Bowen Perkins, Newport; Mr. R. Denison Podley, London; Dr. Cuthbert Rutherford, Kilmarnock; Mr. C. Roberts, London; Messrs. Robertson and Scott, Edinburgh; Mr. E. J. Reed, London; Messrs. Street and Co., London; Dr. Sandwith, London; Mr. Sears, London; Dr. Octavius

Sturges, London; Mr. Sampson, Gloucestershire; Messrs. Truelove and Shirley, London; Mr. Taylor, Windermerre; Messrs. Thorp and Co., Glossop; Messrs. J. T. Usher, Bristol; Messrs. Whitworth and Stuart, Manchester; Mr. C. A. Wright, Rochester; Dr. W. Wilfrid Webb, Plymouth; Mr. Wilson, Liverpool; Mr. Crawford Warren, Dublin; A. J., London; Bedford General Infirmary; *British and Colonial Druggist*, London; Carolus, London; G. H., London; Inquirens; Lex; Montgomery Infirmary; Pond's Extract Co., London; Reflex, London; Secretary, Yorkshire College, Leeds; Sanitary Wood Wool Co., London; S. G., London; S. V.; Secretary, Sussex County Hospital, Brighton; Urbanus, London; V. M. O.

LETTERS, each with enclosure, are also acknowledged from—Dr. Affleck, Wantage; Dr. Bingham, Alfreton; Mr. Beasley, Dudley; Mr. Brown, Westgate-on-Sea; Dr. Bonsall, Aberystwyth; Mr. Brown, Kenilworth; Mr. Bromlow, Taunton; Dr. Cosgrave, Bolton; Mr. Davies, Rhyll; Dr. Davies, North Wales; Dr. Davis, Bath; Mr. Dale, South Devon; Mr. Fisher, Newport; Mr. Foley, co. Galway; Messrs. Hogg and Son, London; Mr. Haycock, Alfreton; Mr. Heywood, Manchester; Mr. Hall, Chesterfield; Mr. Illingford, Accrington; Mr. Jackson, Worthington; Mr. Jackson, Sheffield; Mr. Kirton, Leigh; Mr. Lewis, Wingham; Mr. Lamb, Wolverhampton; Mr. McElfratrick, Nere; Miss Marriott, Surbiton; Mr. Mann, Leith; Dr. Magruder, New Orleans; Mr. Marshall, London; Dr. Morgan, Clapton-park; Miss Meinly, Parsons-green; Dr. McDougall, Runcorn; Mr. North, Little Marlow; Mr. Nicholls, Bury St. Edmunds; Mr. Norman, South Devon; Mr. Osborne, Hythe; Messrs. Phillips and Son, Newtown; Miss Pudney, Earl's Colne; Mr. Penfold, Ashford; Miss Rlockards, Dartford; Dr. Redwood, Cardiff; Mr. Rowley, Barnsley; Mr. Robson, co. Derry; Dr. Roocroft, Wigan; Mr. Sutherland, co. Durham; Mr. T. Smith, London; Mr. Scatchard, Yorks; Messrs. W. H. Smith and Son, London; Mr. Stothard, Dalton-in-Furness; Messrs. Stent and Son, Gullford; Mr. Tyte, Minchinhampton; Mr. Thornhill, Manchester; Mr. Thin, Edinburgh; Mrs. Theobald, Leicester; Mr. Wand, Leicester; Mr. Wyllie, Ockley; Dr. White, Brighton; M. Woodman, Bridgewater; Mr. Wilson, Sunderland; Messrs. Wemyss, Norfolk; A. D., London; Agricola, London; Alpha, Bolton; A. G., Rowley Regis; Alpha, London; B. T., London; Bouillon Fleet Co., London; C. F., London; Clayton, Edinburgh; Cheshire, London; Clanranald, London; D., London; D. T., St. Helens; Duplex; Faithful, London; Gamma, London; G. T., London; J. B. T., Swansea; Kops Brewery, Wandsworth; Locum, Forest Gate; Lumleys, London; 301, Mile End-road; Medicus, Northampton; M.R.C.S., Weymouth; Medicus, London; M., London; Multum, London; Medicus, Crève; M. M. B., London; Nemo, London; Octo, London; Omega, London; P. K., Exeter; Physician, London; Reflex, London; E., London; Raquets, London; Secretary, Royal United Hospital, Bath; Trouble, London; X. Y. Z., London; Zero, London.

NEWSPAPERS.—*Le Temps (Paris)*, *Leeds Mercury*, *Liverpool Courier*, *Manchester Guardian*, *English Mechanic*, *Liverpool Daily Post*, *Rangoon Gazette*, *South Wales Daily News*, *Scotsman*, *Newcastle Chronicle*, *Falkirk Herald*, *Port Elizabeth Telegraph (Cape of Good Hope)*, *Citizen*, *Birmingham Gazette*, *Glasgow Herald*, *Dewsbury Reporter*, *Scottish Leader*, *Sunday Times*, *Dicester Advertiser*, *Portsmouth Evening News*, *Brighton Argus*, *Ripley Advertiser*, *Dover Standard*, *Daily Times (Kingston, Pa.)*, *West Middlesex Standard*, *Windsor and Eton Gazette*, *Reading Mercury*, *Insurance Record*, *Hertfordshire Mercury*, *Local Government Chronicle*, *Nottingham Daily Express*, *Weekly Free Press* and *Aberdeen Herald*, *Mining Journal*, *Local Government Journal*, *Builder*, *Chester Courant*, *Architect*, *Wolverhampton Chronicle*, *Eustbourne Gazette*, *Windsor and Eton Express*, *West Middlesex Advertiser*, *Public Ledger (Philadelphia)*, *Barrow Herald*, *Highland News*, *Coventry Mercury*, *Surrey Advertiser*, *Huddersfield Chronicle*, *Saturday Herald (Dublin)*, *Inverness Courier*, *Westmoreland Gazette*, *Kentish Independent*, *Kingston Daily News*, *Times of India*, *Pioneer Mail*, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Aug. 18th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. in Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 a.m.
Aug 12	30.14	S.W.	62	57	118	74	58	..	Hazy
" 13	29.80	S.W.	67	61	124	77	57	..	Cloudy
" 14	29.84	S.W.	67	61	121	75	59	.01	Cloudy
" 15	29.89	S.W.	65	59	127	77	59	..	Cloudy
" 16	30.10	S.W.	64	59	90	70	57	..	Cloudy
" 17	29.91	S.W.	67	64	128	82	60	.04	Hazy
" 18	29.82	S.E.	65	64	100	78	61	.05	Raining

Medical Diary for the ensuing Week.

Monday, August 22.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
 Tuesday, August 23.  
 KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, August 24.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 25.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, August 26.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 27.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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1. It should be prepared from the very best winter barley, and no other cereal but barley, and contain all the nutritive principles of the grain. This is imperative.
2. It should be evaporated *in vacuo*, and not in an open pan. This is indispensable—or, instead of being pleasant, the malt will possess a burnt or tarry taste and smell.
3. No substitution should be allowed—as of other cereals—for a part of the barley, or glucose for a part of the maltose.
4. There must be absolute purity and an absence of all adulterants.
5. It should be rich in diastase—the digestive ferment which converts starch into sugar.
6. It should be of substantial consistence, or it will be liable to turn sour.
7. If the heat in the process of manufacturing be raised too high, the diastase will be destroyed.
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## NOW, WHAT IS DIASTASE ?

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From the elaborate researches of H. P. Wijsman ("Rec. Trav. Chim.," ix, 1-13) it would appear to be a highly interesting body. The author starts with the assumption that the Diastase of Malt is composed of a mixture of two enzymes—MALTASE and DEXTRINASE. The former converts starch into a mixture of maltose, and a dextrin which is coloured violet by iodine, and corresponds to the erythro-granulose of various experimentalists; the latter enzyme converts starch into a dextrin which reduces Fehling's solution, is not coloured by iodine, and which corresponds with the malto-dextrin of Herzfeld, of Brown, and of Morris. Malto-dextrin is converted into maltose by maltase-enzyme, and when dextrinase acts on erythro-granulose a dextrin is formed which does not reduce Fehling's, and is not coloured by iodine: this dextrin the author terms LEUCO-DEXTRIN. M. Wijsman goes on further to prove by experiments that this view is correct; but we have quoted enough, perhaps, to show how absolutely necessary it is to exercise the very greatest care during the manufacture of Malt Extract in regulating the heat employed, so as to protect so highly sensitive a constituent as Diastase from destruction. The Kepler Malt Extract has a world-wide reputation for its high diastatic activity, uniform composition, and superior flavour.

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**AWARDS AND  
APPOINTMENTS  
TO DATE:**

Diplome d'Honneur, Rosendael, 1891.  
" Royal Naval Exhibition, 1891.  
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A Lecture

ON THE

RHEUMATIC CARDITIS OF CHILDHOOD.

Delivered at the Hospital for Sick Children, Great Ormond-street, June 24th, 1892,

By OCTAVIUS STURGES, M.D., F.R.C.P.,  
SENIOR PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—The endo-pericarditis associated with rheumatism in children is by far the commonest of all the cardiac affections of early life, claiming no less than half of the whole number. The other half, mainly pericarditis, includes also a few examples of chronic valve disease and a yet smaller number of recent endocarditis apart from pericarditis. Thus the child's heart affections (congenital defects being excluded) are cast in two great divisions: one, peri-endocarditis, which is rheumatic, the other, pericarditis, owning a variety of causes, recent endocarditis by itself being so rare as hardly to count in the enumeration. But in giving to rheumatism a full half-share in the total of children's heart disease less than the truth is expressed unless a provision be added. Heart disease in the strictest sense is almost wholly rheumatic in these subjects. What remains applies to the heart's investment and is an accompaniment of morbid conditions wherein the pericardium sympathises, not with the endocardium, but with the neighbouring serous membrane of the lung. The two divisions are further distinguishable in the diathesis, the age, and even, to some degree, the sex that belongs to each. When, for example, we classify children's diseases as tuberculous and non-tuberculous, such a grouping applied to the heart would detach to the tuberculous side a large number of examples of pericarditis, but hardly one of peri-endocarditis. Cardiac affections in the strict sense are almost confined to non-tuberculous children, and almost always rheumatic. The peri-endocarditis of early life is in fact accurately and sufficiently described as rheumatic carditis. Similarly in regard to age. Such share as belongs to the tuberculous and is mainly pericardial will concern infants and young children. At a somewhat later age but still early comes pericarditis, related to pleurisy, to empyema, to pneumonia, sometimes to diphtheria and septicæmia. Later yet—that is to say, with the elder children—rheumatic peri-endocarditis (or carditis) becomes conspicuous; and last of all, when childhood is approaching its term, we get some glimpse of those after-results of cardiac inflammation which occupy so large a place in the heart disease of adult life.

As my authority for these statements and for what is to follow I put before you 100 cases of heart disease examined post-mortem at this hospital between June 28th, 1881, and April 3rd of this year (1892)—that is, for nearly eleven years. The cases are taken consecutively, congenital disease alone being omitted.<sup>1</sup>

One Hundred Fatal Cases of Heart Disease examined Post Mortem during Eleven Years.

Rheumatic (boys, 22; girls, 32) ... ..	54	} 100
Non-rheumatic (boys, 22; girls, 24) ... ..	46	
<i>Ages of the Rheumatic.</i>		
Between two and four years ... ..	2	} 54
„ four and six years ... ..	4	
Six years ... ..	6	
Between six and twelve years ... ..	42	
<i>Ages of the Non-rheumatic.</i>		
Four years and under ... ..	32	} 46
Between four and six years ... ..	5	
Above six years ... ..	8	
Age omitted ... ..	1	

Of the non-rheumatic, as you see, the great majority are infants and young children, while in the rheumatic the order of age is reversed, and it is the elder children that suffer most. The great majority of these are between six and twelve, pretty equally distributed. Below six there are but

<sup>1</sup> The tables were shown at the lecture; abstracts only are here printed to save space.  
No. 3600.

six children, and the two youngest of these are open to some doubt. As regards sex, it will be seen that the preponderance of girls is due almost solely to the rheumatic division. This extra liability to rheumatism on the part of females is, I believe, generally conceded, although in later life the greater exposure to weather on the part of men tends to obscure it.

The non-rheumatic heart affections of children, as has been intimated, are insidious in character and mostly consecutive to other diseases whose natural course they hardly modify. Thus purulent pericarditis sometimes accompanies empyema, but commonly remains undiscovered until death. Pericarditis may arise in the course of general tuberculosis, but it is a secondary and, in the circumstances, even an unimportant event, while the pericarditis of pneumonia, although sometimes discoverable in life, affords no particular indication for treatment and no great aid to prognosis. Of my forty-six non-rheumatic subjects empyema claims eleven (all of them children under six), tubercle has ten, diphtheria four, and pneumonia three. The rest are variously associated with meningitis, nephritis, and septicæmia.

Endocarditis, both new and old, occurring by itself is, as I have said, very rare. In the entire series of 100 cases it is found in but six, three rheumatic and three non-rheumatic. In two of the three reckoned rheumatic excess of fluid was found in the pericardium; the third was a case of old mitral disease in a child over eleven. In this case only was the pericardium normal. Of recent endocarditis, therefore, there is no single example amongst the rheumatic without participation in some degree on the part of the pericardium. As regards the three non-rheumatic examples of endocarditis, one is a case dying of diphtheria with "old thickening of the mitral," but no mention of the pericardium; the second is the case of a new-born child dying of pyæmia, and showing post mortem "vegetations upon the mitral and tricuspid valves," not further described; the third is the solitary example of the whole series, and, moreover, it is the solitary example of the entire 100 cases exhibiting recent endocarditis of the mitral valve with no pericarditis and no excess of fluid in the pericardium. Now observe, this same case was one of acute chorea, and it represents, as I believe and have elsewhere tried to show,<sup>2</sup> the condition of the heart proper to chorea apart from rheumatism. It is rarely observed, indeed, because fatal chorea is rare, and our post-mortem experience of it relates chiefly to the subjects of rheumatic heart disease.

It is not, however, my present purpose to discuss the non-rheumatic class of heart affections in children, made up as it is of examples having as little in common as empyema and diphtheria, chorea and tubercle. I desire rather to separate this miscellaneous group from the rest, so that the ground, being thus cleared, the features of rheumatic carditis may be the better displayed.

The general characters of the child's articular rheumatism, with which carditis so often concurs, are well known to you: slight fever, indistinct and fugitive joint affection, absence of prostration or of any abiding sense of illness. Such symptoms, though they may cover extensive heart inflammation, are not of a kind to excite the alarm of parents and not seldom pass unnoticed. What I would point out is the commonness of recurrence in child's rheumatism, or rather, let me say, the fact that the younger the subject the greater the liability to recurrence and the more closely are successive attacks crowded together. A child may encounter rheumatism once and, it may be, carditis therewith without permanent injury; but recurrent rheumatism—rheumatism that begins early and recurs often—is certain to cripple the heart, inasmuch that by far the greater number of fatal cases, perhaps all did we but know, are of that kind.

The statement may need analysis. In the fifty-six cases of fatal rheumatic carditis on which I am now commenting thirty-five of the number had certainly had rheumatism more than once. In five others the rheumatic attack had been unusually prolonged, or, as is more probable, if we may trust our common clinical observation, a succession of attacks happening near together seemed like one. There remain sixteen, or, omitting two cases without history and three where the history is doubtful, eleven wherein fatal heart disease resulted, so far as the history could be trusted, from a single rheumatic attack of no long duration. A further analysis of this remnant of eleven out of fifty-six is noteworthy. In four of them the existence of aortic disease and

<sup>2</sup> International Journal of the Medical Sciences, December, 1891.

of subcutaneous nodules made it at least likely that a previous rheumatic attack had passed unrecognised as such. In two, if not in three (there is some uncertainty), the children died, not of the heart disease, but of intercurrent affections. Thus a very small proportion of the fifty-six, some four or five, can safely be counted as victims of heart disease due to a single rheumatic attack. Nor would I surrender even these in view of the notorious fact that the joint pains of children when really rheumatic are not always assigned to that cause. It is certain that the vast majority of the fatal cases have suffered rheumatism more than once. It is not improbable that it is invariably multiple rheumatism that fatally affects the heart.

It is in the later attacks of rheumatic arthritis—as was shown at a demonstration here last March<sup>3</sup>—that physical signs in respect of the heart are most reliable. In a first attack there may be tumultuous action, mitral bruit becoming perhaps appreciably presystolic; exocardial sounds in great variety; reduplicated second, and even diastolic murmur at the aortic cartilage; but one and all of these morbid signs may disappear, and the integrity of the heart be maintained. Yet we cannot predicate that such will be the case until some time has intervened without return of rheumatism. With a second, and still more with a third rheumatic attack, there is far greater probability of permanent change and the establishment of the two main factors of organic disease in childhood—namely, mitral stenosis and pericardial adhesion. Apart from this consideration of probability derived from repeated attack, I do not know what physical signs there are conclusive of structural heart-disease in children except prolonged blowing murmur, thrill and change in the heart's size and shape. Thus the chief contrast between the child and the man would be this—that in the former pericardial signs are far more frequent, while endocardial signs remain for a somewhat longer space of time of doubtful significance.

Nevertheless, the judgment we may form from physical signs is in fact less precarious than it would seem from these considerations taken alone. It must be added, first, that in rheumatism peri- and endo-carditis almost always go together, so that the presence of the latter may be inferred from the presence of the former; and, secondly (whether the information conveyed be precise or not is a point I am coming to), it is beyond doubt that pericardial sound in the circumstances we are considering signifies pericardial inflammation. However uncertain, therefore, the interpretation of recent endocardial murmurs, their character may be safely judged by the company they keep. The real difficulty is less in diagnosis than in prognosis. We may be certain that rheumatic carditis exists; we may, and in recent cases we often must, be uncertain whether such carditis will permanently cripple the heart.

I proceed now to a further point in regard to the diagnosis of rheumatic carditis and one which finds ample illustration in the table before you, though it leads to conclusions not a little surprising. It is this. Admitting that pericarditis has distinctive physical signs, how far may these be relied on to indicate from day to day the precise state of the pericardium, especially as regards adhesion? In the acute rheumatism of adults large trust is placed in physical signs as faithful witnesses of the progress and termination of pericarditis. The character, duration, and extent of friction rub, its advent, disappearance, and reappearance are all carefully noted and appraised, inasmuch that when convalescence is reached a more or less confident opinion is expressed as to the probability of pericardial adhesion. Rarely, however, does the correctness of such opinion have to bear the test of actual inspection. Adults with acute rheumatism seldom die then and there. But the opportunity of verification thus denied to us in adults is afforded quite liberally by children—the opportunity, I mean, of seeing the physical condition of the inflamed pericardium so close to the time of hearing the noise it makes that sight and sound may safely be regarded as referring to one time. A large class of children, as I have said, are the subjects of multiple attacks of rheumatism in quick succession, each of which, while sparing or almost sparing the joints, will be attended by fresh carditis. After a number of such attacks the heart will sometimes very rapidly give in and the patients die of dyspnoea or pulmonary inflammation. It is of such children that my present collection is mainly composed, and to them I now appeal, in considering to what degree exocardial sounds inform us accurately of the condition of the pericardium.

For some years past it has *not been my frequent experience* to find post mortem, notwithstanding that friction rub had been audible shortly before, sometimes loudly and over a large area, yet that pericardial adhesion was present, and in some cases extensive as well as firm. I at first inclined to the belief that such adhesions formed very rapidly in children. Further examination, however, compels the conclusion not only that to-and-fro rub may concur with extensive adhesion, but also that a great variety of exocardial sounds, variously described as “squeak,” or “creak,” or “scräpe,” are not inconsistent with intimate union of visceral and parietal pericardium. *With children dying after repeated rheumatic carditis, rubbing or no rubbing, it is the rule to find adhesion and the exception to find the heart free; while at the same time it is the rule to hear exocardial rub and the exception to hear none.*

In proof of this assertion I call attention to the table before you. The cases selected were all rheumatic and all with endocarditis, though for brevity's sake the condition of the endocardium may be neglected.

Case 1.—L. C.—, aged eight, had “distinct friction,” together with mitral murmur and thrill *fourteen days before death*. Post mortem the pericardium is described as “firmly and universally adherent.”

Case 2.—M. F.—, aged seven, had “loud friction” with thrill and double murmur at apex *when last examined shortly before death*. Post mortem pericardial adhesions were “extensive and firm, but new.”

Case 3.—W. R.—, aged ten and a half, had at first slight friction, which later (that is, *eight days before death*) was described as “definite friction.” Post mortem the pericardium is described as “adherent all over and difficult to separate.”

Case 4.—A. B.—, aged eleven and a half, had “friction” *three days before death*. Post mortem the pericardium was “universally adherent by tough lymph.”

Case 5.—H. D.—, aged seven, developed friction rub while under observation, which was *audible up to death*. Post mortem the apex was “firm and organically united to the pericardium, which, however, was only partially adherent.”

Case 6.—L. B.—, aged eleven, had “excited heart action, friction and musical murmur at apex,” *signs which lasted till death*. Post mortem the “pericardium was firmly adherent by a band of tough lymph.” There were also some recent adhesions, but the right border was partly free.

So much for individual instances. Let me now estimate on a larger scale and from the same source the condition of the pericardium after death in relation to its living signs. The fifty-four cases of rheumatic carditis I am now dealing with may be divided into two classes, one where pericardial sounds were audible, the other where they were absent. The first or audible class may be again subdivided into (a) cases where exocardial sound is easily explained owing to the pericardium being roughened or lymph-covered yet not adherent and (b), strange to say, a larger class, where the existence of exocardial sound is less easily or not at all explained owing to the fact of pericardial adhesion in various degree, sometimes extensive and firm.

It thus appears not only that very extensive adhesion will often permit very obvious exocardial sound, but also, as I shall show directly, that we are not without examples of rough and lymph-covered yet not adherent pericardium, such as *ought*, as one is tempted to say, to yield sound, yet in fact yielding none. If we add that friction sound may possibly be present where there is no lymph and no roughness, and this is generally admitted, the simple teaching of the text-books that the successive stages of pericarditis may be followed by the ear from first to last seems to fade away with other delusions of youth.

*Exocardial Sounds (a) Audible and (b) Inaudible in 50 Cases<sup>4</sup> of Rheumatic Carditis examined post Mortem.*

(a) Exocardial sounds audible and of distinct rubbing character in ... .. .	29
An extra sound audible over and above the endocardial, but not a distinct rub in ... .. .	4

These 4 cases differ in no respect from the rest, but as the nature of the added sound in them may be deemed open to doubt they are excluded.

<sup>4</sup> The notes of 4 of the 54 rheumatic cases here analysed are defective or doubtful on this particular point.

*Condition of the Pericardium in the 29 Cases above mentioned as furnishing Distinct Pericardial Rub shortly before Death, described in the words of the Post-mortem Account.*

Pericardium is adherent "universally," "generally," "entirely," "everywhere," "universally and firmly," "extensively" in ... .. 15  
 Pericardium is "adherent and also to chest wall," "partly and recently adherent," "a few adhesions" in ... .. 5  
 Pericardium is not adherent, but there exists "pericarditis," or "roughened pericardium" or "shaggy cords" in ... .. 5  
 No adhesions mentioned (probably none existed) in ... .. 4  
 Thus, notwithstanding friction rub until near death, adhesion is firm and general in 15; less firm and less general in 4 or 5; and 9 only at the utmost are without or with slight adhesion.

(b) Exocardial sounds are inaudible in ... .. 17  
*Condition of the Pericardium in these 17 in the words of the Post-mortem Account.*

Pericardium "adherent throughout" in ... .. 6  
 Pericardium "adherent at apex," "partially adherent," "firmly but partially adherent" in ... .. 3  
 Excess of fluid in pericardium in ... .. 3  
 "Soft buttery lymph" in ... .. 1  
 "Recent lymph," "flakes of lymph," granular fibrin, "softly adherent" in ... .. 4

In 3 of the above cases classed as "adherent throughout," though there was no obvious exocardial rub, yet there was noted some extra sound of doubtful origin in addition to the endocardial murmurs. In one this is described as a "loud systolic whistling," in another as a "sibilant quality added to the murmur," and in a third as "a little musical systolic sound in addition to systolic and presystolic murmurs." Independently of these 3, however, we have here 7 cases of inflamed pericardium, 4 without and 3 with but partial adhesion, yet none of them yielding exocardial sound.

Putting the same facts in slightly altered shape, and omitting dubious cases where very partial adhesion might with equal probability be supposed either to admit of exocardial sound or to prevent it, it would seem that any precise diagnosis as to the condition of the pericardium derived from exocardial sound is just as likely to be wrong as to be right. Thus:—

1. Cases where, owing to the existence of inflammation, products described as "lymph," "granular fibrin" &c., the pericardium not being adherent, friction sound would have been expected and was heard. (Diagnosis correct.) ... .. 9
2. Cases of precisely similar character where friction sound would have been expected, but was not heard. (Diagnosis incorrect.) ... .. 4
3. Cases where, owing to the extent of pericardial adhesion or to excess of fluid or softness of lymph, friction sound would not have been expected and was not heard. (Diagnosis correct.) ... .. 10
4. Cases of precisely similar character where pericardial friction would not have been expected but was heard. (Diagnosis incorrect.) ... .. 15

So that diagnosis based upon absence or presence of exocardial sound would be correct in 1 and 3, that is, in 19; it would be incorrect in 2 and 4, that is again 19.

Upon the evidence now before you I take it for certain, explain the facts as you will, first, that pericardial adhesion does not prevent exocardial rubbing; and secondly, that the presence of such adhesion in fatal cases is much commoner than would be supposed judging from physical signs alone. Post-mortem observation, however, does not fully reflect the ways of life. What is true for those that die is not necessarily true for those who recover. Pericardial adhesion, in other words, may be a more sinister occurrence than we suppose, making sometimes the difference between living and dying. That wider question cannot be discussed with our present material, nor is it, indeed, determinable until the bearing of physical signs upon anatomical states as regards the pericardium has been more fully investigated and defined.

**SANITATION AT BRADFORD.**—The sanitary officers of Bradford have been instructed by the corporation authorities to require that in all new buildings water-closets shall be provided except where no suitable sewer is available for the drainage of such buildings.

## A Clinical Lecture

ON THE

### INTERSCAPULAR THORACIC AMPUTATION, WITH THE RECORD OF A SUCCESSFUL CASE.

By THOMAS F. CHAVASSE, M.D., F.R.C.S. Ed.,

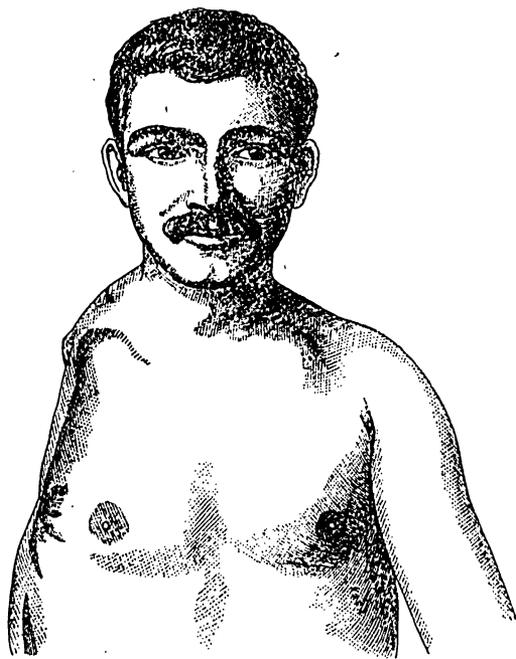
SURGEON TO AND LECTURER ON CLINICAL SURGERY AT THE BIRMINGHAM GENERAL HOSPITAL.

GENTLEMEN,—The interscapular thoracic amputation of the French surgeons consists of removal of the entire upper limb and the outer two-thirds of the clavicle. It may seem to you a formidable operation, but in actual practice, if certain steps are systematically followed, it will be found to be a straightforward procedure neither dreadful nor prolonged. In a rough-and-ready way, each surgeon proceeding in the manner most agreeable to himself, the operation cannot lay claim to novelty, for in 1808 an English naval surgeon, Ralph Cumming, removed successfully in the Greenwich Hospital for a gunshot injury the scapula, arm and clavicle of a sailor aged twenty-one years. He was followed in 1830 by Gaetani Bey at Cairo. Since then many other surgeons have placed upon record cases in which the operation has been completed for injury. It is not, however, my intention to consider in detail traumatic cases requiring such surgical interference, as every individual case is a law to itself, the operator having to shape and fashion the mutilated soft parts in a subject already in a state of profound shock. But cases of tumour in the vicinity of the shoulder offer entirely different features and in such a systematic plan with slight modifications can always be readily carried out.

George MacClellan of Philadelphia in 1838 claims to have been the first to have undertaken the operation to remove at one sitting the entire upper extremity for tumour, and according to Stephen Rogers he is entitled to such priority. In Great Britain Mr. Syme, in 1863, was the first operator and he was followed in 1865 by Sir Wm. Ferguson, but, in both cases, previous operations had been performed upon the parts, for the former had removed the head of the humerus and the latter a portion of the scapula. Most of the surgeons who immediately followed them first disarticulated at the shoulder-joint, and then removed the scapula and a portion of the clavicle. The credit of systematising the operation, placing it upon an intelligent and scientific basis and demonstrating how to safely remove the whole limb *en masse* rests with Dr. Paul Berger, the eminent Parisian surgeon, who in 1882, as the result of his observations, suggested the performance of the operation by the following steps: 1. The middle third of the clavicle is resected by an incision carried along the bone from the outer edge of the sternomastoid muscle to its acromial extremity. 2. The subclavius muscle and adjacent soft parts are dissected back, the subclavian artery and vein external to the scalenus anticus muscle are laid bare, and each vessel is secured with ligatures in two separate places, making a division of both artery and vein between such ligatures. The object of this step is to preclude copious hæmorrhage and prevent air entering the subclavian vein when severed. 3. An anterior or pectoral flap is to be formed. This is accomplished by beginning the incision at the middle of the clavicular one and carrying it downwards and outwards across the anterior fold of the axilla to the inferior angle of the scapula. The integument is then reflected and the pectoral and latissimus dorsi muscles divided, together with the cords of the brachial plexus. The previous ligature of the main artery renders the proceeding practically bloodless. 4. The affected arm is drawn forcibly across the chest, and the patient, being placed at the edge of the table, is rolled over on to the sound side so as to allow the formation of a posterior or scapular flap. This is effected by commencing at the acromio-clavicular articulation, where the first incision terminated and carrying the knife downwards across the posterior axillary fold to meet the anterior incision at the angle of the scapula. The skin is reflected to the posterior border of that bone, the rhomboid muscles, the levator anguli scapulae and the trapezius are divided and the

limb taken away. At this stage some hæmorrhage may be expected, as the blood-supply is derived from the posterior and supra-scapular branches of the second part of the sub-clavian artery. It is, however, readily restrained by the pressure of a large flat sponge until pressure forceps and ligatures can be applied. If these steps be carefully carried out the flaps will fall together without tension, and as drainage is readily accomplished healing takes place rapidly, more so, in fact, than when an ordinary shoulder-joint amputation has been performed. When malignant neoplasms have to be dealt with it is extremely likely that the integument, from which it is wished to form one of the flaps, is more or less involved and has to be taken away, so the ingenuity of the surgeon will be exercised to suggest some slight modifications of the skin incisions as may seem most suitable to the particular case.

The man before you, for the notes of whose case I am indebted to my house surgeon, Mr. Jerome, is twenty-one years of age, a groom by occupation, who was admitted into the hospital on May 16th, 1892, having noticed, five or six weeks before, a swelling on the right shoulder-blade, which he could not attribute to any blow or injury to the part. His general health had always been good, and there was no family history of malignant disease. On admission there was a tumour extending from the upper border of the right scapula, near the glenoid cavity, downwards to the lower angle and backwards nearly to the dorsal spines; it filled the axilla. In places, posteriorly, the skin was red and adherent to the growth, which was soft and semi-fluctuant to the touch, painless except



for some slight aching in the arm. The patient had been an inmate of another hospital, but after consultation had been dismissed as beyond relief by any surgical operation. On May 20th removal of the limb was effected as follows: the middle third of the clavicle was taken away and the third part of the subclavian artery secured with catgut ligatures. The corresponding vein was found to be enormously distended and in size equal to a large thumb, and to ligate it doubly was a matter of some little difficulty. As it was necessary to sacrifice a large portion of the skin which usually helps to form the posterior flap the anterior one was fashioned by commencing it at the tip of the acromion and curving it slightly forwards over the deltoid, then backwards to the axillary fold, and downwards to the inferior angle of the scapula. The posterior one began about the middle of the clavicle and was carried obliquely downwards to meet the previous one. After removal of the limb the flaps thus formed could be readily approximated except inferiorly, where a slight degree of tension resulted. A drainage-tube was inserted at the most dependent part of the wound. The after-progress was satisfactory, the immediate shock caused by the operation was soon rallied from, the pain experienced was slight,

the constitutional disturbances hardly appreciable and on May 28th he sat up out of bed. Two days later the wound was reported to be healed throughout except at the lower angle where it was granulating. Up to the present time (three months) the man has continued in vigorous health.

After examining the tumour Dr. Ratcliffe reports: "It is a small, round-celled sarcoma springing from the infra-spinatus muscle, not attached to the bone, and at its outer margin undergoing cystic degeneration."

The advantages of following out this systematic method are: 1. Excessive bleeding is prevented by securing the main artery before any extensive division of the soft-structures is commenced. Those parts with their blood-supply remaining unchecked are not dealt with until the last steps of the operation, when any bleeding can be readily and effectually restrained. Several instances are on record in which fatal hæmorrhage has resulted from the attempt to remove the whole limb without first securing the main artery.<sup>2</sup> 2. Air is prevented entering the subclavian vein. This accident has proved fatal in times gone by, both in traumatic cases and those undertaken for tumour. 3. Free division of the soft parts, as remote as possible from a malignant-growth, is permitted, and any axillary deposits detected can be easily and visibly cleared away. 4. The flaps are readily approximated and the facilities afforded for the drainage of a large wound are excellent. Hence primary union, the absence of septicæmic complications, and a speedy convalescence may be anticipated.

#### CASES RECOMMENDED FOR OPERATION.

1. *For traumatism.*—Injuries in the region of the shoulder in which the vitality of the immediate structures is rendered doubtful. By removal of the scapula it may be that sufficiently healthy flaps are secured so as to render a speedy healing of the stump possible; whilst if disarticulation at the shoulder-joint be performed sloughing of the contused parts, increased risk of septicæmia, healing by granulation and a tardy convalescence may have to be reckoned with. If there be actually any slight increase of shock by removing the scapula, it is more than counterbalanced by the advantages of obtaining healthy skin for flap formation. Stephen Rogers,<sup>3</sup> in his report of eleven cases in which the arm and scapula had been forcibly torn off by machinery, shows that in all there was but little hæmorrhage, not much shock, and that recovery was apparently prompt. It must, however, be noted that most of the subjects were young people.

2. *For neoplasms.*—A. *Simple*: Under this heading may be placed large osteo-chondromata springing from the upper end of the humerus and involving the soft parts in their growth. Such cases have been successfully operated upon by Syme, Berger, Heron Watson and myself. In the last instance the ablation was performed in January, 1889, and the patient is still alive and well. B. *Malignant*: In cases of sarcomata or other malignant type of growth originating in the humerus, in the soft parts in the region of the shoulder-joint, or in any portion of the scapula, in which the axillary glands are already involved when the patient comes under notice I would urge that the interscapular thoracic amputation should be resorted to if any operation be undertaken.

Some of you may remember the case of a patient, aged fifty-two, who was admitted into the hospital on May 8th, 1891, suffering from a sarcomatous growth the size of a small Tangerine orange, springing apparently from the inter-muscular septa on the outer side of the lower third of the right arm and implicating the skin. Amputation of the arm was advised and declined. On July 4th he was readmitted, having since he left the hospital been treated by the local application of caustics by a "cancer-curer." It was then seen that there was a crater-like ulcer, involving two-thirds of the circumference of the limb, extending as high as the middle of the humerus. The bone was exposed and several severe attacks of hæmorrhage had taken place. The entire limb was œdematous and the axillary glands were enlarged. Amputation at the shoulder-joint by skin flaps was performed next day, and the axilla as far as possible cleared out. He left the hospital apparently well on Aug. 16th. Microscopically the tumour was found to be a mixed-celled sarcoma with a preponderance of round cells. In February of this year the patient was again admitted, as the cicatrix was involved in a recurrent growth which had ulcerated and seemed adherent to the scapula and chest wall. He com-

<sup>2</sup> Vide Table of cases by writer in the Medical and Chirurgical Transactions, vol. lxxiii.

<sup>3</sup> American Journal of the Medical Sciences, vol. lvi.

plained of excruciating pain, only alleviated by opium, and was urgent that some operative effort should be made for his relief. He had lost much flesh, and could only take a minimum quantity of food daily. It was pointed out to him that his present condition was not a satisfactory one for any operation; but as he elected to take all risks involved, on Feb. 16th I removed the scapula and two-thirds of the clavicle by Berger's method, getting well clear of the sarcoma, removing all the pectoral muscles that remained, and exposing the ribs, but having sufficient skin flaps left to cover in the stump. At the time of the operation there did not appear to be much shock, and the patient subsequently expressed himself as nearly free from pain. He was, however, very restless and vomited all nourishment, so that nutrient enemata had to be resorted to, but he died exhausted on the evening of Feb. 18th, sixty hours after the operation.

Dr. Ratcliffe's post-mortem notes say: "Body fairly well nourished. Operation wound nearly healed. No signs of secondary growth in the lungs, the thoracic walls or abdominal organs."

I have little doubt that at the time of the first operation the axilla was not efficiently cleared. Although to the feel all the affected glands appeared to be removed, yet probably some infecting nucleus remained, and the recurrence of the growth was rapidly apparent. A wider operation, accompanied as it would have been by a visible clearing of the whole axilla, would, in my opinion, have afforded the patient a better chance of permanent recovery. Youth is not to be considered an objection to the performance of the interscapular thoracic amputation when malignant sarcomata have to be dealt with.

In February, 1883, I removed the entire right scapula of a girl aged twelve for a periosteal sarcoma involving both surfaces of the bone. Haemorrhage was free. Owing to the skin being involved there was hardly sufficient flap left to cover in the exposed surface, and the time occupied in the performance of the operation was as long as that needed for the major proceeding. The shock was great. The patient died the same day. At the necropsy infected axillary glands were discovered which had been overlapped during life by the primary growth, and so had escaped detection. In a similar case, with our present knowledge, I should remove the entire upper limb.

3. Mr. Frederick Treves<sup>4</sup> has advocated the performance of this operation in cases of "big arm" occurring late in mammary carcinoma, and reports a case in which, at least as a palliative measure, the immediate result was successful. An Italian surgeon, Domenico Morisani,<sup>5</sup> performed the operation for a breast cancer in March, 1885, upon a woman aged fifty-four; the entire upper limb, part of the clavicle, the mammary gland, and portions of the second, third and fourth ribs with their intercostal muscles being removed. Death resulted from shock, as the thoracic cavity was widely opened. The interscapular thoracic amputation and Berger's systematic method of performing it has only to be more widely known amongst English-speaking surgeons to meet with that recognition which I think its merits justly deserve.

## A NEW METHOD OF EXCISING THE TWO UPPER PORTIONS OF THE RECTUM AND THE LOWER SEGMENT OF THE SIGMOID FLEXURE OF THE COLON.

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CHRONIC intestinal obstruction is usually met with in persons of advanced years, and the seat of obstruction is generally in the lower part of the large intestine. If the disease causing the obstruction invades any part of the gut from the stomach to the middle segment of the sigmoid flexure of the colon, it may be excised in the manner I have indicated in the March number of the *American Journal of the Medical Sciences*. I will now deal with cases of carcinomatous stenosis involving the rectum and the lower segment of the sigmoid flexure of the colon. Car-

cinomas invading the lower segment of the sigmoid flexure of the colon and the upper two-thirds of the rectum are tabooed by all practical surgeons as not amenable to radical treatment on account of their anatomical inaccessibility. All these cases are condemned to die either from the immediate effects of intestinal obstruction or, having been provided with an artificial anus in the loin or inguinal region, they are abandoned without hope to linger on for a few months until death relieves them from their loathsome condition. No operation has yet been devised for completely excising the rectum. Mr. Treves says, in his excellent "Manual of Operative Surgery": "Excision of the rectum or proctectomy is carried out in certain cases of malignant disease involving the anus or lower part of the rectum. The term is misleading inasmuch as the rectum is never excised, but only a comparatively small part of it. . . . Very rarely does the excised portion measure more than three inches in length." By experimental investigation I have ascertained that the semi-fixed condition of the upper three-fourths of the rectum is almost entirely due to peritoneal attachment; when this is severed it becomes an easy matter to invaginate any portion of it out through the anus where the diseased segment may be ablated and the continuity of the bowel restored in a surgeon-like fashion with little risk to the life of the patient. Before going any further I shall inquire into the relations of the peritoneal covering of the rectum in its normal condition. The upper three-eighths of the rectum in the adult is completely invested by peritoneum and is connected to the sacrum behind by a duplicature of that membrane called the "meso-rectum"; the length of the duplicature varies in almost every case. The middle portion is covered with peritoneum only on its anterior surface and the lower portion receives no peritoneal covering. On the posterior surface of the gut there is no peritoneum below a point five inches above the anus. What are the abnormal conditions commonly found in the peritoneal investment and what surgical affection is consequent on this abnormality? The upper portion of the rectum may have an abnormally long meso-rectum and the second portion may be completely covered with peritoneum and be connected with the sacrum by a meso-rectum. This abnormal condition is generally associated with true procidentia recti, where all the walls of the upper part of the rectum descend through the lower part and protrude outside the anus. This condition is a true intussusception. The only portion of the rectum fixed by the muscles and pelvic fascia is entirely below the upper limit of the levator ani, which is not more than an inch and a half from the anus. Above this point the straight gut is merely suspended by a reflexion of peritoneum. If the disease invades the lower third of the rectum the most satisfactory method of ablation is by a modification of Professor Verneuil's posterior dorsal incision, whereby complete sphincter power may be retained after the operation.

Should the disease attack any portion of the upper two-thirds of the rectum or the lower segment of the sigmoid flexure of the colon the procedure is as follows:—

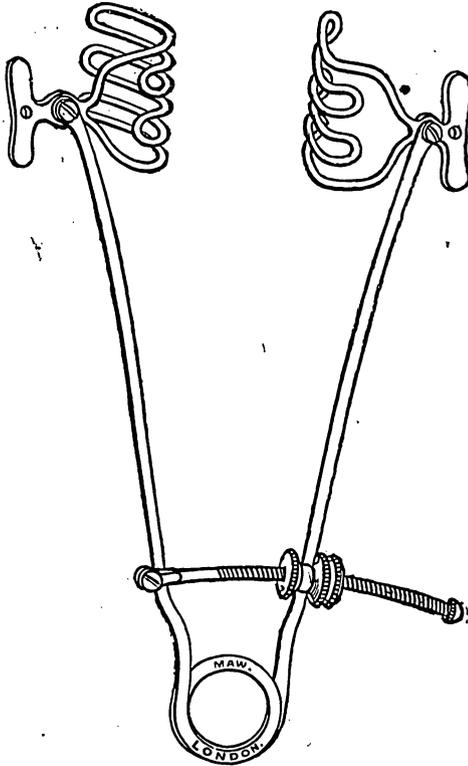
1. For a few days previously to operating the patient is fed with small quantities of farinaceous food and beef-tea.
2. Night and morning the stomach and lower part of the rectum are thoroughly irrigated with hot water and salt (half a drachm to the pint).
3. The lower portion of the rectum and anus below the carcinoma is cautiously dilated with a small Barnes's bag or bivalve vaginal speculum, well greased with iodoform ointment.
4. The patient is kept in bed, and the surface of the abdomen and perineum is rendered thoroughly aseptic with nail-brush, soft soap, shaving and bichloride solution. Previously to operating the limbs and upper part of the chest are covered with wadding and the patient placed on a portable rubber operating mattress filled with hot water, as made to my order by Maw, Son and Thompson.
5. When thoroughly under the influence of an anæsthetic the patient is placed in the lithotomy position.
6. The assistant surgeon sits at the end of the operating table. He first divides the sphincter ani backwards towards the coccyx with a straight probe pointed bistoury and then passes a large bivalve vaginal speculum or Bruce Clarke's three-bladed bladder speculum through the anus up to the cancer. Holding the speculum in position he cautiously dilates the lower end of the rectum. The free division of the sphincter ani prevents the subsequent distension of the rectum with flatus and the possible tearing out of the circumferential sutures.

<sup>4</sup> THE LANCET, vol. ii, 1891.  
<sup>5</sup> Il Morgagni, Agosto-Ottobre, 1885.

7. The bladder is now thoroughly emptied and a median abdominal incision is made down to the peritoneum from a point one inch above the umbilicus to the pubes. All bleeding having been stopped, the peritoneum is slit up to the size of the external wound.

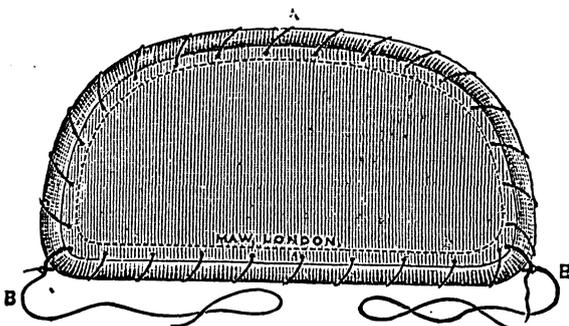
8. The edges of the wound are separated with a steel wire laparotomy speculum (Fig. 1) and the diaphragmatic intes-

FIG. 1.



tinal retractor, formed of a wire framework four inches wide and seven or eight inches long, covered with two or three layers of aseptic gauze, is placed in position. With a long-handled, slightly curved needle with an eye near the point two thick silk sutures are passed which are attached to the lower corners of the wire frame (Fig. 2) out through the walls of

FIG. 2.



A, Wire intestinal retractor or diaphragm, 7 in. or 8 in. long and 3½ in. to 5 in. wide; frame made of copper wire run through thin rubber tubing and covered with two or three folds of aseptic gauze. B B, Strong silk threads attached to the lower angles and border of the diaphragm.

the abdomen on either side, immediately above the crest of the ilium and two or three inches externally to the outer border of the quadratus lumborum. The portion of gut to be operated on is isolated and the rest of the intestines are lifted out of the pelvis and tucked securely above the lower rim of the wire frame. The sutures are made taut and fastened to the laparotomy speculum. The diaphragm keeps the intestines warm and well upwards and backwards out of the

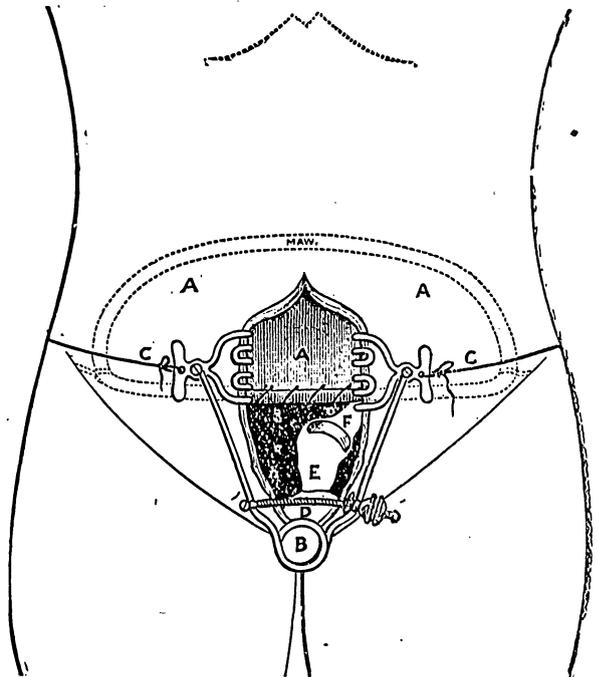
pelvis. The operator has an unobstructed view of all the pelvic organs and is master of the situation. (Fig. 3.)

9. If there is an accumulation of faeces above the cancerous stenosis, it is gently pressed back into the colon with the fingers and thumb. The displacement of the faeces from the vicinity of the seat of operation greatly facilitates the subsequent artificial invagination of the diseased segment of gut.

10. With a long packing needle a piece of broad tape is passed through the proximal side of the cancer, first on one side and then on the other; the assistant then drags the ends of the tape out through the speculum with a sequestrum forceps. The broad loop of tape now lies across the proximal side of the diseased segment of gut.

11. A small incision with a tenotomy knife is made through the entire thickness of the peritoneal fold between the rectum and bladder in the male or the rectum and uterus in the female. The upper part of the rectum, held between the finger and thumb of the left hand, is drawn out from the sacrum so as to

FIG. 3.



A A A, Intestinal retractor or diaphragm lifting intestines upwards and backwards. B, Steel wire spring laparotomy speculum with screw regulator. C C, Silk sutures from the intestinal retractor fastened to the perforation in the laparotomy speculum on either side. D, Bladder. E, Rectum. F, Loop of tape across the proximal side of the cancerous gut.

render its peritoneal attachments taut. A pair of long pointed angularly curved scissors (Fig. 4) is passed into the opening made with the tenotomy knife and the peritoneal attachment of the rectum is completely divided, first on the left side and then on the right. During the division of the lateral reflexions of the peritoneum it is imperatively necessary to keep the probe point of the lower blade of the scissors pressed well upwards and outwards from the median line of the gut against its inner surface. In this way, and in this way only, it is possible to divide the peritoneal duplicature which forms the meso-rectum without injury to the vessels, nerves and lymphatics of the rectum.

12. Provided the lower portion of the rectum is sufficiently dilated with the speculum, there is now no anatomical impediment to the invagination and complete prolapse of the upper three-fourths of the rectum out through the anus. The loose cellular tissue, with its contained vessels, offers no resistance. One or two vessels may be accidentally injured, but these can be easily dealt with in the usual way. No more of the peritoneal reflexion should be divided than is absolutely necessary to permit of the invagination out through the anus. The method I have advocated for peritoneal detachment applies with equal force to all parts of the colon. The inner reflexion of peritoneum requires most care in

division, as the vascular supply of the gut comes from that side. As the prolapse is drawn well down the blades of the speculum should be slightly approximated so as to permit of their easy withdrawal from the anus.

13. A catheter should be passed into the bladder to make certain that it is absolutely free.

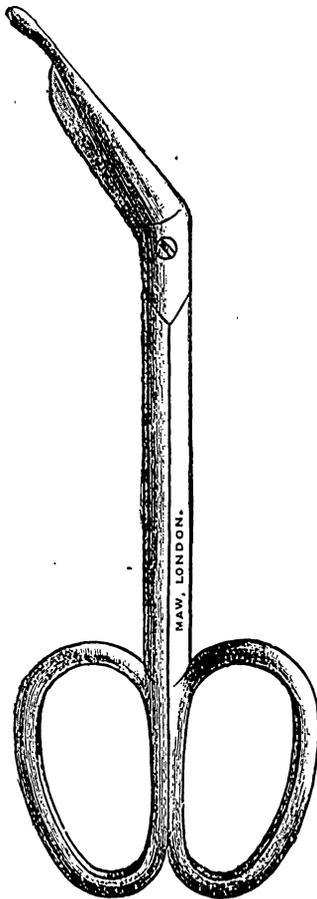
14. The prolapsed bowel is washed with warm, very dilute bichloride solution and a small incision made with a tenotomy knife through the entire thickness of the returning or middle layer of the intussusception and as near its apex as the disease will safely permit. The probe-pointed angularly curved peritoneal scissors are passed in through the opening made with the tenotomy knife, the prolapse being cut all round so as to completely free the entering or inner layer.

15. The inner layer is now pulled down with a vulsellum forceps until all the diseased portion appears completely outside or below the cut border of the returning or middle layer.

16. The inner and middle layers of the intussusception, about an inch above the disease, are transfixed with two fine long straight needles armed with chromicised gut.

17. The entering or inner layer is now amputated a full

FIG. 4.



half inch above the cancerous mass. Transfixing with long needles the entering and returning layers of the intussusception previously to amputation of the cancer prevents it from flying back inside, and ensures the proper relative position of the different layers of the bowel previously to sewing them up. The cancerous mass having been amputated, the needles are passed through and the sutures picked up in the middle of the invaginated bowel, divided and tied on both sides; the ends of the four sutures left long, so that an assistant can hold the cut ends of the bowel in position until it is plugged with absorbent wool previously to completely suturing it up circumferentially. Twelve passages of a long straight needle through both sides of the gut as above described suffice for the introduction of twenty-four sutures, which are generally sufficient. Nearly half an inch of the entire thickness of the coats of the gut should be included in each suture.

18. Before cutting off the four long sutures, the plug of

absorbent wool is removed, the wire intestinal retractor loosened and a long tube is passed up the colon, which is washed out thoroughly with hot water and boracic or salicylic acid. All hardened faeces should be assisted along the colon by the fingers and thumb within the abdomen.

19. When the whole colon is thoroughly irrigated the sutured ends of the bowel should be dried with absorbent wool and painted over with Wœtler's mixture of alcohol, glycerine and colophony, the same that he applies to the surface of the raw stump after removal of the tongue. The whole of the prolapse is now insufflated with iodoform and amorphous boracic acid and the bowel gently returned. The return of the circumferentially sutured bowel is facilitated by slight pressure from below and gentle traction from above. The rectal peritoneal reflexion which was divided is now sewn up with a few interrupted sutures to prevent any subsequent prolapse of the gut.

20. The laparotomy speculum and intestinal retractor are next removed and the median abdominal wound sewn up.

In this operation it is absolutely necessary to have two good assistants, one to administer the anæsthetic and another to assist in the invagination of the diseased segment of gut through the speculum. From aseptic considerations the laparotomist should leave this part of the operation entirely to one of his assistants. For the first day or two after the operation the patient should sip large quantities of hot water day and night. After the first few hours the patient gets to like it, as it allays sickness, disperses flatulence and helps to keep down the temperature by acting freely on the skin and kidneys. In extensive laparotomy cases I have had more success with hot water than any other remedy. After the first twenty-four hours the patient may be cautiously fed with small quantities of farinaceous food, chicken broth and whisky-and-water. If the carcinoma unfortunately has not been diagnosed early, and intestinal obstruction has been going on for some time, it may be deemed advisable to establish a temporary artificial anus in the left lumbar region, so as to thoroughly evacuate the colon, permit of its contraction to normal dimensions, and provide absolute physiological rest for that portion of the gut to be excised with the disease. Ten days after the excision of the cancer the artificial anus may be closed up by breaking down the parietal adhesions, sewing up the turned-in rarefied edges of the longitudinal opening in the descending colon and replacing it in its normal position.

For what pathological, anatomical or congenitally abnormal conditions of the lower end of the large intestine is this operation especially applicable?

1. Cancers of the upper two-thirds of the rectum and the lower segment of the sigmoid flexure of the colon.

2. Tertiary syphilitic ulcerations of the middle and upper portions of the rectum not amenable to medicinal treatment. This condition should be regarded as a new growth and excised as I have indicated.

3. Procidencia recti: this acrobatic accomplishment of the rectum is very common in tropical climates after an attack of dysentery. On three occasions I have seen the rectum completely turned inside out and the sigmoid flexure of the colon form the centre of the prolapsed gut. Cases of this kind not amenable to any medicinal treatment should be dealt with by median abdominal section in the manner I have indicated and the prolapse prevented with mathematical certainty by folding the meso-rectum upon itself in a direction parallel to the gut and fixing it in that position by silkworm gut sutures. This operation is much simpler, less dangerous and more effectual than that of McLeod of Calcutta or that of Roberts of Philadelphia. On two occasions I have seen Van Buren's method of linear cauterisation signally fail to prevent the subsequent invagination and prolapse of the rectum. The ablation of procidencia ani by the knife, the scissors or an écarateur of any kind, without median abdominal section, is a reckless surgical procedure, as a knuckle of small intestine may be herniated with the intussusceptum.

4. Congenital absence of the anus and the lower portion of the rectum. The child should be placed in the lithotomy position and a longitudinal incision made exactly in the median line over the site of the absent anus. The dissection must be made slowly upwards in the middle line. If after careful dissection *in situ* the operator fails to strike the bowel, instead of making an artificial anus in the loin or groin which gives the infant no chance of ultimate recovery, he should perform median abdominal section, avoiding the umbilicus. Having found the end of

the colon and freed its peritoneal attachments with the probe-pointed scissors, as already described, it is pulled down to its normal position at the bottom of the true pelvis and sutured deeply to the skin and circumanal structures.

Professor Kraske's method of extirpating the rectum through the sacral region (posterior laparotomy) and Professor Rehn's modification of it are inadvisable, as they involve unnecessary mutilation of important anatomical structures. Dr. Axel Iversen of Copenhagen records nineteen cases of this operation with eight deaths. I have seen five cases operated on by three of the most expert surgeons in Europe and two of them died within a week from shock and fecal infection.

In intestinal resection nature speaks with no uncertain voice. Ablation by invagination is the only method she countenances for the removal of any portion of the gut from the stomach to the anus. Decalcified bone-plates, tubes and the like makeshifts must be abandoned, and the silent dictates of nature, which are those of sound common sense, will be adopted. What general practitioner of large experience has not seen cases of prolapse of the upper portion of the rectum and the lower segment of the sigmoid flexure of the colon protrude at the anus? Every part of the colon from the ileo-caecal valve to the end of the sigmoid flexure of the colon has been invaginated and the apex of the intussusceptum has protruded at the anus. Dozens of cases may be quoted where pedunculated lipomas have caused invaginations in every part of the large intestine—the polypus drags that portion of the intestine to which it is attached into the segment of the bowel below and it is always attached to the apex of the intussusceptum. Numerous cases of acute invagination have been reported where unassisted nature effected a cure by sloughing and elimination of the intussusceptum. In these cases the continuity of the gut is restored at the neck of the intussusception by firm adhesions before the intussusceptum sloughs off. Several cases are recorded where five or six feet of the ileum sloughed off in this way, and one patient lived seven months after the successful excision by nature of the caecum, vermiform appendix and six or seven feet of the ileum. According to Mr. Treves spontaneous elimination takes place in about 40 per cent. of these cases.

In the performance of most pelvic operations I find the facilities supposed to be afforded by the adoption of Trendelenburg's position are to a great extent fallacious. Sponges only fill up the abdomen and do not retain the omentum and intestines in the position most convenient for the operator. Assistants' hands occupy too much room and are often in the way. In order to simplify the surgical technique of all operations in this region I have recourse to the use of a wire intestinal retractor or diaphragm, to be used in conjunction with the steel wire laparotomy speculum already alluded to. In cases of much intestinal distension, before inserting the wire retractor or diaphragm, I pass a fine trocar in one or more places and remove the flatus. On withdrawing the trocar I close the opening with a very fine curved conjunctiva needle and thread. The ease of performing all intra-pelvic operations increases with the size of the median abdominal incision. I never work in the dark when it can be avoided. To lessen shock, all cases of extensive abdominal section should be performed on a portable rubber operating mattress, filled with hot water; the patient is kept warm, and to a great extent dry, as provision is made for carrying off the water where much peritoneal flushing is required.

During the years 1881 and 1882 I tried several methods of enterectomy and finally came to the following conclusions:—

1. Where it is necessary to excise any portion of the bowel for disease or injury from the stomach to the anus an artificial invagination should be made if it does not already exist, as in pathological irreducible intussusception, and the invaginated bowel pulled out where necessary (it is unnecessary in the rectum and lower part of sigmoid flexure of colon) through a longitudinal slit made in the intussusciptum, cut off, and the divided ends of the gut sewn all round with interrupted sutures, then withdrawn, and the longitudinal slit closed with a continuous suture. The perfection of this operation is best gauged by its simplicity and the universality of its applicability to all parts of the intestinal canal from the stomach to the anus.

2. Circular enterorrhaphy is a surgical poser which requires some solving. The operation of enterectomy which I have described is the only one yet devised where the perfect union by suture of a complete transverse section of the bowel, with its circumferential peritoneal surfaces in exact position and all the knots of the sutures on the inside can be accomplished. If the sleeve is torn from a coat it is sent to a tailor. What

does he do? Does he attempt to sew it from the outside in the elaborately complicated fashion advocated in the textbooks on intestinal surgery, only taking up a small part of the thickness of the cloth in each stitch? No. He invaginates the sleeve and sews it on circumferentially from the inside, passing all the stitches through the entire substance of the cloth. In this way, and in this way only, can a perfect juncture be made between the coat and the sleeve, and when the invagination is withdrawn none of the stitches can be seen from the outside. Firmly suturing all the coats gives great healing capacity to the cut ends of the gut and the stitches are not likely to cut out.

The Czerny-Lembert method of suturing the bowel causes great delay. The surgeon has to pick up carefully the peritoneal and muscular coat of the bowel thirty or forty times if possible without perforating the mucous coat. The double line of sutures may cause gangrene between the stitches.

4. Where enterectomy is performed for gangrene injury or intussusception, the distal segment of the bowel is generally the largest, but where the operation is performed for stricture, cancer or tumour pressing on or constricting the lumen of the gut, the upper or proximal portion is often much larger than the lower.

5. In circular enterorrhaphy all the interrupted sutures should be passed directly through all the coats of the gut, taking up a quarter of an inch of the cut ends of the bowel with each interrupted suture, so as to make a perfectly air and water tight juncture.

6. This rapid and effective method of suture does not interfere in the slightest with the subsequent perfect permeability of the gut.

7. There is less risk of septic peritonitis following this method of suturing than the long and tedious method of taking up the serous and muscular coats from the outside.

8. In circular enterorrhaphy external sutures are not alone unnecessary but positively injurious, as they materially increase the time and the subsequent risk of the operation.

9. A continuous suture should never be used inside or outside a transverse section of the gut for the following reasons. Its diameter is always varying. As the stitches would not all cut out simultaneously they are apt to form loops inside the intestine, which would be liable to catch or be dragged or torn out by the onward movement of the contents of the bowel. Stanhope-gardens, S.W.

## MALFORMATIONS OF THE LOWER LIP.

By STEPHEN PAGET, F.R.C.S. ENG.,

SENIOR ASSISTANT SURGEON TO THE METROPOLITAN HOSPITAL AND TO THE WEST LONDON HOSPITAL.

MALFORMATIONS of the lower lip are so rare that it may be worth while to note the cases that have from time to time been published. Beside those alterations in the shape and size of the mouth—imperforate mouth, macrostoma &c.—which are hardly to be reckoned as true malformations of the lips, there are clefts, outgrowths and depressions of the lower lip as distinct and definite as are the different forms of ordinary harelip.

1. *Median cleft of the lower lip.*—Dr. Hamilton has recorded this malformation in a child, in whose family were several cases of ordinary harelip. The child also had talipes equinovarus. The lip was cleft for about a third of its depth; the edges of the cleft were of the colour of the mucous membrane of the lip; its angles did not present the rounded tubercles so often found in clefts of the upper lip. Dupuytren mentions a case of "median fissure of the lower lip and lower jaw," and Fergusson has figured the defect in his "Progress of Anatomy and Surgery." Mr. Bland Sutton gives the case of a child in whose lower lip was a median cleft having between its edges a dermoid growth; and Dr. Walker has reported a median cleft of the lower lip of a calf, with a cleft of the jaw and of the tongue.

2. (*a*) *Hypertrophy of the mucous membrane.*—In a case under Mr. Bryant's care an infant had an outgrowth of indurated mucous membrane on the right half of the lower lip; and in a case under Mr. Clutton a woman with cleft palate had also a triangular fold of mucous membrane on the inner surface of the lower lip in the middle line, and at the base of the fold were two small pits in the lip, like the openings of sinuses.

More often the hypertrophy is of that form which French surgeons have called "lèvre double" or "bourrelet labial"—a long fold of mucous membrane lying behind the lip and resembling it in shape. This fold may exist in either lip, or in both; in the upper lip it is interrupted by the frænum, in the lower lip it is uninterrupted the whole length of the lip. It is hidden when the mouth is closed, and the patient may at other times keep it out of sight by sucking it back; but it is made conspicuous by contraction of the orbicularis, as in laughter. Lips thus deformed are apt to become dry, cracked and ulcerated, and their unsightly aspect may, as in a case recorded by Dr. Wright, be the cause of grave mental depression. Inside these folds the hypertrophied labial glands can be felt: small shotty nodules, the size of hempseeds. In some cases this form of hypertrophy of the mucous membrane is not truly congenital, but is due to an unusual length of the frænum of the lip, which has caused the patient to have a habit of sucking and fidgeting the lip with his tongue; in other cases the hypertrophy of the labial glands may precede and cause the hypertrophy of the mucous membrane which enfolds them. But in other cases it appears to be a true congenital hypertrophy of mucous membrane, such as occurs also under the tongue. In all cases the only treatment is free removal of the whole fold and of the glands contained in it, and care must be taken that all glands cut across in the line of section or lying in the wound be also removed.

(b) *Hypertrophy of the whole lip.*—M. Buisson's statement that this form of hypertrophy is more common in the lower than in the upper lip is not supported by the records of these cases, at least as regards congenital hypertrophy. Mr. Davies-Colley has published a case of enormous hypertrophy of the lower lip in a man of thirty-six, but this was due not to congenital overgrowth, but to irritation from syphilis and from smoking. Dr. Buck, however, has recorded the case of a man whose lower lip had been abnormally large from birth; he had also a nævoid stain on the chin and cheeks. The lip had been made worse by repeated exposure to cold and was at the time of observation a soft pendulous mass more than twice the size of the upper lip. I can find at the time of obstruction no cases of congenital cystic enlargement—"lymphangioma"—of the lower lip. The cases quoted here were treated with complete success by excision of a wedge of tissue from the whole length of the lip.

3. *Sinuses of the lower lip.*—This curious malformation of the lower lip, so closely allied to common harelip as to alternate with it through different members of the same family, is perhaps to be explained by comparing with it the following case published by Dr. Hamilton. An infant with double harelip, one of a family in which there had been several cases of harelip, had on its lower lip, which was loose and prominent, two small symmetrical papillæ, like little nipples, growing from the red edge of the lip. These papillæ fitted exactly into the clefts of the harelip above them, so as just to fill them when the mouth was shut.

In close relation to Dr. Hamilton's case is a case published by Professor Madelung, of an infant with double harelip and cleft palate, on whose lower lip were two papillæ the size of a pin's head. These papillæ lay buried in minute culs-de-sac in the lip, from which a mucous fluid could be pressed out, derived from the glands of the mucous membrane which lined the culs-de-sac.

These two cases show two stages of the same malformation. In the first case the papillæ stood up from the lip, and fitted closely into the clefts in the upper lip. In the second case they were retracted, as the nipples of the breasts may be retracted, so that they lay in little pits or culs-de-sac on the surface of the lip. If now the papillæ be further retracted they will disappear altogether, leaving two sinuses or saccular depressions in the lip, lined with mucous membrane. These sinuses have been noted by several authorities. The cases are as follows:—

1. A girl, who also had talipes equino-varus, a divided nail on the great toe, a web of skin in the popliteal space, and a double harelip and cleft palate, and had sinuses on the inner aspect of the lower lip, one on each side of the middle line.—Trélat.

2. A boy with double harelip, whose father also had harelip, had on the front of his lower lip two slits leading into two small sinuses under the mucous membrane on the inner aspect of the lip. They secreted, especially at meals, a clear viscid neutral fluid.—Arbuthnot Lane.

3. A girl had on her under lip, which was full and fleshy, two crescentic openings near its free edge, admitting a large

probe for half an inch and secreting glairy mucus.—Jardine-Murray. The girl's history was as follows:—Father's mother, palate very high and narrow; father, double harelip, culs-de-sac in lower lip; first child (female, the patient), culs-de-sac in lower lip; third child (female), double harelip, culs-de-sac in lower lip; fifth child (female), palate very high and narrow; seventh child (male), webbed fingers; eighth child (male), harelip, culs-de-sac in lower lip.

To these three cases others might be added. M. Dépaül had one where, as in Professor Madelung's case, there was a small red granulation at the bottom of each cul-de-sac. M. Demarquay found in three families ten cases; nine of them had also harelip. Professor Madelung quotes other cases. He observes that the flow of mucus may be so free as to be troublesome, that the fibres of the orbicularis form a sort of sphincter round each opening that a fine ring of skin has been noted round them, and that the culs-de-sac, usually convergent, were in one case divergent.

If treatment is needed it is not enough to lay open the culs-de-sac; they must be cauterised or dissected out.

The explanation of this deformity is plainly to be found in its constant association with harelip. If the lips of the fœtus were closed while their curves were being formed any cleft in the upper lip would leave room for a corresponding upgrowth of the lower lip, as in Dr. Hamilton's case, in the same way as the curves of the two feet fit into each other in those cases of talipes which are due to the interlocking of the feet in utero. In Dr. Hamilton's case these upgrowths remained unaltered at birth; in Professor Madelung's and M. Dépaül's cases they were retracted as the nipple of the breast may be retracted; in the other cases they were wholly retracted and smoothed away, leaving behind them only the invaginated mucous membrane. In the same way, along the lines of the branchial clefts, one case may present an outgrowth, another a sinus or a mere pit in the skin.

Wimpole-street, W.

## THE IMPORTANCE OF OBSTRUCTION TO THE OUTFLOW OF URINE AS A CAUSE OF PUERPERAL ECLAMPSIA.<sup>1</sup>

By W. GIFFORD NASH, F.R.C.S. Eng.

THE theories as to the methods of production of albuminuria and eclampsia in pregnancy are many. Amongst others they have been attributed to vaso-motor anæmia of the kidneys due to reflex irritation of the pelvic plexus of the sympathetic nervous system, to alterations in the renal circulation due to the rhythmical contractions of the uterus, to increase of the general arterial tension, to a hydræmic state of the blood, and quite lately a bacillus is said to have been found. Scant justice has been done to the mechanical element in the question. By this I do not mean pressure on the inferior vena cava and renal veins, which many writers have suggested as the cause, but which can only act in the later stages of pregnancy, and which would produce congestion of the kidneys, whereas anæmia of the kidneys is the usual condition found on post-mortem examination of women who have died from eclampsia. I would, however, point out how pressure on the ureters, bladder and urethra may cause albuminuria and eclampsia, and how many, if not all, of the symptoms preceding and accompanying the fits may readily be explained when examined from this simple mechanical point of view. The majority of writers have almost entirely neglected pressure on the ureters and the consequent production of hydro-nephrosis and later chronic interstitial nephritis. There is, however, one prominent exception. Galabin,<sup>2</sup> after referring to the greater frequency of eclampsia in primiparæ and the influence of pressure on the abdominal viscera in producing it, says: "Pressure on the renal veins is not the only thing to be considered. There is another mode in which pressure comes into play, which has been scarcely included among the theories of the causation of albuminuria, which are enumerated by authors. I refer to pressure upon the ureters, which is exercised by the pregnant uterus even in the earlier months of pregnancy. It is known to pathologists that in the

<sup>1</sup> A paper read at the annual meeting of the South Midland Branch of the British Medical Association on June 16th, 1892.

<sup>2</sup> Brit. Med. Jour., vol. ii. 1880, p. 698.

case of fibroids of no great size some dilatation of the pelvis of the kidneys and flattening of the apices of the pyramids may be found. The more temporary enlargement of the uterus in pregnancy is not likely to leave such manifest changes. But the secreting cells of the kidneys must do their work against greater pressure and with more difficulty, and so be more liable to functional irritation and disturbance." I believe, however, that pregnancy may cause the manifest changes in the kidneys and ureters mentioned above, for amongst the post-mortem changes found in these cases Herman gives dilatation of the ureters and pelvis. Another writer (Winckel) says he does not think pressure on the ureters the cause of eclampsia, as he has often found dilated ureters in pregnant women who have not had any sign of eclampsia. One might as well argue, as some have done, that renal disease does not cause eclampsia because some women with chronic Bright's disease escape it. This statement of Winckel's that hydro-nephrosis is often found in pregnant women is strong evidence of pregnancy being able to cause it.

Let us consider what is the cause of eclampsia. I think we shall come to the same conclusion as Spiegelberg,<sup>3</sup> who says: "The renal disorder is by far the commonest cause; it includes all the worst outbreaks of the disease. I think therefore I shall not go wrong if I, broadly speaking, only regard that eclampsia as puerperal which is due to intoxication of the constituents of the urine." To what constituent of the urine is this intoxication due? Playfair<sup>4</sup> says: "The convulsions of eclampsia are due to toxæmia resulting from the retention of urea in the blood." I think we must go further and agree with Spiegelberg that uræmic intoxication depends on the retention in the blood of all the substances which should be excreted by the kidneys.

In pregnancy we have to consider the fact that the foetal urine has to be excreted by the mother's kidneys, and this may perhaps account for eclampsia being caused by the pressure of a pregnant uterus on the ureters, whereas it is not caused by the pressure of uterine fibroids or large solid ovarian tumours. In twins this factor would be doubly important, and we shall see presently that eclampsia is especially frequent in twin pregnancies. There seems to be no doubt that urine is secreted by the foetal kidneys during the latter half of intra-uterine life, and that the urine passes into the amniotic fluid, whence it finds its way into the maternal circulation and has to be got rid of by the maternal kidneys. This would throw an extra strain on them, especially if there were any obstruction to the outflow of urine. The evidence derived from the occurrence of hydro-nephrosis in the foetus shows that the kidneys of the foetus are active. The conclusions arrived at by Henry Morris<sup>5</sup> on this point are (1) that the urine is secreted in considerable quantity during the last four months of intra-uterine life; (2) that the quantity is too great to be stored up in the foetal passages; (3) that the urine secreted passes into the liquor amnii; (4) that the quantity of urea in the liquor amnii is small, but in the later stages of gestation it is fairly constant; (5) that the presence in the liquor amnii of urea and other constituents of normal urine gives support to the inference drawn from cases of congenital hydro-nephrosis—viz., that the liquor amnii is in part composed of urine of the foetus. Spiegelberg,<sup>6</sup> writing on the same subject, says: "The liquor amnii always contains albumen, and almost always urea, especially during the later months. The urea is unquestionably derived from the kidneys of the foetus. A portion of the urea passes back into the maternal circulation, either directly or after undergoing decomposition. In cases where the foetal urinary passages are occluded or kidneys absent the amount of liquor amnii is almost always extremely small." Granting that eclampsia is in the majority of cases due to deficient elimination by the kidneys, let us see how this is brought about.

Eclampsia occurs in pregnancy, during labour, or shortly after it. In pregnancy it is rarely seen before the sixth month—i.e., not till after the uterus has risen out of the pelvis and is able to compress the ureters at the pelvic brim. Cases occurring before the fourth or fifth month may be accounted for by the uterus being retroverted or retroflexed, and if we look at the description of retroversion of the gravid uterus in Playfair's work we shall easily understand how retention of the constituents of the urine may be brought about. He

says: "Retroversion of the gravid uterus shows itself about the fourth month. The first sign is generally some trouble with micturition in consequence of pressure on the urethra. The bladder may be enormously distended, cannot be emptied, and is constantly dribbling. Sometimes the obstruction to the discharge is so great as to lead to dropsical effusion into the cellular tissue of the arms and legs. Retention of urinary elements may take place and death occur with all the symptoms of uræmic poisoning." Obstruction may also be due to retroflexion, for amongst the causes of hydro-nephrosis given by Morris, Newman, and Fagge are pregnancy, prolapsus and retroflexion of the uterus, the latter of which causes bending or kinking of the ureters as they pass by the neck of the womb. After the fourth month the ureters can be compressed by the pregnant uterus, which pressure goes on increasing until delivery, and with it the liability to eclampsia. During labour, when eclampsia usually occurs, the head of the foetus in its passage through the pelvis exerts great pressure on the pelvic contents, as is shown by the occurrence of retention of urine caused by the pressure of the urethra against the pelvic arch, and also by the sloughing of the vaginal walls, which leads to the formation of fistulous communications with the bladder and rectum.

We must next notice the important part pressure plays in the production of eclampsia. All observers are agreed that eclampsia is very common in cases where the foetal head is large or the pelvis contracted, in twin pregnancies and in primiparæ. In fact, Lantos<sup>7</sup> found that 78 per cent. of his cases of eclampsia were primiparæ. In J. G. Swayne's practice<sup>8</sup> the percentage was 66 and at Guy's Hospital 60. Observers agree that the reason for the frequency amongst primiparæ is the greater tension of the abdominal muscles and therefore greater pressure on the abdominal viscera. For the same reason the subjects are often strong, robust, young adults. In a discussion at the Obstetrical Society of London in 1887 Herman said he did not think increased pressure was the sole cause, but believed it was one of the causal conditions, and that this view was supported by the rapid diminution in the quantity of albumen in the urine which always follows delivery. In cases where the foetal head is large or the pelvis contracted labour is prolonged and the ureters are more exposed to prolonged pressure and severe bruising. In cases of twins the exciting cause is not merely the great size of the uterus, for in hydramnios eclampsia is not unusually frequent. This may be due to the greater pressure of the foetal parts in cases of twins and also to the maternal kidneys having to get rid of the urinary products of the two foetuses. In cases of hydramnios we must remember that the hydramnios itself may be due to a deficient absorption of the liquor amnii, which is largely composed of foetal urine. Large ovarian cysts would resemble cases of hydramnios which are not prone to eclampsia. The cases of eclampsia occurring after delivery are usually very slight and pass off speedily. They are difficult to account for mechanically, unless we can suppose that the ureters are bruised during labour and become temporarily blocked. Let us next consider the premonitory symptoms of eclampsia and compare them with the symptoms of hydro-nephrosis. Spiegelberg says: "They consist mainly in sensory and gastric disorders and œdema of the face and limbs; headache, vertigo, depression, ill-humour, amblyopia or true amaurosis, dyspepsia, nausea and vomiting."

With these let us compare the symptoms of hydro-nephrosis, permanent or temporary, as given by Morris and Newman. Morris mentions "dry shaggy skin, nausea, vomiting, constipation, convulsions, febrile symptoms and coma"; and Newman, "severe pain in the renal region, sickness, nausea and vomiting, dimness of sight, severe and persistent headache and lethargy, with or without paroxysms of excitement. With regard to œdema, Spiegelberg<sup>9</sup> says it is an especially suspicious symptom when it affects the hands and face. Frequently it is only transitory, appearing in the morning after the woman has been lying, and disappearing in the course of the day. The cause lies in the alteration of the pressure relations by posture. The explanation of this is that in the recumbent position the gravid uterus presses on the ureters and iliac vessels, but in the upright position the weight is thrown more forward.

As we have seen above, according to Playfair general

<sup>3</sup> Text-book of Midwifery, vol. ii., p. 204.

<sup>4</sup> *Ibid.*, vol. ii., p. 285.

<sup>5</sup> Surgical Diseases of the Kidneys, p. 235.

<sup>6</sup> Text-book of Midwifery, vol. i., p. 101.

<sup>7</sup> Science and Practice of Midwifery, vol. i., p. 236.

<sup>8</sup> Brit. Med. Jour., vol. i. 1889, p. 87.

<sup>9</sup> Bristol Med. Chir. Journal, March, 1891, p. 8.

<sup>10</sup> Text-book of Midwifery, vol. ii., p. 600.

œdema may be caused by pressure of the retroflexed gravid uterus on the urethra. If obstruction to the urethra can produce it, why not obstruction to the ureters? The œdema is doubtless due to the deficient excretion of urine. If we inquire what is the mechanical effect of pressure on the ureters, we find that several experiments have been made with a view to showing what happens when a ureter is suddenly or gradually blocked, so that the pressure in the pelvis and ureter becomes equal to that in the renal bloodvessels. Fagge,<sup>11</sup> quoting Herman, showed that in dogs the secretion of urine ceased to appear entirely under a pressure of 2.4 in. of mercury, and that when pressure is removed a large quantity of watery urine is poured out in which a very little urea is present. He also states that in obstructive suppression there is no anasarca, which does not agree with Playfair's observation that retroversion of the gravid uterus by pressing on the urethra may cause general œdema. He also mentions a case in which a young man, after five days' suppression, voided a large quantity of albuminous urine; this passing of albuminous urine after relief of pressure may explain some cases of albuminuria appearing after delivery and after eclampsia. He also says that "most observers now think that the cessation of the activity of the kidney as soon as the pressure in the ureter and renal pelvis reaches a certain point is apparent rather than real, the urine being really secreted but reabsorbed as fast as it is formed. In support of this I find an experiment of Bennett May's<sup>12</sup> in which water injected into the ureter with a little force passed through the kidney into the renal vein. Bennett May, in the same paper, quotes an opinion of Russell,<sup>13</sup> to the effect that "the secretion of urine ceased as soon as pressure was equalised," and another of Alexander James, who said "the secretion pressure of the urine is not sufficient to cause any marked dilatation of the ureter in case of sudden complete obstruction, but is so where the obstruction is partial or gradual." Newman<sup>14</sup> made an experiment to show how far the rapidity of the circulation through the kidney depended on the tension of fluid in the uriniferous tubules. The conclusion he arrived at was "that when the tension of fluid in the tubuli uriniferi increases the amount of urine secreted diminishes, and when it becomes equal to the arterial tension the secretion ceases, and the circulation through the Malpighian body may be stopped altogether by collapse of the arterial coil when the pressure outside is greater than that inside the vessel. This explains how by damming up the urine atrophy of the substance of the kidney may be produced as a result of insufficient blood-supply, seeing that most of the cortex is nourished by capillaries arising from the efferent vessels of the glomeruli."

These experiments and conclusions would suggest (1) that the gradual pressure of the pregnant uterus on the ureters may produce a gradual dilatation of the ureters and pelvis of the kidneys; (2) that the pressure of the pregnant uterus during labour on the ureters may completely arrest the secretion of urine (or if the urine is secreted it is again absorbed by the kidney), and this pressure would not produce any dilatation of the pelvis of the kidney or uterus or marked naked-eye change in the kidneys themselves; (3) that the œdema of the cortical portion of the kidneys found post mortem by Spiegelberg and Boxall in women dying of eclampsia may be caused by the pressure of the urine in the uriniferous tubules, as explained by Newman's experiment; (4) that albuminuria may follow when pressure on the urinary passages is relieved, as happens in delivery.

We must now turn our attention to the urine. Spiegelberg<sup>15</sup> says: "Except in rare cases it is highly albuminous, contains an abundance of renal epithelium, frequently the so-called fibrin casts and not uncommonly blood. In several patients the proportion of urea has been found to be remarkably diminished. Further, in all serious cases the amount of urine is very small, and then the secretion is always dark, contains much albumen, epithelium and numerous casts, sometimes blood cells. On the other hand, the bladder may be quite empty for hours at a time; there may be complete anuria." Compare this with the urine in hydro-nephrosis, in which affection, according to Morris, total, partial or intermittent

anuria may exist, and the urine may contain albumen, blood, pus, epithelial cells and casts, and be deficient in urea.

With regard to albumen it may or may not be present. Eclampsia may occur without albuminuria. According to Spiegelberg<sup>16</sup> such cases are very rare. He says: "Renal incompetency may develop very rapidly, and the urine would of course be previously quite free from albumen. If it gradually becomes albuminous it is hardly enough to prove that the albumen is the result of the convulsions; it is much more likely the result of the interruption of the renal circulation—a result of the alteration in the bloodvessels." Is it not possible that this alteration in the circulation may be produced by distension of the uriniferous tubules? Newman's experiment proved that distension of the tubules caused anæmia of the glomeruli and collapse of the coils of bloodvessels in them. The albuminuria may also follow the removal of obstruction, as in the case quoted by Fagge. In the discussion on eclampsia at the Obstetrical Society in 1887 Cleveland expressed the opinion that deficiency of excretion of urea was of much more importance than the presence of albumen. Further, some cases occur in which there is never a trace of albumen throughout. Spiegelberg relates such a case, and regards it as one of eclamptiform convulsions due to reflex irritation in the case of the bladder. I quote it in full because I think it is the best proof possible that eclampsia can be caused by obstruction to the outflow of urine from pressure. "The parturient woman was at full term and a primipara. She was seized with the first paroxysm twelve hours after the somewhat premature discharge of the liquor amnii, the second occurred soon after the arrival of the medical attendant. Owing to the head lying low down in the pelvis and to its compressing the urethra, he was unable to evacuate the greatly distended bladder, but extracted the head with the forceps. The accumulated urine immediately gushed forth (a sufficient quantity was drawn off with the catheter) and proved to be entirely free from albumen. The child lived. There was no return of the paroxysms, and the lying-in woman rapidly recovered."

There are many evidences of the pressure of the gravid uterus on the pelvic organs as it enlarges. The bladder is more irritable, the desire for its evacuation far more frequent and its capacity diminished. The anterior vaginal wall may be drawn up by the uterus and drag on the neck of the bladder. In the later weeks retention of urine may be due to the presenting part of the child pressing the neck of the bladder against the symphysis. Pressure on the large nerve trunks and plexuses causes cramps. Pressure on the iliac vessels causes œdema and varices of the thighs, buttocks, rectum and generative organs, and when we consider the relation of the ureters to the common iliac vessels we can easily understand how they can be compressed at the same time. What evidence can we gather from post-mortem appearances? Spiegelberg says: "There is a moderate degree of renal mischief and even the kidneys may appear to be healthy, with the exception of insignificant changes"; and in another place, "the kidneys are usually pale and bloodless." Galabin<sup>17</sup> says: "The changes in the kidneys may be slight and hardly discoverable, but if they recur in repeated pregnancies they may lead to chronic Bright's disease of the granular variety. The changes which have produced granular kidney may have begun as the epithelial or tubular form of nephritis." Boxall<sup>18</sup> says: "In fatal cases the cortical portion of the kidney was pale and anæmic and the pyramids congested." Herman says: "The post-mortem changes were of the most various kinds—viz., acute nephritis, large white kidney, granular kidney, dilatation of ureters and pelvis and no naked-eye appearance of kidney disease." We see from these descriptions that Spiegelberg and Boxall agree as to anæmia of the cortex being found as a rule. This can be explained by Newman's experiment as being due to pressure on the glomeruli of urine dammed up in the uriniferous tubules. Cases of chronic Bright's disease, of course, are predisposed to eclampsia, as the kidneys already are defective in eliminating the urinary poisons. Dilatation of the ureters and pelvis (Herman) must be caused by obstruction to the outflow of urine, as also may be granular kidneys. Lastly, with regard to treatment, if pressure on the ureters is an important and frequent cause of eclampsia, relief will follow its removal; and this is so, for the fits always quickly cease and albumen disappears after delivery. Also, if the patient is placed in the prone position the weight of the uterus is

<sup>11</sup> Fagge's Principles and Practice of Medicine, second edition, vol. ii., p. 671.

<sup>12</sup> Brit. Med. Jour., vol. i. 1883, pp. 108, 109.

<sup>13</sup> Medical Times and Gazette, 1870.

<sup>14</sup> Surgical Diseases of the Kidneys, p. 117.

<sup>15</sup> Text-book of Midwifery, vol. ii., p. 208.

<sup>16</sup> Ibid., vol. ii., p. 216.

<sup>17</sup> Brit. Med. Jour., vol. ii. 1880, p. 608.

<sup>18</sup> Ibid., vol. ii. 1887, p. 1385.

taken off the ureters, and this we find has been recommended by Routh.<sup>19</sup> In a case in which he adopted it convulsions at once ceased, owing to pressure being removed from the kidneys. Graily Hewitt, too,<sup>20</sup> "had observed good results from placing the patient so as to take off the pressure of the uterus from the spinal region."

The conclusions arrived at are: 1. Eclampsia is due to retention in the blood of all the substances which should be excreted by the kidneys. 2. This retention may be due to obstruction to the outflow of urine. 3. Eclampsia in the early months of pregnancy may be caused by retroversion of the gravid uterus causing obstruction to the outflow of urine by pressing on the urethra, or by retroflexion of the uterus causing kinking of the ureters. 4. Eclampsia during the later months can be caused by pressure of the gravid uterus on the ureters at the pelvic brim. 5. Eclampsia during labour can be caused by pressure of the foetal head on the ureters and on the urethra. This is especially likely to happen (a) in primiparæ, (b) in cases of twins, (c) in cases of contracted pelvis and (d) when the foetal head is large. 6. There is an additional factor besides pressure, which is the urine secreted by the fœtus, which, passing into the maternal circulation, throws an increased amount of work on the kidneys.

Bedford.

### ENTERIC FEVER; LEFT HEMIPLEGIA; RECOVERY.

By G. P. NEWBOLT, F.R.C.S.ENG.

THE following case may, I think, prove interesting to the readers of THE LANCET, a similar case having been recorded on April 23rd, 1892.

A. M.—, aged twenty-one, fireman on a locomotive, came to my surgery on Sept. 30th, 1891, complaining of severe headache, vomiting and malaise. I ordered him to bed, and saw him again on Oct. 2nd. I then suspected enteric fever, and had him removed to the hospital at Ellesmere Port. He was a weakly-looking man of small stature, and never had suffered from any severe illness. His temperature at noon was 103°; pulse 100; skin dry and hot; bowels relaxed, the motion being fetid and of a pea-soup nature; abdomen full, but not tender; tongue foul and covered with white fur; heart sounds normal. He had been ill for ten days altogether. His pulse being soft and easily compressible, he was put on half an ounce of whisky every four hours.—Oct. 6th: Spots came out, and were well marked over the abdomen.—8th: The patient has a troublesome cough, and there is some congestion of both lungs at their bases. Bowels very loose; sordes on teeth and lips; expression of patient rather anxious. Spleen can be made out. Respiration 24; pulse 120; temperature 105.2° last night. No pain on pressure in abdomen. From this date until Oct. 19th he did well, his temperature on the morning of that day having dropped to 99°. The patient took his nourishment well, and his bowels were not so relaxed. He then relapsed.—23rd: Not so well. Diarrhoea more troublesome again, and temperature rising steadily.—26th: Evening temperature 105.5°, pulse 120. Bowels very loose; he was much exhausted. The whisky was increased to half an ounce every two hours.—Nov. 3rd: During the last week the temperature has never fallen below 101°. Bowels not quite so loose. He takes nourishment fairly well. Pulse very soft and dicrotic. He does not cough much; has slight frothy expectoration; the spleen is felt under the border of the ribs.—6th: Very little change. The temperature keeps up, and the patient is very low and delirious; he hardly recognises anyone, and passes his motions and urine under him.—8th: He seems almost moribund, but swallows fairly well; diarrhoea less. Is put on half an ounce of whisky every hour; beef-tea and milk *ad lib.*—10th: On visiting him I found that there was loss of power in the left arm and leg. He cannot speak plainly, and does not protrude his tongue quite straight; the right eyelid drops and he does not swallow so well. He seems to know when spoken to. Temperature at 6 A.M. was 98.6°; at 6 P.M. it was 102°.—11th: A slight fall in the temperature. The patient is in much the same condition and can just manage to swallow.—13th: Slight hæmorrhage from the bowels; given an enema of

turpentine and opium.—16th: There have been several small hæmorrhages. Temperature is lower and the patient swallows better and is more conscious.—17th: Temperature is from normal to subnormal; the patient is very collapsed, but is improving and takes his nourishment better; pulse 120; tongue cleaner; diarrhoea less; is very delicious at night. Takes egg and milk and half an ounce of whisky every three hours.—23rd: Left arm quite useless; no grasp; leg cold and immobile; protrudes tongue to the left; cannot whistle or close right eye completely; mouth remains partially open; can articulate and is much more sensible. There is loss of sensation in arm and leg.—30th: Power returning in leg, and he complains of pain in the limb; he can flex the limb and thus raise the knee from the bed. The arm is still almost useless.—Dec. 4th: He is steadily improving. Paralysis is disappearing. Is allowed some solid food. There has been no diarrhoea for a fortnight and no rise of temperature.—10th: Was allowed to leave the hospital. Can get along with crutches for a short distance, but is still very peculiar in his manner and restless at night.—Jan. 28th, 1892: Looks very well and is getting fat. Paralysis disappearing.—Feb. 15th: Can whistle and close the eye and mouth almost perfectly. The grasp of the left hand is not very good, but the arm has not wasted. Sensation is perfect. The peroneal muscles of the leg are wasted and painful, giving rise to a slight amount of talipes varus, which makes him walk in an awkward fashion, and he drags the leg.—22nd: He started work, and says he feels perfectly well. The leg is in much the same condition. There is still much loss of power in the arm.

I imagine the cause of the hemiplegia in this case to be due either to blocking of one of the cerebral arteries with a portion of a clot from the heart, due to the low condition into which the patient had passed, or by thrombosis *in situ*. I never for a moment expected the man to recover. The case was one in an epidemic occurring in this district during the autumn of 1891.

Ellesmere Port, near Chester.

### REMARKS ON BURNS AND SCALDS.

By FRANK GRANGE, M.D.LOND., D.P.H.CAMB., M.R.C.S.,  
LATE ONE OF THE HOUSE SURGEONS TO THE BLACKBURN AND  
EAST LANCASHIRE INFIRMARY.

I HAVE to thank the surgical staff of the Blackburn Infirmary for the use of cases having reference to the above subject.

Apart from special occupations the season of the year for burns appears to be on the wane,<sup>1</sup> for of 120 in-patient cases 62 per cent., and of a still larger number of slight burns two-thirds, were found to occur in the six winter months. At the above institution, with an average of about 8 fatal cases yearly, four inquests on burns were held between Christmas Day and the end of January last, all of which were unconnected with special "employment" and three of them were "fireplace" accidents. Thus one man gave a history of alcoholic sleep over the fire as the cause. This connexion of burns with the "winter fireside" is made more prominent when these are contrasted with "scalds," for of 80 of the latter an equal number occurred in the summer and winter months, a reference to the uniform demand of the culinary art throughout the year being an obvious explanation. Out of 146 unselected cases of slight and severe burns and scalds (over ten years of age) there were nearly twice as many males as females. This is due to the fact that "occupation"—e.g., "mining"—accidents are included, the severe cases being proportionately more common in males. Out of 32 deaths, 12, or more than one-third, were under six years of age, and 8, or about one-fourth, were between six and twenty-one years of age, more than a third being after the twenty-first year ("occupation" burns not being excluded). Of 34 deaths, 10, or not quite a third, occurred in the first twenty-four hours after the accident; one-half of these were under the age of five years, the remaining accidents being exceptionally severe; 16, or not quite half of these cases, died within forty-eight hours; 10, or not a third, died between the second and fourteenth day. One patient died on the eightieth day. It is an important point that in cases fatal between the second and fourteenth day, while in adults and older children pulmonary symptoms and post-mortem

<sup>19</sup> *Ibid.*, vol. i. 1886, p. 400.

<sup>20</sup> *Ibid.*, vol. ii. 1886, p. 1355.

<sup>1</sup> This was written in March.

signs are as a rule prominent, in younger children nervous symptoms, such as delirium, convulsions, and in a boy of five years tetanus, are common and have sometimes correspondingly suggestive post-mortem signs. For instance, in 2 recent fatal cases with cerebral symptoms a yellowish-grey fibrinous (?) ante-mortem clot occupied the longitudinal sinus at the necropsy. The great prognostic import of extent of surface involved, pre-eminently in young people, has long been insisted on. A writer in the "International Encyclopædia of Surgery" allows that "if one-half or even one-third of the surface has been burned or scalded death is inevitable." Mr. Bryant says: "When more than half the surface of the body is injured a fatal result generally takes place, and in the young and old all burns and scalds of any extent are serious." By carefully dividing the surface of the body as nearly as possible into proportional fractional parts and then by calculation from measurement and visual judgment of recent cases of burn or scald post mortem an approximate result of some prognostic value should be obtained.

I beg to acknowledge the critical judgment of the senior house surgeon, Dr. Wheatley, and a few professional friends in suggesting the following as a rough estimate only of the proportionate surface areas of the body. Taking the arms as together equal to 2, we have: Arms = 2; legs =  $\frac{3}{2}$ ; trunk =  $\frac{7}{4}$ ; head and neck = 1. I have applied the above method and figures to four recent cases of deaths from burns.

The first case, a well-nourished boy of two years, was admitted on Dec. 22nd last, with burn from the first to fourth degrees of the following approximate extent: Half of left abdomen to angles of ribs and loins; half of left leg and less than one-fourth of both arms. From these proportions it may be calculated that not one-seventh part of the surface was involved, and yet the boy died in sixteen hours after the accident, notwithstanding stimulant treatment. It should be mentioned, however, that the effect of a warm bath was probably injurious.

In the second case, a healthy boy of eight years was burnt by a coal falling from the fire. Approximately one-fourth (upper part) of both legs, one-eighth of right arm, three-eighths of the whole trunk from the first to fourth degrees, and the genitals were involved. A convulsion of the face and arm, unconsciousness and pyrexia to 102.5° occurred on the second day, and he died on the fourth day. The necropsy showed a fibrinous, presumably ante-mortem, clot in the longitudinal sinus. It may be calculated from the above that less than one-fourth of the surface of the body was here involved.

The third case was that of a healthy child of about five years, admitted on Jan. 17th with about a quarter of the right abdominal surface and two-thirds of the right thorax, with corresponding back and rather more than half of the right upper extremity involved. There was also a slight burn over the right ear and corresponding part of the face. Death occurred on Jan. 18th. It may be calculated that probably not more than one-fourth of the entire surface of the body was involved.

The fourth case was that of a man aged twenty-four years, whose left hand and forearm were burned to the fifth degree, the upper arm and two-thirds of left side of thorax to the third and fourth degrees, while the right arm had a slight burn on it when admitted. This patient died in the fourth week after the accident. Disintegration of the stomach was found at the post-mortem examination, but no duodenal ulcer. In this case we may compute that probably not one-sixth of the surface of the body was involved.

From the foregoing remarks the following conclusions are suggested:—1. That burns to the third and fourth degrees are frequently fatal when not a fourth of the entire surface is involved. They are probably often fatal in young children when not a seventh of the entire surface is affected. 2. That since "shock" appears to be such an important factor in these results—even when death occurs after the second day—the "warm bath" treatment recommended by authorities is in the case of those unused to baths distinctly contra-indicated during the first forty-eight hours as tending to increase the shock. This applies especially to children. 3. That the great proportionate fatality in children may be partly explained by the fact that in them the shock to the nervous system falling largely on the medullary and emotional centres expends itself on parts essentially organic and of vital importance, which parts are in no way reinforced, as in adult life, by the later, yet less vital (?) cortical controlling centres.

Southampton.

## HEPATIC ABSCESS.

By G. HARRISON YOUNGE, F.R.C.S.I.,  
SURGEON-CAPTAIN, ARMY MEDICAL STAFF.

IN THE LANCET of July 25th, 1891, under the above title, there is an article by Surgeon-Captain W. A. Morris, in which he dissents from the now universally accepted rule that we should treat abscesses of the liver on exactly the same lines as we treat collections of pus in any other organ or tissue of the body. It is to be regretted that Surgeon-Captain Morris did not state more fully his reasons for objecting to what is now an established rule of surgery. No one who has a practical knowledge of hepatic abscess will dispute his statement that "it is by no means easy, except in very few cases, to absolutely detect the presence of liver abscess, much less its locality." Difficulty in detecting any given disease is not, however, a valid reason for declining to operate when it has been recognised. Experience in India has taught me that almost the only chance of saving the life of a patient who is suffering from an abscess of the liver lies in opening the abscess freely, and draining it thoroughly. The arguments in favour of this line of treatment are overwhelming. When pus has once formed in the liver it increases, at least in India, with startling rapidity. An abscess which contains but an ounce or two of pus may in a fortnight involve almost the entire liver. By operating early we prevent such an untoward result; while, at the same time, we operate on tissues that have not been undermined, and before the constitution has been damaged by septic absorption. If the operation is deferred until fluctuation becomes evident, and the constitutional symptoms well-marked, a large amount of the liver substance will be destroyed, and this must of necessity prolong the process of cicatrization, even if does not render recovery impossible. Delay in operating also exposes the patient to the risks of hectic fever and perhaps pyæmia. If an expectant plan of treatment is adopted the abscess may burst into the pericardium or peritoneum, either of which events would be immediately fatal. Even when an abscess is discharged through the lung, which was formerly regarded as the most favourable route for its evacuation, recovery only takes place after prolonged suppuration and considerable destruction of the lung tissue, which will leave the patient's constitution more or less damaged for life.

While stationed in India I invariably adopted the following line of treatment and can most strongly recommend it. As soon as an abscess was suspected the patient was at once placed under chloroform and the liver explored with the smallest sized needle of an aspirator. Before being used the needle was always allowed to stand for some time in strong carbolic lotion. A small puncture having been made through the skin with a bistoury over the suspected site of the abscess, the index finger of the right hand was placed over the thick end of the needle, and it was taken up in such a way that it remained full of carbolic lotion. The needle was then passed into the liver through the puncture made with the bistoury. If pus was not detected the needle was withdrawn and inserted in another situation. The liver was thus carefully explored in different directions until either an abscess was detected or until it was evident that such did not exist. If pus was found the exploring needle was at once withdrawn and an incision made along its track down to the liver. A bistoury was passed along the track of the needle until it entered the cavity of the abscess. The bistoury was then withdrawn and the opening enlarged to about an inch by Hilton's method, so as to avoid all danger of hæmorrhage. When the dressing forceps were withdrawn a drainage-tube was inserted and the abscess cavity syringed out with carbolic lotion (1 in 50). The greatest care was of course always taken in dressing the operation wounds, so as to keep them thoroughly aseptic. While any discharge continued the abscess cavity was syringed out at least twice daily and the drainage-tube was never removed until all discharge had ceased for some days, as otherwise it was found that the abscess was certain to refill.

When an abscess can be opened posteriorly a single opening is usually all that is required. When, however, it has to be opened anteriorly perfect drainage is impossible through a single opening. If such only is made pus is certain to accumulate in the abscess cavity, and to cause hectic fever

and perhaps pyæmia. In these cases the only hope for the patient is to make a counter-opening at the most dependent part of the abscess. The drainage-tube should be passed into the abscess cavity through the upper opening and then brought down through the lower one. There is scarcely an operation in surgery which gives greater or more immediate relief than that of freely opening and fully draining an abscess of the liver. Indeed, in an acute hepatic abscess an early operation is almost as urgently required as it is in a case of strangulated hernia. In a chronic abscess the necessity for an early operation is not so urgent, but even here success depends mainly on early and free drainage. Few surgeons would suggest that an abscess of the knee, for instance, should be allowed to remain unopened until the structures composing the joint are disorganised. Then why recommend this method of dealing with an abscess of the liver?

Station Hospital, Colchester.

### A CASE OF APPARENT DOUBLE LABYRINTHINE DEAFNESS,

WITH AN INTERVAL OF THREE MONTHS BETWEEN  
THE ATTACKS; NO EVIDENT CAUSE.

By T. REUEL ATKINSON, M.R.C.S. &c.

THE patient in this case is myself. My age is thirty-five; family history good; parents both alive, each aged seventy-five; no previous illness since infancy except bilious attacks; have never had syphilis. About the second week of December last I noticed a singing noise in the right ear, and, after a few days, in addition observed vertigo and an uncertainty of gait, so that I had at times a difficulty in keeping on the pavement. I also feared Ménière's symptoms. About this time, too, certain dull pains at the back of my head supervened, which I judged to be rheumatic, having had similar pains from time to time for the last three or four years, and due, as I thought, to the effect of the rain beating under my hat when driving. For this I took five grains of quinine three times a day for about a week, after which the pain, vertigo and tinnitus all left me. About a week afterwards, on the morning of Dec. 27th, I got out of bed apparently quite well, and had shaved, and washed myself down to the waist, and was briskly rubbing myself dry with a rough towel when suddenly I became very giddy, was instantly sick, and a violent singing started in my right ear. I at once lay down on the bed and soon after noticed that I was deaf on the right side. I have never had any trouble with my ears before, no earache or catarrh or discharge of any sort. I stayed in bed a week, during which time the nausea and giddiness passed off, but the deafness and tinnitus remained, and continued for the next three months with but little, if any, improvement. I was able to get about and do my work fairly well, but was obliged of course to give up the use of the binaural stethoscope. One morning about three weeks after the attack I awoke to find I saw "double," and there was a blurring of vision with diplopia all day, passing off again towards night. On no other occasion have I noticed any errors of vision. Towards the end of March I began to develop certain nervous symptoms. These consisted mostly of an indescribable feeling, apparently starting in the epigastrium and gradually spreading thence all over the body down to my finger tips, these latter occasionally becoming numb and feeling as if "asleep." At the same time there was often a feeling of chilliness with a slight increase of temperature, one night rising to 100.2°. These attacks came on several times a day and occasioned a mental impression as of "fear" and a depression of spirits, leading often to tears. Sometimes these attacks occurred as I was driving along country roads, the horribly curious sensations then running down to my toes. I have no words to express the feeling. I started on a course of strychnine, bark and nitrohydrochloric acid, and continued taking this with evident improvement till April 4th, when I walked five miles to see a patient and had not felt so well for months.

On the following morning, April 5th, another attack, almost identical to the one experienced on Dec. 27th,

took place. I had just returned from the bathroom after taking a tepid bath, and was commencing to dress, when suddenly, as before, giddiness came on; I vomited, a loud tinnitus started in my left ear and I found I was now deaf on both sides, but worse on the left. As before, the nausea and giddiness passed off with a few days' rest in bed. I at once commenced injections of pilocarpine, which I continued for the next three weeks, but with no benefit. I then went to London and consulted some of the leading members of the profession, but could not hear of a case exactly similar to mine, although one very like it had been published in THE LANCET some months previously by Dr. Ferris. In that case there was a specific history to fall back upon as a possible predisposing cause. I have been advised to try various methods of treatment and I have already given a trial to bromide of potassium, salicylate of soda, hydrobromic acid and blisters behind the ears, besides the pilocarpine. I am now trying iodide of sodium with liquor hydrargyri three times a day and bromide of potassium with compound spirit of ammonium. I am not able to suggest the slightest cause for the first attack. I have never had any special head injury beyond what might arise from an occasional fall from time to time whilst following the hounds. My habits are in all points strictly temperate. As a possible predisposing cause to the second attack there is the fact that my nervous system was from some obscure cause evidently disorganised. I suppose I may consider that on each occasion I have had an effusion into the internal ear.

I should feel extremely obliged to any medical man who may happen to have met with such a case in his practice if he will privately communicate with me on the subject. I should be particularly glad of any hints as to prognosis or treatment. Might influenza, not noticed and not treated and followed by more or less peripheral neuritis, account for these symptoms without any positive effusion into the labyrinth? My present condition is—Membrana tympani: fair. Eustachian tube: open to valsalva. Eyes: accommodation 10"; vision normal: ophthalmoscopically normal.

Sherborne, Dorset.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### CASE OF INTUSSUSCEPTION; GANGRENE; DEATH.

By CECIL ROBERTSON, M.B., C.M. ABERD.

On Thursday, June 30th, 1892, I was called to see A. B—, a male infant aged six months. The child had always enjoyed very good health from its birth till about three weeks before I was called in, when it fell out of its perambulator, and since then, although not appearing to have received any injury, it seemed to suffer more or less abdominal pain. On Monday, June 27th, the child was seized with vomiting, accompanied by a good deal of paroxysmal pain in the abdomen and absolute constipation. This continued without intermission till I was called in on June 30th. The child was then very low; the pulse frequent, small and fluttering, the tongue dry and brown and the urine scanty and high coloured, while very fetid blood-stained mucus was being passed per rectum. On inspection the abdomen was found to be slightly distended and a sausage-shaped swelling could be felt to the right of and below the umbilicus. As the typhoid condition of the child and the passage of the blood and mucus seemed to point to gangrene of the inverted portion, it was decided not to open the abdomen or perform inflation. The child's strength was maintained by frequent small doses of strong beef-tea and brandy-and-milk. On Tuesday, July 5th, the child passed per anum a piece of intestine rather larger than a postage stamp, very discoloured and fetid. This was followed on the same day by four stools, and for the next ten days a motion was passed at least once a day and of firmish consistence, the general condition of the child improving meanwhile. The vomiting entirely ceased, the tongue became moist and clean and the child seemed likely to do well. On Saturday, the 16th, however, a change for the

worse occurred. The abdomen became enormously distended and coils of intestine could be seen through the abdominal walls. My partner, Mr. Dickinson, very kindly came and saw the case with me and we decided to puncture the intestine. Accordingly we selected the most resonant spots and introduced a large hypodermic needle, and were able to give vent to a large quantity of flatus, which greatly relieved the patient for the time being, but for the time being only. The punctures were repeated three or four times with varying success, the child gradually becoming weaker and weaker until it died on July 27th.

In my absence Mr. Dickinson made a post-mortem examination when the following condition of things was revealed. On opening the abdomen he found the small intestines enormously distended with flatus and containing a fair quantity of fluid faeces. The seat of the strangulation was easily detected. It was at the most usual point—the ileo-cæcal valve. About two inches of small intestine had passed into the cæcum, forming a tense sloughing mass which quite occluded the lumen of the large gut. Adhesions had formed between the peritoneal surfaces of the entering and returning layers. It was seen that no amount of traction or squeezing would reduce the inversion—at least, no amount that could have been used with safety during life.

*Remarks.*—This case is interesting, if only from the length of time the child lived from the time symptoms of gangrene set in—four weeks. The cessation of urgent symptoms and the subsequent occurrence of stools for ten days after the passing of such a small slough certainly led me to hope that recovery was likely to take place by natural means, rare as that is; but the supervention of peritonitis complicated matters so much and put such a severe strain on the child's already over-taxed vitality that it succumbed before the remaining slough had time to separate.

Southfields, S.W.

#### UNUSUAL OCCURRENCE IN LITHOTOMY.

By SURGEON-MAJOR D. CHARLES DAVIDSON,  
INDIAN MEDICAL SERVICE; CIVIL SURGEON, SATARA, INDIA.

ON Feb. 9th last a Hindoo (male) aged about twenty-three was admitted into the Civil Hospital, Satara, suffering from the usual symptoms of vesical calculus, and on the sound being used the ordinary evidence of stone in the bladder was elicited. The man stated that about four months previously a small twig had been inserted into his urethra and that in attempting its withdrawal it broke, and a portion still remained in the urethra. On Feb. 11th lateral lithotomy was performed by me and the foreign body removed from the bladder. What had given out the ordinary sound of a vesical calculus was found on examination to consist of seven inches and a half of a small twig about the thickness of a No. 5 catheter, doubled up several times and forming the centre of an elongated calculus, chiefly phosphatic. The patient made a good and uninterrupted recovery. The manner in which the foreign body had been introduced, or the reason for its insertion, could not be clearly elicited from the patient, and I had reason to doubt his statement regarding the length of time it had remained unremoved. Such cases are somewhat rare, this being the first of the kind met with by me in a large number of lithotomy cases.

**HERTS CONVALESCENT HOME.**—At the annual meeting of the friends of this institution, held last week at Elsenham Hall, Bishop Stortford, a favourable report was presented by the hon. secretary. During the past year 616 patients were admitted into the Home, showing an increase of 40 over the number receiving aid during the previous year. The income, including fees derived from patients, amounted to £2464.

**HOUSE SANITATION.**—At the Marylebone Police-court, a few days ago, the owner of a house in Dartmouth-park-road was charged before Mr. Hannay with allowing the premises to remain in an insanitary condition. The tenant had occupied the house since June last, and several of his family had suffered from ill-health owing, it was alleged, to defective drains. This condition was verified by tests applied by Dr. Sykes, the medical officer of health. The magistrate inflicted the penalty of £5, and required the defendant to proceed with the necessary repairs at once.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### KING'S COLLEGE HOSPITAL.

RETRO-PHARYNGEAL ABSCESS IN A CHILD; TRACHEOTOMY;  
INCISION; RECOVERY.

(Under the care of Mr. ALBERT CARLESS.)

THIS case serves to draw attention to the advantages of the incision first practised by Professor Chiene and brought by him before the annual meeting of the British Medical Association some two years ago. All surgeons are not agreed as to the advisability of employing this incision, for we read in Heath's Dictionary of Surgery:<sup>1</sup> "The simpler plan of opening it in the mouth has the advantage of easily allowing a sequestrum to be removed. The writer does not think the advantages of the external method commensurate with its difficulty of performance and more serious character." It is very difficult to satisfy oneself before opening as to the extent of these abscesses, especially when there is cervical caries, for they not infrequently extend into the posterior mediastinum, and we have published a case in which the cavity of the abscess extended down to the diaphragm.<sup>2</sup> To open these bone abscesses through the mouth increases the liability to a fatal result, if it does not directly induce it. We have also published notes of a case under the care of Mr. Gray,<sup>3</sup> in which a retro-pharyngeal abscess was complicated with and obscured by subacute laryngitis. Tracheotomy was performed for the relief of the latter before the former was discovered. In many cases the dyspnoea will probably be relieved when the abscess is opened, and no further laryngeal complications be met with. Mackenzie, however, describes a case in which secondary disease of the cricoid developed. These abscesses may require treatment at any age. Schuppert and Hambursin met with them in infants of three months old, and we have recently seen one opened by the method which Mr. Carless employed (only on the right side of the neck as first performed by Professor Chiene) in a man aged sixty-seven.

D. C—, aged one year and seven months, was admitted on July 18th, 1892, at 11.30 P.M., suffering from urgent dyspnoea. The history given was that the child had recently been an in-patient at another hospital for a bad cough, that it had only been discharged a few days, and the mother thought it had caught cold and assigned this as a cause for the present symptoms. There was also some discharge from the ears and a swelling had been noticed a few days previously just below the left ear. It was supposed that the dyspnoea was due to a blocking of the pharynx by much enlarged and inflamed tonsils; but the house surgeon, Mr. Ramsay, on looking at the throat, found a large median swelling completely blocking the fauces, and on examining this with the finger it was found that the posterior pharyngeal wall was bulged forwards by a soft elastic mass, evidently an abscess. Tracheotomy was at once performed to relieve the dyspnoea, the child, however, ceasing to breathe as the operation commenced. Artificial respiration was commenced as soon as the tube was in place and maintained for a few minutes, when the child breathed naturally and easily and the cyanosis disappeared.

July 19th.—Mr. Carless saw the child at 3.30 P.M. It was then breathing comfortably in a tent, the air of which was warmed and moistened by a steam kettle; the physical condition at the back of the pharynx remained unaltered. The abscess was opened under chloroform by Professor Chiene's method. An incision was made behind the left sternomastoid an inch and a half in length, extending downwards from a little below the apex of the mastoid process. Several enlarged glands presented and one or two were removed; the tissues were much matted together by inflammatory exuda-

<sup>1</sup> Vol. i., p. 346.

<sup>2</sup> Taylor: THE LANCET, vol. i. 1876, p. 74.

<sup>3</sup> THE LANCET, vol. ii. 1876, p. 46.

tion. The posterior border of the sterno-mastoid was carefully defined, and the muscle drawn forwards by a retractor until the transverse processes of the second and third cervical vertebræ could be distinguished. By palpation through the mouth the portion of the abscess most accessible from the wound was felt for, fluctuation being clearly obtained between the two hands. A pair of sinus forceps was now pushed through the deep fascia just in front of the transverse processes and directed behind the pharynx towards the abscess. By opening the forceps this puncture was enlarged sufficiently to allow the finger to be inserted, and by this means the abscess was opened, several drachms of creamy pus being evacuated. The anterior surfaces of the bodies of several cervical vertebræ could be distinguished, but there was no bare bone and no evidence of vertebral disease. A drainage-tube was inserted and the wound stitched up.

20th.—Wound dressed; looking very well; discharge merely serous and none to press out. The child cannot breathe comfortably without the tube, and the attempt to do so was accompanied with much laryngeal stridor.

23rd.—Wound redressed and drainage-tube removed; discharge merely serous and very slight. Tracheotomy tube also removed and respiration performed comfortably without it. Both wounds healed satisfactorily and quickly and the child was discharged quite well on Aug. 5th.

*Remarks by Mr. CARLESS.*—The treatment of retro-pharyngeal abscesses seems to be still in a somewhat unsatisfactory state, for even in text-books published in 1891 and supposed to be up to date elaborate instructions are given for dealing with them through the mouth, and scarcely any mention is made of the above plan of treatment. Speaking generally, abscesses placed behind the pharynx are divided into two clinical groups—the acute, arising from a traumatic cellulitis started by a penetrating wound of the pharyngeal wall, say, by a fishbone or from a sympathetic lymphadenitis, the retro-pharyngeal glands suppurating as a result of intranasal mischief, or idiopathically, the most common form in children and possibly due to suppuration within one of the pharyngeal follicles extending backwards; such abscesses are almost always treated by incision through the mouth. The second, or chronic retro-pharyngeal abscesses, are tuberculous and secondary to caries of the cervical spine. The majority of surgeons concur that the plan of treatment devised by Professor Chiene of Edinburgh should be adopted in these cases, and as to the wisdom of this course there can be no doubt; for to open such an abscess into a septic cavity like the pharynx is to expose patients to all the risks of chronic septic poisoning from which antiseptic surgery has claimed to deliver them. The above case is reported in detail in order to emphasise the fact that the same plan of treatment should be adopted, even in acute cases, where no spinal disease is present. The advantages claimed for it are: 1. That the patient runs no risk from the entrance of pus, often fetid, into the air passages. For even if the incision be made with the head hanging backwards over the end of a table, as recommended by some German surgeons, the first deep breath which follows the removal of the swelling which has caused the dyspnoea is likely to be accompanied by the entrance of more or less of the pus, and this may lead to all sorts of subsequent pulmonary trouble. 2. That the duration of the case will be much shorter and the after treatment much simpler. The external wound is readily kept aseptic, and thus when once the pus has been evacuated nothing but serum will subsequently escape, necessitating a drainage-tube to be inserted for a few days only. If the opening be made through the mouth suppuration continues until the cavity is completely closed, rendering needless the daily passage of a probe, sound or syringe to keep the pharyngeal wound from closing and thus prevent reaccumulation; and such is by no means easy in children. Moreover, the pus formed will be discharged into the pharynx and swallowed, and the general health thus further impaired. The operation itself is by no means difficult if care be taken to follow the guides given—viz., (a) the posterior border of the sterno-mastoid; and (b) the transverse processes of the vertebræ. The main vessels and nerves of the neck will not be seen and are in no danger, as the necessary manipulations can be performed well behind them. It may be objected that tracheotomy is rather a severe additional measure to adopt for the relief of the dyspnoea, but it must be remembered that this is due not merely to the mechanical obstruction caused by the abscess, but also to the œdematous condition of the glottis associated therewith, and which does not always

disappear immediately. In the above case respiration was not satisfactorily re-established without the tube for four days, and marked laryngeal stridor was present on any attempt to do without it during that period. I cannot but think that an aseptic high tracheotomy and an aseptic evacuation of the pus through the neck is much preferable to plunging a bistoury or pharyngotome through the pharyngeal wall, and that the convalescence will be shorter and more satisfactory.

### NORTH RIDING INFIRMARY, MIDDLESBROUGH.

A CASE OF URINARY CALCULUS, THE NUCLEUS BEING FORMED OF A LEAD PENCIL GUARD; LATERAL LITHOTOMY; RECOVERY.

(Under the care of Dr. WILLIAMS.)

WE give below an account of a calculus removed by the lateral cutting operation from the bladder of an adult male. The nucleus is of unusual character, and although many and very different substances have been introduced into the bladder, we are not acquainted with a nucleus quite of this description. The deposit upon this foreign body is deserving of attention; the usual deposit consists of the phosphate of lime and phosphate of magnesia and ammonia. In this case there were "a layer of uric acid, then fine alternating layers of uric acid and phosphates, and then a thick layer of phosphates." In the museum of the Royal College of Surgeons of England there is a specimen amongst the calculi described in the catalogue: "A slender piece of steel as the nucleus of a large oval calculus, consisting almost entirely of uric acid. The tendency to the deposit of uric acid must have been very strong in this individual, since it has not only prevented the deposition of phosphates, but has established and maintained during the whole of the period required for the growth of the calculus a diathesis of a totally different character." The patient under the care of Dr. Williams must have had this tendency very strongly marked.<sup>1</sup> For the notes of the case we are indebted to Mr. G. Victor Miller, resident surgeon.

T. W.—, aged thirty-six, of no occupation (being a man of weak intellect), was admitted into the North Riding Infirmary on April 6th, 1892, complaining of frequency of micturition, together with great straining and pain in the supra-public region and in the urethra when passing urine. He stated that he passed his urine every twenty or thirty minutes, and that the bowel came down during the act. This condition had been going on for two months. As there was evidently obstruction to the proper outflow of urine a catheter was passed, which on entering the bladder was found to grate against something which proved to be a stone when a sound was introduced. The stone lay towards the pubes just to the left of the urethra and appeared to be fixed, for each time an instrument was introduced (and this was pretty frequent, either for washing out the bladder or for examination) it always came in contact with the stone lying in the same position. On informing the patient's mother that he was suffering from stone, she said that he had been brought to this infirmary three years ago to have a hairpin which he had inserted removed from his urethra, and possibly he may have passed something up again. He was questioned, and it was ascertained that he had, two years ago, passed up a piece of tin about a quarter of an inch wide and an inch long; he said it had remained up and did not trouble him in any way. The urine on admission was alkaline and after standing deposited a dense layer of phosphates and pus. The capacity of the bladder, as was ascertained on washing it out, was greatly diminished—a condition due, of course, to inflammatory changes caused by the presence of a foreign body. The diagnosis was stone in the bladder, with probably a foreign body as a nucleus.

Having received permission to operate, it was decided to perform lateral lithotomy. Lithotripsy was considered inadvisable owing to the probable presence of a foreign body. The operation was performed on April 26th. No difficulty was experienced in effecting an entrance into the bladder, but trouble began on introducing the forceps. Examination with the finger showed the stone to be fixed towards the pubes in a sort of pouch of the bladder wall. The long axis of the stone was lying transversely, rendering it difficult to seize

<sup>1</sup> See also THE LANCET, vol. i. 1880, p. 1248.

it with the forceps. At the first few attempts to grasp the stone the outer layers of it, consisting of phosphates, came away. Finally, after a series of attempts, the whole was removed by the finger and scoop aided by supra-public pressure. After this the pouch was cleared of a quantity of phosphatic debris and the bladder, freely washed with boric lotion. The stone, without including the shell first broken off, was almond-shaped, being an inch and a quarter long, three-quarters of an inch wide, and half an inch thick. One side of it having been scraped away with a pen-knife, there was disclosed lying along its centre a brass guard for a lead pencil. Round the foreign body was a layer of uric acid, then fine alternating layers of uric acid and phosphates, and outside these a thick layer of phosphates. The specimen may be said to be unique. The whole stone, including the layers that were broken off, would be about the size of a large walnut. The patient made good progress until May 5th, nine days after the operation, when his temperature suddenly rose to 105° F.; he complained of headache and a feeling of sickness; his tongue was very foul and he had several slight rigors. This condition was combated by antifebrin, free washing out of the bladder with weak boric lotion and by purgation. Next morning the temperature had fallen to 99°, and from this time his progress may be said to have been uninterrupted. Simultaneously with the closing up of the wound the patient began to retain his urine for an hour or two, and as the condition of the bladder improved so did its capacity become greater and the urine could be retained for several hours. The patient's general condition improved. His appetite increased and he gained in weight. He left the hospital perfectly recovered on June 17th.

#### DEVON AND EXETER HOSPITAL.

COMPOUND DEPRESSED FRACTURE OF SKULL; LACERATION OF BRAIN; OPERATION; RECOVERY.

(Under the care of Mr. BELL.)

THIS is another interesting contribution to the surgery of the brain, and is the more interesting from the fact that several hours elapsed between the injury and its treatment. The brain was extensively damaged in the motor area on the left side and the symptoms indicative of injury in that region chiefly showed themselves during the time when oedema of the brain might be expected. We published last year<sup>1</sup> notes of a case in which after a fall a boy four years old developed symptoms on the same side as the injury, and recovered after the depressed fragments had been elevated. We also published in July of that year two interesting cases operated on by Mr. Hulke for compound depressed and comminuted fractures. We are indebted for the notes of the case to Mr. H. Andrew, house surgeon.

A. P.—, aged twenty-four, was admitted on April 15th, 1892. On admission he was able to walk in, was a well-made youth, rather pale, but quite conscious. He had a slight fault in his speech, and was at a loss for words now and then—a condition which had only come on since the accident. He complained that while driving a young horse on the previous day, he being seated on the shafts of the cart (left side), he was thrown off and fell into a ditch, where he was picked up shortly afterwards unconscious, in which state he remained for three hours. A medical man was called in, who said his skull was fractured. He advised the friends to bring him to the hospital, which they did the next day, a distance of ten miles. Previously to the accident he had had a little drink, but was sure he was not drunk.

On examination, just below the left parietal eminence was a small contused wound about an inch in length, something like an inverted 'I'; the probe passed in for more than an inch, but nothing was detected, so it was withdrawn and tilted, when a rough edge of bone was felt. There was marked pulsation around the wound; pupils equal; no paralysis to be made out; heart and temperature normal. Shortly after admission chloroform was administered and Mr. Bell prolonged the posterior limb of the wound, and on reflecting the flaps found that several large fragments of bone were buried in the brain. He trephined over the parietal eminence and removed six large pieces. They were placed so as to form a cone rather over an inch in depth. A considerable portion of

cerebral matter escaped during the operation, and while the fragments were being removed there was marked twitching of the muscles of the right side of the face and the right hand. The wound was thoroughly irrigated and sewn up, a space being left for drainage.

April 20th.—During the night the patient complained of numbness of the right hand and arm, as also of increased inability of expressing himself. At 12 (noon) there were slight convulsive movements of the right side of the face and arm, with loss of consciousness for about two minutes. At 11.30 P.M. there were very marked convulsive movements of the right side, face, arm and leg, and he bit his tongue. A dose of bromide of potassium was ordered every four hours.

21st.—Paralysis of the lower half of the right side of the face, with marked weakness of the right arm.

From this time he rapidly improved, and when last seen on July 18th there was complete recovery from the paralysis and but slight difficulty of speech. He feels well and clearly remembers events in connexion with the accident.

The temperature rose after the operation to 100°, and for the next ten days ranged from 98.6° to 99.8°; it then became slightly subnormal. The pulse during the first four days ranged between 70 and 80; the next week it gradually fell to 40, and remained thereabouts for a fortnight. The respiration continued throughout the first weeks at from 24 to 20.

### Reviews and Notices of Books.

*Practical Pathology: a Manual for Students and Practitioners.* By G. SIMS WOODHEAD, M.D., F.R.C.P. Edin. Third Edition. Edinburgh and London: Young J. Pentland. 1892.

THERE is no better index of the progress of science than that which is afforded by the successive editions of a standard text-book. The author of such a work, if he wishes his book to maintain its popularity, is compelled to keep pace with advancing knowledge and must perforce enlarge the limits of his manual. To do this well requires much skill and judgment as well as an intimate acquaintance with the growing literature of his subject and a practical familiarity with modern methods. Those who remember the advent of Dr. Woodhead's manual nine years ago and the freshness with which the details of morbid histology were described and illustrated will find in the latest edition a considerable amplification and revision of the text, as well as many new coloured engravings which form a notable feature of the book. Thus the work has much increased in bulk without losing any of its characteristic points. In the first place the author has made many additions to the technical part dealing with methods of preparation of histological specimens, showing how well he has kept abreast of the times. In the chapter on Inflammation and Repair we find much that is new, and the share taken by the connective-tissue elements in the latter process is clearly enforced; whilst naturally the doctrine of phagocytosis receives prominent notice. As regards the organs, which are dealt with in turn, the descriptions of their morbid lesions are preceded by a brief exposition of normal structure; we may notice a particularly full account of acute interstitial hepatitis, as occurring in the course of scarlet fever; an able comparison of the histological features of common cirrhosis and biliary cirrhosis; the process of fatty degeneration of the heart wall in pernicious anæmia and that of the kidney in diabetes; whilst the student can have no safer guide in the interpretation of phthisical lesions than is given in the pages devoted to tuberculosis of the lung, caseous broncho-pneumonia and phthisis. The sections upon the bones and joints and that on the nervous system have also received considerable additions. In a word, the book cannot fail to be of the greatest service to the worker in the pathological laboratory and Dr. Woodhead may be congratulated upon the success with which he has managed to render it one of the most useful and practical manuals of its kind.

<sup>1</sup> THE LANCET, Oct. 10th.

*The Scottish Poor-laws: their History, Policy and Operation.*

By ROBERT PEEL LAMOND, Member of the Faculty of Procurators in Glasgow. Hodge and Co.

How best to ameliorate the condition of the poor is of all problems now pressing for solution at the hands of statesmen the one which gives rise to the greatest perplexity and the most diverse suggestions. The conditions of the problem are not materially different in Scotland from what they are in England, and for this reason Mr. Lamond's treatise on the Scottish Poor-laws, while of special interest to the public north of the Tweed, is as far as possible from having only such special interest.

The book is a new edition, revised, enlarged and in great part rewritten, of a work first published anonymously rather more than twenty years ago. It is safe to predict for it in its present form an important influence in guiding to practical issues the discussion, now become so widespread and keen, of the grave economic questions with which it deals. The author's training and experience as a solicitor, and especially his familiarity for many years with the affairs of the great Barony Parish of Glasgow, put him in a position of advantage at the outset, which a judicial habit of mind enables him to preserve throughout, with reference to the mass of facts and figures calling out at every turn for consideration and comment. Broad in his sympathies when projects of reform are in question, he yet never loses grip of what is practical.

The system of poor relief established in Scotland has from time to time been variously attacked, though of recent years hostile criticism has for the most part been directed against the administration of the law rather than against the policy or the essential features of the law. Radical objection is even now, indeed, frequently urged on the ground that the poor are worse off than they were before the legal assessment for their support came, in nearly every parish, to supersede the voluntary contribution which used in general to be relied on; and also on the ground that the effect of the change in the mode of providing for the poor has been greatly to increase the number of paupers in the course of the last forty or fifty years. Mr. Lamond faces these and similar charges against the present system with an obvious resolve to ascertain what truth, if any, underlies them, and, as the result of a full and careful investigation of the evidence, shows them to be devoid of any solid foundation in fact. In particular, as regards the statistics of pauperism, he proves that there has been no real increase since 1849, that within the last twenty years there has been a decrease relatively to the population of the country, and that within the same period there has been a decrease in the number of all classes of paupers except the lunatic class. Mr. Lamond's explanation of the exception leads him to censure the policy of the Board of Lunacy.

Having, on a survey of the whole matter in controversy, made out the existing law to be indubitably sound in principle, Mr. Lamond proceeds to examine in detail the causes of discontent which have been alleged against the administration of the law. The charge of extravagant expenditure he partly refutes and partly substantiates. As making for economy in directions where there is at present more or less waste of public money, he advocates reform in the constitution of the local managing bodies, the merging of the Board of Lunacy in the Board of Supervision, the simplifying of the law of settlement by recognising birth in such or such a parish as the sole ground of right to a settlement in that parish, and extension of the expedient of boarding out harmless lunatics as well as pauper children. With regard to the mode in which the poor rate is levied, Mr. Lamond argues conclusively against going back from assessment on rental to assessment according to means and substance, but acknowledges the existence of good grounds for complaint as to the incidence of the tax under present

conditions, and submits proposals for ensuring more equable pressure and for obviating unfair escape.

Amongst other subjects discussed with the same sufficiency of information and the same clearness of insight may be mentioned the right of appeal against the refusal of relief, the maintenance of the able-bodied while they are out of work, the classification of the inmates of poorhouses, the liability of relatives, and the status of medical officers. On all these points Mr. Lamond's views, whether they command unqualified acceptance or not, are so ably set forth as to merit at least attention and respect. His protest against the precarious tenure on which medical officers hold their appointments carries with it our most cordial assent.

Schemes for old-age pensions engage a large amount of public interest at the present time, and the activity of Mr. Chamberlain in the matter has done much to bring a plan of national insurance within the sphere of practical politics. As is only natural and appropriate, Mr. Lamond devotes a considerable section of his work to the question. With the objects sought to be achieved by those proposals Mr. Lamond is avowedly in perfect sympathy; but the outcome of his argument—an argument founded on accumulated facts—is to trust for the realisation of the ends in view, to the potent instrumentality of the friendly societies and the trade unions, and to the beneficent operation of a somewhat amended poor law.

*On the Necessary Precautions to be taken to obtain the most Benefit from the Climate of Nice and the Riviera.* By THOMAS LINN, M.D. Nice. 1891.

THIS short work consists of a series of aphorisms, with some explanatory matter, upon the rules to be observed by the invalid who resorts to the Riviera. The invalid is advised to make a point of going in-doors before the sun sets and not to go out before it rises, to put on additional clothing when going from the sun into the shade, to carry a sun umbrella, to wear smoked eyeglasses, not to overdress or walk too fast, not to remove the outer coverings at once on entering the house, to have a room facing south, to attend to the sanitation and ventilation of his dwelling, to adapt his diet to the climate of the country, to remember that the dosage of his medicines may require some change, not to travel south too fast, not to defer coming south too late in the year, not to hurry away too early in the spring, and not to expect a complete cure in one season. Most of these rules are obvious, but will be useful to novices in climatic treatment. Dr. Linn recommends the climate of Nice in the following conditions: Chronic bronchitis, with copious secretion; phthisis of the "passive" kind; chronic inflammations of the larynx, nares &c.; general debility, accompanied by dyspepsia, anæmia or hypochondriasis; diabetes, dysmenorrhœa, paralysis, rheumatism, sciatica, gout. The only affections that he thinks are definitely unsuitable to the climate are various nervous affections which he does not particularly specify. He makes light of the differences between Nice and the other Rivieran resorts, holding "that it is not possible to believe that there can exist any wonderful difference of climate in these few miles of coast, except in certain local spots accidentally made by the protection of a hill or a clump of trees." We believe the differences between Nice and Mentone, and even between Cannes and Grasse will be found to be very real and worthy of careful consideration. Nice has many attractions, especially for the less serious class of invalids or for those who only fancy themselves ill, but it is windy and unduly exciting to many patients, and the climate is more treacherous than that of Hyères, Mentone, San Remo or Bordighera. Its attractions, are however, numerous and the accommodation, amusements, &c., leave little to be desired. Needless to say, there are many patients to whom the gay and brilliant life of Nice is the greatest of snares. It avoids, however, one of the chief drawbacks of many health resorts—*viz.*, *ennui*.

*A Thousand Cases of Pulmonary Tuberculosis, with Etiological and Therapeutic Considerations.* By R. W. PHILIP, M.A., M.D., F.R.C.P. Edin. Edinburgh: Oliver and Boyd. 1892.

THE subject matter of this essay is almost wholly etiological, and it is of value because of the care taken to make the diagnosis sure. The majority of the thousand cases were examined for the presence of bacilli in the expectoration. All the ordinary etiological factors are considered in turn—occupation, sex (the proportion was 63·7 per cent. male to 36·3 per cent. female), and age—and there is an interesting chart showing that of 500 phthisical men the average height does not vary much from the standard among another equal group suffering from other affections. As regards heredity Dr. Philip found that a definite family history of tuberculosis could be traced in 23·3 per cent., a smaller proportion than is generally supposed, but in near accord with the statistics of Flint and Pollock. Although this may be the proportion of cases of direct inheritance there is, as the author points out, an even larger class who have inherited from different causes a weakened power of resistance. He found a definite evidence of contagion in 6·7 per cent., and cites examples thereof. The influence of overcrowding is well shown in the map of Edinburgh, in which are indicated the localities from which these patients came, and the bearings of this on the possible spread of the disease by infection are pointed out, although the other elements of insanitation which may favour the development of phthisis in these districts must not be overlooked. The series is further analysed with respect to the relative preponderance of bronchitis, pleurisy, fevers, measles, influenza (about 4·4 per cent.) as antecedents. There is also an analysis of complications and other conditions surrounding the disease, and the whole forms an important contribution to science.

*Descriptive Catalogue of the Pathological Museum of St. Mary's Hospital.* By J. JACKSON CLARKE, M.B. Lond., F.R.C.S. Eng., Curator of the Museum and Pathologist. London. 1891

IT is matter of congratulation that there is now hardly a pathological museum in the metropolis that has not its published catalogue; and since most of these volumes are drawn up on the same lines, those engaged in collecting material for the study of a special pathological subject will find their labours very materially lightened by reason of these publications. The existence of these valuable collections in connexion with every general hospital speaks forcibly in proof of the industry and activity with which the pursuit of pathological anatomy is being carried on; but as there is also a school to every hospital, the aim of the curators must be to provide a complete collection of specimens of the ordinary lesions as well as of those that are valuable for their rarity. The catalogue before us shows that in both these respects the Museum of St. Mary's Hospital is well stocked, and the catalogue is drawn up with excellent judgment and fidelity of description.

*Ueber das Stottern.* Von Dr. J. A. SSKORSKI, Ins Deutsche überhaagen unter den Redaction von Dr. V. Hinze. Berlin: August Hirschwald. 1891.

THIS book furnishes a thorough and scientific account of a subject which is too much neglected by the medical profession. The author places stammering among the neuroses, and believes that, while it is manifested in spasm of parts of the articulatory and respiratory apparatus, it ultimately depends upon an abnormal condition of the speech region of the cortex. His observations have been extensive and in many cases show an interesting connexion between this neurosis and other physical and psychological defects, and in the section on Etiology he shows that women enjoy a comparative immunity from this condition as well as from left-handedness and a peculiar defect of writing which he has observed, and which is described in this book. These facts, he thinks, indicate a greater stability of the left hemisphere in women.

In the section on Treatment attention is directed chiefly to

the various vocal and articulatory exercises which are used to overcome the condition; but the general measures adapted to the treatment of a neurosis are not lost sight of.

*Colotomy, Inguinal, Lumbar and Transverse, for Cancer or Stricture, with Ulceration of the Large Intestine.* By HERBERT W. ALLINGHAM, F.R.C.S., Surgeon to the Great Northern Hospital; Assistant Surgeon to St. Mark's Hospital; Surgical Registrar to St. George's Hospital. London: Baillière, Tindall and Cox. 1892.

THE profession is well acquainted with the very active share Mr. Herbert Allingham has taken in reintroducing and improving the operation of anterior colotomy. The little book before us is stated to be the result of his experience in the different forms of this operation. The style is somewhat egotistical, "I" and "my" recurring with frequency.

*Tito Vanzetti: Cenni Necrologici.* Padova: Stabilimento Prosperini. 1892.

THIS handsome octavo is a tribute to the memory of the brilliant operator and teacher who for many years held the chair of Clinical Surgery in the University of Padua. It is prefaced by the following dedication: "These writings, inspired by feelings of regret and admiration for Tito Vanzetti, are dedicated to his grandchildren by his widow and daughter, who on the third anniversary of his death have religiously gathered them together as a future incentive to virtue and to study." The writings in question are in many languages, being testimonies to Vanzetti's noble career from professional journals and from scientific reports in nearly all the countries in Europe—testimonies in which Great Britain is represented by THE LANCET alone. Unlike the majority of his compatriots the great Venetian surgeon qualified for his life work in many Continental schools. After graduating at his *alma mater* in Padua he studied under the celebrated Wattmann at Vienna and then proceeded to Russia, where he followed with close attention the surgical practice of the army medical staff. So high did he stand in Russian esteem that after duly graduating in the University of Kharkoff he was elected in that school to the chair of Clinical Surgery and Ophthalmology, in which capacity he wrote in 1844 and 1846 two memorable works embodying his clinical experience, one in French, the other in Latin, in both of which languages he was an acknowledged master. His observations on preputial calculi and on the treatment of aneurysms by compression of the artery above the tumour were admired at the time for their originality and practical suggestiveness. The latter operation, claimed by Italians for their countryman Guattani, he greatly improved upon, and in a visit to Ireland in 1844 he introduced his special modifications of it to the profession in Dublin. A few years afterwards he returned to Padua, where he held the post of Lecturer on Clinical Surgery till his death. He was in frequent communication for many years, by personal visits or by correspondence, with the leading surgeons of most of the European schools, and the list of honours—fellowships of learned bodies among the number—that were bestowed on him in nearly every Continental capital occupies a considerable part of the present volume. By none of these schools, however, was he held in greater esteem than by those of London, Manchester, and Dublin, thus contributing much to the diffusion of his fame. How far he was, especially on the continent, in advance of his time may be inferred from the fact that in 1846 he was the first to perform ovariectomy in Russia and in 1859 the first to operate successfully for the same disease in Italy. The Signora Vanzetti did well to compile this record of her husband's achievements, of which the above instances are given only to supplement those reproduced from THE LANCET of Jan. 21st, 1888, when we published the obituary notice which now reappears with the official biography of Tito Vanzetti in the beautifully printed volume before us.

# THE LANCET.

LONDON: SATURDAY, AUGUST 27, 1892.

THE advent of a new Government to power and the appointment of an eminent physician and sanitarian as Secretary of the Local Government Board concurrently with the clearly expressed opinions of public associations induce us, after a considerable lapse of time, to advocate once more in our columns the formation of a Public Health Department of the State. The need of such a department has, indeed, been frequently insisted on by us (*vide* more particularly THE LANCET of Jan. 18th, 1879, and of Jan. 31st, 1880). Briefly, we pointed out in these articles that the care of the public health should form an integral part of State policy; that there should be centralisation of health organisation and administration, and that the narrow interests of localities should be merged in the broad exigencies of national health. We also showed how the Medical Department of the Privy Council, of which the activity is but the shadow of former times, had retrograded since its amalgamation with the Poor-law Board and had become involved in the meshes of official "pauperism," and we endeavoured to draw a distinction between State and parochial medicine. What we wrote then holds good and with greater force now. Notwithstanding the splendid work of the Medical Department of the Local Government Board under the brilliant guidance of Sir GEORGE BUCHANAN and Dr. THORNE THORNE this department is but an incomplete specimen of what a public health bureau should be. Its alliance with and incorporation into the old Poor-law framework deprive it of active initiative, and account for the almost heart-breaking delays which occur at important crises in the life-history of public hygiene. The placid routine of pauper administration is not easily disturbed to make way for broad and energetic measures of State policy. Nor is it always possible for the same presiding genius to regulate with equal ease and efficiency the interior economy of a workhouse and to cope with an invasion of cholera or small-pox. Truth to say, this unnatural union of Poor-law and public health is in urgent need of being dissolved, and the sooner the better for the larger interests of the kingdom. Thus divorced the present medical department would form an admirable nucleus of a State office in intimate relation with the local health administration of the country. An analogous process has taken place in the formation of a Board of Agriculture from the Agricultural Department of the Privy Council. Granting the movement of decentralisation, as evinced in the establishment of County Councils and possibly of District Councils, the advantage of Imperial control will generally be acknowledged. And this control would be better and more efficiently exercised by a board in direct and sole *rapport* with the subordinate bodies than by the present Local Government Board, which, as we have shown, is still largely tinged by Poor-law methods. The formation of such a controlling authority would tend to greater unity of administration, so much to be desired in

London, and to more regular and systematic inquiry into the sanitary condition of the kingdom generally, which at present is incomplete, spasmodic and ruled by panic. As regards the Minister who is to preside over such a department, he must of necessity, owing to our system of party government, be a politician; and ought, from the importance of his office, to belong to the Cabinet. But the question whether he should be a member of the medical profession or not, as well as other matters relating to the most desirable constitution and arrangement of offices in the event of the formation of a Public Health Department, we must leave for discussion on a future occasion.

A CONTEMPORARY recently suggested that all persons proposing to climb the Matterhorn or other difficult peak should be treated as dangerous lunatics and forcibly restrained. The implication is that mountain climbing is a foolish and useless practice which ought to be discouraged by every means in our power. To this view we can by no means give our adhesion. That the practice in question has considerable dangers, that it needs to be exercised under proper rule and guidance, that for many individuals it is undesirable and even hurtful, all this we admit; but we also hold that there is a large class for whom mountain climbing is what it has so often been described by its enthusiastic patrons—*viz.*, one of the most healthful and exhilarating forms of out-door exercise. We propose to consider for what classes of persons it is suitable and some of the rules by which it should be regulated.

As negative rules are usually easier to formulate than positive, we may begin by specifying some classes for whom mountain climbing is ill adapted. First, there is the senile, and by them we mean not only the senile in years, but the senile in vessels and tissues. The elderly man who has been a practised mountaineer for many years may continue the pursuit not only, as a rule, without danger, but with great advantage. On the other hand, there are few men turned fifty who are sufficiently sound in wind and limb, sufficiently free from degeneration of heart and bloodvessels, to begin a practice involving so much strain as does mountaineering—at least in its more ambitious forms. Many of the most deplorable accidents annually reported from the Alps are cases of elderly men, sedentary livers during the greater part of the year, and with consequent flabby heart and muscles, who hurry off to Zermatt or Pontresina, and at once proceed to attempt feats which should be reserved for the mountaineering adept. The result in not a few cases is acute dilatation of the heart or rupture of a bloodvessel, and either sudden death or lifelong enfeeblement. Persons such as we have described should, as a rule, eschew mountain climbing altogether and take to some out-door pleasure involving less strain, such, for example, as yachting or golf; but if they are ambitious to become mountaineers they should first consult their physician and obtain an assurance that they are free from serious organic defect, and then they should begin with modest feats and only essay the more difficult ascents when they have proved the adequacy of their powers to those that are easier.

Apart from senile change, heart disease in any form must be regarded as an effectual bar to mountaineering. We do

not undererate the great importance of regular and graduated exercise to patients suffering from cardiac disease, but they must carefully shun any steep or difficult ascent. The same rule must apply to most cases of serious affections of the lungs. No doubt the patient with quite incipient phthisis or with chronic pleurisy or an imperfectly resolved pneumonia may most advantageously undertake moderate climbing excursions in a mountainous country, but the more difficult tasks are not for them. Highly neurotic persons do not make good climbers, partly because the keen mountain air unduly excites their nervous systems, and partly because their self-command may fail at some critical point. But the commonest error, as we have already hinted, is for persons who are quite out of training to rush off to the Alps and begin without any adequate preliminary preparation tasks that try to the utmost the powers of the professional guide or the trained mountaineer. *Vestina lente* is a good rule in most of the concerns of life; it is absolutely indispensable in mountaineering.

Let us now consider a few of the rules which should regulate mountain climbing in the case of those who are not in any way incapacitated for it. The climber should start early with the double object of economising time and of getting away from the hot valleys before the sun's heat has attained its maximum. Experience seems in favour of taking only a light breakfast, say of rolls, coffee and eggs, before setting out. The question of dress is very important. The mistake is often made of starting for one of the higher peaks in very light garb. The climber feels very comfortable for the first few hours, but when he gets among the snows, when, perhaps, keen winds from the neighbouring glaciers begin to blow, he longs for the thickest of tweeds and the warmest of underclothing. A stout waxed cap, with lappets for the ears, warm gloves, and thick nailed boots are indispensable for any prolonged tramp among glaciers or snow-fields. A cardinal rule is to begin the ascent slowly and never to excite dyspnoea by undue rapidity of movement or over-exertion. If the climber begins thus he finds after an hour or two that his initial fatigue begins to vanish, he gets habituated to the pace, the keen and rare mountain air acts as an admirable tonic, and he can maintain his efforts for many hours without exhaustion. Foot soreness must be guarded against by those predisposed to this troublesome affection. Strong boots and good stockings do much to obviate it; soaping the stockings or sprinkling them with bismuth and oxide of zinc, and on the first appearance of signs of irritation the application of a weak whisky lotion, are the chief measures to be recommended.

The question of food and drink *en route* is an important one, regarding which each mountaineer is more or less a law unto himself. Many climbers seem to do best on very light nourishment—a sandwich, a piece of chocolate, and a glass of milk or small cup of black coffee—reserving the serious repast of the day for the evening; but there are others who seem to climb best with a fairly substantial midday luncheon and a moderate allowance of wine. There is no doubt that, controversy apart, the professional guide almost always drinks wine, and very frequently brandy besides. This is, however, not by any means a conclusive argument in favour of alcohol for the mountaineer.

We might enlarge much more fully on this interesting question, which is opportune at the present season, but for the present we must conclude. Mountaineering is too well established in favour, too thoroughly acknowledged as a source of one of the keenest and purest of pleasures, to be put down by a sneer or ruled out of favour because it has serious dangers or because there are many to whom it is necessarily forbidden. Most of the best things are the most open to abuse. This is true of mountaineering.

In a thousand ways the alleviation of the lives of our labouring poor is becoming a question of imperial importance. The more favoured part of the community finds itself forced, even in self-defence, to turn its attention to the less favoured and more numerous part, to interest itself in the present and the future of the great army of workers and to do its best to minimise the hardness and relieve the gloom of their lot. To promote what WORDSWORTH, in a memorable passage, calls "the spirit's health," as a means of counteracting a debasing resort to mere sensual indulgence, is a form of this alleviating policy from which the best results may be anticipated. To rouse, stimulate and develop the love of the beautiful, in Nature first and then in Art, is a primary step towards this end—a step, moreover, with which the great working army aforesaid will readily fall in, till it can direct and accelerate its own advance onwards and upwards to fresher vistas and ampler horizons. It is really astonishing to contemplate the powers of appreciation of whatever is noble and refined which are latent in the lower orders of town and country, and it is humiliating to reflect how little the leisured and moneyed classes have done to give those powers the free scope and the opportunities which are all they ask. In the whole range of poetry there are few passages more touching than the stanza in ALEXANDER SMITH'S exquisite idyll entitled "Glasgow," in which the humble pattern-drawer, afterwards Secretary to the University of Edinburgh, depicts with the stroke of a master the ecstasy of the artistic soul struggling to follow the beckoning finger of Nature from among the dingy and dark surroundings of his early life:—

"I dwelt within a gloomy court  
Wherein did sunbeam never sport  
But yet my heart was stirred,  
My very blood did dance and thrill  
One morn when on the window-sill  
Spring lighted like a bird!  
Poor flowers! I watched them pine for weeks  
With leaves as pale as human cheeks.

And yet, with all this full and ardent response to the invitation of the beautiful, the cold obstruction of labour unrelieved was interposed between him and his fruition:

"Before me lies a road of toll  
With my grave cut across."

Of how many millions may not this bitter truth be said; Of how many thousands of the more favoured class may it not be added that, possessing all and more than all the advantages denied to those poorer ones, they have done nothing to give them even a glimpse of the beautiful in which they bask?

A beginning has been made and has, indeed, for some time been in progress towards wiping out this stain on the record of the upper classes. Mr. CHARLES JENNER—to whose coöperation in the movement for evoking a love of flowers in

childhood and for making that love, as expressed in floral culture and arrangement, contribute by annual exhibitions to the support of children's hospitals we lately alluded—is at the head of a yet greater enterprise, that of the Working Men's Flower Show with Help from Wife and Child. He encourages the artisan and labouring citizen to devote such leisure as they can command to the study, the culture and the tending of flowers, carried on in "window gardens" with what sunlight is vouchsafed to them. The response to this truly enlightened and philanthropic suggestion surpassed even its author's anticipations, and in the last exhibition of the products of these amateur gardeners in the Edinburgh Corn Exchange he had the most gratifying proof that the seed of self-education and self-refinement he had sown had fallen on congenial soil. Himself a recognised authority on cryptogamic botany, he says in an eloquent letter to the *Scotsman* how much he had to admire in "the long tables of our most beautiful and rare native ferns, plants in perfect health and condition, cultured in the central purlieus of our Old Town and in suburban districts." He also drew attention to such "conifers of perfect symmetry and exquisite beauty as the *Araucaria excelsa*" and to "the many young palms and heaths" also on view at the exhibition. "The collection of cryptogamic plants, as a whole," he adds, "was most commendable, and proved that our laborious working men, their wives and children, had the most refined sense of correct, pure and elegant form independent of colour." One instance he dwelt upon with justifiable satisfaction. "A fine clump of *Asplenium septentrionale* won my close attention. Ten years of continuous patient care of a tiny bit of root from a cranny on the precipitous heights of Salisbury Crags has won from Nature this noble reward of honour to the adventurous climber. Such nobility of spirit, combining courage and perseverance with the gentle art of fern culture, deserves higher recognition than this poor praise of mine."

The Working Men's Flower Show with Help from Wife and Child in the Edinburgh Corn Exchange was memorable not only for what it placed on view, but for the social horizon it opened up. From the lowly pot of mint grown at the one window of a garret to the "begonia five inches high, with two blossoms of glorious splendour, that might have graced the window of a palace," the encouragement to the poor denizens of such squalid quarters as the West Bow and the Cowgate is such as to stimulate their growers to efforts ever higher, till the whole life of the artisan in "populous city pent" becomes brightened, sweetened and elevated. Well may Mr. JENNER ask the higher classes if they ought not to "encourage this dawn of refinement among toiling men, women and children." Their presence at such shows, even more than their open-handed liberality—though this, too, should not be wanting,—cannot fail effectively to promote and strengthen this most philanthropic, most salutary movement. The future lies with the democracy. Is it not in the best, aye, even the most material, interests of the leisured and moneyed classes that they should by every means encourage the growth of a chastened and enlightened spirit in that democracy and so ameliorate the lives of its individual members as to humanise it, ennoble it, make it aggressive only against the uncivilised and the retrograde? Nature herself points out the means by which the savage element

in man may be mollified and refined. Exhibitions like that recent one in Edinburgh are full of symbolism possessing a moral and a social significance. Even as the poet's "gloomy court," unvisited by the sunbeam, ungladdened by the solar warmth, may yet be brightened and illumined by fresh leaves and flowers themselves, so the "spirit's health" of its inmates may be quickened and strengthened, touched to finer issues and turned to a nobler account than was possible under the traditional system of social exclusiveness and neglect. A more educated, more healthily evolved labouring class forms the substratum of a more normally developed, of a robuster, more masculine community; vice is combated at its most prolific source, and its inevitable progeny of pauperism and disease declines for lack of appropriate nutriment. Time-worn truths these, no doubt; but requiring constant restatement in response to still more constant indifference to them, until, with the spread of such movements as that of the Working Men's Flower Show, their relevance becomes less and less appreciable as the conditions which justify them tend to disappear.

IN our last issue we published the Report of our Special Commission on Sanitation in relation to the Law and Practice of House-letting. This report makes evident an important fact: that the principal house agents are fully alive to the need of some better system than now exists, by which persons taking houses can be protected against injury from faulty drainage. The fact has to be reckoned with that only in comparatively recent years has the importance of house drainage come to be understood, and only during this time have local sanitary authorities been in a position to require house drains to be properly constructed. Hence the majority of houses have been erected under conditions which have allowed the builders to neglect to make drains air-tight or water-tight or to provide any means for aerially disconnecting the house drain from the sewer or cesspool or for its sufficient ventilation. As a result, in many cases the drainage of existing houses has to be reconstructed and this often at great expense. The cost of the reconstruction of drains of houses which are let on lease falls on the leaseholder, who often has not many years' interest in the house. In the case of houses let on a three years' agreement or annual tenancy the cost properly falls on the owner of the house.

But the question arises as to who should be responsible for ascertaining that the drainage is reasonably perfect. In the letting of a furnished house there is an implied guarantee that the house is in a proper sanitary condition, and the Housing of the Working Classes Act extends the application of this principle to unfurnished houses or parts of houses of very small rental and occupied by working people. The unwholesomeness of the house, however, only comes to be considered when a court of law is satisfied that some injury to health has resulted from its condition. Nevertheless, the fact that the landlord is liable to an action for damages when this has occurred has had a useful effect in leading to the reconstruction of house drainage in many instances. In the letting of unfurnished houses above this small rental there is no implied guarantee and only the principle of *caveat emptor* obtains. The intending house occupier

must take care of his own interests and must himself obtain such aid as is necessary to ascertain the condition of the house before he becomes a tenant.

The position of the sanitary authority deserves careful consideration. Obviously it is the duty of this authority to prepare by-laws which shall determine the principles upon which house drains shall be reconstructed and to make such inspections and examinations as will ensure that the work has been properly carried out. If this be honestly and carefully done in all cases in which houses are newly erected or in which house drains are reconstructed, in course of time the faults which exist in many houses will disappear, but the process must be slow; and again, however perfectly the work may be done, it will not last for all time, so that there can be no absolute certainty that drains which have been constructed under these conditions are always in the state which more recent opinion holds to be necessary. Some other system is therefore required; particularly to safeguard the individual who takes a house for a short period, or who merely wants lodgings, and who therefore ought not to have the burden thrown upon him of examining for himself the actual condition of underground drainage or the perfection of soil-pipes.

Our Commission has expressed the opinion that the system which is in force at Eastbourne is that which is the most convenient and which affords at the same time the greatest amount of security. In this town, and also, as we are now informed, in Folkestone, the sanitary authority keeps a register of houses which it has examined and found to be in a satisfactory state. There is no obligation on the house-owner to apply for his house to be entered on this list, but it is obvious that the fact that the sanitary authority is prepared to vouch for its condition is a distinct advantage to the owner if he desires to let any part of it, and is a considerable encouragement to him to incur the expense necessary to raise it to the required standard.

In an able leading article in *The Times* on the report of our Commission it is very properly pointed out that the desire to maintain the reputation of a fashionable watering-place like Eastbourne would not operate with sufficient force in districts in which the sanitary standard is pretty sure to be mischievously low. This is undoubtedly true, and we must anticipate that a number of years must still pass before the public sentiment is sufficiently aroused to bring about the changes which are necessary. But, as *The Times* shows, we may rely on the example of more advanced districts, and eventually it may be hoped that the demand for improved conditions will not be limited to those who are influenced by consideration for the reputation of their town.

In districts occupied by poor persons who are less keenly alive to the disadvantage of living in badly drained houses the responsibility thrown upon the sanitary authorities is obviously greater, for the reason that persons of this class are less able to protect their own interests. In these localities it is more incumbent upon the authority to ascertain that the house drain does not constitute a condition dangerous to health, and there need be no fear of opposition to any authority which makes it the practice to examine and test drains in its district. No doubt in some districts the authority is too largely represented by those who are themselves the owners or builders of houses which are faulty in this respect;

but there has been during recent years a definite advance of opinion on this subject which must eventually influence the constitution of boards appointed to safeguard the public health.

Our Commission has shown that the law contains very ample provisions empowering sanitary authorities to require that house drainage must in the future be properly constructed; but, as we have already stated, there are in existence many houses which are faulty, and no one proposing to take a house must rely on the official machinery unless, as in Eastbourne and Folkestone, some special system is adopted. But even in these towns it must be recollected that only a proportion of the total number of houses is affected by this system, and for the rest, as elsewhere, the tenant must depend upon his own investigation or that of those whom he employs. We believe a large amount of the difficulty which now occurs is due to the fact that the public is entirely ignorant of the position of the law and is too much disposed to believe that any house a person may happen to take is in proper sanitary condition. It would no doubt be impossible at the present time to impose by law upon everyone letting a house the responsibility of guaranteeing its sanitary condition; but we think there would be a definite gain if some steps were taken which would make it clear to everyone whether or not the lessee was entitled to expect that the house he was taking was in this state. This would impose no hardship on either party to the contract; it would simply require the fact to be stated in every agreement or lease that the lessor did or did not guarantee the sanitary condition of the house, and it is not probable that Parliament would raise any objection to so simple a requirement. It would remove all doubts from the mind of the tenant and it would direct attention to the condition of the house, whatever it might be; and it would then be for the proposed tenant to take any steps in his own interest which he considered to be necessary.

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## Annotations.

"Ne quid nimis."

### IMMEDIATE CHOLERA PROSPECTS.

THE sudden and severe outbreak of cholera at Hamburg is an event of great importance in so far as this country is concerned. Happily it had been foreseen. Two weeks ago we announced that certain ports, such as London, Grimsby &c., had been visited by Dr. Theodore Thomson on behalf of the Local Government Board with special reference to the emigration of Russian Jews from Hamburg into this country, and this was speedily followed by an order prohibiting the admission of bedding, disused clothing &c. from a number of ports in the German Ocean and from the Baltic into this country. On the 23rd inst. the Hamburg authorities admitted that cholera was prevailing there, and news followed which went to show that the outbreak was of a very extensive and fatal type. The rapidity with which the disease has managed to travel by means of German railway lines carrying Russian emigrants to the North Sea has brought us face to face with an infection having the full force of the Eastern disease, and from this point of view the occurrence is more serious than if the infection had reached so near a point after longer travel and

by a more distant route. The journey between Hamburg and our ports is so short that we may find apparently healthy people landing on our shores only to sicken after arrival. This is, in fact, what has already happened at Grangemouth, in Scotland, the patient arriving one evening and only falling ill in the early hours of the following morning. But this is what English sanitary authorities have all along been told it was their duty to face and to be prepared for. The circumstances, too, are in most respects like those which we had to meet in 1884, when trains and boats passed uninterruptedly from Paris to London, notwithstanding the existence of hundreds of cases of cholera in the French capital. The present occasion is perhaps more serious by reason of the early stage in the epidemic at which the infection has reached Hamburg, and because there can be but little doubt that a similar danger has to be anticipated from actual cholera at Havre and probable cholera at Rouen. We have already referred to the action taken by the Local Government Board some weeks back. We are also in a position to say that Dr. Parsons, Dr. Barry, Mr. T. W. Thompson and Dr. Theodore Thomson have for some days past been in personal conference with those of our port authorities whose districts are most likely to be affected by cholera at Hamburg and at Havre, and that a number of other measures are in contemplation should the disease extend to this country. But, after all, a central government can do but little in such an emergency to remove the causes by which cholera spreads in our sanitary districts. The main action must, in the end, be taken by our sanitary authorities, who have local knowledge as to their own needs and have ample powers enabling them to deal with defects calling for immediate action. The existence of cholera at Hamburg, and even the importation of a few cases into this country, by no means implies an epidemic; but at the same time we would repeat our recent warning as to the serious responsibility which devolves on sanitary authorities who fail to deal with such obvious conditions of disease as water-supplies liable to pollution, faulty sewers emitting foul emanations, methods of excrement disposal such as the midden privy, by which accumulations of filth are deliberately collected close to dwellings, and the like. In one way or another the warning has often been given, and it has been coupled with the knowledge, to which but few Englishmen can be strangers, that action which succeeds in freeing the water we drink and the air we breathe from the risk of contamination by excreta, is action which gets rid of the principal channel by which cholera can travel, and which in consequence places the populations benefiting from such circumstances in a condition which enables them to view cholera with comparative impunity.

#### THE CLOSING OF HOSPITALS.

SEVERAL complaints of the closing of the London Hospitals during the present period of the year have reached us, and that the idea of injustice or of lack of consideration is not confined to London is evidenced by a long communication in an Edinburgh paper in which similar complaint is made of the closure of several of the Edinburgh dispensaries. The question which it is attempted to raise is a somewhat serious one—viz., Are these institutions carried on for the benefit of the sick poor or of the medical profession? The line of argument appears sufficiently clear, but it is by no means satisfactory. If, it is urged, the hospitals close entirely or in part during the ordinary time of vacation, and are restored to their full efficiency with the commencement of the winter session, the inference of their existence primarily for the good of the schools appears to be conclusive, and hard words can be meted out to the committees and authorities responsible for wanton disregard of the needs of the sick poor. Stated in this bald fashion

the grave charge of blundering and want of foresight seems to be fully warranted; but, on the other hand, it must not be overlooked that hospitals, far more than ordinary habitations, need frequent thorough cleansing and repair, and that though undoubtedly serious inconvenience may be caused if a large number of hospitals are simultaneously closed, it is relatively rare for such simultaneous complete closure to be necessary in many hospitals. When any great structural alteration is essential—when, for example, drains have to be reconstructed—the responsibility attaching to any temporising or half measures would be enormous, and it seems to be a more fortunate accident that the work should be decided upon at a time when in the ordinary course of events the applicants for relief are fewest in number. It must not be forgotten that large numbers of the poor migrate for various reasons at this time of the year. Harvesting, hop-picking, friends in the country, all tend not only to actually reduce the number of the poor in London at this season, but also to send them back so far benefited by the change that need for hospital relief is less imperative. Even in the hospitals which remain fully open during vacation experience does not point to any special strain upon their resources owing to insufficiency of accommodation for urgent cases. From inquiries which we have made we learn that Charing-cross Hospital has been entirely closed since July 17th on account of drainage works, and that it will be reopened on Sept. 5th. It was originally intended that the Middlesex Hospital should be entirely closed for two months to enable extensive alterations and repairs to be effected to bathrooms, floors &c., but on its becoming known that two other large general hospitals in the neighbourhood were also closing at the same time the authorities made arrangements for keeping open about 170 beds. At the Royal Free Hospital and at King's College Hospital the beds in use have been reduced in number for the annual cleaning, whitewashing &c., but the time of closing has been curtailed as much as possible, and only such repairs as were imperatively necessary have been executed. In both of these hospitals the out-patient departments have also been closed for cleaning for a short period; but arrangements were made for attending to all urgent casualty cases and to all special out-patient cases, so as to avoid any neglect where immediate treatment or change of treatment was necessary. Similar statements have been received from St. George's Hospital, St. Bartholomew's Hospital, and the Westminster Hospital, while so far as we have been able to ascertain the only other hospital, in addition to Charing-cross, which is completely closed is University College Hospital, and we are informed that the serious amount of repairs required rendered this course an absolute necessity. Our inquiries have fully satisfied us that every reasonable precaution has been taken by the authorities of the different hospitals to minimise the inconvenience inseparable from alteration of routine and to ensure the sanitary surroundings by necessary repairs. From time to time it unfortunately becomes expedient for nearly every hospital to be thoroughly closed, but it does not appear that in any case at the present time this closure has been effected without due consideration of the conditions in other hospitals.

#### THE DANGERS OF READY-MADE GARMENTS.

IN THE LANCET of Aug. 13th we took notice of the suspicion of uncleanness which we fear must, at all events under present conditions of trade, remain inseparably connected with our clothes, and especially with all bought underwear. So long as it is customary for clothiers to send out, practically at random, their material in the form of piece-work, so long will it be impossible to guarantee either its wholesome or its cleanly condition. Neither can it be denied that the inconvenience and even danger implied in this practice

are much enhanced by the prevalent system of "sweating." While this continues anything like effective cleanliness is hardly to be looked for, and we have in that fact a substantial reason for the repression of this injurious form of forced labour. Were it abandoned the selection and supervision of suitable homes in which piecework might be carried on would at least be much easier than it is at present. The case of public laundries is at once different and similar. Thanks to the nature of the work there is less risk of impurity. We should nevertheless be pleased to see some form of inspection applied to these establishments. As to the needless, haphazard and thoroughly unbusiness-like practice of trying on underclothing forwarded on approval, the sooner this is discontinued the better. In existing circumstances every purchaser of ready-made clothing must understand that he has really no protection against the activities either of contagious germs or of the more evident animalcules save the maxim, *caveat emptor*.

### THE HEAT WAVE AND ITS CONSEQUENCES.

WHILST we have in this country been lately favoured with very enjoyable weather, it has been far otherwise for those living in the large cities of America, in Italy, in Spain, in the greater part of Germany and in large tracts of France. There the heat has been intense, the temperatures registered have been tropical and the suffering and loss of life among men and animals have been of quite an exceptional character. In New York and Chicago, in addition to cases of sunstroke and accounts of men and animals falling down unconscious or dying in the streets from the effects of heat, the infant mortality suddenly ran up, as it so often does under such circumstances, to an alarming figure. At Trieste we read of 110° F. being registered in the shade, while the temperature of the sea water was 90°. There seems to have been a remarkable heat wave passing over the Continent, and the depressing effects of direct solar heat have been much augmented by the presence of sirocco winds. We learn that there were 200 soldiers of the garrison of Tours in the hospitals, and that the time of the military manœuvres there coincided with that of the heat wave; that the temperature ranged from 117° to 127° in the sun, and that the amount of inefficiency from sunstroke and heat exhaustion among some of the troops who took part in those manœuvres was so large and its occurrence so sudden as to be little short of overwhelming. But there is no need to enumerate the various places abroad, concerning which somewhat similar details have appeared in the daily papers. Something of the same kind is a nearly annual recurrence. It is a question of degree, and this year the heat seems to have reached a much higher point than usual and to have been attended with a corresponding amount of sickness and mortality. The ill effects of heat on the body do not always give rise to the same phenomena or manifestations, but they are nevertheless the varied results of one and the same cause and pathologically are allied to one another. The mechanism by which they are brought about is through the nervous system; but the heat is not, in many cases, the only or even the dominating factor present. A man falls down pulseless, or nearly so, from heat exhaustion, as the result of exertion and fatigue in hot weather, with a pallid face and a cool, perspiring skin. If he is placed in the shade, exposed to a current of air in the recumbent posture, and given a stimulant, he soon recovers. An infant or child living in a city suffers from diarrhoea attended with notable prostration. The illness is mainly attributable to the depressing effect of heat and a vitiated atmosphere on the child's nervous system. The best thing is removal to the seaside or country; if children were sent away from the defiled atmosphere of overcrowded towns as soon as the hot weather began they would be spared a large

amount of suffering, sickness and mortality. If this cannot be done, the great thing is to keep them as cool as possible in a well-ventilated room. Sunstroke and heat apoplexy, however, are forms of heat fever of a formidable kind, in which the temperature of the body rises rapidly, attains a high figure and is attended with unconsciousness and danger to life. In sunstroke the solar heat acts directly on the brain and spinal cord, whereas in heat apoplexy the attack may occur at night in crowded tents or houses and is commonly attributable to other causes than heat alone. The best methods of guarding against these effects of heat are the simplest and most obvious—viz., garments light in colour and weight and loose enough to admit of free action of the skin and respiratory movement and the circulation of air currents; the occupation of airy and spacious rooms and temperate living; the avoidance of causes of fatigue and depression and an open-air life, together with abstention from exercise and exposure at those periods of the day which common sense would indicate as the least suitable. The important pathological fact to be considered and dealt with when sunstroke or heat apoplexy actually occurs is the exalted temperature of the body; the reduction of this abnormal temperature is the primary consideration, and its accomplishment by the application of cold to the surface—cold water, ice, and currents of air—is the matter to be at once attended to. Apart from these phenomena, the immediate and remote effects of heat on the nervous system are sometimes very serious. Maniacal delirium may occur at the time of the attack, and the patient be afterwards very liable to suffer from violent neuralgic headaches, sleeplessness and irritability, and to be unable to remain in heated or crowded rooms or expose himself to the heat of the sun.

### REMOVAL OF HUMAN REMAINS FROM THE VAULTS OF A CITY CHURCH.

DR. TRISTRAM, Q.C., Chancellor of the Diocese of London and Judge of the Consistory Court, delivered judgment on the 29th ult. as to the removal of the remains in the vaults of the Church of St. Mary-at-Hill. These comprised a very large number of bodies, the last interment having taken place in 1844. According to the reports of Dr. Sedgwick Saunders, medical officer of health for the City of London, and of Dr. Hoffman, the medical inspector to the Burial Acts Department of the Home Office, and to the evidence of the churchwardens, an unwholesome effluvia permeates the church from these vaults owing to their present condition; and in the opinion of Dr. Saunders such effluvia is injurious and may prove dangerous to the health of the congregation attending the services of the church. These facts having been made known to the Home Secretary, an Order in Council was made, dated May 9th, 1892, upon the churchwardens, or such other person or persons as may have the care of the vaults under the church, to adopt or cause to be adopted the following measures—viz., that all human remains found beneath the floor of the parish church of the united parishes of St. Mary-at-Hill and St. Andrew Hubbard, in the City of London, shall be removed and forthwith reburied in Norwood Cemetery or in some other consecrated burial ground in which interments can legally take place, the work to be carried out under the supervision and to the satisfaction of the medical officer of health for the City of London. This order was served upon the churchwardens of the united parishes, who applied to Dr. Tristram for directions thereon. The propriety of this conduct was lauded by the learned judge, who explained at considerable length that it was only through a faculty granted by the court over which he presided that the churchwardens could have the care of the vaults of the church. It will be remembered that in the case of St. Botolph's Church, Aldgate, last year, a conflict took place between the ecclesiastical and the civic authorities.

It was proposed to re-enter the dead from St. Botolph's churchyard in the crypt under the church, a proceeding which Dr. Tristram sanctioned, forgetting or ignoring the fact that even in the capacity of the Chancellor of the Diocese of London and of Judge of the Consistory Court he could not over-ride the Order in Council which had closed the crypts against any future interments. As was pointed out in THE LANCET at the time, the only proper course was to remove the remains to the nearest convenient extra-mural cemetery, which after some demur was done. In the present case, as will be seen, the Order in Council requires this to be done, and the Chancellor has granted not only the faculty asked for, but also every facility towards carrying it out, due regard being had to the fabric of the church, and every guarantee being given that such portions of the interior as might be removed should be duly replaced. Thus the dead will once more be removed from the vaults of a city church to a suburban cemetery to be properly buried. It is to be feared that there are still some churches within and around the city whose vaults contain a number of human bodies from which an effluvia permeating the church is simply a question of time. Would it not be well to have a church to church inspection by a competent sanitary inspector, so as to ascertain what is the state of the vaults of each. It may be that in some cases any further mischief may be avoided by entombing the remains in concrete; in others speedy removal to an extra-mural cemetery may be imperative. The possibility of inhaling such an atmosphere as the clergy and congregation of St. Mary's have experienced is a more than plausible reason for preferring a distant church to one in the City.

#### CHOLERA AT GRANGEMOUTH.

WE have received from Dr. William Walker, medical officer of health, particulars of the case of cholera which occurred at Grangemouth. Dr. Walker was called at 8 A.M. to see a German seaman reported to be ill on board the Hamburg steamer *Helene Sauber*, which had arrived in dock the previous night. The captain stated that at about 3 A.M. the man had been seized with severe pains in the bowels, accompanied with violent purging and vomiting. After several evacuations he became exhausted and fell upon the deck. He was then carried into his berth and rubbed down to relieve the cramps in the legs, from which he suffered greatly. Nothing further was done until 7 A.M., when the captain administered some cholera drops which he had brought on board from Hamburg. After waiting half an hour, as the man seemed quite exhausted, medical aid was sought. Dr. Walker at once recognised the nature of the disease, having seen similar cases abroad. The skin was cold and moist; no pulse could be felt at the wrist; the feet and hands had assumed a bluish colour, the hands having a shrivelled appearance as if from long soaking in water; the lips were purple, the tongue a leaden hue and sensibly cold to the touch. The eyeballs were small and buried in their orbits, the lower lids drooping. The breath felt "like a cold air stream"; the temperature in the axilla was 92°. The man complained of great heat in the epigastric region. His voice was feeble and whispering. He turned from side to side in a very restless manner. Respiration was embarrassed and great difficulty was experienced in distinguishing the cardiac sounds. On examining the alvine discharges on the bed and in his trousers a thin, pale, turbid fluid was found, the characteristic rice-water stools of cholera morbus. From the above symptoms it will be seen that the algide stage had set in before the patient came under treatment; so that all that could be done was to order stimulants, brisk friction to the limbs, and warmth to the body. The man was promptly removed to the Grangemouth Hospital and,

when there, ammonia and ether were administered. The patient rapidly became worse, the respiration more impeded and the comatose condition more pronounced. Dr. Fraser of Falkirk saw him shortly before his death, which occurred at 2.30 P.M., and entirely agreed with the diagnosis of cholera morbus. The post-mortem examination made by Dr. Proudfoot of Edinburgh clearly pointed to cholera as the cause of death. Although no details of this examination have yet been supplied to us, from Dr. Walker's careful description there can be very little doubt about the true nature of the case.

#### "A DANGEROUS REMEDY."

A CORRESPONDENT of the *Morning Post* of Aug. 17th draws attention to the fact that several fluid preparations are in the market termed "weed killers." It is alleged that on analysis these have proved to contain arsenic. The fluid is intended to be poured on garden paths &c., to destroy and prevent the growth of weeds. No doubt the desired object would be attained by such means, but at the same time we fully endorse the contention that the employment of the fluids in question would be a source of danger to health. On evaporation the arsenic would be left in a pulverulent condition, and thus in a most favourable condition to contaminate the atmosphere in the same way that particles are given off by wall papers. If the sale of the preparations is to be allowed to continue, it ought to be on condition that the ingredients are printed on the labels so that those who employ them may know of the danger they are running. We feel sure that the knowledge so obtained would at once in the majority of instances suffice to put a stop to a practice which we think will be found to be injudicious.

#### OPERATION FOR TRAUMATIC EPILEPSY.

IN the last number of the *Archives de Neurologie* Drs. Manoury and Camuset record at length a case in which trephining was performed for epilepsy, which was subsequent to an injury and a resulting depressed fracture. The case is important on account of the notable failure of the operation to modify the condition in the slightest degree. It must be confessed that from the first it was almost a hopeless case, but it may be useful to describe it as indicating the kind of case in which operation is not likely to be followed by any good result; and as Drs. Manoury and Camuset themselves remark, their observations go to confirm the facts, generally admitted at the present time, that the long duration of attacks and the appearance of dementia should serve as contra-indications of operation. The patient was a young man of twenty-three, with no evidence of neuropathic inheritance except that a paternal grand-uncle had suffered from fits. Except for a convulsion at eight months he was healthy up to the age of fourteen, when he met with a serious accident—a kick from a horse, which fractured his skull anteriorly and laterally. The wound healed rapidly, but three months later he had the first epileptic attack. The attacks recurred and with increasing frequency as he became older. At the age of twenty he suffered from at least one a week, and he was also undergoing a psychological change which had resulted at the time of his admission at the age of twenty-three in a condition of dementia. The attacks which were observed were general, without any aura or motor symptoms indicating local damage to the brain on one or the other side. There was a well-marked cicatrix ten centimetres long over the upper part of the right frontal and parietal bones. At the operation it was found that the bony surface was rough and presented irregular depressions. Similar depressions and prominences were also visible on the inner surface, but there were no adhesions between the dura mater and the bone. The dura mater apparently was not

opened, and consequently the condition of the cortex was not examined. Briefly, the result of the operation was at first to increase the number of fits, but soon the former level was reached. Thus in the first month after the operation there were thirty-six fits, while in the second there were only seven-teen, and in the third the same number—a condition which did not materially differ from that which was present before operation. There was no change in the psychical condition, so that the operation may be said to have been absolutely without any beneficial effect on the patient. When the severe character of the original injury is considered and the length of time which elapsed before the operation was undertaken, it is not to be wondered at that the cortex had become so changed that a simple trephining had no appreciable effect on the condition.

#### SMALL-POX AND INSANITY IN HALIFAX: EMBARRASSMENT OF AUTHORITIES.

It is difficult to say whether acute insanity in a hospital or small-pox in a lunatic asylum is worse placed. But this is the choice of evils at present before the authorities of Halifax, or rather before the unfortunate patients who are affected respectively with these dire maladies. There are said to be over twenty small-pox patients in the borough hospital, which is already over-full. It contains, among other cases, twelve acute cases of insanity. Some of these have been certified and sent to one or other of the asylums of the West Riding. But the authorities of the asylum have refused to receive them in consequence of the existence of small-pox in the hospital. It would be interesting to know how far they are acting legally in refusing admission to duly certified cases on this ground. One remedy is obvious—the free revaccination of exposed patients and attendants. This, with an isolation ward for any doubtful cases, would remove all difficulty.

#### THE RETURN OF HYDROPHOBIA.

NEARLY two years have elapsed since the discontinuance of the muzzling order within the metropolitan district in favour of a system of registration. During this period no fresh outbreak of hydrophobia has occurred to suggest the necessity of returning to the former method of prevention. Quite recently, however, a fatal case occurred in Twickenham. Two others have been reported from Saltash, and have naturally given rise to some uneasiness in that district. It is satisfactory to note that the local authorities have acted in this instance with commendable wisdom and energy, and that muzzling has been enforced throughout a considerable area. We may therefore hope that the disease will spread no further. At the same time we must not forget that this desirable result can only be looked for if the sole preventive method of proved efficiency, the use of the muzzle, be maintained for some weeks at least in full operation. The experience of Saltash, moreover, is instructive, inasmuch as it reminds us how hydrophobia, even when it has been apparently stamped out, is apt to reassert its vitality by appearing in an outlying district which was previously as free from taint as from preventive supervision. The implied warning should not be lost on local authorities elsewhere, who may be disposed to trust in an imaginary immunity, and it cannot be doubted that if the use of the muzzle were generally insisted on we should practically abolish a disease which is the essential counterpart of canine vagrancy. While according a due preference however to such obvious measures of prevention, we have also to remember that the principle which underlies them has now, thanks to M. Pasteur, a very real importance in relation to curative treatment. Not one of the fatal cases already mentioned appears to have attracted notice till near its termination. We would therefore the more earnestly impress upon any persons, and

especially upon practitioners who may be called upon to deal with injuries of this kind, the necessity of obtaining at the earliest moment, and if needful through local authorities, the opportunity of inoculation. According to a recent report by Dr. Dujardin-Beaumetz, which will be found in our Paris correspondence, the death-rate from rabies, which at one time was 15 per cent., has by the Pasteur process been reduced to 0.88 per cent.

#### OFFICIAL ACTION AS TO CHOLERA.

WE understand that Mr. Fowler, President of the Local Government Board, on being apprised of the attack of cholera at Hamburg and other western ports of Europe, immediately returned to London, and at a late hour on Wednesday evening conferred at Whitehall with Sir Hugh Owen, K.C.B., Dr. Thorne Thorne, C.B., and Dr. Bridges on the measures which were being adopted and which should be set on foot in the metropolis and at our eastern ports. In 1884 the Metropolitan Asylums Board undertook to make the first provision for isolating cholera in London, and they probably will, as on that occasion, again arrange with the managers of hospitals, workhouse infirmaries and similar institutions so as to meet any emergency that may arise.

#### GEOLOGY AND DISEASE.

THE conference of scientific societies at Inverness a few days ago seems to have met with a large measure of success. Nine societies were represented at this gathering, and various communications, more than one of them of considerable value, were brought under the notice of the assembled representatives. Some of the papers were of an antiquarian nature, and therefore not of special interest to medical readers; others, again, dealt with geological and botanical subjects. But the paper of most value from our point of view was that of Mr. Alfred Haviland on the "Influence of the Geology and Configuration of a Country on Health and Disease." This paper, which we regret our space will not allow us to notice more at length, was illustrated by large coloured maps to show the regions where certain diseases chiefly prevailed. The subject is of undoubted importance, and though it has not been lost sight of by other medical writers, yet it has received special attention at the hands of Mr. Haviland, whose researches on the peculiarities of diverse parts of the earth's surface, and the atmospheric conditions incident to particular localities, have been of good service.

#### THE DANGER OF FLATS.

ONE of the difficulties connected with our big cities is the price of land, and the consequence of this is that we are crowding together a number of houses and dwellings on a very limited area of ground. In addition to this it is a "fashion" of the present day to occupy flats in some one or other of the big mansions that have been erected in various parts, in imitation of the monster hotels of London and other large towns. This life in community is considered cheaper and more independent; fewer servants are required, and the flat or suite of rooms can be locked up and the key deposited with the porter from time to time during the temporary absence of the occupants whenever they may desire to be away. Still this system is not without its disadvantages, hygienic and otherwise, as well as its inconveniences, to say nothing of its possible dangers. In the first place, in many of these flats everything is sacrificed to their so-called reception rooms. There is a dining room large enough for twelve or twenty guests, with a kitchen and scullery accommodation that would not suffice to cook and prepare the food for half a dozen. Then the servants' accommodation is frequently of such a cramped and unsatisfactory character that it is a wonder that servants—whose tastes and

requirements nowadays are often fastidious and somewhat exacting—are willing to live in the apartments appropriated to their use. They are generally dark and placed at the back, without any look-out beyond a blank wall, another block of flats, or the gable end of some building. But from a hygienic point of view, can anything be worse than a mansion of flats where each floor ventilates into those above and below, and the lifts, or, as the Americans call them, the elevators, pump the air from one floor to the other as they go up and down just as if they were designed for the purpose? The separate families living on the different flats form a community under one and the same roof, with a common atmosphere and a common funnel for the circulation of that atmosphere, without any renewal from without, from one flat to the other. A recent catastrophe has demonstrated the danger of this state of things in the case of fire, and it has served at the same time to indicate what might very possibly happen in case of an outbreak of infectious disease. This might spread, like a fire, from one tier to the other by means of the lift, with the same facility as a visitor would make a call, or a portmanteau be transported from the first to the fifteenth floor, by that channel of intercommunication—the lift!

#### SEATS FOR EMPLOYÉS.

No less rational in our opinion than it is just and humane is a practice which is happily gaining favour with employers—namely, that of providing seats for those of their assistants not actually engaged in serving the public. Some shops are blessed with this privilege, and so also of late have been the vehicles of the Road Car Company. We have always maintained the cause of the employed in both cases. It is easy, of course, to understand the objections which might be urged by its opponents against this course. They would say that there are either no such intermissions of work as would permit of sitting down, or that there ought to be none if the employé were sufficiently alert in seeking and using opportunities of service. It must, however, be apparent to everyone that intermissions, though they may be short, do occur, and that frequently. Besides, a conductor may be so placed that he can easily command a view of the whole thoroughfare beside and behind his car. A revolving seat would afford him all needful rest in his momentary intervals of quiet, while affording also every facility for vigilance. The same argument applies with greater force to shop labour. Here women are largely employed. Some relief from the constant strain of standing or walking to and fro is a mere physical necessity, especially during women's occasional periods of malaise. We fail to see therefore why a reasonable concession to this obvious necessity should not rather help than hinder the success of their efforts.

#### MISSED BIRTH IN ANIMALS.

At a recent meeting of the Yorkshire Veterinary Medical Association a case of missed birth in a mare was introduced by one of the members, the history of which is interesting, as the animal had been under observation during the whole time the fœtus was retained, and the period of retention could therefore be fixed. Six years ago the mare was in foal, but owing to having eaten too much rye (which might have had a toxic effect on the fœtus) she had a serious attack of indigestion, for which she required medical treatment. This was near her time for foaling, and the fœtus was then alive, as its movements were noticed externally for three days, when they ceased. She was unwell for some months and lost condition; but at no time were there any indications of approaching parturition. Eventually she recovered and was put to work, at which she continued

until last June, when she succumbed to strangulation of the intestines. On examination of the uterus the walls of this organ were found to be fully two inches thick, and in its cavity were the remains of the fœtus in a mummified condition, all the soft tissues having disappeared except some portions of the skin and its appendages, hair and hoofs and tendons. At the meeting much astonishment was expressed at the description of the case, as well as doubt, and the term "marvellous" was applied to it. But instances of missed birth are not so very rare in the domesticated animals, and they have been even recorded as occurring in those which are not domesticated. Had the members referred to Fleming's "Veterinary Obstetrics," a work specially dealing with the subject of gestation and parturition in the domesticated mammals, they would have found ample reference to this subject as well as a number of illustrative cases. We propose to deal more fully with the relations of this case to human obstetrics in an early issue.

#### PUBLIC VACCINATION AND SMALL-POX.

THE question raised by Mr. Horder in our issue of August 6th is one of the greatest importance. In reference to this matter we have received a communication from a gentleman who is one of the most determined opponents of vaccination, and it would be easy to apply to him and his followers the deprecating phrase in which he refers to people talking on vaccination as they wish to find the facts. His argument may be summarised as follows: (1) Small-pox mostly prevails among the poor; (2) the poor are mostly vaccinated by public vaccinators; therefore (3) there is more small-pox amongst those who undergo the operation at vaccination stations than at the hands of the private practitioner. May we venture to present him with another syllogism. (1) Small-pox prevails least among the "better-off" classes; (2) revaccinations are more common among these classes; therefore (3) the paucity of small-pox cases depends on the greater protection afforded by revaccination. When consideration is given to the greater facility existing for the spread of the disease in crowded dwellings we cannot be surprised at its extension amongst the class who live under the "worst conditions." Finally, as regards the alleged superiority of "public" vaccination over "private" vaccination, it may be stated in general terms that the regulations under which the public vaccinator acts are such as to produce that degree of vaccination (as regards quality and character) which has been proved to be most protective against or, if that phrase be objected to, most efficient in mitigating the severity of small-pox. Whereas the private practitioner not being controlled by such rules may certify as "successful" a single insertion followed by a vesicle. Of course there are numbers of practitioners who carry out vaccination in private practice as efficiently as it is done at the vaccination stations; but we venture to think that much of the discredit of vaccination and many of its accidents are due to irregular and careless practice.

#### TRAUMATIC TETANUS AND ZINC SALTS.

A CASE of some interest is published in a recent number of the *Australasian Medical Gazette* by Dr. J. Sidney Hunt of Queensland. The case was one of traumatic tetanus, arising after amputation of a foot on account of a compound comminuted fracture of the fibula, which, owing to the long time which elapsed between the accident and the time of admission, had given rise to a putrid and very offensive condition at the seat of injury. The first symptom of anything serious occurred on the fifth day after the accident, when the patient complained that his teeth were tender—a condition which he ascribed to his clenching them too tightly during

sleep. Two days later there was manifest rigidity of the muscles of the jaw, and this was quickly followed by very severe general tetanus. The treatment of the case is the most interesting part of it. Dr. Hunt has had favourable experience of the usefulness of zinc salts in chorea, which he believes to be due to some morbid condition in the basal ganglia. Similarly, he suggests that tetanus may be due to a paralysis of a moto-inhibitory mechanism in the same ganglia and he conceived that similar treatment might be efficacious. Accordingly, sulphate of zinc was administered in steadily increasing doses, until as much as two scruples were being given every six hours. There was no vomiting or other inconvenience and nothing unusual was noticed except a certain amount of anemia. Opium was also used very freely by the mouth. Under this treatment the patient recovered, but it should be mentioned that antiseptic dressings and irrigation were assiduously used to the stump in which the mischief started. The case is very interesting and we congratulate Dr. Hunt on the result. Whether its favourable result was due to the zinc or the opium or the attention which was given to the stump it is difficult to say, and Dr. Hunt is not dogmatic on the subject. It is not easy to apportion to each means its share in the result, but it is at least significant that the zinc salt, even in the large doses in which it was given, failed to produce the nauseating effects which are usually expected from it, and its apparent efficacy in one case of a grave and usually fatal condition should not be lost sight of in the treatment of similar cases in the future.

#### THE SPECIAL TRAINING OF NURSES FOR CHOLERA.

THERE can be no doubt that, whether we in England do or do not escape from a visitation of cholera during the present epidemic, we must leave nothing undone to ensure our being ready to meet and to deal with the disease should it invade our shores. Of hospital accommodation, so far, at all events, as the London district is concerned, we shall probably have enough for the pressing needs of the population which would quickly follow upon an outbreak of cholera in the metropolis. However, it is not improbable that unless we at once set to work to prevent such an event we may suddenly find ourselves with cholera in our midst and a pressing want of nurses properly trained to meet the emergency. Were this to happen we should only have ourselves to blame, for both the nurses and the teachers required to train them are to be had in sufficient numbers if only pressure is applied in the right way and in the right quarters. It does not appear reasonable to pause in a time of danger, to consider seriously whether cholera spreads by means of human intercourse. It is practically admitted on all hands that it is chiefly by this means that cholera is now spreading over Europe and Asia. Without, however, going into matters controversial in nature, we desire to point out the urgent need there is for the prompt and thorough training of nurses in sufficient numbers to meet any emergency which might be caused by a sudden outburst of this plague in England. It is not necessary for us to point out that it is in dealing with sporadic cases of cholera that the greatest care is required; and it is not unreasonable to teach that by proper attention to the first victims of the disease an outbreak of it in epidemic form might be altogether prevented. It is absolutely certain that efficient medical men and trained nurses are both necessary for this purpose. We are strongly of opinion that classes should at once be opened for the teaching of nurses already trained in ordinary work for the special work which they would be called upon to do were cholera to come upon us. This special training of nurses should be confined to men who have themselves had practical experience of cholera, and who have shown by their published

work that they have given thought to what should be done to prevent, if possible, the spread of that disease in a community, and in any event to limit to the utmost its ravages. If full benefit is to be secured from the provision we have suggested, it cannot be too earnestly insisted on that the plan must be carried out immediately. Should we happily, as was our good fortune during the last European epidemic, escape a visitation of cholera, no harm will have been done by our taking all necessary steps to meet any emergency.

#### "CURES" FOR INEBRIETY.

IT may interest our readers to know that Dr. Keesley has issued a writ against the Editors of THE LANCET, claiming damages for libel. Our solicitors have of course accepted service of the process.

#### EARTHWORMS AS CARRIERS OF INFECTIVE GERMS.

TUBERCULOSIS may be diffused in many ways, as bacteriological research is constantly reminding us. Its bacilli may be stored and spread by subsoil worms, according to a series of experimental studies lately completed by MM. Lortet and Despeignes. These worms, for several months and in various parts of their organism, can preserve the bacilli in question and reconvey them to the surface of the ground. Early in their researches MM. Lortet and Despeignes were confronted with the objection that in garden soils, in which worms abound, the bacilli of septicæmia, great in number and in activity, are also met with—bacilli which, on experiment by inoculation, are capable of developing fatal disease, prior to the tuberculous process. This objection, however, they were able to dispose of by having recourse to a dry, silicious earth passed through a fine sieve, in which bacilli are not to be found; while their next step was to place the tuberculous substance at the bottom of vases filled with this earth, on the surface of which they sprinkled a layer of white and very pure sand; and finally, they covered everything with a sheet of paper. After a few days the worms which were concealed in the earth at the bottom of these vases came up and deposited their intestinal evacuations on the sand—evacuations which MM. Lortet and Despeignes succeeded in collecting without risk of contamination, and in finally inoculating in a number of guinea-pigs. In consequence of these inoculations there was developed in the guinea-pigs a generally diffused, very distinctly marked tuberculosis. The experiment, far from a complex one, was successful in demonstrating that earthworms can reconvey to the surface of the soil not only the products of their digestion, but also together with these, the bacilli of tuberculosis in full possession of their infective virulence. A similar fact, it will be remembered, was established by M. Pasteur in his bacteriological studies on charbon. For this latter disease, therefore, and in no less degree for that of tuberculosis, it is conclusively indicated that their infective débris should not be consigned to the subsoil without complete destruction of their germs. Unless this destroying process has been practised such débris may be seized upon by earthworms stored in their organisms and reconveyed to the surface, to become again the source of a new contagion.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Chicago (Rush Medical College).*—Dr. A. C. Cotton has been appointed to the Professorship of the Diseases of Children.

*Florence.*—Professor P. Grocco of Pisa has been appointed Professor of Clinical Medicine.

*Gratz.*—Dr. Carl von Rokitansky of Vienna has been appointed to the chair of Midwifery and Gynecology.

*Königsberg.*—Dr. Kuhnt of Jena has been appointed to the chair of Ophthalmology.

*Lille.*—Dr. Doumer has been appointed to the chair of Physics.

*Munich.*—Dr. H. Rieder has been recognised as *Privat-docent* in Medicine.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Bechet, Honorary Professor in the Nancy Faculty of Medicine.—Dr. Dahnhardt, *Privat-docent* in Neurology in the University of Kiel.—Dr. B. W. MacCreedy, Professor of Therapeutics in the Bellevue Hospital Medical College, New York.

THE danger attending the indiscriminate and immoderate use of ice-creams was illustrated a day or two ago in the case of a boy whose death formed the subject of an inquest held at the Islington Coroner's Court. The medical evidence showed conclusively that the cause of death was peritonitis, and the coroner, in his comments on this case, suggested that some systematic inspection should be made of the places where ice-creams are manufactured. This subject, we may remind our readers, has not been overlooked by us in the reports on various articles of food which have appeared from time to time in our columns; and it may be well therefore to draw attention to the report on this particular article of diet as published in THE LANCET of Oct. 18th, 1879, and some remarks on the same subject to be found on Sept. 1st, 1888.

Mrs. MARGARET ANNE NEVE was born on May 18th, 1792, and was married in 1823 at Rouge Huis, Guernsey, to Mr. John Neve of Tenterden, Kent, who died in 1849. She has travelled much, having visited every country in Europe save Portugal. She is now in good health, hears well, and sees well even without glasses; she has neither ache nor pain, and walks to church and to market. Her mother lived ninety-eight years and a half, showing the element of heredity as so many long livers do. Mrs. Neve's habits have been always simple and temperate, but not those of total abstinence.

THE QUEEN has been pleased to confer on the Right Hon. Sir Lyon Playfair, K.C.B., the dignity of a Baron of the United Kingdom. The son and brother of medical men, and occupying for many years a prominent position as a teacher of one of the collateral sciences of medicine, Baron Playfair has our sincere congratulations on receiving such a mark of honour.

THE members of the medical profession will receive with lively satisfaction the announcement of the appointment to a seat in the Privy Council of Professor Huxley. Such a recognition of the claims of medicine is the more acceptable as the opportunity of recording such an appointment is comparatively rare.

AT an extraordinary general meeting of the British Medical Association, held on the 24th inst. at the offices of the Association, the resolution passed by the general meeting at Nottingham altering the by-law and admitting women to be members of the Association was confirmed by a large majority.

AT a meeting of the Court of Examiners of the Society of Apothecaries of London, held at the Hall on Thursday, Aug. 18th, Dr. Thorowgood in the chair, a presentation of plate was made to Dr. J. Sherwood Stocker on his resignation of the chairmanship of the court

THE advent to St. Petersburg of Professor Virchow, who has arrived from Moscow to attend the Anthropological Congress, elicited marked manifestation of enthusiasm on the part of *savants* at the Russian capital. A large number of physicians and members of scientific societies greeted his arrival and made elaborate preparations to secure the comfort of their illustrious guest, in whose honour it is proposed to give a banquet at an early opportunity.

THE medical department of the Privy Council has issued an order to registrars of death requiring them before registration to make special inquiry as to whether the person who attended the deceased before death was qualified or not.

#### BRITISH INSTITUTE OF PUBLIC HEALTH: MEETING AT DUBLIN.

ON Wednesday, the 17th inst., the proceedings of the Sanitary Congress commenced at the College of Surgeons under the presidency of Sir C. Cameron. Dr. Haughton, Sir John Banks, K.C.B., Dr. Grimshaw (Registrar-General for Ireland), the Right Hon. the Earl of Meath and Sir F. Maccabe were elected honorary Fellows of the Institute. Professor A. Roche was made a member, and Mr. O'Meara (medical officer of health, Carlow), Mr. T. W. Berry, C.E. (Kingstown) and Mr. W. R. Graves (Dublin) were admitted associates. At half-past ten Sir Charles Cameron held a reception, and at eleven o'clock the proceedings of the Congress were entered upon.

Sir CHARLES CAMERON, in his opening address, said his first duty was to introduce the British Institute to the city of Dublin, and in doing so it would be necessary to give a short biographical sketch of both. During the few years that the society, under various names, had been in existence he ventured to claim for it that it had done good and substantial work. To a great extent it was mainly through the instrumentality and the exertions of the society that the qualifications in public health and in sanitary science were made registrable qualifications, for which diplomas or degrees were issued by the various universities and medical corporations. Lengthened correspondence and interviews had taken place between the persons connected with the introduction of the last Medical Act and the institute, and the result was that the qualification in public health and state medicine now shared with those of the great departments of the healing art the honour of being the subject of special registrable qualifications. It was also to a large extent due to the exertions of this society that a rule had been made by which during this year and the succeeding years no one could be a health officer of any town of 50,000 inhabitants or upwards who was not possessed of a registrable qualification in public health. He thought that they in Dublin ought to be proud that the first qualification of this kind made before it was a registrable one was due to the University of that city, one of whose greatest ornaments—Dr. Haughton—he was sure they were all glad to see amongst them that day. He might also claim for the institution in whose building they were assembled that it was the first in Europe to establish a chair of Hygiene. However, although the institute had done much good work in the past, it had still some important work before it, and he was happy to say it was steadily increasing the number of its members. There was a general idea that Dublin was situated under peculiarly happy circumstances in reference to health. No doubt the environs of the city could hardly be surpassed by any other, but the city itself was not so happily circumstanced. Dublin had been well described on one occasion by Dr. Haughton as "a waterlogged city situated in a mud valley," and he thought it a very accurate description. The average death-rate in the Dublin metropolitan area in the period 1876 to 1880 was 31.76 per 1000—an enormous rate. In the city the rate was 34.11 per 1000 and in the suburbs 23.39. During the period 1881 to 1885 the death-rate in the whole registration area was 27.32, in the city 30.34 and in the suburbs 19.68. In the period 1886 to 1890 the death-rate in the whole area was 26.3; in the city, 28.86;

and in the suburbs, 19.86. The effects of sanitary improvements were not immediate. It took a long time to undo the influence of over-crowded dwellings, want of proper drainage and other insanitary conditions in the health of towns. In the period 1876 to 1880 the death-rate from the principal zymotic diseases in the whole registration area was 5.29 per 1000—the rate in the city being 5.83, and in the suburbs 3.27. In the next period, 1881 to 1886, the rate in the whole area was 3.06, in the city 3.42, and in the suburbs 2.16. In the period 1886 to 1890 the death-rate in the whole area was 2.87—in the city 3.2, and in the suburbs 2.02. Last year was registered the lowest death-rate for zymotic diseases in the city. It was only 1.7, and when it was considered that in 1879-80 and in 1881 it was 7 or 8 per 1000, he thought it might fairly be claimed that Dublin had made progress with regard to preventable diseases. The subject of typhoid fever was of great interest to Dublin on account of the fact that while all other zymotic diseases had been steadily decreasing typhoid fever had not only not decreased, but had actually increased. It was found, however, that this was not the case with regard to most of the towns of the United Kingdom. Sir Charles Cameron had put himself in communication with fifty of the medical officers of health of the principal towns in England, and he had found that the mean annual death-rate in those fifty towns for the last five years from typhoid fever was 3.2 per 10,000. The rate in the different towns varied considerably—from 0.7 per 10,000 to 5.2 per 10,000. Why did typhoid fever exist so much in Dublin and increase instead of decrease? Was it because the water system was bad or the drains and sanitary accommodation worse than in other towns? He really did not think it was. He knew it was a fashionable thing when a typhoid fever case occurred to attribute it to polluted water or defective drainage; but the history of typhoid fever in Dublin showed there must be other causes at work. The sanitary accommodation of the houses might be defective, but it was defective everywhere, and that was not sufficient, he thought, to account for the fact that the death-rate from typhoid fever was seven or eight times as great as it was in many of the English towns, which he knew from his own personal experience could not compare in point of public sanitation with the city of Dublin. There must be some other cause, and his theory was that it depended on the sewage-saturated condition of the soil itself. He had come to the conclusion, after carefully thinking over the matter, that at all events in investigating the phenomena of typhoid fever in Dublin it must be agreed that it was of a miasmatic character—that it was malarious and that the germs rise out of the soil. There were some very poor places situate on the gravel soil that had very little typhoid fever no doubt, but there was the geological fact that the chances were 50 per cent. greater of getting typhoid fever on the gravel soils than on the clay, and the cause of that was that it was easier to dry up the superficial layers of clay on the gravels. He did not think it was possible to eliminate the germs from a perfectly wet surface, because they would not go out of the water save under very exceptional circumstances. Therefore, in those clay places the micro-organisms could not be disengaged, but there were terrific currents of underground air which must come up, and often with great force; and when the soil was sufficiently dry to enable these micro-organisms to be disengaged or detached they came up into the atmosphere, and his conviction was that in the very streets of Dublin it was quite possible to get typhoid fever. The soil of Dublin had been polluted by a system of storing up human excreta for centuries, the result of which was that in the low-lying soil, badly drained as it was, enormous accumulations of animal matter of an organic character had occurred. In the great cities of America malaria was disappearing with the advance of population, but it was rapidly being replaced by typhoid fever; and as the ground was being saturated with organic matter of the animal kingdom it was found that typhoid fever prevailed and had become one of the dangers of the population of the United States.

#### *Discussion on the Etiology of Typhoid Fever.*

Mr. GRAVES dealt with the principal media of conveyance of typhoid fever in Dublin—defiled water, air polluted by exhalation from foul and unventilated sewers, ground air from a silt-saturated soil, contaminated milk, food and bed-linen. He thought that the introduction of the Varty water ruined the drainage of Dublin, for simultaneously with the turning on of the water the inhabitants and manufacturers ceased to pump the water out of the ground. The three prin-

cipal factors in keeping up the death-rate from typhoid fever in Dublin were, he believed, defective and leaking drains in sewers, and stagnant and unused polluted wells, whence high-level polluted subsoil water, the result of the two first named causes.

Dr. F. J. ALLAN believed that Sir Charles Cameron's theory was one which should be looked upon as correct. He was surprised that the suburbs did not coöperate with the city in regard to the main drainage.

Dr. MAGENNIS said they should insist, as far as lay in their power, on the sterilisation of milk. It was a very frequent source of conveying contagion.

#### *Bacillus Typhosus.*

Dr. McWEENEY read a paper on this subject and discussed the view put forward by Professor Arloing that there is no special microbe of typhoid fever, but that certain organisms inhabiting the body are capable of assuming disease-producing properties and may cause typhoid fever. Dr. McWeeney drew attention to the fact that exposure to strong sunlight was not fatal to all kinds of bacilli, and that this fact was of great importance in its application.

#### *Cholera.*

Dr. HAUGHTON submitted that cholera patients ought to be admitted to the general hospitals instead of being placed in special cholera hospitals.

Dr. LITTLEJOHN was of opinion that there would be a general stampede from the general hospitals if cholera patients were taken there.

Dr. POTTER (Indian Army) said that his experience in India showed that cases of cholera ought invariably to be isolated, and every arrangement ought to be made to protect the medical officers and the attendants from the disease.

Dr. MAJOR GREENWOOD said that there was a considerable agitation at present in London with regard to a better water-supply. The present was a good time for pressing the matter forward. In London the water-supply was worse than that of Edinburgh, and if cholera came to-morrow it would cause great ravages.

Professor SMITH said that from his own knowledge he was sure that the sanitary arrangements of the metropolitan area of London were thoroughly efficient; attention was now being directed to the water-supply, and so far it had been found that the case against it was exceedingly weak; he did not think that the people of London had really anything to fear from their water-supply in the case of an invasion of cholera.

Sir CHARLES CAMERON, in closing the discussion, said the death-rate of England had remained stationary until the passing of the Public Health Act of 1866, which was followed by the vastly more important Act of 1875, in which the change of the word "may" into "shall" was followed by the most beneficial results. It was far better to use the staffs of the different great hospitals of the city. Dublin was the most hospitalised—and he hoped the most hospitable—city in the world, containing 40 per cent. of the hospital beds of the country, and it would be far better to use these hospitals than to put up sheds. If there were no objection to admitting cases of typhoid fever to the infectious wards of hospitals, there could be no objection to admitting cholera cases. In response to a circular which he had sent round to the hospitals, he had ascertained that if cholera came on the morrow hospital accommodation could be provided for between 400 and 500 patients, and there was a ship near the mouth of the river in excellent order, with accommodation for twelve patients, which could be used for cases on board boats entering the harbour.

#### *Registration of Plumbers.*

Dr. LITTLEJOHN moved a resolution approving of the national registration of plumbers, and in the course of his remarks said that plumbing in Scotland was superior to that in England, and one result of national registration would be to raise the standard of plumbing in the latter country.

Dr. ALLAN seconded the resolution, which was carried.

#### *Influenza of Sewage on Milk Cows.*

Mr. J. BYRNE POWER read a paper on this subject, in which he contended that cows, like human beings, might become diseased by drinking impure water, and, being diseased, might be capable of disseminating it through their milk.

THURSDAY, AUG. 18TH.

*Sanitary Legislation.*

Dr. MAJOR GREENWOOD read a paper on this subject. He traced the progress of sanitary legislation from the time of James I., and said that one great mistake of sanitary legislation was that too frequently the powers for carrying out the provisions of the Act were placed in the wrong hands; the enforcers of the law were those most interested in maintaining the abuses of the law which it was intended to redress. In many cases action could only be taken by the local sanitary authority, and when it was considered that the authority was not infrequently made up of those to whom the enforcement of the law would mean a considerable pecuniary loss, they could hardly be surprised at the lack of energy so frequently shown in administering those laws, or at the unpopularity incurred by a too active medical officer of health who allowed his zeal to outrun his discretion.

Dr. LITTLEJOHN (Edinburgh) moved the following resolution:—"That, as the outcome of these admirable papers, this institute should desire to express their unanimous opinion that the time has now arrived when a responsible minister of public health should be appointed, and that the General Health Acts of the country should be consolidated and administered by a responsible central authority; and finally, that a thorough sanitary survey of the kingdom should be instituted."

Professor SMITH seconded the resolution, which was adopted.

*The Notification of Infectious Diseases.*

At 2.30 the Congress reassembled.

Professor SMITH (London) opened a discussion on this subject. He observed that Parliamentary legislation of recent years on this subject was remarkable. The Act of 1889 made it compulsory on all medical practitioners and heads of families to notify the occurrence of all infectious cases coming within their knowledge. No one would dispute the importance of that Act. At present the responsibility of the notification rested with the head of the family and the medical practitioner, but he was of opinion that the Act would require amendment, inasmuch as in some cases the parents did not consider it necessary to call in a doctor in cases of measles, and in those cases it should be made compulsory to notify the occurrence of the disease.

A resolution in favour of including measles in the list of diseases to be compulsorily notified was adopted.

Dr. C. R. TICHBORN read a paper on the Sulphite of Zinc as a general Antiseptic in Typhoid Fever. Some years ago, he said, he introduced sulphite of zinc as an antiseptic for general use, and a few years since he and Dr. F. Heuston had applied this salt to fabrics for antiseptic dressings with marked success, as it could be deposited in the fibre of the material in a semi-insoluble condition. Its action on wounds was marked, as possessing both the germicide action of zinc salts and the antiseptic action of the sulphites combined with the healing properties of oxide of zinc.

Sir CHARLES CAMERON read a paper, which was illustrated by experiments, on the Use of Carbonic Acid Snow as an Antiseptic.

Mr. R. HAMMOND addressed the Congress on the sanitary advantages of the Electric Light, and after a vote of thanks to various bodies the proceedings terminated.

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## THE ETIOLOGY OF TETANUS.

A CASE of traumatic tetanus which has recently occurred at Blackmore, in Essex, and has been made the subject of a coroner's inquest, presents features of considerable professional interest and importance. On Monday, July 4th, a lad named W. H. Thomas, nine years of age, whilst at work on a farm, had his right foot trodden on by a horse. There was a slit in the boot across the toes at the time of the accident, which resulted in avulsion of the nail of the great toe and some little effusion of blood. After the housekeeper of the farmer for whom the lad was working had dressed the foot he walked home. For a few days the toe was dressed with Friar's balsam and subsequently with some "healing ointment" made by a woman in the village. The lad was at school on Sunday, the 10th, on Monday, the 11th, and on Wednesday and Thursday, the 13th and 14th. At half-past

seven on the morning of Thursday, the 14th, he complained of feeling ill. He had a very stiff neck, a strange look and said that he was sore and ached about his shoulders, face and head. He attributed his illness to a beating which he said he had received from the schoolmaster on the Wednesday because his father had kept him away from school. On this matter and on the reason for the caning there was a conflict of testimony. The lad's brother and one or two other boys stated that on the Wednesday the lad was caned by the schoolmaster, who also took hold of his chin and hit his head on the desk, whilst two other boys deposed that the thrashing took place on Thursday. On the other hand, the assistant mistress, who was present during the whole day, the schoolmaster himself and several pupils averred that the boy had never been caned at all. The mother never examined her son's back or asked the doctor to look at it, and no one during life saw any mark either upon the head or the chin. On the evening of the 14th Mrs. Thomas took her son in a cart to see Dr. White of Kelvedon Hatch. The toe had then nearly healed. Dr. White said the boy was suffering from lockjaw, which might be dangerous, prescribed for him, and directed him to be taken home and kept in bed. He attended him until his death, which took place on Sunday, July 31st. During his illness the boy complained frequently of pain in the right leg and found considerable relief when the leg was rubbed. The inquest was opened by Mr. J. C. Lewis, the coroner, at the "Leather Bottle Inn," Blackmore, on Wednesday, Aug. 3rd, and was adjourned till the following day when by the coroner's order Dr. White made a post-mortem examination. Externally the only mark found by Dr. White was a severe bruise running across the chin for three or four inches, and this bruise was seen subsequently by the jury. A new nail was partially formed on the big toe of the right foot, but some discolouration remained. The organs generally were healthy, including the brain, but there was a considerable amount of venous congestion, with serous effusion on the surface and base of the brain. When asked at the adjourned inquest his opinion as to the cause of the tetanus Dr. White said: "Taking the bruise on the jaw into consideration, and assuming there was injury to the side of the head caused by a blow, he could see no other way to account for the tetanus than to say that that was the cause of death, and in his opinion the injury to the toe had nothing to do with the tetanus." At this stage in the inquiry the coroner adjourned the inquest to the 22nd instant, with the express purpose of having the medical evidence fully weighed and considered, and the solicitor, Mr. H. W. Gibson, of Ongar, who appeared on behalf of the schoolmaster, acting on instructions from the National Teachers' Union, asked Mr. Rivington and Mr. Bland Sutton to give evidence when the inquest was resumed, a full report of the evidence having been placed in their hands. Mr. Rivington said that in his opinion the cause of the tetanus was the injury to the right toe caused by the horse treading upon it on July 4th. With the exception of one or two cases of tetanus arising without any evident cause, or idiopathic cases, in all the cases of tetanus which he had seen there had been a wound. He had never seen tetanus arise after a simple bruise or a simple fracture, or from a fall or a blow. A few cases of the kind were recorded in medical works, some being cases reported a good many years back. But he regarded these cases with a good deal of doubt. Very slight wounds might be followed by tetanus—slight scratches, if made with a dirty stick, rusty nails running into the foot, &c.—but a wound of some kind was generally a necessary condition. Tetanus often arose from earth getting into wounds or from wounds in a foul condition. In the present instance the interval between the injury to the toe and the onset of the symptoms was about the average interval for the onset of traumatic tetanus—nine or ten days. It might come on in three or four days, or after as many weeks. A splinter might enter the soft parts and remain imbedded for some weeks before tetanus supervened. He considered it in the highest degree improbable that tetanus could come on within twenty-four hours after an injury; and therefore, assuming that the schoolmaster had caned the boy and hit him on the head or struck his chin upon the desk, these injuries would not account for the tetanus. From the evidence it seemed to him that the tetanus had commenced before the alleged caning; and as no one, not even the medical attendant, had seen the large bruise on the chin during life, it was probably due to post-mortem staining from some cause acting after death. A bruise would not come out after death more than a fortnight subsequently to the infliction of an injury, no sign of the

injury having appeared during life. The cause of tetanus had now been demonstrated to be a poison produced through the agency of a micro-organism or microbe—a bacillus common both to man and the horse—and it took some days for the generation of the poison. This evidence was fully corroborated by Mr. Bland Sutton, who expressed his belief that it was impossible for a mere bruise to occasion tetanus. Mr. Lewis, the coroner, who gave careful attention to the medical aspects of the case, summed up the evidence in a very able and lucid manner, and the jury returned a verdict that the deceased had died from tetanus caused by the injury to the toe. Owing to the strong local feeling which had been aroused they were a good while deliberating. Had they attributed the tetanus to the blows said to have been inflicted by the schoolmaster, the coroner would have been obliged to commit the schoolmaster for manslaughter. This result would have been equally deplorable and oppressive; for as the injury to the toe was quite sufficient in itself to cause tetanus and the tetanus supervened after the regular average interval, and in accordance with the surgical experience available at the inquest, it would have been altogether wrong to have attributed it to injuries, not in themselves established, which have only here and there been set down by medical authorities as the sufficient cause of tetanus.

## CYCLING AND VITALITY.

### II.—ACCIDENTS.

It was not to be expected that our opening article on "Cycling and Vitality" would pass without challenge, and we were quite prepared to read the argument which every partisan invariably advances, whether he have evidence of its truth or not, that we were wanting in what is called practical knowledge of the art of cycling and the ways of cyclists. For the sake of cycling and of cyclists we wish it were the fact that our knowledge were not practical. Unfortunately it is founded on nothing but the practical. We know what cycling means in its outside working, but this is little compared with what we professionally know of it from those sufferers from the practice who do not tell always their most intimate friends the whole story of their cycling experience. Men who enter on cycling exercise find for a short time that it seems to give them a new kind of life. They have been confined to the counting-house, the place of business, or the study; they have, so to say, grown old in their pursuits, and parts of their nervous and muscular system are wearied with the monotony. This new exercise comes to them and all is changed. They discover, without understanding the reason, that they have muscular and nervous powers which have hitherto been concealed. They can cover as much ground in a week on the machine as they could previously cover in a year by their own muscular powers. Their eyes fall on new pastures, and their intellect is awakened to lessons read without books of which they have hitherto had no knowledge except at second hand, and then imperfectly. In addition, by reason of their fresh acquisition, they are brought into a new social life; they meet associates to them entirely new, some younger, some older than themselves, but all "full of cycling"; they learn from these new comrades the names and works of great riders—of one who has broken his own record by so many seconds in a race of over four hundred miles in twenty-four hours; of another, perhaps a lady, who has ridden a hundred and fifty miles between sunrise and sunset. These persons they find exalted into heroes and heroines of the wheel, and there is enkindled a spirit of competition oftentimes stronger than the intellectual spirit itself. Then comes the competitive effort. A book is obtained and kept, in which each day's work is recorded from the beginning of the year to the end. A man utterly unknown out of his own little circle suddenly becomes a man of mark to a new and wide circle. He has ridden, say, some thousands of miles in one year, or won a race, or made a great excursion; he is a man to know in the wide and ever-widening cycling world. Here are the inducements to hard cycling, new exercise of body, new exercise of mind and new competitive ambition. Far be it from us to say a word against any of these good things. We enter into them all, even in THE LANCET; we aim to make THE LANCET as varied as it

can be in its sphere, and we are ambitious that in its sphere it shall have no successful rival. We are therefore the last to find fault with work and competitive work even of a severe kind.

But what we find happens to the cyclist, and what we warn him against, is that he is apt to let the mere competitive effort take the place of everything else, so that at last he puts pace before peace and strives to conquer the element of time, against which the whole human family is struggling, with unequal odds. In every effort, intellectual or physical, the man who tries to conquer time, to do more within a given period than he has the natural capacity to perform, is beaten from the first, and in cycling that is the fatal strife. As a contemporary said a few weeks ago *à propos* of these remarks—"One can understand the insidious strength of the temptation to indulge overmuch in this fascinating form of exercise. But the greater the temptation the greater the need of prudence and self-restraint." We who look on as well as practise the exercise see the necessity for this advice with increasing evidence each month and year; it is day by day becoming more obvious, on the road, on the track, in the streets of the metropolis and other cities, that cycling is breaking its own record in evidence before the coroner, before the physician and surgeon, before the magistrate, before the world at large, cycling circles alone excepted.

We pointed out in our last article certain physical catastrophes from extreme competitive riding. We turn to-day, for a moment, to the great increase of accidents immediately occurring and often immediately fatal during the very act of riding. These increase daily, not from faults of the machines ridden—for, thanks to the skill, care and competency of the industry that turns out cycles, there is the most admirable safety work in this direction that ever was produced—but from the fault of the riders themselves; chiefly the fault of competition against other riders and against all sorts and conditions of travellers—travellers on horseback, in carriages, by omnibus, and on foot. Lookers-on say there is marvellous precision in riding in the crowded streets. They may well marvel; but in this regard success itself in meeting and evading obstacles does not mean winning; it means wear and tear of the constitution. Beyond anything that can be accredited when it is carefully observed. We have ourselves ridden under these trials, and we know the effects. During the feat the most active of the senses are strained to the utmost: the ear is strained to catch every voice and sound; the eye is strained to meet every danger as well as to avoid being a cause of danger to others; the sense of touch is equally strained; the mind and the body are at full strain and the muscular sense at its highest mark. So long as the tissues are young and elastic this feat is for a time possible, but it is doomed even in the young to early failure and it makes the young prematurely old. To the middle-aged, nay to those who are but just matured, the feat is dangerous, though a collision may never take place. There is the internal and the external strain; there is the after lassitude from what Dr. Kolb has ably described as "the nervous insufficiency" of fatigue; and there is the after waste of the nervous fever which follows the effort. Under these strains it is little wonder that riders die whilst riding without actual collision; little wonder that the papers should report how a well-known cyclist was found dead by the roadside with his machine beside him. Framed in a manner not calculated to bear these strains, though they be less severe than riding daily through a London thoroughfare, this gentleman, from nervous insufficiency, failed and succumbed under an exercise too too enthusiastic partisans of which say we have no right to criticise, albeit it is fatal to their best of comrades.

These are accidents without collision. To them must be added accidents with or during collision—accidents of two kinds when correctly defined. Some of them are purely accidental and unavoidable, such accidents as no skill and no presence of mind can meet. There are others due to the temporary absence of skill or presence of mind of the rider—failure, in fact, arising from the nervous exhaustion or nervous insufficiency referred to above. The best of riders may be placed *hors de combat* from this last-named cause; at a critical moment some movement he brings skillfully into play under ordinary circumstances fails of its purpose; a little water on the roadway makes his wheel skid—a lamentable and fatal instance of this sort occurred only last week in Kensington—or some similar mishap takes place; his skill is baffled, there is no time to rectify the mischance and all is over.

From such modes of accident, fatalities and injuries are largely on the increase. Our table is becoming crowded with reports of cycling calamities. In London the number of accidents from cycling, amounting to 36 in 1881, ran up to 360 in 1891. But from 1891 up to the present time the number has increased out of all previous proportion, and is so steadily increasing that there is no help for it but new legislation of a preventive character for the equal protection of the public and of cyclists themselves.

We have endeavoured to ascertain whether in cycling accidents the danger is greatest to the rider or to those with whom he comes in contact. On this question there is, we think, but one answer: the danger is chiefly to the cyclist—a fact which has been the real cause of delay in legislation. The cyclist, accepting all risks, does not ask to be protected by law. He pays the penalty severely enough, for, as a rule, they are no commonplace injuries to which he is subjected. A broken limb is a puny penalty. The rider once off his balance is indeed in a plight. His governing power is lost; if he be riding fast his reduction of speed, assuming that the break is under his control, must be effected in the most careful manner; in collision he has usually to meet a structure more massive and steadily resistant than his machine, while he, a part of the machine virtually, goes crash with it. The shock is general, and therefore so frequently fatal. It is of all shocks, save the crash of a railway collision, that in which the rider is most helpless as well as most imperilled.

## BURIAL AND CREMATION.

THE contest between earth and fire as the better mode of disposal of the dead still continues. Whilst it is very satisfactory to see public attention concentrated on what is one of the most important questions of the day, it is to be lamented that so much bitterness should be imported into the controversy, since the advocates of either mode have made out a very strong case. Those in favour of cremation maintain that by means of the furnace an adult human body can be reduced to ashes in the space of little more than one hour without the slightest offence to the living. They urge, moreover, that by their rules, in addition to the ordinary medical certificate of the cause of death and the registration thereof, they have an independent medical inquiry which so far has effectually safeguarded them from consigning to the crematorium the body of any victim of foul play. In addition to this rapid disposal of the dead body by fire and this safeguard from its possible abuse, they point with both force and reason to the comparative economy with which their mode may be adopted compared with that of burial. The crematorium does not occupy a large space and may be located in any existing cemetery. No purchase is required by the ratepayers of large portions of land at an enormous cost, nor is there any possibility of poisoning the adjacent water-supply. The value of these negative advantages cannot be overlooked, and it is not surprising that from their standpoint Sir Henry Thompson, Sir Spencer Wells and other advocates of cremation should regard with impatience the objections urged against it by the advocates of burial. The most formidable of these is the medico-legal one. In a recent case, still *sub judice*, the body of a female was exhumed some months after burial and strychnine was detected in the stomach and other viscera. The opponents of cremation naturally say that incineration would have destroyed all means of discovering the poison, and so would have tended to defeat the ends of justice. But the supporters of cremation might very fairly urge that in this case their independent inquiry might and most likely would have revealed the fact that the death took place under circumstances demanding an inquest, and that cremation would have been deferred till the coroner's order had been obtained. And while refraining from comment on a case which has still to be tried, it may be stated with perfect propriety that under the circumstances the case should have been reported to the coroner. Burial possesses the claims of greater antiquity, being so easy, so natural, so simple as almost to suggest itself, and it is a well-known fact that some of the lower animals and even insects have been observed to bury their dead with great care. Burial in the earth was termed by the heathens, being "restored to our mother's lap," or "covered with her skirt." To leave unburied the dead, even of

enemies on the battle-field, was considered dishonouring to the victors. Coming to the present times, our cemeteries are generally made attractive as recreation grounds, and as such constitute a great boon to the dwellers in large towns and cities. But only so if burial be what it ought to be—the restoration of the body to the earth whence it came, and the total abolition of all entombment in strong coffins, vaults, catacombs or walled graves. The truth is that Sir Henry Thompson and Mr. Seymour Haden are each of them, both personally and as the respective representatives of cremation and burial reform, very much in advance of the time. It is certainly better to be so than to be behind the time, but the former has the disadvantage of causing a distrust in the minds of those many persons who dislike violent changes from the old beaten track. Still both may take courage. Many persons of light and leading have expressed during life a wish that after death their bodies should be cremated, and this has been done, the number of cremations showing an annual increase, but still forming a very small proportion of the total number of deaths. On the other hand, burial reform advances slowly, but let us hope surely. The body of the late Lord Sherbrooke was buried in one of the perishable coffins of the kind variously termed "hardened" or "compressed" pulp, "earth to earth," or papier mâché. We have been informed (though we do not know if our information be correct) that the patent for these has lapsed and that they may be procured at a much lower cost. We hope that undertakers will also show themselves abreast of the times if not in advance of them, and afford the public every facility for burying their dead in these perishable coffins, leaving wood to be utilised by the living, it being useful to them and unsuitable for burial purposes. As has been previously suggested in these columns, burial and cremation may well be tried side by side for the present; their various advantages and drawbacks may be carefully studied, and a decision as to which is the better mode of disposal of the body may be given after a sufficient interval has elapsed. We see that his Holiness the Pope is about to publish an encyclical prohibiting to the faithful "that manner of burial which consists in burning the body." But there are many foreigners and others in this country to whom cremation is a matter of religion and sentiment as much as burial is to others. And as Englishmen have reasonable facilities afforded them in foreign countries for the burial of their dead, it is only right that we should afford the same facilities for the disposal of the body by burning to those who prefer it to burial. Everything in connexion with this subject points to the importance of simplicity in the matter of burial if the latter is to continue as the more general mode of disposal of the dead in this country. Medical practitioners know better than any other persons what occurs after death, and how important it is that the body should be really and truly buried out of sight. To pamper the body during life is foolish, but to attempt to preserve it after death deserves a much stronger expression. Why is it that the body should be so offensive after death? Surely to remind us of our mortality and to induce us to act rationally.

## IMPROVED FACILITIES FOR CONTINENTAL TRAVELLING.

### THE HARWICH ROUTE.

BELGIUM, Holland, the Rhine, Northern Germany and even Russia attract tourists, holiday folks and the invalid in search of health. Though the majority travel southwards to France, the Riviera, Spain, Italy, the Mediterranean and the East, still—and especially in the summer months—there are thousands who prefer or who select as a change more northern latitudes. Thus it is that the Harwich route has yearly become more and more frequented. The accommodation afforded to passengers is therefore a matter of public interest. This fact is eloquently set forth by the figures we have obtained concerning the increased traffic. The number of passengers conveyed by the Harwich route between that port, Antwerp and Rotterdam amounted to 50,582 in 1882, 53,803 in 1883, 55,590 in 1884, 68,807 in 1885, 68,111 in 1886, 70,400 in 1887, 75,723 in 1888, 79,421 in 1889, 84,740 in 1890 and 85,189 in 1891. Thus, in the

course of the last ten years, 692,366 persons have travelled by this route and the traffic has increased at the rate of more than one-third in the decade. This is but a just reward of the intelligent care taken of the comfort and safety of the passengers. A great deal had to be done to render this route attractive, for there is the insurmountable disadvantage of a long sea journey. Most persons prefer a somewhat longer journey by land if this ensures a much shorter sea passage. By Calais the passage can be effected in an hour and ten minutes, by Dover and Ostend in less than four hours, whereas the sea journey from Harwich to Antwerp takes at least seven hours. But the Great Eastern Railway Company has sought to overcome this disadvantage by supplying larger steamers and charging much cheaper rates. The journey by first class throughout, from London to Antwerp or Rotterdam, costs only £1 6s., and there is a service every day except Sundays. The train leaves Liverpool-street at 8 P.M. and reaches Parkeston Quay at 9.50 P.M. The time occupied in putting the luggage on board and the journey down the Stour, permit an opportunity for supper before reaching the open sea. Unlike the channel service, there is no difficulty about the insufficiency of water. Ships of any size may be employed, and thus can be used twin-screw steamers taking fifteen feet of water, whereas the screw steamer *Seine*, built for the Dieppe and Newhaven line, must not take more than nine feet of water and therefore cannot be steady at sea. From the very first, the company were able to build large and powerful vessels for the Harwich route. Their smallest ship, the *Peterboro'*, is 822 tons, and there are four paddle steamers varying in tonnage from 922 to 1049 tons. These are, however, the elder ships of the fleet; comfortable and well appointed, but not to be compared with the new twin-screw steamships, the *Norwich* and the *Ipswich*, of 1036 tons each, and the *Cambridge* and the *Colchester* of 1159 tons each. These latter mentioned ships are fitted up like Atlantic steamers. The first-class cabins are in the central portion of the ship, where the motion is least felt and where the vibration caused by the engines is not so considerable. The sailors' quarters are fore and the second class aft. There is an upper promenade deck and a few deck cabins, and there are smoking, dining and ladies' saloons. In fact, there is a sense of space and roominess which tends greatly to mitigate the terrors of a sea journey. A sense of security and comfort is engendered, and the timid traveller feels that in so big and splendid a ship he need not fear the waves and the sea. Then there are numerous small cabins containing two to four berths each, where comfortable bedding invites repose. There is time enough—the journey is long enough—to make it worth while to dress, and thus the passengers may sleep through the worst part of the voyage.

A natural dread is felt of an overcrowded and badly ventilated cabin, especially during a rough night; but the first-class sleeping cabins cannot be overcrowded and care has been taken to supply good ventilation. The ship is lighted throughout by electricity and every cabin has its own light, which can be switched on or off as each passenger may desire. Thus the lighting does not increase the heat of the cabins. Then in various parts of the ceiling above the berths there are apertures which communicate with a shaft abutting in the engine room. Here a part of the steam power is employed to set in motion a fan placed inside this exhaust shaft. By this means a powerful current is artificially produced which draws off the foul air from the cabins. The ventilation is therefore effected independently of temperature or weather. This is most important, for all systems of ventilation that depend on variations of temperature are unreliable and uneven in their results. No special measures are taken to provide air inlets, but these exist nevertheless; apart from the fact that fresh air can always come down the gangway there are what is known as goose-neck ventilators. These consist of metallic pipes three inches in diameter which descend from the sides of the deck into the cabins. The pipe, when it reaches the deck, is bent over like a goose's neck, with its mouth downwards, so that the water cannot enter the pipe. The air, however, easily travels round the curve and descends into the cabins below. These goose-neck ventilators serve either for outlet or for inlet. When the exhaust fan is not working they probably act as outlets, but when the engines are in motion and the fan revolves then they would become inlets, especially if the gangway was closed. To this arrangement we would suggest an easily effected improvement, which could at least be applied to the new steamer now in course of con-

struction, and which, it is claimed, will be larger and faster than any now on the line. We would urge that some at least of these goose-neck ventilators should be prolonged to the floor of the cabins. At present both inlet and outlet ventilators are all in the ceiling of the cabins. Air travels in a straight line from inlet to outlet. It does, by suction, draw away some of the air that is outside of the direct line of current; but we know full well that whereas the draught from an open door to an open window may be very strong, there are corners of the room that remain untouched. Thus, in these ships, the upper berths receive an unfair share of the ventilation. Of course the heat of the foul air makes it rise, and it thus gets caught up in the current. But we should like to see this current as active on the floor as on the ceiling of the cabins, and this result could be secured by prolonging some of the goose-neck ventilators to the level of the floor.

There is another point which we were not able to investigate, as the weather was too warm—namely, the heating of the cabins. This is secured by hot coils which are charged with steam. The question arises whether the inlets ought not to open near these hot coils, so that something of the sharpness of the cold wintry air may be mitigated. In winter more especially is the problem of ventilation most difficult. But it is encouraging to find that the subject has received considerable attention at the hands of the Great Eastern Railway Company; and though there may still be room for some improvement, we heard on all sides expressions of satisfaction at the airiness and coolness of the cabins. On the other hand, we noted with much regret that the air shaft communicating with the mechanical exhaust fan was not introduced in the second-class cabins. We would earnestly urge that in such a question no difference ought to be made between first and second class passengers. On the contrary, as the second-class cabins, if every berth was occupied, would be very crowded, greater care and greater energy in ventilating is necessary. The cost of prolonging the exhaust shaft from the ventilating fan to the second-class cabins would not be very great, and in any case, if this mechanical means of ventilation cannot be provided at both ends of the ship, then the preference should be given to the second class, where it is much more needed. We should say exactly the same thing of a Transatlantic steamer, where we maintain that the ventilation of the steerage is much more necessary and important than that of the saloons. We feel convinced that a company which has so lavishly provided for the comfort of its passengers and has spared no outlay to secure the latest improvements in the building of its ships, will take this criticism in good part, and will understand that, as the champions of public health, we can neither tolerate nor make any difference in classes of people or of passengers. All have equal need and an equal right to breathe as much pure air as it is practical to procure.

To return to the voyage. It has been seen that the passenger can enjoy a quiet supper before reaching the open sea; then a comfortable berth in a well-aired cabin affords him the means of repose and sleep while crossing the sea. This—for the distance to the mouth of the Scheldt is a journey of 90 miles—is performed in favourable weather in seven hours. For Rotterdam, the mouth of the Maas is reached in eight hours, the distance being 101 miles. This is a long journey as compared with the crossing of the Channel; but, on the other hand, those small, choppy waves which are so difficult to endure in the Channel are avoided. The ships being so much larger the motion is not so readily felt, and in any case it is slower, less jerky and irregular, and there are not a few persons who, though bad sailors, prefer a longer journey when the ship is larger and the motion easier to endure. On reaching the mouth of the Maas or of the Scheldt there is a long pleasant journey up these rivers. There the water is perfectly smooth; the passenger has some four hours before him to recover from any indisposition he may have experienced; then he can dress without hurry, wash at the excellent lavatories provided, and, refreshed and rested, he can take his breakfast at ease. Thus, when he finally lands at Antwerp or Rotterdam, he is not exhausted, but on the contrary, quite ready for a good day's business or pleasure. For the return journey the steamers by leaving Antwerp at 5.45 P.M. and Rotterdam at 6.15 P.M. are so timed that meals are taken in smooth water, and most of the passengers are in bed before the ship is on the sea. At Parkeston Quay next morning there are very comfortable and well-appointed lavatories, waiting-rooms and a restaurant, so that passengers can breakfast on land before the London and provincial trains leave. The boats

themselves go out in all weathers. Delays are only occasioned by exceptionally thick fogs.

To conclude, the Harwich route may be recommended for its comfort and cheapness. The ships are so large and well appointed that this to a considerable extent compensates for the greater length of the sea journey; and finally, if the traveller is overtaken by a storm or a gale, there is the company's hotel on the quay, where for a moderate cost he can wait for better weather.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6190 births and 3511 deaths were registered during the week ending Aug. 20th. The annual rate of mortality in these towns, which had increased from 17.3 to 18.0 per 1000 in the preceding three weeks, was again 18.0 per 1000 during last week. In London the rate was 17.2 per 1000, while in the thirty-two provincial towns it averaged 18.5 per 1000. The lowest rates in these towns were 11.6 in Nottingham, 12.0 in Hull, 12.3 in Croydon and 12.9 in Gateshead; the highest rates were 21.9 in West Ham, 22.1 in Sheffield, 23.2 in Liverpool, 26.2 in Salford and 28.2 in Preston. The 3511 deaths included 680 which were referred to the principal zymotic diseases, against numbers increasing from 585 to 681 in the preceding three weeks; of these, 386 resulted from diarrhoea, 93 from measles, 62 from scarlet fever, 55 from whooping-cough, 49 from diphtheria, 34 from "fever" (principally enteric) and one from small-pox. No fatal case of any of these diseases was recorded last week in Newcastle-upon-Tyne; in the other towns they caused the lowest rates in Halifax, Swansea, Derby and Huddersfield, and the highest rates in Preston, West Ham, Salford and Sheffield. Measles caused the highest proportional fatality in Sheffield, Brighton, Salford, West Ham and Oldham; scarlet fever in Preston; whooping-cough in Portsmouth, Bradford, Burnley and Preston; "fever" in Preston; and diarrhoea in Brighton, Leicester, Bolton, Leeds, Portsmouth and Cardiff. The 49 deaths from diphtheria included 37 in London, 3 in Manchester and 2 in Salford. One fatal case of small-pox was recorded in Plymouth, but not one in any other of the 33 large towns. Nine cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 4 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3052, against numbers increasing from 1226 to 3088 on the preceding twenty-one Saturdays; 367 new cases were admitted during the week, against 346 and 376 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 143 and 174 in the preceding two weeks, fell to 139 last week, and were 43 below the corrected average. The causes of 85, or 2.4 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Nottingham, Portsmouth and Hull, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Gateshead, Birmingham, Leicester and Brighton.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18.5 and 17.0 per 1000 in the preceding two weeks, rose to 17.2 per 1000 during the week ending Aug. 20th, and was 0.8 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 10.4 in Leith and 13.2 in Greenock to 22.3 in Perth and 23.0 in Paisley. The 480 deaths in these towns included 27 which were referred to diarrhoea, 15 to measles, 14 to scarlet fever, 11 to whooping-cough, 7 to diphtheria and 7 to "fever." In all, 81 deaths resulted from these principal zymotic diseases, against 83 and 93 in the preceding two weeks. These 81 deaths were equal to an annual rate of 2.9 per 1000, which was 0.6 per 1000 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had been 31 and 32 in the preceding two weeks,

declined last week to 27, of which 16 occurred in Glasgow, 3 in Dundee and 3 in Paisley. The deaths referred to measles, which had been 23 and 19 in the previous two weeks, fell last week to 15, and 11 of these occurred in Glasgow and the other 4 in Edinburgh. The 14 deaths from scarlet fever showed an increase of one upon the number in the previous week, and included 12 in Glasgow and 2 in Edinburgh. The deaths from whooping-cough, which had been 11 and 16 in the preceding two weeks, declined again to 11 last week, and included 6 in Glasgow. The deaths from diphtheria, which had been 7 and 6 in the previous two weeks, were again 7 last week, and included 4 in Glasgow and 2 in Aberdeen. The deaths referred to diseases of the respiratory organs, which had been 77 and 74 in the preceding two weeks, rose last week to 76, and exceeded by 13 the number in the corresponding week of last year. The causes of 51, or nearly 11 per cent., of the deaths in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21.5 and 21. per 1000 in the preceding two weeks, declined to 19.5 during the week ending Aug. 20th. During the first seven weeks of the current quarter the death-rate in the city averaged 22.4 per 1000, against 17.8 in London and 16.2 in Edinburgh. The 131 deaths in Dublin during the week under notice showed a decline of 14 from the number in the preceding week, and included 12 which were referred to diarrhoea, 3 to measles, 2 to "fever" and one each to scarlet fever, diphtheria and whooping-cough, and not one to small-pox. In all, 20 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3.0 per 1000, the zymotic death-rate during the same period being 3.4 in London and 1.8 in Edinburgh. The fatal cases of diarrhoea, which had been 5 and 6 in the preceding two weeks, rose to 12 last week. The deaths from measles, which had been 6 and 5 in the preceding two weeks, declined to 3 last week. The 131 deaths in Dublin last week included 23 of infants under one year of age and 24 of persons aged over sixty years; the deaths of infants showed a decrease of 6 and those of aged persons a decrease of 8 from the numbers in the previous week. Six inquests were held and 6 deaths from violence were registered; and 47, or nearly 36 per cent., of the deaths occurred in public institutions. The causes of 7, or rather more than 5 per cent., of the deaths in the city last week were not certified.

### VITAL STATISTICS OF CALCUTTA.

According to the weekly return, ending Saturday, July 23rd last, published by Dr. W. J. Simpson, the health officer of Calcutta, the total number of deaths registered in that city during the week was 181, against 207 and 193 in the preceding two weeks, and higher than the corresponding week of last year by 34. There were 5 deaths from cholera, against 23 and 19 for the preceding two weeks; the number is lower than the average of the past quinquennium by 6. No deaths occurred from small-pox, but there were 12 from tetanus, and the mortality from fevers and bowel complaints amounted to 65 and 23 respectively. The general death-rate of the week was 20.2 per 1000, which is the mean of the last five years. In the amalgamated area of suburbs the total number of deaths registered during the week was 121, higher than the corresponding week of last year by 14. There were 11 deaths from cholera, against 20 and 12 in the preceding two weeks; the number is higher than the average of the past three years by 6. No deaths occurred from small-pox, but there were 9 from tetanus, and the mortality from fevers and bowel complaints amounted to 47 and 24 respectively. The general death-rate of the week was 29.3 per 1000 per annum, against 28.1, the mean of the last three years. The general death-rate of the combined area is equal to 23.1.

## THE SERVICES.

### ARMY MEDICAL STAFF.

SURGEON-MAJOR-GENERAL ROBERT WYATT MEADOWS is placed on retired pay; Surgeon-Colonel Robert Lewer to be Surgeon-Major-General, vice R. W. Meadows; Surgeon-Colonel Charles H. Y. Godwin, from the Seconded List (having resigned his post of Professor of Clinical and Military

Surgery at the Army Medical School, Netley), to be Surgeon-Colonel, vice R. Lower (all dated Aug. 10th, 1892).

#### MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Captain Russell has been struck off the strength of the Cambridge Hospital, Aldershot. Surgeon-Captain Dixon is attached for temporary duty to the N.W. district. Surgeon-Captain Blackwell has rejoined at Woolwich from leave of absence. Surgeon-Captain Harris proceeds from Station Hospital, Devonport, to Okehampton for duty. Surgeon-Captains Reid and Duncan have returned to the Royal Victoria Hospital, Netley, from leave. Surgeon-Captain Begbie proceeds from Station Hospital, Portsmouth, to Aldershot, for a course of instruction. Brigade-Surgeon Gillespie, R.P., has assumed charge of the Station Hospital, Hamilton. Surgeon-Captain Daly has proceeded to the Curragh from Dublin for duty. Surgeon-Captain Burrows has proceeded to Cork from Longford for duty. Surgeon-Captain Browning proceeds from Templemore to Limerick for duty. Surgeon-Major Peyton has assumed charge of the Station Hospital, Enniskillen, from leave of absence.

The following is the list of successful candidates for commissions in the Medical Staff of Her Majesty's Army at the recent examination in London:—

Marks.		Marks.	
Pollock, C. E. . . . .	2815	Farmer, J. H. . . . .	2365
Mangan, F. M. . . . .	2470	Buswell, F. R. . . . .	2310
Rivers, J. H. . . . .	2470	Berrymen, H. A. . . . .	2295
Taylor, W. J. . . . .	2450	Symons, F. A. . . . .	2285
Longhurst, B. W. . . . .	2385	Samman, C. J. . . . .	2235

#### INDIAN MEDICAL SERVICE.

The following is the list of the candidates for Her Majesty's Indian Medical Service who were successful at the Competitive Examination held at Burlington House on Aug. 8th and following days (29 candidates competed for 17 appointments, of whom 21 were reported qualified):—

Marks.		Marks.	
Drake-Brockman, V. G. . . . .	2850	Langston, T. A. O. . . . .	2490
Milne, C. . . . .	2745	Ogilvie, W. H. . . . .	2490
Prall, C. B. . . . .	2720	Heard, R. . . . .	2405
Hunter, G. Y. C. . . . .	2640	Bourke, J. J. . . . .	2385
Young, W. . . . .	2620	Biddle, G. . . . .	2305
Macleod, J. N. . . . .	2615	Orr, W. H. . . . .	2230
Chatterton, F. R. . . . .	2600	More, P. St. C. . . . .	2200
Williams, C. E. . . . .	2580	Parry, E. R. . . . .	2195
		Morton, J. P. . . . .	2185

Surgeon-Major T. F. MacNece has been appointed to perform the Medical duties of the Lawrence School and Civil Establishment, Mount Abu, from June 2nd, 1892. Surgeon-Lieutenant-Colonel E. Mulvany, Civil Surgeon, Muzaffarnagar, has been permitted by the Secretary of State for India to retire from the service subject to Her Majesty's approval. Surgeon-Major C. H. Bennett has been appointed to be Civil Surgeon of Toung-hoo in addition to his military duties, vice Surgeon-Captain T. W. Stewart. Surgeon-Captain J. J. Pratt, Civil Surgeon, Gondal, has been transferred to the Civil Medical Charge of Fyzabad during the absence on leave of Surgeon-Major W. H. Cadge. Surgeon-Colonel J. Richardson, M.B., Inspector-General of Civil Hospitals, N. W. P. and Oudh, has been appointed to officiate as Surgeon-General and Sanitary Commissioner with the Government of India during the absence on privilege leave of Surgeon-Major-General W. R. Rice.

#### THE DISTINGUISHED SERVICE PENSION.

As we have already announced, a Distinguished Service Reward of £100 per annum held by the late Surgeon-General Hassard, C.B., has been conferred upon Surgeon-Major-General Reade, C.B. This officer joined the Army in March, 1854, served in the 2nd Battalion Rifle Brigade in the Eastern campaign of 1854-55, was present at the battles of Alma and Inkermann and siege of Sebastopol, and was wounded in November, 1855, at the explosion of the French siege train (medal with clasp and Turkish medal); he served with the battalion throughout the Indian Mutiny, and during the actions at Cawnpore, the capture of Lucknow, and the Oude campaign (medal with clasp).

The Secretary of State has notified that good-service pensions which may hereafter be conferred upon officers appointed to the Staff Corps after July 1st, 1891, shall be relinquished on retirement. The same rule applies to medical officers.

#### THE PROFESSORSHIP OF MILITARY SURGERY AT NETLEY.

We understand that Surgeon-Lieutenant-Colonel W. F. Stevenson, Army Medical Staff, is to succeed to the Pro-

fessorship of Military Surgery, rendered vacant by the resignation of Surgeon-Colonel Godwin.

#### HOSPITAL BUILDINGS.

In future the opinions of the Surgeon-General and the Sanitary Commissioner, Madras, are to be obtained by the Sanitary Engineer before he approves of any estimates for hospital buildings submitted to him.

#### THE CHOLERA.

The Government of India have recommended that Dr. Cunningham, Professor of Physiology in the Medical College, Calcutta, should be given two years more in which to complete his scientific observations on the subject of the origin of cholera.

#### VOLUNTEER CORPS.

*Artillery*: Surgeon-Major W. Hunter to be Surgeon-Lieutenant-Colonel (dated Aug. 20th, 1892).

#### THE REPORT OF THE ARMY VETERINARY DEPARTMENT FOR 1892.

Owing to the influenza epidemic, which seems to have attacked the horses rather seriously at home, but not in India, the average sickness was increased, but the proportion of deaths remained the same as in the previous year, 2.04. The average age of horses now serving is eight years and eight months. There are 426 horses of sixteen years and upwards. The Army Vaccine Institute appears to be doing good work. Since the opening of the institute in January, 1889, lymph has been prepared for no less than 121,044 people.

#### NAVAL MEDICAL SERVICE.

The following appointments have been made:—Fleet Surgeon John Tyndall to the *Crocodile* and Staff Surgeon John A. M'Adam to the *Camperdown* (both dated Aug. 22nd, 1892). Surgeons: Harold F. D. Stephens, M.B., to the *Camperdown*, Frederick W. Stericker, M.B., B.A., to the *Mistletoe*, and William J. Colborne to Haslar Hospital (all dated Aug. 22nd, 1892). Surgeon and Agent: David J. Lawson, M.D., at Portland (dated Aug. 24th, 1892).

#### MILITARY MANŒUVRES AND THE HEAT.

We have been more fortunate in this country with our autumn military manœuvres than our continental neighbours. The recent hot weather with them has been characterised by temperatures of a tropical kind and attended with a great many fatal results, an almost unprecedented amount of sunstroke and sudden attacks of heat exhaustion. From Trieste we learn that the troops manœuvring in the Karst hills, near Senosce, Camiola, have suffered greatly, no less than 200 cases of sunstroke having occurred among the men, with eleven deaths. From Vienna reports continue to be received of the almost unbearable heat that has prevailed and of the suffering of the troops in consequence. It is computed that at least one-third of the force composing the 71st Brigade recently engaged in an evolutionary march at Agram fell out of the ranks overcome by the heat. The officers suffered equally with the men, and one at least died on the roadside. The total number of deaths directly attributable to it amounted to 14. From France we learn that so many soldiers have been overcome by the heat, owing to marches not having been countermanded, that M. de Freycinet has issued a circular calling for reports on all such cases, so as to fix the responsibility on those who are to blame for their culpable want of foresight. The foregoing may be taken as samples merely of what the heat has been and of its disastrous effects on military forces marching or manœuvring; and reports from various other sources are all to a similar effect. Letters that have reached us from English people travelling in Germany speak of the heat as intolerable. As far as this country and our own army is concerned we have been, as we have said, far more fortunate. The heat has no doubt been great, but not at all comparable with what it has been elsewhere. On the 22nd inst. the brigade of Foot Guards, with a detachment of the Army Service Corps, marched by stages from Ash to Chobham after the Aldershot manœuvres—a distance of ten miles—and thence by Hounslow Heath to London. The Plymouth flying column marched from Okehampton to Dartmouth and reached Roborough, undertaking some manœuvres *en route*, which together may be reckoned as equal to twenty miles, and did it well. On the 20th inst. three officers of the King's Own Scottish Borderers, fully equipped, marched forty miles from Okehampton in sixteen hours, a good evidence of their training and physical form.

## CASUALTIES AMONG BRITISH SOLDIERS IN THE BOMBAY COMMAND.

In consequence of reports that had appeared as to the alleged excessive mortality amongst the drafts sent out to join British corps in India, Sir George Greaves, the Commander-in-Chief, Bombay, recently called upon the principal medical officer of that Presidency to furnish him with a detailed statement upon the subject, which Surgeon-General Webb has accordingly done. It appears that our contemporary, the *Pioneer*, in May last called attention to the subject in commenting upon the report of the Inspector-General of Recruiting. It will be remembered also that a question was put to Mr. Stanhope in the House of Commons regarding a part of the evidence of the late Commander-in-Chief at Bombay before Lord Wantage's Committee, and that the then War Minister stated his grounds for considering that the Duke of Connaught's impressions had been founded upon incorrect data. The report of the Principal Medical Officer, Bombay, goes very fully into the subject, and a Government resolution has been issued upon it to the effect that the complaints of excessive mortality and invaliding among young soldiers do not, at any rate, apply to British regiments quartered in the Bombay Presidency in the years 1889, 1890 and 1891. Still, anyone carefully reading the report itself will arrive at the conclusion that if the facts and figures fail to justify or substantiate the statements as to the excessive waste of young soldiers by death and invaliding as regards the Bombay command, they nevertheless do show that in proportion to their strength the rates of mortality are higher in soldiers young in years and Indian service than in other classes; and it would be very strange were it otherwise, considering that, for one thing, they have all to undergo the change from a temperate to a hot climate of which, and of all that this implies, they have had no previous experience. As to the loss among young soldiers from invaliding, the rates among them are not as high as in those of medium age; the inefficiency from sickness is probably greater; the total waste from death and invaliding is about the same at all ages up to twenty-five years and lessens considerably after that. It is—as we have said repeatedly, and as has, we think, been proved by experience—the soldier's liability to suffer from enteric fever and climatic diseases during the first and second years of his service in India that is the difficulty that has to be overcome. How is that to be effected? That is the point for Anglo-Indian sanitarians to take up. The first year of Indian service is the trying one for soldiers and it is then that the greatest care has to be taken in regard to them. After five years' service in India the climate begins again to tell on the constitution and the death-rate increases, and it and the invaliding-rate go on increasing. It is not, perhaps, so much that the soldier is young when he lands in India, according to all the statistical data furnished from that country, as that he must serve a year or two before his increased susceptibility to typhoid fever is surmounted,

## THE RELATIVE FREQUENCY OF ABSCESS OF THE LIVER AMONG EUROPEAN AND NATIVE TROOPS IN INDIA.

On comparing the statistics of the native with those of the European army for the year 1890 it will be found, according to the Report of the Sanitary Commissioner with the Government of India, that the death-ratio of Europeans from hepatic abscess was about thirty-five times higher than that of the natives of India, it having been twenty-five times higher in the two preceding years. Hepatic abscess contributed 7.6 per cent. of all the deaths of European soldiers and only 0.2 per cent. of the deaths of native soldiers.

## DYSENTERY AMONG EUROPEAN AND NATIVE TROOPS IN INDIA.

The highest admission rates for dysentery in India during 1890 were those of Burma, Quetta and Bengal Proper and Assam; the highest death-rates were those of Burma, Bengal Proper and Assam and Quetta. The death-rate of native troops from dysentery was to that of Europeans as 1.5:1; dysentery caused 7 per cent. of all the deaths of native soldiers, whereas it only caused 5 per cent. of the deaths of European soldiers, and this difference was the same as in the preceding year.

## THE MESSING OF THE SOLDIER.

We would call attention to a pamphlet, which may be obtained at the cost of sixpence, on the messing of the soldier, including schedules illustrative of the new system of

military cooking, issued by direction of Lieut.-General Sir Evelyn Wood, V.C., G.C.B., commanding the Aldershot Division. It contains information as to the best and most economical cooking and disposal of the soldier's rations and groceries, revised up to the date of the present month, likely to prove useful to medical officers and others whom it may concern.

## Correspondence.

"Audi alteram partem."

## "THE LANCET COMMISSION ON SANITATION IN RELATION TO THE LAW AND PRACTICE OF HOUSE-LETTING."

To the Editors of THE LANCET.

SIRS,—I notice an article in *The Times* of Saturday referring to an inquiry made by you and as to the granting of certificates by the sanitary inspector of a town after a thorough examination of the premises, specially mentioning the town of Eastbourne. I beg to inform you we have issued these certificates for some time past, and they have been largely applied for by the inhabitants. They are only granted after a most searching examination by our inspector. I should be glad to send you a copy of the certificate should you care to see one.—I am, Sirs, yours, faithfully,

S. PENFORD,

Mayor of Folkestone.

Folkestone, Aug. 22nd, 1892.

To the Editors of THE LANCET.

SIRS,—Your report on sanitation in relation to the law and practice of house-letting is instructive and interesting reading. Dr. Farquharson's Sanitary Registration of Buildings Bill, introduced into the late Parliament, has evidently not been without effect, as from your report it appears that in part its proposals have been adopted by the sanitary authority at Eastbourne. Dr. Farquharson's Bill, to quote the leading article of *The Times* on the occasion of its second introduction (Feb. 23rd, 1887) proposed "to impose compulsory sanitary inspection and registration upon every building intended to be used as a school, college, hospital, asylum, hotel, or lodging-house, and to give opportunities for voluntary inspection and registration in the case of all other buildings; whatever." Interesting as the report from Eastbourne is: too general to be accepted as conclusive, and I would venture to suggest that the authorities at Eastbourne might with advantage contribute to your columns some statistics illustrating the extent to which the sanitary registration of buildings has been carried out by them.

The total number of houses in Eastbourne should be given and the number registered as in a satisfactory sanitary condition, together with some indication of the standard of excellence insisted on before certificates are given. Whether the services of public officers are given gratuitously and, if so, whether to the extent of advising upon the necessary work to secure the certificates.

I am, Sirs, yours faithfully,

EDWARD T. BLAKE, M.D., M.R.C.S.,

Life Assoc., Sanitary Institute, Great Britain; Corresp. Memb.,

Amer. Inst.; Memb. of French Hygienic Soc.; &c.

Berkeley Mansions, Aug. 24th, 1892.

## "ON ACTINOMYCOSIS OF THE FOOT, COMMONLY KNOWN AS MADURA FOOT."

To the Editors of THE LANCET.

SIRS,—On returning from my holiday my attention was drawn to Mr. Kanthack's letter criticising my paper under the above title, which appeared in *THE LANCET* of July 2nd, 1892. Mr. Kanthack says he "found it necessary to defend himself from a criticism based on a mere report." I criticised Mr. Kanthack on one point only, and gave him all the credit I could. In the latter part of his letter Mr. Kanthack seems to imply that the statements which I attributed to him were obtained elsewhere than from the printed reports of the meeting. Such is not the case, all those statements appeared in the reports of the meeting of the Pathological Society, published in *THE LANCET* and *British Medical Journal*. As

Mr. Kanthack allowed the reports to pass uncorrected I naturally concluded that they represented his views. Mr. Kanthack, however, need not make a misstatement. I did not assert that in "all" cases of actinomycosis bovis Gram's method, with or without preliminary treatment, gives brilliant results. The word "all" does not appear in my paper in this context. For the great majority of cases my statement is true. It is a fact that a few specialists have for some time recognised the identity of actinomycosis bovis and actinomycosis hominis, but it is only within the last three or four years that this identity has been "fully" and "generally" recognised. As late as 1887 Israel himself and Koch failed to identify Dr. Acland's case as one of actinomycosis.<sup>1</sup> Mr. Kanthack asserts 'as far as my experience goes—and this is the usual experience—in cattle the clubs are absent as frequently as in man.' The clubs are generally, and probably at one stage or another always, present in both actinomycosis hominis and actinomycosis bovis; in the former they are not usually stained by Gram's method, in the latter they are almost invariably deeply stained.

Mr. Kanthack next makes the extraordinary assertion that "in actinomycosis, whether in man or in cattle, the central mycelial zone, the true and typical fungus elements always stain with Gram's method, but the *hyaline clubs* never do; in fact, they refuse any nuclear stain." This is the rule with regard to actinomycosis hominis, but in actinomycosis bovis the clubs generally stain deeply with Gram's method,<sup>2</sup> while the bovine cases in which a central mycelial zone is stained are even now so rare as to be worthy of being recorded when they occur. Mr. Kanthack says "it is now acknowledged by all competent mycologists that the hyaline rays are of no morphological or biological importance, and are probably due to some degenerative changes." Some competent mycologists undoubtedly hold this view, but others, equally competent, consider that the club-shaped bodies may be important structures, and play a part in the development or reproduction of the organism. With regard to Mr. Kanthack's statement that "the extraordinary differences in the staining reactions of the human form from those of the bovine are certainly new and require confirmation," I may say that attention was drawn to them by Dr. Acland and Professor Crookshank five years ago, and I regret that, as is evidently the case, Mr. Kanthack should have written on actinomycosis without having studied Professor Crookshank's exhaustive reports on this subject. Mr. Kanthack next quotes me unfairly. I quite agree with him that in madura disease the clubs are "gigantic," and they were so in my specimen. What I said, or certainly implied, in my paper was that the clubs did not stain with Gram's method, and hence were apparently absent. A line or two further on I distinctly stated that the clubs were present.

I take this opportunity of correcting an error which appears in my paper. The reference to Baumgarten (ref. 4) should be Baumgarten's Jahresber. u. Path. Mikroorg. iv., 1888, p. 300, note.

I fear I have already occupied much space, and I will therefore conclude by referring Mr. Kanthack to the historical and pathological researches on actinomycosis by Professor Crookshank published in the report to the Agricultural Department for 1888. This report is now about four years old; in it many of the points alluded to here are dealt with most fully.—I am, Sirs, yours faithfully,

King's College, Aug. 18th, 1892.

R. T. HEWLETT.

## DANUBE FEVER.

To the Editors of THE LANCET.

SIRS,—Dr. Oliver's paper in your issue of August 13th calling attention to the occasional admission into English hospitals of cases of Danube fever and febrile diseases allied thereto leads me to mention the case of a Russian sailor received into the Liverpool Fever Hospital last autumn. O. S.—, aged twenty-five, sailed on the return voyage from Galatz to Rotterdam, the voyage occupying from sixteen to seventeen days, and of a crew of twenty-five hands thirteen suffered either before leaving the Danube river or at various times on the voyage from illness referred by them to the ailment locally known familiarly as "Danube fever." The crew were paid off at Rotterdam, several of them, including

O. S.—, being still ill. The latter was admitted ten days later into the Liverpool Fever Hospital, South. his case having been notified as one of enteric fever. Death ensued three days subsequently to admission, on Sept. 25th. Clinically, the case ran during the three to four days under observation at the hospital a course entirely distinct from typhoid fever: fever, remittent in type, presenting a diurnal range from the normal to 104°, on one occasion with rigor, and at time of death reaching 106°, was associated with symptoms pointing to uræmia, death resulting from coma. The urine contained blood in large proportion; the skin, bathed in profuse sweat, was of yellow tint, this deepening before death noticeably; pulse 80, full, regular, quickening towards the end to 120 and failing; twitching of face and hands, nystagmus with apparent paralysis of upper extremities, on day preceding death; stools loose and orange-yellow in colour, the patient lying inert and motionless, becoming unconscious on second day after admission. The principal points noted post mortem were extreme congestion of internal organs, splenic enlargement to weight of nineteen ounces, and inflammation of membranes of brain and heart, meningitis and endocarditis being present; no enteric lesion. The illness was attributed to drinking Danube water by the patient and other members of the crew, and ran, as far as I could gather from accounts obtainable, a somewhat relapsing course in the various cases, including that of my patient. The fatality in other cases could not be ascertained.

I am, Sirs, yours faithfully,

C. KNOX BOND,

Aug. 23rd, 1892. Medical Superintendent, Bradford Fever Hospital.

## "PROSECUTION FOR FALSE CERTIFICATE OF DEATH."

To the Editors of THE LANCET.

SIRS,—The brief account in THE LANCET of August 20th of the "false" death certificate given by me omits an important fact: and as the press has prominently reported the case with extraordinary distortion and scandalous imputations, I trust you will do me the justice to give my version of the affair. Thus—I learnt in the daily papers that I kept a dispensary and swindled the poor of their money and lives, though I conduct a middle-class practice at a private residence; that the patient had been visited twice by an unqualified man was given great importance to; that I had sent a registered practitioner to see the case and that he was quite willing to give the certificate was not mentioned. These are the facts: On July 25th a patient sent a message to my surgery requesting a visit. My unqualified assistant went. There were then no serious symptoms. He went again next day and found her much worse. He sent for me. I was engaged with a bad midwifery case and knew I could not leave for hours. I have a grave constitutional defect. I cannot be in two places at once; but I did the best I could under the circumstances. I sent a message to my colleague Mr. Herring of Sussex-road, N., to see the patient for me. He has been paid by me for going and was therefore my agent. He agreed with the diagnosis and treatment and has since written to the Registrar General to say he would have been quite willing to give a certificate. I arrived on the scene a few minutes after death and never saw the patient alive. I have been much blamed for not giving Mr. Herring's certificate to the friends. But I did not take the trouble, for the following reason. It is an actual fact that if language is taken in its ordinary sense, it is possible to truthfully fill up a death certificate as at present worded without having seen the patient till after death. This is an astonishing statement and has probably occurred to no one before. But it is beyond all dispute. I could in this case truthfully give the cause of death "to the best of my knowledge and belief." I could truthfully state when I had "last seen" him or her. But could I logically and truthfully say I had attended the deceased? A little reflection showed me I could. It is first necessary to understand the meaning of the word "attend," as used on a death certificate. Like many other words in the English language it has two meanings as different as night from day. In the phrases "attending an auction," "attending court," "attending a funeral" it means simply "going to" and nothing more. But there is overwhelming evidence that on a death certificate it means nothing of the kind. Medical attendance means "attending to" patients, it means treating them. I can attend patients at my own house. But could I truthfully and logically say I had treated a patient

<sup>1</sup> Brit. Med. Jour. vol. ii., 1887, p. 97.

<sup>2</sup> With coloured plates in Professor Crookshank's Report to the Board of Agriculture on Actinomycosis.

whom I had never seen? A thousand parallel examples showed me I could. Would not an engineer naturally say that he had built a bridge, though he had done it entirely by proxy? And when he had said it, who would be so insane as to accuse him of lying? If a registrar's tailor met him in the street and asked him (the registrar) for some money, because he had made him a suit of clothes, the registrar would carefully inquire whether the tailor had really made them himself. Finding he had neither seen nor touched the cloth, he would call him a wilful perverter of the truth and pass on. I could multiply these instances *ad infinitum*. Therefore if the statements just quoted can be truthfully made, I could truthfully say I had attended the deceased on the certificate for which I was fined. For the crime of using language in its ordinary sense I have had to pay nearly twenty pounds, and I was pelted with mud while my hands were tied. The real person to blame is the stupid individual who worded death certificate forms. They ought to read thus: "I certify that I *personally* attended to.....during h... last illness and that I last saw h... *alive*." There is no ambiguity about this. It was unfortunate for me that my solicitor did not point out to the magistrate the real meaning of "attend" as used by medical men. If he had done so, the summons must logically have been dismissed.

I am, Sirs, yours obediently,

Seven Sisters-road, Aug. 20th, 1892. STEPHEN SMITH, L.S.A.

\*\* We publish our correspondent's letter, although we certainly do not think that his arguments greatly amend his position.—ED. L.

#### "ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA FOR 1890."

To the Editors of THE LANCET.

SIRS,—In reviewing the above report in your issue of Aug. 20th, you dwell at some length on the mortality and sickness caused by enteric fever among the British troops in India. That it is a subject of great importance to the army nobody can deny. Not only many lives are lost both among the men and officers, but the State also suffers a great pecuniary loss by the sickness and invaliding caused by it. With your permission I shall attempt to say a few words on the subject from the little experience I have had both among the British and native troops in India. You ask the question whether enteric fever is or is not prevalent among the native population in India? I have no hesitation in saying that natives of India do not suffer from it to the extent the Europeans do in India. There is no doubt that the enteric fever is essentially the same in pathology in India both among the Europeans and Indians, as the corresponding fever in Europe. If that is the case the question arises, How is it that it is not so prevalent among the latter as among the former? It is more puzzling when one thinks of the sanitary surroundings of both the classes. He must be a bold man who can put his finger on any sanitary defect anywhere to be found in the barracks of the British soldiers in India. As you rightly observe, there are no imperfect drains and sewer air to account for the cause of the disease. It cannot be put down to the water-supply, as not only is it good, but is nowhere better looked after than in the barracks in India. If that is the case where should we look for the cause? Is it due to milk? I think not. The admirable paper by Sir Charles A. Cameron in the Cavendish lecture on "Some Points in the Etiology of Typhoid Fever" seems to remove the difficulty on that point. He says: "I must deprecate the common practice of referring every case of disease to polluted water, defective sanitary accommodation, or leaking sewers. The fact is undoubted that an improved water-supply in Dublin has not been followed by a diminution of typhoid fever." The theory of Rondet and Roux appears more acceptable. If that theory is correct, there is no doubt that bacilli coli communis are in abundance in cantonment bazaars in India, which are not only frequently visited by the British soldiers, but at some stations they are in close proximity to the barracks. Granting that it is the case, the question again faces us, Why should Europeans suffer more than the natives? I think the activity of the lymphatic system in the former has a great deal to do with the conversion of the harmless bacillus into the virulent form of bacillus of Eberth.—I am, Sirs, yours truly,

Aug. 23rd.

P. J. DAMANIA, D.P.H.

## THE CHOLERA IN BELGIUM.

(FROM OUR SPECIAL CORRESPONDENT.)

Brussels, August 23rd.

ALL matters relating to public health in Belgium come under the jurisdiction of the Ministry of Agriculture and Commerce. Thither I went this morning to seek for information concerning the supposed outbreak of cholera in Belgium. I found that a Council had been hastily summoned. The Minister and other persons concerned were gathered together to discuss this question of cholera and to take measures. The consultation was of course held with closed doors, and I do not pretend to have penetrated Ministerial secrets. Nevertheless I can say this much that the strongest indignation was expressed against the attitude of the press. For the sake of publishing sensational news an alarm had been raised which was likely to gravely compromise the commercial relations of Belgium. Yet no one present was able to deny that deaths had occurred at Antwerp and at Jumet. The Government lays stress on the mussels which the sailors of the *St. Paul* had eaten; the press, on its side, insists rather on the fact that three out of the four sailors attacked died and that their symptoms were those of cholera. The Government complains that the press is more eager to give bad news than good news, and raises unnecessary alarm, which is likely to damage the trade of the country. To this each newspaper replies that if it abstains from giving the news other newspapers will be less scrupulous and that, therefore, secrecy is impossible. For my part I cannot help thinking that the press on one side and the Government on the other are both in the wrong, or indeed I might, with equal justice, say that they are both in the right. Certainly there is no cholera epidemic in Belgium as yet, but it is equally certain that the events of the last few days justify the fear as to the possibility of such an epidemic breaking out. The Government is quite right in saying that there is no immediate cause of alarm; the press has only done its duty in recording what has happened and in putting the public on its guard.

About a fortnight ago, in Brussels, an old woman of dissipated habits, a drunkard, was seized with violent cramps, vomiting, diarrhoea, and died. This woman was an inhabitant of Brussels. She had not been in contact with foreigners. There was no reason to believe that this was a case of imported cholera. Such cases occur every year without epidemics ensuing. Brussels has a very efficient sanitary administration. There is no need to alarm the public in Brussels so as to enforce sanitary measures which otherwise would not be accepted. Therefore the sanitary authority quietly took all the measures which would have been taken had this been a genuine case of Asiatic cholera and nothing was said about it. A fortnight has now elapsed and there has been no other such case in Brussels. But what has occurred at Jumet is altogether different. There are three great centres of population in Belgium—namely, the neighbourhoods of Brussels, Liège and Charleroi. The mining town of Jumet has a population of 24,000 inhabitants, while the historical town of Charleroi, which is some five miles distant, has only 21,000 inhabitants. Both towns may be considered healthy. The mortality at Jumet during the first quarter of this year was equal to 18.5 per 1000, and during the second quarter to 18.1. At Charleroi the mortality was, during the first quarter of this year, 18.5 per 1000, identically the same as at Jumet, and during the second quarter considerably less, namely, 15.3. It would seem therefore that the public health is fairly good, though the great majority of the population consists of coal miners, glass-blowers, metal workers and others who labour hard for their living, and often only obtain very meagre wages. During the great cholera epidemic of 1866 the mining population of Jumet suffered extensively, especially the inhabitants of the mining villages of Agasse and Quirelles and within the last fortnight or three weeks there have been a great number of cases of violent diarrhoea or cholera in this district. On the Wednesday of last week a Belgian miner named Van Esbecq, aged forty-two, felt somewhat indisposed. Though a native of Jumet, he had gone to Paris and was working in some brickfields near Paris. There he probably drank some of the contaminated Seine water. In any case he determined to go home and on reaching his house, at Jumet-

Gohyssart, he became much worse and died on the Friday, the symptoms being similar to those of cholera. A child two years old, named Henri Hayel, living in the next house died the next day, apparently from the same cause. Then another child was seized by the same complaint, and in all, I believe, nine cases occurred in rapid succession, though some of the victims lived at a distance of several hundred yards from the first case. To-day there have been, as yet, no new cases reported from Jumet, but it is stated that at the hospital of Charleroi there are three patients suffering from cholera nostras.

What gives exceptional gravity to the news from Jumet is the fact that the first case was that of a man who had just arrived from the suburbs of Paris, where we know there has been a considerable amount of genuine cholera. Then the sanitary conditions of a district like that of Jumet are apt to facilitate the spread of the disease. A correspondent, writing from the spot to the *Brussels Gazette*, relates that the inhabitants of the district of Jumet are particularly fond of fishing. In 1866, when an official inquiry was instituted in consequence of the prevalence of cholera, it was found that many miners kept in their houses dead animals so as to breed maggots, which they used as bait for fishing. Thus in a bedroom, where several persons slept together, a dead horse's head covered with maggots was found. The inhabitants failed to understand that there was any harm in sleeping side by side with the decomposing flesh of animals. In other cases it was ascertained that to avoid the trouble of going out in the yard at night the inhabitants went into their coal cellars, and thus a quantity of fecal matter was mixed with the coal used for domestic purposes. How far the spread of education has improved the present generation still remains to be seen, but the recollection of these facts does not tend to inspire a sense of security.

The Sanitary Commission of the Hainaut, which comprises the Charleroi and Jumet districts, has been convoked in hot haste. Eminent and well qualified hygienists and medical men belong to this Commission; but will they possess the legal powers to act as the emergency demands? The police, we are told, are distributing disinfectants gratuitously; but do the persons to whom they give these substances know how to use them?

While the cholera was thus menacing the populations some thirty miles south of Brussels, some twenty-seven miles north of that city, at Antwerp, the French steamer *St. Paul* arrived from Havre and began to unload at the west quay of the Kettendyck Dock, near to a steamer called the *St. Marc*, on which a boiler explosion recently occurred. The ship was undergoing repairs. On the 16th of this month one of the crew of the *St. Paul* was seized with violent cramps and conveyed to the Stayvenberg Hospital, where he died. On the 17th, Alexis Bian and Jean Collin, suffering in the same way, were also taken to the same hospital, and on the 20th they were followed by another member of their crew named Jean Rolland. Of these four men three are now dead. It is said that they ate a large quantity of mussels, and it is hoped that the mussels and not the cholera are the cause of their death. But two members of the crew of the *St. Marc*, which is anchored next to the *St. Paul*, had received slight burns from the boiler explosion, and they were undergoing treatment, also at the Stayvenberg Hospital. Whether it be the effects of fear and imagination or a mere coincidence or the effects of contagion, there is as yet no evidence to show, but one of these men, François Breydel, while undergoing treatment for his burns was seized with choleric symptoms on the 18th inst. and died. To-day more significant news is to hand. The barge *Jeune Adèle* came to the Kettendyck dock, where the *St. Paul* is unloading. The wife of the skipper, Jeanne Van Keer, was seized with violent cramps, and her child, aged four years, suffered in the same manner. The woman was conveyed to the hospital and died on Sunday. No one says that this woman, or her child, or the sailor François Breydel from the ship *St. Marc* had eaten mussels; but both this ship and the barge were in the same dock and near to the *St. Paul*.

Nevertheless the Belgian Government blamed the Belgian press for causing mischievous alarm by publishing some of the above details. Undoubtedly it is wrong to unnecessarily alarm people and to pretend that there is a cholera epidemic in Belgium at the present moment as the state of public health, notably at Brussels, is exceptionally good in spite of the great heat. But, on the other hand, the press would be singularly remiss in its duties if, in the face of the above facts, it did not pronounce an energetic warning. The good that such warning does is illustrated this

morning at the Sanitary Bureau of Brussels, where a great number of letters have been received from various householders who imagine that their drains are not in order. No such letters had been sent for a long while, and if they have come to-day in such numbers it is because the population is awaking to the necessity of taking proper precautions. This is just what should be done. The death-rate at Brussels for the week ending August 13th was 20 per 1000 and the sanitary condition of the town is good. The Sanitary Bureau, since its creation in 1874, has overhauled, altered and improved the drainage &c. of 11,000 to 12,000 houses out of the 18,000 houses which compose the town of Brussels. The result has shown itself in a very great reduction of mortality. Brussels is well prepared to face an epidemic. I only wish the same could be said of the neighbourhood of that city and of the rest of Belgium.

Our correspondent, writing on Wednesday, Aug. 24th, says:—The *Moniteur Belge*, the official gazette of the Belgian Government, publishes this morning a circular addressed by the Minister of Agriculture to all the governors &c. of the various provinces of the kingdom. The circular commences with the assertion that "epidemic cholera has not as yet manifested itself in any locality of the country, and the general sanitary condition remains excellent. But the extension of Asiatic cholera in certain foreign countries should excite the watchfulness of the public powers." Then follow very lengthy and revised instructions as to the measures and precautions which should be taken against cholera. It will be noted that the Government circular does not deny the existence of cases of cholera; it only maintains that "as yet" there is no epidemic. This is rigorously correct and confirms what I attempted yesterday to explain.

The *Patriot* of to-day publishes an interview with Dr. Masoin of Louvain, Professor at the University and member of the Belgian Academy of Medicine. Dr. Masoin states that he believes there have been cases of real cholera in Belgium, because the patients had come from France; where real cholera undoubtedly exists.

At Brussels Dr. Janssens, chief of the sanitary bureau, has summoned all the police who volunteered to act as a reserve-force for the service of disinfection &c. These men have all been trained, and it is only necessary now to see that they have not forgotten any of the lessons given in the past and are still ready to act if necessity should arise for calling out these reserves. The town authorities are thus quite ready for any emergency, though the public health continues excellent.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *The Manchester Royal Infirmary.*

THE trustees of the Royal Infirmary have decided that no extension on the present site of that building shall take place. The ballot papers, which were opened on last Monday week, showed a majority of 140 against the proposal of the board of management; but whether from a lack of interest on their part or from a feeling of their inability to decide so momentous a question, only a little over half of those authorised to vote recorded their voices. The consequence of this decision is that the infirmary will be carried on in the accustomed way. Whether or no another attempt will be made by the Owens College authorities to induce the infirmary board to build upon the college land remains to be seen. The consent of the infirmary to such a proposal would undoubtedly be the easiest relief from the difficulties of the college authorities, who, in case of an adverse decision, would probably themselves commence the building of a general hospital on their estate. The funds necessary for this purpose, together with an income sufficient to maintain the hospital would, however, first have to be provided and would no doubt take time to collect. In connexion with this it is worthy of note that the majority of memorialists by whose exertions the proposal of the infirmary board was the other day rejected disclaim any idea of working for the benefit of the college and have fought their battle solely upon the "open space," "value of surrounding property" platform. They profess to retain their approval of the infirmary in its present state and management; nevertheless, whatever their motives may be, their action has considerably strengthened the hands of the Council of the Owens College, and has very much weakened those of the infirmary board.

Manchester, Aug 24th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*The British Medical Association Meeting at Newcastle, 1893.*

A PRELIMINARY meeting to promote the objects of this meeting at Newcastle in 1893 was held last Thursday at the College of Medicine, Dr. Philipson, president-elect, in the chair.

*Berwick.*

A very successful bazaar has been held at Berwick to promote improvements at its suburb Spittal, including a sea-wall and a promenade on its splendid beach. Earl Percy opened the proceedings.

*The Thompson Bequest to the Poor of Byker, Newcastle.*

The ceremony of laying a wreath over the tomb of the late Mr. Thomas Thompson of Jesmond was duly observed last week at Jesmond Cemetery. A few years ago a Mr. Louis Thompson of Byker, Newcastle, left the handsome amount of £15,000 to the poor of Byker on condition that a wreath should be placed on his father's tomb annually by the guardians of the poor of the district; should the ceremony, however, be omitted for three years the amount is to be paid over to the national exchequer. The interest of this large sum has been duly paid to the Poor-law guardians of the district, and is a great relief to the rates.

*Small-pox in the North of England.*

A good deal of concern is expressed as to the continuance of small-pox in the north of England from Leeds to Stockton and Middlesbrough. At the last place there were fourteen cases in the hospital, twelve being from Middlesbrough and two from Stockton. So far Newcastle and the Tyneside continue clear; indeed, the general health of the district is excellent.

*North-Eastern Convalescent Home.*

The half-yearly meeting of the North-Eastern Friendly Societies' Convalescent Home at Grange-over-Sands was held last week at Sunderland, and the report was very satisfactory. After doing a very useful amount of work, there remains a balance in hand, so that this institution is a good example of the coöperative system applied to medical purposes. The Home was built for working men, being managed and supported by them.

*Ambulance Work in the North.*

Mr. Galbraith, surgeon, of Gosforth, near Newcastle, having delivered a course of ambulance lectures and given instructions to a class of thirty students during the session 1891-92, an examination took place by Dr. Mears with highly satisfactory results. Last week the students were presented with their medals and certificates, Mr. Galbraith receiving at the same time an address and presentation in appreciation of his services.

*Death of Mr. John Currie Steele, J.F.P.S. Glas.*

Mr. John Currie Steele, surgeon, of Willington Quay, died last week at the early age of forty-eight, much regretted. He was one of the first surgeons of the district to give systematic ambulance instruction to the numerous workmen of mid-Tyne, where his services were much appreciated, and he was the recipient of numerous public testimonials in recognition of his worth.

*The Accident to Dr. Cook of Gateshead.*

Further news of the late severe accident in Norway to Dr. Cook of Gateshead has been received in Newcastle. Mrs. Cook is now with her husband where he is laid up but doing well at a private hospital in Bergen. It appears that when the horse bolted the vehicle was overthrown by coming in contact with the wall of a bridge, below which, at a distance of forty feet, rolled a turbulent stream over granite boulders. Dr. Cook had his sternum fractured as well as several ribs. He first received attention from Mr. Taylor of Braintree, Essex, and Dr. Burton of Huddersfield. The Norwegian surgeons, Drs. Christie Sandberg and Middlefast, under whose care Dr. Cook is now, have been most kind and attentive. He will of course have to remain in Norway for some time, as the North Sea is no respecter of fractured sternum and ribs.

A beautiful stained glass window has been placed in Blyth Parish Church by Mr. Gilbert Ward of Blyth in memory of his son Dr. Henry Debord Ward.

Newcastle-on-Tyne, Aug. 23rd.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*Queen's College, Cork: Annual Report.*

DURING the session 1891-2 the students on the books of the College were 255, of whom 251 were matriculated and 4 non-matriculated. Of these 255 students 199 were enrolled in the Faculty of Medicine. Among the pressing wants of the College that of a new chemical laboratory stands foremost. The professor reports that not half the requisite number of working benches was available for the students who attended lectures in the practical branch of his subject. The arrangements for ventilation and for storage of apparatus are also defective. The rooms occupied by this department are required for a physical laboratory and for an engineering and technical museum. The need of the former is shown by the fact that the professor of Natural Philosophy is obliged, by the smallness of his lecture-room, to divide his class in Practical Physics into several sections. An excellent site for building may be had in the Materia Medica garden. The President points out that a new chemical laboratory, fully provided with the most recent appliances and apparatus, is approaching completion in Queen's College, Belfast, and he therefore hopes that a similar boon, so often applied for, will no longer be withheld from Queen's College, Cork.

*Lurgan Waterworks.*

It has been determined to supply Lurgan with water from Lough Neagh, and the Government have promised to advance a sum of £21,000 to carry out the necessary works. A special meeting of the Town Commissioners was held last Saturday to consider tenders for the carrying out a contract for the construction and erection of reservoirs, filter beds, machinery houses &c. A tender for £10,650 was accepted.

*Deaths of Centenarians.*

Daniel Lyons died at Castleisland last week aged 103 years. Lyons fought in the Peninsular War, and had been a pensioner for the last sixty-eight years. James Lynch died at Ballycumber, King's County, also aged 103. He retained his mental faculties to the last, and attended to his work until a few minutes before his death. He dropped down dead while out walking.

*Military Infirmary, Phoenix Park.*

The military authorities, acting on the suggestion of the principal medical officers, have determined to close the Royal Infirmary to the admission of patients in consequence of the insanitary condition of the grounds. It is stated that the patients at present in the infirmary and the attendants will be accommodated in a portion of Steevens' Hospital.

*Death of Mr. Gregory Sala.*

I record with regret the death of this gentleman—highly esteemed in the locality in which he practised—which occurred on Sunday last, at his residence, Newpark House, Kilmegaw, co. Kildare, after a tedious illness from the effects of influenza; he was forty-seven years of age. He was naturally of a somewhat delicate constitution, and suffered of late a good deal from rheumatism. The complications of influenza which he suffered from were prostatic abscess and neuritis of the arm. The latter caused such intolerable agony that he required very large doses of opiates several times repeated to produce any sleep. Suffering such intense torture, and with an already enfeebled constitution, it is not surprising that he succumbed after several months' suffering. He leaves a widow and a daughter to mourn their loss.

*Health of Dublin for 1891.*

The report of Sir Charles Cameron, medical officer of health for the past year, has just been issued. The births in Dublin Registration District numbered for the year 9850, or 29 per 1000; while the deaths amounted to 9195, or 25.5 per 1000. Zymotic diseases caused 865 deaths, or 390 below the average number for the past ten years. It is gratifying to note that the mortality among children has of late fallen considerably. There was not a single death from small-pox in Dublin during 1891, only 2 deaths from measles, and 3 from typhus fever; while whooping-cough caused 134 deaths. But, although typhus fever may be said to have disappeared, typhoid fever shows no decrease. During 1891 the deaths from typhoid fever numbered 172, or in the ratio of 52 per 100,000, and as to the cause of this increase of

typhoid fever cases and consequent mortality it is difficult to conjecture, especially as last year the disease was more prevalent than in former years. Defects in house drains and sewage matters in the soil are supposed to have some bearing on the matter, and no doubt the house drains in a large proportion of Dublin houses are to a great extent defective, and it has been suggested that the subsoil is saturated with water which has been allowed to accumulate, rendering the site damp and unhealthy, and that this is the most likely cause. Sir Charles Cameron says that no accurate scientific explanation of the cause of the undue prevalence of typhoid fever in Dublin has yet been published. The most probable hypotheses are those which indicate polluted soil, and defective sewers and house drains as the principal causes. As to soil pollution, there is no doubt that it prevails largely, and the greater part of Dublin is literally built upon a "water-logged site." For the greater part of the twenty-four houses the mouths of the main sewers which open on the River Liffey are closed by valvular tidal gates; it is only when the tide is low that the sewage of Dublin flows into its outlet (the Liffey), and it is only when the tide is out that the subsoils are drained. For a large portion of the day, therefore, drainage is suspended in the soils, and they acquire that damp and (in summer) warm condition so favourable to the development of low organisms.

#### Pharmacy Prosecutions.

Two members of a most respectable firm of chemists in Dublin were prosecuted at the instance of the Pharmaceutical Society this week on the charge that last month medical prescriptions were compounded by them contrary to the Pharmacy Act 38 and 39 Vic., cap. 7, sec. 30. Fines were inflicted in two of the cases of £5 each and three guineas costs. Prosecutions for breaches of the Pharmacy Act are no doubt right and proper, but if the society were to investigate as to whether some of their licentiates are not busily engaged in counter prescribing, probably they would be disagreeably surprised.

#### The Belfast Royal Hospital.

On Monday, Aug. 22nd, the quarterly meeting was held and from the report presented I learn that during the previous three months there were 690 intern patients and 5371 extern cases. All accounts against the hospital up to the end of July are paid, this result being due to the centenary bazaar, but, compared with last year, there is a falling-off in general subscriptions and in church collections; while, on the other hand, there is an increase in the contributions of the working-classes. Dr. T. K. Wheeler was re-elected surgeon and Dr. J. A. Lindsay physician, and Mr. Davidson was appointed house physician in place of Dr. Mitchell, resigned.

#### A Wealthy Pauper.

At the usual meeting of the Board of Guardians, held on Aug. 23rd, the master reported that a man who was admitted on the previous day had in his possession a number of Ulster Bank notes and American bonds representing a sum of £1335. It was decided to make inquiries whether there were any friends who would take charge of him.

On the recommendation of the Duke of Abercorn the Lord Chancellor has appointed Mr. A. W. Flood, R.N., F.R.C.S. Eng., of Bundoran, county Donegal, to the Commission of the Peace for the county of Donegal.

Mr. Thomas Collins has been re-elected representative of the Apothecaries' Hall on the General Medical Council.

Mr. William Henry Digges, L.R.C.P. Edin., of Sackville-street and Accourt Lodge, Merrion, has been placed on the Commission of the Peace for the city of Dublin.

The death is reported at Santos, South America, from yellow fever, of Mr. Matthew J. McDonogh, L.R.C.S.I. &c., eldest son of Mr. F. J. McDonogh, J.P., of Willmount House, Portumna. August 23rd.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### Ménière's Disease a Symptom of Chronic Bright's Disease.

PROFESSOR DIEULAFOY was, I believe, the first to call attention to the frequency of auditory troubles in the course of chronic interstitial nephritis. That clinician indeed regards

them as more frequent than troubles affecting the organ of vision. The ear complications take the form of generally incomplete deafness, accompanied or unaccompanied by noises, and sometimes associated with sharp pains in the ear or in the face. Dr. Bonnier has recently conducted some inquiries on this subject and he finds that "auricular Brightism," as he denominates this condition, may manifest its presence, not only by the above symptoms, which are referable to cochlear changes, but by others dependent upon morbid modifications of the labyrinth. These latter remind one pretty accurately of the condition first described by Ménière, consisting as they do of vertigo, nausea, vomiting, syncope and apoplectiform phenomena; gyratory movements, unsteadiness of gait and irresistible falls in a given direction. This form of Ménière's disease, according to Dr. Bonnier, paroxysmal in character, and it is generally due to vaso-motor troubles, such as congestions, hæmorrhage or œdema of the internal ear determined by uræmia. It may be an early indication of kidney disease or appear late in its course. Quinine, which is so successful in the ordinary form of Ménière's disease, is useless here, the only efficient means of combating it being: recourse to an exclusive milk diet. Under the influence of this simple means of treatment it speedily gives way. This observation of Dr. Bonnier once more emphasises the importance of examining the urine in the presence of any symptoms of which the origin appears obscure.

#### Hydrophobia in Paris and in the Department of the Seine.

From a report just compiled by Dr. Dujardin-Beaumetz for the Sanitary Board of the Seine Department it appears that in the period comprised between Jan. 1st, 1881, and Dec. 31st, 1891, 101 persons died of hydrophobia in the capital and in the Department in which it is situated. Of these, 74 were males and 27 females. The prevalence of the disease was most marked in 1881 (21 cases), 1885 (22 cases) and 1888 (19 cases). The attention of the police authorities having been drawn to the evils of canine vagrancy at each of these dates, the malady became quickly more rare. The statistics of the Institut Pasteur are worth transcribing, as they go to prove irrefutably the efficacy of the inoculations therein practised. The figures run thus:—

	Persons treated.	Deaths.	Mortality.
1887 ... ..	306	3	0.97 per cent.
1888 ... ..	386	5	1.29 " "
1889 ... ..	236	3	1.27 " "
1890 ... ..	95	0	0.00 " "
1891 ... ..	201	0	0.00 " "

From 1886 to 1892, 11,029 persons suffering from dog-bites were treated at the institute. Of these patients 98 succumbed despite the treatment, making a mortality of .88 per cent.

#### The Health of Paris.

In my last letter but one I was able to announce an encouraging improvement in the health of this metropolis, particularly with regard to the endemic of cholera, which has been our unwelcome guest of late. The report for the first fortnight of the present month of the Permanent Vigilance Committee of the Conseil d'Hygiène de la Seine has recently been issued, and it is, on the whole, reassuring reading. From it we gather that from July 20th to Aug. 3rd there died in the suburbs, of *diarrhée cholériforme*, seventy-two persons. For the period elapsing between Aug. 4th and 17th the fatal cases had fallen to thirty-three. In Paris itself, the deaths during the first and the second periods respectively were thirty-four and sixteen. This latter figure coincides pretty exactly with that usually found during the hot season of the year. It is only surprising that the exceptionally intense heat (10°C. above the usual summer temperature) that prevailed for so long a time should not have had the effect of further increasing this very moderate mortality from diarrhœa. Sixteen deaths in a population of over two and a-half millions is nothing very alarming. Notwithstanding that the authorities are not relaxing in their efforts toward off the threatening foe, and 20,000 sanitary leaflets are to be forthwith distributed amongst the people through the agency of the Prefecture of Police. I regret to say, however, that an increase of typhoid fever cases is announced, there having been reported to the Bureau des Epidémies ninety-three cases for the first fortnight of the present month, as against seventy-seven for the last fortnight of July.

Paris, Aug. 24th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

*Cholera Nostras in Germany.*

On the 21st inst. twenty-two persons fell ill of so-called cholera nostras in Hamburg, and seven of them have died. Two deaths from the same disease are also reported from the Governmental circle of Namslan in Silesia.

*Professor Virchow.*

Professor Virchow arrived at Warsaw on the 11th inst., was received with all due honour by a deputation of the medical men of that city, visited all the hospitals and museums, and left on the 12th for the Congress of Anthropologists and Archæologists at Moscow, accompanied by his son, Professor Hans Virchow, and a young Russian savant, Dr. Popov. From Moscow the dauntless old man intended to proceed to the interior of Russia to study the cholera epidemic. A portrait of him by Hans Pechner, which was exhibited at this year's exhibition of the Berlin Academy of Art, has been bought by a citizen of Berlin and presented to the Children's Hospital, founded by the Emperor and Empress Frederick, energetically assisted by Professor Virchow and others, where it is hung in the pavilion for external diseases.

*The Foot-and-mouth Disease in Saxony.*

The foot-and-mouth disease has been spreading alarmingly in Saxony during the last few weeks. No fewer than 393 agricultural establishments were declared infected between the 31st July and the 14th inst. In very many cases the infection is stated to have been carried by human beings.

*"A Wise Woman."*

A boy near Berlin sprained his foot in the first week of this month. His mother fetched a so-called "wise woman" (Kluge Frau) who had acquired a reputation for miraculous cures. She resolved to cure the boy by "sympathy." She pulled and squeezed the foot, repeating formulas the while, till the poor lad fainted with pain. To enhance the effect she scratched the skin of the swollen foot at several places and rubbed ointment into the wounds. Next morning the whole leg was swollen and extravasated with blood. A doctor was sent for and declared the boy to be suffering from blood-poisoning, which rendered it necessary to amputate the leg. The operation was performed in the Charité, and the "wise woman" is to be, or has been, prosecuted.

*Tramway Hygiene.*

The following letter from a medical man to one of the Berlin daily newspapers is likely to interest many of your readers: "A strong young man can certainly bear standing for hours together without feeling any special inconvenience; nay, perhaps, for a while, though wind and weather are rough enough upon him in his almost unprotected place, he hardly feels the hardship to be one at all. But the fact is that the human body is not adapted by nature for such uninterrupted effort; it needs the alternation of work and rest, and the interval of a minute or two at the end of the drive can hardly be regarded as deserving the latter designation. The consequence is—to single out the main evil only—that disturbances of the circulation set in, followed, above all, by varicose veins, which look very harmless at first, but which in course of time, and especially on the approach of old age, may become a terrible plague and prepare the way for those incurable ulcerations which render those who suffer from them unfit for work of any kind. Two little seats, one in front and one behind, so constructed that they can be folded down at will, would suffice considerably to improve the situation of tramway officials, without narrowing the room for passengers or diminishing the efficiency of the service."

Berlin, Aug. 28rd.

**PURIFICATION OF SEWAGE AT PUDSEY.**—The Pudsey Local Board has instructed Mr. W. Spinks, civil engineer of Manchester, to prepare a plan for the erection of sewage works on ten acres of land at Hough Side. The cost is estimated at £3000, and about three and a half acres will be thus utilised. The system to be adopted will be that of precipitation with prepared filters. The consent of the Local Government Board is the only preliminary to the carrying out of the proposed plan.

## Medical News.

UNIVERSITY OF EDINBURGH.—The following candidates have received the degree of Doctor of Medicine:—

- \*Allison, B. Dunlop Reid, M.B., C.M., Scotland (with Second-class Honours).
- †Beaton, Gilbert Taylor, M.B., C.M., Scotland.
- †Brock, George Sandison, M.B., C.M., Scotland (with Second-class Honours).
- †Campbell, Alfred Walter, M.B., C.M., Australia.
- †Chasseaud, Henry Maurice, M.B., C.M., Asia Minor.
- †Clark, Henry Martyn, M.B., C.M., India.
- †Clarke, Edmund Wearne, B.Sc., M.B., C.M., England.
- †Clemow, F. Gerard, M.B., C.M., Eng. (with Second-class Honours).
- †Closs, Joseph Osborne, M.B., C.M., Scotland.
- †Cullen, George Matheson, M.B., C.M., Scotland.
- †Dick, James Adam, B.A., M.B., C.M., Australia.
- †Dole, William, M.B., C.M., Scotland.
- †Ezard, Edward Henry, M.B., C.M., England.
- †Fox, Richard John, M.B., C.M., India.
- †Gibson, Edmund Valentine, M.B., C.M., England.
- \*Gillespie, Alexander Lockhart, M.D., C.M., Scotland.
- †Hall, William Winslow, M.B., C.M., India.
- †Hall, Arthur Herbert, M.B., C.M., England.
- †Havelock, John George, M.B., C.M., England.
- †Keay, Joseph Hay, M.A., M.B., C.M., Scotland.
- †Kitchin, James Tyson, M.B., C.M., England.
- †Leslie, George, M.B., C.M., Scotland (with Second-class Honours).
- †Lockwood, William, M.B., C.M., England.
- †MacGregor, Alexander James, M.B., C.M., Scotland.
- †McKie, Norman James, M.B., C.M., England.
- †Magrath, Chas. William Stanford, M.B., C.M., England.
- †Mansel, Charles John Linskill, M.B., C.M., England.
- †Maynard, Edward Forster, M.B., C.M., England.
- †Meadows, Robert Thornton, M.B., C.M., Canada.
- †Mitchell, William Gordon, M.A., M.B., C.M., Scotland.
- †Morison, Basil Gordon, M.B., C.M., India (with First-class Honours).
- †Munro, Andrew Watson, M.B., C.M., Scotland.
- †Murray, William, M.B., C.M., Scotland.
- †Northcote, Augustus Beauchamp, M.B., C.M., England.
- †Pare, John William, M.B., C.M., England.
- †Parham, William Maskelyne, M.B., C.M., England.
- †Playfair, John, M.B., Scotland.
- †Poole, Thomas Dobson, M.B., C.M., England.
- †Pope, Roland James, B.A., M.B., C.M., Australia.
- †Russell, James, M.A., M.B., C.M., Scotland.
- †Savory, Charles Butler Beck, M.B., C.M., England.
- †Simpson, James Bertie, M.A., M.B., C.M., Scotland.
- †Someren, George Arbuthnot van, M.B., C.M., Scotland.
- †Symonds, George Henry Hamilton, M.B., C.M., England.
- †Thomas, William Evans, M.B., C.M., Wales.
- †Thompson, Isaac, M.B., C.M., England (with Second-class Honours).
- †Thomson, J. Christopher, M.A., M.B., C.M., Scotland (with Second-class Honours).
- †Thornton, George, M.B., C.M., England.
- †Turner, Alfred, M.B., C.M., England.
- \*Turner, W. Aldren, M.B., C.M., Scotland (with First-class Honours).
- †Walcot, Thomas, M.B., C.M., England.
- †Walker, Edward, M.B., C.M., England (with First-class Honours).
- †Ward, T. Hamilton, M.B., C.M., England (with First-class Honours).
- †Watson, William Muir Crawford, M.B., C.M., Scotland.
- †Webb, Sidney Roberts, M.B., C.M., England.
- †Weston, William Henry, M.B., C.M., England.
- \*Whiting, Arthur John, M.B., C.M., England.
- \*Wilson, Theodore Stacey, B.Sc., M.B., C.M., England (with Second-class Honours).
- †Winder, Arthur Benjamin, M.B., C.M., England.
- †Wise, Robert, M.B., C.M., Scotland.

\* Received Gold Medals for their Dissertations.

† Deemed worthy of competing for the Dissertation Gold Medals.

‡ Commended for their Dissertations.

The following candidates have received the degrees of Bachelor of Medicine and Master in Surgery:—

- Adamson, R. Edward, England.
- Allan, James, Scotland.
- Ancrum, G. Wayland, England.
- Anderson, James Shirras, M.A., Scotland.
- Armstrong, R. Henry, England.
- Bagram, Geo. Joakim, Armenia.
- Barber, Thaddeus B., West Coast of Africa.
- Barnardo, G. Fleming, England.
- Bassano, T. Matthias, England.
- Beddle, Lewis B., M.A., Scotland.
- Bell, George, England.
- Benson, H. P. D'Arcy, Australia.
- Beveridge, J. J., M.A., Scotland.
- Bill, George, Australia.
- Bond, Chas. Hubert, England.
- Bremner, Dugald C., Scotland.
- Brown, J. Chalmers, Scotland.
- Brown, T. M'Lachlan, Scotland.
- Browne, Hablot J. M., England.
- \*Brownlie, Alexander, Scotland.
- Brunton, W. M'Queen, Scotland.
- Burn, David Haily, Scotland.
- Butler, F. Sydney, Cape Colony.
- Butters, George, Scotland.
- Campbell, D. Graham, Scotland.
- Campbell, W. Sibbald, Scotland.
- Carruthers, John F., Scotland.
- Christie, J. G., M.A., Scotland.
- Cillers, Pieter G., Cape Colony.
- Clayton, F. H. Aylon, England.
- Cock, Geo. Herbert, England.
- Coles, Herbert Davis, England.
- Coope, Anthony B. J., England.
- Corson, R. Atchison, Scotland.
- Davidson, S. G., M.A., Scotland.
- Davies, Richard, England.
- Dick, John Lawson, Scotland.
- Dickson, George, Scotland.
- Dobie, Edward Cyril, England.
- Donald, Chas. Wm., Scotland.
- †Douglas, Alex., M.A., England.
- Dubourg, Wm. Ernest, Scotland.
- \*Easterbrook, C. Cromhall, M.A., England.
- †Edgington, Daniel Chas., Scotland.
- Ehrke, Frank Leigh, England.
- †Evans, John James, Wales.
- Evans, Rufus Easson, England.

\* Received First-class honours.

† Received Second-class honours.

Fellows, F. Macfarlane, England.  
 +Fells, Arthur, England.  
 Fentem, Thomas, England.  
 Fletcher, William, England.  
 Fortane, Ernest Geo., Scotland.  
 +Fowler, Jas. Stewart, Scotland.  
 Foye, Martin Hugh, Ireland.  
 Fullarton, J. A., B.A., New Zeal.  
 Gardard, Edward, Blako, England.  
 Gibb, Wm. Scott, Scotland.  
 Gordon, William, England.  
 Gow, William Baxter, Scotland.  
 Gray, Robt. Walker, Scotland.  
 Gray, William, Scotland.  
 Green, Vincent, England.  
 Gregory, Wm. Herbert, England.  
 Grimley, Ernest E. T. E., England.  
 Grimmer, Geo. K., B.A., Canada.  
 Guthrie, R. Lyall, M.A., Scotland.  
 Guthrie, T. Clement, Scotland.  
 Hadden, Herbert H., Ireland.  
 Halloy, Geo., M.A., Scotland.  
 Hamilton, John Archd., Scotland.  
 Hare, Fredk. J., B.Sc., England.  
 Hardy, Leonard E., New Zealand.  
 Hawkins, Edgar, M.A., England.  
 Haworth, W. Ellwood, New Zeal.  
 Hendry, Alexander, Scotland.  
 Hawat, D. Bennie, South Africa.  
 Hewor, H. M'Donald, England.  
 Higson, John Russell, England.  
 Hogg, Gustave Heuze, Tasmania.  
 \*Home, George, New Zealand.  
 Hopkins, Arthur Henry, Ireland.  
 Hugo, Cornelius J., Cape Colony.  
 Hulme, Geo. Fredk., England.  
 Hutchinson, F. H. Grant, Eng.  
 Ingram, Alexander, Scotland.  
 Irvine, Louis G., M.A., Scotland.  
 Jareja, Sir Baghvat Singh, India.  
 Johnston, Jas. Hunter, England.  
 +Johnston, Robt. John, Scotland.  
 Johnstone, George, England.  
 Jones, Howell Buckland, Wales.  
 \*Keng, Lim Boon, Singapore.  
 Knox, Robert, Scotland.  
 Laing, Jas. T. Currie, Scotland.  
 Lawrie, Wm. Duncan, England.  
 \*Leslie, Rob. Murray, M.A., B.Sc., Scotland.  
 Liddell, John R., Scotland.  
 Littlejohn, E. S., B.A., Australia.  
 Locke, Percival Vincent, Pinang.  
 Macarthur, W. Forrest, England.  
 \*Macaulay, D., M.A., Scotland.  
 M'Glow, James, Scotland.  
 M'Clymont, John, Scotland.  
 M'Donald, James, Scotland.  
 M'Ewen, Alexander, Scotland.  
 MacIndoe, Jas. Gray, Scotland.  
 M'Kerrow, James, England.  
 Mackinlay, W. Harrison, England.  
 Maclean, Jas., M.A., Scotland.  
 Macmillan, J., M.A., B.Sc., Scot.  
 Macmorran, A. H. Muir, Scotland.  
 +Macnaughton, G. W. F., Scotland.  
 +Malabre, Philip Oscar, Jamaica.  
 Mann, Gustav, India.  
 Martin, John Little, England.  
 Mathieson, G. Brand, Scotland.  
 Maxwell, Raymond, Tasmania.  
 Meikle, Alex. Jameson, Scotland.  
 Melville, David, Scotland.  
 Millard, C. Killick, England.  
 Mirza, Ahmed, India.  
 Mitchell, Alexander, Scotland.  
 Mitchell, G. Benjamin, Scotland.  
 Moon, Alex. Rae, Scotland.  
 Moorhouse, Jas. E., M.A., B.Sc., England.

Morison, John, Scotland.  
 Munnick, Gerhardt C., Cape Colony.  
 Murray, James Hay, Scotland.  
 Naidu, Muthyala Govindurajulu, India.  
 Newman, George, England.  
 Nicholl, Edwd. M'Killop, India.  
 Nicoll, John M'Donald, Scotland.  
 Nicol, Percy Wood, Scotland.  
 Nobbs, Atholstang, England.  
 Nuttall, Thos. Edwd., England.  
 Oldmendoz, L. J. H., Tasmania.  
 Parker, Charles, Tasmania.  
 Parkes, W. H., New Zealand.  
 Paterson, David W. H., Scotland.  
 Pearce, Chas. Ross, England.  
 Peterkin, George, England.  
 Petrie, R. O., M.A., Scotland.  
 Pimblett, Wm. Henry, England.  
 Pollard, Geo. Wilfred, England.  
 Ponder, C. Frederick, Scotland.  
 Porter, George, England.  
 Proudfoot, Robert, Scotland.  
 Putnam, W. G., B.A., Nova Scotia.  
 Rao, J. R. Musgrave, England.  
 Reid, Matthew Alex., Australia.  
 Robertson, W. Nathaniel, Scotl.  
 Robson, O. D., M.A., England.  
 Roger, William, England.  
 Rowland, H. Armitage, England.  
 Russell, Jas. Lawson, Scotland.  
 Schmidt, P. Wollstadt, England.  
 Scott, William, M.A., Scotland.  
 Sheult, Raoul, Trinidad.  
 Sellar, William Grant, Scotland.  
 +Shaw, Jns. Brownlee, Scotland.  
 Shaw, Peter, William Scotland.  
 Smitoponios, C. D., Smyrna.  
 Simpson, Alex. Tweedie, Scotland.  
 Simpson, Walter P., Scotland.  
 Slane, Herbert James, India.  
 Sloan, Thos. G., M.A., Scotland.  
 Smith, A. Scott, M.A., Scotland.  
 Smith, W. R., B.Sc., Scotland.  
 Somerville, William, Scotland.  
 Spottiswo, William, England.  
 Sproule, Wm., New South Wales.  
 Stoddart, James, B.A., Scotland.  
 Stuart, Alexander, Scotland.  
 Sutherland, James, New Zealand.  
 +Talbot, A. G., B.A., New Zealand.  
 Talbot, Matthew W., England.  
 Templeton, George, Scotland.  
 Thompson, Cuthbert, Ireland.  
 Thompson, James L., Australia.  
 Thomson, Charles, India.  
 Thomson, H. Torrance, Scotland.  
 Tibbits, Walter, England.  
 Toit, F. J. du, B.A., Cape Colony.  
 Truter, K. Meeser, South Africa.  
 Turkhud, Dnyaneshwar Atmaram, India.  
 Tyrie, C. Campbell B., Scotland.  
 Walker, A., M.A., B.Sc., Scotland.  
 Wallace, John, Scotland.  
 Walls, James Monteith, Scotland.  
 Watson, Alex. Edward, Scotland.  
 Watson, Douglas C., Scotland.  
 Watson, Jas. Kenneth, England.  
 Weightman, Edwd. J., England.  
 Verdmillier, Victor, Cape Colony.  
 What, John Robert, England.  
 White, William John, Scotland.  
 Whittome, Harry, England.  
 Williams, Robert Morris, Wales.  
 Wilson, John Clark, Scotland.  
 Wilson, John Wilford, England.  
 Young, Ludovic Unwin, Scotland.  
 Young, Meredith, England.  
 Young, William, New Zealand.

Bardswell, J. A. Bayne, M.A., J. E. H. Bennett, J. B. Blaikie, A. B. Blair, W. H. Borrie, F. J. C. Y. Botha, Edwin Bramwell, A. S. Brass, T. A. Brennan, H. S. Brockway, R. M. Broughton, G. S. Brown, H. G. Brown, W. J. Buchanan, B.A., D. A. Cameron, H. J. Cardale, A. G. Carment, Scott Carmichael, S. H. Carr, W. H. Carso, \* W. W. Chipman, B.A., A. W. G. Clark, \* J. M. Coates, C. B. Crampton, John Crawford, James Davidson, Priyanath Deb, Maurice Dee, Hugh Dowar, Arthur Dickson, J. H. S. B. Douglas, Stanley Ducat, William Duncan, C. W. Eames, J. W. Edwards, A. W. Ellis, John Ellul, William Evans, F. B. Feast, A. M. Fleming, C. C. Forrester, G. O. Franzen, Frederick Gardner, W. A. Gemmol, R. M. Gibson, John Gilmour, C. J. Gorringe, James Gray, A. Y. Greenwood, J. M. Grievio, M.A., Norman Gunn, R. M. Hall, S. H. Hall, F. A. Hardy, C. M. Hector, George Henderson, G. P. Henderson, John Henderson, J. J. Hewison, M.A., W. H. Hill, John Hirst, J. F. Holden, George Holliday, I. D. C. Howden, A. L. Husband, D. H. Hutchinson, Robert Irvine, Walter Jagger, J. M. Jeffrey, Laurence Ker, James Kirk, B. I. L. Learmonth, R. M. Leith, William Lillis, R. C. Loney, J. R. Lord, P. C. Lüttig, B.A., W. L. Lyall, Angus Macdonald, F. B. Macdonald, W. M. Macdonald, John M'Donald, Stuart M'Donald, J. A. Macfarlane, T. H. Macfle, D. M. Mackay, Charles MacLaurin, John M'Master, D. D. M'Neil, A. D. M'Pherson, M.A., Colin M'Vicar, M.A., W. R. Mander, J. L. Majoribanks, J. S. Martin, Joseph Masner, James Massey, G. H. Masson, F. H. Morry, J. A. Milroy, M.A., F. J. R. Mompel, W. A. W. Moore, H. M. Morton, S. K. Mullick, T. M. Nest, M. N. Nicolson, Robert Owen, A. J. Park, H. C. Pearson, J. P. Peterson, Charles Porter, A. S. B. Powell, W. H. Price, R. G. Ralston, J. A. Rees, William Ritchie, W. T. Ritchie, W. H. Robt. David Rose, J. E. Rosenfeld, D. R. Rowlands, A. H. Rutherford, G. R. Scott, W. A. Skene, F. O. de Souza, F. S. Stanwell, James Stenhouse, T. H. Stevenson, F. O. Stewart, John Stoddart, W. B. W. Strickland, A. C. Starrock, M.A., F. V. Sullivan, F. G. Taylor, H. F. L. Taylor, D. G. M. Teague, F. S. C. Thompson, Robert Thornton, F. W. Twiddle, W. A. C. Usher, J. W. de Vos, Andrew Wallace, Henry Waters, W. A. E. Watson, David Waterston, James Watt, B.A., H. G. Waugh, G. A. Welsh, A. E. White, Charles R. White, J. H. White, C. S. Wilkinson, A. E. Williams, H. N. Williams, J. T. Williams, W. O. Williams, W. W. Wood, A. D. Yule.

*Second Professional Examination.*—J. H. Adamson, A. C. Ainslie, M.A., R. Y. Anderson, Harry Armistead (Ayaqullah), William Bannerman, F. W. Barton, It. W. Blair, R. St. G. S. Bond, D. J. S. Burt, C. H. H. Cazalet, W. R., Centor, D. N. Chatterjee, W. B. Clarke, D. M. Conacher, H. O. Corfield, J. R. Crease, E. A. Dent, E. P. Dickinson, G. A. Dickson, P. G. Edgar, Henry Ferguson, Arthur Foster, G. E. Gabites, W. H. Gaunt, J. R. Gilmour, \* Lachlan Grant, James Gray, D. A. Greaves, F. H. Hardman, W. B. Hetherington, J. E. Howlett, John Hume, T. J. John, Evan Jones, W. H. Jones, John Kippax, \* G. C. Laing, John Lawrie, J. L. Leadbeter, J. A. Leo, Donald MacDonald, Andrew M'Neil, B.A., P. W. MacVean, W. S. Malcolm, J. M. Menzies, T. B. Moore, B.A., J. M. Morris, M.A., David Murray, C. J. Murray, F. B. Oliphant, E. L. Owen, J. M. Pereira, E. L. Phillips, G. B. Pierson, G. R. Plante, S. W. Prowse, B.A., J. H. Reynolds, C. H. Ridley, F. W. H. Robson, J. E. Rogers, A. A. Ross, C. E. Salt, Henry Scott, W. E. Scott-Moncreiff, J. H. Seon, P. J. Sharp, T. D. S. Shaw, T. R. Sibbald, W. E. Smith, John Sorley, M. A., A. P. Steavenson, J. W. Sutcliffe, Thomas Taylor, H. W. Vaughan Williams, J. G. Walker, J. W. T. Walker, E. E. Waters, J. M. Wishart, J. J. H. Wood, R. J. T. Wright, M.A.

\* Passed with distinction.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the respective subjects:—

*Surgery*—W. D. Akers, St. Mary's Hospital; D. Berne, Royal Free Hospital; F. G. Doroy, Yorkshire College, Leeds; E. G. Firth, Yorkshire College, Leeds; W. Fowler, Durham; E. E. Francis, St. Bartholomew's Hospital; W. Handcock, Yorkshire College, Leeds; B. H. F. Leumann, St. Bartholomew's Hospital; W. S. Mercer, Charing-cross Hospital; W. H. F. Noble, London Hospital; A. V. Poatling, St. Thomas's Hospital; B. Saul, Charing-cross Hospital; D. L. Thomas, London Hospital; W. Thomas, Yorkshire College, Leeds; A. E. Wilson, St. Mary's Hospital.

*Medicine, Forensic Medicine and Midwifery*—R. S. Bernard, King's College; F. Dove, London Hospital; E. G. Firth, Yorkshire College, Leeds; V. P. Foote, Charing-cross Hospital; E. E. Francis, St. Bartholomew's Hospital; R. T. Gilmour, St. Mary's Hospital; J. L. Iredale, Yorkshire College, Leeds; J. Joule, London Hospital; H. L. A. Keller, St. Thomas's Hospital; M. C. Langford, London Hospital; B. H. F. Leumann, St. Bartholomew's Hospital; R. E. Nichols, St. Mary's Hospital; P. J. P. Smith, St. Thomas's Hospital; S. Smith, Middlesex Hospital.

*Medicine and Forensic Medicine*—J. E. Balloy, University College; W. Handcock, Yorkshire College, Leeds; J. J. Powell, St. Thomas's and Cambridge; D. F. Roberts, Guy's Hospital; J. D. Willis, Owens College, Manchester.

*Forensic Medicine and Midwifery*—F. Howgate, Yorkshire College, Leeds; W. S. Newton, London Hospital; J. W. Roberts, Liverpool; W. H. Waddington, Owens College, Manchester.

*Forensic Medicine*—J. B. Bate, Bristol; A. A. Macfarlane, St. Bartholomew's Hospital; A. W. Taylor, London Hospital; J. Wood, St. Thomas's Hospital.

To Messrs. Akers, Bernard, Dove, Firth, Francis, Gilmour, Keller, Langford, Leumann, Macfarlane, Nichols, Noble, F. J. P. Smith, Thomas, and Waddington was granted the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery.

FALL OF A GRAND STAND AT BUXTON.—At Buxton, on Friday last, during the progress of the annual Horse Show, the grand stand, containing some 700 persons, suddenly collapsed. Among the injured was Dr. Allan of Whaley Bridge, whose left leg was broken.

\* Received First-class Honours.  
 † Received Second-class Honours.

The following awards have been made:—

*Estles Scholarship*.—Robert Murray Leslie, M.A., B.Sc., M.B., C.M.  
*Beauey Prize in Anatomy and Surgery*.—Alexander Brownlie, M.B., C.M.  
*Stark Scholarship in Clinical Medicine*.—Robert Murray Leslie, M.A., B.Sc., M.B., C.M.  
*Freeland Barbour Fellowship in Anatomy, Physiology, and Pathology*.—George Home, M.B., C.M.  
*Goodsir Memorial Prize*.—George Neil Stewart, D.Sc., M.D., and Arthur John Whiting, M.D.  
*Gunning Victoria Jubilee Edward Forbes Prize in Zoology*.—Gregg Wilson, M.A., B.Sc.  
*Gunning Victoria Jubilee Allison Prize in Public Health and Medical Jurisprudence*.—Alexander Houston, M.D.  
*Buchanan Scholarship in Gynecology*.—John Lawson Dick, M.B., C.M.  
*James Scott Scholarship in Midwifery*.—Charles Cromhall Easterbrook, M.A., M.B., C.M.  
*Wrightman Prize in Clinical Medicine*.—D. A. Welsh, MA.

The following are the official lists of candidates who passed the First and Second Professional Examinations at the University during last month:—

*First Professional Examination*.—C. W. Anderson, D. N. Anderson, Frederick Anderson, J. W. Anderson, John Ballantyno, N. D.

**LITERARY INTELLIGENCE.**—We are informed that the "History of Guy's Hospital," a book on which Dr. Wilks has, with the assistance of the late Mr. G. T. Bettany, been some time engaged, will be ready for publication in the course of a few weeks.

**PUBLIC DISPENSARY, LEEDS.**—This institution, in the sixty-eighth year of its existence, maintains its enlarged usefulness and efficient working. An increase upon the year 1891 of 1500 patients were treated during the past twelve months, 3023 patients had been visited at their own homes, and 15,997 visits paid; the number of operations performed was almost double that of the previous year.

**THE MANCHESTER CREMATORIUM.**—This crematorium, which adjoins the north-west corner of Withington Cemetery, was on Monday last used for the first time. The doors screening the furnace were draped in black, before which the coffin was placed in position, and upon releasing a spring the doors opened and the coffin, which rested upon wheels, ran into the furnace.

**THE INFIRMARY, NORTH DEVON.**—From the annual report for the past year, just issued, it appears that during the long career of the institution it was never before in so efficient a working order or in a more satisfactory sanitary condition. 655 in-patients and 2317 out-patients respectively received the benefits of the hospital in the twelve months. The Convalescent Home at Morthoe, built and endowed by Mr. Rock and his sister, Mrs. Payne, has been a great boon to patients from the infirmary and to others recommended by the medical men of the neighbourhood. The balance-sheet shows a small balance at the bankers', with £200 on deposit note.

**PRESENTATIONS.**—Dr. J. J. Hood of Wollongong, New South Wales, on leaving that district for Maclean was presented in May last by the inhabitants with a handsomely illuminated address and a purse of sovereigns.—On the 22nd inst. Dr. G. W. Moseley was presented by the members of the Quorn classes of the St. John Ambulance Association with a handsome dressing-case. In March last Dr. Moseley was the recipient of a richly-mounted walking-stick from the members of the Barrow-on-Soar classes. All the members of the above classes with one exception were successful in passing the examination in first aid.—Dr. T. J. Burroughs of Crondall, Hants, has been the recipient of a testimonial from his patients and friends consisting of an illuminated address and a purse of 125 sovereigns.

**THE METROPOLITAN ASYLUMS BOARD.**—The Report of the Metropolitan Asylums Board showing the number of patients in the several Metropolitan fever hospitals states that up to August 23rd there were in the Eastern Hospital 387 cases of scarlet fever, 81 cases of diphtheria, 2 cases of typhus and 39 cases of enteric fever. The North-Western Hospital had 383 cases of scarlet fever, 83 of diphtheria and 21 of enteric fever. The Western Hospital showed 247 cases of scarlet fever, 36 of diphtheria and 7 of enteric fever. In the South-Western Hospital there were 295 cases of scarlet fever, 64 of diphtheria and 15 of enteric fever. The South-Eastern Hospital contained 358 cases of scarlet fever, 22 of diphtheria, one of typhus fever and 6 of enteric fever. The Northern Hospital had 657 beds occupied by scarlet fever patients and only 20 by patients suffering from diphtheria; whilst the Gore Farm Hospital showed the highest number of scarlet fever patients—namely, 720.

**THE SPREAD OF GLANDERS.**—A meeting of cab proprietors and other owners of horses in the north of London was held at Beale's Restaurant, Holloway-road, on Monday last, to "petition Government to compensate for horses slaughtered and to enforce stringent measures to prevent glanders from spreading." Mr. W. Pierson, who occupied the chair, pointed out that small owners could not afford to employ a veterinary surgeon, the consequence being that glanders was allowed to spread. He submitted that the only chance of successfully combating the disease was to get the Government to compensate all owners who slaughtered their horses. Mr. Marcus Stevenson, veterinary surgeon, stated that medicine in this disease was of little avail. The disease, he said, was propagated by allowing animals to drink out of water-troughs and by feeding them out of nose-bags which had been used for glandered horses. He hoped that now water-troughs were closed they would never be opened again.

**MEDICAL MAGISTRATE.**—Mr. Henry W. Coleman, L.R.C.P. Edin., M.R.C.S., has been placed on the commission of the peace for the borough of Leeds.

**ST. ANNE'S-ON-THE-SEA DRAINAGE SCHEME.**—The ceremony of cutting the first sod in connexion with this scheme took place on the 18th inst. The plans were prepared by Mr. Bancroft, engineer, of Manchester, and the estimated cost will be about £9000.

**SUPERANNUATION.**—Dr. Barnes, the medical officer of the Ewell district, Surrey, has been granted a superannuation allowance of £35 and a further sum of £15, conditional on the consent of the Local Government Board.

**NEED OF MORTUARY ACCOMMODATION.**—In the course of a coroner's inquiry, held at the Queen Victoria inn, Stratford, into the circumstances attending the death of a man who was killed last week on the South-Eastern Railway, the coroner made some pointed and highly necessary remarks on the need of mortuary accommodation. The parochial committee had, it appears, expressed their readiness to contribute to the cost of the building, but the rural authority had not shown any favour to the proposal. In the case in question the body had to be taken charge of by the station master. Doubtless the observations of the coroner in this instance will apply to many districts all over the country.

**REQUESTS AND DONATIONS TO HOSPITALS.**—Mr. Frank Clarke Hill, of Peshurst, bequeathed £1000 to the British Home for Incurables, Wanstead, and £200 to the Metropolitan Convalescent Institution. Ex-Provost Duncan bequeathed £2000 to the Brechin Infirmary. Mr. Edmund Crawley, late of Cullum-street, London, bequeathed £200 each to the London Hospital, Guy's Hospital and the Royal Hospital for Incurables, Putney, and £100 to the City of London Truss Society. Mr. Thos. Green, late of the Smithfield Ironworks, Leeds, bequeathed £250 to the Leeds Infirmary, £100 each to the Leeds Dispensary and Cookridge Convalescent Hospital, and £50 to the Eye and Ear Hospital. The Grocers' Livery Company has voted £100 to the Royal Sea Bathing Infirmary, Margate. The trustees of the late Mr. Alex. McNab, of Middleton, Kerse, Menstrie, have allocated £500 to the Alloa Hospital. The late Mr. Greswolde Williams bequeathed £1000 to the Worcester Infirmary. A donation of £60 13s. 4d., the result of the Friendly Societies' hospital demonstration, has been forwarded to the Hartlepool Hospital. A native of Blandford bequeathed £1000 to the Blandford Cottage Hospital. A sum of £75 has been handed to the treasurer of the Children's Hospital, Great Ormond-street, being the result of the sixth annual demonstration and church parade in aid of that institution.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

- ASHWORTH, J. HENRY, M.D., M.R.C.P., Edin., has been reappointed Honorary Medical Officer to the Halstead Cottage Hospital.
- BELL, W. K., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Shaldon Sanitary District of the Newton Abbott Union, vice Corbould, deceased.
- BEVAN, W. L. P., M.D., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Alton Urban Sanitary District of the Alton Union, vice Wright.
- BOWER, A. E., M.R.C.S., has been appointed Medical Officer for the Eastry Sanitary District and for the Workhouse of the Eastry Union.
- BRANNIGAN, H. C., M.D., M.Ch. Irel., L.R.C.P., L.R.C.S. Edin., has been appointed Resident Surgeon to the Mount Morgan Hospital, Queensland, vice Hunter, resigned.
- BROMLEY, JOHN B., M.R.C.S., L.S.A., has been reappointed Honorary Medical Officer to the Halstead Cottage Hospital.
- BULMAN, F., M.D., B.S. Durh., has been appointed Medical Officer for the Workhouse of the Newport (Mon.) Union, vice Jennings, deceased.
- CAYLEY, C. H., M.D., B.C. Camb., M.R.C.S., L.R.C.P., has been appointed an additional Public Vaccinator for the District of Tomuka, New Zealand.
- CHAMBERS, H. F. T., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Wareham No. 2 Sanitary District and the Workhouse of the Wareham and Purbeck Union.
- DODS, JAMES, L.R.C.P., L.R.C.S. Edin., has been appointed Acting Government Medical Officer at Montablon, Queensland.

EDIE, ROBERT, M.B., C.M. Oxon., has been appointed House Surgeon to the Manchester Royal Eye Hospital, vice C. Ramage.  
 FULLERTON, ANDREW, M.B., B.Ch., has been appointed House Surgeon to the West Kent General Hospital, Maidstone.  
 GIBSON, C. G., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Launceston Urban Sanitary District of the Launceston Union, vice Lunn resigned.  
 HARING, NATHAN C., M.B. Lond., M.R.C.S., has been appointed Honorary Assistant Physician to the Manchester Hospital for Consumption and Diseases of the Throat.  
 HILL, F. A., M.D. Brux., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Thorncombe Sanitary District of the Axminster Union.  
 JACKSON, J. J., L.R.C.P. Edin., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Wakefield Rural Sanitary District, vice Walker, resigned.  
 JOHNSON, F., L.R.C.P. Irel., M.R.C.S., has been reappointed Medical Officer and Public Vaccinator for the Hedgerley Sanitary District of the Eton Union.  
 JONES, HUGH R., M.A., M.D., B.C. Cantab., B.Sc. Lond., has been appointed Honorary Assistant Surgeon to the Liverpool Infirmary for Children.  
 KIRBY, S. J., M.D. Brux., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Stow Union.  
 MILLER, J. T. ROGER, L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the Leavening Sanitary District of the Malton Union.  
 MONTGOMERY, W. P., B.A. Oxon., M.R.C.S., L.R.C.P., has been appointed Senior House Surgeon to the Ancoats Hospital.  
 MORRISON, R. E., M.B., C.M. Edin., has been appointed Health Officer for Oakleigh Borough, Victoria, Australia.  
 NAYLOR, A. G. B., L.R.C.P., L.R.C.S. Edin., has been appointed a Public Vaccinator at Romsey, Victoria, Australia.  
 PALING, ALBERT, M.R.C.S., L.R.C.P., L.S.A., has been appointed Assistant Resident Medical Officer for Whitechapel.  
 PATON, R. J., M.B., C.M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the St. Woolos Sanitary District of the Newport (Mon.) Union.  
 PITT, C. W., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Malmesbury Union, vice Tolerton.  
 SAWYER, R. H., M.R.C.S., has been appointed Medical Officer of Health for the Shaftesbury Urban Sanitary District of the Shaftesbury Union.  
 SINCLAIR, R. D., L.R.C.P. Edin., L.F.P.S. Glas., has been appointed Health Officer for Flinders and Kangerong Shires, Victoria, Australia.  
 SKOTOWE, A. J. F., M.D., C.M. Glas., has been appointed Hospital Surgeon, Medical Officer of the Burgh, and Police Surgeon, Helensburgh, vice Messer, resigned.  
 SMITH, T. H., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Reddish Urban Sanitary District.  
 SOUTER, J. C., M.D., C.M. Aberd., has been appointed a Public Vaccinator at Maitland, South Australia.  
 WILLIAMS, EGERTON H., M.R.C.S., L.R.C.P., has been appointed Clinical Assistant to Whitechapel Infirmary.  
 WOOD, JOHN CUNDELL, L.R.C.P., D.P.H. Edin., Deputy Medical Officer of Health, has been appointed Medical Officer *pro tem.*, vice A. E. Harris, resigned.  
 WOOD, WILLIAM, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Carnuel Sanitary District of the Ulverstone Union.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BERKS ASYLUM, Moul-ford, near Wallingford.—Second Assistant Medical Officer. Salary £100 a year, rising £10 annually to £120, with furnished apartments, board &c., and washing.  
 BUNTINGFORD UNION.—Medical Officer and Public Vaccinator for the North-east and South-east districts of the Union. Salary £80 per annum, exclusive of medical extras and vaccination fees. (Letters to the Clerk to the Guardians, Board Room, Union House, Buntingford, Iorts.)  
 CENTRAL LONDON OPIUMALMIC HOSPITAL, 238A, Gray's-Inn-road, W.C. House Surgeon. Rooms, coals, and lights provided.  
 CHELTENHAM GENERAL HOSPITAL.—Resident Surgeon for the Branch Dispensary. Salary £180 per annum, with partly furnished house, coals and gas.  
 CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Board and residence and allowance for washing provided. (Apply to the Secretary, Office, 24, Finsbury-circus, E.C.)  
 DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. Assistant Surgeon. Salary £100 per annum, out-door, with an allowance of £4 for cab-hire and additional fees for Midwifery of 5s. 3d. in each case. The salary to be advanced £10 in six months after appointment and afterwards £10 per annum until it reaches £250 per annum (providing satisfaction is given to the Committee. (Apply to Mr. Cooper, 63, Abbey-street, Derby.)  
 GENERAL HOSPITAL, BIRMINGHAM.—Assistant House Surgeon for six months. Residence, board, and washing provided.  
 GENERAL HOSPITAL, Nottingham.—Senior Resident Medical Officer, for two years. Salary £120 for the first year, rising £10 a year up to £150, with board, residence, and washing.  
 HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.  
 LINCOLN UNITED FRIENDLY SOCIETIES' DISPENSARY, Lincoln.—Qualified Assistant as Second Officer. Salary £150, out-door.  
 LONDON FEVER HOSPITAL, Liverpool-road, N.—Assistant Resident Medical Officer.

M. S., THE LANCET Office, 423, Strand, W.C.—Qualified Gentleman for one month in a Public Institution, London, W. Board, lodging, and small remuneration.  
 NEW MUSEUMS, Cambridge.—The George Henry Lewes Studentship. (Apply to Professor M. Foster, New Museums, Cambridge)  
 PARISH OF RONSAV AND EGIUSWAY.—Resident Medical Officer. Salary £51 per annum. (Apply to Inspector of Poor, Ronsay, Orkney.)  
 PARISH OF ST. LEONARD, Shoreditch.—Clinical Assistant for the Infirmary, Hoxton-street, N., for six months. Salary £40 per annum, with rations, furnished apartments, and washing in the Infirmary. (Apply to the Medical Officer, 204, Hoxton-street, N.)  
 ROYAL SURREY COUNTY HOSPITAL, Guildford.—Resident House Surgeon. Salary £80 per annum, with board, lodging, and washing.  
 SOUTH LONDON MEDICAL AID INSTITUTE, 300, Waterloo-road.—Attending Medical Officer.  
 SUSSEX COUNTY HOSPITAL, Brighton.—House Physician. Salary £80, rising to £80 per annum at the discretion of the Committee of Management, with board and residence in the hospital, and washing.  
 UNIVERSITY OF ABERDEEN.—Six Examiners for Graduation in Medicine, for one year each. A grant of £30 to each.  
 UNIVERSITY OF GLASGOW.—Assistant Examiner in Medicine. The annual fee for the Examinership is £30.

## Births, Marriages, and Deaths.

### BIRTHS.

DAY.—On Aug. 18th, at Upper Surrey-street, Norwich, the wife of Donald D. Day, F.R.C.S., of a daughter.  
 GRAY.—On Aug. 19th, at Ryde House, Twickenham, the wife of Dr. J. A. Gray, of Kabul, Afghanistan, of a daughter.  
 HARPER.—On Aug. 17th, at Rosary-gardens, South Kensington, the wife of James Harper, M.D., of a daughter.  
 HEDDY.—On Aug. 20th, at 46, Redcliffe-gardens, S.W., the wife of William Jackson Heddy, M.R.C.S. Eng., of a daughter.  
 HOLMES.—On Aug. 20th, at 14, Old Burlington-street, W., the wife of Dr. W. Reid Holmes, of a son.  
 MESSITER.—On Aug. 14th, at Charlton House, Dudley, Worcestershire, the wife of M. Arden Messiter, M.R.C.S., of a son.  
 ROGERS-TILLSTONE.—On Aug. 22nd, the wife of H. Rogers-Tillstone, M.D., of a daughter.  
 SEWILL.—On Aug. 22nd, at Wimpole-street, the wife of Henry Sewill, M.R.C.S., L.D.S. Eng., of a son.  
 STURGES.—On Aug. 19th, at Mirzapore, Beckenham, Kent, the wife of Frank Sturges, L.R.C.P. Lond., of a daughter.  
 WELLS.—On Aug. 19th, at Beckenham, Kent, the wife of A. Primrose Wells, L.R.C.P., L.R.C.S. Edin., M.A., of a daughter.

### MARRIAGES.

DENMAN-SHARMAN.—On Aug. 17th, at St. Peter's Church, Bournemouth, Robert Denman, L.R.C.P., L.S.A., of Selborne, Bournemouth, to Hilda, second daughter of the late Eric Rudd Sharman, of Liverpool.  
 EDWARDS-HOOPER.—On Aug. 17th, at St. Mary's, Bexley, George F. Edwards, M.D., of Bridge House, Bexley, to Constance Eliza nee h. eldest surviving daughter of Alfred T. Hooper, of Alderley, Bexley.  
 FITCH-WILLIS.—On Aug. 16th, at St. Cassyion's Church, Chaddeley Corbett, Worcestershire, Charles Dennis Fitch, M.R.C.S., third son of F. Fitch, Esq., M.D., of Chaddeley Corbett, to Beatrice Mary, elder daughter of H. R. Willis, Esq., of Brockencote Hall, Chaddeley Corbett, and of Kidderminster.  
 HILL-COX.—On Aug. 16th, at St. Pancras Church, Euston-road, William Henry Hill, M.B., of Church Fields, Basford, to Fanny, elder daughter of Charles James Cox, of Basford, Nottingham.  
 PURVES-COOK.—On Aug. 23rd, at St. Peter's, Rock Ferry, by the Rev. E. Owon, Llangedog, assisted by the Rev. Paige-Cook, vicar of the parish, and the Rev. D. L. Clarke, Scot Purves, M.D., Alnwick, son of the late T. Purves, Esq., J.P., of Kibthail, Sutherlandshire, to Isabel Cicely, daughter of E. Cook, Esq., of Alnwick.  
 STEEL-MITCHELL.—On Aug. 17th, at Myrtle Bank, Carriage Hill Paisley, by the Rev. A. Fife Burns, St. George's Parish, assisted by the Rev. W. H. Killock, of Kilmaurs, Robert Steel, Physician and Surgeon, of Kilmaurs, to Jeannie, youngest daughter of Andrew Mitchell, Esq.

### DEATHS.

ABERCROMBIE.—On Aug. 20th, at Harrow, John Abercrombie, M.D., F.R.C.P., of Upper Wimpole-street (formerly of Cheltenham) aged 76.  
 CROOKES.—On Aug. 16th, at Augusta-gardens, Folkestone, John Farrar Crookes, F.R.C.S., in his 82nd year.  
 DRYSDALE.—On Aug. 20th, at Beach Lawn, Waterloo, near Liverpool, John James Drysdale, M.D., of Rodney-street, Liverpool, and Pittouchar, Fifo, N.B., aged 76.  
 FORBES.—On Aug. 17th, at Redcliffe, Exmouth, S. Devon, David Forbes, M.D., formerly of Rock Ferry, Cheshire, in the 62nd year of his age.  
 LANGLEY.—On July 13th, on board s.s. *Saladin*, off the Coast of Western Australia, John Geoffrey Langley, M.B., M.R.C.S., L.S.A., aged 40.  
 PEARL.—On Aug. 18th, at his residence, Sylvan-road, Upper Norwood, Edward Pearl, M.R.C.S., aged 65.  
 POLLOCK.—On Aug. 16th, at his residence, Oak Lodge, Wimbledon-park, Robt. Jas. Pollock, F.R.C.S., aged 87.  
 WAYMAN.—On Aug. 18th, at Foulsham, Norfolk, suddenly, C. P. Scott Wayman, Surgeon.  
 WOODCOCK.—On Aug. 17th, at Springfield Hall, Wigan, Robert Fraser Woodcock, L.R.C.P. Lond., M.R.C.S. Eng., aged 33.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Aug. 25th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Aug. 19	29.71	S.W.	64	63	80	68	62	.54	Overcast
" 20	30.01	W.	60	58	118	74	56	.16	Bright
" 21	30.27	S.W.	63	58	118	78	55	—	Hazy
" 22	30.07	S.W.	62	59	117	79	56	—	Hazy
" 23	29.82	E.	66	62	113	80	60	—	Hazy
" 24	29.75	S.W.	65	65	115	80	65	.08	Overcast
" 25	29.70	S.W.	61	59	101	72	59	.05	Overcast

## Medical Diary for the ensuing Week.

## Monday, August 29.

- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
- ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
- ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.
- CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
- HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
- METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
- UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

## Tuesday, August 30.

- KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
- GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
- ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
- ST. MARK'S HOSPITAL.—Operations, 2 P.M.
- CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
- WESTMINSTER HOSPITAL.—Operations, 2 P.M.
- WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
- ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

## Wednesday, August 31.

- NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
- MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
- CHARING-CROSS HOSPITAL.—Operations, 8 P.M., and on Thursday and Friday at the same hour.
- ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
- LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
- ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
- SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.
- GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
- ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
- CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

## Thursday, September 1.

- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

## Friday, September 2.

- ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

## Saturday, September 3.

- UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

## Notes, Short Comments &amp; Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

## THE STUDENTS' NUMBER.

WE beg to direct the attention of those Deans of Medical Schools and Secretaries of Hospitals who have not yet furnished us with the necessary information for our Students' Number to the announcement that the date of publication is September 3rd. It will be essential for particulars intended for publication in the Students' Number to reach THE LANCET Office not later than Tuesday, the 30th inst. Communications should be addressed to the Sub-editor, THE LANCET Office, Strand.

## A NEW SOURCE OF TITLES.

TITLES have generally proceeded from sovereigns, popes, universities, or other distinguished quarters; but some of our brethren in Victoria are impatient with the limitations and restrictions with which titles from such quarters are granted. The *Sydney Morning Herald* reports that at a meeting of the Victoria branch of the British Medical Association a motion was proposed that "as the title 'Dr.' by the custom of the people had become the recognised title of legally qualified practitioners in the colony of Victoria, the members of this branch consider it should be officially allowed to such practitioners." This resolution—the debate on which was adjourned—is scarcely worthy of the Victoria branch. The title "Dr." is applied to many other persons than medical practitioners. As far as it rests on the mere custom of the people as applied to medical men it needs no further recognition. It is generally used without distinction or reflection. It is not on such grounds that any grave change in the law of titles is to be advocated.

*P.R.C.S.*—We are of opinion that it would tell against our correspondent's own interests to send in an account to the body mentioned unless some intimation has been made that his charges would be met by them. If our correspondent can get someone to move in his behalf all well and good. Under the latter circumstances it is more than likely that a favourable consideration would be given to the matter. We cannot advise what the charges should be, but we may suggest that they should bear a proper relation to the class of patient attended.

## THE CAPE FOR PHTHISIS.

*To the Editors of THE LANCET.*

SIRS,—I am sending a young lady to winter at the Cape. She leaves at the end of September, and by force of circumstances she is obliged to travel alone, unless she could meet with any lady going out. Would any brother practitioner knowing of a lady who is going to the Cape kindly communicate with me? My patient is twenty-five years old, and a lady in every sense of the word. Further, would anyone better informed than myself tell me which is the best place in the Cape Colony for a patient threatened with phthisis? Indeed, any information will be most gratefully acknowledged.—I am, Sirs, yours truly,

G. HAY REYNOLDS, M.B.

9, Frogna, Hampstead, N.W., Aug. 23rd, 1892.

## THE POST OF PORT SURGEON AT ADEN.

WE have had an opportunity of perusing copies of a correspondence relative to a medical officer of the Bombay medical establishment having been superseded, without any reason being assigned, in the appointment of port surgeon of Aden, a post in which he had acted for three years. The medical officer very naturally appealed to the Government of Bombay through the head of his department, requesting that their decision in this respect might be reconsidered. To this official letter, forwarded through the proper channel, no reply of any kind has been given, which is, to say the least of it, of very unusual occurrence in official correspondence. It appears that the medical officer concerned took over charge of the duties of port surgeon at Aden in March, 1883, and continued to act in that appointment until April, 1886. During these three years he fulfilled the duties of his post efficiently and without unpleasant incidents, correspondences or friction of any kind. About the beginning of April, 1886, however, this officer forwarded a complaint from one of his hospital subordinates regarding the establishment of a house of ill fame at Steamer Point, in close proximity to the European General Hospital, where it was overlooked by the quarters of the apothecary and his wife, with a communication from himself in which he very properly called the attention of the political resident to the subject in terms befitting the nature of it. The reply to this was of an arbitrary kind, but the Political Resident subsequently visited the premises and the apothecary made good his complaint. The next step taken was the appointment of another officer to the post of port surgeon, and no explanation for the adoption of this course was or has ever been given, nor has any reply to the official protest against it been vouchsafed.

Mr. Charles Heves.—It would be better to apply directly to the various examining bodies for copies of regulations and for other information desired. We cannot assume the responsibility of answering the invidious questions asked.

## COMPENSATION TO MEDICAL WITNESSES.

To the Editors of THE LANCET.

SIRS,—As the question of compensation to medical witnesses is now receiving some public attention, I shall be obliged if you will allow me to place before your readers the particulars of a case which has recently occurred to me.

A few weeks since the superintendent of police in my district called upon me and brought with him a child ten years of age for examination, which child, it was alleged, had been violated. I made the required examination, and I was informed by the police officer that I would obtain a fee for so doing. A few days after he called again and asked me to write a full report of the condition of the child, for which, he said, I would receive a guinea. The case was then sent forward to the assizes, and I was summoned as a medical witness. The assize town is ten miles distant, and I had to drive there, and was kept on the day of trial from 10 A.M. until 5 P.M. The entire remuneration I was ordered by the Court for my first examination, my subsequent written report, and my attendance at the assizes amounted to a sum of £1 0s. When I returned home on the day of trial I had to drive some eight miles to see patients—cases of urgency—so that my day's work had not concluded until 1 A.M. the following morning. It seems hardly necessary for me to comment further on the inadequacy of the remuneration awarded to me in this instance to cover my time and the expense I had to incur; but I may say that in future any such cases should be brought to me by the police I shall, if I have the option, decline to do anything to do with them. I am, Sirs, yours faithfully,

August, 1892.

VICTIM.

## THE CAUSE OF QUACKERY.

A CORRESPONDENT of the *Sydney Morning Herald* discusses the cause and cure of quack doctors, of which he says there are more in Sydney than in all London. He has arrived at a singular conclusion—viz., that the reason why quacks abound is that medical men charge too highly for their advice and medicines. We gather from his letter that the lowest charge for a visit is half a guinea. It is always pleasant to conclude that you have discovered an explanation of a complicated fact, especially if it is simple and to be expressed in a single sentence. But such easy theories are always to be suspected. And we think this is the case here. Quacks are not so accommodating in their charges as regular medical men. It is notorious that the poor will find large sums to buy a quack medicine with or to pay a bonesetter, who would have no money to spare for a regular practitioner. Certainly this explanation will not hold in England, where there is plenty of quackery, impudent and costly, that claims pounds where practitioners would be content with shillings. There are quacks because people like to be promised impossible things in an impossible space of time.

Mr. George Foy will see that the report in question received detailed notice at our hands in last week's issue of THE LANCET.

## THE MORBUS PEDICULARIS IN ANTIQUITY.

NO one who has followed the successive revolutions in the history of medicine is likely to fall into the error into which the lay historian is so apt to be betrayed—the error, to wit, of assuming ancient disease, pathogenically and clinically, to be identical with its supposed modern equivalent. In many cases the resemblance between the two is superficial only, inasmuch that when we descend to symptoms we are often puzzled to imagine how the same name could be applied to both. We need not enter into the *quæstio vexata* of the memorable plague at Athens as described by Thucydides. From the features of it detailed by that prince of historians subsequent writers have been led to take widely divergent views as to its character—some identifying it as small-pox, others as typhoid fever, others, again, as plague as it is occasionally met with in the East. It never occurs to these ingenious speculators that the disease may have been *sui generis*, that it may have become worn out after successive visitations, and that in its *ensemble* it is not to be identified with any organic disorder known to modern classification. Similar reflections must occur to the medical reader when perusing the comments of nineteenth-century historians as to the disease which carried off the Dictator Sulla. The Elder Pliny—who, though not himself a professional physician, any more than Celsus, was yet intimately acquainted with the best authorities in medicine, past and contemporaneous—distinctly tells us: “*Phthiriasis Sulla Dictator consumptus est nascunturque in sanguine ipso animalia oxesura corpus.*” (Sulla, the Dictator, was consumed by the lousy disease. There are, indeed, generated in the very circulation of the human subject animalcules capable of devouring the body.) From all that we know of Sulla (from the celebrated Life of him by Plutarch in particular) we are prepared to find that his constitution was broken down by every kind of debauchery, the symptoms of gouty eczema, if not of a cutaneous appearance, suggestive of secondary syphilis, having been prominent in him at a comparatively early age. When we consider the active soldier's life he led—a life not always compatible with personal cleanliness—we are at no loss to conceive that the Nemesis of his debauched habits must have been reinforced by conditions favourable not only to maladies of the *cutis vera*, but to such of these as take the form of parasitic infection. The *pediculi corporis*, oviparous as they are, might have found in his artificially prepared system the very nidus best adapted for their development and multiplication, till they acquired such a foothold in the *cutis vera* as gradually to suspend its function and become the proximate cause of death. This very reasonable view of the case seems not to have been placed before Ihne or Mommsen, the historians of Ancient Rome, or, if placed before them, not to have been understood; and in their anxiety to whitewash the successful rival of the democratic Marius they ridicule the notion that he could have died of such a disease at all—a disease which, in the opinion of Mommsen, is “entirely imaginary.” Ihne is even more explicit, and while he says that “*phthiriasis* exists only in the brains of credulous writers,” he maintains that “Sulla died in consequence of the rupture of a bloodvessel brought on by the irritation he felt at the dishonesty of Granius.” “Rupture of a bloodvessel brought on by irritation” sounds very like the ecstatic etiology we had occasion to stigmatise in Sholley's account of the death of Keats. Much more likely to be true is the matter-of-fact statement of Pliny the Elder—a statement which Plutarch must have had every opportunity of sifting, and which harmonises with all we know of the Dictator's habits and of the undoubted recognition of phthiriasis itself in the Greek and Roman classifications of disease.

Cell.—Jervis on the Coroners Act, 1887, fifth edition, by Melsheimer, published by Stevens and Sons, 119, Chancery-lane, will, we think, afford our correspondent the information he requires.

W. M. M.—Our reply must be in the negative.

## “THE FLY PLAGUE.”

To the Editors of THE LANCET.

SIRS,—If “A Senior F.R.C.S.” sponges his face, neck and arms with a weak infusion of quassia he may sit under his fig-tree undisturbed by gnats *et id genus omne*. I have used this for several years, and find that no (English) insects will bite or even settle on a skin so protected. The sponge used need only be damp, not thoroughly wet, with infusion; but, of course, the skin must not be completely dried with a towel afterwards. I am, Sirs, yours faithfully,

Rugby, Aug. 23rd, 1892.

NORMAN DAVIS, M.D.

ERRATUM.—On page 444, column 2, of our last issue the heading, “Messrs. Lowtan and Sons, London,” should read Messrs. Cowtan and Sons.



# A PAGE FOR STUDENTS

## ON THE

# PROGRESS OF PHARMACY.

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EVERY Student of Medicine who would ensure for himself that success in his professional career for which he hopes should be careful to take every advantage offered to him to cultivate his acquaintance with Pharmacy. Many distinguished members of the Profession have before now generously admitted the important part a firm and thorough grasp of Pharmacy has played in their successes, and have readily acknowledged the effective aid rendered by the pharmacist of to-day in the preparation and presentation of medicines. As a proof of the progress of Pharmacy the following will be interesting. At the twenty-ninth annual meeting of the British Pharmaceutical Conference held in Edinburgh a few days ago the President, himself an accomplished technologist, in a very able and most readable address—one of the most interesting addresses ever delivered from the chair—dealt with the many signs of progress to be marked around us. With the calm, discriminating eye of a real philosopher he looked out upon the world and scanned the busy hives of arts and manufactures, and noted the various improvements and developments. Addressing the most critical audience which, from a purely pharmaceutical point of view, could possibly be gathered together, the accomplished President dealt with the Progress of Pharmacy. He said:—

“Much progress in Pharmacy has marked our period. Many of us remember with a shudder the awful powder, the very thought of which haunted our young dreams, taken in some kind of jam, and which gave us a growing horror of that particular variety of preserve, which we have never got over. That does not represent the elegant Pharmacy of to-day, and our children can take it in a “*Tabloid*.” Much has been done and more will yet be done to make the administration of nauseous medicines agreeable.”

Everybody knows, who has any acquaintance at all with the latter developments of Pharmacy, that the “*Tabloid*” form is our own innovation, and is fully aware of the great advantages it offers in the accurate, systematic and effective administration of drugs. The fact that this triumph of modern Pharmacy was considered entitled to a special pronouncement by a learned president in an address to a learned and scientific association is a significant one, which carries its own moral. Praise uttered from such a position and to such an audience is praise indeed, and we value the compliment. While we gratefully acknowledge this recognition we do not rest upon our oars, though the flowing tide be with us. No; our energies are still bent in the direction of progress and improvement. The “*Tabloid*” form of compressed drugs is only one of our many successes which have received the unqualified approbation of the medical profession. As we have said, our motto still is “Progress,” and as soon as experiment and test have completed the evolution of one idea, another is handled and carried out. We watch the development of Medicine and Pharmacy in every country from which we can get reliable report, and we scan with careful eye the current literature which represents the latest doings in the clinic and in the laboratory; in fact, we adopt every possible measure which will ensure our products being up to date, and which will help us to maintain the position already accorded us of being thoroughly progressive.

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## THE LANCET.

LONDON: SATURDAY, SEPTEMBER 3, 1892.

## ADDRESS TO MEDICAL STUDENTS.

HOWEVER high may be the standard of professional learning and conduct at which those who are about to commence the study of medicine should be exhorted to aim, it must not be forgotten that the primary objects of medical students in the acquisition of knowledge are to pass their examinations at the proper time and to be able to gain their living as honourable and capable practitioners of the healing art. The former is a duty which they owe alike to their friends and to themselves: to their friends especially by reason of the outlay on their education, which presses severely upon those who have experience of the *res angusta domi*; and to themselves because frequent failure often terminates either in their having to earn their livelihood in the undesirable capacity of unqualified assistants or in an inability to earn a livelihood at all. Doubtless the successful attainment of the end in view will depend mainly upon the exertions of the students themselves, but the kind and the degree of success will be determined also by the exercise of forethought on the part of their friends and sound judgment in selecting the most favourable fields for prosecuting the campaign. A preliminary survey of the whole ground to be occupied, a careful and complete study of the regulations of the universities and licensing bodies and of the advantages offered at each stage of the student's career by the various medical schools, coupled with the advice of friends well qualified to judge, should precede the first stage of the student's career. At the present day, when the possession of a university degree is regarded as a highly desirable acquisition for the medical practitioner, this forethought and prevision are all-important for students whose medical education is to be obtained in the metropolis. We have known men, who would have greatly distinguished themselves at the severe examinations of the University of London and who might have occupied leading positions, to be debarred from rising to their proper place in the profession because their knowledge of examining bodies and examinations was acquired when circumstances rendered it too late to remedy the omission. A young man who is just leaving a good school ought not to find it a difficult task to pass the Matriculation Examination at the University of London, and this course, under present circumstances, cannot be too strongly urged upon those who are intending to complete their whole curriculum in a London school. Before the extension of the period of professional study from four to five years, the most advantageous course was to pass both the Matriculation and the Preliminary Scientific Examinations of the University before entrance at the medical school; for it was found that preparation for the latter clashed with the ordinary professional curriculum, and failure at this examination—the *pons asinorum* of the ambitious student—resulted in an absolute loss of the time which had

N<sup>o</sup> 3601

been devoted to the work. The addition of the extra year of study which has become obligatory on every medical student who commenced his medical studies after Jan. 1st, 1892, tends to harmonise the curriculum for the diplomas of the corporations with the curriculum for the University of London, and ought to facilitate the acquisition of medical and surgical degrees at that University. The first year of the five years may be passed at a university or teaching institution recognised by any of the licensing bodies where the subjects of physics, chemistry and biology are taught. It would be too sanguine to anticipate that these regulations will altogether meet the demand for increased facility of medical graduation in London, but it must assist in lessening the disabilities of the London students and remove one of the stumbling blocks which have been lying in their path. The question of a proposed Teaching University in London is fully dealt with in another part of our present issue.

We may avail ourselves of this opportunity to point out that some of the prospectuses of the medical schools contain all the information which the intending student requires in regard to examinations, diplomas, and degrees, coupled with very useful advice as to the order and methods of medical study. Application may therefore be made to every medical school for a prospectus. Moreover, at almost every school there is someone—be he dean or warden—who may be consulted, who is ready to smooth the path of the student, to make the crooked ways straight and the rough places plain. Within the space at our disposal it is impossible to touch upon the many subjects of interest which are suggested by the entrance of many hundreds of students on Oct. 1st upon the business and work of a lifetime, or to offer all the counsel which so grave and important an occasion demands. A few points only in connexion with the duty of preparation for examinations and for practice can here be noticed.

As lectures are indispensable, owing to the regulations of the licensing bodies, the student should attend them heartily and in earnest, supplementing the lecture of the day with the perusal of his notes and the subject of the lecture in his text-book. The mastery of one good text-book is better than desultory consultation of many authorities; but on disputed points and matters on which recent research has thrown new light the text-book may not contain all that is required. Some of the deficiencies may be made good by reference to current medical literature, by studying the reports of the medical societies, and by conversation with medical tutors, registrars, or members of the staff, or the lecturers themselves. It is a great art to obtain information by judicious questions, although the Socratic method cannot always be adopted without earning for the student the character and penalties of a bore.

Reading should be supplemented with the book of nature, some pages of which will be open in every well-stocked museum, and if the museum of the medical school does not suffice, the museum of the Royal College of Surgeons presents ever-increasing facilities for objective study.

Regular work should be undertaken daily. The practice of LINNÆUS in regard to his *magnam opus—nulla dies sine linea*—furnishes a good example of the efficacy of a little labour regularly performed. It is continual dropping that wears away the stone—*gutta cavat lapidem non vi sed sæpe cadendo*. Of all the qualities which contribute to command success

self-reliance is one of the most important. The most successful men have been the most self-reliant. The maxim of HORACE not to pin's one faith on anyone—*nullius in verba magistri*—is a branch of the self-reliant spirit. There is often on a medical or surgical staff some brilliant man—a favourite and successful because a dogmatic teacher, a man distinguished as a clinician or an operator, prone to enunciate theories and fond of philosophising—who gains the ear of the students. For a time, perhaps, every word is received as gospel and all his maxims and methods of practice are regarded as the source of all professional wisdom—the only true maxims and only right methods. The student knows not that there may be many equally good ways of arriving at the same result, and it is only time or some error on the part of the idol which cannot be concealed that occasions his disenchantment. To avoid these snares the student should listen to more than one oracle and witness a variety of practice. Let him learn the views of different physicians and different surgeons, and be in constant attendance both among in-patients and out-patients. Let him prove all things and hold fast that which is good. And with regard to practice, that which is equally necessary for success at examinations and in future practice is for students to perform for themselves all the minutiae of work at the bedside, all the steps of operations, each detail in minor surgery. These things must be done until the habit of doing them well comes mechanically. There is a great gap between a most perfect knowledge of every step in an operation and the power of doing them smoothly, successfully and without effort. Constant practice abolishes effort. To have to stop and think at each step of a surgical procedure is always necessary for anyone who has not enjoyed a sufficiency of practice. Equally for rapid and successful diagnosis constant and abundant practice can alone be of avail, and the rapid and successful diagnosis then begins to wear the aspect of inspiration and intuition. Another reason for the student's perfecting himself in all minor details of medical and surgical practice is this, that it will be the minor cases of which his private practice will be the most largely composed and which will be the foundation of his repute and fortune. Minor surgery will be far more useful to the general practitioner than the major operations. There will be many cases of *nævi*; many cases will require catheterism; the arrest of epistaxis will be urgent; many hydroceles may require tapping; but how few limbs will require amputation and how few arteries will have to be tied in their continuity. Not that the student should neglect his opportunities of witnessing and doing these great things; by all means let students flock to the theatre for an amputation at the hip or an entire upper limb, but let them never lose a chance of doing for themselves the minor details on which their daily bread may depend. In all practice it must be recollected that our primary duty is to save life or to prolong it. To save life we must be able to act in emergencies with promptitude and decision. Every practitioner should be able to arrest hæmorrhage in any part of the body, on an emergency to operate for hernia or intestinal obstruction, and to open the trachea or larynx—it may be with a penknife—to overcome a stoppage to respiration. In these respects—and fortunately in others—the interest and advantage of patients and practitioners will go hand in hand, although the gratitude of patients is not,

we regret to add, invariably proportionate to the amount of good which the practitioner has done.

We must now for a time take leave of those who are crossing the threshold of professional work. All of them are looking forward to what the future may bring. To some may come fame, to some success, to some perhaps only a mere hardly earned livelihood, to some, alas, perhaps nothing but disappointment and failure—still to all we would say, "Do your best."

"Who does the best his circumstance allows  
Does well, acts nobly: angels could no more."

#### THE PROPOSED NEW TEACHING UNIVERSITY IN LONDON.

IN our Students' number of 1891 we expressed a hope that before another year had elapsed a Teaching University for London would have been established and that London medical students would have been placed in such a position through its formation that they would be able to obtain degrees on the same fair and equitable terms as are now granted in the other great centres of medical education in Great Britain. We regret to say that we have been disappointed in this expectation, and London students must still go through the ordeal of an honours' examination although they only wish to obtain an ordinary pass degree. The first Royal Commission definitely laid down in its report that this was the practical outcome of the present high standard insisted on by the University of London, and suggested a scheme for the removal of such an anomaly. During the summer session of 1891 the Lords of the Privy Council actively concerned themselves with the question of providing a real University, and not a mere Imperial examining board, in London, in consequence of the failure of the University of London to adapt itself to the new position which the Royal Commission recommended and to make the necessary changes in its constitution and working. As the outcome of their deliberations a Draft Charter for a new University, to be called the Albert University, which should include King's and University Colleges, and the London Medical Schools, with power to admit other institutions of a similar standing, and this was sanctioned both by their lordships and by the law officers of the Crown. In order to become valid this Charter had to be laid on the table of both Houses of Parliament for thirty days, and on their reassembling in February last this step was complied with, permission in the meanwhile having been granted for a change of name from "Albert" to "Gresham." But during the Parliamentary recess a very formidable opposition had arisen to the scheme approved by the Lords of the Privy Council. The authorities of the Victoria University and of the provincial Schools of Medicine had not opposed the petition of King's and University Colleges to be constituted into a University for London, but they immediately changed their attitude and became actively hostile when the other medical schools in London were included and so took every means to prevent the Charter being passed through the House of Commons. For diverse reasons many of the Senate and a large number of the members of Convocation of the University of London, the authorities of Bedford College and other institutions, such as the Working Men's College and the Birkbeck Institution, joined in the opposition, and to these were added the objections of

many interested in higher education in London—i.e., the University Extension Society and some of the professors in Arts and Science in University College. Those who were interested in University Extension demanded a democratic University, whilst the professors asked for one which should be under their own control, and by which all other teaching institutions of the higher grade in London should be absorbed, and, notwithstanding discordant views, all these elements were joined together in opposition. A deputation representing these various bodies waited on Lord SALISBURY on March 3rd, and although he pointed out that their objections were being made at a very late stage, and that they should have been placed before the Privy Council at the hearing of the application for the Charter, it was clear that the Government would have to give way to the Parliamentary opposition. Time did not permit the supporters of the Charter to reply publicly and effectively to the attacks made by the objectors, although many of the statements put forward in the name of the provincial medical schools were unwarranted. On March 9th Mr. BALFOUR announced that the Government had decided to remit the Draft Charter for reconsideration, and on April 25th another Royal Commission was nominated. The effect of the past agitation in favour of a Teaching University which should have power to confer degrees on London students on equitable terms will be best seen on comparing the terms of the reference to the two Royal Commissions. The first Commission in 1888 was appointed to inquire "whether any and what kind of new University or powers is or are required for the advancement of higher education in London"; whilst the new Commission is authorised "to consider, and if they think fit, alter and amend, and extend the proposed Charter remitted in compliance with an address of the House of Commons, so as to form and report to us a scheme for the establishment under Charter of an efficient Teaching University for London." The advance in the latter reference is obvious: the first Commission was to report as to the necessity for a Teaching University for London; the present Commission is to alter, if necessary, the provisions of a Draft Charter and to recommend a scheme for establishing the University. This is at least something gained. No one denies the necessity for such a University, the difficulties are in the devising of a proper and efficient plan for its formation and growth, and the new Commission is to alter the Gresham Charter so as to make it a fit basis for the establishment of a real working University for London. The second Commission includes no member who served on the former one, and is constituted on an altogether different plan. Instead of consisting of uninterested persons eminent in the knowledge of law and of long experience in University education, as was the case in the Commission of 1888, that of 1892 is mainly composed of representatives of nearly all the bodies who have taken part in the movement, and it is to be hoped that they will be able to come to some agreement, and that an efficient and practical scheme will be forthcoming. The members are Earl COWPER, the chairman, who has no special interest in the question; Lord REAY, intimately connected with University College, and the first chairman of the Association for Promoting a Teaching University; Bishop BARRY, a member of the Council of King's College, and formerly its Principal;

LORD PLAYFAIR; Vice-Chancellor RENDALL of the Victoria University; Professor RAMSAY of Glasgow; Professor SIDGWICK of Cambridge; Canon BROWNE, a most ardent supporter of the University Extension system; Mr. JAMES ANSTIE, a member of the Senate of the University of London, who has had a considerable part in drawing up many of the schemes for reforming that University; Mr. R. C. PALMER, a most influential member of the Gresham Committee and of the Mercers' Company; whilst Sir W. S. SAVORY, Sir G. M. HUMPHRY and Professor BURDON-SANDBERSON are the representatives of the medical profession, but they may be considered as representing respectively the Royal Colleges and the medical schools of Cambridge and Oxford rather than the medical profession in its wider aspects.

There are two very important omissions in the *personnel* of the Commission; for the teachers, who are not specially connected with either the Royal Colleges or the Universities, and to whom the present forward position of the question is largely due, are not represented, nor is there included any general medical practitioner (and there would have been no difficulty in finding a suitable representative) who has been taught in one of our London medical schools, and who would therefore have been practically conversant with the advantages and disadvantages of the London system of education and qualification whilst free from any official bias.

The sittings of the Commissioners began on May 21st, and on the 28th they heard the first witnesses. It was decided that, so far as might be convenient, those who opposed the Gresham Charter should first be heard. The sittings are held in private. A large number of witnesses have given evidence, which was until very recently devoted mainly to the general educational questions that required solution in the event of the formation of such a University in London. It was not until the middle of July that the medical difficulty came to the front, and this was soon found to be the really crucial part of the investigation. The real point to be determined is the formation of a Teaching University in London, which among its other objects should include in its constitution a medical faculty strong enough to secure for its students degrees on a fair standard of literary, scientific, and professional knowledge, with a firm insistence on proofs of due attendance on the theoretical teaching and an efficient service in the practical work laid down in the medical curriculum. Other questions—such as the amalgamation of schools for more efficient scientific teaching, the appointment of special professors of University standing for higher teaching or for research, the existence of one or two Universities in London the position of the Royal Colleges in connexion with the University—although of great importance, are quite subsidiary to the main question. The acknowledged injustice in the present position of the London student must be removed, and any scheme, however comprehensive in its other educational details and suggestions, which does not make this a prominent feature must fail. There would seem to be only two possible solutions of the difficulty. The first is to make a new attempt at remodelling the existing University, so as to practically secure the advantages of a local Teaching University with degree-granting powers on the one side and the existence of an open and Imperial Examining Board, also conferring degrees, on the other. We have heard a rumour that many members of the Royal Commission are in favour

of some such plan. It must be remembered, however, that the former Commission suggested a similar solution, and put forward a detailed scheme for its effective working, but after two years had been spent in conferences and negotiations the University of London found itself unable to so transform its constitution as to assume the new position and carry out the new duties recommended by that Commission. It has been suggested that if a similar scheme be recommended by the present Commission any anticipatory opposition in Convocation will be rendered nugatory by making an application direct to Parliament without consulting the members of Convocation. Such a high-handed method of procedure may be contemplated, but we do not believe that the Senate as a body will give its sanction to such a course of proceeding, and we are by no means sure that even if adopted it would necessarily be successful. The other method of meeting the difficulty is to form a second University in London with exclusively local functions, and to allow the existing University to remain free and unfettered for the performance of its present Imperial work. The existence of Trinity College, Dublin, having power to confer degrees on its own students, and of the Royal University of Ireland with its headquarters in Dublin, show how easily two Universities, with different objects and functions, can exist side by side in the same city.

#### THE STUDENT'S LIBRARY.

The number of works on medical subjects which are available to the English student has become so large, and their general quality is so excellent, that it is a matter of increasing difficulty to make any attempt to indicate the most serviceable text-book in any branch. For some years past we have endeavoured to make such a guide by taking the leading examinations as the basis of our comments, and pointing out some of the chief text-books that may be read in preparation for these examinations. But for the reason above stated this mode of dealing with the matter has the objection of making a somewhat invidious selection, and in what follows we propose merely to arrange in systematic fashion most of the publications now in vogue, under each subject of the curriculum, placing first the larger and more compendious treatises, and indicating by an asterisk those books which have perhaps the greatest favour among students at large.

#### ANATOMY.

*Quain*.—Elements of Anatomy, edited by Schäfer and Thane (Longmans, Green and Co.).

*Macalister*.—Human Anatomy, Systematic and Topographical (Charles Griffin and Co.).

\**Gray*.—Anatomy, Descriptive and Surgical, edited by Pick (Longmans, Green and Co.).

\**Ellis*.—Demonstrations of Anatomy, edited by Thane (Smith, Elder and Co.).

\**Heath*.—Practical Anatomy, edited by Godlee (J. & A. Churchill).

*Holden*.—Manual of Dissections, edited by Langton (J. & A. Churchill).

*Cleland*.—Directory for Dissection (Smith, Elder and Co.).

*Clarke and Lockwood*.—The Dissector's Manual (Cassell and Co.).

*Cunningham*.—Dissector's Guide (J. Thin).

\**Cooke*.—Tablets of Anatomy (Longmans, Green and Co.)

*Treves*.—Surgical Applied Anatomy (Cassell and Co.).

*Bollamy*.—Guide to Surgical Anatomy (J. & A. Churchill).

\**Holden*.—Landmarks, Medical and Surgical (J. & A. Churchill).

#### OSTEOLOGY.

\**Ward*.—Outlines of Osteology (Henry Renshaw).

\**Thane*.—See Quain's Anatomy, vol. ii., part 1.

\**Holden*.—Human Osteology, edited by Stewart (J. & A. Churchill).

*Norton*.—Osteology for Students (Baillièrre, Tindall and Cox).

\**Ellis and Ford*.—Illustrations of Dissections (Smith, Elder and Co.).

*Braune*.—Atlas of Topographical Anatomy (J. & A. Churchill).

\**Godlee*.—Atlas of Human Anatomy (J. & A. Churchill).

*Masse*.—Text-book and Atlas of Anatomy (Baillièrre, Tindall and Cox).

*Withowski*.—Movable Atlas of Anatomy (Baillièrre, Tindall and Cox).

#### PHYSIOLOGY.

*Landois*.—Text-book of Physiology, translated and edited by Stirling (Charles Griffin and Co.).

\**Foster, M.*—Text-book of Physiology (Macmillan and Co.).

*Carpenter*.—Principles of Physiology, edited by Power (J. & A. Churchill).

*McKendrick*.—Outlines of Physiology (Maclehose and Sons).

*Plint*.—Text-book of Human Physiology (H. K. Lewis).

*Hermann*.—Elements of Human Physiology, translated by Gamgee (Smith, Elder and Co.).

\**Kirkes*.—Handbook of Physiology, edited by M. Baker (John Murray).

*Yeo, G.*—Manual of Physiology (J. & A. Churchill).

*Power*.—Human Physiology (Cassell and Co.).

\**Qualey*.—Elementary Physiology (Macmillan and Co.).

#### PRACTICAL PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY.

*Gamgee*.—Physiological Chemistry (Macmillan and Co.).

*Halliburton*.—Text-book of Chemical Physiology and Pathology (Longmans, Green and Co.).

*Charles*.—Elements of Physiological and Pathological Chemistry (Smith, Elder and Co.).

\**Harris and Power*.—Physiological Laboratory (Baillièrre Tindall and Cox).

#### HISTOLOGY AND EMBRYOLOGY.

\**Schäfer*.—Quain's Anatomy, vol. i., parts 1 and 2.

*Klein*.—Atlas of Histology (Smith, Elder and Co.).

*Stirling*.—Text-book of Practical Histology (Smith, Elder and Co.).

\**Schäfer*.—Course of Practical Histology (Smith, Elder and Co.).

\**Klein*.—Elements of Histology (Cassell and Co.).

*Colman*.—Section Cutting and Staining (H. K. Lewis).

#### MATERIA MEDICA.

*Brunton*.—Text-book of Pharmacology, Therapeutics, and Materia Medica (Macmillan and Co.).

*Phillips*.—Materia Medica and Therapeutics (J. & A. Churchill).

\**Garrod*.—Essentials of Materia Medica and Therapeutics, edited by Tirard (Longmans, Green and Co.).

\* *Whitla*.—Pharmacy, Materia Medica and Therapeutics (Henry Renshaw).

\* *Mitchell Bruce*.—Materia Medica and Therapeutics (Cassell and Co.).

\* *Roberts*.—Official Materia Medica (H. K. Lewis).

*Hale White*.—Materia Medica, Pharmacology and Therapeutics (Macmillan and Co.).

*Thorowgood*.—Guide to Materia Medica and Therapeutics (J. & A. Churchill).

*Griffiths*.—Materia Medica and Pharmacy (Baillière, Tindall and Cox).

*Soorobly Jackson*.—Note-book of Materia Medica (J. Thin).

#### Therapeutics.

*Brunton*.—Text-book of Pharmacology, and Therapeutics (Macmillan and Co.).

*Wood*.—Therapeutics (Smith, Elder and Co.).

*Bartholow*.—Materia Medica and Therapeutics (H. K. Lewis).

*Hare*.—Practical Therapeutics (Young J. Pentland).

\* *Ringer*.—Handbook of Therapeutics (H. K. Lewis).

\* *Farquharson*.—Guide to Therapeutics (Smith, Elder & Co.).

*Hale White*.—Text-book of General Therapeutics (Macmillan and Co.).

*Whitla*.—Dictionary of Treatment (Henry Renshaw).

*Fenwick*.—Outlines of Medical Treatment (J. & A. Churchill).

#### Forensic Medicine.

*Taylor*.—Manual of Medical Jurisprudence, edited by Stevenson (J. & A. Churchill).

\* *Guy and Ferrier*.—Principles of Forensic Medicine (Henry Renshaw).

\* *Husband*.—Handbook of Forensic Medicine (Baillière, Tindall and Cox).

*Abererombic*.—Guide to Medical Jurisprudence (J. & A. Churchill).

#### Hygiene.

*Parkes and De Chaumont*.—Manual of Practical Hygiene, edited by Notter (J. & A. Churchill).

\* *Wilson*.—Text-book of Hygiene (J. & A. Churchill).

\* *Parkes, L.*—Manual of Public Health (H. K. Lewis).

\* *Whitelegge*.—Hygiene and Public Health (Cassell and Co.).

#### Pathology and Morbid Anatomy.

*Hamilton*.—Text-book of Pathology (Macmillan and Co.).

\* *Ziegler*.—Text-book of Pathological Anatomy, translated by Macalister (Macmillan and Co.).

\* *Coats*.—Manual of Pathology (Longmans, Green and Co.).

*Wilks and Moxon*.—Lectures on Pathological Anatomy (Longmans, Green and Co.).

*Cornil and Ranvier*.—Manual of Pathological Histology (Smith, Elder and Co.).

\* *Boyce*.—Morbid Histology (H. K. Lewis).

\* *Woodhead*.—Practical Pathology (Young J. Pentland).

\* *Payne*.—Manual of General Pathology (Smith, Elder & Co.).

\* *Green*.—Introduction to Pathology, edited by Boyd (Henry Renshaw).

*Moore*.—Pathological Anatomy of Diseases (J. & A. Churchill).

*Stevens*.—Practical Pathology (Maclehose and Sons).

\* *Whitaker*.—Notes on Pathology (Livingstone).

*Billroth*.—Surgical Pathology and Therapeutics (H. K. Lewis).

*Paget*.—Lectures on Surgical Pathology (Longmans, Green and Co.).

\* *Walsham*.—Handbook of Surgical Pathology (Baillière, Tindall and Cox).

\* *Bowly*.—Surgical Pathology (J. & A. Churchill).

\* *Pepper*.—Surgical Pathology (Cassell and Co.).

*Sutton, H. G.*—Medical Pathology (Baillière, Tindall and Cox).

*Sutton, J. B.*—Introduction to General Pathology (J. & A. Churchill).

#### Medicine.

*Reynolds*.—System of Medicine (Macmillan and Co.).

\* *Fagge and Pye-Smith*.—Principles and Practice of Medicine (J. & A. Churchill).

*Niemeyer*.—Text-book of Practical Medicine (H. K. Lewis).

*Flint*.—Principles and Practice of Medicine (J. & A. Churchill).

\* *Bristowe*.—Theory and Practice of Medicine (Smith, Elder and Co.).

\* *Oster*.—Principles and Practice of Medicine (Young J. Pentland).

*Strumpell*.—Text-book of Medicine (H. K. Lewis).

\* *Roberts*.—Handbook of the Theory and Practice of Medicine (H. K. Lewis).

\* *Taylor, F.*—Manual of Practice of Medicine (J. & A. Churchill).

\* *Carter*.—Elements of Practical Medicine (H. K. Lewis).

\* *Charteris*.—Guide to Practice of Medicine (J. & A. Churchill).

*Husband*.—Handbook of Practice of Medicine (Baillière, Tindall and Cox).

*Quain*.—Dictionary of Medicine (Longmans, Green and Co.).

\* *Fowler*.—Dictionary of Practical Medicine (J. & A. Churchill).

*Turner*.—Index of Diseases (Henry Renshaw).

*Da Costa*.—Medical Diagnosis (Smith, Elder and Co.).

\* *Finlayson*.—Clinical Manual (Smith, Elder and Co.).

*Vierordt*.—Manual of Medical Diagnosis (Young J. Pentland).

*Graham Brown*.—Medical Diagnosis (Bell and Bradfute).

\* *Fenwick*.—Guide to Medical Diagnosis (J. & A. Churchill).

\* *Gibson and Russell*.—Physical Diagnosis (Young J. Pentland).

*Seifert and Müller*.—Clinical Diagnosis (Young J. Pentland).

\* *Gee*.—Auscultation and Percussion (Smith, Elder and Co.).

*Harris*.—Guide to Diseases of the Chest (J. & A. Churchill).

*West, S.*—How to Examine the Chest (J. & A. Churchill).

\* *Ewart*.—Cardiac Outlines (Baillière, Tindall and Cox).

\* *Ewart*.—The Pulse, and How to Feel It (Baillière, Tindall and Cox).

*Warner*.—Guide to Case-taking (J. & A. Churchill).

*V. Jaksch*.—Clinical Diagnosis (Charles Griffin and Co.).

*Wynter and Wethered*.—Clinical and Practical Pathology (J. & A. Churchill).

\* *Whittaker*.—Primer on the Urine (J. & A. Churchill).

*Legg*.—Guide to Examination of Urine (H. K. Lewis).

*Tyson*.—Guide to Examination of Urine (Baillière, Tindall and Cox).

\* *Coupland*.—Notes on Examination of Sputa, Urine &c. (H. K. Lewis).

## SURGERY.

*Holmes and Hulke.*—System of Surgery (Longmans, Green and Co.).

*Heath.*—Dictionary of Practical Surgery (Smith, Elder and Co.).

\**Smithson.*—Science and Art of Surgery, edited by Beck (Longmans, Green and Co.).

\**Mansell-Moullin.*—Surgery (J. & A. Churchill).

*Gant.*—Science and Practice of Surgery (Baillièrè, Tindall and Cox).

\**Holmes.*—Treatise on Surgery (Smith, Elder and Co.).

\**Bryant.*—Manual of Practice of Surgery (J. & A. Churchill).

*Treves.*—Manual of Surgery (Cassell and Co.).

*Druitt.*—Surgeon's Vade-Mecum, edited by Boyd (J. & A. Churchill and Henry Renshaw).

*Keetley.*—Index of Surgery (Smith, Elder and Co.).

*Walsham.*—Guide to Surgery (J. & A. Churchill).

*Treves.*—Operative Surgery (Cassell and Co.).

\**Heath.*—Atlas of Surgical Operations (J. & A. Churchill).

*Barker.*—Surgical Operations (Longmans, Green and Co.).

*Stimson.*—Manual of Operative Surgery (H. K. Lewis).

*Heath.*—Guide to Surgical Diagnosis (J. & A. Churchill).

\**Gould.*—Surgical Diagnosis (Cassell and Co.).

\**Heath.*—Minor Surgery and Bandaging (J. & A. Churchill).

\**Hill, B.*—Essentials of Bandaging (H. K. Lewis).

## MIDWIFERY.

\**Playfair.*—Science and Practice of Midwifery (Smith, Elder and Co.).

*Lusk.*—Science and Art of Midwifery (H. K. Lewis).

*Barnes.*—Obstetric Operations (J. & A. Churchill).

\**Leishman.*—System of Midwifery (Maclehose and Sons).

\**Galabin.*—Manual of Midwifery (Henry Renshaw).

*Meadows.*—Manual of Midwifery (Henry Renshaw).

## GYNÆCOLOGY.

*Barnes.*—Medical and Surgical History of Diseases of Women (J. & A. Churchill).

\**Hart and Barbour.*—Manual of Gynæcology (W. T. A. K. Johnston).

*Atthill.*—Lectures on Diseases of Women (Longmans, Green and Co.).

*Edis.*—Diseases of Women (Smith, Elder and Co.).

*Jones, M.*—Manual of Diseases of Women (Baillièrè, Tindall and Cox).

\**Galabin.*—Guide to Diseases of Women (J. & A. Churchill).

\**Lewers.*—Text-book of Diseases of Women (H. K. Lewis).

## DISEASES OF CHILDREN.

*Eustace Smith.*—Disease in Children (J. & A. Churchill).

\**Ashby and Wright.*—Diseases of Children (Longmans, Green and Co.).

\**Goodhart.*—Manual of Diseases of Children (J. & A. Churchill).

*Money.*—Treatment of Diseases of Children (H. K. Lewis).

## THE VALUE OF DEBATING SOCIETIES.

EARLY in his curriculum the medical student should join the debating society attached to his school, and this for many reasons. It brings him into contact, not merely social but intellectual, with the more advanced of his fellows, and it stimulates him by honourable emulation to earn their

approval and esteem. It may be that for the first year or so he takes no prominent part in the discussions. The subject-matter of debate may be "over his head," or he may be shy as to addressing an audience, or a capacity of readily expressing himself may as yet have had no opportunity of development. For the time, therefore, he will be well employed in listening and looking on, till he feels sure of his ground and can intervene effectually in the proceedings. But when this latter stage is reached he will be spurred to greater efforts by the mental fascination inseparable from all high-toned discussion; he will find his intellect clearing itself in the endeavour to make his argument intelligible and convincing; and he will gradually refine and enrich his language in giving expression to subtler and ampler ideas. All this is a great moral and intellectual gain, which can react for nothing but good on his subsequent career—a gain perceptible subjectively as regards self-reliance, respect for the opinions of others and courtesy towards opponents, and objectively as regards the friendships it helps to form, the goodwill and even admiration it may bring him and the social vantage-ground on which it will serve to place him. So rich, indeed, are debating societies in these results for their members that no school—certainly no medical school—should be without one, while their opportunities should be freely utilised wherever such an adjunct to academic culture exists.

A very interesting book has lately appeared which gives point to the above remarks. It is a handsome volume published by Mr. DAVID DOUGLAS of Edinburgh, entitled "Dissertations by Eminent Members of the Royal Medical Society." Its editor is Sir DOUGLAS MACLAGAN, and its contents throw light on the first beginnings of the career of men afterwards distinguished in every walk of the profession. For more than a century and a half the Royal Medical Society of Edinburgh has enrolled in its membership the flower of the northern alumni, and a brief statement of its constitution and mode of working cannot but be useful for comparison or imitation. It is open to the first year's student and to the graduate, and after proposal and ballot the candidate takes his seat as an ordinary member. He is bound to attend the meetings, and is fined for absence so long as he resides in Edinburgh. After a time, varying according to the number of those who have preceded him in election, he is called upon to read to the Society an essay on some subject connected with the healing art or some of the ancillary sciences, and this is called his dissertation. The essay is criticised by the members, and, as Sir DOUGLAS MACLAGAN says, "has on many occasions given rise to debates which have had an important effect in extending the knowledge and influencing the future opinions and practice of those who have had the benefit of hearing or taking part in them. The member," adds Sir DOUGLAS MACLAGAN, "who has read the dissertation, and almost of necessity taken part in the discussion thereof, is entitled to become an extraordinary member and is now freed from compulsory attendance and fines."

A glance at the list of even those under whose names no dissertations are to be found may give some notion of the distinction of the Society. Such names include WILLIAM CULLEN, JOSEPH BLACK, HALLER, the MONROS, OLIVER GOLDSMITH, MARK AKENSIDE, MUNGO PARK, SIR CHAS. HASTINGS, THOMAS ADDISON, and CHARLES

DARWIN. On the other hand, the authors of the dissertations that compose the present volume would of themselves have given *éclat* to any society of the kind. They are DANIEL RYTHERFORD, JAMES GREGORY, GILBERT BLANE, ROBERT JAMESON, HENRY HOLLAND, RICHARD BRIGHT, MARSHALL HALL, ROBERT LISTON, JAMES SYME, ROBERT CHRISTISON, WILLIAM SHARPEY, ALLEN THOMSON, JAMES YOUNG SIMPSON, JOHN REID, MARTIN BARRY, WILLIAM BENJAMIN CARPENTER, JOHN BROWN, JOHN GOODSIR, CHARLES MURCHISON and JAMES MATTHEWS DUNCAN. The first essays of these men, as now given to the world, "form," as Sir DOUGLAS MACLAGAN says, "important additions to the history of medicine—a study too much neglected." More than this, they give conclusive evidence of the disciplinary and educative value of medical debating societies at that stage of the student's career when his mental faculties are in a state most favourable for the reception of impressions which may modify his whole future character and individuality.

#### BRITISH QUALIFICATIONS ABROAD.

As a very considerable number of medical men for one reason or another decide to leave these islands and to settle in practice in some other country, and as the conditions under which men holding British qualifications are permitted to practise differ widely in different countries, it will be useful to give in the present issue of THE LANCET an epitome of such information as we have been able to obtain concerning the regulations in force in various countries. It will be remarked that in British colonies generally little difficulty need be anticipated beyond having to furnish proof of the possession of a *bonâ-fide* diploma entitling the holder to registration in Great Britain and perhaps the payment of a fee. To this rule there are, however, as will be seen, exceptions—viz., British Columbia and Ontario, where an examination is necessary. It must be remembered, however, that these regulations are constantly changing, and generally in the direction of increased stringency, so that any practitioner thinking of settling abroad would be well advised to write direct to the authorities of the country or State to which he proposes to go for the latest information. It is well, too, to get diplomas and certificates of registration endorsed by the consul in England before sailing. This will sometimes obviate difficulties as to identification.

#### BRITISH COLONIES.

*Antigua.*—No formality is required.

*Australia.*—In all the Australian colonies the Medical Board must be first communicated with and the diplomas produced. It is generally necessary also to produce some evidence that the applicant for registration is really the person referred to in the diplomas, and the Board may take means of satisfying itself on this point. There is in some of the colonies a fee of £1 1s. to pay. In Western Australia the Board may examine and register an unqualified man.

*Barbadoes.*—Application has to be made to the Medical Assessors. Fee 5s.

*Bermuda.*—The Governor in Council gives permission to practise on the production of diplomas. There is no fee.

*British Columbia.*—Diplomas have to be produced to the Medical Council, Victoria, with satisfactory proof of identification, and an examination must then be passed in:

(1) Anatomy, (2) Chemistry, (3) Physiology, (4) Pathology, (5) Materia Medica, (6) Medical Jurisprudence, (7) Theory and Practice of Medicine, (8) Clinical Medicine, (9) Surgery, (10) Clinical Surgery, (11) Obstetrics and Diseases of Women and Children. Candidates must obtain 75 per cent. of the marks in each of the last three subjects. A fee of \$100 is required before the examination, half of which is returned in case of failure. Examinations are held in January, May and September.

*British Guiana.*—Application has to be made to the Secretary of the Medical Board. Qualifications which have not been registered in Great Britain may be recognised.

*British Honduras.*—No formality is required.

*Cape of Good Hope.*—The Colonial Medical Committee examines the diplomas of applicants. The Colonial Secretary will then grant a licence to practise. There is no fee.

*Ceylon.*—Practice is free.

*Dominica.*—No formality is required.

*Gibraltar.*—Diplomas must be produced to the Governor. There is no fee.

*Grenada.*—Application has to be made to the Clerk of the Colonial Secretary. There is then a delay of a fortnight. The fee is £1.

*Hong-Kong.*—The Medical Board examines the qualifications of applicants. A declaration has to be made before a magistrate. The fee is \$5.

*India.*—Practice is free.

*Jamaica.*—The Registrar-General acts as Medical Registrar. A declaration has to be made before a Justice of the Peace, and the diplomas are initialled by him. The fee is £1. Unqualified persons can be examined by the Medical Council. Fee £11 11s.

*Malta.*—A fee is necessary.

*Manitoba.*—Application should be made to the Registrar of the College of Physicians and Surgeons. The fee is about \$5.

*Mauritius.*—No fees are required.

*Natal.*—There is a Medical Board, to which body application must be made and a copy of a declaration before a magistrate produced. The fee is £1 15s.

*New Brunswick.*—The Council of Physicians and Surgeons are applied to and the diplomas and certificate of registration in Great Britain submitted to them. A fee of \$10 is charged.

*Newfoundland.*—No restrictions.

*New Zealand.*—There is no Medical Board here. The official to whom application must be made is the Registrar of Births, Marriages and Deaths of any of the chief towns. The diplomas must be produced, and a copy certified to by a Justice of the Peace must be left with him. An advertisement must also be inserted in the *New Zealand Gazette*. The fees amount to £1 5s.

*Nova Scotia.*—Application has to be made to the Provincial Medical Board, Halifax, and proof of registration in Great Britain presented. The fee is \$25.

*North-West Territory.*—The Lord Lieutenant is Registrar. Fee \$5.

*Ontario.*—Diplomas have to be presented to the Royal College of Physicians and Surgeons, Toronto, and an examination passed. The fee appears to be \$50. There is also a small annual subscription.

*Prince Edward's Island.*—The Board of Examiners examine the diplomas and charge a fee of 30s.

*Quebec.*—Practitioners must become members of the College of Surgeons and Physicians. No examination is required from holders of a British qualification. There appears to be a fee of \$20 and an annual payment of \$2.

*Sierra Leone.*—Practice is free.

*Straits Settlements.*—Practice is free.

*St. Lucia.*—Application has to be made to the Chief Clerk in the Government Office. There is no fee.

*St. Vincent.*—Application has to be made to the Registrar of the Medical Board. Fee £5.

*Tasmania.*—Here there is a Court of Medical Examiners, whose duty it is to examine the diplomas of applicants. The fee is not mentioned in the statute.

*The Bahamas.*—No formality is required.

*Tobago.*—No formality is required.

*Trinidad.*—The Secretary and Treasurer of the Medical Board act as Registrar. Applicants have to prove their qualifications, and also to show that they bear a good character. All registered persons are members of the Medical Board. There is no fee.

#### FOREIGN COUNTRIES.

Turning now to the question of practice in foreign countries, it must of course be evident that in them more difficulties are likely to be thrown in the way of a British practitioner than in the colonies. Indeed, in the majority of the more important countries an examination of a tolerably strict character has to be passed before applicants, however well qualified, can obtain leave to practise.

*Argentina.*—A severe examination, conducted in the Spanish language, must be passed at one of the two medical schools, Buenos Ayres and Cordova. It is said that at the latter school the scientific requirements are lighter, but the fees heavier, than at the former, where they amount to \$350 paper currency. Before passing the examination a foreign medical man may, if he pleases, obtain without difficulty a temporary licence to practise in some locality where there is no fully licensed practitioner.

In *Austria* it is necessary not merely to pass the examinations for the degree of Doctor of Medicine of an Austrian University, but to become an Austrian subject. Practically speaking, Austrian territory, which of course includes the Tyrol, seems to be shut off from foreign practitioners. One case has occurred where an Englishman who was engaged as surgeon to some works where a number of English were employed was allowed to pass an examination by means of papers which were translated.

In *Belgium* the Government is authorised, on the advice of a jury, which has the power of granting the diploma of Doctor or Pharmacist, to give permission to applicants who have obtained a diploma abroad entitling them to practise in their own country, but no permission can be given to practise medicine unless the original diploma authorises the holder to practise medicine, surgery and midwifery.

*Bolivia.*—There appears to be no examination. There is a medical faculty in the University of Sucre.

*Brazil.*—An examination has to be passed, but it may be conducted in Portuguese or French. It is said to be less severe than some of the other South American examinations.

There are faculties of medicine in Rio de Janeiro and Bahia. The recent political troubles may possibly have produced some change in the medical requirements.

*Chile.*—A severe examination must be passed, conducted in the Spanish language, in the University of Santiago. The examiners are mostly Germans and the requirements are, as nearly as possible the same as those of the German *Staats-examen*.

*Colombia.*—There appears to be no examination. There is a medical school in the University of Bogotá.

*Costa Rica.*—No formalities required.

*Dutch Guiana.*—A State Examination, as in Holland, is required.

*Ecuador.*—No requirements.

In *France* a Bill has passed through the French Legislature that entails considerable changes in the regulations regarding the granting of licences to foreigners to practise. The diploma of *Officier de Santé*, which is that which has been most commonly taken by English practitioners, is abolished, and all foreigners, whatever may be their diplomas, are obliged to pass the examinations and to go through part of the course of study required for the M.D. degree, which is said to be as difficult as the M.D. of London.

*French Guiana.*—The medical laws are analogous to those in France.

In *Germany* the State Examination, which is severe, must as a rule be passed. Occasionally exemption may be obtained.

In *Greece* there is an examination, but it may be passed in English or French.

*Guatemala.*—No requirements. There is a University and Medical School in the capital.

In *Holland, Denmark, Sweden* and *Norway* a severe State Examination must be passed at a University. Under very special circumstances exemption might perhaps be obtained—at least in Norway.

In *Italy* qualified men who confine their practice to their own countrymen are not interfered with, though, in order to practise generally, the M.D. of an Italian University must be obtained.

*Mexico.*—No examination is required. It is, however, considered that a medical degree from the University of Mexico would be very advantageous to anyone wishing to practise in Central or South America. There are four Government and five State Medical Schools.

*Nicaragua.*—No restrictions.

*Paraguay.*—An examination, said to be of a very simple character, has to be passed. The chairman of the Board of Examiners is an Englishman, Dr. HOSKINS. The British Consul, too, is an English medical man.

*Peru.*—Application should be made to the dean of the Medical Faculty, Lima, who, after verifying the diplomas obtained in Europe, will arrange for the candidate's examination. Five examinations are required and they correspond in general to those of the Paris Faculty; the pharmaceutical preparations which have to be known are those of the French Codex, and the medical jurisprudence is also French. There is a very thorough clinical examination, but plenty of time is allowed, and books, and even the patient's case-register, may be referred to, so that there is no attempt to "catch" or to unnecessarily puzzle a

candidate. The examination is of course in the Spanish language, but no very profound knowledge of it is required. A candidate must understand what is said and be able to make his meaning intelligible in that language, but the examiners will permit him to explain himself in French or English. It is not absolutely necessary to take the degree of Doctor, but it is best to do so in the case of desiring to join any of the medical societies. The fees amount to about £40. There is at present no English medical man in practice in Lima; and as there are a good many English and American residents there would seem to be an opening, though of course the country is not so wealthy as before the war.

In *Portugal* a State Examination must be passed at one of the medical schools. This requires a good knowledge of the vernacular, but it is incumbent on those who wish to practise in Portugal or Madeira.

In *Roumania* there is a *viva-voce* examination.

In *Russia* the State Examination for *Vrach* (medical practitioner) has to be passed. When the applicant holds a foreign M.D. of high value, the Minister of Education may permit the examination to be confined to reading and defending a somewhat elaborate dissertation or thesis.

*Salvador*.—No restrictions.

*Spanish Honduras*.—No restrictions.

In *Spain* recognition can usually be obtained for British diplomas, but there is frequently considerable delay. Application should be made through the British Minister.

In *Switzerland* British practitioners are now obliged to pass the State Examination, which is conducted in French or German, at one of the Swiss universities.

In *Turkey*, including Syria, there is an examination at Constantinople which may be passed in English, with a fee of £4 10s., and there is frequently a good deal of delay.

In *The Orange Free State*, although there is said to be a very conservative feeling towards foreigners, it is believed that British practitioners would, if properly accredited, obtain permission to practise.

*Uruguay*.—An examination (or rather a complete series of examinations) conducted in Spanish at the University of Monte Video, is required, and a fee of \$300 paper currency, which is double the sum required from a native.

*Venezuela*.—Nominally an examination at one of the two medical schools, Caracas and Maracaibo, is required, but practically there is nothing to hinder an English medical man from practising.

#### UNITED STATES.

*Alabama*.—An examination by the State Medical Board or one of the County Boards is required. This lasts about a week, and 75 per cent. of the marks in each subject are required to be obtained.

*Arizona*.—Diploma to be registered by County Recorder.

*Arkansas*.—Diploma to be registered by the State Board of Examiners or one of the County Boards.

*California*.—Diploma to be registered by one of the Boards of Medical Examiners. Fee \$5.

*Colorado*.—Registration of diploma by State Board of Medical Examiners.

*Connecticut*.—No requirements.

*Delaware*.—Registration of diploma by a County Clerk.

*Florida*.—Examination required before one of the eight district Boards of Medical Examiners.

*Georgia*.—Diploma to be registered in the office of the Clerk of the Superior Court.

*Idaho*.—Diploma to be recorded at the County Seat.

*Illinois*.—Diploma to be presented to the State Board of Health.

*Indiana*.—Diploma to be registered by the Clerk of the Circuit Court of the County. Fee \$1½.

*Iowa*.—Diploma to be registered by the State Board of Medical Examiners.

*Kansas*.—No requirements.

*Kentucky*.—Diploma to be registered by the State Board of Health.

*Louisiana*.—Diploma to be presented to the State Board of Health and endorsed and afterwards registered by a County Clerk or Justice of the Peace.

*Maine*.—No requirements.

*Maryland*.—Diploma to be presented to the State Board of Health, Baltimore. The fee is \$10.

*Massachusetts*.—No requirements.

*Michigan*.—Diploma to be registered in the County Clerk's Office.

*Minnesota*.—Examination required before the State Board of Medical Examiners, St. Paul. Candidates whose diplomas are more than five years old are considered "old practitioners" and are not required to obtain more than 35 per cent. of the marks in anatomy and some other subjects, but their general average must be 65 per cent. There are examinations in January, April, July and October. The fee is \$10.

*Mississippi*.—Examination required before a County Board of Medical Censors.

*Missouri*.—Diploma to be registered by the State Board of Health, City of Jefferson. Fee \$1.

*Montana*.—Diploma to be presented to the State Board of Medical Examiners.

*Nebraska*.—Diploma to be registered by the County Clerk.

*Nevada*.—Diploma to be filed by the County Recorder.

*New Hampshire*.—No requirements except of a formal character.

*New Jersey*.—Examination before the State Board of Medical Examiners, Jersey City. The Examination is in writing and occupies two days; 33½ per cent. of the marks are required in every subject, and a general average of 75 per cent. Fee \$15.

*New York*.—The only body entitled to license applicants is the University of the State of New York, Albany. An examination, lasting four days, is required. This embraces Anatomy, Physiology, Hygiene, Chemistry, Surgery, Obstetrics, Pathology, Diagnosis, Therapeutics (including Practice) and Materia Medica. Examinations are held in New York (410, East Twenty-sixth-street), Albany (High School Building), Syracuse (High School) and Buffalo (High School) five times a year. Seventy-five per cent. of correct answers are required in all subjects, and all subjects must be passed at the same examination. The fee, which must be paid in advance, is \$25.

*North Carolina*.—Examination by the State Board of Medical Examiners; 80 per cent. of the marks are required to be obtained. A temporary licence can be obtained while waiting for the examination. A fee of \$10 is required.

*North Dakota.*—Examination by the State Board of Medical Examiners, Grand Forks. Examinations held in January, April, July and October.

*Ohio.*—No requirements.

*Oregon.*—Diploma must be recorded with Secretary of the State Medical Board, Portland. Fees \$2.

*Pennsylvania.*—Diploma to be endorsed by some medical college in the State, and then registered by a county prototary. Fee \$1.

*Rhode Island.*—No requirements.

*South Carolina.*—Examination before the State Board required.

*South Dakota.*—Diploma to be recorded by the State Board of Health. Fee \$5.

*Tennessee.*—Diploma to be registered by the State Board of Medical Examiners, Trenton. Fee \$1.

*Texas.*—Diploma to be presented for endorsement to a District Board of Medical Examiners and afterwards registered.

*Utah.*—No requirements.

*Vermont.*—Diploma to be endorsed and registered.

*Virginia.*—Examination by the State Medical Examining Board.

*Washington.*—Examination by the State Medical Examining Board, Walla Walla. Fee \$10.

*West Virginia.*—Diploma to be registered by the State Board of Health.

*Wisconsin.*—No requirements, but it is advisable to join some medical society.

*Wyoming.*—Diploma to be filed with the County Registrar of Deeds.

## SESSION 1892-93.

### GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION OF THE UNITED KINGDOM.

*Registration of Medical Students.*—The following are the General Medical Council's Regulations in reference to the registration of students in medicine :—

Every medical student shall be registered in the manner prescribed by the General Medical Council. No medical student shall be registered until he has passed a preliminary examination as required by the General Medical Council, and has produced evidence that he has commenced medical study. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration. The registration of medical students shall be placed under the charge of the branch registrars. Every person desirous of being registered as a medical student shall apply to the branch registrar of the division of the United Kingdom in which he is residing; and shall produce or forward to the branch registrar a certificate of his having passed a preliminary examination as required by the General Medical Council, and evidence that he has commenced medical study. The branch registrar shall enter the applicant's name and other particulars in the Students' Register, and shall give him a certificate of such registration. Each of the branch registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for the registration of medical students. The several Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—have power to admit special exceptions to the foregoing regulations as to registration,

for reasons which shall appear to them satisfactory. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—have power to admit exceptions to this recommendation.

The Preliminary Examination in General Education, required to be passed previously to registration as a Medical Student, shall be as follows :—

1. English language, including grammar and composition. 2. Latin, including grammar, translation from specified authors, and translation of easy passages not taken from such authors. 3. Mathematics, comprising (a) arithmetic, (b) algebra, as far as simple equations, inclusive; (c) geometry, the subject matter of Euclid, Books I., II., and III., with easy deductions. 4. One of the following optional subjects: (a) Greek, (b) French, (c) German, (d) Italian, (e) any other modern language, (f) logic."

The Council will not in future accept any certificate of pass in Preliminary Examination in General Education unless the whole of the subjects included in the Preliminary Examination required by the Council for Registration of Students of Medicine have been passed at the same time, but this rule shall not apply to those who, previously to Jan. 1st, 1892, have passed a part of any Preliminary Examination recognised by the Council; provided that a University Examination required for graduation in Arts, wherein the specified subjects of General Education are included, may be recognised for the purpose of registration.

*Professional Education.*—1. "The course of professional study after registration should occupy at least five years, conditionally."

2. "The first four of the five years should be passed at a School or Schools of Medicine recognised by any of the Licensing Bodies mentioned in Schedule A of the Medical Act (1858), provided that the first year may be passed at a University or Teaching Institution, recognised by any of the Licensing Bodies, where the subjects of Physics, Chemistry, and Biology are taught."

3. "Graduates in Arts or Science of any University recognised by the Medical Council who shall have spent a year in the study of Physics, Chemistry, and Biology, and have passed an examination in these subjects for the degrees in question, should be held to have completed the first of the five years of medical study."

4. "The fifth year should be devoted to clinical work at one or more of such public hospitals or dispensaries, British or foreign, as may be recognised by any of the medical authorities mentioned in Schedule A of the Medical Act (1858), provided that of this year six months may be passed as a pupil to a Registered Practitioner holding a public appointment, or possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities."

5. "The Regulations of the Examining Bodies and of the schools should be so framed that attendance on systematic courses may be concluded at the end of the fourth year of study, so as to permit of the student devoting the fifth year to clinical work, as defined in Resolution 4."

6. "The regulations requiring attendance on systematic Courses of Lectures ought not to require attendance on more than three Lectures weekly in any one Course."

7. "Due time should be set aside for Practical Work in the various subjects. Attendance on a Practical Course should be carefully ascertained and certified. By a Practical Course is understood one in which work is done by the student himself, under the direction of a duly qualified teacher."

8. "In order to promote a practical system of Clinical Teaching, the Regulations should specify 'Hospital Practice with Clinical Instruction.' Ample time should be set aside for Hospital Work, and means should be taken to ascertain regularity of attendance in the Wards and Out-patient Departments. Every candidate for the Final Professional Examination at the end of the fifth year should be required to give evidence that he has had sufficient opportunities of practical study."

This Resolution relates to such offices as the following: Clinical Medical Clerkship and Surgical Dressership—either for in- or out-patients; Obstetrical Clerkship; post-mortem Clerkship.

9. "No qualification in Medicine ought to be granted without evidence of clinical instruction in infectious diseases."

*Professional Examination.*—10. "With the view of

securing attention to practical work in Education, the time devoted to the practical part of the examinations in all the subjects should be extended."

11. "The examination in the Elements of Physics (including Mechanics), Chemistry, and Biology should be passed before the beginning of the second winter session."

12. "Antecedent to the Final Examination there should be three Professional Examinations, arranged in such manner as to secure due continuity and sequence of study."

13. "All examinations, except the Final Examination in Medicine, Surgery, and Midwifery, should be passed before the final year intended for clinical work."

14. "The Final Examination in Medicine, Surgery, and Midwifery must not be passed before the close of the fifth year of medical study."

15. "The system of compensation as between the three different subjects of the qualifying examinations—viz., Medicine, Surgery, and Midwifery—is contrary to the intention of the Medical Act (1886), and the Council directs the attention of the several medical authorities to this fact."

16. "The marks for the written and oral examinations in Medicine and Surgery at the Final Examination should not exceed those for the clinical and practical portions of the examination."

17. "Seeing that the practice of different authorities varies on the question whether a student who fails to satisfy the Examiners in each of the several subjects of Medicine, Surgery, and Midwifery should be referred on all of them, or only on those in which he fails, the Council recommends that some general principle should be adopted with reference to this question; and suggests that a percentage of not less than 60 marks on each of any two subjects—supposing that the pass requirement be 50 per cent.—should exempt from re-examination in those two subjects."

18. "The Council recommends to the Examining Bodies the use of a percentage system of marks; and, for facilitating the work of the inspectors appointed by the Council, the adoption of a uniform pass mark of 50 per cent."

19. "With regard to the Course of Study and Examinations which persons desirous of qualifying for the medical profession shall go through in order that they may become possessed of the requisite knowledge and skill for the efficient practice of the profession, the Council now resolves that, in its opinion, the following conditions ought to be enforced without exception on all who commence their medical studies at any time after Jan. 1, 1892:—

(a) "With the exceptions provided for under Resolution 3, the period of professional study, between the date of registration as a medical student and the date of Final Examination for any diploma which entitles its bearer to be registered under the Medical Acts, must be a period of *bona fide* study during not less than five years:

(b) "In every course of professional study and examinations the following subjects must be contained: (i.) Physics, including the Elementary Mechanics of Solids and Fluids, and the rudiments of Heat, Light, and Electricity; (ii.) Chemistry, including the principles of the science and the details which bear on the study of Medicine; (iii.) Elementary Biology; (iv.) Anatomy; (v.) Physiology; (vi.) Materia Medica and Pharmacy; (vii.) Pathology; (viii.) Therapeutics; (ix.) Medicine, including Medical Anatomy and Clinical Medicine; (x.) Surgery, including Surgical Anatomy and Clinical Surgery; (xi.) Midwifery, including Diseases peculiar to Women and to new-born Children; (xii.) Theory and Practice of Vaccination; (xiii.) Forensic Medicine; (xiv.) Hygiene; (xv.) Mental Disease."

\* It is to be understood, as regards the above-mentioned subjects, that the Council offers no opinion as to the manner in which the subjects should be combined or distributed for purposes of teaching or examination.

(c) "At successive stated times during the first four years of the course of study all students must pass such intermediate examinations as will test their proficiency in the successive earlier branches of medical education, and, while tending to promote a due sequence in the medical studies, will also tend to lighten the final examination of matters which can properly be spared from it."

W. J. C. Miller, B.A., Registrar of the General Council and of the Branch Council for England, 299, Oxford-street, London, W.—James Robertson, Registrar of the Branch Council for Scotland, 1, George-square, Edinburgh.—R. L. Heard, M.D., Registrar of the Branch Council for Ireland, 35, Dawson-street, Dublin.

#### I.—UNIVERSITIES IN THE UNITED KINGDOM.

The following is a list of Examining Bodies whose examinations fulfil the conditions of the Medical Council as regards preliminary education, and have been recognised as entitling to registration as a medical or dental student; provided that the Elementary Mechanics of Solids and Fluids, comprising the elements of Statics, Dynamics, and Hydrostatics, is shown to have been included in the examination:—

*University of Oxford.*—Junior Local Examinations; Certificate to include Latin and Mathematics, and also one of these optional subjects—Greek, French, German. Senior Local Examinations; Certificate to include Latin and Mathematics. Responsions. Moderations. Examination for a degree in Arts.

*University of Cambridge.*—Junior Local Examinations; Certificate to include Latin and Mathematics, and also one of these optional subjects—Greek, French, German. Senior Local Examinations; Certificate to include Latin and Mathematics. Higher Local Examinations. Previous Examination. Examination for a degree in Arts.

*University of Durham.*—Examination for Certificate of Proficiency. Examination for students at the end of their first year. Examination for a degree in Arts.

*University of London.*—Matriculation Examination. Preliminary Scientific (M.B.) Examination. Examination for a degree in Arts or Science.

*Victoria University.*—Preliminary Examination; Latin to be one of the subjects. Entrance Examination in Arts, to include all the subjects required.

*University of Edinburgh.*—Local Examinations (Junior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Preliminary Examination for Graduation in Science or Medicine and Surgery. Examination for a degree in Arts.

*University of Aberdeen.*—Local Examinations (Junior Certificate); Certificate to include all the subjects required. Local Examination (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Preliminary Examination for Graduation in Medicine or Surgery. Examination for a degree in Arts.

*University of Glasgow.*—Local Examinations (Junior Certificate); Certificate to include all the subjects required. Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Preliminary Examination for Graduation in Medicine or Surgery. Examination for a degree in Arts.

*University of St. Andrews.*—Local Examinations (Senior Certificate); Certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of these optional subjects—Greek, French, German. Local Examinations (Junior Certificate), to include all the subjects required. Preliminary Examination for Graduation in Medicine or Surgery. Examination for a degree in Arts.

*University of Dublin.*—Public Entrance Examination. General Examination at end of Senior Freshman year. Examination for a degree in Arts.

*Royal University of Ireland.*—Matriculation Examination.

*Oxford and Cambridge Schools Examination Board.*—Certificate to include the following subjects, an adequate knowledge of English Grammar and Orthography, as shown in the course of the examination, to the satisfaction of the examiners, being held as conforming to the requirements of the Medical Council in regard to those subjects: (a) Arithmetic, including Vulgar and Decimal Fractions; (b) Algebra, including Simple Equations; (c) Geometry, including the first two books of Euclid; (d) Latin, including Translation and Grammar; (e) Also one of these optional subjects—Greek, French, German.

#### II.—OTHER BODIES NAMED IN SCHEDULE (A) TO THE MEDICAL ACT.

*Apothecaries' Society of London.*—Examination in Arts.  
*Royal Colleges of Physicians and Surgeons of Edinburgh.*—Preliminary (combined) Examination in General Education.  
*Faculty of Physicians and Surgeons of Glasgow.*—Preliminary Examination in General Education.

*Royal College of Surgeons in Ireland.*—Preliminary Examination; Certificate to include Mathematics.

#### III.—EXAMINING BODIES IN THE UNITED KINGDOM, NOT INCLUDED IN SCHEDULE (A) TO THE MEDICAL ACT, 1858.

*College of Preceptors.*—(44) Examination for a First Class Certificate, or Second Class Certificate of First or Second

Division, Algebra, Geometry, Latin, and either a Modern Language, or Greek, or Logic, having been taken. (45) Preliminary Examination for Medical Students.

*Intermediate Education Board of Ireland.*—(46) Junior Grade Examination, (47) Middle Grade Examination, (48) Senior Grade Examination (Certificate in each case to include all the subjects required).

*Educational Institute of Scotland.*—(49) Preliminary Medical Examination.

*Scottish Education Department.*—(50) Leaving Certificates in each Grade and in Honours.

#### IV.—INDIAN, COLONIAL, AND FOREIGN UNIVERSITIES AND COLLEGES.

“The Certificates from Indian, Colonial, and Foreign Universities and Colleges must contain evidence that the Examination passed included all the subjects required by the General Medical Council. In the case of Natives of India or other Oriental countries, whose vernacular is other than English, an Examination in a Classic Oriental Language may be accepted instead of an Examination in Latin.”

### REGULATIONS

OF THE

## MEDICAL EXAMINING BOARDS IN THE UNITED KINGDOM.

### UNIVERSITY OF OXFORD.

There are two degrees in Medicine, B.M. and D.M., and two degrees in Surgery, B.Ch. and M.Ch.

The B.M. and B.Ch. degrees are granted to those members of the University who have passed the Second Examination. Graduates in Arts (B.A. or M.A.) are alone eligible for these two degrees. In order to obtain the degrees of B.M. and B.Ch. the following examinations must be passed:—1. Preliminary subjects: Mechanics and Physics, Chemistry, Animal Morphology and Botany. 2. Professional. (a) First Examination: Subjects—Organic Chemistry, unless the candidate has obtained a first or second class in Chemistry in the Natural Science School; Human Physiology, unless he has obtained a first or second class in Animal Physiology in the Natural Science School; Human Anatomy, and *Materia Medica* with Pharmacy. (b) Second Examination: Subjects—Medicine, Surgery, Midwifery, Pathology, Forensic Medicine with Hygiene. The approximate dates of the examinations are as follows:—Preliminaries—Mechanics, Physics and Chemistry, November and June; Animal Morphology and Botany, December and March; Professional First B.M., June and December.

*Note.*—The examination in June includes all the subjects, that in December Anatomy and Physiology only, Second B.M. about the beginning of June.

The degree of D.M. is granted to Bachelors of Medicine of the University—(1) who took the degree of B.M. previously to the end of Trinity Term, 1886, provided they have spent three years in the practice of Medicine after taking that degree, and have composed a dissertation on some medical subject approved by the Regius Professor of Medicine, before whom it must be read in public; (2) who took the degree of B.M. subsequently to the end of Trinity Term, 1886, provided they have entered their thirty-ninth term and have composed on some medical subject a dissertation which is approved by the professors in the Faculty of Medicine and examiners for the degree of B.M. whose subject is dealt with. A book published within two years of the candidate's application for the degree may be substituted for a dissertation. The degree of M.Ch. is granted to Bachelors of Surgery of the University who have entered their twenty-seventh term, who are members of the surgical staff of a recognised hospital, or have acted as Dresser or House Surgeon in such a hospital for six months, and who have passed an examination in Surgery, Surgical Anatomy, and Surgical Operations. This examination is held annually at the end of the Second B.M. Examination.

The First Examination for the degrees of B.M. and B.Ch. may be passed as soon as the Preliminary Scientific Examination has been completed. The subjects of this examination may be presented separately or in any combination or in any order, provided Anatomy and Physiology be passed together.

The Second Examination may be passed after the completion of the first.

*Scholarships &c.*—Scholarships in some branch of Natural Science (Chemistry, Physics, Biology) of the average value of £80 per annum, tenable for four years and renewable under certain conditions for a fifth year, as well as Exhibitions of a less annual value, are awarded after competitive examination every year by some, from time to time by other, Colleges. Notices of vacancy &c. are published in the *University Gazette*. In February there is competed for annually, by those who have obtained a first class in any school (Moderations or final), or a Scholarship or Prize open to general competition in the University, one Radcliffe Travelling Fellowship. It is tenable for three years, and is of the annual value of £200. The examination is partly scientific, partly medical. The holder must travel abroad for the purpose of medical study, and take the degree of B.M. Oxon. A Rolleston Memorial Prize is awarded once in two years to members of the Universities of Oxford and Cambridge of not more than ten years' standing for an original research in some Biological subject, including Physiology or Pathology.

More detailed information may be obtained from the University Calendar; the Examination Statutes, 1891, which contain the official schedules of the several subjects of examination in both Arts and Medicine; from the Student's Handbook to the University; from the Regius Professor of Medicine; from the Professors in the several departments of science.

### UNIVERSITY OF CAMBRIDGE.

The student must enter at one of the Colleges, or as a non-collegiate student, and keep nine terms by residence in the University. He must pass the Previous Examination in Classics and Mathematics, which may, and should if possible, be done immediately on coming into residence in October, or, what is better, obtain exemption through the Oxford and Cambridge Schools Examination Board or the Cambridge Local Examinations, before commencing residence. He may then devote himself to medical study in the University, attending the hospital and the medical lectures, dissecting &c. Or he may, as nearly all students now do, proceed to take a degree in Arts, either continuing mathematical and classical study and passing the ordinary examinations for B.A., or going out in one of the Honour Triposes. The Natural Sciences Tripos is the most appropriate, as some of the subjects are practically the same as those for the first and second M.B. examinations.

For the degree of *Bachelor of Medicine (M.B.)* five years of medical study are required. This time may be spent in Cambridge or at one of the recognised Schools of Medicine. The first three or four years are usually spent in Cambridge, the student remaining in the University till he has passed, say, the examination for the Natural Sciences Tripos and the first and second examinations for M.B. Cambridge being now a complete School of Medicine, all the requisite lectures and hospital practice may be attended here, and many students remain to attend lectures and hospital practice until they have passed the first part of the third examination for M.B. The supply of subjects for Dissection, Practical Surgery, &c., is unusually abundant.

There are three examinations for M.B. The *first* in Chemistry and other branches of Physics, and in Elementary Biology. These parts may be taken together or separately. The *second* in Human Anatomy and Physiology, and in Pharmaceutical Chemistry. These may be taken together or separately. The *third* may also be taken in two parts—viz., (1) Principles and Practice of Surgery (with Operative and Clinical Surgery) and Midwifery and Diseases of Women, and (2) Pathology, Principles and Practice of Medicine, Elements of Hygiene and Medical Jurisprudence. The examinations are partly in writing, partly oral, and partly practical, in the hospital, in the dissecting-room and in the laboratories.

As Operative and Clinical Surgery now form parts of the third M.B. examination candidates who have passed both parts of that examination are admitted to the degree of *Bachelor of Surgery (B.C.)* without separate examination, and without keeping an Act.

The degree of *Doctor in Medicine* may be taken three

years after that of M.B. or four years after that of M.A. An Act has to be kept, consisting of an original Thesis sustained in the Public Schools, with *viva-voce* examination; and an extempore Essay has to be written on some subject relating to Physiology, Pathology, the Practice of Medicine or State Medicine.

For the degree of *Master in Surgery (M.C.)* the candidate must have passed all the examinations for B.C. He is required to pass an examination in Surgical Anatomy and Surgical Operations, Pathology and the Principles and Practice of Surgery, and to write an extempore Essay on a Surgical Subject. Before he can be admitted to this examination two years at least must have elapsed from the time when he completed all required for the degree of B.C.

An abstract of the Regulations and Schedules of the range of the examinations in Chemistry, Physics, Biology and Pharmacy may be obtained upon sending a stamped directed envelope to the Assistant Registrar, Cambridge. Full information is contained in the *Cambridge University Calendar*.

### UNIVERSITY OF LONDON.

The *Matriculation Examinations* take place on the second Monday in January and the second Monday in June. Candidates must be above sixteen years of age. The fee for the examination is £2. Provincial examinations are appointed by the Senate from time to time at specified centres. The examination appointed for January 13th, 1890, will be held at Birmingham, Cardiff, Glasgow, Leeds and Portsmouth, as well as at London. That appointed for June, 1890, will be held also at Bangor, Birmingham, Cardiff, Edinburgh, Epsom, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Nottingham and Sheffield. Several scholarships, exhibitions and prizes are associated with these examinations.

The *Preliminary Scientific (M.B.) Examination* takes place twice in each year, once for Pass and Honours, commencing on the third Monday in July, and one for Pass candidates only on the third Monday in January.<sup>1</sup> No candidate will be admitted to this examination until he shall have passed the Matriculation Examination, nor unless he shall have given notice of his intention to the registrar at least one calendar month before the commencement of the examination. Fee for this examination, £5.

*Bachelor of Medicine.*—Every candidate for the degree of Bachelor of Medicine will be required—1. To have passed the Matriculation Examination in this University. 2. To have passed the Preliminary Scientific Examination. 3. To have been engaged in his professional studies during four years subsequently to passing the Preliminary Scientific Examination<sup>2</sup> at one or more of the medical institutions or schools recognised by this University, one year at least of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom. 4. To pass two examinations in Medicine.

*Intermediate Examination.*—The Intermediate Examination in Medicine takes place twice in each year, once for Pass and Honours, commencing on the second Monday in July, and once for Pass candidates only, commencing on the third Monday in January. No candidate shall be admitted to this examination unless he have passed the Preliminary Scientific Examination at least two years previously, and have produced certificates to the following effect:—1. Of having completed his nineteenth year. 2. Of having, subsequently to having passed the Matriculation Examination, been a student during two years at one or more of the medical institutions or schools recognised by this University, and of having attended a course of lectures on each of three of the subjects in the following list: Descriptive and Surgical Anatomy, Histology and Physiology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine. 3. Of having, subsequently to having passed the Preliminary Scientific Examination,

diseased during two sessions. 4. Of having, subsequently to having passed the Preliminary Scientific Examination, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of general and pharmaceutical chemistry, in applying tests for discovering the adulteration of articles of the *Materia Medica* and the presence and nature of poisons, and in the examination of mineral waters, animal secretions, urinary deposits, calculi &c. 5. Of having attended to Practical Pharmacy and of having acquired a practical knowledge of the preparation of medicines. These certificates (as is the case also with all the certificates hereinafter mentioned) must be transmitted to the Registrar, at least four weeks before the commencement of the examination. Fee for this examination, £5.

*M.B. Examination.*<sup>3</sup>—The M.B. Examination takes place twice in each year—once for Pass and Honours, commencing on the last Monday in October; and once for Pass candidates only, commencing on the first Monday in May. No candidate will be admitted to this examination within two academical years of the time of his passing the Intermediate Examination unless he be a registered medical practitioner of not less than three years' standing, in which case he must produce a certificate of having gone through the required course of training at some time previously. Every candidate must produce certificates showing that he has passed all the previous examinations and of having attended a course of lectures on each of two of the subjects enumerated in Section 2 of the regulations for that examination, and for which the candidate had not on that occasion presented certificates. 3. Of having conducted at least twenty labours. Certificates on this subject will be received from any legally qualified practitioner in Medicine. 4. Of having attended the Surgical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery. 5. Of having attended the Medical Practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Medicine. 6. Of having, after having attended Surgical and Medical Hospital Practice for at least twelve months subsequently to passing the Intermediate Examination, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a hospital, infirmary, dispensary, or parochial union during six months, such attendance not to be counted as part of either the Surgical or the Medical Hospital Practice prescribed in Clauses 4 and 5. 7. Of having acquired proficiency in Vaccination. Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council. The fee for this examination is £5.

*Bachelor of Surgery.*—The examination for the degree of Bachelor of Surgery takes place once in each year, and commences on the Tuesday following the first Monday in December. Candidates must produce certificates to the following effect:—1. Of having passed the examination for the degree of Bachelor of Medicine in this University. 2. Of having attended a course of instruction in Operative Surgery and of having operated on the dead subject. Fee for this examination, £5.

*Master in Surgery.*—The examination for the degree of Master in Surgery takes place once in each year, and commences on the first Monday in December.

Candidates must produce certificates to the following effect:—1. Of having taken the degree of Bachelor of Surgery in this University.<sup>4</sup> 2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University: (a) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; or (b) to Clinical or Practical Surgery during one year in a hospital or medical institution recognised by this University, and of having been engaged during three years in the practice of his profession; or (c) of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of

<sup>1</sup> Candidates for the degree of M.B. are required by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies, and are recommended to devote a preliminary year to preparation for it, according to the following programme:—Winter Session: Experimental Physics, Chemistry (especially Inorganic), Zoology. Summer Session: Practical Chemistry (Inorganic), Botany.

<sup>2</sup> Candidates who passed the Matriculation Examination in January 1886, or previously, will be allowed to date the commencement of their professional studies, as heretofore, from that examination.

<sup>3</sup> Any candidate for the M.B. Examination who has passed the Intermediate Examination under the former regulations will be required to have also passed the examination in Physiology at some previous Intermediate Examination carried on under the present regulations, at which examination he shall not be allowed to compete for Honours.

<sup>4</sup> Candidates who have obtained the degree of Bachelor of Medicine previously to 1866 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates the attendance on surgical practice required by Regulation 2 may commence from the date of the M.B. degree.

Surgery in this University. One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

3. Of moral character, signed by two persons of respectability.

Fee for this degree, £5. The examination is conducted by means of printed papers and *vis-à-vis* interrogation.

Candidates will be examined in Mental Physiology, especially in its relations to mental disorder, and in Surgery.

Any candidate for the degree of M.S. may transmit to the Registrar, not later than October 1st, a printed Dissertation, Thesis, or Commentary, written in view of candidature, or published within two academical years immediately preceding, treating scientifically some special department of Surgical Science.

*Doctor of Medicine.*—The examination for this degree takes place once in each year and commences on the first Monday in December.

Candidates must produce certificates to the following effect: 1. Of having passed the examination for the degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University, (a) to Clinical or Practical Medicine during two years in a hospital or medical institution recognised by this University, or, if he enter for State Medicine, during two years to State Medicine; or (b) to Clinical or Practical Medicine during one year in a hospital or medical institution recognised by this University, or during one year to State Medicine as above, and having been engaged during three years in the practice of his profession; or (c) of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University.

Fee for this degree, £5. The examination is conducted by means of printed papers and *vis-à-vis* interrogation.

#### UNIVERSITY OF DURHAM.

Three Licences and six degrees in Medicine and Hygiene are conferred—viz., Licences in Medicine, in Surgery, and in Sanitary Science; and the degrees of Bachelor in Medicine, Bachelor in Surgery, Master in Surgery, Doctor in Medicine, Bachelor in Hygiene, and Doctor in Hygiene.

For the degree of *Bachelor in Medicine (M.B.)* there are four professional examinations.

The subjects for the First Examination are—Elementary Anatomy and Elementary Biology, Chemistry and Physics.

The subjects for the Second Examination are—Anatomy, Physiology, *Materia Medica*, Therapeutics and Pharmacology.

The subjects for the Third Examination are—Medicine, Surgery, Pathology, Medical Jurisprudence, Public Health and Practical Pharmacy.

The subjects for the Fourth Examination are—Clinical Medicine, Clinical Surgery, Midwifery and Diseases of Women and Children.

N.B.—It is required that one of the five years of professional education shall be spent in attendance at the University College of Medicine, Newcastle-upon-Tyne. Candidates for the First Examination who have passed the First Examination of the Conjoint Board in England, and candidates who hold a qualification from a recognised Licensing Body in the United Kingdom, will be exempt from the First Examination of the University, except in the subjects of Chemistry with Physics and Botany. Candidates who have passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board.

For the degree of *Bachelor in Surgery (B.S.)* every candidate must have passed the examination for the degree of Bachelor in Medicine of the University of Durham, and must have attended one course of lectures on Operative Surgery, and one course on Regional Anatomy. Candidates will be required to perform operations on the dead body, and to give proof of practical knowledge of the use of surgical instruments and appliances.

For the degree of *Master in Surgery (M.S.)* candidates must not be less than twenty-four years of age, and must satisfy the University as to their knowledge of Greek. In case they shall not have passed in this subject at the Preliminary Examination in Arts for the M.B. degree, they must present themselves at Durham for examination

in it at one of the ordinary examinations held for this purpose before they can proceed to the higher degree of M.S. They must also have obtained the degree of Bachelor in Surgery of the University of Durham, and must have been engaged for at least two years, subsequently to the date of acquirement of the degree of Bachelor in Surgery, in attendance on the practice of a recognised hospital, or in the naval or military services, or in medical or surgical practice.

The subjects of examination are:—Principles and Practice of Surgery, Surgical Pathology, Surgical Anatomy, Surgical Operations, Clinical Surgery.

For the degree of *Doctor in Medicine (M.D.)* candidates must be of not less than twenty-four years of age, and must satisfy the University as to their knowledge of Greek. In case they shall not have passed in this subject at the Preliminary Examination in Arts for the M.B. degree they must present themselves at Durham for examination in it at one of the ordinary examinations held for this purpose before they can proceed to the higher degree of M.D. They must also have obtained the degree of Bachelor in Medicine of the University of Durham, and must have been engaged for at least two years, subsequently to the date of acquirement of the degree of Bachelor in Medicine, in attendance on the practice of a recognised hospital, or in the military or naval services, or in medical and surgical practice.

Each candidate must write an Essay, based on original research or observation, on some medical subject selected by himself, and approved of by the Professor of Medicine, and must pass an examination thereon, and must be prepared to answer questions on the other subjects of his curriculum so far as they are related to the subject of the Essay.

Candidates for any of the above degrees must give at least twenty-eight days notice to the Registrar of the College.

#### VICTORIA UNIVERSITY.

Colleges of the University: Owens College, Manchester; University College, Liverpool; and Yorkshire College, Leeds.

Four degrees in Medicine and Surgery are conferred by the Victoria University—viz., Bachelor of Medicine and Bachelor of Surgery (M.B. and Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.).

All candidates for degrees in Medicine and Surgery are required—(1) to have matriculated in the University; and (2) to pass (either *before* or *after* matriculation) an examination called the Entrance Examination in Arts, or to have passed such other examination as may be recognised by the University for this purpose.<sup>5</sup>

*Degree of Bachelor of Medicine.*—Before admission to the degree of M.B. candidates are required to present certificates that they will have attained the age of twenty-one years on the day of graduation, and that they have pursued the courses of study required by the University Regulations during a period of not less than five years subsequently to the date of their registration by the General Medical Council, two of such years having been passed in a college of the University, and one year at least having been passed in a college of the University subsequently to the date of passing the First M.B. Examination. All candidates for the degrees of Bachelor of Medicine and Bachelor of Surgery are required, after matriculating, to satisfy the examiners in the several subjects of the following examinations: the First Examination, the Second Examination, and the Final Examination.

*The First Examination.*—The subjects of examination are as follows:—(1) Chemistry; (2) Elementary Biology; (3) Physics. Candidates must have attended during at least one year courses both of lectures and of laboratory work in each of the above-named subjects.

*The Second Examination.*—The subjects of examination are as follows:—(1) Anatomy; (2) Physiology, including

<sup>5</sup> The examinations at present recognised are:—1. The Preliminary Examination of the Victoria University, provided Latin and Mechanics have been taken up. 2. The Matriculation Examination of the University of London. 3. The Previous Examination of the University of Cambridge. 4. Responsions and Moderations of the University of Oxford. 5. The Leaving Certificate Examination of the Oxford and Cambridge Boards, provided that it include Latin, English, Mathematics, and Elementary Mechanics. 6. The Final Examination for Graduation in Arts of any University in Great Britain and Ireland.

Physiological Chemistry and Histology; (3) *Materia Medica* and Pharmacy.

*The Final Examination.*—The subjects of examination are as follows:—(1) Pharmacology and Therapeutics. (2) General Pathology and Morbid Anatomy. (3) Forensic Medicine and Toxicology, and Public Health. (4) Obstetrics and Diseases of Women. (5) Surgery, Systematic, Clinical and Practical. (6) Medicine, Systematic and Clinical, including Mental Diseases and Diseases of Children.

Candidates may either present themselves in all the six subjects of examination on the same occasion, or may pass the examination in two parts, the first part consisting of *two or three* of the subjects (1), (2) and (3), the second part of the remaining subjects.

Candidates who fail to satisfy the examiners in a first part must either present themselves again in the subjects as selected or in all the six subjects of examination.

Candidates for a final part of the examinations must have completed the *fourth winter* of medical study, in accordance with the regulations of the University.

Candidates for a second part of the examination, or for the whole examination, must have completed the *fifth* year of medical study, in accordance with the regulations of the University.

*Degree of Doctor of Medicine.*—Candidates are not eligible for the degree of Doctor of Medicine unless they have previously received the degree of Bachelor of Medicine, and at least one year has elapsed since they passed the examination for that degree. Candidates for the degree of Doctor of Medicine are required to present a printed Dissertation embodying the results of personal observations or original research, either in some department of medicine or of some science directly relative to medicine. No candidate will be admitted to the degree unless his Dissertation, after report from the Departmental Board of Medical Studies, shall have been recommended by the General Board of Studies to the Council for acceptance in that behalf. Candidates may be examined on any subject connected with their dissertations.

*Degree of Master of Surgery.*—Candidates are not eligible for the degree of Master of Surgery unless they have previously received the degree of Bachelor of Surgery, and at least one year has elapsed since they passed the examination for that degree. The subjects of examination are as follows: (1) Surgical Anatomy; (2) Surgical Pathology; (3) Practical Surgery, including the performance of operations on the dead body; (4) Clinical Surgery; (5) Ophthalmology.

#### UNIVERSITY OF EDINBURGH.

Three medical degrees are conferred by the University of Edinburgh—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the degree of Bachelor of Medicine.

No one is admitted to the degrees of Bachelor of Medicine and Master in Surgery who has not been engaged in Medical and Surgical study for four years.<sup>6</sup>

Every candidate for the degrees of M.B. and C.M. must give sufficient evidence by certificates—(a) That he has studied each of the following departments of medical science—namely, Anatomy, Chemistry, *Materia Medica*, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children, and General Pathology, each during courses including not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures;<sup>7</sup> Practical Chemistry, three months; Practical Midwifery—(1) that he has attended at least twelve cases of labour under the superintendence of a registered medical practitioner, or (2) that he has attended six such cases, and also has attended, for at least three months, the practice of a midwifery hospital in which prac-

<sup>6</sup> No course of lectures will be allowed to qualify unless the lecturer certifies that it has embraced at least one hundred lectures, or fifty lectures, in conformity with the requirements of this section. Three months' courses on *Materia Medica*, Pathology, and Midwifery do not qualify.

<sup>7</sup> Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for an examination in Anatomy with a view to a degree until they have dissected the human body at least once.

tical instruction is regularly given; Clinical Medicine and Clinical Surgery;<sup>8</sup> courses of the same duration as those of not less than one hundred lectures, or two courses of three months' lectures, being given at least twice a week; Medical Jurisprudence, Botany, and Natural History (including Zoology), during courses including not less than fifty lectures. (b) That he has attended, for at least two years, the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons. (c) That he has attended, during a course of not less than fifty hours' instruction, the class of Practical *Materia Medica* and Pharmacy in the University of Edinburgh, or a similar class conducted in a university or recognised school of medicine, or a similar class conducted at the laboratory of a hospital or dispensary, or elsewhere, by a teacher recognised by the University Court; or that he has been engaged by apprenticeship for not less than two years with a registered medical practitioner, or a member of the Pharmaceutical Society of Great Britain, or a member of the Pharmaceutical Society of Ireland, or a pharmaceutical chemist, or chemist and druggist, registered under the provisions of the Act for Regulating the Qualifications of Pharmaceutical Chemists, 1852, the Pharmacy Act, 1868, or the Pharmacy Act (Ireland), 1875, in the *bona-fide* compounding and dispensing of drugs, and the preparation of their official and other preparations under his superintendence. (d) That he has attended, for at least six months, by apprenticeship or otherwise, the outdoor practice of a hospital, or the practice of a dispensary physician, a surgeon or a member of the London or Dublin Society of Apothecaries. (e) That he has attended, during courses of not less than fifty hours' instruction, classes of Practical Physiology and Practical Pathology in the University of Edinburgh, or in a recognised university or school of medicine, or upon classes thereof, conducted by a teacher recognised by the University Court.

Students of Medicine in the London Schools, and in the school of the College of Surgeons in Dublin, can obtain there two *anni medicæ* out of the four required for the Edinburgh degrees in Medicine. Courses of lectures in these schools and the courses of the medical teachers and of the science teachers in King's College and in University College, London, in the subjects of graduation, are regarded as equivalent to lectures on the corresponding subjects in this University, except *Materia Medica* and Midwifery, which, when only three months' courses, are not received as equivalent. One *annus medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *annus medicus* by attending either (a) full winter courses on any two of the following subjects—Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (b) on one such course and two three months' courses on any of the following subjects—Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in a, attendance on a third course, although unnecessary to constitute an *annus*, will also be accepted. The other subjects and the additional courses, not given in London or Dublin, necessary for the degrees of the University, require to be attended at this University. In provincial schools where there are no lecturers recognised by the University Court a candidate can only have one *annus medicus*, and this is constituted by attendance at a qualified hospital along with a course of Practical Anatomy. But in a provincial school where there are two or more lecturers recognised by this University a second *annus medicus* may be made by attendance on at least two six months' or one six months' and two three months' recognised courses.

Every candidate must deliver, before the 31st day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine, a declaration in his own handwriting that he has completed his twenty-first year.

Each candidate is examined, both in writing and orally, on Chemistry, Botany and Natural History (Physics is now required by the regulation of the General Medical Council), on Anatomy, Institutes of Medicine, *Materia Medica* (including Practical Pharmacy and Prescribing) and Pathology; on Surgery, Practice of Medicine, Midwifery and Medical Jurisprudence; clinically, on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural His-

<sup>8</sup> The Medical Faculty recommend that medical students should not attend Clinical Surgery during their first six months' attendance on Clinical Medicine.

tory, *Materia Medica* and *Pathology* are conducted, as far as possible, by demonstrations of objects placed before the candidates. Students who profess themselves ready to submit to an examination in the first division of these subjects may be admitted to examination therein at the first period of examination after they have completed their attendance on the necessary classes, provided always that it shall be lawful for students to proceed to examination in the said subjects under one or more of the following subdivisions—namely: (a) Botany and Natural History, (b) Chemistry (including Practical Chemistry), (c) Botany and Chemistry (including Practical Chemistry), or (d) Natural History and Chemistry (including Practical Chemistry), at the first period of examination after they have completed attendance on the relative classes; and to proceed to examination in the remaining subject or subjects at a subsequent period of examination. Students who have passed their examination on the first division of these subjects may be admitted to examination on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *annus medicus*. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

The degree of Doctor of Medicine may be conferred on any candidate who has obtained the M.B. and C.M. of the University, and who is of the age of twenty-four years, and produces a certificate of having been engaged, subsequently to his having received the degrees of M.B. and C.M., for at least two years in attendance on a hospital, or in a military or naval medical service, or in medical and surgical practice. Provided always that the degree of M.D. shall not be conferred on any person unless he be a graduate in Arts of one of the Universities of England, Scotland or Ireland, or of such other universities as are above specified, or unless he shall before or at the time of his obtaining the degrees of M.B. and C.M., or thereafter, have passed a satisfactory examination on three of the subjects mentioned in Section II. of the statutes relative to preliminary examination. Two of these must be Greek and Logic or Moral Philosophy, and the third is to be one of the following subjects, at the option of the candidate—namely, French, German, Higher Mathematics and Natural Philosophy. And provided also that the candidate for the degree of M.D. shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the Professional Examinations for the degrees of M.B. and C.M. which he may have made a subject of study after having received these degrees.

The fees for M.B. and C.M. are £22. Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, £25. The fees for examination must be paid at the secretary's office ten days before the date thereof, and the fees for the degree of M.D. and the stamp duty for the latter must be paid on or before the 15th day of July in the year of graduation. In the event of the candidate not passing any one of the Professional Examinations, the fee is not returned; but he may appear at one subsequent examination without paying an extra fee, and at any future examination on paying one-half the fee.

#### UNIVERSITY OF GLASGOW

The fees for the degrees are £23 2s. for M.B. and Ch.B., which are obtained together, £10 10s. (exclusive of stamp duty) for M.D., and £10 10s. for Ch.M.

A syllabus containing further particulars may be obtained by application to the assistant clerk, Matriculation Office, the University.

The First, Second, and Third Professional Examinations are held in March and in October each year, and the Fourth or Final Examination is held annually in June and July.

The candidate for the degrees of Bachelor of Medicine and Bachelor of Surgery must have been registered in the books of the General Medical Council at least five years prior to the date of his graduation. Students should see to registration without delay, as considerable trouble and disappointment have sometimes arisen through ignorance or neglect of this requirement.

A degree in Arts or in Science (not being an honorary degree) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University specially recognised for the purpose by the University Court, shall exempt from the preliminary examination, and the Joint Board of Examiners appointed under the provisions of Ordinance, General No. 8, by the Scottish Universities' Commissioners, have power to determine what examinations, other than those for the degrees before mentioned, shall be accepted in place of the Preliminary Examination.

This registration in the books of the Medical Council, which is imperative on candidates for any legal qualification to practise whatsoever, is quite distinct from matriculation or other registration of students in the books of the University.

#### PROFESSIONAL EDUCATION.

*Duration and Constitution of the Curriculum.*—Candidates shall be admitted to the degree of Bachelor of Medicine and Bachelor of Surgery only after they have been engaged in medical study for five years,—the medical session of each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course and two courses of not less than fifty lectures each; but in the case of the Clinical Courses it shall be sufficient that the lectures be given at least twice a week during the prescribed periods.

Two of the five years of medical study must be in the University of Glasgow. During each of the first four years the candidate must have attended at least two courses of instruction in the prescribed subjects, each course extending over a session of not less than five months; or alternatively, one such course along with two courses, each extending over a session of not less than two months and a half. During the fifth year the candidate must be engaged in clinical study for at least nine months at a public hospital or dispensary. The remaining three years may be spent in any University of the United Kingdom, or in any recognised Indian, colonial, or foreign University, or in recognised medical schools or under recognised teachers.

All candidates availing themselves of the permission to attend the lectures of extra-academical teachers in Glasgow and not being at the time matriculated students of the University, must at the commencement of the year of such attendance, enrol their names in a book kept by the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University; and having, in respect of such payment, a right to the use of the University Library.

The fee for attendance on the lectures of any extra-academical teacher in Glasgow, with a view to graduation, shall be not less than the amount exigible for the corresponding courses in the University.

No attendance on lectures shall be reckoned if the teacher gives instruction in more than one of the prescribed branches of study, except in those cases where professors of the University are at liberty to teach more than one branch.

The terms for conferring Medical and Surgical degrees in Session 1892-3 are Nov. 10th, 1892; Feb. 9th, 1893; April 21st, 1893; and July 27th, 1893.

*M.D. Examination.*—The conditions for this degree are in great part similar to those which obtain in the University of Glasgow. Each candidate will be required to pass an examination in Clinical Medicine at any period subsequently to one year after obtaining his M.B. and C.M. degrees. He will also be required to write a Thesis. If the candidate is going abroad he may take the Clinical Examination at any time after passing the M.B. and C.M. examination. But the degree of Doctor of Medicine shall not be conferred on him unless he shall produce a certificate that, subsequently to having received the M.B. and C.M. degrees, he has been engaged for at least one year in attendance in the medical wards of a hospital or in scientific work bearing directly on his profession, such as is conducted in the research laboratories of the University or in the naval or military medical services, or for at least two years in practice which has not been exclusively surgical, and unless his Thesis in the judgment of the Faculty of Medicine is of exceptional merit.

*Fees.*—The fee to be paid for the degrees of Bachelor of Medicine and Bachelor of Surgery shall be twenty-two guineas, and the proportion of this sum to be paid by a candidate at each division of the examination shall be regulated from time to time by the University Court. The fee to be paid for the degree of Doctor of Medicine shall be ten guineas, exclusive of any stamp duty which for the time

may be exigible. The fee to be paid for the degree of Master of Surgery shall be ten guineas.

*Out-door Visitation.*—Under the superintendence of a consulting staff of physicians and surgeons connected with the University, students in the last year of their course are permitted to visit and prescribe for the sick poor in the Anderston district. For this no fee is charged, and medicines are dispensed gratis. Upwards of 3000 visits are made annually.

#### UNIVERSITY OF ABERDEEN.

The curricula for the several degrees conferred are nearly the same as in the University of Edinburgh.

Professional Examinations will be held twice in each year—namely, in March and July, directly after the close of the winter and summer sessions.

The fees for graduation are the same as in the University of Edinburgh. Matriculation fee, including all dues, for the winter and summer sessions, £1; summer session alone, 10s.

Candidates who commenced their medical studies before November, 1861, are entitled to appear for examination for the degree of M.D. after four years' study, one of which must have been in the University of Aberdeen.

Besides the Royal Infirmary, students have the opportunity of attending the following institutions: General Fever Hospital; Sick Children's Hospital; General Dispensary, and Lying-in and Vaccine Institutions daily; Royal Lunatic Asylum; Eye Institution, in which is given clinical instruction on Diseases of the Eye, and on the application of the Ophthalmoscopes for their diagnosis.

A diploma in Public Health is granted by the University to graduates in Medicine of a University in the United Kingdom only, after a special examination. The diploma can be entered on the Register of the General Medical Council.

Application for further information should be addressed to the Dean of the Medical Faculty.

The degrees of B.Sc. and D.Sc. are granted, after examination, in one of several specified departments of Science, to be selected by the candidate. For regulations apply to the Secretary of Science Department.

#### UNIVERSITY OF ST. ANDREWS.

Two degrees in Medicine are granted—namely, Bachelor of Medicine and Master in Surgery (M.B., C.M.), and Doctor of Medicine (M.D.). The curricula for these degrees, and the regulations under which they are conferred, differ from those of the University of Edinburgh only in the particulars noticed below.

The degree of *Doctor of Medicine* may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years whose professional position and experience are such as, in the estimation of the University, to entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge; provided always that degrees will not be conferred under this section on a greater number than ten in any one year. The examinations are held yearly about the middle of April. Candidates must lodge with the Dean of the Medical Faculty the following certificates, along with application for admission to examination:—1. A certificate of age, being a baptismal certificate or an affidavit. 2. Holograph certificates from at least three medical men of acknowledged reputation in the medical profession or in the medical schools, recommending the candidate to the Senatus for the degree, and testifying to his professional skill and position. 3. A portion of the graduation fee (viz., £10 10s.), which shall be forfeited should the candidate fail to appear to graduate at the time appointed. A satisfactory examination, written and *visà voce*, must be passed in the following departments—viz., *Materia Medica* and *General Therapeutics*, *Medical Jurisprudence*, *Practice of Medicine* and *Pathology*, *Surgery*, *Midwifery* and *Diseases of Women and Children*.

No one will be received as a candidate for the degree of *Bachelor of Medicine* and *Master in Surgery* unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities or colleges—viz., the Universities of St. Andrews, Glasgow, Aberdeen, Edinburgh, Oxford and Cambridge; Trinity

College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

Subject always to the condition here specified, the studies for candidates for the degrees of Bachelor of Medicine and Mastery in Surgery will be under the following regulations: The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specified, or in the hospital schools of London, or in the school of the College of Surgeons of Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court. Attendance during at least six winter months on the Medical or Surgical practice of a general hospital which accommodates at least eighty patients, and during the same period on a course of Practical Anatomy, may be reckoned as one of such remaining years.

Every candidate for examination for the degree of M.B. and C.M. is required to lodge a declaration of age, a statement of his course of study, his inaugural dissertation and all his certificates with the Dean of the Medical Faculty, on or before the 25th of March in each year.

#### UNIVERSITY OF DUBLIN (TRINITY COLLEGE).

*Matriculation.*—All students in the School of Physic intending to practise Physic must be matriculated, for which a fee of 5s. is payable. No student can be admitted for the winter course after Nov. 25th.

*Previous Medical Examination.*—Candidates for degrees in Medicine, Surgery and Midwifery are required to pass an examination in Physics, Chemistry, Botany, Comparative Anatomy, Descriptive Anatomy and Institutes of Medicine (Practical Histology and Physiology) previously to their degree examination.

*Bachelor in Medicina.*—A candidate for this degree must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same Commencements as that at which he receives his degree of B.A., or at any subsequent Commencements. The medical education of a Bachelor in Medicine is of five years' duration, and comprises attendance on a single course of each of the following lectures:—Anatomy, Practical Anatomy, Chemistry, *Materia Medica* and Pharmacy, Physiology (two courses), Practice of Medicine, Botany, Medical Jurisprudence and Hygiene, Pathology, Heat, Electricity, Magnetism, Light and Sound, Zoology, three courses of nine months' attendance on the Clinical Lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College. Six months' Dissections, three months' Laboratory Instruction in Chemistry, three months' Practical Histology, three months' study of Mental Diseases, and one month's instruction in Vaccination are required. Any of the above-named courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows. Fee for the *Licent ad Examinandum*, £5; for the M.B. degree, £11.

*Doctor in Medicina.*—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of M.B. for three years, and must read a thesis or undergo an examination before the Regius Professor of Physic, in accordance with the rules and statutes of the University. Total amount of fees for this degree, £13.

*Bachelor in Surgery.*—A Bachelor in Surgery must be a Bachelor in Arts, and have spent five years in the study of Surgery and Anatomy. He must also pass a public examination in the Hall before the Professors of the School of Physic, having previously completed the prescribed curriculum of study, which includes the following additions to the courses named above for the M.B.:—Theory of Surgery, Operative Surgery, Two Courses of Dissections, Ophthalmic Surgery.<sup>9</sup> Candidates are required to perform surgical operations on the dead subject. Fee for the *Licent ad Examinandum*, £5; for the degree of Bachelor in Surgery, £5.

*Master in Surgery.*—A Master in Surgery must be a Bachelor in Surgery of the University of Dublin, or not less than three years' standing, and must produce satisfactory evidence of having been engaged for not less than two years from the date of his registration in the study,

<sup>9</sup> Students in the School of Physic who matriculated before June 22nd, 1872, may obtain the degree of Master in Surgery according to the regulations in force previously to the creation of the degree of Bachelor in Surgery.

or study and practice, of his profession. He must then pass an examination in the following subjects:—1. Clinical Surgery. 2. Operative Surgery. 3. Surgical Pathology. 4. Surgery. 5. Surgical Anatomy (on the dead subject) and one of the following optional subjects:—1. Surgery in one of its recognised branches—viz., Ophthalmic and Aural, Gynaecological, and Dental. 2. Mental Disease. 3. Medical Jurisprudence and Hygiene. 4. Advanced Anatomy and Physiology. 5. Comparative Anatomy. Fee for the degree of Master in Surgery, £11.

*Bachelor in Obstetric Science.*—The candidate for the B.A.O. Examination must be a Bachelor in Arts, having previously completed the prescribed curriculum of study. The curriculum comprises the following, in addition to the complete course for the M.B.:—Theory and Practice of Midwifery, one course (winter); Practical Midwifery, including Clinical Lectures, six months. The candidate is then required to pass an Examination in Practical Midwifery, Gynaecology and Obstetrical Anatomy. Fee for the degree of Bachelor in Obstetric Science, £1. There is no *Liccat* fee.

*Master in Obstetric Science.*—A Master in Obstetric Science must have passed the M.B. and B.Ch. examinations, and produce a certificate of having attended a summer course in Obstetric Medicine and Surgery.<sup>10</sup> He is then required to pass an examination in the following subjects:—1. Practice of Midwifery. 2. Gynaecology. 3. Anatomy of Female Pelvis and Elementary Embryology. 4. Clinical Gynaecology. Fee for the degree of Master in Obstetric Science, £5.

*University Diplomas.*—Candidates for the diplomas in Medicine, Surgery or Obstetric Science must be matriculated in Medicine, and must have completed two years in Arts and four years in Medical Studies.

*Diploma in Medicine.*—The Medical Course and Examination necessary for the diploma in Medicine are the same as for the degree of M.B., except that the candidate is not required to attend the Lectures on Botany and Comparative Anatomy, nor to pass the previous medical examination in those subjects. A diplomate in Medicine, on completing his course in Arts and proceeding to the degree of B.A., may become a Bachelor in Medicine by attending the Lectures on Botany and Comparative Anatomy, passing the previous medical examination in those subjects, and paying the degree fees. Fee for the *Liccat ad Examinandum*, £5. Fee for the diploma in Medicine, £5.

*Diploma in Surgery.*—The Surgical Course and Examination necessary for the diploma in Surgery are the same as for the degree of Bachelor in Surgery. Fee for the *Liccat ad Examinandum*, £5. Fee for the diploma in Surgery, £5.

*Diploma in Obstetric Medicine.*—The Course and Examination for the diploma in Obstetric Science are the same as that for the Bachelor in Obstetric Science. Fee for the diploma in Obstetric Science, £1.

N.B.—Each candidate having completed the prescribed courses of study, passed the requisite qualifying examinations in Medicine, Surgery and Midwifery, and having conferred on him the corresponding degrees, will obtain from the Senior Proctor a diploma entitling him to be entered on the Register of Medical Practitioners under the Medical Act, 1886.

## ROYAL UNIVERSITY OF IRELAND.

All Degrees, Honours, Exhibitions, Prizes and Scholarships in this University are open to students of either sex.

Candidates for any degree in this University must have passed the Matriculation Examination. Students from other universities and colleges are included in this rule.

The following degrees &c. are conferred by the University in this Faculty:—Bachelor of Medicine, Doctor of Medicine, Bachelor of Surgery, Master of Surgery, Bachelor of Obstetrics, Master of Obstetrics; in Sanitary Science, a special diploma; in Mental Disease, a special diploma.

The Medical Examinations, except that for the diploma in Sanitary Science, will be held twice yearly—viz., in April and in October. The examination for the diploma in Sanitary Science will be held in July.

The course for degrees in Medicine &c. is of at least five years' duration.

*The First Examination in Medicine.*—Students may not

be admitted to this examination until the lapse of two academical years from the time of their matriculation. They must also have previously passed the First University Examination. The subjects of this examination are Natural Philosophy, Theoretic Chemistry, Zoology and Botany. The examination in each subject will comprise two parts:—1. A written examination. 2. Practical work and oral examination. For Chemistry the practical examination takes place at the close of the second year. Particular weight will be given to the practical part of the examination. Candidates at the First Examination in Medicine who at the First University Examination in Arts did not obtain 30 per cent. of the marks assigned to French or German will be required to present themselves for a qualifying examination in French or German. Failure to obtain 30 per cent. of the marks assigned to either of those languages will involve the loss of the examination.

*The Second Examination in Medicine.*—Students will be admitted to this examination after the lapse of one academical year from the time of passing the First Examination in Medicine, provided they have completed the first period of the course of medical studies. The subjects for this examination are Anatomy, Physiology and Practical Chemistry.

*The Third Examination in Medicine.*—Students will be admitted to this examination after the lapse of one academical year from the time of passing the Second Examination in Medicine, provided they have completed the third year of medical studies. The subjects for this examination will be Anatomy, Physiology, and *Materia Medica* (Pharmacology).

*The Examination for the Medical Degrees.*—Students will be admitted to this examination after the lapse of one academical year from the time of passing the Third Examination in Medicine, provided they have completed the course of medical studies prescribed for the fourth year. The examination consists of three parts or divisions:—(a) Medicine, including Therapeutics and Pathology, Mental Diseases, Medical Jurisprudence and Hygiene. (b) Surgery, Theoretical, Clinical, Operative; Surgical Anatomy, with Ophthalmology and Otolaryngology. (c) Midwifery and Gynaecology with Diseases of Children. Each part of this examination must be passed as a whole. Upon completing satisfactorily his examination in all three divisions the candidate will, in addition to the parchment diplomas recording his admission to the Medical Degrees of M.B., B.Ch. and B.A.O., receive a certificate of having passed a qualifying examination in the subjects of Medicine, Surgery and Midwifery. The fee for this certificate is £10, which must be paid prior to the candidate's admission to the Medical Degrees.

*M.D. Degree.*—Candidates may be admitted to this degree after the lapse of three academical years from the time of obtaining the degree of M.B. Every candidate will be examined at the bedside, and required to diagnose at least three medical cases, and prescribe treatment, and to write detailed reports on at least two cases to be selected by the examiners and to discuss all the questions arising thereon.

*The M.Ch. Degree.*—This degree will be conferred only on graduates in Medicine of the University of at least three years' standing. The examination for this degree will comprise Surgical Diseases and Surgery, both theoretical and operative; Surgical Anatomy; Ophthalmology and Otolaryngology, and will include—(a) a written examination; (b) a clinical examination; (c) an examination on Surgical Instruments and Appliances; (d) an examination in Operative Surgery.

*The Mastership in Obstetrics.*—This degree will be conferred only on graduates in Medicine of the University of at least three years' standing. The examination will comprise the Theory and Practice of Midwifery and of Diseases of Women and Children and the Use of Instruments and Appliances, and will include—(a) a written examination; (b) a clinical examination as far as practicable; (c) an oral examination, with practical illustrations; (d) an examination on Instruments and Appliances.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The diploma of Member of this College is not now granted apart from the licence of the Royal College of Physicians except to students who commenced their professional studies prior to Oct. 1st, 1884.

<sup>10</sup> Existing graduates in Medicine of the standing of M.D. are not required to attend this course.

## ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The licence of this College is no longer granted by itself, except to students who commenced professional study prior to the 1st October, 1884, and consequently it is no longer necessary to publish the Regulations.

## EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

*Regulations relating to the several Examinations applicable to Candidates who commenced their Professional Education on or after the 1st of October, 1884.*

Any candidate who desires to obtain both the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England is required to comply with the following regulations, and to pass the examinations hereinafter set forth.

*Professional Examinations.*—There are three Professional Examinations, called herein the First Examination, the Second Examination, and the Third or Final Examination, each being partly written, partly oral, and partly practical. These examinations will be held in the months of January, April, July, and October, unless otherwise appointed. Every candidate intending to present himself for examination is required to give notice in writing to Mr. F. G. Hallatt, Secretary of the Examining Board, Examination Hall, Victoria Embankment, W.C., fourteen clear days before the day on which the examination commences, transmitting at the same time the required certificates.

The subjects of the First Examination are—Chemistry, Chemical Physics, Materia Medica, Pharmacy, Elementary Anatomy, and Elementary Physiology. A candidate may take this examination in three parts at different times, or he may present himself for the whole at one time. A candidate will be admitted to the examination on Chemistry and Chemical Physics, Materia Medica, and Pharmacy, on producing evidence of having been registered as a medical student by the General Medical Council, and of having received instruction in Chemistry, Materia Medica, and Pharmacy; or he may take Materia Medica and Pharmacy as part of the Second Examination; but he will not be admitted to the examination on Elementary Anatomy and Elementary Physiology earlier than the end of his first winter session at a medical school, or than the completion of his first six months' attendance at a recognised medical school during the ordinary sessions—i.e., exclusive of the months of April, August, and September. A candidate rejected in one part or more of the First Examination will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and he will be re-examined in the subject or subjects in which he has been rejected. Any candidate who shall produce satisfactory evidence of having passed an examination for a degree in Medicine on any of the subjects of the first and second parts of this examination conducted at a University in the United Kingdom, in India, or in a British Colony, will be exempt from examination in those subjects in which he has passed.

The fees for admission to the First Examination are as follows: for the whole examination, £10 10s.; for re-examination after rejection in either of the parts, £3 3s.

The subjects of the Second Examination are Anatomy and Physiology. A candidate is required to present himself for examination in Anatomy and Physiology together until he has reached the required standard to pass in one or other of these subjects; but no candidate will be allowed to pass in one of the subjects without obtaining at the same time at least half the number of marks required to pass in the other subject. A candidate will be admitted to the Second Examination after the lapse of not less than six months from the date of his passing the First Examination, on producing evidence of having completed, subsequently to registration as a medical student, eighteen months of professional study at a recognised medical school or schools, and of having complied with the regulations prescribed in Section I., Clauses 4 and 5. A candidate rejected in either part or in both parts of the Second Examination will not be admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection, and will be re-examined in the subject or subjects in which he has been rejected.

The fees for admission to the Second Examination are as follows: for the whole examination, £10 10s.; for re-examination after rejection in either of the two parts, £3 3s.

The subjects of the Final Examination are: Medicine, including Therapeutics, Medical Anatomy, and Pathology; Surgery, including Surgical Anatomy and Pathology; Midwifery and Diseases peculiar to Women. A candidate may present himself for examination in these three subjects or parts separately or at one time. A candidate will be admitted to the Third or Final Examination on producing evidence—(1) of being twenty-one years of age; (2) of having passed the Second Examination; and (3) of having studied Medicine, Surgery, and Midwifery, in accordance with the regulations prescribed in Section I., Clauses 2 and 6 to 11. The Colleges do not admit to either part of the Third or Final Examination any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months, nor till the expiration of two years after his having passed the Second Examination. A candidate rejected in the Third or Final Examination, or in one or more of the three parts into which he may have divided it, will not be admitted to re-examination until after the lapse of a period of not less than six months from the date of rejection, and he will be re-examined in the subject or subjects in which he previously failed to pass. Any candidate who shall have obtained a Colonial, Indian, or Foreign qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and examination equivalent to those required by the Regulations of the two Colleges, shall, on production of satisfactory evidence as to age and proficiency in Vaccination, be admissible to the Second and Third Examinations.

The fees for admission to the Third or Final Examination are as follows: for the whole examination, £15 15s.; for re-examination after rejection in Medicine, £5 5s.; for re-examination after rejection in Surgery, £5 5s.; for re-examination after rejection in Midwifery, £3 3s.

## ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

These Colleges have made arrangements by which, after one series of examinations, held in Edinburgh or in Glasgow, or in Edinburgh and Glasgow, the student may obtain the diplomas of the three Bodies.

The three Bodies grant their Single Licences only to candidates who already possess another and opposite qualification in Medicine or Surgery, as the case may be. Copies of the Regulations for the Single Licence of any of the Bodies may be had on application to the respective Secretaries.

*Professional Education.*—1. Candidates who commence medical study before Jan. 1st, 1892, must have been engaged in professional study during forty-five months from the date of registration as medical students by the General Medical Council, which period shall include not less than four winter sessions' attendance at a recognised medical school. 2. The candidate must produce certificates or other satisfactory evidence of having attended the following separate and distinct courses of instruction: Anatomy, one course, during at least six months; Practical Anatomy, twelve months; Chemistry, one course, six months; Practical or Analytical Chemistry, one course, three months; Materia Medica, one course, three months; Physiology, one course, six months; Practice of Medicine, one course, six months; Clinical Medicine, nine months; Principles and Practice of Surgery, one course, six months; Clinical Surgery, nine months; Midwifery and the Diseases of Women and Children, one course, three months; Medical Jurisprudence, one course, three months; Pathological Anatomy, one course, three months. The six months' courses delivered in Scotland must consist of not fewer than 100 lectures. The three months' courses must consist of not fewer than fifty lectures. The number of lectures certified as attended at any school not situated in Scotland should not be less than three-fourths of the total number of lectures delivered in a course. 3. The candidate must also produce the following certificates:—(a) Of having attended not less than six cases of labour, three of these to be conducted personally under the direct superintendence

of the practitioner who signs the certificate, who must be a registered medical practitioner. (b) Of having attended, for three months, instruction in Practical Pharmacy; the certificate to be signed by the teacher, who must be a member of the Pharmaceutical Society of Great Britain, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicines to his patients, or a teacher of a class of Practical Pharmacy. (c) Of having attended for twenty-four months the Medical and Surgical practice of a public general hospital containing on an average at least eighty patients available for Clinical instruction and possessing distinct staffs of physicians and surgeons. (d) Of having attended for six months (or three months, with three months' hospital clerkship) the practice of a public dispensary specially recognised by any of the above authorities; or the out-patient practice of a recognised general hospital, or of having acted for six months as pupil to a registered practitioner who either holds such a public appointment, or has such opportunities of imparting practical knowledge as shall be satisfactory to the cooperating authorities; this attendance should be made after the student has passed the First and Second Examinations. (e) Of having been instructed by a registered medical practitioner in the Theory and Practice of Vaccination, and of having performed operations under the teacher's inspection, during a period of not less than six weeks.

Candidates will be subjected to three Professional Examinations, herein called the First Examination, the Second Examination and the Final Examination, to be conducted at separate times, partly in writing and partly practically and orally.

*First Examination.*—The First Examination shall embrace the two divisions of (1) Chemistry,<sup>11</sup> (2) Elementary Anatomy,<sup>12</sup> and Histology,<sup>13</sup> and shall take place not sooner than the end of the first year, including the period of a winter and a summer session. For the whole examination taken at one time the sum of £5 5s. must be paid to the inspector of certificates not later than 4 P.M. on the Friday preceding it, after which no candidate will be entered. After rejection for re-entry in all subjects, £3 3s.; for re-entry after obtaining an absolute pass in one or two subjects, £2 2s.; for entering for one division of subjects separately, £3 3s.; and for each re-entry after rejection, £2 2s. Any candidate who shall produce satisfactory evidence of having passed an equivalent examination in any of the subjects of the first examination before any of the boards specified in the Regulations will be exempt from examination in such subjects.

*Second Examination.*—The Second Examination shall embrace the three subjects of (1) Anatomy, (2) Physiology, (3) Materia Medica and Pharmacy, each of which shall constitute a division of the examination, and may be entered for separately, and shall not take place before the termination of the summer session of the second year of study, including two winters and two summers. The fees for admission to this examination, payable not later than one week before the day of examination, are as follows:—For the whole examination, £5 5s.; after rejection for re-entry in all subjects, £3 3s.; for re-entry after obtaining an absolute pass in one or two subjects, £2 2s.; for entering for one subject separately, £2 2s.; and for each re-entry after rejection, £2 2s. Any candidate who shall produce satisfactory evidence of having passed an equivalent examination in any of the subjects of the Second Examination before any of the boards specified in the Regulations will be exempt from examination in such subject or subjects.

*Final Examination.*—The Final Examination shall embrace the three divisions of—(1) the Principles and Practice of Medicine (including Therapeutics, Medical Anatomy, and Pathology) and Clinical Medicine; (2) the Principles,

and Practice of Surgery (including Surgical Anatomy and Surgical Pathology) and Clinical Surgery; (3) Midwifery and Gynæcology, Medical Jurisprudence, and Hygiene (and which may be entered for separately at different times); and shall not take place before the termination of the full period of study. The fees for this examination, payable not later than one week before the examination day, are as follows:—For the whole Examination, taken at one time, in the case of candidates who have passed the First and Second Examinations, £15 15s., £10 10s. of which shall be returned to unsuccessful candidates. For entering for each of the three divisions of subjects separately, £6 6s., and on re-entry after rejection, £2 2s. in respect of each division or part thereof. This rule will also apply to any subsequent rejection. Any candidate admitted to the Final Examination, on the footing of having passed in the subjects of the First and Second Examinations at a recognised board, shall, on entering, pay the full fee of £26 5s.

All candidates shall be subjected, in addition to the Written and Oral Examinations, to Practical Clinical Examinations in Medicine and Surgery, which shall include the Examination of Patients, Physical Diagnosis, the Use of the Microscope, Pathology of the Urine, Surgical Appliances, Bandages, Surface Markings &c.

#### REGULATIONS FOR CANDIDATES COMMENCING STUDY AFTER JANUARY 1ST, 1892.

The courses last for five years; the fifth year should be devoted to clinical work at one or more public hospitals or dispensaries. Six months of the fifth year may be passed by the student as a pupil to a registered practitioner possessing such opportunities of imparting practical knowledge as may be deemed satisfactory by the Committee of Management. The student's regularity of attendance in the wards and out-patient departments of the hospitals and at the post-mortem examinations should be duly ascertained and noted on the certificate.

Candidates shall be subjected to four Professional Examinations: the First Examination, the Second Examination, the Third Examination and the Final Examination, to be conducted at separate times, partly in writing and partly practically and orally. The necessary schedule and certificates must be lodged, and the fees for these respective Examinations paid, at the period of entering for the earliest of them. In the event of failure the fee paid for any subsequent Examination from which a candidate had been precluded will be returned to the candidate. Candidates may enter for all the subjects of an Examination at one period, or may enter for and pass in any division of subjects thereof. A candidate may be exempted from Examination in any subject of the First, Second, or Third Examinations, on the production of a certificate proving that he has passed an equivalent Examination before any of the recognised Boards, such certificate specifying the subjects of Examination. A candidate admitted to any Examination on the footing of having passed in the subjects of the preceding Examination or Examinations at another Board shall pay the fees exigible for such preceding Examination or Examinations, in addition to the fee of the Examination for which he enters.

*First Examination.*—The First Examination shall embrace the following divisions of subjects—(1) Physics, (2) Chemistry, (3) Elementary Biology. The fees payable for admission to the First Examination shall be—for the whole Examination, £6.

*Second Examination.*—The Second Examination shall embrace the following subjects:—Elementary Anatomy and Physiology, including Histology; and candidates may be admitted to this Examination at the end of the second year. The fees payable for admission to the Second Examination shall be—for the whole Examination, £6.

*Third Examination.*—The Third Examination shall embrace the following divisions of subjects:—(1) Advanced Anatomy, (2) Pathology, (3) Materia Medica and Pharmacy. The fees payable for admission to the Third Examination shall be—for the whole Examination, £6.

*Final Examination.*—The Final Examination shall not be passed earlier than the end of the fifth year of study, and shall embrace the following divisions of subjects:—(1) Medicine, including Therapeutics, Medical Anatomy, and Clinical Surgery; (2) Surgery, including Surgical Anatomy, Clinical Surgery, and Diseases and injuries of the Eye; (3) Midwifery and Diseases of Women and of New-born Children; and

<sup>11</sup> The examination in Chemistry shall embrace the following particulars: Chemical Physics (meaning thereby Heat, Light, and Electricity); the principal Non-Metallic and Metallic Elements, and their more common combinations; and also the leading Alcohols, Organic Acids, Ethers, Carbo-hydrates and Alkaloids. The candidate will also be examined practically in Testing.

<sup>12</sup> Elementary Anatomy shall embrace: Anatomy of the Bones and Joints of the whole body and of the Muscles, chief Bloodvessels, and Nerves of the Upper and Lower Extremities.

<sup>13</sup> Histology will be held to include a knowledge and recognition of the morphological elements and structure of Skin, Bone, Cartilage, Fibrous Tissue, Hair, Nails, Teeth, Blood, Muscle, Nervous Tissue and the appearance and distribution of all the different forms of Epithelium, along with a general knowledge of the properties of cells. The Examination on this subject will be practical and oral.

(4) Medical Jurisprudence and Hygiene. All candidates shall be subjected, in addition to the Written and Oral Examinations, to Practical Clinical Examinations in Medicine and Surgery, which shall include the Examination of Patients, Physical Diagnosis, the use of the Microscope, Pathology of the Urine, Surgical Appliances, Bandages, Surface markings, &c. The fees payable to the Final Examination shall be,—for the whole Examination, £12, for re-entry in all subjects after rejection, £6: On entering for each division of subjects separately, £4, on re-entry in each division after rejection, £2.

There are six periods of Examination annually, four in Edinburgh and two in Glasgow, and candidates may present themselves at either examining centre irrespective of the place of the previous examination. The Registrar in Edinburgh is Mr. J. Robertson, 1, George-square; and the Registrar in Glasgow, Mr. A. Duncan, 242, St. Vincent-street, to whom fees and certificates must be sent.

#### ROYAL COLLEGE OF PHYSICIANS AND ROYAL COLLEGE OF SURGEONS IN IRELAND.

Two sets of regulations are at present in force, under which examinations take place for the conjoint diploma of these bodies. The older regulations, under which students who commenced their studies before Oct. 1st, 1891, may be examined, have appeared in our Students' Number in previous years, and will be found on pp. 477 and 478 of our second volume of 1888. The following regulations are obligatory on all students commencing on or after the date already mentioned:—

##### PRELIMINARY EXAMINATION AND REGISTRATION.

Every candidate for the Conjoint Examinations of the Colleges shall produce evidence—(a) of having, before entering on medical studies, passed a Preliminary Examination in general education recognised by the General Medical Council; and (b) of having been registered by that Council as a Student in Medicine. Each candidate before receiving his diplomas must produce a registrar's certificate or other satisfactory evidence that he has attained the age of twenty-one years.

*Preliminary Examination.*—The subjects for examination are identical with those prescribed for the Preliminary Examination by the General Council of Medical Education and Registration, except that it includes the additional subject of Physics, which may be passed at the Preliminary Examination or at a subsequent Supplemental Examination, at an extra fee of £1 ls. In no case can Physics be deferred to the First Professional Examination.

##### PROFESSIONAL EXAMINATIONS.

Every candidate is required to pass four Professional Examinations, one at the end of each year of his professional studies. No candidate shall be admitted to the Final or Qualifying Examination within three months of his rejection at the Final or Qualifying Examination by any other licensing body. All examinations shall be conducted as far as possible by demonstration of objects placed before the candidates.

*First Professional Examination.*—Every candidate is required, before admission to the First Professional Examination, to produce evidence—(1) of having passed in the subjects of the Preliminary Examination, including Physics; (2) of having been registered as a medical student by the General Medical Council; and (3) of having attended in winter a course of (a) lectures on Practical Anatomy, (b) Demonstrations and Dissections, and (c) lectures on Theoretical Chemistry, (d) Practical Chemistry, three months' summer course, (e) Practical Pharmacy—(1) evidence of attendance for three months in the Compounding Department of a Clinical Hospital, which hospital shall have satisfied the Committee of Management that its means of instruction are sufficient, and shall return to the Committee the names of its students at the commencement of the course, together with a record of their attendance at its close; or (2) evidence of attendance on a course of Practical Pharmacy in a recognised Medical School, the course to consist of not less than twenty demonstrations; or (3) evidence of having served a full apprenticeship of three years, or of having acted as paid assistant for not less than one year in the establishment of a Licentiate Apothecary or of a registered Pharmaceutical

Chemist.<sup>14</sup> The fee for this examination is £15 15s. The subjects of the First Professional Examination are the following:—1. Chemistry: Elementary Chemistry—Inorganic and Organic, as found in Roscoe's Lessons on Elementary Chemistry—with a practical examination in the Laboratory. 2. Anatomy: Bones, with attachments of Muscles and Ligaments—Joints. 3. Pharmacy: Practical Pharmacy, Dispensing of Drugs, Methods of Administration of Medicines, Reading of Prescriptions.

*Second Professional Examination.*—Every candidate is required, before admission to the Second Professional Examination, to produce evidence of having passed the First Professional Examination; also certificates of having, in his second or a later year of professional study, attended—(1) A Medico-Chirurgical Hospital for nine months, together with evidence of having taken notes to the satisfaction of the physicians or surgeons in charge of the cases, and certified under their hands, of at least three Medical cases and three Surgical cases in the wards of a recognised Medico-Chirurgical Hospital. (2) Courses of Lectures as follow:—Winter courses: Practical Anatomy; Demonstrations and Dissections. Summer Courses (three months): Histology; Materia Medica. The fee for this examination is £10 10s. The subjects of the Second Professional Examination are the following—1. Anatomy: The Anatomy of the whole Human Body. 2. Histology 3. Hospital Practice: Methods of Physical Diagnosis; Application of Urinary Tests; General Principles of the Treatment of Fractures, of Dislocations of Wounds and of Hæmorrhages; Bandaging; General Principles of Case-taking. 4. Physiology: Circulation; Respiration; Digestion. 5. Materia Medica. Candidates are examined on three separate days.

*Third Professional Examination.*—Every candidate is required, before admission to the Third Professional Examination, to produce evidence of having passed the Second Professional Examination; also certificates of having in his third, or a later, year of professional study attended—(1) A Medico-Chirurgical Hospital for nine months, or acted for six months as resident pupil, together with evidence of having taken notes to the satisfaction of the physicians and surgeons in charge of the cases, and certified under their hands, of at least three Medical cases and three Surgical cases in the wards of a recognised Medico-Chirurgical Hospital. (2) Courses of Lectures as follow:—Winter courses: Demonstrations and Dissections; Medicine; Surgery; Physiology. Summer course (three months): Medical Jurisprudence. The fee for this examination is £9 9s. The subjects for the Third Professional Examination are the following:—1. Anatomy: Surgical Anatomy. 2. Surgery: Surgery as in the Second Professional Examination; also Inflammation, with its varieties and consequences; Fractures; Dislocations; Injuries, mechanical, chemical, physical—their immediate and remote effects; Hernia; Surgical Diseases of Bloodvessels; Diseases of Bones; Diseases of Joints; Pyæmia; Septicæmia. 3. Medicine: Medicine as in the Second Professional Examination; also Diseases of the Heart and Circulatory System, of the Respiratory Apparatus, of the Abdominal Cavity, of the Skin; the Exanthema; and the Continued Fevers. 4. Physiology.

*Fourth or Final Professional Examination.*—Every candidate is required before admission to the Final Examination to produce evidence—(1) of having passed the Third Professional Examination; (2) of having in his fourth or a later year of professional study (a) attended a Medico-Chirurgical Hospital for nine months as extern pupil, or acted for six months as resident pupil, unless a certificate to that effect has been accepted in the third year; (b)<sup>15</sup> a winter course of lectures on Midwifery; Certificates will also be required—(1) Of having attended a recognised midwifery hospital or maternity for six months in the winter or summer of the fourth year, with evidence of having been present at thirty labours. (2) Of having for not less than three months, in either the third or fourth year, studied fever in a recognised clinical hospital containing fever wards, and recorded from daily personal observation at least five cases of fever to the satisfaction of the attending clinical physician, as attested by his signature. For the purposes of this regulation the word "fever" is held to

<sup>14</sup> Licentiate Apothecaries and Licentiates of the Pharmaceutical Societies of Great Britain and Ireland are exempt from attendance on Practical Pharmacy.

<sup>15</sup> On and after July 1st, 1891, a certificate of having attended a course of lectures on Pathology will be required in addition to the above-named lectures.

include the following diseases only—viz., typhus, typhoid or enteric fever, scarlet fever, small-pox and measles. (3) Of having attended a course of Operative Surgery in the summer session of either the third or the fourth year. (4) Of having attended, at a recognised ophthalmic and aural hospital or at a recognised ophthalmic and aural department of a general hospital, clinical lectures on Ophthalmic and Aural Surgery during a period of three months. The fee for this examination is £6 6s. The subjects for the Fourth or Final Examination are the following—1. Medicine. 2. Surgery. 3. Therapeutics. 4. Pathology. 5. Midwifery and Diseases peculiar to Women. 6. Forensic Medicine in references to Medicine, Surgery and Midwifery; Hygiene. 7. Ophthalmic and Aural Surgery.<sup>16</sup> Candidates may present themselves for examination in all the subjects of the Final Examination at the same term; or, at one term, in Medicine, including Therapeutics and Pathology and Clinical Medicine; at a second term, in Surgery, including Therapeutics and Pathology, Ophthalmic and Aural Surgery, Clinical Surgery and Operations; at a third term, Midwifery, Gynecology, Forensic Medicine and Hygiene. Candidates must pay the full fee before being admitted to any part of the examination. Candidates may take the groups in any order they please. No candidate will receive any diploma till the entire examination is completed.

#### SOCIETY OF APOTHECARIES OF LONDON.

Every student purposing to study Medicine must previously pass a Preliminary Examination in Arts qualifying for registration as medical student.

The examination to be passed for the Diploma in Medicine, Surgery and Midwifery, which is registrable under the provisions of the Medical Act, 1886, are Primary and Final, all being written, oral and practical. The Primary Examinations are held quarterly on the first Wednesday and on the Monday and Thursday of the same week in the months of January, April, July and October. The Final Examinations are held monthly, and consist of—(1) the examination in Surgery on the second Wednesday and following days; (2) the examination in Medicine and in Midwifery on the third Wednesday and on the Monday and Thursday of the same week. The course of medical study must extend over four years, and not less than three winter and two summer sessions must be passed at a recognised hospital and school of medicine. Candidates intending to present themselves for examination must give fourteen days' notice. A form for the purpose will be sent on application. The fee must be forwarded at the same time, with all required certificates, to the secretary. The entire fee for the examinations is £10 10s., which in the event of failure is not returned. A fee of £3 3s. is required for every re-examination.

The course of study required to qualify for the Primary Examinations is as follows:—Lectures on Chemistry and Chemical Physics, not less than six months; Practical Chemistry, three months; Materia Medica, three months; Pharmacy and Dispensing, three months, instruction in which must be given by a registered medical practitioner; by a member of the Pharmaceutical Society; or in a public hospital, infirmary, or dispensary. Evidence of having received instruction in these subjects before registration as medical students will be received. The first of the Primary Examinations may be passed at any period after registration. The second includes Anatomy, Physiology, and Histology; to qualify for this examination the candidate must have received instruction in Anatomy, not less than six months; Practical Anatomy with Demonstrations, twelve months; Physiology, six months; Histology with Demonstrations, three months. Candidates will be excused any or all of the subjects of the Primary on producing evidence that they have passed equivalent examinations before an examining body recognised by the Medical Council. Both examinations of the Primary may be passed the same evening.

To qualify for the Final Examinations the following course of study must be observed: Hospital Practice, Surgical and Medical, with Post-mortem Examinations, not less than

three winter and two summer sessions. No hospital is recognised for this purpose which is not in connexion with an established medical school. Lectures on the Principles and Practice of Surgery, six months; Practical Surgery, three months; Clinical Surgical Lectures, nine months; Surgical Dresser, three months; Lectures on the Principles and Practice of Medicine, six months; Pathology, three months; Clinical Medical Lectures, nine months; Medical Clinical Clerk, three months; Forensic Medicine, Hygiene, and Insanity, three months; Lectures on Obstetric Medicine, including Gynecology, three months; Clinical Instruction in the same, three months; a Course of Practical Midwifery; attendance on Twenty Midwifery Cases. The offices of Dresser and Clinical Clerk may be discharged at a hospital, infirmary, or dispensary where sufficient opportunities are afforded for the acquirement of practical knowledge.

The following regulations will apply to students who were registered on or subsequent to January 1st, 1892:—

The examinations are: primary, held quarterly; intermediate, held monthly; and final, held monthly.

The Primary Examination consists of two parts.

Part I. includes Elementary Biology. Chemistry; the Principles of the Science which bear on the study of Medicine. Chemical Physics, including the Elementary Mechanics of solids and fluids; Heat, Light, and Electricity. Practical Chemistry. Materia Medica, including the Botany of the Pharmacopœia. Pharmacy and Prescriptions. Part II. includes Anatomy, Physiology and Histology. The Intermediate Examination also consists of two parts, the first of which includes the Principles and Practice of Surgery, Surgical Pathology and Surgical Anatomy. The second part includes (a) the Principles and Practice of Medicine, including Therapeutics and Pharmacology. Pathology and Morbid Histology; (b) Forensic Medicine, Hygiene, Theory and Practice of Vaccination, and Mental Diseases. The Final Examination consists of three parts. Part I. includes an Examination of Surgical Cases, Operative Manipulation and Surgical Anatomy, and Instruments and Appliances. Part II. includes an Examination of Medical Cases and Medical Anatomy. Part III. includes: Midwifery, Gynecology and Diseases of New-born Children, and Obstetric Instruments and Appliances. This examination cannot be passed before the end of the fifth year.

The examination for a Certificate to act as an Assistant in Compounding and Dispensing Medicines is held on the fourth Wednesday of every month, and will be as follows: In Translating and Dispensing Prescriptions; in the British Pharmacopœia; in Materia Medica and Botany; in Pharmacy and Pharmaceutical Chemistry. A week's notice must be given, with the fee of 2 guineas.

*Prizes.*—A Gold Medal and a Silver Medal are given annually by the Society for proficiency in Materia Medica and Pharmaceutical Chemistry.

A Gold and a Silver Medal are also given for proficiency in Botany. The examination will take place in the month of June. Female candidates can compete.

Due notice of these examinations will be given in the medical journals.

Tickets of admission to the Lectures on Botany, given by J. G. Baker, Esq., F.R.S., F.L.S., of Kew, at the Society's Garden at Chelsea, during the months of May, June, and July, can be had on application.

Attendance is given daily at the Hall of the Society, Blackfriars, E.C., from 10 to 4 o'clock, Saturdays excepted.

#### ROYAL COLLEGE OF SURGEONS IN IRELAND AND THE APOTHECARIES' HALL OF IRELAND.

Every candidate for the Conjoint Diplomas is required to pass a Preliminary Examination and four Professional Examinations.

*First Professional Examination.*—Candidates will be required, before admission to the First Professional Examination, to produce evidence—1. Of having been registered by the Medical Council as medical students at least nine months before examination. 2. Of having attended (a) Practical Anatomy, (b) Chemistry, (c) Demonstrations and Dissections, (d) Practical Chemistry, (e) Physics, (f) Practical Pharmacy, for three months in the Compounding Department of a Clinical Hospital, or a School of Pharmacy, or in the Compounding Establishment of a Licentiate Apothecary.

<sup>16</sup> Students who commenced study before July, 1879, are exempt from both the certificate for study and the special Ophthalmic Examination, but are liable to be examined by the surgical examiners in Ophthalmic Surgery. Those who commenced before February, 1882, are exempt from the special examination, on producing the certificate of three months' clinical ophthalmology required before that date. Those who commenced after February, 1882, must pass the special examination.

The fee for this examination is £12 12s. Candidates will be examined on Physics, Chemistry, and Anatomy (Osteology).

*Second Professional Examination.*—Candidates must produce evidence of having passed the First Professional Examination; also certificates of having subsequently attended—(a) a Medico-Chirurgical Hospital for nine months, and of having taken notes of at least three Medical cases and three Surgical cases, or a certificate of Clinical Clerkship; (b) the following courses of Lectures: (1) Demonstrations and Dissections; (2) Physiology; (3) Surgery, winter courses, six months; (4) Materia Medica; (5) Practical Physiology, including Histology, summer courses, three months. The fee for this examination is £7 7s. Candidates will be examined in Anatomy, Physiology, Materia Medica, and Pharmacy.

*Third Professional Examination.*—Candidates must produce evidence of having passed the Second Professional Examination; also certificates of having subsequently attended—(a) a Medico-Chirurgical Hospital for six months as resident pupil, or for nine months as extern pupil, and, in the latter case, notes of at least three Medical and three Surgical cases, or of having acted as Clinical Clerk at any period; (b) the following courses of Lectures: (1) Demonstrations and Dissections; (2) Medicine; (3) Midwifery and Diseases peculiar to Women, in winter courses (may be deferred to the fourth year); (4) Pathology; (5) Medical Jurisprudence, Forensic Medicine, and Hygiene, in summer course. The fee for this examination is £7 7s. Candidates will be examined in Anatomy, Surgery, Medicine, and Medical and Surgical Pathology.

*Fourth Professional Examination.*—The candidate must produce evidence—(1) Of having been registered as a medical student by the Medical Council at least forty-five months previously; (2) of having passed the Third Professional Examination; (3) of having subsequently attended—(a) a Medico-Chirurgical Hospital for nine months as extern pupil, or six months as resident pupil; (b) Lectures

<sup>17</sup> The certificate in Pathology will not be required until further notice.

on Midwifery, a winter course (unless taken in the third year); (c) a recognised Midwifery Hospital, or Maternity, for six months in the winter or summer of either the third or the fourth year, with evidence of having been present at thirty labours; (d) of three months' study of Fever in a Clinical Hospital containing fever wards, and of having taken notes of at least five cases of fever (attendance at a fever hospital will not be recognised if concurrent with that on Practical Midwifery); (e) Operative Surgery in the summer session of either the third or fourth year; (f) Clinical Lectures in Ophthalmic and Aural Surgery (three months) at a recognised Ophthalmic Hospital, or at an Ophthalmic Department of a General Hospital. The fee for this examination is £7 7s. Candidates will be examined in Medicine, Therapeutics, Surgery, Midwifery and Diseases peculiar to Women, Ophthalmic and Aural Surgery, and Forensic Medicine and Hygiene.

UNIVERSITY OF BRUSSELS.

British and other practitioners holding proper medical and surgical qualifications are admissible for the Doctorate of the University of Brussels, without any further curriculum. It is necessary, however, that all candidates should leave their diplomas with the Registrar of the University prior to the examination, and no one will be admitted until this condition has been complied with. The fees are—For inscription of name, £8 12s.; for examination, £13; for legalisation of diploma, 8s.—£22. The unsuccessful candidates may present themselves again three months after rejection, on paying one-half of the examination fees. Candidates who have paid in advance the fees for the three tests, and are unsuccessful in the first, recover the fees paid for the second and third examinations; those who fail in the second recover the fees paid for the third examination. The examination consists of three tests, viz—1st Doctorate: Medicine; Special and General Pathology and Pathological Anatomy with the Microscope; General Therapeutics; Mental Diseases; Diseases of Women and Children. 2nd Doctorate: Surgery; Surgical Pathology; Ophthalmology; Midwifery; Hygiene; Medical Jurisprudence (not including

TABULATED STATEMENT OF EXAMINATION OR GRADUATION FEES PAYABLE TO THE VARIOUS BODIES IN THE UNITED KINGDOM GRANTING REGISTRABLE QUALIFICATIONS.

Name of Examining Body.	Matriculation or other Entrance Examination.	Preliminary Scientific or First Prof. Examination.	Intermediate Scientific or Equivalent Examination.	First Degree or other Registrable Qualification.	Second Degree or Equivalent Registrable Qualification.
UNIVERSITY of OXFORD . . . . .	About £5 (including fees to University and College).	....	About £12 (including fees to University and College).		
UNIVERSITY of CAMBRIDGE . . . . .	£5 (not including College fees, which vary.	....	....	M.B., £2 (in addition to £7 for B.A.)	M.D., £10.
UNIVERSITY of LONDON . . . . .	£2 0 0	£5 0 0	£5 0 0	M.B. or B.S., £5.	M.D. or M.S., £5.
UNIVERSITY of DURHAM . . . . .	£2 0 0	....	....	L.M., £3; M.B. or B.S., £6.	M.D. or M.S., £0.
VICTORIA UNIVERSITY . . . . .	£2 0 0	....	£1 0 0		
UNIVERSITY of EDINBURGH . . . . .	£1 0 0	£5 5 0	£5 5 0	M.B. & C.M., £11 10s.	M.D., £5 5s.
UNIVERSITY of GLASGOW . . . . .	£1 0 0	....	....	M.B. and C.M., £21.	M.D., £16.
UNIVERSITY of ABERDEEN . . . . .	£1 0 0	£5 5 0	£5 5 0	M.B. & C.M., £10 10s.	M.D., £5 5s.
UNIVERSITY of ST. ANDREWS . . . . .	£1 0 0	....	....		M.D., £5 10s.
UNIVERSITY of DUBLIN (TRINITY COLLEGE).	£0 5 0	....	....	M.B., £10; B.Ch., £10 (in addition to M.B. & B.A. fees); Lic. Med., £10; Lic. Surg., £10; Lic. Obs. Sc., £1.	M.D., £13; M.Ch. £11; M.A.O., £5
ROYAL UNIVERSITY of IRELAND..	£0 10	£1 0 0	£1 0 0	M.B., B.Ch., & B.A.O., £10.	M.D., £5; M.Ch. £5; M.A.O.
ROYAL COLLEGE of PHYSICIANS, LOND., and ROYAL COLLEGE of SURGEONS, ENG.	....	£10 10 0	£10 10 0	L.R.C.P. & M.R.C.S., £15 15s.	F.R.C.P. F.R.C.S., £15 15s.
ROYAL COLLEGES of PHYSICIANS and SURGEONS of EDINBURGH and FACULTY of PHYSICIANS and SURGEONS of GLASGOW.	....	£5 5 0	£5 5 0	L.R.C.P. Ed., L.R.C.S. Ed., & L.F.P.S. Glas., £20 6s.	
ROYAL COLLEGE of PHYSICIANS, and ROYAL COLLEGE of SURGEONS, IRELAND.	....	£15 15 0	£5 5 0 and for Third Prof. Exam., £5 5 0	L.K.Q. Coll. Phys., L.R.C.S. Irel., £15 15s.	
SOCIETY of APOTHECARIES, LOND.	....	£4 4 0	....	L.S.A., £0 0s.	
ROYAL COLLEGE of SURGEONS, IRELAND, and APOTHECARIES' HALL, DUBLIN.	....	£12 12 0	£7 7 0 and for Third Professional Examination, £7 7 0	L.R.C.S. Irel., L.A.H. Dub., £7 7s.	

Toxicology). 3rd Doctorate: Clinical Examination in Medicine at the Hospital; Clinical Surgical Examination; Examination in Midwifery, consisting in obstetrical operations on the mannikin (model of pelvis); Examination in Operative Surgery, consisting in some of the usual operations on the dead subject, such as Amputation, Ligature of an Artery, &c.; Regional Anatomy on the Dead Body, with Dissections. Great importance is attached to practical knowledge, but candidates must also prove that they possess positive theoretical science. The examinations which are *vivâ voce* take place on the first Tuesday in November, December, February, May and June. The three examinations may be got through in about a week. Saturday, before 2 P.M., is the most eligible day for arriving, for candidates for whom time is an object. The examinations are conducted in English. There are in England at present about 600 graduates holding this degree.

### THE ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

Consequent upon the issue of the Royal Warrant of August, 1891, alterations have taken place in the designations of the departmental rank of the officers of the Army Medical Staff, and medical officers are also now placed, as regards sick leave of absence on full pay, on the same conditions as those laid down for regimental officers. By a subsequent Royal Warrant, dated Nov. 10th, 1891, Art. 1208<sup>b</sup> of the Pay Warrant was revised by inserting the words "an officer of our Medical Staff" after the words "combatant officer," thus giving medical officers an equal title with combatant officers to reckon time on half-pay towards retirement, when the half-pay has been due to ill-health contracted in the performance of military duty. The substantive ranks of officers of the Medical Staff carry precedence and other advantages attaching to the rank indicated by the military portion of it, with such exceptions and within such limits as are laid down in the earlier Warrant.

In the *Gazette* of Aug. 28th, 1891, it was announced that the Queen had been pleased, by Royal Warrant, dated Aug. 7th, 1891, to approve of the following alterations of the designations of the departmental rank of the officers of the Medical Staff now serving as follows:—Surgeons-General, ranking as Majors-General, to be Surgeons-Major-General; Deputy Surgeons-General, ranking as Colonels, to be Surgeons-Colonel; Brigade-Surgeons, ranking as Lieutenant-Colonels, to be Surgeons-Lieutenant-Colonel; Surgeons-Major, ranking as Lieutenant-Colonels, to be Surgeons-Lieutenant-Colonel; Surgeons-Major, ranking as Majors, to be Surgeons-Major; Surgeons, ranking as Captains, to be Surgeons-Captain. The rank of the Director-General of the Army Medical Department is that of Surgeon-Major-General.

[For the text of the Warrant of Aug. 7th for the Medical Staff, *vide* THE LANCET of August 22nd, 1891, page 459 *et seq.*]

Admission into the Army and Indian Medical Services is gained as the result of competitive examination. Under special conditions, the admission may take place by nomination of the Secretary of State for War. Candidates for both services must, before being admitted to examination, possess the double qualification to practise Medicine and Surgery, and be registered under the Medical Act. They are also now required to produce certificates of having acted as a medical clinical clerk for six months, as surgical dresser for another six months, and of having had not less than three months' instruction at an ophthalmic hospital, including a course on errors of refraction. They must also furnish satisfactory certificates of moral character. Candidates for the Army must be between the ages of twenty-one and twenty-eight, in good health, and both parents of unmixed European blood; for the Indian Service, between twenty-two and twenty-eight, of sound bodily health, and natural-born subjects of Her Majesty. Both are examined as to physical fitness by a Board of Medical Officers. These conditions being satisfied, the candidate is admitted to the competitive examination, which is usually held in London twice a year, in the months of February and August. No candidate for the Army Medical Staff will be allowed to compete on more than two occasions. The subjects of examination are divided into *compulsory* and *voluntary*. The former comprise Anatomy

and Physiology, Surgery, Medicine, including Therapeutics and the Diseases of Women and Children, Chemistry and Pharmacy, and a practical knowledge of Drugs. The eligibility of the candidate for admission into the service is determined by the result of this part of the examination. The *voluntary* subjects are French, German, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with especial reference to *Materia Medica*, and for the Indian service *Hindustani*. Although the results of the examination on voluntary subjects do not affect the question of the eligibility of the candidate for a commission, they influence his position on the lists, which is determined by the numbers obtained under the two heads conjointly. After having passed this examination, the successful candidates for both services are sent to the Army Medical School at Netley as "surgeons on probation, receiving a daily pay of 8s. and certain allowances, to go through a four months' course of instruction in the special duties required of them in the service. The staff of the school consists of four professors, all of them men of high standing in their special departments. The Professorship of Military Medicine is held by Deputy Surgeon-General Henry Cayley, I.M.S. Surgeon-Lieutenant-Colonel W. F. Stevenson, M.S., is Professor of Military Surgery; Surgeon-Lieutenant-Colonel J. L. Notter, M.D., of Military Hygiene; and Dr. A. E. Wright, of Pathology. To each of these an Army Medical Officer is attached as Assistant Professor. The lectures on Military Surgery include gunshot and other wounds, transport of sick and wounded, duties of army medical officers in the field, on board troopships and transports, recruiting, and other surgical duties incident to military service. Those on Military Medicine treat of tropical and other diseases to which soldiers are exposed in the course of their service, the mortality and invaliding by disease, in peace and war, at home and abroad, management of lunatics under the conditions of military service, &c. The course of Hygiene comprises the examination of water and air, the general principles of diet, with the quality and adulterations of food and beverages, the sanitary requirements of barracks, hospitals, and camps, the clothing, duties, and exercises of the soldier, and the circumstances affecting his health, with the best means of preventing disease, and instruction in the mode of preparing the various statistical and other returns required of the medical officer. The surgeons on probation are detailed for duty in the wards of the hospital, under the Professors and Assistant Professors of Medicine and Surgery. Here they are taught practically the details of the management of patients in a military hospital, the registration of their diseases, the duties of invaliding, the modes of filling up the regulation statistical returns and other service documents. The surgeons on probation are provided with quarters, and are members of the mess at Netley. After having passed through the course of instruction they are examined on the subjects taught in the school, and their position on the list recommended for commissions is determined by the combined results of the competitive and final examinations. At the close of each session five prizes are awarded: the Herbert Prize of £20 to the surgeon on probation who has obtained the highest number of marks at the London and Netley examinations conjointly; the Parkes Memorial Bronze Medal to the one who gains the highest number of marks in the examination on Hygiene at Netley, combined with those given for the answers to a special question set on the same subject; the Martin Memorial Gold Medal to the highest number of marks in the final examination on Military Medicine, with the addition of those gained for a special question connected with it; the Montefiore Gold Medal and £21, awarded in the same manner for Military Surgery; and the Montefiore Second Prize, consisting of works on Military Surgery, to the surgeon on probation who obtains the second highest numbers in this branch.

The Surgeon-Lieutenants of the British Medical Service at the close of the Netley courses of instruction pass on to Aldershot, where they go through a systematic course of instruction in ambulance drill and equitation. The Surgeons of the Indian Medical Service, who do not go to Aldershot, undergo, while at Netley, a special course of instruction in ambulance drill and duties.

Surgeon-Lieutenants, if recommended by the Director-General, Army Medical Department, are promoted to be Surgeon-Captains on completing three years' full pay service.

Surgeon-Captains, if recommended by the Director-General, are promoted to be Surgeon-Majors on completing twelve years' full-pay service, of which three must have been abroad. Before being promoted they will be required to pass an examination. This examination may be taken at any time after their seventh year of service.

The examination in Medicine and Surgery will be held by two gentlemen appointed by the Secretary of State; that in Hygiene by the Professor of Hygiene, Army Medical School, Netley; and that in Regulations, Duties, Military Law &c. by an administrative medical officer, nominated for the purpose by the Director-General.

The examination will embrace the following subjects: *a.* Surgery and Surgical Anatomy. *b.* Medicine and Pathology. *c.* Hygiene, within the limits treated of in "Parkes' Practical Hygiene;" also the regulations regarding the sanitation of garrisons, quarters, hospitals &c., as well as of camps and hospitals in the field, and of transports, troop and hospital ships. *d.* Duties of medical officers at home and abroad and at sea, as defined in regulations; also hospital organisation and administration in peace and war, including the transport of sick and wounded by land and sea. *e.* The administration, interior economy, command, and discipline of the Medical Staff Corps, together with a knowledge of the principles of military law and their practical application (unless a certificate of proficiency in military law has been obtained at a garrison class).

A certificate will be required from a recognised teacher of surgery in any medical school, at home or abroad, in which operative surgery is taught, showing that the medical officer has gone satisfactorily through a complete course of operative surgery during the period within which the examination must be taken, and that he is a competent operator.

A report on any subject of a practical professional character, to be selected by the officer himself, and certified to be his own composition and in his own handwriting, will also be required. Considerable importance will be attached to the literary and scientific merits of this report.

The examinations will be conducted by printed questions, which will enter so far into the subject matter of each head selected for examination as to show that the officer's knowledge has been fully tested.

The questions and answers will be forwarded, under a sealed confidential cover, to the Director-General for transmission to the examiners, who will report to the Director-General as to the competence of the officer examined.

Any higher qualification, such as M.D., F.R.C.S. &c., or any diploma in Hygiene and State Medicine, taken after the date of publication of these regulations, will not exempt surgeons from this examination.

Surgeon-Majors are, if recommended by the Director-General Army Medical Department, promoted to be Surgeon-Lieutenant-Colonels on completing twenty years full pay service.

The selection of Surgeons-Lieutenant-Colonel for advancement to the grade of Brigade-Surgeon-Lieutenant-Colonel is made on the grounds of ability and merit, in determining which the following points will be considered:—The officer to be so selected must have been favourably reported on by the several military and departmental officers under whom he may have served, as set forth in their Annual Confidential Reports. He must be physically fit for general service, and have the necessary qualifying foreign and Indian service under existing rules.

A Brigade-Surgeon-Lieutenant-Colonel, to be eligible for selection as Surgeon-Colonel, must have served abroad at least ten years, of which three must have been in India. All officers under the rank of Surgeon-Colonel are placed on the retired list at the age of fifty-five, and those of that rank and Surgeon-Major-General at the age of sixty, except that in any particular case in which it may be considered necessary for the interest of the public service, the age of retirement may be extended to sixty-two.

*Indian Medical Service.*—The alteration of titles of medical officers in the Indian Service, so as to assimilate them to those of the Army Medical Staff, was promulgated in a Royal Warrant dated Dec. 7th, 1891. The articles of

this Warrant were ordered to take effect from Aug. 7th, 1891, the date of the Medical Staff Warrant. By this Warrant the ranks of the medical officers in the Indian military forces were declared to be substantive ranks, and to carry with them the same precedence and other advantages as the corresponding ranks in the Army Medical Staff, including command over the medical officers and subordinates, native and European, engaged in hospital service. The functions of military command is subject to the same restrictions as in the British service. An important provision of this Warrant is that Surgeon-Lieutenants "shall be promoted" to the rank of Surgeon-Captain on completing three years' full-pay service, Surgeon-Captains to the rank of Surgeon-Major after twelve years' service, and Surgeon-Majors to the rank of Surgeon-Lieutenant-Colonels after twenty years' service. No examination to qualify for promotion is required. All promotions to higher grades are to be given by selection for ability and merit. In case of distinguished service in the field a medical officer may be at once promoted from any rank to the one next above it. The ages for compulsory retirement are the same as those for the Medical Staff.

Surgeons are promoted to Staff Surgeons after twelve years from date of entry, provided they pass the requisite examination; and Staff Surgeons to Fleet Surgeons after twenty years' service if recommended by the Director-General. Deputy Inspectors-General are promoted by selection from the Fleet Surgeons, and Inspectors-General from the Deputy Inspectors-General having three years' foreign, four years' mixed, of which not less than two have been abroad, or five years' home service in such appointments as preclude foreign service, provided they have not refused to go abroad when called upon to do so. Inspectors and Deputy Inspectors-General are retired compulsorily at sixty, and other grades at fifty-five years of age, and all ranks at any time if they have not served for five years. In calculating service for retired pay time on half-pay will be taken as equivalent to one-third service on full-pay.

The following tables, showing the rates of pay and half-pay of the three branches, will probably be acceptable to students who entertain any intention of entering the public service:—

ARMY.			
Rank.	Rates of Pay.	Gratuities.	With the Rank of
	Daily.		
Surgeon on probation ..	£0 8 0 ..	— ..	—
	Annual.		
Surg.-Lieut. or Surg.-Captain ..	200 0 0 ..	..	Lieut. or Capt.
Surg.-Capt. aft. 5 years' service ..	250 0 0 ..	— ..	Captain
	Daily.		
Surg.-Capt. aft. 10 years' service ..	0 15 0 ..	£1250* ..	Captain
Surg.-Major or Surg.-Lieut.-Col. ..	1 0 0 ..		
Surg.-Major or Surg.-Lieut.-Col. aft. 15 years' service ..	1 2 6 ..	£1800* ..	Maj. or Lt.-Col.
Surg.-Major or Surg.-Lieut.-Col. aft. 18 years' service ..	— ..	£2500* ..	Maj. or Lt.-Col.
			Half-pay. †
Surgeon-Lieut.-Col. :			
" aft. 20 years' service ..	1 5 0 ..	£1 0 0 ..	Lieut.-Colonel
" 25 ..	1 7 6 ..	1 2 6 ..	
" 30 ..	— ..	1 5 0 ..	
Brigade Surgeon Lieut.-Col. 1 10 0 ..	— ..	— ..	Lieut.-Colonel
" aft. 5 years in rank 1 13 0 ..	— ..	— ..	(but always senior to
" und. 30 years' service ..	— ..	1 7 6 ..	Surgeon-Lieut.-Col.)
" aft. 30 ..	— ..	1 10 0 ..	
Surgeon-Colonel ..	2 0 0 ..	1 15 0 ..	Colonel
Surgeon-Major-General ..	2 15 0 ..	2 0 0 ..	Major-General

\* Applies equally to Surgeon-Lieutenant-Colonel, Surgeon-Major, Surgeon-Captain or Surgeon-Lieutenant, according to periods of service—i.e., ten, fifteen or eighteen years.

† Half-pay is also applicable to the ranks junior to Surgeon-Lieutenant-Colonel after twenty years' service, as follows:—

Surgeon-Lieut.-Col., Surg.-Major, Surg.-Capt., or Surg.-Lieut. :		Daily.
Under 5 years' service ..	..	£0 0 0
After 5 ..	..	0 8 0
After 10 ..	..	0 10 0
After 15 ..	..	0 13 0

ROYAL NAVY.

Rank.	Daily pay.	Half-pay.	Gratuities and retired pay.	
			Rank.	Gratuity.
Surgeon	£ 8. d.	£ 8.	Surgeon and Staff	
aft. 2 years' f. p. in rank	0 11 6	0 6	Surgeon:	
4	0 13 6	0 7	aft. 3 years' f. p. £1000	
6	"	0 8	12 " " 1500	
8	0 15 6	0 10	16 " " 2250	
10	"	0 11		
Staff-Surgeon:			Fleet-Surgeon. Daily.	
on promotion	1 1 0	0 12	aft. 20 years' £1 0 0	
aft. 2 years' f. p. in rank	1 4 0	0 13	24 " " 1 2 0	
4	"	0 14	27 " " 1 5 0	
6	"	0 15	30 " " 1 10 0	
Fleet Surgeon:				
on promotion	1 7 0	0 17		
aft. 2 years' f. p. in rank	"	0 18		
4	1 10 0	0 19		
6	"	1 0		
8	1 13 0	"		
Deputy Inspector-General:				
on promotion	2 2 0	1 5		1 15 0
aft. 2 years' f. p. in rank	"	1 7		
4	"	1 9		2 0 0
Inspector-General	2 15 0	1 18		

INDIAN MEDICAL SERVICE.

From date of leaving Netley till embarkation, 10s. per diem. Pay and allowances in India.

Rank.	Years' service.	Indian pay and allowances per Mensem.	
		When not holding an appointment carrying higher pay.	
		Rs. a. p.	
Brigade-Surgeon and	25 and over	888 12 0	
Surgeon-Major	20 "	852 3 7	
"	15 "	677 6 11	
"	12 "	640 14 6	
		A.	B.
		When not receiving any staff allowance.	When receiving staff allowance in addition.
		Rs. a. p.	Rs. a. p.
Surgeon	10 "	451 14 5	410 9 5
"	6 "	433 10 2	392 5 2
"	5 "	335 12 2	304 44 2
"	under 5	317 8 0	286 10 0

METROPOLITAN MEDICAL SCHOOLS HAVING A COMPLETE CURRICULUM.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—The clinical practice of the hospital comprises a service of 750 beds, of which 676 are in the hospital at Smithfield and 75 are for convalescent patients at Swanley.

Eight house physicians and ten house surgeons are appointed annually, each of them holding office for one year, and provided with rooms by the hospital authorities. The ophthalmic house surgeon is appointed for six months, and is eligible for re-election for a second term of six months. A midwifery assistant is appointed every six months and an extern midwifery assistant every three months. The senior assistant chloroformist and junior assistant chloroformist are appointed annually, and are provided with rooms. Two qualified assistant electricians are appointed every three months. No fee is paid for any of these appointments, and each receives a salary of £25. The clinical clerks, the obstetric clerks, the clerks to the medical out-patients, the dressers to the surgical in-patients and to the out-patients, and the dressers in the special departments are chosen from the diligent students. All the appointments are now free.

A college is attached to the hospital, in which students can reside, subject to the college regulations.

Foundation and other Prizes.—Two Open Scholarships in Science of the value of £75 each, tenable for one year, will be competed for in September. Candidates must not be more than twenty-five years of age, and must not have entered to the medical or surgical practice of any metropolitan medical school. The subjects of examination are Physics and Chemistry for the one, Physiology and Biology for the other.—Two Junior Open Scholarships, one of £150

and one of £50, in the subjects of the Preliminary Scientific Examination of the London University, will be competed for at the same time. Candidates must be under twenty years of age, and must become regular students.—The Jeaffreson Exhibition, of the value of £20, is awarded at entrance after examination in the subjects of general education. It is now an Open Exhibition.—A Senior Scholarship, £50, in Anatomy, Physiology and Chemistry.—Kirke's Scholarship and Gold Medal in Clinical Medicine, value 40 guineas.—Lawrence Scholarship and Gold Medal, of the value of 40 guineas (founded in 1873 by the family of the late Sir William Lawrence).—Two Brackenbury Scholarships in Medicine and Surgery, £30 each.—Four Junior Scholarships in the subjects of study of the first year: 1st, £30; 2nd, £20; 3rd, £25; 4th, £15.

A prize of £15 for Anatomy has been founded by the late Mr. Henry Skynner, in memory of his brother; a Scholarship of £50 confined to Cambridge graduates in Arts, by Miss Shuter in memory of her brother, formerly assistant surgeon to St. Bartholomew's Hospital; and a prize of £10 10s. by Sir F. A. Burrows, Bart., in memory of his father, Sir George Burrows.

The Medical School Buildings include three large lecture theatres, a large dissecting room, a spacious library (containing 13,000 volumes) a well-appointed museum of anatomy, physiology, comparative anatomy, materia medica, botany and pathological anatomy. There are laboratories for chemistry, physiology, pathology, pharmacology, public health and biology, giving ample accommodation in every department.

Instruction in Preliminary Science is given to University of London students in chemistry, biology and physics throughout the year.

Laboratory Instruction for the D.P.H. is provided during the second half of the winter and in the summer sessions.

CHARING-CROSS HOSPITAL AND COLLEGE.—Total fees, 110 guineas if paid in a single sum on entry, or 121 guineas if paid in five instalments; for Dental students, 54 guineas, or 60 guineas in two equal instalments. General students pay proportionately lower fees, and are admitted without additional fee to the courses of Clinical Medicine and Surgery and to the practice of the Royal Westminster Ophthalmic Hospital. They alone are entitled to compete for the Scholarships, Gold Medal and Pereira Prize, excepting the Golding Scholarship of £15, for which Dental students can also compete.

Two Entrance Scholarships, of the value of 100 guineas and 50 guineas respectively, are awarded annually at the commencement of each winter session after a competitive examination in the following groups of subjects:—(1) English, including Language, Literature, History and Geography; (2) Latin and Greek; (3) French and German; (4) Mathematics, including Arithmetic, Algebra and Geometry; and Mechanics, including Statics and Dynamics; (5) Chemistry (Inorganic) and Physics, including Acoustics, Heat and Electricity; and (6) Animal and Vegetable Biology. The value attached to each group of subjects is 1000 marks. No candidate may offer himself for examination in more than three of the above groups of subjects, the selection of the groups being left entirely to the candidate. The Scholarships will be awarded by the School Committee to the two candidates who, on the report of the examiners, have shown the highest degree of excellence; but no Scholarship will be awarded unless, in the opinion of the examiners, a satisfactory standard has been attained. In the first four groups the subjects (as regards extent and the authors selected) will be the same as those chosen for the Matriculation Examination of the University of London in the June immediately preceding; in the fifth and sixth the same as those for the Preliminary Scientific Examination of the same University. Candidates must give notice to the Librarian of their intention to compete, and of the groups in which they offer themselves for examination, on or before Saturday, Sept. 17th, 1892. The examination will commence at the School on Monday, Sept. 19th, at 10 A.M. The successful candidates will be required to enter forthwith for their complete medical education at Charing-cross Hospital.

A Scholarship of the value of 50 guineas is open to students from the University of Oxford who have passed the First M.B. Examination, and to students of the University of Cambridge who have passed the Second M.B. Exa-



TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1892-93—(CONTINUED.)

LECTURES, &c.	GUY'S HOSPITAL.				KING'S COLLEGE AND HOSPITAL.			
	LECTURERS.	FEES.		LECTURERS.	FEES.			
		First Course.	Subseqt. Course.		One Course.	Perpetual.		
		£ s. d.	£ s. d.		£ s. d.	£ s. d.		
<b>WINTER SESSION.</b>								
PHYSIOLOGY ... ..	Mr. Golding-Bird, Dr. Washbourn, and Dr. Starling	10 10 0	10 10 0	Dr. Halliburton, Mr. Beale, and Mr. Brodie	8 8 0	...		
ANATOMY, DESCRIPTIVE & SURGICAL... ..	Mr. Clement Lucas & Mr. Jacobson	10 10 0	10 10 0	Dr. Curnow	6 6 0	or 9 9 0 inc. Prac. Anatomy		
ANATOMICAL DEMONSTRATIONS ... ..	Mr. Dunn, Mr. Targott, & Mr. Fripp	10 10 0	10 10 0	Dr. Curnow, Mr. A. S. Kenny, & Mr. A. W. Cadman	7 7 0	...		
CHEMISTRY ... ..	Dr. Stevenson & Mr. Groves	5 5 0	5 5 0	Mr. Thomson, Mr. Johnson, & Mr. Jackson	8 8 0	...		
MEDICINE ... ..	Dr. Pye-Smith	10 10 0	10 10 0	Dr. Beale	8 8 0	...		
SURGERY ... ..	Dr. Taylor	10 10 0	10 10 0	...	8 8 0	...		
PRACTICAL SURGERY ... ..	Mr. Howse & Mr. Davies-Colley	10 10 0	10 10 0	Mr. W. W. Cheyno	8 8 0	...		
HOSPITAL PRACTICE	Mr. Symonds & Mr. Lane	4 4 0	4 4 0	Messrs. Barrow, Carless, & Burghard	3 3 0	...		
	Dr. Pye-Smith, Dr. Taylor, Dr. Goodhart, & Dr. Hale White	3 months 5 6 0	Perpetual 43 0 0	Dr. Beale, Dr. Duffin, Dr. Playfair (acc.), Dr. Burney Yeo, Dr. Hayes (accou.), Dr. Ferrier, Dr. Curnow, Dr. Thraur	Summer 8 8 0 Winter 11 11 0 1 Year 18 18 0	42 0 0		
	PHYSICIANS ... ..	Dr. Galabin (obst.) Drs. Pitt, Perry, Shaw, & Washbourn	6 months 28 7 0	...	Dr. Dalton	...	...	
	ASSISTANT-PHYSICIANS ... ..	Dr. Horrocks (obst.) Mr. Durham, Mr. Howse, Mr. Davies-Colley, & Mr. Lucas	3 months 5 5 0	Perpetual 42 0 0	Dr. Phillips (acc.) Sir Joseph Lister, Bart. Mr. W. Rose & Mr. Cheyno	...	...	
	SURGEONS ... ..	Mr. Higgins (oph.), Mr. Newland-Pedley (dent.), Mr. L. Purves (aural)	6 months 21 0 0 1 year 28 7 0	...	Mr. A. S. Underwood (surg.-dentist) Mr. McHardy (ophthalmic)	...	...	
	ASSISTANT-SURGEONS ... ..	Messrs. Golding-Bird, Jacobson, Symonds, Lane, Bralley (oph.), & Mags (dent.)	...	...	Mr. Barrow Mr. Carless Mr. Burghard	...	...	
	CLINICAL MEDICINE ... ..	Drs. Pye-Smith, Taylor, Goodhart, & White	...	...	Dr. Beale Dr. Duffin Dr. B. Yeo Dr. Ferrier Dr. Curnow	...	...	
	CLINICAL SURGERY... ..	In Summer: Drs. Pitt, Perry, Shaw, & Washbourn Messrs. Durham, Howse, Davies-Colley, & Lucas	...	...	Sir Joseph Lister, Bart. (Emeritus) Mr. W. Rose	...	...	
	CLINICAL MIDWIFERY ... ..	In Summer: Mr. Golding-Bird, Mr. Jacobson, Mr. Symonds & Mr. Lane, Dr. Galabin & Dr. Horrocks	...	...	[Osteology: Dr. Curnow & Mr. A. S. Kenny]	...	...	
		[Medical Classes: Dr. Shaw] [Surgical Classes: Mr. Symonds & Mr. Lane]	...	...	Dr. Playfair & Dr. Hayes	...	...	
<b>SUMMER SESSION.</b>								
MATERIA MEDICA & THERAPEUTICS ... ..	Dr. Hale White	5 5 0	5 5 0	Dr. Tizard	5 5 0	...		
MIDWIFERY &c. ... ..	Dr. Galabin	5 5 0	5 5 0	Dr. Playfair, Dr. Hayes, Mr. Groves	5 5 0 4 4 0	...		
BOTANY ... ..	...	5 5 0	5 5 0	Dr. Halliburton, Mr. Beale, and Mr. Brodie	...	...		
BIOLOGY ... ..	Mr. Boddard, Dr. Campbell, Mr. Targott, and Dr. Fawcett	10 10 0	10 10 0	Dr. W. R. Smith	5 5 0	...		
MEDICAL JURISPRUDENCE ... ..	Dr. Stevenson	5 5 0	5 5 0	Dr. Playfair	...	...		
DISEASES OF WOMEN ... ..	Dr. Galabin	5 5 0	5 5 0	Messrs. Thomson, Johnson, & H. Jackson	6 6 0	...		
PRACTICAL CHEMISTRY ... ..	Mr. Groves and Mr. Wado	5 5 0	5 5 0	Dr. Halliburton, Mr. Beale, and Mr. Brodie	5 5 0	...		
PRACTICAL PHYSIOLOGY ... ..	Mr. Tubby, Dr. Campbell, and Dr. Fawcett	7 7 0	7 7 0	Dr. Ferrier & Dr. Turner	1 11 6	...		
NEURO-PATHOLOGY ... ..	...	...	...	Mr. Beale, Mr. Brodie, Mr. W. G. Adams, Mr. F. J. Bell (in Winter)	8 8 0* 2 2 0 4 4 0	...		
PRACTICAL BIOLOGY ... ..	Mr. Beaard, Dr. Campbell, Mr. Targott, and Dr. Fawcett	10 10 0	10 10 0	Dr. Duffin, Dr. Dalton	3 3 0	...		
NATURAL PHILOSOPHY... ..	Mr. Reinold	5 5 0	5 5 0	Mr. Crookshank & Mr. Hewlett	3 3 0	...		
COMPARATIVE ANATOMY ... ..	...	5 5 0	5 5 0	Mr. A. B. Barrow	2 2 0	...		
<b>PATHOLOGY AND MORBID ANATOMY...</b>								
BACTERIOLOGY ... ..	Drs. Pitt, Perry, & Shaw	5 5 0	5 5 0	Dr. Dalton	...	...		
OPERATIVE SURGERY ... ..	Dr. Washbourn	2 2 0	2 2 0	Mr. McHardy	3 3 0	...		
MORBID HISTOLOGY ... ..	Mr. Symonds	5 5 0	5 5 0	Dr. Ernest White	...	...		
OPHTHALMIC SURGERY ... ..	Dr. Pitt & Mr. Lane	5 5 0	5 5 0	Mr. A. S. Underwood	...	...		
PSYCHOLOGICAL MEDICINE ... ..	Mr. Higgins	3 3 0	3 3 0	Dr. Pritchard	...	...		
DENTAL SURGERY ... ..	Dr. Savage	3 3 0	3 3 0	Dr. Duffin	...	...		
PSYCHOLOGICAL MEDICINE ... ..	Mr. Newland-Pedley	...	...	Mr. Webb	...	...		
DEMONST. OF CUTANEOUS DISEASES... ..	Mr. L. Purves	...	...	Dr. Kelly	1 1 0	...		
VACCINATION ... ..	Dr. Perry	...	...	Mr. Wilmot	3 3 0	...		
PUBLIC HEALTH ... ..	Mr. Turner	3 3 0	3 3 0	[Clin. Therap.: Dr. B. Yeo]	...	...		
PRACTICAL PHARMACY ... ..	Mr. Collier	3 3 0	3 3 0	[Pract. Pathol.: Dr. Dalton]	5 5 0	...		

Fee for Lectures, and Hospital Medical and Surgical Practice ... .. { £150; or by two instalments of £75 10s.; or by four instalments of £37 10s., £37 10s., £31 10s. and £21. [Pract. Pathol.: Dr. Dalton] 5 5 0 ... .. or in two annual instalments of £70; or three of £48; or four of £37 each.

\* Elementary Course, £5 5s.

TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1892-93—(CONTINUED.)

LECTURES, &c.	LONDON HOSPITAL.				ST. MARY'S HOSPITAL.				MIDDLESEX HOSPITAL.			
	LECTURERS.	FEES.			LECTURERS.	FEES.			LECTURERS.	FEES.		
		One Course.	Perpetual.			One Session.	Perpetual.			One Session.	Perpetual.	
		£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.		
<b>WINTER SESSION.</b>												
PHYSIOLOGY ... ..	Mr. Mansell Moullin	7 7 0	...	Dr. Waller	7 0 0	...		Mr. Lowne	10 10 0	...		
EXPERIMENTAL PHYSIOL.	Mr. Mansell Moullin	...	...	Mr. Silcock	...	...		...	6 6 0	...		
PATHOL. & MORBID ANAT.	Dr. James Anderson	3 3 0	...	Dr. Maguire	4 0 0	...		...	...	...		
	Mr. E. Lane	8 0 0	...	Mr. E. Lane	8 0 0	...		Mr. Hensman	12 12 0	...		
ANATOMY, DESCRIPTIVE & SURGICAL.	Mr. F. Treves	7 7 0	...	Dr. Hill	...	...		Messrs. Hensman, Brodie, Hartley, & Wells	6 6 0	...		
ANATOMICAL DEMONSTRATIONS.	[Pract. Anat.: Mr. T. H. Openshaw]	7 7 0	...	Mr. Roughton	...	...		Mr. W. Foster	7 7 0	...		
CHEMISTRY ... ..	Pract.: Mr. Page	...	...	Dr. Wright, F.R.S.	6 0 0	...		Mr. W. Foster	7 7 0	...		
	[Exp. Phys.: Mr. Page]	5 5 0	...	Mr. Leon	...	...						
		3 3 0	...									
MEDICINE ... ..	Dr. Stephen Mackenzie	7 7 0	...	Dr. Cheadle	8 0 0	...		Dr. Cayley	10 10 0	...		
SURGERY ... ..	Mr. McCarthy	7 7 0	...	Dr. Lees	8 0 0	...		Mr. H. Morris	10 10 0	...		
PRACTICAL SURGERY... ..	Mr. J. Hutchinson, jun.	5 5 0	...	Mr. Owen	8 0 0	...		Mr. A. Clark	8 8 0	...		
PRACTICAL MIDWIFERY ...	Drs. Hermau & Lowers	5 5 0	...	Mr. Page	4 0 0	...		Dr. Boxall	5 5 0	...		
PRACTICAL MEDICINE ...	...	...	...	Mr. Pepper, Mr. Crowley (assistant)	...	...		Drs. Coupland & Pringle	8 8 0	...		
HOSPITAL PRACTICE:				...	...	...		Dr. W. Cayley	3 mths.	...		
	Drs. H. Jackson, Fenwick, Mackenzie, Sanson, Turner, Herman (obst.), Smith, Warner, Ralfe,	3	26 5 0	Dr. Broadbent	3	24 0 0		Dr. Coupland	6 11 0	...		
PHYSICIANS ... ..	Lowers (obst.)	...	...	Dr. Cheadle	4 0 0	...		Dr. D. Powell	...	...		
	Dr. Anderson	10 10 0	...	To Out-patients:	6	...		Dr. Fowler	...	...		
	Dr. Percy Kidd	6	...	Drs. Sidney Phillips, Maguire, and Luff	7 0 0	...		Dr. W. Duncan (obst.)	...	...		
	Dr. J. F. Smith	15 15 0	...	...	1 year	...		Dr. Pringle (skin)	...	...		
	Mr. W. Tay (Oph.)	3	26 5 0	Dr. Handfield Jones (obs.)	...	...		Dr. Bliss	...	...		
ASSISTANT-PHYSICIANS ...	Mr. McCarthy	...	...	...	...	...		Dr. W. Pastour	...	...		
	Mr. F. Treves	10 10 0	...	Mr. Norton	3	24 0 0		Dr. W. E. Wynter	...	...		
	Mr. C. Mansell Moullin	6	...	Mr. Owen	4 0 0	...		Mr. Hulke	3 mths.	...		
	Mr. Hurry	15 15 0	...	Mr. Page	4 0 0	...		Mr. G. Lawson	6 11 0	...		
	Fenwick	1 year	...	To Out-patients:	6	...		Mr. Morris	...	...		
	Dr. Woakes & Mr. T. M. Howell (Aur.)	21 0 0	...	Mr. Pepper	7 0 0	...		Mr. Andrew Clark	...	...		
	Mr. Barrett (Dent.)	...	...	Mr. Silcock	7 0 0	...		Mr. S. Bennott (dental)	...	...		
		...	...	Mr. J. E. Lane	1 year	...		Mr. Lang (oph.)	...	...		
		...	...	Mr. Critchett & Mr. Juler (ophth.)	12 0 0	...		Mr. Hensman (aural)	...	...		
ASSISTANT-SURGEONS ...	Mr. Eyo (Ophthal.)	...	...	Mr. Field (aur.)	...	...		Mr. Pearce Gould	...	...		
	Mr. J. Hutchinson, jun., Mr. Openshaw,	...	...	Mr. Morris (skin)	...	...		Mr. J. B. Sutton	...	...		
	Mr. H. P. Dean	...	...	Mr. Morton Smale (dental)	...	...		Mr. W. Hern (assist. dental)	...	...		
CLINICAL MEDICINE ... ..	The Physicians and Asst.-Phys.	...	...	Dr. Broadbent	...	...		The Physicians	...	...		
CLINICAL SURGERY ... ..	The Surgeons and Asst.-Surg.	...	...	Mr. Norton	...	...		The Surgeons	...	...		
<b>SUMMER SESSION.</b>												
MATERIA MEDICA... ..	{ Dr. Warner and a Demonstrator	4 4 0	...	Dr. Phillips	4 0 0	...		Superintend. of P.-M. exam.: Dr. F. Voelcker	...	...		
THERAPEUTICS ... ..	Dr. Hornum	5 5 0	...	Dr. Phillips	5 0 0	...		Dr. Biss	2 2 0	...		
MIDWIFERY, &c. ... ..	...	...	...	Dr. M. H. Jones	3 0 0	...		Dr. W. Duocan	6 0 0	...		
BOTANY ... ..	...	...	...	...	...	...		No lectures	...	...		
MEDICAL JURISPRUDENCE	Dr. F. J. Smith	4 4 0	...	Dr. Luff	4 0 0	...		Dr. Pasteur	5 5 0	...		
TOXICOLOGY ... ..	Dr. F. J. Smith	4 4 0	...	Dr. Luff	...	...		Mr. W. Foster	5 5 0	...		
PRACTICAL CHEMISTRY ...	Mr. Page	5 5 0	...	Dr. Wright	4 0 0	...		Mr. J. B. Sutton	4 4 0	...		
ORGANIC CHEMISTRY ... ..	...	...	...	...	...	...		Dr. Voelcker	6 0 0	...		
BIOLOGY ... ..	Mr. H. P. Dean	...	...	...	...	...		Dr. Fowler	3 3 0	...		
PATHOL. HISTOLOGY... ..	Mr. Eyo	3 3 0	...	...	...	...		Mr. A. Clark	5 5 0	...		
PATHOLOGY AND MORBID ANATOMY.	Dr. James Anderson	3 3 0	...	Mr. Silcock	2 2 0	...						
OPERATIVE SURGERY ... ..	Mr. McCarthy & Mr. J. Hutchinson, jun.	5 5 0	...	Dr. Maguire	...	...						
PRACTICAL PHYSIOLOGY... HISTOLOGY AND THE MICROSCOPE.	Mr. Mansell Moullin	4 4 0	...	Mr. Pepper	...	...						
OPHTHALMIC SURGERY ...	Mr. Mansell Moullin (& in Winter)	...	...	...	...	...						
ANESTHETICS ... ..	Mr. Eyo	2 2 0	...	Dr. Waller	...	...		{ Messrs. Lowne, Karop, Young, & Dobbin }	5 5 0	...		
AURAL SURGERY ... ..	Dr. Howitt	2 2 0	...	Mr. Juler	...	...		Mr. Lang	...	...		
DENTAL SURGERY ... ..	Dr. Woakes	2 2 0	...	Mr. Davis	2 2 0	...		Mr. G. E. Norton	1 1 0	...		
	Mr. Barrett	2 2 0	...	Mr. Field	...	...		Mr. Hensman	...	...		
		...	...	Mr. Morton Smale	3 0 0	...		Mr. Storer Bennott (in Winter)	...	...		
DISEASES OF THE SKIN ...	Dr. Steph. Mackenzie	...	...	Mr. Morris	3 0 0	...		Dr. Pringle	...	...		
PSYCHOL. MEDICINE ... ..	...	...	...	Mr. J. C. Ighton-Brown	3 0 0	...		Dr. Lieble	2 2 0	...		
	...	...	...	Dr. Spicer	3 3 0	...		Mr. Hensman	...	...		
DISEASES OF THE THROAT	Mr. Mark Howell	2 2 0	...	...	...	...		Mr. Pardon	3 3 0	...		
PRACT. PHARM. & DISPENS.	Mr. Robertson	3 3 0	...	Perpetual studentship £130; or, 1st year, £40; 2nd year, £40; 3rd year, £30; 4th year, £25.	...	...		[Pub. Health; Dr. Pa tour]	...	...		
Fee for all the Lectures required by the Colleges and Hall, and Hospital Medical and Surgical Practice ... ..		120 guineas; or 130 guineas by 3 instalments.						£105 0				

\* London Hosp.: Pub. Health and Hygiene, Dr. Ralfe, Mr. Eyo, Mr. Page, Dr. Hadley, and Dr. Schorstein; and in the Winter. Fee for the whole course for D.P.H., including material, £21. Medical Tutor, Dr. Soltan Fenwick; Surgical Tutor, Mr. Jonathan Hutchinson, jun.  
 † St. Mary's Hosp.: Med. Tutor, Dr. S. Phillips and Dr. Luff; Obst. do., Dr. H. Jones; Surgical do., Mr. Crowley—throughout year thrice weekly.  
 ‡ Middlesex Hospital: Medical Tutor, Dr. S. Martin; Surgical Tutor, Mr. Pearce Gould. § In Winter.

TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE LONDON HOSPITALS AND MEDICAL SCHOOLS, FOR THE SESSION 1892-93—(CONTINUED.)

LECTURES, &c.	ST. THOMAS'S HOSPITAL AND SCHOOL.				UNIVERSITY COLLEGE AND HOSPITAL.				WESTMINSTER HOSPITAL.			
	LECTURERS.	FEES.			LECTURERS.	FEES.			LECTURERS.	FEES.		
		One Course.	Perpetual.			One Course.	Perpetual.			First Course.	Subseqt. Course.	
		£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.		
<b>WINTER SESSION.</b>												
PHYSIOLOGY ... ..	Dr. Sherrington	10 10 0	...						Dr. Abraham	0 0 0	2 2 0	
PRACTICAL PHYSIOLOGY AND HISTOLOGY	*Dr. T. C. Charles [Mr. Kent]	10 10 0	...	*Professor E. A. Schäfer	3 5 & 7 gs.	...		Dr. Abraham and in Summer	2 2 0	2 2 0		
PHYS. DEMONSTRATIONS...	Dr. Sherrington & Mr. Anderson	10 10 0	...	*Prof. Schäfer and Mr. J. B. Parsons	2 4 & 7 gs.	...		Mr. Black	7 7 0	3 3 0		
ANATOMY, DESCRIPTIVE AND SURGICAL	Mr. Makins	10 10 0	...	Prof. Thane	10 10 0	...		Mr. Stonham	5 5 0	3 3 0		
ANATOM. DEMONSTRATIONS ...	Messrs. Anderson & Makins,	12 mths.	...	Mr. Pollard	8 8 0	...		[Morbid Histology: Dr. Hebb]				
	Messrs. Parsons, Abbott, & Robnson*	10 10 0	...	Dr. P. Flomming	2 2 0	...		...				
PATHOLOGICAL ANATOMY ...	Dr. Haddon (Practical Course)	8 8 0	...	Mr. G. F. Blacker	3 3 0	...		...				
CHEMISTRY ... ..	Mr. Dunstan	7 7 0	...	Dr. W. J. Mickle (Mental Phys.)	6 6 0	...		Dr. Dupré and Dr. Wilson Haak	6 6 0	2 2 0		
MEDICINE ... ..	Dr. Ord	7 7 0	...	Prof. Horsley (Pract. Path.)	9 9 0	11 11 0		Dr. Sturges	6 6 0	...		
SURGERY ... ..	Sir W. Mac Cormac	7 7 0	...	Prof. Ramsay and Plimpton	7 7 0	8 8 0		Dr. Allohin	6 6 0	...		
GENERAL PATHOLOGY ... ..	Sur.: Mr. Shattock	5 5 0	...	Prof. H. C. Bastian	7 7 0	8 8 0		Mr. Cowell	4 4 0	2 2 0		
NATURAL PHILOSOPHY ... ..	...	5 5 0	...	Prof. Marcus Beck	1 11 0	...		Mr. Macnamara	4 4 0	2 2 0		
HOSPITAL PRACTICE:				[Chem. Physics: Prof. Foster]	12 mths.	38 15 0		Dr. Hobb	...	...		
PHYSICIANS ... ..	Drs. Ord, Harley, & Payne,	3 mths. 21 0 0	73 10 0	Drs. Ringer, Bastian, Roberts, Poore, Barlow, Williams (obst.), & Crocker (Skin)	21 0 0	...		Dr. Somerville	...	...		
	Sbarkey, Cullingworth (Obst.),	6 mths. 20 5 0						[New. & Alienism: Dr. Mercier, £2 2s.]	3 mths. 5 5 0	6 mths. 8 8 0		
	Somon (Throat)	1 year 38 15 0						Dr. Hall	...	...		
ASSISTANT-PHYSICIANS ...	Drs. Hadden, Acland, and Hawkins, Cory (obst.)			Drs. Bradford, Spencer (obst.), and Martiu	...	...		Dr. Bennett	...	...		
								Dr. Murrall	...	...		
								Dr. Hobb	...	...		
SURGEONS ... ..	Sir Wm. Mac Cormac, Mr. MacKellar, Mr. Clutton, Mr. Anderson, Mr. Nettleship (ophthal.)			Profs. C. Heath and M. Beck	...	...		Dr. Grigg (Obst.)	...	...		
				Mr. A. E. Barker	...	...		Dr. Hall (Throat)	...	...		
				Mr. R. J. Godlee	...	...		Mr. Cowell	3 mths. 5 5 0	...		
				Prof. J. Tweedy	...	...		Mr. Davy	5 5 0	...		
				Mr. Hutchinson (dent.)	...	...		Mr. Macnamara	6 mths. 8 8 0	...		
				Org. Chemistry: *Prof. Ramsay	3 3 0	...		Dr. Walker (dent.)	8 8 0	...		
ASSISTANT-SURGEONS ...	Messrs. Pitts, Makins, Battle, & Ballance (Aural), Mr. Lawford (Ophthal.)			Prof. V. Horsley & Mr. Bilton Pollard	...	...		[Ophth. Prac.: Mr. Cowell]	...	...		
								[Orthopaedic: Mr. Davy]	...	...		
								[Aural: Mr. Black]	...	...		
CLINICAL MEDICINE ... ..	The Physicians	...	...	The Physicians	...	...		Messrs. Cooke, Bond, Stonham, & Spencer	...	...		
CLINICAL SURGERY ... ..	The Surgeons in rotation	...	...	The Surgeons	...	...		The Physicians	...	...		
CLINICAL MIDWIFERY, &c. ...	Dr. Cullingworth [Vac.: Dr. Cory] [Obstet. Demons.: Dr. Cory]	...	...	Dr. Williams	...	...		The Surgeons	...	...		
				Dr. H. Spencer [Bacteriol., £4 4s. for Univ. Coll. students; £8 8s. for others.]	...	...		Dr. Potter	...	...		
<b>SUMMER SESSION.</b>												
MATERIA MEDICA, &c. ... ..	Dr. Hadden	5 5 0	...	Prof. Roberts	6 6 0	7 7 0		Dr. Murrall	3 3 0	...		
MIDWIFERY, &c. ... ..	Dr. Cullingworth	6 6 0	...	Prof. Williams	6 6 0	7 7 0		Dr. Potter	4 4 0	1 1 0		
BOTANY ... ..	Mr. A. W. Bennett	3 3 0	...	Prof. Oliver	3 13 0	...		...	...	...		
MEDICAL JURISPRUDENCE ...	Dr. Cory	5 5 0	...	Prof. G. V. Poore	5 5 0	6 6 0		Mr. Bond, Dr. Grigg	8 3 0	1 1 0		
PRACTICAL CHEMISTRY ... ..	& Mr. MacKellar	6 6 0	...	Dr. Ramsay	5 5 0	...		Dr. Dupré (Tox.)	4 4 0	2 2 0		
STATE MEDICINE ... ..	Mr. Dunstan	6 6 0	...	Prof. Corfield	1 1 0	...		Dr. Wilson Haak	...	...		
MENTAL DISEASES ... ..	Dr. Rayner	3 3 0	...	Dr. Mickle	3 3 0	...		Dr. Mercier	2 2 0	...		
HYGIENE AND PUB. HEALTH...	Dr. E. Seaton	3 3 0	...	As in Winter	...	...		Dr. M. Copeman	1 1 0	...		
CLINICAL MEDICINE ... ..	The Physicians	...	...		...	...		...	...	...		
COMPARATIVE ANATOMY... ..	Mr. Parsons (with Zoology)	2 2 0	...	†Prof. Weldon	6 6 0	...		...	3 3 0	...		
PATHOLOGY & MORB. ANATOMY	Dr. Sharkey	8 8 0	...	Prof. Horsley	6 6 0	7 7 0		Dr. Hobb	4 4 0	...		
BACTERIOLOGY ... ..	...	...	...	Prof. Boyce	4 4 0	...		Mr. Cowell	1 1 0	†		
OPHTHALMIC SURGERY ... ..	§Mr. Nettleship	3 3 0	...	†Prof. J. Tweedy	2 2 0	...		Dr. Walker	2 2 0	†		
DENTAL SURGERY ... ..	§Mr. Lawford	...	...	†Mr. S. J. Hutchinson	...	...		Mr. Davy	5 5 0	...		
PRACTICAL SURGERY ... ..	Mr. Truman	...	...	†Mr. Bilton Pollard	6 6 0	...		Mr. Spencer	...	...		
	Messrs. MacKellar, Pitts, & Ballance	6 6 0	...	†Mr. R. J. Godlee	...	...		...	...	...		
PRACTICAL MEDICINE ... ..	Dr. Acland	3 3 0	...	†Mr. Barker	...	...		...	...	...		
ELEMENTARY BIOLOGY ... ..	Dr. Hawkins	3 3 0	...	Profs. Weldon & Oliver†	4 4 0	...		...	...	...		
PRACTICAL OBSTETRICS ... ..	§Mr. Parsons	6 6 0	...	*Mr. R. J. Godlee	5 5 0	...		...	4 4 0	...		
OPERATIVE SURGERY ... ..	Drs. Cory & Tuto	3 3 0	...	Mr. Gerrard	3 3 0	...		Mr. Tauner	6 6 0	...		
PRACTICAL PHARMACY ... ..	Mr. Pitts	5 5 0	...					...	2 2 0	...		
	Mr. Ballance	3 3 0	...									
	Mr. White	3 3 0	...									

Fees for Lectures and Hospital Practice { 150 gns.; or by two instalments, £85 and £72 10s.; or by four instalments, £65, £50, £30, and £12 10s. } £138 10s.; or by instalments, £63, £52 10s., and £26 5s. } £116; or two instalments of £60 each; or six instalments of £27 and £17 alternately.

\* In Summer. † In Winter. ‡ Free to students of the hospital. § Winter and Summer.

mination, and who have not entered at any London medical school. Subjects: Anatomy and Physiology, including Histology. The examination for this Scholarship, which will be partly practical, will be held on Sept. 19th and 20th. Notice to compete must be sent in on or before Saturday, Sept. 17th, 1892. The successful candidate will be required to enter forthwith at Charing-cross Hospital for the completion of his curriculum. The Llewellyn Scholarship of £25, for students who have just completed their attendance on lectures; and the Golding Scholarship of £15, for both General and Dental students who have just completed their first year. The Pereira Prize of £5 is open to all general students, and is awarded annually for the best clinical reports. The Governors' Gold Medal is given for excellence in clinical work. Silver or Bronze Medals, or an equivalent in Books, are awarded to the most distinguished students in all classes; and special prizes in the classes of Dental Surgery, Physiology and Practical Histology. In consequence of the larger number of students year by year joining the school it was found necessary in 1889 to increase the accommodation for practical instruction. The adjoining premises were therefore acquired, and on the space thus gained there have now been erected new buildings, including physiological and pathological laboratories, a materia medica museum and an anatomical theatre. The existing dissecting-room and the chemical theatre have been enlarged. A larger and well-lighted room has been provided for the pathological museum and the space thus set free has been devoted partly to the enlargement of the library, but chiefly to the providing of a reading-room for the Students' Club.

Classes for the Preliminary Scientific Examination of the University of London are held at this Medical School. The fee for the whole course, which begins in October, is 15 guineas.

**ST. GEORGE'S HOSPITAL.**—Perpetual pupils, by payment of £150 in three instalments, or £145 in one sum, are entitled to admission to the medical and surgical practice; to compete for prizes and exhibitions; to hold the appointments of house physician and house surgeon, assistant house physician and assistant house surgeon, ophthalmic assistant, and to become clinical clerks for two periods of three months each, and dressers for similar periods, free of any charge. Gentlemen are admitted to the hospital practice and lectures required by the College of Physicians and Surgeons and the Society of Apothecaries on payment of £45 at the commencement of the first year of study, £45 at the commencement of the second year of study, £40 for the third and £20 for each subsequent year of attendance. On payment of the fourth instalment the pupil may become perpetual, provided that the Dean can certify that his conduct has been satisfactory. These payments entitle the pupil to hold the offices of clinical clerk and dresser for three months each, and to become a candidate for the offices of house physician and house surgeon. Perpetual pupils are eligible for the offices of curator of the museum, medical and surgical registrar, demonstrator of anatomy and obstetric assistant. These are all salaried offices. The obstetric assistant is resident, with a salary of £100.

**Entrance Scholarships.**—£145, open to sons of medical men; two of £50 each, open to all students commencing their medical studies; two of £65 each, open to students who have been signed up for or passed the Oxford First M.B. or Cambridge Second M.B.

**Prizes.**—The William Brown Exhibition of £100 per annum, tenable for two years, open to any perpetual pupil of St. George's who is under twenty-five years of age, and who shall have obtained a diploma or licence entitling him to be registered as a practitioner of medicine or surgery in England within two years previously to the period fixed for the examination (July). The examination is to test the proficiency of the candidate in Medicine, Midwifery and Surgery, including Ophthalmic Surgery.—The William Brown Exhibition of £40 per annum, tenable for three years, for general fitness for the exercise of the medical profession and for moral conduct, open to perpetual pupils in their third year of study.—Sir Charles Clarke's Prize (interest of £200 consols) for good conduct and for clinical work rendered in the service of the hospital; the Brackenbury Prize in Medicine, value £32; the Brackenbury Prize in Surgery, value £32; the Treasurer's Prize, £10 10s.; the Thompson Medal; the Brodie Prize for Clinical Surgery; the Acland Prize for Clinical Medicine; the Pollock Prize

in Physiology; the Henry Charles Johnson Prize in Anatomy; and General Proficiency Prizes, value £10 10s. each, for students of each year.

**GUY'S HOSPITAL.**—*Appointments:* House physicians, house surgeons, assistant house physicians and assistant house surgeons, obstetric residents, clinical assistants, surgeons' and assistant surgeons' dressers, surgical ward clerks, clinical clerks, post-mortem clerks, extern obstetric attendants and dressers and clerks in the special departments are appointed from among the students upon the recommendation of the medical staff, according to merit and without extra payment. The house physicians, of whom there are four, hold office for six months each. The assistant house physicians, who hold office for three months, attend in the Out-patient Department four afternoons in the week, and see all the cases not seen by the assistant physician of the day. The house physicians have the care of the patients in the medical wards, and attend to all emergencies arising in the absence of the physicians. They are provided with board and lodging in the college free of expense. The house surgeons, of whom there are four, hold office for six months each, and are provided with board and lodging in the college free of expense. The Surgical Casualty Department is in charge of two assistant house surgeons. The surgeons' dressers are selected from those students who have completed their third winter session, and have been most diligent in the junior appointments. They hold office for three or six months. Six are attached to each surgeon, and during their weeks of special duty they are provided with board and lodging in the hospital free of expense. The obstetric residents, two in number, are provided with board and lodging in the college free of expense.

*Scholarships, Prizes etc.*—Entrance Scholarships in Arts (£131 5s. and £52 10s.). Subjects: Latin, Greek, French, German and Mathematics.—Entrance Scholarships in Science (£131 5s. and £52 10s.). Subjects: Inorganic Chemistry, Zoology, Botany and Physics. The examination begins on Tuesday, Sept. 27th.—First-year students: First prize £50, second prize £25, for Anatomy, Physiology and Chemistry; the Arthur Durham Prize for Dissection, £5 to first-year students, £15 to those of later years.—For second-year students: First prize £25, second prize £10, for Anatomy, Physiology and Materia Medica. The Sands Cox Scholarship of £15 (tenable for three years) for Physiology. The Michael Harris prize of £10 for Anatomy.—For third-year students: First prize £25, second prize £10, for Medical and Surgical Anatomy, Midwifery and Therapeutics. The Beane Prize of 30 guineas for Materia Medica.—For fourth-year students: First prize £25, second prize £10, for Medicine, Surgery, Midwifery and Medical Jurisprudence. The Golding Bird Prize of £33 for Methods of Diagnosis in Disease.—For senior students: The Treasurer's Gold Medal for Clinical Medicine; the Treasurer's Gold Medal for Clinical Surgery; the Gurney Hoare Prize of £25 for Clinical Reports and Commentaries; and the Beane Prize of 30 guineas for Pathology. The Physical Society awards a prize of £5 to the author of the best Essay on a selected subject; a prize of £7 for the best paper read before the Society, and two prizes of £4 to the members who have most distinguished themselves in the debates of the session.

*Fees.*—1. A perpetual ticket, including admission to lectures, demonstrations and hospital practice, competition for prizes and eligibility for hospital appointments, may be obtained—(a) by the payment of £150 on entrance; (b) by two payments of £75 10s., one on entrance, the other at the commencement of the ensuing session; (c) by the payment of four annual instalments at the commencement of each academical year: first year £52 10s., second year £52 10s., third year £31 10s., fourth year £21. 2. A reduction is made in the fees for a perpetual ticket in the case of students who have spent one or more years at another medical school. Students entering as second-year students are charged for their first year at Guy's Hospital £52 10s., second year £42, third year £42, or £130 in one sum on entrance. Students entering as third-year students are charged for their first year at Guy's Hospital £52 10s., second year £31 10s., or £80 in one sum on entrance. This fee is payable by Cambridge students who have passed in Anatomy and Physiology at the Second M.B. Examination.

*The College.*—The College stands upon a site fronting the

east gate of the hospital, and is connected with it by a subway. The building has been planned to serve as a Residential College for Students, and at the same time to provide accommodation for the Students' Club.

**KING'S COLLEGE.**—The physicians' assistants, the physician-accoucheur's assistant, the ophthalmic clinical assistant, the senior clerks, and the house surgeons and senior dressers are selected by examination, whilst the junior clerkships and dresserships are appointed in order, in consideration of their former work in the medical school, from among these matriculated students. Rooms and commons are provided at the hospital for the resident officers free of charge. Rooms are provided within the walls of the College for the residence of matriculated students.

*Scholarships.*—Warneford Scholarships: Two of £25 per annum for three years for Literature. One additional Scholarship of £25 per annum for two years will be awarded this year. Science: One of £30 and one of £20 each for two years. Sambrooke: One of £60 and one of £40 for Science. Rabbeth Scholarship of £20 per annum for Science. College Scholarships: One of £40 per annum for two years; one of £30 for one year; three of £20 for one year. The Daniell Scholarship for Chemistry, of the annual value of £20. Sambrooke Registrarships, of the annual value of £50 each, and tenable for two years, are open to all matriculated students who have filled any one of the higher appointments of the hospital, or who have become Associates. The Leathes Prizes, value £7, and the Warneford Prizes, value £40, are given annually amongst the matriculated medical students. A Surgical Clinical Prize of £3 is given. The Todd Medical Clinical Prize consists of a bronze medal and books to the value of £4 4s. The Tanner Prize for Obstetric Medicine, value £10, and the Carter Gold Medal and Prize for Botany, value £15, are given annually in July. Class Prizes, value £3 3s. each, are awarded annually in every subject. A Warneford Scholarship of £25 per annum for two years for third-year subjects is awarded annually to resident students only.

**LONDON HOSPITAL AND COLLEGE.**—The Medical School of the London Hospital has lately been entirely remodelled and rebuilt. The present buildings were opened by their Royal Highnesses the Prince and Princess of Wales on May 21st, 1887, the accommodation now afforded being more than double that which was provided in the old buildings. The hospital, which is the largest in Great Britain, contains nearly 800 beds. Last year the number of in-patients was 9455, out-patients 112,092 and the number of accidents 1144.

The following Scholarships and Prizes will be offered for competition during the ensuing winter and summer sessions:—Two Entrance Scholarships in Natural Science, of the value of £75 and £50 respectively, will be offered for competition on September 28th, 29th, and 30th, 1892. The subjects are Physics, Botany, Zoology and Inorganic Chemistry. The successful candidates must forthwith become full pupils of the hospital and school, if not already entered, and are not eligible to compete for the Buxton Scholarships.—The two Buxton Scholarships, value £30 and £20, will be offered for competition on October 5th, 6th, and 7th, 1892. The subjects are those appointed by the General Council of Medical Education and Registration as the subjects of the Preliminary Examination.—A Scholarship, value £25, in Anatomy, Physiology, and Chemistry, will be competed for at the commencement of the summer session by first and second-year students.—A Scholarship, value £20, in Anatomy and Physiology, for first-year students. (At the end of the summer session.) The Letheby Prize, value £30, for proficiency in Chemistry. (At the end of the summer session.) Open to all full students who have completed their second summer session up to the termination of their fourth year from entrance.—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Medicine. (At the end of the winter session.)—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Surgery. (At the end of the winter session.)—A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Obstetrics. (At the end of June.)—The Sutton Scholarship, value £20, in Pathology.—The Duckworth Nelson Prize, value £10, will be offered biennially for competition at the end of the winter session, and be open to all students on similar conditions to those of the Hospital Scholarships. The sub-

jects of examination will be Practical Medicine and Surgery.—The Hutchinson Prize, value £35, will be given triennially to the author of the best essay upon a subject in Clinical Surgery. Candidates must be full students of the hospital who have not been registered more than ten years.—Out-patients' Dressers' Prizes. Six prizes, of the aggregate value of £60, will be offered for competition at the end of the winter session. Candidates must pass an examination in Minor Surgery, and have dressed diligently for twelve months.—Practical Anatomy Prizes, value £6 and £4.

Special classes are held throughout the year for the Preliminary Scientific Intermediate M.B. Examinations of the University of London and for the Primary and Pass Examinations for the Fellowship of the Royal College of Surgeons. Special entries can also be made for Medical and Surgical Practice, the Operative Surgery classes &c.

Instruction is given throughout the year in all the details required for the diploma in Public Health.

In addition to the regular courses of lectures, there will be given during the winter and summer sessions a course of lectures on Clinical Medicine by Sir Andrew Clark, Bart., F.R.S., Emeritus Professor of Clinical Medicine, and a course of lectures on Clinical Surgery by Mr. Jonathan Hutchinson, F.R.S., Emeritus Professor of Clinical Surgery.

**ST. MARY'S HOSPITAL.**—There are three house physicians and three house surgeons, each appointed for six months, and two obstetric officers, each appointed for six months. They board free of expense in the hospital, except that the obstetric officer resides outside the hospital for the first three months. These appointments are awarded after competition, without additional fee. Two demonstrators of anatomy are appointed annually, with a salary of £70 and £50 respectively; and a demonstrator of physiology, at £100 a year. All these officers are eligible for re-election. There is also a demonstratorship in pathological anatomy twice annually, of the value of £15, and tenable for six months; the holder of this scholarship will assist the pathologist in the discharge of duties in the museum and deadhouse. Two prosectors of anatomy and two assistant demonstrators of physiology are appointed annually, and receive a certificate and £5 each for satisfactory service in their respective departments. All students are required to perform the duties of clinical clerk and dresser during the last two years of their curriculum. Students of the third year and of subsequent years are also appointed as clerks and dressers to assist the physicians and surgeons in charge of the out-patients. The hospital contains 281 beds. Two wards are appropriated to the Diseases of Children, and one to those of Women; beds are also provided for Ophthalmic, Aural, and Cutaneous cases. There is an out-patient department for diseases of children. Special assistance is given to intending candidates for the final examinations of the Medical, Surgical, and Obstetric tutors. The Clarence Memorial wing will contain (1) a new Out-patients' Department, (2) Lying-in Wards, (3) a Residential College for Medical Officers and Students, (4) additional Special Wards, (5) a Nurses' Home. This will add 100 beds to the Hospital, making 381 in all, at an estimated cost of £100,000. The prospectus may be had on application to Mr. F. H. Madden, the School Secretary, or to G. P. Field, Dean.

*Scholarships, Prizes, and Appointments: Scholarships offered for open competition previously to entering at the Medical School.*—Entrance Scholarships: The following will be offered for competition on Sept. 26th and 27th, at 10 A.M.—One Scholarship in Natural Science, of the value of 100 guineas, open to any gentleman who has not completed a winter session of study at a medical school. Three Scholarships in Natural Science, each of the value of 50 guineas, under the same conditions. One Scholarship, of the value of 125 guineas, open to students from Epsom College, being sons of medical men, and who have not completed a winter session of study at a medical school. This Scholarship is not given by competition. Two Scholarships, each of 50 guineas, open to students from the Universities of Oxford, Cambridge, or other University, who have not entered at any London medical school. The examination for the Scholarships will be conducted according to the syllabus of the Preliminary Scientific Examination of London University.

In addition to the Open Entrance Scholarships, Class Prizes, and usual Appointments, Scholarships will be offered for competition at the end of each year, open to all pupils.

These Scholarships are of the value of £20, £25, and £30 for the first, second, and third years respectively.

A residence for students, 33 and 35, Westbourne-terrace, W., in connexion with the hospital, is under the charge of a warden, Mr. E. Roughton, M.D., F.R.C.S., who is prepared to receive applications from students desiring to enter upon residence during the ensuing session. Terms: £60 for the academical year. Qualified medical men are admitted to unlimited attendance on hospital practice at a fee of £15 15s.

**MIDDLESEX HOSPITAL.**—The hospital contains 320 beds, and during the past year 3018 patients were treated in the wards, and 38,318 attended as out-patients. There is a special department for patients suffering from cancer, consisting of four wards, containing thirty-four beds; here cancer patients are received and attended for a period limited only by the duration of their disease.

The Medical School buildings have been reconstructed and very greatly added to quite recently, and are well provided with all necessary accommodation for students. The Museum is large and rich. Students can take out books from the extensive School Library and read them at their own homes.

*Scholarships &c.*—Two Entrance Scholarships of the value of £100 and £60 are offered for competition just before the commencement of each winter session. An Exhibition of £10 10s. is competed for by students at the close of their first winter session. The Hetley Prize of £25 and the Governors' Prize of £21 are open to competition among students at the close of their third year. The subjects of examination are Clinical Medicine, Surgery &c. The Lyell Gold Medal is awarded annually for proficiency in Surgical Anatomy and Practical Surgery. The Murray Gold Medal and Scholarship, founded in connexion with the University of Aberdeen, are awarded every third year to a student of this hospital; it will be next open for competition in May, 1895. Two Broderip Scholarships, of the value of £60 and £40, are awarded annually to those students in their fourth year who pass the best examination in Clinical Medicine, Clinical Surgery, and Morbid Anatomy. Valuable prizes are given in each class.

*Hospital Appointments.*—Clinical Clerkships and Dresserships in all departments are allotted to students without any extra fee. Eighteen Resident Appointments are annually filled from the pupils of the hospital, each appointment extending over six months.

*The Curriculum* is designed to meet the requirements of the Royal Colleges of Physicians and Surgeons and of the Universities of London, Cambridge &c. Special Classes are held to prepare students for the Preliminary Scientific M.B. (Lond.) Examination and for the Primary Examination for the diploma of F.R.C.S. Eng.

A *Residential College* to accommodate about thirty students adjoins the hospital. The charge for residence is £10 10s. and £8 8s. per term, according to the position of the room. Breakfast, luncheon, and dinner are supplied in the College Hall at a very moderate charge.

*Fees.*—The Composition Fee for the entire curriculum is 120 guineas, or 150 guineas if paid in three instalments. The fee for the Dental Curriculum is 54 guineas, or 60 guineas if paid in two instalments. Students from the Universities are received on special terms.

**ST. THOMAS'S HOSPITAL.**—*Prizes for the Year 1892-93.*—For First-year students: Two Entrance Scholarships in Natural Science of the value of £150 and £60 respectively, open to all first-year students, will be awarded during the first week in October, after an examination in Physics, Chemistry, and either Physiology, Botany, or Zoology, at the option of the candidate; the William Tite Scholarship, the proceeds of £1000 consols, is awarded each year; also prizes of £20 and £10; summer, £15 and £10. For Second-year students: The Peacock Scholarship of £38 10s., and the Musgrove Scholarship of £38 10s., are awarded biennially to the students who shall take the highest place in the first-class list in the examinations at the end of the second winter session; they are tenable for two years, provided the holder obtains a place in the first-class in the subsequent winter examination: making the winter prizes £38 10s. £20, and £10; summer, £15 and £10. For Third-year students (winter): Second tenure of Scholarship, £38 10s., and prizes of £20, £15, and £10; summer, £15 and £10. The Grainger Testimonial Prize

of £15 annually is awarded to students for original work in Anatomy and Physiology. The Cheselden Medal for Surgery and Surgical Anatomy, and the Mead Medal for Practical Medicine, are awarded annually to fourth-year students. The Beane Scholarship for Surgery and Surgical Pathology of the value of £52 10s., awarded biennially to students who have completed their fourth but not their sixth year. The Solly Medal, with a prize of from 10 to 20 guineas, will be awarded biennially to a student of the third, fourth, fifth, or sixth year, for the best report of surgical cases. The Treasurer's Gold Medal, for general proficiency and good conduct, is awarded annually to a fourth-year student. There are numerous appointments for students who have completed their courses.

*Fees.*—The composition fee to Hospital Practice and Lectures may be paid in the following ways:—1. £150 on entrance in one sum. 2. £157 10s. in instalments. (a) By two payments, £85 on entrance and £72 10s. at the beginning of the second year; (b) by three payments, £75 at the beginning of the first year, £50 at the beginning of the second year, and £32 10s. at the beginning of the third year; (c) by four payments, £65 at the beginning of the first year, £50 at the beginning of the second year, £30 at the beginning of the third year, and £12 10s. at the beginning of the fourth year. Gentlemen entering at St. Thomas's for Lectures and Hospital Practice of the second and subsequent years pay £130 on entrance or three instalments of £52 10s., £42, and £42. Students entering for Lectures and Hospital Practice of third and subsequent years pay a composition fee of £80, or £52 10s. on entrance, and £31 10s. one year subsequently. The fee for attendance on the general subjects required of students in Dental Surgery is for the two years £65, or, by instalments, £55 for the first year and £15 for the second year. If certificates for Dental Practice are also required, the special fee for that subject has to be paid.

**UNIVERSITY COLLEGE, LONDON.**—*Composition Fees.*—1. For the entire medical education required by the Examining Board in England and the Society of Apothecaries, 130 guineas, if paid in one sum at the commencement of the course, 135 guineas, if paid by instalments, as follows—first year, 60 guineas; second year, 50 guineas; third year, 25 guineas. 2. For those students who do not require to attend Chemistry, Pharmacy, and Elementary Biology at a medical school (under the regulations of the Examining Board in England) the fee will be—112 guineas, if paid in one sum; 117 guineas, if paid by instalments, as follows—first year, 50 guineas; second year, 40 guineas; third year, 27 guineas. 3. For the whole course of instruction for the Intermediate Examination in Medicine of the University of London, 50 guineas. 4. For the course of instruction for the Final M.B. Examination of the University of London, 70 guineas, if paid in one sum; 72 guineas, if paid by instalments, as follows—first year, 40 guineas; second year, 32 guineas. 5. Composition fee for Dental Students, 65 guineas. 6. Composition fee for the whole course of instruction for the Preliminary Scientific (M.B.) Examination of the University of London, 34 guineas.

*Exhibitions, Prizes, &c.*—Three Entrance Exhibitions, of the respective values of £100, £60, and £40 per annum, tenable for one year, are annually awarded, upon examination by printed papers, to gentlemen who are about to commence their first winter attendance in a medical school. The subjects of the examination are—Chemistry, Physics, Botany, and Zoology. The Atkinson Morley Surgical Scholarship of £45, tenable for three years, is annually awarded to the student who, upon examination, is found to possess the greatest proficiency in the Theory and Practice of Surgery. The Sharpey Physiological Scholarship of about £105 per annum. Filler Exhibition: a prize of £30 is awarded annually, in July, to the most proficient student in the class of Pathological Anatomy. An Atchison Scholarship, value about £55 per annum, tenable for two years. The Cluff Memorial Prize, value about £15, every second year to the most proficient in Anatomy, Physiology, and Chemistry. The Erichsen Prize: a surgeon's operating case of the value of £10 10s., awarded yearly to the student of the class of Practical Surgery who shall most distinguish himself by manipulative skill. The Morris Bursary of £16 a year, tenable for two years. Besides the above, gold and silver medals and other prizes are awarded in each class.

Several professors and other gentlemen connected with the College receive students to reside with them; and in

the office of the College there is kept a register of persons unconnected with the College who receive boarders into their families; among these are several medical gentlemen and clergymen.

The annual dinner of the old and present students of the Faculty of Medicine will be held at the Hôtel Métropole on Thursday, Oct. 1st, at 6.30 P.M. Sir G. Buchanan, M.D., will preside.

**WESTMINSTER HOSPITAL.**—The hospital contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, for Orthopædics, and for Diseases of Women, and a special ward for Children. The Anatomical Museum is constantly open to the students. There are also a Pathological Museum and a Materia Medica Museum.

A curator of the museum and a pathologist, with salaries of £40 and £50 respectively, and a medical and surgical registrar, each with a salary of £40, are appointed annually. Two house physicians, two house surgeons, and a resident obstetric assistant are appointed for six months after examination, and are provided with rooms and commons. Clinical assistants to the physicians and surgeons, and to the officers in charge of special departments, are appointed from among qualified students of the hospital.

*Preliminary Scientific and Intermediate (M.B.) Examinations of the University of London.*—Arrangements have been made for holding classes in the subjects of the Preliminary Scientific (M.B.) Examination. The total fees for these will be 12 guineas. Students will also be required to attend the Lectures on Chemistry and Practical Chemistry delivered in the School, the fees for which, 6 and 4 guineas respectively, will be a first instalment of the General Composition Fees. These classes will commence in October. Special classes for the Intermediate M.B., and for the First F.R.C.S. Examinations will be held, also commencing in October. For these, an extra fee of 10 guineas will be charged for the former and 7 guineas for the latter. Anatomy, Mr. Black and Mr. Stonham; Physiology, Dr. Abraham; Chemistry, Dr. Hake; Materia Medica, Dr. Murrell. Any of the above classes are open to other than Students of the School, on conditions to be learned on application to the Dean.

*Scholarships and Prizes.*—A Science Scholarship, value £60, is offered annually; the Guthrie and Entrance Scholarships, on alternate years, value £60; a Senior Scholarship, value £40, to Oxford and Cambridge students; and Two Entrance Scholarships, value £40. Entrance Scholarship, summer session, value £40. A £20 Entrance Scholarship is offered annually to Dental students. The Treasurer's Prize, an Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year, for first-year men. The President's Prize, a Scholarship in Anatomy, Histology, and Physiology, value £21, given by his Grace the Duke of Westminster, President of the Hospital, to a student of the second year (to be styled Assistant Demonstrator). At the end of the fourth winter session, prizes of £5 each (books or instruments) in Clinical Medicine and Clinical Surgery. Frederick Bird Medal and Prize, value £15. Subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth. In most of the classes special prizes, value about 2 guineas each, are given.

**LONDON SCHOOL OF MEDICINE FOR WOMEN, 30, Handel-street, Brunswick-square, W.C.**—The winter session of this School, which is in connexion with the Royal Free Hospital, Gray's-inn-road, will begin on Oct. 1st, 1892, and will end on March 1st, 1893. The summer session will begin on May 1st, and will end on July 31st, 1893. No student will be admitted to the study of Medicine who has not completed her eighteenth year. The admission of students rests exclusively with the Executive Council.

*Scholarships and Prizes.*—The Executive Council offers annually a Scholarship of £30 to women preparing for the medical profession. The following scholarships will be offered for competition on Sept. 22nd and 23rd, 1892:—1. The Scholarship, value £30, open to all candidates who have passed a preliminary examination in Arts recognised by the General Medical Council. 2. The Jubilee Scholarship, value £25 a year for four years, open only to candidates willing to practise in India under the Countess of Dufferin's Fund. The Stuart Mill

Scholarship is offered once in four years to ladies willing to practise Medicine in India in connexion with the National Association for Supplying Female Medical Aid to the Women of India. The United Kingdom Branch of the National Association for Supplying Female Medical Aid to the Women of India also provides funds for the Dufferin and Jubilee Scholarships, each of the value of £25 a year for four years, at the School, to students who will enter into a legal arrangement to practise in India under the Countess of Dufferin's Fund on the completion of their course of study. The Gilchrist Trustees offer a Scholarship of £50 a year for five years to the student of the School who takes the highest position in the Preliminary Scientific M.B. Examination of the University of London. Three Scholarships, each of the value of £100 a year for three years, will be offered yearly to girls under nineteen years of age on the first day of the examination, whose parents reside within the metropolitan area as defined in the Elementary Education Act, by the trustees of the St. Dunstan's charities. The holders must fit themselves for the practice of a profession, medical or otherwise. The Scholarships will be tenable at any place of higher education approved by the governors. The Helen Prideaux Memorial Fund (£505) has been invested, and the income derived from it will be given as a prize every second or third year to a graduate of the School, for the further prosecution of her medical studies, at the discretion of the trustees. There is also a small fund from which assistance can occasionally be given to students and to graduates who specially require pecuniary help, to obtain additional experience in operative midwifery. Prizes and Certificates of Honour are awarded in each class at the end of the session. The Wood Prize for Operative Midwifery, value £5 5s., will be offered at the end of the winter session, 1892. Secretary, Miss Heaton.

#### METROPOLITAN ANCILLARY SCHOOLS OF MEDICINE.

THE following institutions offer a partial curriculum in the form of classes dealing with particular subjects, or adapted to special circumstances.

**BETHLEM HOSPITAL.**—This hospital is open for the admission of two Resident Clinical Assistants who have recently obtained their diplomas to practise Medicine and Surgery. They will be permitted to reside in the hospital for a term generally not exceeding six months, and will be provided with such apartments, rations, and attendance as the Committee shall consider reasonable. They will be under the direction of the Resident Physician, and will be elected by the Committee from candidates whose testimonials appear to be most satisfactory. A limited number of medical students who have completed the third year of study are allowed to attend the practice of the hospital free, and qualified practitioners may attend for a period of three months on payment of a fee.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.**—Four House Physicians reside in the hospital for a period of six months. Pupils are admitted to the practice of the hospital; terms £1 ls. for one month; six months £5 5s.; perpetual £10 10s. Lectures and Clinical Demonstrations are given throughout the year by members of the medical staff on Wednesdays and Fridays at four. The medical practice of the hospital is recognised by the University of London, the Apothecaries' Society, and the Army and Navy and Indian Medical Boards. The hospital contains 321 beds in the two buildings.

**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park.**—During the past year 1236 in-patients have been admitted, and the large number of 25,500 cases have been treated since the opening of the wards in 1855. The number of out-patients treated during 1891 was 15,529, and 489,890 since the commencement of the institution in 1848. Information as to medical instruction can be obtained on application to the Secretary of the Clinical Sub-committee at the hospital. Consulting Physicians: Drs. J. Andrew and E. L. Birkett. Consulting Surgeon: Mr. J. Eric Erichsen, F.R.S. Physicians: Drs. J. C. Thorowgood, Eustace Smith, G. A. Heron, Vincent D. Harris, J. A. Ormerod, and E. Clifford Beale. Surgeon: Mr. J. F. C. H. Macready, F.R.C.S. Assistant Physicians: Drs. Harrington Sainsbury, T. Glover Lyon, Sir Hugh R. Beevor, Bart., W. J. Hadley, and E. H. Colbeck.

**CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's-inn-road.**—The hospital contains accommodation for seven-

teen in-patients, and has a very extensive out-patient department, which is open to all medical practitioners and students for the purpose of clinical demonstration and instruction during the hours of the surgeons' visits. During the past year 6250 out-patients and 288 in-patients were treated. Fee for three months' attendance, 3 guineas; for six months, 5 guineas. A course of lectures on the special diseases treated at this hospital will be delivered during the winter months by members of the staff. The date of these lectures is announced in the medical journals prior to their commencement. They are free to qualified practitioners and advanced students of medicine. Consulting Surgeon: Mr. Thomas Nunn. Surgeons: Mr. Lennox Browne, Dr. Arthur Orwin, Dr. Dundas Grant, Mr. Percy Jakins, and Mr. T. W. Carmalt Jones. Assistant Surgeon: Mr. Walter Fowler and Mr. Wyatt Wingrave. Registrar and Pathologist: Dr. Holloway. Dental Surgeon: Mr. George Wallis. Defects of Speech: Mr. William Van Praagh. Secretary: Mr. Richard Kershaw.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road (instituted 1816).—Consulting Physicians: Dr. Wilks, Dr. John Williams, Dr. G. V. Poore, and Dr. Geo. Roper. Consulting Surgeon: Arthur Durham. Physicians: Drs. W. Gow, Alex. Haig, Septimus Sunderland, and S. W. Wheaton. Surgeon: Mr. H. C. Jacobson. Surgeon-Dentist: Mr. Alfred Barnard. Resident Medical Officer: Dr. Richards. Assistant Surgeon: Marmaduke Sheild. Secretary: Mr. R. G. Kestin. Advanced students in Medicine, and such practitioners as may desire it, are permitted to attend the practice of this hospital gratis. If a certificate signifying such attendance be required, the sum of £5 5s. must be paid to the physicians and surgeons in ordinary conjointly. Anaesthetist and Registrar: Dr. Fisher. Consulting Surgeon-Dentist: Mr. Walter Whitehouse.

HOSPITAL FOR WOMEN, Soho-square, W.—In connexion with this institution there has been for some years a well-organised Clinical Department, which has lately been enlarged under the title of the London School of Gynaecology. To meet the want increasingly felt by medical men of an accurate knowledge of the ordinary diseases of women, gentlemen are appointed every three months to act as clinical assistants to the physicians and surgeons seeing out- and in-door patients. The appointments are nominally "open to qualified medical men and to students of medicine after their third year," but in the selection of candidates preference is naturally given to gentlemen already engaged in practice. The large numbers of out-patients afford quite unrivalled opportunities for practical instruction in the use of gynaecological instruments, and for the study of diseases peculiar to women. A course of lectures on the Anatomy and Physiology of the Female Pelvic Organs is given during each quarter by a member of the Staff. Clinical lectures are given in the Operating Theatre on alternate Thursdays, throughout the winter and summer sessions. Valuable prizes are given, after examination, annually, open to past and present clinical assistants. Fee for the three months' course, £8 8s. Any further information can be obtained by letter addressed to the Dean at the hospital.

COOKE'S SCHOOL OF ANATOMY.—The school having been recognised by the London University and the Society of Apothecaries, a department for Curriculum work has been formed, in which instruction is given meeting the requirements of the first two years of medical studies. Special advantages are offered in regard to practical work in Anatomy and Physiology, on the lines in respect of the former subject of Mr. Cooke's "Dissection Guides." It is intended, however, in regard to the Curriculum to take on only a small number of earnest workers, the object being to attract men who, on their becoming efficient in practical work, will be able to act as prosecutors and physiological assistants to the school, and thus to take part in the "Supplementary Teaching," which is the main feature of the institution. In encouragement of such the Bland Subton Scholarship is offered, conferring the privilege of free education for the first two years of the Medical Curriculum. By decision of the Royal Colleges of Physicians and Surgeons, gentlemen rejected at their Anatomical and Physiological Examinations (Primary R.C.S., or Second Conjoint) can get "signed up" from this school for the three or six months' supplementary work they are now required to put in before re-examination. This school is also intended to meet the requirements of qualified practitioners and advanced students—i.e., gentlemen

wishing either to obtain some of the higher qualifications, or to compete for appointments in Her Majesty's Army, Navy, and Indian Medical Services. The instruction is given on the dissected and undissected body, with normal and pathological specimens, microscopical preparations, chemical, physiological, and surgical apparatus, splints, &c. The school possesses a good collection of physiological apparatus, allowing of the demonstration to the class of the great bulk of the usual practical exercises in Physiology; also chemical apparatus, allowing every student not only so see, but to repeat for himself, the analysis of the principal food-stuffs, and fluids and solids of the body, and also all the usual reactions, tests, &c. Gentlemen preparing for the Higher Examinations receive special instruction in the more difficult subjects, and have the advantage of personally repeating the practical exercises in Physiology above alluded to. The operations of Surgery are performed by the students on the dead body. Private address: 40, Brunswick-square, W.C.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road. (Established 1814.)—This hospital has recently been enlarged by the addition of a very complete out-patients' department, and also by the erection of a new wing, which provides accommodation for 80 in-patients. Expenditure for 1891, £6322; income (including legacies), £7880.

ROYAL EAR HOSPITAL, Frith-street, Soho-square, W. (Founded 1816, for the special treatment of Diseases of the Ear.)—During 1891, 153 in-patients and 2742 out-patients were treated; attendances 8297. The clinique of the hospital is open to medical practitioners and advanced students by previous arrangement with the Secretary. Surgeons: Urban Pritchard, M.D., F.R.C.S., Farquhar Matheson, M.B., C.M., and G. L. Cheate, F.R.C.S. Secretary: M. C. Puddy.

GRANT NORTHERN CENTRAL HOSPITAL, Holloway-road. Consulting Physician: Sir Andrew Clark, Bart., M.D. Consulting Surgeons: Sir W. S. Savory, Bart., and William Adams. Physicians: Drs. Cholmeley, Burnet, Beale, Beevor, Syers, and Galloway. Obstetric Physicians: Drs. W. S. A. Griffith and L. Remfry. Surgeons: Messrs. J. Macready, C. B. Lockwood, H. W. Allingham, P. T. B. Beale, and Raymond Johnson. Ophthalmic Surgeon: Mr. A. Stanford Morton. Aural Surgeon: Mr. W. R. H. Stewart. Throat Department: Mr. W. Spencer Watson. Skin Department: Dr. Cook. Dental Surgeon: Mr. Traer Harris. The new buildings in the Holloway-road have been recently erected, and the practice of the hospital is open to qualified practitioners and senior students. Clinical assistants are appointed in the wards and out-patient department. Further information can be obtained on application to the Hon. Secretary of the Medical Committee, Dr. Syers, 3, Devonshire-street, W.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W. (Established 1873.)—Physicians: Dr. E. W. Richardson, F.R.C.P., F.R.S.; Dr. J. J. Ridge. Surgeon: Dr. W. J. Collins, F.R.C.S. Dental Surgeon: Mr. A. Alexander. The hospital contains 110 beds. The in-patients average 750 and the out-patients 3500 a year. The medical and surgical practice of the hospital is open to students and practitioners. Special departments for Ophthalmology and Gynaecology. Operations, Mondays and Thursdays, 3.30. Classes will be held during the winter and summer sessions for students preparing for the final examinations at the Colleges and the Universities. Appointments, vacancies for which are advertised in the medical journals: Registrar and Pathologist; Senior and Junior House Surgeons. For particulars as to hospital practice and classes apply at the hospital to Dr. W. J. Collins.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Albany Memorial), Queen-square, Bloomsbury.—The new hospital, with the Finchley branch, contains 170 beds and cots. The physicians attend every Monday, Tuesday, Wednesday, and Friday, at 2.30 P.M. In- and out-patient practice and electrical-room treatment at that hour. Physicians: Drs. Ramskill, Hughlings Jackson, Buzzard, and Bastian. Physicians for Out-patients: Drs. W. R. Gowers, D. Ferrier, Ormerod, and Beevor. Assistant Physicians: Drs. James Anderson and Tooth. Surgeons: Messrs. Victor Horsley and C. A. Ballance. Ophthalmic Surgeons: Messrs. R. Brudenell Carter and Marcus Gunn. Aural Surgeon: Mr. A. E. Cumberbatch. Laryngologist: Dr. Felix Semon. Anaesthetist: Dr. Dudley Buxton. Pathologist and Registrar: Dr. Taylor. House Physicians: Drs. Bowman and Wood. Medical practitioners and senior students may attend the practice after signing their names in the clerk's office. The

new wing, containing a clinical theatre and operating room, two small wards for surgical cases, a surgeons' room, an anæsthetic room, and together with a library and museum, is now completed.

**QUEEN CHARLOTTE'S LYING-IN HOSPITAL AND MIDWIFERY TRAINING SCHOOL, Marylebone-road, N.W.**—Consulting Physician: Dr. Brodie. Consulting Surgeons: Mr. H. Lee and Sir William Mac Cormac. Physicians to In-patients: Dr. W. Hope and Dr. W. C. Grigg. Physicians to Out-patients: Dr. W. S. A. Griffith and Dr. W. Rivers Pollock. This hospital, which has been recently enlarged, receives nearly 1000 patients annually, besides having a large out-patient department. Medical pupils are received at all times of the year. Pupils have unusual opportunities of seeing obstetric complications and operative midwifery, on account of the very large number of primiparous cases—upwards of three-fourths of the total admissions. Clinical instruction is given on the more important cases which present themselves. Certificates of attendance at this hospital are recognised by all universities, colleges, and licensing bodies. Pupil midwives and monthly nurses are received and specially trained. Fees: Medical Students, £3 3s. for one week; £5 5s. for two weeks; £6 16s. 6d. for four weeks, exclusive of board and lodging. Pupil Midwives, £26 5s. for three months; Pupil Nurses, £15 15s. for twelve weeks, and £11 0s. 6d. for eight weeks; these include board and lodging. For further particulars, application should be made to Mr. G. Owen Ryan, Secretary, at the Hospital.

**SEAMEN'S HOSPITAL SOCIETY, Dreadnought Hospital, Greenwich, S.E. (235 beds).**—Royal Victoria and Albert Dock Hospital, E. (18 beds). Dispensaries: East India Dock-road, E., and Gravesend. This institution is established for the relief of seamen of all nations. Casualties are received at all hours. Apartments are provided in the house of the Principal Medical Officer for students. Honorary Consulting Physicians: Dr. Robert Barnes, F.R.C.P., and Sir Richard Quain, Bart., F.R.C.P. Visiting Physicians: Dr. John Curnow, F.R.C.P., and Dr. John Anderson, C.I.E., M.R.C.P. Visiting Physician to the Royal Victoria and Albert Dock Hospital: Dr. Patrick Manson, LL.D., M.R.C.P. Honorary Consulting Surgeon: Mr. J. N. Davies-Colley, F.R.C.S. Visiting Surgeon: Mr. G. Robertson Turner, F.R.C.S. Principal Medical Officer: Mr. W. Johnson Smith, F.R.C.S. Ophthalmic Surgeon: Mr. D. S. Gunn, F.R.C.S. House Physician: Dr. M. Spencer, M.R.C.P. House Surgeon: Mr. Arthur Jervis, M.B., B.S., M.R.C.S. Branch Hospital:—House Surgeon: Dr. C. H. Preston, L.R.C.P. Junior House Surgeon: Dr. Frank L. Wod, Ch.B. Gravesend Dispensary:—Surgeon: Mr. O. R. Richmond. Secretary: Mr. P. Micelli.

**HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C., and Cromwell House, Highbate.**—The hospital contains 127 beds, and 52 beds at the country branch, forming a total of 179. There are ten Clinical Clerkships, and the number will shortly be increased to sixteen, tenable by all students who have taken out a ticket for the hospital. Senior students should not forget that there is here a thoroughly organised system of clinical instruction both in the medical and surgical wards. Lectures are given at intervals by members of the staff. The hospital offers great facilities for post-graduate teaching and for hospital practice.

**ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields.**—The hospital, founded in 1804, and considerably enlarged in 1876, now contains 100 beds for patients, which were occupied during last year by 1892 persons. The out-patients are yearly over 25,000; attendances, 109,756 in 1891. Operations are performed daily from 10 to 1 o'clock, and three surgeons attend on each day. Students are admitted to the practice. Fee for six months, £3 3s.; perpetual, £5 5s. Classes, demonstrations, and lectures are periodically given, to which perpetual students are admitted free. Students of the hospital are eligible for the office of house surgeon, or may be appointed clinical and junior assistants. The Secretary, Mr. Robert J. Newstead, will furnish further information, as may be desired.

**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand.**—The hospital contains 50 beds; and the patients, who number 10,000 annually, are seen at 1 o'clock, and operations performed daily at 2 o'clock. The following are the days of attendance of the surgeons: Mr. Power and Mr. Rouse (Consulting Surgeons); Mr. Cowell and Mr. Juler, Wednesday and Saturday; Mr. Mac-

namara and Mr. Wainwright, Tuesday and Friday; Mr. Earbridge, Mr. Frost, and Mr. Dodd, Monday and Thursday. The practice of the hospital is open to practitioners and students. Fees for six months, £3 3s.; perpetual, £5 5s. Students of the hospital are eligible for the post of house surgeon. Special demonstrations and lectures will be given during the session, commencing in October; for details see weekly journals. Clinical Assistants (who must be duly qualified) to the Surgeons are appointed for periods of six months. Secretary: Mr. T. Beattie-Campbell.

**ROYAL ORTHOPÆDIC HOSPITAL, 297, Oxford-street.**—Surgeons: Messrs. B. E. Brodhurst, H. A. Reeves, and Charles Read. Assistant Surgeon: Mr. H. F. Baker. House Surgeon: Mr. C. Ernest Baker. Secretary: Mr. Maskell. Operations on Mondays at 2 P.M. The hospital is open to all legally qualified practitioners. Pupils are admitted to witness the practice of the hospital on the following terms: six months, £3 3s.; twelve months, £5 5s.; perpetual, £10 10s.

**ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta-street, Covent-garden.**—Established 1860. New Hospital built 1882. Honorary Surgeons: Mr. F. R. Heycock, Mr. F. Swinford Edwards, Mr. E. Hurry Fenwick, Mr. Reginald Harrison. Pathologist: Mr. E. Hurry Fenwick. The hospital contains 24 beds and 3 private wards. Consultations are held and operations are performed each Wednesday and Friday at 2 P.M. A course of lectures upon Urinary Diseases is delivered every year by members of the staff, whilst clinical instruction in the wards and out-patient department is given daily throughout the year. The attendance of practitioners and senior students is invited. A limited number of clinical assistants is appointed to the out-patients.

**COLLEGE OF STATE MEDICINE, 101, Great Russell-street, W.C.**—The usual three and six months' courses in Hygiene and Public Health by Professor A. Wynter Blyth will be given during the winter session. The Public Health and Bacteriological Laboratories will be open daily from 10 to 4 P.M. from Monday, Oct. 3rd. Gentlemen can obtain tickets for either laboratory, or enter for a three or six months' course. Provision is made for gentlemen undertaking original research.—*Research Scholarship*: A Scholarship of the value of £100 for one year will be awarded to the candidate best qualified to carry out an original research by the use of bacteriological and chemical methods. Applications should reach the Honorary Secretary not later than Oct. 15th. Candidates must be prepared to conduct their work in the College laboratories, and devote five hours a day to the same. For further particulars address the Hon. Secretary, W. Robert Cornish, Esq.

**VOLUNTEER MEDICAL STAFF CORPS (LONDON COMPANIES), 62, St. Martin's-lane.**—Hon. Commandant: Surgeon-General Sir William Guyer Hunter, K.C.M.G., M.P., Q.H.S. Commandant: Surgeon-Lieutenant-Colonel A. T. Norton. The Volunteer Medical Staff Corps bears the same relation to the Volunteer Army as the Medical Staff Corps bears to the regular Army. The course of training has the great advantage of affording, in addition to a knowledge of ordinary military duties, special ambulance instruction useful in all ranks of life. All who have gone through the ranks of this corps are capable of rendering valuable aid in any accident, and in cases of emergency may be the means of saving lives which would otherwise be lost. In addition to the Company and Battalion drills of an ordinary infantry corps, the special training includes stretcher, waggon, and litter drill; the use of improvised seats and stretchers; the use and application of bandages, splints, &c.; lectures by the officers on first aid to the injured, and on the elements of anatomy, physiology, hygiene, and nursing. There is also a Shooting Club in the Corps, in which instruction in and facilities for practice of rifle shooting is given. Lectures are delivered during the winter session. The Adjutant, Surgeon-Captain J. P. S. Hayes, will give any information respecting the above on application to the head-quarters, 62, St. Martin's-lane, W.C.

**SCHOOL OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.**—Chemistry: Professor Dunstan, M.A., F.I.C. Practical Chemistry: Professor Atfield, Ph.D., F.R.S., F.I.C. Botany: Professor Green, M.A., B.Sc., F.L.S. Materia Medica: Mr. Greenish, F.I.C., F.L.S. Practical Pharmacy: Mr. Joseph Ince, F.L.S. The session commences on Wednesday, Oct. 5th, at 10 A.M. Medical students, or pupils intending to enter the medical profession, are admitted to the lectures &c., and to courses of Practical Chemistry. Application for admission to the school, or for further information, may be

made to the Dean of the school, Professor Dunstan, 17, Bloomsbury-square, London, W.C. The introductory address will be delivered on Wednesday, Oct. 5th, at 3 P.M.

**CITY SCHOOL OF CHEMISTRY AND PHARMACY, LIMITED,** 27, Chancery-lane, W.C.—This school was established in 1882 for the advancement of pharmaceutical education. Lecturers and Demonstrators: Mr. Maurice Williams, Principal; Mr. Thomas A. Ellwood, F.I.C., F.C.S. &c.; Mr. Martin J. Cole, Microscopist; Mr. Herbert J. Killick, Curator. Subjects: Theoretical and Practical Chemistry, Chemical Physics, Theoretical and Practical Pharmacy, Materia Medica and Therapeutics. Lectures and Demonstrations are given daily by the Principal, and the student is allowed unlimited laboratory and pharmacy practice. Application for particulars should be made to the Principal.

**SOUTH LONDON SCHOOL OF PHARMACY, LIMITED.**—This school was established in 1868 and incorporated in 1888 as a public company. The managing director is Dr. John Muter, M.A., F.R.S.E., F.C.S., F.I.C., who lectures on Chemistry, Physics, and Botany. The other lecturers are: Mr. W. H. Dodd, F.C.S. (Materia Medica and Pharmacy); Mr. L. De Koningh, F.I.C., F.C.S. (Analytical Chemistry); assisted by a staff of competent demonstrators. The department most valuable to medical students is the Medical and General Science Tutorial Department. The subjects taught are: For First B.Sc. and Preliminary Scientific: Inorganic and Practical Chemistry. For First M.B.: Organic Chemistry, Analysis and Pharmaceutical Chemistry and Materia Medica. For Apothecaries' Hall and the Conjoint Colleges: Chemistry, Botany, and Materia Medica. For Pass M.B. Lond.: Practical Toxicology and Forensic Medicine. For Sanitary Science qualifications: Practical Chemistry and Microscopy. Particulars as to fees may be had from the Secretary, 325, Kennington-road, London, S.E.

**MIDDLESEX COLLEGE OF CHEMISTRY AND PHARMACY,** 40, Charlotte-street, Portland-place, W.—The special classes for medical students in Chemistry, Materia Medica, and Pharmacy started two years ago have proved very successful. The premises, which were erected by the late Dr. W. de la Rue, F.R.S., are well suited for the purpose for which they are used.

**ROYAL COLLEGE OF SCIENCE** (with which is incorporated the ROYAL SCHOOL OF MINES).—Biology: Professor Huxley, Mr. Howes and (up to Sept. 22nd) Dr. Scott. Chemistry: Dr. Thorpe and Mr. Wynne. Physics: Professor Rücker. Geology: Professor Judd. The arrangement which this school had with certain hospitals has fallen through, and the courses are no longer available for their purpose.

**BIRKBECK LITERARY AND SCIENTIFIC INSTITUTION,** Bream's-buildings, Chancery-lane.—Special arrangements have been made for the instruction of students in Chemistry, Biology and Experimental Physics, in conformity with the requirements of the Intermediate and Final B.Sc., the Preliminary Scientific and the Intermediate M.B. Examinations of the University of London. The lectures will be fully illustrated by experiments, and provision will be made for individual practical work in each subject. For particulars apply to the Secretary.

#### HOSPITALS AFFORDING FACILITIES FOR CLINICAL OBSERVATION.

**ALL SAINTS CHILDREN'S HOSPITAL,** 4, Margaret-street, and 59, Mortimer-street, W.—Founded by the All Saints Sisterhood in 1882 for Incurable Diseases. Twelve beds for boys and eight for girls under the age of ten years.

**EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN,** Glamis-road, Shadwell, E.—Physicians: Dr. Eustace Smith, Dr. Horatio B. Donkin and Dr. J. A. Coult. Surgeons: Mr. R. W. Parker and Mr. L. A. Dunn. Assistant Physicians: Dr. Dawson Williams and Dr. H. T. Campbell. Assistant Surgeon: Mr. H. B. Robinson. Administrator of Anæsthetics: Mr. Thomas Bird. Resident Medical Officer: Dr. Ernest Hare. House Surgeon: Dr. Crosby. House Physician: Mr. G. Norman. Secretary: Samuel Whitford. Lady Superintendent: Miss F. A. Davies. The hospital maintains 102 cots, and on an average 125 out-patients are seen daily.

**EVELINA HOSPITAL FOR SICK CHILDREN,** Southwark-bridge-road, S.E.—Consulting Physicians: Dr. W. S. Playfair, Dr. James F. Goodhart and Dr. Fredk. Taylor. Consulting Surgeons: Mr. W. Marrant Baker and Mr. H. G. Howse. Physicians: Drs. Nestor Tirard, Fred. Willcocks,

G. A. Carpenter and W. Soltau Fenwick. Surgeons: Messrs. R. Clement Lucas, G. H. Makins, F. S. Eve and J. H. Targett. Ophthalmic Surgeon: Dr. W. A. Bralley. Dental Surgeon: Mr. R. Denison Pedley. Senior Resident Medical Officer: Mr. T. G. Stevens. Junior Resident Medical Officer and Registrar: Mr. Hugh Ralph. Hon. Secretary: Dr. L. Dobree Chepmell.

**VICTORIA HOSPITAL FOR CHILDREN,** Chelsea, S.W. (with which is incorporated ST. GABRIEL'S HOSPITAL FOR INFANTS).—The hospital contains 90 beds and has a large out-patient department (nearly 1000 weekly); the home at Broadstairs has 50 beds, and the home at Churchfields 16 beds. Consulting Physician: Dr. W. H. Walsha. Consulting Surgeons: Mr. Erichsen and Mr. Cowell. Physicians: Dr. Ridge Jones and Dr. Dawtrey Drewitt. Physicians to the out-patients: Drs. Montague Murray, Walter Carr, W. Wallis Ord and Humphry D. Rolleston. Surgeons: Messrs. Pick and Clutton. Surgeons to the Out-patients: Messrs. D'Arcy Power and Raymond Johnson. Ophthalmic Surgeon: Mr. W. J. Holmes Spicer. Dental Surgeon: Mr. Percy Smith. Anæsthetist: Paul Frank Moline. M.D. House Surgeon: Mr. H. G. G. Cook. House Physician: Dr. R. C. M. Colvin-Smith. Secretary: Captain W. C. Blount, R.N. Out-patients are seen daily as under:—Medical and surgical cases: Daily, at 12.30, and every afternoon at 1.30. Dental cases: Saturdays, at 9 A.M.

**WEST LONDON HOSPITAL,** Hammersmith-road, W.—This hospital has 101 beds. About 1400 in-patients and 20,000 out-patients, whose attendances number 60,000, are treated annually. There are appointments for two House Physicians and two House Surgeons, with board and residence tenable for six months. Also appointments for a limited number of Clinical Assistants. Physicians: Drs. D. W. C. Hood, F. G. D. Drewitt and W. P. Herringham. Physician for Diseases of Women: Dr. Albert Venn. Surgeons: Messrs. C. B. Keetley, F. Swinford Edwards and W. Bruce Clarke. Surgeon for Diseases of the Eye: Mr. B. J. Vernon. Assistant Physicians: Dr. J. B. Ball, Seymour Taylor and A. E. Garrod. Assistant Physician for Diseases of Women: Dr. J. A. Mansell-Moullin. Assistant Surgeons: Messrs. S. Paget, L. A. Bidwell and G. L. Cheate. Assistant Surgeon for Diseases of the Eye: Mr. H. P. Dunn. Surgeon-Dentist: Mr. H. Lloyd Williams. Pathologist: Mr. H. P. Dunn. Physician-in-Charge of Throat and Nose Department: Dr. J. B. Ball. Surgeon-in-Charge of Aural Department: Mr. S. Paget. Surgeon-in-Charge of Skin Department: Mr. L. A. Bidwell. Surgeon-in-Charge of Orthopedic Department: Mr. C. B. Keetley. Electrician: Dr. F. O. Buckland. Administrators of Anæsthetics: Messrs. T. Gunton Alderton and Rickard W. Lloyd. Secretary: Mr. R. J. Gilbert.

**NORTH-EASTERN HOSPITAL FOR CHILDREN,** Hackney-road, N.E. City Offices: 27, Clement's-lane, E.C.—This hospital contains 57 beds. Last year 508 in-patients and 13,722 out-patients (representing 48,909 attendances) were relieved. Consulting Physicians: Drs. A. E. Sanson and W. Cayley. Consulting Surgeons: Messrs. Jonathan Hutchinson, R. J. Godlee and Waren Tay. Physicians: Drs. F. C. Turner, C. E. Armand Semple and W. Pasteur. Surgeons: Messrs. Bilton Pollard and H. Percy Dean. House Surgeons: (Senior) Mr. S. H. Bates, (Junior) Mr. H. G. Adamson. Lady Superintendent: Miss E. M. Curro. Secretary: Mr. Alfred Nixon. The surgeons attend on Wednesday and Friday at 9 A.M.; the physicians daily at 1.30 P.M.

**NORTH-WEST LONDON HOSPITAL,** Kentish Town-road.—This hospital provides 47 beds and has a large out-patient department. There are appointments for Two Resident Medical Officers, with board, residence and washing. The Senior Medical Officer also receives £50 per annum. Honorary Medical Staff:—Physician: Donald W. C. Hood, M.D. Surgeon: Frederic Durham, M.B. Lond., F.R.C.S. Assistant Physicians: Harry Campbell, M.D., B.Sc. Lond., M.R.C.P.; Walter K. Sibley, B.A., M.B., B.C. Cantab., M.R.C.S.; Leonard G. Guthrie, M.A., M.B., B.Ch. Oxon., M.R.C.P., M.R.C.S. Assistant Surgeons: M. P. Mayo Collier, M.S., M.B. Lond., F.R.C.S.; James Black, B.A., M.B. Cantab., F.R.C.S.; C. Gordon Brodie, F.R.C.S. Accessory Staff: J. Herbert Stowers, M.D.; John Shaw, M.D. Lond.; Wm. J. Collins, M.D., M.S., B.Sc. Lond., F.R.C.S.; C. F. Rivot, L.R.C.P., M.R.C.S., L.D.S. Resident Medical Officer: Dr. C. D. Sutherland. Assistant Medical Officer: Dr. C. N. Hamper. Secretary: Mr. Alfred Craske.



**GENERAL AND QUEEN'S HOSPITALS, BIRMINGHAM.**—*General Hospital:* Consulting Physicians: Dr. Fletcher, Sir W. Foster and Dr. Wade. Consulting Surgeons: Mr. Crompton, Mr. Baker and Mr. Pemberton. Physicians: Drs. Rickards, Saundby, Simon and Wilson. Surgeons: Messrs. Jolly, Chavasse, Barling and Haslam. Obstetric Officer: Dr. Malins. Assistant Physicians: Drs. Short and Russell. Assistant Surgeons: Messrs. Heaton and Jordan. *Queen's Hospital:* Consulting Physician: Sir James Sawyer. Consulting Obstetric Surgeon: Mr. John Clay. Consulting Surgeon: Mr. Furneaux Jordan. Physicians: Drs. Carter, Suckling and Foxwell. Surgeons: Messrs. Wilders, Bennett May, Jordan Lloyd and Marsh. Ophthalmic Surgeon: Mr. Priestley Smith. Obstetric Surgeon: Dr. Purslow. Dental Surgeon: Mr. Charles Sims. Physician for Out-patients and Pathologist: Dr. Kauffmann. Casualty Surgeons: Messrs. Morrison and Clayton.

**BRISTOL SCHOOL OF MEDICINE** (affiliated to University College, Bristol).—Students can complete in Bristol the entire course of study required for the Medical and Surgical degrees of the University of London, and for the diplomas of the Royal College of Physicians of London and the Royal College of Surgeons of England, the Apothecaries' Society of London, and the Army and Navy Boards. The lectures and instructions given at University College, Bristol, are adapted to the various Preliminary Arts Examinations above referred to, and also to the Matriculation and Preliminary Scientific Examinations of the University of London; while the Medical School, the Royal Infirmary and the General Hospital together provide for every detail of the professional curriculum required by the University of London and the above examining boards. All necessary information may be obtained from the Dean of the Bristol Medical School, Dr. Markham Skerritt.

**BRISTOL ROYAL INFIRMARY** (founded 1735).—264 beds. Physicians: Drs. Shingleton Smith, Waldo, Shaw, and Prowse. Surgeons: Messrs. Prichard, Greig Smith, Harsant, and Bush. Ophthalmic Surgeon: Mr. Cross. Obstetric Physician: Dr. Walter Swayne. Dental Surgeon: Mr. Ackland. Assistant Physician: Dr. Watson Williams. Assistant Surgeons: Mr. Munro Smith and Dr. James Swain. Hon. Pathologist: Dr. Edgeworth. House Surgeon: Mr. W. J. Hill. House Physician: Mr. Ormerod. Secretary and House Governor: Dr. Skelton, D.S.G.

*Scholarships and Prizes.*—Two Entrance Scholarships, 35 guineas and 10 guineas, awarded annually in October, after examination in general subjects; Surgical and Medical Suple Gold Medals, 5 guineas each, with 7 guineas added in money; Clark Prize, 15 guineas; Crosby Leonard Prize, 7 guineas; Tibbitts Prize, 9 guineas; Midwifery Prize, 3 guineas in books; Six Pathological Prizes, 3 guineas each.

Dressers reside in the house in weekly rotation, and have charge of all casualties under the supervision of the house surgeon. Special instruction (including dresserships) for first-year students in the out-patient department. Class instruction in the wards by the physicians and surgeons on five days a week, in addition to the regular clinical lectures. Clinical Clerkships and Dresserships, 5 guineas for each six months. Perpetual Medical and Surgical Practice, 35 guineas in one sum. Special departments for Diseases of Women, the Eye, Ear, Throat, &c., with Clerkships and Dresserships attached. One or two Pathological Clerks are appointed every four months, who perform all post-mortem examinations. There is a large museum and well-stocked library.

Further information can be obtained from Dr. Arthur B. Prowse, Dean of the Faculty.

**BRISTOL GENERAL HOSPITAL.**—200 beds. Physicians: Drs. Markham Skerritt, Harrison, and Baron. Physician-Accoucheur: Dr. Lawrence. Surgeons: Messrs. Lansdown, Dobson, Pickering, and Penny. Ophthalmic Surgeon: Mr. Walker. Assistant Physician: Dr. Clarke. Assistant Surgeon: Mr. Barelay. Assistant Obstetric Physician: Dr. Newnham. Registrar: Mr. Morton. Anaesthetist: Mr. R. G. L. Lansdown. Dental Surgeon: Mr. Genge. House Surgeon: Dr. Solly. Physician's Assistant: Mr. Carter. Assistant House Surgeon: Mr. Star. Clinical Clerkship, six months, £5 5s. Dressership, six months, £5 5s. Obstetric Clerkship, three months, £3 3s. Special clinical instruction is given in Diseases of the Skin, Eye, Ear, and Throat, also in Diseases of Women and in Dental Surgery. Further

information may be obtained of the Secretary, at the hospital, or from Dr. Markham Skerritt, Dean of the Hospital Faculty.

*Scholarships and Medals.*—*Lady Haberfield Entrance Scholarship:* This scholarship, founded in 1875, of the value of about £30 the interest of £1000 bequeathed for the purpose by the late Lady Haberfield, is awarded annually at the commencement of the winter session, after a competitive examination in subjects of general education. *Second Entrance Scholarship:* An additional Entrance Scholarship of the value of £20 is awarded when more than six candidates present themselves. *Clarke Scholarship:* A Surgical Scholarship, of the value of £15, founded by H. M. Clarke, Esq., of London, is awarded annually at the end of the winter session, after an examination in Surgery. *Sanders Scholarship:* A Scholarship founded by the late John Nash Sanders, Esq., of the value of £22 10s., is awarded annually at the end of the winter session, after examination in Medicine, Surgery, and Diseases of Women. *Martyn Memorial Pathological Scholarships,* founded in 1878, by public subscription, in memory of the late Dr. Samuel Martyn, Physician to the Hospital. Two Scholarships, each of the value of £10, are awarded annually; one at the end of the summer session, and one at the end of the winter session. A student may, at the option of the Faculty, hold both these Scholarships. After a competitive examination in Pathology and Morbid Anatomy, the successful candidate is appointed Pathological Clerk to the hospital for the term of six months. *Committee Gold Medal:* This medal, presented by the committee of the hospital, is awarded annually at the end of the winter session to the student of the fourth year who has most distinguished himself during his career at the hospital and medical school. *Committee Silver Medal:* This medal, presented by the committee of the hospital, is awarded annually at the end of the winter session to the next most distinguished student of the fourth year. The rules relating to the several Scholarships may be had on application.

**CAMBRIDGE: ADDENBROOKE'S HOSPITAL.**—Clinical Lectures in Medicine and Surgery, in connexion with the Cambridge Medical School, are delivered at this hospital twice a week during the academical year; and practical instruction in Medicine and Surgery in the wards and out-patients' rooms is given by the physicians and surgeons daily, during the vacations as well as term time. Instruction is also given in all the special modes of medical and surgical investigation. Clinical Clerks and Dressers are selected from students according to merit, and without payment. The composition fee for pupilship is 8 guineas.

**UNIVERSITY OF DURHAM COLLEGE OF MEDICINE,** Newcastle-upon-Tyne.—The following Scholarships and Prizes are awarded annually:—A University of Durham Scholarship, value £100, for proficiency in Arts, awarded to full students in their first year. The Dickinson Scholarship, value the interest of £400, and a Gold Medal, for Medicine, Surgery, Midwifery, and Pathology. The Tulloch Scholarship, value the interest of £400, for Anatomy, Physiology, and Chemistry. The Charlton Scholarship, value the interest of £700, for Medicine. The Gibb Scholarship, value the interest of £500, for Pathology. The Goyder Memorial Scholarship (at the Infirmary), value the interest of £325, for Clinical Medicine and Clinical Surgery. The Luke Armstrong Memorial Scholarship, value the interest of £680. The Stephen Scott Scholarship for promoting the study of Hernia and allied subjects, value the interest of £1000. At the end of each session a Prize of Books and Honours Certificates are awarded in each of the regular classes. Assistant Demonstrators of Anatomy, receiving each an honorarium of £5, an Assistant Curator of the Museum, Prosectors, and Assistant Physiologists are elected yearly. Pathological Assistants, Assistants to the Dental Surgeon, Assistants in the Eye Department, Clinical Clerks, and Dressers are appointed every three months.

**NEWCASTLE-UPON-TYNE ROYAL INFIRMARY.**—Physicians: Drs. Philipson, Drummond, Oliver, and Limont. Surgeons: Drs. Arnison, Hume and Page, and Mr. Williamson. Assistant Surgeon: Mr. T. A. Dodd and Mr. James Rutherford Morison. Pathologist: Dr. Drummond. Dental Surgeon: Mr. R. L. Markham. House Physician: Dr. W. D. Arnison. Chloroformist: Dr. W. Baigent. Surgical Registrar: Mr. Geo. Walter Ridley.

The infirmary contains 280 beds. Clinical Lectures are delivered by the Physicians and Surgeons in rotation. Pathological Demonstrations are given as opportunity offers by the Pathologist. Practical Midwifery can be studied at the Newcastle Lying-in Hospital. Instruction is given in Psychological Medicine at the Coxlodge Lunatic Asylum. A Special Course of Instruction is given in the City Hospital for Infectious Diseases by the Superintendent, the City Officer of Health, Mr. H. E. Armstrong.

**LEEDS GENERAL INFIRMARY AND MEDICAL DEPARTMENT OF THE YORKSHIRE COLLEGE.**—The Leeds General Infirmary has accommodation for 471 in-patients, surgical and medical, including forty-two beds at a "semi-convalescent home" in the country. During the last year 5425 in-patients and 38,988 out-patients were treated; these numbers show a remarkable increase if compared with statistics of eleven years ago, when only 11,500 out-patients were seen. Clinical teaching takes place daily in the wards, and Clinical Lectures are given in the operating-room. There are Medical, Surgical, Ophthalmic, Aural, and Electrical Departments, in each of which special instruction is imparted to students. A Gynaecological and Extern Obstetric Department, together with Laryngeal and Skin Clinics, are in operation. The Public Dispensary, the Hospital for Women and Children, the Fever Hospital, and the West Riding Lunatic Asylum are other medical institutions which are made use of by the Leeds students.

In consequence of the growing requirements for space, chiefly as regards lecture-rooms and laboratories, plans have been prepared and an admirable site secured for a new building. It is believed that this building, the erection of which is in progress, will, in its convenience, commodiousness, and completeness, compare favourably with any similar institution in the kingdom. Meanwhile the work of the Medical School is carried on mainly in the premises in Park-street, which, erected in 1865, were then considered to be of ample size for the needs of the school, and were furnished with all that was necessary to give a complete medical education. The dissecting-rooms and physiological laboratories (which have been considerably enlarged since they were first built), the library, and the museums of Pathology and *Materia Medica*, are contained in this building. By the kind permission of the board of the infirmary, the lectures on Medicine, Surgery, and Ophthalmology are given in that institution; while the classes in Chemistry and Physics, Biology and Botany, Practical Chemistry, Practical Toxicology, and Practical Pharmacy, are held in College-road, in the Arts and Science Department of the College buildings. Two entrance Scholarships are offered: one, of the value of 60 guineas, covering admission to all requisite lectures; and the other, of the value of 40 guineas, covering the cost of admission to the medical and surgical practice of the infirmary. Several valuable prizes are given at the end of each session. The following appointments at the infirmary are annually open to students: Resident medical officer, resident surgical officer, resident obstetric officer, appointed for twelve months, and eligible for re-election; two house physicians, holding office for twelve months; four house surgeons, for twelve months; twenty-four physicians' clerks, for three months; twenty-four surgeons' dressers, for six months; sixteen ophthalmic and aural surgeons' dressers, for three months; eight gynaecological ward clerks, for three months; eight gynaecological out-patient clerks, for three months; twenty-four assistant physicians' clerks, for three months; twenty-four assistant surgeons' dressers, for three months; forty-eight dressers in the casualty-room, for three months; twelve post-mortem clerks, for three months.

There are appointments open to students in other medical institutions in the town, and also in the West Riding Lunatic Asylum.

**UNIVERSITY COLLEGE, LIVERPOOL, MEDICAL FACULTY: VICTORIA UNIVERSITY.**—The infirmary attached to the School contains 300 beds, with 40 special beds for the treatment of Diseases of Women. Lock, Lying-in, and Eye and Ear Hospitals are in the immediate vicinity, and their practice is open to the students of the Medical Faculty.

The composition fee for lectures and classes is £24 15s. for Preliminary Scientific Classes, and 60 guineas for the Medical Classes required for Victoria and London degrees; 60 guineas for the classes for the London diploma, ex-

clusive of Biology. The composition fees are payable in two instalments, with an interval of twelve months. The fee for hospital practice is 40 guineas, exclusive of the special hospital practice in Fever, Eye and Mental Diseases, which may be paid in the same way.

Three house physicians and three house surgeons are appointed from the qualified pupils every six months, also clinical clerks, dressers, and post-mortem clerks.

Two Holt Tutorial Scholarships, each of the value of £100, are awarded annually by the Medical Faculty to senior students. Also an entrance Lyon Jones Scholarship of £21 for two years for students proceeding to the Victoria degree, and another of the same value open to all students who have completed their second year. The Derby Exhibition of £15 for Clinical Medicine and Surgery. The Torr and School Gold Medals for Anatomy and Physiology, and the class prizes.

**MEDICAL DEPARTMENT OF OWENS COLLEGE, VICTORIA UNIVERSITY.**—This medical school is located in a large new building, which forms a part of Owens College. It is provided with a very large dissecting-room, physiological laboratory, private laboratories, and work-rooms, besides lecture-rooms, a museum, and a library. In order to give the fullest possible opportunities for teaching and investigation in the departments of Anatomy, Physiology, Pathology, and *Materia Medica*, an extension of the school buildings has been made and further extensions are approaching completion. The more strictly practical departments of medical study are taught partly in the Medical School and partly in the Royal Infirmary, to which are attached a fever hospital, a lunatic asylum, and a convalescent home. Medical and Surgical Clinical Classes are conducted in the infirmary, and separate instruction is afforded in the elements of Medical and Surgical Physical Diagnosis, in Obstetric Medicine, Ophthalmic Surgery, and Pathological Anatomy by the different members of the staff of the Medical School and Infirmary. The following scholarships and prizes are open to students of the Medical School:—A Dauntsey Scholarship of the value of about £100 is offered annually for competition at the beginning of October to persons who have not been students in any medical school in the United Kingdom, and whose age does not then exceed twenty-five years. The subjects for examination are—(a) General and Comparative Anatomy; (b) Physiological Botany; (c) Chemistry; (d) Mathematics or Latin. Medals are awarded on the results of the various class examinations at the end of each session. A Platt Physiological Scholarship of £50 a year for two years is offered annually to the student who, having studied for one entire session in the Physiological Laboratory of Owens College, has prosecuted the best original investigation in Physiology, and has passed a satisfactory examination in Physiology. Two Platt Exhibitions, of the value of £15 each, to be competed for by first and second year students in the class of Physiology. A Dumville Surgical Prize of £20 is offered annually for proficiency in Clinical Surgery. The Turner Medical Prize of £25 is awarded annually. The John Henry Agnew Scholarship in Diseases of Children is also offered for competition each year. Medical and Surgical Clinical Prizes, each of the value of 6 guineas, are open to competition each year for the best reports (with comments) of cases which have occurred in the wards of the infirmary.

**MANCHESTER ROYAL INFIRMARY (300 beds).**—Consulting Physicians: Drs. Frank Renaud, H. Browne, Sir Wm. Roberts, Henry Simpson, and John E. Morgan. Consulting Surgeons: Messrs. George Bowring, E. Lund, and F. A. Heath. Physicians: Drs. D. J. Leech, J. Dreschfeld, Thos. Harris and Graham Steell. Assistant Physicians: Drs. J. S. Bury and A. T. Wilkinson. Obstetric Physician: Dr. Lloyd Roberts. Surgeons: Messrs. Walter Whitehead, Thomas Jones, Jas. Hardie, and F. A. Southam. Assistant Surgeons: Messrs. G. A. Wright and Wm. Thorburn. Ophthalmic Surgeon: Dr. D. Little. Dental Surgeon: Mr. G. W. Smith. Medical Registrar: Dr. R. T. Williamson. Administrators of Anæsthetics: Mr. Alexander Wilson and Mr. A. G. Andrews. General Superintendent and Secretary: Mr. W. L. Saunder.

**BARNES CONVALESCENT HOSPITAL, Cheshire (in connexion with the Manchester Royal Infirmary; 136 beds).**—Secretary: Mr. W. L. Saunder. Resident Medical Officer: Dr. John E. Platt.

**MONSALL FEVER HOSPITAL, Newton Heath (in connexion with the Manchester Royal Infirmary; 350 beds).**—Resident





Medical Officer: Dr. Alex. Johnston. Secretary: Mr. W. L. Saunder.

**RADCLIFFE INFIRMARY, OXFORD.**—This infirmary is open to students for Medical and Surgical work in the wards and out-patients' departments. Clinical lectures are given by the Lichfield Clinical Lecturers in Medicine and Surgery. Also tutorial instruction and demonstrations are given in special Regional Anatomy (medical and surgical), methods of Medical Diagnosis, and Surgical Manipulation. Practical Pharmacy is taught in the Infirmary Dispensary. The whole course of study at the museum and infirmary combined is intended for students until they have passed the Second Conjoint Examination or the First Oxford M.B.

**SHEFFIELD SCHOOL OF MEDICINE**—The medical school is provided with dissecting-room, physiological laboratory, museum, library, and class-room. The course of lectures and instruction are adapted to meet the requirements of the various examining bodies. Chemistry, Physics, Comparative Anatomy, Elementary Biology, Botany, and Toxicology are taken out at Firth College. The infirmary contains 200 beds, a museum of Pathology, library, and post-mortem theatre, with microscopes, and all the appliances for clinical research. The Public Hospital and Dispensary contains 101 beds, and is recognised by the examining bodies. Perpetual fee for hospital practice £45 in one payment, or by two instalments; £26 on entering for hospital practice, and 22 guineas within twelve months afterwards. A tutor's fee of £2 2s is required from students entering for Anatomy and Physiology.

**JESSOP HOSPITAL FOR WOMEN, Gell-street, Sheffield.**—The hospital is devoted to Diseases peculiar to Women. There is also an Obstetric Department for the admission of a small number of cases. A staff of midwives connected with the hospital attend lying-in women at their own homes, and in case of need are assisted by the members of the medical staff. Out-patients are attended daily. Students can attend the practice of the hospital, and be supplied with cases of midwifery. Communications should be addressed to the Secretary, York Chambers, York-street, Sheffield.

#### ENGLISH PROVINCIAL HOSPITALS HAVING SPECIAL CLASSES AND FACILITIES FOR CLINICAL STUDY.

**BATH ROYAL UNITED HOSPITAL (120 beds).**—Honorary Consulting Physician: Dr. Cones. Honorary Consulting Surgeon: Mr. Fowler. Honorary Physicians: Drs. Cole and Fox. Honorary Surgeons: Messrs. Stockwell, Freeman and Scott. Honorary Assistant Medical Officers for Out-patients: Mr. Lane, Drs. Wilson-Smith and Bannatyne. Honorary Assistant Surgeons: Messrs. Green, Ransford and Terry. Dental Surgeon: Mr. Gaine. Curator of Museum: Dr. Bannatyne. Anaesthetist: Mr. Lace. Registrar: Mr. Hopkins. The hospital is recognised by the Royal College of Physicians, Surgeons, &c., and licensed for dissections. It contains a library and an excellent museum, in which are a large number of interesting specimens, both in Pathology and Comparative Anatomy. Fees for attendance: twelve months, £10 10s.; six months, £5 5s. (Temporary pupils can also, by permission of the Honorary Staff, attend the practice of the hospital by the payment of £1 1s. for each month.) Instruction in Practical Pharmacy for three months, £3 3s. Number of Patients admitted during 1891, 1048. Out-patients, 8448. Operations performed, 305. Cases of anaesthetisation recorded, 305. Out-patient casualties, 1203. For further particulars apply to the Registrar.

**DEVON AND EXETER HOSPITAL, Exeter.**—Medical and Surgical Staff: Consulting Physician: Dr. Drake. Physicians: Drs. H. Davy, Arthur G. Blomfield, and Wm. Gordon. Consulting Surgeons: Messrs. A. J. Cumming and T. W. Caird. Surgeons: Messrs. James Bankart, J. D. Harris, E. J. Donville, and Charles E. Bell. House Surgeon: Mr. Henry Andrew. Assistant House Surgeon: Mr. G. Stewart Abram. The hospital contains 218 beds (including special children's wards). There is a good library, museum, dissecting and post-mortem rooms. Attendance on the practice of this hospital qualifies for all the examining boards. Arrangements can be made by which students can attend Midwifery. There is also a Nurses' Home attached to the Hospital. For further particulars as to fees &c., apply to the House Surgeon.

**WEST OF ENGLAND EYE INFIRMARY, Exeter.**—Surgical Staff: Messrs. Bankart and Toswill. Registrar: Mr. Roper. Secretary: Mr. R. C. Cole. The infirmary contains fifty beds. Students of the Exeter Hospital can attend the practice of the Eye Infirmary. Patients for the year ending Michaelmas, 1891, 2104. Total number of patients since the opening of the Infirmary in 1808, 79,512. Days of admission: Mondays, Tuesdays, and Fridays, at 11.

**GENERAL KENT AND CANTERBURY HOSPITAL.**—Opened for the reception of patients April 26th, 1793. 53,331 in-patients and 95,953 out-patients have been admitted since the hospital was open. The hospital contains 106 beds. Pupils of the staff are admitted to the practice of the hospital, and have the use of the library of the East Kent and Canterbury Medical Society for £7 7s. Operation day, Thursday, 11 A.M. Physician: Dr. Henry Alex. Gogarty. Consulting Surgeon; Mr. James Reid. Surgeons: Messrs. Charles Holttum, Frank Wacher, T. Whitehead Read, and John Greasley. Dentist: Mr. Martin L. Bell. House Surgeon: Mr. Z. Prentice. Assistant House Surgeon and Dispenser: Mr. A. C. Elliman. Secretary: Mr. Arthur J. Lancaster. Over 600 in-patients, 3000 out-patients, and 1000 dental cases are attended in a year.

**LIVERPOOL NORTHERN HOSPITAL (160 beds).**—There is a special ward for the treatment of Children. Clinical lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all students without additional fee. Consulting Surgeons: Mr. W. H. Manifold and Dr. W. Macfie Campbell. Physicians: Dr. E. H. Dickinson, M.A.; Dr. James Barr. Surgeons: Messrs. Chauncy Puzey, Damer Harrison, and A. H. Wilson. Fees for hospital attendance: Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s.; Practical Pharmacy, £2 2s. Students can enter to the medical or the surgical practice separately on payment of half the above fees.

**LIVERPOOL ROYAL SOUTHERN HOSPITAL (CLINICAL SCHOOL).**—Physicians: Dr. Cameron, Dr. Carter and Dr. Williams. Surgeons: Mr. Rawdon, Mr. Alexander and Mr. Robert Jones. Medical Tutor: Dr. Macalister. Surgical Tutor: Mr. Davey. Pathologist: Dr. Barendt. The hospital is situated within convenient distance of the School of Medicine and contains 164 beds. There is a children's ward and beds are appropriated to the diseases of women. Clinical teaching is given in the hospital and arrangements have been made to render it both thorough and systematic. The members of the staff visit the wards daily and clinical lectures are given every week. Tutorial classes are also held each day at which the junior students are instructed in the methods of diagnosis and the seniors are prepared for their final examinations. The pathological department has a good laboratory attached in which the students receive practical instruction. In addition to the usual clinical and post-mortem clerkships, which are open to all students, the resident post of Ambulance Officer is awarded every three months to the student whom the board may consider most suited to hold it. A Scholarship of £20 is competed for annually, which has attached to it some clinical and pathological duties; and three prizes of £5 each are yearly offered for the best series of clinical reports. Fees: Perpetual £26 5s.; one year £10 10s.; six months £7 7s.; three months £4 4s. A limited number of resident pupils can be received. Terms (exclusive of fees for Hospital Practice), £15 15s. per quarter. The practice of the hospital is recognised by all examining bodies. Special wards for accidents and diseases of children. Resident students received. For further particulars apply to the Dean, Mr. Robert Jones, 11, Nelson-street, Liverpool.

**NEW ROYAL INFIRMARY, Liverpool.**—The buildings of the new Royal Infirmary were completed and occupied in 1890. They stand on the old site, adjacent to the college, but enlarged by the purchase of a fine frontage in Pembroke-place and of the street known as Pembroke-gardens. Externally, they form a handsome and imposing group of buildings, the general arrangement of which may be gathered from the plan at the beginning of the prospectus. Every available open-air space has been taken advantage of to secure good airing grounds for the patients, and the beauty of the buildings has been not a little enhanced by the numerous balconies, colonnades, and flat roofs adapted to the same purpose for both patients and resident staff. Internally, no point in modern sanitary science has been omitted. The wards—some parallelograms, some circular—

have floors of waxed oak blocks, laid on an iron and cement substratum. Three operating theatres and a clinical lecture theatre have been provided. There is an electrical room, and provision for special kinds of baths. The out-patient department has been so modelled that advantage can be taken of the patients who come to it for the study of minor medical and surgical maladies, and probably also of certain special forms of disease. A room has been allotted to the tutors, in which they may keep their records, while each surgeon and physician has a private room in connexion with his wards, where his dressers and clerks may write up and tabulate cases and investigate morbid products. The pathological department, which is daily becoming of more importance in medical education, has had much pains expended upon it, so as to give proper facilities for the study of morbid anatomy. It is hoped that the facilities for clinical work will be such as not merely to enable the present students to learn the practical parts of their profession thoroughly, but to attract students from overcrowded institutions where the number of pupils is far in excess of the opportunities for the bedside study of disease. In no hospital in the country are the resident physicians and surgeons so comfortably lodged. Each is provided with a bedroom and a private sitting-room in addition to the music-room and dining-room, where all the six residents meet in common.

**NORFOLK AND NORWICH HOSPITAL** (220 beds).—Fees: £10 10s. for six months', £15 15s. for twelve months' medical and surgical practice. Pupils: resident and non-resident. Consulting Physician: Sir P. Eade, M.D. Consulting Surgeons: Mr. T. W. Crosse, F.R.C.S., and Mr. W. Cadge, F.R.C.S. Physicians: Sir Frederic Bateman, M.D., Dr. Barton and Dr. Burton-Fanning. Surgeons: Mr. Williams, Dr. Beverley and Mr. H. S. Robinson. Assistant Surgeons: Mr. S. H. Burton and Mr. D. D. Day. Dental Surgeon: Mr. R. Wentworth White. House Surgeon: Mr. Reginald Crosse. Secretary: Mr. Poole Gabbott.

**NORTHAMPTON GENERAL INFIRMARY** (Established 1743; rebuilt 1793).—In-patients, 1870; out-patients, 9202. The number of beds is 160. Out-pupils are received, and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given in Anatomy and Materia Medica and Practical Pharmacy. Pupils' fee £25 per annum, or a perpetual fee of £50. Non-resident pupils are taken at a fee of £10 10s.

**NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL**, Hartshill.—The New Infirmary, opened in 1869, is built on the pavilion plan, has accommodation for over 220 patients, including Children's wards, special Ovarian wards, and a special department for the treatment of Diseases of the Eye. In-patients last year, 1877; out-patients, 9661. The attendance of pupils at this infirmary is duly recognised by all the examining boards; and there are unusual facilities for acquiring a practical knowledge of the profession. Physicians: Dr. A. M. McAldowie and Dr. J. Charlesworth. Surgeons: Messrs. J. Alcock and W. D. Spanton. Ophthalmic Surgeon: Mr. J. G. U. West. Assistant Ophthalmic Surgeon: Mr. Herbert Folker. Assistant Physicians: Messrs. S. King Alcock and H. Nicholls. Assistant Surgeons: Drs. G. S. Hutton and W. Hind. Dental Surgeon: Mr. A. Baines. House Surgeon: Mr. A. S. Barling. House Physician: Mr. T. Treffy Cockill. Secretary: Mr. R. Hordley, Hartshill, Stoke-on-Trent, from whom particulars as to fees &c. may be obtained.

**WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL** (founded 1848; beds, 230).—A preparatory school of Medicine and Surgery. The pupils have the advantage of seeing the whole of the practice of the physicians and surgeons, and are trained in clinical work by the medical and surgical staff. The attendance of pupils at this hospital is recognised by all the examining boards. Operations are performed every Thursday at 11 o'clock, and practitioners are welcomed.

**SUSSEX COUNTY HOSPITAL**.—Beds, 174. In-patients treated annually, 1520; out-patients treated annually, 7800. This hospital affords ample facilities for students, possessing a large out-patient department, a library and a well-appointed museum. The hospital does not take resident pupils, but out-pupils may attend the practice of the hospital for any period not exceeding two years on payment, in advance of such a fee, not exceeding 20 guineas, as the Committee of Management shall direct.

**MANCHESTER GENERAL HOSPITAL FOR SICK CHILDREN**, Pendlebury and Gartside-street.—The hospital contains 140

beds, including 28 for scarlet fever. The medical staff visit the hospital daily at 10 A.M. Clinical instruction is given by the medical staff at the Hospital and Dispensary. Out-patients are seen daily at 9 A.M. at the Dispensary, Gartside-street, Manchester. Physicians: Drs. Ashby and Hutton. Surgeon: Mr. G. A. Wright. Assistant Surgeon: Mr. Joseph Collier. During 1891 there were 1249 in-patients and 10,571 out-patients under treatment at the Dispensary.

**BRADFORD EYE AND EAR HOSPITAL**.—The hospital contains 45 beds. The staff attend from 3 to 5 on Tuesdays and Saturdays for Diseases of the Eye, and on Thursdays for Diseases of the Ear. Operations on Tuesday and Thursday at 5 P.M. During 1891 the number of out-patients was 4113, and 489 major operations were performed. The clinique of the hospital is open to medical practitioners and advanced students. Surgeons: Drs. Bell and Adolph Bronner. Assistant Surgeons: Drs. Johnstone, Dodd, and Little.

**ROYAL PORTSMOUTH HOSPITAL**. (Opened 1849).—Beds, 133. In-patients last year, 896; out-patients, 6803. One year's attendance recognised by the Examining Boards. Consulting Surgeon: Mr. E. K. Knight. Physicians: Drs. E. J. Wallace and J. Watson. Surgeon: Dr. J. Ward Cousins, F.R.C.S. Dental Surgeon: Mr. Kirton. Surgeon for Out-patients: Mr. C. H. Newby, F.R.C.S. House Surgeon: Mr. T. H. Bishop, M.B. Assistant House Surgeon: Mr. B. B. Thorne. For particulars as to fees &c. apply to the House Surgeon.

## SCOTLAND.

### MEDICAL SCHOOLS WITH FULL CURRICULUM.

**SCHOOL OF MEDICINE, Edinburgh**.—The students who enter the classes of the school of medicine are partly University students, proceeding to the University qualification; and partly students who are intending to take other qualifications, such as the qualifications of the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, the Royal College of Surgeons of England, and the University of London, and elsewhere. The number of students varies much in the classes and subjects. In Practical Anatomy alone it reaches 600 different students. It is much within the limit to say that about 1000 students avail themselves each year of the opportunity of attending the school. The number of class tickets issued annually by the lecturers is of course considerably larger. The lectures qualify for the University of Edinburgh and the other Universities, the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin, the Faculty of Physicians and Surgeons of Glasgow, and the other Medical and Public Boards. In accordance with the recent Statutes of the University of Edinburgh, one half of the qualifying classes required for graduation may be attended in this school. The regulations require that the fee for any class, taken for graduation in Edinburgh, shall be the same as that for the corresponding class in the University. The whole education required for graduation at the University of London may be taken in this school.

*Fees*.—For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh the perpetual fee is £2 4s. Practical Anatomy (six months' course), £3 3s.; course of demonstrations, £2 2s.; perpetual, £4 4s. Practical Anatomy, with course of demonstrations, £4 4s. Practical Chemistry, £3 3s. Analytical Chemistry, £2 for one month, £5 for three months, or £10 for six months. Practical Physiology, Practical Pathology, and Practical Materia Medica and Pharmacy, each £3 3s.; Diseases of the Ear and Throat, and Diseases of the Eye, each £2 2s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Anatomical Demonstrations, £2 2s.; Operative Surgery, £3 3s.; Insanity, £1 1s.

**EDINBURGH SCHOOL OF MEDICINE AND PHARMACY**, Marshall-street, Nicolson-square.—The classes of this School will be resumed for the winter session on October 11th next, Chemistry, Theoretical and Practical, Midwifery, Surgery, and Medicine. From the Dispensary attached to this institution, Pharmacy, Practical and Theoretical. Practical Midwifery. Out-door Practice. Medical and Surgical Diagnosis. Attendance at this institution qualifies for the University of Edinburgh and all other licensing boards. Tutorial classes

TABLE LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE MEDICAL SCHOOLS OF SCOTLAND, FOR THE SESSION 1892-93.

LECTURES, &c.	ABERDEEN UNIV.		ST. ANDREWS UNIV.		EDINBURGH UNIV.		GLASGOW UNIV.		ST. MUNGOS COLL. & GLASGOW ANDERSON'S COLL. MED. SCHOOL.		GLASGOW WESTERN MEDICAL SCHOOL.	
	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.	PROFESSORS.	FEES. One Course.	LECTURERS.	FEES. One Course.	LECTURERS.	FEES. One Course.
<b>WINTER SESSION.</b>												
ANATOMY ... ..	Prof. R. W. Reid	£ 4	Prof. Paterson	£ 4	Sir William Turner	£ 4	Dr. J. Cleland	£ 4	Mr. Clark	£ 4	Dr. A. M. Buchanan	£ 4
PHAC. ANAT. & DEMONS. ...	Prof. Japp	3	Prof. Paterson	3	Dr. Crum Brown	4	Dr. Ferguson	3	Mr. Clark	4	Mr. J. E. Watson	4
CHEMISTRY (PRACTICAL, &c.)		3	Prof. Purdie	3	(Adv. Class in Sum.)	4	[Chemical Lab.]	10	Dr. Milne	2	[Physic: Dr. Ferguson]	2
		3	Prof. Frankland	3			Dr. J. Ferguson	3	[Throat and Nose:]	2	[Zoology: Dr. Todd]	2
PHYSIOLOGY (LESS. OF MEN.)	Dr. MacWilliam	3	Prof. Pettigrew	3	Dr. Botherford	4	Dr. McKendrick	3	Dr. Barlow	2	Dr. D. Campbell	2
GENERAL PATHOLOGY, &c.	Dr. Hamilton	3	Prof. Reid	3	Dr. Greenfield	4	[Summer Course]	4	Dr. Lindsay Steven	3	(In Infirmary)	2
MEDICINE ... ..	Dr. D. W. Flaly	3		3	Dr. Grainger	4	Dr. J. Coats (inc.)	3	Dr. Robertson	2	Dr. Gemmell	2
		3		3	Stewart	4	Dr. Gardner	3	Dr. D. N. Knox	2	Dr. W. L. Reid	2
SURGERY ... ..	Dr. Alex. Ogston	3	Dr. MacEwan	2	Dr. Chiene	4	Sir G. H. B. Macleod	3	Dr. D. N. Knox	2	Dr. Dunlop	2
		3	(Systematic)	2			[Physic: Lord Kelvin & Mr. Magnus Maclean]	3	Dr. D. N. Knox	2	Dr. W. L. Reid	2
MATERIA MEDICA, &c.	Dr. Cash	3		3	Dr. T. R. Fraser	4	Dr. Charters	3	Dr. Dougal	2	Dr. A. Napier	2
MIDWIFERY, &c.	Dr. Stephenson	3		3	Dr. Simpson	4	Dr. Leishman	3	Dr. Stirling	2	Dr. A. Napier	2
		3		3	(Dis. Wom. & Child.)	4	[Pub. Health:]	3	Dr. Workman	2	Dr. A. Napier	2
MED. JURISPRUDENCE, &c.	Dr. Hay	3		3	Sir D. MacLagan	4	Dr. Simpson & Ferguson	3	[Dis. of Throat & Nose: Dr. Macintyre (also in Summer)]	2	Dr. A. Napier	2
NATURAL HISTORY ... ..	Dr. Nicholson	3	Prof. McIntosh	3	(in Summer only)	4	Dr. Simpson,†	3	Dr. T. K. Daziel	2	Dr. H. St. Clair Gray	2
NATURAL PHILOSOPHY ...	Prof. Niven	3	Prof. Butler	3	Dr. Ewart	4	(Law Class, ditto)	3	Mr. Prince	2		2
HOSPITAL PRACTICE:		3	Prof. Stegall	3	Mr. Tait	3	Edin. Royal Inf.	3	Mr. Blyth (and Physic)	2		2
		3		3			Edin. Royal Inf.	3		2		2
PHYSIOLOGY ... ..	Dr. A. Fraser, Blackie Smith, and Finlay Daily	3		3			Edin. Royal Inf.	3		2		2
	[Assist. Physic:] Drs. Ogston, Garden, & Booth	3		3			Edin. Royal Inf.	3		2		2
SURGERY ... ..	Williamson (dentist) Daily	3		3			Edin. Royal Inf.	3		2		2
ASSISTANT-SURGEONS ...	Dr. McK. Davidson (ophth.)	3		3			Edin. Royal Inf.	3		2		2
CLINICAL MEDICINE ... ..	Drs. A. Fraser, Blackie Smith, and Finlay	3	The Physicians of the Royal Infirmary, Dundee	3	Dr. G. Stewart Fraser, Greenfield, & Simpson (of Women)	4	Dr. McCall Anderson & Gairdner (and in Summer)	4	Dr. McVail and the Physicians of the Royal Infirmary	3	The Physicians	3
		3	The Surgeons of the Royal Infirmary, Dundee	3	Dr. Annandale	4	Dr. Buchanan & Sir G. H. B. Macleod (and in Summer)	4	Dr. Macewen and the Surgeons of the Royal Infirmary	2	The Surgeons	2
CLINICAL SURGERY ... ..	Dr. Ogston, Garden, & Booth	3	Prof. Paterson	2	Sir Wm. Turner	3	Dr. Cleland and Demonstrators	3	Mr. Clark	2	Dr. Buchanan	2
<b>SUMMER SESSION.</b>												
PHAC. ANAT. & DEMONS. ...	Prof. R. W. Reid	2	Prof. Geddes	3	Dr. Bayley Balfour	4	Dr. Cleland and Demonstrators	2	Mr. Swansen	2	Mr. T. King	2
		2	Mr. Robertson	3	[Physic: Mr. Tait]	3	Dr. Bower	3	Dr. Barlow	2	Dr. D. Campbell	2
ROTARY ... ..	Dr. Trail	3		3			Dr. McKendrick	3	Mr. Price	2	Black	2
HISTOLOGY ... ..	Dr. MacWilliam	3	Prof. Frankland	2			Dr. J. Ferguson	3	Dr. Milne	2	Mr. J. E. Watson	2
		3		2			[Pract. Med. Acad.]	3	Dr. J. Kerr Love	1	[Physic: Dr. Ferguson]	2
COMPARATIVE ANATOMY ...	Prof. Japp	1		1			Dr. Charters	2	Dr. Wolfe*	2	Dr. McAlighan	Free
PRACTICAL CHEMISTRY ...	Dr. MacEwan	1		1			Dr. T. Reid	2	Dr. Black & Adams*	2		2
DISEASES OF THE EAR ...	Dr. Davidson	1		1			Dr. Young	3	Dr. A. C. Clark	2		2
DISEASES OF THE EYE ...	Dr. Stephenson	3	Prof. Thompson	3	Dr. Ewart* [Playfair]	4	Dr. Young	2	Dr. Kelly	1	Dr. Caswell	1
DISEASES OF CHILDREN ...	Dr. Nicholson	3		3	Dr. Clouston	3	Dr. Leishman	2	Dr. Kelly	1	Dr. W. L. Reid	2
NATURAL HISTORY ... ..	Dr. Reid	1		1	Dr. Simpson	4	Dr. Leishman	2	Dr. Stron	2	Dr. W. L. Reid	2
MED. PSYCHOL. & INSANITY	Dr. Stephenson	2		2	[Pr M. Anal. Path]	4	Sir G. H. B. Macleod	2	Dr. Whitson	2	Dr. D. Smith	2
GYNÆCOLOGY ... ..	[Prac. Hygiene: Dr. Hay]	3		3	Dr. Greenfield	4		2	Dr. Stron	2	Dr. D. Smith	2
MIDWIFERY, &c.	Dr. Alex. Ogston	3	Dr. MacEwan	3	Dr. Chiene	3		2	Dr. Whitson	2	Dr. D. Smith	2
OPERATIVE SURGERY ... ..		3		3				2	Dr. Whitson	2	Dr. D. Smith	2

\* Also in Winter.

† With Clinical Instruction at an Asylum, £3 9s.

‡ In Summer.

§ This fee includes Practical Anatomy.

|| Dundee.

\*\* In Winter.

in all the branches of the medical curriculum. Particulars of R. Urquhart, Secretary.

**ANDERSON'S COLLEGE MEDICAL SCHOOL, Glasgow.**—This medical school dates back to the year 1790. It has given fourteen professors to the University of Glasgow, of whom six at present hold office. The following courses are given, which qualify for all the licensing boards and for the Universities of London, Durham, Ireland, Edinburgh, and Glasgow (the latter two under certain conditions):—In winter: Anatomy, Professor A. M. Buchanan, M.A., M.D.; Chemistry, Professor J. Robertson Watson, M.A.; Physics, Professor Freeland Fergus, M.D.; Zoology, Professor Geo. Bell Todd, M.B.; Physiology, Professor D. Campbell Black, M.D.; Surgery, Professor James Dunlop, M.D.; Practice of Medicine, Professor Samson Gemmell, M.D.; Materia Medica, Professor Alex. Napier, M.D.; Diseases of Women, Professor W. L. Reid, M.D.; Ophthalmic Medicine and Surgery, T. Spence Meighan, M.D.; Aural Surgery, Thomas Barr, M.D.; Diseases of Throat and Nose, John Macintyre, M.B. In summer: Anatomy, Practical Anatomy, and Osteology, Practical Chemistry, Physics, Practical Pharmacy, Practical Physiology, Operative Surgery, Midwifery and Diseases of Children, Medical Jurisprudence, Professor T. Kennedy Dalziel, M.B.; Botany, Professor King; Ophthalmic Medicine and Surgery and Mental Diseases, Dr. Carswell; Diseases of Throat and Nose and Hygiene and Public Health, P. Caldwell Smith, M.A., M.D., D.P.H.Camb. The Chemical Laboratory is open daily from 10 to 5. The Dissecting-room is open in winter from 9 A.M. to 6 P.M., and in summer from 6 A.M. to 6 P.M. The students are assisted in their dissections by the Professor and Demonstrators, by whom frequent examinations and demonstrations on the parts dissected are conducted. The supply of subjects for dissection is ample, and students are consequently provided with parts as soon as they may be ready for them. The Dissecting-room is provided with a complete series of dissected specimens, mounted in plaster-of-Paris, illustrating the anatomy of the human body.

The new buildings are situated in Dumbarton-road, immediately to the west of the entrance to the Western Infirmary, within two minutes' walk of it, and four minutes' walk of the University. Extensive accommodation is provided for Practical Anatomy, Practical Chemistry, Practical Physiology, Practical Pharmacy, and Operative Surgery. There are also provided a large library and reading-room, and a students' recreation-room.

**Fees.**—For each of the above courses of Lectures (Anatomy and Chemistry excepted), first session, £2 2s.; second session, £1 1s. Anatomy Class Fees: Winter, first session (including Practical Anatomy), £4 4s.; second session (including Practical Anatomy), £4 4s.; third session, £2 2s. To those who have had the necessary courses of Practical Anatomy the fee will be £1 1s. Summer, Lectures and Practical Anatomy, £2 2s.; Lectures alone, £1 11s. 6d.; Practical Anatomy alone, £1 1s.; Osteology and Practical Anatomy, £2 2s.; Osteology alone, £1 11s. 6d. Chemistry Fees: First course, £2 2s.; second course, £2 2s. Matriculation Fees: 10s. to those taking out two or more classes; 5s. to those taking out only one class. The fee of 10s. represents a combined fee for the winter and summer sessions. Students who have attended Classes at other Schools, and who desire to pursue their studies at Anderson's College Medical School, will be admitted to such Classes as they may have attended elsewhere at the reduced fees.

**Royal Infirmary.**—Fees: Hospital Practice and Clinical Instruction, first year, £10 10s.; second year, £10 10s.; afterwards free. Six months, £6 6s.; three months, £4 4s. Pathology, both courses, £3 3s. Vaccination Fee, £1 1s.

**Western Infirmary.**—Fees: Hospital Practice and Clinical Instruction, first year, £10 10s.; second year, £10 10s.; afterwards free. Six months, £7 7s.; three months, £4 4s. Pathology, both courses, £4 4s. Vaccination Fee, £1 1s.

Certificates of attendance on the lectures at Anderson's College Medical School are received by the Universities of London, Durham, Ireland, Edinburgh, and Glasgow (the latter two under certain conditions); by the Royal Colleges of Physicians of London and Edinburgh; by the Royal Colleges of Surgeons, England, Edinburgh, and Ireland; by the King and Queen's College of Physicians, Ireland; by the Faculty of Physicians and Surgeons of Glasgow; by

the Apothecaries' Hall, London; and by the Army, Navy, and East India Boards. Communications relating to the Medical School to be addressed to the Dean of the Medical Faculty, Professor Samson Gemmell, M.D., Anderson's College Medical School, Dumbarton-road, Partick, Glasgow. Communications relating to the Preliminary Examination in General Education, and also regarding the Triple Qualification, to be addressed to Alexander Duncan, Esq., B.A., Faculty Hall, 242, St. Vincent-street, Glasgow.

**ST. MUNGO'S COLLEGE AND GLASGOW ROYAL INFIRMARY.**—This College was incorporated in 1889. The Glasgow Royal Infirmary was founded in 1791. The Faculty of Medicine of the College occupies new buildings erected for the purposes of a medical school, adjoining and communicating with the Royal Infirmary. The Laboratories, Museums, and Lecture-rooms are equipped and adapted to modern scientific requirements. Recent additions consist of Public Health, Practical Zoology, and Bacteriological Laboratories. The Royal Infirmary, which is at the service of the College for the purpose of clinical and practical instruction, is one of the largest general and special hospitals in the kingdom. It has nearly 600 beds, and will almost immediately have considerably over 600. It has special wards for Diseases peculiar to Women, for Venereal Diseases, Erysipelas, Burns, and Diseases of the Throat and Nose. At the Dispensary special advice and treatment are given in Diseases of the Eye, Ear, Teeth, and Skin, Women, Throat and Nose, in addition to the large and varied number of ordinary medical and surgical cases—over 36,000 per annum—which in a great industrial centre daily require attention. Students of the College and Hospital get the benefit of dispensary experience free of charge. All appointments are open. There are five Physicians and six Surgeons' Assistants, who board in the hospital free of charge, and act in the capacity of House Physicians and House Surgeons. These appointments are made for six months, and are open to gentlemen who have a legal qualification in Medicine or Surgery, and preference is given to the students of this College and Hospital. Clerks and Dressers are appointed by the Physicians and Surgeons. From the large number of cases of acute disease and accidents of varied character received into this hospital, these appointments are very valuable. In the Pathological Department assistants are also appointed. The session will open with an address by Professor McVail on Wednesday, Oct. 16th, at the College buildings.

**Ophthalmic Department.**—The Ophthalmic Institution in West Regent-street having been amalgamated with the Royal Infirmary, the usefulness of this department is very much increased, and greater opportunities afforded to students for the practical study of Diseases of the Eye. Dr. Wolfe, the ophthalmic surgeon, attends the Royal Infirmary every Tuesday and Friday at 12 noon, and daily at the Institution in West Regent-street from 1 to 2 o'clock. Students can attend both without payment of any additional fee. Lectures are delivered twice a week during the winter and summer sessions. Fee for the course, £2 2s.

The fee for each class is £2 2s., except for Anatomy, which is £4 4s., and for Physics, which is £2 4s. 6d., and certain extra classes, for which the fee is £1 1s. The governors have arranged a sessional fee, payment of which entitles the student to attendance not only on the curriculum classes, but all the classes—nearly as many more as the curriculum classes,—and this sessional fee is only slightly greater than the sum total of the fees required for the curriculum classes. Students are strongly recommended to begin their course on the sessional fee plan. This fee, exclusive of hospital practice, is £17 19s. 6d. for the first year, £15 15s. for the second, £10 10s. for the third, and £5 5s. for the fourth. The hospital fee (including clinical lectures) is £21 for a perpetual ticket. The classes in St. Mungo's College and in the Glasgow Royal Infirmary are for male students exclusively. Further particulars can be obtained in the Calendar of the College, which will be sent free of charge on application to the Hon. Secretary, Mr. Henry Lamond, 93, West Regent-street, Glasgow.

**GLASGOW WESTERN MEDICAL SCHOOL.**—This School is situated in University-avenue, close to the University and Western Infirmary, in which latter students obtain their Hospital Practice and Clinical Lectures. Lectures and

Demonstrations are given on Chemistry, on Surgery, on Practice of Physic, on Midwifery and Gynæcology, and on Diseases of the Throat and Nose.

*Class Fees.*—For each course of Lectures the fee is £2 2s., except for Diseases of Throat and Nose, the fee for which class is £1 1s. There is no matriculation fee.

**QUEEN MARGARET COLLEGE, Glasgow.**—Queen Margaret College, hitherto the only college in Scotland for the University education of women, was founded in 1883, and now after nine years has attained to a position of greater honour than the promoters could have anticipated in the earlier days of its history. Within the last two months an important change has taken place in the relation of the College to the University of Glasgow. The Universities Commissioners have empowered the Courts of the several Universities of Scotland to admit women to graduation in such Faculty or Faculties as each Court may think fit, and to provide for the education of candidates either in mixed classes of men and women or in separate classes. Glasgow University Court has preferred the second of these alternatives, and, at the instance of the Council of Queen Margaret College, has accepted an offer made by the Council to hand over to the University the government, the endowments, present and prospective, and, with the consent of the donor, Mrs. Elder, the buildings of Queen Margaret College, the endowment and buildings to be reserved for the exclusive education of women, and the College to become incorporated with the University as its department for women. By this step has been secured the amplest fulfilment of the object continually kept in view by the founders—viz., the provision of a University education for women, for now a full curriculum in arts and medicine is given in Queen Margaret College to women by University professors and lecturers, and attendance on the classes qualifies for admission to the degrees examinations of the University. Queen Margaret College therefore, as being a department of the University of Glasgow, has now a standing which it could have acquired by no other means, while the University obtains a building in which women shall have their own class-rooms, laboratories and reading-rooms, as well as access to the University Library and Museum.

**UNIVERSITY COLLEGE, Dundee.**—Medical Department, Session 1892-93.—The College now forms an integral part of St. Andrews University. The medical classes qualify therefore for the degrees of this and the other Scottish Universities, for the University of London, the Royal University of Ireland, as well as for the licences of the Medical Corporations in England and Scotland. All classes are open to women on equal terms with men. Equipment is at present provided for the first three years of the curriculum. Recently a considerable addition has been made to the temporary anatomical buildings, comprising an enlarged dissecting-room, library, bone-room, private room and work-room. New buildings are also being provided for the departments of zoology, botany and physiology. The Zoological Museum has been very largely increased by recent donations of several thousands of specimens from the British Museum and other sources, and there have been great additions made in the equipment of the department of Physiology by the acquisition of new instruments and apparatus. The lectures and classes for the winter session will commence on Tuesday, Oct. 11th. Natural Philosophy: Professor Steggall and assistant. Chemistry: Professor Frankland, F.R.S., and assistants. Zoology: Professor D'Arcy W. Thompson. Anatomy: Lecturer, Professor Paterson. Physiology: Professor Waymouth Reid. Systematic Surgery: Dr. MacEwan. Clinical Medicine and Surgery: The Visiting Physicians and Surgeons of the Dundee Royal Infirmary, daily.

The lectures and classes for the summer session will commence on Tuesday, May 2nd, 1893.

**DUNDEE ROYAL INFIRMARY.**—*Entrance Scholarships.*—First year: (a) Three Armitstead Scholarships of £20 each, tenable for one year. (These Scholarships were founded and endowed in 1883 by George Armitstead, Esq., M.P.) (b) Three Scholarships of £15 each, tenable for one year. Second year: Three Armitstead Scholarships of £20 each, tenable for one year, to be awarded under the following regulations:—1. These Scholarships will be open to all day students entering upon their second year. Candidates must have attended not less than two regular courses at the College during the year immediately preceding the competition.

## INSTITUTIONS AFFORDING FACILITIES FOR CLINICAL OBSERVATION.

**ROYAL INFIRMARY, Edinburgh.**—Beds are set apart for clinical instruction by the professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the ordinary physicians and surgeons. Special instruction is given in the medical department on Diseases of Women, Physical Diagnosis, and on Diseases of the Skin; and in the surgical department on Diseases of the Eye, the Ear, the Larynx, and the Teeth. Separate wards are devoted to Venereal Diseases, Diseases of Women, Diseases of the Eye, the Ear, and the Skin, also to cases of Incidental Delirium or Insanity. Post-mortem examinations are conducted in the anatomical theatre by the pathologists, who also give practical instruction in Pathological Anatomy and Histology. The fees for hospital attendance are as follows—viz.: Perpetual ticket, in one payment, £12; annual ticket, £6 6s.; six months, £4 4s.; three months, £2 2s.; monthly, £1 1s. Separate payments amounting to £12 12s. entitle the student to a perpetual ticket. No fees are paid for any medical or surgical appointment. The appointments are as follows:—1. Resident physicians and surgeons are appointed, and live in the house free of charge. The appointment is for six months, but may be renewed at the end of that period by special recommendation. 2. Special non-resident clerks are appointed for six months. The appointment may be renewed for a like period by special recommendation. 3. Clerks and dressers are appointed by the physicians and surgeons. These appointments are open to all students and junior practitioners holding hospital tickets. 4. Assistants in the pathological department are appointed by the pathologists.

**EDINBURGH EYE, EAR, AND THROAT INFIRMARY, 6, Cambridge-street, Lothian-road.**—Clinical Lectures and Instruction are given in this institution, which is open at 1 o'clock daily for out-door patients for Eye Diseases; Mondays, Thursdays, and Saturdays at 12 noon for out-door Ear Patients; and Tuesdays and Fridays at 4 P.M. for out-door Throat Patients. Those whose diseases require operations or more than ordinary care are accommodated in the house. Consulting Surgeon: Dr. Joseph Bell, F.R.C.S. Surgeons: Dr. J. J. Kirk Duncanson, Dr. G. Hunter Mackenzie, Dr. William George Sym, and Dr. Alexander Black. Dental Surgeon: Mr. G. W. Watson, L.D.S. Treasurer and Secretary: Mr. A. P. Purves, 12, Queen-street.

**GLASGOW HOSPITAL AND DISPENSARY FOR DISEASES OF THE EAR, 28, Elmbank-crescent.**—The hospital, which contains twelve beds for in-door patients, is always open for urgent cases. Hours of surgeons' visits 2 P.M. daily; clinical teaching daily. Out-patients are seen on Mondays, Tuesdays, Wednesdays, Thursdays, Fridays, and Saturdays, at 2 P.M., by Dr. Barr and assistants; and operations and special demonstrations to students and practitioners take place on Thursdays from 3 to 4 P.M.

**GLASGOW WESTERN INFIRMARY.**—This hospital adjoins the University of Glasgow. Number of beds upwards of 400. Special wards are set apart for Diseases of Women and for Affections of the Skin. In the out-patient department there are special clinics for Diseases of Women and for Diseases of the Throat, Ear, and Teeth. The Clinical Courses are given by the Physicians and Surgeons, each of whom conducts a separate class, and students require to enter their names at the beginning of the session for the class which they propose to attend. Special instruction is given to junior students by tutors or assistants, and clinical clerks and dressers are selected from the members of the class. All the courses of clinical instruction are recognised by the University of Glasgow and the other boards in the kingdom. In the Pathological Department the course is both systematic and practical, and extends through the winter and following summer; these are likewise recognised by the University for graduation. Eight resident assistants are appointed annually, without salary, from those who have completed their course. The fee for the hospital practice, including the various courses of clinical instruction, is 20 guineas in one payment, or in two equal instalments for the first and second year; for six months, 7 guineas; and for three months, 4 guineas.

**ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow, situated at Garnet-hill.**—This hospital was opened in December, 1882, and is now available to medical students for clinical instruction in the diseases peculiar to childhood. The

hospital includes 70 beds for non-infectious cases only. A specially designed Dispensary, or Out-patient Department, was opened in October, 1888. Students may be enrolled at any time. Fee, £1 1s. Particulars on applying to House Surgeon, 45, Hill-street, Garnet-hill, Glasgow.

**GLASGOW OPHTHALMIC INSTITUTION**, 126, West Regent-street (40 beds)—Clinical and systematic course of lectures for students during the winter and summer seasons. In-patients, 531; out- or dispensary patients, 3219. Operations on Wednesdays and Saturdays. Consulting Physician: Samuel J. Moore, Esq., M.D. Acting Surgeon: J. R. Wolfe, Esq., M.D., F.R.C.S. Ed. Acting Physician: J. S. Cumming, Esq., M.D. Assistant Surgeon: A. T. Thomson, M.D. This institution has recently been amalgamated with the Glasgow Royal Infirmary, of which it forms an integral part. The work is carried on provisionally at the above address until a new house is erected on the Infirmary ground.

**GLASGOW EYE INFIRMARY**, Berkeley-street and Charlotte-street.—This institution, the largest of its kind in the West of Scotland, was founded in 1824. The Infirmary now consists of two large buildings—both in Berkeley-street being occupied as the Infirmary proper, and that in Charlotte-street as a dispensary. The Infirmary is devoted exclusively to the treatment of Diseases of the Eye, and is intended primarily to provide treatment, and, when necessary, board and lodging for those who are unable to do so for themselves, and are properly recommended to the Directors. The average number of new patients for the last ten years has been 10,381.5, and the total number of cases treated in 1891 was 15,210. The Medical Staff is as follows:—Senior Surgeon: Thomas Reid, M.D., Waltonian Lecturer in the University of Glasgow. Surgeons: Thomas S. Meighan, M.D., A. Freeland Fergus, M.D., and A. Maitland Ramsay, M.D. Assistant Surgeons: William Robertson, M.B., C.M., Andrew Wilson, M.B., C.M., and James Hinshelwood, M.D. Pathologist: Robert M. Buchanan, M.B., C.M. House Surgeon: Leslie Buchanan, M.B. Consulting Surgeon: George Buchanan, M.D.

*Regulations as to Attendance of Students.*—(1) Gentlemen may attend as students on payment to the treasurer of the following fees:—For three months £1 1s., six months £2 2s., twelve months £3 3s. (2) Students attending the Waltonian Lectures in the University of Glasgow may attend at the Infirmary for clinical instruction during the University Session without fee. Former Waltonian students may attend on payment of the following fees:—For six months £1 1s., twelve months £2 2s. (3) All students when duly entered in the Infirmary Register may attend the clinical instruction of any or every member of the medical staff on production of their tickets. The days on which the surgeons respectively attend to receive patients may be ascertained at the Infirmary. Secretary: William George Black, 88, West Regent-street.

**ABERDEEN ROYAL LUNATIC ASYLUM**.—Contains about 650 beds. Medical Superintendent: Dr. William Reid. Assistant Physicians: Drs. C. Angus and A. Davidson. Secretary: Mr. W. Carnie. Clinical instruction is given to students during three months in summer.

**ABERDEEN ROYAL INFIRMARY**.—Contains about 200 beds. Physicians: Drs. Angus Fraser and P. B. Smith, Professor Finlay, and Dr. James Rodger. Assistant Physician. Surgeons: Professor A. Ogston, Drs. R. J. Garden and M. K. Booth, and J. S. Riddell. Assistant Surgeon. Ophthalmic Surgeon: Dr. J. Mackenzie Davidson. Pathologist: Professor David James Hamilton. Dental Surgeon: Dr. Williamson. Treasurer and Secretary: Mr. W. Carnie.

## IRISH SCHOOLS OF MEDICINE.

**QUEEN'S COLLEGE SCHOOL OF MEDICINE**, Belfast.—Eight Junior Scholarships have been founded in the Faculty of Medicine, of the annual value of £25 each. Two are tenable by matriculated students, of the first, second, third, and fourth year of their course respectively. The examinations for Junior Scholarships in the Faculty of Medicine take place at the commencement of the session. Matriculated students in Medicine intending to compete for Medical Scholarships of the second year must be of not more than one year's standing as students of Medicine, and must have attended, in some of the Queen's Colleges, or in a university capable of granting degrees

in Medicine, two at least of the following courses—viz.: Chemistry, Botany and Zoology, Anatomy and Physiology, Materia Medica and Pharmacy, Practical Chemistry, Practical Anatomy. Matriculated students in Medicine intending to compete for Medical Scholarships of the third year must be of two years' standing and not more, and must have attended, in some of the Queen's Colleges, or in a University capable of granting degrees in Medicine, four at least of the following courses—viz.: Chemistry, Botany, and Zoology, Anatomy and Physiology, Materia Medica and Pharmacy, Practical Chemistry, Practical Anatomy. Matriculated students in Medicine intending to compete for Medical Scholarships of the fourth year must be of three years' standing and not more, and must, in addition to the qualifications prescribed above, have attended, in their third year, two at least of the following courses—viz.: Theory and Practice of Medicine, Theory and Practice of Surgery, Midwifery, and Diseases of Women and Children.

**QUEEN'S COLLEGE SCHOOL OF MEDICINE**, Cork.—The building is provided with a very large, well-ventilated dissecting room, with physiological and toxicological laboratories, materia medica, anatomical and pathological museums, as well as a room for surgical and obstetrical instruments and appliances. There are well-appointed physical and chemical laboratories, and a large natural history museum in the adjoining building, and part of the College ground is laid out as a botanical garden. The plant houses are now completed and well filled with plants, and are open to the students in the class of Botany.

*Fees.*—For Practical Anatomy and for Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 first course, and £2 for each subsequent course. Other medical classes, £2 first course, and £1 each subsequent course. Eight scholarships (value about £30 each), as well as several exhibitions and class prizes, are awarded every year.

## IRISH ANCILLARY MEDICAL SCHOOLS.

**ADELAIDE MEDICAL AND SURGICAL HOSPITALS**, Peter-street, Dublin.—Fee for nine months' hospital attendance, £12 12s.; six months, £8 8s. Summer, three months, £5 5s.

*Staff.*—Physicians: Henry H. Head, M.D., M.R.I.A.; James Little, M.D., M.R.I.A. Surgeons: J. Kellock Barton, M.D., F.R.C.S.I.; Kendal Franks, M.D., F.R.C.S.I.; F. T. Heuston, M.D., F.R.C.S.I.; J. H. Scott, M.B., F.R.C.S.I. Obstetric Surgeon: R. D. Purefoy, M.B., F.R.C.S.I. Ophthalmic Surgeon: H. R. Swanzy, M.B., F.R.C.S.I. Assistant Physicians: Wallace Beatty, M.D., F.R.C.P.I.; H. F. Bewley, M.D., F.R.C.P.I. House Surgeon: F. W. Staunton, M.B., B.Ch.

A resident surgeon is elected yearly, and three resident pupils half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery, and in Obstetric Medicine, will be awarded.

*Hudson Scholarship.*—In addition to the junior prizes, the Hudson Scholarship, £30 and a gold medal, as well as a prize of £10, together with a silver medal, will be awarded at the end of the session for proficiency in Clinical Medicine and Medical Pathology, Clinical Surgery and Surgical Pathology, Pathological Histology, Surgical Appliances, including instruments and bandaging, Ophthalmology and Gynecology.

The certificates of attendance are recognised by all the universities and licensing bodies in the United Kingdom.

**COOMBE LYING-IN HOSPITAL AND GUINNESS DISPENSARY FOR THE TREATMENT OF DISEASES PECULIAR TO WOMEN.**—This hospital contains nearly 70 beds, and consists of two divisions, one of which is devoted to lying-in cases, and the other to the treatment of the diseases peculiar to women. The maternity department is one of the largest in Ireland, 3000 cases being annually treated either as intern or extern patients. A regular course of lectures is delivered in the hospital, and clinical instruction is given daily at the bedside. There are two large dispensaries connected with the institution, at one of which instruction is given on the general diseases of women and children, and, in the other, on the diseases peculiar to women. There is accommodation for a limited number of intern pupils, who enjoy exceptional advantages of acquiring a practical knowledge of this branch of their profession. Two Resident Pupil

TABULAR LIST OF THE CLASSES, LECTURERS, AND FEES, AT THE MEDICAL SCHOOLS OF IRELAND, FOR THE SESSION 1892-93

LECTURES, &c.	DUBLIN UNIVERSITY.	DUBLIN B. C. OF SURGEONS.	DUBLIN CATHOLIC UNIVERSITY.	BELFAST. QUEEN'S COLLEGE.	CORK. QUEEN'S COLLEGE.	GALWAY. QUEEN'S COLLEGE.
	LECTURERS.	LECTURERS.	LECTURERS.	LECTURERS.	LECTURERS.	LECTURERS.
		FEES.	FEES.	FEES.	FEES.	FEES.
		First Course.	First Course.	First Course.	First Course.	First Course.
HISTOLOGY AND PHYSIOLOGY	...	Prof. Scott	Dr. Coppinger & Dr. Coffey	Dr. P. Bedford	Dr. J. J. Charles	Dr. Pye
ANATOMY, DESCRIPTIVE AND SURGICAL	Dr. Cunningham Dr. Brooks	Pr. fs. Fraser, Heuston, & Nixon	Dr. Birmingham	Dr. P. Bedford	Dr. Charles and Demonstrators	Dr. Pye
PRACTICAL ANATOMY AND DISSECTIONS	Dr. Cunningham Dr. Brooks	Prof. Fraser, Heuston, & Nixon	Dr. Birmingham, Fagan, & Demsey	Dr. Campbell	Dr. Charles and Demonstrators	Dr. Pye and Demonstrators
CHEMISTRY ...	Dr. Reynolds	Prof. Sir C. Cameron & Lapper	Dr. Campbell *	Dr. Letts	Dr. Angus E. Dixon	Dr. Semier
PRACTICAL CHEMISTRY ...	Dr. Reynolds	Prof. Sir C. Cameron & Lapper	Dr. Quinlan *	Dr. Letts	Dr. Angus E. Dixon	Dr. Semier
MATERIA MEDICA AND PHARMACY	Dr. W. G. Smith	Prof. Macnamara & Duffy	Dr. Quinlan *	Dr. W. White	Dr. C. Y. Pearson	Dr. Colahan
BOTANY AND ZOOLOGY ...	Dr. Wright	Prof. Minchin & Cochrane	Dr. Sigerson * & Mr. Blaney	Dr. R. O. Cunningham	Professor Hartog	Dr. R. J. Anderson
INSTITUTES OF MEDICINE AND PATHOLOGY	Prof. Mackintosh Dr. Purser	Prof. Minchin & Cochrane Prof. Myles	Dr. Stewart	...	...	Dr. Lynham
NATURAL PHILOSOPHY ...	Prof. FitzGerald	...	Prof. Stewart	Dr. J. D. Everett (in Winter)	Mr. J. England	Prof. Anderson
HOSPITAL PRACTICE ...	SIR P. DUFF'S OR OTHER DUBLIN HOSPITAL.	...	...	BELFAST ROYAL AND OTHER HOSPITALS.	NORTH AND SOUTH INFIRMARIES.	GALWAY INFIRMARY & TOWN HOSPITAL.
CLINICAL LECTURES ...	...	...	...	...	...	...
SURGERY ...	Dr. E. H. Bennett	{ Prof. Sir W. Stokes, Hamilton, & W. Stokes, Drs. Roe & S. R. Mason	Mr. J. P. Hayes	Dr. Sinclair	Dr. S. O'Sullivan	Drs. Kinkaid, Pye, Brereton, Colahan, & Lynham
OPERATIVE SURGERY ...	Mr. Macan	Prof. Foot & J. W. Moore	Dr. A. J. Smith	Dr. Dill	Dr. Corby	Dr. W. Brereton
MIDWIFERY, &c. ...	Dr. Finny	Prof. Anchinleck	Dr. C. J. Nixon	Dr. Cumling	Dr. E. R. Townsend	Dr. Kinkaid
MEDICINE ...	Dr. Bewley	Prof. Macnamara & Duffy	Dr. Roche	Dr. Hodgess	Dr. C. Yelverton Pearson	Dr. Lynham
MEDICAL JURISPRUDENCE ..	Prof. Mackintosh	Prof. Macnamara & Duffy	Dr. Sigerson & Mr. Blaney	...	...	Dr. Senier Dr. Kinkaid [Modern Languages: Prof. Steinberger]
COMPARATIVE ANATOMY ...	Dr. W. G. Smith	Prof. Sir C. Cameron & Macnamara	Dr. Quinlan	...	...	...
PRACTICAL PHARMACY ...	The College Tutors	[Hygiene: Dr. D. Redmond] [Medical Registrar: Dr. Birmingham]	...	...	...	...
LOGIC ...	...	...	...	...	Professor Stokes	Dr. T. W. Moffett
PSYCHOLOGICAL MEDICINE	...	...	...	...	...	...
PATHOLOGY ...	Dr. Purser	Prof. Myles	Dr. McWeeny	Dr. W. H. Barrett	Dr. Oscar Wood	...
OPHTHALMOLOGY AND OTIOLOGY	...	Prof. Jacob, Fitzgerald, & Story	...	...	Dr. Cotter	Dr. Lynham
HYGIENE ...	Dr. Bewley	Sir Charles Cameron	...	...	Dr. Sandford	...

‡ Zoology in Winter; Botany in Summer.

† In Winter and in Summer.

\* In Summer.

Midwifery Assistants and one Clinical Clerk are elected half-yearly from among the pupils of the hospital. Certificates of attendance at this hospital are accepted by all licensing bodies, and the diploma is recognised by the Local Government Board as a full legal midwifery qualification. Fees (six months' course): Extern pupils, 8 guineas, half payable in advance; intern pupils, 18 guineas for six months' residence. If pupils enter as interns by the month, the fees are £4 4s. for first month, and £3 3s. for each succeeding month. Intern pupils enjoy very special advantages, which can be learned on application. Registration fee on entrance, 10s. 6d. Students can enter for attendance at any time. Further particulars may be had on application to the Master or the Registrar at the hospital.

**SIR PATRICK DUN'S HOSPITAL.**—Fees for attendance of students—nine months, £12 12s.; six months, £8 8s.; three months, £5 5s. The hospital is open to extern students as well as to the students of Trinity College, and the certificates are recognised by all the licensing bodies in the kingdom. Dr. Ball, Secretary to the Medical Board, will give any further information.

**MATER MISERICORDIÆ HOSPITAL, Dublin.**—Consulting Physician: Dr. Francis R. Cruise. Physicians: Drs. Christopher J. Nixon, Joseph M. Redmond, Michael A. Boyd, and John Murphy. Surgeons: Messrs. Patrick J. Hayes, Charles Coppinger, Arthur Chance, and John Lentaigne. Obstetric Physician: Dr. Thos. More Madden. Ophthalmic Surgeon: Mr. Louis Werner. Dental Surgeon: Mr. Daniel Corbett, jun. Pathologist: Mr. Edmond J. McWeeney. House Physician: Dr. Frank Dunne. House Surgeons: Messrs. Jeremiah Dowling and Michael O'Sullivan. This hospital, the largest in Dublin, at present containing 311 beds, is open at all hours for the reception of accidents and urgent cases. Fifty beds are specially reserved for the reception of patients suffering from fever and other contagious diseases. Instruction at the bedside will be given by the Physicians and Surgeons at 9 A.M. daily. Clinical Instruction will commence on Monday, October 3rd, at 9 o'clock A.M. A course of Clinical Instruction on Fever will be given during the winter and summer sessions. A certificate of attendance upon this course, to meet the requirements of the licensing bodies, may be obtained. Opportunities are afforded for the study of Diseases of Women in the ward under the care of the Obstetric Physician, and at the Dispensary held on Tuesdays and Saturdays. Ophthalmic Surgery will be taught in the Special Wards and Dispensary. Surgical Operations will be performed on Mondays, Tuesdays, Thursdays and Saturdays, at 10 o'clock. Connected with the hospital are extensive Dispensaries, which afford valuable opportunities for the study of general Medical and Surgical Diseases, Accidents, &c. Instruction will be given on Pathology and Bacteriology. Junior Appointments: A House Physician and two House Surgeons will be appointed annually. Eight resident pupils will be elected from the most attentive of the class to hold office for six months. For the current session the elections will take place on Nov. 1st, 1892, and May 1st, 1893, at 11 o'clock A.M. Dressers and Clinical Clerks will be appointed, and certificates will be given to those who perform their duties to the satisfaction of the staff. Leonard Prizes: One Gold and one Silver Medal will be offered for competition annually, in the subject of Medicine, and one Gold and one Silver Medal in the subject of Surgery. Junior Leonard Prizes: One prize value £3 and one prize value £2 will be awarded in Medicine and one prize value £3 and one prize value £2 will be awarded in Surgery. They will be awarded on the aggregate of marks gained for Reports of Cases and at a Clinical Examination to be held at the close of the summer session. For further particulars see prospectus. Certificates of attendance upon this hospital are recognised by all the Universities and licensing bodies in the United Kingdom. Private Wards have been opened for the reception of Medical and Surgical cases. A Training School and Home for Trained Nurses have been opened in connexion with the Hospital.

*Terms of attendance.*—Nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s. A prospectus containing in detail the arrangements for Clinical Instruction, Prizes, &c., may be obtained from the Secretary, Dr. Joseph Redmond, 8, Clare-street.

**RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS, North Brunswick-street, Dublin.**—These hospitals contain

312 beds—110 for Surgical cases, 82 for Medical cases, and 120 for Fever and other epidemic diseases.

**ROTUNDA HOSPITAL, Rutland-square, Dublin.**—This institution consists of two distinct hospitals—namely, the Lying-in Hospital and the Auxiliary Hospital, the latter for the reception of patients suffering from Uterine and Ovarian Diseases. There is also a large extern maternity and a Dispensary for Diseases peculiar to Women, which is open daily. Clinical instruction is given daily (Saturdays excepted) in Midwifery and the Diseases peculiar to Women, special attention being directed to the application of anti-septics in midwifery, and lectures on these subjects are delivered regularly throughout the session. Accommodation is provided for a limited number of intern pupils.

**DR. STEEVENS'S HOSPITAL.**—This hospital, containing beds for 250 patients, is situated close to the Kingsbridge Terminus of the Great Southern and Western Railway, occupying a position in the centre of one of the busiest manufacturing districts of the city, otherwise unprovided with medical institutions, and affords exceptional advantages for clinical instruction. Immediately adjoining is St. Patrick's (Swift's) Asylum for the Insane. The hospital is easily accessible by two lines of tramways. There is a ward entirely devoted to Syphilitic Disease, a detached building for Fever Cases, and an extensive Out-patient Department, with separate Clinics for Diseases of the Skin, Throat, Eye, Ear and Teeth.

The hospital is visited daily at 8.30 A.M. by the resident surgeon, and at 9 A.M. by the physicians and surgeons. The surgical wards are also visited each evening. Clinical Lectures are given by the physicians and surgeons during the session. There is accommodation in the hospital for two medical and six surgical resident clinical assistants, who, in addition to their rooms and furniture, are provided with coals and gas.

*Fees.*—Hospital Practice: Nine months, £12 12s.; six months, £8 8s.; three months, £5 5s. Dressership: £10 10s. each three months.

## AMERICAN MEDICAL SCHOOLS.

The most important event in the forthcoming session of American schools is the announcement of the adoption of a four years' course by the three leading colleges, Harvard, the University of Pennsylvania and the College of Physicians and Surgeons of New York. The change is to take effect this session at Harvard. The credit of having been the first to adopt the four years' graded course belongs, however, to the University of Michigan, and it is gratifying to hear that the change has been most satisfactory.

**UNIVERSITY OF PENNSYLVANIA, Philadelphia.**—The rapid increase in the number of students which has taken place in the past two sessions, while taxing the teaching capacity, has been a gratifying indication that the profession is ready for higher medical education. The fourth session, which will be compulsory on all students entering after October, 1893, will, it is anticipated, cause a reduction in the income of about 25 per cent., and to meet this probable deficit a guarantee fund has been raised. An important recent event in this school was the opening of the Hygiene Laboratory. The cost of the building (\$50,000) was provided by the well-known medical publisher, Henry C. Lea; and an Endowment Fund of nearly \$200,000 has been raised by the Provost, Dr. Pepper, under whose guidance during the past ten years the University has so rapidly developed in all its branches. The Laboratory is under the direction of Dr. John S. Billings, of the Army Medical Department, who devotes a certain amount of time each week to the work. The practical classes are under the control of Dr. A. C. Abbot. Dr. Hayes Agnew, the Nestor of American surgeons, and Emeritus Professor in the school, died during the past session. As an acknowledgment, no doubt, of the great value of his connexion with the medical school, he left \$50,000 to the University Hospital. The death is also announced of Dr. Formad, the Demonstrator of Pathology, who as coroner's physician was of great service in supplying the classes with material in morbid anatomy.

**HARVARD.**—For the first time one of the large schools of the Eastern States opens with a four years' curriculum. It is just twenty years ago since Harvard adopted a compulsory three years' course, and the success which

followed this, as well as other important changes, is the best guarantee for the future. The Sears Laboratory for Pathology and Bacteriology is now fully equipped and in working order. Dr. Ernst has been appointed Professor of Bacteriology. Dr. Fitz has been transferred from the chair of Pathology to that of Medicine, and the vacancy thus caused in the former has been filled by the appointment of Dr. Councilman, Associate Professor of Pathology in the Johns Hopkins University. It is rumoured that Dr. Howell, the Professor of Physiology in the University of Michigan, is to join the Harvard School as associate of Dr. Henry P. Bowditch, whose executive duties as Dean do not enable him to devote sufficient time to laboratory teaching. Efforts are being made by friends of the school to organize a hospital under the control of the Faculty. The clinical advantages of the Massachusetts General and the Boston City Hospitals are ample and readily available, but in appointments to the practical chairs the choice at present is limited to men holding positions on the staff of one or other of these hospitals, and this is felt to be an anomaly. Mention must be made of the death during the past session of Dr. Henry J. Bowditch, the Emeritus Professor of Clinical Medicine, whose work did so much to extend the reputation of the school.

**COLLEGE OF PHYSICIANS AND SURGEONS OF NEW YORK.**—The magnificent gifts of the Vanderbilt family have enabled the school to take an advanced position among the teaching bodies. The recent union with Columbia College, the oldest and richest of the universities in the State of New York, which guarantees the salaries of the professors, has made progress easy, and within a short time of the adoption of a compulsory three years' course a fourth year is announced. No changes of any moment have occurred on the teaching staff. Dr. McBurney's new operating theatre, by far the most elaborate and costly on the continent, has been completed.

**JOHNS HOPKINS UNIVERSITY.**—The undergraduate department in medicine has not yet been organised, as the professors of pharmacology and anatomy have not yet been appointed. It is hoped that at an early date the funds of the University will permit of the building of the necessary laboratories for these branches. Meanwhile graduate teaching is carried on at the hospital and in the pathological laboratory. Qualified practitioners are admitted to the wards and operating rooms on payment of a fee of \$100 or for a less sum to the individual clinics. During the months of January, February, and March there is a regularly organised graduate course, with lectures, demonstrations, and ward work—Professor Osler and assistants in Medicine, Professor Halsted in Surgery, and Professor Kelly in Gynecology. Special students are admitted at any time. In the Pathological Department (Professor Welch) systematic instruction is given throughout the winter in Morbid Anatomy and Histology, and in Bacteriology (Dr. Nuttal). Several changes in the *personnel* of the staff have occurred within the past year. Dr. Councilman, Associate in Pathology, has been called to the chair of Pathology at Harvard; Dr. Abbott has gone to the Hygienic Institute of the University of Pennsylvania, and is succeeded as bacteriologist by Dr. Nuttal; Dr. Flexner succeeds Dr. Councilman as Associate in Pathology; and Dr. Barker has been appointed Fellow in Pathology.

## CANADIAN MEDICAL SCHOOLS.

**MCGILL UNIVERSITY.**—No special changes have occurred. Steps are being taken to raise money for the pathological department, and an advertisement has appeared in our columns asking for applications for the chair of Pathology. Among the candidates are Drs. Savill and Ruffer of London and Dr. Muir of Edinburgh. Dr. George Ross, the Professor of Medicine, who has been in ill-health, has associated with him in the chair Dr. Lalleur, lately first assistant in the medical clinic at the Johns Hopkins Hospital.

The new clinical wards and amphitheatre at the Montreal General Hospital are ready for occupation, and will materially enhance the teaching facilities. The Royal Victoria Hospital is approaching completion.

## MEDICAL TEACHERS.

Mr. J. BECKTON, assisted by his son, H. BECKTON, B.A. (Graduate in Honours, late Scholar of Clare College, Cambridge), prepares candidates for the London Matriculation, Medical and Law Preliminary, University Entrance, Local, and other Examinations. Boarders received.—19, Keppel-street, late 140, Gower-street, W.C.

Mr. J. COATES, 1st B.A., M.C.P., prepares candidates for Matriculation, College of Preceptors, Apothecaries' Hall, Pharmaceutical Society, and the Professional Examinations of the Conjoint Board of the Royal Colleges of Surgeons and Physicians. Laboratory fitted with every requisite. Terms moderate.—30 to 32, Ludgate-hill, E.C.

M.D., B.S. Lond., M.R.C.P. Lond., prepares Personally and by Correspondence in a systematic and thorough manner for all the Examinations of the Colleges of Physicians and Surgeons, the Universities, the Services, the M.D.'s of Durham, St. Andrews, and Brussels, and for the Apothecaries' Hall.—64, Guilford-street, Russell-square, W.C.

Mr. A. H. DAVIES, 1st B.A. Lond., gives lessons privately, in class or by post, in preparation for the London Matriculation and Medical Preliminary Examinations.—55 and 60, Chancery-lane, W.C.

Mr. J. GIBSON, M.A., prepares candidates for the London Matriculation and Preliminary Medical and Legal Examinations.—Quornmore, Bromley, Kent, and 24, Chancery-lane, E.C. Mr. Gibson brings out directly after each examination a "Guide" containing the questions set at the examination, followed by solutions in full.

Mr. RNT GOOCH, B.Sc. (Honours) Lond., B.A. Lond., F.G.S., (for many years associated with the late Mr. H. Sergeant, B.A.), assisted by experienced graduates, prepares for Preliminary Scientific, B.Sc. degree, Conjoint Board, Matriculation, and Preliminary Medical. Special Classes in Chemistry, Materia Medica, Botany, Zoology, Anatomy, and Physiology. Laboratory work. Recently passed fifteen.—33, Alfred-place, Gower-street, W.C.

Mr. FRANK W. GREGG, "Ruby House," Mayflower-road, Clapham, S.W., instructs pupils for the London Matriculation Examination and all Medical Preliminary and Scientific Examinations required by the various Examining Boards. Mr. Gregg will receive boarders on moderate terms, which may be had on application.

Mr. A. J. MAINWARING, M.A., 1st M.B. Cantab., prepares candidates for all Preliminary Examinations.—115, Edith-road, West Kensington.

Mr. JOHN T. SAILLÉ, B.A. Lond., (for eighteen years with the late Mr. HENRY SERGEANT), holds special classes, morning and evening, for London University Matriculation, the Preliminary Medical Examinations, &c.—University Institute, 102, Fuston-road.

Mr. HENRY WAITE prepares pupils for Matriculation, Preliminary Scientific, and the Examinations for Medical Registration of all the licensing bodies.—25, Dingwall-road, Earlsfield-road, Wandsworth.

Mr. J. WOODLAND, F.L.S., F.C.S., &c. (late Lecturer on the Art of Prescribing, and Teacher of Materia Medica at St. George's Hospital), reads privately with many for University and other examinations.—Interview at 173, Marylebone-road, N.W., by appointment only.

### INSTRUCTORS IN ELOCUTION &c.

Dr. ALTSCHUL has made Stuttering, Stammering, Lipping, Falsetto, recent or of long standing, due to Nervousness, &c., irrespective of Age or Sex (without any Mechanical appliances), his Special, Life-long study. The Voice greatly Developed and Strengthened.—9, Old Bond-street, W. (attends at Brighton).

Mr. H. N. DIXON, M.A. Lond. and Cambridge, F.L.S., gives a thorough and high-class Education to Deaf Children, based upon the Oral Method. Special arrangements made for very young children.—Apply, Wickham House, East Park Parade, Northampton.

Mr. WILLIAM VAN PRAAGH, the public introducer of the Pure Oral System of Teaching Deaf Mutes, has made the subject of Lip-reading and the cure of all Defects of Speech, both acquired and congenital, his special study. Papers on the various subjects can be had free at 11, Fitzroy-square, W.

Mr. H. W. WHITE educates Deaf and Dumb Children of the higher classes on the Pure Oral System; also deals with cases of Defective Speech, and has many testimonials from parents. Lip reading lessons given to adults who have lost their hearing. References to the highest medical authorities.—13, Sinclair Gardens, Kensington, W. Next term Sept. 20th.

## CLINICAL INSTRUCTION IN INFECTIOUS DISEASES.

THE Metropolitan Asylums Board now offer facilities to students whereby they may obtain instruction in the subject of infectious diseases supplemented by clinical observation of cases at any of the fever hospitals of the Board, and classes open to students and qualified men are held at the Eastern Hospital, Homerton; the North-Western Hospital, Haverstock-hill; the Western Hospital, Fulham; the South-Western Hospital, Stockwell; and the South-Western Hospital, New Cross-road, three times during the year. The next course will begin early in October. A certificate of attendance, now required by the Conjoint Board of the Royal Colleges of Physicians and Surgeons, as part of the five years' curriculum of every medical student entering the profession, is granted to students who have satisfactorily completed a course of study. The fee for attendance is three guineas for a course of two months. Applications should be made to the Clerk to the Metropolitan Asylums Board, Norfolk House, Norfolk-street, Strand, from whom all necessary information can be obtained.

## SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY.

THE following list is as nearly complete as the Editors have been able to make it, and gives such prizes as would enter into a Student's calculation of the cost of Medical education. It does not contain prizes of less value than £10, or prizes of greater than this value which are given in any form except money or necessaries of medical study and research:—

INSTITUTION.	TITLE OF SCHOLARSHIP & C.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
OXFORD UNIVERSITY ..	Burdett-Coutts Scholarships.	£80 per annum.	2 years.	Competitive Examination.	....
	Radcliffe Trav. Fellowship.	£200 " "	3 years.	Ditto.	Foreign Travel for purpose of Medical Study.
	Rolleston Prize.	£60 " "	....	Original Research.	M.B. taken within 3 years.
LONDON UNIVERSITY ..	....	£40 per annum.	2 years.	By first place with distinction in ANATOMY at July Intermediate M.B. Examination.	Ditto.
		£40 per annum.	2 years.	By first place, with distinction in PHYSIOLOGY AND HISTOLOGY at July Intermediate M.B. Examination.	Ditto.
		£30 per annum.	2 years.	By first place with distinction in ORGANIC CHEMISTRY at July Intermediate M.B. Examination.	Ditto.
		£30 per annum.	2 years.	By first place with distinction in MATERIA MEDICA and PHARMACEUTICAL CHEMISTRY at July Intermediate M.B. Examination.	Ditto.
	University Scholarship in Medicine.	£50 per annum.	2 years.	By first place with distinction in MEDICINE at M.B. Honours Examination.	Ditto.
	University Scholarship in Obstetric Medicine.	£30 per annum.	2 years.	By first place with distinction in OBSTETRIC MEDICINE at M.B. Honours Examination.	
	University Scholarship in Forensic Medicine.	£30 per annum.	2 years.	By first place with distinction in FORENSIC MEDICINE at M.B. Honours Examination.	
	University Scholarship in Surgery.	£50 per annum.	2 years.	By first place with distinction in B.S. Honours Examination.	
*EDINBURGH UNIVERSITY	Theses Gold Medals.	....	....	Candidates for M.D. who present Theses of high merit.	None.
	Syme Surgical Fellowship.	£105 17s. 6d. per annum.	2 years.	Competitive Thesis by M.B. of not more than three years' standing.	None.
	Leckie Maclier Fellowship.	£70 per annum.	3 years.	Competitive Examination among M.B.'s of not more than three years' standing.	None.
	Sibbald Scholarship.	£40 per annum.	3 years.	Competitive Examination among University Students.	None.
	Hope Prize.	£25.	....	Distinction in MINOR CHEMICAL CLASS.	None.
	Vans Dunlop Scholarship.				
	" No. 1.	£100.	3 years.	First place in MEDICAL PRELIMINARY EXAMINATION.	None.
	" No. 2.	£100.	3 years.	NAT. HISTORY, BOTANY, and GEOLOGY.	None.
	" No. 3.	£100.	3 years.	Highest marks in Class Examinations in PHYSIOLOGY and SURGERY.	None.
	" No. 4.	£100.	3 years.	Competitive Examination in ANATOMY, PHYSIOLOGY, MATERIA MEDICA, and PATHOLOGY.	One year's study at the University, and 2 years' original research
	Murchison Memorial Scholarship.	Interest on £1000.	1 year.	Competitive Examination in CLINICAL MEDICINE among registered Students of Medicine.	None.
	Buchanan Scholarship.	Interest on £1000.	1 year.	Competitive Examination and Class Work in MIDWIFERY and GYNECOLOGY.	None.
	James Scott Scholarship.	£45 per annum.	1 year.	Competitive Examination and Class Work in MIDWIFERY.	None.
	Ettles Scholarship in Medicine.	£35.	....	Distinction in M.B. and M.S. Examination.	None.
	Mackay Smith Scholarship in Chemistry.	£25 per annum.	2 years.	Competitive Examination in CHEMISTRY among University Students.	None.
	Sibbald Bursary.				
	" No. 1.	£30.	....	....	....
	" No. 2.	£30.	....	....	....
	Heriot Bursary.				
	" No. 1.	£30 per annum.	3 years.	Competitive Examination among Matriculating Students.	None.
	" No. 2.	£30 per annum.	3 years.	Ditto.	None.
	Thomson Bursary.				
	" No. 1.	£25 per annum.	4 years.	Distinction in Preliminary Medical Examination.	None.
	" No. 2.	£25 per annum.	4 years.	Distinction in Preliminary Medical Examination.	None.
	Grierson Bursary.				
	" No. 1.	£20 per annum.	1 year.	Distinction in Preliminary Medical Examination. (Holder must be native of Crawford or Leadhills.)	None.
	" No. 2.	£20 per annum.	1 year.	Competitive Examination in CHEMISTRY, BOTANY, and NATURAL HISTORY among Second-year Students. (Holder must be native of Crawford or Leadhills.)	None.
	" No. 3.	£20 per annum.	1 year.	Ditto.	None.

\* Several Fellowships, Scholarships, Bursaries, &c., are not mentioned in the above list, which are occasionally vacant in alternate years.

## SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—continued.

INSTITUTION.	TITLE OF SCHOLARSHIP & C.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.	
EDINBURGH UNIVERSITY —continued.	Grierson Bursary. " No. 4.	£20 per annum.	1 year.	Competitive Examination in ANATOMY and PHYSIOLOGY among Third-year Students. (Holder must be native of Crawford or Leadhills.)	None.	
	" No. 5.	£20 per annum.	1 year.	Competitive Examination in MATERIA MEDICA and PATHOLOGY among Fourth-year Students. (Holder must be native of Crawford or Leadhills.)	---	
	Dr. J. A. Carlyle Bursary. " No. 1.	£28 per annum.	1 year.	Proficiency in Class Examinations in ANATOMY and CHEMISTRY.	None.	
	" No. 2.	£28 per annum.	1 year.	Proficiency in Class Examinations in ANATOMY and PHYSIOLOGY.	None.	
	Mackenzie Bursary. " No. 1.	£21 5s.	....	Industry and Skill in Junior Class work of PRACTICAL ANATOMY.	None.	
	" No. 2.	£21 5s.	....	Industry and Skill in Senior Class work of PRACTICAL ANATOMY.	None.	
	Beaney Prize.	£37 10s.	....	Highest Marks taken in ANATOMY, SURGERY, and CLINICAL SURGERY, by University Student in M.B. and C.M. Examinations.	None.	
	Hope Chemistry Prize.	£100.	....	Competitive Examination among University Students.	None.	
	Neil Arnott Prize.	£42.	....	Distinction in Natural Philosophy in the M.A. Examination.	None.	
	Wightman Prize.	£10 10s.	....	Competitive Reports on Cases by Clinical Students.	None.	
	ST. BARTHOLOMEW'S MEDICAL SCHOOL	Entrance Scholarships No 1.	£75.	....	Open Competitive Examination in PHYSICS and CHEMISTRY.	Full Course at St Bartholomew's Hospital.
		" No. 2.	£75.	....	Open Competitive Examination in BIOLOGY and PHYSIOLOGY.	Ditto.
		" No. 3.	£150.	....	Open Competitive Examination in PHYSICS, CHEMISTRY, and BIOLOGY.	Ditto.
Preliminary Scientific Exhibition.		£50.	....	Open Competitive Examination in PHYSICS, CHEMISTRY, and BIOLOGY.	Ditto.	
Jeaffreson Exhibition.		£20.	....	Open Competitive Examination in LATIN, MATHEMATICS, and GREEK, FRENCH, or GERMAN.	None.	
Shuter Scholarship.		£50.	....	Competitive Examination among Cambridge Graduates in ANATOMY, PHYSIOLOGY, and MATERIA MEDICA.	None.	
Junior Scholarship. " No. 1.		£30.	....	Competitive Examination among Students in ANATOMY and PHYSIOLOGY.	None.	
" No. 2.		£20.	....	Ditto.	None.	
Senior Scholarship.		£50.	....	Competitive Examination among Students in ANATOMY, PHYSIOLOGY, and CHEMISTRY.	Study at St. Bartholomew's Hospital.	
Kirkes' Scholarship. Brackenbury Scholarships. " No. 1. " No. 2.		£30 and Medal. £30. £30.	.... .... ....	Competitive Examination among Students in CLINICAL MEDICINE. Competitive Examination among Students in MEDICINE. Competitive Examination among Students in SURGERY.	None.	
Lawrence Scholarship.	£42 and Medal.	....	Competitive Examination among Students in SURGERY, MEDICINE, and MIDWIFERY.	None.		
Sir Geo. Burrows' Prize. Skynner Prize.	£10 10s. £15.	.... ....	Competitive Examination in PATHOLOGY among Students. Competitive Examination in REGIONAL and MORBID ANATOMY among Students.			
CHARING-CROSS HOSPITAL AND COLLEGE	Entrance Scholarships. " No. 1.	£105.	....	Open Competitive Examination in any three of the following groups of subjects: (1) ENGLISH, including LANGUAGE, LITERATURE, HISTORY, and GEOGRAPHY; (2) LATIN and GREEK; (3) FRENCH and GERMAN; (4) MATHEMATICS, including ARITHMETIC, ALGEBRA, and GEOMETRY, and MECHANICS, including STATICS and DYNAMICS; (5) CHEMISTRY (INORGANIC) and PHYSICS, including ACOUSTICS, HEAT, and ELECTRICITY; and (6) ANIMAL and VEGETABLE BIOLOGY.	Full Course at Charing-cross Hospital.	
	" No. 2.	£52 10s.	....	Ditto.	Ditto.	
	" No. 3.	£52 10s.	....	Competitive Examination in ANATOMY and PHYSIOLOGY, open to Students from the University of Oxford who have passed the First M.B. Examination, and to Students from the University of Cambridge who have passed the Second M.B. Examination, and who have not entered at any London Medical School.	Completion of Curriculum at Charing-cross Hospital.	

SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &c.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
CHARING-CROSS HOSPITAL AND COLLEGE— <i>continued.</i>	Llewellyn Scholarship.	£25.	....	Competitive Examination among Third-year Students in ANATOMY, PHYSIOLOGY, PHARMACOLOGY, MEDICINE, SURGERY, THERAPEUTICS, and MIDWIFERY.	None.
	Golding Scholarship.	£15.	....	Competitive Examination among Second-year General and Dental Students in DESCRIPTIVE ANATOMY, PHYSIOLOGY, and CHEMISTRY.	
ST. GEORGE'S HOSPITAL..	Entrance Scholarships.				
	" No. 1.	£145.	....	Competitive Examination among First-year Students, being the sons of medical men, in LATIN, FRENCH, or GERMAN, and ELEMENTARY PHYSICS, and MATHEMATICS.	Course at St. George's School.
	" No. 2.	£65.	....	Competitive Examination among Students being First M.B.'s of Oxford and Second M.B.'s of Cambridge, in ANATOMY and PHYSIOLOGY.	Ditto.
	" No. 3.	£65.	....	Ditto.	Ditto.
	" No. 4.	£50.	2 Scholarships.	Competitive Examination among Students in the same subjects as Entrance Scholarship No. 1.	Complete Course at St. George's School.
	" No. 5.	£50.	....	Ditto.	Ditto.
	Wm. Brown Exhibition.	£100 per annum.	2 years.	Competitive Examination among Perpetual Students having registrable qualification in the PRACTICE OF MEDICINE, MIDWIFERY, and SURGERY.	None.
	"	£40 per annum.	3 years.	Competition among Third-year Students in respect of fitness for Medical Profession.	None.
	Brackenbury Prize in Medicine.	Interest on £1077.	....	Competitive Examination among Students of not more than five years' standing.	None.
	Brackenbury Prize in Surgery.	Interest on £1077.	....	Competitive Examination among Students of not more than five years' standing.	None.
	Treasurer's Prize.	£10 10s.	....	Proficiency in Clinical Examination of three Medical and three Surgical Cases, together with a written or <i>visu-voce</i> Examination in Medicine, Surgery, and Midwifery.	None.
	H. C. Johnson Memorial Prize.	£10 10s.	....	Competitive Examination among Second-year Students in PRACTICAL ANATOMY.	None.
	Pollock Prize.	Interest on £372.	....	Competitive Examination among Second-year Students in PHYSIOLOGY, PHYSIOLOGICAL CHEMISTRY, and HISTOLOGY.	None.
	General Proficiency Prizes.				
	" No. 1.	£10 10s.	....	Competitive Examination among First-year Students in ELEMENTARY ANATOMY, BIOLOGY, and CHEMISTRY.	None.
	" No. 2.	£10 10s.	....	Competitive Examination among Second-year Students in ANATOMY, PHYSIOLOGY (including HISTOLOGY), and PHYSIOLOGICAL CHEMISTRY.	
	" No. 3.	£10 10s.	....	Competitive Examination among Third-year Students in the PRINCIPLES and PRACTICE OF MEDICINE and SURGERY, PATHOLOGY, MIDWIFERY, and MATERIA MEDICA.	None.
GUY'S HOSPITAL..	Entrance Scholarships. No. 1.	£105.	....	Open Competitive Examination among Candidates under twenty years of age in LATIN, GREEK, FRENCH, GERMAN, ARITHMETIC, EUCLID, and ALGEBRA.	Course at Guy's Hospital.
	" No. 2.	£52 10s.	....	Under twenty-five years of age, ditto.	Ditto.
	" No. 3.	£131 5s.	....	Open Competitive Examination among Candidates under twenty-five years of age in INORGANIC CHEMISTRY, GENERAL BIOLOGY, and EXPERIMENTAL PHYSICS.	Perpetual Course at Guy's Hospital.
	" No. 4.	£52 10s.	....	Ditto.	Course at Guy's Hospital.
	Arthur Durham Prizes.	£5.	....	Dissections by First-year Students.	
	First Year's Prizes.	£15.	....	Dissections by Students of later years.	
		£50.	....	Competitive Examination among First-year Students in ANATOMY OF BONES, LIGAMENTS, and MUSCLES, PHYSIOLOGY, and CHEMISTRY.	None.
	Second Year's Prizes.	£25.	....	Ditto.	Ditto.
		£25.	....	Competitive Examination among Second-year Students in ANATOMY, PHYSIOLOGY, and MATERIA MEDICA.	
	Michael Harris Prize.	£10.	....	Ditto.	Ditto.
	£10.	....	Competitive Examination among Second-year Students in HUMAN ANATOMY.	Ditto.	
Sands Cox Scholarship.	£15 per annum.	3 years.	Competitive Examination among Second-year Students in PHYSIOLOGY, HISTOLOGY, and PHYSIOLOGICAL CHEMISTRY.	Course at Guy's Hospital.	

SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &c.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
GUY'S HOSPITAL— <i>continued.</i>	Third Year's Prizes.	£25.	....	Competitive Examination among Third-year Students in ANATOMY (Medical and Surgical), DIAGNOSIS, OPERATIVE and MINOR SURGERY, MIDWIFERY, and THERAPEUTICS.	None.
	Fourth Year's Prizes.	£10. £25.	....	Ditto. Competitive Examination among Fourth-year Students in MEDICINE SURGERY, DISEASES OF WOMEN, and MEDICAL JURISPRUDENCE.	Ditto. None.
	Golding Bird Prize.	£10. £20 and Medal.	....	Ditto. Competitive Examination among Fourth-year Students in DIAGNOSIS ORIGINAL REPORTS on Three Medical and Three Surgical Cases.	Ditto. Ditto.
	Gurney Hoare Prize.	£25.	....	Competitive Examination among Students in PATHOLOGY.	None.
	Beaney Prize for Pathology.	£31 10s.	....	Competitive Examination among Students in MATERIA MEDICA.	Ditto.
	Beaney Prize for Mater. Medica.	£31 10s.	....	Competitive Examination among Students in MATERIA MEDICA.	Ditto.
	Gull Studentship.	£150 per annum.	3 years.	For Research in PATHOLOGY and allied subjects. Not awarded by Competitive Examination.	Study at Guy's Hospital.
KING'S COLLEGE .. ..	Warnford Scholarships. No. 1.	£25 per annum.	3 years.	Competitive Examination among Matriculated Medical Students in DIVINITY, ENGLISH, HISTORY, LATIN, GREEK, FRENCH, GERMAN, and MATHEMATICS.	Perpetual Course at King's College.
	" No. 2.	£25 per annum.	3 years.	Ditto.	Ditto.
	" No. 3.	£25 per annum.	2 years.	Ditto.	Ditto.
	" Class II.	£25 per annum.	2 years.	Competitive Examination among Matriculated Medical Students in the third year, residing in the College.	Course either as Science or Medical Student at King's College
	Sambrooke Exhibitions. No. 1.	£60.	....	Competitive Examination among Matriculated Students in MATHEMATICS, ELEMENTARY PHYSICS, INORGANIC CHEMISTRY, BOTANY, and ZOOLOGY.	Ditto.
	" No. 2.	£40. £20.	....	Ditto. Competitive Examination among Matriculated Students in Science.	Ditto. None.
	Rabbeth Scholarship.	£20.	....	Competitive Examination among Matriculated Students in Science.	None.
	Science Exhibitions. No. 1.	£30 per annum.	2 years.	Competitive Examination among Candidates under nineteen years of age in MATHEMATICS, MECHANICS, PHYSICS, &c., or alternative Subjects.	None.
	" No. 2.	£20 per annum.	2 years.	Ditto.	None.
	Medical Scholarships. No. 1.	£40 per annum.	2 years.	Competitive Examination among Third- and Fourth-year Students.	
	" No. 2.	£30 per annum.	1 year.	Competitive Examination among Second- and Third-year Students.	
	" No. 3.	£20 per annum.	1 year.	Competitive Examination among First-year Medical Students.	
	" No. 4.	£20 per annum.	1 year.	Ditto.	
	" No. 5.	£20 per annum.	1 year.	Ditto.	
	Sambrooke Registrarship. No. 1.	£50.	2 years.	Competitive Examination among Matriculated Medical Students who have filled certain appointments at hospitals.	
" No. 2.	£50.	....	Ditto.		
Daniel Scholarship.	£20 per annum.	2 years.	Open Competitive Examination among six months' Laboratory Students.		
Carter Prize.	£15.	....	Open Competitive Examination in Botany.		
Tanner Prize.	£10.	....	Competitive Examination in OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.	None.	
Todd Prize.	£1 4s. and medal.	....	Competitive Examination in Clinical Medicine.		
LONDON HOSPITAL .. ..	Price Scholarships.	Interest on £5000 to be awarded in Entrance Scholarships.	....	....	
	Entrance Scholarships. No. 1.	£75.	....	Competitive Examination among Students in subjects of Preliminary Scientific M.B. Examination at University of London.	
	" No. 2.	£50.	....	Ditto.	
	Epsom College Scholarship.	Free Education.	....	....	
	Buxton Scholarships. No. 1.	£30.	....	Competitive Examination among Students in subjects of Preliminary Examination.	
	" No. 2.	£20.	....	Ditto.	
	Scholarship.	£20.	....	Competitive Examination in CLINICAL MEDICINE.	
	"	£20.	....	Competitive Examination in CLINICAL SURGERY.	
	Sutton Prize in Pathology.	£20.	....	....	
	Biennially: Duckworth Nelson Prize.	£20.	....	Competitive Examination in CLINICAL OBSTETRICS.	
Lethby Prize.	£10. £30.	....	.... Competitive Examination in PRACTICAL MEDICINE and SURGERY. Competitive Examination in CHEMISTRY.		

SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &c.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
LONDON HOSPITAL— <i>continued.</i>	Scholarship.	£25.	....	Competitive Examination in ANATOMY, PHYSIOLOGY, AND CHEMISTRY.	
	Dressors' Prize	£20.	....	Competitive Examination in ANATOMY and PHYSIOLOGY.	
	" No. 1.	£15.	....	ZEAL, EFFICIENCY, and KNOWLEDGE OF MINOR SURGERY.	
	" No. 2.	£15.	....	Ditto.	
	" No. 3.	£10.	....	Ditto.	
	" No. 4.	£10.	....	Ditto.	
	" No. 5.	£5.	....	Ditto.	
ST. MARY'S HOSPITAL ..	<i>Triennially</i> ; Hutchinson Prize.	£35.	....	For the best essay upon a subject in CLINICAL SURGERY.	
	Practical Anatomy Prizes.	£6. £4.	....	....	
	Natural Science Scholarship. No. 1.	£105.	....	Competitive Examination among Students in NATURAL SCIENCE.	
	" No. 2.	£52 10s.	....	Ditto.	
	" No. 3.	£52 10s.	....	Ditto.	
	" No. 4.	£52 10s. £185.	....	For Students from Epsom College being sons of Medical Men.	
		£52 10s.	....	Competitive Examination among Students from Oxford, Cambridge, or other University in SUBJECTS OF PRELIMINARY SCIENTIFIC EXAMINATION AT LONDON UNIVERSITY.	
MIDDLESEX HOSPITAL ..	Entrance Scholarship. No. 1.	£50 per annum.	2 years.	Competitive Examination among First-year Students.	Course at Middlesex Hospital.
	" No. 2.	£30 per annum. £10 10s.	2 years.	Competitive Examination among Second-year Students.	
	Broderip Scholarship. No. 1.	£30 per annum.	2 years.	Competitive Examination among Third-year Students.	
	" No. 2.	£20 per annum. £21.	2 years.	Open Competitive Examination.	
	Governor's Prize.	£21.	....	Ditto.	
	Hetley Clinical Prize.	£25.	....	Competitive Examination among Fourth-year Students in ELEMENTARY ANATOMY, OSTEOLOGY, and PHYSIOLOGY.	
	John Murray Gold Medal and Scholarship. Lyell Medal.	.... £5 5s.	....	Competitive Examination among Third-year Students in CLINICAL SUBJECTS.	
ST. THOMAS'S HOSPITAL.	College Prizes.				
	" No. 1.	£15.	....	Competitive Examination among First-year Students.	Perpetual Course  Ditto.
	" No. 2.	£10.	....	Ditto.	
	" No. 3.	£15.	....	Competitive Examination among Second-year Students.	
	" No. 4.	£10.	....	Ditto.	
	" No. 5.	£15.	....	Competitive Examination among Third-year Students.	
	" No. 6.	£10.	....	Ditto.	
	Entrance Science Scholarship. No. 1.	£150.	....	Competitive Examination in PHYSICS, CHEMISTRY, PHYSIOLOGY, BOTANY, or ZOOLOGY.	
	" No. 2.	£60. £27 10s.	....	Ditto.	
	Wm. Tite Scholarship.	£27 10s.	....	Competitive Examination among First-year Students.	
	College Prizes.				
	" No. 7.	£20.	....	Ditto.	
	" No. 8.	£10.	....	Ditto.	
Musgrove Scholarship.	£38 10s.	2 years.	Competitive Examination among Second-year Students.		
Peacock Scholarship.	£38 10s.	2 years.	Ditto.		
Grainger Testimonial Prize.	£15.	1 year.	For work in ANATOMY and PHYSIOLOGY.		
<i>Biennially</i> ; Beaney Scholarship.	....	....	For SURGERY and SURGICAL PATHOLOGY.		
College Prizes.					
" No. 9.	£20.	....	Competitive Examination among Second-year Students.		
" No. 10.	£10.	....	Ditto.		
" No. 11.	£20.	....	Competitive Examination among Third-year Students.		
" No. 12.	£15.	....	Ditto.		
" No. 13.	£10.	....	Ditto.		
UNIVERSITY COLLEGE, LONDON.	Entrance Exhibitions. No. 1.	£100.	....	Open Competitive Examination in CHEMISTRY, PHYSICS, BOTANY, and ZOOLOGY.	Perpetual Course at University College. Ditto. Ditto.
	" No. 2.	£60.	....	Ditto.	
	" No. 3.	£40.	....	Ditto.	

SCHOLARSHIPS GIVEN IN AID OF MEDICAL STUDY—*continued.*

INSTITUTION.	TITLE OF SCHOLARSHIP &c.	ANNUAL OR TOTAL VALUE.	HOW LONG TENABLE.	HOW OBTAINABLE.	CONDITIONS ATTACHED TO TENURE.
UNIVERSITY COLLEGE, LONDON— <i>continued.</i>	Atkinson Morley Scholarship.	£45 per annum.	3 years.	Theory and Practice of Surgery.	Perpetual Course at Westminster Hospital. Ditto.
	Aitchison Scholarship.	£55 per annum.	2 years.	Competitive Examination among Medical Students.	
	Sharpey Physiological Scholarship.	£105.	....	Proficiency in Biological Science.	
	Filliter Exhibit'n.	£80.	1 year.	Competitive Examination among Students in PATHOLOGICAL ANATOMY.	
	Cluff Mem. Prize.	£15.	....	Competitive Examination among Students in ANATOMY, PHYSIOLOGY, and CHEMISTRY.	
WESTMINSTER HOSPITAL.	Erichsen Prize.	£10 10s.	....	Practical Surgery.	
	Morris Bursary.	£16.	2 years.	....	
	Natural Science Entrance Scholarship.	£60.	....	Competitive Examination in subjects of Preliminary Scientific of London University.	
	Entrance Scholarship.	£30 per annum.	2 years.	Open Competitive Examination among Candidates under twenty-five years of age in LATIN, MATHEMATICS, EXPERIMENTAL PHYSICS, CHEMISTRY, and FRENCH or GERMAN.	
	Guthrie Scholarship.	£30 per annum.	2 years.	Ditto.	
	" No. 1.	£20 per annum.	2 years.	Ditto.	
	" No. 2.	£20 per annum.	2 years.	Ditto.	
	" No. 3.	£10 per annum.	2 years.	Ditto.	
	" No. 4.	£10 per annum.	2 years.	Ditto.	
	Rutherford Alcock Governors. Senior Scholarship.	£20 per annum.	2 years.	As above, save that Dental Students only can compete.	
	" No. 1.	£20 per annum.	2 years.	Open Competition in CHEMISTRY and EXPERIMENTAL PHYSICS.	
	" No. 2.	£20 per annum.	2 years.	Ditto.	
	Treasurer's Prize.	£20 per annum. £10 10s.	2 years. ....	For Students entering in the Summer Session.	
	President's Prize.	£21.	....	Competitive Examination among Oxford and Cambridge Students in ANATOMY and PHYSIOLOGY.	
	MASON COLLEGE, BIRMINGHAM.	Chadwick Prize.	£21 in books or instruments.	....	Ditto.
Bird Medal and Prize.		£14 in medal, books, or instruments.	....	Competitive Examination among First-year Students in ANATOMY, PHYSIOLOGY, and CHEMISTRY.	
Ingleby Scholarships (1 or more).		£10 to £15.	1 year.	Competitive Examination among Second-year Students in ANATOMY, PHYSIOLOGY, and HISTOLOGY.	
Sydenham Scholarship.		£10 10s. per annum.	3 years.	Competitive Examination among Medical Students in ANATOMY, PHYSIOLOGY, MEDICINE, SURGERY, and MIDWIFERY.	
Sands Cox Scholarship.		£10 10s. per annum.	3 years.	Competitive Examination amongst Fourth-year Students in MIDWIFERY and DISEASES OF WOMEN, MEDICINE, and PATHOLOGY.	
BRISTOL MEDICAL SCHOOL.	Queen's Scholarship.	£10 10s. per annum.	3 years.	Candidates must have spent first two years of curriculum at the College.	
	"	£30 15s.	....	Award of Council to orphan sons of Medical Practitioner.	
	"	£10 10s.	....	Competitive Examination among sons of Medical Practitioners under eighteen years of age in ARTS SUBJECTS.	
LEEDS SCHOOL OF MEDICINE (YORKSHIRE COLLEGE)	Clark Prize.	£10 10s.	....	Competitive Examination for all Students entering in CHEMISTRY, ELEMENTARY BIOLOGY, and EXPERIMENTAL PHYSICS.	
	Entrance Scholarship.	£63.	....	Competitive Examination among Medical Students in Subjects of GENERAL EDUCATION.	
	Infirmary Scholarship.	£42.	....	Ditto.	
	Hardwick Prize.	£10.	....	Class Work of Third-year Students.	
	McGill Prize.	£10.	....	Competitive Examination among Medical Students who have passed Preliminary Scientific Examination at London or Victoria University.	
UNIVERSITY COLLEGE, LIVERPOOL.	Thorp Prizes.	£10 and £5.	....	Competitive Examination among Students who have passed one of the Preliminary Examinations.	
	Holt Tutorial Scholarships (two annually).	£100.	....	Competitive Examination among Clinical Clerk Students of two years' standing in CLINICAL MEDICINE.	
	Lyon Jones Scholarship. No. 1.	£21 per annum.	2 years.	Competitive Examination among advanced Surgical Students.	
	" No. 2.	£21.	....	Examinations in Forensic Medicine and Hygiene.	
	Derby Exhibition.	£15.	....	Vote of Faculty to Student of not less than two years' standing.	

## PUBLIC HEALTH.

INSTRUCTION FOR DIPLOMAS IN  
STATE MEDICINE.

## ENGLAND.

THE following recommendations, designed with a view of ensuring "the possession of a distinctively high proficiency, scientific and practical, in all the branches of study which concern the public health," were adopted by the General Medical Council in 1889. The regulations require that—

"(1) A period of not less than twelve months shall elapse between the attainment of a first registrable qualification in Medicine, Surgery and Midwifery and the examination for a diploma in Sanitary Science, Public Health, or State Medicine; (2) every candidate shall have produced evidence of having attended, after obtaining a registrable qualification, during a period of six months, practical instruction in a laboratory approved of by the body granting the qualification; (3) every candidate shall have produced evidence of having for six months practically studied the duties of out-door sanitary work under the medical officer of health of a county or large urban district; (4) the examination shall have been conducted by examiners specially qualified, and shall comprise laboratory work as well as written and oral examination; (5) the rules as to study shall not apply to—(a) medical practitioners registered, or entitled to be registered, on or before Jan. 1st, 1890; (b) registered medical practitioners who have for a period of three years held the position of medical officer of health to any county, or to any urban district of more than 20,000 inhabitants, or to any entire rural sanitary district."

*London University.*—Sanitary Science is included in the M.D. degree, and a certificate will have to be produced showing that a course of practical instruction has been attended for the prescribed period, and that the course has included such chemical, microscopical and meteorological work and exercises as more especially relate to sanitation.

*Cambridge University.*—The Examination consists of two parts. Part I. comprises physics and chemistry; the principles of chemistry and methods of analysis, with especial reference to analyses of air and water; application of the microscope; the laws of heat and the principles of pneumatics, hydrostatics and hydraulics, with especial reference to ventilation, water-supply, drainage; construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general; statistical methods. Part II. comprises laws of the realm relating to public health; origin, propagation, pathology and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and drainage in reference to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate. The examination in both parts is oral and practical, as well as in writing. Candidates may present themselves for either part separately or for both together. Every candidate must pay a fee of £4 4s. before admission to each part of the examination. Candidates for examination must be in their twenty-fourth year at the time of taking the first part and must have completed that age before presenting themselves for the second part. Those who have become qualified after January 1st, 1890, must have passed a prescribed course of study, particulars of which may be obtained on application to Dr. Bushell Annington, Barton-road, Cambridge, who is the Secretary to the State Medicine Syndicate.

*University of Oxford.*—There will be held every year in Michaelmas Term an examination in subjects bearing on Preventive Medicine and Public Health, for the purpose of granting certificates of proficiency therein. No person will be admitted thereto who shall not have obtained the degree of Bachelor of Medicine in the University. The subjects of examination are Hygiene, Sanitary Law, Sanitary Engineering and Vital Statistics. At the close of the examination a list of the candidates who shall have received certificates will be made in a book to be kept for that purpose, and will be certified by the signature of the examiners. Such book will remain in the custody of the registrar of the University. The examination is under the supervision of the Board of the Faculty of Medicine. The fee to be paid before examination is £5; for the Certificate of Proficiency, £10. This examina-

tion is suspended during alterations in the Statute. As evidence that the School of Medical Science in Oxford is a growing one, we note the progress made in the new department of Human Anatomy. The building is now nearly completed, and there is every prospect that it will be ready for occupation next summer, the present accommodation being now insufficient to meet the wants of the increasing numbers of students. In the department of Comparative Anatomy a number of large and well-lighted laboratories have been added; these have been fitted up to meet the requirements of senior students and those engaged in research.

*University of Durham.*—For the licence in Sanitary Science candidates must be registered medical practitioners, and shall have spent one year of professional study subsequently to the attainment of a first registrable qualification in Medicine, Surgery, and Midwifery, in attendance at the University of Durham College of Medicine, Newcastle-upon-Tyne. Medical practitioners registered, or entitled to be registered, on or before Jan. 1st, 1890, are exempt from this year's attendance. For the degree of Bachelor in Hygiene (B. Hy.) the candidate must be a registered medical practitioner; he must not be less than twenty-two years of age, and must have spent one year of professional study subsequently to the attainment of a first registrable qualification in Medicine, Surgery, and Midwifery, in attendance at the University of Durham College of Medicine, Newcastle-upon-Tyne, in the following manner: In the winter session, a course of lectures on Public Health; three months' practical instruction in a Chemical Laboratory; and three months' practical instruction in a Bacteriological Laboratory; and attendance on the Clinical Practice, Lectures, and Instruction at the City Hospital for Infectious Diseases, Newcastle-upon-Tyne. In the summer session a course of Lectures on Sanitary Chemistry and Physics; a course of Practical Chemistry of not less than twelve hours per week; and six months' practical study of out-door sanitary work under the Medical Officer of Health, Newcastle-upon-Tyne. The regulations for the degree of Doctor of Hygiene (D. Hy.) are as follows: The candidate shall be a Bachelor in Hygiene. He shall have been engaged for two years subsequently to the date of his acquirement of the degree of Bachelor in Hygiene in practice as a Medical Officer of Health, and shall write an essay upon some practical hygienic subject, selected by himself and approved by the Lecturer on Public Health, and shall be examined thereon, and upon questions relative to the subject of the essay. Calendars containing full information may be had on application to the Secretary.

*Victoria University.*—An examination in Sanitary Science is held yearly, beginning about the middle of July, under the following regulations: The examination is in two parts, and is written, oral and practical. Candidates before entering for either part of the examination must have held for not less than twelve months a registrable qualification in Medicine, Surgery and Midwifery, and must present satisfactory certificates of having attended courses of instruction in Public Health and in Chemistry as applied to Public Health in a college of the University, or in a college or medical school recognised for this purpose by the University; of having attended, after obtaining a registrable qualification, during at least six months, practical instruction in a laboratory approved by the University; of having practically studied the duties of out-door sanitary work for not less than six months under the Medical Officer of Health of a county or of a large urban district. Candidates may present themselves for Parts I. and II. separately or at the same time, provided that no candidate be admitted to Part II. unless he has already presented himself for Part I. No candidate's name will be published until he has satisfied the examiners in both parts of the examination. Notice in writing must be given by each candidate to the registrar of the University on or before July 1st in each year. The fee for each part is £4 4s., and must be paid on or before July 5th in each year. For any subsequent examination in the same part the fee will be £2 2s. Every candidate who has passed both parts of the examination to the satisfaction of the examiners, and who is legally registered, will receive a diploma in Sanitary Science. The examinations will begin on the third Monday in July each year.

*Royal College of Physicians of London and the Royal College of Surgeons of England.*—The following are the regulations for obtaining the diploma in Public Health: Section 1: Candidates must be registered under the Medical Act. The examination consists of two parts. The fee for

each part is £5 5s. A candidate intending to present himself must give fourteen days' written notice to the Secretary, at the Examination Hall, Thames Embankment, W.C. A candidate registered under the Medical Act on or before Jan. 1st, 1890, will be admissible to Part I. of the examination on producing evidence of being at least twenty-three years of age, and to Part II. on producing evidence of being at least twenty-four years of age. A candidate registered under the Medical Act after Jan. 1st, 1890, will be admissible to examination in Part I. on producing evidence (1) of having been in possession of a registrable qualification in Medicine, Surgery and Midwifery for at least twelve months; (2) of having attended, after obtaining such registrable qualification, practical instruction in a laboratory recognised by the Examining Board in England during a period of six months; (3) of being at least twenty-three years of age. A candidate will be admitted to Part II. of the examination on producing evidence (1) of having, during a period of six months after obtaining a registrable qualification, either practically studied the duties of out-door Sanitary Work under the medical officer of health of a county or large urban district or else held appointment as medical officer of health under conditions not requiring the possession of a special Sanitary diploma; (2) of being at least twenty-four years of age.

*King's College, London.*—A course of lectures will be given in the summer session by Professor Charles Kelly, M.D., F.R.C.P. Practical instruction will be given in the uses of Sanitary Appliances at the Parkes' Museum, Margaret-street, Regent-street, W. The lectures will be given during the summer session on Thursdays at 12.30 P.M., commencing Thursday, May 12th, 1892. Fee for the course, £2 2s., payable in advance in the College Office. Medical students at King's College, free. The necessary Laboratory Instruction to comply with the regulations of the various Universities and other Medical Licensing Bodies will be given by Professor William R. Smith, M.D., D.Sc., and Professor Edgar M. Crookshank, M.B. Lond. The syllabus includes Physics, Chemistry, Microscopy; Parasites and other Organisms Infesting Food-stuff or the Human Body; Bacteriology, including the Cultivation and Recognition of Micro-organisms. The course will last six months, four months of which will be spent in the Laboratories of Public Health, and two months in the Bacteriological Laboratory. Fee 20 guineas, payable in advance in the College Office. Under the direction of Professor William R. Smith, M.D., D.Sc., and Demonstrator, G. N. Huntly, Assoc. R.C.Sc. Lond., practical instruction will be given in the laboratories in the methods of Analysis of Air, Water, Foods &c.; Detection of Poisons. Fees, one month, £4 4s.; three months, £10 10s. The laboratories are also available for original investigations and practical work in Public Health, and are open daily from 9 A.M. to 4 P.M. and on Saturdays to 1 P.M. In Public Health special classes will be held during the winter session by Professor W. R. Smith; fee £12 12s. The bacteriological laboratory is open for original research under the direction of the professor of Comparative Pathology and Bacteriology. For one month for original research, 3 guineas. For a longer period by arrangement. For one month for private study, with supervision, 4 guineas. For a longer period by arrangement. Practical course for a month, with attendance on lectures, 5 guineas. For a year, 30 guineas. Professor H. G. Seeley, F.R.S., will deliver a course of six lectures on Physiography. For further particulars connected with any of the foregoing classes apply to Professor W. R. Smith, King's College, London.

*University College, Bristol.*—A course of lectures on the Principles and Practice of Hygiene will be given at the Medical School, Bristol, by D. S. Davies, M.B. Lond., D.P.H. Cantab., on Mondays and Fridays, 10-11 A.M., commencing on the first Monday in October. A six months' course of Practical Laboratory Instruction is to be given at the Western Counties' Laboratory, Park-street, by Mr. F. Wallis Stoddart, commencing on the first Wednesday in October, and including the subjects of Chemistry, Physics, Bacteriology and Parasites. Demonstrations on the provisions and practical working of the various Acts relating to Public Health and on the Orders, Circulars and By-laws of the Local Government Board will be delivered by Mr. J. C. Heaven on Mondays and Fridays, commencing on the first Monday in October. Gentlemen taking out the course will be admitted to practical out-door sanitary work during the session, under the supervision of the Medical Officer of Health for the city and port of Bristol. They will be considered as pupil assistants, and will be required to carry out diligently such of the duties of

medical officers of health as they may be directed to undertake. Facilities will be afforded during the course for the study of those diseases of the lower animals which are communicable to man. Fee for the entire course, 20 guineas.

## SCOTLAND.

*Edinburgh University.*—Two degrees in Science in the Department of Public Health are conferred by the University of Edinburgh—viz., Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.). Every candidate who desires to proceed to the first examination for the degree of B.Sc. must produce evidence that he has taken a degree in Medicine in the University of Edinburgh or in a University recognised under Section 1 hereof; and that he has worked for at least six months, or the usual winter session, in a laboratory where practical instruction is given in the methods of investigating subjects pertaining to Public Health. Laboratories are not recognised in which provision is not made for the teaching of Public Health laboratory in accordance with the schedule of laboratory work issued by the Senate, nor will they be recognised if such work is not taught by a specially recognised teacher. Candidates will not be admitted to the Second Examination for the said degree until one year after taking a degree in Medicine, nor until an interval of at least three months has elapsed after passing the First Examination. Two laboratories are entirely devoted to Public Health work, and the demonstrator teaches in them from 10 A.M. to 4 P.M. daily. The teaching is both individual and by lectures to groups of students. The latter are given twice a week, and deal with the *rationale* of the methods employed in the practical work.

Bachelors of Science in the department of Public Health, may, after the lapse of one year, proceed to the degree of Doctor in the same department, on producing evidence that they have been engaged in Practical Sanitation since they took the said degree of Bachelor of Science, and on presenting a Thesis on some subject in the department of Public Health. For the First Examination for the degree of Bachelor the fee is £5 5s., and for the Second Examination £5 5s.; for the degree of Doctor, £5 5s.; fee for registration as a member of the University Council (unless previously registered), £1.

*Glasgow University.*—The following regulations as to instruction in Public Health and as to examinations for the diploma in Public Health prepared by the Senate have received the sanction of the University Court; the University provides instruction in Public Health by a laboratory training; and otherwise. The subjects of instruction are:—Duties of health officer, air and ventilation, food and its adulterations, water and water-supply, sewerage and drainage; construction of hospitals, public buildings and dwellings; overcrowding; manufactories, insalubrious trades, cemeteries, nuisances, quarantine, disinfectants and deodorisers, outbreaks of zymotic diseases; climate, topographical and seasonal; its influences in relation to health and disease; geographical distribution of diseases; knowledge of leading Sanitary Acts of Parliament; vital statistics. The laboratory training is provided in a special department of the Chemical Laboratory. Practical instruction is given in the subjects of water, air, soils, antiseptics and disinfectants, foods. The diploma in Public Health may be obtained by any Bachelor of Medicine of the University on his passing the required examination not less than twelve months after he has taken the degree of M.B. Every candidate for a diploma in Public Health shall give sufficient evidence by certificates: that after obtaining the degree of M.B. he has undergone the practical training provided above, and that he has, after obtaining such degree, practically studied for six months the duties of out-door sanitary work under the Medical Officer of Health of a county or large urban district. The examination is written, practical and oral. The fee for the course of instruction is £10 10s. and for the examination £5 5s.

*University of Aberdeen.*—The diploma in Public Health (D.P.H.) is conferred only on graduates in Medicine of a University in the United Kingdom; and a period of not less than twelve months must elapse between medical graduation and entrance to the examination for the diploma. Every candidate must produce evidence of having attended, after graduation in Medicine, during a period of six months, practical instruction in Hygiene in a laboratory approved of by the University, together with having for a like period after graduation practically and daily studied the duties of out-door sanitary work under the Medical Officer of Health of a county or large urban district, or also of having himself

held appointment as Medical Officer of Health. He must also have regularly attended for six months the wards of a general fever hospital containing not less than fifty beds. Every candidate who is not a graduate in Medicine of this University must have attended a course of instruction in the University in one or more of the subjects embraced in the examination for the diploma. The diploma is conferred after an examination in Public Health held in March and July of each year. Candidates desiring to appear for examination at either of these periods must send in their names, with the necessary fee, to the Secretary of the Medical Faculty before the first day of the month in which the examination takes place. The fee for the examination is £5 5s. The examination is conducted by specially qualified examiners appointed by the University. Candidates may enter for the whole examination at one period, or they may enter for Parts I. and II. at one period and for Parts III. and IV. at another and subsequent period.

*Royal College of Surgeons, Edinburgh.*—Every candidate for the examination for the diploma in Public Health must be a registered medical practitioner of at least one year's standing; or be in possession for at least one year of such colonial, Indian, or foreign qualification registrable in terms of the Medical Act, 1886, as may be specially recognised by the College. Attendance of candidates on special courses of lectures and instructions is recommended by the College on all subjects appertaining to the examination for the diploma. But it is imperative on every candidate, after obtaining a registrable qualification, to attend six months' practical instruction in a sanitary science laboratory approved by the College. Every candidate will be required to produce evidence of having for six months practically studied out-door sanitary work under the Medical Officer of Health of a county or large urban district. The rules as to study will not apply to medical practitioners registered on or before Jan. 1st, 1890, nor to registered practitioners who have for a period of three years held the position of Medical Officer of Health to any county or to any urban district of more than 20,000 inhabitants, or to any entire rural sanitary district. The examination consists of a First and Second Examination, and in both cases comprises laboratory work as well as written and oral examinations. The fee for the diploma is £10, of which £5 is payable on entering for the First Examination and £5 on entering for the Second Examination. Candidates may present themselves for both examinations at one period, the condition being that failure to pass in the subjects of the First Examination precludes the candidate from admission to the Second Examination. Every candidate on passing the Second Examination will receive a diploma for Proficiency in Sanitary Science, Public Health and State Medicine, which is registrable on the Medical Register as an additional qualification. NOTE.—This diploma will be superseded after Oct. 1st, 1892, by one to be granted by the Triple Qualification Board, but candidates who have passed the First Examination for the above diploma before that date may be admitted to the Second Examination at a subsequent period.

*Faculty of Physicians and Surgeons of Glasgow.*—After Sept. 30th, 1892, the separate Examinations conducted by the Royal Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow, and the three Bodies will conduct their Examinations for the diploma in Public Health conjointly. Candidates other than those registered before 1890 must produce evidence of having subsequently to registration (1) attended six months in a Public Health Laboratory; (2) practically studied for six months the duties of out-door Sanitary work under the Medical Officer of Health of a county or large urban district. The examination is divided into two parts, the first part embracing Chemistry, with laboratory work, physics, and meteorology; the second part epidemiology, endemiology, vital statistics, practical sanitation and sanitary law. The various subjects included in the two examinations are detailed by synopses; and the Acts of Parliament embraced in "Sanitary Law" are also enumerated in a schedule. Candidates may present themselves for both examinations at one period, or for either examination separately. The fee is 10 guineas, one-half payable for each part; on re-entry candidates pay 3 guineas in respect of such part. The examination is held twice yearly in Edinburgh or in Glasgow. Applications for admission in Edinburgh should be made to Mr. James Robertson, solicitor, 1, George-square, Edinburgh; and in Glasgow to Mr. Alexander Duncan, B.A., 242, St. Vincent-street. Either of these gentlemen will furnish candidates with copies of the regulations, and any information necessary.

## IRELAND.

*Royal University of Ireland.*—This University grants a diploma in Sanitary Science. It is conferred only on graduates in Medicine of the University. Candidates are not admitted to this examination until the lapse of twelve months from the time of obtaining the first registrable qualification; they must give notice in writing to the Secretaries of their intention to present themselves and must pay the fee, £2, at least one month previously to the examination. Candidates are required to produce a certificate of having attended a course of instruction in Geology in some recognised institution, as a guarantee that they have rigorously studied the subject; they must also produce a certificate of having, after obtaining a registrable qualification, attended six months' practical instruction in a laboratory approved by the University.

*University of Dublin.*—The diploma in State Medicine is conferred, after examination, on the following conditions:—The candidate must be a Doctor in Medicine, a graduate in Medicine and Surgery of Dublin, Oxford or Cambridge. The name of the candidate must have been on the Medical Register at least twelve months before the examination. The candidate must have completed, subsequently to registration, six months' practical instruction in a laboratory approved by the University and also have studied practically out-door sanitary work for six months, under an approved officer of health. The subjects of examination will be—(a) State Medicine and Hygiene, including causation and prevention of disease, contagion in different diseases, morbid diathesis, congenital diseases and malformations, diseases of animals in relation to the health of man, diseases of the vegetable kingdom, famine diseases, causes of origin and spread of epidemics, principles of bacteriology, quarantine, disinfection &c.; (b) Chemistry, including air, water and articles of food and drink, and their chemical and microscopical examination and analysis, the detection of common poisons and recognition of injurious pigments &c.; (c) Physics and Meteorology; (d) Engineering; (e) Morbid Anatomy; (f) Vital Statistics; (g) Medical Jurisprudence.

*Royal College of Physicians and Royal College of Surgeons.*—Stated examinations for the diploma in State Medicine are held on the Tuesday, Wednesday and Thursday following the first Friday of the months of February, May and November. A special examination for the diploma can be obtained on payment of £5 5s., in addition to the ordinary fees mentioned below, and on giving notice at least one fortnight before the date of the proposed examination. Every candidate for the diploma in State Medicine must be a registered medical practitioner. He must return his name to the secretary of the committee of management under the conjoint scheme three weeks before the examination, and lodge with him a testimonial of character from a Fellow of either of the Colleges, or of the Royal Colleges of Physicians or Surgeons of London or Edinburgh. The fee for the examination is £10 10s. The examination for the diploma in State Medicine comprises the following subjects:—State Medicine and Hygiene, Chemistry, Meteorology and Climatology, Engineering, Morbid Anatomy, Vital Statistics, Medical Jurisprudence, Law.

## DENTAL SURGERY.

ANYONE who is on the Medical Register is entitled to practise as a dentist, although he cannot register as such without the special licence; but it is of eminent advantage to take the L.D.S., otherwise few dental appointments at general or special hospitals or dispensaries are available, and what is still more important, the manual dexterity and knowledge of mechanics requisite for the successful practice of dentistry can only be gained by long and careful training at the dental operating chair and in the dental laboratory; and this having been attained, it costs but little trouble to pass the special examination. The subjects beyond those included in the general qualification are—Dental Anatomy and Physiology (Human and Comparative), two courses; Dental Surgery, two courses; Dental Mechanics, two courses; Metallurgy, one course; Practice of Dental Surgery at a recognised school, two years, and an apprenticeship in Dental Mechanics to a competent practitioner for three years, but in the case of qualified surgeons two will suffice. The Dental Schools in London are the Dental Hospital of London, the National Dental Hospital and College and Guy's Hospital Dental School, and most of the large provincial towns have

now dental hospitals. A convenient arrangement by which the M.R.C.S., L.R.C.P. and L.D.S. can be taken is as follows:—The Preliminary Examination in General Education having been passed, the student should become apprenticed to a qualified dentist and register as a dental and medical student. (This instruction, however, may be taken prior to the date of registration as a dental student.) During his apprenticeship the student should receive instruction in Chemistry, including Chemical Physics, Practical Chemistry, Pharmacy and Materia Medica, and pass in these subjects before entering the hospital. Having entered the hospital, the student should attend the dental and general courses contemporaneously, and pass the Elementary Anatomy Examination at the end of the first winter session, and at the end of the second winter the Second Conjoint Examination in Anatomy and Physiology. At this point a break may be made to admit of the completion of the dental curriculum and the passing of the final examination for the L.D.S. diploma. The student should now devote the rest of his time to the requirements of the Conjoint Board. The regulations for the Dental Licence of the Royal Colleges of Ireland and Edinburgh and of the Faculty of Physicians and Surgeons of Glasgow are very similar to those of the English College. The L.D.S. can also be obtained alone.

#### REGISTRATION OF DENTAL STUDENTS.

The registration of dental students is carried on at the Medical Council Office in London in the same manner as the existing registration of medical students, and subject to the same regulations as regards Preliminary Examinations. Students who commenced their professional education by apprenticeship to dentists entitled to be registered, or by attendance upon professional lectures before July 22nd, 1878 (when dental education became compulsory), are not required to produce evidence of having passed a Preliminary Examination. Candidates for a diploma in Dental Surgery must produce certificates of having been engaged during four years in professional studies, and of having received three years' instruction in Mechanical Dentistry from a registered practitioner. One year's *bond-fide* apprenticeship with a registered dental practitioner, after being registered as a dental student, may be counted as of the four years of professional study. The three years of instruction in Mechanical Dentistry, or any part of them, may be taken by the dental student either before or after his registration as a student; but no year of such mechanical instruction will be counted as one of the four years of professional study unless taken after registration.

The Royal College of Surgeons of England grants a diploma in Dental Surgery under the following regulations: A candidate must produce certificates: 1. Of registration as a dental student by the General Medical Council, 299, Oxford-street, London, W. 2. Of having been engaged during four years in the acquirement of professional knowledge subsequently to the date of such registration. 3. Of having received instruction in Chemistry, including Chemical Physics, Practical Chemistry and Materia Medica. 4. Of having attended a recognised medical school where he followed (a) a course of lectures on Anatomy during not less than six months, or one winter session; (b) a course of lectures on Physiology during not less than six months, or one winter session; (c) a separate practical course of Physiology during not less than three months; (d) a course of lectures on Surgery during not less than six months, or one winter session; (e) a course of lectures on Medicine during not less than six months, or one winter session. (Students are required to attend examinations, which are held in the several classes.) 5. Of having performed dissections at a recognised school during not less than twelve months. 6. Of having attended at a recognised hospital or at hospitals in the United Kingdom the practice of Surgery and clinical lectures on Surgery during two winter sessions. 7. Of having attended at a recognised school two courses of lectures upon each of the following subjects: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics and one course of lectures on Metallurgy, by lecturers recognised by this College. Students are required to attend examinations which are held in the several classes. 8. Of having been engaged during a period of not less than three years in acquiring a practical familiarity with the details of Mechanical Dentistry under the instruction of a competent practitioner. In the cases of qualified surgeons evidence of a period of not less than two instead of three years of such instruction will be sufficient. This instruction may be taken prior to the date of registration as a dental student. 9. Of

having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of Dental Surgery during the period of two years. 10. Of being twenty-one years of age. (Professional study prior to the date of registration as a dental student is not recognised except in the case of Chemistry, Practical Chemistry and Materia Medica, and of instruction in the details of Mechanical Dentistry—see Clauses 3 and 8). All candidates who commenced their professional education on or after July 22nd, 1878, must, in addition to the certificates enumerated above, produce a certificate of having, prior to such commencement, been registered as dental students by the General Medical Council. Candidates who are members of the College, or who have passed the examination in Surgery of the Examining Board in England, or who shall produce evidence of having passed the examination in Surgery for the licence of the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, or an examination in Surgery for a degree in Medicine or Surgery at a University in the United Kingdom, will be exempt from re-examination in General Surgery and Pathology. A candidate whose qualifications are found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months unless the Board shall otherwise determine. The fee for the diploma is £10 10s., not inclusive of any stamp duty.

*Royal College of Surgeons, Edinburgh.*—For the licence in Dental Surgery all candidates must pass a preliminary examination in general knowledge and have their names inscribed in the Register of Dental Students of the General Medical Council. A copy of regulations, giving a list of preliminary examinations recognised for obtaining this licence, as well as of the subjects of the professional examinations, may be obtained from Mr. James Robertson, Clerk to the Royal College of Surgeons, at 1, George-square, Edinburgh. Students who commenced their professional education by apprenticeship or attendance on lectures before July 22nd, 1878, are exempt from the preliminary examinations. Candidates must produce certificates of having, subsequently to the date of registration, been engaged for four years in professional studies, and of three years' instruction in Mechanical Dentistry from a registered dental practitioner, except in the case of previously registered medical practitioners, when two years will be considered sufficient. 1. Candidates who have commenced their studies prior to Oct. 1st, 1890, must have attended the following curriculum: Anatomy, one winter course; Practical Anatomy and Demonstrations, nine months; Practical Anatomy, nine months; Anatomy of Head and Neck, one course of twenty lectures; Physiology, one course of not less than fifty lectures; Chemistry, one winter course; Surgery, one winter course; Medicine, one winter course; Materia Medica, one course of three months; Practical Chemistry and Metallurgy, one course of three months; attendance on the practice of Surgery and Clinical Lectures on Surgery, at a recognised hospital, one course of six months, or two courses of three months. 2. Candidates commencing their studies after Oct. 1st, 1890, must have attended the following curriculum: Anatomy, one course of six months; Practical Anatomy, twelve months; Chemistry, one course of six months; Practical Chemistry, one course of three months; Physiology, one course of six months; Materia Medica, one course of three months; Surgery, one course of six months; Medicine, one course of six months; attendance on the practice of Surgery, and Clinical Lectures on Surgery, at a recognised hospital, six months. These courses must have been attended at a University, or in an established school of medicine, or in a provincial school specially recognised by the College as qualifying for the diploma in Surgery. In addition to these courses candidates will be required to have attended in a recognised dental hospital, or with teachers recognised by the College, the following special courses of lectures and instruction: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery and Pathology, Dental Mechanics—one course each; two years' attendance at a dental hospital, or the dental department of a general hospital, recognised by the College. Certificates of attendance on such of these courses of the new curriculum as may be respectively required will entitle candidates to appear either for the first dental examination, or for the first and second examinations for the triple qualification as they may select, and subject to the existing regulations for each qualification. Candidates.

who have passed the first and second examinations for the triple qualification will be exempt from the first dental examination, and will have the advantage of being admissible either to the Final Dental Examination or to the Final Examination for the Triple Qualification, or to both. But the First Dental Examination will not be held as equivalent to the first and second Triple Examinations, and will admit to the Final Dental Examination only. Candidates who are Licentiates of this College, or who may be registered medical practitioners, will be required to produce certificates of attendance on the special subjects only, and will be examined in these only for the Dental diploma. First Professional Examination: The candidate must have attended the courses on Anatomy, Chemistry and Physiology. The examination embraces Anatomy, Chemistry and Physiology. The fee is £4 4s. Second Examination: The candidate must have attended the remaining courses of the curriculum, must be twenty-one years of age, and must pay a fee of £6 6s. The examination embraces Surgery, Medicine, Therapeutics and the special subjects of Dental Anatomy and Physiology, Dental Surgery and Pathology and Dental Mechanics. Unsuccessful candidates will be repaid £2 2s. in the First and £3 3s. in the Second Examinations. Candidates who claim exemption from the First Dental Examination, on the ground of having passed the First and Second Triple Qualification Examination, will, before being admitted to the Second Dental Examination, be required to pay the total fee of £10 10s., payable for the Dental diploma, of which £3 3s. will be returned in case of rejection.

*Faculty of Physicians and Surgeons of Glasgow.*—The regulations as to certificates, curriculum, number and subjects of examinations, fees &c. are in effect similar to those of the Royal College of Surgeons of Edinburgh. Special provision is made for candidates who intend to qualify both in Medicine and in Dentistry. There is an examination in Practical Dentistry conducted in a dental hospital.

*Royal College of Surgeons in Ireland.*—All information concerning the licence in Dentistry may be obtained from the Registrar of the College, who will receive the applications of candidates for permission to be examined. The bank receipt for fees, together with all certificates &c., are to be lodged at least fourteen days prior to the day fixed for the commencement of the examination for the class to which each candidate belongs. The examinations commence on the second Monday in the months of February, May and November. Candidates are required to pass three examinations—viz., Preliminary, Primary and Final. 1. Preliminary Examination and Registration. 2. Primary Dental Examination, the fee for which is £10 10s., and the subjects are: (a) Physics; (b) Chemistry; (c) Anatomy; (d) Histology and Physiology. 3. Final Examination. Candidates must produce evidence of having passed the former two examinations and of having attended courses of Dental Surgery and Pathology, Dental Mechanics, Dental Anatomy, Dental Metallurgy and Surgery; of having attended for two years the practice of a dental hospital recognised by the College, or of the dental department of a general hospital so recognised; of having, subsequently to passing the Primary Dental (or an equivalent) Examination, attended for a period of nine months as an extern, or six months as an intern, pupil the practice of a recognised medico-surgical hospital; of having been engaged for at least forty-five months in acquiring a knowledge of dentistry. The candidate is recommended to devote at least three years to acquiring a practical knowledge of Dentistry under the instruction of a registered dentist. Candidates holding a diploma in Surgery are only required to produce certificates of one year's attendance at a dental hospital and are not required to produce certificate in Dental Anatomy and Physiology. As this remission has been made on the understanding that the surgeon devotes his whole time to dental work, such attendance must be taken out after the date of his diploma in Surgery. The examination fee is £10 10s.

#### TEACHING INSTITUTIONS IN ENGLAND.

*Dental Hospital of London and School of Dental Surgery, Leicester-square.*—The school was founded to provide the special dental education required by the Royal College of Surgeons for the licence in Dental Surgery. The general part of the curriculum may be taken at any general hospital. The hospital is open from 9 A.M. to 4 P.M., there being one staff for the morning and another for the afternoon of each day. There is a good mechanical laboratory, under Mr. A. J. Watts, and opportunity is afforded students of gaining practical experience in taking models and fitting dentures into the mouth. The demonstrators at the commencement

of each session give a course of lectures on Operative Dental Surgery. The five house surgeoncies are held for six months each, and are open to all qualified students. The lecturers, in addition to their lectures, give special demonstrations on the Microscopy of Dental Anatomy and Dental Surgery. The lecturer on Dental Mechanics also gives practical demonstrations in the mechanical laboratory. A scholarship of the value of £20 has been founded by Sir Edwin Saunders and will be awarded to the student who has obtained the highest aggregate number of marks in the five class examinations—viz., the four Lecturers' Prizes, the Operating Prize—and in additional special *vivâ-vocâ* examinations in Practical Dentistry. Prizes and certificates are awarded by the lecturers for the best examinations in the subjects of their respective courses, at the end of the summer and winter sessions. Arrangements have been made for a prize in Operative Dentistry. A prize of the value of 5 guineas is given by Messrs. Ash and Sons for the best essay on some surgical subject connected with Dental Surgery. The conditions under which this prize is to be competed for are the same as those for the Saunders Scholarship, with this exception, that the papers are to be written in the hospital during the summer session. Consulting Physician: Sir Richard Quain, Bart. Consulting Surgeon: Mr. C. Heath. Consulting Dental Surgeons: Mr. T. Arnold Rogers and Sir John Tomes. Dental Surgeons: Monday, 9 A.M., Mr. C. E. Truman; Tuesday, 9 A.M., Mr. R. H. Woodhouse; Wednesday, 9 A.M., Mr. G. Gregson; Thursday, 9 A.M., Mr. Storer Bennett; Friday, 9 A.M., Mr. W. Hern; Saturday, 9 A.M., Mr. Leonard Matheson. Assistant Dental Surgeons: Monday, 9 A.M., Mr. J. F. Colyer; Tuesday, 9 A.M., Mr. C. F. Rilot; Wednesday, 9 A.M., Mr. E. Lloyd Williams; Thursday, 9 A.M., Mr. W. B. Paterson; Friday, 9 A.M., Mr. H. Baldwin; Saturday, 9 A.M., Mr. H. Lloyd Williams. For the afternoons—Monday, Mr. A. Clayton Woodhouse; Tuesday, Mr. W. H. Dolamore; Wednesday, Mr. F. J. Bennett; Thursday, Mr. W. H. Woodruff; Friday, Mr. C. Robbins; Demonstrators of Gold and other Methods of Filling: Mr. Arthur Colyer, Mr. E. H. L. Briault, Mr. G. Hern, and Mr. E. Gardner. Medical Tutor: Mr. W. H. Dolamore. Lecturers: Dental Surgery and Pathology—Mr. Storer Bennett. Dental Anatomy and Pathology (Human and Comparative)—Mr. Arthur Underwood. Mechanical Dentistry—Mr. David Hepburn. Metallurgy in its application to Dental Purposes—Professor A. K. Huntington (King's College, London). Total fee as a perpetual student, £36 15s., to be paid in one sum. Composition fee for the Special Lectures and two years' Hospital Practice required by the curriculum, £31 10s. All fees are payable on day of entry. An extra fee of £10 10s. for Hospital Practice makes a student "perpetual" for that course when paid at any period after original entry. The Dean, Mr. Morton Smale, attends at the hospital every Wednesday morning from 10 to 12, and daily from 5 P.M. to 6 P.M. from Sept. 26th to Oct. 30th, and from April 29th to May 28th, or he can be seen by appointment. Letters to be addressed—40, Leicester-square, "to be forwarded."

*National Dental Hospital and College.*—Consulting Physicians: Dr. B. W. Richardson and Dr. W. H. Broadbent. Consulting Surgeons: Sir Spencer Wells and Mr. Christopher Heath. Consulting Dental Surgeon: Sir Edwin Saunders. Honorary Visiting Physician: Dr. James Maughan. Honorary Visiting Surgeon: Mr. E. W. Roughton. Dental Surgeons: Mr. F. H. Weiss, Mr. A. Smith, Mr. M. Davis, Mr. A. F. Canton, Mr. H. G. Read and Mr. W. R. Humby. Assistant Dental Surgeons: Mr. W. Weiss, Mr. P. H. White, Mr. S. Spokes, Mr. T. G. Read, Mr. C. W. Glassington and Mr. Rushton. Lecturers (winter), Dental Anatomy and Physiology: Mr. Sidney Spokes, Tuesdays and Thursdays, 6 P.M., in October, November and December. Operative Dental Surgery and Therapeutics: Dr. George Cunningham, Mondays, 6.30 P.M., in October, November and December. Dental Materia Medica and Therapeutics: Mr. C. W. Glassington, Tuesdays, 7.30 P.M., in October, November and December. Dental Metallurgy: Mr. W. Lapraik, Tuesdays, 7.30 P.M., in January, February and March. Dental Mechanics: Mr. H. Rose, Mondays, 7 P.M., in January, February and March. Demonstrations in Dental Mechanics: Mr. Humby, Wednesdays, 7 P.M., in January, February and March (in 1889 and alternate years). Summer—Dental Surgery and Pathology: Mr. W. Weiss, Mondays and Thursdays, 6 P.M., in May, June and July. Elements of Histology: Dr. J. Maughan, Mondays and Thursdays, 5 P.M., May, June and July. Clinical Lectures and Demonstrations are given from time to time. The stopping rooms have accommodation for

twenty chairs. Dresserships in the extraction room are held for three months by six senior and twelve junior students of the hospital. An Entrance Exhibition, of the value of £15, is open for competition at the commencement of each summer and winter session. Six prizes in medals are open for competition at the end of each course of lectures. Certificates of honour are given in each class. The Rymer Medal for General Proficiency, value £5, is awarded annually to the most meritorious student; and the Ash Prize, value £3 3s., for a Thesis on a subject in Dental Surgery. General fee for special lectures required by the curriculum of the Royal College of Surgeons of England, £12 12s. For the Two Years' Hospital Practice required, £12 12s. Total fee for the Special Lectures and Hospital Practice required, £25 4s. Perpetual fee to all Lectures and to Hospital Practice, £15 15s. each. Single Courses: Dental Anatomy and Physiology, Dental Surgery and Pathology, Operative Dental Surgery and Dental Mechanics, each, one course, £2 12s. 6d.; two courses, £4 4s.; Dental Metallurgy, one course, £3 3s.; two courses, £5 5s.; Dental Materia Medica, £2 2s.; Demonstration of Dental Mechanics, Elements of Histology, each £1 1s. Hospital Practice to registered practitioners, six months, £7 7s.; twelve months, £9 9s. Information respecting the Hospital Practice and the College may be obtained from the Dean, Mr. Harry Rose, at the Hospital, Great Portland-street.

*Guy's Hospital.*—The work of the Dental Department begins daily at 9 o'clock both in the extraction rooms and in the conservation room. *The Extraction Rooms:* Patients are admitted between 9 and 10.30 A.M., and are seen by the assistant dental surgeon for the day, the dental house surgeon, the assistant dental house surgeon, and the dressers. Such cases as are suitable for conservative treatment are transferred to the conservation room, taking with them a dental chart to indicate the treatment required. *The Conservation Room:* This room is under the charge of one of the assistant dental house surgeons from 9 o'clock till the completion of the extractions, and he receives patients transferred from the extraction rooms and allots the cases to the dressers. The assistant dental surgeons of the day demonstrate a filling or one of the operations of dental surgery every morning at 11 and 1 o'clock respectively. A ticket which gives admission to the General and Special Lectures and Demonstrations, and to the Hospital and Dental Practice, requisite for the diploma in Dental Surgery of the Royal College of Surgeons of England, may be obtained—1. By the payment of £90 on entrance. 2. By two payments of 50 guineas and 40 guineas, at the beginning of the first and second years respectively. A ticket which gives admission to the General Lectures, Demonstrations and Hospital Practice required for the L.D.S. Eng. may be obtained for £60 paid on entrance, or 60 guineas paid in instalments of 30 guineas at the beginning of the first year and 30 guineas at the beginning of the second year. A ticket which gives admission to the Special Lectures and Demonstrations and Dental Practice only may be obtained for 30 guineas paid on entrance.

*London Hospital.*—Mr. Barrett gives practical instruction during the winter session on Tuesdays at 9 A.M., and during the summer session on Tuesdays and Thursdays at the same hour. The attention of dental students is particularly directed to the fact that the Council of the Royal College of Surgeons recognises the dental department of the London Hospital as a school at which may be obtained the dental practice necessary to qualify a student for the examination for the Dental diploma. Dental students may also obtain the general medical education (apart from certain lectures to be attended at the dental school) and the dental practice necessary for the diploma at the London Hospital School. In selecting from candidates for the office of Dental Assistant priority will be given to those who have attended the greatest number of lectures on Dental Pathology and Surgery, and have also been the most punctual in attendance in the dental department on the Tuesday mornings. During the summer a class for special instruction in filling teeth will be formed by Mr. Barrett.

*Mason College, Birmingham.*—The teaching of Dentistry is undertaken by the Mason College, acting in association with the Birmingham Dental Hospital and the Birmingham Clinical Board, so that the students may fully qualify themselves for the Dental diploma of the Royal Colleges. There is a special and well-equipped Dental Museum and Laboratory. Special courses of lectures are delivered on Medical and Surgical Diseases of the Mouth &c., and there is a special course of Practical Dental Histology. An Entrance Exhibition, value £15, is awarded annually at the commencement of the winter

session. Medals and honour certificates are awarded annually in the various classes.

*Liverpool Dental Hospital, Mount Pleasant.*—The Liverpool Dental Hospital, founded in the year 1864, combines the work of a most useful charity with all the advantages of a dental school recognised by all the licensing bodies of Great Britain and Ireland. The hospital has four separate operating rooms, all facing north, which is recognised as the best aspect for securing a good light. There is an abundant daily supply of patients. Over 21,000 cases were treated during last year. The hospital staff consists of twelve honorary dental surgeons, one of whom is present each morning and evening. In addition to these there are one or more house surgeons to superintend all the hospital work and devote themselves to clinical teaching, advising and helping the students in their studies. Every facility is afforded to students who are anxious to acquire proficiency in Dental Surgery and to prepare themselves for the Dental diploma of the Royal College of Surgeons. The fee for the two years' Dental Hospital Practice required by the College of Surgeons is £12 12s., which must be paid on entrance. Fee as a perpetual student, £15 15s. Composition fee for all Lectures: A payment of £50 on entrance, or in two equal instalments (one half on entrance and the remainder within twelve months). Fee for General Hospital Practice, £10 10s. All communications relating to the medical department should be addressed to Mr. Paul, the Dean of the Medical Faculty, 38, Rodney-street; and all communications relating to the Dental Hospital should be addressed to R. Edwards, 50, Mount Pleasant.

*Bristol General Hospital.*—Mr. Genge gives practical instruction in Dental Surgery at 9.30 A.M. on Mondays and Thursdays. Assistant House Surgeon, Mr. P. Star.

*Owens College, Manchester.*—Arrangements have been made for dental students to attend the hospital practice at the Manchester Royal Infirmary and the practice at the Victoria Dental Hospital. Lectures on special subjects will be given in the College as follows:—Winter session: Dental Mechanics, Mr. Tanner, Thursday, 4 P.M. Summer session: Dental Anatomy and Physiology, Mr. Hooton, Tuesday at 4 P.M., Friday at 2 P.M. Dental Surgery, Mr. Campion, Tuesday and Friday, 3 P.M. Operative Dentistry, Wednesday: Lecture, 2.30 P.M.; Demonstration, 4 P.M. Dental Metallurgy, Dr. Burghardt, Monday, 2.30 P.M. Demonstrations in Dental Pathology and Histology, Mr. Headridge. For the course of Metallurgy the fee is £3 3s.; for other lectures, one course, £3 3s.; two courses, £4 4s. Dental practice for two years at the Manchester Royal Infirmary, £12 12s., paid in advance, or £8 8s. for the first year and £5 5s. for the second year. At the Victoria Dental Hospital patients attend at 8.30 in the morning daily, and at 7 P.M. on Monday, Wednesday and Friday. Consulting Physicians: Dr. H. Simpson and Dr. D. J. Leech. Consulting Surgeons: Mr. E. Lund, Mr. F. A. Heath, Mr. T. Jones and Mr. J. Hardie. Consulting Dental Surgeons: Mr. H. Campion and Mr. G. W. Smith. Dental Surgeons: Mr. G. G. Campion, Mr. E. P. Collett, Mr. W. Dougan, Mr. L. Dreschfeld, Mr. J. W. Dunkerley, Mr. W. Dykes, Mr. W. Headridge, Mr. W. A. Hooton, Mr. I. Renshaw, Mr. W. Simms, Mr. W. Smithard, Mr. T. Tanner and Mr. G. O. Whittaker. Assistant Dental Surgeons: Mr. P. A. Linnell, Mr. F. W. Minshall, Mr. C. R. Morley, and Mr. C. H. Smale. Dean: Mr. G. G. Campion.

*Devon and Exeter Dental Hospital, Castle-street, Exeter.*—Established 1880.—The hospital is open daily (Sundays excepted), and patients are admitted between the hours of 9 and 11 A.M. Students attending the practice of the hospital must consider themselves strictly under the control of the medical officers, and must not undertake any operation without the consent of the dental surgeon for the day.

#### SCOTLAND.

*The Incorporated Edinburgh Dental Hospital and School, 5, Leveston-lane, Edinburgh.*—For the special classes, both theoretical and practical, required by dental students, the directors have secured the services of an efficient staff of dental officers and lecturers. There will also be a course of demonstrations in Mechanical Dentistry. Students will receive instruction in Practical Dental Mechanics under the mechanician. The fee for clinics in gold filling is included in the Dental Hospital fee of £15 15s. The minimum cost of classes for the whole course of dental instruction amounts to £78 13s. Consulting Physician: Dr. Alex. Peddie. Consulting Surgeon: Mr. Joseph Bell. Consulting Surgeon-

Dentist : Dr. John Smith. Dental Surgeons : Messrs. W. Bowman Macleod, Andrew Wilson, Malcolm Macgregor, George W. Watson, J. S. Durward, James Mackintosh and W. Forrester. Assistant Dental Surgeons : Messrs. John S. Amooore, J. Graham Munro, T. Gregory, John Turner, David Monroe and F. Page. Extra Assistants : Messrs. Sewill Simmons and R. Nasmyth Hannah. Tutorial Dental Surgeon : Mr. Frederick H. Turnbull. Dean : Mr. William Bowman Macleod, 16, George-square.

*Dental Hospital and School, Glasgow.*—The summer session was opened on Tuesday, May 1st, 1892, and the lectures are delivered as under :—Dental Surgery and Pathology, on Tuesdays and Thursdays, at 8 A.M. Mr. Rees Price, lecturer. Dental Anatomy and Physiology, on Wednesdays and Saturdays, at 8 A.M. Dr. Wm. Wallace, M.A., M.B., L.D.S., lecturer. The winter session opens on Nov. 6th, 1892, and the lectures will be delivered as under :—Dental Mechanics, on Tuesday evenings at 7 P.M., beginning Nov. 6th. Mr. John A. Biggs, lecturer. Fee for each of the above courses of lectures, £3 3s. The lectures on Dental Anatomy and Dental Surgery are arranged to extend over two summer sessions, as required by the English College, thus enabling students to present themselves for examination at any of the four Licensing Boards. The fees for attendance at the Dental Hospital and lectures amount in all to £25 4s., and may be paid separately, but by a payment of £15 15s. on entering, and £7 7s. at the beginning of the second year, a saving of £2 2s. is effected. Intending students before commencing to attend the lectures or hospital practice must produce evidence of having passed the preliminary examination prescribed by the regulations of the General Medical Council for registration of dental students. Dean : Mr. J. Rankin Brownlie. Secretary : D. M. Alexander, 117, Wellingtont-street, Glasgow. The hospital is open daily from 5 to 7 P.M. (Saturdays excepted); Saturdays from 9 to 11 A.M. Students may enrol at any time, their period of attendance counting from date of entry. The fee for the two years' attendance required by the curriculum is £15 15s.

*Glasgow Royal Infirmary (Dental Department).*—Mr. W. H. Gray attends at the Royal Infirmary at 3 P.M. on Mondays, Wednesdays and Saturdays, and gives a course of Dental Surgery on these days in summer. The following course in the curriculum can be taken at St. Mungo's College : Anatomy, six months; Practical Anatomy, nine months; Physiology, six months; Chemistry, six months; Practical Chemistry with Metallurgy, three months; Surgery, six months; Medicine, six months; Materia Medica, three months; Clinical Surgery, six months; Dental Surgery, six months, and attendance for two years on the dental department of the hospital. The attendance on the Dental Clinic is free to students of the hospital; to dental students, one year, £5 5s.; perpetual, £10 10s.

## PUBLIC MEDICAL SERVICES.

### THE INDIAN MEDICAL SERVICE.

IN our annual summary of the regulations for the various public medical services we have drawn attention to the rank and titles, promotion, Indian pay and allowances of officers while serving in the military department of the Indian Medical Service. The following information will, we trust, be found useful to those who are thinking of embarking on an Indian career. For the Indian Service all natural-born subjects of Her Majesty between twenty-one and twenty-eight years of age at the date of the examination, and of sound bodily health, may be candidates. No candidate is permitted to compete for a commission more than twice. Candidates may be married or unmarried. They must possess a diploma entitling them under the Medical Acts to practise both Medicine and Surgery. The physical fitness of each candidate is determined previously to examination by a board of medical officers, who are required to certify that vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. After being passed by the Medical Board and paying a fee of £1, a candidate is examined in the following compulsory subjects, in which the highest number of marks attainable is as follows :—Anatomy and Physiology, 1000; Surgery, 1000; Medicine, including Therapeutics and the Diseases of Women and Children, 1000; Chemistry and Pharmacy, and a practical knowledge of Drugs, 1000. No candidate is considered eligible who does not score at least one-third of the marks obtainable in each

of the compulsory subjects. Candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable is as follows : French, German and Hindustani (150 each), 450; Natural Sciences, 300. The natural sciences include comparative anatomy, zoology, natural philosophy, physical geography and botany, with special reference to *materia medica*: the questions on these subjects are of a very elementary nature. A number less than one-third of the marks obtainable in any of these voluntary subjects will not be allowed to count in favour of a candidate who has qualified in the compulsory subjects. The examinations in Surgery and Medicine are in part practical, and include operations on the dead body, the application of surgical apparatus, and the examination of surgical and medical patients. There are usually two examinations held in each year; the examinations take place a few weeks before the commencement of the Netley terms. Before joining the successful candidates are required to provide themselves with the regulation undress uniform of a Surgeon-Lieutenant of the British service, but without the sword. At Netley young officers are called Surgeons-on-Probation or Candidates.

At Netley there are two courses of instruction held yearly—the winter one, which commences in October, and the summer course, beginning in April. Each course lasts about four months. Probationers are required to attend one entire course. It is better, if possible, to go up for the examination preceding the summer course, as an officer then lands in India at the commencement of the cold season. During the period of residence at the Army Medical School a candidate receives an allowance of 8s. a day, with quarters, fuel and light, an allowance quite sufficient to enable a careful man to pay his way. At the conclusion of the course candidates are required to pass an examination in the subjects taught in the school. The position of the candidates in the pass-list is determined by the combined results of the London and Netley examinations, and, so far as the requirements of the service permit, each officer has choice of Presidency in India according to his position. At Netley the prizes are equally open to the competition of the candidates for the Medical Staff and Indian Medical Service. A Surgeon-Lieutenant's commission dates from the day of passing out of the Netley School.

The Indian Medical Service is divided into three distinct branches, one for each of the Presidencies. Bengal offers the widest field, and better fees are obtained there than in other parts of India, hence the men at the top of the pass-list usually select it.

From the date of leaving Netley until arrival in India the rate of pay is 10s. a day. After a few weeks of leave passage to India is usually arranged on a troopship.

On arrival in Bombay the Bengal officers are ordered to Allahabad, the Madras men to their Presidency town, while the Bombay officers are either kept in Bombay or ordered to proceed to Poona. The "lower standard" examination in Hindustani should be worked for and passed as soon as possible after arrival in India, as no pay other than that described as "Indian pay and allowances" can be drawn until the certificate is obtained.

In each Presidency the Indian Medical Service is practically divided into two departments, military and civil.

The scale of pay shown in our summary applies to officers not holding appointments in the military or civil departments of the Service—that is to say, to officers on general duty who have no specific charges; such pay is seldom drawn for any length of time except on first arrival in India.

*The Military Department of the Service.*—Every officer appointed to the Service is obliged to serve in the army of his Presidency for at least two years, unless special necessity arises in the Civil Department for the curtailment of military service. The first few weeks of Indian Military Service are usually passed at a Station Hospital, doing duty with English troops. After a short time officers are appointed to native regiments, either as extra medical officers or to the officiating medical charges. Regimental medical work is, as a rule, very light. It consists in morning and evening visits to hospital, the attendance on brother officers and their families at their bungalows, and on native officers in the huts when seriously ill; the examination of recruits; the attendance at occasional parades and field-days; in sitting as a member on medical or other boards; attending at mess and other regimental meetings; and in looking after the sanitary condition of the "Lines." Regimental appointments are held by officers from the rank of Surgeon-Lieutenant to that of Brigade-Surgeon-

Lieutenant-Colonel. In addition to regimental charges there are in the Military Department the following appointments:—Administrative appointments, five in Bengal, three in Bombay and four in Madras; secretaryships to the Surgeons-Major-General, one in each Presidency; medical store-keeperships, three in Bengal, one in Bombay and one in Madras; staff surgeoncies; and one Bengal military asylum appointment.

Officers holding the principal administrative appointments and substantive military charges of the Indian Medical Service receive at present the following consolidated salaries:—

	Rs. per mensem.
Surgeon-Major-General, Bengal .. ..	2700
"    "    "    Madras .. ..	2500
"    "    "    Bombay .. ..	2500
Surgeon-Colonel { from .. ..	2250
{ to .. ..	1800
Brigade-Surgeon-Lieutenant-Colonel or Surgeon-Lieutenant-Colonel of 20 years' service and upwards in substantive charge of a native regiment .. ..	1000 with Rs. 00, horse allowance in Cavalry regiments.
Surgeon-Major under 20 years' service in substantive charge of ditto .. ..	800 with Rs. 00 ditto.
Surgeon-Captain above 5 years' full-pay service in substantive charge of a native regiment .. ..	600 with Rs. 00 ditto.
Surgeon-Captain or Surgeon-Lieutenant under 5 years' ditto in substantive charge of a native regiment .. ..	450 with Rs. 00 ditto.

Medical charges are of two kinds—substantive and officiating. The first is held by an officer as his fixed and permanent appointment, and for such a charge an officer is entitled to the monthly consolidated pay laid down in the above scale. An officiating charge is held by an officer who is acting temporarily in an appointment during the absence of the officer whose substantive charge it is. An officer while officiating does not receive the consolidated pay of an appointment as laid down in the above scale, but the Indian pay and allowances of his own grade, plus half the staff pay of the appointment in which he is officiating. The staff pay of an appointment is the difference between the Indian pay and allowances and the consolidated pay of the permanent incumbent. The extra allowance for an officiating charge is, however, never less than Rs. 100 per mensem. Officers may pass the first eight years of their service before obtaining substantive charges. While serving in the Military Department, furlough out of India, at the discretion of the Commander-in-Chief, for no longer a period than one year, capable of extension to two years' absence from duty, can be obtained on the following pay:—

After arrival in India, on first appointment .. ..	£200 a year.
After the commencement of the fifth year's active service for pension .. ..	£250 "
After the commencement of the tenth year's active service for pension .. ..	£300 "
After the commencement of the fifteenth year's active service for pension .. ..	£400 "
After the commencement of the twentieth year's active service for pension .. ..	£450 "
After the commencement of the twenty-fifth year's active service for pension .. ..	£500 "

Two months' privilege leave can also be obtained during each year, and shorter periods of leave, ten and three days at a time, are frequently granted.

*The Civil Department.*—The two years of compulsory military duty ended, an officer has the option of deciding whether he will continue his military career, or whether, while continuing to hold his army rank and privileges, he will enter the civil side of the Service. All officers who enter the Civil Department are, of course, liable to be recalled to military duty at any time of emergency or for active service. Civil employment is a privilege and not a right; but any man wishing for civil work can obtain it sooner or later, as vacancies occur. It is a great advantage to enter civil life as soon as possible after the period of enforced military duty is completed, for promotion in many civil branches depends not on seniority in the Indian Medical Service, but on seniority in the province served in or special line taken up. Appointments in the Civil Department, as in the military, are of two kinds, or rather officers may hold appointments in two capacities—as substantive and officiating incumbents. All officers, whether officiating or holding substantive charges in the Civil Department, are subject to the Civil Service regulations as regards leave of all kinds in India, joining time,

travelling allowances and regulations and pay in India. An officer holding the substantive charge of an appointment is always entitled to the full pay and allowances. On first joining the Civil Department it is usual to officiate in some appointment. After an officer has officiated in civil appointments continuously for three years he is considered to be permanently in civil employment and is entitled to all the privileges under the Civil Service regulations. In civil life short periods of leave—"three days" and "ten days" leave—are less easily obtainable than when serving under the military authorities; the amount of privilege leave is also only one month during the year. The furlough regulations are, however, more generous both as to length of leave and as to pay while out of India. To an officer who has rendered three years' continuous service in civil employment furlough for not more than two years may be granted unconditionally on medical certificate and also without medical certificate: (1) if he has rendered eight years' active service in civil employment; (2) if he has not rendered eight years' active service in civil employment, provided that he has rendered eight years' service in India in both the Civil and Military Departments; (3) if the furlough applied for be other than his first furlough, provided that he has rendered three years' continuous service since his return from furlough. The two years' furlough may, on medical certificate, be extended for not more than one year. An officer of the Civil Department can obtain a year's furlough on medical certificate if he has not rendered three years' continuous service. An officer on furlough is entitled to a leave allowance equal to half his average annual salary for the three years preceding his furlough, subject to a maximum limit of £1000 and a minimum of £500. During furlough added for the portion of service passed in the Military Department the minimum pay is that prescribed by the military rules to which the officer was subject. If an officer take furlough before completing three years' continuous service in the Civil Department, or before being confirmed in a civil appointment, he does so under the military furlough rules, and on his return to India may be relegated to military duty.

The civil medical appointments comprise administrative appointments, secretaryships to the administrative officers, civil surgeoncies, medico-political posts, the professorships in the medical colleges, the superintendentships and resident appointments in the large hospitals, appointments in the sanitary, prison, assay and statistical departments, curatorships, superintendentships of emigration, assistantships to the opium agents, staff-surgeoncies to the Viceroy and Governors, and appointment as surgeon-naturalist to the Marine Survey Department. There are six administrative appointments in Bengal, one in Bombay, and two in Madras. In Bengal there are fourteen professorships to be filled in the Calcutta and Lahore Medical Colleges, while Madras and Bombay have each nine chairs to provide with occupants from their respective services. In the Sanitary Departments the officers are divided into two grades—sanitary commissioners and deputy sanitary commissioners; there are ten sanitary appointments in Bengal, six on the Bombay side and two in the Madras Presidency. In the Prison Service officers may hold the inspector-generalships of Gaols, the superintendentships of Gaols, or, as civil surgeons, the visiting medical charges.

In order to qualify for the Assay Department four certificates have to be obtained in special work; it is necessary to attend certain courses in London which extend over a period of seven months. The civil surgeons correspond with the general practitioners in England. As a rule there is one civil surgeon in each station. In addition to their work among the European and Eurasian population, almost all civil surgeons have dispensaries under their superintendence. To these institutions the civil surgeon is in much the same relation as are the visiting surgeons and physicians to our large hospitals in this country. Civil surgeons are also superintendents of vaccination, and are frequently in medical charge of the district gaols. The medical officers serving under the Foreign Office are stationed at the native courts; they have as a rule all the duties of civil surgeons to perform, and in addition frequently important political work to carry out.

The pay of officers in the Civil Department varies from Rs. 400 to Rs. 2700 a month. The civil surgeons have nearly the whole of the private practice of India in their hands. The pay in the Civil Department is nearly always considerably more than in the Military.

Before retirement (it may be the day before) the services

of all officers lent to the Civil Department are replaced at the disposal of the military authorities. The following are the rates of retiring pensions and half-pay at present offered: Pensions, after thirty years' service for pension, £700 per annum; after twenty-five years, £500 per annum; after twenty years, £365 per annum; after seventeen years, £292 per annum. Rates of half-pay for a Brigade-Surgeon-Lieutenant-Colonel and Surgeon-Lieutenant-Colonel, 11s. a day; for a Surgeon-Major, 9s. 6d. a day; for a Surgeon-Captain, 7s. a day; and for a Surgeon-Lieutenant, 3s. a day. Officers admitted to the Service will, after retirement on pension before completing thirty years' service, be liable to recall to military duty in case of any great emergency arising, up to fifty-five years of age.

*Wound and Family Pensions.*—Medical officers are entitled to the same allowances on account of wounds as other officers holding the corresponding military rank. Pensions to widows, varying from £120 to £50 a year, and compassionate allowances to children, varying from £20 to £12, are granted in cases where officers die before retirement. In addition to these pensions and compassionate allowances, every officer of the Indian Medical Service is obliged to subscribe to the Indian Service Family Pension Fund. From this fund pensions to widows are granted, varying, according to the rank of the deceased officer, from £160 to £40 a year, and to children, according to age, from £10 to £30 a year; the pensions for boys cease at the age of twenty-one; while the £30 pension for a daughter rises to £45 on attaining the age of twenty-one years and continues during life or until marriage.

Officers of the Service are eligible for the military distinction of the Bath and for good-service pensions. As a rule "the Bath" is only given to men who remain in military employment. The Knightships and Companionships of the Star of India and of the Indian Empire are given to officers of the Civil Department. The Order of St. Michael and St. George is occasionally given to officers when sent on duty beyond the Indian frontier. The Victoria Cross and the Distinguished Service Order can also be won by members of the Service. Six of the most meritorious officers are named Honorary Physicians and six are named Honorary Surgeons to Her Majesty.

## THE COST OF MEDICAL EDUCATION.

It is very desirable that the parents and guardians of youths who contemplate entering upon a course of medical study should have the means of ascertaining with some precision the whole cost which will have to be incurred in the educational process. It is obvious that this cost is by no means covered by the tabulated fees which appear in our pages to-day. Indeed, these fees do not comprise the whole expense of medical education in the narrowest and most direct sense of the word, since there are incidental expenses for books, instruments, and the like, which cannot be avoided by the student. Over and above this there is the additional cost, by no means inconsiderable in an ordinary case, of maintaining him away from home during his career of studentship. A general impression upon these matters might, no doubt, be attained without much trouble by any person of intelligence, but such general impressions do not fully meet the case. For one thing, there is an appreciable difference in respect of these incidental expenses between localities. It will often be a matter of consideration whether a lad should be consigned to one centre of education or to another, and in such a case the question of relative expense may well enter into the discussion.

With the view of elucidating this matter the Editors of THE LANCET issued last year a circular to medical students from which a body of most useful information bearing upon this point was obtained. The results have been already made public; but, as they are of more than fugitive interest, we reproduce to-day the main substance of our article founded upon the replies to this circular and published in our Students' Number of last year. The figures given below represent annual expenditure, and as the student's curriculum covers a period of five years, it will be understood that the provision to be made for his maintenance will be proportionate to this space of time.

The returns by the light of which we are writing are sufficiently numerous to yield averages, and it is easy to see that the average man spends more money in the metropolitan centres than in the provinces, and that the standard of living and the cost of maintaining a given standard both vary from

place to place. The most complete statement that we have received comes from a student at the Leeds school, where great economy in the matter of personal expenses appears to prevail. This return slightly generalised may serve as a type. The student in question finds it necessary to occupy the one room which serves his purposes during ten months of the year, for which the—

	£	s.	d.
Rent, including attendance, amounts to ...	13	0	0
Food for the same period ...	15	0	0
Clothes (as to which item he seems to enjoy some advantage) ...	3	10	0
Washing &c. ...	2	0	0
Stationery and incidental expenses ...	4	0	0
Examination expenses ...	7	0	0
Recreation ...	15	0	0
Books &c. ...	4	0	0
Unaccounted for ...	1	10	0
<b>Total ...</b>	<b>65</b>	<b>0</b>	<b>0</b>

This case is exceptional in more respects than one, although it is by no means unique save in respect of the fulness with which details are given. It is not, however, in many instances that such a high standard of economy can be attained. A few words upon the various items enumerated will make this clear.

The cost of rent is here exceptionally light, and this naturally enough is a charge which varies greatly with the locality. One student who occupies rooms in a very desirable suburb of London pays £2 a week for this item alone, but his case is more exceptional in the opposite direction than that of the Leeds man quoted above. In the matter of rent private lodgings in London are not on an average more costly than in most provincial towns, and rule—as the merchants say—at about 15s. a week. Our returns show that they vary from 9s. to the maximum of 40s. already mentioned.

Referring to other centres, the rent of lodgings in Edinburgh is probably slightly less than in London; in Dublin about the same as in the English metropolis. In Edinburgh there is a sort of residential club known as University Hall, which affords facilities of social intercourse and mutual aid, as, for example, in the lending of books, which is practised systematically among the resident students. In addition to these amenities, the institution secures them lodgings at a very moderate monthly rent. Glasgow lodgings again run at about the same level, while in Birmingham the average of our returns is cheaper still, not exceeding 11s. a week. The cheapest district of which we have any full information is Aberdeen, where both in the matter of rent and of food our correspondents speak of an economy that is altogether exceptional, and indeed in one instance reaches the extreme limit for rent of 3s. 6d. a week in summer and 4s. 6d. in winter, the additional shilling representing the cost of fuel to cope with the Scottish winter. It should, however, be added that in this case our correspondent shares rooms with another student, thus minimising their cost. One of our correspondents from this town confesses to living in better style and more expensively than the majority of the students at a cost for rent not exceeding 14s. a week; and another, who illustrates in his own case the system of sharing rooms, says that under that system "a student can live in Aberdeen well and comfortably for the small sum of 12s. a week;" and he proceeds to avouch cases in which men have lived and fared well at an inclusive charge for board, lodging, coals, and gas of 10s. a week. In towns like Cork and Leeds the average rises above this limit, but probably 15s. a week is here almost a maximum charge. In the Irish provincial towns particularly the rent of rooms is very low, 5s. and 6s. being by no means below the average. A somewhat higher rent is asked, but still ranging about 10s. a week, in English provincial towns, such as Stockton, or Rugby, or Devonport; but residence in these involves constant railway travelling, and would hardly be adopted for the purposes of a student's career, unless some special considerations influenced the decision with which fine questions of comparative expense would not come into competition.

There remains to be mentioned the lodging accommodation afforded by residential colleges, hospitals, and the like institutions. But concerning these a word may suffice. The advantages of residence in a college are manifold, but they are chiefly of the intellectual and social kind. The cost is not less than that of private lodgings thriftily selected. There may also be in some instances impatience on the

part of the student of the control imposed by the regulations which are necessarily devised for the orderly conduct of such institutions. Nevertheless, the select society, and even the inevitable restraint, of such institutions are of great service, especially to young students who have reason to dread nothing more than solitude and an irresponsible control of any considerable proportion of their own time. On the other hand, the cost of board and lodging in such institutions is not greater than the average cost of the same accommodation in private lodgings in their neighbourhood. The following is a list of London schools for medical students, complete so far as the Editors have been able to make it, which have residential colleges attached:—St. Bartholomew's Hospital, Guy's Hospital, King's College, St. Mary's Hospital, and Middlesex Hospital.

At many schools a register is kept of suitable lodgings which can be recommended to students. It is known that such registers are kept at the following schools, but it is feared that the list is imperfect:—London Hospital, St. Thomas's Hospital, Westminster Hospital, Aberdeen University, Anderson's College, Glasgow, and the Catholic University, Dublin.

A very excellent plan, and one that involves no inordinate expense, is to place a student in the house of a medical practitioner in the neighbourhood of the school which he is attending. It will be found that when the educational facilities thus placed in his way are taken into account, in addition to the mere commercial value of his board and lodging, the arrangement is usually a very economical one. The opportunities for doing this are, of course, not unlimited, but they are sufficiently numerous to merit mention here.

Passing to the next item in our typical account, that of food, we may observe that here again our Leeds correspondent has set a standard which will be rarely attainable. It can be paralleled in a very few instances only from our returns. The cost of board is generally not less than that of lodging, and may fairly be taken at about the same figure. As a matter of fact, the similarity is closer than would be at first supposed, and, speaking broadly, it may be said that where the one item is low the other is low also. It would seem as if the prevalence of high prices or of low prices, as the case may be, affects both items, and affects them equally. It would then be more proper in an ordinary case to put this item down at £30 a year than at £15. The remaining items in the statement may be accepted without much comment, except perhaps that which is entered under the head of clothes. This is an item of expenditure not properly chargeable to the education account, since the student would in any case be clothed, and the amount expended upon his wardrobe will be determined by his personal habits, and in no sense by his professional studies.

It is very undesirable, and a matter to which more than one of our correspondents has referred in a tone of irritation, that the incidental expenses should be overlooked. We have already alluded to them above, but it seems not unimportant, for the purpose of preventing misunderstanding, to refer more pointedly and specifically to them here. The composition fee which is published by the various schools, and is in a sense a comprehensive charge, may easily be supposed to be more comprehensive than it is. A glance at our tables will show exactly how it is arrived at and what it covers. Broadly it may be said to include all the professorial fees. But it does not include books—this is a matter of course. Equally it does not include instruments, and these two items together cannot be fairly written down at less than £8 a year in an ordinary case. Many circumstances may occur to falsify this estimate. A successful student may largely supply himself with books by prize winning, or access to a suitable library may minimise his personal requirements in this respect. With instruments, bones, parts for dissection, and the like, the case is somewhat different, and the expenditure under these heads can only be avoided at the expense of the student's education. A niggard hand in such matters makes therefore a grievous mistake, and this should be clearly appreciated at first, otherwise the temptation to undue parsimony will be supported by a grudging mind in their bestowment. Another item which is for very good reason omitted from the composition payment is the charge for examination fees. The reason of this will be at once apparent if it is only considered that the teaching bodies and the examining bodies are distinct, and that whereas the composition fee represents a sum payable to institutions of the former class, the examination fees are receivable by institutions exercising the ex-

aming function. It will be hard to quarrel with an arrangement which is justified by the importance of paying the fee to the right person. Less obvious, but of the same kind, is the explanation of the circumstance that tutorial fees are not included in the composition. Many students pass through their curriculum by the aid of lectures and professorial instruction only. This is very possible when only crucial examinations are attempted. But for competitive examinations additional instruction is generally an indispensable preparatory. Such additional instruction must of course be paid for, but its occasional character prohibits its inclusion with the indispensable items in the comprehensive payment. From what has last been said it will be perceived that the cost of the professional course, especially in these latter items, will be largely affected by the nature of the qualifications upon which the student sets his mind. A list of examination fees appears on page 541, from which a sufficiently precise estimate may be formed of the amount which it will be necessary to expend in this direction. It will, of course, be borne in mind that failure to pass an examination at the first sitting may involve the payment of a second fee upon a subsequent occasion. In forming an estimate of prospective expenditure this contingency should not be overlooked.

## NOTES AND NOTE-TAKERS.

"If a man write little," says Lord Bacon in one of his best known Essays, "he need have a great memory." The passage refers to the habit of taking down notes of what is observed or read—a habit which all students, but more especially the medical student, cannot too assiduously cultivate. The power of taking notes efficiently does not come by nature, as many suppose, but is an art which improves with cultivation, and through which some of the highest qualities necessary to a successful medical career are developed. We are not now referring to the expert note-taker who has devoted years of hard study and long practice to the acquirement of the degree of skill which is necessary for the practice of his vocation, but to the student note-taker who takes notes of lectures for the guidance of his own study and as an aid to his memory. Indeed, it is very questionable if the student note-taker would gain much by attempting a *verbatim* note, or whether a good deal of the educational value of the note would not be lost in the effort. The educational value of note-taking depends on the habits which it develops. One of these, in a very marked degree, is the habit of punctuality. The professional note-taker is rarely late for his engagements, and so the student note-taker will not care to lose the connexion between one lecture and another on a subject in which the lecturer has interested him. He is rarely absent from his class, and the habit of regularity is thus markedly developed. A lost lecture or two leaves a hiatus in his note-book which costs much reading and research among complicated text-books to fill up. As a rule, it will be found that students attend to whatever is worth hearing; but the student who has developed a habit of note-taking is never caught napping in his class or furtively perusing newspapers. The attention which is necessary to careful note-taking has become habitual with him. He has developed the habit of continuous attention, one which a student qualifying himself for any career in life will find most valuable. Thoroughness is another attribute which note-taking tends to foster. Points are noted in the class-room and at the clinical lecture which after-study will expand, and which in many instances give the keynote to future research. These are the main qualities which go to make a successful practitioner; and, if proof were wanted, the success of those medical men who have cultivated this habit will afford it. It would of course be invidious to specify them by name, but probably half a dozen of the most successful medical men in London, taken at random, would be found to be excellent note-takers, from habits acquired in their career as students.

The student's note-book reflects the character, not only of the lecturer, but of the teacher. Diffuseness in a lecturer is a common and sometimes fatal cause of discouragement to the student at the outset of his career. The young note-taker finds it impossible to lay hold of any definite statement. We have known lecturers on subjects in the medical curriculum who seemed to think they fulfilled their mission as teachers of students by muttering in a low tone of voice from manu-

script at the rate of 250 words per minute. Such a travesty of teaching inspires in the student undisguised contempt. The matter is not assimilated if it is even heard or listened to by the student. An expert note-taker would probably despair of learning anything from such perfunctory instruction.

Again, notes to be of service to the student must be spontaneous and must be taken *con amore*. If full benefit is to be obtained the note-taking must be inspired by the lecturer and by the nature of the instruction. The principal objects of note-taking are defeated by compulsion, or by bribery in the form of prizes offered for the best note-books. The process in this case becomes mechanical and loses its educational value. Perhaps the most useless of all kinds of notes are those which are dictated to the students by the lecturer. Notes to be useful must be made with brains, and the brains must be supplied by the students.

Note-taking has a stimulating effect on the teacher, and it would be exceedingly useful to lecturers to take an occasional glance through the note-books of their students. The results would confirm the excellences of the lecturer and improve his deficiencies. It is said that students do not care to use notes and so do not trouble about acquiring the art of taking them. Students are the best judges of the value of note-books.

Some teachers, of whom Professor Struthers, who has done so much in the interests of medical students, may be taken as the type, object to note-taking. Addressing the General Medical Council on one occasion, he said: "The student takes his notes, puts his book in his pocket, and walks out, knowing no more about the subject than a mere reporter would do." If the student knows at the end of the lecture as much as the experienced reporter would do after listening, to it, he would have reason to congratulate himself on the success of diligent note-taking. The very habit which the reporter has acquired at so much pains gives him the power, which was so highly developed in Lord Macaulay, of recalling the points of a long lecture, and of being able in many instances to quote without reference to his note-book the exact words of the lecturer, and to remember them. There are many who believe that lectures and note-taking alike are merely so much useless expenditure of time and energy. "The information," it is said, "can be better got out of a text-book." We prefer Professor Gairdner's view, who in a lecture so long ago as 1877 said: "The text-book must be rewritten or completely revised, edition after edition, or it must perish. Professors' lectures must be freshly brought up, altered, amended, often completely remodelled, almost from year to year, or they are naught." "Systematic lectures, which are mere repetitions of a text-book, are not indeed wholly useless, but they can never rise above the usefulness of the text-book, any more than water can rise above its fountain-head. But systematic lectures that are informed by the spirit of a living man are valuable to you above a text-book, just in proportion as you have reason to have a living faith in that man and in his ability to guide you aright." It is the living voice of the teacher that makes all the difference from the lifeless page. Medical students cannot afford to neglect any of the aids which render their task lighter or their knowledge more accurate in the wide domain of medical science; and when in the search for knowledge they are brought face to face with useful facts it is well to fix them by doing what Captain Edward Cattle advised in reference to the search for his quotations, "When found, make a note of."

It is not every clinical teacher who has the power to impress his students with a lasting picture of a disease as it comes under his notice. Details are forgotten in after years—it may be in months or even in weeks. The impression has faded, and nothing of the demonstration remains in the memory of the student to testify to his honest ward work or to aid him in his future practice. Herein the value of good note-taking is manifest. Dr. Gowers, who has published some of the most erudite and valuable works to be found in medical literature, has frequently expressed his deep indebtedness to his notes. He has said: "I am deeply indebted to shorthand, for without it I never could have accomplished any of my work." The records of his cases are probably unique in the history of note-taking. The written letter remains, and no detail of any case which has come under his observation is ever forgotten or lost sight of.

The practical question for the student is—How am I to take notes in the class? The answer is very simple. Many students know a little shorthand. To them the task will be

more easy, and the only advice which it is necessary to give to these students is to ask them to improve their shorthand, to be contented with a few well-summarised notes written on the left side of their note-book only, leaving the right hand page free for home use. For it is an essential that the rough class notes should be extended. Those students who have no knowledge whatever of shorthand will speedily acquire an abbreviated form of longhand which will probably serve their purpose. The general direction about writing upon one side of the note-book in the class-room should also be attended to by them. The last point of practical interest is to advise students to secure well-bound, substantial note-books which will be useful for reference in future years.

Note-takers nowadays have a very easy time of it compared with what existed in days gone by. If students refer to the early numbers of THE LANCET published in the years 1823-24-25-26 they will find some specimens of note-taking which will excite their admiration, and which excited the consternation of most of the medical teachers in London at that period. Sir Astley Cooper's lectures had never been published—had never indeed been written—when in full array, in the year 1823, an almost *verbatim* report of a most important lecture appeared in the first number of THE LANCET. Complete ignorance prevailed as to the individuality of the reporter and of the editor of the new medical paper. The reports of these lectures were continued week by week, and, all efforts at discovering the author having failed, a notice was printed and posted up in Guy's Hospital threatening any student found reporting for THE LANCET with instant expulsion from the hospital. At length suspicion fell upon Mr. Thomas Wakley, and Sir Astley Cooper determined to ascertain whether he was the offender. Mr. Wakley was one night sitting in his consulting-room in Essex-street, Strand, reading over the proof sheets of one of these lectures, when, before he had time to conceal the pages, Sir Astley Cooper was announced. The eminent baronet sternly eyed the young journalist for a brief space, but gradually his features relaxed into a genial smile. A similar smile made its appearance on the face of Mr. Wakley, thus caught as it were red-handed. They shook hands, however, and after some conversation it was arranged that the remaining reports of Sir Astley Cooper's lectures should be sent to him for revision before they were published in THE LANCET, and to this the Editor at once agreed. On another occasion a report appeared in THE LANCET of the clinical instruction given by Sir Antony Carlisle at the Westminster Hospital, which so enraged the physician that he told his students that they had his full authority to drive the note-taker from the hospital with "large sticks." The note-taker had to be protected from the students by some coalheavers and brewers' men.

But students nowadays live in better times. No such restrictions are imposed upon them, and it simply remains for them to seize the opportunities which abound for acquiring information, and when they have obtained it "meet it is" for them, as it was for Hamlet, "to set it down."

## UNITED HOSPITAL ATHLETICS.

NOTHING remarkable has occurred during the past year in hospital athletics. Guy's have shown themselves to be the best all-round athletes by winning the challenge cup for cricket, athletic sports, cross-country running and lawn-tennis, St. Thomas's, St. Bartholomew's and St. George's winning Rugby football, Association football, and rowing respectively. Several of the competitions were most keenly contested, notably that for the Association football cup, the final tie of which had to be fought out no less than three times.

The scheme of Amalgamated Sports' Clubs is slowly spreading, and is now adopted at most of the leading hospitals; it not only saves an immense amount of trouble and time, but it also adds largely to the incomes of the different clubs. Hospital clubs are proverbially poor, and it really seems that the old system of small subscriptions to each separate club had more to do with their poverty than an absence of *esprit de corps*. Interest in the success of his hospital at sports is however, as a rule, of a spasmodic nature to the ordinary medical student; it may be that the absorbing interest of his work precludes him from being very energetic as re-

guards sports, for when anatomy and physiology are left behind, clerkships and dresserships forbid the regular indulgence in games, especially in matches, which occupy a whole afternoon. The whole routine of a medical student's life in London is antagonistic to athletic sports. Close attention during the first two years to the dissecting-room and physiological laboratory, and later to the duties of clerk or dresser, rather tends to induce a system of loafing during leisure hours than indulgence in exercise. If, however, "the fresher" will only make up his mind to take regular and sufficient exercise from the commencement of his career he will find it less hard to overcome that feeling of slackness which so often follows several hours of dissecting or work in the wards—a feeling that is generally increased rather than diminished by the dim surroundings of the ordinary "diggings"—especially, too, as the "fresher" is not as a rule used to the somewhat uninvigorating atmosphere of London.

It would be advisable, therefore, for the first year's man to get thoroughly acclimatised to his new surroundings before indulging in any real hard work. He will feel more inclined to take exercise and engage in sports.

The contest between the United Hospitals A.C. and the Edinburgh University again ended in favour of the hospitals by 8 points to 3, making the fourth successive win for the hospitals since the inauguration of the competition in 1889. The following were the winners:—

For THE U.H.A.C.—100 yards: H. T. Bell (Guy's), 220 yards: H. T. Bell (Guy's), 440 yards: J. W. Summerhayes (St. Mary's), One Mile: H. A. Munro (Guy's), Three Miles: H. A. Munro (Guy's), Half-mile: P. W. James (St. Bart's.), Putting the Weight: W. G. West (St. Bart's.), Long Jump: A. P. Square (Middlesex).

For THE E.U.A.C.—120 hurdles, T. M. Donovan. High Jump, R. Williams. Throwing the hammer, T. M. Donovan.

The meeting was held in wretched weather, rain coming down continuously. A dinner was given in the evening to the members of the Edinburgh team, at which the President of the U.H.A.C. took the chair, at the Guildhall Tavern.

The United Hospitals sports were held at Stamford Bridge on June 18th, and the increased number of spectators proved the wisdom of holding the sports on a Saturday. The events as a rule were keenly contested, and the times an improvement on former years. No less than three records were broken in the 220 yards, half-mile, and three miles. After fourteen years of ill-success Guy's have managed once more to become possessors of the shield. In 1878, by the aid of L. Stokes, F. J. Shepherd and J. A. Fraser, they secured a win, and also made a good fight in the following year; but not till 1887 did they come into prominence again, when W. G. Mitchell won two events for them. For three years more they failed to get one event, but last year Munro placed both the mile and three miles to their credit. They won six events this year and gained a second in one event, and the runners up—St. Bartholomew's—won three and gained six seconds. The following were the winners:—

100 yds.: H. T. Bell (Guy's), 10½ sec. 220 yds.: H. T. Bell (Guy's), 22½ sec. 440 yds.: J. W. Summerhayes (St. Mary's), 52½ sec. 880 yds.: P. W. James (St. Bart's.), 2 min. 2½ sec. One mile: H. A. Munro (Guy's), 4 min. 35½ sec. Three miles: H. A. Munro (Guy's), 15 min. 17½ sec. 120 yds. hurdles: P. R. Lowe (Guy's), 17 sec. High jump: H. T. Bell (Guy's), 5 ft. 6½ in. Long jump: Jas. McIntosh (St. Bart's.), 20 ft. 4½ in. Throwing hammer: Jas. McIntosh (St. Bart's.), 80 ft. 11 in. Putting weight: M. Broton (St. George's), 33 ft. 10 in.

The records stand as follows:—

100 yds.: B. B. Conolly (Guy's), 10½ sec. \*220 yds.: H. T. Bell (Guy's), 22½ sec. 440 yds.: T. A. Guinness (King's), 51½ sec. \*880 yds.: P. W. James (St. Bart's.), 2 min. 2½ sec. One mile: H. A. Munro (Guy's), 4 min. 34½ sec. \*Three miles: H. A. Munro (Guy's), 15 min. 17½ sec. Putting weight: W. G. West (St. Bart's.), 88 ft. 3 in. Throwing hammer: T. E. Fraser (St. Bart's.), 93 ft. 10 in. Long jump: B. C. Green (St. Bart's.), 21 ft. 10 in. High jump: P. Pierre (Westminster), 5 ft. 6½ in. 120 yds. hurdle: B. C. Green (St. Bart's.), 10½ sec.  
\* Made this year.

In the Inter-hospital Sports the Challenge Shield has been held by—

St. Bartholomew's, eight times; Guy's, six times; St. Thomas's, five times; King's, three times; St. George's, three times; London, once.

The RUGBY FOOTBALL CUP was once more secured by St. Thomas's, who have had a monopoly of it for some years. This year Guy's were the favourites at the commencement of the Cup ties, but were beaten during the second round by St. Thomas's after a close and exciting match. F. W. Goodlive (captain) and E. Bromet (three-quarter back) were the most conspicuous players for the winners. The various ties resulted as follows:—

First round: Winners—Guy's, University, St. Thomas's. Drew byes: Middlesex, St. George's, King's College, St. Bartholomew's. Second round: Winners—St. Thomas's, Middlesex, St. Bartholomew's, St.

George's. Third round: Winners—St. Thomas's, St. Bartholomew's. Final: St. Thomas's won very easily from St. Bartholomew's. St. Thomas's: V. Graham (back), E. Bromet, J. L. Frain, and W. H. Thorman (three-quarter backs), N. Hood, A. Montague (half backs), F. Goodhue, J. Carver, R. Storer, R. Ord, H. Knight, H. Haward, P. Blaber, E. Sutcliffe, and W. Ashford (forwards).

The Cup has been won by St. Thomas's five times, Guy's four times, St. George's three times, St. Bartholomew's twice, by London and Middlesex once each.

THE ASSOCIATION FOOTBALL CUP produced the most keenly contested of all the inter-hospital competitions this year—in fact, three attempts to finish a final have not been before recorded in hospital athletics. Upon the first two occasions St. Mary's ought to have won and paid dearly for misused opportunities by losing at the third attempt, having the misfortune in the meanwhile to lose their most prominent player, E. G. Moon; but it is only fair to the winners to state that they had had bad luck all through the season, no less than half a dozen of their best players being incapacitated at one time or another.

The Cup has been won four times by Guy's, twice by St. Bartholomew's and once by St. Thomas's.

The survivors of the first round were St. Mary's, London, St. Bartholomew's, University College, Guy's, Middlesex, St. Thomas's and Charing-cross. Second round: Winners—St. Mary's, St. Bartholomew's, Guy's and St. Thomas's. Third round: Winners—St. Mary's and St. Bartholomew's. Final: St. Bartholomew's. This was contested three times, the first two ending in draws slightly in favour of St. Mary's, but upon the last occasion St. Bartholomew's obtained a slight lead and kept it to the end. St. Bartholomew's team: E. H. Fryer (goal), F. E. Fernie (captain) and J. Cropper (backs), F. Lewarne, W. Wyllys and W. Pope (half backs), and W. E. Bond, J. F. Fennie, P. J. Dixon, G. R. Fox and C. Neill (forwards).

In the Cricket Cup ties Guy's team showed a most decided superiority over their opponents. In the final tie Guy's met Charing-cross and won rather easily by six wickets.

The principal scores for Guy's were: J. H. Bettington, 3 and 31 not out; E. T. Shorland, 68 and 13 not out; W. J. Hancock, 43. Bettington took nine wickets for 99 and Joyce six for 85. For Charing-cross: C. H. Russell made 18 and 43; H. Thomas, 21 and 30; C. W. Young, 6 and 33.

The winners played good consistent cricket throughout the season and beat several of the best suburban clubs. The United Hospitals Cricket Club, as usual, played only a few matches and on each occasion failed to play anything like their proper strength. The cup has been secured five times by Guy's, twice by King's and once by St. Thomas's.

The Lawn Tennis Cup was won this year by Guy's, who met St. Thomas's in the final and beat them by four points to two.

The Singles resulted as follows:—W. Hancock (Guy's) beat G. W. Bird (St. Thomas's); G. Webb (Guy's) beat C. Knox (St. Thomas's); Davis (St. Thomas's) beat E. Reid (Guy's). The Doubles: W. Hancock and E. Reid (Guy's) beat Bird and Knox (St. Thomas's); Webb and Coulson (Guy's) beat Davies and Ransome (St. Thomas's).

The third contest in the doubles ended in favour of St. Thomas's, as the Guy's men withdrew when "one set" all was cried, they having already played off a tie in the morning. St. George's have won the cup three times, Guy's once, and St. Thomas's once.

Only three hospitals entered for the Rowing Cup ties, St. George's, London (holders) and Middlesex. The holders were never in it with the powerful St. George's crew, who, stroked by J. C. Gardner, had the race at their mercy from the start. There was a good race for second place, London only just beating Middlesex on the post.

St. George's.—J. Hawes (Bow), A. S. Ransome, J. W. Noble, J. C. Gardner (stroke), A. Thomson (cox). Winners.—1885, London; 1886, Middlesex; 1887, Middlesex; 1888, St. Thomas's; 1889, St. Thomas's; 1890, St. George's; 1891, London; 1892, St. George's.

The United Hospitals Hare and Hounds Club, under the secretaryship of A. N. Wilde and captaincy of H. A. Munro, enjoyed a fresh lease of life this year, and, amongst other events, was almost successful in beating the Oxford Union Hare and Hounds, the first two places in the contest being taken by Munro and Wilde respectively.

The Ten Miles Handicap was won by W. H. Kenrick (London), 9 min. start, A. N. Wilde (St. Bart's.), 1¼ min. start, being second. The Four Miles Handicap was won by Munro, followed home by two Guy's men, Eastment and Wilmot.

Three hospitals entered for the Challenge Cup, which is competed for over the long-distance course, with the result that Guy's won the Cup, St. Bartholomew's beating St. Mary's for second place.

The first five places were taken by H. A. Munro (Guy's); A. N. Wilde (St. Bart's.); A. Hay (St. Bart's.); M. Tressider (Guy's); P. Wilmot (Guy's).

An attempt has been made to start a United Hospitals Swimming Club. St. Bartholomew's, St. Thomas's and Guy's

have at present joined, and it is hoped that next summer several others will cast in their lot with the club. St. Bartholomew's have a very good polo team and gave an excellent account of themselves during the season.

## CHANGES IN THE MEDICAL SCHOOLS AND HOSPITALS.

AT *St. Bartholomew's Hospital* there have been several changes. Sir William Savory has retired from active work in the wards, and has been appointed consulting surgeon. Mr. Marrant Baker has resigned. Messrs. Marsh and Butlin have been elected full surgeons. Messrs. Bowly and Lockwood have become assistant surgeons. Mr. Ackland has joined the Dental Department. In the Medical School Mr. F. Womack has been elected Lecturer on Physics, and Dr. Shore Lecturer on Biology. Dr. Fletcher has replaced Dr. Hamer in the Physiological Department, and Mr. C. H. Roberts has been appointed an Assistant Demonstrator of Anatomy. Dr. Calvert has joined Drs. West and Garrod in the Demonstrations in Practical Medicine. The Practical Biological work is in the hands of Dr. Shore, who is assisted by Messrs. Groves and Pickering. No appointment has yet been made to the post of Surgical Registrar. It is rumoured that the number of physicians at this hospital will shortly be increased to five, and that a corresponding increase in the number of Assistant Physicians will be also made.

*Charing-cross Hospital.*—The changes in this school have been many and necessary in order to adapt it to the requirements of the Conjoint Board. Biology, Insanity, Public Health, Practical Midwifery and Ophthalmology have become compulsory subjects. The teaching of Biology has been undertaken by Mr. Chalmers Mitchell, of Christ Church, Oxford, who will also hold classes for the Preliminary Scientific Examination. The department of Psychological Medicine is undertaken by Dr. Hack Tuke. The class of Practical Midwifery has been placed under Dr. Routh's care. The new post of Pathologist and Curator has been formed and Dr. Arkle has been appointed to fill it. Mr. Morgan has been succeeded by Mr. Sheild in the teaching of Surgical Pathology. Mr. A. T. Collum is appointed Surgical Registrar, being succeeded by Mr. Gibbs as Junior Demonstrator, and Mr. Dudley Johnston succeeds Mr. Harold as Demonstrator of Physiology.

*St. George's Hospital.*—Sir William Dalby, having resigned his post as aural surgeon, has been appointed Consulting Aural Surgeon. Mr. Bull takes his place on the active staff. Mr. G. R. Turner lectures on Anatomy in succession to Mr. Bennett. Mr. Dent takes charge of the Orthopædic Department. Dr. Rolleston has followed Dr. Delépine as Lecturer on Pathological Anatomy. Mr. F. C. Kempson succeeds Mr. C. Cotes as Demonstrator of Anatomy. It is expected that at the beginning of the year 1893 the number of house physicians and house surgeons will be doubled.

At *Guy's Hospital*, where during later years there had been greater changes than at any other hospital in London, we have no alteration to record this year either in the staff of the hospital or in the Lecturers or Demonstrators in the school, with the exception that Dr. Starling, having been appointed to the Grocers' Research Scholarship, has ceased to be Senior Demonstrator of Physiology, his place being taken by Mr. Tubby. Dr. Fawcett and Dr. Campbell have become Demonstrators of Physiology in addition to Mr. Tubby, and the subject of Biology for Conjoint Students is taught by Dr. Campbell, Mr. Targett, and Dr. Fawcett. Mr. Wade is associated with Mr. Groves in the department of Practical Chemistry during the summer session.

At *King's College Hospital* Sir Joseph Lister, Bart., has been appointed Emeritus Professor of Clinical Surgery with charge of beds, and Mr. William Rose succeeds to the regular

duties of the Professor of Clinical Surgery. Mr. W. Watson Cheyne is now the sole Professor of Systematic Surgery. Mr. Cadman and Mr. Hewlett and Dr. W. A. Turner have been appointed Demonstrators in Anatomy, Bacteriology, and Neuro-Pathology respectively, whilst the new laboratories in State Medicine are placed under the care of Dr. W. R. Smith as Director and Mr. Huntley as Demonstrator.

*London Hospital.*—Dr. Sansom has resigned the Lectureship on Forensic Medicine and Public Health, and in future Dr. Ralfe will lecture on Public Health and Dr. J. F. Smith on Medical Jurisprudence and Toxicology. Special classes in Practical Midwifery and Obstetrical Operations are now held by Dr. Herman and Dr. Lowers, the Obstetric Physicians. A serious loss has been sustained by the College in the death of Dr. Moymott Tidy, who lectured for many years on Chemistry and Toxicology. Mr. Page has now been appointed Lecturer on Chemistry. Dr. W. Fenwick has been appointed a Medical Tutor. Dr. J. F. Smith has been appointed an Assistant Physician and Mr. H. P. Dean an Assistant Surgeon. The latter lectures on Biology.

*St. Mary's Hospital.*—No changes have occurred at this hospital.

*Middlesex Hospital.*—The following changes have taken place during the past year :—Dr. J. K. Fowler has succeeded Dr. D. W. Finlay as Physician. Dr. Pasteur has succeeded Dr. Finlay as Lecturer on Medical Jurisprudence and as Lecturer on subjects relating to Public Health. Dr. F. Voelcker is Pathologist and Curator in the place of Dr. S. H. C. Martin. Dr. W. E. Wynter becomes Assistant Physician, and Mr. A. Pearce Gould is succeeded as Dean by Dr. Sidney Coupland. Messrs. Hartley and Wells assist in the Anatomical Department; Messrs. Young and Doblin assist in the department of Practical Physiology during the summer session.

At *St. Thomas's Hospital* considerable changes have again occurred. Death has removed no fewer than three members of the consulting staff, Sir James Risdon Bennett, F.R.S., Dr. Barker, and Mr. Le Gros Clark, F.R.S. Dr. Bristowe, F.R.S., having completed the additional term of office granted to him, retired in January, and the number of physicians is now again four. (There are still, however, only three assistant physicians.) Dr. J. F. Payne succeeds Dr. Bristowe as joint lecturer on Medicine in the school. Dr. Bristowe, Mr. Sydney Jones, and Mr. Croft have been placed upon the consulting staff. Mr. W. H. Battle and Mr. C. A. Ballance have been appointed assistant surgeons. Mr. F. C. Abbott takes the place of Mr. E. C. Stabb as Surgical Registrar, and Mr. E. H. G. Morris that of the late Dr. Charles Sheppard as Anæsthetist to the Dental Department. Dr. Sharkey succeeds to the lectureship on Pathology vacated by Dr. Payne on his appointment to the joint lectureship on Medicine. The school has to deplore the loss of Dr. A. J. Bernays, who died in January last, after a service of more than thirty years as teacher of Chemistry. He is succeeded by Mr. Wyndham R. Dunstan, with whom is associated Dr. Ince, who undertakes the practical teaching of Physics. Mr. F. G. Parsons has been appointed teacher of Elementary Biology. Mr. Stanley Kent succeeds Dr. Copeman, now an inspector under the Local Government Board, as Demonstrator of Physiology, and Dr. W. H. Tate has been appointed Obstetric Tutor and Registrar.

*University College Hospital* has to mourn the loss of its senior surgeon, Mr. Berkeley Hill, who had done much to promote its welfare. Mr. Marcus Gunn has been appointed Assistant Surgeon to the Ophthalmic Department. Dr. Mickle lectures on Mental Diseases; Professor Boyce on Bacteriology. Messrs. Weldon and Oliver give the instruction in Elementary Biology.

At the *Westminster Hospital* there have been no changes in the constitution of the staff. The changes in the cur-

riculum necessitated by the additional year's study had led to several alterations in, and additions to, the teaching staff of the school. Mr. D. S. Gunn has been appointed an additional Demonstrator of Anatomy, Mr. W. G. Spencer will take a definite share in the conduct of the Physiological Department, and Mr. Cowell will deliver the entire course of Lectures on Systematic Surgery. The subject of *Materia Medica*, or, as it is termed in the Regulations of the Examining Board for England, Practical Pharmacy is now separated from Therapeutics and Pharmacology, and whilst Dr. Murrell will continue to lecture on the latter subjects to senior students, the former is to be taken charge of by Mr. Tannor, the senior dispenser to the hospital. A special course of Lectures on Public Health will be delivered by Dr. S. A. Monckton Copeman, of the Local Government Board, instruction in Elementary Physics will be given by Mr. Somerville, B.Sc., and Dr. Donkin will hold a class in Elementary Practical Medicine.

*Royal Free Hospital.*—The only change in the medical staff during the past twelve months is that Mr. G. W. Farmer has been appointed Senior Resident Medical Officer in place of Mr. Solly, resigned.

*Mason College (Birmingham).*—The School of Medicine formerly in existence as the "Queen's College" has been transferred to the Mason College, of which, under the title of the "Queen's Faculty of Medicine," it will for the future form a constituent part. New buildings, including spacious dissecting-room, theatres and museums and other necessary offices, have been erected, and will be opened at the commencement of the winter session. Dr. Robert Saundby takes Sir W. Foster's place as co-Professor of Medicine. Dr. Carter succeeds Dr. Rickards as Professor of Therapeutics and Mr. Barclay has been appointed Lecturer on *Materia Medica*. Mr. Jordan Lloyd has been appointed Lecturer on Practical and Operative Surgery, Mr. Priestley Smith on Ophthalmology and Mr. Huxley on Dental Surgery and Pathology.

*Bristol Medical School.*—Important changes have been made to meet the requirements of the five years' curriculum. The winter session will be commenced in the new buildings just completed. Dr. Clarke takes charge of the department of Practical Physiology; Professors Leipner and Lloyd Morgan lecture on Elementary Biology.

At *Cambridge University* the buildings formerly occupied by the department of Human Anatomy have been altered and adapted for the classes in Medicine, Surgery, Practical Surgery, Midwifery and Medical Jurisprudence, and now constitute the School of Medicine. The new buildings for Anatomy and Physiology are now complete and contain a handsome suite of laboratories, dissecting-rooms, anatomical museum and rooms for private study and research. A special laboratory has been set apart for Psychological Physiology. Dr. Clifford Allbutt has been appointed by the Crown to the Regius Professorship of Physic, vacant by the death of Sir George Paget, K.C.B., and Dr. Donald MacAlister has been appointed his Assessor. Dr. Adami has been recognised as a Teacher of Pathology in association with Professor Roy. Mr. Deighton has been appointed a member of the Surgical Staff of Addenbrooke's Hospital. Mr. Acton assists in the department for *Materia Medica*, and Mr. Gardiner in that for Botany.

At the *Leeds General Infirmary*, in succession to Dr. Eddison, who has become Consulting Physician, Dr. Barrs and Dr. Jacob have been appointed Physicians, and Dr. Chadwick and Dr. Wardrop Griffith have succeeded them as Assistant Physicians. Mr. H. Secker Walker has been appointed Assistant Ophthalmic Surgeon and Assistant Surgeon in the Aural Department. Elementary Biology is taught by Professor Miall. Dr. Cohen has joined the Lectures on Chemistry.

At the *University of Durham College of Medicine* (Newcastle-upon-Tyne) Professor Arnison and Mr. Page take the

Demonstrations in Practical and Operative Surgery. Mental Diseases are taught by Dr. McDowall.

At *University College (Liverpool)* slight changes have taken place. Mr. Thomas is associated with Mr. Banks in the lectures on Descriptive and Surgical Anatomy. Mr. Kellett Smith takes the Anatomical Demonstrations. Dr. Herdman teaches Elementary Biology.

At *Owens College (Victoria University) School of Medicine* the following changes have been instituted. Professor Dreschfeld gives the course of lectures on General Medicine and is succeeded by Dr. Delépine in those on Pathology. Professor Perkin joins in the lectures on Chemistry. Professor Weiss lectures on Botany. Mr. Chalmers assists in the Anatomical Demonstrations.

At the *Sheffield School of Medicine* Dr. Arthur Hall has been appointed sole Lecturer on Physiology. Dr. Littlejohn succeeds Dr. Sidney Roberts as Lecturer on Forensic Medicine, and Dr. Rhodes has been appointed Demonstrator of Practical Pathology. Dr. Burgess lectures on Pathology during the summer session of the school. The lectures on Botany, Chemistry, Physics and Biology are delivered at the Firth College. Students are admitted under certain regulations to the practice of the Borough Fever Hospitals and of the South Yorkshire Lunatic Asylum at Wadley.

At the *University of Aberdeen* the changes are few. Dr. Finlay lectures on Medicine. Professor Niven teaches Natural Philosophy.

At *St. Andrews University* the only change to be reported is that Professor McIntosh lectures on Natural History conjointly with Professor Thompson.

At *St. Mungo's College and School of Medicine* the lectures on the Diseases of the Skin are now given by Dr. Alex. Morton, on Diseases of the Ear by Dr. J. Kerr Love, and on Diseases of the Eye by Dr. Wolfe.

At *Anderson's College Medical School* Dr. P. Caldwell Smith has succeeded the late Dr. Christie as Lecturer on Hygiene and Public Health. Professorships of Physics and Zoology and a Lectureship on Mental Diseases have been recently instituted. Dr. Freeland Ferguson lectures on Physics (winter and summer), Dr. George Bell Todd on Zoology (winter), and Dr. John Carswell on Mental Diseases (summer).

At the *Glasgow Western Medical School* there has been no change in the staff of lecturers, except that the post of Lecturer on Hygiene is at present vacant through the appointment of Dr. P. C. Smith to Anderson's College. Dr. A. B. Kelly has charge of the Throat and Nose Department and gives instruction in this branch.

At the *Dublin University* Dr. Brooks has succeeded Dr. Little as Joint Lecturer with Professor Cunningham on Descriptive and Surgical Anatomy, and also assists in the department of Practical Anatomy and Dissections. Dr. Purser lectures on Pathology, Dr. Bewley on Hygiene.

At *Queen's College (Belfast)* there is no change, excepting that Dr. W. H. Barrett lectures on Pathology.

At *Queen's College (Cork)* Dr. Aug. E. Dixon has succeeded Dr. Maxwell Simpson in the Lectures and Demonstrations on Chemistry.

At the *Dublin Royal College of Surgeons* there is some change to record. Professor Myles lectures on the Institutes of Medicine and on Pathology. Professor Auchinleck lectures on Medical Jurisprudence.

At the *Catholic University Medical School* the following changes have taken place during the year: The School has been incorporated under the Educational Endowment (Ireland) Act, and has got a new governing body and a board of visitors. A chair of Pathology and Bacteriology has been founded and Dr. McWeeney has been appointed to fill it. The School has been rebuilt and refitted during the past year and its working space has been almost doubled. A new Public Health Laboratory, in charge of Professor Roche, has been fitted up and opened for work; it is

the first laboratory of its kind established in connexion with a medical school in Ireland. Dr. Coffey assists Dr. Coppinger as Lecturer on Histology and Physiology. Dr. Birmingham gives the lectures on Descriptive and Surgical Anatomy, and is assisted in the Department of Practical Anatomy and Dissections by Drs. O'Carroll, Fagan and Dempsey. Professor Blaney has joined Dr. Sigerson in the Lectures on Botany and Zoology and Medicine.

*University of Edinburgh.*—There have been no changes in the medical department.

At *Queen's College* (Galway) Dr. Senier has succeeded Dr. Dixon in the Lectures and Demonstrations on Chemistry. He is also Joint Lecturer on Medical Jurisprudence. Dr. Lynham lectures on Pathology.

At *Glasgow University* there have been no changes in the professoriate during the past year.

*Dundee Medical School.*—The Council of University College has recently made certain appointments which mark a further stage in the progress of this School. Dr. MacEwan has been appointed Lecturer on Systematic Surgery; Drs. McLeod and Stalker, Lecturers in Clinical Medicine; Dr. MacEwan and Mr. Steele Moon, Lecturers on Clinical Surgery; and Dr. Rorie, Clinical Lecturer in Mental Diseases. Dundee is now, by its union with St. Andrews University, in a position to offer the complete curriculum necessary for the first two years of study in all the Scottish Universities.

## OPENING OF THE MEDICAL SCHOOLS.

### METROPOLITAN.

*St. Bartholomew's Hospital.*—The session will open on Oct. 3rd.

*Charing-cross Hospital.*—The term will commence on Monday, Oct. 3rd.

*Guy's Hospital.*—The session will begin on Monday, Oct. 3rd. The first meeting of the session of the Physical Society will be held on the evening of the same day in the Anatomical Theatre at 8 o'clock. The chair will be taken by Dr. Wilks, F.R.S. A. Ernest Maylard, Esq., B.S., of Glasgow, will read a paper on "How to Remain a Student through Life." There will be a house dinner of the Students' Club before the meeting. After the meeting the rooms of the club in the College will be open for the exhibition of instruments, microscopical preparations and photographs taken by members of the Society during the past year. All past and present students are invited to attend.

*St. George's Hospital.*—The winter session will commence on Saturday, Oct. 1st, with an introductory address by Dr. R. L. Bowles, at 4 P.M. For many years past the ceremony connected with the opening of the medical session has concluded with a dinner—a gathering of past and present students. The dinner on Oct. 1st will take place at the Hôtel Métropole, when Mr. T. Laurence Read will be in the chair. A large attendance is expected.

*King's College Hospital.*—The session will open on Oct. 1st. The old students' dinner will be held at Limmer's Hotel, Conduit-street, W., on Monday, Oct. 3rd, at 6.30 for 7 P.M. Professor I. Burney Yeo, M.D., has consented to preside.

*London Hospital.*—The session will commence on Monday, Oct. 3rd. The old students' dinner will be held in the College Library at 7 P.M.; the chair will be taken by Dr. Langdon-Down, Consulting Physician to the hospital.

*Middlesex Hospital.*—The winter session will open on Monday, Oct. 3rd, at 3 P.M., when an introductory address will be delivered by Dr. J. J. Pringle, which will be followed by the distribution of prizes awarded during the past winter and summer sessions by Sir Lionel M. Swineston Pilkington, Bart. The annual dinner of the past and present students and their friends will take place the same evening at the Holborn Restaurant at 7 o'clock. Dr. William Duncan, F.R.C.S., in the chair.]

*St. Mary's Hospital.*—The winter session will open on Oct. 3rd, at 4 P.M., with an introductory address by Dr. A. P. Luff. The annual dinner of past and present students will be held about the middle of October, on the same day as the laying of the foundation-stone of the "Clarence Memorial Wing" of the hospital by T.R.H. the Prince and Princess of Wales. The chair will be taken by Mr. H. W. Page.

*St. Thomas's Hospital.*—The winter session will commence on Monday, October 3rd, and terminate on March 31st. The prizes for the last session will be distributed by the Right Hon. Sir John Lubbock, Bart., M.P., D.C.L., LL.D., F.R.S., in the Governors' Hall at 3 P.M. During the afternoon the various departments of the hospital and school will be open for the inspection of visitors; refreshment will be provided in the library. The annual dinner, in which all past and present students are invited to join, will take place the same evening at the Hôtel Métropole, at 6 for 6.30 P.M., H. Laver, Esq., J.P., in the chair.

*University College.*—The session of the Faculty of Medicine will commence on Oct. 3rd, at 4 P.M., when the Dean's report of the past academical year will be read and an announcement of the scholarships and prizes gained by students during the year will be made, after which an introductory lecture will be given by S. J. Hutchinson, Esq., Dental Surgeon to University College Hospital. The annual dinner of the old and new students will take place at the Hôtel Métropole, at 6.30 P.M., Sir George Buchanan, M.B., in the chair.

*Westminster Hospital.*—The session will open on Oct. 3rd, at 4 P.M. Dr. Mercier, Lecturer on Neurology, and Insanity, will give the opening address. Sir Albert Rollit, M.P., will distribute the prizes, and the dinner will take place at the Holborn Restaurant.

*The Dental Hospital.*—The term will open on Monday, Oct. 3rd.

*The Royal Veterinary College.*—The session will open on Oct. 3rd. Introductory address by Prof. McFadyean, B.Sc., F.R.S.E. &c., at 1 P.M.

*The College of State Medicine.*—The winter session will commence on Wednesday, Oct. 5th, at 4 P.M. The introductory address will be delivered by Surgeon-General W. Robert Cornish, F.R.C.S., C.I.E., Q.H.P., Honorary Secretary and Treasurer of the College.

### PROVINCIAL.

*Mason College, Birmingham.*—The session will open on Sept. 30th. The opening address will be given by Sir George Humphry, M.D., F.R.S., F.R.C.S. Conversation in the evening, given by the President and Council of the College.

*Yorkshire College, Leeds.*—The winter session, being the sixty-second of the Leeds School of Medicine, will be opened on Oct. 3rd, when an address will be delivered and the prizes distributed by Professor W. Mitchell Banks of Liverpool.

*University of Durham College of Medicine, Newcastle-on-Tyne.*—The session will open on Oct. 1st.

*Firth College, Sheffield.*—The winter session will commence on Monday, Oct. 3rd, at 5 P.M., when the introductory address will be delivered in the lecture room of Firth College by Dr. Burgess, Lecturer on Pathology at the Sheffield School of Medicine and Senior Physician to the Sheffield Public Hospital and Dispensary. The annual students' dinner will be held some time during October.

### SCOTLAND.

*Aberdeen University.*—The term will commence on Oct. 11th.

*Edinburgh University.*—The session will open on Oct. 11th.

*Glasgow University.*—The winter session in the Faculty of Medicine will be opened on Tuesday, Oct. 18th, when an inaugural address will be delivered by Professor Cleland, M.D., LL.D., D.Sc., F.R.S., the subject being "Anatomy: its Place in Education."

*Anderson's College Medical School, Glasgow.*—The winter session will be opened on Tuesday, Oct. 18th, at 3 o'clock, with an introductory address by Professor William L. Reid, M.D.

*St. Mungo's College, Glasgow.*—The term will commence on Oct. 18th. An introductory address will be delivered by Professor McVail.

*Western Medical School, Glasgow.*—Oct. 18th. This school is to be opened with an address by the lecturer on Gynæcology—"Early Ovarian and Tubal Disease."  
*University College, Dundee.*—The session will open on Oct. 11th.

## IRELAND.

*Queen's College, Cork.*—The term will begin on Oct. 18th.  
*Queen's College, Belfast.*—The session will open on Nov. 3rd.

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## THE CHOLERA.

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### ENGLAND'S ATTITUDE IN FACE OF CHOLERA.

THE amendment of the cholera regulations which has been issued by the Local Government Board constitutes one of the most important steps hitherto taken towards preventing the entrance of cholera into this country. The regulations which have formerly been in operation, whilst requiring the detention of those actually sick of cholera or suspected to be so sick, have permitted the landing of presumably healthy people on condition that, where this was practicable, the names of such people, together with details as to their destination, should be given to the port sanitary authorities. And this scheme has hitherto sufficed. But the immigration of destitute Russian Jews into this country, which has now for some time past given much anxiety to the Medical Department of the Local Government Board, has, as a matter of fact, upset all previous experience. Until the present cholera prevalence such addresses as we refer to have been forthcoming, and the result has been that, without any undue restriction on the movements of hitherto healthy people into this country, persons who have come off an infected vessel have been kept under observation by the medical officers of health of the districts to which they have travelled.

But in the case of the Russian Jews such addresses are but rarely forthcoming, and hence a horde of destitute people have been settling down here and there in the worst parts of the East-end of London, and all traces of them have been lost immediately after they have been landed at the docks. In this way an essential feature of our English cholera regulations has been altogether defeated. This will now no longer be the case; for under the new regulations no persons will be allowed to land, whether from vessels certified to be either infected with cholera or to contain passengers who are in a filthy or otherwise unwholesome condition, unless they are able to satisfy the medical officer of health of the port as to their names, places of destination and addresses at such places. The effect of this regulation will be that if the shipping companies or their agents choose to bring a number of homeless and destitute people into our ports, they must be prepared to find that such people will not be allowed to leave the ships, and they will have either to make adequate provision for them on shore, or they will have to take them back again to the port whence they sailed. Few shipping companies will care to run this risk, and we may hope that the season for importing destitute aliens into the metropolis has now come to a close.

The attitude adopted by the Local Government Board in this matter is no new departure; it is simply an extension of the provisions, which altered circumstances have rendered necessary, for maintaining under observation for a reasonable number of days persons who, though at the time healthy, have been exposed to the risk of cholera infection and may be incubating the disease. And the need for such action has been very distinctly shown during the last few days. Cholera imported from Hamburg has spread out in fan-like form all down our Eastern coast. The arrival of a man at Grangemouth from an emigrant ship in the Firth of Forth was followed by his sickening of cholera after he had landed; two of a number of emigrants from Hamburg reached Glasgow and then fell ill of cholera; two similar cases occurred at Middlesbrough, one of the men being attacked at South Shields. At Hull and Liverpool suspicious cases traced to Hamburg ships have occurred; at Grimsby cholera cases from the same class of passengers have had to be isolated; and at Dover a sailing

boat brought one or two cases which, for some reason or other, after being allowed to remain in the bay instead of being taken to the authority's hospital, were sent round by tug to Gravesend, where they were, to say the least, in the best of hands, both for their own sakes and for the safety of the country. And the story of the London port is even more interesting. The *Gemma* arrived with Russo-Jewish emigrants, of whom three had cholera. The ship was not only detained off Gravesend by Dr. Collingridge, but that able health officer went on board, remained there three days and nights, removed the sick to the port hospital, and in the end landed the remainder of the almost homeless passengers under canvas on the shores of the Thames. His attitude throughout was energetic and wise; and we understand that the Local Government Board telegraphed to him their appreciation of the action he had adopted. The *Portia* next arrived, and although one child had been buried at sea, the nature of the disease could not be defined, and as the new regulations had not yet been issued she passed into London and her emigrants were distributed, with the result that at least one case of highly suspicious choleraic diarrhœa occurred amongst their number. Another vessel, the *Peregrina*, landed Hamburg passengers at Harwich. In two days three of them, who resided in the City-road, were found to be ill; two of them having cholera, they were removed to St. Bartholomew's Hospital, and one has died. In each of these cases the local health officers and officers of the Medical Department of the Local Government Board have done their utmost to deal with the occurrences in such a way as to avoid further spread, and thus far, notwithstanding multiple importations, no cholera has occurred in England except in persons actually arriving from Hamburg.

In the meantime it is satisfactory to know that long before any public alarm was aroused visits to our Eastern ports were being made by medical inspectors of the central authority, and that the port authorities were urged in advance to meet the very emergency that has arisen. Some of those ports, notably Newcastle and Hull, maintain themselves permanently ready to perform all their duties; in the case of others temporary arrangements have had to be made. In view of the extension of cholera to such French ports as Havre, the system of medical visits has been carried on at our south-eastern and southern ports, and as rapidly as can be managed the same system will be further extended to other ports having communication with infected ports. But, at the same time, it should be remembered that these visits in no way relieve port authorities from the obligation of performing duties which have for many years been imposed upon them, and of the nature of which they are perfectly aware. We believe the present state of affairs at some of our principal ports in the south of England to be highly discreditable. Mooring stations are not yet even determined on, no means of isolating first attacks of cholera have been provided, and the clamour is for outside and imperial help to make up for a default which elsewhere has been met by the action and at the cost of the port districts themselves. If this emergency passes by, as we hope and believe it will, we trust the interval of the next few months will be utilised to secure a state of preparedness for next year, which is very likely to bring with it dangers far in excess of any that we are running when cholera first reaches us towards the end of that season in which it has the best chance of spreading in our midst.

### PRECEPTS AND PRACTICE WITH REGARD TO CHOLERA.

On previous occasions cholera has commonly reached England and America *via* Persia, Russia and Hamburg, and not by the shortest, most direct and frequent channel of communication between India and this country—namely, *via* Egypt through the Suez Canal, and it has pursued this course at the present time. The epidemic has advanced by rapid strides. That it is governed by certain laws in its relation to season, time and space in its movement in different epidemics may be safely inferred. What has happened before in regard to it is likely to happen again and may consequently be predicated as probable. As to the exact nature of the occurrences which have taken place in France and their relation, if any, to the invading cholera of which we are speaking, there is some difference of opinion, but that need not detain us now. Let it suffice that what may be called the Seine or Paris epidemic began as a violent outbreak at the Nanterre prison

and asylum in April last, before the Asiatic epidemic had invaded Russia. The disease spread in the suburbs north and west of Paris and has extended to Havre.

The study of epidemic cholera as a branch of epidemiology is one thing and the study of the causes of its progress in relation to definite communities of human beings and its propagation among the series of units of which such communities are composed is another; and different conclusions will be probably reached according to the standpoint from which the observations are made. To the one set of observers a conviction of the existence of some primary law as yet unknown will be regarded as the paramount influence to which all other causes, real and alleged, are subordinate. To the local observer, however, proceeding by a slow and cautious induction and by way of accurate and repeated observations on a small scale, the cause of the phenomena will be differently accounted for; human agency will occupy the foremost place and be regarded as affording an adequate explanation of what is taking place on a large scale. The members of the profession likely to encounter cholera are meanwhile seeking for some firm foothold of fact and desirous of knowing how they may practically guide their way by the light of past experience and present knowledge interpreted by common sense and sound judgment.

It is difficult to lay down precise rules that shall be generally applicable or within reach of attainment by all. Still, there are certain rules and precautions about which most persons are agreed or in support of which a considerable amount of evidence might be adduced.

The first thing to be inculcated then is, in popular language, "not to lose one's head;" to avoid creating or adding unnecessarily to any existing state of apprehension and nervousness by any exaggerated or sensational statements. Let it be borne in mind that epidemics of cholera make little or no financial impression on life assurance offices. People who insure their lives are ordinarily frugal, temperate and careful people whose modes of living and surrounding conditions, both general and personal, are hygienic and wholesome. Such people do not commonly die of cholera. The fact furnishes a standard to be worked up to, although it is not, of course, always attainable.

The only real safeguard against cholera is sanitation in its broad as well as in its restricted and particular sense. First and foremost, a pure water-supply; next, good air and free movement of it, cleanliness, wholesome food, a temperate life, and the avoidance of all overcrowding. Dirt and refuse of all kinds should be at once removed, drains and sewers thoroughly flushed, cisterns inspected and cleaned if necessary, windows kept open and walls whitewashed; but it is important to avoid all sloppiness of yards, floor surfaces and damp earth. If the drinking water is not of established purity it is imperative to boil it before use, and milk should be similarly treated when it comes into the house. In respect of sanitation, it may be fairly said that great progress has been made of late years, and our prospects, in the event of the occurrence of an epidemic this year or next, should consequently be better than they have ever before been.

Land quarantine and sanitary cordons are impracticable and consequently futile. Sanitation and the removal of filth are practicable and reliable measures, and their utility is not limited to cholera, but applicable to all diseases.

The steps that have been taken at the instigation of the medical advisers of the Government seem to us to have been wise and judicious and likely to achieve their aim and object without any needless and unnecessary hardship being inflicted on individuals, and our port and other sanitary officers have exercised, and are still exercising, the most vigilant supervision within their own respective spheres of work.

During the prevalence of epidemic cholera it is safest to regard the human constitution as in a state of unstable equilibrium, and consequently to avoid everything that would lower the health, especially everything that would tend to create indigestion or diarrhoea, and not to make it the occasion for instituting any radical change in life or habits.

When cholera or choleraic disease is present in any town or district it is safer to leave it, and for persons living in a low and crowded locality to move to the highest and most exposed site available, and above all to avoid overcrowding. It must not be forgotten that overcrowding of houses or people means danger during all times of epidemic disease; that persons coming from an infected district, if they bring nothing else bring themselves, and at any rate add to the danger by adding to the numbers. A number of immigrants arriving from an infected district—possibly dirty as regards their

persons, and still more so as regards their clothes—may be provisionally regarded as so many minute migratory fragments of the locality whence they came.

On the occurrence of cholera in a household the safest plan no doubt would be to vacate the house and leave it unoccupied for ten or more days, during which it should be disinfected and thoroughly cleansed and ventilated. As regards the prophylactic and therapeutic treatment of cholera, we would suggest the expediency of having an acidulated beverage for ordinary household consumption when the disease is actually present in the neighbourhood. A drink composed of previously boiled water well acidulated with sulphuric acid or with citric acid, and slightly sweetened, is an excellent one and not at all distasteful. We do not know that it has ever been practised, but the effect of a few grains of quinine daily as a prophylactic might, perhaps, be worth trying.

It is safer to regard all diarrhoea at such times as possible cholera and to act accordingly, taking steps for its speedy detection and treatment, for the sufferers are frequently apathetic with regard to it. The patient should be at once placed under medical observation and remain recumbent in a cool room. Provided it were from the first painless and not the result of indigestible food or due to some irritant, when a small dose of castor oil with or without some opium would be indicated as the remedy, it is best to try to stop it, and, if the stools are very loose and attended with depression, to at once use a hypodermic injection of morphia and atropia, administer a mixture of either aromatic sulphuric acid or sulphurous acid frequently in small doses, with a little iced beef-tea or beef-juice or iced whey, and fragments of ice to suck, together with some stimulant or not, as deemed advisable. In a very considerable number of cases the adoption of this or of some similar method of treatment would prove successful, if commenced at once. But it cannot be too well known that the effect of opium or of opium and brandy appears to be very injurious in cholera when collapse has supervened. The number of remedies that have been proposed for this disease has been legion, and the fact itself demonstrates that there is no really efficacious remedy. The administration of drugs in cholera collapse seems to be based upon a misconception of its true pathology. That they are often administered with real or apparent impunity only serves to indicate that they do not act because they are either speedily vomited or not absorbed if retained. In cholera collapse the whole system is profoundly altered. Absorption is arrested, owing probably to the loss of inhibitory functions of the ganglionic nerve centres; exosmosis is proceeding unintermittently, endosmosis reduced to *nil*.

Speaking roughly, the actual attendants on cholera cases do not apparently run any greater risks than other individuals exposed to similar local influences in the place or district in which the disease happens to be prevailing at the time. The great thing to be observed is perfect cleanliness. A wise caution suggests what is the common practice—viz., the lavish use of disinfectants for all excreta and fouled linen, and the burning of all such articles as cannot be promptly disinfected; moist heat and the use of the perchloride of mercury solution, or, when this might prove dangerous, strong solutions of carbolic acid, chloride of lime, or other approved disinfectants, being employed for the purpose. The washstands in the sick room or ward should be supplied with some disinfectant solution, and a ball of sand soap and one of carbolic soap, with nail-brushes, for use invariably before quitting a cholera ward or patients suffering from the disease.

#### REPORTS FROM THE LONDON HOSPITALS.

We have made inquiries at all the London hospitals, asking for information regarding any cases of cholera which have been treated during the past week at these institutions. We have received returns from all the hospitals to which we have applied, and it appears from them that with the exception of St. Bartholomew's Hospital no case of cholera has been treated during the past week in the metropolis.

From St. Bartholomew's Hospital we are supplied by Dr. Frederick E. Batten, house-physician, with brief notes of two cases which were admitted to this hospital on Aug. 30th under the care of Dr. Lauder Brunton. The first patient, aged thirty-five, a male, left Hamburg on Saturday, Aug. 27th, accompanied by his wife and child, landing at Harwich on Monday, Aug. 29th. They came to London, and on Monday evening at 9 p.m. the patient was suddenly taken ill. The symptoms of his case were profuse diarrhoea with pains in the back and severe cramps in his legs. He was removed on Tuesday morning, Aug. 30th, to St. Bartholomew's

Hospital and was received there in a very collapsed condition. He showed signs of slight improvement, but died suddenly at half-past three o'clock on Wednesday morning, Aug. 31st. The second case was that of the daughter, aged three, of the above-mentioned patient. The little girl was taken severely ill on Tuesday morning with frequent diarrhoea and vomiting. When admitted on Tuesday morning, Aug. 30th, she was much collapsed; she improved, however, after a few hours' treatment, and remains at present in the same improved condition, and she may recover. Neither of these cases, it may be remarked, presented *all* the distinctive features of Asiatic cholera.

A case occurred at St. Thomas's Hospital which excited considerable anxiety on Thursday last, Aug. 25th. We are supplied with the following details by Mr. Cecil Lalor, acting resident assistant physician. A female patient, very much collapsed, was brought from a cab into the casualty room suffering from severe cramps in the legs and arms. Whilst being examined the patient vomited. She remained perfectly conscious and clear-headed. It appears that the patient up till 4 o'clock of that afternoon had been in her usual state of health. She was seized suddenly. On the following morning she was doing well, but passed no urine for twenty-four hours. Her bowels had not been opened for two days. She was then given an aperient, the resulting motion being loose; otherwise normal. She has had no further symptoms.

There is no further evidence of any suspected case in any of the London hospitals.

#### PREPARATIONS IN CASE OF NEED.

Most of the hospitals, however, have been preparing proper accommodation for the reception of cholera cases. The London Hospital, being in the centre of the district in which immigrants usually settle, is likely to be the first to which cases of cholera are brought, and the managers, being thoroughly alive to the necessity, have made ample provision for the reception and efficient treatment of cases. A ward conveniently situated for the separate treatment of cases has been got ready for males and one for females affording accommodation for twenty cases, and provision has been made for allotting more wards if necessary. The members of the medical staff attended on Tuesday at the meeting of the House Committee, and it was decided that all cases strongly suspected of being cholera should be sent to the ward prepared for the purpose. Infected clothes &c. will be burnt. Tow, hay and straw are provided for the reception of the stools of cholera patients, and after being placed in suitable receptacles will be disinfected with dry disinfectants and burnt in the furnaces. The sanitary arrangements of the hospital are stated to be now completely remodelled on the most approved system.

#### REPORTS FROM SEAPORT TOWNS.

Further, we have ascertained from the medical officers of health at the various ports stated to have been visited by cholera that at Hull, at Dundee, at Gravesend and at Newcastle-upon-Tyne no cases of cholera have occurred. The medical officer, Dr. J. H. Gramshaw, informs us "that no case of cholera has been reported at Gravesend, that the health of the town is excellent, and even diarrhoea, except in the case of a few infants, is almost unknown. The three cases from the *Gemma* were landed at the Port Sanitary Hospital at Denton, below Gravesend, and were never in the town at all. After death they were carried by a circuitous route to the cemetery on the outskirts of the town, and then buried with proper precautions with regard to disinfection. The two subsequent cases from the *Helena* were landed at the same place and there remain. One of them is, I understand, a doubtful case of cholera, and the other has passed the choleraic stage and is now suffering from the subsequent fever, and is very ill. All necessary and prudent steps have been taken here. Our town is as clean and healthy as it is possible to be. The medical men have been called together to meet the Corporation, and their suggestions have been carefully considered and attended to as far as possible when within reason. The sensational paragraphs which are spread abroad are mostly untrue, and if a grain of truth is found in any they are so exaggerated as to be ridiculous."

In Liverpool Dr. Stopford Taylor, the medical officer of health, is away on his holiday, but will return this week. His place has been well filled by Dr. Hope, who deserves every credit for the promptitude with which the few cases which occurred have been detected and isolated. They were found in a lodging-house, having come from abroad. The symptoms being suspicious the patients were removed to the Parkhill Hospital, the one provided for cases occurring in the

city. Cases brought by vessels in the Mersey will be sent to the hospital at Bromborough on the Cheshire side. Up to the morning of Aug. 31st one death had occurred.

We are informed that in South Shields a case of cholera was notified in that town on Aug. 29th. The patient was one of the crew of the ss. *Gerona*, which arrived in Middlesbrough on the previous Friday. Some six of the crew came to South Shields on the Saturday, but up to Aug. 31st the other five are well. The man was suddenly seized on the Sunday with violent diarrhoea (fourteen motions), abdominal pain and cramps in the legs, vomiting and prostration. The surface temperature was subnormal, but there was no lividity or collapse. The motions were not characteristic, but continued throughout of a yellow colour. Next day he was a good deal better, his diarrhoea had almost ceased, and he had no pain. On Wednesday, Aug. 31st, his temperature and pulse were normal; he slept well and his appetite had improved. There was considerable doubt about the diagnosis; but in view of the fact that the ship came from an infected port (Hamburg) and that another case was reported to have died on the ship, all precautions were taken as though it were an undoubted case of cholera.

#### CHOLERA IN SCOTLAND.

Regarding cholera in Scotland we have made inquiries at Dundee and the medical officer informs us that no case of cholera has come under his notice at that port.

We are indebted to Dr. James Allan, superintendent of Belvidere Hospital, Glasgow, for the following notes of cases which have occurred in that institution:—"There are at present two cholera cases in Belvidere. The patients (a man and a woman) are Russian (Jew) emigrants, who reached Glasgow by Hamburg and Leith. The male patient was admitted to hospital at 1 o'clock on the morning of the 27th ult. I saw him with Dr. Watson, one of my assistants. The patient's appearance was a confirmation of the diagnosis (cholera). The pinched face, the cold, dark, shrunken hands, which were feebly tossed about, and the husky, moaning voice conveyed a sufficiently dismal impression. He had a motion which was reported by the nurse as like milk. Without going into detail, it may be said that the man had very scanty urine (practically suppression) and that the urine was albuminous. He had also vomiting, a miserable pulse and subnormal temperature. When reaction set in the man's face had a dull-red flush and his pulse altered its character; he had hicough. This patient is apparently going on to convalescence. The woman was admitted here at 9.55 A.M. on the same date (27th ult.) and was evidently suffering from the same disease. She looked wretched. Her hands were cold and somewhat shrunken, her voice husky and hollow, her temperature subnormal. Alvine evacuation like milk. In this case also reaction has taken place. I placed Dr. Parker (one of the assistant medical officers) in charge of the cholera patients, relieving him of all other duty. The treatment has been chiefly iced water, sulphuric acid and opium, brandy &c. Careful precautions are being taken in the way of cleanliness, disinfection &c. Three nurses belonging to our staff have been set aside to attend on these cases, a duty which they undertook without the slightest hesitation—nay, with alacrity."

#### SANITARY PRECAUTIONS AT SEAPORTS.

The port sanitary authority of the river Tyne has caused all vessels from infected ports to be boarded on their arrival, and the crews and passengers to be medically examined. At this port Dr. Armstrong has been supplied with an additional assistant medical officer, who is stationed at the mouth of the river for this purpose, on duty day and night. Elaborate regulations have been issued by Dr. Armstrong to inspectors.

The medical officer at Hull states that all vessels arriving from the Continent are medically inspected immediately upon arrival in the roads, special attention being directed to those vessels from Hamburg and other ports where cholera is prevalent. Dr. Mason relies not only on inspections in the river as the first line of defence, but considers that in the short passage between Hamburg and adjacent ports there is the probable danger of cases of cholera developing on board vessels after arrival. Masters of ships must not take in any drinking water at a cholera-infected port; and the crews should confine themselves as much as possible to the vessel; when such water is found to have been taken in, it is ordered to be thrown overboard before the admission of the vessel into dock. Precautions are also directed to the removal of all bilge water and the cleansing of waterclosets. Dr. Mason is of opinion that this should be made compulsory on all masters, together

with the power of detention for medical inspection. Similar stringent measures have, by order of the Local Government Board, been adopted at other British ports. We have elsewhere alluded to the unsatisfactory state of affairs at some of our principal ports on the south coast. We trust that this will be remedied without delay.

## THE CHOLERA IN BELGIUM:

### A VISIT TO JUMET.

(FROM OUR SPECIAL CORRESPONDENT.)

FROM Brussels to Jumet it is necessary to take the main line towards the French frontier in the Charleroi direction till the junction of Luttre is reached, and there a local train conveys the traveller to Jumet-Brûlotte. On descending here I soon perceived that Jumet, though it appears in the demographical weekly reports as one place, with a population of 24,259, is in reality a small country consisting of a dozen or more villages. These villages sometimes touch one another, and it is difficult to say where one begins and the other ends. Elsewhere they are separated by a broad expanse of cultivated land.

The young son of Van Esbercq, a youth about nineteen, fell ill, and the father, alarmed, determined to accompany him home so that he might be nursed by his mother, who had remained at Jumet to take care of their cottage. The youth arrived at Jumet on Aug. 13th; he was suffering from violent cramps, vomiting and diarrhoea. The father went back to work at Sarcelles. On the night of Aug. 17th the father fell ill. His fellow workers had to take the mattress on which he slept and place it outside the overcrowded and stifling hut in which they were herded together. On the evening of the 18th Van Esbercq determined to return home. He travelled all night, was extremely ill on the way, with vomiting and violent diarrhoea, notably at the station of Creil while waiting to join the main line train. He arrived at Jumet at five o'clock on Thursday morning and died at 2 A.M. on Saturday morning, Aug. 20th. Van Esbercq's son-in-law and his little daughter, a girl of about twelve years of age, were also ill. All the seven members of this family returned to Jumet, together with many other brickmakers, who were so alarmed by the amount of sickness and the number of deaths at Sarcelles that they preferred losing the season to risking their lives in such a place. Yet this sudden departure has involved these workers in a serious loss. It is too late, in the brickmaking season, to obtain employment elsewhere, and they have not worked long enough in the neighbourhood of Paris to cover the expenses of the journey and put by a provision for the winter months.

Van Esbercq's cottage is situated on the crest of a hill. His midden-closet is in a yard behind, some ten feet lower than the street level in front of the cottage. To reach the latrine he had to go down dark steps and pass by a cellar which is under the cottage. In this cellar is the well. The inhabitants say it is seventeen yards deep from the level of the street; in any case, the water is at a much lower level than the midden or ash closet above used by the cholera patients. On the other side of the road is a large square block of houses, and at the angle of this block building, just facing Van Esbercq's cottage, there is another very deep well. Though this building is a little above the level of Van Esbercq's cottage, the well, which supplies drinking water to the whole of the inhabitants, certainly goes below the level of Van Esbercq's cottage and his latrine. It is in this block of houses that four cases and three deaths occurred. The victims—a widow and her daughter in one tenement, and two children in another tenement—had not come from Paris, but they were taken ill after the Van Esbercqs returned from Paris. In the same block of buildings there is a bakery and the water used in making the bread is taken from the well in question. I understand that samples of this water have been secured for analysis, and the well has within the last day or so been repaired.

A few yards higher up than this block building I called on a man who lived in a small cottage. He said that before Van Esbercq died, but after the return of Van Esbercq's son to Jumet, he was seized with violent cramps, diarrhoea and vomiting. He added that his skin became icy cold and of a

bluish colour. I asked him if his cottage had been disinfected. He showed me a bottle which had contained about half a pint of a disinfectant. This had been given him and this is all that had been done. The man had been taken ill while working in a coal mine and was so bad that it was necessary to send him up at once to the surface. In the opposite direction, and lower down than Van Esbercq's cottage, I saw a young mother who had lost her child four months and a half old after two days' illness. I could get no clear description of this illness beyond the fact that the child was evidently in great pain, vomited violently and had excessive diarrhoea. The woman drank water from a well built in the cellar underneath her house and had had no disinfectants whatsoever supplied to her. Probably this was only a case of infantile diarrhoea; but under the present menacing circumstances it struck me that disinfection, even where it is not needed, would be, if a mistake, still a mistake in the right direction.

Jumet, Aug. 30th.

### THE ALARM IN BRUSSELS.

P.S.—On my return from Jumet I find Brussels in a state of alarm, the newspapers having stated that four cases of cholera had occurred in the capital. Two of the patients had been transported to the St. Peter Hospital. The first was a man who had come from Paris, and was suffering from a form of skin disease. During the night he was attacked with violent vomiting, and died suddenly. Somewhat carelessly, apparently, the death was declared to be due to cholera. The bedding, linen &c. were immediately burnt, and all the surroundings washed with a strong mercurial solution. The body was taken to the cemetery and a post-mortem examination held this morning. I have just seen the certificate. There were some *lésions spéciales intérieures*, but *aucune lésion du choléra*. In any event, cholera or not cholera, the man came from Paris, and therefore at the worst it is but an imported case. The other case is that of a man who is now recovering. He suffered from violent diarrhoea, but the medical attendants declare that there were no special symptoms of cholera. Nevertheless the patient has been removed to the hospital and his room disinfected, and every precaution taken, just as if it was a *bonâ-fide* outbreak of cholera. The two other cases occurred not in Brussels, but in the suburb of Schaerbeek. A woman and child arrived from Paris; the woman is dead, the child ill. From all accounts these two are genuine instances of cholera imported from France.

Brussels, Aug. 31st.

We are glad to notice that some suggestions we made last week have been adopted without delay. A lecture to nurses on the nursing of cholera and the precautions to be taken in dealing with this disease was given by Dr. Heron on Thursday at the offices of the Royal British Nurses' Association. The lecture will be repeated on Monday, Sept. 5th. As Dr. Heron has had practical experience of cholera and has contributed some valuable papers to the literature of the subject, it is probable that many nurses will avail themselves of the opportunity. The lectures are open only to nurses, and the secretary (8, Oxford-circus-avenue) will give all necessary information. H.R.H. Princess Helena, President of the Association, asks us to make known that they are "now enrolling nurses who are willing to devote themselves to the care of patients who may be seized with cholera, and to obey the call of duty at a moment's notice."

In view of the fact that a number of steamers arriving from Hamburg have taken Hamburg water on board, the Local Government Board have issued an order enabling port medical officers of health to require such water to be got rid of before the vessels enter docks; the port authority to provide an alternative supply for immediate domestic uses. Bilge water must also be pumped out.

We understand that Her Majesty the Queen is evincing the greatest interest in the action which is being taken by the Local Government Board, by port and local authorities, to prevent the spread of any cholera which may be imported into this country.

Our Berlin correspondent informs us that the Medical Board of Hamburg published the following figures in reference to deaths from cholera from Aug. 18th till noon of the 23rd:—"The cases of cholera-like disease numbered 219, and the deaths 75. Dr. Koch, who visited Hamburg, declared that the character of the disease justified the gravest anxiety. The Hamburg American Steam Packet Company ordered its large double screw steamers not to come to Hamburg, but to ply between Southampton and New York. It also refused to carry steerage passengers on board its other steamers till further notice. The Heligoland steamers were ordered not to come to Hamburg, but to ply between Cuxhaven and the North Sea watering-places. Seventy-six cases of cholera-like disease with 46 deaths occurred in Hamburg in the afternoon of Aug. 23rd, 188 with 32 deaths, on the 24th; 295, with 130 deaths, on the 25th. The Senate ordered all the schools in the city and the territory belonging to it to be closed, forbade public dancing, and licensed all keepers of hotels and restaurants and sellers of liquors in the streets to sell cognac *ad libitum* till the 20th prox. The Water Committee has threatened penalties for waste of water. On the 26th 416 cases and 150 deaths were reported. Many families have left the city. Charitable people have distributed disinfectants, cognac and medicines gratis. Private equipages, furniture vans and bakers' waggons are used for the transport of patients and corpses. Yesterday the representatives of the citizens unanimously granted half a million marks (say shillings) for the eradication of the epidemic. Senator Bachmann, chief of the police, stated that the total number of cases till noon yesterday had been 3400, the number of deaths 1070. The Medical College of Bremen stated yesterday that among the sixteen cases of cholera-like disease that had occurred there not one case of Asiatic cholera had been detected. Only one case of cholera has as yet been detected at Berlin, that of a woman from Hamburg. The Emperor is taking a keen interest in the conflict with the formidable enemy. It is probable that a Bill for the warding off of infectious diseases will be laid before the Reichstag next session." The meeting of the German naturalists and medical men, which was fixed to take place at Nuremberg on the 12th prox., has been postponed till next year owing to the cholera.

Our Paris correspondent supplies us with the following account of the precautions which have been adopted in France in reference to the cholera:—"At all the frontier railway stations, from Dunkerque to Delle, every France-bound train will be stopped and each passenger examined. Such passengers as are recognised to be suffering from cholera will be promptly isolated in a special building, while suspicious cases will be detained in another building, from which they will only be allowed to proceed after the medical officer has certified their immunity from all cholera germs. Passengers in good health will be allowed to continue their journey on the condition that they declare their destination. A passport, bearing the enumeration of the penalties incurred by any infringement of the regulations, is then delivered to such a passenger, and the mayor of the commune in which he is to reside will, having been informed of his arrival by letter, keep him under medical observation for five days. At all frontier stations all the luggage will be examined by the Customs officials. Any soiled linen found will be rolled up into numbered bundles and then submitted to disinfection in high-pressure ovens. The medical examination and the disinfection of the linen will only entail a maximum delay of forty-five minutes. The above measures will also be applied at all seaports. Paris continues to compare favourably, from a sanitary point of view, with the above-mentioned towns. Since the 21st ult. no recrudescence of the malady had been noted at the Hôtel-

Dieu, where a special service under Professor Proust has been organised. A contradiction is given in *Lo Temps* of Monday to the rumour circulated by one of our morning contemporaries of the existence of cholera at Aix-les-Bains. It is said that not a single case has broken out there."

## Medical News.

WE regret to announce that Sir George H. B. Macleod died suddenly on Wednesday morning at his residence, 10, Woodside-crescent, Glasgow. Owing to the crowded state of our columns we reserve a fuller account of this eminent surgeon for our next issue.

WE have regretfully to record the death of the distinguished alienist, Dr. William Wood, F.R.C.P. Lond., of Harley-street, consulting physician to St. Luke's Hospital. Dr. Wood, who passed away on the 28th ult., at the age of seventy-five, was a frequent contributor to medical literature in the domain to which he devoted his attention.

THE ACCIDENT TO MR. GLADSTONE.—As the accident which happened to the Premier on Monday, the 29th ult., has given rise to much anxiety in the public mind, we are glad to be able to state on authority that the right hon. gentleman was able to walk home after the accident, and has suffered no ill effects from it beyond experiencing slight stiffness on the following day.

MIDWIVES' REGISTRATION.—The Select Committee appointed by the House of Commons to consider the question of the compulsory registration of midwives have published their report. In view of the evidence the Committee consider that some legislative provision for improvement and regulation is desirable, and that in connexion with parish infirmaries and home practice there is a wide field, at present unused, for training in midwifery. The Committee recommend a continuation of the inquiry in the next session of Parliament. We propose in our next issue to give a digest of the evidence of the various witnesses who have appeared before the Committee.

## Births, Marriages and Deaths.

### BIRTHS.

- SHACKEL.—On Aug. 26th, at Ludlow, Salop, the wife of G. A. Shackel, I.R.C.P., M.R.C.S., of a daughter.  
TURNER.—On Aug. 29th, at Finsbury-square, E.C., the wife of F. Charlewood Turner, M.D., of a son.

### MARRIAGES.

- HUNT—MAJOR.—On Aug. 24th, at the Parish Church, Penn, near Wolverhampton, by the Rev. C. H. Cole Webb, Vicar, assisted by the Rev. William Warner, Christchurch, Oxford, Arthur Henry William Hunt, M.R.C.S., L.R.C.P., eldest son of Capt. H. Hunt, Lincoln, to Hilda Winifrede, fourth daughter of J. C. Major, Esq., J.P., the Bhylls, Wolverhampton.  
PRITCHARD—MCKAIN.—On Aug. 26th, at the Parish Church, Goldborough, Yorkshire, by the Rev. W. J. McKain, Rector of Parham, Sussex, brother of the bride, assisted by the Rev. J. Harrison, Vicar of St. Mark's, Dowsbury, James Joseph Gauler Pritchard, L.R.C.P., M.R.C.S., of Dowsbury, elder son of the late C. A. Pritchard, Paymaster in Chief, R.N., to Edith, daughter of William Fergus McKain, Esq., of Spring Grove, Isleworth, late of Her Majesty's Civil Service.  
SIBLEY—BUTLIN.—On Aug. 26th, at St. Mary's, Liscard, Cheshire, Walter Knowsley Sibley, M.A., M.D., B.C. Camb., M.R.C.P. Lond., of 7, Harley-street, Cavendish-square, W., eldest son of S. W. Sibley, F.R.C.S., of Whitehill, Hetchingley, Surrey, to Georgie Marie Butlin, late of the Lovick Institute, Paris, only daughter of Captain G. Butlin, late of the Royal Navy, and of Mrs. M. Butlin of Belfast.  
SIMMONS—LEVI.—On Aug. 4th, at Cape Town, South Africa, Frederick H. Simmons, M.R.C.S. Eng., &c., to Jennie, only daughter of the late Joseph Levi, of London.

### DEATH.

#### IN MEMORIAM.

- WAKLEY.—On Aug. 30th, 1892, at Heathlands-park, Longcross, Chertsey, Surrey, James Goodchild Wakley, M.D., for twenty-five years Editor of THE LANCET, youngest son of the late Thos. Wakley, M.P.

N.B.—A fee of 6s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

**METEOROLOGICAL READINGS.**  
(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 1st, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum in Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 a.m.
Aug 20	30.00	N.W.	62	57	121.	72	57	..	Cloudy
" 27	29.87	S.W.	62	50	87	61	55	..	Cloudy
" 28	29.54	N.E.	54	54	108.	70	54	1.50	Raining
" 29	29.74	E.	58	57	97	71	54	.27	Raining
" 30	29.62	S.W.	64	61	115	72	57	.08	Raining
" 31	29.64	W.	62	56	119	69	56	.02	Cloudy
Sept. 1	29.95	W.	57	53	114	68	52	.16	Cloudy

**OUR CURRENT NUMBER**

Being almost exclusively devoted to information especially interesting to Students, we are necessarily compelled to defer the publication of communications on other important subjects.

We tender our best thanks to those gentlemen who have kindly supplied us with the returns and prospectuses upon which the information given in this Students' Number of THE LANCET relative to the various medical examining bodies, hospitals, and medical schools of the United Kingdom is based.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. F. P. Atkinson, Surbiton; Mr. Arrowsmith, Bristol; Messrs. Armour and Co., London; Mr. J. Bradface, Edinburgh; Dr. C. A. Bontor, Great Berkhamstead; Dr. M. Mitchell Bird, London; Messrs. Barker and Sons, London; Dr. A. M. Bolton, Roumania; Messrs. Bengier and Co., Manchester; Mr. Brasier, London; Dr. Benson, Pinner; Mr. T. B. Browne, London; Mr. Brooks, Nottingham; Mr. J. E. Cooney, Fulham; Mr. Clarke, London; Mr. E. Colson, Jersey; Messrs. Clay and Sons, London; Dr. Chavasse, Birmingham; Mr. Conant, Chicago; Mr. Cornish, Manchester; Dr. Currie, Algiers; Messrs. Douglas and Mason, Edinburgh; Mr. Duncan, Newcastle-on-Tyne; Mr. Clement Dukes, Rugby; Mr. W. A. Davidson, Leighton; Messrs. Deacon and Co., London; Mr. Ellis, Newcastle-on-Tyne; Messrs. Edgington and Co., London; Mr. F. Ensor, Port Elizabeth; Messrs. Fannin and Co., Dublin; Mr. E. H. Fenwick, London; Mr. George Foy, Dublin; Mr. Greenwood, Kent; Mr. Godson, Redditch; Mr. Graeforex, London; Dr. A. B. Harris, Falmouth; Mr. S. C. B. Hunter, Bristol; Mr. J. P. Henry, London; E. L. Hughes, London; Dr. G. W. Herschell, London; Mrs. L. S. Harris, Matlock; Dr. Harris, London; Mr. Hargreaves, London; Mr. Hyde, Buxton; Mr. Heywood, Manchester; Mr. Harker, Bournemouth; Messrs. Humphreys, London; Mr. Hallet, London; Dr. M. Jones, London; Mr. Jackson, London; Mr. Keely, Nottingham; Mr. W. T. Little, Maidstone; Mr. Lintern, Ivy Bridge; Mr. Lester, Hitchin; Mr. W. Lawley, London; Mr. Lamond, Glasgow; Mr. Lewis, Birmingham; Mr. Menzies, Surrey; Dr. McRitchie, Huntingdon; Mr. McEhatrick, Mere; Mr. Myers, London; Dr. Murray MacFarlane, Toronto; Dr. Milton, Cairo; Dr. J. C. M'Givan, Derby; Mrs. Norris, West Hampstead; Mrs. Ogston, Walker-on-Tyne; Messrs. Oliver and Boyd, London; Mr. O'Flaherty, Dr. J. A. Ross, Folkestone; Mr. G. A. Roberts, London; Mr. J. G. Reynolds, Wolverhampton; Messrs. Robertson and Scott, Edinburgh; Mr. Russell, Liverpool; Messrs. Riddle and Co., London; Mr. Rolls, Weymouth; Mr. Spencer, Devonport; Mr. Sell, London; Messrs. Street and Co., London; Mr. Startin, London; Messrs. Swan

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Lecture

ON

DROPSY WITH KIDNEY DISEASE.

Delivered at King's College Hospital,

By NESTOR TIRARD, M.D. LOND., F.R.C.P.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL AND SENIOR PHYSICIAN TO THE EVELINA HOSPITAL FOR SICK CHILDREN.

GENTLEMEN,—Cases of dropsy associated with some form of kidney disease are very commonly under your observation both in our wards here and at the Evelina Hospital, and they never fail to afford interesting subjects both for speculation and for treatment. The present juncture appears to me to be an appropriate one on which to address you upon this subject, as you will have noted from the medical journals that the whole question of the connexion between dropsy and kidney disease has recently been under review at the Royal Medical and Chirurgical Society. The views there expressed I propose to criticise later, after a brief consideration of the clinical aspects which you can all verify by direct observation.

Dropsy is met with in the course of very various diseases, and the ultimate explanation of the condition seems to be incapable of being reduced to any single general law. In a previous lecture<sup>1</sup> I dealt mainly with the explanation of dropsy associated with heart disease, but incidentally referred to the probability that many cases of dropsy with chronic kidney disease were to be ascribed to a similar chain of events. This view has since been confirmed by many observers; and in the course of the debate at the Royal Medical and Chirurgical Society it was interesting to note that many of the speakers referred one form of renal dropsy to cardiac weakness, indicated by dilatation and failure of strength. One of the main contentions in my former lecture was that probably this failure of strength had been too much neglected in the estimation of the ultimate causes of cardiac dropsy, while the theory of backward engorgement had been, in my opinion, pushed too far, although the impeded flow of blood through the veins undoubtedly had a large influence in the causation of dropsy, inasmuch as it would account for the diminished reabsorption of fluid through the lymphatic system. Still, when this lecture was written I was careful to indicate that all forms of renal dropsy were not readily explicable by any single theory, since I was convinced that under this apparently simple term more than one set of circumstances contributed to the result.

Viewed from a clinical aspect, there can be no doubt that renal dropsy occurs in two very distinct forms. The first, marked by general oedema, is the variety met with in cases of acute nephritis, more particularly when it is the result of scarlet fever. This general oedema is commonly coincident with the commencement of the nephritis, being frequently the first indication to attract attention. Children are frequently brought to the Evelina Hospital for the treatment of this general dropsy, the original attack of scarlet fever having been so slight as to have passed almost unnoticed. In such cases, however, inquiry mostly reveals a brief history of sore-throat and malaise, which doubtless constituted almost all the objective symptoms of the attack of fever. With children continuously under observation from the time of the rash Dr. Mahomed considered that the onset of renal changes might be predicted from an increase of arterial tension, and he described a pre-albuminuric rise of tension. His observations have not, however, received general endorsement, many accurate observers having failed to find the condition he described. Dr. Ringer considers that the onset of albuminuria and dropsy subsequent to scarlet fever is generally marked by a rise of temperature, and that the threatened attack may be averted by the prompt employment of aconite. Ordinarily, however, the clinical sequence of albuminuria, of considerable reduction in the amount of urine and of dropsy is very rapid. Headache and malaise frequently herald the attack, and are speedily followed by puffiness, which commences about the eyelids and spreads to the face, the trunk, and the extremities. The swollen condition of the face gives a mask-like aspect,

the features becoming absolutely devoid of expression. The oedema of the extremities renders movements difficult and clumsy, and the absolute bulk of the patient appears to be greatly increased. That the oedema is not confined to the subcutaneous tissues is often evidenced by some increase in the rate of respiration, which indicates a coincident oedema of the lungs, and which may be attended by cough and scanty expectoration. Another very characteristic feature of this acute form of dropsy is to be found in the extreme condition of pallor all over the surface of the body—pallor which appears to result more from the oedematous condition of the skin than from any profound alteration of the blood-colouring matter.

Curious cases of post-scarlatinal dropsy without albuminuria have frequently been recorded. Some are mentioned by Dr. Goodhart in his valuable work on Diseases of Children, and in St. Bartholomew's Hospital Reports Sir Dyce Duckworth reviewed this subject some years ago. This condition had also been noted by Todd in his Clinical Lectures, and by Henoch in his book on Diseases of Children. I have frequently seen children with this anomalous condition at the Evelina Hospital, both in the wards and in the out-patient room. I may say, in passing, that it is generally held that the facts are deceptive, that a very transient form of albuminuria may have been present before the child was brought under observation, or else that microscopic evidence of the nature of the case may be found, even though no chemical reaction may be given. The explanation of these cases is, however, so full of difficulty that I reserve it for future consideration.

Reverting to the more common type of acute general oedema with indications of acute renal congestion, under favourable conditions this form of dropsy passes away as the case progresses. As the renal changes undergo improvement the volume of urine passed increases and the dropsy diminishes proportionately. Sometimes a similar result is attained as a consequence of the employment of hydragogue purgatives and of sudorifics, by which means the amount of fluid in the circulatory system becomes diminished, and hence the return of the effused material is favoured. These changes depend upon the general law that the absolute quantity of fluid in the vascular system is practically kept at a constant quantity, and that drain from one part of the system is speedily equalised by absorption from another. Mere diminution of dropsy is, however, not to be regarded as indicative of complete restoration. The quantity of urine eliminated may be increased and the dropsy may diminish, even though examination of the urine may show, by the presence of albumen and by its microscopic characters, that the case is gradually becoming chronic. Dr. Dickinson considers that this diminution of dropsy is to be looked upon as the result of some change in the capillaries as well as of hypertrophic changes affecting the arterioles by which the increased tension is combated. He assumes a conservative change in the arterioles as the explanation of the improvement so far as the dropsy is concerned.

The second form of dropsy is that met with when the renal changes are chronic; but this variety is really, I believe, divisible into two perfectly distinct forms, the one occasionally precluding the termination of the case and due to cardiac rather than to renal failure, this form, as before mentioned, being practically undistinguishable from the ordinary cardiac dropsy associated with venous engorgement, with dilatation of the heart and consequent failure of suction action and of propulsive force. This form of dropsy affects the lower extremities primarily, and only in extreme cases is the oedema found to proceed upwards. Another more truly renal form of dropsy occurring in the course of chronic kidney disease is that which appears to be only a modification of the acute variety, and which leads to the appearance, so happily designated by Dr. Moxon, of "a large white mass with a large white kidney." Very little reference was made to this condition in the course of the debate at the Royal Medical and Chirurgical Society. Most of the speakers mentioned the acute general dropsy of acute nephritis and then turned to the late form of dropsy of cardiac origin. It may therefore be of interest to remind you of the way in which Sir William Roberts<sup>2</sup> deals with the question of dropsy in chronic Bright's disease. He says: "Dropsy is much oftener absent in the chronic than in the acute form. It is much more constant with the smooth large than with the granular contracted kidney. Of the latter class, probably one-third or one-fourth of the cases run their entire course without dropsy.

<sup>1</sup> THE LANCET, May 31st, 1890.

<sup>2</sup> Urinary and Renal Diseases, fourth edition, p. 402.

The effusion begins quite as often in the feet and legs as in the face; it is commonly slight and partial, but sometimes excessive and general. When the heart or liver is diseased, ascites and œdema of the legs become disproportionately prominent. The effusion is apt to change its seat capriciously, and it comes and goes from time to time. Sometimes it disappears totally for months and then returns again. More frequently, after a subsidence of the general dropsy, œdema lingers obstinately in one or two places—over the flat of the tibia, about the ankles, beneath the eyelids, under the conjunctival membrane or about the genitals. The presence or absence of dropsy generally, but by no means always, corresponds with the abundance or scantiness of the urine; but it has no relation to the amount of albumen." This passage has an important bearing, not only upon Sir William Roberts' experience of the relative frequency of dropsy with the smooth large and with the granular contracted kidney, but it also answers in advance some of the arguments adduced by Dr. A. Haig.<sup>3</sup>

Turning now to the theories suggested in explanation of renal dropsy, it may be convenient to deal first with those of Dr. Dickinson. He indicated that there were two modes by which an exudation from the capillaries might lead to dropsy. If too much of this exudation was poured out or too little carried off, dropsy resulted; but in his latter remarks he appeared to confine his attention entirely to the former mode, although the teaching hitherto has been that both modes must be in operation simultaneously. Dr. Dickinson attributed the association of œdema and increase of tension in nephritis to "some condition of the capillaries due to abnormality of blood which both hinders its passage and promotes transudation." In considering the transition from the acute to the chronic stage he noted the contradiction of the diminution of dropsy with further increase of arterial tension, and he maintained that the cardio-vascular change of advancing renal disease is the antagonist of dropsy. To make the contrast more complete, he said that there is "much dropsy with slight hypertrophy in nephritis, little dropsy and much hypertrophy with the granular kidney, so long as the heart remains undilated; and, finally, on the stretching of the heart, increase of dropsy and often pulmonary apoplexy." Somewhat later he makes the admission: "What the nature of the capillary obstruction is must be left undeclared. Changes in the blood may affect its passage in many ways. Fluids of different sorts pass through inanimate tubes with different degrees of facility, besides which the capillaries, though not muscular, have been demonstrated to be contractile." It will be seen that, so far as acute nephritis is concerned, our knowledge of the ultimate causation of dropsy has not been materially advanced. That a change in the nature of the blood is a prime factor has long been conceded, but it has sometimes been thought to result in filtration or transudation under pressure, sometimes in diffusion or osmosis, as Dr. Dickinson himself points out. It is of course conceivable that by some capillary contraction, excited by the toxic influence of the blood, the pressure within the capillaries should be raised, the blood current retarded, the nutrition of the capillary wall impaired and thus transudation might be favoured. All this, however, though interesting, is mere speculation, and its force seems to be confined almost solely to the early stages of acute nephritis. These theories will not explain the condition of dropsy as it occurs in the course of a case dependent upon the smooth, large kidney, and the theories become least satisfactory when by them we attempt to explain the way in which the effusion "changes its seat capriciously" or "comes and goes from time to time."<sup>4</sup> The most convincing portion of Dr. Dickinson's paper on Renal Dropsy is that in which he accounts for the diminution of dropsy in cases of granular kidney, where he submits the view that the constriction of the smaller arteries must cut off the blood from the capillaries and presumably lessen the pressure in them and exudation from them.

Turning now to the views expressed by others in the course of debate upon Dr. Dickinson's paper, Sir George Johnson believed that "renal dropsy was the result of an active vital secretory process consequent on an accumulation of various morbid fluids and solids in the blood," and he summed up his views shortly as follows: "That the arterioles could impede or arrest the circulation; that there was no

evidence that the capillaries possessed a similar power; that there was no evidence of an increase of capillary pressure in renal dropsy, but probably that it was diminished; that it was difficult to explain effusion through capillaries mechanically, and that renal dropsy was best explained by regarding it as the vital act of the endothelium, excited to eliminate certain noxious solids and fluids from the blood." Dr. Pyc-Smith followed on somewhat similar lines, considering that renal dropsy might have some connexion with the secretory power of the capillary endothelium, and he quoted Heidenhain's experiments in proof of the possession of such an active selective influence by the epithelium. Arguing from the distribution of fluid in acute renal dropsy that it was not subject to the action of gravity, Dr. Pyc-Smith thought that it was probable that the condition was "not a dropsy at all, but an inflammatory effusion," and a little later he said he believed that the anasarca should be regarded as an "active inflammatory change in the connective tissues." It is difficult to harmonise this view with the ordinary sequence of events in other active inflammatory changes in the connective tissues; hence, although the suggestion is attractive and novel, this theory scarcely seems to be likely to gain many adherents. Dr. Douglas Powell thought that dropsy of renal disease was osmotic, and intended to compensate for deficient kidney secretion, increasing in proportion to the renal insufficiency and decreasing as it was re-established. Dr. Broadbent found so many points of resemblance in renal and cardiac dropsy as to suggest that there must be a similarity of causation, and this led him to look primarily for some hydraulic cause for renal dropsy. He thought Dr. Dickinson had probably furnished the most satisfactory explanation of renal dropsy yet formulated, and, without accepting it definitely, he was greatly disposed to regard it as in all probability the correct explanation. Without trenching upon the further discussion at the Royal Medical and Chirurgical Society (which you will find fully reported in THE LANCET of April 30th, 1892, and May 14th, 1892) I may say that I have put before you the main points of difference rather than those upon which common ground might be claimed. As I have before said, there was practical unanimity about the cardiac nature of the dropsy sometimes seen towards the termination of cases of granular kidney. The frequency of acute dropsy with acute nephritis also received full consideration, but the dropsy of the large white kidney was almost left out of account, in spite of its greater frequency when compared with the dropsy seen with the small granular kidney. Of the clinical features there can be no dispute; they are matters of common observation. The difficulty lies in the explanatory theories. Dr. Dickinson assumes capillary obstruction, but does not define its nature. Sir George Johnson proposes an active vital secretory process. Dr. Pyc-Smith suggests an active inflammatory change in the connective tissues, and Dr. Douglas Powell looks to compensatory osmosis. This brief summary will show you how far the question is removed from a final solution, and will be enough, I trust, to prove that the subject may still be regarded as one waiting further observations and elucidation.

**RICHMOND WATER-SUPPLY.**—It is stated that a welcome addition to the water-supply of this borough has been discovered, in the course of the construction of two wells. It is estimated that this "find" will save the rate-payers a sum of between £2000 and £3000.

THE following shows the number of patients in the several fever hospitals of the Metropolitan Asylums Board on Sept. 6th:—At the Eastern Hospital there were 409 patients suffering from scarlet fever, 71 from diphtheria, 1 from typhus and 35 from enteric fever; the North-Western Hospital had 395 scarlet fever patients, 80 diphtheria and 20 enteric fever; the Western Hospital were accommodating 312 scarlet fever cases, 40 diphtheria, 3 typhus and 9 enteric fever; at the South-Western Hospital 314 scarlet fever patients were on the books, whilst the number of diphtheria and enteric fever cases was 60 and 21 respectively; the South-Eastern Hospital had 397 cases of scarlet fever, 22 of diphtheria, 1 of typhus and 6 of enteric fever; the Northern Hospital contained 725 cases of scarlet fever and 20 cases of enteric fever; and the Gore Farm Hospital 714 patients suffering from scarlet fever. Only 5 cases of small-pox are recorded as being in hospital on this date, these being on board the hospital ship *Atlas*.

<sup>3</sup> THE LANCET, July 9th, 1892, p. 82.

<sup>4</sup> Sir W. Roberts: Urinary and Renal Diseases, p. 463.

## CLINICAL NOTES ON LEPROSY IN KASHMIR.

By ERNEST F. NEVE, M.D., F.R.C.S. EDIN.,  
SURGEON TO THE MISSION HOSPITAL, JOINT HONORARY SUPERINTENDENT  
TO THE STATE LEPROSY ASYLUM.

DURING the past eighteen months 152 lepers have attended the Mission Hospital as out-patients. Of these, 116 were cases of anæsthetic leprosy, 89 of whom had no tubercles. Sixty were admitted as in-patients to the Kashmir State Leprosy Asylum and were under observation for a time. The following is an analysis of the most marked symptoms. I have endeavoured to obtain some light (1) on the earlier phenomena of anæsthetic leprosy, and (2) on the relation of symptoms and signs to the period or age of the disease.

TABLE I.

No.	Age.	Years ill.	Earliest symptoms or signs observed by patient.
1	30	1½	Anæsthesia of extensor surface of both feet and arms.
2	50	3	Ditto of both feet.
3	22	5	Eruption all over body, followed by anæsthesia.
4	30	1	Ulcer under metatarsophalangeal joint of great toe.
5	40	8	Anæsthesia of right gluteal region and right ankle, outer side.
	50	6	Ulcer under metatarsophalangeal joint of both great toes; swelling of left leg.
7	40	1½	Swelling of both feet; no anæsthesia then.
8	30	6	Blisters over inner malleolus and sides of knees.
9	65	6	Burning pain on outer sides of thighs; anæsthesia subsequently.
10	30	3	Feeling of weight in shoulders and limbs; subsequent blisters and anæsthesia.
11	20	½	Swelling of feet and burning sensation; subsequent anæsthesia.
12	30	4	Anæsthesia of feet; blisters; eruption over chest.
13	30	3	Blisters of legs.
14	26	6	Sole of left foot used to get wounded; blisters on outer side of thigh.
15	36	6	Cracks of foot; blisters; subsequent anæsthesia.
16	24	12	Swelling of face; tubercles of cheeks.
17	30	1½	Anæsthesia and blisters on feet and legs.
18	50	8	Blisters on legs.
19	30	7	Anæsthetic patch behind great trochanter.
20	30	½	Blisters on outer side of left leg, then anæsthesia.
21	30	3	Cracks on soles, then anæsthesia.
22	25	3	Blisters on backs of forearms; pains all over.
23	30	3	Anæsthesia all over and blisters.
24	25	10	Anæsthesia of backs of feet and hands.
25	40	7	Swelling of left foot; subsequent anæsthesia.
26	32	5	Patch of anæsthesia at back of neck.

Let us now compare this table with another showing the leading symptoms and physical signs presented by patients who, when observed by the surgeon, had been less than a year ill.

TABLE II.

No.	Months ill.	Symptoms or signs observed by the surgeon in cases recently affected.
1	6	Tubercles on face; shiny skin.
2	4	Anæsthesia of both feet; itching of face.
3	2	No anæsthesia; face characteristically altered.
4	6	Anæsthesia; no tubercles; face clear.
5	3	Large pink anæsthetic patch on right hand and forearm; face clear.
6	3	Anæsthesia of both feet; face indurated.
7	6	Swelling of feet; patches of anæsthesia on both legs and on body.
8	6	Burning in soles of feet; no anæsthesia.
9	1	Anæsthesia of right hand and foot; face dusky red.
10	4	Small pink tubercles on face; no anæsthesia.
11	1½	Skin swollen and shiny; very little anæsthesia.
12	4	Anæsthesia of scapular region; small tubercles over body.
13	2	Anæsthesia of both legs and abundant tubercles.
14	4	Patches of anæsthesia on different parts of body.
15	2	No anæsthesia; tubercles on different parts of body.
16	3	Large anæsthetic patches.
17	6	Anæsthesia of arms; indurations in gastrocnemius and triceps.
18	3	Anæsthetic patches; ulcer of nose.
19	4	Anæsthesia of outer sides of legs.
20	3	Anæsthetic patches on different parts.

It is interesting to compare the lesions of those who have been only a few months ill with those who have had leprosy for years.

TABLE III.

No.	Years ill.	Physical signs observed in patients more than five years ill.
1	14	Anæsthesia of both feet and hands; ulcers on both.
2	6	Anæsthesia; one foot swollen.
3	13	Anæsthesia; ulcer on sole of foot.
4	10	Anæsthesia; ulcers on both heels.
5	6	Anæsthesia; ulcer on sole of foot.
6	7	Anæsthesia; nose depressed from antecedent necrosis.
7	7	Anæsthesia; blisters; face very little changed.
8	7	Anæsthesia; ulcers of feet; depressed nose; blisters.
9	7	Anæsthesia; necrosis of phalanges; blisters.
10	6	Anæsthesia; scars and ulcers of face; depressed nose.
11	15	Tubercles of face, larynx and body; general ulceration of limbs.
12	6	Anæsthesia; ulceration; loss of phalanges.
13	6	Anæsthesia; discolouration of forehead; occasional blisters. (Mild case.)
14	6	Tubercles on face, pharynx and body; anæsthesia.
15	10	Anæsthesia; swelling of hands.
16	6	Anæsthesia of legs and arms.
17	14	Anæsthesia of both feet; loss of phalanges.
18	8	Anæsthesia of hands and feet; ulcer of sole of foot.
19	14	Anæsthesia of hands and feet; loss of phalanges.
20	7	Anæsthesia; ulcer of sole of foot.

We see, then, that in patients more than five years ill anæsthesia is almost invariably present. It is usually more profound than in the earlier stages. Then ulcers, especially the perforating ulcer of the foot, bone affections of the nose, fingers and toes, and also of the tarsus—these are characteristics of advanced leprosy, and they are associated with superficial ulcers and with scars and cicatricial thickenings of most of the tissues of the body.

With regard to cases in the earlier stages and the history given by patients, we notice that the following are apparently early symptoms:—Eruptions, swelling, sensations of pain, heat or itchiness, blisters, ulcers and anæsthesia. I say apparently, because on closer examination some of these conditions are found to be undoubtedly due to advanced leprosy. Let us examine them briefly.

Eruptions, swelling, sensations of pain, heat or itchiness are often associated. I shall not discuss tuberculous leprosy here. The least advanced case of leprosy which I have seen was a patient who presented a slightly raised, indurated, dusky-red patch on his left cheek. In another there was duskiness of the face with some thickening of the skin of the nose. Below the malar bones were slightly raised dusky-red patches. The lobes of the ears were a little thickened. This patient developed well-marked herpes zoster of the right side of the thorax while under observation. Pain, burning sensations and swelling are prominent early symptoms, and occasionally hairs may drop out early in the course of the disease.

D. M.—, aged thirty, six months ill. The hairs of his eyebrows are absent on the outer aspects and scanty at the inner; his whole body, including the face, is red, and there is inflammatory œdema of the skin, especially marked in the extremities. In places there is pitting on pressure. This condition is associated with great pain, burning sensations and fever. There is tenderness of nerve trunks on pressure. Another patient, S. C.—, has had periodic attacks of this nature, in the last of which patches of small wheals appeared on the body and limbs.

We have, then, here two classes of phenomena. One a skin affection of a leprosy nature, probably a specific lesion—viz., the raised, red, indurated patches. Later in the disease these patches subside, and may even almost disappear, leaving traces only of thickening, irregularity and pigmentation. They are probably related to (leprosy) tubercles, although quite distinct.

The other class comprises the various conditions resulting from leprosy neuritis—viz., inflammatory œdema with fever and sensations of pain and heat. Each attack of this nature is apt to be followed by extension or intensification of anæsthesia. Such attacks are recurrent, and most leprosy are liable to them.

If the back of a leper be examined it is often found to be the seat of a macular eruption. The following cases are illustrations:—

S. M.—, aged twenty-one, four months ill. On the back there is a very faint mottled and ringed eruption consisting of circles the size of a florin or larger, with dusky brown or reddish margins.

M. C.—, aged thirty-one a more advanced case, three

years ill. The whole of the back was covered with pale circular patches not anæsthetic, and edges not pigmented, but shown up by surrounding dark skin.

**K. R.**—, aged thirty-two, five years ill; condition still more pronounced. The whole of the back was covered with large pale patches, especially the lumbar and sacral regions. The margins of these patches are circles, with the convexity towards the surrounding healthy skin. In the dorsal region there is an island with loss of pigment and similar convex margins. The skin is not thickened, and there is no anæsthesia.

In some cases, however, I have found these patches anæsthetic. When the margins of the circles are strongly pigmented the appearance of the patient is very striking. Sometimes the whole body and extremities are affected in this way. The condition is also sometimes associated with tuberculous leprosy. It is, I think, to be attributed to interference with nutrition resulting from leprous neuritis. Such lesions are atrophic. Sometimes the opposite condition is present.

**J. B.**—, aged forty, sixteen months ill. Over the lower part of the sacrum there is a darkly discoloured patch the size of the hand, with overgrowth and a desquamating condition of the epithelium, but no anæsthesia. I have referred elsewhere to leprous ichthyosis.<sup>1</sup>

**Blisters.**—These are of two kinds. In early leprosy, and also to a less extent later on, blisters of a trophic variety may form. Their favourite seat is the ulnar side of the hand or wrist and the outer side of the foot or ankle. The other variety of blister is due to an irritant, either heat, cold or friction. Of course the absence of sensation is a very frequent cause of burns. Lepers burn their hands while cooking their food or warming themselves. Exposure to severe cold acts similarly. The feet are apt to become blistered from this cause. Friction blisters occur especially on the outer sides of the body and near the knees or elbows. This latter class of blisters is almost invariably associated with advanced leprosy. The trophic blisters have usually no red areola. They are circumscribed and heal readily. In two cases there was no anæsthesia of the part where they appeared. The "irritant" blisters, on the other hand, are generally on anæsthetic sites, and they are apt to leave troublesome sores.

**Ulcers.**—These are not at all characteristic of *early* leprosy. They occur in close relation to anæsthesia. When a foot is anæsthetic a friction ulcer often appears under the metatarsophalangeal joint of the great toe, the seat of the greatest strain in walking. Ulcers may also be present at any of the three points in the foot on which the weight of the body rests. Then there is the peculiar perforating ulcer of the sole. This is characteristic of advanced leprosy. It is perhaps dependent upon posterior spinal sclerosis. (Impairment of knee and ankle reflexes is common in lepers. Nerve stretching facilitates the healing of the perforating ulcers. In these respects a similarity to locomotor ataxia exists; but the likeness stops here, for I have never seen a leper with ataxic gait.) Ulcers in connexion with diseases of the bones and joints of hands or feet are common. The cracks on the soles of the feet, of which some lepers complain, are, I think, chiefly the result of walking in the snow. But they are common enough amongst the non-leper agricultural population who have to work in wet, muddy rice fields.

**Anæsthesia.**—This is the most prominent feature of leprosy in Kashmir. It is often found very early in the course of the disease (see Tables I. and II.), and it is almost invariably present in the later stages, where it is also profounder and more extensive. It is a nerve lesion the result of sclerosis following neuritis. Extensor surfaces are more liable than flexor to anæsthesia, but anæsthetic patches may occur at any part of the body. Often the skin of such patches is paler than elsewhere, but sometimes it is quite unchanged, and sometimes patches of pale skin are not anæsthetic. **M. W.**—, aged fifty, has two pale patches of skin: one below the scapula on the right side is not anæsthetic; the other on the right side of the lower lumbar region is anæsthetic. **W. M.**—, aged forty, three years ill, has an anæsthetic patch an inch and a half square behind the left acromion, the skin of which is quite unaltered. Another peculiarity of this anæsthesia is that it is rare for one to be able to map it out according to the anatomical distribution of any one nerve. It is patchy and capricious in its manifestations. I think this is a point in favour of its central origin. Indeed, most of the evidence points to a poison which attacks the central nervous system. A therapeutic desideratum is some

drug which will act as an antidote to that poison in a more satisfactory way than atropine does to tuberculin. In its later stages leprosy is not curable. There is too much scar tissue. It may be arrested; symptoms may be greatly alleviated. More than three hundred nerves have been stretched in this hospital for the relief of anæsthesia and ulcers; but this is an operation for relief, not cure. Like tuberculosis and syphilis there is a stage in leprosy when the conditions of cure no longer exist.

## LARYNGEAL PARALYSIS IN INFANTS.

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WITHIN the last five years I have met with from time to time cases of a disorder in children, of ages varying from three weeks to eighteen months, to which the above term may be provisionally applied. These cases—six in all,—of which I have notes, survived and got rid of the disease, with one exception, and in this case a fatal termination was brought about through exposure to the east wind at a constant resort. A brief clinical account of one or two of these cases will illustrate the condition to which I refer.

**CASE 1.**—**C. H.**—, aged two years, was brought to me during June last, suffering from noisy, difficult and prolonged inspiration; expiration quick and easy; voice intact. There was slight cyanosis, increased on exertion, as was also the inspiratory distress. The ribs were much deformed, the lateral regions of these being indrawn. The epigastrium as well as the soft parts above the clavicles were retracted during inspiration. The larynx was observed also to move unduly during inspiration. Examination of the throat demonstrated an extreme state of granular pharyngitis extending to the vault. The statement given by the mother was that the child began to suffer from what the doctor called "chronic croup" (in part a good descriptive term, for the condition resembled superficially that of a child in moderate distress from typical croupous breathing) after some ill-defined pulmonary attack when it was six months old. Since then, when the symptoms were not so bad as now, the child has been a continual source of anxiety, more especially during the night and morning just after waking, when great respiratory difficulty was generally experienced, a discharge of mucus giving great relief. No laryngoscopic examination could be made. From the examination that could be made of the chest this was normal, the steno-tic murmur, however, obscuring to a great extent the vesicular. The child was put upon bromide of ammonium; a nasal alkaline spray and a 2 per cent. solution of resorcin in mineral oil to be dropped into the nose. A week or two of this treatment improved matters but slowly. On July 17th, 1891, I intubated, retaining the tube for one hour. This procedure was followed by more decided improvement. Shortly after this I scraped out the post-nasum with the finger-nail and recommended a continuance of spray and resorcin. On the 25th the child was intubated again and the tube retained for two hours, during which the child slept for the most part and regained a more natural colour. On Aug. 28th the child had greatly improved. The inspiratory dyspnoea had almost entirely disappeared. He was able to rest well at night and had no difficulty whatever on awakening.

**CASE 2.**—**J. N.**—, aged three weeks. This infant when first seen was found to be suffering from somewhat acute inspiratory dyspnoea dating from a few days after birth, and most pronounced at nursing periods. The inspiration was noisy, so that it could be heard in the next room. Examination of the throat showed a thickened granular condition of the pharynx mucosa. There was no fever or enlarged glands about the neck. The child was fairly nourished. The treatment consisted of bromide of ammonium, with the employment of nasal spray and resorcin drops for the nose. These remedies were used twice daily for one month, when practically the child was well. Subsequently the remedies were used thrice weekly for three months. I saw this child nine months afterwards and found it remarkably plump and well. The mother states, however, that respiratory difficulty of the above character now and then in a slight degree troubles the child.

CASES 3 and 6 resemble the above so much that detail is unnecessary.

CASE 4.—G. A. S., at the age of six months, began to suffer from symptoms noted in the above series of cases, their severity increasing as time went on until he was one year old, when these were varied by the occurrence of convulsions. There were the usual nightly and morning exacerbations. The child recovered. At present the child suffers from post-nasal growths.

CASE 5 displayed the symptoms described in the above. Through an unadvised stay at a coast resort and during the prevalence of east winds the child caught cold and shortly succumbed.

These cases will illustrate the condition in question as well in its severer as in the milder forms met with. They also illustrate the efficacy of well-directed treatment. It will be observed from the above that the condition in question is a state of persistent dyspnoea lasting over a considerable period and exclusively affecting inspiration; that the dyspnoea, mild at first, increases in time, as in Case 1, to a state of dangerous asphyxia. Judging from the character of these laryngeal symptoms bilateral improvement of the dilators of the glottis suggests itself, which, when it becomes grave, is succeeded by, we may suppose, secondary contraction of the unopposed adductors. The power to cough, the comparatively intact phonation, the length of time over which the disease extends, and the deepening of symptoms as that goes on differentiate the condition from affections of the abductors—e.g., spasm. These same qualities equally disprove the existence of, e.g., papillomata. (Case 1 was to have been operated on for this before I saw it.) Not one of these cases could be referred to this condition, for in such it is recognised that there is a great frequency of alteration of voice. Diphtheria in every case could be eliminated. In none of the cases were there noticed evidences of cervical or thoracic tumour or any pressure on the vagi or recurrents. It would seem, therefore, that the only probable explanation of the phenomena is to attribute these to a temporary bilateral abductor paralysis. As to the etiology of this, the associated diseased condition of the post-nasum and pharynx observed in every case demands attention. The age also must be taken into account. It is justifiable to suppose that irritation set up in these regions is transmitted to the medulla, there exciting and exhausting the accessory nucleus, and that this leads up to impaired nervous energy to the abductors. Another point is that catarrh, equally possible, may in such cases interfere with the function and nutrition of the muscles in question. In the earlier cases met with I relied for treatment principally on bromide of ammonium, tepid sponging, &c., but of late have treated more vigorously the post-nasal and pharyngeal conditions, and with the best results when the cases are not met with in the earlier phases of the disease. Where granulations are felt in the post nasum these are crushed or otherwise destroyed. In severe cases like Case 1 I should at once intubate, because, apart from the relief to respiration for the time being, the insertion of the tube seems to have a rousing effect on the general musculature of the larynx. It may be supposed to undo any secondary contraction that may have supervened during the course of the malady, if this has supervened long enough to allow of secondary contraction of the constrictors to have taken place.

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### ON THE INFLUENCE OF NASAL STENOSIS ON THE GENERAL HEALTH.<sup>1</sup>

By W. SPENCER WATSON, F.R.C.S. ENG., M.B. LOND.

THERE is good evidence that many forms of disease, not obviously of nasal origin, have been cured, relieved, or prevented by treatment successfully directed against nasal stenosis. This I take as my text; and though I may not be able to prove the statement categorically, I trust that I shall be able to show that it is well founded and sufficiently accurate to form a trustworthy guide in treatment.

It may be well at the outset to give a brief epitome of what is known as to the functions of the nose as a part of the respiratory apparatus.

1. The inspired air is warmed to the temperature of the blood or within 1° or 2°F. of that temperature.

2. The inspired air is moistened by watery vapour exhaled from the nasal mucous membrane.

3. The inspired air is filtered and to a great extent freed from foreign particles and micro-organisms. Some of these become adherent to the vibrissæ and some to the mucous surface, and in time are extruded with the mucus; the more irritating vapours or micro-organisms exciting a free flow of fluid mucus, which in extreme cases is expelled by sneezing or reflex cough.

4. The temperature of the blood is lowered by the evaporation from the pituitary membrane.

5. The expired air contains some carbonic acid (an appreciable trace), due to the interchange of gases in the nose independently of those due to oxidation in the lungs. There is also probably an evolution of other animal products from the same source.

These being the chief functions of the nose as a part of the respiratory tract, what modifications or interruptions are brought about by stenosis? This latter condition may be temporary or permanent, partial or complete, and the effects must vary according to each variety or phase of the obstruction.

*a. Temporary stenosis* occurs in acute rhinitis of any kind, in simple chronic rhinitis and in congestive irritation of the pituitary membrane from any cause—e.g., that of the presence of a foreign body, of rhinoliths, or of sequestra of bone. The turbinated bodies are the parts more especially liable to swelling under these circumstances by reason of the structure of their submucous erectile tissue. The stenosis due to turgescence of this part of the membrane is distinguished from that due to hypertrophy, partly by the clinical history of the case, but more precisely by the appearance and behaviour of the swollen part, which dimples easily when pressed upon by a probe, and also by the fact that it is almost always speedily reduced in extent and bulk by the application of cocaine.

*b. Permanent stenosis* is chiefly the result of chronic rhinitis with hypertrophy, and often of intra-nasal growths and polypi. Distortions and malformations of the septum, naso-pharyngeal growths, adenoid vegetations of the naso-pharynx, enlargement of the tonsils, thickening of the soft palate and congenital and traumatic deformities are the more common causes of permanent stenosis.

*c. When the obstruction is only partial*, as is often the case, the breath channel being narrowed only, but not occluded, there is the obvious difficulty of deciding in a given case whether the supposed remote effects such as headache, migraine, asthma, cough, laryngeal spasms, dyspnoea and secondary changes in the larynx, trachea and bronchi may not be due to irritation rather than to obstruction. A slight amount of swelling of the turbinates brings them or some point of their surface in contact with the septum, and as this part is especially sensitive, and rendered still more so by inflammatory changes, the local irritation thus induced may account for reflex irritation of the deeper parts of the respiratory tract. In some cases it is possible to put this to the test by touching with a probe the suspected area, and if, when this is done, the reflex action is induced, we have some evidence that irritation is more prominently at work than stenosis. The use of cocaine locally applied will also be an aid to diagnosis in the same direction. In the condition of hypertrophy there is no shrinking of the swollen parts as in the case of mere turgescence, and hence any marked relief of the symptoms following the use of cocaine is an indication that there is an area or point of excessive sensitiveness the irritation of which produces reflex action. When this is the result of these tentative measures much benefit is often derived by reducing the bulk of the hypertrophic membrane or growth. The application of the electric cautery or of a corrosive acid to the part will be generally sufficient, but if the obstructing part is very far back, and involves (as it often does) the posterior extremity of the inferior turbinate, the cold-wire snare or my own ring-knife will be the preferable methods for reducing its bulk.

I here exhibit a drawing from a typical specimen of chronic hypertrophy of the inferior turbinate occurring in a young gentleman whose life was rendered very uncomfortable by its presence. He was sometimes seized with fits of choking during his meals, and was always in terror from the feeling of obstruction. His mental condition was so depressed that his friends became extremely anxious about him. The operation by the cold-wire snare was followed by complete relief. In this case there was a difficulty in deciding as to how far stenosis alone or stenosis with hyper-sensitiveness of the

<sup>1</sup> Paper read at the Medical Society of London.

parts afforded the best explanation of the symptoms. There was no obstruction of the other nostril except during the attacks of acute catarrh, which were very frequent, but the nostril (right) from which the growth was removed was completely blocked by it. This case was one of chronic hypertrophic rhinitis. In this form of disease not only is the epithelial layer thickened, but the cavernous erectile tissue covering the turbinated bones and sometimes the submucous covering of the septum become permanently distended and lose the power of recovering their normal bulk. The glands occupying the submucous layer are also hypertrophied, and the surface of the membrane becomes corrugated and raised into folds or villous prominences, the posterior thirds of the middle and inferior turbinated bodies being most frequently affected in this way. The anterior extremity of the inferior turbinate and occasionally the anterior part of the middle turbinate, when hypertrophied, are generally uniformly swollen, and when pressed by the probe do not recede. Sometimes the anterior parts have also wart-like outgrowths on their surface, but these are not frequent and occupy only one or two spots or surfaces, differing from those on the hinder parts, where they are uniformly distributed over a considerable surface.

*Symptoms.*—The symptoms are those of stenosis more or less complete. In the advanced cases the breath channel may be completely occluded; in less advanced stages one or both nostrils may admit of a forced snuffling respiration. There is a constant flow of mucus from the anterior nares and a backward flow into the naso-pharynx, where the viscid secretions form adherent crusts, which are only detached with difficulty and much "hawking" and coughing. We have, in addition, the usual distress of stenosis, the habitual oral breathing, the snoring and distress of breathing at night, the nasal voice, impairment of hearing, of smell and taste, and asthmatic attacks, with occasional implication of the larynx. The uvula and velum become thickened and the elongation of the former gives rise to chronic irritative cough. The breath is sometimes offensive from the accumulation of the mucous secretions in the naso-pharynx, and there may be chronic pharyngitis due to the same cause.

The following cases are good illustrations of chronic hypertrophic rhinitis and of its effects on the general health.

**CASE 1.**—Mrs. E—, aged fifty-four years, very tall and stout, and with symptoms of stenosis and prominence of eyeballs; great mental depression and fainting fits; much difficulty of breathing at night; extensive hypertrophy of both inferior turbinates. Ether was given and the inferior turbinates removed entirely from end to end at two operations. Great relief resulted from this treatment. In the course of the next few months caustics were applied and subsequently vulcanite plugs for reduction of the hypertrophy of the middle turbinates. Much satisfaction was expressed by the patient. The improvement remained for several years, but whenever there were threatenings of a return of stenosis the plugs were resorted to, with much relief on many occasions. Within a few weeks (eight years after the first series of operations) this lady had a recurrence of the old symptoms due to growths from the outer wall of the right nostril. I removed these under the influence of cocaine by means of the cold-wire snare and the result has been perfectly successful, the nostril being now quite free from obstruction. The growth was polypoid with glandular hypertrophy and arose from the middle turbinates. It is instructive to remark that though the first operation seemed in this case to be very free, yet it is evident from the sequel that even the total extirpation of the inferior turbinated bone was insufficient and that it would have been better to have operated still more freely in the first instance.

**CASE 2.**—A gentleman's gardener aged thirty-five years. There were symptoms of stenosis for six years. Operations were undertaken for polypus, but without relief. A fibrinated outgrowth was seen from the anterior nares on the anterior third of the inferior turbinate. No posterior rhinoscopic view was obtainable, but by digital exploration soft growths were felt protruding into the pharynx from choanae. By ring-knife operation (under anaesthesia) the growths depicted in the drawings were removed at two operations (Figs. 1, 2, 3 and 4). Three years afterwards the patient remained perfectly free from nasal trouble and immensely improved in health, the commencement of his relief dating from the time of the operations, and having steadily continued ever since.

**CASE 3.**—Mr. H—, aged fifty years. Symptoms of aggravated stenosis had existed for years, with cleft palate. A good rhinoscopic view was obtained of growths on the hinder

extremities of the inferior turbinates, complicated with nummular polypi. Cocaine (20 per cent. solution) was applied freely and thoroughly. Numerous polypi were removed by the cold-wire snare. Ring-knife operation was

FIG. 1.

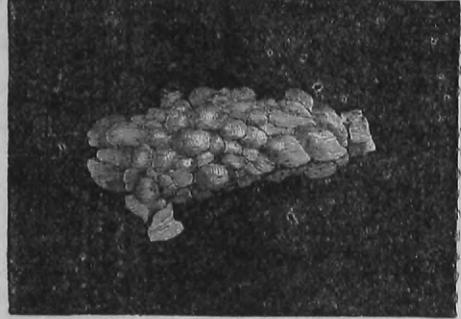


FIG. 2.

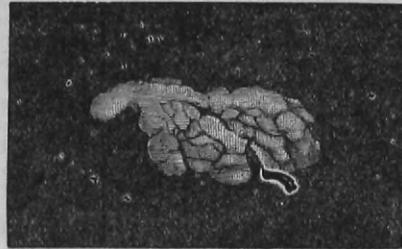


FIG. 3.

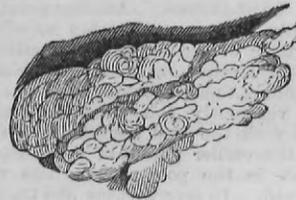
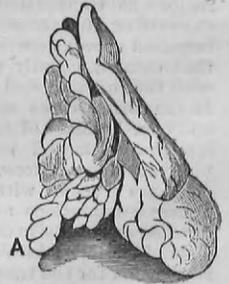


FIG. 4.



performed on the inferior turbinates. A portion of the hinder extremity of the inferior turbinate of the right nostril is shown in Fig. 5. The size of this growth is somewhat exaggerated in the drawing; it was, however, extraordinarily large. The results of the treatment were excellent and lasting. The polypi removed were some of them nummular in shape.

FIG. 5.



In such cases as those related part of the distress and nervous disturbance is occasioned by frontal headache and a feeling of distension due to retained secretions in the sinuses and ethmoidal cells. The pressure of the intra-nasal growths obstructs the orifices of the antrum, the frontal and sphenoidal sinuses, the lacrymal sac and nasal duct, and the general hypertrophy of the membrane may even lead to their permanent closure and a large accumulation of mucus. As a secondary result, sleep is disturbed and the patients wake up from horrible dreams or nightmare. This deprivation of natural refreshing sleep leads to general nerve disturbance and migraine and mental depression, so that the stenosis not only impedes free breathing, but at the same time interferes

with the functions of the sinuses, and thus gives rise to secondary disturbance of the nervous system.

These complications of stenosis make it the more imperative that any operations for its relief should be thorough and effective, so that free drainage of the sinuses may be quickly established. It is on this account that I think it very essential to perform radical and complete operations at one sitting under a general anæsthetic, and I suspect that our failures are sometimes due to the frequent repetition of partial and incomplete operations such as are recommended by some surgeons who employ the electric cautery for the removal of polypi. Each time a small polypus or portion of a polypus is removed a certain amount of inflammatory swelling is set up, and for a time the stenosis is increased. The patient not being under a general anæsthetic, it is impossible (except in the very rare cases of a single polypus or a very limited hypertrophy) to remove all the growths at one sitting, and few patients will submit to the numerous and repeated operations which become necessary when employing this method. The rule should be—(1) when there is complete obstruction with much constitutional disturbance to operate by a single operation under a general anæsthetic; (2) when the obstruction is partial and the symptoms unimportant, the growths being small and easily reached, to operate either by means of the snare or electric cautery, using cocaine and employing the frontal mirror as a guide to the instruments. Except in the simplest and most favourable cases a repetition of the use of the snare or cautery is absolutely necessary. When both nostrils are occluded and buccal respiration is therefore a necessity, the lungs receive the air cooler and drier, and discharge it with a smaller quantity of carbonic acid and animal excretory vapours than is the case in free nasal respiration. Unless there is a compensatory increased activity in the other excretory organs the blood becomes overheated, and as the lungs are embarrassed in their action the excretion of carbonic acid and watery vapour is more and more difficult, until the blood itself becomes overcharged with these products. Irritation of the larynx, trachea and bronchi follows, and in the worst cases bronchitis results. In the generality of cases the effects of stenosis are not so severe.

As to *asthma*, I have only had three in some hundreds of cases of chronic hypertrophic rhinitis. One of my cases of asthma associated with polypi and hypertrophy of the turbinates has been already briefly related.

A stoutish married woman thirty-five years of age had suffered from undoubted spasmodic asthma for eighteen years. When I first saw her about two years ago she had numerous polypi and advanced hypertrophy of the turbinates, but these had been previously discovered, and yet for various reasons no operation had been proposed. Here the asthma seemed to be of a confirmed type, and was, moreover, complicated with vesicular emphysema and frequent attacks of bronchitis. Nevertheless I advised operation, and removed polypi and hypertrophied membrane freely and thoroughly by two operations. The result exceeded my expectations and those of my colleagues who watched the case; for between five and six months there was not a single recurrence of the asthmatic paroxysms, and the general health improved so much that the woman was able to go to work as a domestic servant, though for many years before she had been incapacitated. For some months she was able to do some very hard work, but in April, seven months after the first series of operations, she had a recurrence of her old ailment. I found some broad-based polypi, which I have removed by several repeated operations with only partial relief of the asthma. After the last operation, on Nov. 5th, she had a severe attack of bronchitis and great oppression of breathing with regular midnight attacks, and these were controlled only by the use of eight-grain doses of citrate of caffeine. There has been no attack now since Dec. 10th, but she is again suffering from subacute bronchitis and the dyspnoea consequent on the vesicular emphysema. It is quite clear that in this instance of apparently confirmed asthma much benefit resulted from the employment of local treatment. In most cases, however, within my experience brilliant results are more than can be expected or hoped for. Bosworth of New York, indeed, and Schmiegelow of Copenhagen have had extraordinarily successful cases, the former having cured or relieved seventy-two out of eighty persons operated on for asthma or hay asthma.

*Hay Asthma.*—As for hay asthma, the disease is obviously one involving the general system and the respiratory mucous membrane as a whole, as well as that of the conjunctiva and lacrymal passages. To consider it as a disease originating in

the mucous membrane of the nostril would be to ignore all common experience and the outcome of the most careful inquiries by the most competent observers. The stenosis observed in some of the subjects of hay fever is due to the effects of chronic hypertrophic rhinitis, which is itself a consequence of the repeated catarrhal attacks so characteristic of the disease. This stenosis is a great aggravation of the other symptoms, and much benefit is often derived from operative treatment, as the suffocative attacks are much mitigated by a restoration of free nasal respiration. The subsequent use of plugs is especially indicated in this form of obstruction, and should be persevered in for many months and even years. This is a point not often insisted on in books; I think it very important.

The form of stenosis most interesting to the practitioner is probably that seen in newly born infants. A poor little child comes into the world with the instinct of getting its living by suction for the first few months of its existence, and with the idea that it will not be asking too much to be allowed to breathe at the same time. But in a few days, or even in a few hours, after birth "snuffles" of a virulent type sets in, and a cruel destiny declares that the child shall not suck and breathe at the same time—the one line of business may be carried on by itself, but not the two together; and, as both are essential, the suckling finds himself in an awkward predicament and begins to inquire why his environments are so unsuited to his physical potentialities—that at least seems to be the correct interpretation of the loud and frequent outcries and violent struggles that become too familiar to the mother and friends. The case is one of great urgency and danger. Not only is nutrition impeded in the ordinary act of sucking, but during sleep, the tongue in sucklings being always in contact with the roof of the mouth, the child is constantly in danger of being suffocated, and wakes up struggling for breath or falls into convulsions of an epileptoid character. Frequent repetitions of these attacks, if unrelieved, speedily put an end to the child's sufferings. Energetic treatment, however, at the outset, by frequent syringing with appropriate astringent and antiseptic solutions, and feeding by the mouth or by a tube passed into the œsophagus through the nostrils, almost always brings about a speedy change for the better. In addition to these measures, gum-elastic tubes passed through the nostrils and retained there during sleep enable the little sufferer to get tranquil rest. Should, however, the obstruction be only partial there is still great risk of much mischief to the chest walls and to the air cells from the long persistence of dyspnoea even of a mitigated kind. In the course of time the chest walls become contracted and flattened laterally, emphysema is produced, and the growth is stunted in all parts of the organism. Early and energetic treatment may, and often does, prevent these disastrous consequences.

The next most interesting form of stenosis is that connected with adenoid vegetations of the naso-pharynx, occurring as they do mostly in early youth and in young adults; they give rise to a set of well-marked and peculiar symptoms when the growths are sufficiently large and numerous as to cause serious obstruction in the posterior nares. When slightly developed and early treated the only symptom noticed is a somewhat dull articulation, as if from a cold in the head, and some amount of stertor during sleep. The general nutrition, however, does not suffer, and very little notice is taken of the defect, which is, according to my experience, very common. In such slight cases, as the body generally develops the pharynx expands, the general nutrition does not suffer, and the symptoms pass off without leaving any traces or inducing any secondary changes in the thorax. In a number of cases, however, in which the obstruction is allowed to go unrelieved for years and becomes aggravated by frequent catarrhal attacks not only is the articulation dull and indistinct, but the voice becomes habitually nasal; the *n* and *m* sounds are represented by the *ñ* and *b* or *l* sounds, and the hearing often suffers, the middle ear even in the worst cases being affected by the extension of catarrhal inflammation along the Eustachian tubes, the pharynx and tonsils are involved, and the latter often much enlarged. Snoring becomes constant at night and may be associated with paroxysms of a convulsive character, the patient waking up suddenly and struggling for breath. There is mucopurulent discharge from the nostrils and this is sometimes bloodstained, and a similar flow escapes from the mouth during sleep. The breath is offensive from the collection of puriform stringy mucus in the fauces; the breathing is laboured and the chest often permanently deformed by a

lateral compression and narrowed also in all its dimensions. The growth is stunted; the mental faculties are, or appear to be, dull. The youth is backward in his studies, and takes little interest either in them or in his games. He goes about with mouth agape, and, being often somewhat deaf, is credited with being almost imbecile. The alæ of the nose are flattened and dimpled in a characteristic manner, and some of the patients have a very peculiar way of twitching their upper lips and sides of the nostrils. With these obvious symptoms the diagnosis is easy, and is confirmed by rhinoscopic or digital examination of the naso-pharynx, where the soft rounded pea-shaped or oval growths are found lining the lateral walls and roof of the pharynx and obstructing the choanæ by overlapping them. When the disease has reached this stage the only relief obtainable is by operation for removal of the growths, and even at this advanced stage it is often possible to effect a cure of most of the symptoms, though there is much risk in allowing any of these symptoms, especially those affecting the ear, to go on to such a dangerous extent. The majority of cases, however, when treated energetically, give most satisfactory results. A lad who had been considered unfit for anything becomes bright, cheerful and intelligent, and seems quite a different being after the complete restoration of nasal breathing.

When we come to consider *syphilitic disease* in the nostrils, here the stenosis is of secondary importance, so far as the effects on the general health are concerned, with the exception of the syphilitic coryza in sucklings, in whom the obstruction to breathing becomes a matter of grave danger, not only to health, but to the life of the patient. It must be dealt with early and energetically, not less by local than by constitutional treatment, into the details of which it would be out of place to enter. In the syphilitic ozaena of adults with caries or necrosis there is the increased danger of the purulent infection due to the retention of foul discharges in the nostril. Fatal meningitis may result from these causes, and the removal of obstructing pieces of carious bone is often a means of saving patients when in this condition.

The stenoses of *malformed and distorted septum* are often overlooked, because though, as a rule, there is some obliquity of the nose externally, there may be a considerable twist of the septum without any visible sign externally. There is, however, a tendency (especially when the twist is sigmoid) for the septum to obstruct both nostrils and to produce all the usual effects of stenosis, laboured breathing and snoring at night, choking fits on going to sleep, contraction of the chest walls and, later on, asthmatic attacks. I have seen several cases of this kind, and it is supposed by Bosworth, Hack and many others that a form of hay fever is one of the results of congenital obstruction due to these various malformations. Readjustment of the septum by operation is certainly very beneficial in many cases; whether such operation will cure hay asthma, however, is, I think, extremely doubtful. Besides congenital distortions, the cartilage or bone of the septum may be enlarged and thickened and may cause obstruction of a serious nature, giving rise to considerable discomfort and affecting the general health in the same way as the other forms of stenosis. Local treatment efficiently applied is always beneficial, and is urgently called for if it is exciting chronic rhinitis, as it often does, or if the respiration is exclusively buccal in character. Traumatic, cicatricial and congenital occlusions from other causes all require attention, for the same reasons which apply to the condition already alluded to, and cartilaginous, bony, sarcomatous and malignant tumours of the parts surrounding the nostrils are often more formidable on account of the obstruction caused by them to nasal respiration.

It would be impossible to go into details of all these forms of obstruction. My object in bringing this subject forward is to emphasise the fact that in certain cases, *not in all*, enormous benefit can be conferred on patients by the removal of nasal obstructions, and I think that it will be allowed that if in a few only there is cure, yet in a large majority considerable relief is obtainable by suitable surgical measures; that it may be laid down as beyond dispute that (1) in young children we may thus prevent deformity of the chest with its attendant evils, marasmus and even death; (2) that in youth and early adult life we may prevent permanent deformities of the chest, deafness, impairment of speech and of the mental faculties; and (3) that in adult life we may prevent and even in some cases, cure asthma, spasmodic cough, bronchitis, emphysema, intellectual hebetude and melancholia &c. I have omitted the considerations of many forms of stenosis such as occur in the course of diphtheritic rhinitis, primary

syphilis of the nasal mucous membrane, tuberculous rhinitis, intra-nasal lupus, glanders and others, in which the disease is more important from its constitutional than from its local manifestations, because in them the obstruction is generally of secondary interest, and also because local treatment alone will be of little avail. At the same time, it is well to bear in mind that the same principles will apply to them as to the others, and the neglect of local treatment directed against narrowing of the breath passage will nullify much of the good effect otherwise to be obtained by skilfully directed general therapeutics.

In conclusion, I wish to make it clear that while I insist on stenosis being an important factor in many of the remote effects sometimes called reflex neuroses, I by no means wish to exclude the other factors. I think that in most cases of asthma, laryngeal cough and spasms there is a clear neuropathic element, without which the local obstruction will have no effect; and I also believe that in some cases, such as those of hay asthma, a hyper-sensitive condition of the respiratory tract (and of the nose as part of that tract) is much more likely to be the starting-point of the remote effects than mere obstruction, though there seems good evidence that, even in these cases, obstruction aggravates the condition. All that I contend for is that intra-nasal obstruction is often an important element in the class of cases referred to; that it is often overlooked, or, if found, despised or made light of; and that it certainly should be sought for and dealt with by local treatment in a very large class of diseases in which, up to quite recently, its influence has been more or less ignored.

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## ON THE PATHOLOGY OF SYPHILIS:

A THEORY FOUNDED ON A CONSIDERATION OF COLLES' LAW AND OTHER PHENOMENA OF THE HEREDITARY DISEASE.

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MANY of the clinical phenomena of syphilis are very obscure in etiology, and none more so than those connected with the hereditary form of the disease. I advance the following hypothesis as explaining several of these obscure conditions, as inherently reasonable and as falling into line with recently acquired knowledge.

It is generally admitted that syphilis must be caused by the growth of a specific micro-organism in the fluids of its victim. This organism is probably a bacillus and kindred to those of the other diseases characterised by the formation of infective granulomata. My hypothesis is as follows: (1) That the bacilli of syphilis produce, as a condition of their existence, a toxine, this toxine being probably an albumose of like nature to those isolated from cultures of tubercle and anthrax bacilli; (2) that when this toxine is present in the human body in small, slowly-increasing quantities, toleration is established and immunity acquired; (3) that this toxine is the active cause of the phenomena of syphilis.

This theory would seem to explain with singular completeness the following clinical facts:—

(a) *Colles' Law*.—Colles pointed out in 1837 that the mother of a syphilitic child, although she herself never presents any sign of the disease, cannot be infected by direct contact with the child, but that a healthy wet nurse would be infected by the same child, and would develop a nipple chancre and general syphilis. This observation has never been disproved. In these cases, as the mother shows no signs of the disease at any time, the child must inherit directly from the father. Cases are recorded in which the mother, marrying again a healthy man, has had perfectly healthy children.<sup>1</sup> The child then inheriting from the father must harbour bacilli from the first. These bacilli must produce their specific toxines; at first, when the ovum is small, in minute quantities; later, when the ovum affords a larger field for their development, in increasing amounts, up till the time of birth. But toxines are crystalloid bodies. Therefore the toxine of syphilis must tend to pass by osmosis into the maternal circulation, while the bacilli must remain in the foetal fluids. This being so the toxine escaping must be limited in amount, and probably would never be abundant

<sup>1</sup> Bumstead and Taylor.

enough to cause symptoms in the mother. But it might easily be enough to establish toleration in the mother and render her immune. This is precisely the result that occurs in Colles' law; the explanation being that the mother's phagocytes have become tolerant of the toxine by prolonged exposure to small quantities. So when fresh germs are implanted from the child's mouth and form their toxine, the mother's phagocytes are not paralysed, but advance to the attack and destroy the invaders. If the mother is not protected, it is hard to see how any woman can fail to be infected by the blood of the child at the moment of the separation of the placenta. Conversely, when the mother is infected during gestation, how can the child escape infection during the laceration of the placental villi, unless it is rendered immune by toxine from the mother? But as in this case the child rarely becomes infected (Lusk), surely it must be protected. If it is "probable" that these (protected) mothers may at a late period suffer from tertiary symptoms (Hutchinson), then the theory that the toxine is the active cause of symptoms receives support. And it is to be noted that their exposure to the toxine extends over nine months. The same argument may apply in those cases of late hereditary disease in which no symptoms were noticed near birth.

(b) Another obscure point in this "strange eventful history" is the fact that syphilitic children are generally born apparently healthy. The bacilli must have been living in the fetus for nine months, yet they produce no symptom whatever, but soon after birth an outbreak occurs. The theory accounts for this, and here lies the chief reason for thinking that the toxine is the active cause of symptoms. During intra-uterine life the toxine must be always escaping by osmosis. The maternal circulation is much the larger; therefore the fetus must eliminate a large proportion of the toxine formed in its tissues. This elimination must favour the growth of the bacilli, but for all that they produce not the slightest effect, and the child is born looking the picture of health—that is, the child is unaffected as long as elimination can go on. At birth this safety valve is closed and the toxine must begin to accumulate. If it is the cause of symptoms, something must soon happen. Surely enough, in a few weeks the child "falls off," becomes sallow and weakly, and develops manifestations of the disease. If the bacilli are the cause of symptoms, why do they make no sign for nine months? If it is the toxine, everything is plainly accounted for.

(c) Again, those cases in which the child is not born healthy or dies *in utero* are also covered by the theory. During foetal life many things might interfere with elimination by osmosis. The most important cause must be syphilis on the mother's side as well. Then the toxine would be produced on both sides of the placental membrane, and it must depend on the amount of toxine in the mother's blood, whether the fetus manages to eliminate much or little—or, indeed, any—of its own toxine. Here is a varying cause for the various clinical effects. If the mother's disease were acquired soon before or at the time of conception, then one would suppose the fetus would be able to eliminate but little toxine, and that that remaining would wreak itself on the embryonic structures, causing death. So it happens. Recently infected mothers rarely give birth to a viable fetus (Zeissl). If the child gets rid of enough toxine to survive, it is either born with marks of disease or choroiditis, or else puny and weak, with a tendency to early pemphigus, cachexia and death. These severe and early symptoms must be due to the large amount of toxine in the foetal tissues. At birth signs of depressed vitality are apparent, and little time is required for accumulation of toxine, before violent manifestations occur.

(d) The occurrence of placentitis gummosa and placental degenerations and hæmorrhages, said to occur only in foetal syphilis (Fränkel), may easily be due to constant irritation from the passage of the toxine from the child to the mother.

All these considerations taken together seem to afford a strong argument in favour of the above theory. Indeed, taking also general considerations of kindred questions into account, it would seem perhaps convincing. Once admitted, simple explanations of the phenomena of the acquired disease are to hand, and light is thrown into many dark corners. We have also discovered an instructive object-lesson, perhaps almost the only one in nature, of the processes establishing toleration and producing immunity.

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## "THE ETHICS OF OPIUM AND ALCOHOL."

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OF all the statements advanced by pro-opiumists none, I believe, have carried more weight, both with the professional and unprofessional public, than Dr. Mouat's article in THE LANCET of April 30th last on the Ethics of Opium and Alcohol. Following, as it did, so soon after the meeting at the Society of Arts, it seemed to confirm the statements of the majority at that meeting, and made not a few anti-opiumists reconsider their position, and one, a professional man, delivered a sharp attack on the position of the anti-opiumists, based on the apparently authoritative statements made by Dr. Mouat and the startling facts alone deducible from them. At the time I could only say that, as one who had served under Dr. Mouat as medical officer of two gaols in Bengal, I was quite at a loss to know how he could make these statements, in the absence of any column in the mortuary returns in which deaths from opium, as those from alcoholism subsequently, could be entered, and I reserved all future remarks till I had had an opportunity of examining the gaol returns for the periods in question and the report specially alluded to by Dr. Mouat. This I have now done, and the result is that Dr. Mouat's statements, in my opinion, are in the main points at issue—viz., the harmlessness of the opium habit, and the practical harmlessness of withholding the drug from confirmed opium eaters "even in the notoriously opium province of Assam"—distinctly contradicted by paragraphs in an official letter, and the reports of medical officers of standing and local experience.

As regards the anti-periodic virtues of opium in the treatment of malarial fever, by a strange coincidence I found a special report of Dr. Mouat's on Malarial Fever, in which he enters most fully into the subject and records his own views on the types of "marsh fever." Further, in the remedies Dr. Mouat advocates, while giving quinine in the first place, he distinctly states that there are not a few cases in which quinine is clearly contraindicated and arsenic acts with marked success. Biberine is also alluded to in this class of remedies. But notwithstanding Dr. Mouat believing "it to be undoubted that it (opium) is a valuable febrifuge and pick-me-up in the fevers of all alluvial and marshy soils," no mention even of opium is made in this special report, which I can quite understand, as it would hardly be in keeping with the stringency of the order withdrawing it, even in malarial Assam, though, as the result showed, some ethical and physical "pick-me-up" was necessary. In my search I came across my own report in 1855 on this withdrawal of opium from the prisoners, but the lessons learnt subsequently have convinced me, as they should have done Dr. Mouat—judging from his recorded opinion of the character of the underpaid responsible staff attached to some of the Indian gaols—that the exclusion of opium from an Indian gaol is a question, not of the stringency of a circular order, but of the wealth of the outside relations of the prisoner, as in the case of the gaoler of the Bancoorah Prison (a Eurasian), who refused a bribe of 1000 rupees, when a rupee was at par, to relax the gaol rules in the case of some wealthy prisoners, which faithfulness, by the way, was rewarded by the Government with a watch of the value of 500 rupees. The case, therefore, of the poor opium-shattered paupers whose deaths swelled the death roll of some of the Assam gaols (regarding which the Government called for a special report) was different, and they came under the list of those who, unable to bribe the gaol guard or officials, rapidly succumbed to the strictness of the order withholding opium from them.

To illustrate the impossibility of recording the real cause of death in the absence of a special column for its insertion, I may mention that in a gaol in Assam a death resulted from flogging, and is entered as follows in Dr. Mouat's report for 1867: "The third (casualty), from tetanus, caused by a slight abrasion, the consequence of flogging." Now, with the exception of this notice, I could find no other trace of the true cause of death, though I looked under the head of deaths from violence, as also those from accidents.

Again, under what column are those deaths entered alluded to in a letter to Dr. Mouat from the Secretary to the Govern-

ment of Bengal, dated March 30th, 1864? "A scanty or late supply of clothing to the prisoners is stated to be one of the causes of the heavy mortality in the gaols of Rungpore, ..... Kamroop. It is also mentioned as a cause of mortality in the special reports on the Patna, ..... Subsangar, and Deoghur Gaols." Well may the Secretary add: "The gaol governor is quite unable to understand how officers in charge of gaols can allow such a cause to arise and to affect the health of the prisoners in face of the standing orders of the Government, and of the repeated instructions issued from your (Dr. Mouat's) office."

Yet again, in Dr. Mouat's report for 1866, we read at page 60: "Balasore (Orissa): Here also" (Pooree Gaol noted before) "the debilitated and deplorable condition of the prisoners, from starvation prior to admission, increased the sickness and mortality;" and yet the following is recorded of the gaol staff here: "The prisoners were for some time deprived of the full allowance of food from speculation on the part of the late gaoler and his subordinates, who were all removed."\* So, what with starvation outside and something very similar inside the gaol, little wonder the mortality was 20.73 per cent. Surely, further quotations under this head are unnecessary.

In this manner doubtless numbers of deaths would, or rather should, have been entered under the head of "Opiumism," had there been such a column, as there is for "Alcoholism," for it would be difficult to enter the following under any other head: Firstly, as regards the deaths due to the opium habit itself; and, secondly, to the withdrawal of the drug from those long addicted to its use.

1. As regards those deaths due directly to the opium habit we have the following particulars:—

Kamroop, Assam, 1861: "All but the confirmed opium eaters enter the gaol in good health. The latter are always a sickly set."

Debrooghur, Assam, 1861: "Prisoners generally healthy on admission, with the exception of the opium eaters."

Subsangar, Assam, 1862: "The sickness and mortality had increased during the year. Nearly all the deaths were from dysentery in worn-out opium eaters."

Kamroop, Assam, 1863 (Dr. Mouat's inspections, Dec. 28th, 1863, and Jan. 20th and 21st, 1864): "I [Dr. Mouat] am inclined to attribute the great sickness to the filthy water used for cooking and drinking, the tanks from which they were taken having been in an extremely dirty and unwholesome state."

Kamroop, Assam: "The mortality had diminished considerably, and was about that of the decennial average. Bad drainage and opium eating were assigned as the causes of the large amount of zymotic diseases still prevailing in this gaol."

Subsangar, Assam (inspected by Dr. Mouat on Jan. 12th, 1864): "Showing a considerable increase of mortality, attributed by the medical officer to the admission of a large number of sickly men and drunkards and opium eaters, and in part to them being employed in preventing the collapse of the bank of the great tank, in the performance of which they were exposed for hours to cold and wet. It was, unfortunately, a work of necessity, and no free labour was procurable."

Debrooghur, Assam, 1865: "The casualties among the latter class (local prisoners) were confined to old opium eaters."

Subsangar, Assam, 1865: "The subjects of almost all the fatal cases were absconded coolies from the tea gardens ..... their health broken down with intemperance, privation and anxiety."

2. The effects of withholding opium from these people were as follows: "He (the civil surgeon) ascribes the deaths from dysentery to the circumstance of the prisoners, natives of Assam, being deprived in gaol of opium, which they consume in large quantities while at large (some took as much as 80 grains per day), and for which they crave and pine in confinement."

Kamroop, Assam, 1865: "At Cherrapoonjee the average number in confinement was so small as to influence the death-rate in a marked manner, seven having died among an average strength of twenty-three. The deprivation of exercise in the open air and of opium, to which the people of Cherra are accustomed, is stated to have enhanced the death-rate."

The late Dr. Norman Chevers, unquestionably the highest Indian authority on medical jurisprudence and kindred subjects, when acting for Dr. Mouat, as the result of his

inspection of the gaols of Lower Bengal, writes thus of those of Debrooghur and the Kassiah Hills (date of inspection Dec. 29th, 1865):—

Debrooghur: "The five deaths of Assamese prisoners from bowel disorders were confined to old opium eaters, who rapidly succumb to disease when deprived of the drug."

Kassiah Hills (inspected Jan. 31st, 1866): "The heavy mortality of the year is stated by the civil surgeon to have been due to the Cassiahs being deprived to some extent of out-door open-air exercise to which they are accustomed, and of the drug opium, which is almost the staple part of their living when free."

In the following year (1866) Dr. Mouat resumed charge of his duties, and in his report for 1866 writes as follows of Bograh, Bengal:—"The death-rate was, however, more than double that of the preceding year, and was due to the majority of the casualties having occurred in men whose health was bad on admission, who were aged and worn out from long suffering and were addicted to ganjah or opium."

Subsangar, Assam: "The general health of the prisoners was not good; the mortality, though lower than that of the previous year, was still high. The same causes as those mentioned in the report of the preceding year—viz., the reception into gaol of sickly Bengali emigrants and old opium eaters—are stated to have operated in producing the high death-rate of last year."

Kamroop, Assam: "The mortality of 1866 was considerably below that of the previous year, yet higher than the average of the past quinquennial period. Thirty-one of the thirty-nine casualties were from dysentery, attributed principally to the sudden stoppage of opium, to which the prisoners are subjected on conviction. A large percentage of Assamese consume about 100 to 150 grains daily of solid opium, and its sudden discontinuance, coupled with the complete change of diet, affects the digestive organs materially. The conservancy arrangements were satisfactory. The stoppage of the opium was injudiciously and improperly managed, and the diet seems to have been equally ill dealt with. I am in communication with the medical officer on the subject."

Bograh, Bengal (Dr. Mouat's report for 1867): "The increase of mortality was slight, and was due entirely to all the five casualties of the year occurring in persons whose state of health was bad on admission, and to three of those who died being more over-aged and addicted to opium and ganjah smoking."

Durrung, Assam: It is stated "that the frequent use of *dhal* causes indigestion, especially among opium eaters."

Debrooghur: "Two casualties occurred in worn-out opium eaters. These and a death from bronchitis were the mortality proper of the gaol."

In this year (1867) nothing is said about the opium habit or its withdrawal, but the present doctor, it is hoped, will correct all the "grave irregularities"; while the following is recorded of a previous doctor that there was a "total neglect of all sanitation by the medical officer, which I observed at my last visit to this gaol"; and yet on a reference to the report of 1866 on the Kamroop Gaol we read: "The conservancy arrangements were satisfactory."

It is due, however, to Dr. Mouat to say that in this category of reverse criticisms of his action in withholding opium from the prisoners in Assam the report of one officer, an apothecary in charge of a gaol (that of Kamroop, strange to say), is entirely in favour of this measure.

Kamroop, Gowhatty, Assam (report for 1855 by G. Simons, apothecary): Diet—"Although some of the men frequently complain of the quantity not being adequate for them, but from the sleek appearance maintained by them after they have been some time in prison it is probable that the clamour they make for an extra quantity is to enable them to dispose or barter it for the purchase of opium."

Kamroop (report for 1856-57; Apothecary Simons in medical charge): "The sudden stoppage of opium appears not only to have been unattended with injury, but to have diminished bowel affections among those previously addicted to the use of that drug. The change for the better in the health of the prisoners is also attributable in a great measure to the care bestowed on the selection of the food ..... the stoppage of the use of opium amongst the convicts has also had a marked good effect, all of which, added to the prompt attention given to cases of sickness by the medical officer, Mr. G. Simons, by whom most of the above reforms were suggested, had quite altered the character of the gaol, which

for healthiness would now not contrast unfavourably with any other in Bengal."

The following is the death-rate for five years in the Kamroop gaol: 1851-52, 12.60 per cent.; 1852-53, 10.90; 1853-54, 10.37; 1854-55, 8.10; 1855-56, 7.50; or for five years nearly 10 per cent. a year. "The health of the prisoners has decidedly improved, which Mr. Simons attributed in some degree to the entire stoppage of opium, an experimental measure which he had adopted at my request."

Debrooghur (Dr. Mouat's report for 1859-60): "The majority of the prisoners admitted are confirmed opium eaters, who are said to improve rapidly in health from the discontinuance of the drug."

I feel no apology is necessary for these copious extracts, the whole case rests upon them, and I think fully justifies the terms used in my letter to Dr. Mouat alluded to hereafter. In that letter I state that "I think it but fair to tell you that a careful examination of the gaol reports while you were Inspector-General of Prisons, Lower Provinces, does not bear out your remarks in your article in THE LANCET of April 30th, 1892." I am well aware that a speaker at the late discussion on "The Opium Question" at the Calcutta Medical Society said: "Although no deaths could be attributed to opium, the opium eater, he (the speaker) thought, died of intercurrent diseases." Now if we bring the same law to bear on this subject which has compelled the profession to insert a column, even in India, for *alcoholism*, it seems to me that if one for "opiumism" had been added these deaths should undoubtedly have been classed under it.

It cannot fail to be noticed that I have omitted all allusion to the "ethics" of alcohol as compared with the "ethics" of opium. This omission is intentional, for I dispute the feasibility, much less the possibility, of any comparison being instituted, even allowing there were "ethics" in either. For instance, it entirely presupposes that there is an alcoholic habit in India similar to that met with in this country. Now to those who know anything of the character or customs of the natives of India, who indulge in alcohol, it will be evident that there can be no alcoholic habit such as there is in this country. True, since this country assumed the direct government of India in 1858 a steadily increasing effort has been made (chiefly, however, in Lower Bengal) to introduce, or, perhaps better, to excite, this habit by placing grog-shops in many cases near roadside wells or even factories and tea gardens, as a kind of public-house arrangement; but it has failed signally, as those know who have studied the subject, as in every district there are certain grog-shops specially selected by the native drinker, where he goes to indulge his alcoholic habit, if such it can be called, by getting drunk, his bargain being, "How much will you charge to make me drunk?" Here, alas! lies the secret of much of the madness supposed to be due entirely to alcohol, but it is to be feared mostly traceable to the pernicious ingredients too often used to reduce the liquor drunk and expedite the drunkenness. Little wonder that, with this tendency and the moral degradation evinced in the use of these "maddening drugs," the outstill system of "ever-at-hand" and cheap liquor of Bengal in 1878, and in the North-West Provinces also, as I know, the natives went down before a flood of drink, in Bengal especially, the appalling extent of which demanded a special commission, which revealed all. Those who know the extent to which this drunkenness spread when fostered by the system I have described, and the awful moral and physical consequences of it, can well be excused for dreading its recurrence; but surely such will never again be allowed to disgrace our rule. Yet, if it is thus equally incorrect in theory as it is in practice to draw any comparison between the opium and alcoholic habits, so it would be to affirm of the natives of Bengal that, if deprived of opium, they would take to alcohol, as they did under the melancholy and disastrous system of outstills and cheap liquor.

In a remarkable article in *The Times* of June 13th, under the heading of "Indian Affairs," written by Sir William Hunter, K. C. S. I., Dr. Mouat's article under notice is used as the convincing proof and evidence, not only of the harmlessness of the opium habit, even among the class from which Indian prisoners are drawn (without excepting "the notoriously opium province of Assam"), but of the similar harmlessness and, I may add, facility with which it can be given up even in the case of the most confirmed victims of the habit. This, however, with Sir William Hunter's statement in that article, regarding the absence of deaths under the car of Juggernaut, unconnected with crowds "in narrow

lanes," which from personal knowledge and observation I can give an unqualified denial to, must now be handed over to that category of *statistical conclusions* the refutation of which can be summed up in the remark that they are on close investigation not only totally unsupported by facts, but actually contradicted on unquestionable evidence.

Before I close I would take this opportunity of thanking Dr. Mouat for his courtesy in replying so fully to my letter alluded to before, asking him for a copy of his circular to medical officers in charge of gaols, containing his instructions regarding the method to be adopted by which this withholding of opium can be done "without any injury," as after a most careful search I could not find it, though it is alluded to when an explanation is submitted by Dr. Mouat regarding the increased rate of mortality stated by some medical officers to be due to this withholding of opium. Dr. Mouat, in reply, regretted he was unable to send me a copy of the circular, though, he added, it must be among the records of his office when he held the post of Inspector-General of Prisons in Bengal. The action of Dr. Mouat is in striking contrast with that of Sir William Hunter, to whom I wrote asking for his authority for his statements regarding what he was pleased to describe as "missionary misrepresentations" respecting the circumstances attending the worship connected with the festival of the car of Juggernaut, and which he mixed up in a strange way with the opium question, describing it as "a mistake about the use of opium curiously like that which their (the less-instructed missionaries) predecessors made in regard to the worship of Juggernaut." No reply was vouchsafed to my letter, though I supported it by the fact that I was present at Juggernaut as civil medical officer when the dead, the dying and the maimed were dragged from under the car of the idol, and that I operated on some of these poor mangled victims. *The Times* refused to insert my letter giving an unqualified denial to the statements regarding the car festival of the idol of Juggernaut if it related to the headquarters of the worship at Pooree or Juggernaut, so "*The Times* reading world" must, alas! view the injurious effects of the opium habit and the difficulty of abandoning it in much the same light as it is asked to view the bloodstained wheels of the car used in the worship of "gentle and merciful" Juggernaut—viz., as missionary misrepresentations.

Blackheath.

## THE REMOTE EFFECTS OF PERITONEAL ADHESIONS CONSEQUENT ON REMOVAL OF THE OVARIES.

BY JOHN PHILLIPS, M.A., M.D. CANTAB., F.R.C.P. LOND., ASSISTANT OBSTETRIC PHYSICIAN TO KING'S COLLEGE HOSPITAL; PHYSICIAN FOR IN-PATIENTS TO THE BRITISH LYING-IN HOSPITAL.

UNDER the above title I purpose to draw attention to the results of localised peritonitis (chiefly as fibrinous bands or adhesions) upon the intestines at a long period after the operation for the removal of diseased ovaries. Many valuable contributions have already been made on the question of obstruction of the intestines by recent adhesions, and it is but necessary to refer the reader to the monographs of Hirsch,<sup>1</sup> Nieberding,<sup>2</sup> Obalinski,<sup>3</sup> Meredith,<sup>4</sup> H. Jones,<sup>5</sup> Thornton,<sup>6</sup> and others, in order to show the reality of the danger of such cases. It is only during the past few years that the existence of this condition has been satisfactorily demonstrated, for, with the exception of two or three short papers on the subject under consideration, nothing has been published during the past decade. Having met with a very interesting case bearing on this question I have appended full particulars and a sketch of the parts.

CASE 1.—K. H—, aged twenty-seven, single, first consulted Dr. J. N. Miller in June, 1890, for profuse menorrhagia and dysmenorrhœa, attended by much sickness. Her condition was found to be anæmic, but nothing could be made out to account for her symptoms except some enlargement and tenderness of both ovaries, which were also slightly prolapsed. The menorrhagia continuing in spite of rest and treatment, an anæsthetic was given and the cervix dilated, but nothing

<sup>1</sup> Archiv für Gynäkologie, 1888, Bd. xxxii., s. 247.

<sup>2</sup> Centralblatt für Gynäkologie, 1888, Bd. xii., s. 183.

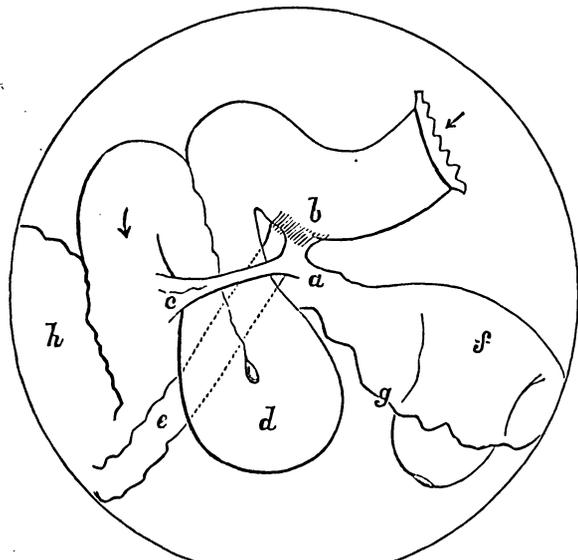
<sup>3</sup> Berliner Klinische Wochenschrift, 1889, No. 12.

<sup>4</sup> THE LANCET, vol. i. 1889, p. 641. <sup>5</sup> Ibid., vol. ii. 1889, p. 894.

<sup>6</sup> Medical and Chirurgical Transactions, vol. lxx., p. 68.

was found abnormal in the uterine cavity. A ring pessary was inserted to support the ovaries, but gave no relief. The anæsthetic (chloroform) caused violent retching and sickness, which lasted for several days, during which time she was fed per rectum. In September she again came under observation, the hæmorrhage being now continuous and confinement to bed compulsory by reason of the pain and sickness. It was then felt that nothing except the removal of the ovaries would give any chance of relief. I saw her with Dr. Miller on Nov. 14th, 1890, and, considering what had been done and the patient's then condition, I concurred with him as to the propriety of the operation. He accordingly removed both tubes and ovaries on Dec. 6th. She went to Eastbourne on Feb. 3rd, 1891, and was seen by Dr. Miller in the May following. There had been moderate metrostaxis two months after the operation, without any pain, and, except for severe flushings and other nervous feelings, she felt much better; the sickness had entirely ceased. Constipation troubled her as before the operation, and was combated by full doses of cascara. During the summer she continued to improve, was able to walk four miles without fatigue, and she considered her condition more satisfactory than it had been for several years. She had slight hæmorrhagic discharge on three occasions up to October, but without pain or discomfort. In November and December she was under treatment for violent cutting pains in the lower abdomen and of increasing constipation, requiring large doses of aperient medicine to overcome it. On Dec. 17th she was seized with severe pain and sickness, and was found in bed, with a temperature of 102°, much abdominal pain, and constant vomiting. The bowels were confined, the abdomen not distended, but there were great tenderness and some fulness over the region of the cæcum. Nothing abnormal was revealed by vaginal examination. She was treated by the usual rectal injections and other remedies, and for a few days she improved; the temperature became normal, the sickness ceased, and the bowels acted; the pain and tenderness over the cæcum and right side of the abdomen, however, continued. On Dec. 27th the bowels acted freely; but, instead of giving relief, the act was followed by aggravation of all her symptoms. The temperature fell to sub-normal, and she died from exhaustion, in great pain, after sixteen days' illness.

*Post-mortem examination.*—On opening the abdomen no general peritonitis was found. The appended figure will give



(Semi-diagrammatic.)

*a*, Right uterine stump. *b*, Attachment of appendix and commencing peritonitis. *c*, Adhesion between intestine and stump. *d*, Incarcerated knuckle of intestine. *e*, Appendix vermiformis. *f*, Uterus (anterior surface). *g*, Peritoneal edge (cut). *h*, Cæcum. It will be thus seen that the adhesion and displaced appendix vermiformis enclosed an elongated slit between them, through which a knuckle of intestine had obtruded itself and become incarcerated.

quarter long was found extending; it was broader at the intestinal end and thinned off to a point at its insertion into the uterine stump. Immediately below this was a knuckle of small intestine eight inches in circumference (*d*), dark and congested, but not of a chocolate colour. Beneath the intestine, again, was found the vermiform appendix (*e*), much thickened and three inches and a half long; it was in a condition of almost extreme tension; its distal extremity was attached just above the uterine stump to the small intestine, and peritonitis was just commencing there (*b*).

**CASE 2 (Macready?).**—This has an important bearing on Case 1. The patient suffered from colicky pains more or less continually after ovariectomy seven years before, and had had an attack of total obstruction for fourteen days two years after the operation, which, however, yielded to palliative treatment. Macready operated for a second attack of obstruction seven years after ovariectomy, fecal vomiting being present. The adhesions were on the right side. Four deep and another still deeper were found constricting the intestines by passing from one loop to another; these were divided, and as the patient recovered the exact site of attachment could not be accurately made out. In the author's own words, "this is one of the remote consequences of ovariectomy."

**CASE 3 (Shively<sup>8</sup>).**—The patient was forty-five years of age; ovariectomy was performed four or five years before, since which time she has been constipated and has had periodic attacks of colic, which usually gave way to subcutaneous injections of morphia. She took a dose of cathartic pills one morning shortly before her illness began, and a good action had taken place; colicky pains, however, ensued in the evening. The pain increased and sickness began, but no tympanites appeared; long tube enemata were given repeatedly, but no further action took place. The vomiting and pain increased, and the patient died after seven days' illness.

The post-mortem examination revealed a complete key to the illness. "There were extensive adhesions of the intestines to the sides and posterior wall of the abdomen, binding them firmly down." This was doubtless the reason for the non-appearance of tympanites. A portion of ileum eighteen inches above the cæcum was adherent to and incorporated with the cicatrix of the wound of the previous ovariectomy. "Around the short portion, between this and the cæcum, a loop of small intestine was twice twisted, forming a kind of knot," and a complete occlusion was thus produced. The direct cause was doubtless the cathartic given on the morning of the commencement of the illness, possibly assisted by some favourable position assumed by the body.

We have therefore three distinct varieties of causation of intestinal obstruction after ovariectomy: (1) When the adhesion arises from the stump; (2) from the cicatrix of the abdominal wound; (3) from intestine to intestine. The small intestine, in consequence of its greater mobility, is liable to form adhesions with any abraded surface; hence we find them more common in connexion with the small than with the large intestine. Martin of Berlin has proved, as the result of observations on second operations on the same patient, the presence of slight non-septic peritonitis as the immediate effect of every ovariectomy. The colicky pains which patients often suffer from after ovariectomy, and complicated with constipation, are due to small peritonic adhesions the result of this localised non-febrile peritonitis. Hunter<sup>9</sup> has devoted a paper to this subject and it is well worthy of perusal. If the prevention of formation of adhesions could be arrived at for forty-eight hours after operation, our position would be a more favourable one. In an interesting paper by Dr. R. T. Morris<sup>10</sup> on this subject he declares that he has completely demonstrated the fact that an application of a film of aristol to the stump prevents secondary peritoneal adhesions; he experimented on rabbits and relates one case of abdominal section in the human subject. The above facts seem to point strongly to the desirability of our knowing the subsequent histories of those patients whose cases fill the long lists of ovariectomies published from time to time and classed as complete successes.

Grosvenor-street, W.

<sup>7</sup> Brit. Med. Jour., vol. ii, 1898, p. 816: Internal Strangulation.

<sup>8</sup> New York Medical Journal, 1884, vol. xl, p. 202: Intestinal Obstruction &c., remotely connected with Ovariectomy.

<sup>9</sup> American Gynecological Transactions, 1886, vol. xi, p. 92. On Peristaltic Pains after Abdominal Section.

<sup>10</sup> Medical Record of New York, Oct. 10th, 1891: Prevention of Peritoneal Adhesions by a Film of Aristol.

some idea of the arrangement of the parts. From the right uterine stump (*a*) to the small intestine (*c*), just before its entrance into the cæcum, a thick adhesion an inch and a

## Clinical Notes :

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### CASE OF RADICAL CURE OF INGUINAL HERNIA BY HALSTED'S METHOD.

BY FREDERICK PAGE, M.D. EDIN., M.R.C.S.

A PLATELAYER, aged twenty-five years, was admitted into the Royal Infirmary, Newcastle-upon-Tyne, on June 13th last, for the purpose of undergoing an operation for the radical cure of an oblique hernia on the left side. The ring admitted three fingers, and trusses failed to keep the hernia up. On June 18th Halsted's operation was performed as thus described by him in the Johns Hopkins Hospital Reports for March 1st, 1891: "The skin incision extended from a point about two centimetres internal to the anterior superior spine of the ilium to the spine of the pubes. The subcutaneous tissues were divided so as to expose clearly the aponeurosis of the external oblique muscle, the external abdominal ring and the sac of the hernia. The aponeurosis of the external oblique muscle, the internal oblique, and the transversalis muscles and the transversalis fascia were severed to the outer extremity of the skin incision. An incision large enough to admit two fingers was then made into the sac. The index and middle fingers of the left hand with a small piece of sterilised gauze were passed into the sac. By them the hernial contents were passed back into the abdominal cavity, and over the fingers the sac, first on one side and then on the other, was drawn tense and held by the thumb of the same hand, while the tissues in which the sac was embedded were stripped off from it by the other hand. With the division of the abdominal muscles and transversalis fascia the so-called neck of the sac vanishes. There is no longer a constriction of the sac. The communication between the sac and the abdominal cavity is more than large enough to admit one's hand. The sac, having been completely isolated, was torn more widely open and the peritoneal cavity was closed as deeply as possible by seven or eight quilted sutures of fine silk. The sac was then cut away quite close to the line of the peritoneal sutures. The vas deferens and its vessels having been isolated, they were hooked up into the outer angle of the wound by a quilted suture, which included the transversalis and internal oblique muscles and the aponeurosis of the external oblique muscle. This suture was the first of a row of seven or eight quilted sutures of strong silk, which were passed deeply through the pillars of the ring and through the divided muscles of the abdominal wall. These sutures were taken very close together, were made to include the deepest tissues available, and were tied tight enough to bring into close apposition the broad surfaces which they embraced." The wound was powdered with boracic acid and covered with gauze and cotton-wool. No constitutional disturbance followed the operation. June 25th: The wound was examined for the first time and found to be healed throughout. July 14th: Patient was discharged, wearing no truss, and he remains free from any inconvenience.

Halsted's operation differs from Bassini's, as described by Mr. Hulke in a clinical lecture reported in THE LANCET of July 16th last, in only one, but that a very important, particular—the transplantation of the cord. By every other method the canal is left occupied by the cord and recurrence is common; but by Halsted's the canal is obliterated and the external abdominal ring completely closed, the cord lying between the skin and the aponeurosis of the external oblique muscle. Recurrence is far less likely to occur, and Halsted reports twenty-one cases operated upon by him as permanently cured. It is premature at this date to say the case now reported is permanently cured. It appears to be so. Halsted's operation does not seem so far, in this country, to have received the amount of attention it deserves, and my chief object in publishing the above case now is to direct attention to this method.

Newcastle-on-Tyne.

#### AN INSIDIOUS CASE OF CIRRHOSIS OF THE LIVER RAPIDLY FATAL FROM MELÆNA AND HÆMATEMESIS.

By SURG.-LIEUT.-COL. S. L. DOBIE, L.R.C.P. EDIN. &c.,  
SUPERINTENDENT OF THE GOVERNMENT ASYLUM, MADRAS.

MR.—, a tall, gaunt European, aged forty, was admitted into the Madras Lunatic Asylum on March 17th last, suffering from melancholia. He had a previous history of intemperance, with an attack of delirium tremens last January. For the last twenty years he had led a rough life in India, with much hard work and exposure to the sun, and he had suffered a good deal from malarious fever. Until the advent of the illness which ended in his death he had no physical symptoms of ill health beyond a certain amount of emaciation. There was a general pigmentation of his skin, supposed to be due to constant exposure to the sun, which gave him a light-brown colour. His melancholia was not very pronounced or and was associated with certain delusions. He went to bed on July 11th apparently in his usual health. He had eaten his food properly during the day, having complained of nothing and having talked rationally about business matters. The next morning, about six o'clock, he was found lying in bed half conscious, with dilated pupils and feeble pulse. He was found to have passed a tarry motion in the bed. He remained faint and barely conscious during the forenoon of July 12th, and at midday passed a large offensive motion of tarry constituency. At 2 P.M. a more liquid motion of dark blood was passed, and at 3 P.M. there was an escape of fluid blood from the mouth and nose. By this time he was restless, frequently yawning, and occasionally sighing. An examination of the abdomen in the hepatic and epigastric regions caused a tendency to vomit. By the evening he had sunk into a state of complete unconsciousness, and remained in the same state all night. On the morning of July 13th he again passed blood by the bowel, and a small quantity escaped from his nose and mouth. He lay on his back quite insensible, breathing hard, and shortly after midday on July 13th he died, the time between the first apparent symptoms and death being from thirty to thirty-six hours.

At the post-mortem examination, which took place three hours and a half after death, all the organs were found blanched. The stomach and the intestines from end to end contained blood fluid or in clot. The capsule of the liver was adherent to the diaphragm and neighbouring organs. The liver itself was slightly contracted and weighed three pounds and a half. It was not hobnailed, but there was a great increase of fibrous tissue in Glisson's capsule, so that the hepatic lobules were encroached upon and the proper parenchyma of the liver much lessened. The condition seemed to be one of cirrhosis in course of development. The spleen was enlarged, weighing two pounds six ounces, and was hard and fibrous. The state of the other organs offered nothing of importance to record.

Whatever interest this case possesses lies chiefly in the insidious nature of the disease and its rapidly fatal course from the first appearance of the hæmorrhage. I do not think that the physical condition before the supervention of hæmorrhage was masked by the mental disease, for the melancholy was not profound and he would have been likely to have complained of any bodily ailment from which he might have been suffering.

Madras.

#### FATAL CASE OF ASPHYXIA IN AN INFANT FROM FOREIGN BODY IN OESOPHAGUS.

By C. H. MOILRAITH, M.A., M.B., C.M. GLASG.,  
RESIDENT MEDICAL OFFICER, CHILDREN'S HOSPITAL, PADDINGTON, W.

I THINK the following notes may probably be of interest to readers of THE LANCET.

A child, G. B.—, aged seventeen months, was brought to the Children's Hospital, Paddington, in a state of asphyxia. The history was to the effect that while at dinner, and having a piece of meat in his mouth, he had a sudden fit of coughing, following on which he became rapidly blue in the face and almost stopped breathing. There-

was no account of the size of the piece of meat swallowed. He was taken at once to a doctor, who was not at home. He was then brought to the hospital, about twenty minutes after the accident happened. On arrival the child lay motionless; its face was turgid and livid, the veins over the head distended, and its eyes prominent. There was very shallow breathing, of a stridorous character. The breath sounds were feeble over the right lung and almost absent over the left. They were accompanied by some stridor on inspiration, and expiration was prolonged and wavy. The fauces were rapidly examined, and nothing being found there, tracheotomy was at once performed. There was then some feeble respiratory effort, the stridor still being present. An examination of the trachea was made; but the child having ceased breathing, artificial respiration was employed, but with no avail.

On post-mortem examination the veins all over the body were found full of dark fluid blood. The lungs were violet in colour, the left one being collapsed, the right one somewhat distended. The veins over the heart were prominent; the right side of the heart was full of dark fluid blood. In the œsophagus, immediately behind the bifurcation of the bronchi, at the level of the body of the fourth dorsal vertebra, there was found, tightly impacted, a hard piece of gristle, measuring an inch and one-eighth long, three-quarters of an inch broad and half an inch thick. It weighed fully a quarter of an ounce. It was pressing on both bronchi, so as to almost totally occlude the left and partially the right. In front of the bronchi were the arch of the aorta and a very large thymus gland pressed close against it by the sternum. The position of the foreign body, the symptoms of obstruction of the trachea to which it gave rise, and the method by which those symptoms were produced as revealed at the necropsy, seem worthy of note.

#### TRANSVERSE PRESENTATION ON TWO CONSECUTIVE OCCASIONS; EVISCERATION; TURNING.

By SURGEON-MAJOR D. C. DAVIDSON, I.M.S.,  
CIVIL SURGEON, SATARA.

On July 22nd, 1889, I was sent for to see a young Hindoo woman, about nineteen years of age, the wife of a farmer, living some miles from Satara, who it was stated had been in labour for some time. On arriving at the house I found the arm protruding from the vagina, swollen and discoloured, with the cutis peeling off. She had been in labour about two days, and the uterus was contracted on the child, which was evidently dead. The patient was put under chloroform and turning attempted; but the child was so firmly jammed down in the pelvis that this was found to be impossible. Evisceration was therefore the only alternative (decapitation being in the first instance impracticable), which, after obtaining the consent of the friends, was performed. The contents of the chest and abdomen being evacuated through an opening in the axilla under the presenting arm, instead of decapitating, which often gives rise to trouble in extraction of the head, I divided the child, leaving one arm and shoulder attached to the head and neck; the lower portion of the body was then withdrawn, and the arm and shoulder, with the head and neck attached to it, easily removed afterwards. The patient made an excellent recovery.

I lost sight of the woman's friends until July 6th of this year, when she was brought to the Satara Civil Hospital, a distance of about five or six miles, suffering again from obstruction. She had, it was stated, been in labour since the preceding day; the membranes had ruptured about midnight. On examination I found the hand and arm presenting, the parts hot and dry and the uterus in a state of tonic contraction. The patient was put under chloroform, and the child, which was dead, delivered by turning. She did well.

*Remarks.*—An unusual feature of this case is the occurrence of an arm presentation in the same patient in two consecutive pregnancies. Evisceration is rightly regarded as one of the most serious and difficult operations in obstetric practice, and the difficulties were not diminished in this case by the operation having to be performed in a small native house, with defective light and on a low cot. Great care was taken to guard against injury to the uterus and soft parts generally, and antiseptic precautions were as strictly carried out as the nature of the circumstances admitted of, to both

of which I consider the complete recovery of the patient was in a great measure due. This is the second occasion on which I have performed evisceration, and each operation was followed by a good recovery.

Satara, India.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### METROPOLITAN HOSPITAL.

A CASE OF CATALEPSY IN A PATIENT WITH GENERAL TUBERCULOSIS.

(Under the care of Dr. C. R. DRYSDALE.)

THIS case is recorded as being a well-marked instance of catalepsy occurring in a male subject who was at the same time affected with extensive organic disease of a tuberculous nature. Mr. Handson informs us he had been greatly subjected to religious influences, having been brought up by priests in a Roman Catholic home from the age of five till twelve; and was said to have had similar seizures before admission, and on one occasion, after recovering from a "fit," to have stated that he was St. Peter. His condition during an attack was not unlike some states of hypnosis, and it is worthy of note that before an attack occurred he would stare long and fixedly at the gas at night, or straight in front of him in the daytime. Mr. Handson considers that his condition might be explained as being due to auto-suggestion occurring in a neurotic subject. In some lectures by Dr. Gowers, which we published in THE LANCET,<sup>1</sup> the condition which this patient manifested is thus explained: "In the hypnotic catalepsy, apparently, the inhibitory action includes all the structures that subserve psychical processes and the lower motor centres are in functional connexion only with the lower sensory centres. The higher controls the lower, and uncontrolled, the lower passes into a state of increased action. This law seems to obtain throughout the central nervous system. The spontaneous activity of the motor cortex, unrestrained, is instantly manifested by the universal increase in normal tone, obeying the laws of the normal adaptation, differing therefrom only in degree. In no other way can we understand the essential features of the phenomena." For the notes of the case we are indebted to Mr. C. P. Handson, house physician.

T. S—, aged fourteen, was admitted into the Metropolitan Hospital on May 10th, 1892. The duration of the illness was uncertain. The boy stated that he had been ill since Christmas, 1890. He had had no previous illnesses. There was no family history of tubercle or of nervous disorders.

On admission the patient was somewhat cyanosed. Tongue moist and pale; pulse 120, very small, but regular; respiration not quickened. There were symptoms of phthisis in the stage of consolidation at the right apex behind and at the left apex in front. Signs of mitral stenosis were apparent and adherent pericardium. No tubercle bacilli were found in the sputum, though looked for on several occasions. The legs were œdematous. The fingers were not clubbed. Urine acid; sp. gr. 1028; very faint trace of albumen. There was nothing abnormal about the liver and spleen.

From the time of admission till the day of death on June 25th the physical signs remained practically unaltered. The temperature, which was of hectic type, ranged from 102° to 95° F. The urine ranged from eight to thirty-eight ounces, but was generally very scanty. During the previous fortnight the boy had moderate diarrhoea. At times he refused all food and was fed by a nasal tube, against which he struggled violently.

May 26th.—Has been delirious all night; tries to get out of bed. Has attacks in which all his limbs on both sides stiffen out. The legs are rigid, but can be bent easily; knee-

<sup>1</sup> Vol. i. 1890, p. 1167.

jerks present; no ankle-clonus. The nurse thinks he understands when spoken to, but he has not spoken this morning.

The patient had improved in general health and had no more attacks till June 8th, when he had a typical cataleptic "fit." The arms were rigid and preferably in the crucifixion attitude described by Charcot. The legs were quite rigid. The limbs remained for a few seconds (the legs for some time) in any position in which they were placed. He was very amenable to suggestions—e.g., on telling him to raise his right leg it was immediately raised to a right angle with the trunk. The limbs could be easily flexed at the joints without using force. The eyes were kept wide open, and the pupils reacted to light. He had a vacant look on his face and stared straight in front of him.

June 10th.—He had two similar attacks last night.

11th.—He has hallucinations at night: sees dead people &c. and screams out.

25th.—Died suddenly after nasal feeding.

*Post-mortem examination.*—Brain: Rather excessive quantity of fluid in lateral ventricles. Convolutions somewhat flattened. No tubercle. Lungs: Chronic tubercular changes at both apices. Heart: Pericardium adherent to chest wall and left lung. Mitral orifice stenosed. Mediastinal and mesenteric glands enormously enlarged and caseating. Mesentery thickened and contracted. Much typical tuberculous ulceration of ileum, lower part of jejunum, cæcum and ascending colon. Large quantity of clear fluid in peritoneal cavity. Liver: Late nutmeg. Spleen hard with old infarct. Kidneys: Papillæ congested; cortex pale.

## ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

### CASE OF AORTIC, MITRAL AND TRICUSPID STENOSIS.

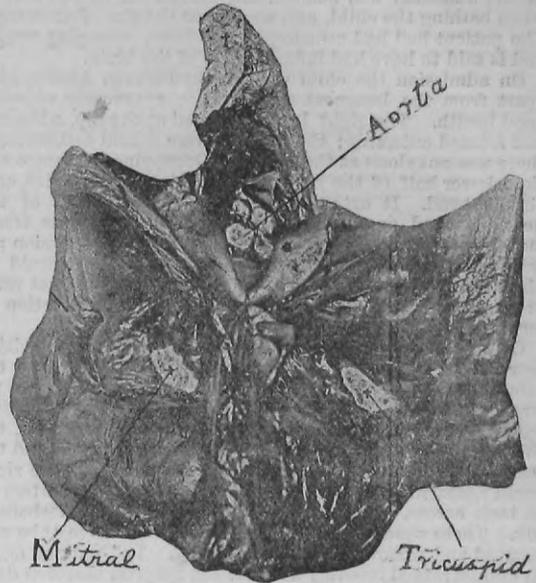
(Under the care of Dr. DAVID DRUMMOND.)

The following case is interesting as illustrating the length of time a heart damaged severely in early life sometimes struggles successfully against enormous odds to maintain a state of efficiency. The illustration (from a photograph taken by Mr. Bolam, student of medicine) shows the contracted orifices, which are rendered visible by clipping away the walls of the auricles and folding down the aorta.

M. B—, aged forty, single, was admitted into the Royal Infirmary for shortness of breath, pain in the epigastrium and œdema of the lower extremities. She was able to earn her living by working by the day at house work until eight months before her admission to hospital, when she was compelled to rest through shortness of breath and recurring attacks of faintness. This illness she ascribed to disturbed nights and extra fatigue consequent upon nursing a bed-ridden mother. For some time previously she had suffered from pain and distension in the epigastrium after food, which increased when she broke down.

On admission the patient appeared to be fairly nourished. The legs were œdematous below the knees. The skin generally presented the faded yellow tint so characteristic of cardiac failure with pronounced tricuspid disease. A bluish-pink flush covered the cheek, the lips were somewhat cyanotic, and the eyes presented the moist, glassy appearance of hepatic engorgement. The pulse was small, rapid (generally about 90), compressible and, as a rule, regular. It gave some, though slight, indications of aortic incompetency. There was marked breathlessness on exertion, a good deal of cough with frothy expectoration, frequent pain in the præcordium, and the usual distressing insomnia. The urine was scanty and high coloured, but only contained a trace of albumen. The heart impulse was considerably extended, and reached to a point about an inch and a half to the left of the mammary line in the seventh interspace. Towards the right it could be felt in the epigastrium and beneath the sternum. A distinct thrill, presystolic in point of time, running up to the apex beat, could be detected, and it was noteworthy that it extended towards the right beyond the usual limits of the thrill in cases of pure mitral stenosis. The murmurs audible at the left apex were a harsh, grinding presystolic, followed immediately by a loud, blowing systolic bruit instead of the usual "snap"; and this in turn was followed by a soft diastolic bruit, which, with the systolic, was conducted towards the axilla. On the other hand, the presystolic murmur was almost limited, towards the left, to the apex beat, though it could still be heard, but faintly, as the sternum was approached. In the aortic area there was a loud systolic

bruit conducted well into the vessels, and a somewhat low-pitched murmur of incompetency, which could be traced down the sternum and towards the left apex beat, in approaching which it was for a short space almost lost, to reappear at the apex and beyond as a characteristic conducted diastolic aortic. The murmurs at the lower end of the sternum in the tricuspid area were a systolic, which could be differentiated from the bruit (aortic) that was conducted into the vessels in the neck, and



a diastolic which seemed to be part and parcel of the murmur of aortic regurgitation. Beyond the fact that the mitral presystolic was conducted further to the right than usual; there was nothing detected by the stethoscope that justified the diagnosis of tricuspid stenosis. The liver was decidedly enlarged, but no hepatic impulse could be detected. The veins in the neck were full; but here, again, there was an absence of the characteristic pulse of back-wash.

For a time rest and treatment by heart tonics gave good results, but the improvement was only temporary, and by degrees the cyanosis, breathlessness and dropsy returned, and she died on June 8th after ten weeks' stay in hospital.

*Post-mortem examination.*—Body œdematous, particularly legs and external genitals. Both pleural cavities contained fluid; the lungs were emphysematous and sodden. The heart weighed 25 oz.; the pericardial membrane and sac were normal; the pulmonary artery stood out prominently and was decidedly larger than the aorta; both ventricles were markedly dilated and hypertrophied; the mitral and tricuspid orifices were contracted and funnel-shaped and admitted the point of the little finger; the aortic orifice was much reduced, admitting an ordinary cedar pencil; its valves were decidedly incompetent; the valves of the three stenosed orifices were glued together and presented ample evidence of old inflammation (probably foetal endocarditis). The orifice and valves of the pulmonary artery were normal, though an old ante-mortem clot extended from the right ventricle into the artery.

## CHILDREN'S HOSPITAL, NEWCASTLE-ON-TYNE.

### DERMOID CYST OF OVARY IN A CHILD SEVEN YEARS AND A HALF OLD; SUCCESSFUL REMOVAL.)

(Under the care of Mr. W. G. BLACK.)

DERMOID tumours of the ovary are said to form about 7 per cent. of all tumours of that organ. Cystic tumours of the ovary are rare before puberty, although sufficiently common afterwards, but may be met with at almost any age. Thus we have recorded in THE LANCET<sup>1</sup> the occurrence of a tumour of the ovary in a child of three years; Dr. Neville<sup>2</sup>

<sup>1</sup> THE LANCET, vol. ii. 1871, p. 850.

<sup>2</sup> British Medical Journal, vol. i. 1880, p. 246.

had a patient under his care at the same age suffering from a similar kind of tumour; and the case of a child aged twenty months,<sup>3</sup> from whom an ovarian tumour was successfully removed, is also described.

M. E. A—, aged seven years and a half, was admitted on April 23rd, 1892, with lameness of right leg and abdominal enlargement. The lameness of the leg began two years and a half ago, six months after an attack of measles. The limb was fixed for some time in a plaster bandage. The swelling in the abdomen was accidentally discovered by the mother when bathing the child, and was about the size of an orange. The patient had had measles, scarlet fever, whooping-cough, and is said to have had inflammation of the brain.

On admission the child was healthy-looking, plump, and, apart from the lameness and tumour, apparently enjoying good health. The right leg was flexed at the hip, adducted and rotated outwards; the muscles were flaccid and wasted; there was ankylosis at the hip-joint. Occupying the centre and right lower half of the abdomen was a tumour, the size of a child's head. It extended two inches to the left of the umbilicus and one inch and a half above it; it was freely movable, smooth on the surface, and dull on percussion; it was surrounded by a resonant area, and the hand could be placed between it and the kidney; there was a distinct wave of fluctuation through it; there was no pain or elevation of temperature. No rectal examination was made.

On May 1st the abdomen was opened by a median incision four inches long, an exploring needle introduced into the tumour, and purulent creamy-looking material withdrawn; a large trocar and cannula was next introduced into the tumour, but as the fluid failed to run the opening was enlarged, the child turned on to the side, the contents evacuated, and the tumour easily removed; the pedicle, consisting of the right broad ligament, about two inches long and three-quarters of an inch across, was transfixed and ligatured by carbolised silk. There were no adhesions. Keith's drainage tube was inserted and removed on the third day. The patient made an uninterrupted recovery and left the hospital nineteen days after operation.

The tumour consisted of a single cyst about the size of the foetal head at term; it was full of purulent creamy-looking sebaceous matter and contained several long white hairs growing from its inner surface.

## Reviews and Notices of Books.

*On the Medical and Surgical Uses of Electricity.* By GEORGE M. BEARD, A.M., M.D., and A. D. ROCKWELL, A.M., M.D.

THE eighth edition of this book well sustains the reputation which it has earned as a text-book on a special subject. It appears under the auspices of Dr. Rockwell, who, long since deprived by death of his fellow worker, has spared no pains to give permanency to the effort of their joint lives. The new matter in the present edition is chiefly the result of accumulating experience in the treatment of disease. The earlier chapters, dealing with electro-physics and physiology, are practically unchanged; and they serve as a very useful and fairly sufficient introduction to the study of electro-therapeutics. Dr. Rockwell very justly gives conspicuous prominence to the question of dosage of electricity, and his judicious remarks upon that head will be approved by those who desire to secure for electro-therapeutics a sound scientific position no less than by those who earnestly wish for a secure guidance for its application. There is nothing which more decidedly distinguishes the physician from the charlatan than the aspiration for exact methods and the careful observation of results. According as these objects are attained, there will be less room for the unreasoning credulity which is the prolific parent of abuse, and at the same time a more confident expectation of benefit in those cases where benefit may be obtained. In both ways a larger number of industrious workers will be attracted to a field

which undoubtedly is of much promise. Sharing as we do the author's conviction as to the importance of attending to the minute of treatment, we think it well to quote his words:—"No one who has not had personal experience along this line, or witnessed practical demonstrations of the physiological and therapeutical effects of the various currents of quantity and tension ..... can form any idea of the astonishing difference observed in their action on nerve and muscle;" and we may add that the statement is true in an equal degree of the less understood applications of electricity to other structures. The scope of the present book is very extensive. It is expressly designed "as a work of exhaustive reference for the electrologist," and the latter is defined as one whose ideal it is to become "a master of electricity in its physical and physiological as well as in its purely diagnostic and therapeutic relations." To say that it fulfils this ambitious design would be going too far; but it approaches more nearly to it than does any other text-book. It is especially valuable as embodying the results of a mature experience in a great variety of instances. It is enriched with copious notes of cases. The pathology given for certain diseases is somewhat open to question. As an example, we may note the very unsatisfactory reference to the differential diagnosis of paraplegia. Again, no distinction is made between focal myelitis and general myelitis. We notice also that alcoholic neuritis has no place in the author's scheme. It is mentioned, indeed, under chronic alcoholism, but there is no hint that it is a form of peripheral neuritis and that it is attended with the signs of the reaction of degeneration. In this respect the claim put forth in the preface that the subject matter has been brought up to date is hardly justified, and the omission of due consideration of a disease which is at once so common and which falls so clearly within the province of the electro-therapeutist is an obvious defect. The statement that "the hysterical form of paralysis is constitutional because the entire central nervous system is degenerated into a condition of abnormal sensibility" seems to us to be capable of a good deal of expansion, and in its present form had been better withheld. That "cerebral effusion may be indicated by congestion or infiltration of the optic discs on the side on which the clot exists" is, we believe, at variance with the teaching of eminent authorities. The scheme of pathology adopted in connexion with diabetes is indeed associated with the name of a distinguished physician, but it is certainly not accepted, and the conclusions based upon it appear to us to have little value. Galvanisation of the brain, spinal cord and sympathetic, as an experiment, might possibly prove useful in diabetes, but the expectation of success is not warranted so long as it rests on the belief that those parts contain abnormal cavities during life. "Experimental faradisation of the liver," the alternative suggested, promises quite as well. The reader, after all, will not consult this work when he desires to refresh his pathology, and if we have thought it our duty to point out defects of this kind, we have every wish to give the authors credit for the good work that they have done. This is for the most part of a clinical kind, and it could not have been done better. The book will be found to be truly exhaustive from the point of view of treatment, and under each heading there are the fullest directions for those who will follow them. Dr. Rockwell is well qualified to hold his own opinion as to matters of fact; and it is interesting to read that "there are a number of methods by which the superior, middle, and inferior cervical ganglia of the sympathetic may be demonstrably affected by a galvanic current." The English reader will decide for himself whether the effects of sub-aural galvanisation may or may not with good reason be referred to the sympathetic.

The best parts of the book are perhaps those which refer to general electrification, whether by the bath or in other

<sup>3</sup> *Ibid.*, vol. i. 1884, p. 731

ways. There are here suggested abundant materials for thought and further experiment, and at the same time a large number of facts, which, being well attested, are in the present state of science of great value. Scattered throughout are many practical hints which will be read and remembered with advantage. These are often of general interest, and are the welcome contribution of a well-stored practical mind. We would mention especially a good and simple plan for applying dry heat to a limited surface (page 485). The chief interest of the book is, of course, of a medical kind, but it deals also at considerable length with the surgical applications of electricity. It is well written and well illustrated throughout.

*The Surgical Treatment of Neuralgia of the Fifth Nerve.* By WILLIAM ROSE, M.B., B.S. Lond., F.R.C.S., Joint Professor of Surgery in King's College, London, and Surgeon to King's College Hospital. London: Baillière, Tindall and Cox. 1892.

THIS is a reprint of Mr. Rose's Lettsomian Lectures delivered before the Medical Society of London in January and February last, and published at the time in our columns. The subject dealt with is one of great importance, and Mr. Rose has produced a very interesting and valuable *brochure* on it.

*Ambulance Lectures.* By G. H. DARWIN, F.R.C.P. Edin. Manchester: J. E. Cornish. London: Charles Griffin and Co.

THIS little book, written expressly for the lay student, contains several useful hints and suggestions which cannot fail to be of service to students of ambulance work. The first lecture deals with the Structure and Functions of the Body in a style almost entirely free from technical terms, and the succeeding lectures treat in an equally interesting manner of the subjects dealt with in "first-aid" books. The work is copiously illustrated, a special feature being a diagram with instructions for rendering first aid in cases of fracture in the lower limbs of females—an accident always presenting more or less difficulty to the mind of the ambulance student. Many suggestions are made for the safe transport of the sick and injured; and diagrams, illustrating methods by which stretchers may be improvised from materials likely to be at hand, occupy several pages of the work.

*Archives of Surgery.* By JONATHAN HUTCHINSON, LL.D., F.R.S., Consulting Surgeon to the London Hospital, and late President of the Royal College of Surgeons. Vol. IV., No. 13. London: J. & A. Churchill.

THE interest in Mr. Hutchinson's Archives is fully maintained, and the volume before us contains much valuable and suggestive material. It is difficult to say which is of greater value, the collection of odd facts, rare experiences and doubtful questionings, or the enunciation of general laws and the formulating of rules of practice. No one can study these Archives without profit, and above all without being forced to ask himself questions.

*Diseases of the Nose and Throat.* By T. W. BOSWORTH. Vol. II.: Diseases of the Throat. New York: William Wood and Co. 1892.

THIS volume contains a detailed account of the diseases of the throat and larynx. The anatomy and physiology of the parts concerned are well stated and explained. No pains have been spared by the author to make the work complete. Each subject is enriched by numerous explanatory cases from his own practice and that of others. The labour of compiling the work must have been considerable, but the result has been that some of the chapters form admirable monographs.

This is notably the case in the chapters on growths of the tonsils, palate and pharynx. The author here shows extensive acquaintance with the general literature and practice of surgery. The operative measures are generally well described, and the risks of what are often termed "minor" operations are well estimated. We are pleased to see that an author of this experience speaks forcibly of the risks of hæmorrhage from the ordinary operation for tonsillotomy in the adult. There is perhaps a tendency in this part of the work to advise operations for conditions which may as well be left alone, and which, the author plainly hints, usually give trouble in neurotic and hysterical individuals. He has, however, the good sense to disclaim operations by caustics and cauteries, and to give the preference to those methods which are least likely to lay the surgeon open to the charge, of providing a remedy which is worse than the disease.

The first section, comprising 433 pages, is devoted to affections of the fauces; the second section deals with the anatomy and diseases of the larynx; while the third enters into a full description of the external operations of the throat, such as tracheotomy and pharyngotomy. The chapters of the third section are all excellent, and eminently practical. Seeing that the author has entered into the operation of tracheotomy with such detail, we think he should have given his experiences with regard to the after treatment at greater length. Little is said about those difficult cases which occur in children where, for no obvious reason, it seems impossible to give up the use of the tube, and which are always embarrassing and sometimes fatal. Some excellent coloured illustrations of the operations of tracheotomy and excision of the larynx are to be found in this part of the work. The illustrations generally are well executed, though some of them, as the drawing of lupus of the fauces (Fig. 31), would be difficult to recognise. The volume, which is excellently bound and printed, may be advantageously studied by the general surgeon, for it deals with many matters which must occasionally come under his hands. For a book of reference it is also useful, and to all classes of readers we heartily recommend it.

## New Invention.

### "THE LAURA BED."

A CORRESPONDENT sends us an account of a bed or mattress made in the usual way, but with a slice cut off at one side to admit of the introduction of any vessel under the patient lying on it. When this piece is replaced the mattress is to all intents again complete. It is recommended that blotting-paper sheeting be used around the opening. In the description of the bed the part which can be moved is represented as hinged to the main part of the mattress and as of a square shape. The arrangement is undoubtedly a good one, but the suggestion is not novel.

YORKSHIRE VETERINARY MEDICAL ASSOCIATION.—At Darlington on the 2nd inst. the annual meeting and dinner of the members of the above Society were held, the chair being occupied by Mr. F. R. Stevens, the president, who delivered his inaugural address. In the course of his remarks he expressed the hope that as a result of the Royal Commission on Tuberculous Diseases there would be an alleviation of the evils which affect so injuriously cattle-breeders and the public generally. It was surprising, he said, how large a proportion of young cattle were affected by tuberculosis; and he thought the community in general would be the gainers by the appointment of a competent inspector, at a liberal salary, whose duty it would be to check such practices as favour an extension of diseases of the kind referred to.

# THE LANCET.

LONDON: SATURDAY, SEPTEMBER 10, 1892.

THE measures of protection against cholera which England has now long adopted and which she has from time to time matured and improved have during the past few weeks been put to a somewhat important test, and the result has been one that is eminently satisfactory from the public health point of view. Cholera has been brought to our shores at about a dozen different points; in each case the disease has been limited to those who have arrived from infected places abroad and no spread has taken place. In two respects our measures of defence were found to need strengthening. Our system of keeping people arriving from infected places under some observation for a few days had not sufficiently provided for the event of an immigration of aliens not knowing where to lay their heads; and the circumstance that Hamburg ships replenished their water-supplies from the cholera-polluted Elbe was also a contingency that could hardly have been anticipated. In both these respects the regulations of the Local Government Board have been strengthened; a further Order has just been issued extending the requirement as to giving addresses to those arriving not only in infected ships but from infected places; and we have now breathing space in which to take count of that which has passed and of that which may again be in prospect for us. In one respect there has been misapprehension. It has been assumed by some sanitary authorities that the mere fact of our system of "medical inspection" exhibiting certain interstices through which cholera might creep was sufficient to warrant them in crying out for a return to quarantine restrictions, some wishing that all vessels from infected places should be kept in detention two days, others three and four days, and others five days. As to this demand, we would, in the first place, point out that the English system never laid claim to any infallible pretensions to keep cholera altogether out of the country. It has always been assumed that the disease might, as it were, filter through the meshes of our port sanitary administration, and hence, after this first line of defence, our trust lay in our greatly improved sanitary administration, and in the fact that the means by which cholera can spread in our climate have been so largely removed. In short, the ports were to do their best and the inland districts were to remember that they might have to take up the task.

The alternative of quarantine is one which we can hardly contemplate. Taking France alone and assuming that a few of its north-eastern ports are infected with cholera, the task of imposing quarantine would be simply herculean, even if possible. The thousands who travel weekly between France and England would have to be kept either in harbour or riding out at sea; they would have to be fed and cared for; if cholera appeared amongst them the sick would either have to be landed or left to diffuse the infection

amongst their miserable fellow passengers, under conditions most likely to favour the spread of the disease; and lastly, a system of surreptitious landing of those who could pay to come ashore would rise up all round, be in active working every night, and reduce the whole system to a hollow farce. And yet there are sanitary authorities who, after having administered our Public Health Acts for some five-and-twenty years, and having watched the immense reduction of mortality which has followed on the removal from their midst of those conditions which are essential to the spread of cholera, are now, in a state of panic, desirous of reverting to a system which has only to be applied in order to be found wanting, and which would, more than anything else, tend to discourage sanitary progress in our midst. True, the system might answer to some extent if it were applied to only one or two special ports; but if it were extended to every port, as it must be if applied at all, it could do little short of bringing discredit and obloquy with it.

What, then, is our duty? Clearly, it is to go on working on our well-established principles. The effort made in some of our port districts has been an arduous one; in some it has had to be stimulated by the visits of medical inspectors of the Local Government Board; but, on the whole, the difficulties have been admirably faced and met. We have, however, the future to contemplate. We have all along expressed the opinion that whatever emergency we had to face this autumn it was by no means impossible that we might have a much greater one to cope with next year. This year our ports have not failed in their out-post service. Next year they may possibly be less successful, and hence it is that we would urge all sanitary authorities, and notably our inland authorities, to make preparations to deal efficiently with imported cholera. If they do, they may succeed as well as our ports have succeeded. After all, it is not cholera so much that has to be feared, it is rather the filth which may serve as a breeding-ground for imported infections, whether of cholera or of any other similar disease; and any progress that is made by way of ridding districts of their insanitary conditions during the next six months will tend to lower the general mortality, to reduce the fever mortality, to increase health and vigour, to add to the amount of remunerative labour that is practicable, and so to augment the prosperity of the locality which makes such progress.

There is perhaps no work that more needs to be carried out maturely and without haste than that of providing means of isolation for first cases, whether of cholera or of other spreading disease. Authorities who wait till disease is actually at their doors have again and again put up hurried structures which, instead of meeting the more permanent requirements of their districts, have, on the contrary, served to deter people from using isolation hospitals. Emergency hospitals are only fit for emergencies; the very emergency which it is hoped they will meet often necessitates their being large and costly and yet very inefficient; and a number of them have been finished just too late to be of any service at all. Many sanitary authorities have been urged by their medical officers of health to be prepared in advance with the means of coping with first cases. This is essentially a time in which this advice, if ignored hitherto, should be heeded. There are doubtless many districts in which it would be impracticable to provide in advance,

and for all portions of it, the means of isolating cholera cases. Cholera patients cannot well be removed to a greater distance than a mile at the most; but, on the other hand, a single, small, properly constructed hospital may at any moment save a district from the spread of the disease, it will always be available for diseases other than cholera, and it will serve as an administrative centre whence outlying and temporary isolation arrangements can be carried out. In short, what we wish to impress upon sanitary authorities, whether port, riparian, or inland, is that during the coming winter they should mature and carry out a system of sanitary defence which will enable them to meet cholera if it comes, and which will be of inestimable service to their districts even if, as we earnestly hope, we are spared its visitation.

We are in the mental habit of localising "misery's darkest cavern" in the slums of London. The study of a letter in the *Northern Chronicle* of Inverness by Mr. ROSS, a district medical officer of health in Ross-shire, in answer to correspondents who maintained that the proposal for a Ross-shire hospital for treating and isolating infectious cases was unnecessary and impracticable, may lead us to doubt whether it should not be located in very different regions. He gives us a peep into the problems of misery which the medical officer of a parish in the Highlands or islands of Scotland has to face and solve almost unaided and in physical and hygienic circumstances which would be the despair of ordinary men without the genius of humanity that is so favoured by the pursuit of the medical calling. The lot of a medical officer of the East-end of London, within measurable distance of a State or rate hospital for infectious diseases, or the general hospitals of London, is not to be compared with that of his colleague in such cases as the following, culled out of an experience of many outbreaks of severe infectious disease in one of the eleven districts for which an infectious hospital is proposed. Typhus fever attacks a family of eight—father, mother, and six children, the youngest eight months old. In a few days all are stricken except a girl of ten. The house—a wretched crofter's house—is of the poorest and most uncomfortable description. One patient occupies each of the three beds. The other four lie in their clothes on a little straw on the cold, damp, earthen floor. All necessaries and comforts are wanting. No relative or neighbour can be got to enter the house for love or money, and Mr. ROSS points out that no nurse could be accommodated in such a house or would accept the duty, which, indeed, would almost certainly involve another case of typhus fever and a great addition to the difficulties of the poor medical man. We can only afford room for another illustration of the plight of the poor in these districts and of the unequal duties thrown solely by society and its sanitary authorities on the medical officer. Only two years ago Mr. ROSS had to attend a crofter's wife and her three children suffering from typhus fever. The other inmates of the house were the husband, beginning to sicken, and the mother-in-law. The wife was in the eighth month of pregnancy, and on the eleventh day of the disease labour came on. Mr. ROSS had without assistance to attend her both as doctor and nurse. She was delirious, and lay perfectly helpless, covered with

a blanket on a little straw on the damp earthen floor, and in a chamber reeking with fever emanations. His predecessor, attending a family suffering from typhus fever in a house seven miles from his surgery, one day on his visit found the mother dead and the baby sucking her breast. No one could be got to take charge of this poor waif, and he wrapped it in his coat and took it home in his gig and had it nursed, with the result that his wife, children and servants sickened with the disease. We feel bound to accentuate and publish such tragedies of suffering and abandonment on the one hand, and of medical heroism and duty on the other. In other cases the medical man has had to act not only as professional attendant and as nurse, but as undertaker too. Scotland is a religious country, but it is open to the charge of expending too much energy in ecclesiastical controversy while omitting the weightier matters of the law, of which we would say that immediate provision of hospitals for the infectious sick is one of the most urgent. But it is not only the infectious sick. In one sense they are, perhaps, better off than others. Forsaken by all others, they are visited by the doctor who is supposed to do the work of the Good Samaritan for relatives, churches, and the whole community on a very inadequate pittance at the great risk of his own life. This visit is like that of a veritable angel of mercy. But, unfortunately, his powers are limited, and so are the means of the poor, from which it follows that a large proportion of these, at least in the northern parts of Scotland, die without any medical attendance at all. In his report for 1891, as medical officer of health for Ross and Cromarty, Dr. BRUCE gives some interesting particulars on this subject. In Applecross, of 70 deaths in five years 57 were uncertified—that is to say, 57 of the 70 patients died without medical attendance; in Glenshiel, of 27 deaths 15 were uncertified; in Gairloch, of 304 deaths 200 were uncertified; in Kintail, out of 59 deaths 34 were uncertified; in Kinlochlinchart, of 37 deaths 14 were uncertified; in Killearnan, of 82 deaths more than half were uncertified; in Kincardine, out of 85 deaths 40 were uncertified; in Stornoway, the largest of all the registration districts, with a considerable mortality from phthisis, diphtheria and pneumonia, one-fourth of the whole number of deaths were uncertified. Dr. BRUCE, with characteristic sense, emphasises the seriousness of such facts, and points out that in outlying districts many die who should not. It is easy to be satirical over the limitations of the power of the medical art, but the inhumanity of arrangements which allow people to die without the chance of medical relief is obvious. Little imagination is needed to conceive the unrelieved, but relievable and even removable, suffering which is endured by those who in a religious country, with two or three churches in the smallest parishes, are allowed to die unattended.

We commend such facts to the serious reflection of the Scottish people and of the Secretary for Scotland of a Government which states its intention to grapple with the social problems of the poor. A better house accommodation, consistent with decency and health, a better medical service in remote parts where urgent suffering can at least be mitigated, and a place of refuge and retirement for those attacked with infectious diseases, are measures that would redound to the credit of any party, and for which we shall look the more from a Government that has had the courage

to place a member of the medical profession in responsible relations with the work of local government.

We have not in these remarks said much about the injustice and hardship to medical men of such arrangements, and of expecting them to do the duty of the whole community to sick and dying people. The point is too obvious to need to be laboured. Reasonable risks are a part of the undertaking of any medical man who enters the ranks of the profession, just as the risks of war are undertaken by a soldier; and they are undertaken cheerfully. But the medical practitioner should not be expected to make bricks without straw, and the risks he has to undergo should be mitigated by the provision of every help that can be supplied. His remuneration should be generous, and enable him to go over moors and ferries with despatch, and to supply his mind and his surgery with every book and every appliance that would compensate for the distance of hospitals and libraries. Such men are the very torch-bearers of truth and render help in remote parts and parishes. They need to be multiplied and to be better paid. And such multiplication and better payment are as much the duty of a country bent on advancing civilisation and pure and undefiled religion as the provision of fit hospital and house accommodation.

“Its field is the world” may be said of the healing art more truly than of any other liberal calling. As civilisation expands and covers an ever wider area of the earth’s surface it invites to the most distant regions the accession of visitors from its great centres, who gradually form in those regions the nucleus of a resident population. In this way the English-speaking race may be found planted all the world over, in latitudes high or low, but particularly in that temperate or even subtropical zone which combines with easy access from England herself the climatic mildness and steadiness desiderated in the winter months. This combination is best realised on the shores of the Mediterranean, not only on the seaboard of southern France or northern Italy, the so-called Riviera Ponente and Riviera Levante, but on that of northern Africa from Tangier in the west to Lower Egypt in the east. British residence, in fact, is made possible along the Mediterranean by the admirable means of communication that has been organised in response to annually increasing demand, and few moneyed or leisured people, few even of the busy professional or commercial classes, but find it conducive to health, to longevity, or to more sustained and better work to spend some part of the year at this or that health resort or sun-trap so plentifully sown around the “midland sea.” And when “the winter has past and the spring has come again,” another series of climatic changes is open to a fresh contingent of seekers after rest and air, until summer beckons these in turn from Mediterranean island or Italian lake to Swiss mountain or upland valley, there to enjoy the keenest, most exhilarating and restorative of atmospheres, under a solar warmth that rarely disappoints them. With all this movement of English-speaking population, the services of the duly qualified practitioner are in yearly greater request, insomuch that he can fill up his whole twelvemonth, with hardly an unemployed interval, in ministering to the wants of a steady *clientèle*. In southern Europe especially, there is a permanent staff of British

practitioners at all the chief winter cities, who, after the close of the season, accompany the stream of compatriot travel as it moves northwards from African or Spanish or Italian sun-baths to those sub-Alpine or Swiss resorts to which the changing season attracts it. And an excellent division of the year it is, both for patient and practitioner, that of a late autumn, a winter and an early spring spent, let us say in Rome or Florence, in Naples or Palermo, followed by a late spring, a summer and an early autumn passed in the Alpine uplands or valleys, or in the Black Forest, or in the so-called German Switzerland.

Several conditions are necessary for such a career as is thus opened up to the British medical man—conditions which are neither many nor formidable. In the first place, he must acquaint himself thoroughly with the hygienic character of the place in which he settles. He must not only have made a perfect study of its climate, of its local sanitation, including its water-supply, its drainage, and its dietetic resources, but he must have indoctrinated himself, by association with the consultants native to the locality, in its soundest medical traditions, especially in the etiology, the course and the treatment of the maladies indigenous to the soil. A practitioner in Rome, for instance, would often find himself at an awkward disadvantage if he had not previously familiarised himself with the local malaria, with the best scientific findings as to its nature, its origin, its semeiology, its periodicity, and its response to clinical intervention. To attain this familiarity he must have put himself in friendly relation with his professional brethren, Italian as well as British, who have had the local experience he desiderates, until—in longer or briefer time, according to his vigilance and application—he assimilates the knowledge they possess and so becomes capable of relying on his own judgment and on his own methods. To profit by such neighbourly intercourse in, say, an Italian winter city he must have what is called a “working knowledge” of the language, not difficult to acquire from his previous grounding in Latin and from his usually fair command of French. By this means he is able to meet the native physician or surgeon in consultation, and with mutual advantage to compare impressions or views as to the patient. In these circumstances, moreover, there is much less danger of those misunderstandings so apt to result in the interposition of obstacles to practice—obstacles imposed on the British practitioner by the civic authorities, and occasionally, we believe, at the instance of a jealous colleague with whom a few minutes’ conversation in his own language would have removed any cause of offence. As a rule, however, except perhaps in Switzerland and now and again on the French Riviera, the feeling between the British and the native practitioner is a friendly one, as befits members of a liberal and enlightened calling. In Italy particularly the *entente cordiale* between our compatriot representatives and those of the peninsula is very real, and seldom, indeed, does it occur that any difficulty in the way of practice is imposed by civic authority at the instance of jealous colleagues. Even on such occasions the only trouble to which the British practitioner has been subjected is that of submitting his diploma to municipal inspection in the city where he has settled down.

Some British practitioners in continental countries have taken the laudable course of qualifying at one or other of the

local medical schools, a course which invariably silences any spirit of detraction or jealousy on the part of their foreign *confrères*. Not only for this reason, but for the facilities it affords for scientific coöperation in the study of disease is such graduation to be recommended. Nor need the steps taken with that view be difficult or numerous. Sometimes the presentation of a thesis on a subject of practical or theoretical interest suffices, in conjunction with (duly verified home qualifications, to procure academic recognition from the foreign school. Having received the academic *imprimatur* of the country of his professional adoption the British practitioner has before him a career in many ways to be envied. The public to which he appeals, as the facilities of travel and the comforts of residence steadily improve, is always on the increase. It forms, almost invariably, an agreeable *clientèle* drawn from the well-to-do and presumably the cultured and refined classes. Not only on the French and Italian Riviera, but in the winter cities of the latter country itself these resorts are for three or four months of the year really "suburbs of London"—the English-speaking population of Florence, for instance, in the spring and early summer, averaging from 4000 to 5000. A large proportion of these at the close of April or the first weeks of May is found resident at the Italian lakes or in such Swiss resorts as Lucerne or the lake of Geneva, whither the practitioner, if not in need of absolute rest, may also locate himself; or, later in the season, he may resume active work in such busy hives of holiday seekers as the Engadine or the Austrian or Bavarian Highlands. His success in such a division of the twelve months may well induce others to do likewise; and if competition, in this as in similar fields, divides remuneration, it is also to be remembered that the public for whose wants he caters is equally a multiplying one, and that professional skill and acceptance have their chances abroad as much as at home. One drawback, which used to act as a deterrent to such a career, especially for the scientifically minded practitioner, is rapidly becoming minimised, and that is the lack of the clinical opportunities which our great cities afford. But means of communication come in to obviate this difficulty like so many others; and the British practitioner in the autumn, particularly by those *Pèriencursus* in vogue not only in Austria and Germany but even in the north Italian schools, can keep himself abreast of the latest developments of his art in theory and practice. There is, indeed, no reason why he should not be found in every continental resort of the English-speaking public, or why, as these resorts multiply, he should not, in equal proportion, come to the front. It is a fact that many places, particularly on the Neapolitan and Sicilian Riviera, would even now be rejoicing in an English-speaking colony if only, in addition to the attraction of a good hotel, there were also a duly qualified British practitioner within hail.

An Italian correspondent writes:—"The University of Siena has just witnessed the appointment to the post of Rector of the Cavaliere Professor Domenico Barduzzi, who holds the chair of Dermosyphilopathy. He was in an immense majority over the other candidates. His energy and general accomplishment will, it is expected, soon make themselves felt in the increased prosperity and efficiency of that ancient seat of learning."

## Annotations.

"Ne quid nimis."

### THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

AN Italian correspondent writes: "I am now in a position to give the precise dates of the meeting and rising of this great assembly. After due consultation with representatives of the leading foreign nationalities the Organising Committee has decided that the inauguration of the Congress shall take place in Rome on Sept. 24th, 1893, and that its labours shall conclude on Oct. 1st following. The adhesions received by the committee from all the chief centres of medical education, theoretical and clinical, throughout the world, have surpassed its expectations, while nothing could exceed the cordiality of tone and loyalty of professional feeling with which these adhesions were conveyed. So far as the representation of the healing art in all its ramifications is concerned, it may now be regarded as in every sense complete, and the committee can already look with justifiable satisfaction on at least one page of its preliminary work as closed. The alacrity, indeed, with which the invitations issued to foreign teachers and consultants have been responded to seems to contrast somewhat with the indifference of not a few of the Italian leaders of the profession to the same appeal. 'Before so signal a success abroad,' says the *Opinione*, 'the medical men of Italy cannot and ought not to remain unconcerned. To them belongs the duty of showing by their numerous attendance that they have fully taken in the high scientific and national importance of next year's Congress. It is for this reason that we gladly share the solicitude with which the Organising Committee addresses its Italian colleagues who have not yet sent in their adhesion to the Congress, and with which it appeals to them to intimate their intended participation in its proceedings without delay.' As usual on such occasions, the nearer to the centre of interest the less the enthusiasm shown in it; but it is reasonable to suppose that ere many weeks elapse the Italian contingent, already considerable, will not prove disproportionately short as to the attendance, in point of number and distinction, expected of it. For all who desire further information, or who have yet to intimate their intention to assist at the Congress, I may add that the proper quarter to communicate with is La Secreteria Generale del XI. Congresso Medico-Internazionale, presso la Clinica Medica, Ospedale di Pammatone, Genova."

### THE EVOLUTION OF LANGUAGE.

IF we may be guided by some recently published observations of Professor Garner of Virginia another connecting-link between man and the lower animals is to be traced in the possession by the latter of something like a faculty of articulate speech. Even the chatter of monkeys, if methodically studied, becomes in a degree intelligible—that is, to the human mind. Among these animals themselves it is, according to the observer above named, not only intelligible but understood. He has noticed in their utterances evidence of a purposive character. Signs expressive of address accompany appropriate sounds, and are able to excite responsive actions. Simian speech, in fact, is associated with a form of delivery. It is different for different tribes, and occasionally the language of one is partially acquired by members of another family. The sounds uttered by monkeys in one quarter of the globe, when reproduced by the phonograph, were evidently recognised by animals of the same species in another. Professor Garner, we understand, intends prosecuting still further these interesting studies into what we may call the basis of

articulate speech, and will supplement his observations on captive quadrupeds by inquiries into the gorilla vernacular as it exists in the forest fatherland of the king of apes. His later communications will no doubt be awaited with interest, and may be expected to confirm still further the belief he evidently holds as to the evolution of human speech from an aboriginal, sub-human and rudimentary type. We may be allowed to risk a further suggestion. May not the calls of other animals, the songs of birds, the hissing of reptiles, and the whole and varied catalogue of sounds known in the lower creation be regarded as representing so many stages in the development of language? If Professor Garner's researches, so far as they have gone, indicate anything, it is the probable truth of this assumption.

#### TEA AND TOBACCO IN WORKHOUSES.

THERE is nothing more gratifying to human nature than to have liberty in the use of a valued luxury without either a dread of after consequences or a conscientious prick at heart on the ground of self-indulgence. Happily, we are not without luxuries which can be thus enjoyed, the observance of moderation being always understood. Among them we may number the cup that cheers but not inebriates, and also that much valued solace of tired leisure—tobacco. So familiar to our minds do both appear that many of us would include them rather among the necessaries than the amenities of life. Guided no doubt by such considerations as these the Wandsworth Board of Guardians have introduced a novelty in their system of supply which cannot fail to be warmly appreciated not only by the poor under their charge, but by all who are wisely considerate of the reasonable preferences of appetite. From this time forth every male inmate of their union over sixty years of age will be allowed one ounce of tobacco per week and every woman a daily half-pint of afternoon tea. The tobacco privilege has also been conceded by the parish of St. Olave's, Southwark, and by some other boards of guardians. These kind and inexpensive grants will do something to encourage a belief in the reality of public charity. Given under the above-mentioned conditions they can hardly be accused of exhibiting a pauperising attractiveness. By engendering contentment they will do something to brighten the life, perhaps even to amend the health, of the older workhouse inmates, and we would therefore commend the example of the above-named parishes to others equally open to reason and reform, though not yet so forward in liberality.

#### ALUM IN BAKING POWDER.

ON Aug. 25th at Ilkeston, a grocer was summoned under the Food and Drugs Act on two charges for selling baking powder containing injurious ingredients. From the evidence of Mr. Hehner, the powder in question contained 35.5 per cent. of alum. The alum was used instead of tartaric acid to expel the carbonic acid from bicarbonate of soda. Scientific witnesses, both expert analysts and medical men, were not agreed as to whether the powder would prove injurious when employed to "raise" bread. It was urged for the defence that the chemical process which followed on mixing the powder with the dough rendered it entirely harmless. In the end the summons was dismissed, the magistrates holding that baking powder was not a food and that the powder in question was not sold to the prejudice of the purchaser. This decision is to be regretted. Practically it sanctions the use of alum in a powder which is only used for one purpose—that is, to give porosity and lightness to bread. Bearing this in mind, and not supposing for a moment that baking powder is *per se* a food, it is a moot point whether the powder in question could not be regarded as being sold to the prejudice of the pur-

chaser. It consisted of alum and bicarbonate of soda. These substances when moistened interact, carbonic acid gas escapes and there remains a residuum of sodium sulphate and alumina. Apart from the fact that there is formed by this double decomposition a salt of strong purging qualities—viz., Glauber's salt—it is important to consider what is likely to be the action of the newly formed alumina. It is well known that alumina when precipitated in the presence of certain soluble matters will render them insoluble. This is especially the case with soluble nitrogenous matters. In the chemical treatment of sewage, for example, a large proportion of the soluble nitrogenous matter is removed by adding to the sewage a mixture of sulphate of alumina and an alkali (generally lime). Alumina as a gelatinous precipitate is thus produced, which then, combining with the organic matter in solution as well as that in suspension, subsides as a "sludge" in the precipitating tanks. The same method is adopted for fixing otherwise soluble colours or dyes, the alumina compound formed giving rise to the so-called "lakes." Further than this, alumina combines with soluble phosphates to form insoluble phosphate of aluminium. Surely, in the light of these facts, it is seriously to the prejudice of a purchaser if, when he buys a baking powder, he receives one which is calculated to reduce very materially by reason of the nature of its ingredients the food value of his "staff of life" by rendering both the nutritious and the bone-forming constituents in it insoluble and indigestible. If baking powders must be used, alum should not enter into their composition, especially as there are other comparatively inert and equally effective agents procurable. When a baker uses alum in his bread or flour, proceedings are successfully taken against him under the Food and Drugs Act, and it is reasonable to expect that the same Act should protect the purchaser against alum introduced into his bread in any other form, not excepting that of a baking powder.

#### PUBLIC HEALTH IN SWITZERLAND.

THE "playground of Europe," writes a holiday contributor, "has lately become its sanitary asylum since the outbreak of cholera on the North Sea and Gallo-Batavian coasts has sent the moneyed classes of those regions to the Bernese Oberland. As I write, however, under date the 5th inst., a sensible diminution in this invasion of the panic-stricken has been registered in Switzerland—a diminution largely due to the announcement that in one of the most frequented hotels in Zurich a case of cholera had occurred. But an official inspection of the hotel referred to has dissipated this report, reducing it to the prosaic truth that fumigation, as a disinfecting precaution, had been practised on sundry Germans hailing from Hamburg. No case of death from cholera, no case even of illness from that cause, has been officially recorded in the Confederation. Meanwhile prompt effort has not been wanting on the part of the Swiss authorities to minimise the chance of the introduction of cholera. *L'état général* of the public health has just (5th inst.) been announced by the Bureau Sanitaire Fédéral as 'excellent,' but, all the same, the measures taken by the Bureau for the safeguard of the sanitary position are exhaustive and vigilant. M. Dreyfus, Chef du Bureau d'Emigration, is now in Bâle, armed with full powers to send back across the frontier the emigrant trains arriving by the Chaumont route. Some 250 to 300 passengers by this train were stopped by M. Dreyfus at the frontier; among them the Jews were in a minority, the bulk being composed of Germans, Tyrolese, Italians, and even Americans. On examination, a considerable number had to return whence they came, in some cases leaving their effects behind them; while advertisements, chiefly in the press, gave prominence to the fact that arrivals by emigration trains from Atlantic or North Sea ports

cannot possibly be admitted. The weather in Switzerland, moreover, has been such as greatly to reduce the chances of an invasion of cholera. Since the 3rd inst. wind and rain have been frequent, the temperature has fallen, and, in Italian Switzerland particularly, thunderstorms, followed by snow, have given a distinct freshness to the air. Which means that the subalpine lakes—the Laghi Maggiore, Como and Garda—must attract daily larger numbers of visitors, who, after their *villeggiatura*, will find their way to Venice, Florence, Siena, or Rome, in none of which resorts has there been, or is there likely now to be, the slightest *souppçon* of cholera.”

#### A RESCUE RACE AT BROADSTAIRS.

SEVERAL years ago Dr. B. W. Richardson, during one of his seaside holidays, instituted what he called a “Rescue Race” in connexion with a regatta at Clevedon. Since then one of these trials of skill has been carried out each year as part of some regatta programme. Last Monday week he organised a rescue race at the Broadstairs Regatta with great success, the details being conducted under the able superintendence of Dr. Walter, vice-chairman of the committee. The rescue race is intended to encourage boatmen at seaside places to learn to put out rapidly to sea in cases of accident and to rescue drowning persons who have fallen into the water. A number of floating dummies are thrown out of a boat stationed 440 yards from the shore, and a signal of distress being fired from the boat, the boatmen on the shore rush to their boats, two men in each, row to the scene of danger, pick up the floating bodies (a sack filled with shavings), and return to the shore as rapidly as possible. The first three who land their body get the prizes according to priority. In the present instance the first prize men performed their task within a period of four minutes from starting from the shore to returning to it; the second did it within four minutes and a half; the third within four minutes and thirty-five seconds. The race created the liveliest enthusiasm not only for the skill it called forth, but for the practical usefulness of the effort. A rescue race was also run this year at the regatta at Swanage for the third time.

#### SENSORY SYMPTOMS IN VISCERAL DISEASE.

THE localisation of pain derived from derangement of internal organs is a subject of some interest, but one which has not been much studied in systematic fashion. Dr. James Mackenzie of Burnley has, however, done something to remedy this deficiency in a paper which he contributes to the *Medical Chronicle* (August, 1892), based on the results of several years' careful record of subjective symptoms. He wisely cautions against the reception of vague statements on the patient's part as to previous impressions, and of course excludes from his study of the subject the complaints of neurotic subjects and cases of actual disease of the nervous system. In diagrammatic form he represents the areas over which pain is commonly felt in disease of the heart, of the œsophagus, stomach, liver, intestines, uterus and bladder, and ample confirmation of the correctness of his facts would doubtless be given by most clinical observers. Thus the seat of cardiac pain is represented as extending across the middle of the sternum towards the left arm; that arising from disease of the œsophagus, is localised about the xiphoid; of the stomach, at the epigastrium and towards the left across the lower ribs; of the liver, from a point below the stomach area and extending to the right; of the small intestines, around the umbilicus; of the large intestine and uterus, across the lower abdomen about the level of the iliac spines; and of the bladder, in the hypogastrium. He points out that pains may radiate from these sites, generally in the course of nerve tracts intimately associated with the spinal origin of the nerves supplying the

skin at the seat of the central pain. Another matter of interest is that the tenderness so often associated with the pain is seated not in the affected organ or in the skin itself, but rather in the subcutaneous tissues; and, what is, we believe, a new point, there is often tenderness over the vertebral spines, corresponding to pains in the back associated with visceral disease. These areas of spinal tenderness embrace from the first to the fourth dorsal spines in cases of cardiac pain, from the fourth to the eighth spines in gastric pain, and from the eighth to the eleventh in hepatic pain, the area of uterine and rectal pain being, as is well known, found over the sacrum. Sometimes areas of hyperæsthesia, together with increased activity of cutaneous reflexes, may be defined, and even anæsthetic patches; whilst persistence of the former may be taken as a guide to the persistence of the pain-producing cause. Dr. Mackenzie enters into fuller detail, with illustrative cases, of each of these points, and it may be remarked that as regards the liver and kidney he has not been able to associate pain with any parenchymatous disorder, but only when the ducts are involved, as in gallstone, renal calculus, pyelitis, &c. At the close of the paper he draws attention to a few points arising out of the study of the subject, such as the fact that pains referred anteriorly are mostly of an intermittent character, whilst those felt posteriorly are more constant; that the pain arising from single and unilateral organs is mostly felt across the middle line of the body, and that in every case muscular fibres are involved. He points out that it is not quite clear how the stimulus is transmitted to the cells in the cord connected with the spinal nerves involved. In the case of the diaphragm this is doubtless through the phrenic nerve affecting the origin of the fourth cervical nerve, and hence the shoulder-pain in these cases, but in visceral affections the path must be through the sympathetic connexions with the spinal cord. The pain is not in the viscus itself, but is due to the stimulation of sensory centres in the cord in connexion with the sympathetic branches supplying the organ, whilst the irradiation of the sensory phenomena, like that of the distribution of herpes zoster, follows the area of distribution of sensory filaments proceeding from the stimulated spinal cells.

#### RECREATIVE EVENING CLASSES.

MOST persons who have given any thought to the subject must have felt that a system of school instruction which is virtually terminated at the age of thirteen, cannot pretend to do more than provide for elementary education. During the years of youth which immediately follow much of what was learnt must be forgotten amid the more practical anxieties of learning a trade and of learning how to live by it. During this period also it is even more difficult to find time or opportunity for self-culture outside the round of daily occupation. There is clearly therefore an opening here for further educational organisation, and this has been occupied with no small measure of success during the past few years by the Recreative Evening Schools Association. The name of this body is fairly descriptive of its aims and its constitution, but some particulars of its past history and its prospects, as noted in a recent report of its sixth annual meeting held on the 12th of July last, are interesting nevertheless. The work of the Association consists, as we have indicated, in supplementing the instruction afforded by ordinary board and voluntary schools by studies more advanced and more practical and in using a method less precisely scholastic. It is carried on in the schools above mentioned, in playgrounds and other suitable premises. The course is a full one and comprises, in addition to history and geography, such subjects as needlework, dress-making, cookery, wood-carving, shoemaking, singing, gymnastics, shorthand, bookkeeping, French and a variety of others. The managing committee note that during the past

seven years not only has there been a large increase in the number of evening schools under inspection by Government inspectors, but that the number of pupils on the register has been nearly doubled, while that of attendances and of pupils qualified for examination by attendance in 1891 was more than twice what it was in 1885. In the earlier year the average attendance was 24,233, in the later 51,974. The new movement, therefore, has evidently taken root and is growing, and the committee feel the more encouraged to call upon School Boards and managers, County Councils, and all who take interest in the well-being of the community, to aid them in their useful work. We are pleased to see that pupils contribute somewhat in fees. This is only right. Surely, the enjoyment of such privileges should be recognised and valued no less as a private boon than as a public trust.

#### THE CHAIR OF SURGERY AT GLASGOW UNIVERSITY.

A TESTIMONIAL numerously signed by the physicians and surgeons of Glasgow and throughout the United Kingdom generally has been sent to the Secretary of State for Scotland on behalf of Dr. William Macewen, who is, we understand, to be a candidate for the chair of Surgery in Glasgow University—at present vacant by the lamented death of Sir George Macleod—urging in his favour that he has been a surgeon on the staff of the Glasgow Royal Infirmary for nearly seventeen years, and the manner in which he has devoted his energies to the advancement of scientific surgery during that period. In proof of this they refer to his masterly work on osteotomy, and to the fact that he is the pioneer of brain surgery, which has been the means of relieving a class of maladies hitherto looked upon as intractable. Dr. Macewen also has the honour of being the first surgeon to successfully transplant bone, a case remaining unique in the annals of surgery. The memorialists express their belief that this eminent surgeon's appointment to the vacant chair would secure the approbation of all competent to form an opinion on the matter.

#### MISSED LABOUR IN ANIMALS.

WE referred in our issue of Aug. 27th to a case of "missed labour" occurring in a mare, particulars of which were brought before the members of the Yorkshire Veterinary Medical Association by Mr. Philip Deighton of Riccall. A resolution was passed requesting us to express an opinion on the case, particularly in its relation to human obstetrics. Six years ago the mare was known to be in foal, yet labour never came on from that time to the time of her death, which occurred on June 3rd last, from strangulation of the intestine. During the whole of this time she was under observation, so that the case cannot be explained by assuming that she was delivered of the foal she carried six years ago and that the one found in utero at the time of her death was the result of a subsequent pregnancy. A careful post-mortem examination seems to have been made and the record of it distinctly states that the skeleton of the foal was reached "on opening the uterus," also that the uterus was about the size of "an ordinary iron bucket" and almost of "the shape of a champagne bottle"—that is, of a symmetrical figure. There is no mention of any adventitious cavity communicating with that of the uterus, while it seems clear from the description that the cavity of the uterus was *uniformly* enlarged and to an extent sufficient to entirely contain the skeleton of the foal. Mr. Deighton's account of the case is so precise that there seems to be no reason to doubt its being a genuine example of "missed labour." Formerly the occurrence of "missed labour" in the human female was generally believed in by obstetricians. That is to say, it was accepted as a possibility that a woman might go the full term of pregnancy or there-

abouts, that the foetus might die and then be retained in the cavity of the uterus for a longer or shorter period—perhaps for many years. It is now, however, generally recognised that the large majority of such cases, if not indeed all, are examples of extra-uterine pregnancy. Certain it is that some cases of supposed "missed labour" have, on post-mortem examination, been found to be cases of extra-uterine pregnancy where a communication had been formed between the cavity of the gestation sac and that of the uterus, thus allowing portions of the foetus to be felt during life through the os uteri. Nevertheless, it seems probable that very rarely genuine cases of "missed labour" do occur in women. Lusk cites a case which he regards as conclusive. The probable date of confinement was Oct. 28th, by the middle of November it was known the child was dead, and "there was no further expulsive action." On Dec. 30th the child was removed from the uterine cavity by Cæsarean section. The analogy between labour and abortion would lead us to a similar conclusion. Cases of "missed abortion" are not at all rare—i.e., cases where, after the death of the ovum at, for instance, the third month, it is retained in utero for weeks or months without the uterus seeming to make any effort to expel its contents. Such retention rarely lasts beyond what would have been the full term had the pregnancy been a normal one. Retention of the ovum for an indefinite period, to be measured by years, is not met with. Similarly we shall probably be right in accepting the possibility of the occurrence in women of "missed labour" when the period during which the foetus is retained beyond full term is a relatively short one, as in Lusk's case, just cited. Where the retention of a dead full-term foetus extends over a period of years there would be a very strong presumption that the case was really one of extra-uterine pregnancy.

#### POISONING BY ANTIFEBRIN.

DURING the last influenza epidemic in Sweden a great many cases of poisoning by antifebrin were observed, as people, immediately they were attacked or believed themselves to be attacked, applied to chemists for the purchase of the drug and took it *ad libitum*. All these cases, however, even when somewhat severe symptoms followed any considerable abuse of the remedy, ended in recovery. Dr. W. Warfvinge of Stockholm has published two such cases in *Hyggeia*. The first was that of a man aged thirty-five years, who took two drachms of antifebrin one morning. In five minutes he felt fatigued and experienced a sense of weight in his head, and soon afterwards black and red clouds appeared before his eyes. Then lassitude in the extremities came on and he went to bed and slept for an hour and a quarter, when he was easily aroused by a call. All this time he understood everything, though not very clearly; but when he attempted to rise he felt giddy, staggered for a few steps and then fell down unconscious. When brought to bed again he swore and fought like one drunk, but soon sank into a comatose condition, with closed eyes, well-marked cyanosis, especially of his lips, relaxed muscles, cold hands and feet, decreased temperature, moderate diaphoresis and a lowering of respiration and pulse. These latter improved after hypodermic injections of camphor and ether, but the comatose state continued for sixteen hours. The following day no symptoms remained but frontal headache and cyanosis. The temperature varied from 97.7° to 101.12°. The urine was clear, deep-coloured, and contained much indican, but no blood, albumen or sugar. Some cyanosis could still be observed on the third day, when the urine was violet from traces of indican. The second case, which, like the first, had been treated in the Sabatsberg hospital, was that of a girl of fifteen, who had taken nearly half an ounce of antifebrin with only just

enough water to enable her to swallow it. In a quarter of an hour her whole body became hot and perspiring. Immediately afterwards she complained of vertigo and impairment of sight, and on attempting to rise from her chair she fell to the ground fainting, and remained in an unconscious state for seven hours and a half. After admission to the hospital vomiting came on. Coma was not so deep as in the other case, and she answered when spoken to loudly. Cyanosis was well marked, but disappeared the following day. The pupils were slightly contracted. The temperature varied from 96·8° to normal. The much speedier complete recovery in this case is probably explained by the washing out of the stomach, which was done within an hour after the antifebrin had been swallowed. Some cases recorded by other authors are referred to by Dr. Warfvinge. A patient of Dr. Z. W. Piehl had taken two scruples of antifebrin on two consecutive days as a remedy against the "Russian influenza," and the second dose was almost immediately followed by restlessness, dyspnoea, vertigo, vomiting, lassitude, pallor of face with cyanosis of lips and nails, a small pulse of 120, and extremely cold hands, feet and nose. Consciousness was, however, not lost in this case, and stimulants soon led to recovery. Dr. Albert Pallin observed in two workmen, each of whom had taken two teaspoonfuls of antifebrin in a day, cold sweats, cyanosis, fright, depression and incipient collapse.

#### CONFERENCE OF MEDICAL OFFICERS OF HEALTH.

THE above conference, held in connexion with the annual meeting of the Sanitary Institute, will take place at Portsmouth on Tuesday, the 13th inst. Several of the subjects proposed for discussion are of especial interest in view of the threatened invasion of cholera. Drs. Seaton, Groves, and Blackman will take part in a discussion on Isolation Hospitals. Dr. Swete will read a paper on the Purification of River Water, Mr. D'earth one on Village Sanitation and its Importance to the Public Health, and Dr. Thresh will deal with the subject of Interpretation of Results in Water Analysis. The Compulsory Notification of Phthisis will be discussed, Mr. A. E. Harris reading the introductory paper, and Dr. Newsholme will introduce the subject of Tuberculous Meat. After the meeting the members will visit the Sewage Tanks and Pumping Station at Eastney and the Borough Asylum at Melton. Altogether an interesting programme has been prepared, and it is hoped that the Conference will be largely attended.

#### A NEW CHINESE MEDICAL SCHOOL.

It is a matter for sincere satisfaction within the ranks of the profession when, without prejudice to existing institutions, a new school of medicine arises in answer to the demand of a local need. We who are watching with some anxiety the slow and halting growth of a metropolitan teaching centre can well sympathise with this feeling. We can therefore cordially appreciate the genuine advance which is indicated by the establishment of such a centre, similar in aim if less ambitious, in Hong Kong. This institution has been founded by resident British practitioners and is intended for the instruction of native Chinamen in scientific medicine. Alike in its history as an independent creation and in its purpose, it therefore illustrates the developmental characters of several deservedly reputed European schools. As regards the necessity for its formation there can be no question. Chinese ideas of medicine, as of many other matters, are of the most quaint description. Astrology, demonology and magic are among the classics of the art in that country, and its accredited methods and implements partake, as is well known, of the same unearthly and inefficient character. Into this cavern of mystery science enters like a beam of pure sunlight, and with it health. The professoriate of the new school is to be congratulated on having successfully localised some of

this vital force in the active personality of two intelligent native graduates who, after a course of five years' training, have been accounted worthy to discharge the responsible duties of the duly instructed medical practitioners. After so careful an introduction to duty the professional development of these gentlemen will be noted with some interest. It is the ambition of the new college that its course of instruction should be recognised in this country. The object is no impossible one, and if we do not yet know of reasons sufficient to justify its present attainment, we can at all events recognise in the care bestowed upon these first *alumni* a prognostic indication of success in this particular at no very distant date.

#### PHARMACY AT THE ITALO-AMERICAN EXHIBITION IN GENOA.

EPOCH-MAKING in many ways, the discovery of America by Columbus, now celebrating its fifth centenary, has had an historical effect on therapeutics by the additions to pharmacy introduced from the New World. The great Italo-American "Exposition," organised in connexion with that celebration at Genoa, places this fact in the most interesting light. We speak not only of the quinine-bearing cinchonas and the many recent accessions made to pharmacology by Transatlantic medical science, but of what may be called the "non-official pharmacopœia of America." Under the section of "Erbe Medicamentose" (medical herbs), there is a most instructive assortment, from Honduras especially, of the remedies drawn from the vegetable kingdom for surgical as well as medical uses—herbs not unknown to European science, thanks to the zeal of the missionary fathers who brought civilisation into that region. Among these may be mentioned a liquid balsam employed, not without success, by the natives in the earlier stages of phthisis; other vegetable products of acknowledged value as emetics, as remedies in cholera, as emollient and strengthening lotions in the treatment of fractures. Pharmacology, ever on the watch for new weapons wherewith to enrich its armoury, will await with curiosity and interest the expert report now in preparation on these and other specimens of the "indigenous drugs" of the New World.

#### CHOLERA AND CREMATION.

IN *The Times* on Monday there appeared a letter from Sir Spencer Wells quoting the following paragraph from its issue of the 3rd inst.: "The German medical papers are beginning to agitate strongly in favour of compulsory cremation where cholera has been the cause of death." Sir Spencer Wells proceeds to observe that "the destruction of the bacilli found in the bodies of cholera patients has long been regarded by most bacteriologists as one of the most necessary measures to prevent the spread of the disease; and there can be no doubt that fire is the swiftest and most effective mode of destroying the bacilli." This is all very true, and, assuming that cremation were limited to the victims of epidemic diseases, whether cholera, scarlet fever, typhus fever, or diphtheria, the great objection to cremation—i.e., the medico-legal one—so frequently urged in these columns would be removed. But we think that exception must be taken to the following sentence: "If they (the bacilli) are buried in the earth they are almost certain to multiply and sooner or later to pollute the earth, the water and the air, and so act as storehouses of disease which ought to be stamped out." There are throughout the length and breadth of this country numerous burial grounds containing the bodies of thousands of victims of past cholera epidemics. Are there any grounds for believing that these are storehouses of disease and that the adjoining houses are unhealthy? The point is one which admits of positive proof or denial. Sir Spencer Wells, feeling very strongly on this point, wrote to Sir Walter Foster, the Parliamentary Secretary of

the Local Government Board, to inquire how the usual regulations as to burial are modified when those who are buried have died of cholera, and whether the cremation of such bodies had been considered by the Board. In reply, he was informed that the Board had not considered the question, but he expresses a hope that the attention given to the matter in Germany will have its effect here, and that it will receive full and favourable consideration from the Local Government Board.

#### SMALL-POX IN AUSTRALIA.

WE learn from the *Sydney Mail* of June 25th that consternation amounting to panic has been caused in Melbourne and Sydney by the landing of passengers at these places from the ss. *Oroya*, of the Orient Line, who afterwards developed small-pox. The ship touched at Albany and Adelaide, was granted pratique at both, and then went on to Melbourne, where a passenger was landed in an advanced stage of the disease. On proceeding to Sydney other suspicious cases were landed. Every effort has been made by the authorities to trace the passengers who landed at the respective ports and to secure their revaccination. But in a continent like Australia, where compulsory vaccination is unknown (and, it is said, would be resisted), the prospect of a widespread and serious epidemic is not at all improbable.

#### THE FUNCTIONS OF VISITING AND RESIDENT STAFFS: THE BRISBANE HOSPITAL.

THERE has been some friction between the visiting and the resident staffs of the Brisbane Hospital. It appears that in 1883 a change was made in the by-laws which took the chief responsibility for the treatment of patients out of the hands of the visiting staff and placed it in the hands of the resident medical superintendent. At a meeting convened for the purpose of considering the action of this rule and its bearing on the respective duties of the visiting and the resident—the honorary and the paid—officers, Dr. Little, one of the honorary staff, complained that he was often left uninformed of important facts in the condition of patients after serious operations, that in his rounds of the hospital he was not always accompanied by one of the resident staff, and he moved that the committee should return to the by-law of 1883. Various views were expressed. Dr. Little was supported by one of his honorary colleagues. On the other side it was hinted that the visiting staff were not always regular in their attendance. In the result it was resolved that the committee of the hospital enjoyed the confidence of the subscribers and that no further action was necessary. The question is one which seems to us to require more definite settlement, otherwise the patient may fall between two stools. Unquestionably the public consider the visiting officer responsible for the treatment of patients, and that the resident officer acts, except in emergencies, under his supervision.

#### A BRITISH HOSPITAL FOR HYDROPHOBIA.

IT is indeed remarkable, we might even say disgraceful, that after the Pasteur treatment of hydrophobia has for years been in successful operation, and in face of the still recent prevalence of canine rabies in this country, we do not possess among ourselves the means of treating this dreaded malady promptly and effectually by preventive inoculation. There are at least three possible explanations which account for this evident omission. One is to be found in the fact that rabies, though not a rare, is not a common disease, nor is it at any time generally prevalent. Then, again, its period of incubation is relatively long. Consequently there has been an absence of any general panic during its visitations, and a large proportion of its victims have been able to avail themselves of the treatment afforded at the Institute in Paris.

Probably, too, the attraction of a great name has not been without its influence in drawing them thither. Yet another cause must also be noted in accounting for our national deficiency in this particular. This is the feeling against vivisection which is still maintained in many quarters. Surely no greater anomaly wears the aspect of true sentiment than this unreasoning antipathy which, in order to spare the sufferings of a few rodents, would permit a human being to live and die in agony within reach of the only remedy proved capable, and amply capable, of relieving him. By some singular twist of logic it has been suggested that members of our own profession are in some way to be blamed for the non-establishment of a British institution for the treatment of rabies. We will not stop to discuss this absurd accusation. We are well assured that when the public mind is opened to the arguments of reason on this subject the voice of medical opinion will greet it with no uncertain sound. There can be no question that a British institute like that in Paris would prove most useful in emergency. It need not be large or costly, and, what is important, it would prevent injurious delay in treatment.

#### POST-GRADUATE CLASS AND LECTURES.

AT Charing-cross Hospital special series of clinical lectures and practical demonstrations, exclusively arranged for the convenience of practitioners and post-graduate students, are given at the hospital by members of the staff throughout the year. The lectures for the year are arranged in three courses, each course consisting of ten meetings and lasting ten weeks. Two of these courses are held during the winter and one during the summer. The class meets on each Thursday afternoon at 4 p.m. in the Board-room of the hospital and proceeds thence to the ward or other department in which the demonstration may be held. The fee at present charged for each course of ten lectures is one guinea. The first of the two winter courses of the ensuing academical year will commence on Oct. 13th next and will be conducted by the following members of the medical and surgical staff: Drs. Green, Bruce, Willcocks, Murray, Mott, Routh, Arkle and Messrs. Bloxam, Boyd, Waterhouse. Practitioners wishing to join the class can receive any further information as to the dates and subjects by communicating with the honorary secretary (Dr. Willcocks) or the honorary treasurer (Mr. Boyd) at the hospital.

#### THE SECOND INTERNATIONAL CONGRESS OF PHYSIOLOGISTS.

THE Second Triennial International Congress of Physiologists has this year held its sittings at Liège, with Professor Holmgren (Upsala) as President, in the Physiological Institute of the University. The Congress terminated on Thursday, Sept. 1st, after a banquet at which the Burgomaster of the city was present. More than 100 European physiologists attended the Congress; of these twenty-four represented Great Britain and Ireland, the number of British members being larger than at the Congress at Basle four years ago. Professor Michael Foster and Professor Burdon Sanderson were present. The following British members made communications, illustrated for the most part by experimental demonstrations:—On the first day: Professor Halliburton (London) on Nucleo-albumins; Dr. Starling (London) on the Fate of Peptone in Blood and Lymph; Professor Sherrington (London) on the Action of Antagonistic Muscles under Reflex and Cortical Excitation (demonstration). On the second day: Professor Schäfer (London) on some further Experiments on the Frontal Lobes; Dr. Noel Paton (Edinburgh) on Crystalline Globulin from Urine (demonstration); Professor Sherrington on Varieties of Leucocytes (with demonstration); Professor Schäfer on Structure of Striated Muscle (with demonstration); Professor Sherring-

ton on Cortical Centres for Movements of the Anus and Vagina (demonstration). On the third day: Professor Gotch (Liverpool) on Temperature and Excitability (with demonstration); Dr. Bayliss (London) on the Depressor Nerve; Professor Burdon Sanderson and Mr. Burch (Oxford) on the Capillary Electrometer and Observations on Muscular Contraction; Dr. Waller (London), Myothermal Observations upon Man (with demonstration). It was agreed to hold the next Congress in 1895 at Berne, in the Physiological Institute of the University, under Professor Hugo Kronecker. The general secretaries chosen for the next Congress are—for the French language, Professor Arloing; for the German language, Professor Exner; for the English language, Professor Sherrington.

#### FEVER IN LONDON.

It is somewhat disturbing to learn that the scarlet fever prevalence in London shows no sign of abatement, and that the admissions have begun to exceed the discharges from the hospitals. The result of this is that the hospitals are full, and already we hear of cases being treated at their own homes. In the meantime the preparation of the new hospital at Tottenham is being pressed forward. We trust that the Asylums Board may be enabled to open this as quickly as possible in order to prevent the home treatment of scarlet fever.

#### SICKNESS AND MORTALITY OF ROSS AND CROMARTY.

DR. BRUCE, in his report for 1891, endeavours to give an idea of the diseases of this district. Taking the sickness from the records of his own private practice for the three years 1870, 1871 and 1872, and again for the three years 1883, 1884 and 1885, he had the following number of cases: Consumption, 30; whooping-cough, 30; epidemic pneumonia, 30; typhoid fever, 23; diphtheria, 14; and rheumatic fever, 6. In the first three years he had three cases of cancer, in the latter three years ten cases. In the earlier period no scarlet fever, in the latter twelve cases. Owing to the large proportion of uncertified cases the death returns are very incomplete, as we elsewhere remark, but we may give the chief factors in the order of fatality, if only to enhance the reflections we make in another column. Consumption causes a mortality of 1.68 per 1000 living; the deaths from diphtheria or croup, a "terrible record," are 131, or 0.543 per 1000; measles causes 73 deaths, equal to 0.300 per 1000 living; cancer 67, equal to 0.284 per 1000; diarrhoea 61, equal to a rate of 0.258; typhoid fever 19, equal to 0.080 per 1000; scarlet fever 14, equal to 0.059; puerperal fever 13, equal to 0.055; tetanus 11, equal to 0.047. We assume that these "tetanic" cases are mostly infantile, of the nature of trismus neonatorum, and if so they are not the least significant indication of the insanitary condition of dwellings and of the preventableness of the mortality in these parts.

#### INTERNATIONAL DERMATOLOGICAL CONGRESS.

THE foreign and Austrian members of this Congress met on the 6th inst. at a social gathering at the Kaiserhoff, when it appeared that in spite of the outbreak of the cholera epidemic the attendance of members of the Congress from foreign countries will be a good one, though the arrival of many French, English, American and German members was delayed by the quarantine measures of the continental states. The Congress was opened on Wednesday at the University Hall by Professor Kaposi, who addressed the meeting in the German, French and English languages, in presence of the officials delegated by the Austrian Ministers and the City of Vienna. Professor Hardy of Paris, having been elected president, gave an address which he styled "Coup d'œil sur l'État Actuel de la Dermatologie." He gave a sketch of the development of modern dermatology from

the time of the school of the St. Louis Hospital, where Mayer, Cazenove, Gibert and Vergeric laid the first foundation of scientific dermatology. He then pointed out the great merit due to Erasmus Wilson and Hebra, who inaugurated the anatomical study of skin diseases and he explained finally the importance of bacteriology and of modern neurology in the development of dermatology. The first subject of discussion was leprosy, but as Dr. Petersen of St. Petersburg and Dr. Arning of Hamburg were absent on account of the outbreak of the cholera in their respective countries, the thesis prepared by Dr. Arning was read by the general secretary.

#### THE GENERAL MEDICAL COUNCIL.

WE have been informed that the name of ex-Professor John Struthers has been mentioned in Scotland as a fitting successor to the late Sir George Macleod in the General Medical Council. Dr. Struthers resigned his seat for the University of Aberdeen, much to the regret of most of his fellow-councillors, who appreciated the good work he had done on the Education Committee; and although he had not, and as we are informed has not, any intention of becoming a candidate, yet we understand that he would accept the Crown nomination if offered to him.

#### TYPHOID FEVER AND ICE CREAM.

DR. GEORGE TURNER is said to have informed the London County Council that he has traced an outbreak of enteric fever to the distribution of infected ice cream by Italian street vendors living at Deptford. The Council has properly urged on the local sanitary authorities attention to this possible source of danger.

#### ERGOTISM AND EYE AFFECTIONS.

DR. KORTNEFF relates in the Russian *Ophthalmic Review* some results of an epidemic of ergotism which recently raged in the Viatka Government, affecting 2000 persons. This was due to diseased rye having been employed in the making of bread. About two months after the commencement of the epidemic a good many patients came to the dispensary, complaining of trouble with their eyes. Some of them had temporary attacks in which vision was diminished to  $\frac{1}{5}$ , or even less, the fundi being very pale; and simultaneously with the eye trouble there was trembling of the limbs. Others complained of persistent impairment of vision, and these were found to have cataract which could not be distinguished from ordinary senile cataract. Maturation took place in from three to twelve months and was especially rapid in the case of children, some of whom were only six years of age.

#### THE EXTENT TO WHICH THE TOXICITY OF PHOSPHORUS IS AFFECTED BY TURPENTINE.

THE utility of turpentine in cases of phosphorus poisoning has been submitted to a very thorough investigation by Dr. Bush of Dorpat, who employed cats, dogs, a rabbit and a cock for his experiments. The phosphorus was administered in amounts larger than the minimum lethal doses, either hypodermically or in the form of emulsion by the mouth; and an hour or an hour and a half subsequently an emulsion of turpentine was given. The results showed that turpentine has the power of hindering to a certain extent the toxic action of the phosphorus. In addition to the use of turpentine in cases of acute phosphorus poisoning Dr. Bush advises that emetics should be given and that the stomach should be washed out. He estimates that doses exceeding the lethal dose by 0.001 grm. per kilogramme of body weight may be rendered non-fatal by means of turpentine. The explanation of its action is that it forms a compound analogous to the terebinthino-phosphoric acid described by Koehler and by himself, this body being less toxic than the phosphorus contained in it.

## FOREIGN UNIVERSITY INTELLIGENCE.

*Buda-Pesth.*—Dr. E. Reczey has been promoted to an ordinary professorship of Surgery.

*Cracow.*—Dr. K. von Kostanecki has been appointed to the chair of Comparative Anatomy.

*Gratz.*—Dr. Carl Freiherr von Rokitsansky has been appointed to the chair of Midwifery and Gynæcology.—Dr. Ernest Borner, who has for a considerable period discharged the duties of the professorship, has received an acknowledgment of his services in the form of a knighthood of the Order of Francis Joseph.

## DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Professor Ludwig Bandl, the well-known Vienna gynæcologist, at the age of forty-nine.—Dr. Otto von Steinau-Steinrück, formerly a well-known and much-respected Berlin practitioner, at the age of seventy-six.—Dr. Alexander Obermüller, a distinguished Russian surgeon, who was associated with Professor Pirogoff in Sebastopol during the Crimean War, and who did important service in organising the medical department of the Russian army during the Russo-Turkish War.—Dr. Porai-Koshitz, *privat-docent* in Syphilography in the University of Kharkoff.

ITALY, at the commencement of the tourist season, wisely sends to the frontier of the Alta Italia the Commendatore Pagliani, Director-General of State Hygiene, commissioned to reorganise the sanitary surveillance, now rendered doubly necessary by the influx of strangers, particularly from the North Sea ports. The use and incidence of disinfectants are among the provisions of which he is to take special cognisance, so as to observe a just means between vexatious restrictions on the one hand and perfunctory operations on the other.

THE death, on the 5th inst., of John Edward Morgan, M.D. Oxon, F.R.C.P. Lond., is announced. The deceased physician was brother of Sir G. Osborne Morgan, Judge Advocate-General in Mr. Gladstone's late Administration. Dr. Morgan was a voluminous author, whose works for the most part are destined to survive.

WE have to announce with regret the death on the 2nd inst. of Mr. Walter Pye, F.R.C.S., Eng., Lecturer on the Practice of Surgery at St. Mary's Hospital, and late Professor of Pathology and Surgery at the Royal College of Surgeons. Mr. Pye held several hospital appointments, and was the author of many valuable works on surgery.

AN Italian correspondent writes: "By Royal mandate Dr. Guido Baccelli has been charged to represent His Majesty the King of Italy at the inauguration of the International Medical Congress which opens on Sept. 24th, 1893, in Rome."

THE introductory address of the winter session in the Faculty of Medicine in Owens College, Manchester, will be given on Monday, Oct. 3rd, in the Chemistry Lecture Theatre of the College, by Dr. W. H. Broadbent, F.R.C.P.

THE inhabitants of Monkwearmouth are up in arms against the proposition to erect a wooden building in Sunderland, to be used as a cholera hospital in case of necessity. The contention is that the hospital should be a floating one.

## CHOLERA.

## PROGRESS OF THE CHOLERA.

IT is satisfactory to learn that cholera shows symptoms of distinct decline in what may be regarded as its European home—namely, Russia—and at Hamburg, from which point it menaces both the Continent and the British Isles. But there is still room for discouragement in the fact that the disease has appeared at Riga and in the suburbs of Hamburg. It is gratifying to know, on Professor Virchow's high authority, that strenuous means are being taken in Russia to combat the malady, and that the hospitals provided are excellent in every way. Satisfaction will be felt, too, in considering that cholera has acquired no foothold in Berlin or the interior of the German Empire, and that there has been no southward march of the disease to the Austrian Empire or to the Black Sea or Turkish ports. The enemy has, indeed, followed a western route on this occasion as in previous epidemics. So far Hamburg has been the only threatening point as regards this country, although it appeared at one time as if Havre and Antwerp would constitute real dangers to us. These latter fears have now apparently proved groundless. But there is cause for uneasiness in the recent news to hand that cholera is sensibly present, though not as yet in epidemic form, at Rotterdam, which, like Hamburg, is one of the classic places from which the disease has been imported into this country.

It is gratifying to see not only that public opinion has been aroused with regard to the danger which threatens us, but that the local authorities of the country, particularly those of port and riparian districts, are taking every precaution to keep out the disease and to deal with it if it unfortunately enters our land. This is being energetically done with the active advice and assistance of the Local Government Board medical staff. So far, the results as to prevention have been satisfactory. Though there have been importations from Hamburg into the Thames and the Tyne, and at Grimsby, there has been no spread amongst the land population contiguous to these respective ports. Indeed, the arrangements for dealing with the pestilence that threatened London as well as the north and north-east of the country have been most admirably planned and carried out. Londoners in particular owe a deep debt of gratitude to the port authority and to the efforts of Dr. Collingridge, their health officer. No doubt this country is in a better condition now to resist cholera than it was in the great epidemics of 1849 and 1854, or even during the more localised outbreak of 1866; and were the disease to burst through the first line of defence—viz., the ports—it would not reach the terrible proportions of former days. But it will be universally confessed that we still have many weak points and "plague spots" amongst us in which cholera would thrive abundantly. So that the second line of defence—namely, improvement in sanitary matters—should be got ready without loss of time. It is to be sincerely hoped that the third line of defence—viz., hospital provision and isolation—will not be necessary. Nevertheless, it is well to know that in London the Asylums Board and local bodies are maturing a system of ambulance transit and hospital accommodation, whilst sanitary authorities in the provinces are doing their best in the same direction. At present all efforts are concentrated on the points of entrance of cholera. Our English system of medical inspection, as opposed to quarantine, so amply vindicated before, is now again in the furnace of experience. A striking contrast is to be observed at New York, where, in consequence of outbreaks of cholera on the *Italia* from Havre and the *Normannia* from Hamburg, a general European quarantine is in force. This contrast will doubtless afford a means of comparison of the efficiency of the two systems. There is no fear that our own will not stand the test. In the meantime, as a correspondent of *The Times* of Sept. 5th wisely says, there should be no undue alarm amongst the public at the present crisis; for, in the first place, no epidemic exists at all, and even if an epidemic such as we have previously had were to take place, it would, on an average computation, be thirty-five times less severe than an ordinary outbreak in the native home of Asiatic cholera.

CHOLERA: WHAT WE KNOW ABOUT IT AND WHAT WE STILL REQUIRE TO KNOW.

We said last week that the study of cholera as a branch of epidemiology is one thing and the study of the causes of its progress in relation to communities and its propagation among the series of units of which such communities are composed is another, and that different conclusions would probably be reached according to the standpoint from which the observations are made. Considering what may without exaggeration be characterised as the flood of cholera literature which has recently appeared in the shape of leading articles, correspondence and paragraphs descriptive of the course and progress of the epidemic and its real or alleged causes, or proffering advice and suggestions in regard to the prevention or mitigation of that disease, it is somewhat singular that some points connected with its recent history have not been more forcibly dwelt upon. To begin with, there is not one—there are two epidemics. One of the most curious and interesting features connected with the medical history of Europe at the present time consists in the fact that we have, in reality, to deal with two epidemics of cholera which, so far as our present knowledge stands, have been or are independent of one another. They have started from different centres and pursued different courses, and that which was nearest to us in Europe apparently anteceded the appearance of the other and larger one on Russian territory. The starting-point of the latter has been traced back to the great Hurdwar fair in India. It will be remembered that the cholera broke out there on March 22nd, and that the fair in consequence was closed on the 25th of that month and the vast assembly of pilgrims dispersed. Thence the disease may be traced by way of Afghanistan and Herat, at which places it prevailed in April, into Russian territory and along the Caspian to Baku and Tiflis, with a cross branch from its left flank towards Batum and the Black Sea, and onwards by the Volga until it reached St. Petersburg, and going south-westward, ultimately Hamburg. On the other hand, the other epidemic commenced as a limited but very sudden and fatal outbreak in an overcrowded prison at Nanterre, close to the Seine, early in April last, and the disease having prevailed in the suburbs of Paris, especially in the neighbourhood included, as it were, in the loop of that river, subsequently reached Rouen and Havre. It likewise prevailed at Antwerp, which may possibly be topographically regarded as the point of confluence or convergence of the two epidemics. The exact nature of this epidemic disease near Paris at the date of its inception in the outbreak at Nanterre in April was a matter of contention at the time. It was strenuously denied that it was Asiatic cholera at all, but rather some pseudonymous congener which closely mimicked that disease, but was dependent on strictly local causes—viz., the use of the Seine water—and clearly had no relation to the cholera epidemic invading Russia at her eastern frontier. The next point to be remarked is that attention has been concentrated on the Russian epidemic almost to the exclusion of the other, and that by vessels from Hamburg and by Jewish and other immigrants from Russia the disease has been introduced into this country in numerous directions, but in no instance has it happily taken root in our soil; or rather it would be safer to say that up to the present time it has not manifested its presence among us by any epidemic or more circumscribed outbreak of any kind. It may be pertinent and interesting to advert here, in connexion with the date of the earliest cholera manifestation in the vicinity of Paris, to a somewhat significant parallel fact connected with the way in which cholera comports itself in India. When cholera overflows, as it were, the margins of its endemic area in that country, either sporadic cases of so-called spring cholera or sudden and very circumscribed outbreaks of that disease are frequently the earliest premonitory manifestations of an increased activity on a far wider scale later on. Be this as it may, the disease, although introduced, as we have said, at so many points in this country, has not taken root and developed, and that this is so has been quite reasonably attributed to our improved sanitation and good water-supply having afforded it no suitable soil, to the vigilant care that has been exercised in regard to shipping and immigration, and to the advent of colder weather and its well-known repressant effect on epidemic

cholera. Many thoughtful observers had ventured to prophesy from the first, however, that it was not this but next year that should be regarded as our probable time of danger and trial. Cholera in its epidemic and invading form extends through a succession of years, the period from its first invasion to its final decay and death representing, as it were, its normal life history. Any differences in the parallels between different epidemics probably depend upon meteorological conditions of the area invaded. An epidemic of cholera has a life of three or from three to four years from its start to finish, the interval between one epidemic and the next being uncertain.

The practical lesson to be learnt is that we should make every use of the present interval for improving and perfecting our sanitary condition, and for devising the means of limiting the spread of the disease and of providing for such cases as may unhappily occur. It may sound like a platitude to repeat the elementary truth that it is too late to undertake the removal of accumulations of dirt and the cleansing of sewers when cholera is actually present. The attempt at such a time would only make matters worse, and the unpreparedness of Hamburg to meet the requirements of an epidemic has been an object lesson for us in this and other respects. It is not only useless, but positively reprehensible to dogmatise about a disease like cholera as if we knew all the laws of its epidemicity; but we trust that a really scientific and systematic attempt will be made to chronicle and record a trustworthy history of the origin, course and progress of the present pandemic, and that a similar attempt will be made on the part of every local observer to trace out and follow the progressive steps of the disease in a more limited sphere and amid a sparsely distributed population. The one inquiry is obviously the necessary supplement and complement of the other. The subject should certainly be lifted out of the rut of barren hypotheses and empirical experience and placed upon the firmer basis of ascertained fact, which is the only real road to scientific progress. That persons coming from an affected locality may carry the disease with them wherever they go and die of it are indisputable facts. But more definite information is still required to carry conviction to the minds of some persons as to the influence of such individuals in lighting up or causing an outbreak or epidemic of cholera in the population into which, or through which, they pass. Do they give rise to cholera in every direction in which they may happen to go, or only in certain definite directions? And the cause of the exemption of numerous places within an affected area during the progress of an epidemic through it might also prove a fruitful source of inquiry. We already know enough, however, to be sure that cholera obeys certain laws, and the knowledge is capable of wide and practical application. Whether we regard its natural habitats as India and Asia, of which it is an indigenous product, while here it is of the nature of an exotic, whether its cause be the comma bacillus or some other vitalised agent, whether it be disseminated by human agency exclusively or not, and whether it be earth-borne or water-borne, there can nevertheless be no doubt that dirt is its soil and heat and moisture the conditions for its growth and development—in brief, that the seeds of the disease, like the seeds of a cucumber, need a muck heap for their growth, and with reasonable care and due attention to sanitation we should be able to guard against any such contingency. It may sound like a paradox to say that the best way to isolate cholera infected persons is to disperse them, but the apparent paradox has been found to prove a reality in practice. In India the method pursued is not to establish land quarantine cordons, but the reverse. On the appearance of cholera the troops are dispersed and encamped on carefully selected sites away from the locality where the disease prevails; and, if necessary, the camps are shifted again and again until the disease disappears. This practice has been followed by very marked success, and the camping grounds have not been found by experience to act as foci for the further dissemination of the disease. Why should not some attempt be made in this country to organise some similar method of dealing with cholera should it unhappily become our fate to be subsequently added to the list of countries affected by the present epidemic? Quarantine and sanitary cordons by which all persons, whether affected or simply suspects coming from any place or country officially regarded as infected, were considered to be lepers and crowded together in quarantine quarters without conveniences or comforts of any kind, are things of the past. This system, which inflicted unnecessary hardship, created panic,

stopped all commerce and proper food-supply, and gave rise to evils worse than the risk of contracting the disease, was in reality admirably designed in practice to provide so many nurseries and depôts for the development and subsequent distribution of the disease to other places; whereas the present system of the separation and detention of the sick, and the temporary detention and subsequent observation of the infected or suspected, is to our minds a logical and reasonable method of procedure.

#### CHOLERA IN BELGIUM.—JUMET.

In continuing his letter on the sanitation of Jumet, our Special Correspondent writes:—Considering the severe outbreak of cholera which occurred at Argenteuil, at St. Denis, at Aubervilliers, and, in fact, throughout the whole of the north and western suburbs of Paris, persons flying from these districts should have been carefully watched. The French Government might in some way, either officially or in some indirect and unofficial manner, have warned the Belgian Government that a number of Belgian subjects were going back to their respective homes from a cholera district. Severe measures are now taken to secure the registration of all foreigners residing in France. It would be making good use of the information thus secured to inform foreign governments when a considerable number of their subjects were returning homewards in consequence of an epidemic. My visit to the Town Hall at Jumet did not tend to inspire me with much confidence in the energy and capacity of the authorities. I there ascertained that nothing had been done till after the death of Van Esbercq. At the Town Hall I was assured that the middens were well built, well cemented and water-tight, not that any public functionary watched over this work and verified its soundness, but simply because the masons and bricklayers in the neighbourhood were in the habit of doing their work well. While far from wishing to place any doubt upon the excellence of this workmanship, I cannot but feel that this is an insufficient guarantee. Then we must reckon with the movements of the soil, which are very considerable in those portions of the commune of Jumet where mining operations are carried out. This, of course, must dislocate the masonry, however soundly built, and cause the middens to leak. As wells and middens are side by side, the danger resulting is obvious. At Jumet, in at least three-fourths of the houses, well water or rain water is drunk. Considering the hilly nature of the country, the landslips that have occurred, the fact that it often happens that the basement of one cottage is on a level with the roof of another cottage which is but a few yards distant, and that these cottages have wells and middens overhanging and overlapping each other, the danger of drinking well water becomes more and more obvious. The few cases of cholera that have occurred at Jumet, Roux and the neighbourhood are alarming, only in so far as they may be looked upon as warnings of what may ensue.

#### SPREAD OF THE EPIDEMIC AT ANTWERP.

There is no disguising the fact that the position of affairs at Antwerp is very serious. At first the cases of cholera were distinctly connected with the two ships, the *St. Paul* from Havre and the *Nerissen* from Hamburg. As already stated, the *St. Paul* arrived in the Kettendyck Dock on Aug. 15th; one of the crew fell ill on the 16th, two more on the 17th, and a fourth on the 20th. Three out of the four died, and there were only five able-bodied seamen on board the *St. Paul*. The crew consisted in all of eighteen persons. Then there was a sailor from the *St. Marc*, anchored close to the *St. Paul*, who contracted the cholera. The master of the barge *Souvo Adèle* and his wife and children were the next victims. I have now ascertained that they had washed some of the clothes of the sailors of the *St. Paul*. After that some dock labourers, who had helped to unload the *St. Paul* and the *St. Marc*, fell ill. At the same time the *Nerissen* arrived from Hamburg, and one of the crew, Frederic Maas, died of cholera at the Antwerp Hospital. A woman who kept a restaurant frequented by these sailors was ill in her turn; and in all there were ten cases clearly traced either to the *Nerissen* or the *St. Paul*. The ten cases ended fatally. While the epidemic was limited to the contaminated ships and those who had direct connexion with the ships, there was reason to hope that the evil might be nipped in the bud. Now, however, the cholera has spread not merely among persons immediately connected with the shipping but all over the town. As yet there have been only twenty-four deaths, reckoning from Aug. 16th to Sept. 4th, and some

eighty-five known cases. It is probable that several other cases have not been reported, or have been diagnosed as choleric instead of cholera; but the fact that the more recent cases appear disconnected one from the other and are scattered in various parts of the town seems to indicate that the infection has now become general. In the face of this threatening fact, the authorities decided yesterday to no longer issue clean bills of health for ships sailing from the port of Antwerp. 'The ships' papers will now bear the words, "On observent des cas isolés de choléra."

Not only is the town of Antwerp thus threatened, but the contamination has already spread to a considerable distance. At Bornheim there have been in the course of three days nine cases and seven deaths. Bornheim is situated on the river at a distance of eighteen miles from Antwerp. It has a population of 6000 inhabitants, but the particular district affected by the cholera has a population of 1200 persons. The disease had been brought to this place by barges from Antwerp. Dr. Desquin, member of the provincial medical committee, hastened to the spot. He found that nothing whatsoever had been done. The cottages inhabited by the people were very poor and dirty. One cottage was in such a condition that disinfection was impossible, and Dr. Desquin consequently advised the mayor to burn the place down. As another instance of the spread of the disease, I should mention that a beggar woman from Antwerp has taken the cholera to a village called Niel, and there have been several cases brought to Malines by bargemen from Antwerp. Here also it has been necessary to burn down some cottages; but I will speak of the Malines epidemic when I have had a better opportunity of obtaining authentic and detailed information. I will also reserve for a future occasion some account of the fresh cases brought to Brussels equally by barges from Antwerp; but there is worse than this. That bargemen should contract cholera at Antwerp and fall ill when they have already travelled some distance from the town is but natural. Nor need such cases cause any particular alarm—at least, if these bargemen are properly watched and isolated as soon as suspicious symptoms declare themselves. But if barges can be disinfected and their crews isolated a river or a canal cannot be so readily purified. On Saturday (Sept. 3rd) news was received by the Provincial Medical Committee that, within the previous two or three days, there had been twelve cases of cholera and ten deaths at Boom. This town has a population of 14,000 inhabitants. It is situated on the Roupele, a large tributary of the Scheldt, and is at a distance of nine miles from Antwerp. No connexion could be established between these cases and the epidemic at Antwerp. There had been no barges coming from Antwerp to Boom with illness on board. The only suggestion as yet forthcoming is that the inhabitants of Boom take their drinking water from the Roupele, and the tide of the Scheldt affects this river. If this be the true explanation, then the water of the Scheldt at Antwerp must be very strongly contaminated for the infection to travel up with the tide, but against the current, so far as Boom. When we consider how far-reaching is the tide of the Scheldt, and that Belgium is honeycombed with rivers and canals, the prospect opened out by the fact that the cholera has, perhaps, been brought to this town by water and not by human intercourse is anything but reassuring.

Some comfort may, however, be derived from the knowledge that the Medical Commission of the province of Antwerp is displaying laudable energy. Unlike the authorities at Jumet, the methods of disinfection enforced in the province of Antwerp are as complete as can be expected or desired. The straw mattresses on which most of the patients sleep are burnt. All the old and worthless clothes, bedding &c. are also burnt. Strings are fastened across the room on which are hung articles of more value. The place is closed up hermetically and fumigated with sulphur for twenty-four hours. After fumigation the walls, floors &c. are washed with a 1 per 1000 solution of sublimate. A cottage is hired by the local authority in which the inhabitants live while their homes are being disinfected, and objects destroyed by fire are replaced at the public cost. This proceeding affords an invigorating contrast when compared with the timid action of the authorities at Jumet. As a final illustration of the spread of the epidemic I have been officially informed that there have been five cases of cholera within twenty-four hours at Ekeran, six miles from Antwerp, on the road to Holland. Here there is no river or water connexion with Antwerp, and no explanation is as yet given as to how the cholera reached this town.

In my next letter I hope to be able to give an accurate account of the drainage and water-supply of Antwerp; but, in the meanwhile, I cannot defer relating what I saw and heard when I called on Dr. Terwagne. This practitioner, backed by the local paper, *l'Opinion*, has caused considerable commotion by denouncing the fatal delays in taking precautions against the cholera. Briefly, and to use his own words, his contention is: "That the cholera broke out at Havre at the commencement of August; that the Belgian consul said nothing about it; that on Aug. 15th the *St. Paul* arrived at Antwerp and cholera ensued. The sailors of the *St. Paul* died at the hospital; the press, the public and the consul remain silent. On Aug. 18th only is the Government informed, and this by letter instead of by telegraph. The Government does not mention the warning received from Havre before the 23rd. During that interval the cases of cholera multiply."

There are three sanitary authorities at Antwerp. The Sanitary Commission of the Scheldt has control over the river and the shipping, but, according to the law, it must take no measures till it receives orders from the Government. No such orders were sent by the Government, and that is why nothing was done when the cases occurred on board the *St. Paul*. When, however, the *Nerissen* also brought the cholera to Antwerp the Sanitary Commission of the Scheldt took the law into its own hands. Though the proceeding was absolutely illegal, still, without waiting for the Government orders, the Commission met and has ever since acted with energy and ability. There can be no doubt that the Government will approve the initiative it has taken and will overlook the illegality of the proceeding. The other sanitary authority is the Provincial Medical Commission, which has to watch over the health of the entire province; and the third authority is the Medical Commission of the town of Antwerp. This latter is purely a local commission, and one of its principal duties in the present emergency should be a house-to-house visitation. I acknowledge that this will be a giant task; but its accomplishment is urgently needed, not merely with regard to the cholera, but with regard to health generally.

To return to Dr. Terwagne, his first experience of cholera was most painful. He was called some three weeks ago to Dinant, the beautiful holiday resort on the Meuse. His father and his brother were in a dying condition; both had cholera and had reached an advanced stage; their skin was blue and cold. Fortunately, though unexpectedly, both recovered. It is important here to note that no mention had nor has yet been made of the existence of cholera at Dinant. Considering the great number of tourists of all nationalities who travel between Namur, Dinant and the forests and mountains of the Ardennes, we ought to be better informed as to what is occurring in those countries. Since his return to Antwerp Dr. Terwagne has had a great number of cases of choleric. On Monday, Aug. 5th, he visited in all thirty patients and eight were suffering from choleric. On the previous Saturday he saw in their own homes fifty patients and nine had choleric. He qualifies choleric as violent diarrhoea and vomiting accompanied with cramps in the limbs and increase of temperature. It differs from the usual diarrhoea noticed every summer by its violence, by the cramps in the limbs and the frequency of fatal results. But the question arises, Where does choleric end and where does cholera begin? When these choleric patients show a decrease instead of an increase of temperature, a leaden, bluish hue and when there are rice-water evacuations, then it is considered to be a case of cholera. Such a case occurred among Dr. Terwagne's patients ten days ago. The victim was a baker living not far from the Rue Deurne, where the first cases of cholera within the town occurred. The doctor at once telegraphed, according to published instructions, to the Minister of Agriculture at Brussels. Though nine days had elapsed when last seen, nothing whatever had been done; neither police, disinfectors, nor any other public functionary had visited the patient's house. Yet the case is the more urgent as the sufferer is a baker by trade, and there may perhaps be some risk of the bread being contaminated. What, then, was the use of telegraphing to the Minister of Agriculture? Now, however, on September 2nd, the Bourgmestre of Antwerp issued a circular asking all medical practitioners to send him a duplicate of the information forwarded by them to the Minister of Agriculture, and there is more reason to believe that the authorities on the spot will take action.

Under the guidance of Dr. Terwagne I visited the Rue Deurne and many other streets which have more especially

suffered from cholera. I will reserve my description of the sanitary condition of this quarter till I have gone into the matter more fully and consulted the town engineer. I have seen things I cannot believe to be true and for which there must be some explanation not apparent to the naked eye. In all directions, in wretched backyards adjoining dirty dwellings inhabited by very poor people, there were open middens side by side with shallow wells from which water is taken for drinking purposes. In one house the pump apparently went right through the midden to reach the well, which seemed to be actually underneath this receptacle of the household filth and the cholera or choleric dejections. A death from scarlet fever had occurred here last week. In the Rue Deurne, where cholera has spread in several of the houses, I found in a court two midden closets within a few inches of a well and by the other side of the well a stable containing cows. The pails which carry the milk are washed with water from this well; and it is in the surrounding houses that the greatest number of cases of cholera have occurred. With such facilities for contaminating milk, it is not surprising that the cholera should break out in different parts of the town apparently disconnected one with the other.

#### CHOLERA IN FRANCE.

Our Paris correspondent writes:—In my last correspondence I informed your readers of the terms of the regulations now in force at all the frontier railway stations from Dunkerque to Delle. I am able to-day to send a specimen of the passport supplied to passengers who are, after examination, recognised to be free from choleric symptoms. All reasonable people will allow that the formalities are not very onerous. The pity is that they were not put into force much earlier. Hotel and lodging-house keepers are bound by the terms of the same decree to immediately declare the presence in their establishments of any traveller who has arrived from Belgium or Germany. Medical men or heads of families are, moreover, required to report within twenty-four hours any suspicious case that may come under their notice. The importation of rags and bedding from Russia, Germany or Belgium is disallowed until further notice, and the same restrictions obtain in the case of fruits and vegetables grown in these countries. On Friday last a report of the insanitary condition of Paris and its environs was read to the Sanitary Council of the Seine by Dr. Dujardin-Beaumetz. That gentleman announced an evident increase in the prevalence of cholera. While the mortality from the disease in Paris from Aug. 4th to Aug. 17th was only 16, the figures for the period comprised between the 18th and 31st of the same month had reached 175, the increase being elevenfold. In the suburbs the corresponding figures were 33 and 75 respectively. Dr. Dujardin-Beaumetz comforts himself with the reflection that for a population of 3,000,000—i.e., the population of the Seine-Department—the deaths from what he still denominates choleric diarrhoea were only 16 (or 1 in 20,000) a day for the last fortnight of August. The officials assure the public that "the above statistics allow of the conclusion that in Paris and its environs we have still to deal with the same choleric diarrhoea that has been prevalent for the past five months, and that not a single case of Asiatic cholera has yet been seen amongst the Parisian population." The most recent *Bulletin hebdomadaire* to hand tells us that there were in the Paris hospitals under treatment on Aug. 21st for *affections cholériques* 41 patients; that the total number of admissions for the same malady for the period comprised between Aug. 21st and 27th was 254. In the same period 57 were discharged and 70 died, thus leaving under treatment on the evening of Aug. 27th, 168 cases. The mortality for the whole of Paris on Friday, Saturday and Sunday last, was 29 and 14 respectively. At Havre, the fresh cases on Saturday and Sunday last were 27 and 41. Dr. Proust states that while the mortality in Hamburg in three weeks has been 2558, in Paris only 365 persons have succumbed to cholera in five months. Dr. Martin tells us that arrangements have been made so that as many as 100 disinfecting processes could be conducted in the public ovens now at work in Paris.

#### CHOLERA IN GERMANY.

Our Berlin correspondent informs us that the thirty-fifth number of the "Publications of the Imperial Office of Health," dated Aug. 31st, contains the following: "The

first cholera cases in Hamburg occurred on Aug. 16th, and the patients were almost exclusively persons who were occupied at the harbour or went up and down on the Elbe. The contagion was, in all probability, brought by emigrants from Russia and communicated by the passing of the water with which their linen &c. had been washed, and of all their excreta, undisinfected into the arm of the Elbe near the barrack built for them, which was the more dangerous as the water-supply of the city is taken from the river at a point not far distant. The correctness of this explanation has been rendered almost certain by the observations made by Privy Medical Counsellor Professor Koch and Government Counsellor Dr. Roth on the spot at the instance of the Imperial Office of Health." The *Hamburger Fremdenblatt* declared on Wednesday evening that about 2000 persons have died of cholera since the 20th ult. who were not reported as having died of cholera and that consequently the official lists were worthless. Happily the Hamburg-Altona epidemic has not yet spread to other parts of Germany, though isolated cases have occurred in a good many places, including Kiel, Bremen, Lübeck, Hanover and Berlin.

Professor Virchow has returned from Russia and took part in the deliberations of the Berlin Public Health Committee on Wednesday last. He condemned the unwillingness of the heads of hospitals to receive cholera patients, and declared that the fear of infection is quite unfounded. The idea that the cholera spread through the air was an error which was more and more disappearing from the minds of men; in the main it spread only through the evacuations; it was necessary, therefore, to exercise all possible caution with regard to them, which could be done most effectively in hospitals. The Charité had not hesitated to receive cholera patients. The same was done in St. Petersburg and Moscow, where cholera patients lay in rooms close to those where other patients were. A tendency in the same direction was observable in England, and the Germans would have to follow. New barracks were open to objections; it was difficult to erect them so as to meet all requirements, especially as regards connexion with the public sewers.

#### CHOLERA IN AUSTRIA.

Our Vienna correspondent states that up till the present no case of cholera has been reported in Austria, although great numbers of people are now returning from the watering places on the Baltic Sea. At all frontier stations passengers from Germany, France and Russia and their luggage are subjected to disinfection and to medical observation during the first five days of their residence in Austria. Disease and mortality rates have been extremely low in Vienna during the last few weeks. Even the intense heat of August did not cause more than fourteen cases of death by sunstroke. Sanitary inspections are proceeding vigorously. No less than 360 dead cats and dogs have been taken out of the Wien, a stream which runs through Vienna.

#### MEETING OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary meeting of the College was held on Saturday last, the 3rd inst., to consider a communication from the Secretary of the Local Government Board asking the advice of the College as to the means best adapted to the immediate medical treatment of patients suffering from cholera, choleraic diarrhoea, or diarrhoea, the same to be communicated by the Board to the local sanitary officers throughout England and Wales. A memorandum in reply to the communication was submitted to the meeting, and was, after consideration by Sir Andrew Clark (the President), Sir George Johnson, Sir Joseph Fayrer, Sir George Buchanan, Dr. Russell Reynolds and the acting Registrar, sent to the Secretary of the Local Government Board.

#### SYMPTOMS AND TREATMENT.

We have received from several correspondents hints and suggestions regarding the symptoms and conditions to be met with in cholera, and also as to the drugs most useful in the treatment of the disease. Thus Surgeon-Major P. J. Damania draws attention to the importance of the suppression of urine as a diagnostic factor of the disease, and he also alludes to the absence of pain in the intestine.

Mr. E. Hurry Fenwick writes drawing attention to the hæmorrhage and œnuria which, in Dr. Prout's opinion, was a sequence of cholera: "Dr. Prout ('Stomach and Urinary

Disease,' 1840, p. 23) records his experience thus: 'I saw about the time the cholera prevailed and a little afterwards more cases of oxalate of lime calculi and of formidable hæmorrhage from the kidneys than I have ever previously seen during the whole of the long period that urinary disease had occupied my attention.'"

Dr. George Herschell refers to the prophylactic treatment of cholera. He writes: "I venture to suggest that the most scientific treatment of the preliminary diarrhoea of cholera, which, after all, may be an effort of nature to get rid of the *materies morbi*, will be first of all a good purge of castor-oil or calomel, and then a course of dilute hydrochloric acid given sufficiently often to prevent the establishment in the stomach at any time of an alkaline or neutral reaction. This might be combined with advantage, if the diarrhoea were excessive, with a vegetable astringent or an antiseptic. A perfect intestinal antiseptic is still a desideratum, but judging from its action out of the body, pyktoaurin (yellow) should prove the most destructive to the cholera germs if it turns out that it can safely be given in sufficient doses without unpleasant symptoms."

Mr. E. Tegart forwards us a communication which appeared during the last epidemic in a contemporary, signed by his father, Mr. Edward Tegart, Inspector-General of Army Hospitals, in which a case is quoted as having been cured by the administration of three drops of croton oil on a lump of sugar. The late Mr. Tegart continued: "Ever since the appearance of the Asiatic cholera in this country I have not ceased to urge the employment of croton oil to my professional brethren, and even to the Central Board of Health, but in vain, for I have never yet heard of its being resorted to. I was induced to recommend it from the decided success I witnessed of its utility in yellow fever and other diseases in the West Indies bearing a strong resemblance in many of the leading symptoms and appearances after death to those of the epidemic cholera. My reasoning therefore was from analogy; but the practical facts detailed in my personal case confirm the strong impression on my mind that the croton oil will prove an invaluable remedy in spasmodic cholera."

#### MILITARY PRECAUTIONS IN DUBLIN.

The military authorities have made the following precautionary arrangements:—"Bell-tents and hospital equipment sufficient for fifty patients to be stored in Pigeon House Fort ready for immediate use. On notice being received from the Medical Department of a case of cholera having occurred among the troops the hospital will be pitched, and every man that can possibly be spared will at once be withdrawn from the Pigeon House Fort, as well as the whole of the married families. All the available accommodation in the fort will be handed over to the medical officer in charge of the cholera hospital."

#### SANITARY REGULATIONS.

No more cases of cholera have broken out in Liverpool, though two vessels from Hamburg arrived in the Mersey on the 6th inst. The vessels were boarded by Drs. Taylor and Hope and the crews found to be perfectly free from the disease.

#### PREVENTIVE MEASURES IN ROUMANIA.

Dr. A. Irwin Bolton writes from Constanta stating that great preparations, in a hygienic point of view, are being made there and in all Roumanian towns, in anticipation of the arrival of cholera. In Roumania all water-closets and cesspools are regularly inspected, and the proprietors of hotels, private houses, &c., are obliged, under threat of legal proceedings, to have such places saturated twice a month with antiseptics. All private and unnecessary wells have been closed, and drinking water is only allowed to be drawn from those which are under the immediate care of the municipality. A strict quarantine system is adopted in the port. Every arrival is inspected minutely, and all passengers before landing are disinfected. The measures adopted there are certainly very creditable to the authorities. He continues with the following statement:—"My opinion is we shall escape it this year. The warm season will soon be drawing to a close, and then we shall have moderate daily temperature with cool nights, and under such circumstances cholera is not likely to progress. But I feel certain we shall have it next year, for it is unknown in the history of cholera to find it advance so far as it has at present without its extending its visit into the interior of Europe. Let us hope that by the well-directed and timely precautions adopted by the Roumanian authorities, both medical and otherwise the

great misery and mortality caused by this dire pestilence may be mitigated."

#### PRECAUTIONS IN SEAPORT TOWNS.

Circulars containing elaborate instructions have been issued by the Medical Officer of the Burgh of West Hartlepool, by the River Town Port Sanitary Authorities, and by the Burgh of Folkestone. The Port Sanitary Authority of Dover has issued to every captain a copy of a document relating to the cross-Channel traffic.

### LIFE ASSURANCE AND THE MEDICAL PROFESSION.

SINCE the appearance of our last special article containing notices of the Life Assurance Companies' Accounts we have received a considerable number of additional reports. For the most part these documents contain very little information beyond the assurance that the issuing company, be it which it may, continues to thrive and has secured a return of new business proportioned to the expectations of its directors founded upon the past history of the society. To this class must be referred the Commercial Union, which transacts the three branches of life, fire and marine insurance, and appears to succeed very respectably in every several department; the Eagle, which, confining its attention to life assurance, maintains a steady course of business upon well-established and well-approved lines; the Hand-in-Hand, a very old company, conducted on the mutual plan, which this year submits the report for the 195th year of its existence; the Liverpool and London and Globe Insurance Company, which, giving attention chiefly to the fire department, transacts an enormous business in that branch, which somewhat overshadows the smaller transactions of the life assurance department; the National Provident Institution, a society designed originally to meet the requirements of the middle-class policy-holder, which has succeeded in realising its founder's intentions in a remarkable degree; the North British and Mercantile, a company which has launched upon the dangerous experiment of accepting proposals for members of the Civil Service without requiring a medical examination, and is not very communicative as to the present financial result; the Provident Clerks' Mutual Life Assurance Association, which, as its name imports, aims at reaching the large class of mercantile clerks, and in a very considerable measure attains its object; the Standard, a large and well-established Scottish office, of which one might expect to read some interesting details concerning a very widely extended business; and the Scottish Amicable, another North British institution of large connexions and established reputation, which is represented by a very meagre though somewhat prolix report. Among those which present points of interest in their reports mention must be made of the Metropolitan, an old mutual society, whose directors announce an intention to liberate their policies in future from all conditions "not found to be absolutely necessary." These somewhat vague words are not defined, and it is therefore impossible to judge what the extent of the remission is likely to be; but having regard to almost complete freedom from conditions which some companies offer, it may be taken for granted that the conditions which will remain will not be onerous. The National Life Assurance Society and the Scottish Widows' Fund both report exceptional mortality due to the visitation of influenza which has marked the past year, and in both cases it is observed that the high mortality rate has been chiefly noticed among the old policy-holders. The directors of the Star Life Office, on the contrary, remark that influenza has touched them only slightly, a difference which is probably in great measure a mere matter of accident, although it may be partly due to a different age distribution among the lives at risk. The Star, as a younger office, and one which has experienced very great expansion in recent years, would probably have a smaller proportion of aged policy-holders upon its books, and to that extent it would, quite consistently with the record of the other societies already mentioned, enjoy a comparative immunity from the attacks of influenza. Last may be mentioned the Union Assurance Society, which, established so long ago as the reign of Queen Anne, has exhibited within the past

three or four years a power of growth unexampled in its own earlier record, to which the return now made public puts a fitting crown.

### ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD FOR IRELAND.

FROM the twentieth annual report, which has just been issued, it appears that there has been a further decline in the average daily number of persons relieved in the workhouses, while there has also been a slight decrease in the average daily number of persons who received out-door relief. The average daily number in the workhouses was 40,742, and on out-door relief 62,229, or a total of 104,078, which was less than the average daily number in workhouses and on out-relief by 1053. During the year ended March 5th last the total number of deaths in the various workhouses was 10,937, showing an increase of 1130 deaths as compared with the number for the preceding year. Of these, fever caused 337, against 296; lung disease 2208, against 1843; phthisis 1171, against 1021; brain disease 363, against 359; and heart disease 598, as compared with 570. There were for the twelve months ended Sept. 29th last 47,625 persons admitted into the workhouses for sickness, being a decrease of 7835 as compared with the previous year, a decrease of 12,847 in the number admitted who were not sick, and a decrease of 918 in the number suffering from fever or other contagious disease. In the various dispensary districts the medical officers attended 394,880 new cases at the dispensaries and 161,362 persons at their own homes, or a total of 556,242; gave certificates for 1901 dangerous lunatics, and vaccinated or revaccinated 90,693 people. The vaccination returns show an increase of 415. There were 13 cases of small-pox treated by dispensary medical officers and 3 deaths in workhouses during the year. During the winter of 1891-92 a second well-marked outbreak of influenza became epidemic in Ireland. This latter visitation was not attended with symptoms quite so severe as those which occurred in the outbreak during 1889-90, and it has differed from the former epidemic in one important respect. The previous epidemic as a rule spared the aged, whereas the more recent outbreak has fallen with impartial severity upon persons of all ages. From reports received it appears that very large numbers of the population were affected with influenza during the past winter, and, in consequence of persons of advanced age having suffered, the mortality in proportion to the numbers attacked has been greater than that recorded during the prevalence of the former epidemic. As regards fever, there were 2916 cases attended by dispensary medical officers, being a decrease of 1369; and a decrease of twenty-one in the cases of scarlet fever treated, the numbers being 1238 and 1259 respectively. The Medical Charities expenditure amounted to £166,330, under which heading is included the cost of medicines and medical appliances, salaries of medical officers and apothecaries, vaccination fees and other expenses, showing an increase of £4989 over that of the previous year. The Board sanctioned loans, amounting to £189,177 18s. 4d., to various towns in Ireland, principally for sewerage and water-supply, which, added to previous sums allocated, constitute a total of £2,273,302 18s. 6d. for the seventeen years ended March 31st, 1892. The total number of lunatics, epileptic lunatics, idiots and epileptic idiots in workhouses was 2024, against 1888 the previous year. The following: extract from the fortieth report of the inspectors of lunatics, referring to the condition of lunatics in workhouses, has been forwarded to each Board of Guardians by the Local Government Board, pending legislation, as a means of immediate improvement:—1. That in all cases paid officers should be made responsible for the care and treatment of lunatic inmates. 2. That mechanical restraint should never be used except by the recorded direction of the medical officer, in whose charge strait waistcoats and other instruments of restraint should be kept. 3. That so far as possible separate day-room and dormitory accommodation should be provided. 4. That every effort should be made to find employment for such insane patients as are able to work. There is no better employment for men than spade labour, or than laundry work for women, and both occupations might be provided in nearly all the workhouses. 5. That cold and dark idiot cells should be disused.

## THE ACTION OF CHLOROFORM.

DR. HOBART A. HARE of Philadelphia has undertaken a research into the action of chloroform on behalf of H.H. the Nizam of Hyderabad's Government. The following is a copy of the letter which has been addressed to him by Surgeon-Lieutenant-Colonel Edward Lawrie:—

To DR. HOBART A. HARE, Philadelphia, U.S.A.  
The Residency, Hyderabad, Deccan,  
Aug. 18th, 1892.

MY DEAR DR. HARE,—In reply to yours of the 9th ult., I beg to note a few points in regard to the present position of the chloroform question which may be of interest to you in commencing your independent chloroform research on behalf of the Hyderabad Commission.

My students administer chloroform with perfect safety in all cases which are fit for an operation. The principles on which our practice is based are that the heart is never affected by chloroform except by overdosing; and that safety, or the avoidance of overdosing, is guaranteed by regular breathing. It is not necessary to add that the administration must not be pushed beyond full anaesthesia, because, if it is, the essential condition, which is normal respiration, cannot be maintained. It stands to reason that if these principles are unassailable they must be founded on sound physiology, and experiments on animals must accord with them. We are satisfied that the Hyderabad Commission's experiments not only do accord with them, but entirely confirm our clinical experience. Our opponents assert that this is incorrect; they allow that our clinical teaching is right, but not on the grounds put forward by the Commission.

Dr. Gaskell believes that the lowering of the blood pressure by chloroform is due to weakening of the heart and is therefore dangerous, and that this action of chloroform is shown in the tracings of the Hyderabad Commission's experiments. The contention of the Hyderabad Commission is that the fall of the blood pressure under chloroform is in itself harmless, and is due to vaso-motor narcosis. Dr. Gaskell says our clinical teaching is correct, but will never be accepted as long as we insist on what is not true—viz., that chloroform does not directly affect the heart. Our reply is—"Why, in order to get our teaching believed in, should we first of all adopt a theory which is altogether opposed to it?" Dr. Gaskell further says: "The true physiology on which your teaching is founded is that chloroform does affect the heart directly, but you never produce this action because you take good care not to give the concentrated vapour." This is not so. Our only fear of the concentrated vapour is that it may interfere with the breathing. (Vide Chloroform Report, pages 200-203.) If the breathing is regular we do not care how concentrated the chloroform is. In support of this statement the following record is quoted from the case-book of the Afzul Gunj Hospital:—

"No. 1432. Pentoo, delicate female, aged three years. Disease, abscess. Chloroformed at the Afzul Gunj Hospital at 11 h. 40 m. 30 s. on Aug. 9th, 1892, by student Mullannah. Time occupied in producing full anaesthesia, 47 seconds.

## OBSERVATIONS.

H.	M.	S.	Observations.
11	40	30	Chloroform on cap, saturated; crying loudly; inhalation regular; cap held close over the face.
11	41	0	Unconscious. Natural breathing, quiet and regular.
11	41	10	Snoring.
11	41	17	Over; cornea insensitive; cap removed.
11	42	0	Incision made.
11	45	30	Operation and dressing finished.

"Remarks.—In this case the child began to cry loudly and continuously the moment it was placed on the operation table. The breathing was thus regular, and the chloroformist was told to keep the saturated cap close over the mouth and nose in order to prove to the clinical class that it does not matter how concentrated the chloroform is if the respiration is not irregular. Deep anaesthesia was produced in forty-seven seconds."

4. The experiments of the Hyderabad Commission explain precisely and clearly the reason why the administration of chloroform on Syme's principles is free from risk. It is not pretended that these experiments demonstrate exhaustively all the causes of the fall of the blood pressure under chloroform, but they prove that the fall of pressure from the direct effect of chloroform is harmless. This could not be the case if it were due to weakening of the heart, and it is in all probability entirely accounted for by vaso-motor narcosis. When the respiration is failing, or stops, from overdosing, the fall is increased by, and becomes dangerous in proportion to, the consequent interference with the action and nutrition of the heart. The action of the heart may be injuriously affected at any time during the inhalation of chloroform by abnormal or irregular respiration. Moreover, the vagus nerve may be brought into play and stop the heart and cause sudden falls of the blood pressure. These sudden falls are not of themselves dangerous, but they are warnings of asphyxia or of overdosing, or of both combined. They can never take place clinically if the respiration is properly attended to.

5. The whole controversy on chloroform turns on one point. Is the fall of blood pressure under chloroform harmless, as we say it is, or dangerous, as is asserted by our opponents?

6. In the present state of our knowledge three main factors are concerned in the lowering of the blood pressure shown in the tracings of the Hyderabad Commission:—

(1) Narcosis of the vaso-motor centre or centres, due to the direct action of chloroform. This is harmless and does not appreciably affect the pulse.

(2) Stimulation of the vagus, due to the indirect action of chloroform. This is also harmless, but is a sign of dangerous administration and stops the pulse temporarily.

(3) Weakening of the heart from narcosis of the respiratory centre and failure of the respiratory function, due to the indirect action of chloroform as regards the heart, the direct action as regards the respiratory centre. This is excessively dangerous, and if the respiratory function is not restored proves fatal. It weakens and permanently stops the pulse.

Clinically, lowering of the blood pressure is inseparable from the effective inhalation of chloroform, but the falls of pressure due to stimulation of the vagus and weakening of the heart ought never to occur. If they do they are signs of improper administration or overdosing.

7. Our principles form the true guide to the only safe method of chloroform administration, which consists in the concentration of the chloroformist's attention on the respiration alone throughout the entire inhalation. The "direct heart" theory leads to attention to the pulse at the expense of the respiration, and has undeniably resulted in a certain percentage of deaths under chloroform over and above those which are liable to occur from mere accident or carelessness under any system of administration.

8. It remains for scientists to demonstrate that these principles are physiologically accurate, by experiments which will confirm and amplify the research of the Hyderabad Commission. Unless the clinical and the experimental aspects of physiology are at variance, which is obviously impossible, it must be practicable to verify our clinical experience by physiological experiment.

Yours very sincerely,  
EDWARD LAWRIE.

## THE PHARMACEUTICAL CONFERENCE AT EDINBURGH.

THE pressure on our space in connexion with the Students' Number led to the unavoidable postponement of notice of the very successful Pharmaceutical Conference at Edinburgh. The address of the President, Mr. E. C. C. Stanford, was, as might almost have been expected, more a retrospect than a forecast. Mr. Stanford was one of the founders present at the inaugural meeting in Newcastle in 1863; hence he could scarcely fail to find interest in the progress and the changes which have occurred since the foundation of these annual gatherings. In reviewing the progress he is clearly correct in summing up its teaching with the idea that the scientific, not the commercial, side must be considered first. Although every record of industrial progress seems necessarily to have to deal with thousands and with millions, and with the struggles by which these thousands and millions are produced within our shores instead of abroad, it is none the less true that the initial step is most frequently taken without any idea of the future it entails. The step forward is probably made by some scientific worker who agrees with Mr. Stanford that in this purely commercial age "money is not everything." "We want a diligent search for new truths, we are content to wait for their application." Naturally enough, in looking backward to the "little inaugural meeting" held in a small room at Newcastle in 1863 the first thoughts to arise were tinged with regret in noting the serious gaps made in the ranks, and the President touched with sympathetic hand upon the deaths of Deane and Brady, of Hanbury, Stoddart, Williams, Mackay and Redwood, whom he described as "men with a halo around them, shedding light and love on all who came within their benign influence, men abounding in an enthusiasm which was wonderfully catching." The indications of national progress during the lifetime of the Conference—the parcel post, the sixpenny telegram, the telephone, the phonograph, the microphone and the type-writer, which have all had their bearings upon pharmacy—led Mr. Stanford to regret that the type-writer was "unfortunately not yet used for prescriptions, though, perhaps it would save more time in that than in anything." We have often dealt with the occasional illegibility of physicians' prescriptions, but we think that the time has scarcely yet come for the mechanical type-writer to be thus employed. Would a chemist be justified in refusing to compound a prescription signed with type-written initials? Would a patient be satisfied with a document which might perhaps have been entirely the work of a clerk, or if dictated, might possibly have been misunderstood? The changes in the employment of gas, of electricity and of steam power were briefly touched upon, and the great strides of hygiene were indicated by the gratifying diminution in the death-rate of both Edinburgh and Glasgow. In all these changes, however, the work of the pharmacist is less obvious than it is in connexion with some of the manufactures, where the introduction of new methods has practically revolutionised the work of thirty years ago. The new science of chemical engineering has sprung up during this period and has led to the introduction of the filter press, the hydro-extractor, the vacuum pan, the multiple evaporator, and many other inventions which have been of invaluable service to manufacturing chemistry and pharmacy. The alterations in the alkali trade and the improvements by which much of the material previously regarded as "waste" is now collected and utilised have formed marked features during

the period under review. These changes have not only been a source of profit, but they have removed materials which formerly constituted serious dangers to health. The importation of frozen meat as the result of the application of the condensation of volatile hydrocarbons, the enormous new industry consequent upon the recognition of the value of the coal-tar colours and the introduction of such antiseptics as carbolic, cresylic and salicylic acids, or of such febrifuges and anodynes as salicin, antipyrin, antifebrin and phenacetin, all indicate phases of progress in the application of pharmaceutical processes. It is true that the bulk of the manufactures of finer chemicals is in the hands of German chemists, who are still ahead in the education necessary for this work; but this knowledge should act as a stimulus to those who have to supervise the earlier training of the rising generation. Naturally, therefore, we have to consider what are the points of difference in English and German training.

Coming thus to the knotty question of education, although reference was made to the board schools and free libraries and the general improvement in the establishment of State education, there did not appear to be much that was satisfactory to record in secondary, technical and university education, and the tardiness in the establishment of a real teaching university in London was compared unfavourably with the rapid educational advances of Germany. Dealing more purely with pharmaceutical education, Mr. Stanford quoted from Dr. Stevenson "that many young men of defective education still unsuccessfully attempt to enter upon the business of pharmacy, most of them failing in simple arithmetic." This defective school training is the greatest drawback to the due elevation of pharmacy, and it is one of which the Pharmaceutical Society are fully conscious.

The sale of poisons and the ethics of patents, more particularly of patent medicines containing poisons, were dealt with in strong terms not devoid of humour, and the remarks of THE LANCET upon the recent action taken by Government against the proprietors of chlorodyne were referred to approvingly.

It is impossible in the space at our disposal to follow in detail all the interesting and suggestive topics touched upon in the course of this address. A few sly hits were made at the medical profession, one being the quotation of the following advertisement from a Glasgow daily paper: "To Druggists.—Wanted, young woman or youth to keep doctor's shop for a week." The concluding remarks, however, concerning young pharmacists might find a wider range of cheering application: "If they are the least afraid that there may be any difficulty in finding a place for a well-educated man, let me remind them of the saying of a canny old Scotchman, so characteristic of his persevering race—'There's aye room at the top.'"

## THE MIDWIVES' REGISTRATION BILL.

THE following is a brief digest of the evidence of the witnesses who have been examined before the Select Committee of the House of Commons appointed to consider the question of the Compulsory Registration of Midwives. The following Members were nominated to act on the Committee:—Mr. J. A. Bright, Mr. Tatton Egerton, Dr. Farquharson, Sir Frederick Fitz Wygram, Dr. Fox, Mr. Howorth, Sir Guyer Hunter, Mr. Fell Pease, Mr. Rathbone, Mr. Stephens and Mr. Arthur Williams.

Dr. LEITH NAPIER detailed his long experience and extensive practice in midwifery. He dwelt on the necessity of the services of midwives in the country and out lying districts, it being impossible in many places for medical practitioners to undertake all the midwifery cases, and he referred to the uneducated and untrained character of the majority of midwives. He did not think that medical men would suffer from a system of registration of midwives, but he took exception to the Bill of last session. With regard to the control of registered midwives by the County Councils, he would like the registration to be entrusted to a central council, elected from county councils and assisted by examiners. The term "registered midwife" would, he thought, be a sufficient reward for having passed the Obstetrical Society examination. It would be an advantage, he thought, if students were accompanied to their cases by trained midwives. London afforded an ample field for the training of midwives. Asked by Dr. Farquharson if he expected midwives to attend only natural labour, and what definition he could give of natural labour, he said it seemed to him impossible to agree upon a precise definition of natural labour. He thought by the term "natural labour" one might understand that the midwife was not to employ instruments in delivery; that she was not to perform what were called major operations, such as version; that in the event of any decided obstacle occurring she should, if possible, procure the services of a medical man; but a midwife should, he thought, be trained in such a way that in the event of a dangerous complication arising she should not be punished if she carried out a procedure such as a doctor would under the circumstances. For instance, there were some cases of arm presentation where the midwife might save the mother's life as well as the child's by

timely interference; and it seemed to him, although this was not a natural labour, that she would not be exceeding her functions if she was conserving life. It would be extremely difficult to make it a penal offence to sometimes interfere in that way. Natural labour was a well-understood term, and if it were left to a controlling body to say whether a woman improperly exceeded her functions, it would be a simple matter to withdraw her certificate. There were twenty-five different definitions of natural labour, and one of the great exponents on the other side gave a definition of natural labour which to his mind it was absolutely impossible to accept.

Miss ROSALIND PAGET, Treasurer of the Midwives' Institute, said there were ample facilities in London, Liverpool and Glasgow for good training in midwifery. The total number of midwives that had passed the examination of the Obstetrical Society was 1184. The distinction between a monthly nurse and a midwife was, in her opinion, that the monthly nurse worked under the doctor, and was under his directions and orders in the same way as was a general hospital-trained nurse. A midwife, however, worked by herself, and only called in a doctor when she saw need; therefore there was more responsibility in her case. A monthly nurse simply waits on the doctor. She objected to women calling themselves midwives unless they had been trained for such responsible duties.

Miss REBECCA V. GILL, Secretary of the Workhouse Infirmary Nursing Association, deposed that there was a great waste of training material in such limited use being made of the workhouse infirmaries of London and many of the large provincial towns. Kensington was the only workhouse infirmary that took pupils. The Association with which she was connected had trained twenty-five midwives.

Dr. J. H. AVELING, consulting physician to the Chelsea Hospital for Women, stated that for thirty-three years he had been endeavouring to forward the amelioration of midwives in this country. He had written and talked a great deal on the subject. He would divide the remarks he had to make under two heads: public utility and public safety. On the first heading he would simply say that during all time there had been a demand for the supply of midwives. Midwives were useful to medical men themselves in relieving them of tiresome and unremunerative work, and in acting for them in cases where they were not able to arrive in time to officiate. It often happened that they were engaged with other cases, or were visiting at a great distance, and therefore unable to arrive in time to superintend a confinement; and then it was a great source of comfort to have a competent assistant to do the work for them, and in natural labour a midwife will do that efficiently and safely. Again, midwives are indispensable to the poor women of this country, whilst a doctor is a luxury they cannot afford. When a doctor attends he requires a larger fee than a midwife, and another person in the shape of a monthly nurse is required to do other offices which the medical man could not and would not do; consequently, there are two expenses when a medical man is employed. When a midwife officiates she fulfils both offices; she does the act of the doctor and of the monthly nurse, and in this way economy is effected. Midwives must therefore always be necessary for the help of poor women. Further, it had been computed that there are in England and Wales from 10,000 to 15,000 women acting as midwives who attend annually 450,000 labours. The number of women following this calling and the extent to which they are employed show how great is the public demand for the services of midwives. He proceeded to give the data on which he based the calculation that by the employment of properly trained midwives the number of deaths in childbirth might be reduced from 4500 to 1500 a year. He laid down as a proposition that no woman should be allowed to call herself a midwife unless she had been trained and registered, this being the object of the present Bill. There was no intention to interfere with women acting as midwives, though they were not registered, so long as they did not assume the name of midwife. Asked whether he could define natural labour, he replied that the lying-in hospitals had no difficulty in defining it; they all defined it, and the midwives of the different hospitals knew what cases they were to attend and in what cases it was necessary to send for help. He believed it would be a great advantage to the medical profession if the training and position of midwives were improved. In his view public utility and safety had to be considered before the advantages and remuneration of the medical profession. In answer to the Chairman, he stated that it was from seeing in his own practice so much damage resulting to women from the want of proper attention that he was induced to take up this question thirty-three years ago. He saw several deaths from the malpractices of midwives, more especially in arm-presentation cases, where the child is very seldom born without assistance. In those cases the midwives allowed their patients to go on, hoping that nature would complete the labour, and it ended in the death of the patient. Death did not represent all the misery caused by malpractice.

Dr. RENTOUL was the next witness. He stated that if midwives were registered it would practically repeal the Medical Act of 1858, for by the Medical Act of 1858 any person who was qualified as a physician, or surgeon, or apothecary had the power of being placed on the Medical Register. By this system the country was supplied with a number of what we call partially educated or partially qualified medical practitioners. This was recognised to be a public evil, and when in 1882 the Royal Commission was appointed to report on the Medical Acts, they said: "It is our opinion that the holding of a licence ought to be conclusive evidence of sufficient proficiency in medicine, surgery and midwifery"; and consequently, when the Medical Act of 1886 was passed, Section 2 enacted that "on and after the appointed day a person shall not be registered under the Medical Acts in respect of any qualification referred to in any of these Acts unless he has passed such qualifying examination in medicine, surgery and midwifery." For a considerable time there had been a tendency to disassociate the practice of midwifery from the practice of medicine and surgery. The nickname of "man-midwife" had been applied to doctors who had the courage to try to raise midwifery to the level of medicine and surgery, and therefore helped to do away at least with the terrible mortality that afflicted lying-in women. The Royal College of Surgeons of England refuses to admit any medical practitioner to their Council who practises midwifery, and up to some time ago the Royal College of Physicians refused to give their Fellowship to any person who had practised midwifery. Even yet there was a strong tendency to disassociate the practice of medicine from the practice of midwifery. Many members of the profession hold that if we had a new Act passed to register a certain class of persons in this country to practise mid-

wifery the Medical Act of 1880 would be at once repealed. The first Midwives Bill said that women were to practise as midwives, not as medical practitioners, but that same Bill gave the midwife power to claim a fee in a court of law for any obstetric operation. Therefore, though called a midwife, she would have had power to claim fees in a court of law as a medical practitioner had. This was recognised as an evil, because in the second Bill her duties were defined to attend cases of natural labour only; but as the term "natural labour" was not defined in that Bill, and more especially as no penalties were imposed upon any midwife who had exceeded her duty, it was practically useless as defining the duty of a midwife. He went on to state that it was the practice in foreign countries not to tie midwives down to cases of natural labour. Another argument used by the witness was that in this country it would be impracticable to have midwives thoroughly supervised, and he submitted that the registration of a low order of midwife practitioners would increase criminal abortion and criminal still-births, and that still-births should be registered in this country as was done in all other European countries except Russia. He further adduced evidence to show that the working classes were already thoroughly provided for in maternity cases through the means of friendly societies and other agencies. He dissented from the view that the practice of midwifery had improved or that the mortality had decreased, and took strong exception to the proposal that medical students should accompany highly trained midwives in their practice. He also pointed out that, as if it was true that a medical student, after four years of study and medical training, including a complete course of obstetrics and gynecology was not qualified to attend midwifery cases, even of a simple character, except at his own risk, it would be absurd for this committee to recommend a change in the direction of legally qualifying women for practice of this kind who had no previous knowledge even of the elementary facts of physiological processes or of therapeutics after a perfunctory course of three months' training in a maternity hospital. In conclusion, Dr. Rentoul did not see the necessity for any legislation upon the question at issue, and disapproved of the creation of any new order of medical practitioners. The demand for midwives was only made on the ground of cheapness.

Mrs. M. H. MARTIN was called in and examined. She had had experience in the superintendence of midwifery in the country district of Upton-on-Severn. She quoted instances of very unsatisfactory results arising from the untrained character of midwives. Great improvement had arisen since the introduction by the witness of trained midwife nurses. Mischief arose from untrained women neglecting to send for the doctor in time of danger, and this was where the services of trained midwives were valuable.

Dr. LOVELL DRAGE, who had had extensive practice in maternity cases in country districts and had been assistant in the out-door maternity department of St. Bartholomew's Hospital, objected, on the ground of principle, to the last Registration Bill. He took objection to the principle of the registration of midwives because it reversed the policy of the last Medical Act. In his evidence he quoted a case to show the necessity for a complete training in medicine and surgery for those who practised midwifery. He opposed any introduction into the profession of an uneducated class of people on general educational grounds. This was a proposal for establishing a class to attend the poor inferior to that established for the rich. Dr. Drage then proceeded to consider the report of the Committee of the Royal College of Surgeons appointed to inquire into the principle of midwives' registration. Six members of that Committee were avowed champions of the principle of registration. Drs. Priestley, Playfair, Farquharson and Champneys, the obstetrical and other bodies, had all shown their feigning in favour of the registration of midwives. The Council and the Fellows were not representative of the profession at large. He called attention to the result of midwifery practice in Austria and Hungary which had been related in a paper by Dr. Walker and read before the Carlisle Medical Society. The paper contained the following statement:—"Legally all other persons are forbidden to act in the capacity of a midwife, but practically the law is a dead letter, and quite a number of women, especially in the country, are attended by their friends, just as with us. Accusations of malpractice are rare. When they are brought they are tried before the ordinary courts and the punishment is summary. Unnecessary delay in sending for a physician is also punishable, but of course such a thing is difficult to prove." The speaker hoped the Committee would bear that statement in mind, because it was a very true one. "If it can be proved, the midwife is severely punished." Then, Dr. Walker further says "One point which I especially inquired about was the result to the perineum." He did not know whether he ought to explain to the Committee these technical details, but he thought the Committee ought to understand this: that these accidents to the perineum are practically tears of the part of the body between the two passages, and it is a very important matter that these tears should be sewn up at once and properly treated. So therefore Dr. Walker inquires specially as to the result of these accidents in the case of midwives' practice. He says: "My informant admitted that a very large proportion of ruptured perineums occurred and were concealed. The midwife is obliged to call in a physician to undertake the repair, and very frequently (and naturally) ignores its existence, lest the rupture should be considered due to her want of skill. He hoped, however, as each succeeding class of midwives were better educated, and realised more the importance of the rupture, that this proportion would grow much less." But that is only a hope, and that hope, Dr. Drage was quite sure, would be illusory in this country. "Regarding the public attitude to the system, he thought that the sex generally preferred to be attended by women" (that is, the Austrians); "but he admitted that in the richer classes a physician was almost always present, although the midwife conducted the labour; and also that, year by year, the proportion of those who were adopting the English custom of being attended by a physician was becoming larger. With regard to 'man-midwifery' in the lower classes, he said that a man who had time to attend to that class of patient" (Dr. Drage presumed he meant here) "must be very hard up for work, and was much to be pitied. I may say that the English ladies here are, without exception, dead against the system, and complain bitterly of the extraordinary difficulty they have in getting a physician to consent to attend them. Attendance on such cases is considered *infra dignum*, even by a parochial medical officer—that is, in Austria. My informant, however, regretted that the custom prevented the young men from acquiring a real thorough experience of the difference between a normal and an abnormal case." That last statement brought the speaker to another point which he ought to

have mentioned before, on general educational grounds. He did not wish to boast about it, but when he left London he had had much more experience in midwifery than a great many other students; he had lived in the hospital a long time, and had had a large practice in the maternity department; but he could only assure the Committee that he was extremely glad to be able to have that large practice that could be got amongst the less rich people to improve his own knowledge and to keep up the experience he had already gained; and he thought it would have been a very great disaster to his own proficiency in the art if he had had to go into practice and wait for years and years before he had any run of midwifery work. Dr. Drage thought that poor women had a perfect right to have the best assistance attainable, and the profession did not object to legislation which would really benefit the poorer classes, but they did object to that which they knew would not benefit them in the slightest degree. He then proceeded to the consideration of the position of the Obstetrical Society in this matter. The result of polling the Society by a postcard on the subject showed that the Society as a whole was not in favour of the proposed legislation, although its council stated that it was. The British Gynecological Society by an overwhelming majority were against the proposal. Regarding the position of the British Medical Association, he stated that the opinion of the members had, in fact, never been taken. He then proceeded to point out that a large number of certificated midwives were in existence at the present time, and he asked why they did not minister to the wants of the population. In the Union of the rural sanitary district of Hatfield during the last six years the average number of births had been 192 and the puerperal mortality 5 per 1162 births; the number of cases yearly attended by a medical man exceeded 160. It was impossible to base the plea for legislation upon statistics, and he took exception to Dr. Aveling's statistics of mortality in maternity cases and to his conclusions generally in favour of certificated midwives. One reason why women would not give up their present ideas about attendance was that at the lying-in period they required someone who would nurse them and look after their household as well. The result of the establishment of a licensed class of midwives would be interference with the licensing of medical students. At present there was no disinclination on the part of women to be attended by students. Among the reasons which had led to the present demand for legislation he mentioned that an artificial stimulus had been given to the employment of midwives, and also that the doctors who were attached to the training schools for midwives naturally desired legislation in their favour. They formed the fallacious idea that all outside practice was bad and attended by a high rate of mortality. And, finally, there was the idle sensational talk encouraged at tea tables on the subject of the attendance upon the poor.

Dr. LOMBE ATHILL was the next witness called, and had been deputed by the Irish branches of the British Medical Association to give evidence. While objecting to registration, he desired to see women educated. There appeared to be an idea that registration would bring about education and render efficient the class of midwives that would appear on the roll hereafter. He objected to registration because if an official register were in existence it required to be purged from time to time; and with his experience on the General Medical Council with regard to medical men that was a most troublesome and costly matter. Continuing his evidence, he said "no registration would prevent the practice of unqualified women. The Medical Registration Act had not diminished the number of unqualified practitioners in the least, and if a Registration Bill for midwives were passed to-morrow and registered any number you like, from 500 to 50,000, you would still have uneducated women practising as midwives, because necessarily they can be obtained cheaper." Medical experts must be paid proportionately. Registered women are to be allowed to attend natural labour. If the midwife takes a case that is not natural labour and the patient dies, there is an inquest, and she is suspected of malpractice. County councils would not be fit bodies to investigate such cases. He continued: "Registration does you no good. Registration is only of use so far as to prove that the person is on the Register, and even that is not necessarily correct; a death vacancy may occur, or a man may fail to register. I would further point out that registration does not preclude you from practising. It is not proposed to give these women the power of signing certificates. And actually you gain nothing by registration. But education is good, and I advocate education while I disprove of registration. If registration is ever to be brought into force I contend that it should not be for ten years, until a system of education has been carried out. If it is essential that a woman in a hospital should not be licensed to be a nurse, although she is in a ward under the constant supervision of the sister and with medical men over her, with not less than twelve months' training, how is it possible that three months should be sufficient to qualify in midwifery? I have trained many hundreds of midwives and examined them, but I have been very much surprised myself, after taking the greatest pains week after week in instructing these women, at the confusion of their minds at the end of that time as regards what I may call the rudiments of midwifery. Remember you are going to take illiterate women—women, I mean, from the class of servants probably; you will not get ladies to go into midwifery practice to any extent in the country, it is too irksome; you will have to take women very much of the class of upper servants; you know what their style of reading and writing is. You begin to teach them anatomical names—the pelvis, the uterus &c.—and they do not get these names into their heads in three months. Yet it is proposed to register these women and to send them out into the country in three months. It ought to be three years. The very minimum should be six months. If you pass a Bill at all I would urge on you to see that you make education and not registration the chief thing. And I will say I would sooner be attended by, if I were a woman, or would sooner place my wife or daughter under the hands of an absolutely ignorant woman than under the hands of one who has a small smattering of knowledge. The accidents I have known have come more from the one class than the other. I believe there is more harm done by the maleducation of the medical student than there is by the practice of absolutely illiterate women, for the ill-educated student will do things which an illiterate woman will not do."

Dr. T. ERNEST HAYWARD was the next witness. He had been for twelve years in practice at Haydock, Lancashire, of which urban sanitary district he was also medical officer of health. The evidence which he would offer to the Committee would consist chiefly of facts within his own knowledge relating to the extent to which, in the part of Lancashire known to him, midwifery was being

practised by untrained and ignorant women, and the dangers to mothers and infants arising in consequence. The population of Haydock was 6535. The number of births for the past three years averaged 250 per annum. Of these scarcely a fifth, witness believed, were seen at any stage by a medical man. Most of the cases were attended by ignorant old women, and a doctor was only sent for in case of danger, often too late. Witness also quoted from the annual report of the medical officer of health of the neighbouring county borough of St. Helens, the population of which is over 70,000, the following, occurring in a paragraph relating to puerperal fever: "The great majority of accouchements in St. Helens are attended by midwives, a large number of whom have no other qualification than that of being mothers themselves." To illustrate the appalling results which often occur for want of the most elementary knowledge on the part of these women, witness gave, out of a large number which he had become acquainted with in his experience, brief outlines of three cases. The first, a multipara, died of post-partum hemorrhage. She had been left by the midwife without her even finding out that anything was wrong. Again, a multipara died of rupture of uterus. The head had been impacted for many hours, help not being sent for until two hours after rupture had occurred. The third instance was the case of a primipara who died of puerperal septicæmia. It was afterwards found that the midwife had attended her while suffering from erysipelas of the finger. Having stated these facts, the only opinion which witness could venture to express to the Committee was that some action was called for from the Legislature to remedy the existing state of things. Witness believed also that it would not be to the disadvantage of the medical profession for there to exist a class of properly trained and certificated midwives.

Mr. FRANCIS ROWLAND HUMPHREYS showed, from statistics obtained through the medium of the Midwives' Institute and Living-in Charity of Guy's Hospital, that where properly trained midwives were employed the percentage of mortality was very low. He thought that midwives who were trained to pass the Obstetrical Society's examination were well qualified. He advised, however, the supervision of midwives after the three months' training for as long a period as possible. The witness contended further that midwives should not attend cases of miscarriage, but only cases of natural labour at full time. In his opinion it was desirable that all midwives at present in practice should be placed on the Register on producing satisfactory evidence of fitness for their calling. He submitted a paper to the Committee showing what was required by the Obstetrical Society in the ordinary course of their examination, and expressed the view that a knowledge of medicine and surgery would be of little use to midwives, as they would gradually lose it on account of lack of opportunity of applying their knowledge. As far as midwives were concerned, the pulse was the only thing that was of much use to them.

Mrs. MALLESON, Hon. Sec. to the Rural District Branch of Queen Victoria's Jubilee Institute for Nurses, stated that her interest in the subject before the Committee was unprofessional, and arose from observation of untrained midwifery in a remote rural district during ten years. It was at first difficult for her, as for other interested observers of village life, to realise that the poor country women were, as a rule, attended in childbirth by wholly untrained midwives, doctors being called in only in cases of difficulty or danger. The class of women who had the hardihood to take this attendance upon themselves were quite illiterate and ignorant, eking out a livelihood by work in the fields and other rough occupations. They were incapable of discriminating between normal and abnormal labour, often sending for the assistance of medical men either needlessly or too late. They had no knowledge of what should be done in the slightest emergency, and no resource. They were ignorant of the most elementary principles of nursing, of the sanitary keeping of a patient's room, and it was scarcely necessary to add, completely without experience of the modern methods of treating lying-in patients. It was, she said, no uncommon thing for them to allow their patients to be delivered on the floor, and it was customary to give spirits to women in and after labour. They did not unite the offices of monthly nurse and midwife, as trained midwives often did, and very commonly allowed the poor mother to be downstairs on the third day after her confinement. They were without any knowledge of the proper treatment or feeding of infants and were incapable therefore of counselling mothers in the care of their children. The consequence was an amount of suffering and want of healthy development in children alarming to any who counted the results to the next generation. As it was impossible for poor men earning the average agricultural wages to pay the ordinary doctor's fee of one guinea, it was clear that there must be improvement in the class of midwives if the evils mentioned were to be abated.

Dr. W. GRAYLY HEWITT stated that there were about 10,000 midwives in England, and that about three-fourths of the labours in England were attended by midwives. In many villages the percentage of cases attended by midwives amounted to 90. He expressed the opinion that the evil of the incompetency of midwives was serious enough to require legislative interference, and urged the utility of registration as a means of enforcing the proper education of midwives. He agreed, however, that if all the midwives now in practice were put upon the Register there would be a danger of a practically unqualified woman being considered as good as a really experienced midwife. He gave an account of the mode in which the practical teaching of midwifery was conducted at University College Hospital, and stated that the pupils were never allowed to undertake a case alone until they had seen three or four cases. He suggested that the Medical Council might employ the Obstetrical Society for the examination of midwives, while the duty of removing the names of persons from the Register might be handed over to the local bodies.

Dr. W. S. PLAYFAIR stated that when the Obstetrical Society started their examination in the year 1872 he had a great deal to do with its organisation. He gave evidence to the effect that the council of the Society started the examination because of the complaints of the evil effects resulting from the ignorance and incapacity of a large number of the midwives then practising in the country. He agreed with the view that objection to the education and qualification of women as midwives proceeded from a very small section of the medical profession. Few of them had any objection to these, but the question of the registration of midwives was a different thing. He believed that something like 15,000 or 16,000 women were practising as midwives at the present day. The number who were educated was very small, but the figures he had given included them. This led him to speak of the necessity of a more direct system of training, of examination, and of registration, in order to bring about an improvement among midwives.

Mrs. ZEPHERINA P. SMITH, the President of the Midwives' Institute, stated that a properly trained midwife could diagnose danger before it was actually present in a confinement case. Her opinion was that the training now given to midwives in most schools was satisfactory. There was a disinclination among the members of the Midwives' Institute to oppose any legislation that would protect poor women from incompetent midwives. She suggested two classes on the Register, one consisting of the midwives now in practice, and one for those registered after examination.

Dr. JAMES EDMUNDS advocated a State examination for women in midwifery and the auxiliary branches of medicine. Women who have passed such an examination should be registered by some provision appended to the Medical Acts, and in relation to the general practice of medicine they should occupy the position of educated specialists, analogous to that now occupied by dentists. The practice of midwifery should be severed as far as possible from attendance upon infectious cases, and from the duties of the post-mortem room. Much of the mortality now incident to childbirth arises from infection brought into the lying-in room by the general practitioner, and this factor in the mortality of childbirth might be got rid of almost entirely by the employment of specialist midwives. The professional knowledge and skill necessary for such women would be acquired in from twelve to eighteen months' steady work under proper scholastic and clinical provisions. Over one hundred ladies were educated upon this basis some years ago by the Female Medical Society, and those ladies have since done valuable work in various parts of the world. Four to six months' training under proper clinical surroundings might suffice for an obstetric nurse such as might be needed for isolated villages, but the registered midwife should have from twelve to eighteen months' thorough training. He would let such midwives get their professional knowledge anywhere and anyhow so that they passed an adequate examination, and the passing of such examination he would make the sole qualification for putting them upon the Register. He would have free trade all round in medical teaching. The women should be not of the servant class, but of the governess or Board School mistress grade. Their fees he would leave to be settled between them and their patients, precisely as is now done with medical men. Whether they took 5s. or 100 guineas would be no one else's business. In country districts the average area through which such a woman would practice would have a radius of about five miles round her home. She should deliver the patient, see her settled in bed, wash the baby before leaving, and give such directions as were necessary to the nurse or neighbour who looked after the patient. She should visit the patient again next day, then on the fourth and seventh days, and perhaps once more. If any intercurrent illness occurred she would turn the patient over to a medical man. Such women would be of great value in their districts, and they would make a much more comfortable living than they now do as governesses or Board School mistresses. They would easily earn £150 a year, and they would acquire much the social position of the village curate. He would make it a stipulation that they did not attend any infectious medical cases. He would encourage such women to fit themselves for all the emergencies of labour and to do operative midwifery if they felt able to do so. In many cases where there is an adherent placenta to be removed or a version to be performed a woman has a great advantage over a man in the small size of her hand, and she could safely intervene in such cases at an earlier period than a man could. The question of the mortality in childbirth among the existing class of midwives and among gentlemen practising midwifery as well as general practice was discussed by Dr. Edmunds in a letter to *The Times* of October, 1865. It appears that uneducated midwives have a smaller mortality among the patients than have the medical men. The reason he believed to be that infectious poisons are conveyed into the lying-in room by the general practitioner, and he thought that casualty is practically unavoidable under the conditions in which general practice has to be pursued in connexion with the practice of midwifery. The education and registration of midwives would not in the least injure the vested interests of existing medical men. All that would occur would be the gradual infusion into the professional recruits of a certain proportion of registered midwives. In many cases such women would be the sisters of the men who now go into general practice—such women as now devote themselves to skilled nursing.

Mrs. MARY SCHARLIEB, M.D., spoke of the necessity of the registration of midwives in order to protect mothers in the poorer classes from the serious consequences of the carelessness, ignorance and negligence of unqualified women. High-class Mahomedan and Hindoo ladies were never attended by men in their confinements. She explained that after an expensive education it would not pay lady doctors to take midwifery practice alone, but they would expect the midwives to call them in, as medical men were called in, in case of difficulty. She approved of the term "licensed midwife" being used, provided that it was duly published and recognised. She stated that in her view any Registration Act should be prospective, the date for its coming into force being postponed for such a time as would enable existing midwives to qualify.

Dr. CHAMPNEYS had no doubt that the registration of midwives was highly desirable. From time to time instances of gross malpractice occurred, displaying ignorance which could not exist in any trained midwife. As regarded the duration of training, more prolonged training would certainly be better, but most of the pupil midwives at the hospitals were too poor to be able to afford it, and the hospitals were too poor to reduce their fees. The training of a midwife was intended to be strictly limited, but within those limits thorough. She was expected to possess a good knowledge of antiseptics and of the treatment of emergencies till the doctor arrived. She was not expected to practise as a doctor. There ought to be a power of depriving a midwife of her diploma for any such encroachment. An advertisement or notice to the effect that Mrs. So-and-so is at home to see patients between certain hours ought, in his opinion, to be considered such an offence. As regarded the effect of the spread of qualified and registered midwives over the country on the practice of medical men, he had had contradictory opinions given him by country doctors. To some it would be the greatest relief to be deprived of poor midwifery practice; others feared a reduction of their fees and others a reduction of their experience. He believed that the doctors of a country district would not generally lose money if they all worked together, for they would probably be able to get far better fees for consultation cases which midwives would not be able to deal with. In his opinion also a doctor who attended a large amount of poor midwifery was rarely in any good sense experienced, for the wear-

and-tear was such that he could not think about his cases. He likewise considered that the public might justly prefer a midwife properly trained in antiseptics to an overworked medical man. The great test was the good of the community, and this was the only true claim of the medical profession to existence at all.

Dr. DANFORD THOMAS gave his experience. He had been in practice fifteen years, and had been one of the coroners for London for eleven years. His experience was that there were three classes of midwives—a small and useful class, who held a certificate; an uncertified class, obtaining knowledge simply from their practice; and an utterly ignorant class, consisting chiefly of old women. The poor were unable to discriminate between the educated and the uneducated class. He said: "I have held inquests in half-a-dozen cases which come to my recollection during the last ten years, in which either the death of the woman or the child has resulted from the ignorance of the midwife. In one case, although she was warned by a neighbour of the danger the patient was in, the midwife protested that everything was all right and would be all right presently, using the favourite expression, 'Let her alone, she will do well,' simply because she had no knowledge that it was a case of what is called 'placenta previa.' The woman bled to death. She refused to have a doctor, and the husband agreed with her, as he had great confidence in her statement that no doctor was required. An educated midwife would have recognised the condition and would have sought medical aid. I may say that the more educated the midwife is the more quickly and the more frequently does she seek medical aid when it is wanted. She recognises the danger and gets the assistance that is necessary. The uneducated woman will let the patient go on to the very last. Jealous of her supposed knowledge, and not wishing the relatives to know that she does not understand the case, she goes on to the last, and sometimes the woman dies and sometimes also the child. I have had cases where an infant has bled to death from the very incompetency of the so-called midwife even to tie the cord properly. I therefore think that if there were first of all the proper training of midwives and the examination with registration it would be a great advantage to the community; that the medical profession would have nothing to fear in any shape or form from these ladies, as they would be extremely limited in number under any circumstances." He concluded that the registration of midwives would be a great advantage to the community in general. It was immaterial to him whether the terms "registered," "licensed," "certificated," or "chartered" were used, provided that adopted indicated that the midwives were properly certificated by a central legal body. If a small fee were charged for registration he did not see what difficulties were in the way of keeping a register of midwives.

Mr. GEORGE BROWN gave evidence at the request of the Council of the General Practitioners' Alliance in opposition to the proposal to register midwives. He protested against ignorant and partially-educated women being recognised by law as competent to practise midwifery. He insisted that no one who had not a complete education in medicine and surgery as well as in obstetrics was qualified for such practice. To legalise registration diplomas would be, in Mr. Brown's opinion, to undo all the effect of the Medical Act of 1856, as it was impossible to determine where natural labour ended and abnormal labour began. He objected to registered midwives being allowed to administer drugs to their patients, and he stated his belief that if midwives were registered an agitation which could not be legally resisted would immediately spring up for the registration of men, a proceeding which would be the death-blow to all Acts of Parliament regulating the practice of medicine.

Dr. W. H. FENTON urged the expediency of midwives being registered in order that they might be improved and controlled.

Dr. HUGH WOODS said that many doctors objected very strongly to the legal registration of midwives, while having no objection to the highest training, or even registration, of monthly nurses. He said that midwives were a relic of the Dark Ages, and that until the sixteenth century, so long as midwifery was in the hands of women exclusively, no advance was made in the art. He considered that the proposed registration of midwives aimed at preventing the natural and desirable extinction of that class. He maintained that a very large part of the mortality of childbirth occurred in the so-called normal cases, and quoted the opinion of Dr. Engelmann of St. Louis from "A System of Gynecology and Obstetrics by American Authors," to the effect that one of the great causes of the extreme mortality in parturition in the older countries is the persistence of the prejudice that normal labours can be sufficiently well attended by midwives. He cordially agreed with that opinion, and discouraged the idea that normal labour does not require the most skilled treatment. He argued that it would be impracticable to prevent others than registered midwives from giving help to women in confinement, and that unless this was done the mere conferring a monopoly of the title "midwife" on certain persons could have no value. He remarked that as all *bona-fide* midwives would be put on the Register at the commencement, it would include for many years many drunken and disreputable women; while so soon as it ceased to contain any but highly trained women, the payment required by them would put them out of the reach of the very people for whom they were apparently intended. They would, he thought, compete directly with doctors for attendance on the lower middle classes. He insisted that every confinement ought to be attended by a fully-qualified doctor, male or female. He felt that it would be a great anomaly for a woman with three months' training to be registered as qualified and entitled to recover fees for what is certainly about the most difficult part of medical work—namely, attendance on confinements; while an F.R.C.S. is not legally qualified to tie up a cut finger without being also qualified in the other branches of the profession. The mortality in childbirth, he said, never fell much below 1 or 2 per cent., so that it could not be looked upon as a mere physiological act; for physiological acts such as eating &c. did not involve death once in two hundred times. He said, finally, that what he and other doctors objected to was the giving to women a legal qualification to practise as doctors under the name of midwives. In reply to questions from members of the Select Committee, Dr. Woods said he thought certificated nurses did already distinctly act as doctors under cover of their certificates as nurses. He entirely disbelieved the statistics, which professed to show that a greater percentage of deaths occurred under the care of doctors than of trained midwives. Cases usually passed into the hands of doctors when death became imminent, and so went to their credit. He considered that

legal registration would be giving a guarantee of competency where competency was non-existent. His experience was that midwives did not, even when well trained, recognise the signs of impending danger. He thought that the practice of midwives without the help of doctors might be checked by coroners reprimanding them for undertaking sole management in cases where death occurred. He felt sure that any certificates of the competency of midwives before putting them on the Register would be useless as a safeguard, and said that medical men would decline the responsibility and odium of deciding as to the merits of women with the talent of the fair sex for damaging character. He thought the employment of midwives would die out gradually if they were let alone. He said that ladies preferred men to attend them, and he saw no objection to it. He said that if midwives had so enormously less a mortality, as was contended, than medical men, the latter must be dangerous animals who ought not to be employed. He thought doctors very seldom conveyed infectious diseases to their patients. As regarded the actual general mortality in childbirth, he thought a  $\frac{1}{2}$  to 1 per cent. was a pretty fair estimate. He found that poor women got over their confinements very well when attended by a doctor with mother or other relative as nurse.

The following is the report which the Committee have agreed upon, and of which we have already published the main points:—

"Your Committee have sat six times and have taken most valuable and important evidence from medical men and practitioners in various spheres of practice both in favour of and opposed to the registration of midwives, and also from trained and experienced midwives. This evidence has shown that there is at present serious and unnecessary loss of life and health and permanent injury to both mother and child in the treatment of childbirth, and that some legislative provision for improvement and regulation is desirable. They have also had evidence showing that there is a wide field for training in midwifery now unused connected with parish infirmaries and home practice in populous places. Their inquiries have been cut short by the approaching early dissolution of Parliament, and they therefore report the evidence and recommend a continuation of the inquiry in the next session of Parliament."

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6100 births and 3878 deaths were registered during the week ending Sept. 3rd. The annual rate of mortality in these towns, which had been 18.0 and 18.5 per 1000 in the preceding two weeks, further rose last week to 19.8. In London the rate did not exceed 16.6 per 1000, while in the thirty-two provincial towns it averaged 22.2 per 1000. The lowest rates in these towns were 11.8 in Halifax, 13.6 in Nottingham, 14.5 in Bradford and 15.0 in Burnley; the highest rates were 26.1 in Leeds, 28.6 in Sheffield, 31.8 in Bolton, 33.7 in Salford and 37.8 in Preston. The 3878 deaths included 984 which were referred to the principal zymotic diseases, against 678 and 830 in the preceding two weeks; of these, 728 resulted from diarrhoea, 72 from measles, 62 from scarlet fever, 54 from diphtheria, 44 from whooping-cough, 23 from "fever" (principally enteric) and one from small-pox. The lowest death-rates from these diseases were recorded in Halifax, Derby, Bristol and Swansea, and the highest rates in Sheffield, Leeds, Salford, Bolton and Preston. Measles caused the highest proportional fatality in Salford, Huddersfield, Brighton and Oldham; scarlet fever in Preston and Swansea; whooping-cough in Nottingham and Preston; "fever" in Portsmouth and Birkenhead; and diarrhoea in Gateshead, Hull, Leicester, Cardiff, Sheffield, Salford, Leeds, Bolton and Preston. The 54 deaths from diphtheria included 34 in London, 4 in Salford, 3 in Manchester and 3 in Oldham. One fatal case of small-pox was recorded in Halifax, but not one in London or in any other of the thirty-three large towns. Five cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 3 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3280, against 3088, 3052 and 3103 on the preceding three Saturdays; 461 new cases were admitted during the week, against 367 in each of the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 139 and 148 in the preceding two weeks, declined again to 114 last week, and were 55 below the corrected average. The causes of 72, or 1.9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bolton, Oldham, Bradford, Hull and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Swansea, Birmingham, Liverpool, and Sheffield.

## HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17.2 and 16.2 per 1000 in the preceding two weeks, further declined to 15.7 during the week ending Sept. 3rd, and was 4.1 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12.7 in Dundee and 14.3 in Edinburgh to 17.0 in Glasgow and 20.6 in Perth. The 438 deaths in these towns included 26 which were referred to diarrhoea, 14 to scarlet fever, 10 to whooping-cough, 9 to measles, 4 to diphtheria, 4 to "fever," and not one to small-pox. In all, 67 deaths resulted from these principal zymotic diseases, against 81 and 75 in the preceding two weeks. These 67 deaths were equal to an annual rate of 2.4 per 1000, which was 2.6 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had been 27 and 34 in the preceding two weeks, declined again last week to 26, of which 16 occurred in Glasgow and 5 in Edinburgh. The deaths referred to scarlet fever, which had been 14 and 10 in the previous two weeks, rose again to 14 last week and included 9 in Glasgow and 2 in Leith. The 9 fatal cases of whooping-cough were within 1 of the number in the preceding week, and included 9 in Glasgow. The deaths from measles, which had declined in the preceding four weeks from 23 to 12, further fell to 9 last week, of which 7 occurred in Glasgow and 2 in Edinburgh. The 4 fatal cases of diphtheria and the 4 of "fever" corresponded with the numbers recorded in the preceding week. The deaths referred to diseases of the respiratory organs in these towns, which had been 76 and 57 in the preceding two weeks, were again 57 last week, and were 25 below the number in the corresponding week of last year. The causes of 39, or nearly 9 per cent., of the deaths in these eight towns last week were not certified.

## HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19.5 and 24.0 per 1000 in the preceding two weeks, further rose to 26.3 during the week ending Sept. 3rd. During the first nine weeks of the current quarter the death-rate in the city averaged 23.0 per 1000 against 17.6 in London and 16.1 in Edinburgh. The 176 deaths in Dublin during the week under notice showed an increase of 15 upon the number in the preceding week, and included 19 which were referred to diarrhoea, 2 to scarlet fever, 2 to diphtheria, 2 to "fever," 1 to measles, and not one either to small-pox or whooping-cough. In all, 26 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3.9 per 1000, the zymotic death-rate during the same period being 3.3 in London and 1.8 in Edinburgh. The fatal cases of diarrhoea, which had been 12 and 9 in the preceding two weeks, rose again to 19 during the week under notice. The deaths referred to different forms of "fever," which had been 2 in each of the preceding two weeks, were again 2 last week. The 2 fatal cases of scarlet fever and the 2 deaths from diphtheria exceeded the numbers in any recent week. The deaths referred to measles, which had steadily declined in the previous five weeks from 8 to 2, further fell to one last week, a lower number than in any week since February last. The 176 deaths registered in Dublin last week included 42 of infants under one year of age and 35 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase, while those of elderly persons corresponded with the number in the preceding week. Six inquest cases and 6 deaths from violence were registered; and 56, or nearly a third, of the deaths occurred in public institutions. The causes of 24, or nearly 14 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

## MISS FLORENCE NIGHTINGALE AND INDIAN SANITATION.

Miss Florence Nightingale forwarded a letter to the late Secretary of State for India regarding the improvement of village sanitation in order to see whether something could not be done to overcome the financial difficulties connected with practical sanitary work in villages. It will be remembered that the subject of village sanitation in India occupied the attention of that section of the International Congress of Hygiene and Demography, and Miss Nightingale took it up in

connexion with the representations of the Congress and the Bombay Sanitation Act of 1889. There is no doubt that reasonable sanitation is one of the first necessities of village life, but the poverty of the people and their religious and social prejudices are great obstacles to success. However, Miss Nightingale's letter with its enclosures has been forwarded for the consideration of the Governments of India and Bombay.

## THE SOLDIER'S RATION.

We recently called attention to the revised edition of instructions on the messing of soldiers, showing how the Government ration, supplemented by the messing allowance deducted from the soldier's pay, could be turned to the best account. Satisfactory results were attained in the case of the 1st Battalion of the Northamptonshire Regiment and in that of three companies of Mounted Infantry encamped at Bourley. The experience so far obtained indicates that a better and more attractive food can be provided for the soldier at home stations than has heretofore been the case. The revised edition of the instructions on the messing of soldiers was issued to the troops at Aldershot under the direction of Sir Evelyn Wood, the general officer commanding.

## SOLDIERS' BOOTS.

It will be remembered that a short time ago a French army surgeon, Dr. Alex. Colin, published the results of his investigations into the effects of marching upon soldiers in disciplined bodies and the prejudicial effects of the regular repetition of an indefinite number of small shocks on the body, for which the provision of an indiarubber heel for military boots was suggested. It is stated that this heel has been tested by several infantry regiments with satisfactory results. The comfortable and efficient shoeing of the soldier is unquestionably a very important item with regard to his efficiency at all times, especially on field service.

## ARMY MEDICAL SERVICE.

Surgeon-Captain J. Will, lately returned from Hong Kong, has been ordered to Edinburgh for duty on the North British District Staff.

## MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Colonel Godwin, late Professor of Military Surgery at Netley, proceeds to India on a tour of Foreign Service. Surgeon-Colonel Welsh has been ordered from Cork to the Western District as Principal Medical Officer. Surgeon-Captain Allport is on leave of absence pending embarkation for India. Surgeon-Captain Hickson has proceeded from Dublin to Templemore; Surgeon-Captain Nicolls from Omagh to Enniskillen. Surgeon-Captain Hanley embarked for India on the 2nd inst. Surgeon-Captain Firth has been ordered from Dover to Netley for duty. Surgeon-Major Lamprey has joined at Hounslow for temporary duty.

## ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Henry Darvill Brook, 20th Middlesex (Artists) Rifle Volunteers, to be Surgeon-Lieutenant (dated Aug. 31st, 1892).

## NAVAL MEDICAL SERVICE.

The following appointments have been made:—Fleet Surgeons: Anthony Gorham, M.D., to the *Wildfire*, additional, and George Kell to the *Rodney* (both dated Sept. 1st, 1892). In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon William Henry O'Meara has been placed on the Retired List of his rank (dated June 13th, 1892). Staff Surgeons: Samuel W. Vasey to the *Nelson* and William Tait, M.B., to the *Cleopatra* (both dated Sept. 14th, 1892). Surgeons: John L. Thomas to the *Invincible* and John E. Webb to the *Victoria*, additional, (both dated Sept. 6th, 1892).

## VOLUNTEER CORPS.

*Artillery*: 2nd Devonshire (Western Division Royal Artillery): Surgeon-Lieutenant A. K. Crossfield to be Surgeon-Captain (dated Aug. 27th, 1892).—1st Durham (Western Division Royal Artillery): Surgeon-Lieutenant J. W. Beattie, M.B., to be Surgeon-Captain (dated Aug. 27th, 1892).—*Rifle*: 2nd Volunteer Battalion, the Royal Welsh Fusiliers: Thos. Louis Kenrick Davies, M.B., to be Surgeon-Lieutenant (dated Aug. 27th, 1892).—3rd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Surgeon-Lieutenant A. A. Kantiack resigns his commission (dated Aug. 27th, 1892).—4th Volunteer Battalion, the Gordon Highlanders: Jas. Nicol, M.B., to be Surgeon-Lieutenant (dated Sept. 3rd, 1892).

## Correspondence.

"Audi alteram partem."

### 'THE LANCET COMMISSION ON SANITATION IN RELATION TO THE LAW AND PRACTICE OF HOUSE-LETTING.'

To the Editors of THE LANCET.

SIRS,—As the originator of the Eastbourne scheme of Sanitary House Registration, and chairman of the committee which has carried it out, I venture to reply to your correspondents. Until seeing Mr. Penford's letter I thought that we were the only authority which issued sanitary certificates; I shall be very willing to exchange notes with him, as we should each probably profit by the experience of the other. I can easily give Dr. Blake the statistics he asks for, though I fear they would not help anyone wishing to take a particular house. We have been issuing certificates for two years and a half, and the demand for them has constantly increased. Our standard of excellence is as high as modern sanitation enables us to make it, and in a later communication I can give a full description of the scheme, which I think will satisfy him that all certified houses are as sound as the most exacting tenant can wish. The services of the officials are given gratuitously; they advise upon the work necessary, and it is executed under their constant inspection; a fee, however, is charged to non-ratepayers who may require a reinspection.

In conclusion, I may add that I have never seen Dr. Farquharson's Bill, that I drafted the scheme entirely on my own ideas, and am therefore more responsible for its defects than anyone else.

I am, Sirs, yours faithfully,  
ARTHUR P. SHERWOOD, M.D., L.R.C.P.,  
Chairman of Sanitary Committee, Eastbourne  
Corporation.

Aug. 30th, 1892.

### SUB-PERITONEAL HYSTERECTOMY.

To the Editors of THE LANCET.

SIRS,—I see from your report of the proceedings of the Obstetrical Section at Nottingham that the sub-peritoneal method of treating the uterine stump was once more brought forward and discarded with the damning praise of "ideally the best." History repeats itself. The surgeons of the sixteenth century, who looked upon hot pitch as a necessity, undoubtedly used the same expression when Ambrose Paré (having previously ligatured his arteries) advocated the closure of amputation flaps. "Ideally the best," they said; "but having pitched our stumps we must go on in the open." The use of the *serre-neud* in hysterectomy has been referred to as a relic of barbarism. I think, however, the term might be much more justly applied to the use of the elastic tourniquet. To the extra-peritonealists (and I am sorry, for the sake of our method, that under this head come nearly all the leaders of abdominal surgery in England)—to the extra-peritonealists, I say, my expression will seem exaggerated, perhaps foolish, but to my mind the use of the elastic ligature to the tender uterine stump is as barbarous as was the use of hot pitch by our ancestors.

To return to the operation. What are the special dangers generally credited to the sub-peritoneal method? Two: secondary hæmorrhage and sepsis. Why is there secondary hæmorrhage? "Because," say the extra-peritonealists, "of the contractions and rapid diminution in size of the ligatured stump." Ask the obstetricians, on the other hand, why secondary hæmorrhage is almost unknown after confinement, and they will tell you that it is on account of the contraction and rapid diminution in size of the empty uterus. "Quite so," say the extra-peritonealists; "but the fact remains that hæmorrhage does occur after sub-peritoneal hysterectomy, and not unfrequently." Granted, but the cause is not far to seek; your hæmorrhage proceeds from your ligature. Any fair surgical treatment—be it even total extirpation—the uterus will tolerate, but to be crushed for twenty to forty minutes in an elastic ligature is beyond even its powers of endurance. As a result of this unnecessary treatment, the stump is left deprived both of its nervous and muscular power, bruised and helpless. Under such circumstances it is a wonder that secondary hæmorrhage does not occur after every operation. Even in the amputation

of an extremity, protected as the nerves and muscles are by thick skin and subcutaneous tissue, the use of an elastic ligature is apt to be followed by oozing; how much more then in the uterus, whose sole protection is the filmy peritoneum? It has been claimed for the elastic ligature that it gives confidence to the operator. Let the operator who requires it use it, but I venture to think that Mr. Knowsley Thornton and Mr. Lawson Tait have got beyond the stage of requiring a wall to their backs. Further, the danger against which it is supposed to guard does not exist. When once the broad ligament is tied off, and any superficial and evident vessels clipped, there is in cutting through the uterine tissue no more hæmorrhage—nay, there is much less—than in cutting through the tongue in Whitehead's operation; and as for the tongue so for the uterus, scissors are by far the best. In my earlier operations I looked for and found the uterine arteries; I now cut through the uterus at once and catch the arteries as they spout. The second danger credited to the operation is sepsis. And wherefrom sepsis? "From the exposed uterine mucous membrane," say the extra-peritonealists. The healthy appetite of the peritoneum, if properly treated, is capable of dealing with much more septic material than exists on the fragment of mucous membrane left behind. And if the operator wishes for greater security, let him cut out, burn, sterilise, or otherwise destroy his *bête noire*. "But," reply the extra-peritonealists (*minus* Mr. Tait, I hope), "although your arguments are plausible, sepsis does occur." Of course it does occur, and will occur so long as a ligature is used and a uterus and peritoneum bruised and enervated are left behind. Under such conditions it is only to be expected that in the struggle between peritoneum and septic material the former will have a greatly diminished chance.

In short, the two dangers credited to the sub-peritoneal method, secondary hæmorrhage and sepsis are due entirely to the use of the elastic ligature. If our leaders will give a trial to hysterectomy without the ligature I am certain that the skill and facility of resource which are their great characteristics will enable them to cope with any hæmorrhage, and once the ligature is abandoned the sub-peritoneal operation will become not only the "ideally" but the "really" best.

I apologise for again trespassing on your valuable space and for the discursiveness and lack of gravity of my letter; my excuse must be that to us at a distance the columns of THE LANCET take, as a means of communication with the bulk of the profession, the place of the learned societies.

I am, Sirs, your obedient servant,

Cairo, Aug. 21st, 1892.

H. M. MILTON.

### BICYCLE ACCIDENTS.

To the Editors of THE LANCET.

SIRS,—In your second article on "Cycling and Vitality" you say, referring to accidents: "These increase daily, not from faults of the machines ridden—for, thanks to the skill, care and competency of the industry that turns out cycles there is the most admirable safety work in this direction that was ever produced—but from the faults of the riders themselves." It is desirable it should be recognised that by far the commonest single cause of the increased number of accidents—an increase altogether out of proportion to that of the votaries of cycling—is the more general adoption of the pneumatic tyre, the tendency of which to skid on wet ground is notorious, great as are the advantages which outweigh this fault. The surface of most roads slopes to the sides, so that in passing or overtaking another vehicle one rides along a sloping plane. In such a position the rear-driven safety tends to swerve, so that the driving-wheel slips down hill. To combat this the rider steers somewhat up and so further reduces the angle of pressure on the ground. Skidding of the steering wheel does not matter much, but slight slipping of the back wheel causes a fall. In many accidents of late the rider has been actually thrown against or under the met vehicle, for he *must* fall towards it. Cyclists unaccustomed to the pneumatic tyre do not recognise the necessity of allowing the machine gradually to approach the kerb and of not trying to correct the leeway when the ground is greasy, rather than run the risk of a skid. On a clear road a fall will teach caution, but if a heavy waggonette or dray be passing, the unfortunate cyclist may be deprived of an opportunity of profiting by experience.

I am, Sirs, yours faithfully,

Rainhill, Aug. 31st, 1892. W. F. MENZIES, M.D., M.R.C.P.

THE DENTAL PROFESSION AND THE  
GENERAL MEDICAL COUNCIL.*To the Editors of THE LANCET.*

SIRS,—I regret to have missed the correspondence in *THE LANCET* on dental advertising. If not too late, I should just like to say how very glad the better class of dentists would be if the General Medical Council could be prevailed upon to strike off the Dentists' Register the names of those who disgrace our profession by their advertisements in the daily press, on the walls, and by their exhibitions of artificial teeth in cases and windows. In the late Partridge trials one of the judges said: "If a barrister were to advertise his superior skill and lower fees he should have no hesitation in moving his Benchers to strike his name off the roll, as guilty of conduct disgraceful in a professional respect." The college from which Mr. Partridge held his diploma having withdrawn it for persistent advertising, the General Medical Council did strike his name off because he was only registered in right of that diploma. I hope the General Medical Council will further purge the Register in respect of those who are practising without diplomas, but who are simply registered as having been in practice before 1878, if they continue in conduct so professionally disgraceful. It would be a great help if the medical profession generally would urge this upon the British Dental Association and such members of the General Medical Council as they are able to influence. I am pleased, Sirs, that this question has been brought forward by a surgeon, because it gives one an opportunity of pointing out that it would be better if reputable medical men and surgeons would not lend their names to be placed in advertisements and circulars by advertising dentists; and if they could see their way to refuse to attend the surgeries of these unqualified advertisers to give anaesthetics it would be better. I have had two cases of actual fraud and extortion by advertising dentists under my notice just lately, which I have fully reported to the British Dental Association.

There is also the important question of "covering" by dentists as well as by medical men to be considered. If the General Medical Council would make this impossible, they would do great good to the public and also to the profession. It seems to me, Sirs, the General Medical Council is the "authority" your correspondent is in search of, and I am sure there are any number of dentists who will be only too glad to assist in moving that honourable body.

I am, Sirs, yours truly,  
HENRY BLANDY, L.D.S. Edin.

## THE COST OF MEDICAL EDUCATION.

*To the Editors of THE LANCET.*

SIRS,—As one who has obtained his education at at least half a dozen medical centres, and who has lived nearly twenty years in lodgings, my experiences as to expenses may prove interesting to some of your readers. I believe that the difference in this respect between the various centres is for the most part due to the standard of living adopted rather than to the price of rooms or provisions. Students brought up in thickly populated and highly civilised districts and seeking their education in London are obliged to live more expensively than the hardy sons of Caithness or Kerry farmers, for the simple reason that such diet &c. as would be quite sufficient for the latter would be slow starvation and physical declension to the former. I have lived a year of my student life in Cork at a total expense for board and lodging of about 8/- a week, and could have reduced even that sum had I chosen to share my rooms with another student. Even now I know of three students living in two rooms whose expenses seldom exceed 25/- a week (if we leave recreation out of account) but such living as this would be impossible to students reared more luxuriously. I have had two very tolerable rooms in an unfashionable suburb of London for 10/- a week, and have lived there in a room for which I paid only 4/- a week; my total expenses in the one case being about £1 and in the other 12/- a week. When in Edinburgh I lived much more expensively, but, had I chosen to do otherwise, I think I should have found the Scotch capital as cheap as most other towns. Cardiff is, or rather was when I was there, six or seven years ago, an extremely cheap town, especially as to rent, my two rooms there at 6/- a week being quite as good as any which I could get in London for 12/- or even 15/-. As to foreign schools

I shall not occupy your space with any lengthy remarks, but may say that even the larger capitals will be found moderately cheap to those who adopt the mode of living of the natives, and that in such a city as Munich a high standard of comfort can be maintained at an extremely small cost.

I am, Sirs, yours faithfully,  
SEPT. 6th, 1892. EXPERIENTIA DOCTUS.

THE CHAIR OF PATHOLOGY AT MCGILL  
UNIVERSITY.*To the Editors of THE LANCET.*

SIRS,—I see it stated in the last number of *THE LANCET* that I am a candidate for the Professorship of Pathology in the McGill University. I shall be glad if you will contradict this report, as I am not and never have been a candidate for that valuable post.

I am, Sirs, your obedient servant,  
Westminster, S.W., Sept. 7th, 1892. M. ARMAND RUFFER.

## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

*The Rough Rampant.*

IN this as in most large centres of population every now and then passes a wave of ruffianism, an outbreak characterised by the exhibition of savage cruelty, brutal assaults and fiendish malevolence. On Saturday night last there were a succession of assaults and display of scoundrelism such as have not been witnessed for many years. Two deaths mark the epoch: one in which an inoffensive man was kicked to death; a second where a man, stabbed outside a public-house, has since succumbed to his injuries in the hospital. Assaults on police officers, wives, and even on children, fill the catalogue, and cause a shudder at the wild fierceness of uncontrolled passions which run riot in the midst of civilisation. Man's inhumanity to man finds little check from the moral influences of teaching and education. Example in many forms is better than precept. The stronger power of the law can only be retributive in these instances, but to deal leniently with acknowledged roughs whose lives are spent in assaulting, maiming and killing their fellow creatures, is a travesty upon the harm done to society and to the protection of inoffensive and orderly people.

*The Cholera Campaign.*

The threatened visitation of cholera has evoked the interest of many correspondents of the daily press and, as usual, has called forth the laudation of an infinite variety of specifics and panaceas. Fortunately the machinery of the health department in our city is in excellent working order and capable of acting with vigour and readiness on any emergency. So far no frights or scares have disturbed the equanimity of the nervous or the sensitive, and time is allowed to take stock of our sanitary position. After all, the simplest weapons are the safest to combat any approach of the dread disease. The precautions of prudence and cleanliness, added to drainage and ventilation, are in the power of all to wield. Measures which will yield the greatest amount of safety and success are generally ignored because of their simplicity. The Local Government Board, with our distinguished medical citizen as Secretary, will find ample proof of the assertion that sanitary science, like charity, begins at home.

*Contempt of Contagion.*

A flagrant instance of offence against sanitary laws was brought before the Handsworth magistrates on Aug. 26th. On July 27th an inspector appointed under the Contagious Diseases Act found the carcasses of five swine floating in the river Tame. These were certified as having died of swine fever. Further inquiry showed that sixteen other pigs had been secretly buried on the farm, a foot deep, without disinfectants. The owner of the pigs found this proceeding rather an expensive one. He was fined £2 10s. and costs with respect to each of the twenty-one cases, while the bailiff was fined £10 and costs. The sum of £80 is an expensive lesson, but it is necessary in the interests of other stock-

owners and of public health that such a violation of known laws should be adequately punished.

#### *Warding the Workhouse.*

The Revision Committee of the Birmingham Board of Guardians have just had a "call over" of the inmates. The number of paupers in the workhouse was: males, 539; females, 413. The venereal cases had been reduced considerably—namely, to three males and seven females. Children numbered 81, the total number being 1033. The ages were: under sixty, 8; between sixty and seventy, 183; between seventy and eighty, 180; between eighty and ninety, 25; over ninety, 3. One woman had been an inmate for fifty years. The inmates of the workhouse infirmary numbered 1237; there were 396 children at Marston Green Homes.

Sept. 6th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

#### *Death from Hydrophobia.*

AFTER a long immunity from hydrophobia, due, no doubt, to the stringency with which the muzzling order was carried out through the country, a case of hydrophobia recently occurred here and unfortunately ended fatally. The deceased was a foreman brakeman in the employ of the London and North-Western Railway Company at Preston, living at St. Helens. On June 25th last he returned home with his face bandaged and said he had been bitten by a dog; he was very weak and fell down on the sofa. He informed his wife that he saw a dog on the line at Preston the previous night, and as a train was approaching called it to him. The dog came up at first quietly and then suddenly flew at him, biting a piece out of his chin. He remained at home for three weeks and then, feeling quite recovered resumed work. All went well until Aug. 20th, when he complained of a feeling of suffocation, and was quite unable to drink some brandy which his wife brought him. Dr. Casey of St. Helens was called in, and seeing the serious nature of the case accompanied the patient to the Royal Infirmary, where he was admitted on the 21st, under the care of Dr. Bradshaw, and was seen by several other members of the honorary staff. The case, while resembling most cases of hydrophobia, had its peculiarities, and it is satisfactory to know that Dr. Bradshaw proposes to publish a full report of the case. Much sympathy was felt for the deceased, who lost his own life in trying to save that of the dog. He leaves a widow and several children to mourn him.

#### *The Importation of Cholera.*

Referring to the notice in THE LANCET of last week, p. 593, it is necessary to make one correction. Three of the cases were removed to the City Hospital at Parkhill; the fourth was inadvertently taken to the Liverpool Workhouse. It was, however, immediately diagnosed and promptly isolated. A second death took place in the Parkhill Hospital; the other cases are recovering. All four presented well-marked symptoms of true Asiatic cholera. No further cases have been reported, but the greatest vigilance is being exercised by all the local authorities. The weather here, moreover, has been such as to retard rather than favour the spread of the disease, and continues to be colder, with occasional showers.

#### *A Port Sanitary Medical Officer.*

The present outbreak of cholera will in all probability again raise a question which has been mooted before—viz., the appointment of a medical officer to the port. At present the medical officer of health for the city is also the port sanitary medical officer. It is obvious, however, that in such a city as Liverpool the duties of the medical officer of health must be sufficient to tax the powers of any one man, however energetic he may be, and that the medical duties attaching to a port such as this are of themselves amply sufficient for one person. The wonder is that such an appointment has not been made long ago. The fact is that the officers of the Customs have done their work so admirably that the medical officer has been promptly informed of any case requiring his attention. But the time has arrived when a change is desirable, and the present is a most favourable opportunity for effecting it.

Liverpool, Sept. 6th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

#### *Sanitary Matters in the North of England.*

UP to Sunday last our three principal ports were declared free from imported cholera, and I do not think that our sanitary authorities, so far, have encountered any other form of the disease. A break, however, has been made in this satisfactory state of things by the arrival in the Tyne late on Sunday evening last of the steamer *Elbe* on her way from Hamburg to Oporto, and the captain reported that the mate was so seriously ill from cholera that he had to put into the port for medical aid. Dr. Armstrong and Mr. Clark attended to the man, and he was removed to the Jarrow Floating Hospital, where he died early on Monday morning. Dr. Armstrong remained with him all night.

#### *Arsenical Poisoning.*

A case of poisoning by arsenic has taken place in our city since I last wrote. The verdict of the jury was that "the deceased died from poisoning by arsenic taken by misadventure." A Mr. Dove, a merchant and manufacturer of this city, sat down to his dinner with his wife and a visitor—a clergyman. The principal part of the meal consisted of a shoulder of lamb, which was placed in a pie-dish and baked in the oven. Now it was shown that this pie-dish had stood in the stable for some time and had in it a poisonous solution for killing weeds. After the meal Mr. Dove, his wife and the guest, the clergyman, were at once taken ill. Mr. James Smith, surgeon of this city, was called in and recognised that they were suffering from poison. Mr. Dove died after three days' illness; Mrs. Dove and the guest recovered. Mr. T. Hatfield Walker of this city, public analyst, stated that he found 200 grains of arsenic in the dish.

#### *Plumbism.*

An inquest was held last Saturday at Jarrow touching the death of a female lead worker aged thirty-four. It was shown that she had been employed at the white-lead works for about three months. She became ill about three weeks ago, and Mr. Norman certified that death was caused by convulsions due to lead poisoning. These unfortunate cases are, as I have notified from time to time, of frequent occurrence on the Tyne.

#### *Stockton Hospital.*

The annual meeting of the Stockton Hospital has been held, and the report showed that the number of patients treated during the year was 2369, being 243 in excess of last year. Of these 680 were in-patients. The report mentioned with approval the establishment of a branch of the Surgical Aid Society of London in Stockton and of the various efforts made in aid of the hospital by the amateur theatrical society, the friendly societies and the cycling demonstration.

#### *A Cottage Hospital for Easingwold.*

Through the munificence of Mr. J. Horatio Love of the Hawkhills, Easingwold, a new cottage hospital is being erected at the east end of the town. It will consist of large male and female wards, with proper accommodation for the matron and other hospital officials. The exterior, which will have a southern frontage, will be in the old English style.

#### *Demonstration at Sunderland.*

A very strange demonstration took place at Sunderland last Thursday. It arose from the action of the authorities in erecting a wooden building to be used, in case of necessity, as a cholera hospital. An immense and excited crowd formed in processional order, and, preceded by a yellow flag, marched to the Town Hall and besieged the health committee, which was then sitting, and remonstrated as to the situation of the hospital. As a result, the committee decided to remove the erection bodily and place it on a floating hopper in the river.

#### *Friendly Societies and Medical Charities.*

A very successful demonstration of the friendly societies of Sunderland was given on Sunday last and a useful collection was made in aid of the local medical charities. At South Shields also the trades societies turned out in large numbers and a collection was made from the vast crowd in aid of the Friendly Societies' Convalescent Home at Grange-over-Sands.

#### *Testimonials to Medical Men.*

Dr. Abrath, of the Hospital for Foreign Seamen at Sunder-

land, and the well-known litigant with the North-Eastern Railway Company, is to be made the subject of a testimonial which has been already largely subscribed to by men of all shades of opinion and position. The testimonial is not only a token of gratitude for services rendered in his professional capacity, but is intended as a special effort to help Dr. Abrath out of the somewhat unfortunate position in which he finds himself after six years' litigation with the North-Eastern Railway Company. Mr. A. E. Harris, the late medical officer of health for Sunderland, who is about to take a similar metropolitan office, has received a testimonial in the form of a handsome gold chronometer stop watch subscribed for by officers of the corporation, with a silver salver for Mrs. Harris.

#### *New Mortuary.*

The new isolation mortuary and post-mortem block, the gift of Miss Forster of London and South Hetton, and costing over £3000, was opened by Lady Londonderry on Monday last. These erections make the Sunderland Infirmary now one of the most modern and complete in the kingdom.

#### *The Cholera Ship in the Tyne.*

Up to the time of posting this letter there has been no further case on board the *Elbe*, now riding at quarantine in the Tyne. Newcastle-on-Tyne, Sept. 7th.

### SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

#### *The Board of Supervision and Cholera.*

THE Board of Supervision sent out at the end of last week important and urgent notices to the local authorities in Scotland bearing upon the precautions to be adopted against the introduction of cholera. One of these regulates the inspection and treatment of aliens arriving at Scottish seaports in a "filthy and otherwise unwholesome condition." It empowers the authorities to inspect vessels and to detain persons arriving in this condition. If permitted to travel they have to declare their destination, and instructions are given to have them kept under observation in the districts to which they travel. Copies of the memorandum on Cholera drawn up for the Local Government Board by Dr. Thorne Thorne have also been distributed. The local authorities in this district, and, in fact, all over Scotland, are bestirring themselves with earnestness, and the new army of experts in the country are keenly on the alert, and seem fully to realise that their action and success in baffling the invasion of the country by the threatening plague will do much to strengthen their position in the eyes of the public. Even in the smaller seaport towns and villages cleaning and other sanitary precautions are receiving quite unwonted attention.

#### *The Edinburgh Water Supply.*

As has been noticed here at various times, the Edinburgh and District Water Trust have been much exercised as to the question of increased water-supply *versus* measures for the prevention of waste. The matter has been reported on by engineers and considered by committees, and the outcome for the present is that at the last meeting of the committee it was determined to take no steps in either direction for the present.

#### *The Finances of the Edinburgh University.*

The annual report on the above made to the Secretary of Scotland has been issued. The total revenue for the year was £40,924 18s. 9d. and the expenditure £39,721 11s. 7d. Of this sum, the General University Fund amounted to £16,830 1s. 2d. and the expenditure from the fund was £16,677 0s. 1d. This report does not include the revenue of professors from class fees, which is probably not more than a fourth less than the whole revenue of the establishment.

#### *Appointments in the Royal Infirmary, Edinburgh.*

In October vacancies will occur in the Royal Infirmary, and appointments will then be made both on the medical and surgical sides of the hospital. There promises to be no lack of aspirants for the vacant posts, and already several have circulated their letters of application.

#### *Illness of Mr. Fasson.*

Many will hear with regret that Mr. Fasson, the medical superintendent of the Edinburgh Royal Infirmary, is suffering

from serious illness. He is, however, progressing as satisfactorily as could be expected, although his condition gives rise to grave anxiety.

Sept. 6th.

### IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Cholera Precautions.*

So long ago as December, 1890, the Local Government Board, in consequence of cholera having prevailed in Spain and Egypt, instructed their medical inspectors to place themselves in communication with the port nuisance authorities in Ireland and with the various sanitary authorities at the seaports. It was pointed out that, owing to rapid steam travelling, they should be prepared for the possibility of persons suffering from the early symptoms of cholera coming from a distant country and arriving here without their condition having been recognised at any outport. Since then the inspectors have been in constant communication with the sanitary authorities on this matter, and have been careful to see that the defects which formerly existed have been remedied. The principal sanitary precautions are matters relating to the purity of the water-supply, the efficiency of the drainage, and the arrangements for filth removal of every kind. It follows that the Local Government Board for Ireland for a considerable time past has not only been preparing for such an emergency as cholera, but for any severe outbreak of epidemic disease, as the precautions are necessarily the same. Last June diarrhoea of a suspicious character appeared in France, and the Board on July 15th issued an order prohibiting the importation of rags—a fertile source of infection—from France, and afterwards from the Black Sea ports and other places; and on July 17th one prohibiting importation of bedding and dirty clothing from the Baltic and North Sea ports. The cholera order of December, 1890, which applied to the whole of Ireland, contained full instructions to the various sanitary authorities and to medical officers of health as to the steps to be taken with reference to ships coming from any suspected place, the manner in which the passengers and crew were to be treated, whether the disease was present or not, and the arrangements for disinfection and for quarantine. On Aug. 22nd, when it was found that Asiatic cholera prevailed at Hamburg and two days afterwards at Antwerp, the Board, realising the danger to the United Kingdom, issued a final warning circular of instructions to all sanitary authorities throughout Ireland and instructions to all dispensary medical officers and workhouse officials. Should, unfortunately, the disease become epidemic in this country the Local Government Board possesses powers under the Public Health Act to issue special regulations; but as regulations of that character would involve a very wide departure from the existing law for the relief of the sick poor, and would cause a heavy expenditure on the part of the local authorities, such powers will only be exercised under circumstances of great emergency. To show the practical effect of the precautionary measures adopted it may be mentioned that the steamer *City of Dortmund*, which arrived on Friday week at Queenstown from Hamburg, was at once visited by the medical officer of health at Queenstown and the passengers and crew carefully examined; but as all were found to be healthy the steamer proceeded to Cork. If, however, cholera had been present the vessel would have been placed in quarantine and each infected person transferred to the Intercepting Hospital at Queenstown, which is ready for patients. The name and address of every person on board, with their place of destination, would also have been sent to the medical officer of health of the district to which they were going, and they would have been kept under observation for at least ten days. Very stringent arrangements have also been made by the harbour authorities and by the health department of the Corporation of Dublin to prevent the disease being admitted into Dublin. Should, however, the necessity arise, patients will be placed in the hospital ship outside the Alexandra Basin, while the Port and Docks Board have selected the quarantine station at the lighthouse opposite the Pigeon House, and at this place all vessels coming from foreign ports must remain until they are duly inspected by officials appointed by the Board of Trade.

*Health of Ireland.*

During the June quarter the births amounted to 28,146, or 24·3 per 1000, and the deaths to 23,146, or 20·0 per 1000. The birth-rate was 0·4 under the average for the corresponding quarter of the past ten years, and there was an increase in the death-rate of 0·8. Measles was very fatal in Dublin and Belfast, which raised the zymotic death-rate above the average. The deaths from measles numbered 644, against 161 for the previous quarter; scarlet fever, 112; typhus fever, 70, against 21; whooping-cough, 298; and enteric fever, 139. Compared with the returns for the corresponding quarter of 1891, those of pauperism show a decrease of 825 in the average number of workhouse inmates on Saturdays during the year, and a decrease of 3547, or 5·5 per cent., in the average number of persons on out-door relief.

*A Centenarian.*

The registrar of Killybegs, Glenties Union, has recorded the death of a lady at the alleged age of 115. She resided all her life in his district, and for a number of years he states that she was regarded as a curiosity, and many strangers who visited the district took the opportunity of seeing her. Her husband died when aged 101. She was always very industrious, and the registrar saw her a few days before her death at her favourite occupation of carding wool. Her faculties remained unimpaired to the end.

*Queen's College, Galway.*

During the past session the students numbered 110, of whom 38 were in the Faculty of Medicine. The medical school has had in the past exceptional difficulties to contend with, and therefore it is gratifying to learn that the main obstacles to the progress of this important department of the college have been removed. A Bill to provide for the reconstitution of the County Galway Infirmary received the Royal Assent on June 27th last, and, under the provisions of this Act, in place of the infirmary a public general hospital has been established, available for patients residing in the county and city of Galway. The power of appointing the medical staff of the new hospital having been vested in the Local Government Board, they have appointed the professors of the Faculty of Medicine in the Queen's College. The hospital will be available as a clinical school for the medical students attending the college, and it would be difficult to overestimate the importance of the Act with regard to the prospects of the medical school in Galway. Five physicians and surgeons—presiding over the respective departments of anatomy, surgery, medicine, materia medica and obstetrics—belonging to the college will be attached to the hospital; and these gentlemen, highly to their credit, be it said, have generously offered to act without fee or reward.

*Death under Chloroform.*

A young girl named Love, residing near Blackrock, lately lost her life by inhaling chloroform for toothache. She went to bed, partly covered her head, and then inhaled the chloroform. She became unconscious after a time, but the inhalation continuing, she was found dead some hours subsequently.

Mr. Peter Shannon died recently at his residence, 91, Stephen's-green, Dublin, at an advanced age. Deceased was a Fellow of the Royal College of Surgeons, and a kind and estimable gentleman.

Mr. Albert Hengler having given at his circus two hospital benefit performances, they realised £79 5s. 6d., which he supplemented with a contribution of £25, and handed the amount to the Lord Mayor for distribution among the hospitals.

Mr. Henry Pentland, L.R.C.P.I. &c., of Mohill, has been appointed to the Commission of the Peace for the County of Leitrim.

Sept. 5th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Regimen in Chronic Bright's Disease.*

THE question is often asked by the subject of Bright's disease, "What may I eat?" Nothing probably suits such cases so well as an exclusive milk diet, sparing as it does any excessive work for the diseased excretive organs and furnishing

sufficient nourishment for the organism. But, apart from its occasional constipating properties, such a diet ends by disgusting the patient, and some safe variety is needed. According to Dr. Germain Sée, nitrogenous articles should be suppressed and replaced by chocolate, rice, macaroni, sheep's brains and sweetbread, with a little tea. In a case recently treated by him, where, in addition to the above dietary, the alternate administration of bromides of calcium and strontium was had recourse to, the daily quantity of albumen passed fell in twenty-four hours from twenty-three grammes to six grammes, and at the end of ten days this quantity further fell to one gramme and the anasarca and other symptoms had disappeared. According to Dr. Dujardin-Beaumetz the treatment of chronic Bright's disease requires to be in conformity with the following principles—viz., the facilitating of the vicarious elimination of the toxins formed in the body and the restriction of their production within the limits of health. This latter object can be attained by means of intestinal antiseptics and an appropriate diet. The former is best procured by the administration of benzonaphthol, which, being free from phenol and salicylic acid, is to be preferred to salol. As regards diet, the sufferer should be a strict vegetarian, the only purely animal food allowed being eggs, which Dr. Dujardin-Beaumetz does not consider hurtful. In support of this view, he reminds us that there is no analogy between egg albumen and the serum albumen found in morbid urine. He attaches no prognostic importance to the quantity of albumen passed daily. Our object should be to prevent uræmia. In the matter of starchy foods, according to him, rice is of most value, being three and a half times more nourishing than even potatoes. All fruits, especially stewed, and all green vegetables, excepting cabbage, are allowed. Where there is reason to suppose that the kidneys are not in an advanced state of degeneration gelatinous meats may be added to the diet. In this list are included calves' heads, sheep's trotters, *veau en gelée* and *poulet au riz*. Fresh fish is not deleterious, but the fish bought in Paris and in all towns situated far inland always contains large quantities of toxins, and must therefore be avoided.

Paris, Sept. 7th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

*The Congress of the German Health Society.*

THE German Public Health Society holds its annual congress this year at Würzburg on the 8th, 9th, 10th, and 11th inst.

*The Berlin Vaccino Institute.*

Since 1887 an institution for the supply of vaccine has existed in the central cattle market here. Its management lies in the hands of a police medical officer, assisted by another medical man. About 140 female calves are used by the institute every year, for the use of which it pays fifteen marks (shillings) a head. The amount of vaccine obtained in 1887 sufficed for 105,650 vaccinations, in 1888 for 289,278, in 1889 for 427,282, in 1890 for 504,546. The institute now supplies Berlin, its garrison and the whole province of Brandenburg, and exports large quantities even across the ocean.

*Tight-lacing in a Factory.*

During the recent intense heat many of the female hands in the ammunition factory at Spandau, near Berlin, fainted. It was ascertained that most of these cases were due, not to the heat alone, but also to tight lacing. The wearing of corsets during the hours of work is now forbidden on pain of fine.

*Aluminium Flasks and Cooking Apparatus.*

Careful experiments have been made lately at the instance of the Prussian War Office, with a view to ascertaining with scientific accuracy the various advantages and disadvantages of flasks and cooking apparatus made in aluminium. Dr. Plagge, who made the experiments, states that the taste of the beverages usually carried in field flasks is not in the least altered by aluminium if the flasks are well cleansed first. It was observed, however, that cognac, if kept long in the flasks, makes dark-brown stains on the inner surface owing to the tannic acid it contains. Such stains sometimes give the cognac a dirty-brown colour. It was also observed that when drinking water is kept for a length of time in such flasks white stains, consisting of aluminium salts, appear on

the inner surface. They are easily removed, however, and are, like the above-mentioned brown stains, of no importance. The results of the experiments with cooking apparatus made in aluminium were extremely favourable.

*A new kind of Closet.*

A new method of dealing with excrements was demonstrated here lately by its inventor, a Russian captain named Nadein. The idea is to separate the liquid from the solid excreta and to utilise the latter. The main feature of the system is a parabolically shaped metal plate, down which, when properly adjusted in a closet, the liquids run into a gutter and thence into the main pipe, while the solids fall from the upper curve of the plate into a vessel, in which they are mingled by means of an automatic apparatus with earth, lime, or charcoal and converted into manure or fuel.

Berlin, Sept. 6th.

## Obituary.

SIR GEORGE H. B. MACLEOD, M.D. GLAS., F.R.C.S. EDIN.

SIR GEORGE H. B. MACLEOD'S sudden death on Aug. 31st has caused great regret among the community at large. He was in fairly good health until the previous Sunday, when he was attacked by pain in the cardiac region, which continued more or less until he passed away at his residence, 10, Woodside-crescent, Glasgow. He was a son of the late Rev. Dr. Norman Macleod of St. Columba, Glasgow, and was born at Campsie in the year 1828. He had thus reached his sixty-fourth year. He took his degree of Doctor of Medicine at Glasgow University in 1853. As was the custom then, all the examinations were passed at one time. When the Crimean War broke out he offered his services to the Government, and in February of 1854 was appointed senior surgeon of the civil hospital at Smyrna, and at a subsequent period, although the youngest officer, he was appointed interim superintendent. At this period, when engaged in active work, he communicated a series of articles to the *Edinburgh Medical Journal*, under the title, "Notes on the Surgery of the Crimean War, with remarks on Gunshot Wounds." His remarks were lucid, able and interesting, and attracted deserved attention. At the close of the Crimean War he commenced practice in Glasgow. Early in his career he became surgeon to the Royal Infirmary of Glasgow, and subsequently was appointed lecturer on surgery at Anderson's College. In these positions his reputation as a surgeon and as a lecturer grew apace, and on the transference of Sir Joseph Lister to Edinburgh in the year 1869 he was chosen Regius Professor of Surgery in Glasgow University. The choice of the Crown had nearly the unanimous approbation of the profession at home and abroad. After this honour crowded upon him. He was appointed Surgeon-in-Ordinary to Her Majesty in Scotland, Crown Member of the General Council of Medical Education and Registration, Associate Fellow of the College of Physicians of Philadelphia, Corresponding Member of the Academy of Medicine of Paris and the Surgical Society of Paris, and a Fellow of the Surgical Association of Germany. He was an Honorary Fellow of the Royal College of Surgeons of Dublin, and an LL.D. of St. Andrews; he was also a deputy-lieutenant and justice of the peace for Dumbartonshire. In the Jubilee year he received the honour of knighthood. His contributions to surgical literature were various, the most important being "Outlines of Surgical Diagnosis," "Surgical Affections of the Oesophagus, Larynx and Pharynx," "Wounds of the Thorax," "Tracheotomy," "Ulceration," "Ulcers," "Varix," "Wounds," in Cooper's Surgical Dictionary; "Surgical Affections of the Neck," in the American International Encyclopædia; "Clinical Teaching," in THE LANCET; "The Four Apostles of Surgery," in the *British Medical Journal*. As a teacher Sir George Macleod was a marked success. He had a wonderful command of language, and year by year his lectures attracted an enthusiastic and increasing band of *alumni*. In the clinical wards he was invariably kind to the patients, courteous to assistants, students and nurses, ready in his clinique at all times to explain away difficulties, and a model instructor—as Ruskin says, "A step in advance, with the lantern held low on the difficult path." He was a neat and

skilful operator, and his operations were based on a thorough and careful diagnosis. His interest in the patient did not end with the operation, for in major operations he personally superintended the dressing of the wounds, often doing a nurse's work himself, until all danger was over. His kindly words and his cheering presence visibly strengthened and materially aided recovery. He took a warm interest in local charitable institutions, and acted as treasurer and secretary for the West of Scotland of the British Medical Benevolent Fund. He was buried at Campsie, but the funeral service was conducted in Park Church by Principal Caird, and although no invitations were issued, for his relatives desired the funeral to be private, yet, as a mark of the respect in which he was held, the church was filled with mourners of both sexes, of all classes and conditions. The service was singularly impressive, and few of those who were present will forget how the great preacher's voice faltered when he spoke of his departed colleague, of his useful and honourable career and of his stainless life. As the mourners filed from the church it was difficult for those who knew him best to realise that one whose personality was so commanding and so unique had passed away for ever from our ken. Sir George Macleod was married in the year 1859 to Sophia, daughter of the late William Houldsworth. Lady Macleod and four sons and two daughters survive to mourn their sad bereavement. One of his sons, the Rev. W. H. Macleod, was recently appointed minister of the parish of Buchanan, in Stirlingshire.

WILLIAM WOOD, M.D., F.R.C.P. LOND.

THE late William Wood, M.D., F.R.C.P. Lond., was born on Sept. 16th, 1816. His father was medical officer in the 79th Light Infantry; his mother was the daughter of Sir John Ramsden, Bart. He entered as medical student at University College Hospital in 1834, and gained the Gold Medal for Anatomy and other distinctions. Here he formed friendships, which lasted throughout his life, with Erichsen, Brodie, Sewell, Jenner, Paget, Sieveking, Quain &c. Whilst at University College he worked a good deal with the famous Dr. Elliotson, and then went to study in Paris for some time. Whilst there the post of principal resident medical officer to the Bethlem Royal Hospital became vacant, and Dr. Wood was elected in May, 1845. During the tenure of his office there he adopted the humane treatment of the insane which had just been initiated by Conolly. In 1852 it was decided that there should be a complete change in the management of the hospital. Up to this time the staff had consisted of two visiting physicians and the resident medical officer. He therefore left and became part proprietor of a private asylum which had been established for some years at Kensington House. He resided there for a few years and then moved to 99, Harley-street, Cavendish-square, where he lived up till the time of his death. He soon became sole proprietor of Kensington House, carrying on at the same time a large consulting practice. In 1861 he was elected visiting physician to St. Luke's Hospital for the Insane, a post which he held for just thirty years, and on his resignation he was made consulting physician. In 1864 he was elected a Fellow of the Royal College of Physicians and served on several committees of that body.

In 1848 he became M.D. of St. Andrews. His life was devoted to the comfort and welfare of those entrusted to his care. He had always been a very active man both in mind and body, but during the last twelve months his health had been failing. At the beginning of this year he had an attack of pleurisy and pneumonia, from which he never completely recovered. About a month ago he went down as usual to Mendip, surrounded by his family, hoping that he might regain some strength, but about a fortnight ago he was again attacked with congestion of the lungs, and although for a time it was hoped that he might rally again, he somewhat suddenly passed away, without suffering, on Friday Aug. 26th, at the age of nearly seventy-six years. He was a man of the kindest and most generous disposition and enjoyed the love and esteem of all who came in contact with him. His name was associated with a large number of charities, and he was ever ready to assist anyone in trouble. In 1879 he was Vice-President of the Royal Medical and Chirurgical Society, and he was at one time President of the Medico-Psychological Association of Great Britain and Ire-

land. For some time he had been a member of the Parliamentary Committee of that Association and rendered valuable assistance during the passing of the last Lunacy Bill. He made several suggestions in a pamphlet which he wrote on Insanity and the Lunacy Laws, which were the result of his long experience and which received consideration at the hands of the framers of the Lunacy Act of 1890. He also wrote a small work on the plea of insanity, with statistics of the probable duration of life in the insane, and has contributed articles to THE LANCET, the *Medico-Chirurgical Review*, and other journals. He was engaged in many important legal cases in which the question of insanity was involved. The funeral took place on September 1st, at Putney Cemetery. There was a very large gathering of the profession and friends.

#### HENRY JOHN TYLDEN, M.A., M.D. OXON.

NOT long ago it was our sad duty to announce the death of Henry John Tylden, M.A., M.D. Oxon., M.R.C.P. Lond., who succumbed to an attack of typhoid fever. The disease at first appeared to be of an extremely mild form; in fact, Dr. Tylden must have been ill for some considerable time before he had the slightest suspicion that he was suffering from typhoid fever. Even after taking to bed the worst was not apprehended, but suddenly, as is often the case in this treacherous disease, he took a turn for the worse and rapidly sank. Henry John Tylden was born at Stamford Rectory, Kent, on December 14th, 1857. He was educated at Uppingham under the late Mr. Thring. Here he obtained school scholarships in 1870 and 1873. When he left in 1876 he was captain of the school and held one of the school exhibitions. On proceeding to Oxford he obtained the open scholarship at Exeter College. After a distinguished undergraduate career he obtained a first class both in moderations and in the final school. He continued in Oxford as a private tutor in history until 1881, when he determined to devote himself to the profession of medicine, entering as a student at St. Bartholomew's Hospital the following year. Here, again, he had a most distinguished career. He graduated in 1886 and was awarded the Brackenbury Scholarship. Continuing his studies in Vienna and in London, he was appointed casualty physician to St. Bartholomew's Hospital, and in 1888 he took the Murchison Scholarship in Clinical Medicine and became a Member of the Royal College of Physicians. Later he was appointed assistant physician to the City of London Hospital for Diseases of the Chest. Having decided to devote himself to the study of Pathology, he made a very careful analysis of the conditions met with in Pancreatic Diabetes, the results of which he gave to the Royal Medical and Chirurgical Society last winter. Continuing his pathological studies, he turned his attention to the subject of Typhoid Fever, and determined to investigate whether it was possible to produce artificial insusceptibility to this disease either by inoculation or other special treatment; he had already made several observations, when, unfortunately, he himself contracted typhoid fever. He maintained most strenuously that he could not possibly have taken it from his cultures, and that he believed he had contracted it in the usual fashion; whether this was the case or not it is now very difficult to say, but the sad fact remains that he was attacked, and with fatal results. Dr. Tylden was one of those thoroughly trained men, who with opportunity and health would have been capable of doing work of the very highest character; and the last article he wrote, on the "Bearing of Pathology on the Doctrine of Transmission of Acquired Characters," contains internal evidence of the broad view that he took of his subject and of the detailed and accurate character of his knowledge. All who came in contact with him felt that his was a mind of no ordinary power. Thoroughly trained and well stored with the most varied and accurate information, he was ever ready for any emergency, and with a fuller training in clinical observation and laboratory investigation he would doubtless have given to the profession scientific observations of the highest order. Those who knew him best entertained the highest opinion of him, whilst to those who had the opportunity of enjoying his friendship he was a man of singular honesty of purpose and goodness of disposition. Of a nervous temperament, he was not always ready to unfold at once and to everybody. As with all deep students, he often wished for quiet in which to think out what he was working at; but with those who

enjoyed his confidence he was always ready to discuss in the fullest manner possible his own difficulties and to help in those with which they were contending. His death will be deeply regretted by all with whom he came in contact, either personally or professionally.

#### ALEX. W. MACFARLANE, M.D. GLAS., F.R.C.P. EDIN.

THE profession can ill spare from its ranks men of the type of Dr. Macfarlane, who at an early age has so recently gone from amongst us. Dr. Macfarlane, some five years ago, gave up an extensive but trying practice in Kilmarnock in order to come to London, where he hoped to have time to recruit and leisure to devote himself to literary and scientific work. For some years he rapidly improved in health. Latterly, however, especially during the last two or three months after an attack of influenza, he had been far from well; still, no serious symptoms sufficient to alarm even his professional friends had made their appearance until a day or two before he succumbed to an attack of kidney disease, which now appears to have been of considerable standing. The son of a Scottish minister, Alexander William Macfarlane was born in Cumberland. In his early school days he developed a remarkable capacity for accurate and conscientious work, and after a short apprenticeship with a doctor he decided to continue his studies. Passing his preliminary examination in Edinburgh and Glasgow, he commenced his medical studies in Edinburgh, and afterwards continued them in Glasgow, where he took a most distinguished position in many of his classes. His last year of undergraduate study he spent at the University of Edinburgh, where he took the degree of I.M., which at that time was a separate qualification; in 1867 he obtained the degree of M.B., C.M. (Glas.), graduating with distinction; and in 1872 he was commended for the thesis which he submitted to the Faculty for the M.D. degree. He immediately commenced to practise in Polmont, and was appointed medical officer of health for Polmont and Muiravonside. After spending seven years in Polmont, where he built up a lucrative practice, he went in 1874 to Kilmarnock, succeeding to Dr. Paxton's practice. Between the years 1874 and 1887 Dr. Macfarlane had one of the best country practices in Scotland; patients came from far and near to consult him; rich and poor alike had the greatest faith in his diagnosis and treatment; his patients became his firm friends; but the strain of this rapidly increasing practice, added to the anxiety and work involved in his appointment as surgeon to the Glasgow and South-Western Railway, consulting physician and (later) physician to the Kilmarnock Hospital and Infirmary, examiner in medicine and clinical medicine and in public health and medical jurisprudence in the University of Glasgow, and examiner in medical legal cases in North Ayrshire, soon rendered it imperative that he should obtain rest in some way or other. Eventually he decided to leave for London, where, however, many of his best patients still continued to consult him. His removal from Kilmarnock was looked upon by his Kilmarnock and Ayrshire friends as being little less than a public calamity, and the writer of this notice well remembers the scene at the banquet and presentation in his honour, at which the congratulations were so intimately mingled with regrets that it was difficult to determine whether the occasion was one for rejoicing or for sorrowing, but, from all, the expressions of regret and personal friendship were so spontaneous and hearty that everyone present could not but feel that Dr. Macfarlane had been more than medical adviser; he had been a trusted friend and a valued citizen. On his arrival in London, where he came apparently in order that his children might have educational opportunities unattainable in Kilmarnock, he devoted himself to study and to the arrangement of the clinical studies he had made during his early life, and with the rich material that he had at his command he was able to give to the profession one of the best treatises we have on the difficult subject of insomnia. He was well known at the Royal Medical and Chirurgical and the Clinical Societies, in the proceedings of both of which he took a lively interest; and his papers published in the medical journals indicate what wide experience and acute perception he brought to bear on his medical work. Shortly before his death he was engaged in experimental work on the action of various drugs on the cerebral circulation, but owing to an attack of influenza followed by considerable weakness he had to discontinue this

research before he had done more than succeed in obtaining a method that would give him accurate results. Latterly his practice had been increasing by leaps and bounds, and for some time before his death it is to be feared that his experimental work was carried on at the expense of the leisure and rest that were so necessary for the continuance of his health. He was a man of great determination and steadfastness of purpose, and bringing an original and well-trained intellect to bear on his work he succeeded because no detail was too small to attend to and no labour too great for him to undertake in order that he might carry his work to a successful issue. His patients were immediately impressed with these qualities, whilst his genial manner, unblemished integrity and frank outspokenness, his kindness of spirit, subtle wit and keen sense of humour gained for him the friendship not only of all classes of patients but also of his colleagues, all of whom will sympathise most deeply with his widow and children—two sons and two daughters—in the loss which they have sustained.

**SURGEON-MAJOR STEPHEN MASSETT WEBB,  
M.D. EDIN.**

We regret to have to announce that Surgeon-Major Stephen Massett Webb of Kinterbury, Newton Abbott, and 3, Mutley Park-terrace, Mannamend, Plymouth, died at the latter-named residence on the evening of Aug. 3rd last, at the age of sixty-three. He was born in Hoxton-square on Jan. 10th, 1829, and was a son of William Webb, Esq., a scion of the ancient family of Webb of Odstock Manor, Wilts, by his second wife, daughter of Thomas Massett, Esq. He was younger brother to the Rev. William Webb, M.A., the accomplished rector of Ryton, and to Francis C. Webb, M.D., F.R.C.P., of Woburn-place, Russell-square. He was educated at King's College School and at Stonehouse Grammar School, and, after reading for a short time with a private tutor, matriculated at the University of London. In the year 1846 he entered as a student at University College Hospital, where he soon became known as a man of rare ability and capacity for work; during his student life he was awarded silver medals in anatomy and surgery, the gold medal for anatomy and physiology, and a sheaf of certificates of honour. In 1850 he was enrolled as a Member of the College of Surgeons and as a Licentiate of the Apothecaries' Society. After a short period passed as an assistant to the late Mr. Bowmar of Leicester he proceeded to the University of Edinburgh, and in 1852 he graduated as a Doctor of Medicine. In 1854 he entered the army as an assistant surgeon in the 36th Foot; he was duly promoted surgeon and surgeon-major. His first commission bears date May 19th, 1854. On first joining his regiment, which was then stationed at Salford Barracks, he had for his senior medical officer the late Dr. James Jopp. Soon after receiving his commission Dr. Webb had orders to proceed to the Crimea. Embarking from Kingstown, he landed in the Crimea during the November of 1854, was attached to a battery of artillery, and was present at the siege of Sebastopol. Towards the end of the war he was for some time in charge of the Officers' Hospital at Scutari, and while there among his patients was numbered Lieutenant (now Sir Evelyn) Wood, whose mother, Lady Wood, presented Dr. Webb with his own portrait in water-colours, which she had painted in the corridor of the hospital, as a slight acknowledgment of her regard and of his professional skill. For his services during the campaign he received the Crimean medal, with the clasp for Sebastopol and the Turkish medal. On his return from the Crimea Dr. Webb was ordered to join his regiment in the West Indies, where yellow fever was raging. On returning from foreign service Dr. Webb exchanged into the 1st Battalion of the 23rd Foot (the Royal Welsh Fusiliers), with which regiment he served for some years in India, and an officer of which corps he continued until the abolition of the regimental system. In 1877, owing to ill-health, he was obliged to retire from the service, and, settling in Devonshire, there passed the remainder of his days. Dr. Webb was considered one of the best medical officers in the Service, and frequently received the highest praise from his superior officers. He was highly esteemed and loved by his brother officers, both as a genial friend and as a medical

adviser. He was for many years a member of the Army and Navy Club. In addition to his professional attainments Dr. Webb was a highly accomplished man; he was an excellent musician, and possessed a cultivated taste in painting and in art generally. He married Jane, daughter of Mr. Henry Sewell, a companion who showed her deep devotion to him during many years of suffering from the gouty diathesis, and who only survived him for the short space of fourteen days. Surgeon-Major Webb was buried at Plymouth on Aug. 8th. Soon after his return from the Crimea an excellent medallion portrait was executed of him by Mr. C. B. Birch, A.R.A., the eminent sculptor, of which several casts are still in the possession of his family.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentleman, having passed the necessary examinations, and having conformed to the by-laws and regulations, has been admitted a Member of the College:—  
T. H. Adams, L.S.A. Lond.

**THE British Pharmaceutical Society** is to hold its annual meeting next year in Nottingham.

**DEVIZES COTTAGE HOSPITAL.**—The funds of this hospital have profited to the extent of £103 as a result of the recent Jubilee Oddfellows' Fête held in the town.

**THE Accrington Town Council** has resolved to expend £713,000 in the purchase of the gas and water works of the town.

**THE LOUGHBOROUGH SEWAGE DISPOSAL SCHEME** has been sanctioned by the Local Government Board, and £20,000 is to be spent on carrying out the project.

**THE MIDDLESEX HOSPITAL.**—At the recent quarterly court of this hospital it was announced that the new children's ward is complete and that the £1000 promised by the executor of the late Mrs. Holms, to meet the cost of the addition, has been received.

**HOSPITAL SUNDAY AND SATURDAY IN THE PROVINCES.**—Eastbourne, Bournemouth, Swinton, Todmorden and other towns and districts have within the past few days been making, with more or less success, their annual collections in aid of the medical charities in their respective precincts. It is pleasant to see the hold which is being gradually obtained on the minds of the benevolent on behalf of these institutions.

**SUNDERLAND INFIRMARY.**—On Monday last the ceremony of opening the new wing of the infirmary was carried out by the Marchioness of Londonderry in the presence of a distinguished company. The block will contain a new ward, to be set apart for the reception of infectious cases which may arise in the hospital. Another portion will be used as a post-mortem room. The cost of the adjunct will be about £3000.

**THE COLLEGE OF MEDICINE AT HONG KONG.**—Under the skilful and energetic management of Mr. Cantlie, who will be remembered by many of our readers as an esteemed colleague on the medical staff of Charing-cross Hospital, the Hong Kong College of Medicine is able to show a worthy record of work done during the past year. On July 24th the prizes and diplomas gained by the *alumni* of the college were presented by Sir Wm. Robinson, the Governor. At the conclusion of this ceremony the dean, Mr. Cantlie, delivered an address in which he described the course of study pursued at the Chinese College, which, he said, is exactly similar to that obtaining in the medical schools of Great Britain. The Alice Memorial Hospital, which had been placed at the disposal of the college by the London Missionary Society for the practical treatment of disease, had been found amply sufficient for the needs of the students, and altogether the dean considered he had abundant ground for congratulation on the prosperity and efficient work of the institution.

**MEDICAL MAGISTRATE.**—Mr. Thomas M. Dolan, M.D., has been placed on the Commission of the Peace for the Borough of Halifax.

**SWINE FEVER** appears to be very prevalent in the West Riding, and precautions against its spread are being taken at Ravensthorpe, Liversedge, Priestfield and other districts.

**BEQUESTS AND DONATIONS.**—The committee of the Cheyne Hospital for Sick and Incurable Children, Chelsea, have received a donation of 100 guineas to the funds of the hospital from Mr. William White, of Chelsea.

**VACCINATION GRANTS.**—Mr. F. M. D. Swallow, L.R.C.P., L.R.C.S. &c., of the Silkstone District of the Penistone Union, Yorkshire, has for the third time received the Government grant for efficient vaccination in his district.—Dr. Hugh Miller, Public Vaccinator for Birkenhead, has been awarded the Government grant for efficient vaccination in his district.

**MESSAGE OF CONDOLENCE FROM THE QUEEN.**—Her Majesty has, through Dr. Reid, telegraphed a message of condolence to the Rev. W. H. Macleod, son of Sir George Macleod, Surgeon-in-Ordinary to the Queen in Scotland, whose death has just been announced. The message runs as follows: "The Queen commands me to express to you her very deep regret at your father's death, and her sincere sympathy with your family in the great loss you have sustained."

**PRESENTATIONS.**—As an acknowledgment of the value of the services of Mr. T. Vincent Jackson, F.R.C.S., in conducting a course of instruction in ambulance work at Wolverhampton, the members of the Hospital Saturday Committee in connexion with the Wolverhampton General Hospital have presented that gentleman with a handsome carriage clock.—The officials connected with St. Saviour's Infirmary, East Dulwich, have presented the medical superintendent, Dr. H. E. Harris, with a handsome silver tea service, on the occasion of his approaching marriage.—Last week Dr. John Martin Savage was presented with a handsome marble timepiece, in recognition of his services as instructor to the St. John Ambulance Class of the Kimberley Colliery, near Nottingham.

**WORTHING INFIRMARY.**—The report of the committee of management of this charity, presented to the subscribers and friends at the annual meeting held last week, gave a favourable account of the beneficent work effected in the institution during the past year. The treasurer's account, though it has not exhibited a falling off as compared with the finances of the last twelvemonth, would seem to be not particularly flattering to the generosity of the town. An urgent appeal is made to the benevolent to come to the aid of this useful charity.

**THE SUNDERLAND INFIRMARY ISOLATION BLOCK.**—The new isolation mortuary and post-mortem block, adjoining the Sunderland Infirmary, is now practically completed, and is to be opened by the Marchioness of Londonderry on Monday next. The block is the gift of Miss Forster of South Hetton, and provides facilities for the immediate isolation of patients in the event of an outbreak of infectious disease in the institution. The whole of the internal arrangements have been carefully planned and carried out, and the new block will form an important and valuable addition to the infirmary.

**LONDON CORONERS.**—An Order in Council appeared in last night's *Gazette* that the county of London shall be divided into eight districts for coroners' purposes, to be named respectively the Eastern Coroner's District, the North-eastern Coroner's District, the Central Coroner's District, the Western Coroner's District, the Penge Coroner's District, the Southern Coroner's District, the South-western Coroner's District and the South-eastern Coroner's District, and the said districts shall respectively comprise the several parishes and places, and have the boundaries prescribed and mentioned in that behalf in the schedule to the order. Further orders divide the county of Middlesex into three districts, and the counties of Kent and Hertfordshire into six districts each, for coroners' purposes.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

- ADAMS, Dr. CAMPBELL R., has been appointed Government Medical Officer and Magistrate for the Toledo District of British Honduras.
- ATKEY, P. J., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.
- BANKS, A., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.
- BEDDIE, WM., M.B., C.M. Aberd., has been reappointed Medical Officer to the Fraserburgh Police.
- BIDDLECOMBE, E. H., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the Royal United Hospital, Bath, vice Goodridge, resigned.
- BLACKHAM, ROBERT JAMES, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., L.M. (Rotunda), has been appointed Assistant Medical Officer to the Ton and Bwlfa Collieries, Pentre, Rhondda Valley, South Wales.
- BOWRING, W. A., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.
- BURDEN, H., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.
- CAHILL, MARK FRANCIS, J.R.C.P., L.R.C.S. Irel., has been appointed Assistant Surgeon to the Children's Hospital, Dublin.
- CLARK, FRANCIS W., M.R.C.S., L.R.C.P., D.P.H. Camb., has been appointed Temporary Assistant Medical Officer of Health to the Tyne Ports, with instructions to board every vessel coming from a suspected port, and examine the passengers and crew with a view to preventing the introduction of cholera into this country.
- GRAVEN, R. M., F.R.C.S. Eng., F.R.C.S. Edin., has been reappointed Medical Officer of Health for the Combined Districts of Westmoreland, for three years.
- DALGETTY, ARTHUR B., M.B. C.M. Aberd., has been appointed Medical Assistant to the Dundee Royal Lunatic Asylum.
- DALZELL, A., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.
- DORMAN, M. R. P., M.A., M.B., B.C. Cantab., has been reappointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.
- ELSON, F. J., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer and Public Vaccinator to the Whitwell and Cuckney Districts of the Worksop Union.
- FISHER, J. H., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.
- FOOKS, W. P., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.
- FREDERICK, H. J., L.S.A., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.
- GUNN, MARCUS, M.A., F.R.C.S., has been appointed Honorary Ophthalmic Surgeon to the Cheyne Hospital for Sick and Incurable Children, Chelsea.
- HAYDON, T. H., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.
- HEYGATE, WM. H., M.R.C.S., L.S.A., has been appointed Medical Officer for the Southwick District of the Fareham Union, vice Langford, deceased.
- KENNY, G. G., M.B. Glas., has been reappointed Medical Officer to the Waikato Hospital, Auckland, New Zealand.
- LAW, R. R., B.A., M.B., B.C. Cantab., has been appointed Assistant House Surgeon to St. Thomas's Hospital.
- LOVELL, C. P., M.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., L.S.A., has been reappointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.
- MAC KEITH, JOHN, M.B., C.M. Glas., has been appointed Medical Officer to the Third District of the Exeter Union, vice Bell, resigned.
- MONAGHAN, T. J., L.R.C.P., L.R.C.S., D.P.H. Edin., D.S. Sc. Vict. Univ., has been appointed Medical Officer of Health for the Borough of Accrington.
- MORRIS, C. DWIGHT, L.R.C.P. Lond., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer of Health to the Staines Rural Sanitary District.
- NEECH, JAS. T., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health to the Atherton Local Board.
- NORGATE, ROBERT II., M.R.C.S., L.R.C.P. Lond., has been appointed Second Assistant Medical Officer to the Kent County Asylum, Barming Heath.
- OLDMAN, C. E., M.D., M.R.C.S., has been appointed Medical Officer of Health to the Godstone Rural Sanitary District.
- PARTINGTON, W., M.B., C.M. Glasg., has been appointed Medical Officer of Health for the Tunstall Urban Sanitary District, vice Cumine, resigned.
- PRICE, A. E., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

PURVIS, W. P., B.Sc. Lond., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

RALPH, HUGH, M.R.C.S., L.R.C.P., has been appointed Junior Resident Medical Officer and Registrar to the Evelina Hospital, vice A. H. Cheate, resigned.

RYALL, CHARLES, L.R.C.S., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Resident Medical Officer to the Victoria Hospital, Lewes.

SIMPSON, H., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

WALLACE, F. G., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

WALLACE, C. S., L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

WATKINS-PITCHFORD, W., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

WILSON, JOHN, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for Sunderland, vice Harris, resigned.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Honorary Physician.

CHelsea HOSPITAL FOR WOMEN, Fulham-road, London, S.W.—Two Clinical Assistants wanted. The fee is £3 3s. for three months' course; A. L. Davis, Secretary.

COUNTY ASYLUM, Prestwich, Manchester.—Assistant Medical Officer. Salary commences at £100 per annum, with prospect of an increase of £25 at end of first year, £25 at end of second year, and further increases. Furnished apartments, board, washing and attendance. Candidates must be unmarried. Applications to be made to the Superintendent.

E. N., THE LANCET Office, 423, Strand, W.C.—Out-door Assistant to take charge of Dispensary in S.E. district. Salary over £200 a year, and one day allowed off per week.

FOREST HILL PROVIDENT DISPENSARY.—Medical Officer, early in October; after election must reside within area of the Dispensary.

GENERAL HOSPITAL, Birmingham.—The post of Pathologist. Salary £120 per annum. Election takes place on 7th October. Duties to commence forthwith.

GENERAL HOSPITAL, Birmingham.—House Physician. Salary £70 per annum, with residence, board and washing. Applications must be made before Oct. 1st to Howard J. Collins, House Governor.

GENERAL HOSPITAL, Birmingham.—Surgical Casualty Officer. Salary £70 per annum. Hours of attendance 9 A.M. to 1 P.M., Sundays excepted.

GENERAL HOSPITAL, Nottingham.—Senior Resident Medical Officer, for two years. Salary £120 for the first year, rising £10 a year up to £160, with board, residence and washing.

GENERAL INFIRMARY, Northampton.—Assistant House Surgeon. Applicants must be unmarried and not under twenty-three years of age. Salary £80 per annum, with furnished apartments, board, attendance and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—House Physician. Applications to be made before Sept. 20th. Salary £90 per annum, with board and lodging in the hospital.

HUNTINGDON COUNTY HOSPITAL.—House Surgeon. Salary £60 per annum, with board.

KIMBERLEY HOSPITAL, South Africa.—Senior House Surgeon. Salary £750, with quarters.

LIVERPOOL HOSPITAL FOR CANCER.—Honorary Assistant Surgeon. Applications not later than Wednesday, Sept. 21st.

PARISH OF ST. LEONARD, Shoreditch.—Clinical Assistant for the Infirmary, Hoxton-street, N., for six months. Salary £40 per annum, with rations, furnished apartments, and washing in the Infirmary. (Apply to the Medical Officer, 204, Hoxton-street, N.)

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.—Dispenser. Salary £2 10s. per week; hours 10 till 6.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House Surgeon. The appointment for six months without salary, but with board, washing and lodging in the institution.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House Surgeon, to commence duty first week in October. Salary £80 per annum. Applications must be sent before Sept. 20th to the Secretary, Elders-street, Scarborough.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Vacancy for a new Chair of Biology. Applications to be sent in on or before Monday, Oct. 10th. Salary £120 per annum. Particulars of the Dean.

WORCESTER CITY AND COUNTY INSTITUTION FOR TRAINED NURSES AND HOME HOSPITAL.—Lady Superintendent. Salary £80 per annum; not more than forty years of age.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer; unmarried. Salary £100 per annum, with board, lodging and washing.

## Births, Marriages and Deaths.

### BIRTHS.

AUDLAND.—On Aug. 24th, at Brooklands, Wellingborough, the wife of W. E. Audland, L.R.C.P. Lond., M.R.C.S., of a daughter.

BEALE.—On Aug. 28th, at Addison-road, Kensington, the wife of E. Clifford Beale, M.B., F.R.C.P., of a son.

BEDDOW.—On Aug. 25th, at Rectory-road, Stoke Newington, the wife of Josiah Beddow, M.R.C.S., of a daughter.

PIDCOCK.—On Aug. 22nd, at Fitzjohn's-avenue, Hampstead, the wife of G. Douglas Pidcock, M.D., M.R.C.P. Lond., of a son.

RECKITT.—On Sept. 4th, at High-street, Boston, Lincolnshire, the wife of Edward B. Reckitt, L.R.C.P. Edin., of a daughter.

ROGERS.—On Sept. 1st, at York-place, Clifton, Bristol, the wife of Bertram Mitford Heron Rogers, M.B., B.Ch., of a daughter.

ROUSE.—On Aug. 31st, at Cheyne-gardens, S.W., the wife of Robert Rouse, Deputy Surgeon-General I.M.D., retired, of a son, stillborn.

### MARRIAGES.

BEST-BEATTIE.—On Sept. 1st, at Christ Church, Dover, William Jas. Duncan Best, M.R.C.S., L.S.A. Lond., to Helen Henrietta Mary (D'Ettle), eldest daughter of the Rev. H. H. Beattie, LL.D., Chaplain to the Forces, Dover.

BROWN-COWARD.—On Aug. 24th, at the Parish Church, Bowdon, by the Ven. Archdeacon Gore, D.D., Vicar, and the Rev. C. A. Lomax, Rector of Heaton Mersey, Alfred Brown, M.A., M.D., of Higher Broughton, Manchester, son of the late William Brown, of Leighton, to Ethel, third daughter of Edward Coward, J.P., Heaton House, Heaton, Mersey, and Hetherlea, Bowdon. No cards.

BROWN-MATHEWS.—On Aug. 31st, at St. Peter's, Wolverhampton, Herbert Henry Brown, M.D., B.S. Lond., F.R.C.S., of 22, Museum-street, Ipswich, to Florence M. de Hane, youngest daughter of Charles Mathews, of Wolverhampton.

COLLETT-NICOLLS.—On Sept. 3rd, at St. Augustine's Catholic Church, Weymouth, Henry Geo. Outram Collett, L.R.C.P. Lond., M.R.C.S., only son of the late Henry Collett, R.N., of Richmond, Surrey, to Frances Mary, eldest daughter of the late Archd. Dowdall Nicolls, Esq., of Tullyard, Trim, co. Meath.

COWELL-ROE.—On Sept. 1st, 1892, at St. Barnabas, Pimlico, by the Rev. C. O. Becker, Curate in Charge, George Cowell, of Cavendish-place, Cavendish-square, to Mary Margaret Elizabeth, widow of Dr. Hamilton Roe, of Harrington-gardens, and daughter of the late John Laurie, Esq., M.P.

CROW-MARSTON.—On Sept. 1st, at the Parish Church, Knowle, Daniel Crowe, M.B., B.Ch. Trin. Coll., Dub., son of Michael F. Crowe, J.P., Meldfield, Blackrock, co. Dublin, to Clara, daughter of John Marston, Parkfield, Knowle, Warwickshire.

FAILES-WARD.—On Aug. 31st, at Torrington, St. Clement's, by the Rev. Watson Failes, Assistant Master in Westminster School, assisted by the Rev. M. Croese, Vicar, Frederick George Failes, M.R.C.S. Eng., L.S.A., of Coonabaralran, New South Wales, son of the late Christopher Failes, of Fitton Hall, St. German's, Norfolk, to Frances Mary (Beda), elder daughter of David Ward, of Hamond Lodge, Terrington, St. Clement's, Norfolk.

LOCKWOOD-PARKER.—On Sept. 3rd, at St. Andrew's, Sharrow, by the Rev. Canon F. W. Goodwyn, Vicar of Rotherfield, Harry Lockwood, M.R.C.S., youngest son of the late Chas. Lockwood, Greno House, to Alice Jane, only daughter of the late Kenyon Parker.

VINTER-TOMS.—On Sept. 6th, at the Parish Church, Shepperton-on-Thames, by the Rev. A. E. Vinter, Principal of the Derby Training College, brother of the bridegroom, assisted by the Rev. F. W. Vinter, uncle of the bridegroom, and by the Rev. C. Littledale, Vicar, Sydney Garratt Vinter, of Torpoint, Devonport, formerly of the Perak Goo Service, to Frances, youngest daughter of the late William Tucker Toms, of Chard, Somerset.

WILLEY-CARR.—On Aug. 31st, at St. Mark's Church, Sheffield, Charles Henry Willey, M.D., B.Sc., of Sharrow, Sheffield, to Ellen Ada Carr, youngest daughter of the late William Carr, of Ceylon House, Sheffield.

### DEATHS.

BARKER.—On Aug. 23rd, at Mile-end-road, E., Joseph Collier Barker, L.K.Q.C.P. Irel., L.R.C.S., in his 48th year.

BARNES.—On Aug. 25th, at Ewell, Surrey, George Robinson Barnes, M.D., aged 60.

CHURCHILL.—On Sept. 2nd, at his residence, Hall Croft, Gosforth, Cumberland, John Churchill, M.R.C.S., and J.P. for Cumberland, aged 77.

MCDONNELL.—On Aug. 27th, at Widnes, James McDonnell, L.F.P.S. Glasg.

MORGAN.—On Sept. 5th, at Knutsford, John E. Morgan, M.D.

PUGH.—On Aug. 23rd, at Catherine-street, Liverpool, Rhinallt N. Pugh, M.B. Lond., F.R.C.S. Eng.

PYE.—On Sept. 2nd, Walter Pye, F.R.S.E., late of 4, Sackville-street, Piccadilly, aged 39.

ROGERS.—On Sept. 1st, at his residence, Cannon-place, Brighton, Robert James Rogers, M.R.C.S., J.S.A. Lond., deeply regretted.

SALZMANN.—On Aug. 31st, at Downford, Montpelier-road, Brighton, Frederick Wm. Salzmann, M.R.C.S., in the 43th year of his age.

SPACKMAN.—On Sept. 2nd, at Bovers House, Harpenden, Herts, Frederic Robert Spackman, M.D. Lond., in his 74th year.

WOOD.—On Aug. 26th, at The Willoughbys, Bgldon, R.S.O., Somerset, William Wood, M.D., F.R.C.P., also of Harley-street, London, and the Priory, Rothampton, Consulting Physician to St. Luke's Hospital, aged 75.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

### TIN-LINED IRON PIPE.

MESSRS. E. WALKER AND CO. of Heckmondwike, Yorks, the patentees of the tin-lined iron pipe, point out an amusing interpretation put upon our remarks in a leading article in which the substitution of tin or tin-lined piping for lead piping was considered. One drawback to the use of tin piping was, we stated, its tendency to "kink"—that is, to collapse with cracking when it is bent. This remark, the patentees inform us, led to the inquiry as to whether a tin pipe did not have a tendency to cause "kink cough" (whooping-cough). We also note that a contemporary represents us to say that tin tends to harden the water. On the contrary, it was distinctly stated that tin was absolutely proof against the solvent power of water, affecting it in no way whatever. In fact, in this respect tin is practically as inert as the noble metals gold, platinum or silver.

*Aqua Pura.*—Those in which silicated carbon, manganous carbon, magnetic iron spongy iron and Kieselguhr are used as filtering agents are best. Animal charcoal is an efficient filtering medium; but care must be taken to secure only the perfectly pure kind, which is entirely free from nitrogenous matter. According to Dr. Percy Frankland, coke is certain in effecting the removal of germs; it is certainly inexpensive, and may be thrown away and replaced by fresh material when it becomes foul. It is difficult, however, to rid coke entirely of tarry matter and grit, continued washing with clean water being required before this condition is attained. Filters in which the filtering medium cannot be cleansed or replaced are worse than useless; and it is further indispensable that the water be also efficiently aerated.

Dr. R. H. Lloyd.—We do not think that under the circumstances the letter in question should be looked upon in the light of an advertisement.

### "THE CAPE FOR PHTHISIS."

To the Editors of THE LANCET.

SIRS,—I have pleasure in complying with Dr. Hay Reynolds's request by giving him some information as to the places at the Cape most suitable for phthisical patients.

Dr. Reynolds has made a clerical slip in saying that he is sending his patient to winter at the Cape; he doubtless means to escape from an English winter. She will arrive just in time for a long summer. This is important, as the western side of the Cape should be avoided in winter, owing to its dampness. I will confine myself to indicating places climatologically suitable. The conditions of places as to fitness for invalids are often changing owing to the amenities of hotel life not being constant. During the process of development of a country like the Cape there is much restlessness, and a man who has established a comfortable hotel may become seized with a desire to grow rich with greater speed and move off to the Gold Fields, leaving perhaps an unsatisfactory successor. Dr. Reynolds's patient should therefore seek advice on this point at Cape Town or Port Elizabeth, and here I may say that the colonists are very courteous and kind. Travelling at the Cape is now easy and comfortable if it be confined to the railway routes, which are now extensive. As dryness of air and soil and altitude, with its modifying influence on temperature and climate generally, are the conditions most favourable to the phthisical invalid, I would advise Dr. Reynolds's patient to go with as little delay as possible to a high-lying inland locality having a couple of ranges of mountains between it and the sea to intercept moisture; the beauties of such suburbs of Cape Town as Wynberg often tempt people to waste valuable time. The summer at the western side of the Cape is dry as regards rainfall, so that an invalid may spend some time at Cores, a village 1500 ft. above sea level, pleasantly situated at the head of a very fine pass, and where, I believe, comfortable accommodation may be obtained; or Matjesfontein

may be reached in a few hours—it is 2000 ft. above sea level, in the midst of a dry, arid, uninteresting country, but on this very account very suitable. The train on its way thither passes through some beautiful scenery, and when it winds its way up through the Hex river mountains the scenery approaches in grandeur that of the St. Gothard Railway. As to a permanent place of residence, I think Bloemfontein or Allwal North would yield the best results. Both can be reached by rail from Cape Town, Port Elizabeth or East London. If the traveller should elect to go on by steamer to Port Elizabeth—perhaps, on the whole, the best route for a lady—then a good and very pleasant course to adopt would be to go on to Grahamstown (1760 ft. above sea level)—a town with agreeable and cultured society, a centre of clerical, legal and scholastic life, with pleasant environments and with much altogether to make colonial life enjoyable. There a sojourn might be made; but though I know *poitrinaires* who, driven from England, have found a suitable home there, the climate is scarcely dry enough for some invalids, the relative humidity being 72 per cent. and the rainfall about thirty inches. If found unsuitable a move to Bloemfontein or Allwal North could be easily effected. Bloemfontein (4500 ft.) has a very dry air, the mean relative humidity being only 54 per cent., the mean maximum temperature for the year being 76° F., and for the four warmest months 85° F., and the mean minimum temperature for the year 46° F. The rainfall averages twenty-one inches, chiefly falling as thunder showers. Bloemfontein is the capital of the Orange Free State, and has much improved of late years as a place of residence. Allwal North (4300 ft.), on the Orange River, has a similar climate to that of Bloemfontein. It has sulphur baths in close proximity. I have sent patients to both these places with excellent results. It is most desirable to have accurate records of the condition of patients sent to these health resorts, and in addition to other clinical records, such as history, symptoms, physical signs, temperature, &c, to note whether tubercle bacilli are present in the sputum, as there is much need of a collection of trustworthy facts as to the effect of these high and very dry inland climates on the undoubtedly phthisical. I have had some patients in whom the disease advanced during a residence at Davos, and who improved greatly on these inland plateaux; but this climatic treatment is by no means uniformly successful. Concerning the high day temperature, a colonist once aptly remarked, though the remark savours of the Emerald Isle, that the thermometer has nothing to do with making the heat. He meant that the sensation of heat bore no constant relation to that registered by the thermometer. A moderate temperature (say 76° F) with much moisture in the air is depressing, whilst a temperature of 90° F. with very dry air may be borne with less discomfort. From my experience of the climates of the Riviera, of Italy and of the Cape I can verify this.

I am, Sirs, yours faithfully,

Folkestone, Sept. 5th, 1892.

J. A. ROSS, M.D.

### A DRAINAGE SYSTEM.

To the Editors of THE LANCET.

SIRS.—A new system of drainage is about to be introduced into our town, and I fear the result may not be altogether successful, as a great many of the houses are old and the majority, both new as well as old, are built with the least possible amount of attention to sanitary details. I shall therefore be greatly obliged if you can supply me with the following information, or tell me where I can obtain it:—1. A list of towns recently drained afresh where the new system has proved a failure, and the causes of failure. (Dr. Buchanan's ninth report to the Privy Council I have heard of.) 2. If houses with their internal arrangements in an insanitary condition be connected to the new system (which will include some of the old), is there not considerable danger of sewage contamination through those houses? 3. Can a rural sanitary authority compel owners or occupiers to have their properties put into complete sanitary order before allowing them to connect with the new system? (Section 21 of the Public Health Act seems to imply that this cannot be done.) 4. Can a rural sanitary authority have a set of by-laws relating to the details of the sanitary arrangements of new buildings. If so, where can an efficient set be obtained as a model?

I am, Sirs, yours truly,

Aug. 27th, 1892.

B. N. T.

\* \* 1. We cannot find any mention of the subject in the Report of the Medical Officer to the Local Government Board mentioned by our correspondent. We doubt whether any such list as that asked for could be obtained without wading through the reports of inspections of towns made by the Board's officers through a series of years as occasion required.—2. This question is too vague to admit of a fair answer, as it neither specifies the kind of drainage already in use nor the new plan to be adopted. Houses drained by the water-carriage system, and either badly connected with the sewer or having leaky points and other sanitary defects, would necessarily be dangerous to health.—3. The rural sanitary authority has not the power to compel owners to put their properties into thorough sanitary repair before connexion with the sewer, unless a nuisance can be proved to exist. The rural sanitary authority can only insist that the connexion with the sewer is made to their satisfaction.—4. The power of making by-laws respecting new buildings is by Section 167 of the Public Health Act (1875) conferred on the urban sanitary authority alone; but by Section 16 of the Local Government (England and Wales) Act of 1883 the County Council is given the same power of making by-laws in relation to their county, or to any specified part thereof, as the council of a borough.—ED. L.

## THE CAPE COLONY LEPROSY REPRESSION ACT.

WE have received from South Africa a letter addressed to us by Dr. Cartwright Reed on the above subject. This communication is too long for us to publish it in full. But our correspondent concludes his letter by giving a summary of its contents, which, we think, fairly well convey the chief points dealt with by him in his letter. This is the summary:—

"(a) There is nothing that I am aware of before the public to explain the long delay between the passing of the Act and its proclamation in the *Gazette*. (b) That the information in the hands of the Colonial Government as to the probable extent to which leprosy exists in the territory is by no means reliable. (c) That there should be provided local detention houses—Robin Island Asylum being unreasonably far from where many sufferers live—in which the feeble could be properly segregated and cared for. (d) That special provision will have to be made for the removal of these cases by road and rail, involving great precautions, and provisions for disposal of contaminated dressings &c. or disinfecting appliances provided, before such matter can be disposed of through the carriage window or door. If all this and much more cannot be done, then abandon this one asylum scheme and provide area lazarettos. The cost of this proposal would, if anything, be less than that at present before us. Certainly, much bodily suffering would be avoided, the danger to the public health reduced to a minimum, and the parting between the sufferers and their relatives or friends shorn of its bitterest pangs. Lastly, would it not be wiser for 'boards of medical men'—say two—to examine the alleged cases, and then to certify for their removal or otherwise, following lines laid down by our lunacy laws. Your opinion upon this would be much valued, because in this colony many outlying districts are provided with young practitioners who have little experience in these matters."

With regard to the point upon which Dr. Cartwright Reed asks us to express an opinion, we have only to say that we do not imagine it to be possible that the Government of Cape Colony would permit any person to be treated as a leper, within the meaning of their Act, until his condition of disease had been examined and reported upon by more than one efficient medical authority.

*Delta*.—The matter depends on the wording of the agreement or articles defining the partnership, on which a solicitor's advice should be taken.

*Nemo*.—Gowers' "Diseases of the Nervous System," vol. 1.

*Mr. Sydney R. Lidiard* (Hull) is thanked.

## LEPROSY IN BRITISH COLUMBIA.

To the Editors of THE LANCET.

SIRS,—I enclose you a clipping from the *Daily World* of this town, dated Aug. 16th. Perhaps it may be of interest to your readers, and may account for the reappearance of leprosy in England. This is not the only case which has developed among the Chinese residents in this colony; and as in packing the canned salmon Chinese labour is employed entirely, and the fish is brought in direct contact with any disease they may have, does not a danger exist of spreading contagion?

I am, Sirs, yours truly,  
J. F. WELLS, M.B.

Vancouver, British Columbia, Aug. 16th, 1892.  
"Victoria, B.C.—Lee Sing, a resident of Chinatown, was found this afternoon suffering from leprosy. He says he worked in a Fraser river cannery last year and had the disease then. His forehead and jaws were covered with round whitish swellings, which keep the imprint of the fingers like putty when they are pressed. The odour from the victim was very offensive. He has other symptoms of the disease. The civic and provincial health authorities informed me that it is likely Sing will be sent to the Darcy Island lazaretto to-night or to-morrow. The case caused some excitement, and will probably lead to a general examination of all the Chinese in Chinatown."

*Dr. A. B. Harris* (Falmouth).—We consider it a good custom, not only with regard to cholera but for other diseases, such as scarlet fever, diphtheria and typhoid fever, to scald the milk on its reception in a household. It is not only the milk itself that has to be considered, though its digestibility is rather improved than otherwise by the process in that the caseine is split up and more finely divided, but it is sometimes adulterated by the addition of water, which cannot very well be added to butter or cheese.

*R. H.*—A short hopper closet, provided with a separate cistern capable of discharging three gallons of water as a flush after each use.

*Mr. E. T. Wynne*—The paper will shortly appear.

*Aggression* has not enclosed his card.

## BALDNESS AND ITS TREATMENT.

To the Editors of THE LANCET.

SIRS,—In the instructive annotation upon the above subject, at page 870 of your issue of the 13th ult., the great value of the percutin in restoring the growth of the hair is not mentioned. Five years ago I drew attention to this powerful agent ("Medical Digest," Section 21-0) and since that time I have had many cases, of all ages and both sexes, that confirm the observations then made.

I am, Sirs, yours obediently,  
Boundary-road, N.W., Sept. 7th, 1892. RICHD. NEALE, M.D. Lond.

## PUBLIC VACCINATION AND SMALL-POX.

To the Editors of THE LANCET.

SIRS,—A *propos* of your remarks on this matter in THE LANCET of Aug. 27th, p. 490, and in corroboration of the same, I will give an incident that happened only yesterday to myself, whilst acting in my capacity of public vaccinator.

Amongst my cases that came up to be examined was a baby of about four months old, whose arm had taken in only two places. I told the mother it was not sufficiently protected—I always make four punctures—and advised its being done again. She was most indignant, and said she should not have it done any more, for "she could go to a chemist and get it done for one shilling by a doctor who would only do it in two places." I am informed that it is the practice of some to do only one place, and that is called successful vaccination and certified as such, the mothers thinking that by paying their shilling or half-crown they can and do persuade the medical man to perform the operation in this fashion. The statistics of the small-pox hospitals distinctly prove that the successful termination of a case is in direct proportion to the number of marks a patient can show. I should be very sorry to condemn the whole profession; but that this does take place occasionally the above incident shows, and goes far to prove the truth of Mr. Horder's remarks.

I am, Sirs, yours very truly,

Aug. 20th, 1892.

A PUBLIC VACCINATOR.

## THE DEATH CERTIFICATE.

To the Editors of THE LANCET.

SIRS,—A letter in THE LANCET of Aug. 27th criticises the wording of death certificate forms. Let me point out a present danger. I am attending a case of heart disease. I have not seen the patient for three months, but the friends come to the surgery and get medicine for her. Should she die suddenly to-morrow the friends would no doubt ask me to visit the body and give a certificate. In such a case an average medical man would be much tempted to save the relatives the annoyance of an inquest, especially as he could truthfully fill up the certificate. This might sometimes give an opportunity for the concealment of crime, to prevent which is the object of death certificates. This particular danger would be avoided if the forms read: "I last saw h—alive."

Aug. 27th, 1892.

I am, Sirs, yours obediently,

G. P.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Messrs. Allen and Son, Marylebone; Mr. Aitchison, Wallsend-on-Tyne; Mr. Edouard Anguetil, Tavistock; Mr. Ashby-Belbin, Sheffield; Messrs. Armour and Co., London; Mr. Abbott, Exeter; Dr. Baker, York; Dr. Sydney Bontor, Herts; Mr. A. Brown, Switzerland; Messrs. Burgoyne and Co., London; Mr. Barford, Bracknell, Herts; Messrs. Bishop and Sons, London; Dr. Brock, London; Mr. Brohn, London; Mr. A. G. Bateman, London; Mr. Bourke, co. Tipperary; Mr. T. B. Browne, London; Mr. Blackwood, London; Mr. Branthwaite, Twickenham; Mr. Byrne, London; Dr. Croke, Beverley; Messrs. Clarke, Son and Platt, London; Mr. J. G. Campbell, Belfast; Messrs. Crossley and Co., London; Mr. Cooke, London; Mr. Clarke, London; Messrs. Canton and Co., London; Mr. Carters, Liverpool; Dr. Charteris, Glasgow; Mr. Cooke, Worcester; Mr. Carter, Masham; Mr. T. Cooke, London; Mr. Calvin, Manchester; M. Durand, Paris; Messrs. Easor and Son, Dublin; Dr. Jas. Edmunds, London; Dr. H. L. Evans, Reading; Mr. G. S. Farquharson, Southampton; Mr. F. Hurry Fenwick, London; Mr. Gordon, Witheridge; Mr. Graham, Wolverhampton; Mr. Hornbrook, London; Dr. A. H. Hart, Suez; Mr. W. Huntingdon, N.B.; Mr. Heywood, Manchester; Messrs. Hopkinson and Co., London; Mr. Hording, Oxford-street; Mr. A. W. Hewett, London; Dr. G. E. Hale, London; Dr. J. Herschell, London; Mr. Chas. Holmes, London; Mr. Ingle, Jersey; Mr. Jones, Melbourne; Mr. Jesse, Macclesfield; Mr. E. B. Knowles, London; Dr. Kerr, Falls City, U.S.A.; Sir T. Longmore, Swanage; Dr. W. J. Little, Ryarrh; Messrs. Lee Bros., Philadelphia; Mr. W. Layton, Antwerp; Messrs. Lee and Nightingale, Liverpool; Mr. Lewis, Rainhill; Messrs. Moulton and Co., London; Mr. J. A. Marston, London; Messrs. Mitchell and Co., London; Mr. Martin, Manchester; Messrs. Macmillan and Co., London; Dr. Milton, Cairo; Dr. Maxwell, Woolwich; Mr. Ernest Miles, Broadmoor; Mr. Morrison, Glasgow; Mr. A. E. Nevins, Hanley; Messrs. Oppenheimer Bros. and Co., London; Dr. Chas. Porter, Dover; Mr. Phillips, London; Dr. S. Cartwright Reed, South Africa; Mr. J. S. Reynolds, Wolverhampton; Messrs. Robertson and Scott, Edinburgh; Dr. J. Ross, Folkestone; Mr. Richards-Devon; Dr. R. Simpson, Bristol; Mr. Stallard, Worcester; Mr. H. de Styrup, Yorks; Mr. Soll, London; Mr. Sears, London; Messrs. Stenson and Sons, London; Mr. Struthers, Edinburgh; Messrs. W. Stent and Sons, Guildford; Mr. Startin, London; Dr. Steele, Florence; Mr. Spilsby, Leicester; Mr. S. Smith, New York; Messrs. Street and Co., London; Mr. Sutton, Cheshire; Mr. J. A. Thyne, Yorks; Mr. E. Tegart, London; Mr. Thompson, Macclesfield; Dr. Beziloth Thorne, London; Mr. Willie, Middlesbrough; Dr. Whitley, Belfast; Dr. Rogor M. Williams, Preston; Mr. E. T. Wynne; Messrs. Watkins and Osmond, London; Mr. G. Whitley, Salisbury; Mr. W. L. Woolcombe, Plymouth; Mr. Walesby, Louisville, Ky., U.S.A.; Mr. W. E. Wood, Rockhampton; A. K., London; B. C., London; *British and Colonial*

*Druggist*, London; Drewry, Buxton; Delta, London; Ferrum, London; Gazette Paper Co., New York; Genuine, London; Liquor Carnis Co., London; L. M., Staffs; L. L. A., London; Mellous Lewes; Rex, London; R. L., London; R. D. R. S., London; Secretary, University College, Dundee; Secretary, General Hospital, Birmingham; Superintendent, County Asylum, Frestwich; The Billor Co., London; X. X. L., London; Yost Type-writing Co., London.

LETTERS, each with enclosure, are also acknowledged from—Messrs. Allen and Hanburys, London; Mr. Arrowsmith, Bristol; Mr. Bell, Leytonstone; Mr. Brown, Barnonth; Messrs. Boake, Roberts and Co.; Dr. Bower, Bedford; Miss Bullen, Dursley; Mr. Black, Newcastle-on-Tyne; Mr. Birchall, Liverpool; Dr. Barr, Liverpool; Dr. Bage, Victoria, Australia; Dr. Balmford, Morecambe; Mr. Bissett, Glasgow; Mr. Brydges, Cheltenham; Mr. Berthier, Brighton; Mr. Beale, Battersea; Mr. Cleaver, Somerset; Messrs. Cavendish, Edenborough and Co., London; Dr. Carruthers, Leith; Mr. Coltman, Leicester; Mr. Deane, Cheshire; Mr. Dodd, Shanklin; Dr. Davies, Lancaster Gate; Miss Douglas, Piccadilly; Dr. Dickinson, Stafford; Mr. Dunn, Carnforth; Mr. Dobbs, Bolton; Mr. Edwards, Woodstock; Mr. Flske, Maidstone; Mr. Fawcett, Scarborough; Mr. Gwynne, Llanllechid; Mr. Gilyard, Bradford; Mr. Greenish, London; Mr. Gwyer, London; Dr. Greenwell, Finchley; Mr. Hale, Chesterfield; Dr. Hart, Llandudno; Dr. Hall, Walsall; Mr. Hughes, Hereford; Mr. Heatly, Treharris; Mr. Hammett, Taunton; Mr. King, London; Mr. Kirby, Ben Rhidding; Dr. Kelly, Leicester; Messrs. Kegan Paul and Co., London; Dr. Morgan, Glynneath; Mr. McConaghy, Birkenhead; Dr. Morton, Sheffield; Mr. Moullin, London; Mr. Mosse, London; Mr. Mackay, Brecknockshire; Mr. McCarthy, Komspey; Dr. Montgomery, Balsall Heath; Mr. Norman, Buckfastleigh; Mr. O'Flaherty, Downpatrick; Dr. O'Hanlan, Bishop Auckland; Mr. Parry, Bangor; Dr. Powell, Eastbourne; Mr. Ralph, Leicester; Mr. Rains, Matlock Bridge; Mr. Scott, Dublin; Mr. Stevens, Seaford; Mr. Scatton, Bath; Mr. Thin, Edinburgh; Mr. Templeton, Kilmarnock; Mrs. Turner, Finsbury-park; Mr. Twyford, Hanley; Mr. Turner, Aylesbury; Mr. Taylor, Rotherham; Mr. Taylor, jun., Preston; Mr. Thomas, Fenny Stratford; Mr. Ubsdell, South Devon; Mr. Wood, Uttoxeter; Dr. Ward, Oxford; Mr. Walshe-Davidson, West Ham; Messrs. Whitworth and Stuart, Manchester; Dr. Warrington, Cheshire; Miss Williams, North Wales; Mr. Whitwell, Thaxted; Mr. Watson, Glasgow; Dr. Wallace, Farringdon; Mr. Woodman, Bridgwater; Dr. Westwood, Nottingham; A. B. C., London; Arthurus, London; Anglo-Swiss Condensed Milk Co., London; A. G., London; Ajax, London; A. J., London; Ashwood House, Kingswinford; Bez, London; B. A. L., London; Barnwood House Hospital, Gloucester; C. W., Skipton-in-Craven; C., South Wimbledon; C. H., Birmingham; Cantab., Brockley; College of Preceptors, Bloomsbury; Devon, London; Dextra, London; E. A. T., London; E., Liverpool; Feminine, London; Ferrum, London; Gloy, London; G. T., London; Gemmina, London; Historicus, Bradford; Hygiene, London; Leo, London; Larynx, London; Landlord, Greenlanes; Leo, Derby; L. & M., London; Matron, Tunbridge Wells Eye Hospital; Medicus, Leicester; Matico, London; Medicus, Mere, Wilts; Medicus, Konnington-park; Medicus, London; Nucleus, London; Omega, London; Pine, London; Reflex, London; Scalpel, London; Surgeon, Keighley; Secretary, Bristol Hospital for Sick Children; Secretary, Royal Infirmary, Bristol; Secretary, Lying-in Institution, Brighton; Secretary, West Norfolk and Lynn Hospital; Secretary, North Staffs Infirmary; Secretary, Wolverhampton and District Hospital for Women; The Stationery Store, Hove; Theta, London; The Mount, Loughborough; Urbanus, London; Veritas, London; Vindex, London; W. M. F., London; W., London; X. Y., Lancaster, Pa.; X. X., Barnsley; Zampor, London.

NEWSPAPERS.—*Christian World*, *Fife Herald*, *Galignani's Messenger*, *La Liberté*, *Abergavenny Chronicle*, *Weekly Free Press*, *Transvaal Times and Observer*, *Overland China Mail*, *Tasmanian News*, *Bezhill Chronicle*, *West Wilt's Herald*, *Windsor and Eton Express*, *Local Government Journal*, *Folkestone Express*, *Times of India*, *Liverpool Echo*, *Perthshire Courier*, *Food, Drink, and Drugs*, *Lecads Mercury*, *Aberdare Times*, *Orillia Packet*, *Pioneer Mail*, *Bristol Mercury*, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, SEPT. 8th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maxim. Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Sept. 2	29.70	S.W.	62	59	91	64	56	.04	Raining
" 3	29.68	S.W.	56	52	114	65	49	..	Bright
" 4	30.05	N.E.	56	50	107	62	50	..	Cloudy
" 5	30.37	N.W.	51	48	97	63	46	..	Hazy
" 6	30.32	S.W.	56	50	93	66	50	..	Cloudy
" 7	30.11	W.	59	53	94	69	51	..	Cloudy
" 8	30.07	N.W.	53	49	106	61	40	..	Cloudy

Medical Diary for the ensuing Week.

Monday, September 12.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Tuesday, September 13.  
 KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Tuesday, September 14.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Wednesday, September 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M. Friday, September 16.

Thursday, September 17.

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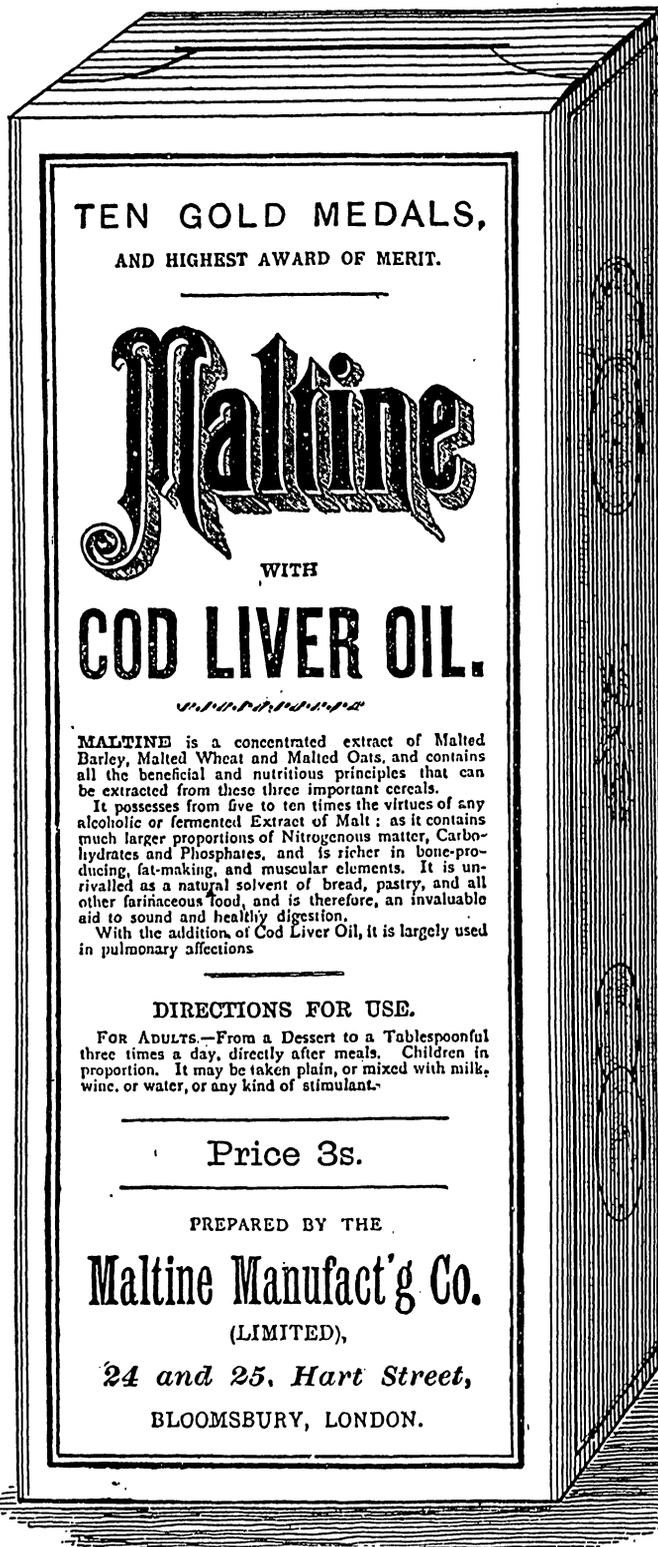
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ABSTRACT OF THE

*Hunterian Oration.*

*Delivered before the Hunterian Society,*

By CHARTERS J. SYMONDS, M.S., M.D.,  
F.R.C.S. ENG.,

ASSISTANT SURGEON TO GUY'S HOSPITAL AND LATE SURGEON TO THE  
EVELINA HOSPITAL FOR SICK CHILDREN.

MR. PRESIDENT AND GENTLEMEN,—When invited by the Council to address you to-night I deemed it my duty, in order the better to fulfil the purpose of this annual Oration, as well as to show my sense of the honour conferred on me, to study the life and writings of John Hunter. I conceive it to be one object of this Oration to show how the work and life of others may animate our own and stimulate us to higher aims. In this sense I have endeavoured to read the life of him whose birth, 134 years ago, we commemorate to-night. An able biographical sketch formed the subject of so recent an Oration that I propose to confine myself to the influence of Hunter's work and to his personal influence. In order to appreciate the effect of his work it will be necessary first to study the position of surgery before his time, in the writings of those who preceded, those who taught him, and of those who were his contemporaries. Next I propose to discuss Hunter's own work and more particularly his method; to note, but only in a very general way, how this teaching differed from that of his predecessors. Then to observe the effect of his teaching on those who followed him, and to ask what was the attraction of Hunter for those who became themselves celebrated men. Finally, to note the personal influence of Hunter and to a certain extent to ask what kind of man he was.

In the earliest times medicine had reached in the hands of the Greeks and Romans a point of great usefulness and importance, and 200 years before the Christian era the Alexandrian school was flourishing. Here dissections were practised and with its famous library every advantage was afforded for developing the scientific study of medicine. It was here that the practice of medicine was separated into three parts and each part assigned to a different person, one of whom was supposed to cure diseases by compounds of drugs and other substances, another by regimen and plans of diet, and the third by manual operations and instruments. This division was not maintained, for the accumulation of knowledge did not admit of it, and the dark period which followed led to medicine being treated as a whole by succeeding writers. Had the Alexandrian school continued, in all probability the separation of the two parts, at least of physic and surgery, would have widened, as it did in the revival of learning. Unfortunately for scientific pursuits, early in the fifth century the northern hordes swept over Europe, and in the seventh the Mahomedan power conquered Palestine, Egypt, Northern Africa and penetrated into Spain. The darkness that followed affected all learning, and the knowledge of books and of the arts remained in Italy, where the Roman withstood the tide of conquest. Here the priests and monks formed the educated class, and, being able to read the Greek and Latin authors, acquired a knowledge of medicine, and for centuries the practice of physic remained in the hands of the clergy. The Arabs in Spain established a famous school of learning, including medicine, in the eleventh century, and here the older authors were translated into Arabic. It is interesting to notice that the Jews understanding this language obtained a great ascendancy in the practice of medicine. Though laws were passed and Papal edicts issued rendering it penal for a Jew to prescribe for a Christian, yet in every court a physician belonging to this race was to be found. In the year immediately preceding the Norman Conquest a stimulus was given to the study of medicine by the medical schools at Salerno, Naples and Montpellier, which were frequented by students from all parts of Europe. The Salernian School in the eleventh century conferred a licence to practise as a physician and as a surgeon. In reference to surgery the statute was "that the person examined must be twenty-one years of age, and must bring testimonials of having studied physic for five years; if to be admitted in surgery, he must learn anatomy

for one year; he must swear to be true and obedient to the society, to refuse fees from the poor, and to have no shares of the gains of the apothecaries." A critical writer of the twelfth century observes that the students return full of flimsy theories, quoting Galen and Hippocrates. They have two maxims which they never violate: "Never mind the poor; never refuse money from the rich." So lucrative did the priests find the practice of physic that they neglected their monastic duties and incurred the displeasure of the Pope, who, looking upon the manual part as derogatory, issued a decree interdicting the priests from performing any surgical operation whatever. They, however, anxious to retain a hold on this branch, employed their servants, the barbers who shaved their heads, to perform a like office for their patients, before applying external remedies. Then "finding these fellows handy with edged tools, the priests taught them to bleed and perform the minor operations, as well as to make salves and poultices and to dress wounds and sores." Hence arose the barber-surgeon. It will be seen that the separation of physic from surgery was first due to an edict of the Pope, the final separation taking place at the end of the fourteenth century. The priests were at length compelled to relinquish the practice of physic, which passed into the hands of some of the learned of the laity, who could read the Latin and Greek authors, while the barbers formed themselves into a fraternity of barber-surgeons. Thus we see that the physician has ever been the scholar; confident in his superiority, we find him despising his less learned brother. The better of the barber-surgeons soon separated themselves from the barbers, and became very early a company of surgeons. In London there were many struggles between the two divisions of the barber-surgeons and surgeons; the former were incorporated as a company, while in 1421 the surgeons and physicians united for the purposes of improving the state and position of both branches of the healing art. Unfortunately, the union was short lived, and the separation gave rise to mutual jealousies and troubles which lasted over three hundred years. So late as 1632 the physicians obtained an Order of Council that no surgeon should trepan, cut for stone, or perform any large operation unless a physician were present, and yet they declined to examine in surgery. This edict was withdrawn in three years. Even after the first separation of the surgeons from the barber-surgeons in 1744, the surgeon was still not allowed to prescribe internal remedies; and in Hunter's time the physician's name appeared on the bed-letters when more than a black draught was ordered. Abernethy did much to remove all this, and so did Cheselden. It was, on the part of the surgeons an earnest of their desire to improve the position of their art at any sacrifice that they took with them only the Aris and Gale bequests, leaving the barbers the hall and plate. Pott and Hunter were appointed the masters of anatomy at the new hall of the surgeons in the Old Bailey in 1753. Even in some of the early Hunterian Orations—and the first was delivered in 1814—several apologetic remarks occur, indicating that the surgeon in assuming a foremost position for his branch, was careful to avoid slighting the physicians. The preceding sketch shows that it was only just before Hunter's time that the surgeons were placed on an independent basis. It was not till 1800 that the charter constituting the company into a Royal College was granted.<sup>1</sup>

[The orator then gave a sketch of the writings of Cheselden, Sharp, Warner, Blomfield and Pott, the immediate predecessors and contemporaries of Hunter.]

A sharp and well-defined line is reached when we examine the writings of the great physiologist and surgeon who forms the subject of our study to-night. For the first time we read of surgical principles, and have described to us how the processes of disease must be studied through those of health. The men of his own time pass away almost forgotten, Pott alone remaining, and we see a new era—a Hunterian era—arise. It seems inconceivable that in the lifetime of one man so much could be accomplished, and we of the present day cannot realise that many of the pathological laws which we discuss with so much familiarity were worked out by Hunter, and that, too, by his unaided efforts. The one from whom Hunter learnt most was undoubtedly his brother William. "It was under his tuition and patronage that the more peculiar talents of his brother were first elicited and cherished, and to his example and instructions we are greatly indebted for many of the advantages which have since flowed down

<sup>1</sup> The above is taken from Rivington's "Medical Profession," South's "Craft of Surgery," and Abernethy's Oration.

through others to us. . . . That Hunter acquired the best physiological knowledge of the time from his brother's lectures cannot be doubted, but he was not satisfied without examining for himself and forming his own conclusions." Not satisfied with Haller, he searched for every fact belonging to the subject he was investigating to form the basis on which he reasoned, and Abernethy, who is his best interpreter, says "he finds no inference deduced from insufficient or irrelevant premises." Hunter himself tells us, in the introductory chapter to his work on the blood and inflammation, that he compiled the work from notes made in the course of twelve years' residence in London. During this space, he says: "My time was occupied partly in my education under the late Dr. Hunter and partly in assisting him. In the winter session I was principally employed in the dissecting-room, where I taught the practical part of anatomy; in the summer I attended the hospitals." The *European Magazine* for 1792, an extract from which is appended to Abernethy's work, contains an account of Hunter's lectures, and as the editor assured Abernethy that he had the information from Hunter himself, we may look upon the account in the light of an autobiography. From this we learn "that his purpose is to give a comprehensive view of the system and investigate the principles upon which the practice of surgery is founded—viz., to show the actions of the body and its parts when in the diseased state with the actions and effects of nature to recovery, and the necessary and proper assistance to be given to the surgeon." Again: "He (the surgeon) ought not only to know the whole of one simple action, or the knowledge of all the actions singly, but he should ascertain their correspondence, mark their relations and acquire a competent idea of the compound actions and general fabric of the machine. Mr. Hunter, having observed that the greater part of the books published on Surgery contain little else than relations of cases and modes of treatment, and that the practitioners have been too easily satisfied with a collection of facts without embracing the catalogue of diseases as a system, proposes in his course to examine the theory and principles of diseases in a regular series. His ideas, his mode of reasoning, as well as his arrangement of diseases are new, and he therefore has received little aid from books or from other professors. The novelty of his ideas occasions also the application of new terms, and those which he has given he may consider as clear and explanatory, since they are adopted by others and brought into use." From 1760 to 1763 Hunter was with the army on the Continent, whither he went to recruit his health, which had suffered from the assiduity with which he had prosecuted his inquiries into the anatomy of the lower animals. On his return he began teaching in order to obtain an income, and from this time to the day of his death he taught regularly and, indeed, never appears to have left London unless compelled to do so for the restoration of his health. In 1773, when he was forty-five, he began a course of lectures in St. George's Hospital. These he relinquished in 1792, handing over to his successor (Home) his manuscript, with notes on the fly-leaf of the specimens he employed for illustration. These original lectures were never published, nor did Home preserve them, but, for reasons best known to himself, they were destroyed, with many even more valuable writings. Happily, among the many who listened to Hunter there were some who took careful notes, and from those made in shorthand by Mr. Rumsey the able editor of Hunter's works—Mr. Palmer—has compiled the lectures. During his lifetime he did not publish any important surgical works, though that on Inflammation was partly through the press at the time of his death and was published in the following year. In this masterpiece we have his mature opinions, criticised from year to year by himself, and by many generations of pupils. Of this work Hunter tells us in the introduction that it was partly composed thirty years before, when he was with the army before Belleisle. "It ought to be considered as a new figure, composed from rough materials, in which little or no assistance could be had from any quarter." This work, there is every reason to believe, was eagerly read by the leading men of the time. We find, for instance, Abernethy saying: "I know of no book to which I can refer a surgical student for a satisfactory account of those febrile and nervous affections which local disease produces except that of Mr. Hunter." I think to those who have passed from the period of studentship that part of the work which deals with the pathology of inflammation will be found as instructive to-day as it was in the time of which Abernethy speaks. For instance, he defines inflammation as "an increased action of that power which a part naturally possesses, and in healthy

inflammation at least it is probably attended with an increase in power; but in inflammation which terminates in mortification there is no increase of power, but, on the contrary, a diminution of it." He means by power, I take it, the ability of the part to direct the processes of health, and in disease the controlling influence over the action or life of the part. So long as the power is capable of directing the processes the course of the inflammation will be conducted to the advantage of the part, as in the union of wounds; but when the ruling and guiding influence is overbalanced and conquered, then action, or rather overaction, having its sway a destructive termination results; or, as Hunter puts it, "a diminished power, joined to an increased action, becomes a cause of mortification by destroying the balance which ought to subsist between the power and action of every part." In these remarks on the power of resistance we are reminded of the latest discoveries in the pathology of cell action—I mean the attractive views on the phagocytic action of leucocytes. It is a good example of what is to be noticed all through his work; he is always suggestive. As you know, it was not until many years later that the part played by the cells was shown, and not till later still that the influence of bacilli and other destructive agents was discovered to be the cause of the inflammatory processes. Hunter, however, recognised that "there are causes of mortification preceded by inflammation, which do not arise wholly from that as a cause, but rather seem to have something in their nature, and of this kind is the carbuncle." Thus, as I have mentioned above, does he point out the differences, and, without attributing the variation, as the older writers would have done, to evil juices and spirits, at once directs the thoughts of others into the appropriate channels of discovery. He is still more instructive when he speaks of the treatment of mortification. "If," he says, "this account of mortification arising from no specific nature be just, we shall find it no difficult matter to establish a rational mode of cure." He objects to the too liberal use of wine because of the depression that follows, and as to local measures, he advises the greatest discrimination. The criticisms on the method in vogue show that he wished to teach only from general principles founded on pathology. He says: "Upon the principles here laid down the bark is the principal medicine as yet known that we depend upon, as it increases the powers and lessens the degree of action. Upon many occasions opium will be of singular service by lessening the action. Although it does not give real strength I have seen good effects from it, both when used internally in large doses and when applied to the part. It is proper also to keep the parts cool and all the applications should be cool."

I have given this lengthy extract because it affords a good example of his method of dealing with treatment, a method that no one used before. He leaves his readers to work out for themselves the details. Let us for a moment recall that when Hunter was teaching in this way there was no other lecturer in London who attempted a similar method; indeed, there were some who thought that in his investigations in anatomy and physiology he was wasting time. A colleague at St. George's, when asked to join in giving a series of lectures, replied that he did not think that the art could be improved. So much at variance were many of the men of his time with his teaching that Hunter was not unfrequently much annoyed at the opposition he encountered. Had not his views proved by the progress of our knowledge to be correct this remark would only show an irritable state of mind, and an arrogant one too. Listen, however, to one who heard him lecture and who knew him well—Abernethy: "He seemed to me conscious of his own desert, of the insufficiency and uncertainty of his acquirements, and of his own inability readily to communicate what he knew and thought. He felt irritated by the opposition he had met with in establishing his opinions, and still more by finding, when he had surmounted this difficulty, that these opinions were, by the malice of mankind, ascribed to others. All which, I think, may be fairly inferred from a single sentence he one day addressed to me: 'I know, I know,' he said, 'I am but a pigmy in knowledge, yet I feel a giant when compared with these men.' As disease," he writes, "is a wrong action of the living parts, the restoration to health must first consist in stopping the diseased dispositions and actions and then in a retrograde motion towards health. The alteration of structure by violence requires only the most simple change in the natural action of the part to restore it, and of course the most simple

treatment by art, if it be such as to require any assistance at all, for there are many accidents where none is necessary. It will be proper to observe here that there is a circumstance attending accidental injury which does not belong to disease—viz., that the injury done has in all cases a tendency to produce both the disposition and the means to cure."

Another practical conclusion he draws from the study of the process of union of wounds is so exactly that upon which we insist at the present day that I am induced to quote again—I mean the treatment by rest with dry and infrequent dressings. "If the edges cannot be brought into complete apposition they must unite by another process than the first intention. If kept moist they will inflame as deep between the cut surfaces as the blood fails in union and there suppurate and granulate, but if the blood is allowed to dry and form a scab between and along the cut edges, then inflammation and suppuration of those edges will be prevented, and this will complete the union." Of the influence of rest he writes: "The first and great requisite for the restoration of the injured parts is rest, as it allows that action which is necessary for repairing injured parts to go on without interruption, and as injuries often excite more action than is required, rest becomes still more necessary. Rest is often admitted from necessity, as from the fracture of a leg, but seldom where motion is only an inconvenience." In the accounts of his published cases we read of the first dressing being made on the fourth or again on the seventh day. In the interesting article on "Scabbing" there are many valuable suggestions. He points out the injurious effects of a poultice in a graze of the shin and the value of assisting the formation of a scab. In burns and scalds he also advises the use of flour to hasten the scab formation. In recent wounds we now seal with antiseptic powders, such as boric acid and iodoform with or without collodion, while Hunter employed blood, and in our day, before we used the aseptic gauzes, we were accustomed, like Hunter, to allow the blood to coagulate on the surface in cases of compound fracture.

Such teaching as this marked an immense advance in scientific thought, and we can understand how these views would be welcomed by the younger men. For the first time surgery was taught as a science; the processes of healing and restoration of injured and of diseased parts were shown to depend on the operation of large and fixed laws. He showed, moreover, that there was one pathology for medicine and for surgery; that medicine in its widest sense was one and indivisible, and must be studied as a whole, for no part can be understood if it be studied without reference to the rest of the body. The physician must understand surgery, and the surgeon the medical treatment of disease. When we remember that in Hunter's time a surgeon was not supposed to give internal remedies beyond a black draught, the importance of this welding of the two branches of medicine by means of a common pathology will be appreciated. As we read this great work to-day we feel a glow of interest, we catch the enthusiasm of a man who investigated for himself, who speaks unfettered by authority, who, moreover, tells us truths which we in our time have seen verified; and, withal, we note the great charm of humility and his recognition of the fact that he is but on the threshold of the subject.

It has been said, and it is no doubt true, as Owen pointed out, particularly with regard to the blood, that Hunter was in many things ignorant of the work that had been done by those who preceded him or who were working in the same direction. This led him to find that he had been anticipated by others and gave, moreover, to those who were opposed to him the means of undervaluing his discoveries. But it was not so much what John Hunter discovered as the use he made of his observations in building up his general principles and laws. I think it is not a matter of regret that he worked alone, or almost so, for, already master of human anatomy, his researches necessitated the examination of five hundred different species of animals, exclusive of repeated dissections of different individuals of the same species. To the classification of these he brought a powerful intellect, an indomitable industry, an original method, and working on entirely new lines he drew from his immense collection of facts the general laws and principles to which I have referred. Surgery he raised from a practical art to the dignity of a science, and showed to physician and surgeon alike that in the treatment of disease there was one common principle. Writing on this, one who knew him well says "that which made him so superior to his competitors was his original expanse of thought, his being exempt from that prejudice in favour of ancient authorities which

fetters the youthful mind; it was his steady determination of investigating for himself, his deep scrutiny of every object that came under his inspection, his vigorous intellectual activity." In a manuscript relating to a dissection of a turtle Hunter says: "The late Sir John Pringle, knowing of this dissection, often desired me to collect all my dissections of this animal and send them to the Royal Society, but the publication of a description of a single animal, more especially a common one, has never been my wish." In proof of the important general principles, a knowledge of which Hunter had arrived, Owen quotes the following passage from a description of the drawings illustrative of the development of the chick: "If we were capable of following the progress of increase of the number of the parts of the most perfect animal, as they first formed in succession from the very first to its state of full perfection, we should probably be able to compare it with some one of the incomplete animals themselves, of every order of animals in the creation being at no stage different from some of those inferior orders; or, in other words, if we were to take a series of animals, from the more imperfect to the perfect, we should probably find an imperfect animal corresponding with some stage of the most perfect." "We may, I think," says Owen, "perceive from the evident difficulty with which Hunter expresses the idea that his mind was oppressed with both its novelty and vastness. Men's thoughts require to be familiarised with propositions of such generality before their exact limits and full application can be appreciated." Had he lived to complete the description and arrangement of his museum the large amount of knowledge buried in his records would have received the proper setting from the master's hand. The obscurity of his style has often been regretted, and it has been attributed to the want of education. He did not possess that full acquaintance with our language which would have enabled him to command words with nearly the same meaning, and so to express accurately the idea he wished to convey. But I doubt if the want of education made all this difference; I rather incline to the view that where obscurity exists it is due to the effort he made to draw from an immense crowd of facts a general law. Moreover, his was a new way of dealing with the subject; "and when we remember that his originality of thought and his independence of judgment, leading him to differ from many who had preceded him, had formed a gradual chain of new and extraordinary discoveries, which in a manner exhausted the language of science, we can scarcely wonder at that obscurity in his writings which we have occasionally to lament."

As I have said in an earlier part of this address, the period following Hunter's time stands out in great contrast with that which preceded him, and to his efforts more than to those of any other was this difference due. Equally striking it is to observe the men who followed Hunter and carried on his work and to note that they were his pupils. Amongst the most brilliant were Cline, Abernethy, Carlisle, Astley Cooper, Home and Earle—all men who have left their mark in surgery. It was not his eloquence that attracted an audience, for his style of lecturing was unattractive; he read slowly from manuscript, seldom raising his eyes, and those who wished to learn had to pay the closest attention to follow him through the steps by which he passed to his general conclusions. He seems to have disliked lecturing, but continued to do so for twenty years, considering the annual review in the light of a criticism of his work. His class was small, but there can be no doubt that it contained the best students of the time. His very method of lecturing shows that he was still thinking over the subject, was still criticising himself and correcting what he had written. He attached no value to opinions that could not be based on facts, and as his store of facts increased he would make the necessary alterations in his infernces. To a pupil—Sir Astley Cooper—who asked with surprise whether he had not the year before stated an opinion on some points directly at variance with one he had just put forth, he replied, "Very likely I did; I hope I grow wiser every year." Occasionally he would say to a pupil whom he saw taking notes, "You had better not write down that observation, for very likely I shall think differently next year." Such remarks as this indicate the searcher after truth, and show that he did not consider the subjects he was discussing finally settled. Moreover, he illustrated his lectures from his museum, the most extensive of the time. It was not till after his death that his leading work was published, so that his influence on others was largely due to these lectures; and there can be no doubt that his very hesitation to publish until he could be sure of the truth of his con-

clusions led others to pay particular regard to what he said. He was attractive in another way, in the influence of his great and untiring industry. The effect of this point in his character is well illustrated by an account of a personal interview given by one of the earliest orators at the College—Leigh Thomas : "Upon my first arrival in London, on presenting a letter of introduction from a mutual friend, he desired to see me at five the next morning. Having already the greatest respect for his great professional talents, it may easily be imagined to what height my curiosity was raised by so extraordinary an appointment. No one will doubt my punctuality of attendance. I found him in his museum busily engaged in the dissection of insects. The interest which he seemed to take in his employment, the sagacity of his observations on it, the acuteness of his general remarks upon whatever subject was started, the almost blunt way in which he questioned me respecting my medical education, united to the kindness of his admonitions relative to my future plans, made a very forcible impression on my mind—it was a mingled feeling of profound respect, surprise and admiration." Abernethy says : "It is scarcely credible with what patience Mr. Hunter examined the structure of the lower kinds of animals. He constructed spectacles with glasses of different degrees of magnifying power, so that by a slight alteration of the position of the head he could look through the one or the other. Mr. Clift tells me he would stand for hours, motionless as a statue, except that, with a pair of forceps in each hand, he was picking asunder the connecting fibres of the vessels or parts." This was written of him in the year of his death.

Another reason why Hunter attracted others was the freedom with which he communicated all he knew on any subject. Careful and particular as he was that nothing should be published till it had been subjected to the test of a long criticism, he was free and open in his communication by word of mouth. Indeed, it was by this method more than by his public writings that he diffused his information. "There was," says Norris, "in Hunter an openness and a free communication of such remarks as could interest those of his own profession and consequently mankind." "His candour," says Abernethy, "was evident in all his actions; he readily told all he knew or thought on any subject." "His was that lofty spirit of science," says Chevalier, "which is ever intent on the discovery of truth, and is then most of all delighted when it can effectually assist others in the common labour and duty of us all—the advancement of human knowledge and the alleviation of human distress. It was this which gave to his example and to his efforts for the improvement of his profession that moral and enduring force without which they would have failed of their aim; he was as willing to awaken and to assist the research of others as to prosecute his own. The thing that vexed him most was to see so much to be done and so few disposed to take a part in doing it. It was with a view to form and to develop such useful characters that, in conjunction with his learned friend Dr. George Fordyce, he founded the society called the Lyceum Medicum Londinense for the benefit of students as well as for settled practitioners in every branch of the profession. To this society he gave gratuitous permission to meet weekly during the season in his lecture-room, where he generally displayed for their inspection the most interesting and instructive additions that were made to his museum."

The formation of a society for discussing medical and scientific subjects, referred to in the preceding paragraph, was another means of diffusing knowledge and another proof of the freedom with which Hunter gave to others the result of his works. In 1767 Hunter proposed to a few friends that they should adjourn from the Royal Society to a tavern and discuss the subjects in which they were more immediately interested. Out of this the earliest attempt to form a society for the discussion of medical subjects arose the Lyceum Medicum. "It met weekly in the lecture-room in Leicester-square and was numerous attended by men of general science." This was, so far as I can discover, the same society as that called "the Society for the Improvement of Medical and Chirurgical Knowledge," from which were issued two volumes of transactions, both containing important papers by Hunter. One written by Home from materials supplied by Hunter contains a full account of the operation for aneurysm.

Besides all that Hunter accomplished for surgery, beyond the trouble he took to improve the position of the surgeon, there was in his personal character that which attracted others to himself and to his mode of study. That he was a

genius cannot be doubted by any; that he was a deep and profound thinker is evident, not only from the proofs of this contained in his writings, but we learn it as well from those who knew him. Cline, whose Oration for 1816 was unfortunately never published, but who knew him well, says, "Much as Hunter did, he thought still more—he has often told me his delight was to think"; and, indeed, no one can contemplate the celebrated portrait hanging in the College library without appreciating this side of his character. He is sitting in an attitude of deep reflection, as if about to combine a series of observations into one grand law. His was that kind of genius, however, which was steadied and controlled by a love of truth, by great industry, and, more than all, by a profound humility, not only in regard to his own powers, but also as to the work he had accomplished. His constant saying was, "We are beginning to learn our profession," and though he was aware of the value of his observations, and saw by anticipation the effects they might produce, and was not unfrequently irritated at the unwillingness of others to accept the conclusions at which he had arrived and the truth of which he was able and willing to demonstrate, yet he was often heard to declare that he was not conscious of possessing any peculiar talent, and that if he had promoted professional knowledge it seemed to him chiefly to have arisen from his disposition to distrust opinion and to examine every subject for himself.

With no one else can Hunter be compared more accurately than with Newton. Their methods were much alike. As did his great predecessor, so Hunter, having grasped the great truths of pathology, submitted them to the test of more than thirty years of criticism before he felt justified in giving them to the world with the authority that attaches to a printed publication. To this day many of his laws are as true as when they were deduced. That others have not stood the test of recent advances is but the fate of all forms of knowledge. That which is admitted to be true and wise to-day may, by the advance of time and the progress of science, be compelled to yield to wider knowledge. As the most eloquent of all Hunter's orators—Paget—has beautifully said : "And in this is no disparagement of knowledge. That cannot be despicable which is for the present the best possible, and has in itself capacity for change to a yet better future. But, similarly, that must not be despised which in the past was good, and, though it fell short of the truth, was not wholly erroneous from it; so in estimating Hunter's contributions to the truths and laws of science we must not scorn all those which have not borne unchanged the test of time. It would be as unreasonable to scorn a noble ancestry."

As I have before mentioned, Hunter seemed always delighted to communicate what he knew to others; he did not conceal his designs, and, soliciting the assistance of others, was ever willing to help in return. To young men he gave much assistance and advice, and nothing seemed to please him more than a well-dissected specimen. When Carlisle brought him one day a preparation of the internal ear, Hunter, to whom he was a stranger, immediately gave him a free ticket of admission to his course of lectures. To those in distress he seems to have been generous in an unusual degree, and from this and the amount he spent on his collection he died leaving his family unprovided for. I think from Otley's "Life" we are apt to get the notion that Hunter was rough, abrupt and brooked no other opinion but his own. Mr. Clift, however, in his letter to Sir W. Lawrence, expresses indignation that so many stories by no means true should have been given to the public, and denies, for instance, that the tendo Achillis was ruptured while dancing, but asserts that it took place on rising and stretching himself on his tiptoes after a long period of close dissection—an explanation quite as reasonable as that advanced by his biographer. He was a man, too, "of very considerable humour; his views of subjects in general were very quick and peculiar, and when so disposed he could place them in a very ludicrous point of view." In another place the same writer (Abernethy) says that "he had a great deal of drollery in his composition." And Mr. Clift, who acted as his amanuensis for the last year and a half of his life, tells us "he was mild and kind in his manner, but not servilely courteous to everybody, and, I believe, made no distinction between high and low, great or small." When, after many years and yet without having sought the position by artifice, he had attained to the foremost place in the profession, and "when the abstract acquisitions of his study had become blended with copious experience, he was appealed to by physicians and by surgeons as a final judge upon all unsettled questions in pathology.

And even in the full maturity of experienced wisdom he dispensed his decisions with unabated anxiety and painful solicitude." It would be impossible to conceive a finer tribute to the knowledge, the wisdom and the professional standing of anyone. To be valued by others for careful judgment, founded on a deep knowledge of disease, and also for the care and caution with which the opinion is delivered, is to attain a high position in our profession. In the last year of his life he was still full of scientific work; he would at this time, though over sixty, stand for hours at a dissection "as if nailed to the spot." Such is the character of Hunter, so far as I have gleaned from those who knew him and those who were best able to interpret his mind. Inadequately as I have portrayed the influence of his great mind on the men whom he taught, imperfectly as I have sketched the method he used and the results he attained, I trust that the effect of my work may at least induce others to make themselves acquainted with his writings.

Fortunately for surgery, Hunter applied the results of his investigations to the improvement of practical details. He did more than any man to raise the position of surgery. He perceived that no system of physiology could be perfect that did not explain the morbid as well as the healthy actions of life, and therefore, says Abernethy, "he appears to me as a new character in our profession, and, briefly to express his peculiar merit, I may call him the first great expositor of disease." As I have shown in an earlier part of this address, he was the first to deal with the processes of disease, to show that pathology was a science. "I am," says Abernethy, "old enough to remember the state of surgery and surgeons in this metropolis previous to the general promulgation of the new facts and opinions he added to the stock of professional knowledge, and I believe him to be the author of a great and important revolution in medical science." "Who," he says in another place, "first explained in a physiological and satisfactory manner the diseased processes I have referred to, the formation of abscesses, the secretion of pus, the interstitial and other growths, the cause and occasion of mortification—was it not Mr. Hunter? We now hear no more of those ancient metaphors, concretion and erosion, but we find all the morbid changes accounted for by perverted action of the ordinary powers and structure of parts, clearly perceiving that the same powers and organisation which by the natural and common actions produce health and beauty of appearance do when perverted occasion disease and deformity." Another writer, who for many years was his assistant and who knew him better than anyone, says, in his first Oration at the College: "From the time of Hunter our profession has no longer been confined within the narrow limits of a practical art; assisted by his labours it has acquired a new character, has assumed a more elevated form, and has expanded itself into a science." All the surgery before Hunter was only that of experience; others, as I have shown, wrote well on practical matters, and none better than Hunter's great colleague, Pott; but "with the science and the exposition of principles Hunter alone deals worthily." "Hunter," says Lawrence, "found surgery a mere mechanical art, hardly emancipated from its connexion with the occupation of a barber. He left it a beautiful science, equal to any in attractive interest, inferior to none in its capability of alleviating human suffering." Slowly, as I have sketched in an earlier part of this address, surgery has been improving, and increased facilities were obtained for acquiring a knowledge of anatomy; but the rare combination that occurred in Hunter of deep and scientific thought, with a desire to apply his discoveries to the alleviation of suffering and the progress of surgery, operated to raise the art into a science. Time does not permit my dealing with the celebrated discovery of the means of treating aneurysm and the reasons which led him to suggest this method. It is an evidence of Hunter's belief that what is true will endure, and in the end will prevail, that he never wrote a single line to recommend this operation. The first account was published during his lifetime by Home. In his lectures Hunter, after strongly advocating the method of laying open the sac and of ligaturing the vessel above and below—a method at that time condemned by the majority of surgeons—thus refers to the new operation. Writing in 1786, the year after the operation, he says: "In December, 1785, I performed the operation in a manner different from that usually practised, and with success. The particulars are given in the *London Medical Journal*. I would only observe that in future I would advise only tying the artery in one

part and not to endeavour to unite the wound by the first intention." Such is his brief reference to this great improvement in surgery. There is perhaps no piece of his work that shows more clearly the value of the application of physiology to the practice of surgery than this operation. Hunter connected pathology with physiology, and it is impossible ever to disjoin them. "Before him surgery and physiology were far asunder; no one strong mind had ever deeply studied both and become conscious that both were parts of the same science of living things, and that each might give light to the other and each be a test of the other's truth. This was Hunter's greatest work for surgery. He brought the scientific method into the study of the practice, and he welded scientific knowledge with the lessons of experience."

To quote once more our most elegant and most graceful writer, whose thoughts are ever worthy of the widest circulation: "The influence of such men as Hunter reaches far beyond the time and space of their conscious activity; their true thoughts live after them; their true thoughts not only endure and remain—in the continuity of mental life they really live; they pass on from one generation to another, and in the minds of each succeeding generation they are developed, they grow, they attain more nearly to perfection. Thus, when we honour the memory of Hunter we honour not only that which is passed but that which is still present—a still abiding power of doing good. For Hunter's true thoughts still live in us, and they will live after us and never cease to help and urge men onward in the pursuit of truth. In the world of mind he that is mortal may produce that which may be immortal." (Paget.)

## ON THE DIAGNOSIS OF EXTRA-UTERINE PREGNANCY.<sup>1</sup>

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EXTRA-UTERINE PREGNANCY is a subject which is evidently year by year coming steadily to the front. As a disease or accident it is probably liable to occur wherever normal pregnancy is also met with, and it is not too much to say that every practitioner, even in a country district, has met with or will most likely meet with one or more examples of it in the course of a busy practice. Its mortality is considerable, and its dangers are important, varied and imperative in their demand for recognition and for treatment. The proper treatment of this condition is in most cases no longer doubtful or a question of opinion. The operative removal of the pregnancy when life is endangered is recognised as the only rational course to pursue, and this, when undertaken by those conversant with the practice of abdominal surgery, is being followed by the happiest results. There is accordingly every reason that the practitioner should bear in mind the fact that pregnancy will now and then take place in a wrong situation, and that he should be ready to detect the indications of this. Before, however, we proceed to the signs and symptoms of extra-uterine pregnancy we must briefly consider its morbid anatomy. The large and practical outlines of this are not difficult to understand.

Extra-uterine pregnancy begins in one or other of the Fallopian tubes. If quite at the uterine end, encroaching on the uterus as well as on the tube, so that it is not exactly in either, but rather in the wall of the uterus, it is called "interstitial." In every other part of the tube, at the middle or outer end, it is of course tubal and spoken of as such; but while every extra-uterine pregnancy begins in the Fallopian tube, it does not long remain confined to this situation. As it grows it expands the tube in all directions, separating widely the two layers of peritoneum which form the meso-salpinx or fold of broad ligament in which the tube is contained. In some cases, at present imperfectly understood, it appears as if the coverings of the pregnancy underwent local development commensurate with the development of the pregnancy. Certain it is that a pregnancy which has undoubtedly begun in the Fallopian tube may grow without any definite history or sign of rupture

<sup>1</sup> Read at the annual meeting of the Shropshire and Mid-Wales Branch of the British Medical Association, at Shrewsbury, on June 23rd, 1892.

and proceed to full term as a local intra-peritoneal tumour to one side of the uterus, the child and placenta being contained in a sac the wall of which is entire and of considerable thickness. But this is a rare result. The rule is that as the pregnancy grows the covering of the pregnancy gets thinner and thinner until in some places there is nothing but the one layer of peritoneum between it and the abdominal cavity. Then what happens? Either the pregnancy ruptures directly into the peritoneal cavity with sudden and perhaps fatal hæmorrhage—this not infrequently occurs quite early in the pregnancy—or else the pregnancy takes another direction in its growth. It goes on separating the layers of the meso-salpinx and invades the cellular tissue beneath the peritoneum. But though the evil day of rupture is thereby temporarily postponed it is only rarely averted. Sometimes the child and placenta continue their growth to full term under the peritoneum, being "extra-peritoneal" throughout. More often the peritoneal roof or wall gives way and the pregnancy is precipitated or extruded into the abdomen. If the placenta or its neighbourhood be involved in the rupture the danger of hæmorrhage is again supreme, the rupture causing death unless operative interference save the patient's life. If, on the other hand, the child be uppermost and with or without its membranes, the only part of the pregnancy directly involved in the rupture, it is possible for such a pregnancy to go on, the child remaining and living in the abdomen during the rest of its gestation.

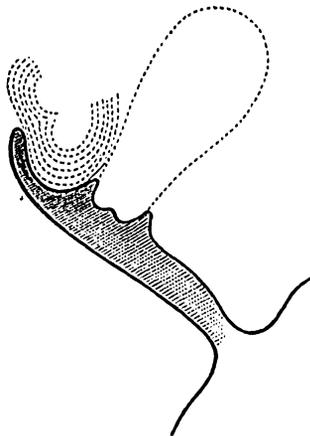
Now, what is the bearing of this on the clinical history of extra-uterine pregnancy? 1. At the beginning of an extra-uterine pregnancy there is of necessity an enlargement in the Fallopian tube—in other words, a "tubal tumour." 2. There is an early period when this is likely to burst before the meso-salpinx and broad ligament can be much invaded by the growth of the pregnancy. This "primary" rupture is apt to occur at the fifth or sixth week of the pregnancy. 3. There is a later period of rupture—a rupture less startling and sudden in its onset; one that happens after considerable opening up of sub-peritoneal tissues; one usually preceded by repeated attacks of sub-peritoneal hæmorrhage and by the formation of a distinct and often visible tumour. This rupture is apt to occur about the third or fourth month, when one half of the pelvis has been filled by the pregnancy, and its further progress is necessarily upwards into the abdomen. 4. In spite of these dangers it is possible for an extra-uterine pregnancy to go to the full term without destruction. Then it may be found (a) enclosed in an intra-peritoneal sac; (b) beneath the peritoneum, extra-peritoneal; (c) more or less free in the abdomen.

From the foregoing sketch it will, I think, be seen that the subject of extra-uterine pregnancy naturally divides itself into three stages—1. The early stage, from commencement of the pregnancy until rupture has occurred. 2. The middle stage, at or about the usual time of rupture (from the fifth to the sixteenth week). 3. The advanced stage, when the child is either viable or has passed beyond the normal period of gestation, and has died for want of birth. Each stage has its own special clinical features and these have now to be described.

1. In the early stage, before rupture of the tube has taken place, the patient usually has the uncertain symptoms of early pregnancy. There is probably slight morning nausea or sickness, with some increased fullness of the breasts, and when the next menstrual period is looked for it does not take place. The patient often believes she is pregnant, and up to this time has no special pain or discomfort that should make her suspicious that the pregnancy is other than a normal one. Very soon, however, irregular hæmorrhage comes on with some pelvic pain, and for these symptoms the patient's medical attendant is likely to be consulted. If a vaginal examination now be made, a tumour can be felt in the pouch of Douglas behind the uterus possessing all the characters of a distended Fallopian tube. It is not very easy to make an exact representation of this in a pencil sketch, but the accompanying diagram, prepared from the examination of cases which have come under my own observation, will show, I think, the leading features of the swelling to be felt by vaginal touch. (Fig. 1.) This swelling is not very sensitive to pressure unless some rupture of the tube has already taken place, and there may be nothing in the general aspect of the case to make the ordinary observer apprehensive of danger. But where you find a history of amenorrhœa followed by irregular loss, together with signs of a tubal tumour in a woman of child-

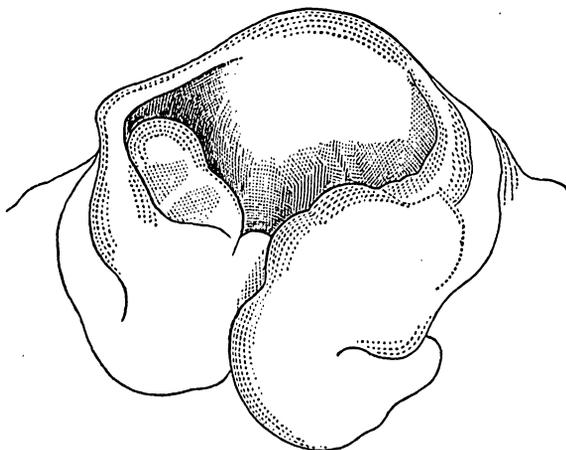
bearing age who has been previously healthy, there is every reason to suspect that extra-uterine pregnancy has begun. If such a tumour as I have sketched be present, how can one be certain that it is tubal? Mainly by a short process of exclusion. The only tumour which exactly simulates tubal distension is the fundus of a retroflexed uterus, and careful bimanual examination should in most cases determine the position of the fundus. If there be a difficulty, and the patient already has some hæmorrhagic discharge, it may be permissible to use the sound as an aid to diagnosis. This when passed will, of course, prove whether the tumour be fundus or not. Small

FIG. 1.



ovarian tumours or enlargements are occasionally found in the pouch of Douglas, but these are never so closely united to the uterus, nor are they so directly posterior in position, as is the tumour formed by a distended Fallopian tube. Some practitioners, whose mental picture of the Fallopian tubes is (unconsciously?) borrowed from the anatomical plates of their student days, have a very real and almost insurmountable difficulty in reconciling this with the position which I have described as characteristic of a tubal tumour, and it may assist these if I append an outline sketch illustrative of distended Fallopian tubes. The pouch of Douglas is the lowest part of the pelvis, and the fimbriated end of the Fallopian tube is its largest part. Consequently, when a tube becomes distended,

FIG. 2.



the heaviest part of the tube tends to fall (as depicted in the accompanying illustration) behind the uterus into the pouch of Douglas, somewhat turning or twisting on its long axis as it does so. (Fig. 2.) I have entered into some detail regarding the features of a tubal tumour, because its presence is not only a most important sign in early diagnosis, but, if rupture be delayed, it is a sign which persists during some months of extra-uterine gestation. The presence of such a tumour is of itself only characteristic of tubal enlargement, and, considered alone, may be due to hydro-salpinx, to pyo-salpinx, to

more or less solid enlargement of the tube, or to tubal pregnancy. It is only when associated with the signs and symptoms of early pregnancy that it becomes really distinctive of early extra-uterine gestation. But in all the other affections of the tube which produce enlargement there is usually a history of inflammatory illness of some duration, and it is therefore of importance to notice that such history of previous illness is absent in extra-uterine pregnancy. The patient usually considers herself quite well until the pregnancy has begun. It was for this reason I mentioned the "previously healthy" condition of the patient as an element in the formation of an early diagnosis. If I repeat the passage, the importance of each element on which I lay stress will, I think, be recognised. "Where one finds a history of amenorrhœa followed by irregular loss, together with signs of a tubal tumour in a woman of child-bearing age who has been previously healthy," there is every reason to suspect that extra-uterine pregnancy has begun."

2. Primary rupture may come suddenly, without any warning, and the resulting hæmorrhage be fatal in a single day. There is, then, no time or opportunity for a careful physical examination, and the symptoms of concealed or internal hæmorrhage must be our guides to action. These are very liable to be mistaken: by a surgeon who has never before had the object lesson of an actual case to teach him, and I need scarcely apologise for detailing in their order those signs which I have noticed as characteristic of internal bleeding of dangerous amount. First, there is increased frequency of pulse without pyrexia. The pulse, which has been, for example, at 80, rises to 100 and continues to increase in frequency. As it rises to 120 or more it perceptibly gets weaker. After a short time this is followed by sighing and faintness, then by vomiting, then by marked pallor of the lips, the face and fingers. Finally, the pulse, which has obviously been growing progressively quicker and feebler, in a very short space of time takes on an absolutely "fainting" character—that is, for some seconds it cannot be felt at all or is altogether too weak and uncertain to count; then for a few seconds or longer it slightly recovers some strength and volume; then it is lost again, the ebb and flow being repeated with ever-increasing feebleness until the final end. The patient's intellect during the whole of the time is, as a rule, wonderfully clear, and although she feels that her condition must be exceedingly grave, she shows herself to be fully conscious of those who are around her and the measures that are taken for her relief. This is true in the main for all bleeding which proves fatal without the surgeon's aid. In the special class of cases which I am now considering there will, in addition to these symptoms, be found some guide as to the source of the hæmorrhage. There will be the clinical history of early tubal pregnancy and direct abdominal symptoms and signs, abdominal pain and tenderness and rapidly increasing abdominal distension. By vaginal touch the experienced finger may also find a full and boggy condition of the pouch of Douglas suggestive of the presence of fluid or semi-clotted blood within the pelvis, but the symptoms denoting that a lethal hæmorrhage is actually taking place are of chief importance. There is no time to be lost in such a case, for though life may be saved almost at the last moment (on at least four occasions I have had the good fortune to meet with success when the patient seemed moribund, once after tubal rupture and three times after secondary hæmorrhage, the sequel of ovariectomy), we cannot count on this, and the time for operative aid soon passes. In describing the morbid anatomy of this "middle stage," on the consideration of which we have now entered, I observed that intra-peritoneal rupture was frequently postponed by the opening up of sub-peritoneal tissues. Under these circumstances there is no loss of the physical signs and symptoms already enumerated as diagnostic of the early stage of extra-uterine pregnancy, but there is a further development or extension of these which is characteristic and deserves attention. The "tubal tumour" which was felt in the early stage behind the uterus undergoes development to one side of the pelvis—from a comparatively small swelling, situated entirely posterior to the womb, growing to a mass of considerable size, the bulk of which is lateral in position. In three cases of this kind which have come under my care little or no pain of any importance occurred until

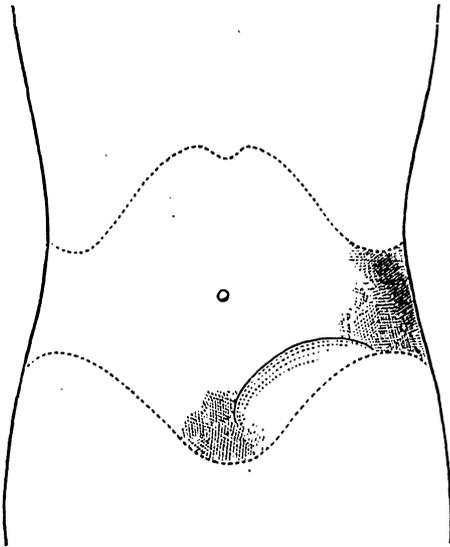
the third month. Irregular hæmorrhagic discharge from the vagina had taken place—in one case from the beginning of the pregnancy, in the other two after seven and after eight weeks respectively; but the actual illness, in the estimation of the patient, dated from the early part of the third month. This illness commenced with sudden and acute pain referred to the side of the abdomen and pelvis on which the pregnancy was forming, some pain thereafter persisting until the cause of it was removed by operation, while attacks of more acute pain recurred at irregular intervals. These attacks of pain have been supposed by some to be indicative of rupture into the peritoneal cavity, and in a few instances this may be a true interpretation. But so far as I was able to ascertain in the cases of which I am speaking, the attacks of pain pointed rather to sub-peritoneal hæmorrhages which were not necessarily associated with any special rupture other than that of sub-peritoneal bloodvessels. With the attacks of pain the tumour visibly increased in size, its upper margin appearing above the groin and forming a globular mass on one side of the abdomen quite evident to the patient herself and certainly growing in size from day to day. This tumour appearing above the groin is very characteristic of all broad ligament effusions. It is met with in hæmatocele of the broad ligament unconnected with ectopic gestation and in broad ligament abscess, and the general outline or contour which is occasioned by it on one side of the abdomen is seen in the accompanying sketches, which are taken from two of the cases I have been describing. (Figs. 3, 4.) In one case the attacks of pain were accompanied by considerable pyrexia, the temperature rising to as much as 102° F., and in all they were followed by gradually increasing and finally marked anæmia, distinctly marked in the colour of the lips and face, but not materially affecting the pulse or only temporarily doing so. In one case, not included in those which I have been describing, the tumour remained central throughout. In this case the cyst of pregnancy, which suppurated, remained directly behind the uterus and finally overtopped the fundus, being opened and drained in this situation at the time of operation. Another case (which I have published in some detail elsewhere) presented all the external configuration which I have described as resulting from growth and hæmorrhage beneath the peritoneum, but on operation its upper limit was found to be formed by adherent omentum, and the child in this case appeared to be really within the abdomen. If I briefly recapitulate the signs and symptoms to be observed in cases of extra-uterine pregnancy at the latter end of this middle stage, I notice that we find the history of some amenorrhœa, followed by several weeks of irregular vaginal hæmorrhage, and a tubal tumour extending to the one or to the other side of the pelvis and appearing above the corresponding groin as an exceedingly painful and tender swelling, which grows from day to day. On examination the uterus is found to be empty. The patient has attacks of ever-increasing pain, accompanied by distinct and progressive anæmia. (At this stage rupture into the abdomen is imminent, if indeed it has not already occurred, and operation should not of course be delayed.)

3. All cases which have survived to the advanced stage of extra-uterine gestation may be divided into two classes: those in which the child is living and those in which the child is dead. In the first class I do not think there should be much difficulty in diagnosis. In the only case which I have seen of this class it could be easily ascertained that the uterus itself was empty, while the child could be plainly distinguished through the abdominal walls, the foetal heart being heard more easily than in normal pregnancy. In the other class the case is altogether different. Beyond a large inert tumour, the nature of which may be hidden by the thickness of its walls, we may have nothing but the history to suggest the possibility of pregnancy. There is no foetal heart beat, no foetal movement, no placental souffle, the patient's breasts may have lost all indication of a pregnant state, and if septic disturbance has already taken place the patient may be in no condition to answer intelligently the questions of the examining surgeon. The history of amenorrhœa may be vague and incomplete, and even if present, and distinct we know that this is not an uncommon association or symptom of ovarian tumour which the abdominal swelling will closely simulate. Nevertheless a patient and careful study of the history of such a case will often lead the surgeon to a successful diagnosis. The slow enlargement of the abdomen for nine months, followed, after death of the child, by marked constitutional disturbance of febrile and

<sup>2</sup> The words "previously healthy" must be understood as referring solely to the immediate history of the patient. There may be old history of pelvic mischief from which the patient has apparently quite recovered, but as a rule there is no recent history of pelvic trouble before the date at which pregnancy might have begun.

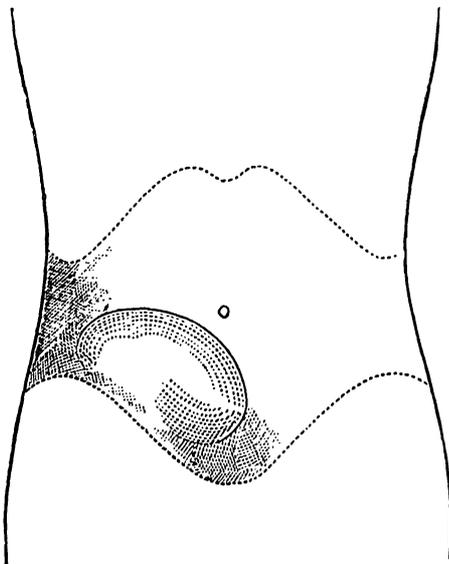
adynamic type, is a history which is only rarely associated with an abdominal tumour of different character. The child-bearing limits of age and the probabilities of pregnancy in any given case are also elements in diagnosis which of course must never be forgotten; and on deep palpation of the tumour one may sometimes feel the resisting body of the foetus after displacement of the fluid which surrounds it,

FIG. 3.



the only pathological state within the abdomen which yields a similar sign being a solid tumour, usually malignant, surrounded by ascitic fluid. The case of difficulty of diagnosis at this stage will of course largely depend upon the position of the child and on the thickness of its coverings. When free in the abdomen, palpation of the child is remarkably easy; when thickly covered, the pregnancy may present

FIG. 4.



very great difficulty in the way of ready and decisive diagnosis.

In a paper of this kind it is only fair to one's readers to state exactly the experience on which it is based. The present paper is founded on the personal observation of twenty-four cases of extra-uterine pregnancy, twelve of which came under my own care before operation. Of these twelve cases, in one only was the nature of the case

altogether unsuspected by myself before I operated. In two cases I simply diagnosed the condition as a tubal tumour without further qualification; in the remaining nine cases I diagnosed the condition as due to extra-uterine pregnancy, and in eight of these the diagnosis was proved to be correct by subsequent operation. The ninth, an early case, recovered without operation; a small sub-peritoneal hæmorrhage stopped the pregnancy, and the resulting hæmatocele was absorbed in the course of five or six weeks, during which the patient was kept confined to her bed. Three times I have diagnosed extra-uterine pregnancy and have been mistaken. As these mistakes (the one referable to the supposed early stage, another to the middle stage, and the third to the advanced stage) are, I believe, strictly typical of the diagnostic errors into which we may still be likely to fall, it may be instructive to report them. The first was a case of retroflexion of the gravid uterus with intra-peritoneal adhesions. The second was a case of pyo-salpinx of large size in which there was a history of three months' amenorrhœa. The third case was one of malignant disease of both ovaries. This constituted a large abdominal tumour which had been gradually forming for twelve months. Menstruation had ceased from the first appearance of the tumour. The febrile and adynamic state of the patient was quite as suggestive of septic infection as of malignancy, and on vaginal examination the finger, after displacing some ascitic fluid, distinctly felt two malignant nodules which exactly resembled the feet and ankles of a foetus at full term. Such cases may occasionally mislead the most practised diagnostician.

But there are other sources of error which may cause difficulty, especially to those who are less experienced, and these call for some consideration before I conclude. One of these is an error as to the field for observation. Practitioners have said to me: "I have attended upwards of a thousand cases of labour and have never met with a case of extra-uterine pregnancy. These cases must be exceedingly rare." I have answered: "Certainly those cases of extra-uterine pregnancy which are met with among instances of expected labour are extremely rare, for it is only those cases which have survived to the advanced stage that it would be possible to meet in such association. The proportion is much wider than that which you suggest. It may be possibly one in twelve or twenty thousand—I do not know exactly. It is not here that we must look for ectopic gestations, but in the daily cases of general practice. Has a practitioner never been called late at night to a patient who was suffering from sudden abdominal pain—a case presumed, perhaps, to be one of colic? He has given an opiate or carminative, and on calling the next morning she has expected to find the patient well again; but she is evidently worse, even dangerously ill, and by midday she has died. Such may be roughly the history of a case of early rupture. Or, again, the medical man may have met with a case of supposed parametritis or pelvic cellulitis in which there was a distinct mass on one side of the pelvis. The patient has been kept in bed, but the swelling did not go down, neither did any abscess form or pus discharge. The swelling increased, the patient became worse, and after two weeks' attendance she died rather suddenly with abdominal symptoms, which indicated some internal perforation. Such may be roughly the history of a case of tubal pregnancy which has invaded the broad ligament, and after some three or four weeks' growth has ruptured into the abdomen."

Another source of error is the coexistence of a normal intra-uterine pregnancy with some other abdominal tumour. This is found in a rather large number of pregnancies—either an ovarian cystoma or a myoma or carcinoma being the more common tumours to be found in this connexion; and one might be tempted to conclude that because there is some abdominal tumour present the pregnancy is out of its proper place. In every case of extra-uterine pregnancy which I have met with it has been possible to satisfy oneself that the uterus was empty. In some cases it has been enlarged; in one the sound passed to five inches, but there could be no doubt that the tumour was outside the uterus, and that if pregnancy existed at all it was certainly not occupying the uterine cavity. This is, of course, the crucial point that will always eliminate the class of case we are now considering from the diagnosis of extra-uterine pregnancy—the determination that the uterus itself is empty. There is one exception that is so rare that it may be said to prove the rule. This is the possible presence of a normal pregnancy within the uterus, together

with a second (extra-uterine) pregnancy outside the uterus. Such cases have been recorded, and are said by some statisticians to be frequently met with. They belong, however, rather to the curiosities of medical literature than to the field of practical gynaecology.

Birmingham.

## PSYCHO-THERAPEUTICS.

### ANOTHER FRAGMENT.

By GEORGE M. ROBERTSON, M.B., M.R.C.P. EDIN.,  
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IN THE LANCET of Aug. 20th Dr. Dale published a paper under the above title. The first part of the article consisted of a number of examples of the influence of the mind on the body in producing diseases, and the second part of examples of the influence of the mind in curing or removing diseases, with an eulogy on the therapeutic value of music. Since Dr. Hack Tuke produced his work on the "Influence of the Mind upon the Body," so full of interesting examples, both these points have been fully admitted. Therefore, in an article on Psycho-therapeutics some fresh observations on the practical application of these principles were to be expected. I was disappointed, however, at the brevity of Dr. Dale's remarks on this point, at their generalness and want of useful detail and at their lukewarmness, in spite of the evidence he has brought forward. He states: "It appears then, finally, that Faith and Hope are the two great principles which the physician must encourage or seek to evoke in his patient," and which "may perchance create within him a courage which will enable him to make at least a brave stand against his foes," and he who expects more than this will, Dr. Dale thinks, be disappointed. For my part I think it very disappointing to find these to be the whole conclusions of a scientific article on psycho-therapeutics at the present day, seeing that they have been fully recognised and applied in medicine for many generations. In the following lines, therefore, I would wish to supplement Dr. Dale's article by a fuller account of the most recent views on psycho-therapeutics and the scientific application of these principles in practice.

In order to discover the principle of the scientific application of psycho-therapeutics, it is very instructive to study the numerous examples of the unconscious application of them. Of this I will give a few examples.

Religious relics have had a great reputation for the cure of diseases, and Dr. Hack Tuke relates how the Rev. Fred. Wilfred Faber, who suffered from severe headaches and sickness which completely prostrated him, was instantaneously cured by the application of a relic—a piece of linen of St. Mary Magdalene of Pazzi—to his forehead. A sort of fire went through his head, through every limb down to his feet, causing him to tremble, and he cried out, "I am cured; I am quite well." In this instance, an excellent and good man, having a strong religious faith in the efficacy of the relic and complete confidence that by some supernatural means this piece of linen was able to exert an influence over him, obtained instantaneous relief, when in this frame of mind he applied the relic for the purpose of removing the headache. This case may be taken as one out of innumerable examples of the power of religious faith, the most powerful of all psychical agencies, in effecting "miraculous" cures.

The next example is that of magnetic healing. A very intelligent lady, a friend of mine, who believes in this agency and who lives in an atmosphere of absolute faith in the healing powers of a certain magnetic healer, went to this man when she was suffering from a gumboil, which gave her great pain. This man passed his fingers on the cheek over the painful swelling and almost instantly all pain left the gum, and the swelling disappeared in the course of the next twenty-four hours. This lady had complete belief in the existence of animal magnetism, which so many of the pseudo-scientific hold, and in its mysterious healing properties; she also had perfect confidence in the healer consulted being able to remove the pain of the gumboil by these means.

The third example I shall give is that of the action of a remedy with a very great reputation but alleged to consist of nothing stronger than distilled water. A lady was suffering from cancer and was in the last stage of cachectic exhaustion,

when her husband was much impressed with Mr. Stead's article on Count Mattei's cancer cure and he determined to make a trial of it on his wife. With the first dose all the wracking torture that the woman suffered from disappeared, and she continued taking this remedy for the last fortnight of her life with total alleviation of pain. In this case we have a woman whose hope of recovery had been extinguished, when suddenly there appeared a heaven-sent remedy whose action was subtle and sure, and she clutched at it with a faith and a hope born of her despair. The result of its use was that, as regards her subjective feelings, she felt recovered, though the fatal disease was unaffected. A similar fact is stated to have been observed by the committee of inquiry into Count Mattei's remedies.

These three instances which I have given are very good examples, though unconsciously so, of the practical application of psycho-therapeutics, and what we must do is to see if the orthodox members of the profession may honourably and scientifically make use of this agency without also practising fraud and deception. The first feature to be noted in these three cases is that each of the agencies employed had a great reputation. Of that with the sanction of religion it is unnecessary to speak; of animal magnetism there is the semi-scientific foundation which has been given to it, as well as the undefined mysteries attaching to magnetism and electricity in the popular mind; and of Count Mattei's remedies, it is certain that they were puffed up by extravagant assertions and by reputed examples of their power, that carried conviction to most people ignorant of pathology. But the most important and uniform feature in these cases is the subjective mental state of the patients. They all had a firm belief in the agency they were using; they all had complete confidence that they were able to be cured, and they all had the expectation of being cured. Now, I ask, cannot this reputation of the agent and this frame of mind in the patient be developed and made use of in a scientific manner for therapeutic purposes? This question has been solved in the affirmative. In the French town of Nancy, among the poorer classes, Professor Bernheim has acquired a reputation for the cure of disease that is almost unbounded, and these classes go to his wards in the city hospital with the utmost belief and confidence in his ability to cure them. The result is that Professor Bernheim, by merely asserting to many patients in the wide-awake condition that they have no pain, removes at once any pain that they may have had; by ordering them to sleep, they go off to sleep at once; and by telling them that they cannot raise their arms, they are unable to do so, and so on. The same thing is observed by Dr. Bramwell of Goole, where he has acquired a reputation resembling Professor Bernheim's at Nancy. He demonstrated four patients to the Congress of Experimental Psychology in London, and whatever he said to these patients in the wide-awake condition was instantly believed and took place. He produced anaesthesia, total and partial, hallucinations and sleep, all in a moment, by giving a verbal or written order. In one of the women he had caused to be extracted painlessly seven teeth out of eight by the simple assertion that she would suffer no pain, and he had also by this means stopped sea-sickness. His power for the benefit and comfort of these patients in the minor and more common ailments of life by simple assertion was almost complete. The possession of this power by one or two members is of very little value to the profession as a whole, and, through it, to the general public, but I may mention here that psycho-therapeutics is unconsciously made use of by all those with reputations in our profession. It is a commonly accepted belief that a well-known consultant will often speedily cure an ailment with a drug that has proved of no benefit when prescribed by a young man with a reputation still to make. This, of course, can only be done through a psychical agency. The patient must have greater confidence in the powers of the consultant and in his ability to cure him than in the young practitioner, and a greater if not complete expectation of being cured. These feelings are no doubt enhanced by the impressive manner of the consultant, by his crowd of patients from far and near and by his big fee. The last item has a distinct psychical significance, for we automatically associate a value to an article in accordance with the cost or difficulty of obtaining it, and this has been true since the days of Naaman the Syrian.

In addition to this use of psycho-therapeutics in medicine there is also no doubt a daily use made of this agency by the numerous body of family physicians, of whom we have just reason to be proud and who have acquired the respect and

confidence of their patients. A word from what is called "our own doctor" will often do more good than scientific medicinal treatment by a skilful stranger. Unconsciously and in these indirect ways psycho-therapeutics is probably very greatly made use of by the profession, and I think the success or otherwise of many physicians depends largely on having or not having acquired the power of giving such mental suggestion to their patients. Such a method of using this agency can, however, hardly be described as either rational or scientific.

By far the most general and scientific application of psycho-therapeutics is made by adopting the system of suggestion as practised by Professor Bernheim. He has found that the majority of patients, even within the area of Nancy, will not accept orders or suggestions for the relief of pain &c. in the waking condition; but he has discovered that if he first suggests to them that they are asleep, which suggestion the vast majority of his patients receive very readily, he is then able to order or suggest that their pains &c. have gone, and they now believe him implicitly, with the result that they are so far cured. He tells the patients that if they will follow his directions he will remove their ailments. He asks them to prepare to go to sleep, and in a persuasive yet confident tone he suggests the symptoms of sleep. In a few minutes the majority of patients get into a somnolent state, not so deep as ordinary sleep, in which they answer questions, but appear to have less will power and independence than in the waking state. When in this state Professor Bernheim asserts, with some persistence if need be, that the pain or other affection has gone, and almost invariably the patient accepts his suggestions and awakes free from all symptoms. The explanation which Professor Bernheim gave me of the use of suggesting to the patient that he was asleep was that the symptoms of sleep were easy to call up, they were familiar and natural, and therefore a patient, without possessing very great confidence in the operator's powers, could, with much facility, be made to believe that sleep had come upon him. Whenever the patient has been put into this state his confidence in the operator is immediately strengthened, as he has received a demonstration of his powers, and the subsequent suggestions of the removal of pain &c. are now so much the more easily believed in. In addition to this, in the somnolent state there exists increased suggestibility or *credibility* and less independence of thought, which assists greatly in the giving of suggestions. It will be thus seen that this *rationale* is adopted to develop artificially those conditions which, as we pointed out, seemed essential in the application of psycho-therapeutics. I may add that the ability to induce this somnolent condition can be easily acquired by anyone with tact. It will be noticed that I have not made use of the term "hypnotism" in my description of Professor Bernheim's procedure, for he wishes the whole process to be understood as suggestion and his method known as "Treatment by Suggestion." Van Eeden, at the Congress in London, also pointed out that those who made use of psycho-therapeutics regretted very much its association with hypnotism, which had done it much harm.

The practical uses of suggestion for the cure of disease are innumerable. It is, in the first place, useful for the removal of all states of a painful nature, whether inflammatory, rheumatic, or neuralgic, whether functional or organic. This of itself covers an immense field, and by the removal of pain the most disagreeable symptom of many ailments is cured. The sensation of pain takes place in the cerebral cortex; it is a mental state, it implies consciousness, and hence, by an alteration in our state of consciousness as is induced by psycho-therapeutics, pain caused by cancerous or other organic disease can be as readily cured as functional pain. It may also be used to cure insomnia, chorea, nocturnal enuresis, nervous diarrhoea, irritable coughs, sickness and want of appetite, feelings of breathlessness, and many other unpleasant psychical accompaniments of disease. The removal of these symptoms, it may be said, does not remove the real cause of the disease. This is so far true; but it is certain that the removal of anxiety, and the directing away to healthier channels of the attention, indirectly hasten recovery and break one of those vicious circles so common in pathology. The benefit to the patient, as regards comfort alone, is in many cases worth a very great deal, and an important feature of this treatment is that it may be combined with ordinary medicinal treatment, and may even assist drugs in their action. The idea of making use of such procedures as I have described is new to the profession; it is altogether unconventional and different from ordinary orthodox practice, and therefore we

expect it to have to fight an uphill battle till recognition takes place. I think, however, it is not worthy of a scientific body like our profession that members of it, usually ignorant of the modern practice of psycho-therapeutics, should make imputations and rash assertions of an unfavourable nature about it and thus intensify the difficulty of a fair trial. Psycho-therapeutics such as I have described can be practised altogether in accordance with the honourable and upright sentiments of the profession, and in a truthful, rational and scientific manner.

In conclusion, it will be noted that, in opposition to Dr. Dale's belief that the scope of the usefulness of psycho-therapeutics is limited, I believe it may be used to alleviate or remove the symptoms of most diseases; that though the instilling of faith and hope is of value in the ultimate recovery, much more immediate and palpable benefit can also be done to the patient by removing unpleasant symptoms; and, finally, whenever any physician has acquired a certain skill in the procedures, his results will be far from disappointing.

## "THE ETHICS OF OPIUM AND ALCOHOL."

A REJOINER.

By F. J. MOUAT, M.D., LL.D.

IN April last a communication of mine regarding the relative positions of opium and alcohol in their social, commercial, medical and judicial aspects was published in THE LANCET. To this a reply has now been made by Dr. Pringle in THE LANCET of the 10th inst., in which he characterises my statements "as apparently authoritative" and deliberately erroneous respecting the single factor of my contention which he refers to—viz., the influence of opium in the causation of the mortality of a few of the prisoners under my administrative control for some fifteen years in Bengal. His chief argument is based upon his failure to find in my official returns a special column for the record of deaths from opium, and he quotes a number of extracts from my official reports of some five of the prisons in Assam, to show that the death-rates in dysentery in that number of the prisons out of the fifty-seven under my charge, were mainly due to opium.

In the first place, he must have known even from his limited experience of the two small prisons of which he was the medical officer that no such column existed, partly because I did not consider it necessary, as I had authority to obtain any medical information I required for administrative purposes from the medical officers attached to the prisons; but chiefly because the purely professional concerns of the gaols under my charge were in the hands of the medical department, which dictated all the forms to be used in furnishing medical returns. An extract from my statistical report for the lustrum 1861-65, pp. 82-3, will show more clearly what I mean. The diseases chiefly influenced by opium were dysentery and diarrhoea.

"The admissions from dysentery, omitting the years 1849, 1850 and 1857, for which there were no returns to the medical department, were 92,935, and the deaths from this number in seventeen years were 8244, giving a ratio of death to sick of 8.87 per cent. and of deaths to average strength of 2.11 per cent. Thus one-fourth at least of the whole mortality was due to this disease alone. The proportion would be greater if the records of the blank years were forthcoming. This lamentable fact points strongly and urgently to the pressing necessity of a thoroughly scientific investigation of gaol dysentery, its causes and consequences. I am afraid that some part of this fearful destruction may have been due to erroneous plans of treatment. Several years ago I found in one gaol every case of scorbutic dysentery treated by mercurial salivation. As might be anticipated, every case so treated died. In another gaol I found the dysenteric patients in the last stage of exhaustion fed with thin arrowroot, which the dying prisoners had to take up with their fingers. Within the last two years I discovered the existence in one of the Assam gaols of grievous malpraxis in the management of this same disease. In each of the instances referred to the matter was mentioned in my reports to the Government. The application of the remedy did not rest with me, as the control of the medical

affairs of the prisons is not and has never been in my hands. The statistics of the treatment of prison diseases are a very necessary part of the application of the numerical method to their study and investigation. The returns of diarrhoea are also deficient for the same years as those of dysentery. In the seventeen years mentioned (1846-1865) there were 64,441 admissions from diarrhoea and 3162 deaths, or in the proportion of 4.90 per cent. of attacked, and 0.81 of strength. This record, again, I believe to be inexact. I have seen cases of advanced phthisis noted as diarrhoea, and examples of œdema and the diarrhoea that ushers in the fatal event, entered under the heading of diarrhoea. More care and exactness in some gaols are wanted in this matter."

Again, I note in another part of the same report that "dysentery is by far the most fatal disease [in the Bengal prisons]. It is essentially scorbutic in character, and depends chiefly upon bad drainage, overcrowding, sleeping within immediate reach of noxious exhalations from the ground in a malarious country, and from breathing an atmosphere poisoned by the exhalations from the bodies of the prisoners themselves. It is much to be regretted that a complete scientific investigation of this form of gaol dysentery has not long since been ordered" (p. 45). "The whole subject of prison diseases, and of this class of gaol diseases in particular [zymotic diseases], demands careful scientific investigation, and I hope will ere long receive it. It is not within the sphere of my functions, or it should have been commenced when the gaols were first placed under my superintendence in 1855. I make this remark in self defence, because the leading medical review of Great Britain (THE LANCET), in noticing one of my reports, taxed me with neglecting the most important of the duties of a medical superintendent—which I am not and have never been" (Report of 1861-66, p. 46).

I did start such an inquiry in the case of cholera in 1855, but the Medical Board of the time objected to my conducting such inquiries, as being their *proper* function, and the government of Bengal yielded to the objection. I need scarcely say that the investigation was not even entered upon by that body of Conscript Fathers. There were doubtless other influences at work in producing the diseases above mentioned, such as changes in diet, different ethnic and ethnic peculiarities and habits, and transfers from one district to another, together with all causes of loss of health, such as abuse of alcohol, gunjah, opium and dissipation generally, each of which acted more or less prejudicially on all criminals imprisoned. It would be difficult to me, after the lapse of so many years and in the absence of the original documents from which the returns were compiled, to assign to each its special responsibility. I am satisfied, however, that the least important of them was opium, and even that in a very restricted area and among small bodies of criminals. It was a real *quantité négligeable*. I can vouch absolutely for the correctness of the returns themselves. The medical officers who submitted them were right in not recording predisposing agencies as specific diseases, to the attacks of which they were merely contributory in varying degrees.

As to the insinuation that the corruption of the subordinate agents of the prisons caused the smuggling of opium in such quantities as to exert a prejudicial influence on death-rates, it is the most utter and absolute nonsense. It simply did not occur, for had it done so it must have been known to the officers in charge of the prisons and to myself. This tendency to misrepresentation, and clumsy endeavours to convert facts into fictions and the reverse, are among the most discreditable features of the mischievous anti-opium crusade. The fact, then, that not a single death which could be attributed directly to opium, even as a poison, occurred in the gaols of Bengal among more than 300,000 prisoners, of whom 2404 died from dysentery and 884 from diarrhoea in the five years under review, has not been touched in the smallest degree by the diatribe of Dr. Pringle. His avoidance of the subject of alcohol on the ground of its inapplicability to India is somewhat singular, inasmuch as had he read my remarks more carefully than he appears to have done, he would have found that they applied solely to England.

And now as to the comparative harmlessness of the habitual use in moderation of opium in India, the evidence of those medical officers and have lived for years among the Rajpoots, Sikhs and other warlike and manly native races, is conclusive, and cannot be set aside by any of the questionable exaggerations and mischievous misrepresentations of the rank and file of the army of philanthropists and faddists who have

sent troops of young women into the villages to preach a doctrine of suppression and implied immorality of what they can have no right understanding, and have circulated what appears to me to be one of the most mendacious documents I have ever read among the members of the medical profession to secure their signatures to a petition to the Legislature to suppress the cultivation of the poppy in India for any other than medical use, in a form utterly inapplicable to that country. A copy of it was sent to me, and I was surprised to see the name of Dr. Pringle attached to it, for I can only apply to it the scorn expressed by Cicero in one of his orations: "Falsum est in totum, neque solum fictum, sed etiam imperite absurdeque fictum."

Dr. Pringle makes merry over the applicability of the term "pick-me-up" to opium, and the meaning of the word "ethics," which he apparently does not understand. I can give him one crucial example of its sustaining power in those accustomed to its use, which came under my personal observation. I once drove from Patna to Mozufferpore in Behar on duty, and when approaching the latter place came up with a regiment of Sikh infantry which had marched forty miles during the night, had scarcely a straggler, and were as "fresh as paint" at the end of its march. Each man had his small supply of opium with him, and had used it, and could not have undergone this exertion in heavy marching order without it. They had beaten the record of the famous Light Brigade in the Peninsula mentioned in Napier's history for their marching feats.

The remarks of Dr. Pringle on a case of tetanus, and on two or three other incidents of the administration of the prisons in Bengal, are entirely out of place and inapplicable to the subject under consideration, and so need no notice from me.

The etiology of the prison sickness and mortality of the gaols of Bengal is, as I have mentioned above, a very complex question in which opium, fortunately, plays a very insignificant part, and that only in a restricted area and among a small number of criminals—in five prisons out of fifty-seven. I had by a careful study of the matter within the limits of my authority, succeeded during my administration in reducing the death-rate by one-half, by which a saving of about 600 lives annually was effected. As soon as my back was turned the chief measures which I introduced were undone by the next Lieutenant Governor of Bengal, who had a theory of prison discipline of his own, and the immediate result was a return of the old scale of mortality.

It is somewhat singular that the chief portion of my examination for my degree of Doctor of Medicine was on malarious fevers and their treatment by opium, which was at that time the prevailing doctrine and practice. That the same question should have occupied my attention more than half a century afterwards is rare, and certainly gives me some claim to more than an apparent authority on the question under consideration. I have in my official capacity as a professor of medicine both taught and practised medicine in its relations to tropical diseases, and as the first professor of medical jurisprudence in India I have considered the opium question likewise in its medico-legal aspects. Dr. Pringle has been good enough to say that my article on opium has carried more weight with the profession and the public than any of the other writings on the same subject. I venture to think that he has inflicted more damage on his own cause than on my position, and I believe I may safely say to anyone who has taken the trouble to follow up this question, "Utrum horum, mavis accipere."

## SPONTANEOUS RUPTURE OF THE SPLEEN IN AGUE.

By JOHN BOWIE, M.B. EDIN.

T—, aged thirty, a cavalry soldier, a tall, strong, finely built man, came out to Africa in the service of an African traveller towards the end of July, 1889. Some years previously he had served in Egypt and in South Africa, but had never suffered from any illness; he had never had fever, dysentery, diarrhoea or syphilis. Some days after coming up to the hills, on August 7th of the same year, he had a slight attack of fever, which lasted only a few hours. About a fortnight afterwards, while on his way to Lako Nyassa, he had another attack of fever lasting only a few hours, a similar attack occurring about eight days afterwards. He was nervous

about himself and had quite a morbid dread of African fever, so he determined to leave the country and immediately start on his way home, to arrive at Blantyre in the Shire Highlands in the last week of September. About a fortnight after his arrival the patient, who had been in excellent health, had a shivering fit and developed an ordinary attack of ague, accompanied by a good deal of vomiting. In the afternoon of the same day I saw him for the first time professionally. He was then suffering from a mild attack of ague, and exhibited no unusual symptoms; the spleen was slightly enlarged on percussion, but could not be felt on palpation; the other organs were normal. The patient was exceedingly anxious about himself and had quite an unusual fear of fever; his face was very pale and his expression of countenance was one of great dread. I reassured him about his condition and left him more comfortable. The following morning he was feeling perfectly well; no fever, pulse good, tongue clean, no pain; the bowels had been moved, and he was up and going about. At 6 P.M. he had another shivering fit, with sickness and vomiting. He at once went to bed and obtained hot-water bottles, blankets &c. About 7 o'clock, and before the hot stage had begun, he complained to his companion of a severe pain at his heart. His attendants thought little of this pain, putting it down to his well-known dread of fever, and did not send for me till early next morning, nearly twelve hours after the attack had commenced. The attendants told me that the man had passed a very bad night and had had no sleep; he was continually retching, occasionally bringing up a little greenish-yellow fluid; had complained of being cold all night, and had sometimes broken out into a cold perspiration. In addition to the pain, as he said, at his heart he had felt pain in the region of the kidneys and had not been able to pass any urine, though expressing a great desire to do so. The bowels had been moved twice, each motion consisting of a little dark-coloured fluid. I found the patient lying slightly propped up in bed, with an anxious and frightened expression of countenance; the face was of a dirty-grey colour, and the features looked rather pinched, but not markedly so; the lips were livid and pale, the eyes were clear, not sunken, and the pupils dilated; the tongue was of fairly good colour, but very dry, with a thin brown coating towards the back part. The patient complained of intense thirst and had been drinking tea almost constantly during the night. I could not get the rectal thermometric temperature, but those parts of the body not in contact with the hot-water bottles were cold. The breathing was thoracic, very short and rapid, averaging over forty to the minute. The patient said he suffered from pain in the left and right hypochondriac regions, which had been present all night and had compelled him to lie on his back, any movement to his right or left side increasing the pain, which was also increased on any attempt to take a deep breath. There was no drawing up of the legs, the patient lying with them fully extended and kicking them about nervously. The pulse could be felt but not counted at the wrist, and on listening over the heart the sounds were very faint and indistinct. The abdomen showed no marked distension; on gentle palpation the walls were found tense above the umbilicus, but below it they were soft and could be readily manipulated without causing any pain. Gentle pressure in the left or right hypochondriac region caused expression of pain, the left side being most tender. Percussion could not be satisfactorily performed. There was no dulness over the bladder, but as the patient complained of a great desire to void urine and of inability to do so, I passed a soft catheter and drew off about an ounce of dark-yellow, slightly turbid urine, which gave a marked precipitate of albumen by the heat and cold nitric acid tests. The patient was quite conscious, his intellect perfectly clear—indeed he seemed to be in a condition of exalted sensibility or “irritable weakness,” the slightest touch of a hot-water bottle causing him to cry out; he was nervously restless, continually moving his arms and legs; he knew that he was nervous, as he said that he felt quite hysterical. There was no pain in the head, no singing in the ears, no sighing or yawning respiration. The thirst was most intense. His constant cry was for something to drink. I simply treated the collapse, pain and vomiting, giving him champagne, morphia, hot pack &c. By a little after eight o'clock the retching stopped and the man said he was much easier, the pain being much relieved, the parts, however, still remaining painful on pressure; he was now able to lie on his right side, but lying on the left side always caused a feeling of great oppression. Gradually, however, as

the morning wore on, the patient became more anæmic-looking, the lips losing their lividity and becoming very pale; the tongue also began to lose its colour; the abdomen became slightly more distended, though remaining soft below the umbilicus; the pulse gradually lost strength at the wrist and became imperceptible; the thirst became more intense—indeed, I never saw in anyone such a condition of thirst; there was hardly half a minute during the whole six hours I was with him in which he did not beg and pray for drink, though I was continually giving him small quantities of water and moistening his mouth and tongue with slices of fresh lemon. The breathing became quicker. About eleven o'clock he complained of great oppression in the chest—the air, he said, “would not go down.” There was still good muscular power, as he could turn readily on his right side, and all his senses were perfectly clear. He was, of course, not allowed to lift his head; but about twelve o'clock he said, “I must get up; I will choke if I lie still.” He made an attempt to rise, but immediately fell back and gave a gasp; his eyes rolled and there was a convulsive movement of the whole body, it being for a second or two in a condition of marked opisthotonic contraction; grinding of the teeth ensued, both hands made a grasping movement over the pubis, and after lying faintly gasping for about a minute all was over.

Three hours after death I made an examination of the body. Rigor mortis was well marked in the neck, arms, and hands, beginning in the legs. On opening the abdomen there was a gush of about a pint and a half of dark fluid blood; on gently retracting the walls without disturbing the relation of parts a thick black clot of blood about as large as a cocoanut was seen lying below and to the left of the distended stomach; from this large thick clot there passed a long clot about an inch and a half broad by half an inch thick across the abdomen to the right, ending at the portal fissure of the liver; extending downwards from the large clot was a second thin large clot which passed down the left side into the pelvis. The limitation of the clots was very distinct, none being found in any other situation. On removing the large clot it was found to be in connexion with a rent about four inches in length on the anterior external surface of the spleen. On removing the spleen very carefully (there were no adhesions) and examining it the capsule was found to be clearly separated from the parenchyma for a distance of about two inches on either side of the rent. On grasping the edges of the torn capsule and holding up the organ, it had exactly the appearance of a miniature placenta and membrane, the separated capsule forming a shallow membranous bag, at the foot of which, lying flattened out, was the splenic parenchyma. The parenchyma was neither soft nor diffluent, but rather firmer than normal and of a lighter colour (probably due to compression by the blood effused between the capsule and the parenchyma). The capsule was tolerably tough and could not be readily torn. On cleaning away all the blood clot and blood from the spleen the organ seemed little if at all larger than a normal one. The stomach was distended with a brownish liquid; the intestines were quite empty and collapsed, lying flattened out like gigantic tapeworms. The left side of the heart was entirely empty of blood and the ventricle markedly contracted along the base of both cusps of the mitral valve; on its auricular surface was a row of small firm granulations, the largest being about the size of a pin's head; no thickening or adhesion of the cusps. The right side of the heart was flaccid, the ventricle empty, and a small, partially decolourised clot in the auricle. The kidneys, except for great anæmia and a small cyst at the apex of the right one, appeared perfectly normal.

*Remarks.*—The special interest in this case seems to me to be the really healthy condition of the patient previously to the fatal rupture. Spontaneous rupture of the spleen is by no means a unique accident, but in almost all the cases in which it has been noted it has occurred either during or following some serious and more or less prolonged blood disease. Thus it has been noted in typhus, typhoid and relapsing fevers, leucocythæmia &c. All these diseases greatly alter the blood and through it the spleen, the substance of that organ having been found in most cases very much softened and sometimes quite diffluent. In malarial fevers the spleen is very early and most markedly affected, but for its tissue to become degenerated or organically altered a certain quantity of the malarial poison and a certain space of time are required. Now the patient had only been a little more than two months in Africa altogether, and of that time more than a month was spent on the hills,

where there can hardly be said to be any malaria; he came into Africa at the very safest season of the year, had been excellently looked after, and had hardly suffered at all from fever; indeed, the gentleman in whose service he was, and who has seen a good deal of African fever, told me that the very slight attacks of fever which the man had previous to my examining him were so mild that he doubted whether they were attacks of fever or of temper. Although we must never forget the very insidious nature of the malarial poison, and how it may thoroughly undermine the system without giving any gross sign of its action, yet we must bear in mind that this slow poisoning only occurs under special conditions, amongst which is a somewhat prolonged stay in a markedly malarial district. In persons whose systems have been thus undermined by the poison rupture of the spleen may be readily caused by any trivial accident, such as a slight blow over the spleen or even by a much less strain, as in a case I heard of where a gentleman ruptured his spleen by vigorously stretching himself after his bath. In all these cases, however, the splenic tissue has been greatly altered—the capsule has lost its toughness and elasticity. Dr. Barrallier gives two cases of rupture of the spleen during first attacks of ague. I have not been able to get his original article, but in one of your contemporaries,<sup>1</sup> where it is quoted, mention is made of both spleens being found softened on post-mortem examination. So I presume the patient had been exposed for some time to the poison or had suffered some days from the fever. Although in most books it is said that the rush of blood to the spleen in cases of malarial fever may be so great as to cause rupture of that organ, yet when we consider the many thousands of cases of ague which occur every day and the exceedingly rare occurrence of rupture I think we may fairly conclude that something more than a mere increased blood pressure is required to trust the very tough and resistant capsule. In most cases this extra factor is found in the degenerated condition of the splenic tissues—a cause, however, which in this case neither the history nor the post-mortem appearances warrant us in accepting. I think an extra factor or predisposing cause might perhaps be found in the utterly depraved condition of the patient's nervous system, as evidenced by the intense anxiety and dread which he showed. Everyone knows the evil influence which great mental worry and an emotional condition exert on the bodily functions, and from time immemorial the spleen has been debited with being specially affected by conditions of anxiety and depression. How far this old belief is correct has yet to be ascertained; but the investigations of Botkin of St. Petersburg, who found that depressing emotions caused an increase in the size of the spleen, give some little scientific support to τὸν σπλῆνα ἐκβάλλειν of the ancients. From the extensive and very clear separation of the splenic capsule from the parenchyma it would almost seem as if the hemorrhage had been first subcapsular (though no varicose or distended veins were found in the substance of spleen post mortem), and that the blood had made room for itself by tearing through the splenic trabeculae and pressing the parenchyma backwards, the blood gradually increasing and finally rupturing the capsule. As I have noted, the patient experienced a distinct relief from the pain about 8 A.M.; the relief was very decided, and he showed it by his movements. It is very improbable that the morphia—which for want of a reliable subcutaneous solution was given in the form of pills—and the champagne could have any effect, as the stomach could hardly have absorbed them. It is just possible the relief experienced was due to the rupture of the capsule relieving the tension of the pent-up blood. This might also explain the fact that when I first saw the patient, ten hours after the rupture, which I date from the first complaint of pain at the heart, the mucous membranes and tongue were more livid than pale. The amount of liquid which the stomach contained was much greater than the amount the patient had received for at least six hours, and as the intestines were absolutely empty it would seem that the stomach had neither been able to absorb the liquid nor to pass it on to the duodenum for several hours before death. The albuminuria in the little urine drawn off doubtless arose from the damaging of the epithelium of the capillary tufts, which is said to occur whenever a full stream of arterial blood is not kept flowing through them. The symptoms presented an interesting

mixture of those of collapse and of hemorrhage, several of the prominent symptoms of both being wanting and many modified or obscured.

Blantyre, East Central Africa.

## FRACTURE (DISLOCATION) OF SPINE; REDUCTION; TEMPORARY RECOVERY.

By W. ARBUTHNOT LANE, M.S., F.R.C.S. ENG.,  
ASSISTANT SURGEON TO GUY'S HOSPITAL AND TO THE HOSPITAL FOR  
SICK CHILDREN.

W. J.—, aged eighteen, was struck in the back by a heavy iron gate, which fell upon him. He was admitted into Guy's Hospital at 1.30 P.M. on June 13th, where he was found to have some deformity of the spine about the tenth and eleventh dorsal vertebrae, between the spinous processes of which a gap of some extent could be felt. He then had apparently complete or nearly complete power over his legs as he lay on his back in bed. By about four o'clock he began to complain of pain in his legs and in the lower part of the abdomen, and when asked to move his legs he did so with much difficulty and but to a slight extent. It was impossible to say how far his inability to perform any movement was due to a loss of control over the muscles or to a disinclination to make any alteration in the position of the limbs owing to a consequent increase in the pain from which he suffered. Probably both conditions existed. As time went on the hyperæsthesia became more marked, and any movement or noise in the vicinity of the bed exaggerated his pain greatly. This was most obvious below the knees. Sensation was at the same time much modified. For instance, pulling a hair of his leg caused him great pain, though he could not tell what had been done. The reflexes were much exaggerated.

Mr. Golding-Bird saw the patient just after his admission, before any of the above symptoms had developed, and in his absence I saw him at 11.30 P.M. As the symptoms were steadily increasing in severity I determined to operate at once. A long incision being made and the spinal muscles having been turned aside, it was found that the tenth dorsal vertebra was displaced forwards and slightly downwards, so that the cord was compressed between the laminae of the tenth and the body of the eleventh dorsal vertebra. The displacement was not considerable, so that the cord was apparently squeezed rather than crushed. The interspinous ligament was torn through. As the lower articular processes of the tenth dorsal vertebra lay in front of the upper articular processes of the eleventh dorsal vertebra the latter were cut away. After great difficulty the tenth dorsal vertebra was dragged back into its normal position. This was effected partly by over-extending the dorsal spine and partly by traction exerted upon the spinous process by lion forceps. As on the removal of this traction the displacement recurred, I passed a stout silk ligature between the spinous processes of the ninth and tenth and the eleventh and twelfth dorsal vertebrae, and by that means tied the tenth and eleventh spinous processes immovably together.

On June 14th the symptoms continued as before the operation. On the 15th they diminished slightly but distinctly. On the 16th the improvement continued, but it was still necessary to give morphia to control the hyperæsthesia. By the 21st the hyperæsthesia had disappeared, and he could move his legs a little, apparently without pain. The silk ligature was then removed. By the 26th he appeared to have recovered complete control over his legs. The spinous processes were in good position over the same transverse plane. The reflexes were then normal. The patient was extremely troublesome and restless throughout, and after the wound had apparently healed firmly it broke down, a portion of a spinous process coming away, when the ligature, being useless, was removed. He kept constantly rolling about, and complete paraplegia soon developed. The spine was then explored, when the vertebrae were found to be displaced laterally upon one another and the cord was completely divided. This unfortunate result was due solely to the extremely troublesome character of the patient, a poor half-starved, half-witted creature, whom it was found impossible to control satisfactorily by any means.

The case is one of much interest, and resembles more or

<sup>1</sup> Brit. Med. Jour., vol. 1, 1891, p. 370.

less closely one published by Mr. Golding-Bird last year. It would appear that the symptoms in this case were due to pressure rather than to the presence of hæmorrhage inside the cord. It was evident at the time of the operation that there was no such considerable collection of blood inside the sheath of the dura mater as could produce symptoms of compression, and one was surprised that there was not more paralysis, since the cord appeared to be compressed within narrow limits by the displaced vertebra.

St. Thomas's-street, S.E.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### CONVULSION TREATED BY COMPRESSION OF THE CAROTID.

BY T. GORDON KELLY, M.D. DUB.

In the issue of THE LANCET of Jan. 2nd I read an account of Dr. Leopold Roheim's treatment of eclampsia by compression of the carotid, and in a subsequent number an account of a case of convulsion where this treatment was successfully tried by Mr. W. C. Hearnden. A similar case occurred in my practice a short time ago, the following notes of which may be of interest.

Mrs. H—, a married woman aged sixty-four, had been under my care for over two years, suffering from chronic rheumatism, renal troubles &c. I had not seen her for some months previously. I rode off immediately, and on my arrival found the patient in a fit which I was told had lasted one hour and a half. The pulse was full, respiration noisy and laboured, and the muscles of her face and body were convulsed. I determined to try Dr. Roheim's treatment. Except for the force with which the carotid was beating, I found this comparatively easy to do, the woman being very thin. Within a few moments from placing my thumb on the artery the convulsions of the face and body began to cease, the respiration gradually became slower and deeper, and in about two minutes and a half she came out of the fit, looked around in a dazed way, and when I asked her if she was better, nodded her head in reply. Since then she has had no return of the attack.

Desford, Leicester.

#### A CASE OF TETANUS WITH DOUBLE FACIAL PARALYSIS; RECOVERY.

BY W. HUNTINGTON, M.R.C.S. ENG., L.R.C.P. LOND.

J. K—, aged fourteen, farm servant, fell and cut his head on Jan. 4th. The mother covered the wound with stamp plaster, which was allowed to remain adhering for a week. Pus was then observed coming from under the paper, so a poultice was applied and the dressing removed. A day or two after this he complained of stiffness in the jaws and neck, and this increased until the fifteenth day after the injury, when his jaws became firmly locked and he could scarcely swallow. I saw him for the first time on the sixteenth day after the injury. The wound, which had evidently been a badly contused one, was nearly healed, and rather more than an inch in length. It was situated on the forehead, running obliquely upwards and to the left from a little above the root of the nose. He was sitting in a chair and would not lie in a bed, since he found the latter position more irksome and caused worse exacerbations. He could not endure darkness or noise, and required a light all night. His jaws were close together and rigid; masseter, temporal and sterno-mastoid muscles firmly contracted; intellect clear; face expressionless; when asked to smile, he said he could not; nor could he properly close his eyes. There was complete paralysis of muscles of both sides of the face. The pupils reacted to light and accommodation and the movements of the eyes were normal. He suffered from frequent cramps in the legs and abdomen. His arms moved awkwardly, and the grip of the hands was feeble. Dysphagia was a prominent symptom.

There was a profuse flow of saliva, which ran out of his mouth; he suffered much from sleeplessness, for many days and nights only obtaining a few minutes' sleep at a time. He was given a mixture of chloral hydrate with bromide of potassium and tincture of hyoscyamus every three hours, and at night he had opium in addition. In a week's time the paralysis on the left side of the face began to subside, and in another week the right side did likewise, and he was then soon able to whistle, smile &c. At first he could not walk, but after a fortnight he could do so with assistance; and his action was peculiar, each leg being moved forward from the hip as if rigid through its length, the foot dragging along the ground. The symptoms gradually subsided, and in six weeks he was practically well and able to go away for a change. A short time ago (June) I saw him, and he was in perfect health.

This case reminds one of the form described by Rose of Zürich, and called by him "cephalic tetanus"; but, so far as I am aware, only one side of the face was paralysed in the cases mentioned. From the dysphagia and irritation caused by noise and movement the term "hydrophobic tetanus," already used to some cases of this disease, would here be an apt one.

St. Andrews, N.B.

#### THE IMPORTANCE OF OBSTRUCTION TO THE OUTFLOW OF URINE AS A CAUSE OF PUERPERAL ECLAMPSIA.

BY G. E. HALE, M.B., B.C. CANTAB.

THE following brief note concerning a necropsy which I performed a short time ago may be of value to those who, like myself, were interested in Mr. Gifford Nash's paper, published in THE LANCET of Aug. 27th, on the above subject. The girl had died of double pleurisy with a little pneumonia, which had commenced suddenly with a rigor six days before her death. She was pregnant for the first time with a six-months' fetus. Both ureters from the kidneys to the brim of the pelvis were dilated up to the size of the common iliac artery, while the kidneys were in a condition of slight hydronephrosis, with much congestion of their substance. No obstruction could be found within the canal of the ureters to account for this distension, and the whole condition strongly suggested that the ureters had been obstructed from without by the pressure of the pregnant uterus. The urine during her stay of four days in the hospital was highly albuminous and contained also a trace of deuterio-albumose.

St. George's Hospital.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ST. BARTHOLOMEW'S HOSPITAL.

OSTEO-SARCOMA OF THE HUMERUS WEIGHING THIRTY-THREE POUNDS AND MEASURING THIRTY-ONE INCHES IN CIRCUMFERENCE; LIGATURE AT THE SUBOLAVIAN ARTERY AND AMPUTATION AT THE SHOULDER-JOINT; RECOVERY.

(Under the care of Mr. HOWARD MARSH.)

THIS case is worthy of being recorded, for the tumour must be one of the largest ever removed with the upper extremity. The history of the case points to the formation of a cartilaginous tumour in the first instance, and after some years the rapid development in that of sarcomatous tissue. Pollet<sup>1</sup> reported last year a case of large osteo-sarcoma of the femur, which was supposed to have been in existence for twenty-five years. The success of an operation for such a large growth as this depends very much on the efficient

<sup>1</sup> Journal des Sciences Médicales de Lille.

control of the hæmorrhage; and Mr. Marsh found ligature of the subclavian most satisfactory, for it appears that the quantity of blood lost did not amount to much more than six ounces.<sup>2</sup> The other methods which are at the disposal of the surgeon for the arrest of hæmorrhage during this amputation are briefly: (1) Pressure on the subclavian; (2) compression of the inferior or anterior flap; (3) ligaturing or twisting of the vessels on the inner aspect of the limb before they are cut; (4) securing the vessels lower down in the Furneaux-Jordan method; (5) the use of an indiarubber band; on account of the liability of this to slip it has been suggested by Kock that a section of the outer third of the clavicle should be made, and after a preliminary bandaging of the arm the tube should be passed round the shoulder and through the gap in the clavicle, loops of bandage being used to hold it in position.

W. H.—, aged forty-nine, a labourer, was admitted into St. Bartholomew's Hospital with a tumour of the right upper arm. He stated that ten years previously he noticed the formation of a hard swelling which felt like bone on the front aspect of his arm close to the shoulder-joint. Having in the course of two or three years reached about the size of an orange, the tumour remained stationary for six or seven years. Two years and a half ago the swelling appeared lower down. This increased rapidly, and soon the whole upper arm was enlarged. A year ago the limb measured twenty-five inches in circumference. He had lately lost power and sensation in the forearm, which was now flabby and much wasted. He had lost flesh and strength in the last month, and during this time the swelling had rapidly enlarged. (See engraving.)



The patient presented an extraordinary appearance. It is scarcely an exaggeration to say that his arm looked at first sight almost as big round as his thorax, with which, owing to its bulk, it stood off almost at a right angle. Its circumference at its largest part was thirty-one inches. The forearm by comparison looked small and withered. The tumour was roughly barrel-shaped, irregularly nodulated and bossed, some of the low-crowned nodules being of the size of an orange. The original mass (now as large as a cocoanut) was as hard as bone, while the remainder, which had developed chiefly in the last three years, was for the most part firm or more or less elastic, like a fleshy sub-periosteal sarcoma. The skin over the tumour was tense and shining, pale and waxy, from distension over the upper part, but congested and almost livid lower down. A network of large tortuous veins ramified over the surface, and many of them towards the front of the axilla were as big as adult fingers. No secondary growths could be detected. The tumour was evidently a sub-periosteal sarcoma. The

patient's condition was distressing. The tumour had reached such a size and weight that he found it difficult to balance himself as he walked; he was obliged to support the swelling so far as he could with his other hand; he could lie only on his back, suffered considerable pain, looked pale and worn, and was rapidly losing flesh and strength.

On examination it seemed quite possible to remove the arm at the shoulder-joint without any very grave risk to life, for the tumour was engrafted upon the trunk by a somewhat narrow neck, so that the wound left after the amputation would be comparatively small. A few days later the operation was performed. The chief danger, of course, to be guarded against was that of hæmorrhage, not only from the arteries supplying the tumour, but from the enormous veins which were seen running over its surface. To meet this the subclavian artery was first tied in the third part of its course, and the arm was then elevated so as to empty it of its venous blood. The artery lay at a considerable depth from the surface, for the clavicle was forced upwards out of its normal position; but as all the tissues around the vessel were natural it was reached without any great difficulty. When the arm was raised the veins—as no blood was now entering—quickly emptied themselves, and thus the limb was rendered, comparatively speaking, anæmic. A large skin flap was then dissected up from the upper and outer part of the tumour, the joint was opened and the second flap formed by cutting from within outwards. As the afferent vessel had been already tied and the venous blood emptied back into the trunk, the amount of hæmorrhage was quite insignificant and was estimated at the time not to have exceeded six ounces. No case could show more conclusively the value, in amputation at the shoulder-joint for the removal of large tumours, of the preliminary ligation of the main artery of supply and the draining of the veins. The artery in this instance was so deeply placed that—even if the skin and deep fascia had been divided, as originally suggested by Syme—it could not have been securely compressed, for, in the manipulation of the limb which was necessary during the amputation, the thumb or finger would inevitably have been lifted off the artery and fatal hæmorrhage would have occurred. Besides, it is only when the entrance of blood by the main artery has been entirely prevented that the veins can be efficiently emptied. It was suggested by some who saw the case that the subclavian vein, as well as the artery, should be tied. But there were two considerations, which taken together seemed to be conclusive against this course. In the first place, ligation of the subclavian vein must always be a more difficult proceeding than ligation of the artery, and the vessel in this case, owing to displacement of the clavicle, was lying at such a depth that I doubt if it could have been safely reached without removing part of the clavicle. Secondly, to have tied the vein would have prevented the return of venous blood into the trunk; so that instead of saving loss of blood, it would have largely increased it. In the course of the operation it was found that the skin on the axillary side had become so thin over the tumour that it seemed unsafe to leave it. The flaps were therefore too short to entirely close the wound, but the edges were brought together as far as possible, and the surface left open for subsequent granulation was only about three inches square.

The patient bore the operation well, and his subsequent progress was quite favourable. The wound healed aseptically, and the temperature was never above normal. He was up on the tenth day. When seen recently, he looked well and had regained flesh and colour.

#### BRISTOL GENERAL HOSPITAL.

A CASE OF DISLOCATED CALCAREOUS LENS CAUSING SYMPATHETIC IRRITATION; EXCISION.

(Under the care of Mr. CYRIL H. WALKER.)

T. F.—, aged fifty-five years, came to the Bristol General Hospital on Aug. 21st, 1891, complaining of pain in his left eye and failing sight of his right. In 1857 he appears to have received an injury from a gunshot accident. A single shot struck the lower part of the left eye; the sight was immediately destroyed, and there was some bleeding from the wound. The eye was examined by a medical man, but the shot could not be found. The patient was kept in a darkened room for a few days. The eye rapidly quieted down, and gave

<sup>2</sup> Jacobson: The Operations of Surgery, p. 112, 2nd edition.

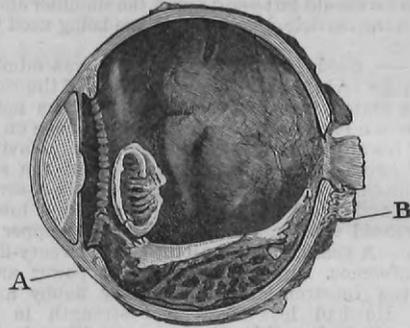
very little pain. In three weeks from the time of the accident the injured eye, though totally blind, was painless and hardly at all disfigured. The eye continued in this condition for nearly thirty-four years, and no information could be gained from him as to whether any opacity had appeared in the pupil indicating changes in the lens. But in April, 1891, four months before admission, the blind eye began to be uncomfortable at times. He stated that soon after this (about the end of June) he was quite sure he felt "the shot rolling about" in his eye. After this the eye gradually became more painful and he repeatedly felt the sensation as of some foreign body rolling about in his eye. On Aug. 13th he noticed that the sight in the right eye, which had hitherto been quite perfect, began to be affected, whilst the left eye became acutely painful.

On admission the left eye was quite blind and extremely painful, the pain extending all round the orbit; the tension was slightly increased. He was constantly mopping the eye with his handkerchief, and in doing so had caused an abrasion of the lower part of his cornea. The rest of the cornea presented a ground-glass appearance, rendering the iris only dimly visible. There was a moderate amount of conjunctival and ciliary injection, and at the lower and inner side, at the posterior part of the ciliary region, there was a small dusky patch, being the scar caused by the wound. So far as could be judged through the hazy cornea, the anterior chamber was deeper than normal; the pupil was moderately contracted and did not respond to light. There was no opacity visible in the pupil. He was still quite confident that he could feel a foreign body rolling about whenever he moved his eye. Atropine and cocaine were applied several times but produced no dilatation of the pupil and no trace of foreign body or lens was visible. The right eye was weak and watery and there was marked photophobia. Distant vision was  $\frac{3}{8}$ , but he was unable to look at ordinary print for more than a few seconds at a time. Media clear; no ophthalmoscopic changes. The tension was normal, but the globe was decidedly tender. There was hippus of the iris, and he complained of seeing "floating specks." In short, the right eye was in a condition of sympathetic irritation.

Thinking that it was almost certain that there was a foreign body in the left eye, and as it was totally blind and very painful, he was strongly advised to have it removed. This he refused to submit to, so palliative treatment was adopted. After ten days the condition of his eyes remained practically the same, and he willingly consented to have the eye excised. A fortnight later V.R. =  $\frac{5}{6}$  and J. 1. The eye was perfectly comfortable, and has remained so up to the present time. The globe measured twenty-two millimetres in transverse diameter. On making a vertical section through the frozen eye the lens was found to be dislocated and remarkably calcareous, being reduced to a skeleton or framework, from the interstices of which all the soft lens matter had been absorbed. It was of nearly normal size and consisted of a fairly uniform outer shell of hard material like egg-shell, with a few radiating clefts and grooves near the periphery, while the interior of the lens was converted into loosely adherent particles or flakes, forming a sort of cancellous structure. (As the globe was not quite frozen through the central part of the lens crumbled away to a great extent and was lost in the fluid vitreous. Hence in the mounted specimen from which the accompanying drawing is made only the concave outer shell is represented.) Examined under the microscope, some of these flakes when decalcified looked rather like bone, but no true bony structure existed. Sections of the decalcified cortex showed lens fibres quite distinctly in many places. No trace of lens capsule or of suspensory ligament was visible. The shot went completely through the eye, entering in the ciliary region (A) and going out a little below the optic nerve. It could not be felt at the time of enucleation, and is probably lodged deep in the tissues of the orbit. From the course taken by the shot it seems likely that it also wounded the optic nerve further back in the orbit, which would account for the total and permanent blindness of the injured eye. The point of its exit from the globe is marked externally by a raised lump (B) close to the optic nerve, consisting of strands of fibres running backwards from the sclerotic. In the track of the shot is a firm, white, glistening band of fibrous tissue, looking much like a piece of tendon, stretching from A to B, and raised about an eighth of an inch from the sclerotic. The retina is detached, and rises up to meet this band on each side, and so forms two shallow pouches or depressions. The small space between the retina and choroid seemed to be full of clear fluid. The detached

portion of the retina is much pigmented, so as to present a dark speckled appearance.

There are several points in this case which make it of interest, and the occurrence of distinctive changes in a damaged eye so many years after the infliction of the injury is very unusual. Mr. Walker remarks that although partial calcification of old cataracts is not very uncommon, yet text-books say very little on the subject, and it is hard to find any records of such extensive changes as this case presents. The fact that it also caused sympathetic irritation adds further interest. A rather similar case is related in the *Medical Times and Gazette* of 1853. Dr. Taylor speaks of the con-



Left Eye. Vertical section,  $\times 2$ . A, Entrance of shot. B, Exit. Half of the dislocated lens is shown in the position it occupies now the specimen is mounted in glycerine jelly.

dition as being of very rare occurrence. In that case the globe was shrunken, but in spite of this the cataract was extracted, though with great difficulty, and the eye did well. If the patient's statement that the pupil of the injured eye was quite black, and that "no one would know that the eye had been injured," be correct (and he seemed quite certain about this point), the lens must have been almost completely dislocated, gradually become calcareous and eventually broken from its few remaining attachments. It is not easy to explain why a dislocated lens should become calcareous, for though it has been shown (by Mr. Priestley Smith and also by Dr. W. J. Collins) that the amount of solids in a senile cataract depends on the age of the cataract and not on the age of the patient, yet so advanced a change could hardly be accounted for by this ordinary process even in thirty-four years.

## Reviews and Notices of Books.

### SOME GERMAN CLINICAL MANUALS.

- Lehrbuch der Auscultation und Percussion.* Von Dr. C. GERHARDT. Fünfte Auflage. Tübingen: H. Lapp. 1890.
- Lehrbuch der Klinischen Untersuchungs-methoden für die Brust und Unterleibs-organe.* Von Dr. PAUL GUTTMANN. Achte Auflage. Berlin: A. Hirschwald. 1892.
- Diagnostik der Inneren Krankheiten auf Grund der heutigen Untersuchung-methoden.* Von Dr. OSWALD VIERORDT. Dritte Auflage. Leipzig: F. C. W. Vogel. 1892.
- Medizinische-klinische Diagnostik: Lehrbuch der Untersuchung-methoden innerer Krankheiten.* Von Dr. FELIX WESNER. Berlin: Julius Springer. 1892.
- Grundriss der Klinischen Diagnostik.* Von Dr. G. KLEMPERER. Dritte Auflage. Berlin: A. Hirschwald. 1892.

THE works named above are for the most part well known. Only one of them is of quite recent date—namely, Dr. Wesener's the rest are new editions, which in every case are said to be improved and extended. Truly, of the multiplication of clinical manuals there is no end. We have only to recall the number of works of this class that have been produced in this country during the past decade to find illustration of this. The student is embarrassed in his choice, but fortunately most of these text-books of the art and science of diagnosis are reliable, differing mainly in the extent to which

the writers descend to detail and intersperse theoretical considerations with their practical teaching. Germany has been even more prolific than England or America in the production of high-class diagnostic manuals, although twenty-five years ago, when Dr. Gerhardt's work first made its appearance as a worthy successor to Skoda's famous Manual of Auscultation, there were but few such books in the field. And within the limits of its subject—limits which the author has increased since he first produced his book—this work of the Berlin professor still maintains a leading place. It is not only thoroughly sound in its teaching, but is comprehensive and original; and although the author in his preface hints that other methods—e.g., microscopical examination of sputa—seem to some to be all-sufficient for diagnosis, few will venture to dispute the necessity for thorough physical examination of the patient if diagnosis is to be accurate, prognosis sound, and treatment rational. As to the general plan and scope of these several works, it may be said that Professor Gerhardt deals in turn with each of the physical methods as applied to the examination of thoracic and abdominal organs, and then discusses in detail the various signs presented by certain morbid conditions of these parts. Dr. Guttman, whose work was in one of its earlier editions translated by the Sydenham Society, covers the same ground, but embraces in his pages chapters on examination of the larynx, of the blood, sputa, urine &c. Dr. Vierordt's book, recently translated into English (Pentland), is still more complete, treating very fully of the diagnosis of diseases of the nervous system, in addition to the subjects dealt with by Dr. Guttman. Dr. Wesener's more recent book is of the same scope as Dr. Vierordt's, but is less detailed. It is well illustrated by lithographs, but in the matter of diagrams and woodcuts, many of great excellence, Dr. Vierordt's book takes the palm. Dr. Guttman's work is not illustrated, but Professor Gerhardt's has several semi-diagrammatic sketches, which are of much utility. Lastly, the little work by Dr. Klemperer, less ambitious than any of the foregoing, is admirably compiled, concise and clear; it traverses the whole field of medical diagnosis and includes all that is really essential. It is just the sort of manual for a student to have constantly by him in his ward work.

In order to give a concrete example of the different modes adopted by these authors of dealing with their subjects we may take, for instance, the much-debated question of the cause of the vesicular murmur, and see how it is treated by each writer. Professor Gerhardt discusses the subject at some length, and traverses the statement originated by Penzoldt, and now most in favour, that the murmur is really tracheal breathing altered by transmission through the spongy lung tissue. He points out that in stenosis of the air passages the sound due to the contraction is conducted to the surface, but does not replace vesicular breathing; that the latter can be heard over the chest in tracheotomised subjects; and that the almost purely inspiratory character of the vesicular murmur contrasts with the greater development of the expiratory portion of the tubular breath sound. From these and other considerations he concludes that the bruit must be produced in the pulmonary tissue itself, not by currents of air or by friction of air against the walls of bronchioles and alveoli, nor even by the combination of the myriad "veines fluides" which theoretically may be conceived to occur where the infundibula open into the air sacs. Dr. Gerhardt holds that the murmur bears the same relation to bronchial or tracheal breathing as the percussion note over lung tissue bears to that over the trachea. In each case there is a similar alteration in pitch, tone and clearness. We may note in passing that several years ago (1886) in these columns Dr. Coats, by his examination of a patient whose larynx had been extirpated, arrived also at the conclusion that the vesicular murmur was generated in the lung tissue itself, and not at the glottis. However, if we turn to Dr. Guttman we find

that, whilst admitting the inherent difficulties of the question, he inclines to the view, which he says has of late come to be generally held, that the larynx is the source of all respiratory murmurs, and that vesicular breathing is only a modified laryngeal sound. It cannot be, he says, that the murmur is produced either by rapidity of the air-current or by eddies produced at the junction of the bronchioles and infundibula. At the same time he sees the difficulty of admitting the glottic origin exclusively, since a feeble vesicular breath sound is to be heard over the lungs of tracheotomised subjects. Drs. Vierordt and Klemperer content themselves by stating the accepted view of the glottic and tracheal origin of the murmur, the latter not hinting at any other explanation; whereas Dr. Vierordt abstains from discussing theories which, he says, have no positive proof to sustain them. Dr. Wesener passes the subject by in silence.

Upon another point—that of the murmurs of mitral stenosis—there is practical unanimity, although there is some divergence in detail, and not one author mentions the view, so much debated in this country on more than one occasion, that these murmurs are really of regurgitant origin. Professor Gerhardt says the characteristic, loud, grating or sawing bruit is diastolic, or more often partly diastolic and partly systolic, commencing towards the end of diastole and prolonged through part of the systole. He notes that sometimes the diastolic element of the bruit is only elicited by increasing the action of the heart; and he explains the fact of the usual late development of the diastolic element by the contraction of the auricle, which comes at the end of the diastolic period, suddenly increasing the swiftness of the current. Dr. Guttman also sees that the diastolic character of the murmur is due to its being formed by eddies at the contracted orifice; and he notes, as distinguishing it from other diastolic bruits, the fact that it is not uniform, but constituted of two or even three cadences, which pass into one another, the bruit increasing in intensity towards the end of diastole (presystolic period), because then the pressure of the stream on the orifice is suddenly enhanced by the auricular contraction. Of course, he notes the frequent concomitance of a systolic bruit and also the short, loud first sound that may abruptly terminate the stenotic murmur; whilst he says that in some cases a reduplicated second sound is the only evidence of mitral stenosis, a murmur being absent. Dr. Vierordt does not enter into much detail, but gives the accepted view of the character and cause of the presystolic bruit. His diagrams are explicit and accurate. Dr. Wesener says the murmurs of mitral stenosis may be diastolic or presystolic, the latter occupying the second half of the diastole and being of a crescendo character, ending in a loud flapping first sound. Such a bruit is only produced at the mitral valve and is invariable organic, being evoked by the auricular contraction forcing the blood current through the stenosed orifice. He says that there is often (?) a diastolic bruit of uniform character occupying the rest of the diastole and merging in the presystolic, and he correctly adds that the crescendo character of the latter is sometimes wanting—e.g., in cases of fatty heart. Dr. Klemperer merely says that "a diastolic (presystolic) murmur over the mitral valve implies mitral stenosis."

It may also be of interest to learn what these authorities teach upon the significance of intermittent albuminuria, a matter which is still *sub judice*. It is not referred to by Dr. Wesener, and is mentioned by Dr. Vierordt as being of a cyclical character, occurring mostly after exercise, never after a night's rest, and not being accompanied by any other signs of renal disease, especially casts. Dr. Guttman mentions various authors who have recently drawn attention to this condition of transitory albuminuria in healthy subjects, noting that the albumen is mostly small in quantity, although Leube found as much as 0.03 to 0.06 per cent. Its dependence on muscular exertion is illustrated in the case of soldiers on the

march, in whom the albumen appears in the urine at noon, but not in that passed in the early morning. Depressing emotion may be a cause of the phenomena. Dr. Klemperer says it may occur in healthy young people, and although the idea of nephritis cannot be excluded, yet in several cases it has disappeared. We may remark, in conclusion, that in each of these books the chemical and microscopical aids to diagnosis are treated with sufficient fulness, and that electricity is amply dealt with by Dr. Vierordt, and to a certain extent also by Drs. Wesener and Klemperer.

*Manuel d'Ophthalmologie.* Par le Docteur E. FUCHS, traduit par le Dr. C. LACOMPTÉ (de Gand) et Dr. LEPLAT (de Liège). Paris: Georges Carré, Editeur. Pp. 815. 1892.

THIS large and important treatise is a translation of a very well known and highly esteemed work written by the Professor of Ophthalmology in the University of Vienna, and therefore presents the views and practice of that school. Dr. Fuchs states that he was induced to write it because he disapproves of the plan of students taking long notes at lectures, and especially at clinical demonstrations, when they ought to be attending to the objects presented to them; and hence, if they are so anxious to have his very words in black and white, he thought it expedient to let them have them direct and fresh from his own pen. The book does not pretend to be exhaustive, but is a useful guide to the practitioner. Those who intend to take up the diseases of the eye as a special branch of work must, he admits, study the larger treatises.

The general arrangement of the chapters is, in accordance with the usual practice of writers on the diseases of the eye, topographical; the conjunctiva, cornea and sclera, iris, choroid and retina being taken in succession; then the lids, lacrymal apparatus, ocular muscles and affections of the orbit. Errors of refraction and accommodation are next considered and the operations are described in a final section. Following the example of Arit, Dr. Fuchs devotes much space to the consideration of the diseases of the superficial structures of the eye, as the conjunctiva and cornea. In severe cases of gonorrhoeal ophthalmia he recommends scarifications of the conjunctiva and the administration of full doses of mercury internally, with inunction of blue ointment externally—proceedings that are not considered advisable in this country. He adds, however, that he has not had much success with them. Slight cases of pannus resulting from trachoma disappear under the influence of cauterisation of the conjunctiva. In more severe cases he seems to approve of the method suggested by de Wecker of jequirity injections which we thought had been entirely given up even by its author. For fistula of the cornea he recommends rest in bed, a light bandage, the instillation of some myotic remedy and iridectomy. Cauterisation of the edges he thinks to be not without danger. He does not allude to refreshing the edges and the introduction of a suture. Tattooing the cornea in cases of leucoma is recommended to be performed with a fasciculus of needles or with a grooved needle; it should have been observed that the tattoo marks usually disappear quickly unless the punctures are made obliquely. Under the head of Uvea a good description and diagram are given of the lymphatic channels of the eye. Dr. Fuchs only admits a sphincter iridis. The posterior surface of the iris, he says, is formed of strong and regularly arranged fibres, which extend from the ciliary to the pupillary border, and which, on this ground, have been considered to constitute the dilator of the pupil. The dilatation of the pupil, however, is not effected by a muscular contraction but by an elastic retraction, and the fibres in question, having no nuclei, cannot, he thinks, be considered as smooth muscle. The diseases of the iris and of the ciliary region are treated with much fulness and care. A well-written chapter is devoted to the diseases of the optic nerve,

commencing with an account of its anatomy, its central origin and the effects of lesion of different parts of the nerve and tract, and passing on to the consideration of intra-ocular and retro-bulbar neuritis. The author arranges the causes of intra-ocular neuritis in the following order: Diseases of the brain and syphilis; acute febrile diseases, such as scarlet fever, measles, small-pox and diphtheria; troubles of nutrition, such as albuminuria, diabetes, scrofula and pregnancy; acute anæmia from hæmorrhage, lead poisoning; heredity; exposure to intense cold; orbital disease, such as tumours and growths in the nerve itself. He gives tobacco amblyopia as the type of chronic retro-bulbar neuritis; but many of the causes of intra-ocular neuritis are also to be enumerated as causes of retro-bulbar neuritis. A section is devoted to visual disturbances without appreciable lesion, which of course includes colour-blindness and which is well written. The illustrations are very creditable, and the translation, though it requires a Frenchman to speak with authority upon this point, seems to convey the sense of the original.

*The Biographical Dictionary.* Edited by SIDNEY LEE. Vols. XXX. and XXXI. London: Smith, Elder and Co.

THESE volumes compass the letters JO—KE to KE—LA, and include the names of many members of the medical profession, the majority of them, however, being but little known, either personally or by their writings, to the present generation. Dr. C. Handfield Jones and Dr. Bence Jones, however, will be remembered by our readers—the former, as physician to St. Mary's Hospital and for his "Clinical Observations on Functional Nervous Disorders"; also as joint author with Dr. Sieveking of a valuable "Manual of Pathological Anatomy." Dr. Bence Jones, physician to St. George's Hospital, devoted his attention chiefly to chemistry in its application to medical research and practice. His work on "Animal Chemistry in relation to Stomach and Renal Diseases" is still esteemed a high authority on the subject. Thomas Johnson, M.D., who died in 1644, was said to be the best herbalist of his time in England. Arthur Johnston, M.D. (A.D. 1587–1641), was more distinguished for his Latin verse than for his medical acquirements. Charles Aston Key (A.D. 1793–1849), surgeon to Guy's Hospital, was famous alike for his lectures and for his operations. He was one of the first elected Fellows of the Royal College of Surgeons of England, and was appointed surgeon to Prince Albert. This Dictionary when finished (it has now reached the twelfth letter of the alphabet) will form an indispensable part of any library which claims to be complete.

**THE DUTIES OF WATER COMPANIES.**—The East London Water Company were fined 40s. at Worship-street Police-court on Wednesday, for neglecting to comply with the requirements of the Public Health Act by not giving notice in writing that a certain house within the limit of their supply had ceased to be supplied with water by the company. The 49th section of the Act (which has only recently come into force) cast upon water companies the duty of giving notice to the sanitary authority of the parish where a house had had the supply of water removed within twenty-four hours.

**SANITARY PRECAUTIONS.**—Charles J. Smith, owner of lodging-houses in Great White Lion-street, appeared before Mr. Vaughan at Bow-street on Wednesday in answer to summonses by the St. Giles District Board of Works for offending against certain sanitary regulations, principally the non-removal of rubbish. The defendant was conditionally remanded on plea of being away for a holiday. Under the same regulation Henry Edwards, of 535, Fulham-road, was summoned. The medical officer stated that thirty people were living in a house in Betterton-street. The defendant was fined 40s. and ordered to put the house in good condition within three days. Two other cases were adjourned for a week and on another a fine of 6s. was imposed.

# THE LANCET.

LONDON: SATURDAY, SEPTEMBER 17, 1892.

ON Aug. 20th we published the report of our Special Commission on Sanitation in relation to the Law and Practice of House-letting. Suspecting not only that sanitary defects were largely prevalent in houses in all parts of the country, but also that the general public were ignorant of the importance of these defects in their relation to health, and that landlords were unable either from lack of knowledge or from interested motives to enlighten the minds of proposing tenants, we submitted a series of questions for opinion to a thousand house agents and surveyors, in the hope that from the information so gained we should be placed in a position to grasp the true facts of the case, and, if we were warranted by the evidence before us, that we might suggest for discussion some method or methods by which existing grievances might be corrected. We were able to affirm in the report that our suspicions had proved but too true, and that the matter was indeed one urgently requiring consideration at the hands of those in whom the authority to interfere is vested. In issuing our report we expressed a hope not only that the matter would arouse the interest of the lay press, and thus aid in the more effectual ventilation of the subject, but also that the conclusions at which we had arrived concerning the means by which the required reform might be attained would be searchingly canvassed; we anticipated, moreover, that possibly important suggestions might be advanced to help us in our task. We are gratified to be able to state that our labours have met with a hearty welcome and our expectations have been amply fulfilled. We now propose to pass in review the more important criticisms and suggestions that have been offered upon our report, but in order to make these clearly intelligible it will be best to briefly recapitulate the conclusions at which we arrived.

We expressed a strong opinion that every landlord should be made responsible for the proper drainage of his house, and that a clause guaranteeing the drainage should form part of the agreement in the letting of a furnished house. It is eminently desirable that this condition should be made applicable to all classes of property, whether let furnished or unfurnished. Starting with the assumption that the efficient drainage of houses should always be guaranteed, we discussed three possible methods by which the interests of the tenant in this matter might be safeguarded—viz. (1) by a combination of house agents and surveyors; (2) by further legislation compelling landlords to put the drains of their houses in order before letting such houses; (3) by awakening sanitary authorities to a sense of the power already entrusted to them, and requiring them to develop their latent authority for the public benefit.

Having for very obvious reasons dismissed the first of these suggestions, we advised the adoption of the third in preference to the second method, by an appeal

to existing sanitary Acts, showing clearly that the whole of the requisite authority to carry out the needed reform is already vested in local authorities. We also suggested that recourse should be had to a system of registration of houses with the local authority, who should also grant a certificate to the landlord provided his house attained to the standard of sanitary excellence which they required. We further recommended that registration should, at all events in the first instance, be voluntary and not compulsory, as we were able to adduce instances in which the former plan, having been put into operation, had been found to answer admirably. Of course, should the method prove a failure, the local authority would still have power to introduce more stringent regulations. We suggested an exception to this rule in the case of boarding-houses, lodging-houses and hotels, in which we are of opinion that registration should forthwith be made compulsory. It will of course be borne in mind that the reform for which we are now contending applies solely to the case of houses erected before the passing of the Public Health Acts. Houses built after these Acts have come into force should be drained in accordance with model by-laws drawn up by the local authority. Drains badly laid or not laid in accordance with the scheme set forth in the by-laws are a reproach to the sanitary authority of the district; for these there is no excuse.

Notwithstanding the immense number of notices that have appeared on the report of our Commission, opinion has been nearly unanimous that the case for reform has been established, although some misgivings have been expressed (notably in an appreciative leading article in the columns of *The Times*) about the means which we recommend to be adopted in order to secure it. In urging a system of voluntary registration of houses, we cited Eastbourne as an instance in point where the method had been tried with success; and in this connexion we would direct the attention of our readers to an interesting account furnished by Dr. SHERWOOD and published in another column of the system of registration now in use in that town; and since then we have been informed that a similar plan has been followed at Folkestone with good results. It has been pointed out to us that Eastbourne and other fashionable watering-places are scarcely fair examples to quote in support of our views. It is urged that Eastbourne, being a popular health resort and therefore doing an enormous business in the letting of houses and lodgings, is compelled, in order to attract visitors, to be jealously careful of its sanitary reputation; and it is considered very questionable whether in a place which is not a health resort, and therefore offers no inducement to the local authority to urge upon landlords the prime importance of placing their houses in irrefragable sanitary repair, the certificate of the sanitary authority will be as eagerly coveted and as much respected.

There is certainly no denying the fact that well-known health resorts offer peculiar advantages for carrying out satisfactorily a plan of voluntary registration. To achieve success with a system of voluntary registration in places having a less fluctuating population would doubtless require a far longer time, as it would demand that the public mind should be sufficiently educated to be alive to the importance of insisting on good sanitation and of considering it a duty to taboo

all houses not on the sanitary register. But while we may confidently look forward to the intelligent and well-to-do classes recognising the value of registration within a reasonable time, we are naturally asked how we propose to bring home the importance of the subject to the poorer portion of the community. Would not voluntary registration be a deplorable failure in this respect? To this we answer that some of these houses would be provided for by the Housing of the Working Classes Act. Some, being lodging-houses, would be compulsorily, according to the plan we have proposed, placed upon a special register, while the remainder—if the local authority exercised the power entrusted to them, and intended to be used by them, of thoroughly inspecting drainage—would be most completely cared for. When local authorities awoken out of the slumber with which their eyelids are still heavy, the public may expect to witness the dawn of a new day for sanitary science. The *Local Government Journal* thinks that matters would be expedited by the formation of a householders' league which should have for its object the scheduling of insanitary property in a list open to members only and containing the fullest information regarding the drainage, water-supply, rates &c. of the district. In the event of a system of voluntary registration being instituted, we think that this plan would put a powerful weapon into the hands of householders, and we commend it to their careful consideration.

While an appreciation of the value of voluntary registration would require an education of the public sense, it would be the duty of the public, once having grasped the importance of the subject, to insist on a high standard of excellence being required by the local authority before it grants its certificate. We need hardly say that we consider that this standard should be uniform in all districts employing similar plans of drainage, and that the conditions for its attainment should be laid down by a central authority.

While the majority of our critics have accepted voluntary registration together with compulsory legislation in the case of boarding-houses, lodging-houses and hotels, as sufficient to commence with, the *Daily Chronicle* and the *Star* do not consider that our recommendations have gone far enough, and would make the provisions of the Housing of the Working Classes Act of 1885, which provides that a tenement should be reasonably fit for human habitation before letting, applicable to all classes of property. It would certainly be a boon to the public could this be accomplished; but we venture to think that the Act, if applied unreservedly to such a town as London, would prove a veritable task of Sisyphus. In the first place what is meant by the term "reasonably fit" must be clearly stated. To leave these words to stand without further definition, as at present, would be at once to introduce a bone of contention between landlord and tenant and would inevitably lead to endless litigation. Having laid down the conditions which, when fulfilled, shall be deemed to make a house reasonably fit for human habitation, it is still necessary to bring the law into universal application. Both the *Daily Chronicle* and the *Star* advise recourse to compulsion, mainly on account of the poorer class of tenant, who, having neither the means nor the time to defend himself against the impositions of the landlord, would be obliged to submit to any injustice inflicted on him. We have pointed

out above the means by which we think the poor tenant would be protected effectually against the encroachments of the landlord. But let us suppose every kind of household property in London brought under the conditions of the Housing of the Working Classes Act. For the purposes of efficiently carrying out the principle of compulsion each vestry would require to employ a host of sanitary inspectors simply to survey houses and report as to their sanitary condition. When all the houses in the district had been inspected and put in good sanitary repair, an army of inspectors would still have to be maintained to make periodical inspections and correct existing defects; for in the event of any serious flaw in the drainage having been overlooked, the local authority being the only authority empowered to express an opinion as to the fitness of a house for occupation, would also be held the responsible one. We cannot but think that the general application of the Act would prove in the end an impossible task—at all events under the present conditions of local government by vestries; and we are therefore inclined to adhere to our original advice that voluntary registration should first be given a trial.

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THE short paper on "Culture and Professional Success" which appears in the current number of the *New Review* from the pen of the late Sir MORELL MACKENZIE raises an issue which is always one of very great practical importance, and which is most pertinent at the present epoch. All educational methods are being subjected to the most stringent scrutiny, and the medical profession has been, and still is, engaged in revising its curricula and extending its period of study. Hence, an article like that cited, raising the great question how far general or "liberal" culture, as contrasted with special, technical, and professional education, is conducive to professional efficiency and success is worthy of careful attention. The article is strongly in favour of a wide general culture as the best preparation for the more special training which every profession demands from those who aspire to enter it. The author's grounds are various, but they may be summed up under two heads: first, that such culture confers breadth and flexibility of mind and renders the acquisition of special knowledge easy; and, secondly, that it develops a knowledge of human nature, and hence assists in enabling us to treat our clients or patients, not as mere "cases," but as complex, sensitive, and highly organised men and women.

This issue, ancient as it is, appears likely again to be fought out in our own day. There is a strong utilitarian wave of opinion now prevalent, and it is becoming generally assumed as an axiom that all training for a profession should be directed to the special needs and work of that profession, and that liberal studies, however pleasant or refining, must, in the stern struggle for existence, make way for subjects more practical and more immediately and obviously useful. From these causes arise the sacrifice of Greek, the limited study of Latin, the ignoring of English literature, and, on the other hand, the concentration of attention upon physical and biological science. We are no advocates of any abortive and anachronistic attempt to turn medical students into classical or literary pedants as a preparation for the work of the hospital ward or the consulting-room; but we would remind those most imbued with the spirit of the new era that the

preparation of the intellect for the reception of knowledge is an object hardly less great and urgent than the character of the knowledge which is to be imparted. We all admit that some such preparation is indispensable. The greatest enthusiast for science will hardly affirm that chemistry, physics and biology afford a sufficient basis for an all-round intellectual development. They are no doubt most important, but their successful prosecution would still leave the student ignorant of the history of his race and of many of the highest and noblest achievements of the human intellect. In medical education we desire, with as little waste of time as possible, to bring trained and disciplined minds to bear on the problems of disease, and the question is in what manner this can be best effected. Many will accept this putting of the case and will ask with derision how the Differential Calculus, the subtleties of Greek grammar, or the Categories of KANT are likely to be helpful. A sneer of this kind, however rhetorically effective, is not conclusive. The medical student needs strength and grasp of mind; the capacity to note resemblances and differences; the power of determining what amount of evidence is sufficient to warrant a given conclusion; some capacity of reading character, so as to estimate correctly a patient's statements and to eliminate the personal equation. He needs to be cautioned against haste, inaccuracy, prejudice and preconceived opinions, fallacious reasoning, confused or contradictory ideas, want of tact and many other things. These are formidable requirements, and the question is whether they can be met by any process less tedious and troublesome than that involved in a good preliminary education. The great danger of medical education at the present day is that raw youths with wholly unformed minds and destitute of any correct ideas regarding observation, evidence, and reasoning, should be set to dissect snails, mussels, and frogs, to look down microscopes, and to handle test-tubes, and come to imagine that little else is necessary. If such methods should extensively prevail, we believe the results would be quite as disastrous as those which flow from an excessive devotion to the Greek digamma or the higher geometry. Cardinal NEWMAN says in one of his works that we have ample proof that the old methods of instruction by means of the classical languages and mathematical studies are capable of producing flexibility and grasp of mind, and that we have no proof that any other methods are adequate for this purpose.

Apart from purely professional work, we have to consider how best we can promote that mental attitude which helps the practitioner to understand his patient not only as the subject of disease but as a human being. In the article alluded to above it is justly observed that professional success depends not only upon the power of giving good advice, but upon the capacity of so influencing our patients that they will be inclined to follow that advice when given. Many of the greatest practitioners of medicine have a magnetic influence in this way; but for those not thus exceptionally endowed there is no means of acquiring this power so likely to be successful as a wide knowledge of different subjects—in other words, a good all-round culture. This should enable the possessor to understand different types of mind, to enter into their point of view, and to sympathise with their various difficulties and apprehensions.

We may ask, finally, why so deep a prejudice should exist against the higher culture as a preparation for the professions. We believe the answer given in the paper in the *New Review* is the correct one—viz., that in some cases liberal culture disinclines the mind to devote itself heartily to what are often the dreary details of technical professional knowledge. We are reminded that Sir BENJAMIN BRODIE acknowledged that, nourished as he had been on classical literature, he had great difficulty in bending his mind to the dry details of anatomy. His subsequent greatness is the answer to those who maintain that literary culture is a hindrance to scientific eminence and professional success.

By the death of Sir GEORGE MACLEOD, recorded in the Obituary column of THE LANCET of last week, Scotland has lost a representative of medical and surgical science who combined all the qualities that make the beloved physician or surgeon, or say rather the beloved practitioner of the healing art, in more than an ordinary degree. Glasgow, his native city, has to mourn its loss in a special sense. Glasgow is a city that has responded well to its motto, "Let Glasgow flourish," and in nothing more than its medical celebrities. CULLEN led the way, BLACK followed, and since their time there have always been one or more men of mark—at least in physic—in that city. That she has often maintained three schools of medicine in brilliant contest one with another is of itself good evidence of medical fame. Sir GEORGE MACLEOD represented as a professor two of these schools—Anderson's College and the College or ancient University, a position which the late Professors ANDREW BUCHANAN, EASTON and LAWRIE held before him; for Anderson's College was not merely the nursing mother but also the rival of the older and greater institution. In the College Sir GEORGE MACLEOD occupied the chair of Surgery, succeeding Professor LAWRIE, who was in turn successor of the famous Professor JOHN BURNS, the author of one of the most practical treatises on Midwifery the profession ever possessed. These three professors of surgery in the old University had their own and distinctive qualities of fitness. Professor BURNS was of the old school. He commenced practice in the Saltmarket, and did not disdain in his first days to keep what he afterwards called "a conspicuous surgery," the shutters of which he would, on emergency, put up "wi' his ain hands," and, respecting practice, then and there told afterwards to his admiring classes many a good story. He dressed to the last in the old courtly style and carried it splendidly: knee breeches, buckle shoon, long waistcoat, with open front and flowing shirt frill, and coat like that still worn by Queen's counsel—a truly becoming attire. His classes in the College after he became possessed of the surgical chair were crowded, until his successor Professor LAWRIE began to teach at Anderson's College, when the attendance faded a little. He was a quaint lecturer, and his faithful janitor, "Jock," a marked favourite with the students, and ever at hand during lecture, was literally a worshipper, who from long familiarity with his duties looked on himself as a kind of sub-professor who need not hesitate to speak out an occasional drollery that passed as "Jock's last," long before Mr. GANDER attained the same celebrity. Professor BURNS was lost in shipwreck on board the ill-fated *Orion*, a fine

steamer that ran between Liverpool and Glasgow before the direct railway communication from London to North Britain was opened, and was found, it was reputed, on his knees dead. There is an excellent picture of him, in the act of lecturing, which his old friends and pupils dearly prize. Professor LAWRIE was a man of different stamp, a bright, active man absorbed altogether in his professional work, thinking of surgery and the doings of surgery from morning to night. He was a perfect operator. DE MÉRIC, who studied under him, and who afterwards for so many years conducted the *Mirror of Hospital Practice* for THE LANCET, said of him in his French way that he operated "avec la rapidité d'éclair"; and Sir WM. FERGUSSON always spoke of his skill in terms of warmest admiration. He was an excellent teacher too, and his transference from Anderson's College to the University was as much regretted by the one school as it was hailed by the other. Sir GEORGE MACLEOD won his spurs also in Anderson's College, as already told, and was indeed a noble successor both of Professors BURNS and LAWRIE. He had the great advantage—and it is a great advantage—of comeliness of person; he was above the ordinary height, and his features, essentially Scottish, were at once manly and refined. His manner was exquisitely winning, his claims to distinction modest, his judgment sound, his mode of deliverance, either by pen or speech, free, generous, thoughtful, guileless; yet there was humour in his eye and keen sense of humour in his mind. A letter which lies before us, written but a few weeks prior to his death, carries with it the whole man in all his sweet simplicity and all his strength. It was an answer to a question bearing on art. It opened with a confession of his own inability, but proceeds with his ideas, nevertheless, so plainly and strongly expressed as to carry complete conviction. It showed a strong man who did not realise his own strength. That throughout was the true nature of a man whom to have known in life was a privilege, and whom to remember in death is a privilege also, triumphing over sorrow—the remembrance of a good and great spirit now unconfined, yet ever living in the hearts of those survivors who knew his sterling wisdom, work and worth.

THANKS to the energy and efficiency of Dr. THORNE THORNE and of the other officials of the Local Government Board and of the medical officers of health of our seaport towns, we in this country are in a position to consider the cholera question more or less dispassionately. In consequence of the practical application of principles based on the outcome of scientific observation, we may in Great Britain and Ireland, if not in our Indian dependencies, consider it from the localised or isolated etiological rather than from the epidemiological point of view. Most European countries, indeed, are so far removed from those centres in which cholera is endemic, and the conditions during a great part of the year are so unfavourable to the development of cholera that we should be able, by turning our attention at once to the etiological factor and by carefully studying the conditions of isolated infection, to stamp out cholera before it has the opportunity of laying hold of a sufficiently large number of victims to entitle any outbreak to the serious title of "epidemic."

If the present outbreak on the Continent has afforded evidence of nothing else, it has proved that the ultimate causal agent

of cholera is an organism which is capable of multiplying rapidly under certain definite conditions, but which under other conditions is very readily rendered impotent. Considering this etiological as distinct from the epidemiological factor, our sanitarians have succeeded in dealing with cholera just in proportion as they have, conscientiously or unconscientiously, recognised its importance. KOCH's cholera or "comma" bacillus is said to thrive almost exclusively in the intestine, into the walls of which it seldom passes deeply, and though present in the stools in enormous numbers, especially during the "rice-water" period, it does not make its way into other parts of the body, even when it is thriving most luxuriantly. Under normal conditions of the intestine this organism is so easily destroyed that it may be safely affirmed that unless enormous quantities are introduced by the mouth a perfectly healthy mucous membrane is quite able to deal with it. Where, however, as in the case of intestinal disturbances, as the result of indigestible food, fear, debauchery, or other depressing influences, or, it may be, as the result of the introduction of a quantity of the cholera toxins along with the organism itself, the mucous membrane becomes injured and its functions impaired, the organism is enabled to multiply, to produce its toxins, to cause inflammation of the mucous membrane, through which it is enabled to obtain those products of inflammation on which it seems specially to thrive and from which it is able to produce its toxins in large quantities. It will be objected that it is a simple matter to make such sweeping assertions, but that it is not so easy to bring forward evidence of their accuracy. Let us see what evidence there is in support of this contention. In the first place VIROHOW, who has kept a most open mind on these questions and who has recently been studying the question in Russia, maintains that cholera does not spread through the air and that meteorological conditions have little to do directly with cases of individual infection. He holds that the disease spreads mainly, if not entirely, through the agency of the evacuations of patients already suffering from cholera. If this be so we must be dealing with a substance that is capable of being reproduced at an enormous rate, and, so far as we know at present, there is nothing that can be so reproduced except the living ferment-producing organisms of which the "comma" bacillus is an example. That these "comma" bacilli do multiply at an enormous rate has been demonstrated time after time by numerous observers, whilst it has also been proved that under certain conditions they are capable of producing symptoms in animals which are only comparable with those of cholera in man.

HUEPPE, reporting on the Hamburg water-supply, pointed out that the consumption of the water, which contained a considerable quantity of sewage matter, would under ordinary circumstances be accompanied by no untoward results, but that should typhoid or cholera organisms find their way into this water there would undoubtedly be a most serious outbreak. Typhoid fever in such places as Hamburg may be said to be almost endemic, but cholera only makes its appearance when the specific poison is imported. When it is imported, however, all the conditions necessary for the multiplication of the pathogenic agent are so favourable and the means of conveying it to the inhabitants are so well adapted to the purpose that the spread

of the disease goes on with the utmost regularity and the most appalling fatality. As one of our Special Sanitary Commissioners pointed out last week, the well water in Jumet is contaminated with drainage from the middens, and is thus rendered not only a most favourable nidus for the growth of the cholera organism, but should any of the dejecta from the cholera patients remain unsterilised and be thrown on these middens, access to the wells, especially in rainy weather, is merely the matter of a few hours, and in this way there may occur a regular outbreak around a single case, perhaps imported from a distance. In Antwerp the first patients who were attacked in the present outbreak were those who were engaged in washing the clothes of cholera patients or who helped to unload cholera-stricken vessels, and who had therefore ample opportunities of coming in contact with the cholera-producing poison. Many cholera outbreaks have thus been traced, just as we have been able to trace typhoid fever, from definite centres, and always with the result that the theory of a bactericidal causal agent has been further and further strengthened. Since such agency has been recognised the means of preventing the spread of cholera and similar diseases have been thoroughly systematised by our sanitary officials and are now founded on a practical and satisfactory basis.

Dr. CARTWRIGHT WOOD pointed out some time ago that there was much greater likelihood of successfully combating the cholera organism immediately after it was passed with the dejecta than when it had been allowed to multiply aerobically, seeing that after a time it becomes much more resistant to the action of chemical and other reagents, and, consequently, is in a better position to attack those brought in contact with it. It can under such conditions more readily withstand the acidity of the stomach, and thus has a greater chance of passing into the lower part of the intestinal canal. The excreta of cholera patients, if treated at once with even a weak solution of sulphate of iron, are rendered absolutely inert, the organisms are destroyed, and the toxins formed can do little harm; if, however, even small quantities of dejecta are allowed to remain on damp sheets or body linen, the organism can multiply with such extraordinary rapidity and becomes so far adapted to its new surroundings that it is enabled to flourish on the various foods used by man, and thus, carried on the hands of those who have to wash the linen, distributed by the water in which the linen has been washed, or conveyed by articles of diet, it is widely disseminated. If these facts are borne in mind it is at once seen how utterly illogical and short-sighted are quarantine regulations of all kinds. People in quarantine are extremely liable to take the disease, and thus to form fresh centres; they are depressed and are often badly lodged; they are deprived of sleep, and even of sufficient nutriment to keep up their health and strength; they are not allowed to take exercise; and they are herded together in places not adapted for the reception of large numbers of people. In fact, all the conditions of a Mecca pilgrimage are reproduced on a small scale. The system is radically bad. All those actually attacked with cholera should be immediately isolated, carefully nursed in hospitals or apartments so arranged that thorough disinfection of everything coming in contact with the patient may be carried on; the body linen

should be carefully boiled immediately it is removed, and the dejecta should be mixed with, or passed into, a solution of sulphate of iron, which is probably the very best disinfectant for the purpose. Of course all those who have been or are near cholera patients should also have their physical welfare carefully attended to; they should be watched and compelled to have everything that could have come in contact with cholera patients carefully disinfected. If we could only look upon a cholera patient as covered with and evacuating a deadly green paint, we might have some chance of getting people to realise the importance of isolation and perfect cleanliness and disinfection. We need not fear any great outbreak of cholera in this country during the present year, or even next year, should the admirable precautions that have been taken be persevered with—as no doubt they will be, for no false security is likely to lay hold of our authorities, who now understand so well the idiosyncrasies of cholera. We ought to be, we venture to think, practically safe against any epidemic.

The difference between our system and the quarantine system used abroad has now experienced a severe test, and it is to be hoped that no such disgraceful panic will ever seize us as that which appears to have for a time obliterated all feelings of humanity in our American cousins. The lamentable state of matters that developed and remained in existence for a short time on the other side of the Atlantic indicates only too clearly that, with all our boasted advances in sanitary matters, some of those in authority have still utterly failed to grasp the very elements of sanitation and its relation to the etiology of cholera.

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## Annotations.

“Ne quid nimis.”

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### AMERICAN AND ENGLISH METHODS OF PREVENTING CHOLERA.

“THE quarantine war at Fire Island continues, hitherto happily without bloodshed.” Such is the telegraphic communication with which the cholera intelligence in the public press opened on the 14th inst. Happily, too, for us, the quarantine war in question is going on in the United States of America and not in the United Kingdom of Great Britain and Ireland. It has for many years past been one of the leading contentions of our public health authorities that it was necessary to an efficient sanitary administration that the people should be educated, by the aid of sound sanitary laws and regulations, to such a standard that they themselves would appreciate the importance of maintaining and enforcing those laws and regulations. And we have always contended that teaching a people to rely on quarantine laws had again and again led those very people not to trust in public health measures, but to rely on the stringency of their quarantine laws for their protection. It is also a matter of common report that Governments trusting in such laws have not dared, in the face of the public opinion which they had educated up to the required standard, to do otherwise than enforce their quarantine laws by the aid of the sword, bullet and bayonet, regardless of the cruelties which the system involved. But, notwithstanding all this, we were hardly prepared for the scenes with which American quarantine against cholera has been accompanied at Fire Island within the New York jurisdiction. American sani-

tarians have, we know, contended for a modified quarantine system, and we would not pretend for one moment that a system such as we have adopted for our island, with its incessant communications by sea with neighbouring countries, is one that is adapted, without notification, to distant ports and countries such as those of the western hemisphere. It is for American experts to advise their Government and countrymen as to what are the measures of prevention against cholera which are best adapted, under their own circumstances of public health, commerce &c., to cope with the disease. But we are none the less convinced that the more a nation is educated to rely on quarantine, the more it becomes demoralised from a public health point of view. In the eastern hemisphere the quarantining nations are the backward nations, whose populations have suffered most from preventable diseases, including cholera; and both the folly of their practices and the amount of their preventable disease are largely increased by the extent to which quarantine restrictions have been held up to their people as things to be trusted in. The United States have made vast progress in public health, some of their advisers are men of the highest eminence, and it may be that some system of quarantine is that which will best meet the possible importation and diffusion of cholera in the case of their country. But, however this may be, its educational effect is of the worst. If healthy people are, in the eyes of the Government, such a danger to a community because they come from an infected port, or because cholera has occurred on board the ships in which they travel, that they must be kept away for ten or twenty days, although this may involve the greatest cruelties, indecencies and danger of death, then why complain of the action of people such as those who, in the Fire Island case, armed themselves with clubs, pistols, boat-hooks and rifles, and were deaf to the entreaties, tears and pleadings of helpless women and children, who, though healthy, had been labeled by the quarantine system as dangerous? In this country we have been trying hard to educate the nation to a higher standard—namely, to understand that quarantine cannot be trusted to keep out cholera, but that purity of the water consumed, of the air breathed and of the soil can and do prevent the extension of the disease. But, as we pointed out last week, even some of our sanitary authorities are clamouring for quarantine and are thus trying to lead the public back to experiences which savour rather of the middle ages than of the Victorian era of public health administration. They may plead that Englishmen may be trusted not to behave as did the mob in the Fire Island case. But here, we fear, they are wrong. Prejudice, ignorance and fear have led to almost precisely the same results in our own country, and the moment we revert to quarantine at that moment will there be endless attempts to get ashore in violation of the quarantine regulations rather than remain on board an infected vessel, and with these attempts will come determined and violent efforts to frustrate them; and not only so, but such efforts would have some justification, for they would be in the direction indicated by the Government which had authorised a reversion to the ancient, useless and cruel system known as "quarantine." We would urge people who are thus pressing the Government to read again the intelligence from Fire Island, and also note that the practical outcome of the New York quarantine system is an announcement on the authority of the Board of Health that five cases of genuine Asiatic cholera have already occurred in New York.

#### CIALDINI, SURGEON AND PATRIOT.

AMONG the obituary notices of this most distinguished of Italy's patriot-generals we fail to find adequate reference to the fact that his training was that of a physician and surgeon, and that he graduated in medicine at the University of Paris. The son of a Modenese engineer, he studied "philosophy"

(which corresponds to our arts curriculum) at Parma, and thereafter entered on the medical course at that school. This was interrupted by the revolution in the Romagna in 1831, in which he took the national side, till, after its suppression by Austria, he fled to Paris, where he again threw himself with ardour into medical study. He was a sedulous and devoted pupil of the great surgeons Dupuytren, Lisfranc and Rostan, and in their respective clinics drew in an inspiration and a knowledge that stood him in admirable stead throughout his later and most eventful career. In 1848 he joined the national rising in Lombardy, fought under General Ferrari in the Venetian territory, and, having been promoted to the rank of colonel, took part in the battle of Vicenza, where, severely wounded in the abdomen, he fell into the hands of the Austrians. He recovered consciousness in the wards of a military hospital, and his accurate knowledge of the nature, seat and probable course of his very dangerous wound, and the respect he inspired in his surgical attendants for his suggestions as to treatment, contributed to his rapid and complete recovery. His future achievements in the Crimea, in the campaigns against Austria in 1859, against the Papal and Neapolitan armies in 1860, and against Austria once more in 1866 belong to the history of Europe, and will be amply dealt with in his romantically interesting "Life and Correspondence," shortly to see the light. It is more to our present purpose to draw attention to the fact that of all the liberal professions medicine contributed most to the really effective "makers of united Italy." In the patriotic risings of 1821, 1831, 1848 and 1859-60 there was not a medical school in the Peninsula which did not swell the nationalist forces with contingents more numerous by far than the contemporary schools either of literature or law. In the Parliamentary career, moreover, to which such patriotic service led up, medicine once more came honourably to the front. We need only point to Lanza, the practitioner of Casal-Montferrato, who, once and again Prime Minister, conducted Italy to Rome; or to Bertani, the head of Garibaldi's surgical staff, to whom Italy owes the "Codice Sanitario" now being carried so beneficently into practice, to absolve ourselves from further entrance on a field already amply represented in these columns.

#### MEDICINE AND THE ORIENTALIST CONGRESS.

THE ninth Congress of Orientalists, which has just concluded its sittings, yielded, except in one important department, to none of its predecessors in variety and depth of interest. The keynote struck in the brilliant opening address of Professor Max Müller, its president, was—again we must say with one exception—worthily sustained through all the sections. "The science of language," said the President, "the science of mythology, the science of religion, ay, the science of thought, all have assumed a new aspect, chiefly through the discoveries of Oriental scholars, who have put facts in the place of theories and displayed before us the historical development of the human race as a worthy rival of the natural development of nations displayed before our eyes by the genius and patient industry of Darwin." To this great stream of inductive truth there were many tributaries, represented in the several departments of anthropology, mythology, geography and the cognate sciences, and embodied in papers of original or independent investigation, each containing its element or actual product of fresh knowledge or "working hypothesis." But, strange to say, the science that is perhaps the most ancient of all, coeval and coextensive with mankind—the science that reflects in its successive stages, whether of advance, revolution or retrogression, the contemporary standpoint, moral and intellectual, of the human race—was completely ignored. And yet it could be for no want of subject matter, still debatable or yet to be explored,

that the history of the healing art in the East was practically a sealed book at the Orientalist Congress. Egypt alone teems with problems of medico-historical interest the solution of which must shed the most vivid light on that humanistic development of which Professor Max Müller so eloquently speaks. The Papyrus Ebers has by no means pronounced the last word on Egyptian medicine—on the practitioners of the people of whom Homer said “they are of Pæon’s race and each man of them is a physician.” The healing art of the Indians also literally bristles with unsolved questions, containing in their solution the key to much of the Hindoo civilisation. Take, for instance, the Brahmanic period, with its two great medical authors, Charaka and Susruta. The “Ayur-Veda” (Book of Life) of the latter is still subject matter of the keenest controversy as to its real date. Was it written, as some Sanscrit scholars maintain, many centuries before Christ, or did it first appear, as others contend, between the eighth and ninth centuries of our own era? The explanation of this disparity of estimate may possibly lie in the fact that the book itself contains parts of very various antiquity—the poetic parts being ancient, the prosaic parts, representing later commentary, being comparatively modern. Again, was Indian medicine an indigenous product or was it an importation from without? Is Haas, the latest and not the least competent investigator in this field, entitled to say that Indian medicine is but a derivative from the Greek? Is the same scholar right when he supports his position by referring the name “Susruta” itself to “Bukrat,” which is but a form of “Hippocrates”? Questions these of the deepest interest in themselves, but of interest still deeper in the light their solution would throw on the historical development of Eastern humanity—on that Oriental civilisation, in fact, of which its medical theory and practice were at once the characteristic outcome and the distinctive feature. We have on previous occasions indicated what the world’s knowledge of Chinese medicine owes—still more what it may yet owe—to our medical missionaries. But in this field, as in those of India and Egypt, the sections at the last Orientalist Congress were disappointingly silent. A dip into any history of medicine, from Puccinotti to Haeser and Puschmann, will afford in the poverty of detail, in the wealth of hypothesis as to the healing art of those nations, the proof of how little Oriental scholarship has done for this most interesting section of its subject matter. There was hardly a profession or body of culture, except one, which could not glean something of special, we might say of individual, interest from the proceedings of the late Orientalist Congress. That one was the medical, which has yet, as we have shown, its particular contribution to make—a contribution second in importance to none of those so well and so amply represented in the sections. Let us hope that at their next meeting the Orientalists will have, on the medical side, a better record to show, and that in England at least there are still to be found successors to Prichard, to Turnour and to Wise.

#### ARE MIRACLES UNNATURAL P

SOME time has elapsed since the outside world, inhabited by most of mankind, was stirred by details of the striking cures reported to have occurred at Lourdes. We do not intend, or even desire, to dispute the reality of many if not all such, though we may be allowed to question the veracity of even official reports concerning them. It is, however, we consider, a most unfortunate fact that the minds of so many persons are unable to regard occurrences of this kind as other than subversions of the law of nature. The mere phrase is in itself destructive of all rational ideas on the subject and introduces doubts, difficulties and disunion among the relations of the physical and spiritual worlds which a multitude of other circumstances show to be similar, and

consanguine parts of the same Creator’s handiwork. It implies no discredit to the character of religion and no reduction of their own marvellous reality that miracles should be found capable of natural explanation. The marvel of success remains as great as ever—nay, is enhanced by the wonder of simplicity disclosed in its method, while faith in what was once a mere dogma becomes both purer and stronger when that dogma is shown to be consistent with the rest of the universal order. The “miracles” which in our day attract, not unreasonably, the devout in this and other countries are neither novel nor irregular. Such happen daily in the experience of practitioners. The performance of some has even the shroud of mystery still about it, while it answers to the tests of scientific treatment. Others are more manifest. Still, as of old, “the blind receive their sight, the lame walk, the lepers are cleansed, the deaf hear”—nay, some who to all appearance have trespassed for a brief space within the boundary line of death return to earthly duties, and we know something of “how and why.” Should we, then, regard miracles as opposed to the law of nature, and not rather as facts illustrative of that law, and though once unknown to us never unknowable, and always related in the presiding Mind of the universe with reason, will and order?

#### PTOMAIN POISONING AND SUMMER INDIGESTION.

TOXIC alkaloids as the cause of many cases of accidental poisoning have come into prominence of late years, and every summer instances of ptomaine poisoning are reported. An interesting article on this subject appears in the *Boston Medical and Surgical Journal* of August 4th. Much remains to be discovered relative to the kinds of ptomaines that may develop in both animal and vegetable substances out of the body, as well as of the toxins that may form in food after its ingestion. Doubtless the possibilities of ptomaine formation are very great, and under unusual conditions of insalubrity—hot, damp weather, sewage emanations &c.—the work of decomposition may go on with extraordinary rapidity, and, under the influence of microbes, toxalbumens of great power may form in food that to the eye and taste is still wholesome. There is accumulative evidence to show that this is so. At the same time every investigator of the subject is confronted by the fact that meats that have undergone partial decomposition are not necessarily unwholesome or toxic, for some savage tribes, as the Patagonians and Fiji Islanders, habitually eat putrid meat that is swarming with bacteria. From our present standpoint of enlightenment, as to the development of toxins during processes of putrefaction, we cannot well understand such facts. It must, however, be borne in mind that robust, healthy stomachs are very tolerant of foods which under circumstances of enfeeblement of the digestive tract would cause sickness, that the digestive fluids are more or less destructive to microbes, and that the liver when in a healthy state is capable of destroying considerable quantities of poisonous substances. Cases of poisoning by food of a relatively innocuous character are not uncommon. Some portion of the ingesta becomes an irritant poison, a fit of indigestion ensues, and often the offending substance is speedily expelled by vomiting. The matter of idiosyncrasy need not detain us here; it is known that certain articles of diet, such as cheese and shell-fish, are toxic to some persons. Generally the state of the alimentary canal at the time is responsible. The most common and best known of the various forms of indigestion is that in which, from the absence or the deficiency of gastric juice and other digestive fluids, the alimentary bolus becomes a gastro-intestinal irritant, provoking vomiting, purging and a catarrhal condition of the digestive tract. A second stage in the process of acute indigestion arises from the presence of abnormal fermentations and decompositions in the alimentary canal.

The food substances, under the influence of bacteria unstrained by the antiseptic digestive fluids, break up into organic acids and alkaloidal products of a lower order, which are in part absorbed and produce constitutional disturbances. This stage borders very closely on that of ptomaine formation. There is good reason to regard cholera nostras and the gastro-intestinal catarrh of infants as kinds of ptomaine poisoning due to multiple causes, of which weakening of the alimentary canal and consequent poverty of digestive fluids, the ingestion of food of an indigestible character, the putrefactive decomposition of the latter under the influence of microbes, and the formation of toxins are the principal factors. That a considerable number of persons may simultaneously be attacked with sickness after a large meal owing to the influence of causes such as have been above mentioned cannot be a matter of serious doubt. Similar conditions of faulty hygiene produce, in individuals with similar organic susceptibility, results essentially the same. A remarkable case of this kind occurred in America on July 23rd of this year. Out of a total of seventy persons who dined together, about fifteen became more or less violently ill within a few hours, exhibiting the symptoms of cholera nostras. The general opinion, as advanced by the physicians who had opportunities of studying the facts, is that the sufferers were persons who had eaten rather immoderately of indigestible dishes; that the hot weather, the bad air and bad water of the place coöperated in bringing about the necessary predisposition in the guests, and that therefore what is now known as the "Salisbury sickness" (from the name of the place where the banquet was held) was a local and limited epidemic of cholera nostras.

#### A CASE OF CHARBON.

AN inquest was held at St. Pancras Coroner's Court on Saturday last on the body of an engine-driver employed by some horse slaughterers near King's Cross, who died in the Royal Free Hospital on the previous Wednesday. The source of the disease cannot be traced, for although the man worked at the horse slaughterers', and they deal with all kinds of diseased animals, they are sent from various parts of England and the deceased did not in the course of his employment have to touch any of the animals, having to attend solely to the engine. No other instance of the disease is known to have occurred amongst the other men employed at the establishment for the last year. The history of the case was that on Sept. 4th a small boil formed on the right cheek, which the patient scratched; the next day the boil was somewhat larger, and on the 6th there was a superficial sore, with swelling of the neck, and he felt ill. On the 7th he was admitted to the hospital, under the care of Mr. Battle, with a superficial sore about the size of a florin, surrounded by a ring of minute vesicles. The cheek and right side of the neck were occupied by a large puffy swelling extending from the sore. The temperature was raised (101°), pulse quick, and the man looked ill and had dyspnoea with noisy laryngeal respiration. Coma rapidly supervened, with loud, brassy stertor. Anthrax bacilli were found in the serum taken from the vesicles and the sore was excised, but without benefit. Petechiæ were present along the inner side of the arms, and the glands on the right side of the neck were enlarged and tender. He died at 1 o'clock next morning. At the post-mortem examination made by Mr. Farmer the usual appearances noted in patients who have died from anthrax were found; but in addition it was observed that extensive general hæmorrhage had taken place in the meninges of the brain, and over the left occipital lobe was a clot, about the size of a walnut, compressing the convolutions. There was a small amount of clotted blood also in the lateral ventricles and in the fourth ventricle. The sore presented no central dark slough, and

there was no surrounding redness. In these points and in its rapid course the case resembled the condition described as "malignant œdema," a variety not common in this country.

#### CURIOSITIES OF TINNED FRUITS.

A CORRESPONDENT has submitted to us for examination a living creature which he states was obtained from the inside of a tinned pineapple. The fruit had been boiled at Singapore previously to tinning it and was then imported to this country. On the tin being opened our correspondent was somewhat surprised to find a living insect, of strange and unknown appearance, inhabiting the inside of the pineapple. On examining the insect we found it to be the larva of some beetle the species of which could not be accurately ascertained; consequently it was impossible to say with certainty whether its natural food was vegetable or animal material. It is quite possible, however, that the statement of our correspondent regarding the cooking of the pineapple may be correct; for the fruit might have been imperfectly or incompletely cooked. In that case the temperature of the interior might never have reached so high a degree as to cause coagulation of the living tissues or of the structure of the egg or larva. The power of many insects and mites to resist both high temperatures and the action of many poisons is well known and exceedingly remarkable. Thus the seed of the nux vomica, deadly to most animals, forms the appropriate food of certain beetles. Goats, again, are well known to have no special aversion to hyoscyamus as an article of diet. There is of course always the possibility of error of observation and of the introduction of the insect after the fruit has undergone the process of preservation.

#### ACUTE INFECTIOUS EPIPHYSITIS.

UNDER this heading Drs. W. M. Coplin and D. Bevan of Philadelphia contribute a paper to the *Medical News* of Aug. 13th. They define acute infectious epiphysitis as a disease peculiar to infancy and adolescence, and due to the specific pathogenic action of one or more of the microbes of suppuration. It is a disease the etiology of which modern bacteriological research has revealed, and which for more than a century and a half has baffled the most diligent inquiry of able scientific observers. The specific cause of this condition is not a special organism, as Becker at one time supposed, but as determined by Krause, Garré and Rosenbach, whose researches and observations have been substantiated by many of the more able bacteriologists of the day, this disease is produced by one or more of the varieties of pyogenic microbes, the entrance of which into the circulation is usually effected through some abrasion of the skin, or less frequently through the mucous membrane of the respiratory or alimentary tracts. The organisms have apparently a predilection for the long bones, and more frequently attack the one extremity, that from which the development of the bone is principally accomplished—e.g., the lower epiphysis of the femur and the upper epiphysis of the tibia. The short and flat bones are not exempt from the process; that they are not frequently involved may be ascribed to the fact that their position and function render them less liable to injury, and that the evolving changes in their development are not of such an active character as is observed in the long bones. The relative affinity of the microbes for one or other extremity of a bone, or for any particular class of bones, is not incomprehensible when the anatomic structures are studied. In the medullary tissue, in proximity to the epiphysial cartilage, where the transitional changes in the vascular supply attain their maximum, or where the blood pressure and velocity are at a minimum, where the capillaries are mere excavations, or have but an imperfectly developed wall, all the conditions are found most favourable for

the localisation and multiplication of micro-organisms, the pathogenic action of which is in health counteracted by the internal resistance of the cells. According to Mr. Howard Marsh there are three situations that furnish a ready nidus for the localisation of microbes: immediately subjacent to the cartilaginous disc; in the vicinity of the ossifying centre; in the line of union between the epiphysis and diaphysis. There is at first an increased supply of nutrition, quickly followed by a rapid multiplication of the nuclei of the fixed cells. These cells surround themselves with a layer of granular material, and the whole is encased within a shell of earthy matter. A poor and lowly organised form of bone is thus produced. This is the analogue of the granulation tissue found in other structures of the body. The compact portion of the bone does not escape, for it is found that the laminae corpuscles undergo a granular degeneration, and the bone dependent upon the corpuscles for nutrition and repair degenerates. The authors of the paper then describe an illustrative case. Amputation seems to be the only treatment.

#### TAILORS AND INFECTIOUS DISEASE.

MUCH excitement has been caused by a statement made on Saturday by Miss Frances Hicks, a London tailoress, at the meeting of the Trades Union Congress at Glasgow, that only about two months ago she was making trousers for the Duke of York when two children were taken out of the next house and sent to the fever hospital, and that it was quite possible that the trousers referred to were made in the very room where the children had been, as it was rented by a widow who was a tailoress. We gather from the published accounts of inquiries made by the representative of a London newspaper that this circumstance had not actually taken place, and that there is, therefore, no reason to regard this statement as indicating more than the possibilities which may attach to the making of clothes generally. Charles Kingsley has told in "Alton Locke" the story of the dangers which attend the wealthy classes from their clothes being made by poor persons who have continued their work whilst in close contact with a case of infectious disease. Our own columns have contained accounts of occurrences of like kind, and we are at this moment reminded of a case which came under our observation of a working tailor who attended his wife suffering from small-pox in a room adjoining that in which he was engaged in making clothes. Such circumstances must necessarily happen from time to time when clothes are taken to the homes of the workers. The question which arises is whether the risks of this custom of the trade are such as to constitute so serious a danger to the public health as to render it necessary that no clothes should be made away from the premises of the master tailor. No doubt many cases of infectious disease occur of which the cause remains unknown; and it may be that disease is exceptionally communicated under the circumstances we have described; but it is impossible by any legislation to interfere with home work; and if the possibility we have indicated is to be guarded against, it must be by the employers providing proper workshops in which the clothes may be made without this chance exposure to infection. It may serve the interests of persons who are well-to-do to pay a sufficient price for their clothes to enable the master tailor to provide the means of guarding them against this risk. For the rest the general public health law must be relied upon: the notification of cases of infectious disease, the early removal of the sick to hospital, and the disinfection of the rooms they occupy, together with the contents of their dwellings. Master tailors may, however, do much in following the example of many mill vendors in requiring their workpeople to give them notice of cases of infectious disease occurring in their homes and in undertaking to make them an allowance when any of their

family suffer from infectious disease, and until the sick person has been removed to hospital and the room and its contents have been disinfected. But whatever is done, there should be no encouragement given to poor persons to retain in their own homes the infectious sick who cannot be properly isolated. This, indeed, is the only real safeguard, and any provision which militates against these precautions should be avoided. If Miss Hicks's statement should have awakened any special interest as to the dangers to which the community is exposed from infectious disease occurring among its poorer members, we would desire to point out the importance of obtaining better knowledge of the circumstances in which infectious disease has its origin. The prevention of the spread of infectious disease is undoubtedly important, but the prevention of the beginning of infectious disease is that which is most needed. During the last few years our knowledge of the origin of diseases of this class has been largely added to, particularly by the observations of Mr. W. H. Power in respect of scarlet fever and diphtheria. But work which has had so successful a beginning cannot be prosecuted without larger aid than Government departments have yet thought fit to give to this useful branch of inquiry.

#### THE SANITARY CONDITION OF HASLEMERE.

IT is now some two years since we referred to this subject and it would seem that practically nothing has been done to remedy the serious defects which we then pointed out. The subject has apparently not been altogether lost sight of, as the inhabitants have from time to time made some small efforts to obtain the needful improvement; but, if we may judge from the reports in the local press, it would seem that the responsibility for the delay rests rather with the rural sanitary authority and the parochial committee than with the inhabitants themselves. We observe from the *Surrey Advertiser and County Times* of the 3rd inst. that the Hon. Rollo Russell, in a letter addressed to the sanitary authority, refers to a report by the county medical officer (Dr. Edward Seaton) published a year ago, dealing with the serious condition of things at Haslemere, and urges that that report should be considered by the sanitary authority without further delay. Another resident, Mr. Rayner Storr, has written enclosing a petition signed by thirty-nine inhabitants, drawing the attention of the rural sanitary authority to "the prevalence of noxious smells and nuisances in Haslemere." Surely it is difficult for the rural sanitary authority to escape blame for allowing so long a period to elapse before dealing with the evidently unwholesome state of the town. It is high time that efficient systems of water-supply and of sewerage should be provided.

#### TRAINED STEWARDESSES.

IT was for several reasons a happy thought which recently suggested the selection of women who had enjoyed some training as nurses to act as stewardesses on shipboard. The arrangement is certainly a promising one as far as passengers are concerned, and its success would indirectly requite ship-owners also. In the frequent event of illness a stewardess who understood nursing would find ample opportunity of proving her double efficiency. This does not of course imply that she should devote herself, even for the time being, to nursing duties, but there are numerous trifling but valued attentions, many niceties in diet and the like, which invalids now sigh for in vain, which might easily be provided at her suggestion. Faults in cleanliness or general sanitation would be more liable to detection and amendment. Thus in many ways the capacity derived from her acquaintance with diverse but compatible occupations would enhance her usefulness. Another point must not be overlooked. The position of such a trained stewardess would carry with it no duty and no power of

independent action. Her place in the ship would still be simply that of a stewardess. Her wisdom and her success would consist in her understanding this. She could not expect to pose as a reformer. Insight blended with tact, and working by judicious and timely suggestion, would alone serve her in any purpose of this kind. No other course would or could be tolerated, for order and obedience come before all other considerations in the management of every well-regulated vessel. While we are discussing this subject, chiefly in view of the nursing capabilities of women, we do not forget that the male agents who share with them the duties of the marine commissariat are also capable of discharging similar nursing duties with success, if allowed the same advantages of instruction. Here is an opportunity for ambulance committees.

#### "LA FRANCE, LA PLUS HEUREUSE DES NATIONS."

A FRENCHMAN is nothing if not patriotic, and it would be surprising indeed if the feminine portion of the *grande nation* were lacking in this truly national characteristic. Against the cultivation of a quality so estimable we have nothing to say, but a protest is only natural when we find it becomes a cause of unjustified self-laudation. This trait is, were the occasion worthy, most natural and hardly repressible when alien but equally deserving interests are sacrificed at the national shrine. These observations are suggested by a curious passage lately published in a French contemporary, in which "*la plus heureuse des nations*" is congratulated on possessing a lower death-rate, a lower percentage of illegitimacy (!), a greater number of robust adults, and other happy circumstances which place her in front of all other civilised peoples. Figures are given, but their compilation, if the following may be taken as representative, must have been chiefly arbitrary. As regards death-rate, we find it gravely stated that in England this is 31 per 1000, in France 23. This looks well for the national future of our nearest neighbour. If, however, we examine the Registrar's reports for this island during the last decennium (1881-89) we find that the rate was 20. May the happiness of the "most happy nation" be more firmly assured than the assertions of her too patriotic statistician.

#### THE STAMPING OUT OF GLANDERS.

THERE is at last some evidence that steps will be taken to deal with glanders in a more enlightened and efficient manner than has hitherto been the case, and that what was becoming something of a scandal will no longer be tolerated. It has required a good deal of urging and agitation to rouse the authorities to a sense of their duty; but better late than never. There should be no great difficulty in combating the disease, even without compensation; indeed, it should be to the interest of horse owners to have it extinguished without being bribed to report the existence of the disorder in their stables. Nothing is more liable to abuse than this system of compensating owners for the destruction of horses suffering from an incurable contagious disease; it is fair and proper to pay them for those which are not affected, but which may have been killed because of glanders being suspected in them, but to compensate them for those animals which are visibly and unmistakably glandered is unjust to the taxpayer and very likely to lead to fraud and neglect. It is to be hoped that we shall hear no more of glanders and farcy being treated as different infections; for the latter form is quite as dangerous, if not more so than the former, and should be as energetically dealt with. It has been stated that the incubation and course of glanders are protracted, but this is not so in all cases. The period of incubation is most frequently brief, and not seldom the malady runs a rapid course; hence there are acute and chronic glanders, the first being nearly always observed in the ass, though it is also often witnessed in the horse. With the

discovery of the valuable properties of mallein there should not now be any hesitation in establishing a diagnosis in what were formerly considered to be doubtful cases, as the subcutaneous injection of this substance will prove the existence of the disorder in a horse which may otherwise exhibit no signs of it. Even without this reagent farcy is easily enough diagnosed, as its indications are manifested on the exterior of the body; it is only in the internal form of the disease that doubt has sometimes been felt; but by the employment of mallein this should no longer be experienced. It is to be hoped that in devising rational measures for the suppression of glanders among our own horses care will be taken that it is not introduced by those which are imported in such large numbers; for the fact must not be overlooked that the scourge prevails in every European country, in Egypt, America, South Africa and India. By a system of rigid inspection it has not been allowed to enter Australia, New Zealand or Tasmania; but in England, so long as horses are permitted to come from infected regions, we shall always be liable to its introduction unless the greatest care be exercised.

#### THE HOUSING OF THE WORKING CLASSES ACT.

SOME time ago the vestry of Chelsea instituted proceedings under the Housing of the Working Classes Act for the closing of certain houses in Chelsea, and the leaseholder, having less than twenty-one years' interest, was unable to be a party to the proceedings. Fresh summonses, it appears from a report in the newspapers, were issued with a view to enabling him to see that the work ordered was carried out; but the magistrate refused to hear his evidence, and a Divisional Court subsequently granted a rule *nisi* calling upon the magistrate to state a case. The vestry subsequently made an order for the demolition of the houses, and had begun to carry out this order when the leaseholder applied for an *interim* injunction to restrain the vestry from demolishing the houses before the rule *nisi* had been argued. Mr. Justice Bruce, however, dismissed the application with costs, and the vestry will now doubtless proceed to rid their district of these houses. The plaintiff had entered an appeal at Clerkenwell against the demolition order of the vestry, but had abandoned it owing to the fact that he was not an owner within the meaning of the Act. The position of the leaseholder when he has less than twenty-one years' interest is doubtless anomalous, but it must be recollected that the maintenance of houses falls upon the leaseholder, and it is only exceptionally that a demolition order would be made when the premises are in proper structural repair. The leaseholder is therefore usually in fault in cases where demolition orders are made. In the report of the proceedings which we have before us, and which may not be altogether accurate, there is nothing to show whether the leaseholder effected improvements after the magistrate first granted a closing order. A precise report of these proceedings would be useful alike to sanitary authorities and the owners of houses.

#### FEVER PREVALENCE IN LONDON.

THE resources of the Asylums Board are now being taxed to their utmost to keep pace with the steadily continued prevalence of fever, chiefly scarlet fever, in London. On the 12th of this month, the large total of 100 patients were removed to hospital. At the present moment about 3700 patients are under treatment, of whom 3300 are suffering from scarlet fever. From the "Monthly Analysis of Sickness and Mortality Statistics in London" for August, which we print in another column, it is seen that although most of the cases of scarlet fever were notified from Islington, Poplar and Lambeth, yet, in proportion to population, the rate of prevalence was greatest in Holborn of the central districts, Newington, Bermondsey and Plumstead of

the south districts, and Whitechapel, St. George's in the East, Limehouse, Mile-end Old Town, and Poplar of the east districts. The east end of the metropolis appears, therefore, to be the especial seat of the present prevalence of scarlet fever, and Poplar appears pre-eminent amongst these, though its scarlet fever attack-rate is below that of Holborn. These facts call, we think, for some inquiry by the Local Government Board or the London County Council. In the meantime, we learn that efforts are being made to press on the temporary North-Eastern Hospital at Tottenham. The site of this consists of seventeen acres, and the accommodation will comprise room for 440 patients and 250 staff. The wards will be so constructed as to afford 144 square feet of superficial space to each patient; and it is anticipated that they will be ready for patients in about three weeks' time. Meanwhile the usual autumnal exacerbation of scarlet fever will take place, and the hospital managers will have enough to do to keep pace with the requirements that will be forced upon them. It is gratifying to see that the extra work thus entailed upon the managers has not prevented their cholera committee proceeding with the active and important work of maturing efficient plans of ambulance transit and hospital isolation, in the event of cholera appearing in London this year or next.

#### CHILDREN'S TEETH.

THE statistics brought forward by Messrs. David Fisher and George Cunningham (who have so long been identified with the "cause" of children's teeth), and which have repeatedly been the subject of papers read at the British Dental Association and other societies, are further supplemented by a report by Mr. Denison Pedley. This report is derived from a systematic examination of 1985 children at the Sutton district schools. Though not so black as some, yet it shows an enormous amount of disease, for out of this number only 527 are recorded as having sound dentition. Mr. Pedley makes some pertinent remarks. The temporary teeth, he says, are popularly thought not to be deserving of any particular attention, whereas much misery and detriment to health may be avoided by judicious treatment. Between the ages of six and twelve there were, according to the table, 758 permanent teeth that could and should have been saved, 201 hopeless and 121 which had already been extracted, most of these being the six-year-old molar, a tooth so often mistaken by parents for one of the temporary set. He suggests that all public schools should have a paid dental surgeon, who should periodically examine all the children and perform any operations—conservative or radical—that are considered to be desirable, and, moreover, that a record should be kept. These views are entirely in accordance with our own, and, we are glad to say, are gaining ground generally, as exemplified by the recent sanction of the Local Government Board to the appointment of a dental surgeon to the Central London district. The records of so large a number of cases as would come under observation in such an appointment, if carefully kept, could not fail to be of scientific value.

#### REARRANGEMENT OF THE CORONERS' DISTRICTS OF LONDON, MIDDLESEX, SURREY AND KENT.

THE *London Gazette* of the 8th inst. published the new coroners' districts as arranged by Order in Council on that date. The county of London is divided into eight districts—viz., the Eastern, North-Eastern, Central, Western, Penge, Southern, South-Western and South-Eastern. The county of Middlesex is divided into three districts, named respectively the Eastern, the Central and the Western. The county of Surrey is divided into three districts—the Kingston, the Reigate and the Guildford. Lastly, the county of Kent is divided into six districts. These are the Cranbrook, Greenwich, New Romney, Sittingbourne, Ashford and Tonbridge. Mr.

Luxmore Drew, M.B., barrister-at-law, has been selected by the London County Council for the vacant office in the south-western district. This, while reflecting great credit upon the Council, is only what might have been expected. The arguments in favour of electing a candidate who has had a medical training are overwhelming and do not admit of argument. Dr. Drew possesses also the legal qualification which will satisfy those who are opposed to the medical coroner pure and simple. It is very important that the exact boundaries of all these districts should be carefully studied by all those whose duties render a knowledge of them necessary or even desirable. At the present time a difficulty has arisen as to which is the proper coroner to hold an inquest on the body of a man who died from an injury in Knutsford-road, Latchford, a suburb of Warrington. Mr. Yates, the Cheshire coroner, and Mr. Bingham, the coroner for the West Derby division of Lancashire, have each decided that the death did not occur in either of their districts, and the matter remains in dispute. Similar occurrences may happen if the boundaries of any newly created districts are not carefully studied.

#### WORKHOUSE INEFFICIENCY.

ANY person possessed of ordinary humanity will admit the force of reason which, a few days ago, led one of the metropolitan magistrates to condemn in the strongest terms an abuse in our system of casual relief. In this case a man who had already walked some twenty miles arrived at the workhouse in Chelsea. Here he could not be received for want of a casual ward, but was directed to go some three miles further—to Notting-hill. Driven by fatigue and desperation to an act of petty violence, he was sentenced to a short term of imprisonment, from which, however, he was happily released when the provocation to which he was subjected was made known. It is hardly to be wondered at that the practical inefficiency of the workhouse in Chelsea was described by the magistrate presiding in this case as monstrous in its negligence. The casual ward is clearly an essential portion of the parochial system in which it exists. Its absence might at any time entail upon an applicant for charitable shelter not only fatigue in seeking a more distant lodging, but possibly injurious exposure with consequent illness. It is therefore to be expected that steps will be taken as early as possible by the Chelsea Board to make good so grave a defect in their workhouse arrangements.

#### ARTISANS' DWELLINGS.

A STATEMENT in a recent report by Mr. A. Wynter Blyth, the medical officer of health of Marylebone, in reference to the administration of the Customs and Inland Revenue Act of 1891, is well deserving of consideration by those who will have the framing of the London Building Bill which, it is hoped, will be introduced into Parliament during next session. It will be recollected that owners of artisans' dwellings can claim exemption from inhabited house duty if they can produce the certificate of the medical officer of health that such houses are properly constructed. Mr. Blyth submitted a long list of premises where sanitary improvements had to be effected before he could give the requisite certificate, and he stated that "from this list it will be gathered that it is quite exceptional for a block of artisans' dwellings of even recent construction to be in a tolerable sanitary condition. The reason for this anomalous state of things is that during the building of these dwellings the sanitary authority seems to have no power; a dwelling must be occupied before it comes under supervision." The London Building Acts are indeed so faulty that they permit houses to be erected for which in particular instances closing orders have been obtained shortly afterwards under the Housing of the Working Classes Act. Under circumstances where this can occur we can well

believe that many, which cannot be thus dealt with, still fall short of the higher condition of excellence which is contemplated by the Customs and Inland Revenue Act. The remedy undoubtedly is to amend the Building Acts; but even when this done it is still desirable that the planning and arrangement should be subject to the approval of the local authority, for no Act can be so drawn as to cover all the conditions which ought to be held necessary. Some more intimate relation between the administration of the London County Council and the local sanitary authority appears to be indicated, but it is not obvious how this can be brought about until these authorities are more closely associated by an Act for the better government of London.

#### THE PUBLIC HEALTH OF ITALY.

AN Italian correspondent writes:—"According to official information furnished by the Ministro dell' Interno, the health of the peninsula is excellent, all the sanitary bureaux in the islands, as well as on the mainland, having just telegraphed to headquarters in the same satisfactory sense. The so-called case of cholera announced from the island of Capri, in the Bay of Naples, turns out to have been greatly misreported. It was simply a case of ordinary diarrhoea, rather violent in character. Meanwhile the sanitary surveillance on the northern frontier is maintained with unabated vigilance. The 'Direttore della Sanità Pubblica,' who, as already announced, had gone to the Swiss confines to inspect the sanitary 'servizio di vigilanza,' has just sent back a most reassuring report. Besides the measures for disinfection and isolation ready in case of need to be enforced on the Italian side, the coöperation of the Swiss authorities in keeping the Government of Italy informed as to the first indications of cholera or other infectious disease within their frontier is at once cordial and effective. Both powers, Italian and Swiss, are mutually pledged to the adoption of the most rigorous ulterior measures should the sanitary situation prescribe them."

#### PERSONAL LIBERTY AND SANITARY LEGISLATION.

WE are only at the beginning of the question of the limitations of personal liberty for the good of society. It is raised in a somewhat acute form in such Acts as the Vaccination Act, the Notification of Infectious Diseases Act and the Public Health Act. Under the last Act especially strong human feelings have to be contended with and great tact and judgment are needed in those who execute the law. The law nevertheless is a good and reasonable one. We read in the *Western Daily Mercury* that recently great difficulty was experienced at Devonport in carrying out a magistrate's order for the removal of a child with scarlet fever to an infectious hospital. The mother locked the door and the neighbours sympathised with her. The first resistance succeeded; but at length the key was found and the child was removed in the interest of the public, and especially of the child's own family and of the neighbours who were the resisting parties. At St. Ives a public meeting has been held to oppose the introduction of the Notification of Infectious Diseases Act on the view that it is the first step to isolation of infectious cases. The administration of the law should be carried out with mingled firmness and sympathy.

#### "A BRITISH HOSPITAL FOR HYDROPHOBIA."

THE mental attitude characteristic of the opponents of vivisection is, we fear, too immovably fixed in sentiment and averse to reason to allow of its being altered by rational discussion. We are not therefore surprised that in spite of the signal triumphs of humanity won for mankind by this method alone, and in nothing illustrated more distinctly than in the preventive treatment of hydrophobia, the position of these

objectors remains unchanged. They cavil as we suggested in our last issue, at the needful suffering inflicted on a few rodents with this purpose, and in arguments of the most fallacious character seek to load it with responsibility for numberless alien operations. What, in fact, does the suffering endured in preparing the virus of rabies really amount to? We may best answer this question by reference to a paper by Dr. W. N. Thursfield in the *Sanitary Record* of Dec. 15th, 1887, in which it is stated that the only processes absolutely essential to the practical working of the Pasteur system consisted in: (1) the inoculation of three rabbits daily with rabid virus; (2) test inoculations chiefly on guinea-pigs to test whether animals presumably rabid were really so. (The latter we should consider much less essential than the former and probably not always indispensable.) Further, all inoculations except those which were merely subcutaneous (and such are daily employed in the ordinary treatment of disease) were performed under anaesthetics. The rabbits operated on acquired the paralytic form of rabies, with dulness of cerebral function and apparently did not suffer much pain. Surely no thinking person would compare this greatly limited discomfort in animals, hardly to be called suffering, with the irrepensible agonies of hydrophobia in man. What, then, becomes of even the sentimental opposition to a British institute for the treatment of hydrophobia?

#### THE SPLEEN A NECESSARY FACTOR IN IMMUNITY.

DRS. PIZZONI and PATTANI have found that the spleen exerts a very important influence in processes adopted with the object of rendering animals immune to infectious diseases. Their experiments were conducted with the virus of tetanus upon guinea-pigs, and they found—as, indeed, they had been led to expect by previous researches on the blood serum of animals rendered immune—that those in which the spleen had been extirpated were incapable of being rendered immune, this incapacity being permanent. It would thus appear that no other organ is able to carry on the particular function of the spleen upon which the immunity depends, though its hæmatopoietic functions may, as is well known, be vicariously performed by the medulla of the bones.

#### RESPONSIBILITY IN HOMICIDE.

SINCE the time—now long forgotten in antiquity—when public opinion first began to busy itself with the duties of the physician no subject has probably supplied it with a deeper interest than that of destructive madness. Our ancestors unwrapped it from the dark shroud of demon-possession and showed it forth as a form of lunacy. We, more wisely vague, have clothed it with another shadow and called it homicidal mania. Still we seek more light and still we do not know the limit, if there be one, which excludes it from crime and includes it within the province of disease. For a ray of light which may help our decision in this matter, and thus prove of practical value, we are indebted to Dr. Ellis of Singapore. The experience of this observer as medical superintendent of the lunatic asylum in that town has brought him in contact with Malays affected with the disease known as "amok" or "amuok." The result of his investigations is that he divides those evidently suffering from this disorder into two classes. These are: (1) Persons in whom the sudden maniacal fury is obviously and unaccountably impulsive, uncontrollable and unexplained by previous ill-temper; and (2) those who, under a sense of wrong, have worked themselves into a fury which results in the ungovernable impulse referred to. The latter he naturally considers at least partially responsible, the former not at all. Researches into causation have yielded no very tangible result, and the classification above given brings us no nearer to the causal fountain head than we were before. It is so far

practically useful, however, since it lays down as the only possible basis of judicial condemnation a previous and conscious neglect of self-control. Unfortunately we are still confronted by the problem suggested by a later "uncontrollable" impulse. The real significance of this could only be justly estimated on additional proof of the existence or absence of a like sense of responsibility. This forms the core of the question. It should be clearly understood, however, that badness is not madness in any legal sense, and that even great and wilful wickedness is consistent with sanity.

#### VARICELLA AND HERPES.

PROFESSOR JOHANN BÓKAI, superintendent of the Children's Hospital at Buda-Pest, publishes in a Hungarian medical journal several cases of varicella which had occurred in his practice under rather peculiar circumstances. The first of these cases had been observed in the year 1888, when a child was attacked by chicken-pox. Ten days afterwards another child in the same family had exhibited all the symptoms of herpes zoster. Professor Bókai saw a similar case in 1891. A woman suffered from herpes zoster, and twelve days after its appearance, her child of eight years had chicken-pox. A second case occurred in the same year. He diagnosed herpes frontalis in a young man, and fifteen days later chicken-pox in his sister, a little girl of thirteen. Professor Bókai communicated his observations to Professor Korányi and the latter very soon reported a similar observation. He had then in his ward a patient suffering from herpes of the thigh, and eight days after his admission a patient in the same ward, who had a splenic tumour, contracted chicken-pox. The suggestion is offered that an attack of chicken-pox, instead of exhibiting general eruption, may under certain circumstances have the latter so circumscribed as to form the ring peculiar to herpes zoster. Professor Bókai considers this explanation the more likely, as latterly epidemics of herpes have been observed, especially by Kaposi. Certain forms of this disease have been known to be highly contagious.

#### DEATH FROM HYDROPHOBIA.

THE death from hydrophobia of H. L—, a lad seventeen years old, a joiner, calls for something more than passing notice. On Aug. 1st, 1887, his brother (a young man aged twenty-six), and J. W. W— were all bitten by a mad fox-terrier dog. The two brothers and W— went to Paris four days after they had been bitten and were submitted to the anti-rabic treatment in the Pasteur Institute for about fourteen days. On their return to this country the elder brother succumbed to an attack of hydrophobia nine weeks after he was bitten, whilst the other two patients continued apparently in good health. The younger lad stated that he had no fear of hydrophobia, and for five years he had no symptoms of anything of the kind. On Sept. 1st, however, he began to complain of pains in his neck, arms and back; when he attempted to drink he was seized with spasms, which became more marked until the 4th; he then became very nervous; he had to be held down in bed, and chloroform was administered; he foamed at the mouth, called out, was convulsed, and ultimately he died exhibiting all the symptoms of hydrophobia, a diagnosis that was said to be confirmed by post-mortem examination. The period of incubation in this case is a most extraordinary feature. Hitherto the longest period at which an attack of hydrophobia has supervened after a bite is said to be about two years and a half, and it is very remarkable that if this was a case of true hydrophobia the appearance of the first symptoms should have been at such a late period after the bite. It seems that the patient had suffered from blood-poisoning a short time ago, and from the nature of his employment the possibility of this being an attack of traumatic tetanus must not be over-

looked. It is certainly a matter that should be carefully inquired into. The symptoms and post-mortem appearances are so much alike in the two conditions that a mistake in diagnosis may possibly have been made.

#### SMALL-POX.

ONLY some twenty cases of small-pox per week are reported throughout the country. The north still continues to furnish most of them, Warrington and Halifax being the places at which the greater part have occurred.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Havana.*—Dr. Gabriel Casuso has been appointed to the chair of Midwifery and Gynæcology.

*Innsbruck.*—Dr. P. Dittrich of Vienna has been appointed Extraordinary Professor of Forensic Medicine.

*Jena.*—Dr. Adolf Witzel of Essen has been recognised as *privat docent* in Odontology.

*Paris.*—Professor Verneuil, the well-known surgeon of the Hôtel Dieu, who is sixty-eight years of age, is about to retire. He was one of the first in France to recognise the importance of antiseptic surgery. It is expected that Professor Lefort of the *Pitié* will be appointed in his place.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Karl Ritter von Cessner, Emeritus Professor of *Akhirgjo*—i.e., surgical appliances—at Baden, in Vienna, at the age of seventy-five. He was vice-president of the Austrian Red Cross Society, in the work of which he took very great interest.—Dr. Nérouzous Bey, formerly President of the International Sanitary Council of Egypt.—Dr. Antonio Maria Barbosa, Emeritus Professor of Operative Medicine in the Lisbon School of Medicine.

ON Friday night, Sept. 1st, at the Sunderland Infirmary, Dr. James Murphy performed abdominal section on a girl aged seventeen for a perforating ulcer of the anterior wall of the stomach. He pared the edges of the ulcer and closed it with two rows of sutures; he then washed out the abdomen and closed the wound. The perforation had occurred thirteen hours before operation, and the contents of the stomach had escaped into the abdomen. Up to Wednesday, the 14th inst., the patient's condition left nothing to be desired.

IT is very satisfactory to perceive the attention that is being directed all over the country, by bodies concerned with the administration of public health laws, to the condition of water-supplies. No more hopeful sign of the march of intelligence in this direction can be afforded than the wide interest that is being taken in this important question.

THE Sanitary Committee of the Glamorgan County Council has decided to promote the appointment of a medical officer of health for the county, at a salary, inclusive, of £1250.

THE number of patients in the several fever hospitals of the Metropolitan Asylums Board at midnight on Sept 13th was as follows:—Eastern Hospital: scarlet fever, 414; diphtheria, 69, and enteric fever, 33. North Western Hospital: scarlet fever, 393; diphtheria, 81 and enteric fever, 24. Western Hospital: scarlet fever, 304; diphtheria, 44; typhus fever, 3 and enteric fever, 10. South Western Hospital: scarlet fever, 316; diphtheria, 61, and enteric fever, 21. South Eastern Hospital: scarlet fever, 400; diphtheria, 24; typhus fever, 1 and enteric fever, 7. Northern Hospital: scarlet fever, 774 and diphtheria 20. Gore Farm Hospital: scarlet fever, 730. In the Hospital Ship Atlas there were 4 cases of small-pox.

## CHOLERA.

### PROGRESS OF THE CHOLERA.

THE latest returns show a sustained decline of cholera in Hamburg, where it is officially reported that up to Sept. 10th there had been 13,238 cases, or an attack-rate of 20·7 during the period of the epidemic, and 5,805 deaths, or a case mortality of 43·8 per cent. As far as is known, the disease has acquired no foothold in Berlin or other cities of North Germany. At the same time, active measures of medical and hygienic administration are about to be carried out in the whole of the Elbe basin. And so far there has been no appearance in Vienna or the Austro-Hungarian empire, where a considerable pecuniary outlay is being effected in organising measures to combat the disease should it appear. Cholera is of course still raging in Russia, but evidences of its diminution both in quantity and intensity, particularly at St. Petersburg, are forthcoming. As regards France, a distinct and definite prevalence, hardly amounting to an epidemic, is apparent in Paris, where it is reported that the quarter of La Villette is undergoing a smart attack of fatal enteric fever. This is not reassuring, and may point to an epidemic extension of what true cholera there may be in Paris, or to its probable development from vague cases of choleric, choleraic diarrhoea and variously termed bowel complaints which obtain there at present. It is also reported that the disease still prevails at Havre, which remains a distinct danger to us. News from the Hague, too, does not tend to allay apprehension in this country, for there are reports of fresh cases at Rotterdam and other places in Holland. As regards actual importation into this country, it is satisfactory that none has occurred, though two vessels have arrived, one at Barry, near Cardiff, from Hamburg, and the other at Hull from Cronstadt, having had on their way deaths on board from cholera. They have been medically inspected and overhauled, and are being detained under observation. If anything additional were required to impress upon people's minds the inutility and barbarousness of quarantine, it would be the side-light thrown upon that system by the scenes lately enacted off Fire Island, outside New York. The selfishness and inhumanity shown to the belated passengers of the *Normannia* by the inhabitants of that island is but the natural corollary of a procedure which, by its detention of the healthy and unaffected in close confinement near the sick, breeds disease and engenders panic and suffering.

### THE REAL SAFEGUARDS.

The literature connected with the present prevalence of epidemic cholera in Europe and its transmission from infected places abroad to this country and across the Atlantic to the United States is fast becoming so extensive that it is difficult, if not impossible, to keep pace with it. In our previous articles we have attempted to give a *précis* of the facts connected with its current history and progress. We have also endeavoured to inculcate certain precepts and practice in regard to cholera, and to state what we know and what we still require to know about it from two different aspects—viz., as a pandemic or branch of epidemiology, on the one hand, by surveying the facts connected with its extension on a large scale, over vast tracts of country and amid different populations; and, on the other, as to its spread on a small and limited scale, by studying its progressive steps in a circumscribed community made up of individuals. In order that our remarks should not lack a practical aim we have striven at the same time to indicate such firm footholds of fact as appeared to be warranted by our past experience and present knowledge. We repeat that the only real safeguard against cholera is public sanitation in its broad sense, and in its application to individuals accompanied by a vigilant observation and inspection of all shipping and immigrants arriving in this country from infected ports and centres. The first is not only effectual against cholera, but against any other epidemic disease. The latter implies in this country arrangements for the isolation of all cases of cholera or suspected cholera that might be landed, and the prohibition of passengers by infected vessels from landing who cannot give any precise address in view of their being

kept under notice and their subsequent medical history traced and observed. The temporary detention, cleansing and disinfection of a ship and the discharge into the sea of dirty bilge and tank water used on the voyage are requirements to which most persons, apart from any cholera theories or hypotheses they may entertain, could not reasonably object. It seems to us that the chief thing that still remains to be done is to develop and perfect the necessary machinery in these directions. Notwithstanding, however, that as a nation we are believers—we had almost said worshippers—of the trite saying that “nothing succeeds like success” and that the measures adopted by the Local Government Board have hitherto been most successful, there are many people in this country who are clamorous for the adoption of more extensive and stringent measures, and who would not stop short of the old system of quarantine, which, besides being an anachronism in the present age, inflicts the largest amount of suffering and inconvenience and future danger in order to secure the minimum amount of security in the present. What are the facts? Cholera has been introduced at numerous ports and places in this country, but we have hitherto had no outbreak or epidemic here. It may be that the measures adopted have arrested its progress. It may be that an epidemic manifestation of its activity is only suspended for a time, but the fact remains. For the present, at any rate, this country is quite free from cholera. Notwithstanding that the disease has prevailed in France since April last, and lately at Havre and other places, and that there has been free and constant communication between the two countries from April to the present time; notwithstanding that cholera, advancing by another and independent route, reached the Caspian in June last and St. Petersburg in August and then Hamburg, and all the facts connected with its subsequent medical history, this country has been free from that disease; notwithstanding that we, as an Imperial Power, may be likened to a wasp, with England as the head at one extremity and India at the other, united by a narrow waist, the Suez Canal, and that we have a larger, more direct, constant and, it may be said, organic connexion with the home of cholera than any other country, we have nevertheless suffered less from that disease in England and had greater experience in the management of it in India than any other country in Europe. The *Frankfurter Zeitung*, in advertising to Professor Virchow's recent visit to Russia and his return to Berlin, improved the occasion by urging its readers to regard the matter practically, to press on the Government the necessity for more thorough attention being given to public health and sanitary reforms upon the model of Great Britain. What has been done in this country up to the present time has, at any rate, been successful; it has been prudently designed to achieve its object with the least amount of hardship, suffering and public inconvenience, and it has consequently been practicable. It is only by deliberate and well-considered action, and not by adding a stimulus to terror or by appeals to unreason that anything useful can be done. That it is easy to create a state of terror about the infectious nature of cholera and the danger of its importation is perfectly clear from all that has recently taken place at the New York quarantine station and the conduct of the unthinking, panic-stricken people of Fire Island towards the healthy passengers who desired to land from the steamer *Normannia*. It seems strange, in a country with such an extent of territory and unbounded resources as America and accustomed to the wholesale arrival of emigrants from all parts of the world, that some safe place for their temporary detention should not have been provided, with a due regard also to their health, comfort and food-supply. The appalling mortality on board the steamer *Scandia* was, no doubt, mainly attributable to overcrowding and other local insanitary conditions, about which we shall have something to say hereafter. For the present neither the discovery of the comma bacillus nor the anti-choleraic inoculation of M. Haffkine will practically avail us anything in the way of prevention. The plain duty before us is to adopt measures of proved efficacy and apply them in a similar way to what we should do in the case of any other epidemic disease, and not to supplement evils which are unavoidable by others of our own production, or establish nurseries for the development of cholera by crowding together numbers of half-starved, frightened suspects into quarantine quarters. It is easy enough to create a large amount of vicarious suffering amongst innocent people by such mistaken procedures without doing any good that could not, in our opinion, be obtained

by the simpler and more efficacious measures adopted in this country and India.

We are glad to notice a marked decrease in the number of cholera seizures and deaths in Russia, where the epidemic seems to be declining. When its statistics are compiled it will be seen that the epidemic has been one of the severest that has ever visited that country. At Hamburg the outbreak is of a severe and fatal type. From a return furnished by the Statistical Bureau of the total number of attacks and deaths up to the 10th inst., it appears that there were 13,238 cases and 5805 deaths. These figures show that, out of a population of 640,400, 20·7 per 1000 were attacked and 9·1 died. It is a curious fact that while the prevalence of cholera among our European troops in India have considerably diminished of late years, the mortality per cent. of those attacked has apparently greatly increased, and the increase cannot be accounted for by any change of diagnosis; for the figures recorded for the earlier period, from 1827 to 1851, all show a lower rate of mortality than those from that period up to the present time.

It has struck us as important to obtain some data from the past history of cholera which may serve to indicate approximately what we may expect as to the progress and direction of a cholera epidemic and as to the probable duration of an outbreak under various given circumstances, and for that purpose we have turned to the reports of the late Dr. Brydon, whilst statistical officer with the Government of India, which, apart from any theory or deduction of his, contain a mine of information on the subject. The track which cholera apparently pursues beyond Hindustan seems to be something as follows:—When an epidemic occurs throughout the Central Provinces its western extension is through Guzerat, Kurrachee, Southern Persia and Arabia to the Mediterranean. When the epidemic extends through Bundelcund, Agra, Ajmere and Cabul it travels towards Northern Persia and the shores of the Caspian. An epidemic commonly lasts, as we have said, three, or between three and four years, from start to finish. According to Dr. Brydon, the Indian cholera of 1830 appears to have extended from the Ganges to the Mississippi in less than two years, and was probably very nearly extinct in America and the greater part of Europe in 1833. It first appeared in England, Ireland and France in the spring of 1832. The intervals between one epidemic and the next are always uncertain and commonly long; but every epidemic of the disease in India does not, of course, extend beyond that country. Whether it proceeds exclusively by human intercourse or not, it usually happens that a relatively small percentage of the towns and villages are attacked in the province or area through which the epidemic is passing. Notwithstanding Professor Virchow's allusion to previous experience in Russia as to the continuance of the disease in winter, it may be safely said that cold weather is inimical to the progress of cholera. It is a matter of annually recurring observation in India that the disease vastly diminishes or altogether disappears there during that season. It must be remembered that in Russia, in addition to the presence of exceptional insanitary conditions which afford a more or less permanent cholera nidus, the dwelling-houses are exceptionally heated by artificial means in winter.

As regards the duration of an outbreak of cholera, this will of course be dependant upon conditions, such as the climate, the season in which the disease manifests itself, the soil, water—in short, according to the environment of the affected population. Still, the disease appears and rises to a maximum, and then the figures begin to tail off until it disappears altogether, although the insanitary state of the town or place often remains much the same as it was at the beginning of the outbreak. In some cases the outbreak lasts six weeks; in the majority of instances, where it was a severe and rapidly extending one, it occupies from three weeks to a month, and then rapidly declined. In the case of Hamburg the maximum number of attacks was reached in from ten to fourteen days and continued high for a few days longer, and then the number of attacks began slowly to decrease. In almost all cases of true Asiatic cholera the larger number of fatal cases occur at the beginning and of recoveries at the end of an outbreak. Children are very susceptible, but infants at the breast are rarely attacked. In the case of European regiments attacked on the march in India the duration of the outbreak is usually short. Out of a total of 197 fatal cases occurring under such circumstances 94 per cent. died during the first twelve days and only 6 per cent. afterwards. A regiment moving, unless it incurs

reinfection, usually parts with its cholera before the twelfth day. In the case of ships so much depends upon the extent of the overcrowding and other conditions. It is a noteworthy fact that cholera has sometimes occurred among troops coming from some infected place and been confined to them and has not spread to others on the same vessel. The well-known case of the *Renown*, published in one of the late Dr. Sutherland's reports, is interesting. Cholera appeared in the town of Gibraltar on Aug. 19th, 1865. On the 21st a wing of the 19th Regiment went on board the *Renown*, and a soldier was attacked and died of cholera. After an interval of thirty hours the ship put to sea. On Sept. 5th, a fortnight after the fatal case at Gibraltar, cholera broke out and lasted for fourteen days, till Sept. 19th. The *Renown* was far on her way to the Cape at the time of the outbreak, which exactly corresponded with the period of maximum intensity of the epidemic in Gibraltar. In outbreaks among troops stationed in the so-called endemic area and in the gaoles of Lower Bengal 90 per cent. of the cholera deaths occurred within the first fourteen days. In the gaoles of Upper India the duration of the outbreaks was much longer. A number of most competent pathologists and observers in this country and abroad regard Asiatic cholera as a specific infectious disease caused by the comma bacillus of Koch, but that it is not contagious in the ordinary sense of the term, being rarely communicated directly from person to person. The doctrine of specific infection involves of course the assumption of some definite method of introduction, and contaminated water used for drinking, cooking and washing is held to be the chief agent by which the choleraic infection is conveyed, to which may possibly be added in some cases the inhalation or swallowing of dust containing the specific cause. Everybody is agreed—whatever may be their views in these respects—on the essential importance of pure, uncontaminated water and the protection of all sources of water-supply.

We have already spoken of the marked success attending the Indian practice of camping out the troops on the occurrence of cholera, and it is a striking circumstance, as indicative of the influence of locality, that it has happened that troops, on returning to the barracks where they were first attacked, have been more than once reattacked and lost the disease by a fresh move into camp. The danger attending all overcrowding during times of cholera cannot be urged too strongly. The contrast between the steerage and cabin passengers on board steamers in this respect, the continuous occupation of hospital wards, the effect of dispersion as opposed to the aggregation of human beings, and the incidence of the disease among troops when they have been overcrowded in times of cholera, are all illustrations of its truth.

Before concluding we desire to call attention to the instructions of the Royal College of Physicians published by the Government. They appear to us to be plain and practical, and we are gratified to find that, in the main, the College adopts a line of management and treatment very much in accordance with that which we have ourselves indicated.

#### PROFESSOR CANTANI ON THE TREATMENT OF CHOLERA.

The *Berliner Klinische Wochenschrift* of Sept. 12th contains a lengthy article on the treatment of cholera by Professor Cantani, of Naples, who has had much experience of the disease in former epidemics in that city. He points out that sometimes the fatal stage of algidity and asphyxia is produced very rapidly, without any great loss of water and resulting blood inspissation which ordinarily characterise the attack; and he attributes the former to the direct action of the poison generated in the intestine (either directly or indirectly) by the comma bacillus. The indications of treatment are, he says, four in number—viz., to check the multiplication of the bacilli in the intestine; to neutralise the chemical poison formed in the bowel; to cause the speedy elimination of the poison from the blood; and to diminish the more or less marked degree of blood inspissation that ensues on the loss of water. The first two of these apply only to the earlier stages of the attack, the others to the treatment of declared and severe attacks. In addition, there are symptomatic treatment, warmth and nerve stimulation &c. Professor Cantani has long advocated the use of hot injections of tannin as of the greatest efficacy in early treatment, and he sees that their employment is

justified by what has since become known of the nature of cholera. No remedy given internally is so effective as this "enteroclysis," and the use of tannin is perfectly harmless; whereas injections of carbolic or boracic acids in sufficient amount to produce any effect only irritate the bowel and increase the risks of further mischief; whilst sublimate, by combining with albumen, forms a coating beneath which the bacilli still flourish. The acidity of the solutions and tannin itself, being distinctly bacillidal, meet the first indication above mentioned. Tannin has also been shown experimentally to neutralise the poison produced by the bacilli. Cantani has proved, moreover, that such injections, even in comparatively small amounts, pass up beyond the ileo-cæcal valve, and he maintains that no remedy, astringent or other, given by the mouth can exert such a marked local effect as the injections. From five to twenty grammes of tannin are suspended in from one and a half to two litres of water or camomile infusion, with twenty to thirty drops of laudanum and thirty to fifty grammes of gum arabic, the temperature of the fluid being kept as high as 39° to 40° C. This degree of warmth is an essential part of the plan, combating the tendency to algidity in as satisfactory a way as the hot bath (which is often contra-indicated by cardiac weakness) and stimulating the abdominal nerves. Professor Cantani gives statistics from his own experience of 1884 and that of Dr. Bela Angyan at Buda-Pesth, which bear out his assertion that when cases are treated by this measure in the earliest stages they all recover, and that even in the later stages the mortality is considerably reduced below the average. The action of the injections is better the longer they are retained, and whereas in milder cases it may only be necessary to administer three or four injections on a single day, in others the treatment requires to be carried on for several days. He cites the satisfactory results obtained at one of the cholera hospitals at Naples, where the nurses were instructed to administer the injections on the slightest sign of cholera. As confirmatory of the antagonism between tannin and cholera, he states that hardly a case of that disease occurred in the Naples tanyards, whereas among workers in the glove-leather factories, where tannin is not used, there were several attacked. The "enteroclytic" treatment, besides astringing the bowels and acidifying the intestinal contents, aids in their removal together with their toxic elements, and although it is possible that its early employment may lead to non-choleraic cases being treated, there is no harm in this, as it is quite as applicable for other conditions of diarrhoea arising from abnormal fermentation. He gives no drug internally at this stage, but allows small quantities of water or ice, old red wine, champagne, Bavarian beer, or lemonade made with hydrochloric or lactic acids, or lemons with the addition of a little cognac. The dangers of the algide stage depending on the poison in the blood paralysing the nerve centres and heart muscle, and also on the inspissation of the blood impeding the action of the heart and tending to accumulation in the small vessels and thus diminishing oxygenation, can only be met by bringing into the blood and tissues as much water as possible. This has been long recognised and is the reason for treatment by intra-venous saline infusion as used by Hayem, but with not very satisfactory result. Professor Cantani himself has employed the subcutaneous injection (hypodermoclysis) of hot saline solutions (four grammes of sodium chloride, two grammes of sodium bicarbonate to a litre of water, at 38° to 40° C.), two amounts of about half a litre being injected at the same time. He says this fluid is rapidly absorbed and gives the remarkable statistics of 187 cases thus treated with 114 recoveries, or a mortality of 39 per cent.—i.e., of severe cases be it noted. The injections should be given at the beginning of the algide stage, and the sites selected have been generally the ileo-costal, lumbar, interscapular or gluteal, and the injection is generally made in two places at the same time. Professor Cantani gives several reasons for preferring this to the intravenous plan; whilst of injections into the pleural and peritoneal cavities there is, he says, but little experience. At the same time he points out that his tannin-enteroclysis also affords a means of supplying water to the organism, and since adopting this method of treatment he has had less occasion to resort to the hypodermic injections. The principles, then, of his plan of treatment are clear and defined. To anticipate the inspissation of blood and prevent accumulation of the cholera poison and excretory metabolic products in the tissues, the hot tannin injections must be practised from the very first—

the initial choleraic diarrhoea—and repeated after every motion; and when the algide stage begins, either because the tannin treatment has been delayed or too seldom repeated, then this must be combined with the hypodermic method. The scientific treatment of cholera demands therefore the utmost care and vigilance on the part of the physician and nurses, who should have the moral support of the family. In the final or reaction stage—miscalled "cholera typhoid"—where there is no longer a question of choleraic poisoning, but rather of its effects, he recommends the free drinking of water and some stimulant, which, if the stomach be intolerant, must be given by enemata. Here again he has sometimes employed acid solutions—tannin or hydrochloric acid (3 to 5 per cent.) or simple saline solutions (10 to 15 per cent. of common salt). But in cases where the reaction is severe he recommends warm saline hypodermic injections. At the close of his article he refers to the question of preventive inoculation, which has hardly got out of the experimental stage, and hints that the fact of two or three recurrences of cholera in the same subject within a short space of time is not favourable for the success of such a practice. Although we may hope in the future to have more certain preventive measures, at present all we can do is to treat the disease on rational principles.

#### PRECAUTIONS AGAINST CHOLERA.

The following is a copy of correspondence which has passed between the Local Government Board and the Royal College of Physicians on the subject of cholera precautions:—

Local Government Board, Whitehall, S.W.,  
Aug. 20th, 1892.

Sir,—I am directed by the President of the Local Government Board to inform you that the Board are prepared, in case of the extension of cholera into England and Wales, at once to issue regulations, under the Public Health Act, 1875, and the Public Health (London) Act, 1891, to the local sanitary authorities.

These regulations will, amongst other things, require the local sanitary authorities to provide and to dispense, without charge, "medicines and medical appliances" for the sick.

The Board consider that the local authorities of England and Wales would attach great value to the medicines which the Royal College of Physicians consider to be best adapted to the immediate medical treatment of patients suffering from cholera, choleraic diarrhoea or diarrhoea.

And I am therefore to ask that the President of the Royal College of Physicians will be good enough, at as early a date as possible, to communicate to the Board prescriptions as to the remedies which the College may think most suited to the requirements in view.

I am, &c.,  
HUGH OWEN, Secretary.

The Registrar, Royal College of Physicians,  
Pall-mall East, London, W.

Royal College of Physicians, Sept. 3rd, 1892.

Sir,—In complying with the request of the Local Government Board to furnish it with instructions for the management of health in view of the prevalence of diarrhoea and of cholera, the Royal College of Physicians desires to say that the instructions herewith submitted are not intended either to occupy the general ground of prevention so ably and admirably covered by the medical advisers of the Board, or to supersede the necessity of immediately summoning medical assistance to those stricken with disease. They are meant to be followed only when the assistance of a doctor cannot be procured and when diarrhoea has not developed into cholera. The College proposes no instructions for the treatment of cholera. Every case of this disease requires separate consideration and management; no stereotyped plan of treatment would prove to be either wise or safe; and usually before the choleraic nature of an attack could be established medical assistance would have been procured.

The chief instructions to be followed for the prevention of diarrhoea and of cholera are herewith appended:—

1. As cholera is not, in the ordinary sense of the term contagious, as it is rarely, if ever, communicated, like small-pox or scarlet fever, directly from person to person; as it is probable that those engaged in attendance upon patients suffering from this malady are not more liable than others to become attacked with it; and as it is certain that physical and moral depression favour the reception and development of the disease, apprehensions should be allayed, confidence encouraged and that manner of living pursued which experience has proved to be conducive to the highest health.

2. The house should be clean, light, thoroughly dry and well ventilated. Air shafts, traps and drains should be in perfect working order. Dustbins should be frequently emptied and no decaying matters of any kind should be permitted to remain in or near the house. Cisterns, reservoirs, casks, jars and pipes used in the preserving, carrying or transmitting of water should be frequently inspected and carefully cleansed. All connexions of waste pipes with drains should be severed.

3. As water is one of the chief agents by which choleraic infection is conveyed, all water employed for personal and domestic use in the household should be scrupulously protected from contaminations of every kind; and if any doubts of its purity arise the water should be boiled, filtered and consumed within twenty-four hours. Boiled and filtered rain-water is probably the best of all waters for use at this time.

4. The dietary should consist daily of three or four simple but nourishing and ample meals, taken at regularly recurring times. The

meals may consist of any sort of animal food, fresh and thoroughly cooked, of bread, potatoes, well-boiled green vegetables, if they agree, and of plain farinaceous puddings, or of simply cooked, wholesome fruit.

Milk should be boiled before use.  
Alcoholic beverages should be taken in great moderation, and only at the greater meals, such as at dinner and supper.  
It is desirable to avoid soups, tinned or otherwise preserved provisions, raw or stale vegetable, unripe, over-ripe, or decaying fruits, pastry, cheese, nuts, hard or indigestible things of every kind, malt liquors turning "hard," ginger beer, strongly ascendent sparkling wines, coarse oatmeal gruel, messes between meals, and either long fasts or too frequent feeding.

6. All provisions should be procured fresh and fresh, but when some storage is unavoidable the most scrupulous care should be taken to protect them from contamination by impure air or water.

Cooking utensils should be scalded after use and kept carefully clean.  
6. Avoid the use of strong aperients, and especially of strong saline aperients. If there is obstinate constipation take at bedtime either a teaspoonful of Gregory's powder or one or two teaspoonfuls of castor oil.

7. Avoid excess and irregularities of every kind, over fatigue, prolonged watchings, emotional excitations, undue mental strain, and all such things as irritate and exhaust the nervous system.  
Especially avoid the frequent use of alcoholic or of any stimulants to cover recurring sensations of sinking, malaise, or depression.

8. Take moderate exercise twice daily, follow early hours, and aim at leading a regular, an occupied, and a tranquil life.

CONCERNING THE MANAGEMENT OF LOOSENESS OF THE BOWELS.

9. If, notwithstanding this careful regulation of the manner of living, looseness of the bowels should set in, send immediately for medical assistance, since without personal examination and direction no case of this kind, arising in such circumstances, can be satisfactorily or even safely managed. But if medical assistance is not immediately available, follow the subjoined instructions until the doctor arrives.

10. Choose, if practicable, a bright, airy room, go at once to bed, keep quite warm, and if troubled with cramps or pains apply hot applications to the entire stomach.

11. Take freshly prepared fluid or semi-fluid food in quantities of a large cupful at a time regularly every three hours. Such food may consist of boiled milk thickened with rice flour, baked flour, or biscuit powder: of tea made with boiling milk infused about five minutes, and having toast, biscuits, or rusks soaked in it; of farinaceous puddings of the nursery sort; of any kind of gruel, except that made with coarse oatmeal; of meat jelly, of beef tea, or of mutton, chicken, or veal broth.

If pain persists with depression or faintness, take a tablespoonful of brandy or of whisky in a small claret glassful of hot water after meals, twice, thrice, or four times in the course of the twenty four hours, but not oftener than is absolutely required for relief.

12. If thirst becomes excessive, sip from time to time small quantities of iced water just sensibly acidulated with fresh juice of lemons or with aromatic sulphuric acid.

13. As soon as possible after looseness of the bowels has begun, take in capsules or in hot milk, or in any other manner preferred, two teaspoonfuls of castor oil. If when the action of the oil may be fairly supposed to have ceased the looseness increases to a watery diarrhoea, let the hips be well raised and carefully inject into the bowels a quart or more of hot water containing two drachms of benzoate of soda or thirty grains of tannin. Furthermore, if there be much pain in the bowels, fifteen to thirty drops of laudanum may be added to the injection. The injection should be retained as long as it is comfortable to the patient, and it may be repeated once or twice daily during the continuance of the diarrhoea and until medical assistance has been procured.

14. After the administration of the injection, if one has been found necessary, the following mixture should be taken at intervals of from three to four hours, according to the urgency of the symptoms:—

R.—Mist. Cretae Aromat. 1 oz., Tinct. Camph. Comp. ʒ drachm, Tinct. Chloroform. Comp. 20 drops, Sp. Ammon. Arom. 20 drops, Cerif. et Bismuthi Salfeyi. 5 grains, Ess. Mentha Pip. ʒ drachm. Fiat dos ʒ.

15. Should this mixture disagree, or in twenty-four hours fail to give relief, the mixture following should be substituted and taken every three or four hours:—

R.—Acid. Sulph. Arom. 15 drops, Tinct. Camph. Comp. ʒ drachm, Tinct. Chloroform. Comp. 20 drops, Tinct. Coto. 20 drops, Syrupi Auranti Flor. 1 drachm, Aq. Mentha Pip. ad. 1 oz. Fiat dos ʒ.

16. From the first appearance of looseness of the bowels the body should be washed with warm water night and morning and quickly dried; soiled bed or other clothing should be immediately disinfected and destroyed.

A cheap and efficient disinfecting fluid is recommended by Dr. Thorne Thorne, and is thus prepared:—Dissolve half an ounce of corrosive sublimate and five grains of commercial aniline blue in three gallons of water and add thereto one fluid ounce of hydrochloric acid. Preserve in earthenware jars or wooden tubs.

17. All further general precautions necessary to be taken at this time are admirably set forth in the memorandum issued on Aug. 26th by the medical officer of the Local Government Board.

I have, &c.,

ANDREW CLARK, M.D., President of the Royal College of Physicians.

WM. HENRY ALLCHIN, M.B., Vicarius for Edward Living, M.D., Registrar.

To Sir Hugh Owen, K.C.B.

The following notice has been issued from the General Post Office:—

Information has been received from the Greek postal authorities that no parcel mails from this country will at present be allowed to enter Greece, and that no sample packets must be included in the ordinary mails. Until further notice, therefore, it is useless to post either sample packets or parcels intended for conveyance by parcel post, addressed to Greece.

THE CHOLERA EPIDEMIC IN PARIS.

Our Paris correspondent informs us that the outbreak of cholera in that city appears to be stationary in its progress. The figures are:—

		Fresh cases.	Deaths.			Fresh cases.	Deaths.
Sept. 8th	Paris	63	40	Sept. 11th	Paris	34	17
	Suburbs	22	12		Suburbs	10	4
" 9th	Paris	47	27	" 12th	Paris	32	12
	Suburbs	32	10	" 13th	Paris	38	11
" 10th	Paris	32	12	" 14th	Paris	33	12
	Suburbs	19	17	" 15th	Suburbs	26	6

At Havre the situation has greatly improved, only twenty-four cholera patients being (Sept. 13th) under treatment at the Eastern Hospital. The municipality has just engaged 400 scavengers, whose duty it is to water and clean the streets. The decree establishing a sanitary cordon on the frontier has been (Sept. 12th) extended to all parts of France and Algeria for all entries from cholera contaminated ports.

THE CHOLERA IN GERMANY.

Our Berlin correspondent states that the statistics of the cholera epidemic in Hamburg have been revised by the Statistics Office there, with the following result:—

		Cases.	Deaths.			Cases.	Deaths.
On and before				On Aug. 31st		858	395
Aug. 20th	..	86	36	On Sept. 1st	..	813	394
Aug. 21st	..	83	22	" 2nd	..	809	478
On Aug. 21st	..	200	70	" 3rd	..	777	437
" 22nd	..	272	111	" 4th	..	679	293
" 23rd	..	307	114	" 5th	..	682	281
" 24th	..	373	102	" 6th	..	485	258
" 25th	..	391	315	" 7th	..	419	224
" 26th	..	1101	450	" 8th	..	346	160
" 27th	..	1536	423	" 9th	..	350	160
" 28th	..	932	304	" 10th	..	213	113
" 29th	..	1080	484				

The total population of Hamburg and the territory belonging to it is 640,400; the number of cases hitherto amounts to 20·7 per 1000, the number of deaths to 9·1. In the week which ended on Aug. 20th the death-rate of Hamburg and its suburbs was 32·7, in the following week 150.

Army Surgeon Dr. Weisser, a former assistant of Professor Koch, is examining the water of the Elbe for comma bacilli. On July 9th, 1890, the Senate of Hamburg resolved to erect filtering works at an expense of seven million marks (nearly £350,000), but this plan has not yet been executed. At its meeting on the 7th inst. the Berlin Medical Society discussed the subject of cholera. Professor Virchow, who presided, declared the fact that, though isolated cases had been carried to great distances from Hamburg, no epidemic had broken out anywhere in Germany except in that city, to be highly reassuring. He regarded disinfection on the frontiers as inexpedient. River water was a very essential element in the spread of cholera.

As there is a brisk traffic on the water-way between Hamburg and Berlin, and it is well known that bargemen try to conceal cases of illness that occur among them, a steamer with a doctor on board has been ordered to cruise on the Howel. The doctor has to examine the inmates of all the barges, and send those he suspects of having cholera to a hospital improvised for the purpose.

THE CHOLERA AT GLASGOW.

The following is a short synopsis of the notes on the two cases of cholera under treatment at the City of Glasgow Fever Hospital, Belvidere. Dr. W. A. Parker, has been good enough to furnish the notes.

CASE 1.—M. D—, aged about thirty-five, was admitted at 1 A.M. on the morning of Aug. 27th. No accurate history could be got from the patient, but he stated that he had been ill for four days, and he had certainly diarrhoea throughout the 26th.

On admission the eyes were sunken; hands and feet dark, cold and shrunken; no marked perspiration, with a stricken look; nose red and congested; very restless, with palpitation; pulse miserably small and poor, and at times imperceptible. At 1 and 3.15 A.M. there were milk-like motions; also everything was rejected, there being copious watery vomiting with flocculent masses in it, coming in sudden gushes; thirst excessive; the tongue showed a light white fur, but was moist; there was pain over the kidneys and severe pain across the chest; an ounce of urine was passed, loaded with

albumen. At midnight the pulse was better (90), also the general aspect was less livid and blue; the pupils were normal in size, reacting to light; the vomiting continued, though less frequently; there had been no further motion of the bowels, but another half-ounce of urine had been passed; the voice was less peculiar and husky.

Aug. 28th: Distinctly better; surface warmer and less livid; pulse stronger; restless, with tendency to delirium; no motion of bowels, and only half an ounce of urine passed; vomiting less; thirst continues; hiccough distressing.—29th: Vomit bilious; took nourishment better; hiccough less; no urine or motion passed; vomited two round worms.—30th: The temperature reached 98.2° for first time (previously subnormal); thirteen ounces of urine passed, with 1-12th column of albumen; vomiting and hiccough slight.—31st: Forty-one ounces of urine passed; much less albuminous.—Sept. 1st: Marked muscular tenderness, about legs and great pain on bending knees; tongue furred again; breath foul; copious bile-coloured stool after enema.—2nd: Muscular tenderness about legs and cramping abdominal pains; tongue covered with thick yellow fur; urine improving; no vomiting.—3rd: Three loose greenish-yellow motions, followed at 4.50 p.m. by a sudden and seemingly involuntary motion of a loose, green, offensive kind; otherwise seems well.—4th: Thirst continues; four loose green motions; scanty, discrete, papular, itchy eruption on flexor aspects of arms.—5th: Urticaria-like rash continues and involves trunk and limbs; eight loose green motions; evening temperature 100.6°; pulse 100, thin and feeble, but regular; skin has a very peculiar offensive odour.—6th: Evening temperature 99.4°; nine loose, green, chopped-vegetable-like motions; urine improving; pulse better; rash still bright.—7th: The patient had three loose, green, chopped-vegetable motions of acid reaction before 11 A.M., but none since; tongue cleaning and he seems better; rash is fading; best seen on extensor surfaces of limbs. The urine is almost free from albumen; its reaction has all along been acid.

The treatment on admission was dilute sulphuric acid with opium; free stimulation with brandy; iced water *ad libitum*; since then the treatment had been symptomatic. The temperatures were as follows in M. D.—'s case:—Aug. 27th: morning, 96.4°; evening, 95°. 28th: morning, 97.6°; evening, 96.4°. 29th: morning, 96°; evening, 97.6°. 30th: morning, 97°; evening, 98.2°. 31st: morning, 98.2°; evening, 98.2°. Sept. 1st: morning, 97.6°; evening, 98.6°. 2nd: morning, 97.6°; evening, 98.6°. 3rd: morning, 97.6°; evening, 97.8°. 4th: morning, 96.4°; evening, 97.4°. 5th: morning, 98°; evening, 100.6°. 6th: morning, 98°; evening, 99.4°. 7th: morning, 97.8°; evening, 97.2°.

CASE 2.—F. A.— was admitted between 9 and 10 A.M. on August 27th. She stated that she had been suffering from diarrhoea since the 24th, vomiting commencing soon after. Headache had all along been present and cramps in the feet were early and severe. At the onset there was a sense of great heat in the head, chest and abdomen, which in the abdomen lasted into the stage of collapse.

On admission the patient had a temperature of 94.6°. The surface was cold, the limbs especially; no distinct perspiration. The pulse was 100, poor and soft. There was great restlessness; eyes sunken, with sluggish, dilated pupils; nails markedly livid; peculiar husky voice. She complained of cramps in front of the legs and across the chest, with a sense of abdominal heat; frequent watery vomit. The patient was menstruating (sixth day); no urine passed; no motion (bowels were moving up to admission); great thirst.

Aug. 28th: Stronger pulse; less lividity; warmer surface; an ounce of urine passed; round worm vomited; three copious rice-water motions.—29th: Vaginal discharge severe; flushed and distressed looking, with cold extremities; headache and slight cramps in legs; three rice-water motions; twice in the evening the vomit was bilious; slight hiccough; two ounces and a half of urine passed; temperature normal for first time in evening, previously subnormal.—30th: One slight rice-water motion; vomit bilious; six ounces of urine passed; discharge from vagina much less.—31st: Nineteen ounces of urine passed, loaded with albumen, but no blood; scarlet-like blush on limbs and face.—Sept. 1st: Passing urine freely; no vaginal discharge, vomit or motion; rash fading.—3rd: Albumen decreasing in urine.—4th: Two copious green motions after castor-oil enema.—6th: Three copious loose yellow motions after taking two drachms of castor oil; urticaria-like rash beginning to appear on trunk and arms, just as in the other case, but quite

different, and taking no drugs.—7th: Rash more general and more of the urticaria type, but left a staining; otherwise well. The temperatures were as follows:—Aug. 27th: morning, 94.6°; evening, 96.2°. 28th: morning, 97.0°; evening, 97.8°. 29th: morning, 97.6°; evening, 98.6°. 30th: morning, 97.0°; evening, 97.6°. 31st: morning, 97.4°; evening, 98.4°. Sept. 1st: morning, 97.2°; evening, 98.4°. 2nd: morning, 97.4°; evening, 97.6°. 3rd: morning, 97.2°; evening, 97.6°. 4th: morning, 97.8°; evening, 98.8°. 6th: morning, 98.4°; evening, 98.2°. 7th: morning, 98.2°; evening, 99.2°.

The treatment was, as in the other case, dilute sulphuric acid and opium at first, with symptomatic treatment afterwards. Free stimulation with brandy and ice-water *ad libitum* were also had recourse to.

Belvidere.

## THE CHOLERA IN BELGIUM.

(FROM OUR SPECIAL CORRESPONDENT.)

### THE SANITARY CONDITION OF ANTWERP.

AFTER what I had seen and described last week my first care was to call upon the town engineer. At the Town Hall I was received with much courtesy and every information placed readily at my disposal. The drainage of Antwerp is a matter of some difficulty, as the ground is flat and there is hardly any fall whatsoever. On the other hand, there is a powerful tide in the river Scheldt, which can be and is extensively utilised for flushing purposes. Almost all the streets of Antwerp have sewers of various shapes and sizes, some well built and some badly built. The main drainage system may be described as the conversion of the old historical moats into main sewers. As one set of fortifications composing the city wall was pulled down and a larger wall built further off, what had served as the moat of the inner wall became the main sewer. Antwerp has been enlarged in this manner seven times. The last of these moats now constitutes the magnificent semicircular boulevard known as the Avenues of Commerce, of the Arts and of Industry. Here is an enormous sewer, in many places more than sixteen feet wide, in which boats are easily navigated. At high tide this immense underground canal is filled with water and at low tide the water is discharged into the various sections of the sewers, which are thus flushed out, the whole ultimately reaching the Scheldt. At Antwerp this river is sixty miles from the sea, and a third of a mile broad and thirty feet deep at high tide. In spite of the powerful flush thus given I noticed some very characteristic and unpleasant odours emanating from the sewers in the neighbourhood of the cathedral. I was told also that a number of sewers converge and meet together under the church of St. Paul, where they constitute a large lake. The pillars of the church are sunk through the sewage to find a foundation underneath, and it appears that it is a curious sight to visit, in a boat and with torches, this sort of crypt full of sewage. I need hardly point out that this does not correspond with any known and approved system of drainage. A sewer, on the contrary, should be small—small enough to be at least half filled with water every day. It can then be considered self-cleansing if the fall is sufficient and the flush ample. In large sewers, where the water is shallow and travels slowly, dangerous deposits are made and sewer gases are extensively generated.

According to a regulation brought into force some twenty years ago drainage into the sewers was forbidden except in the case of kitchen water and rain water. This regulation decreed at the same time that houses should be provided with well-built, water-tight cesspools. The closets were each to have a syphon trap to prevent the gases from the cesspool penetrating the houses or courts, and finally the cesspools were to be emptied by the pneumatic system, which draws the material from the cesspools by suction and burns the gases in the fire of the engine. The operation thus carried out causes but little or no nuisance. Such is the Antwerp system of drainage, a system that has been condemned by the immense majority of hygienists, which term, I take to comprise doctors, chemists, architects and engineers. But, bad as the system is, the results would be much more favourable if it were strictly applied. A census taken on Dec. 31st, 1890, establishes that there are 29,335 houses in Antwerp, inhabited by 238,788 persons. Last year an

inquiry was made by the municipality as to the manner in which the inhabitants of Antwerp dispose of the matter contained in their cesspools; 101 persons, it was then ascertained, sold the contents to agriculturists, who fetched it away; then 910 persons emptied their cesspools on to their own gardens; 355 other persons did the same, but paid the tax to the town as if they had their cesspools emptied by the pneumatic system. Thus we have a total of 1566 houses where the emptying of the cesspools must cause a fearful nuisance, since the pneumatic system is not employed, and out of this total in only 101 cases is the nightsoil taken out of the town; for the rest it is used to manure gardens within the town. In 237 houses (if the technical Flemish word was correctly translated into French) there were cesspools which were expressly constructed to allow the contents to leak away into the subsoil. There were 134 houses where the inhabitants had no knowledge whatsoever as to the situation of their cesspools, and therefore these cesspools had evidently not been emptied during the existing tenure. In twenty-four cases the cesspools formed part of manure heaps, and in thirty-four houses the opening to the cesspool was under a wall or pavement, and considered inaccessible. Finally, there were 1020 houses that drained direct into the sewers. Thus we have a grand total of 3015 houses where the regulations drawn up by the municipality are not applied. To what extent the numerous houses occupied by poor people, where the cesspits or middens have no covering, are comprised in the above enumeration, I am unable to say. There was no attempt made to deny the existence of the grievance denounced in my last letter. It is acknowledged that in the poor quarters, and more especially in the quarters where most of the cases of cholera have occurred, there are numerous middens, and that the odour from these middens escapes into the yards and houses, for they are only covered with a wooden seat. There is no pan underneath the hole in the seat, still less is there a syphon trap below the pan. Such closets are contrary to the regulations, and yet they are tolerated to a wholesale extent. Close to these middens, sometimes only separated by a narrow brick wall, are wells from which the drinking water is taken. What is more remarkable and more reprehensible is the fact that this state of things prevails precisely in that part of the town where I should have imagined the authorities would have exercised the greatest severity in the application of their regulations. Here live the poorest inhabitants of Antwerp, and here will be found the most over-work, under-feeding, drunkenness and overcrowding. Yet cleanliness prevails; the floors of the rooms are constantly scrubbed, the bedding is fairly clean, the seats of the closets are washed and rarely soiled. In London such a population would be infinitely more dirty. In similar quarters of London there is a great deal more superficial dirt, but there would never be such organic defects of construction. The lower classes in Antwerp have done as much as can be expected from people ground down by poverty. It would be a great benefit if the London dock and his neighbours could imitate the Flemish cleanliness, and it is a thousand pities that the Antwerp authorities do not support this excellent disposition of the population by at least applying the regulations they have themselves drawn up. The authorities have full powers to do this. The local medical commission has the right of inspection. On a report of this commission the burgomestre can order the necessary alterations and repairs, and he can insist that they should be undertaken within a fortnight of the time when the notices are served. Now, from Jan. 3rd, 1888, to Sept. 2nd, 1892, the number of houses or cases of sanitary defects reported amounted to 1002. The present condition of Antwerp shows that this was absolutely insufficient, though I do not desire to infer that the local medical commission had in any way neglected its duties. My object rather is to point out that Antwerp urgently needs a well-paid, highly qualified sanitary inspector with a staff of assistants whose sole business it shall be not to wait till complaints are made, but to go from house to house and ferret out every case where the regulations are not strictly enforced. Bad as these regulations are, their application would be a considerable improvement on the present state of affairs. Every householder could then be made to trap his closets, close over his cesspools and to empty them by the inodorous pneumatic system.

With regard to the water-supply, it would not be so easy to bring about the necessary improvement. There is a private company which provides Antwerp with water. This water is taken from the Nethe, near Marlines; not at the source, but

in the very middle of the river. The Nethe falls into the Roupel, which, in its turn, joins the Scheldt. The water is purified by being mixed with fragments of iron, so that its salts coming in contact with the air form oxides of iron. It is then filtered through about four feet of sand and delivered in the houses of Antwerp under a pressure of three and a half atmosphere, which, however, can be increased to five atmosphere in case of fire. This water, I was assured by several persons, has a taste of sand and it is not liked by many of the inhabitants. Though the chemical analysis shows the presence of ammonia, the sanitary medical authorities look upon the water as safe because it bears successfully the test of bacteriological examination. In a word, the water is considered not nice, but wholesome, and is therefore infinitely safer than the water, generally more pleasant to the taste, taken from wells in close proximity to cesspools. The maximum amount of water supplied by the company in one day was 9000 cubic metres. The usual consumption varies from 4000 to 5000 cubic metres per day, and this could be raised to 15,000 cubic metres. It is estimated that in Antwerp about 45,000 persons receive the company's water, so that four-fifths of the population drink water from private or public wells. It is difficult to conceive how, in the face of such a fact, the cesspool system can be maintained. Obviously cesspools and wells cannot be allowed coexistence. One or the other, if not both, must disappear. Most hygienists condemn both wells and cesspools when either the one or the other is found in a town. None defend the combination and proximity of the two.

Occasionally a police inspector at Antwerp takes a sample of water from a private well and causes it to be analysed. If the water is found to contain a notable quantity of nitrates the owner of the house is summoned to provide suitable drinking water under the penalty of having the dwelling closed as unfit for habitation. But he cannot be compelled to take the water of the company; such compulsion would imply the employment of police force to promote the financial interests of private persons. Had the water-supply been in the hands of the municipality the case would be altogether different. Compulsion could then have been brought to bear, as it could not be said that such coercion was exercised in the interests of individuals. The interests served would have been purely public interests—those of the public health on the one hand and those of the public purse, or municipal receipts, on the other. As matters now stand, when a well is condemned—a rare occurrence, unfortunately—the landlord has simply to dig another well a few yards off, where, doubtless, the water at first obtained is not contaminated. The town, it should be observed, has reserved for itself the right of opening ten public fountains in poor districts, where the company's water is given gratuitously; and it is a significant fact that some other public fountains which supplied well water have had to be closed quite recently, because these waters were recognised to be impure. At a certain Coöperative Bakery and Club, where 7000 to 8000 kilogramme loaves of bread are made and baked per day, the water to make the bread is taken from a well in proximity with three cesspools. At the club many trade societies meet, eat and drink. There are often several hundred workmen on the premises, and they help to fill the cesspool close to the well from whence they derive their drinking water. If once this well is contaminated the most widespread mischief will result.

The water supplied to sea-going ships is the water of the company, which, as already explained, is the safest available at Antwerp. It will interest English travellers and tourists to know that even this water is rarely taken on board the Harwich and Antwerp boats. These passenger steamers are provided with water at Parkeston Quay. They only take in water at Antwerp when the ship's supply has run short in consequence of an exceptionally large crowd of passengers. This of course only occurs during the height of the tourist season. On calling at the company's offices to make inquiries I was assured that no water had been taken on board at Antwerp since the outbreak of cholera. Indeed there was no need of doing so, for the number of passengers has been greatly reduced since the cholera scare. This is much to be regretted, for unjustifiable panics supply arguments to those who urge that the truth should be concealed. Even if instead of a few cases the cholera was raging at Antwerp, the landing stage of the Harwich steamships is far removed from the town, and there are no habitations near. There can be no risk therefore in stepping from the steamer to the train that awaits the arrival of the boat.

If the water-supply of Antwerp is deficient and the drainage system bad the town has at least the advantage of possessing an admirable hospital. It is built on the circular system, especially designed for contagious diseases, and provided with both mechanical and natural ventilation. But the hospital is well known. It is a model establishment; it has been visited by hygienists from all parts of the world and has been very generally admired. Up to Sunday last 101 cholera patients had been treated in this establishment. If the patients were brought in a carriage the carriage was fumigated, then thrown open and left exposed to the air for twenty-four hours. Those persons who bring the patient or who inhabit the same house are conducted to the hospital bathing department and compelled to take a hot bath. While in the water their clothes are disinfected in a dry-heat stove which is always kept ready. These persons are then retained in the hospital or sent to the sanitary dépôt for twenty-four hours. In the interval the house whence the patient has been taken is thoroughly disinfected. The hospital authorities hope shortly to be able to replace their dry-heat stove by a stove where the clothes will be disinfected by steam superheated under pressure. To be ready for emergencies, and as an experiment, a wooden hut capable of holding thirty patients has been built in a flat by the side of the hospital. It was thus ascertained that huts of this description could be put up in five days, and there is plenty of room for more huts in the same field. As yet, however, all the patients have been treated within the walls of the hospital. If, therefore, in respect to general sanitation, drainage and water-supply, there is much in Antwerp calculated to encourage the development of cholera and other diseases, very excellent provision is made to deal with each case and to stamp out the danger of infection, if this has not already reached the drains.

As there have been cases of cholera in all parts of the town there is no disguising the fact that a widespread epidemic may break out in Antwerp, more probably next summer than this autumn. The authorities, let us hope, have therefore the whole winter before them to make a house-to-house visitation, commencing of course with the poorest quarters. All private wells near to cesspools should be closed, all cesspools should be covered over and closets with proper traps provided. This much at least could be completed before next summer, though this would only be patchwork and a temporary mitigation of existing evils. Ultimately a better water-supply must be organised and a proper system of drainage created. As Antwerp is exceptionally flat, it is in such a town that the separate system would be most appropriate. The existing sewers could continue to convey the rain-water to the river, while small pipes placed within these sewers would deal with the slop-water and soil. It follows of course that cesspools would be abolished. Till this is done Antwerp cannot claim to be considered a sanitary town. Nor is there any reason to believe that these indispensable reforms will be long deferred. If such benighted places—from a sanitary point of view—as Marseilles can be induced to build a proper drainage system, Antwerp will not tarry in the rear. The authorities at Antwerp have already shown much energy and good will in this respect. They have pulled down abominable rookeries, built magnificent streets and reduced the death-rate to about 22 per 1000 per annum. They may be trusted to continue and complete the good work begun.

Antwerp, Sept. 12th.

#### A VISIT TO BOOM.

Dr Desquin, President of the Provincial Medical Commission, having, with much kindness and courtesy, allowed me to accompany him on a tour of inspection, I have just visited the small town of Boom. It took half an hour to reach this place by the railway from Antwerp, and as we arrived when the tide was out, I had an opportunity of seeing the dirty character of the mud deposited on the banks of the Roupel. The water itself was very thick and muddy and here and there I noticed large quantities of shining grease floating on the surface. At the Town Hall of Boom we found the Burgomaster, the five local practitioners, the chief of the police and other persons, who together constitute the Local Sanitary Commission, waiting to receive us. I avail myself of this opportunity of thanking these gentlemen for their courtesy and the willing assistance they rendered. The Commission at once proceeded to business and it was decided that the local fête or kermesse which was to be held in a fortnight's time should be indefinitely postponed. Boom,

I should explain, is a large district almost wholly given up to brick and tile making. Along the water's edge, for a considerable distance, there are numerous small landing stages where barges come to load bricks. The Commission discussed lengthily as to how these barges could be watched, and it was decided that this duty should be left to the two *gardes champêtres*—rural functionaries who act as gamekeepers and as constables. They are to call for medical assistance if there be any illness on board the barges. The first two cases of cholera did not, however, occur near the river or where the bargemen usually congregate, but in the Noveren district, which is some way inland and close to the railway station. This was on the 26th and 27th of August, so that the cholera took ten days to travel from Antwerp to Boom. Then two bargemen who had caught cholera at Antwerp arrived off Boom and died on board. On the banks of the Roupel, at right angles with the river, are numerous rows of wretched little cottages inhabited by very poor people. These we visited, but more especially one particular row, where fifteen cases of cholera and eight deaths had occurred. In one cottage, inhabited by seven people, four of them had died from cholera. Attempts had been made to disinfect this cottage, but it was in so dilapidated a condition that the sulphur fumes escaped from all sides. The cottage was therefore declared unfit for habitation, and has been closed. It is also proposed to condemn in a similar manner other cottages in the same terrace, which stand back to back, have no through ventilation, and where four other inhabitants have died from cholera. Altogether there had been seventeen deaths from cholera at Boom, counting from Aug. 26th to Sept. 10th.

On visiting the whole of this waterside district the social and sanitary condition appeared so deplorable that it seems almost hopeless to attempt to cope with the approaching epidemic. There are cottages which are actually rented for one franc per week. What sort of accommodation can be expected for £2 2s. per annum? In some cases the condition of these dwellings is so bad that the landlord would be delighted if the sanitary authorities ordered them to be burnt. This, indeed, was about to be done in several instances, when it occurred to the authorities that in such cases the owners of the property would have to be compensated from the public purse. Consequently the places are simply closed by the police and declared unfit for habitation. The owners must then at their own expense render the house fit for habitation before the police will raise their interdiction.

All these cottages have midden closets. For one terrace there was a collective closet consisting of seven seats, side by side in a long passage with one single door, and no division whatever between the seven seats. Men and women of all ages go there together, and there is no sort of privacy. The holes have no covering; they gape over this elongated privy and allow all the foul emanations to freely escape in the air. The Sanitary Commission, in the face of this revolting promiscuity, determined, then and there, to issue instructions to all the householders of the districts ordering them to provide separate closets for each house. Wells are not so numerous here as they are in Antwerp; still there is a well under the row of cottages where eight of the inhabitants have died from cholera. It was curious to note with what reluctance the inhabitants gave any sort of information as to the water they drank. They very unanimously declared that the water of the Roupel made the best coffee, and they showed us the water from the wells; but they so twisted their answers to our questions that there was no finding out which water they had drunk. It seemed as if they thought it a disgrace to drink water, though they would wax eloquent on a particular brew of beer or a special brand of Schiedam. On making further inquiries, I discovered that, after all, it is a sort of disgrace to drink water, for it appears plain water is rarely consumed except to assuage the thirst and fever experienced on the morrow of a drunken bout. And this perhaps also accounts for the fact that a large proportion of the victims of cholera are drunkards. When the system is deranged by alcoholic excesses they will drink on an empty stomach several pints of more or less impure water. It is not surprising that the results should occasionally prove fatal.

Not only old but new cottages have been built at Boom without any sort of regard for the health of the inhabitants. We visited one row of cottages built in a hollow considerably below the level of the road. Behind a portion of these cottages there was a ditch full of foul, stagnant water, which, being deep down, cannot be drained away. Then there rose,

close to the back of the cottages, the high wall of a brick kiln, and against this wall were several closets and middens. Hot, foul steam came up from these cesspits, produced by the heat of the bricks that were baking on the other side of the wall. The cottages thus situated are new, and they stand on refuse which had been thrown into the hollow, but not in sufficient quantity to fill up this hole. The slop water from these cottages cannot possibly drain away; it must sink into the soil or stagnate on the surface.

Boom has a large hospital which was constructed in 1843, and is about as insanitary and unsuitable a building for the purpose as could well be devised. It has huge Gothic windows like those of a church, which, however, cannot be opened. Only at the apex of the Gothic arch is there a small rosace, which, by the skilful pulling of strings, may be partly opened; the ventilation is absolutely insufficient. The cholera patients have not as yet, however, been nursed in this building. They are put in a sort of barn situated in the garden of the hospital. It is a wretched structure, but it has better ventilation. The floor consists of brick tiles placed directly on the earth. Above these are numerous rafters—angles, corners, ledges and places of all sorts where dirt accumulates safe from the reach of broom or duster. The patients have wooden bedsteads and straw mattresses. There is a poverty-stricken, gloomy, grimy look about the whole place which is most dispiriting. Nevertheless, I was assured that the inhabitants of Boom considered themselves very fortunate, for at least they have a hospital, while at Bornheim, for instance, the cholera patients have been put in the schoolroom. It remains to be seen whether parents will very readily send their children to this school when the epidemic is over.

Some remedies for the state of affairs at Boom suggest themselves as effective if properly and strictly carried out. At the end of every terrace leading to the Roupel notices should be posted, if possible, forbidding, in any case, the inhabitants to drink water from the river. Fortunately most of the territory at Boom consists of some two feet of earth, then four to six feet of sand, and after that a thick, impervious layer of clay. Wells in all directions should at once be sunk below the clay strata. If the upper parts of such wells as they go through the earth and sand are carefully cemented, so as to exclude all surface water, it is wellnigh certain that the water taken from below the clay will be pure. This measure will not entail any very great expense and its urgency is undeniable; but it will be no use digging these new and safe wells unless this be followed by the rigorous filling up and closure of all the existing shallow surface and unsafe wells. While this work is proceeding it will also be very useful to condemn as unfit for habitation some of the worst cottages and instruct owners as to necessary improvements. Finally, an order could and ought to be issued forbidding the construction of any new habitations whatsoever without first submitting the plans to a competent sanitary authority.

#### A VISIT TO THE QUARANTINE STATION AT DOËL.

In a Government steamer belonging to the police of the Scheldt and placed at the service of the Scheldt Sanitary Commission I have been able to visit the quarantine station at Doël. This is a small village opposite the Lillo Fort and not far from the Dutch frontier. The journey from Antwerp by steamship takes rather more than an hour. The river at this point is much broader than at Antwerp, and there is plenty of room to anchor a large fleet, even though, according to the existing rule, each ship must keep at a distance of at least 200 metres from her nearest neighbour. There were eleven ships in quarantine when we arrived at Doël. As yet the largest number retained at one and the same time has been seventeen ships. There are military posts on shore to prevent any attempt to land from the ships in quarantine. Anyone convicted of such an attempt may be sentenced to ten years' imprisonment. According to the old law of 1831 the penalty was death. At present all ships coming from infected ports, such as Havre, Hamburg &c., are put in quarantine and kept there till seven days have elapsed since the date of their departure from the infected port. Thus the duration of the journey is counted as forming part of the seven days' quarantine. Dr. Anthoon is in charge of the station at Doël; with one or two exceptions, in which are comprised the Harwich passenger ships, he boards every vessel that passes. According to the newest regulations these ships must show a declaration—signed by the Belgian consul—that there is no cholera in the port whence they sailed. Dr. Anthoon informed me that since the establishment of the

quarantine he had not found a single case of illness on board any one of the ships. Outside Doël and near a fort there is a lazaret where patients from the ships in quarantine are to be taken; but, so far, not a single person has been brought to this place. What is more, among the 2233 inhabitants of Doël there is no illness of any description. "We are taking a holiday," Dr. Anthoon exclaimed.

The ships in quarantine are now being made to empty their supply of drinking water into the river. Perhaps this may further contaminate the Scheldt. On the other hand, the ships themselves run some risk of being contaminated by the water given to them to replace that which they have been compelled to throw away. This water comes from Doël, but there is no water at Doël, except that which is taken from wells, and of course there are cesspools all about the place. To make matters worse, the water for the ships, after it is extracted from the wells, is stored in a reservoir situated close to the cemetery. It is true that at Doel there is no illness, no diarrhoea whatsoever; but how long will such an exceptional state of things continue? There is admirable apparatus at Doël for disinfecting by steam under pressure. There should also be an apparatus for sterilising all water before it is supplied to the ships in quarantine. A very sharp watch, I had occasion to observe, is kept as to the character of the cargo on board the ships, and anything suspicious, such as rags, old paper, old clothes &c., is disinfected at Doël. It is now proposed to place a pontoon on the river, where the disinfecting operations will be carried out, and thus the trouble and risk of landing the articles will be avoided. According to the last news there have been 103 cases of cholera treated at the Antwerp Hospital, to say nothing of the cases that were not removed to the hospital. In witnessing the strict measures of quarantine imposed at Doël I could not help thinking that the authorities are to be congratulated on the very elaborate bolts and bars they have affixed to the stable door after the horse was stolen. But I will not discuss in this place the vexed question of quarantine, my object at present being merely to relate what I have seen; and at Doël, it must be confessed, there is very little to see. In spite of the pleasant breeze, the inspiring journey on the broad river, the amiable hospitality of the members of the Scheldt Sanitary Commission, who had constituted me their guest, it was difficult not to feel a little depressed at the sight of so many fine-ships lying idle while their healthy crews are compelled to drink the well water of Doël.

#### ALLEGED PROPHYLACTIC VALUE OF RHINE WINES.

The *Rheinische Kurier* for Sept. 7th draws attention to the fact that cholera has never occurred in the Rheingau, the heart of the wine district, where some of the most famous vintages occur, and where the "wine of the country" is the common beverage. From this fact, and also the good reputation which these wines enjoy among local medical men in treatment of gastro-intestinal disorders, the inference is drawn that the better classes of white Rhine wine may with advantage be prescribed for cholera patients.

#### BACTERIOLOGICAL DIAGNOSIS OF CHOLERA.

A demonstration on the bacteriological diagnosis of cholera was lately given before the Berlin Medical Society by Dr. R. Pfeiffer (*Deutsch. Med. Wochensh.*, Sept. 8th), who urged the systematic microscopical examination of the dejecta, which in certain cases is quite sufficient to establish the diagnosis, when the comma bacilli occur in an almost pure culture and form characteristic masses in flakes of mucus. In cases of doubt gelatine plate cultures must be made to decide the question. The methods thereby necessary to absolutely determine diagnosis occupy from twenty-four to thirty-six hours.

#### INTRA-ARTERIAL INJECTION OF SALINE FLUIDS.

Dr. Oscar Silbermann (*Deutsch. Med. Wochensh.*, Sept. 8th), whilst recognising the value of subcutaneous and intravenous injection of saline fluids in cholera, points out that owing to stagnation of the thickened blood in the venous system it may be far better sometimes to inject the fluid into the arterial system in a manner similar to the form of arterial transfusion introduced by Landois and Ungar. The radial artery is laid bare for a short distance, the peripheral end of the exposed vessel secured by a ligature and the central by forceps. The apparatus consists of a funnel-shaped receiver of 500 to 600 cubic centimetres capacity, terminating in a

T-shaped tube with which is connected a syringe, the vertical limb being attached to the rubber tube, which ends in the nozzle that is subsequently inserted into the artery above the point of ligation. This insertion does not take place until the tube and syringe have been filled with the fluid and all air driven out. The fluid is then pumped into the artery towards the heart by means of the syringe, and the process of filling the syringe and repeating the injection is readily effected without any risk.

#### INJECTIONS INTO THE URINARY BLADDER.

Dr. Carl Barth (*Deutsch. Med. Wochensh.*, Sept. 8th) suggests that the absorbent surface of the mucous membrane of the bladder should be utilised for the introduction of water into the cholera organism. He thinks the scanty concentrated urine found in the bladder after death in cholera seems to indicate the reabsorption of urinary water under the influence of the increased density of the blood in the vessels. Copious injections of saline fluid into this viscus may therefore fulfil the main indication of the choleraic state.

### THE SANITARY CONGRESS.

THE thirteenth annual Congress of the Sanitary Institute opened at Portsmouth on Monday, the 12th inst., with a reception held by the mayor (Alderman T. Scott Foster) at the Town Hall. After the reception luncheon was partaken of in the banqueting hall, the mayor presiding. The usual loyal toasts were given and the mayor then proposed "Success to the Sanitary Congress," offering in a few well-chosen words a cordial welcome to the members. Sir Thomas Crawford and Sir Charles Cameron responded.

#### THE PRESIDENT'S ADDRESS.

The luncheon concluded, the guests went into the large hall to hear the presidential address. Sir Thomas Crawford having vacated the chair, Sir Charles Cameron, the president of the Congress, delivered the inaugural address on the Victorian Era the Age of Sanitation. He said that the Sovereigns of many countries had been made famous by wars, by political and religious revolutions, and by the works of intellectual giants such as Shakespeare, Bacon and Newton; but the Victorian era was the age of sanitary and social reforms—of diminished sickness, of increased longevity. Never had the British people been so free, so happy, so rich, so powerful, so educated, so moral, so philanthropic, so healthy as during the Victorian era. From the earliest ages, since the people of these islands emerged from barbarism, some attention had been given to the subject of public health, and a few enactments, more or less relating to the health of the people, might be found on the Parliamentary Statute-books and amongst the edicts of the Sovereigns previous to the nineteenth century. Their provisions were, however, rarely enforced, and if all the Sanitary Acts passed before her Majesty's reign were collected they would form a volume of no great size. The Victorian era had produced a wealth of legislation and literature on the subject. The higher estimation of preventive medicine now prevailing among medical men was shown by the recent institution of degrees, diplomas and certificates in public health, State medicine and sanitary science by the universities and medical and surgical corporations. Before the Victorian era there were few sanitary laws worth administering, and consequently no *raison d'être* for local boards or officers of health. Some drainage works had been carried out by the town and country authorities, and a few attempts were made to improve the water-supplies of urban districts. On the other hand, people were taught to be too economical in the combustion of fuel by the imposition of a rate on hearths, and they were encouraged to exclude daylight by having to pay a window tax. The insanitary state of British towns was made painfully evident by the invasion of cholera in 1831. According to official statistics there died from cholera in 1831-2 31,376 persons in England and Wales and 21,171 in Ireland. In 1848 cholera reappeared in England and Wales and destroyed 53,273 lives. In 1853 20,097 deaths were ascribed to cholera, of which about one-half occurred in London. In 1866 it reappeared, but with less fatal results. The deaths in England attributed to it were 14,378, in Ireland 2501, and in Scotland 1470—total, 18,149. This

lessened mortality was not due to the milder character of the disease, but rather to the towns being less filthy than they were during previous visitations. On the Continent so virulent and widespread was cholera at this time that it was computed to have caused more than 1,000,000 deaths. A committee appointed to inquire into the sanitary condition of the metropolis reported in 1848 that no substantial improvement had taken place in the state of the back streets, lanes, alleys and courts since the cholera epidemic of 1831-2. The committee expressed an opinion that if the disease was again to visit London it would spread as extensively and prove as fatal as it did in the former visitation. This prediction was unfortunately but too soon verified; but in the meantime the era of sanitary activity was initiated by the passing of the Public Health Act of 1848. Sir Charles Cameron said that although the administration of sanitary laws involved a great outlay of money, it was money well expended. He dwelt upon the necessity of a high standard of efficiency for a medical officer of health, and maintained that that officer would in the future be something more than a physician and a surgeon; he would be, in a sufficient degree, a bacteriologist, a chemist, a veterinarian, a geologist, an engineer, a statistician and, so far as the sanitary statutes were concerned, a lawyer. The Sanitary Institute never did a better thing than issuing their certificate for inspectors of nuisances and for local surveyors. Since 1877 no fewer than 1312 candidates for the sanitary certificate had been examined, of whom 825, or 63 per cent., were successful. During the same period 78 local surveyors received certificates and 113 were unsuccessful. During the Victorian age many millions of money had been spent on sanitary works, and not only did he think the results had been to satisfy the public that there was no waste of public money, but that they were justified in increasing their exertions. Some money might have been injudiciously laid out, but the same might be said of the expenditure for most other public purposes. "Moreover," he said, "it must be admitted that the provisions of many of the Acts relating to health have not been fully carried out, and that many local sanitary authorities, especially in rural districts, have lamentably failed to perform the duties, whether permissive or mandatory, entrusted to them by Parliament. It would not be difficult to discover places where the sanitary statutes are almost or wholly dead letters. They would, indeed, be dead letters in more places than they are were it not for the powerful influence exercised upon public opinion and on the conduct of the authorities by such organisations as the Sanitary Institute, and by the pen and voice of earnest sanitarians. There are hundreds of towns and villages in these islands which are still unprovided with proper arrangements for drainage and filth disposal, and which are dependent upon scanty supplies of water, often of bad or inferior quality. On the whole, however, it must be admitted that the sanitary powers confided to the local authorities have been largely put in force." In comparing the present sanitary state and death-rate of the United Kingdom with the last century and the early part of the present one the President said, the frightful mortality of London and other cities in the last century was due to insanitary conditions. By the earlier part of the nineteenth century the grosser defects had been remedied and the death-rate had been greatly reduced. For about half a century no further improvement took place, but with the passing of the Public Health Acts of 1872 and 1875 an era of active sanitation ensued, with the result that the death-rate fell sensibly in nearly all the towns, and great reductions had been shown in Scotland and Ireland, which were all the more remarkable considering the increasing density of population. Large and dense populations were, as a rule, more unhealthy than small and widely scattered ones. In London the unfavourable influence of the closer approximation of its inhabitants was much more than compensated for by the great improvements effected in the general hygienic conditions of the City. In every other large country in the world the rural population greatly exceeded the urban. In England it was the reverse; 10½ out of its 25 millions lived in the big towns. It was surprising that under such conditions the whole population of England had a greater longevity than the French, German, Russian, Italian and Spanish. Referring to the department of State medicine, he remarked on the importance and utility of vital and moral statistics and advocated a triennial census. The recent reduction of the death-rate was most marked in the case of infective diseases, of which phthisis was the most fatal. We should not be discouraged because of Koch's failure to kill the bacillus of tuberculosis;

in time we should be able to control its ravages and perhaps to extirpate it altogether. In conclusion Sir Charles Cameron said: "The high mortality of the working classes is in no considerable degree due to the insanitary dwellings in which a large proportion of them reside. It is to the improvement of the homes of the artisans and labourers that we must chiefly look for a further reduction in the death-rate of towns. It is not sufficient, therefore, to have our own houses in good order, we are interested, though of course not to the same extent, in having all the houses in our neighbourhood placed under healthful conditions. The education of the people in sanitation ought not to be confined to limited sections of society, but should be carried out as one complete and well-graduated system for the instruction of the whole nation. A study of the laws of health should form part of the system of primary education, and would be at least as interesting to the youthful mind as a study of the 'three R's.' The character and conduct of the man are mainly dependent upon the education and training of the child; so also in the future nation its action and progress will be the product of the education given to the actual nation in its infancy and youth. Not a few of the evils arise from systematic violations of the laws of life and health. We can hardly be clean in our minds if we are foul in our bodies. Let us keep corruption as far from us as possible; let us dwell in the freshness of things and remember always that filth is synonymous with disease and death; let us worship at the shrine of that goddess who has given a name to the noblest of the sciences—that which relates to the preservation and improvement of that precious porcelain of man's body."

#### SECTIONAL PROCEEDINGS.

On Tuesday Prof. Kelly read a paper on the Census. He recommended that a count of the population should be taken quinquennially. Dr. J. Groves next read a paper on Isolation Hospitals. Drs. Blackman and Parkes took part in the ensuing discussion, a resolution by the latter gentleman, to the effect "That the Sanitary Institute be recommended to ask the Local Government Board to allow a special expenditure for cholera precautions and hospitals, and that such expenditure should come out of the Imperial and not out of the local rates," being unanimously carried.

Mr. A. E. Harris (Islington) discussed the question, Should Phthisis be compulsorily reported? In the afternoon a paper was read by Dr. Newsholme on Condemnation of Meat of Tuberculous Animals. A resolution recommending that where a portion of an animal was affected with disease the whole carcass should be condemned was unanimously carried. The Purification of River Water by means of Iron was the next subject discussed, Mr. H. Swete read a paper and presided over the meeting. Mr. G. H. D'earth read a concluding paper on the subject of Village Sanitation.

At the Conference of Sanitary Inspectors Professor A. Wynter Blyth, the President, remarked that the Sanitary Institute had at length attained its proper position and was confessedly the chief society in the kingdom, having for its main object the furtherance of all knowledge relating to the prevention of disease.

"Difficulties in the Prevention of Infectious Diseases" was the title of a paper read by Mr. S. C. G. Fairchild of Clapham, who said that the section of the Infectious Disease Notification Act dealing with the notification of infectious disease by the head of the family was seldom carried out in many districts, and thereby loss of time took place before any steps could be taken by the sanitary authority.

Mr. W. J. Addiscott moved: "That this meeting is of opinion that the removal to an isolation hospital of all persons, irrespective of social status, who are not, in the opinion of the sanitary officers, effectually isolated should be made compulsory." Mr. Fairchild seconded the resolution, which was supported by the President. The resolution was passed unanimously.

Mr. W. H. Wells (Newcastle-on-Tyne) read a paper entitled "The Sanitary Institute and its relation to Sanitary Inspectors," and moved a resolution which had for its object an alteration in the existing examinations of the Institute. The resolution was then put to the meeting, but the majority voted against it, the general opinion being that it was neither wise nor necessary to interfere with the operations of the Institute, whose examinations, according to several speakers, became more stringent year after year.

#### THE LADIES' CONFERENCE.

A Ladies' Conference was held in the grand jury room at the Town Hall. Sir Charles Cameron welcomed the ladies as

coadjutors in the work of the Institute, and then, apologising briefly for the unavoidable absence of the President (Lady Douglas Galton), introduced Mrs. Ernest Day as President of the Conference. Dr. J. P. Williams-Freeman delivered an address on the Chief Hygienic Causes of Mortality amongst Infants and Young Children.

#### MILITARY HYGIENE.

In the Aula Magna of the Roman Catholic Cathedral, Edinburgh-road, Landport, a conference of naval and military hygienists was held, under the presidency of Inspector-General John D. Macdonald, who, in an introductory address, dealt at some length with the question of typhoid fever and other bacteria, illustrating his subject by means of a number of interesting diagrams. Surgeon-Captain R. H. Firth, A.M.S., Assistant Professor of Military Hygiene at Netley, then read a paper on some Sources of Danger to the Public Health in Indian Methods of Conservancy, especially with reference to the Prevalence of Zymotic Disease in that Country. Following this came a paper on the Prevalence of Common Diseases at Home and Abroad, by Dr. Richard Domenichetti, Deputy Inspector-General and Medical Officer of Health Louth Combined Districts.

#### VISIT TO EASTNEY.

At the conclusion of the conferences a number of waggettes were in readiness at the Town Hall, and nearly 200 members visited the pumping station and subterranean sewage tanks at Eastney. The sewage undergoes no treatment whatever. It is raised from the sewers into three large tanks capable of holding about 6,000,000 gallons, and from these it is discharged twice a day into the sea at Eastney. One of the reservoirs was effectively illuminated with coloured lamps. The party then proceeded to the borough asylum, where the Committee of Visitors, of which Sir W. King is president, entertained them in the large recreation-room with music and a "high tea." In proposing the health of Sir W. King Sir C. Cameron thanked him and the members of the Visiting Committee for the hospitality which had been shown to the members of the Congress. As the weather was most propitious and the arrangements perfect the excursion proved a most enjoyable one.

#### ENGLISH HOMES.

In the evening Sir Thomas Crawford, K.C.B. &c., gave a lecture at the Town Hall on English Homes. Dealing with the necessities for a healthy home he said the first requisite was a free supply of fresh air. Sunlight, too, and pure water were prime necessities of life. As a remedy for impure water he recommended that in poor localities the water-supply should be the landlord's responsibility, and his power to recover rent should be conditional on the efficiency and sufficiency of the supply of water. Sir Thomas Crawford next dealt at length with the question of air space and ventilation, and, referring to the danger to health caused by the combustion of gas, said that, fortunately for those who could afford it, there was a near prospect of relief in the electric light. He recommended a limited use of curtains and carpets, which were often the happy hunting ground of the hostile microbe. Of furniture in general it might be said that the safest limit was the utilitarian one, and in bedrooms the more Spartan the taste the better. Alluding to rural homes he showed the economic as well as sanitary advantage of having the allotments surrounding the cottages, but said that the change would not come until the landed proprietors saw the folly of letting land only under conditions which made agricultural pursuits unremunerative. "General" Booth's scheme had the advantage of attempting to place the unemployed on the soil under conditions which promised the industrious cultivator health, food and clothing, with a reasonable prospect of a useful life. But why not begin at the other end of the problem and deal with the agricultural labourer before he left the land to become a town loafer suitable only for Salvation Army purposes? In conclusion, Sir Thomas Crawford said: "The housing of the working classes is in a fair way of being satisfactorily provided for, but nothing has yet been done to provide suitable accommodation for the poorest class of the people not actually paupers."

#### CHOLERA, TUBERCULOSIS, SMALL-POX.

On Wednesday Sir C. Cameron opened the section of Sanitary Science and Preventive Medicine by introducing the President, Professor L. Notter, M.D., who, he said, was a fellow countryman of his, a graduate of Dublin and one of the first who took the public health diploma at that

University. After the reading of the address Sir C. Cameron proposed a vote of thanks to the President, who said he had admirably summarised our knowledge "up to date." Sir T. Crawford seconded, and it was carried with acclamation.

Mr. F. Oldfield followed with a paper on Tuberculosis; or, Does Consumption arise from Flesh Eating? Sir C. Cameron said the paper was really a lecture on Vegetarianism, and pointed out that animals such as cows, which were strictly vegetarians, suffered most severely from tuberculous diseases. He also added that we might as logically cease to drink water because it occasionally induces cholera or typhoid fever. The Irish poor, who eat very little meat, suffer greatly from phthisis, whilst the rich, who consume animal food largely, do not suffer nearly to the same extent. He advocated the abolition of private slaughter-houses and more efficient supervision of public ones. Mr. Washington Lyon described what is done in the London abattoirs. Dr. Armand Ruffer said, as the result of post-mortem examinations of over 1000 cases in adults in not five cases had he been able to say that the disease was due to the ingestion of the bacilli into the alimentary tract. In children the contrary is the case, and yet they eat little or no meat, but, on the other hand, they are large consumers of milk. The danger from eating meat is very slight, but the danger to children drinking milk of tuberculous animals is very great. The poisonous products of the bacilli when taken into the stomach are practically inert. Even tuberculous meat when properly cooked is free from danger. Where one person dies from ingestion of meat a hundred are directly infected from their relatives or friends. Sir T. Crawford concurred entirely with Dr. Ruffer's observations and emphasised the great importance of an abundance of fresh air as shown by the army returns. Dr. Sykes and Dr. Thresh having also spoken, Mr. Oldfield replied, insisting upon "flesh food" being a more important cause of tuberculosis than was usually supposed, and that as it was often impossible to detect bacilli in flesh, it was best to desist from eating all flesh. The views of the writer did not appear to meet with the support of any medical member of the Congress present. The Chairman suggested, and Mr. Oldfield proposed, that "in the opinion of this meeting the total abolition of private slaughter-houses in towns is an urgent necessity." This was duly seconded and carried *nem. con.*

Captain F. Smith then read his paper on How long does Vaccination confer Immunity from Small-pox? Dr. Sykes thought the public might infer from the paper that because a person could be re inoculated in a few months after vaccination, he therefore was again susceptible and that vaccination affords only a very brief protection. This is a fallacy, as proved by the statistics of every epidemic which had been carefully investigated. Small-pox is not naturally acquired by inoculation, therefore it did not follow that because a person could be revaccinated at such an early period he was susceptible to the disease from ordinary exposure to infection.

Mr. Washington Lyon moved that "The execution of the Vaccination Acts be transferred from the Board of Guardians to the sanitary authorities." This was carried unanimously.

#### MORTALITY OF CHILDREN IN DUBLIN.

Sir C. Cameron, after luncheon, read his paper on the Mortality of Children in Dublin. Dr. Sykes said the adult mortality in Dublin being high, the infantile mortality by comparison was low, but if calculated upon the basis of age-population probably the result would be different. Mr. Kemble pointed out the effect of social position—the lower the social status of the population the higher the infantile mortality, and *vice versa*. Sir T. Crawford regarded the improper feeding of children as one of the greatest, if not the greatest cause of the excessive mortality amongst children, and referred to the habit of Irish mothers sleeping with children in their arms as an objectionable one. Mr. Trevor Fowler (Epping) dwelt upon the difficulty of obtaining milk in many rural districts, especially in the neighbourhood of large cities. In replying, Sir C. Cameron said he had given statistics on various bases and contended that he had proved that in Dublin children under one year of age had a better chance of life than in any other large town with which he was acquainted. There being few factories in that city a much larger proportion of Irish mothers nursed their own children.

#### DISPOSAL OF THE DEAD.

In the absence of the Rev. F. Laurence the secretary read his paper on the Disposal of the Dead, advocating the

system of earth-to-earth burial. Sir C. Cameron did not regard the burying of bodies in the earth as likely to be a cause of nuisance or injurious to health, whether in well-conducted cemeteries near towns or in village churchyards. He had never detected any vitiation of the air in burial grounds, and he had found very little organic matter in the water drained from cemeteries. Dr. W. Cousins contended that since many diseases were due to specific microbes, and since these could possibly multiply in the earth and ultimately become disseminated, earth-to-earth burial was not so safe as other methods of disposing of the human body which have been suggested. Dr. Axford dwelt on the difficulty and cost of obtaining suitable land for cemeteries as at Portsmouth. Such land would be unnecessary were cremation adopted, and could be used for other and better purposes. He advocated the greater care in the filling in of death certificates. Cremation he regarded as a more natural sanitary method of disposing of the dead. Sir T. Crawford said in Benares cremation did not decrease the risk from cholera. The Moslems bury one body in one grave, and he had never known disease to be spread through the graveyards. He did not think there was any danger of buried infected bodies disseminating disease. Dr. Notter drew attention to the fact of there being earth which could not be considered "living earth," and that too dry, sandy soils were unsuitable for human burial since they were almost destitute of micro-organisms.

Dr. Warner being absent, Dr. Sykes read his paper on the Physical Condition of Children.

#### VISIT TO WATERWORKS.

Many of the members during the afternoon visited Porchester Castle; others at the conclusion of the meeting took train for Havant, where carriages were in waiting to drive them to the Portsmouth Water Company's works. At Havant, and at Bedhampton close by, a number of springs in the chalk supply the whole of the borough and the dockyard. The group of springs at Havant rise into shallow reservoirs covering some three or four acres. At Bedhampton there are also several springs, one of which, the "blue hole"—so called on account of the beautiful tint of the water—yields from two to three million gallons of water per diem. The pumps at the two stations raise on an average five and a half million gallons of water daily into a reservoir of from 7,000,000 to 8,000,000 gallons capacity, situated on Portsdown Hill, some three miles nearer the town, from which it flows by gravitation to supply a population of about 160,000. This gives 34 gallons per head per diem. Portsmouth is a water-closeted town, the number of closets being 44,000. From Portsdown the water passes through four mains of 10 in., 12 in., 20 in. and 24 in. diameter respectively to supply the town. There is also an extra 12 in. main which supplies the dockyard only. All the above mains are laid in duplicate. The supply is constant. The estimated cost of the works is £400,000 and the company pays the maximum dividend of 10 per cent. The Corporation have contemplated the purchase of the works, for which the company ask £1,100,000. Colonel Owen, the vice-chairman of the company, and Mr. R. W. Ford, the secretary, conducted the visitors over the works and gave the fullest possible information. Refreshments had also been thoughtfully provided at the Bedhampton works. The members thanked Colonel Owen and Mr. Ford for their kindness and returned to Portsmouth in time for the Mayor's reception and conversation.

## HOUSE SANITATION IN HEALTH RESORTS.

BY A. P. SHERBOURNE, M.D., L.R.C.P.  
(EASTBOURNE.)

WITH the exception of a pure water-supply there is no condition of more importance to the health of a community than the state of its house sanitation; and in towns where speculative building is the rule rather than the exception it becomes a very anxious and difficult task for the sanitary authority to secure such a state of perfection as modern science has proved to be necessary. Even the provisions of the Public Health Act or of Local Improvement Acts are very difficult to enforce without arousing a great deal of bitter personal animosity, and the natural reluctance of town councillors to put

the law in force against a fellow townsman—not infrequently a member of the corporation—leads them to put off the unpleasant duty until faulty materials and workmanship have become largely used, and the officials, disheartened by the disregard of their reports, cease to make them, and interested parties carry on their work unchecked. But in health resorts, where the competition between lodging-house keepers and persons who sublet their furnished houses is so keen, there is always a desire to show a good sanitary condition, and this, if taken advantage of by the sanitary committee, can be used as a powerful lever and a vast amount of sanitary work accomplished without exciting any personal animosity and without putting the provisions of the law in force. In this way not only can the old bad work be replaced by good, but builders know that their work will be tested and so a good condition of all new houses is secured.

By establishing a voluntary register of sanitary houses the Corporation of Eastbourne has made an attempt to take advantage of this competition between the lodging-houses, and the scheme has met with such a measure of success as to prove that there is a desire on the part of willing owners to have their property made sanitariously sound, whilst the unwilling follow their example in their own interest. The system as carried out at Eastbourne is entirely voluntary, and no house can be registered, and no certificate is given, till every requirement is strictly complied with. This presses sometimes very hardly upon the owners of old houses, but if any departure were allowed from the standard fixed upon the certificates would inevitably lose their value, and it has been found that ingenuity can overcome obstacles at first almost insuperable when the owner sincerely desires to improve his property.

The register contains a full description of the sanitary appliances in each house, the position and fall of the drain, a description of the watercloset, sinks, dustbins and water-supply, with the names of the builder, owner and occupier. It forms a useful book of reference both for officials and owners. The register is not signed till everything is perfect, and until it is thus signed by the examining inspector no certificate is given. The certificate is not a vague one, leaving room for opinion as to what is or is not sanitary, but sets forth certain requirements which the examining inspector has to certify are duly complied with. This saves the inspectors from much badgering, gives them a definite responsibility and renders their work more easily supervised. Moreover, the corporation is protected against extravagant expectations, as anyone reading the certificate can see how far it goes. The certificate as at present issued does not give quite all the requirements which are insisted upon, but a new issue will have them set forth. It runs as follows :

I HEREBY CERTIFY that on the ... day of ... 189, the above-named premises were duly and properly examined and inspected and the drains tested, when it was found that the undermentioned requirements were duly complied with.

Dated this ... day of ... 189 .

#### REQUIREMENTS.

1. There must be an efficient intercepting trap between the house drains and the sewer.
2. All the drains must answer any test applied by the examining inspector.
3. All openings in the drains must be outside the house and properly trapped.
4. All waterclosets must be of good pattern, with separate water-supply, sufficient flush and the soil pipe efficiently ventilated.
5. A separate water-supply for drinking purposes.
6. A properly covered or removable dustbin.

.....  
Chief Inspector of Nuisances.

N.B.—This certificate will be withdrawn if, at any time, the sanitary arrangements are found in a faulty condition or badly kept, or any alterations are made without the approval of the inspector of nuisances.

The further requirements are : under (1) an easily accessible means of inspection ; under (2) efficient ventilation of the drain by inlet and separate up-shaft if the soil pipe is not at its highest point ; under (3) all "wastes" must be trapped as well as disconnected ; under (4) soil-pipe carried up full-bore well above the eaves and away from windows. "Pan" and "long hopper" waterclosets and bell traps are not passed and the drains must stand the water test below the ground and the smoke above. The inspection is made, advice given and the tests applied free of cost to the applicant for a certificate, but all work is done at his expense by workmen employed by him, and it must be done to the satisfaction of the buildings' surveyor, medical officer of health, and the inspector who signs the register.

The system is new as yet and will no doubt be modified

and improved as time goes on ; but it has passed through a storm of opposition, stirred up by the interested and fomented by the timid, and now the demand for certificates is so steady that its usefulness will soon be unquestioned. The first certificate was issued in the spring of 1890, and by the end of that year only fifty-six had been granted ; the number, however, has now reached 225, and there have been for some time about eight new houses certified every month. The number at present issued forms about 15 per cent. of the whole number of houses concerned—viz., lodging-houses, schools, hotels and private houses of a rental above £50 per annum. Although the great bulk of the cottage property and most of the private residences could easily obtain certificates it is found that the owners do not apply for them. As to the future, the council cannot now withdraw from the good work it has commenced. Visitors are beginning to require certificates before taking houses, and a house agent bitterly complains that the sanitary committee is "ruining the town" in consequence. It is easy to prophesy therefore that the ruin will be averted and owners find the value of their property increased, whilst the reputation of Eastbourne as a safe health resort and place of residence cannot fail to be enhanced.

## CONGRESS OF OBSTETRICS AND GYNÆCOLOGY AT BRUSSELS.

(FROM A CORRESPONDENT.)

IN spite of adverse circumstances, I presented myself at Dr. Jacobs' clinique, where Dr. Segoud of Paris was to operate at 8 o'clock. Dr. Jacobs' hospital is situate quite on the confines of the city, almost in the country. There were about sixty present at the operation, of whom only about a dozen were able to see anything. The room was not very light ; perhaps the crowd obscured it. The case operated upon was one where a pyo-salpinx or ovarian abscess was diagnosed behind the uterus. Dr. Segoud, in his observations before the operation, insisted that a vaginal operation was better than abdominal section, safer and more easily carried out. The operation was the removal of the uterus per vaginam *morellement* in order to cure inflammations of the appendages. He cut round the mucous membrane front and back, pulled down the uterus and snipped off pieces as he went on, stripping off the peritoneum until he finally shelled out the whole uterus ; he then opened the abscess behind the uterus, evacuated the pus and washed out the cavity. Fourteen pairs of forceps were left on the various bleeding points, with their handles variously gilt, so as to be the more easily recognised. Two sponges dipped in iodoform were placed one in front and the other behind the bundle of forceps to sustain the vaginal and peritoneal wall and to prevent subsidence of the intestines. To many of us the operation seemed a roundabout way of doing what English operators prefer doing by abdominal section. We prefer the short and direct way of getting at the diseased ovaries and tubes and the resulting abscesses, and have as yet had no experience of removing the uterus in order to cut off the source of infection. I have just heard that in this particular case the disease was set up by gonorrhœa, and so, the uterus being itself also diseased, there was perhaps some *primâ facie* reason for this method of procedure. There will, however, be a discussion on the subject during the Congress.

At 2 P.M., or rather 2.30, Dr. Kuffrath, the President, opened the session in the absence of the King. The King, however, intends to be present at the meeting to-morrow (Thursday) afternoon, and afterwards, at 3.30, is going to receive all the members of the Congress at the Palace. All the delegates were in full—i.e., evening—dress.

After the President had sat down he called on Dr. C. Jacobs, the general secretary, to speak. He gave a short account of the initiation of the movement by the Société Belge de Gynécologie et d'Obstétrique, and gave a list of the cognate societies that had sent delegates to the Congress, heading the list of thirteen with the British Gynæcological Society. He also referred to the gracious act of the King, who had accepted the position of patron, to M. de Bruyn, Minister of Public Works, Industry and Agriculture, and to the Minister of Railways, who had carried all exhibits for half price (a hint for our own railway companies under similar circum-

stances). Then ensued a list of speeches by the various delegates, beginning with Spencer Wells, representing England; then Engelmann, from the States; Gusserow, Berlin; Péan, Paris; Engstrom, Finland; Consolas, Athens; Porro, Milan; Schonberg, Christiania; Rein of Kiev, Russia; Vuillet of Geneva, Switzerland; a representative from Turkey; More Madden (who spoke in French), Ireland; and Murdoch Cameron of Glasgow, Scotland.

The President then declared the session opened and read a short paper on Puerperal Fever, showing that since the introduction of antiseptics into the Maternity Hospital the mortality had most remarkably decreased. The report of the rest of this Congress, which promises to prove an interesting one, I must defer till next week.

Sept. 14th.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6398 births and 3688 deaths were registered during the week ending Sept. 10th. The annual rate of mortality in these towns, which had increased in the preceding three weeks from 18.0 to 19.8 per 1000, declined last week to 18.9. In London the rate did not exceed 16.6 per 1000, while in the thirty-two provincial towns it averaged 20.5 per 1000. The lowest rates in these towns were 10.2 in Norwich, 11.3 in Croydon, 13.9 in Birkenhead and 14.3 in Nottingham; the highest rates were 24.7 in Blackburn, 26.5 in Leeds and in Salford, 28.8 in Burnley and 31.6 in Preston. The 3688 deaths included 899 which were referred to the principal zymotic diseases, against numbers increasing from 678 to 984 in the preceding three weeks; of these, 652 resulted from diarrhoea, 62 from scarlet fever, 59 from diphtheria, 54 from measles, 39 from whooping-cough, 30 from "fever" (principally enteric) and 3 from small-pox. The lowest death-rates from these diseases were recorded in Norwich, Plymouth, Birkenhead and Huddersfield, and the highest rates in Blackburn, Gateshead, Sheffield, Leeds and Preston. Measles caused the highest proportional fatality in Huddersfield, Brighton and Oldham; scarlet fever in Leeds and Swansea; whooping-cough in Derby and Preston; "fever" in Blackburn; and diarrhoea in Leicester, Salford, Hull, Bolton, Sheffield, Gateshead, Leeds and Preston. The 59 deaths from diphtheria included 37 in London, 4 in Liverpool, 4 in Birmingham and 3 in Leeds. Three fatal cases of small-pox were recorded in Halifax, but not one in London or in any other of the thirty-three large towns. Four cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 3 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3339, against 3052, 3103 and 3280 on the preceding three Saturdays; 414 new cases were admitted during the week, against 367 and 461 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 148 and 114 in the preceding two weeks, rose to 125 last week, but were 40 below the corrected average. The causes of 64, or 1.7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Cardiff, Nottingham, Salford, Sunderland and in ten other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Leicester, Blackburn and Huddersfield.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding three weeks from 17.2 to 15.7 per 1000, rose again to 16.6 during the week ending Sept. 10th, but was 2.3 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 9.4 in Aberdeen and 16.1 in Edinburgh and in Paisley to 18.9 in Perth and 22.3 in Greenock. The 461 deaths in these towns included 24 which were referred to diarrhoea, 10 to scarlet fever, 9 to whooping-cough, 6 to measles, 6 to diphtheria, 6 to "fever," and not one to small-pox. In all, 61 deaths resulted from these principal zymotic diseases, against numbers declining from 81 to 67 in the preceding three

weeks. These 61 deaths were equal to an annual rate of 2.2 per 1000, which was 2.4 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had been 34 and 26 in the preceding two weeks, further declined to 24 last week, of which 12 occurred in Glasgow and 4 in Edinburgh. The deaths referred to scarlet fever, which had been 10 and 14 in the preceding two weeks, declined again to 10 last week, all of which were recorded in Glasgow. The 9 fatal cases of whooping-cough were within 1 of the number in the previous week and included 7 in Glasgow. The deaths from diphtheria, which had been 4 in each of the preceding two weeks, increased to 6 last week, of which 3 occurred in Glasgow and 2 in Aberdeen. The 6 fatal cases of measles showed a further decline from those recorded in recent weeks, and included 4 in Edinburgh. Of the 6 deaths referred to the different forms of "fever," 3 occurred in Dundee and 2 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 57 in each of the preceding two weeks, were 59 last week, and within 3 of the number in the corresponding week of last year. The causes of 50, or nearly 11 per cent., of the deaths in the city last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 19.5 to 26.3 per 1000 in the preceding three weeks, further rose to 28.3 during the week ending Sept. 10th. During the first ten weeks of the current quarter the death-rate in the city averaged 23.5 per 1000 against 17.5 in London and 16.1 in Edinburgh. The 190 deaths in Dublin during the week under notice showed an increase of 14 upon the number in the preceding week, and included 28 which were referred to diarrhoea, 4 to "fever," 3 to measles, 1 to whooping-cough, and not one either to small-pox, scarlet fever or diphtheria. In all, 36 deaths resulted from these principal zymotic diseases, equal to an annual rate of 5.4 per 1000, the zymotic death-rate during the same period being 3.2 in London and 2.0 in Edinburgh. The fatal cases of diarrhoea, which had been 9 and 19 in the preceding two weeks, further rose to 28 last week. The deaths referred to different forms of "fever," which had been 2 in each of the preceding three weeks, increased to 4 last week. The fatal cases of measles, which had steadily declined in the previous six weeks from 8 to 1, rose again to 3 last week. The 190 deaths registered in Dublin last week included 75 of infants under one year of age and 29 of persons aged upwards of sixty years; the deaths of infants showed a considerable further increase upon those recorded in recent weeks, while those of elderly persons showed a slight decline. Seven inquest cases and 4 deaths from violence were registered; and 46, or nearly a fourth, of the deaths occurred in public institutions. The causes of 35, or more than 18 per cent., of the deaths in the city last week were not certified.

### VITAL STATISTICS OF LONDON DURING AUGUST, 1892.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during the month of August in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in London during last month, it appears that the number of persons reported to be suffering from one or other of the ten diseases specified in the accompanying table was equal to 12.5 per 1000 of the population, estimated at 4,263,294 persons in the middle of this year. Owing to the increasing prevalence of scarlet fever in the metropolis this rate shows a slight further increase upon those recorded in the preceding six months, which had steadily risen from 5.1 to 12.2 per 1000. Among the various sanitary districts the rates last month were considerably below the average in Paddington, Kensington, St Giles, Strand, St. Olavo Southwark, Wandsworth and Lewisham; while they showed the largest excess in Holborn, Newington, Bermondsey, Plumstead and in all the districts of East London. The prevalence of small-pox in London showed a further decline during August, an average of 4 cases weekly being notified, against 27 in May, 16 in June, and 5 in July; of the 19 cases notified last month 3 belonged to St. Pancras, 3 to Mile-end Old Town, and 3 to Battersea sanitary districts. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained 8 small-pox patients at the end of August, against 103, 40 and 9 at the end of the preceding three months; the weekly

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—AUGUST, 1892.  
(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1892.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths from all causes.	Death-rate per 1000.	Deaths of infants under one year to 1000 births.				
		Small-pox.	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other continued fevers.	Measles.	Scarlet fever.	Diphtheria.	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhoea.	Total.	Annual rate per 1000 living.											
LONDON .. .. .	4,263,294	19	3208	803	2	263	20	41	637	40	16	5099	12.5	—	219	152	184	65	1	30	2	722	1375	3.4	6392	16.9	177	
<i>West Districts.</i>																												
Paddington .. .. .	119,199		63	9		5	1	2	8	—	—	87	7.6	—	3	1	2	—	—	1	—	—	—	—	—	—	—	—
Kensington .. .. .	166,721		77	14		4	2	2	19	1	—	121	7.6	—	17	5	—	—	—	—	—	—	—	—	—	—	—	—
Hammersmith .. .. .	100,642		53	34		4	1	2	6	1	—	101	10.4	—	2	4	5	—	—	—	—	—	—	—	—	—	—	—
Fulham .. .. .	88,195		67	16		4	1	1	10	3	—	98	10.5	—	2	4	4	—	—	—	—	—	—	—	—	—	—	—
Chelsea .. .. .	97,300		75	10		2	—	—	18	3	—	118	12.6	—	4	4	2	—	—	—	—	—	—	—	—	—	—	—
St. George Hanover-square .. .. .	76,946		39	10		4	—	—	7	—	—	58	7.9	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—
Westminster .. .. .	55,203		31	25		3	—	—	11	—	—	70	13.2	—	—	6	6	—	—	—	—	—	—	—	—	—	—	—
St. James Westminster .. .. .	24,368		9	3		—	—	—	1	—	—	14	8.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>North Districts.</i>																												
Marylebone .. .. .	140,799		83	17		8	1	—	22	1	—	132	9.8	—	1	7	3	—	—	—	—	—	—	—	—	—	—	—
Hampstead .. .. .	71,652		52	9		3	—	—	6	—	—	72	10.5	—	3	1	—	—	—	—	—	—	—	—	—	—	—	—
St. Pancras .. .. .	294,207	3	164	34		10	1	—	55	3	—	273	12.2	—	7	10	8	—	—	—	—	—	—	—	—	—	—	—
Islington .. .. .	394,451		217	63		28	1	—	37	2	—	361	11.6	—	12	7	20	—	—	—	—	—	—	—	—	—	—	—
Hackney .. .. .	235,370		158	50		30	—	—	22	2	—	264	11.7	—	14	3	10	—	—	—	—	—	—	—	—	—	—	—
<i>Central Districts.</i>																												
St. Giles .. .. .	39,071	1	10	6		1	—	—	8	—	—	26	6.9	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—
St. Martin-in-the-Fields .. .. .	14,204		6	2		—	—	—	3	—	—	13	9.5	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—
Strand .. .. .	24,256		11	3		1	—	—	2	—	—	16	6.9	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Holborn .. .. .	32,912		58	44		4	—	—	11	3	—	81	25.7	—	4	4	3	—	—	—	—	—	—	—	—	—	—	—
Clerkenwell .. .. .	65,482		44	7		3	—	—	11	—	—	72	11.5	—	4	2	3	—	—	—	—	—	—	—	—	—	—	—
St. Luke .. .. .	41,850		21	6		1	—	—	12	—	—	40	10.0	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—
City of London .. .. .	36,692		29	2		3	—	—	4	—	—	39	11.1	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—
<i>East Districts.</i>																												
Shoreditch .. .. .	123,033		108	27		9	1	—	41	2	—	188	15.9	—	6	6	12	—	—	—	—	—	—	—	—	—	—	—
Bethnal Green .. .. .	129,408		113	53		8	—	—	36	2	—	210	16.9	—	7	9	9	—	—	—	—	—	—	—	—	—	—	—
Whitechapel .. .. .	74,833	2	97	24		1	—	—	23	—	—	165	21.6	—	7	7	3	—	—	—	—	—	—	—	—	—	—	—
St. George-in-the-East .. .. .	45,343		52	16		4	—	—	11	—	—	80	18.4	—	2	2	2	—	—	—	—	—	—	—	—	—	—	—
Limehouse .. .. .	57,480		80	11		8	—	—	8	—	—	104	18.9	—	6	5	4	—	—	—	—	—	—	—	—	—	—	—
Mill End Old Town .. .. .	107,811	3	169	29		4	—	—	25	1	—	237	22.9	—	7	6	7	—	—	—	—	—	—	—	—	—	—	—
Poplar .. .. .	167,857	1	204	53		31	1	—	37	3	—	335	20.8	—	9	7	5	—	—	—	—	—	—	—	—	—	—	—
<i>South Districts.</i>																												
St. Saviour Southwark .. .. .	26,973		23	6		3	—	—	10	—	—	32	12.4	—	1	4	—	—	—	—	—	—	—	—	—	—	—	—
St. George Southwark .. .. .	59,846		48	9		3	—	—	10	—	—	73	12.7	—	6	3	4	—	—	—	—	—	—	—	—	—	—	—
Newington .. .. .	116,649		121	24		2	—	—	26	3	—	185	16.5	—	6	6	3	—	—	—	—	—	—	—	—	—	—	—
St. Olave Southwark .. .. .	12,737		5	—		1	—	—	1	—	—	7	5.7	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—
Bermondsey .. .. .	84,440		76	13		4	—	—	28	—	—	123	15.2	—	4	1	—	—	—	—	—	—	—	—	—	—	—	—
Rotherhithe .. .. .	39,459		29	2		9	—	—	9	—	—	44	11.6	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—
Labeth .. .. .	277,917	2	188	65		14	—	—	85	3	—	813	11.7	—	19	19	10	—	—	—	—	—	—	—	—	—	—	—
Battersea .. .. .	166,313	3	116	45		3	—	—	29	1	—	207	13.7	—	4	6	10	—	—	—	—	—	—	—	—	—	—	—
Wandsworth .. .. .	164,003		59	16		3	—	—	20	1	—	106	6.7	—	4	3	6	—	—	—	—	—	—	—	—	—	—	—
Wandsworth .. .. .	241,465	2	160	27		8	—	—	29	4	—	207	10.0	—	9	9	6	—	—	—	—	—	—	—	—	—	—	—
Camberwell .. .. .	169,734		135	15		1	—	—	21	1	—	190	11.7	—	16	16	8	—	—	—	—	—	—	—	—	—	—	—
Greenwich .. .. .	74,673	1	19	9		4	—	—	8	—	—	44	6.6	—	1	4	—	—	—	—	—	—	—	—	—	—	—	—
Lewisham (excluding Penge) .. .. .	41,376		32	2		1	—	—	8	—	—	40	11.2	—	4	5	—	—	—	—	—	—	—	—	—	—	—	—
Woolwich .. .. .	41,376		107	16		3	—	—	6	—	—	135	15.4	—	2	5	—	—	—	—	—	—	—	—	—	—	—	—
Plumstead .. .. .	91,704		107	16		3	—	—	6	—	—	135	15.4	—	2	5	—	—	—	—	—	—	—	—	—	—	—	—
Port of London .. .. .																												

admissions averaged 2, against 29, 11 and 5 during May, June and July respectively. The prevalence of scarlet fever during August showed a further slight increase upon that recorded in recent months. This disease was proportionally most prevalent in Holborn, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, Newington, Bermondsey and Plumstead sanitary districts. The Metropolitan Asylum Hospitals contained 3213 scarlet fever patients at the end of August, against numbers increasing from 1142 to 2763 at the end of the preceding six months; the weekly admissions averaged 378, against 170, 200, 238 and 335 in the preceding four months. Diphtheria showed the highest proportional prevalence during August in Hammersmith, Westminster, Bethnal Green, Whitechapel, St. George-in-the-East, Poplar and Battersea sanitary districts. There were 310 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of August, against numbers increasing from 198 to 283 at the end of the preceding five months; the weekly admissions averaged 55, against 41, 49 and 56 in the previous three months. Among the various sanitary districts enteric fever was proportionally most prevalent in Hackney, Holborn, Whitechapel, Poplar and Greenwich. The Metropolitan Asylum Hospitals contained 93 enteric fever patients at the end of August, against 47, 57 and 77 at the end of the preceding three months; the weekly admissions averaged 14, against 8, 10 and 16 in the preceding three months. Erysipelas showed the highest proportional prevalence during the month under notice in St. Pancras, Holborn, St. Luke, Shoreditch, Whitechapel and Bermondsey.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed among the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data that can be secured upon which to calculate reliable rates of mortality. During the five weeks ending Saturday, Sept. 3rd, the deaths of 6892 persons belonging to London were registered, equal to an annual rate of 16.9 per 1000, against 16.9 and 17.8 in the preceding two months. The lowest death-rates during August in the various sanitary districts were 8.7 in Hampstead, 11.5 in Lewisham (excluding Penge), 12.5 in St. George Hanover-square, 12.8 in St. James, Westminster, 13.3 in Hackney, 13.4 in Plumstead and 13.5 in Paddington; in the other sanitary districts the rates ranged upwards to 22.0 in St. Martin-in-the-Fields, 22.3 in St. George-in-the-East, 22.4 in St. Luke, 22.5 in Rotherhithe, 23.8 in Whitechapel, 24.7 in Holborn and 34.3 in St. Olave, Southwark. During the five weeks of August 1375 deaths were referred to the principal zymotic diseases in London; of these, 722 resulted from diarrhoea, 219 from measles, 184 from diphtheria, 152 from scarlet fever, 33 from "fever" (including 30 from enteric fever, 1 from typhus fever, and 2 from ill-defined fever) and not one from small-pox. These 1375 deaths were equal to an annual rate of 3.4 per 1000, against 3.1 and 3.9 in the preceding two months. Among the various sanitary districts the lowest zymotic death-rates were recorded in St. George Hanover-square, St. James Westminster, Hampstead, St. Giles, St. Martin-in-the-Fields and City of London; and the highest rates in Hammersmith, St. George-in-the-East, Limehouse, St. Olave Southwark, Rotherhithe, Camberwell and Greenwich. The 219 deaths referred to measles exceeded by 14 the corrected average number in the corresponding month of the preceding ten years; among the various sanitary districts this disease showed the highest proportionate fatality in Kensington, Whitechapel, Limehouse, St. George Southwark, Rotherhithe, Camberwell and Woolwich. The 152 fatal cases of scarlet fever were 34 above the average; among the various sanitary districts this disease was proportionately most fatal in St. Martin-in-the-Fields, Whitechapel, Limehouse; and St. Saviour Southwark. The 184 deaths referred to diphtheria exceeded by as many as 79 the corrected average; this disease showed the highest proportional fatality in Westminster, Holborn, Bethnal Green, Whitechapel and Battersea. The 65 fatal cases of whooping-cough were little more than a third of the average number; this disease was not prevalent last month in any of the sanitary districts. The 33 deaths referred to different forms of "fever" were 33 below the corrected average, and there was no marked excess of fever mortality in any of the sanitary districts. The 722 fatal cases of diarrhoea were as many as 272 below the average; this disease was proportionally most

fatal in Paddington, Fulham, Islington, St. George-in-the-East, Poplar, Rotherhithe and Greenwich. In conclusion, it may be stated that the mortality in London during August from these principal zymotic diseases was nearly 18 per cent. below the average, owing to the fact that the mortality from whooping-cough and from diarrhoea was unusually low.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 177 per 1000 during August; the lowest rates of infant mortality were recorded in St. George Hanover-square, St. James Westminster, Hampstead, St. Martin-in-the-Fields and City of London; the highest rates in Hammersmith, St. Saviour Southwark, St. George Southwark, St. Olave Southwark, Rotherhithe and Wandsworth.

## THE SERVICES.

### ARMY MEDICAL SERVICE.

Surgeon-Captain W. A. Morris, Army Medical Staff, has been appointed to the staff of the Royal Victoria Hospital, Netley.

### MOVEMENTS OF THE MEDICAL STAFF.

Deputy-Surgeon-General Comyn has resumed duty at Bradford. Surgeon-Captain Dixon has been transferred from Aldershot to Preston for duty. Surgeon-Captain Elderton has joined at Portland and Surgeon-Captain Hains has rejoined at Devonport. Brigade-Surgeon-Lieutenant-Colonel C. A. Maunsell has assumed the duties of Principal Medical Officer, Cork district. Surgeons-Captain Russell and Perry Marsh have arrived at Gibraltar for a tour of service. Surgeon-Captain Hardy has proceeded to Chichester. Surgeon-Major Peyton and Surgeon-Captain Frayer have quitted the Belfast district on leave before embarkation for duty abroad. Surgeon-Captain Wild has reported himself in Edinburgh. Brigade-Surgeon-Lieutenant-Colonel Stevenson has assumed the duties of Professor of Military Surgery at Netley. Surgeon-Major Lamprey has reverted to general duty in the Home District. The death of Surgeon-Major J. Lauder, retired pay, and lately employed at Penally, is reported. The deaths from cholera at Murree of Surgeon-Colonel Allan and Surgeons-Captain H. N. Kenny and Fowler are also reported. Surgeon-Captain Addison has embarked for India on a tour of service. Brigade-Surgeon-Lieutenant-Colonel Murray has left Bermuda for England on leave of absence. Surgeon-Lieutenant-Colonel Fairland has arrived in England from Bermuda on appointment to the Assistant Professorship of Military Medicine at Netley. Surgeon-Captain Baird has embarked for a tour of service in India.

### INDIAN MEDICAL SERVICE.

The services of Surgeon-Captain Alcock, Surgeon Naturalist, Marine Survey of India, have been placed at the disposal of the Home Department for employment as Deputy Sanitary Commissioner of the Metropolitan Circle in Bengal. The services of Brigade-Surgeon-Lieutenant-Colonel G. Thomson, medical adviser to his Highness the Maharaja of Patiala have been placed at the disposal of the Government of India in the Military Department. Assistant-Surgeon Lallubhal B. Kaji, L.M. and S., has been appointed to act as Medical Officer in Charge, Larkhana Dispensary (Sind), from July 29th, 1892, during the absence of Assistant Surgeon M. G. Thadani. Surgeon-Captain J. M. D. Smyth has been appointed to act as Superintendent, Lying-in-Hospital, Madras, during the absence of Surgeon-Lieutenant-Colonel A. M. Branfoot, M.B., on leave. Surgeon-Captain E. H. Wright has been appointed to act as Resident Surgeon, General Hospital, during the employment of Surgeon-Captain Smyth on other duty. Surgeon-Captain D. G. Marshall, I.M.S., has been appointed to the Civil Medical Charge of Roorkee, in addition to his military duties, from the date of taking charge from Surgeon-Captain H. J. Pocock. Surgeon-Captain J. J. Pratt, Civil Surgeon, Gonda, on being relieved by Surgeon-Lieutenant-Colonel C. Cameron, has been transferred to the Bahraich district. Surgeon-Major H. K. McKay, Officiating Civil Surgeon, Nagpur, has been appointed to be Honorary Surgeon, Nagpur Volunteer Rifle Corps, vice Surgeon-Major G. F. A. Harris, I.M.S., on furlough, and who has been placed on the rolls as a supernumerary. On being relieved by Surgeon-Captain D. W. Scotland, M.B., Assistant Surgeon Surendra Nath Barat, Officiating Civil Surgeon and Superintendent of the Gaol,

Betul, has been appointed to the Main Dispensary, Saugur. Brigade - Surgeon - Lieutenant - Colonel S. B. Hunt, Indian Medical Service, has been appointed to officiate as Principal Medical Officer of a District Command, during the absence of Surgeon-Colonel C. Sibthorpe on furlough. Surgeon-Lieutenant W. C. Sprague, M.D., has been appointed to act as Civil Surgeon, Dhulia, during the absence of Surgeon-Major K. A. Dalal, M.B., on privilege leave. Surgeon-Major C. L. Swaine, M.D., Madras Establishment, Medical Officer, 2nd Infantry, Hyderabad Contingent, has been appointed to officiate as Sanitary Commissioner, Hyderabad Assigned Districts, during the absence on furlough on medical certificate of Surgeon-Lieutenant-Colonel C. Little, M.D. Surgeon-Major G. Shewan, Officiating Civil Surgeon of Balasore, is to officiate as Civil Surgeon of Shahabad during the absence on furlough of Surgeon-Major R. Macrae. Surgeon-Captain W. G. Thorold, Civil Surgeon, Kheri, is to officiate as Civil Surgeon, Gorakhpur, during the absence on privilege leave of Surgeon-Major J. Moran. Surgeon-Captain G. J. H. Bell, Bengal Establishment, whose services have been placed at the disposal of the Chief Commissioner, is appointed to be Superintendent of the Insein Gaol.

#### NAVAL MEDICAL SERVICE.

The following appointments have been made:—Fleet Surgeon Valentine Duke to the *Dreadnought* (dated Sept. 13th, 1892). Surgeons: Hugh W. Macnamara to the *Royal Sovereign* (dated Sept. 6th, 1892); Horace B. Marriott to the *Colossus* and George Ley to the *Hotspur* (both dated Sept. 13th, 1892).

#### VOLUNTEER CORPS.

*Artillery*: (Duke of Cornwall's) (Western Division Royal Artillery): Joseph Thomas Hart, Gent., to be Surgeon-Lieutenant (dated Sept. 10th, 1892).—*Rifle*: 1st Volunteer Battalion, the Buffs (East Kent Regiment): Surgeon-Lieutenant J. H. Mitcheson resigns his commission (dated Sept. 10th, 1892).—Surgeon-Lieutenant J. G. McCann resigns his commission (dated Sept. 10th, 1892).—2nd Volunteer Battalion, the Oxfordshire Light Infantry: Surgeon-Captain J. A. Rigge to be Lieutenant (dated Sept. 10th, 1892).—1st Volunteer Battalion the Northamptonshire Regiment: Surgeon-Captain G. S. Payne to be Surgeon-Major; to resign his commission; also to be permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Sept. 10th, 1892).—3rd (the Buchan) Volunteer Battalion, the Gordon Highlanders: The under-mentioned Surgeon-Captains to be Surgeon-Majors (dated Sept. 10th, 1892): N. Lawrence and R. M. Wilson.

#### THE CHAIR OF PATHOLOGY AT NETLEY.

To the Editors of THE LANCET.

SIRS,—I have read in THE LANCET a letter from Dr. Kenneth Campbell, also a paragraph of subject matter stating that great dissatisfaction has been caused by the appointment of a professor of pathology in the person of a civilian medical man. I beg to suggest that the appointment at Netley may be open to all members of her Majesty's services, including the medical officers of the Royal Navy, if there be any fitted for such a distinguished position. They, I think, have an equal opportunity with their military *confères* of obtaining an equal experience in that peculiar branch of pathology required for these appointments, and as they have nothing in their own service to look forward to in the way of professional honours, I think it would be almost an injustice to exclude them from a remote chance of obtaining a well-known and honourable position in the medical world. I may add that it would be a generous and chivalrous opportunity for military officers to show a real act of kindness to, in many ways, their less fortunate brother officers.

I am, Sirs, yours faithfully,

GEORGE EDMONDS, Surgeon, R.N.

H.M.S. *Abyssinia*, Bombay, Aug. 22nd, 1892.

#### THE NEW WAR MINISTER.

The appointment of Mr. Campbell-Bannerman to the post of War Minister is, we believe, generally regarded with satisfaction by different branches of the army. He has the reputation of being a clear-headed and excellent man of business, and there are at the present time a number of matters claiming his consideration which will speedily put these qualifications to the test.

#### THE DEPRECIATED RUPEE.

The fall in the value of the rupee, which does not yet seem to have reached its downward limit, will probably

compel the Government to take some steps before long. The present rate of exchange inflicts a great hardship on all married officials and soldiers serving in India with wives and families to support in this country. Numerous meetings have taken place in various parts of India, and resolutions and petitions have been forwarded to the Government of that country. The finances of India, with its depreciated silver currency, must be a matter of extreme difficulty, not only to the Government there, but to the Minister for India in this country, and it is not, unfortunately, the only complicated and difficult subject with which the Government will soon have to grapple in earnest.

#### MILITARY SERVICE IN GERMANY.

The question of reducing the term of service in the army still occupies a share of public attention in Germany, notwithstanding that most of it is taken up with the larger and more pressing consideration of the existing cholera epidemic. The heavy financial burden imposed on the nation in the shape of taxes, and the strain induced by the withdrawal of such a large portion of the population from industrial pursuits, have naturally led the Germans to consider whether the present limit of three years' training with the colours might not be reduced to two, without detriment to the army and certainly with advantage to the country. These proposals are backed up by the Liberal party in Germany, and it seems probable that some compromise will be effected by which a two years' limit will be generally adopted for the Infantry, with the understanding that all conscripts who have not perfected their military training in that time will be required to extend it with the colours for three years, or until they have reached the required standard of efficiency.

#### THE GERMAN ARMY MANŒUVRES AND THE CHOLERA.

In consequence of the prevalence of cholera the manœuvres of the German Army have been countermanded by order of the Emperor. Although the epidemic at Hamburg has not extended so as to involve any places in the vicinity of that city to any extent, it has been deemed prudent to avoid the risk attending the concentration of large bodies of troops at the present time and their subsequent dispersion to different parts of the empire.

#### THE BLACK MOUNTAIN EXPEDITION.

Officers of the British and Indian Army Medical Services are, of course, as keen to obtain information about any little expedition that may be going on, and to be included in it, as officers of other branches of the army. For one thing, promotion sometimes comes that way, and for another, opportunities for distinction or the exhibition of enterprise occasionally present themselves, and, in any case, field service always adds something to experience in the way of field hospital administration and management, transport and newly devised or applied methods of treatment required by the nature of the country traversed or by the special character of the expedition itself. In all these respects India affords an excellent training ground. At the present time there is more than one of these small expeditions on hand in that country. There is the expected movement of the Black Mountain force for possible service in the Gomul Pass, the occupation of the Kuram Valley by a small body of native troops in accordance with the request of the Ameer of Afghanistan, with the view of preserving order in that neighbourhood, and Lord Roberts's projected military mission and conference with the Afghan ruler, not to say anything of the possible development of affairs in the Pamirs, a matter which concerns the Chinese Government rather than that of this country.

#### THE FOREIGN SERVICE TOUR.

As the one serious grievance which now affects medical officers of executive rank is the length of the tour of service abroad, it is to be hoped that Mr. Campbell-Bannerman will see his way to a favourable consideration of it. We do not pretend to know on what grounds it was originally decided to increase the length of the tour from five years to six at some stations and from three years to four at others; but it has been stated in Parliament that the obstacle to a resumption of the old rule is the increase of expense which it would involve. This appears to us a most lame and impotent conclusion; for if an economy has really been effected at the cost of much suffering and inconvenience to the Service there can be no good reason for persisting in it. It is not a question of increase of expense at all, but of resuming an expenditure which has been unwisely retrenched. It should have been

apparent from the moment that officers on half-pay were appointed to home stations that the effect would be to curtail the amount of home service for those on the effective list, yet that very moment was chosen to lengthen the tour abroad, thereby accentuating the grievance. If the employment of half-pay officers at home facilitated a reduction of the effective staff, surely the economy was sufficient without seeking for further savings at the price now paid for it in the loss of health and prolonged expatriation imposed upon the Medical Staff. There are many officers who hold that it is unjust in principle to fill up so many of the desirable stations at home from the half-pay list. This is perhaps rather a one-sided view; but it must be conceded that it is unjust so to prolong the term of service abroad that a career in the Medical Staff becomes one of perpetually recurring exile.

## Correspondence.

"Audi alteram partem."

### HALSTED'S OPERATION FOR THE RADICAL CURE OF INGUINAL HERNIA.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Sept. 10th, Mr. Frederick Page reports a case of radical cure of an inguinal hernia by Halsted's method, and compares the operation with that of Bassini, rather to the disadvantage of the latter. Now I have performed Bassini's operation eight times with the most satisfactory results, and I happen to be just as enthusiastically in favour of it as Mr. Page appears to be in favour of that of Halsted, and I wish to point out that Mr. Page has been—quite unintentionally I do not doubt—a little unfair on the question of the merits of the operation that bears the name of the distinguished Italian surgeon. In contrasting the relative advantages of the two operations Mr. Page says: "By every other method the canal is left occupied by the cord and recurrence is common. . . . Recurrence is far less likely to occur—i.e., by Halsted's method."

Mr. Page may possibly be in possession of statistics which he regards as sufficiently trustworthy to prove that Halsted's operation is less likely to be followed by a recurrence of the original hernia than is that of MacEwen, though I venture to think that the short time that the former procedure has been before the profession does not allow of any approach to dogmatism upon the point; but I venture to assert that he cannot have the same reason for preferring it to Bassini's, for the simple reason that—at any rate to the best of my knowledge—all the statistics that have been published concerning the operation show an entire absence of failure. Bassini reports in his original paper 108 cures (lasting for a period of from one to four years after the date of operation) that he was able to trace out of the 262 cases that he had done; while Paul Berger has repeated the operation thirty times without a failure. It is in face of figures such as these that I venture to think that Mr. Page's statements bear a little hardly upon the operation. For my own part, the reasons that incline me to favour Bassini's operation in preference to all others are briefly these:—By means of it the external abdominal ring is firmly sewn up opposite the point at which the cord emerges from the internal, and conversely the internal ring is firmly occluded behind the point at which the cord passes into the scrotum, and thus a new oblique inguinal canal is formed and the rings are reinforced in the valvular manner that nature has planned. In MacEwen's operation, and still more so in Halsted's, the track through which any second hernia has to make its way is the shortest possible, and a direct opening into the abdominal cavity exists through which the cord has to pass, and therefore the chance of averting the recurrence of the hernia lies solely in the thoroughness and solidity of the occlusion of the ring. I freely admit, however, that this preference is a theoretical one and that there is at present no direct practical proof of it, and that is just the reason that has induced me to write this note to point out that it is perhaps a little premature to laud one particular operation at the expense of others without supporting the dictum upon the basis of practical statistical experience.

I am, Sirs, yours faithfully,

Weymouth-street, W., Sept. 13th, 1892. FRED. F. BURGHARD.

<sup>1</sup> Arch. f. Klin. Chir., 1890, t. xl., p. 420.

### MIDWIVES AND ABNORMAL CASES.

To the Editors of THE LANCET.

SIRS,—The enclosed report of an inquest lately held at the Coroner's Court, Hammersmith, distinctly points to the urgent call for some legislation that may prevent the sacrifice of maternal life from the crass ignorance and culpable, if not legal, negligence of the midwife in not calling in medical aid till treatment has become useless. I give you a few of the symptoms. The after-pains continued the whole puerperal week, and, instead of daily being less, increased in severity, the patient had no sleep till the eighth day, and then only from a strong opiate procured by the midwife from a chemist (another evil of counter-prescribing, for this dose masked the symptoms), when she obtained sleep and said she was better. The after-pains from the second day were accompanied with nausea and sickness. The lochia were described to me as horribly offensive. The temperature on my visit on the tenth was 103°; respiration quick and short, the patient excited and rambling, the abdomen distended and tender. The poor woman was so ill the night before I was called in that her husband and a lodger sat up with her all night. Surely any midwife ought to have recognised these symptoms as very serious and obtained qualified medical assistance long before. I opposed the late Midwifery Bill because it was prospective and would have certificated this very ignorant woman and all the "Mrs. Gamps" of her class, but I am not opposed to some useful legislation demanded in the interest of those few women who cannot protect themselves, and think as I advocated in my address (page 5), when contesting a seat on the Medical Council as a direct representative, midwives should only be allowed to act when a doctor has been already engaged and so to act under the eye and responsibility of a medical man, and it would be better that they should be registered as obstetric nurses rather than midwives. I ask for the insertion of this letter, valuable and limited as your space is, because it will, I think, interest numbers of your readers and have a practical value, bearing as it does on this question now engaging the thoughts of a large section of the profession, but particularly the members of the select-committee of the House of Commons on the Midwives Registration Bill. On a rich patient, the doctor would be the ordinary attendant as is now the case; on a poor patient the club or parish doctor.

I am, Sirs, yours obediently,

Sept. 11th, 1892. FREDERICK H. ALDERSON, M.D.

### ON THE USE OF IRON SALTS IN VARIOUS FORMS OF DIARRHŒA.

To the Editors of THE LANCET.

SIRS,—Some few months ago, while engaged in the study of Bunge's Physiological and Pathological Chemistry, as translated by the late Dr. Wooldridge, I was much struck by his theory of the action of iron in chlorosis. While thinking this over, though not in entire agreement with him, I was impressed by the idea that it was not only possible but probable that iron might have a decided action in many cases of diarrhœa, by combining, as bismuth does, with the sulphuretted hydrogen and alkaline sulphides, to form inert insoluble metallic sulphides, and so check the diarrhœa by removing secondary, if I may so call it, irritation. It did not appear to me to be necessary to give the astringent forms of iron, on the assumption that, whatever forms of iron are given, it is probable that in the stomach they are converted into the chlorides and ultimately in the bowel after various changes into sulphides. The salt I chose for chief use was the citrate of iron and ammonia, though in some cases I used Blaud's pills. For some time now I have treated a large number of cases of infantile diarrhœa, in many cases apparently due to defective sanitation, of irritative diarrhœa, and some of tubercular diarrhœa by this means and with almost unvarying success. The rapidity with which the offensive smell of the motions disappears has exceeded anything I had thought likely, and half-a-dozen of my cases have apparently been so successful that I feel justified in suggesting that others may have a like success. In two or three cases too early a stoppage of the treatment was followed by a return of an offensive diarrhœa, which was soon checked again by resuming it. In one case, in a woman, a very violent attack of four days' duration, with intense griping and copious, watery,

very offensive evacuations at frequent intervals following the eating of food, which her husband said at the time was unfit for use, was relieved in twelve hours, and entirely removed in two days. Another case with motions of a distinctly typhoid fever character, but with no spots, in which I was watching the temperature, ended in the same favourable way. Children of three or four months old take without any inconvenience five grains of the salt every four or five hours; adults up to thirty grains every two or three hours. While discussing the therapeutic possibilities of iron, the following, though not entirely connected with its use in the treatment of diarrhoea, seems worthy of note. The combination of the tincture of the perchloride of iron with the solution of muriate of morphia yields a green solution, I imagine, with the formation of apomorphine or some similar derivative. Be this what it may, I have seen from the combination more distinct and rapid relief to the cough and diarrhoea of phthisis than from the administration of the drugs separately.

I am, Sirs, yours faithfully,  
Rochdale, Sept. 12th, 1892. WILLIAM STANWELL.

### "A CASE OF FRACTURE OF THE HUMERUS FROM DIRECT MUSCULAR ACTION."

To the Editors of THE LANCET.

SIRS,—The following case may be of interest to your readers as most uncommon if not unique. On July 22nd I was called to see a gentleman aged thirty, not extremely muscular, but well nourished and perfectly healthy in every respect. He gave me the following history: Whilst trying to "throw the cricket ball," practising for some athletic sports, having made his throw he felt his arm suddenly give way—the ball went about seventy yards—and he heard a report which everyone else in the field heard distinctly also. He tried to raise his arm and could not. On examination I found a transverse fracture of the right humerus situated at the junction of the middle and lower thirds. I set it in the usual manner, took it down on Aug. 19th, and he is now able to resume his occupation.

I am, Sirs, yours truly,  
Sept. 13th, 1892. J. W. HARRIS, L.R.C.P. LOND., M.R.C.S.

### MIDWIVES' REGISTRATION BILL.

To the Editors of THE LANCET.

SIRS,—As one who has read with much interest your account of the proceedings of the Select Committee in the matter of the Midwives' Registration Bill, I believe I am not alone in taking exception to the evidence as given by Dr. James Edmunds regarding the high mortality among lying-in patients attended by general practitioners as compared with midwives. To me it seems he gives the reason for this in his evidence when he says, "If any intercurrent illness occurred she would turn the patient over to a medical man." Dr. Hugh Woods gave the answer to this when he said "cases usually passed into the hands of doctors when death became imminent, and so went to their credit." I have long been under the impression that to get at the true state of affairs some sort of legalised form of death certificate should be in use, so as to show to the registrar whether a duly qualified person attended during the confinement or not. May I ask, would it be right for the doctor into whose hands these cases now pass to state in the certificate: (a) Parturition; attended by a midwife; (b) —? I am, Sirs, yours truly,

JAS. T. T. RAMSAY, L.R.C.P. Edin. &c.

Blackburn, Sept. 10th, 1892.

### OUR DUTY TO OUR PATIENTS.

To the Editors of THE LANCET.

SIRS,—On p. 374 of THE LANCET of Aug 13th I notice an article headed "The Hygiene of the Teeth." Doctors are often some of the worst sinners against their patients' health; for how frequently does one meet with a case of dyspepsia or neuralgia arising from faulty teeth, the latter attributed, and in many cases not without good cause, to having taken a large quantity of medicine in some previous illness? Those who are under the unpleasant necessity of dispensing their own medicines can at least use labels with directions that the mixture is to be taken through a tube or quill. Hospitals might do the same, all practitioners might

take the like precautions, whilst some check should be put upon the sale of those patent medicines that are known to act injuriously in this respect. Any chemist can make the required addition to an ordinary label, or procure a supply ready printed from a wholesale firm. Whilst looking after the rest of the body it is our duty not to damage so important an organ as a tooth. It matters not to us that some patients should refuse to carry out an instruction they may regard as irksome and valueless. Great stress is frequently laid on the functions of the rectum and the colon, but how much discomfort might be saved were due attention given to the care and cleanliness of the teeth and the proper mastication of food? Among the poor one frequently sees long unsightly teeth thickly coated with green, foul-smelling matter and standing in irritated and receding gums. Their owners are troubled with an unpleasant taste in the mouth—acidity, flatulence and other attendant evils. Many will not go to the trouble of procuring floss silk, excellent though it be, but they readily make use of a charred match to clear away some, at any rate, of the fermenting material between the teeth. Perhaps in ordinary practice it might be thought bad taste to supply patients with a few printed simple rules; but amongst the poor and in unopposed practices it appears to me that great good might result, and no harm be done, by the distribution to one's own patients of leaflets such as that now enclosed. Any required additions or alterations can easily be made to suit particular cases, and so long as no name is printed there seems but small possibility of encroaching on one's neighbour's practice.

A large London hospital has kindly given permission for the reprinting of their hints on the bringing up of babies. The rising generation is greatly damaged by being surfeited with boiled bread, biscuits, tea &c.—"just what we have ourselves." A few simple, common-sense rules would help to improve the health of those destined for a life of toil for which under present circumstances they are unfitted, and partly because, ere the struggle has begun, their constitution has already been impaired. Could you, Sirs, or one of your readers, mention any similar leaflet giving directions for the care of those recently confined, I feel sure that many practitioners would be only too glad to procure a supply for distribution, under suitable circumstances, to their patients, and thus many of the evils now looked upon as usual after confinement would be obviated. It frequently happens that a woman, from shortsightedness, gets up prematurely from her bed to undertake duties for which she is utterly unfit, thus rendering herself temporarily or perhaps permanently incapacitated for her duties as a mother. The leaflets cost about 9s. per thousand, so that the expenditure of a single penny might place many families in a position of far greater comfort and perhaps of even helping to improve the vital statistics of the nation.

I am, Sirs, yours truly,

Reading, Sept. 7th, 1892.

SPES.

### LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

#### The Licensing Sessions.

THE annual Licensing Sessions for the city of Liverpool have just concluded, the result being that there will shortly be nineteen fewer houses licensed for the sale of intoxicants than last year, and forty-five less than the year before. It is possible that this number may be slightly lessened on appeal. The magistrates have shown a firm determination to suppress any houses which are the resort of prostitutes or the scene of repeatedly disorderly conduct. They have also insisted upon the internal structural arrangements being such as to afford perfect facilities for the supervision of the police, and that the person named in the licence shall personally conduct the business and be responsible for whatever occurs on the premises. There is every reason to believe that these measures will lead to a reduction of intemperance and of the other evils to which it gives rise.

#### City Morals.

Among other resolutions brought before the city council at its last monthly meeting was one from the Watch Committee proposing that Parliamentary powers should be sought to enable the police to enter any house suspected to be a brothel and to arrest any person of either sex found there. The recent action of the Watch Committee has led to the prosecution

and conviction of a large number of persons keeping brothels in streets where such houses have been for many years tolerated. The result is that many of these houses are empty and their former inmates have been scattered, only, it is feared, to inhabit houses in other parts of the city hitherto free from them. As much feeling was exhibited against the proposed resolution it was withdrawn.

#### *An Epidemic of Violence.*

A tramcar conductor is lying in the Royal Infirmary suffering from concussion of the brain, the result of a blow on the head from a stick. A boy is lying at the Stanley Hospital suffering from a similar injury, the result of an assault, his assailant having first lifted him up and then dashed him violently to the ground. Several of the city police constables are on the "hurt list" as the result of violent assaults made on them during the last few days. A young man is lying in the Bootle Hospital suffering from a gunshot wound in the head; a bullet and a piece of bone have been extracted, but he remains in a very serious condition. The shot was fired by a man in custody, who states that he fired thinking that it was a blank cartridge.

#### *The Health of the Port.*

No other case of cholera has been reported, and all apprehension of any serious outbreak here has passed away. At the same time there has been no relaxation of vigilance on the part of the authorities, and any vessels coming from infected ports will be stopped and the crew submitted to careful medical examination before being permitted to land.

September 14th.

### MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

#### *Small-pox.*

A SHARP though as yet limited outbreak of small-pox has recently occurred at Failsworth, a manufacturing district on the north-eastern confines of Manchester. The first case occurred on August 25th, and it was then ascertained that the disease had been lurking undetected for six weeks before its presence was officially suspected. Up to the present time, at least ten small-pox cases have been admitted from this district to Monsall Hospital, which is fortunately close by. One of the patients is the sanitary inspector of the district, who was stricken with the disease in the course of his duties, and was removed to hospital early last week. The medical officer of health for Failsworth has apparently been unremitting in his exertions against the further spread of the malady, and he evidently receives the support of the sanitary authority. One good result of this local outbreak has already been made public; at the last monthly meeting of the Failsworth local board, the Act for the Compulsory Notification of Infectious Disease was formally adopted, Failsworth being one of the very few districts in this neighbourhood which had not previously enjoyed the protection which that Act is capable of conferring. Although, as is well-known, small-pox has been rife in several Yorkshire towns and villages in daily communication with Manchester, and individuals suffering from that disease have been from time to time detected either in the common lodging-houses or in the workhouse tramp wards, nevertheless small-pox has not as yet obtained a foothold in the city. Every case has been removed to the hospital and isolated as soon as discovered. The desirability of vaccination or revaccination has been impressed upon all persons who have been in contact with infection, and the disinfection of contaminated bedding or clothing has in all cases been insisted on.

#### *Cholera Precautions.*

The sanitary authority of the city have taken timely precautions against the possible importation of persons from abroad who may arrive here whilst incubating cholera. The corporation have with commendable promptitude made arrangements with the authorities of Monsall Hospital for the isolation and treatment of any cases of cholera that may find their way into the city. They have also erected additional temporary accommodation at Monsall to meet any emergency in regard to cholera which is likely to arise. With the object of restoring public confidence the Sanitary Committee have given the city officer of health *carte blanche* to take whatever

action he may consider advisable for the protection of the public health. One of Dr. Tatham's earliest acts was to organise a house-to-house visitation of the poorer districts of the city. In the Jewish quarters of the city handbills of precautions against diarrhoea and cholera, printed in Hebrew, have been circulated from house to house. About half a dozen persons from Hamburg have arrived here within the last ten days, and as they have come in infected vessels they have been kept under the necessary supervision by the medical officer of health.

#### *Relief of Pauperism in Manchester.*

The Board of Guardians of the Manchester Union have just published an instructive report on the working of their Relief Department. The report is from the pen of Mr. R. W. Guillette, assistant clerk to the guardians. There appears to be an increase in the number of applicants for relief, equal to 9 per cent. on the numbers of last year. In 23 per cent. the cause of destitution was stated to be "want of work." This, however, according to Mr. Guillette, must not be taken to mean that work was abnormally scarce during the year, but rather that many of those in want of work laboured under some physical or mental shortcoming which rendered their services of little market value. Persons of this class are apparently numerous, and Mr. Guillette says of them "that they are the last to benefit by a revival of trade, but the first to feel its decline." In not less than 64 per cent. of the total cases relieved, the ground on which assistance was claimed appears to have been either old age or some other incapacitating infirmity.

September 14th.

### NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

#### *Cholera Alarms and Precautions.*

THE alarm felt in Newcastle and district as to cholera has a good deal subsided; still, it is right to say that the necessary precautions are continued, and the city in any case will be much the better for the extra cleansing and sanitary attention which it is receiving. The War Office authorities have applied to the city council for leave to erect a temporary hospital on the Newcastle Moor in case of its being required for the troops in barracks, and the request has been acceded to. There has been a good deal of alarm at Blyth owing to a Hamburg steamer arriving with a case of diarrhoea, but the medical officer of health reports the river and town as being in a healthy state; it has been decided, however, to increase the hospital accommodation in case of need. The Blyth local board has applied to Sir Matthew White Ridley for power to erect a hospital on some portion of the Lints. Mr. Alderman Richardson's motion respecting increased powers for the Tyne port sanitary authority was carried last week. The powers meant are of course quarantine, and the necessity for this was strongly pointed out by several members. For instance, it was shown that, had the case of cholera on board the *Ilbo* been a few days longer in developing, the patient and his mates would have been on shore among their friends.

#### *An interesting Presentation to a Cumberland Surgeon.*

Mr. F. Postlethwaite, M.R.C.S., of Stapleton Brampton, Cumberland, was waited upon last week by a number of patients and friends in the district, who presented him with a new and handsome carriage. Mrs. Postlethwaite was presented at the same time with a purse of gold.

#### *Death of Mr. John Churchill, M.R.C.S., L.S.A.*

Mr. Churchill died at his residence, Hall Croft, near Carnforth, last week. He was educated at the Middlesex Hospital and qualified so far back as 1839. He practised mostly in Whitehaven, and retired about thirty years ago. He was placed on the Commission of the Peace for the county in 1880. The deceased gentleman was a bachelor, and it is understood that his body will be cremated at Woking.

#### *The Diagnosis of Malignant Infectious Disease.*

Dr. Whamond of Jarrow has issued a circular to the profession, in which he takes exception to the statement of our medical officer of health to the Tyne Port sanitary authority "that 95 per cent. of our medical men are incapable of

diagnosing a case of malignant infectious disease." Dr. Armstrong's remarks were based on a case of hæmorrhagic small-pox which unfortunately came to Newcastle from North Shields, where it had escaped notice. Now the case even at Newcastle was not diagnosed at once, as the man was about the Infirmary waiting-rooms, and was afterwards taken into a ward. As pointed out at the time in THE LANCET in an annotation on the subject, the diagnosis of this fatal form of small-pox is by no means always easy, though a few hours will often clear up the obscurity. Dr. Armstrong is a strong advocate for young graduates acquiring a knowledge of the treatment of infectious diseases before they begin practice, and he probably had this in view when he made the statement.

#### Sunderland: Election of a Medical Officer of Health.

The election of medical officer of health for Sunderland has been watched with some interest by the profession, and, as was expected, the post has been given to Mr. John C. Wood of Sunderland. Mr. Wood has been for some time surgeon to the police and deputy medical officer of health, and his appointment has given general satisfaction.

#### Tynemouth Water-supply.

The water-supply at Tynemouth has long been a drawback at this otherwise popular health resort. A special meeting of the Tynemouth Town Council has been held for the purpose of considering a report presented on this matter by the medical officer of health and the borough engineer, which stated that the available supply only equalled 14·8 gallons per head per diem, while at least twenty-eight gallons per head per diem were considered necessary. The report further stated that any arrangement that did not provide a reserve store for at least one month could not be considered as satisfactory. On the other hand, it is stated that there is at present a considerable waste of water, described as wholesale. Consequent upon the cholera scare the sanitary authority has given certain directions as to flushing and cleansing which, if not discontinued, will compel the borough authorities to restrict the supply to six hours a day. In Newcastle we have an abundant supply, and I believe sufficient to spare to supply Tynemouth and North Shields should the necessary connexion be made which I believe is under consideration.

Newcastle-on-Tyne, Sept. 12th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### Arrangements for Women Students at the Edinburgh Royal Infirmary.

THE managers of the Royal Infirmary some weeks ago devised steps which will provide for the medical education of women within the walls of the infirmary. As was stated in THE LANCET at the time that the purchase was made, the managers acquired property to the west of Lauriston-lane, with a view to the extension of the accommodation for patients. The building at present on the purchased land is to be used for the nursing and serving staff, and thereby two additional wards are to be available for the reception of patients, and these are to be used for the clinical instruction of women. One is to be medical and the other surgical, and it is expected that the senior assistant physician and the senior assistant surgeon will have charge of them. In addition all the special departments—the ear and throat, eye, skin, gynaecology and lock—are to be open to the women students, presumably at different times from the male students; but the clinics may be mixed, this point, so far as is known, not being definitely settled. The medical out-patient department will also be made more or less available for women students. No further arrangements, so far as is known, have been made. There is no rumour of the Edinburgh University taking steps similar to those taken by the Glasgow University for providing teaching that will qualify women to appear for the University medical examinations, although the Commission gave them the power to do so.

#### Edinburgh University Financial Statement.

Reference was made last week to a Parliamentary paper prepared by the University Court on the finances of the University. There has been published another of these statistical

reports dealing with the incomes of the University officers. The report is for the year ending Sept. 30th, 1891, and is furnished in accordance with the requirements of the Universities (Scotland) Act, 1889. It contains much material for contemplation by those interested in medical education in the University. In none of the Faculties can many of the occupants of chairs be commiserated on the poverty of their livings, but it is with medicine we are specially interested. Details of shillings and pence need not be particularised. The gross incomes of each professor are given below and also the amount he spends on assistants and other expenses:—

	Income.	Expenses
Professor of Botany .. .. .	£1785	£205
" Physiology .. .. .	2408	783
" Practice of Physic, including Clinical Medicine .. .. .	1752	78
" Anatomy .. .. .	2984	493
" Chemistry .. .. .	2510	1190
" Midwifery, including Clinical Medicine .. .. .	1205	110
" Natural History .. .. .	1829	320
" Materia Medica, including Clinical Medicine .. .. .	2431	370
" Clinical Surgery .. .. .	1105	80
" Medical Jurisprudence .. .. .	909	252
" Surgery .. .. .	1602	450
" Pathology and Clinical Medicine .. .. .	2393	303

The income and expenses of the Professor of Pathology given here are from the return for the preceding year, as they are not filled up for last year. The number of assistants in each department is as follows:—Botany one, salary £220; Physiology three, salaries £100 to £400; Practice of Physic one, salary £100; Anatomy five, salaries £42 to £235 10s.; Chemistry five, salaries £50 to £275; Midwifery two, salaries £65 10s. to £100; Clinical Medicine one, salary £160; Natural History one, salary £300; Materia Medica two, salaries £120 and £200; Clinical Surgery one, salary £50; Medical Jurisprudence one, salary £250; Surgery three, salaries £100 to £150; Pathology (previous year) three, salaries £20 to £170. The number of students attending some of the practical classes are: Physiology, 338; Anatomy, 534; Chemistry, 309; Pathology, 240. The total number of students matriculated for the academic year was 1809 and for the summer session only 194. There is one other startling set of figures. The University has laboratories in which provision is made for work beyond the elementary and rule-of-thumb work of what are called practical classes. The following are the laboratories in which work of the kind has been done and the number of persons who have worked in them: Physiology, 10; Chemistry, 20; Medical Jurisprudence, 35; Pathology, 0. The above details speak for themselves and put a strange complexion on the cry that original work is not done in the University as there are no funds to pay workers.

#### Leith and Cholera.

There is considerable talk in some quarters as to the apathy of Leith at the present time. It has a large trade with the Continent, and usually a very large one with Hamburg. The notification of infectious diseases is not in force, and it is said that thousands of baskets of fruit have arrived from Hamburg and been distributed all over the country. Ought such things to be?

#### University Chair of Surgery.

The contest for the chair of Surgery in the University, rendered vacant by the lamented and sudden death of Sir George H. B. Macleod, has been much simplified by the announcement that Dr. H. C. Cameron does not intend to stand as a candidate. This leaves the field practically clear for Dr. William Macewen of the Royal Infirmary, for, though other candidates of local renown in Glasgow and Edinburgh are spoken of, their claims sink into insignificance beside those of Dr. Macewen. The feeling of the profession here is very strong on the subject and is perfectly unanimous, and if by any chance Dr. Macewen were passed over, resentment in both professional and lay circles would be keen, as the people of Glasgow as a whole are proud of their townsman. A memorial was presented to Sir G. Trevelyan on Wednesday last while the right honourable gentleman was on a visit to Glasgow, pointing out Dr. Macewen's eminence as a surgeon and the unanimous desire of the profession that he should be appointed to the office held by his old infirmary chief. I also understand that Dr. Charles W. Cathcart, assistant surgeon in the Royal Infirmary, Edinburgh, is a candidate for the post. Another candidate spoken of is Dr. Crawford Renton of the Western Infirmary, Glasgow. Professor Victor Horsley's name has also been mentioned.

*Western Infirmary.*

The managers of this institution have determined to transform it into a joint-stock concern, incorporating it under the Companies Acts, 1862 to 1890, and they have just been authorised by the Court of Contributors to sign the memorandum and articles of association to that effect. The principal object to be attained in thus registering the infirmary under the Joint Stock Acts is to obtain perpetual succession, or, in popular phrase, to save the trouble and expense of recurring conveyances of the property of the institution from one set of trustees to another as deaths occurred among them. The memorandum and articles of association have received the approval of the Board of Trade.

*Lectures on Cholera in Glasgow.*

Dr. J. Lindsay Steven on Monday last delivered the first of a short course of lectures on cholera to the nursing staff of the Glasgow Sick Poor and Private Nursing Association. The lectures are being delivered under the auspices of the directors of the institution and have been thought necessary in view of the near approach of cholera to our country.

*Insanitary Houses in Buchan.*

Dr. Watt, reporting to the Aberdeenshire County Council Committee, mentions the following cases:—The sleeping apartment at Bilbo-park was still in the same condition. Its greatest height was 5 ft. 6 in., and the ventilation was by means of a skylight opening towards a dung heap. It was separated from the cow-house by a wooden partition so defective that the foul air came through it, and at the other side the foul air from the stable had ready access, the floor being very defective. The house at Tassathill was neither wind- nor water-tight; it had a dung heap within three feet, parts of the bedroom walls were green with mould, and rat holes were plentiful (indeed, a rat-trap was set in the middle of the floor), and the roof and chimney were dangerous. Other houses were not inhabitable.

*Health of Aberdeen.*

During last week 15 cases of measles, 19 of scarlet fever, 1 of typhoid fever, 11 of whooping-cough and 2 of erysipelas were reported to the medical officer of health, being a decrease of 12 on the whole as compared with the preceding week. There were no cases of diphtheria, typhus fever, small-pox or puerperal fever.

At a meeting of the Public Health Committee of the Aberdeen Town Council held this week it was reported that the estimated expenditure for the ensuing year would be £817 in excess of the income. There will, however, be no increase in the rate, as it is at present at the maximum. There were also considered the plans of the proposed addition to the City Hospital, which are estimated to cost £12,800. After discussion consideration was deferred for some days.

Sept. 13th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*Reformatory and Industrial Schools.*

FROM the thirtieth annual report it appears that at the close of 1891 there were seven reformatory and seventy industrial schools in active operation in Ireland. The children in reformatory schools numbered 786 and in industrial schools 8547. The inspector strongly insists on the evil effects of short sentences and states that all authorities agree that sentences to a reformatory should be for a maximum period of five years. It should also be remembered that a five years' sentence does not of necessity mean five years' detention in a reformatory, for managers have power to license after half the sentence has expired, and may obtain a discharge at any time if they can show that it is for the advantage of the young offender. The cost of industrial schools was £160,317 12s. 10d. or an increase of £2043 11s. 9d. over that of the previous year; while the cost for each child averaged £17 17s. 3d., and for the reformatory schools the average was £21 15s. 1d. The health of the children has been most satisfactory. In reformatory schools there were no deaths from contagious or infectious disease, or any serious epidemic in any of them; while in industrial schools there were eighty-nine deaths out of about 10,000 children under

detention. Of these eighty-nine deaths thirty-six were due to lung disease, and, although the winter has been a singularly bad one, the death-rate from consumption was 3.6 per 1000, as against 4.1 the year before. Ophthalmia was rather prevalent in several of the industrial schools, and the inspector wisely remarks that managers incur a grave responsibility who permit children to be treated for it by any person other than a skilled physician.

*Grievances of Dispensary Medical Officers.*

On the 10th inst. a meeting was held at the Royal College of Surgeons to consider the propriety of forming a Union Medical Officers' Association. After some discussion it was determined to summon a special meeting of the Irish Medical Association, and that all provincial dispensary officers should be urged to attend.

*South Charitable Infirmary, Cork.*

At a late meeting of the trustees a letter was received from Miss Dora Allman requesting permission to be admitted to clinical teaching at the South Infirmary session of 1892-93. She pointed out that the council of the Queen's College had already made arrangements for the admission of women to the dissecting-room and to all the medical lectures of the college; while in Belfast last winter six ladies had attended the practice of the Royal Hospital. Miss Allman had recently passed an examination of the Royal University of Ireland, and if refused admission to the infirmary would be unable to remain in Cork to attend lectures. Professor Hartog of Cork College, on behalf of the students, stated that they were in favour of the trustees granting the same facilities to women as to men. The board will hold a special meeting this week to consider the matter.

*Proposed Floating Hospital for Cork.*

A meeting of the rural health committee was held on Monday to discuss the proposed floating hospital for the harbour, for which Sir John Arnott had offered a hulk, and to consider the question of precautions against cholera. The military authorities propose to land any cases of cholera that may occur among troops arriving in Cork Harbour for treatment at a cholera hospital to be especially formed in the harbour—namely, at Spike Island, Fort Carlisle and Fort Camden. The guardians, however, consider that a floating hospital, as the sanitary committee suggested, is the proper place for sea-borne infectious cases to be treated, and they object to cases being removed to Spike Island or any other place except the floating hospital. Mr. Hodges has recommended that the guardians should purchase a vessel called the *Drowning Sophia*, and a resolution to have that vessel examined and, if advisable, purchased for use as a cholera hospital was adopted. Sir J. Arnott has expressed his willingness to put one of the hulks in Passage Docks in a seaworthy condition and in a sufficient state of repair to enable it to be used for the purpose of a floating hospital.

*Queen's College, Belfast.*

The report of the President of Queen's College, Belfast (Rev. Dr. Hamilton), has just been printed for the session 1891-92, and it shows that the Ulster College is in a very satisfactory condition. The number of students was unusually large, there being in the Faculty of Medicine 270, in Arts 185, in Engineering 11, and in the School of Law 19. Four students attended in more than one faculty and the total number of students in attendance was 481. There were eight ladies in the classes. The number of freshmen who entered for the first time was 155. A very satisfactory arrangement has been made in connexion with the teaching of pathology, the trustees of the Sorella Trust (created by the late William Dunville, Esq., of Belfast, to perpetuate the memory of his sister, Miss Sarah Dunville, who died in 1863) having informed the President that they propose to provide an endowment of £240 per annum for the establishment of a separate chair in the college, to be called "The Dunville Professorship of Pathology." It is owing to the munificent action of Mr. R. G. Dunville, D.L., nephew of the late Mr. Wm. Dunville, that this has been done. He has also acquired from the trustees a portion of ground belonging to the trust and presented the same to the citizens of Belfast to be maintained for all time as a public park. Mr. W. H. Barrett, M.B., of Edinburgh, has been appointed lecturer on pathology. Reference is also made in the report to the new chemical laboratory which is being built in the college

grounds and also to the projected new building for the students' union. Towards the realisation of this project over £3000 has already been subscribed. The President advocates the erection of a biological and a physical laboratory and increased accommodation for the specimens in the natural history museum. Reference is also made in the report to the great successes of Belfast Queen's College men in the Royal University examinations and to what the college has done through the very distinguished graduates it has sent all over the world.

#### The Cholera Epidemic.

So far no new cases of cholera have occurred in Belfast and the authorities are taking every precaution to prevent its entrance to the city. An intercepting hospital, built at the Twin Island, has been fitted up, and Dr. Craig of Mountpottinger has been appointed to take charge of it.

#### The Ormeau Park.

A great deal of discussion is taking place in Belfast in reference to the gasworks. Owing to the very rapid increase in the size of Belfast it will be necessary to extend the present gasworks. There is no more room in their present position, but it has been proposed to build the new manufactory in Ormeau Park on the opposite side of the river to the old gasometers. Those opposed to this site say it would injure this public park and they advise building in some other place. There is also a strong feeling amongst many that an attempt should be made by the Corporation, who own the gasworks, to introduce the electric light into Belfast. It is stated that at a meeting of the Gas Committee of the City Council, held on Sept. 12th, it was decided not to build in the Ormeau Park.

An inmate of the Carlow Lunatic Asylum who had escaped committed suicide this week by hanging himself.  
Sept. 14th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

### CHOLERA AND ITS PREVENTION BY INOCULATION; EXPERIMENTS IN PARIS.

CONSIDERABLE interest has been aroused by the appearance, within the last few days, in the columns of some morning contemporaries of paragraphs announcing the discovery by M. Haffkine of a successful method of inoculation for cholera. Being desirous of supplying the readers of THE LANCET with a scientifically accurate account of the results hitherto yielded by the method as applied to the human being, as well as of the laboratory experiments upon which the method is based, I accordingly sought an interview at the Institut Pasteur with the discoverer himself. I found M. Haffkine busily engaged in his laboratory. His scientific preoccupations did not, however, prevent him receiving your representative with that quiet, dignified courtesy which is so characteristic of searchers after truth. After some conversation, M. Haffkine very kindly handed me reprints of papers read by him at the Société de Biologie on the 9th, 16th and 30th of July, 1892. These papers, he said, contained all the information I desired. I accordingly send you herewith an analysis of them. Those read on the 9th and 16th of July bore the titles "Le Choléra Asiatique chez le Cobaye," "Le Choléra Asiatique chez le Lapin et chez le Pigeon," respectively. By July 30th, the experiments having been extended to man, the communication made on that date was "L'Inoculation de Vaccins Anticholériques à l'Homme." In the early experiments the intensification and the attenuation of the cholera virus was the object, advantage being taken of the method so successfully put into practice by the illustrious Pasteur himself and by his pupils in their studies on chicken cholera, anthrax, *rouget du porc* and diphtheria. It was found that when Pfeiffer's plan of introducing cholera bacteria cultivated on the surface of nutritive gelatine into the peritoneal cavity (of guinea-pigs) was pursued the disease was not transmitted from one animal to another, as the microbe disappeared early in the series. In order to procure intensification of the virus by its passage through a series of animals recourse was had to the following manœuvres:—1. A dose of virus collected from a gelatine plate in a sufficient quantity to kill several animals was injected into the peritoneal cavity of the first guinea-pig. The

animal died with a peritoneal effusion abounding with microbes, the fluid effused varying, curiously enough, with the size of the guinea-pig. In a large-sized animal the matter was abundant and dilute, whereas it was less abundant and more concentrated in smaller animals. 2. This fluid is left for several hours exposed to the air at the ordinary temperature. 3. It is now inoculated into other animals; those that are small-sized receiving some of the dilute and those that are large the concentrated products.

A series of transmissions thus conducted leads at length to the production of a constant virus (*virus fixæ*)—i.e., a virus (yielded by cultivation from the microbe) which is constant as to time and dose in its lethality. After from twenty to thirty transmissions no further intensification was observed. These experiments provided M. Haffkine with a virus whose poisonous properties had increased about twenty-fold, and which killed rabbits and pigeons at doses which were previously innocuous. The problem of the intensification of the cholera virus having been solved, its effect on animals, into whose thigh muscles it was injected, was tried. All these animals died. Introduced subcutaneously, the animal's general health did not suffer in the least, but there was provoked enormous œdema of the limb, which, spreading over a large area, ends in mortification of the tissues involved. Healing, however, ultimately takes place. It was now sought—and successfully sought—to procure an attenuated virus from which these gangrenous properties should be absent. This was done by cultivating it in bouillon at a temperature of 39° C. and in an atmosphere kept constantly aerated (method applied to the diphtheria bacillus by MM. Roux and Yersin). Under these conditions the cholera vibrio perishes rapidly. In order to prolong the experiment sufficiently long for the procuring of the attenuation the microbe is re-sown in a fresh culture medium every two or three days. This method yielded a virus which, inoculated into the areolar tissue of animals in even large doses, did not bring about the phenomena of necrosis with which the concentrated variety is endowed. Now comes the application of this attenuated virus as an inoculating agent (for animals) against Asiatic cholera. The satisfactory discovery was in fact made that a previous inoculation with the attenuated virus prevented all necrosis in animals into whose subcutaneous tissues a quantity of the strong virus was introduced. It was further found that an animal that had been subjected to inoculation, first with the attenuated and then with the intensified virus, was incapable of contracting cholera, whatever mode of production of the disease was adopted. The comma bacillus may with impunity be deposited in the intestine, opium being injected into the peritoneal cavity directly afterwards, after the method of Nienti and Rietch and of Koch. M. Haffkine soon afterwards discovered that the above phenomena were as applicable to the rabbit and the pigeon as to the guinea-pig. The most murderous assaults of the microbe of the cholera now present, as it has been for the past five months, in an endemic form in Paris were resisted by these animals, who had been inoculated first with attenuated and then with intensified virus. It is pointed out by M. Haffkine that the Paris bacillus has shown itself as lethal in the laboratory as the Madras, Calcutta, or Saigon variety.

The protective power of M. Haffkine's anticholeraic vaccine having thus been amply and conclusively demonstrated in the case of animals so varied as guinea-pigs, rabbits and pigeons, its effect on the human being was tried. On July 18th M. Haffkine introduced into the areolar tissue of his own left flank a dose of the first (or attenuated) anticholeraic "vaccine," superior to that which proved protective to the above-named animals. The constitutional disturbance produced by the inoculation lasted twenty-four hours and consisted of an elevation of temperature, which rose from 36.6° C. to 37.5° C., headache, dryness of the mouth and high-coloured urine. There were no gastro-intestinal symptoms whatever. Locally there was pain at the seat of inoculation, with slight swelling of the part, and also of the corresponding lymphatic glands. The pain had completely disappeared by the fifth day, leaving some swelling, which, however, entirely disappeared in its turn four days later. On July 24th—i.e., six days after the first inoculation—a quantity of the second (or intensified) "vaccine" was injected into the areolar tissue of the (right) flank. The temperature rose to 38.6° C.; there was some local pain, but no swelling of the part or of the lymphatic glands was noted. The febrile condition lasted only twenty-eight hours, and the local pain had completely ceased three days after the inoculation. The digestive organs remained unaffected. Encouraged

by these results, M. Haffkine proceeded to inoculate certain of his compatriots. Dr. Jawein of St. Petersburg, who weighed seventeen kilos more than M. Haffkine, received on July 22nd the same dose of the first (or attenuated) "vaccine." The malaise, which lasted five hours only, was slight, the temperature rising from 37.2° C. to 37.6° C. The apparent local swelling lasted about three days, but some œdema could be perceived on pressure on the fourth day. Seven days after the first inoculation the strong virus was injected, the reaction this time being scarcely appreciable. In three hours the temperature had risen from 37.2° C. to 37.4° C., falling at the expiration of five hours to 36.9° C. The local phenomena were much less marked than after the first inoculation and the constitutional disturbance was conspicuous by its absence. On July 25th Dr. Tamamcheff of Tiflis was inoculated with four-fifths the quantity of "vaccine" that had served for M. Haffkine. At the moment of the operation Dr. Tamamcheff's temperature was 38° C. (100.4° F.), there being thus previously to the inoculation some fever. Nine hours later the mercury rose to 39.1° C. (102.3° F.), but the next morning it had fallen to 37.7° C. The local reactionary phenomena gradually disappeared, and the only intestinal trouble observed was some slight constipation two days after the operation. Pretty much the same phenomena were noticed in the case of M. Wilbouchewitch after inoculation.

The above most interesting observations, while revealing its innocuousness, do not of course prove as yet that M. Haffkine's anticholeraic "vaccina" affords the same protection to human beings against the onslaughts of the cholera bacillus as it undoubtedly does to the animals mentioned above. The experimental proof is, for obvious reasons, not available in the case of man. It is for clinicians inhabiting cholera-infested districts to test the value of a method which, if it prove really efficacious, will confer lasting honour on the name of its discoverer.

In conclusion, I may mention that the number of persons hitherto inoculated at the Institut Pasteur by the official operator, Dr. Roux, is thirty-two.

Sept. 14th.

## Medical News.

**HOSPITAL SATURDAY FUND.**—The total amount now received on behalf of this fund for the present year reaches nearly £12,000.

We regret to announce the death of Dr. Frederick G. Jackson, at his residence, Cliff-bridge-terrace, Scarborough, at the age of seventy-one years.

**LONGEVITY IN IRELAND.**—During the June quarter, of the deaths registered in Ireland eighteen were centenarians. Nine were 100 years, one 101, three 102, one 106, two 107, and one each at 108 and 115 years respectively.

**INFECTIOUS DISEASES IN NEW YORK.**—During the two weeks ending Aug. 30th the following were the number of cases treated and the mortality of the chief zymotic affections:—Typhoid fever, 96 cases and 21 deaths; scarlet fever, 75 and 3 deaths; measles, 138 and 23 deaths; diphtheria, 111 and 31 deaths; and small-pox, 13 and 4 deaths. There were no deaths from typhus fever or whooping-cough.

**"THE GUARDIANS" AND CHLOROFORM ADMINISTRATION.**—On Saturday at a meeting of the Dartford Board of Guardians an application was made by the medical officer for the assistance of a second practitioner when administering chloroform. The chairman said there would have to be an application to the guardians and the question of advisability could then be considered. The medical officer was called into the room and explained that there was a certain amount of danger in performing an operation under chloroform, and that he would be liable to censure from the coroner if death occurred. It was the rule of the profession to have two medical men in attendance at such a case. After some discussion the board agreed to the calling in of another medical man at an operation, the fee to be charged to the board.

**CHARING-CROSS HOSPITAL.**—This institution was reopened on Sept. 12th for the reception of patients, after having been closed for nearly two months for cleaning and repairs.

A new winter sanatorium for phthisical patients was opened on Aug. 25th, at Leysin, Canton de Vaud, Switzerland. The building contains 110 rooms, none of which are less than twelve feet in height; ninety of them look south and many are in communication with broad balconies.

**ROYAL ALBERT HOSPITAL, DEVONPORT.**—The governors of this institution have decided to realise £1700 from the invested funds, for the purpose of providing a new operating theatre, a hydraulic lift and consequent structural alterations, the estimated cost of which is under £2000. These improvements have been contemplated for some time.

**BEQUESTS TO MEDICAL CHARITIES.**—The will of the late Mr. Joseph Hobson, proprietor of the Theatre Royal at Leeds, has been proved at £30,000, exclusive of realty, which will probably realise over £100,000. He has left to the Leeds Infirmary £100 a year for ten years, to the Leeds Dispensary £50 a year for ten years, and smaller amounts to other charities.

**PRESENTATIONS.**—Mr. Conrad W. Thies, secretary of the Royal Free Hospital, Gray's-inn-road, has been on his approaching marriage presented by the management committee of the institution with a handsome case of knives and forks as a mark of appreciation of his services. He has also been the recipient of various presents from the medical and nursing staff and from the officers of the hospital.—Mr. R. Nelson Jones, L.R.C.P. Lond., M.R.C.S., Swansea, has been presented by the members of the ambulance class, in connexion with the St. John Ambulance Association, with a handsome silver inkstand, in recognition of services rendered to the class.

**THE EYE INFIRMARY FOR NORTHUMBERLAND, DURHAM AND NEWCASTLE.**—The annual report for the past year states that 2777 in- and out-patients were treated during the year. Dr. Jeaffreson (honorary house governor), in his report, remarks that the pressure upon the bed accommodation had been such as to necessitate the discharge of patients in stages of convalescence scarcely consistent with safety. At present there are only twenty-two beds, and he thinks that number should be raised to fifty. The balance sheet showed a deficit of £307 12s. 3d. The annual report concludes by observing that the support received by the institution from the factories of the district is very inadequate.

**PROPOSED NEW HOSPITAL AT RUGBY.**—At the meeting of the Rugby Local Board on Saturday a communication was received from the Local Government Board with reference to the application for sanctioning the borrowing of £1100 to purchase a site for an infectious hospital, and enclosing a copy of a letter they had addressed to the Rugby Rural Sanitary Authority, in whose district the proposed site stands, and who had refused to give their sanction. The Local Government Board were convinced that the provision of a hospital was important and that the proposed site was very suitable for the purpose. They understood that the rural sanitary authority withheld their consent because certain ratepayers had urged that patients in their parish would have no right of admission to the hospital.

## BOOKS ETC. RECEIVED.

- BAILLIÈRE, TINDALL, & Cox, King William-street, Strand, London.  
Alcoholism and its Treatment. By J. E. Usher, M.D. 1892. pp. 161. Price 3s. 6d.
- CHURCHILL, J. & A., New Burlington-street, London.  
Aix-la-Chapelle as a Health Resort. The English Edition. By Jas. Donelan, M.B., M.Ch., B.A.O. 1892. pp. 323.
- HIRSCHWALD, AUGUST, Berlin.  
Die Nebenwirkungen der Arzneimittel. Von Dr. L. Lewin. 1892. pp. 783.
- KIMPTON, H., High Holborn, and HIRSCHFELD, Bros., Fetter-lane, London.  
Sea-sickness (Cause, Treatment, and Prevention), Voyaging for Health Resorts. By Thos. Dutton, M.D. Durh. Third Edition. Fiftieth Thousand. 1892. pp. 134. Price 2s.

- LEWIS, H. K.**, Gower-street, London.  
The Hydro-Electric Methods in Medicine. By W. S. Hedley, M.D. 1892. pp. 156.
- LONGMANS, GREEN, & Co.**, London.  
Mountaineering. By C. T. Dent and others. Illustrated. 1892. Price 10s. 6d.
- MURRAY, JOHN**, Albemarle-street, London.  
Garden Design and Architects' Gardens. By W. Robinson, F.L.S. 1892. pp. 73.
- PHILIP, G. & SON**, Fleet-street, London; and **PHILIP, SON, & NEPHEW**, South Castle-street, Liverpool.  
The Human Voice. By W. H. Griffiths. 1892. pp. 100. Price 2s. 6d.
- SMITH, ELDER, & Co.**, Waterloo-place, London.  
On the Principles and Exact Conditions to be observed in the Artificial Feeding of Infants. By W. B. Cheadle, M.A., M.D. Cantab., F.R.C.P. Second Edition. 1892. pp. 243.
- SIMPKIN, MARSHALL, & Co.**, London.  
Day Visions and Clairvoyant Night Dreams. By Joseph Darby. 1892.
- PENTLAND, YOUNG J.**, Edinburgh and London.  
Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Edited by J. B. Tuke, M.D., and D. N. Paton, M.D. Vol. IV. 1892. pp. 254.
- Report of the National Society for the Prevention of Cruelty to Children, 1891-92 (Central Office, Harpur-street, Bloomsbury, London, W.C.).—Vorlesungen über die Krankheiten des Herzens; von Dr. Oscar Fraentzel; III. (Schluss) (A. Hirschwald, Berlin, 1892).—Immunity from Phthisis as affected by Altitude in Colorado; by C. F. Gardiner, M.D. (reprint from the American Journal of the Medical Sciences, July, 1892).—Guy's Hospital Reports, Vol. XLVIII, 1891 (J. and A. Churchill, London, 1892).—Modern Materia Medica; by H. Helbing, F.C.S.; third edition, 1892 (Lehn and Fink, New York).—Bulletin of the Harvard Medical School Association, No. 3; Second Annual Meeting, held in Boston, June, 1892 (published by the Association, 1892).—Index-Medicus: Authors and Subjects; Vol. XIV, No. 8, August, 1892 (Trübner & Co., and Lewis, London).—Klinische und Experimentelle Studien. Aus dem Laboratorium; von Professor v. Basch; II. Band (A. Hirschwald, Berlin, 1892).—Magazines for September: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society), The Strand.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

- BAXTER, W. W.**, L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Third and Fourth Sanitary Districts of the Tendring Union.
- CAHILL, MARK F.**, L.R.C.P., L.R.C.S. Edin., has been appointed Assistant Surgeon to the Children's Hospital, Temple-street, Dublin.
- CAUDWELL, HENRY**, L.R.C.P., L.M., L.R.C.S. Edin., has been re-appointed Medical Officer for the First Sanitary District of the Woodstock Union.
- DALBY, A. W.**, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Frome Rural and Urban Sanitary Districts, vice Parsons.
- ELLIMAN, ARTHUR C.**, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Kent and Canterbury Hospital, vice Prentice, resigned.
- GEDDIC, WM.**, M.D., C.M. Aberd., has been appointed Police Surgeon, Accrington.
- GREENHALGH, J.**, L.R.C.P., L.M. Irel., has been reappointed Medical Officer for the Cumberworth Sanitary District of the Huddersfield Union.
- GRIFFITH, AUGUSTINE**, M.B. Lond., has been appointed Second Assistant Medical Officer to the Borough Asylum, Nottingham.
- HEATON, ARTHUR F.**, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Wrexham Infirmary.
- JONES, G. E.**, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer for the West Ardsley Sanitary District of the Wakefield Union.
- KIRTON, C. J.**, M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Medical Officer for the Holywell Sanitary District of the Parish of St. Leonards, Shoreditch.
- LAMBERT, F. W.**, L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Calverley-with-Farsley Sanitary District of the North Bierley Union.

- LAWSON, D. J.**, M.D., C.M. Edin., has been appointed Medical Officer for the Portland Sanitary District of the Weymouth Union.
- LLOYD-DAVIES, HAROLD, M.B., C.M.**, has been appointed House Surgeon to the Devonshire Hospital and Buxton Bath Charity.
- MACARTHUR, D.**, L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer for the Lofthouse-with-Carlton Sanitary District of the Wakefield Union.
- MACGREGOR, D. A.**, M.D., C.M. Edin., has been reappointed Medical Officer for the Emley and Flockton Sanitary Districts of the Wakefield Union.
- MACKENZIE, W. S.**, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Sharlstone, Warmfield-cum-Heath, and Newland Sanitary Districts of the Wakefield Union.
- MADDEN, THOMAS MORE**, M.R.C.P. Irel., F.R.C.S. Edin., M.R.C.S., L.F.P.S. Glasg., has been appointed Consulting Physician to the Children's Hospital, Temple-street, Dublin.
- MASON, WM.**, L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the St. Austell, Rural and Urban Sanitary Districts.
- OAKLEY, A. R. H.**, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer, for the Fifth Sanitary District of the Romford Union, vice Bruerton resigned.
- READER, J.**, M.R.C.S., has been appointed Medical Officer for the Alverthorpe Sanitary District of the Wakefield Union.
- ROULSTON, WM.**, M.D., M.Ch., M.A.O. Irel., has been reappointed Medical Officer for the Crofton Sanitary District of the Wakefield Union.
- SANDERS, THOS.**, F.R.C.S. Eng., has been appointed Medical Officer for the Tenth Sanitary District and the Workhouse of the South Molton Union.
- SANDERSON, C.**, L.R.C.P., L.F.P.S. Glasg., has been reappointed Medical Officer of Health, Hastings.
- SINCLAIR, J. E.**, L.R.C.P., L.M., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Parish of the Close of St. Peter, Westminster.
- TATE, J. J.**, L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer for the Eleventh Sanitary District of the South Molton Union.
- THOMSON, ANDREW, M.B.**, C.M. Edin., has been reappointed Medical Officer for Bretton West Sanitary District of the Wakefield Union.
- THORNTON, GEO. ENT.**, M.D. Edin., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Clinical Assistant to the St. Marylebone Infirmary, vice Baines, resigned.
- WALKER, H. U.**, L.R.C.P., L.R.C.S., L.M. Edin., has been reappointed Medical Officer for the Carlton Sanitary District of the Worksop Union.
- WELSH, R. A.**, M.B., B.S. Durh., has been appointed Medical Officer for the Felton Sanitary District of the Alnwick Union.
- WILKINSON, J.**, M.B., C.M. Edin., has been appointed Medical Officer for the Penkridge Sanitary District of the Cannock Union.
- WINTLE, COLSTON**, M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Hospital for Sick Children and Women, Bristol.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

- BETHLEM HOSPITAL.**—Two Resident Clinical Assistants.
- BRADFORD MEDICAL ASSOCIATION.**—Assistant (out-door). Salary to commence £120 per annum. (Apply to Ulna, 38, Little Horton-lane, Bradford, Yorks.)
- COUNTY ASYLUM, Prestwich, Manchester.**—Assistant Medical Officer. Salary commences at £100 per annum, with prospect of increase, together with furnished apartments, board, washing and attendance.
- COUNTY BOROUGH OF STROCKPORT.**—Medical Officer of Health for the District of the Borough, and to the Infectious Diseases Hospital, and Surgeon to the Police Force, at a salary at the rate of £400 per annum.
- DERBY PROVIDENT DISPENSARY.**—Qualified Dispenser. Salary £73, house, and allowance for cleaning. (Apply to the Secretary, 18, Hardwick, Derby.)
- GENERAL HOSPITAL, Birmingham.**—Pathologist. Salary £120 per annum.
- GENERAL HOSPITAL, Birmingham.**—House Physician. Salary £70 per annum, with residence, board and washing.
- GENERAL HOSPITAL, Birmingham.**—Surgical Casualty Officer. Salary £70 per annum.
- GENERAL INFIRMARY, Northampton.**—Assistant House Surgeon. Salary £80 per annum, with furnished apartments, board, attendance and washing.
- GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.**—House Physician. Salary £00 per annum, with board and lodging in the hospital.
- HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.**—Clinical Assistants.
- HUDDERSFIELD INFIRMARY.**—Honorary Physician.
- KENT AND CANTERBURY HOSPITAL.**—Assistant House Surgeon. Salary £60 a year, with board and lodging.

LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Pathologist. Salary £200 per annum, with furnished apartments, board, attendance, and washing.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London, E.C.—House Physician for six months. Salary at the rate of £40 per annum, with board and lodging.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, &c., Henrietta-street, Covent-garden.—House Surgeon for six months. Honorarium 25 guineas; board, lodging, and washing.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Third Assistant Medical Officer. Salary £100 per annum, with board, lodging and washing.

## Births, Marriages and Deaths.

### BIRTHS.

CHAMBERLAIN.—On Sept. 10th, at Bramdean House, Southampton, the wife of Edward Twyford Chamberlain, L.R.C.P. Lond., M.R.C.S., of a son.

CLARKSON.—On Aug. 25th, at Poona, Bombay, the wife of Surgeon-Major Clarkson, of a daughter.

HENDERSON.—On Sept. 10th, at Hoshungabad, India, the wife of Surgeon-Major Cecil Henderson, of a daughter.

MORSE.—On Sept. 5th and 6th, at Upper Surrey-street, Norwich, the wife of Thomas H. Morse, F.R.C.S. Eng., of twin boys.

NICHOL.—On Sept. 8th, at 11, Ethelbert-terrace, Margate, the wife of Frank Edward Nichol, M.A., M.B., of a son.

RICE-OXLEY.—On Sept. 8th, at Streatham, the wife of A. J. Rice-Oxley, M.A., M.B., M.R.C.P. Lond., of a son.

SOUTAR.—On Sept. 11th, at Barnwood House, Gloucester, the wife of James Greig Soutar, M.B., of a daughter.

TURNBULL.—On Sept. 11th, at Ladbroke-grove, W., the wife of G. Lindsay Turnbull, M.B., of a daughter.

### MARRIAGES.

BENTHALL—SHAW.—On Sept. 6th, at Osborne, Dorset, Winfred Benthall, M.B. Cantab., of Derby, to Phæbe Mary Christians, widow of the late Matthew T. Shaw, and daughter of the late Henry Harrison, of Maple Lodge, Surbiton.

BLACKER—GOURLAY.—On Sept. 8th, at The College Church, St. Andrew's, Arthur Barry Blacker, M.D., Ebury-street, London, to Anna Isabell, third daughter of Henry Gourlay, J.P., Clatto House, Fifeshire.

CAMPBELL—PAULL.—On Sept. 10th, at the Ascension Church, Ballin-hill, Richard Campbell, M.D., of Dalston, to Isabel Edith, eldest daughter of Alfred Paull, of Clapham-park.

CRESWELL—TOWGOOD.—On Sept. 12th, at Holt, Norfolk, John Edwards Creswell, M.B., seventh son of the late Edmund Creswell, Esq., of Gibraltar, to Catherine Burleigh, second daughter of the late Matthew Towgood, of Ceylon.

LANE—PINCHIN.—On Sept. 12th, at St. Andrew's, Stoke Newington, Frank Lane, L.R.C.P. Lond., M.R.C.S., L.S.A., to Florence Mary (Polly), youngest daughter of the late William Pinchin, of Snaresbrook, Essex.

TAYLOR—BISHOP.—On Sept. 7th, at Christ Church, Lancaster-gate, W., Seymour Taylor, M.D., M.R.C.P., of Seymour-street, Portman-square, to Edith, eldest daughter of Edgar Bishop, of Lancaster-gate and Highwood, Middlesex.

THORPE—SHUTTLEWORTH.—At Dallington Church, on Sept. 7th, by the Rev. P. Ward, Curate of St. Mary's, East Moulsey, assisted by the Rev. T. C. Beasley, M.A., Vicar of the Parish, Arnold Edward Thorpe, L.R.C.P., &c. (Edin.), of Newport, Salop, to Edith, second daughter of Joseph Shuttleworth, of Elmleigh, Dallington, Northamptonshire.

WARD—MORGAN.—On Sept. 8th at St. James's Church, Swansea, Manley Edward Ward, L.R.C.P., M.R.C.S., of Brasted, Kent, to Katharine Sophia Morgan, youngest daughter of the late Rev. Lewis Morgan, Vicar of Llangedock, Carmarthenshire.

### DEATHS.

CLARKE.—On Sunday, Aug. 23th, 1892 (suddenly), Thomas Edward Clarke, M.R.C.S. Eng. & L.S.A., aged 46 years.

FURSE.—On Sept. 12th, at Morton-crescent, Exmouth, Edwin Furse, J.P., Surgeon, South Molton, Devon, aged 53.

JACKSON.—On Sept. 6th, at Scarborough, Frederick Gorvis Jackson, M.D., aged 71.

ROGERS.—On Sept. 2nd, at Cannon-place, Brighton, R. J. Rogers, M.R.C.S.

SALZMANN.—Recently, at his residence, Montpellier-road, Brighton, F. W. Salzmann, M.R.C.S.

STEVENSON.—On Sept. 8rd, at San Jacinto, California, Geo. Stevenson, M.A., M.R.C.S., second son of James Stevenson, M.D., Medical Officer of Health for Paddington, aged 35.

*N.B.*—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### BLISTERING BY LIVING CANTHARIDES.

*Mr. Richmond Leigh (Liverpool) writes:—*

"A correspondent on the West Coast of Africa recently wrote me that the residents were suffering from a plague of the cantharides fly, as he termed it. These insects were so numerous and troublesome that he was unable to rest in bed, and had to pass the night in his sitting-room, being blistered all over at the time of writing. Some of his neighbours were in a terrible state, evidently much worse than himself. Fortunately no serious trouble resulted; for though the blisters were very painful, they disappeared spontaneously in a few days. This is a new terror added to a residence in the tropics, though it must be an uncommon one, as my correspondent has not mentioned it before, though he has lived in the neighbourhood three or four years. It is interesting to know that the bite of the living insect has a similar effect to that of the preparations of the dead. The active principle is evidently in the juices as well as the solids of the body. I do not remember to have seen any reference to this action of cantharides, and send it you trusting it may be of interest to your readers."

*Querulus.*—1. Many men do so practise with only surgical qualifications. Their certificates are accepted as from "registered" practitioners. We are not aware of their being prosecuted under the Apothecaries Act.—2. A pure physician should not have "Surgeon" on his door unless his licence, as in the case of the London College of Physicians, purports to be both a medical and surgical qualification.

*Mr. H. Bruce Jones (Reading).*—We do not recommend practitioners. Our correspondent should consult his usual medical attendant.

*S. W. Dublew* does not enclose his card.

### A RARELY OBSERVED CASE OF FACIAL ERYSIPELAS—TO WIT, A FLY.

*To the Editors of THE LANCET.*

SIRS.—I was called a few days ago to a case of well marked facial erysipelas, the parts primarily affected being the left malar region and the external ear. The patient was unaware of having had any injury to the part, and it seemed, therefore, that the attack might be assumed to be "idiopathic." Being sceptical as to the possibility of any disease arising "idiopathically," I inquired particularly if she had had any running from the ear, and learnt that there had been a slight watery discharge for a few hours before the attack commenced, which was two days before I saw her. The parts were too much inflamed to allow of any examination of the meatus with the speculum; but on the strength of the history of a precedent discharge I ordered the external auditory meatus to be irrigated with a hot solution of perchloride of mercury, 1 in 3000. This gave great relief, and on a subsequent day the patient told me that she was in the habit of picking dry wax out of her ears with the head of a pin. Whenever she did this the operation was followed by a thin watery discharge for a few hours. She had thus treated both ears on the day before the present attack began, and on the following morning had been woken up by a fly getting into her left ear, and she had had some difficulty in extracting it. During the course of the day the premonitory symptoms of the attack set in. Two or three days later, when the symptoms were abating on the left side, a similar but less acute attack developed on the right side, commencing at the auditory meatus. There seems little room to doubt that the fly carried the poison, which produced the attack, to a slight abrasion inside the left external meatus, and probably the patient's fingers carried some desquamating particles to a similar slight abrasion on the other side. I have ventured to submit this case to the notice of your readers because this sequence of cause and effect may probably be a typical one, though one that would easily escape observation.

I am, Sirs, yours faithfully,

Hanley, Staffs, Sept. 1st, 1892. ARTHUR E. NEVINS, F.R.C.S. Edin.

## MEDICAL EDUCATION IN SWITZERLAND.

THE final or professional examination is divided into two parts—(1) Examen Pratique; (2) Examen Oral. Both must be passed at the same time, but a candidate may be rejected on one or the other—there is no balancing of marks, or making up deficiency in one subject for weakness in another. The students are aware of what is required and work very hard in consequence. Although they are as a rule extremely well up, and rarely under five or six years' standing, it has happened that 25 or 50 per cent. have been rejected at an examination (2 out of 4 on one occasion last year). The dates and subjects of the last examination are appended. The language required is the French. The following is an account of the medical examination for the Federal Diploma, held at Geneva:—*Examen Pratique*.—April 27th, Medicine (written), four hours; 29th, Hygiene (written), four hours; 29th, Surgery (written), four hours; May 1st, Pathological Anatomy and Microscopic Specimens; 2nd, Gynecology and Manœuvres on the Mannequin; Medicine, with cases; 7th, Surgery, with cases; Operations on the Dead Body; 12th, Medical Jurisprudence (written), four hours; 13th, Ophthalmology. *Examen Oral*.—May 25th, Pathology, Physiology; 26th, Surgery, Diseases of Women and Accouchements; 27th, Medicine, Hygiene, Therapeutics.

*Mr. Bradford*.—Our correspondent should repeat the narration of the facts to the Registrar-General for Scotland. In England such a case would be investigated by the coroner of the district. Falling any satisfactory reply from the Registrar-General, the facts should be reported to the General Medical Council.

*R. B. K.*—Our correspondent may rely on the accuracy of the information; but in his own interest he should take the trouble to verify it for himself.

## "THE DEATH CERTIFICATE."

To the Editors of THE LANCET.

SIRS,—With regard to the giving of death certificates, I beg to say I lately went to act as locum tenens for a friend who was getting married. Just before the ceremony he called in to see an old lady who was dying, and within two hours started on his honeymoon trip with an uncertain destination. In the meantime the old lady had died, and her friends came the same day for the certificate, which they were anxious to have at once, as the registrar lived in another village some miles off, whilst they were at the same time four miles from the surgery. Being rather puzzled what to do under the circumstances, as it was so uncertain when I should hear from my friend to say where he was, not to mention the delay that would probably ensue before I could write to him, I at length made out a certificate, crossing out the letter "A" in each place and inserting my friend's name instead, giving the cause of death, signing my own name, and adding a postscript stating the circumstances of the case, and this the registrar duly accepted. I did not go to see the body, however; but it has struck me that this should never be neglected, as it is quite possible, though improbable, that great frauds might be perpetrated upon insurance companies otherwise. For suppose a patient seems to be desperately ill, that the medical attendant prematurely gives up all hope, and that before his next visit he receives an application for the certificate from the friends, whereas in reality the patient has rallied and ultimately recovers, it would be a disagreeable business for the medical attendant if he incautiously granted the certificate without having been to view the body. If the fraud were found out the parties concerned in it, being evidently not over-scrupulous, might probably try to drag him into it and even represent him as the prime instigator of it. It seems to me therefore that the law should make it compulsory for the medical practitioner to certify not only the cause but also the fact of death; for there is another form of fraud that might be perpetrated—viz., a child or idiot cheated out of an inheritance. I myself have not made it a rule to view the body, but I shall in future always do so.

I am, Sirs, yours obediently,

C. L.

Sept. 12th, 1892.

To the Editors of THE LANCET.

SIRS,—Some time ago I was called in on an emergency to see the patient of one of the oldest practitioners in the West-end. It was a case of apoplexy; the patient died in a few hours. I sent for her medical attendant, who had not seen her for several months, and suggested that he was the one to give the certificate, to which he agreed. I produced the printed form; but, to my astonishment, he said he never used one, and that his certificates had never been refused by the registrars. He wrote on a sheet of note-paper and worded it as he thought proper. I suppose the present Act does not compel us to use the form supplied by the registrar.—I am, Sirs, yours obediently,

Sept. 9th, 1892.

## "FUCUS VESICULOSUS."

To the Editors of THE LANCET.

SIRS,—Referring to the note of "Enqurens" on fucus vesiculosus in THE LANCET of the 20th ult. I may state that we have lately treated a patient by a course of that drug. While the patient was taking the liquid extract in drachm doses there was a slight diminution in weight in the first week, but in the succeeding fortnight his weight rose 1lb—viz., from 16st. 11lb. to 16st. 12lb. The drug was then discontinued.

The weight in the succeeding fortnight rose half a pound, and by the next week again fell to 16st. 12lb. Then another course was tried in combination with liquor potassæ, and after a fortnight the weight was reduced to 16st. 10½lb., there it remained steady and the drug was again discontinued. The symptoms of which the patient complained were thirst and unwellness, and it would appear that the drug relieved the thirst while it failed materially to reduce the obesity.

I am, Sirs, yours faithfully,

A. R. URQUHART, M.D.

James Murray's Royal Asylum, Perth, Sept. 14th, 1892.

## "THE MIDDLESEX HOSPITAL."

To the Editors of THE LANCET.

SIRS.—Will you kindly permit me to make a correction and also an addition to an item under the above heading in the Medical News in your last issue?

The name of the lady under whose will £1000—the executor exercising a wise discretion—have been awarded to the Middlesex Hospital is *Holm*, not "*Holms*." She was the widow of the late Henry Haley Holm, M.R.C.S., from whose estate the benefaction in question, in common with the many others just distributed, was exclusively derived. Henry Haley Holm, although circumstances caused his early retirement from the profession, was not altogether unknown in his time, and I think his name may be found in the earlier numbers of your journal. He adopted with considerable enthusiasm the phrenological theories of the late Dr. Spurzheim, of whom he was the intimate and valued friend, in common with his father, the late J. D. Holm of Highgate. The latter devoted three of his sons—namely, Henry Haley Holm, Joseph White Holm (both deceased) and myself—to the profession, and we alone of that name have been on its roll in this country. I trust I may therefore be pardoned for wishing that the source whence these benefactions are being made may not be overlooked. I think H. H. Holm was, with my father, one of the many original founders of the London University, now University College.—I am, Sirs, yours truly,

JOHN HOLM.

*Correspondent*.—Such limited qualifications are now neither recognised nor registrable. As to the offence of "covering" by a practitioner whose assistant holds the L.M., it would depend on circumstances. If he lived at a distance and had independent charge of cases the offence would be committed—not otherwise.

*Mr. L. G. Guthrie*.—Our correspondent puts the awkwardness—not to say absurdity—of such decisions as to the mode of notification effectively. But we cannot find room for his communication. We must restrict ourselves for the present to comments on particular cases.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Mrs. Adcock, Hendon; Dr. Allan, Glasgow; Mr. Anderson, Dublin; Mr. Atkinson, London; Mr. Bennett, London; Dr. Irwin Bolton, Constanta, Roumania; Messrs. Burroughs, Wellcome and Co., London; Mr. F. F. Burghard, London; Mr. Bell, Lancaster; Mr. T. B. Browne, London; Mr. Bland; Messrs. Butler Bros., Cape Colony; Mr. Bulger, Ettingshall; Mr. Bruckstone, Colwyn Bay; Dr. Boreham, Torquay; Mr. Clarke, Dalton-in-Furness; Mr. W. Frank Colclough, Dartford; Mr. Carpenter, Portsdown-road; Miss F. Power Cobbe; Miss Cox, Manchester; Dr. Chamberlain, France; Mr. Rupert C. Chicken, Nottingham; Professor Clark, Glasgow; Dr. C. Craighton, London; Mr. Cade, Lincoln; Mr. E. Chesshur, London; Mr. W. A. Chapple, Wellington, N.Z.; Mr. Dunlop, Clapton; Messrs. W. Dawson and Sons, London; Mr. Drowett, Kingston-on-Thames; Mr. E. Young Earles, Torquay; Surgeon-Captain G. Edmonds, Bombay; Mr. W. H. Fenton, London; Mr. Foster, Shipley; Mr. Hewett, London; Mr. John Holm, London; S. C. B.; Dr. Hunter, London; Messrs. Hopkinson and Co., Nottingham; Mr. Hunt, Biggleswade; Messrs. Henderson and Son, St. Andrews; Mr. J. Heywood, Manchester; Mr. Rowland Hills, Essex; Mr. Harrison, Derby; Mr. Hornbrook, London; Mr. Hyde, Stockport; Mr. Johnson, Gloucester; Dr. A. B. Judson, New York; Mr. Jones, London; Mr. Jones, South Wales; Mr. H. Bruce Jones, Reading; Messrs. Krohn Bros., London; Dr. R. Kirk, Glasgow; Mr. Lewis, Rainhill; Mr. Lancaster, Canterbury; Mr. Cyrus Legg, Sussex; Dr. Lanphier; Mr. R. Leigh, Liverpool; Dr. J. Fletcher Little, London; Dr. McLauchlan, Birmingham; Dr. W. A. Murray, Southend; Dr. Jas. Murphy, Sunderland; Mr. J. Mansfield, London; Dr. McFadyean, London; Dr. Monson; Mr. Montford, Harlesden; Dr. Orr, Sittingbourne; Messrs. Oppenheimer, Son and Co., London; Messrs. Oliver and Boyd, Edinburgh; Messrs. Preston Bros. and Co., Huddersfield; Mr. G. P. Pocock, London; Brigade-Surgeon Pringle, Redcar; Dr. L. E. Parkhurst, Northants; Mr. B. A. Rugg, London; Mr. F. J. Robman, London; Messrs. Richardson Bros., Liverpool; Mr. E. W. Ryde, Birmingham; Dr. Richardson, London; Mr. Ricker, St. Petersburg; Mr. Sell, London; Dr. Lindsay Steven, Glasgow; Mr. R. D. R. Sweeting, London; Mr. R. Milner Smyth, Norfolk; Mr. Simcock, Manchester; Messrs. C. Stanley and Son, Rotherham; Dr. F. A. Southam, Manchester; Dr. Heywood Smith, London; Mr. Stonhouse, Glasgow; Mr. W. Stanwell, Rochdale; Mr. Thrush, Southsea; Dr. Thorp, Liverpool; Mr. Jas. Thin,

Edinburgh; Mr. J. Teal, Halifax; Mr. Terrill, Ashford; Mr. F. S. White, London; Mr. Winton, London; Mr. Wills, Leeds; Dr. Whitla, Chamounix; Messrs. Wheatley and Co., London; Mrs. Waller, Highbury; Mr. Webb, Dublin; A. M. F., London; A. Z., London; County Asylum, Prestwich; Dumbarton Free Public Library: F. R., London; G., London; Inquirer, Essex; Leo, London; Lancashire; Liquor Carnis Co.; L.R.C.P., Downpatrick; Medicus; Medicus, Mold; Nottingham Borough Asylum; Practitioner, London; Secretary, Royal Infirmary, Manchester; Secretary, G.P.O., London; *Surrey Gazette*; Sigma, London; Sals, London; T. B., London; W. B., Dingwall; Z., London; Zero, London.

LETTERS, each with enclosure, are also acknowledged from—Mr. H. Ashley-Belbin, Sheffield; Mr. Anderson, Carmarthen; Messrs. Battle and Co., Paris; M. Berthier, Paris; Mr. Butlin, London; Mr. Beck, East Grinstead; Mr. Bennett, London; Mr. Beckton, London; Mr. Boys, St. Albans; Mr. Balmford, Morecambe; Mr. Bolam, Newcastle-on-Tyne; Mr. Bunting, Southsea; Mr. Brønner, Leicester; Dr. Barrett, West Bromwich; Dr. Chandler, Ramsgate; Mr. Clegg, Gosforth; Mr. Dougall, Wandsworth; Messrs. Debenham and Co., London; Mr. M. E. Ellis, Bath; Mr. Elfrick, Wilts; Messrs. Edwards and Co., Wrexham; Mr. Evans, Gresham; Mr. Fiske, Aylesford; Mr. S. Gahan, Margate; Mr. Gunnell, Wrexham; Dr. Griffith, Millford Haven; Mr. Garner, Clonmel; Miss Hooper, London; Mr. Hurst, Tomdorden; Messrs. Humphreys, London; Mr. Illingworth, Acclington; Canon Jeffreys, Hawkhurst; Mr. Kitson, Rockbeare; Mr. V. K. Kisloskar, India; Messrs. Keith and Co., Edinburgh; Messrs. Lamb and Bailey, Leeds; Mr. Lauer, Margate; Dr. Latham, Makorfield; Mr. Lamb, Albrington; Mr. Lancaster, Clitheroe; Dr. Lavers, Edonburg, South Africa; Dr. Maurice, Marlborough; Rev. R. H. Manlay, Cornwall; Mr. Merry, Hemel Hempstead; Messrs. C. Mitchell and Co., London; Mr. Moore, Breewood, Staffs; Rev. H. Morgan, Great Malvern; Mr. Morris, Basingstoke; Mr. Morris, Swansea; Mr. A. Nicholson, Annan, N.B.; Mr. Norman, Buckfastleigh; Dr. O'Clery, co. Cork; Dr. Polson, Sutherlandshire; Dr. Robertson, Edinburgh; Dr. Ryder Richardson, Staplehurst; Messrs. Robinson and Sons, Chesterfield; Mr. Rhodes, Huddersfield; Dr. Spicer, London; Mr. Shand, Bradford; Mr. Shorting, Broseley; Messrs. Stent and Sons, Guildford; Dr. Swift, Adelaide; Mr. Saint, Carlisle; Mr. Thomas, Carmarthen; Mr. Tyte, Minchinhampton; Mr. Ubsdell, South Devon; Dr. Waters, Liverpool; Dr. White, Droitwich; Messrs. Walker and Co., Heckmondwike; Mr. Ward, London; Mr. Woodman, Bridgewater; Arthurus, London; A. B., London; A. Z., London; A. B. C., London; A. B., Longton; Art, London; A. R., London; Asthma, London; Beta, Sheffield; B. A. S., Liverpool; Bachelor, London; B., London; Cactina, London; Chief Surgeon, Tredegar; Clayton Hospital, Wakefield; Cortex, Brixton; Cutes, London; C. O., Aberdeen; E. M., London; Mrs. G., Dover; Hackney Furnishing Co.; J. F. E., London; K. L. M., London; Locum, Manchester; Longford Wire & Co., Warrington; L. A. D., Bradford; M.B., London; M.D., Loughborough; Medicus, Strand; M.R.C.S., Birkenhead; Medicus, Cornwall; Meta, London; N. W., London; Nerve, London; Omega, London; O. P., London; P. P., Fulham; P. M., Sheffield; Practitioner, London; Sigma, London; Secretary, Co. Borough of South Shields; Surgeon, Keighley; Surgeon, Northover; Secretary, Derby Borough Asylum; Sanitation, London; Secretary, Royal Western Ophthalmic Hospital; Scotia, London; Sanitas Co., London; Sussex County Hospital; Secretary, Victoria Infirmary, Northwich; St. John Ambulance Association, London; Secretary, Warnford Hospital, Leamington; V. C., London; Yeovil Union; Z., Sheffield.

NEWSPAPERS.—*West Sussex Gazette*, *Blackburn Standard*, *John O'Grat Journal*, *Perthshire Journal*, *Newcastle Journal*, *Nature*, *The Orillia Packet (Ontario)*, *Surrey Gazette*, *Haekney Gazette*, *Sale and Stretford Guardian*, *Citizen*, *Down Recorder*, *Electrical Review*, *Royal Cornwall Gazette*, *West Bristol Advertiser*, *Liverpool Journal of Commerce*, *Times of India*, *The Bengalee Advertiser (Adelaide)*, &c., have been received

METEOROLOGICAL READINGS.  
(Taken daily at 8.30 a.m. by Steward's Instruments.)  
THE LANCET Office, Sept. 15th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. in Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Sept. 9	29.99	N.W.	53	50	85	65	40	..	Cloudy
.. 10	30.03	W.	60	58	80	61	53	..	Overcast
.. 11	30.10	S.W.	59	56	91	67	55	..	Cloudy
.. 12	30.15	S.W.	63	60	100	70	58	.04	Overcast
.. 13	29.78	S.W.	64	62	108	70	60	..	Overcast
.. 14	30.16	S.W.	54	51	111	69	49	..	Hazy
.. 15	30.10	W.	56	54	104	60	51	..	Hazy

Medical Diary for the ensuing Week.

Monday, September 19.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.  
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Tuesday, September 20.  
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
Wednesday, September 21.  
NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.  
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
Thursday, September 22.  
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M. Friday, September 23.  
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
Saturday, September 24.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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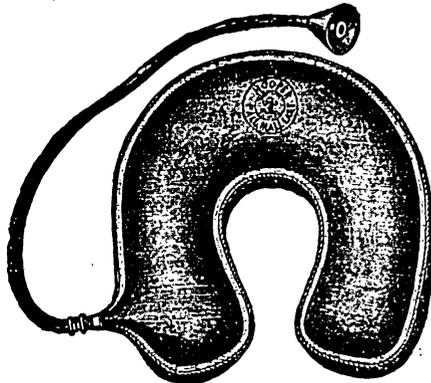
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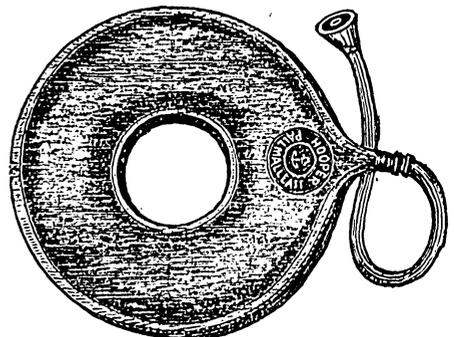


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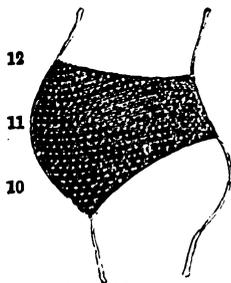
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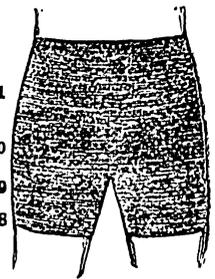
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- 5, Round leg, just below knee.
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## An Analysis

OF

FIFTY CASES OF VALVULAR DISEASE OF THE HEART, WITH REMARKS.<sup>1</sup>By JAMES ALEXANDER LINDSAY, M.A.,  
M.D., M.R.C.P. LOND.,PHYSICIAN TO THE BELFAST ROYAL HOSPITAL; CONSULTING PHYSICIAN  
TO THE ULSTER HOSPITAL, BELFAST.

As a basis for the discussion which is to follow I shall begin by giving a short analysis of fifty cases of valvular disease of the heart occurring in my practice within the last few years. The cases have not been in any way specially selected and may be taken as fairly typical examples of the disease in question. I should perhaps remark that the series consists almost exclusively of adult cases.

*Seat of lesion.*—In no less than thirty-three out of the fifty cases the only lesion that could be definitely made out was mitral regurgitation. This confirms what is, I think, the general experience, that this is much the commonest form of valvular defect. We must, however, bear in mind the well-known fact that it is common at post-mortem examinations to find lesions of the aortic valves which had escaped recognition during life. If we looked at clinical evidence only we should probably overestimate the relative frequency of mitral lesions. My cases do not happen to include a single instance of pure mitral obstruction, and I must express my opinion that this is a somewhat rare form of valvular defect. It is commoner in children than in adults and in the female than in the male sex. Only one case of combined mitral obstruction and regurgitation is included in my cases, although this has been in my experience a commoner defect than pure mitral obstruction. In 13 out of the 50 cases both aortic and mitral valves were affected, the most usual condition being the association of aortic regurgitation with mitral regurgitation. I am disposed to think that in most of the cases of combined aortic and mitral regurgitation the aortic lesion was primary and the mitral secondary. In only 2 of my cases was there pure aortic regurgitation without (sooner or later) mitral involvement, and in only 1 was there coexisting aortic obstruction and regurgitation without mitral defect. I have no records in my present series of any case of pure aortic obstruction; and I believe this, like the corresponding lesion of the mitral valve, to be a somewhat rare affection. My cases would then, so far as they go, seem to warrant the following conclusions regarding the relative frequency of the different valvular lesions—(1) That pure mitral regurgitation is much the commonest of all; (2) that next in order follow aortic lesions combined with mitral regurgitation; (3) that pure obstruction, either at the mitral or aortic orifice (at least sufficient to cause symptoms and afford adequate grounds for diagnosis) is a somewhat rare condition.

*Age.*—I find that of the 50 cases 27 had attained the age of thirty or upwards, while 23 were under that limit. On inquiring into the influence of age upon the relative frequency of the various lesions I find some interesting results. Thus the average age of 33 patients with pure mitral disease was found to be twenty-nine, while the average age of 14 patients in whom the aortic valves were affected either with or without mitral disease was found to be forty-one. This is a decided contrast, and illustrates the well-known rule that mitral disease falls rather on the earlier years of life and that aortic lesions become more frequent with advancing age. This law is explained by the fact that mitral lesions are usually the result of endocarditis, while aortic lesions are often the consequence of atheroma or other degenerative change in the walls of the arteries.

*Sex.*—I find that 26 of my 50 cases were males and 24 females, which would seem to indicate that sex has little influence in predisposing to valvular lesion of the heart. This is in striking contrast to the facts regarding aneurysm, which, as is so well known, occurs with greatly preponderating frequency in the male sex.

*Etiology.*—My cases bring out strongly what is the most

familiar fact in connexion with the etiology of valvular lesions of the heart—viz., the great part played by rheumatism.

In 27 out of the 50 cases there was a clear rheumatic history. In 5 of the cases rheumatism was associated with scarlet fever. In 23 cases no history of rheumatism could be made out. I have sifted this series of cases as carefully as possible regarding the pathological conditions either antecedent to or associated with the valvular lesion with the following results. Two cases were probably congenital, and may therefore be dismissed. In 6 cases hard drinking was acknowledged. Syphilis was present in 4 cases. Chronic bronchitis was likewise present in 4 cases. Bright's disease was also found in 4 cases. In 2 cases remittent fever had existed, and in most of the remaining cases no trustworthy data were available. These figures would seem to indicate that (as is universally admitted) rheumatism is by far the most potent factor in the causation of valvular cardiac lesions, and that next follow (but at a great distance) drink, syphilis and renal disease. In a very large number of cases the important element of muscular strain was present, but I have found it impossible to separate this from the other conditions enumerated. As regards the rheumatic cases, my records seem to show that the heart often withstands the first attack of rheumatism, sometimes a second, but that it inevitably gives way when there is a series of such attacks. I have not been able to make out to my satisfaction the probable duration of the cardiac lesions before the cases came under observation. One case had apparently lasted ten years, another five years, but in most cases there were no adequate data for determining the point. As regards the results of treatment, 15 cases died and the remaining 35 improved. In 17 cases the improvement was noted as slight or fair, and in 18 cases as marked and decided. Of the 15 fatal cases 9 were cases of mitral regurgitation, 2 were cases of pure aortic regurgitation, and 3 were cases of combined aortic and mitral disease.

I now wish to invite the attention of the Ulster Medical Society to a few general problems of prognosis in the class of affections under consideration. First, what is the relative gravity of the four principal valvular lesions of the heart? We may answer, I think with confidence that pure aortic obstruction is the least serious, pure aortic regurgitation the most serious, and that affections of the mitral valve are intermediate. Opinions have differed much regarding the relative gravity of mitral obstruction and mitral regurgitation. On the whole I incline to the view of Drs. Bristowe, Wilks, Peacock and Sansom that the prognosis is somewhat more favourable in obstruction, as it has seemed to me that compensation is better maintained in this lesion than in regurgitation. I would point out, however, that, as the majority of the cases of mitral obstruction which come under observation are found either in children or women, whereas mitral regurgitation is common in both sexes and at all ages, the comparison is hardly a fair or an instructive one.

I pass on to consider a much more arduous problem. Given a case of, say, mitral regurgitation, can we determine with any approach to accuracy the probable duration of life? It is now quite certain that these cases may live for ten, twenty, thirty, or forty years, so that in fact their serious defect may not shorten life at all; or, on the other hand, they may hardly live so many weeks or days. It becomes a most interesting and vitally important question to determine how far we can draw the line between the two classes of cases. Perhaps I shall best solve the problem that I have propounded by giving the substance of the teaching of Sir Andrew Clark, Professor Gairdner, Dr. Clifford Allbutt and others who have defined for us with considerable precision the cases of mitral regurgitation which may be reasonably expected to survive for many years. Sir Andrew Clark enumerates the following conditions as enabling us to speak favourably of the prospects of life in such cases:—(a) General good health; (b) just habits of living; (c) no exceptional liability to rheumatic or catarrhal affections; (d) origin of the valvular lesion independent of degeneration; (e) existence of the valvular lesion without change for over three years; (f) sound ventricles of moderate frequency and general regularity in action; (g) sound arteries with a normal amount of blood and tension in the smaller vessels; (h) free course of blood through the cervical veins; (i) freedom from pulmonary, hepatic and renal congestion.

I need hardly point out that the cases of mitral regurgitation presenting all these conditions are very exceptional

<sup>1</sup> An introduction to a discussion on Chronic Valvular Disease of the Heart at the Ulster Medical Society. No. 3604.

indeed; but they do occur sometimes, and it is most important that we should be able to recognise them." One of the conditions—viz., that the lesion shall have existed without change for over three years—is obviously a point very difficult of determination; and impossible to establish on a first examination. Hence, it is only after we have had a case of this kind for some time under observation that we are justified in speaking hopefully of the prospect of life. There is one class of case that calls for care and discrimination as regards prognosis. I mean where we have some regurgitation through the mitral valve as the result of sudden dilatation of the left ventricle and independent of actual structural damage to the valve. Some years ago a gentleman consulted me under the following circumstances. He had enjoyed good health until a few days previously, and had never had rheumatism. A few days before his visit to me he had undergone severe and unusual physical strain and had been seized with sudden and severe dyspnoea, which continued up to the time of my examination. I found the heart acting violently, but there was no evidence of hypertrophy. Auscultation revealed a loud bellows murmur at the apex and heard over a wide area. There was no pulmonary congestion, dropsy, or other evidence of systemic engorgement, and the only symptom complained of was the dyspnoea. I formed the opinion that in all probability the case was one of acute dilatation of the left ventricle from overstrain, and that while the prognosis was not free from anxiety, the prospects of recovery were good. I accordingly spoke encouragingly; ordered complete rest and tonics. The case rapidly improved, and in a short time all the troublesome symptoms had disappeared. I have not seen the patient for some time, but have lately heard that now, at the expiration of several years, he remains perfectly well. We must remember that all cases of acute dilatation of the left ventricle do not pursue this favourable course. Sometimes dropsy and the other signs of cardiac failure rapidly supervene and the patient dies, but the prognosis is essentially different from that of organic valvular disease. The particularly loud murmur present in this case leads me to remark that there is no greater error in dealing with cardiac disease than to regard a loud murmur as necessarily indicating a serious lesion. As a matter of fact the rule is rather the other way. In regurgitant mitral disease the loudest murmurs are produced by a small amount of blood being strongly forced through the valve by a vigorously contracting ventricle. The worst sign of all is where a loud murmur gradually becomes feebler and eventually disappears owing to failing contractile power of the ventricle. A murmur may, of course, also become feebler owing to increasing competence of the valve. The clinical signs will serve to differentiate the two cases.

There seems no doubt that occasionally, though rarely, organic valvular disease may entirely disappear. The best observers are agreed upon this point. There is no doubt whatever that the cardiac murmurs often present in chorea pretty frequently disappear, and everything seems to point to the conclusion that these murmurs are organic and not functional. The topic of prognosis in valvular affections naturally suggests the question whether any of the subjects of this affection may be fitly passed for life insurance at some increased premium. Most offices refuse positively to accept any applicant who has any form of cardiac disease; but this is not an absolutely universal rule and the point may arise with any of us. Sir Andrew Clark and Dr. Clifford Allbutt are both of opinion that certain cases in the class under consideration may be safely selected for insurance at some heavy increase of premium. The cases recommended for such a course are such as those previously described as affording grounds for a hopeful prognosis. Cases of mitral regurgitation, which have remained *in statu quo* for several years, where there is no change in the ventricle, no accentuation of the pulmonic second sound, no evidence of embarrassed circulation, and no subjective symptoms, are suggested as fair subjects for insurance at certain rates. Dr. Clifford Allbutt advises that such cases, if accepted, should be put upon the early payment system, so that all the premiums should be paid by the age of thirty or thirty-five. I confess I should hardly feel at liberty at present to recommend for insurance any applicant who presented the signs of organic valvular disease of the heart, though I have little doubt that there will, in the early future, be such an advance in precision of prognosis as to permit of this being done in a manner equitable alike to applicants and to the insurance companies.

## ON FREE FLUID IN THE ABDOMINAL CAVITY OF THE FEMALE.

By JAMES OLIVER, M.D., F.R.S. EDIN., F.L.S.

In the majority of cases the fluid which is found free in the abdominal cavity resembles the normal transudations of the body. Occasionally, however, it differs from dilute liquor sanguinis as it may be poured out by the rupturing of some cyst or abscess or the bursting of one or more blood-vessels. From the peritoneal sac of a well-fed animal, especially after the ingestion of a good meal, one is able to collect a quantity of serous fluid. Under ordinary circumstances, however, the arterial and venous pressures are so regulated that this liquid does not accumulate, but forthwith it finds its way again into the blood through the lymphatics. When therefore dropsy of the peritoneum occurs we may practically consider it as resulting in consequence of some derangement of a physiological phenomenon. The capillary system we know is the seat of the phenomena of nutrition, absorption and secretion, and it is to this system we must look for an explanation of the manner in which dropsy of the peritoneum takes place. If in a healthy animal we ligature the principal vein of a limb it does not follow that by thus interfering with the return of blood we shall produce œdema of this extremity. When, however, we cut the vaso-motor nerves the interstitial meshes of the area so disturbed are forthwith more or less markedly infiltrated by a serous exudation. In this case we destroy that tone of the vessels which is so essential for the maintenance of those physico-vital processes which are for ever going on, and by so doing we favour not only the transudation of serum, but interfere with the rate of absorption. Dropsy of the peritoneum very frequently depends upon inflammatory disease of the kidneys or upon organic disease of the lungs or heart. In this group of cases it is but a portion of a general dropsy, as the universal areolar tissue is similarly infiltrated. It is not my intention to deal at present with this form of ascites, but with that which, generally speaking, is not attended with anasarca elsewhere. The following are a few cases selected from a considerable number belonging to this category which have come under my own observation.

**CASE 1.**—*Free fluid in the abdominal cavity in association with fibroid induration of the stomach and general fibroid thickening of the peritoneum.*—A. L.—, aged thirty-five and married twelve years, had one child ten years ago. Menstruation, established at the age of twelve, has usually lasted five days. She was last unwell fourteen days before coming under my care on Oct. 20th, 1888. Since Oct. 1887—i.e., for twelve months—the patient has complained more or less constantly of a "grumbling pain" in the abdomen. This pain has never been severe. During this same period she has also complained of sickness. At first she vomited only occasionally, but latterly she has been sick at least once every day. Sometimes she has experienced severe stabbing pain in the region of the stomach, especially after the ingestion of food. About July, 1888, she remarked that her abdomen was increasing in size, and since then it has gradually become more and more prominent. There is nothing to note about the bladder except that the patient states she has always had to micturate frequently. During the last three weeks the bowels have been opened two or three times a day. Throughout this illness the menstrual discharge has recurred regularly every four weeks, and there has been no variation as to amount. The patient thinks she has gradually been losing flesh during the last two years.

**Physical signs.**—The abdomen is prominent, but not tense; it is tender all over to the touch, and dull to percussion to midway between the pubes and umbilicus; this dullness extends into the right flank, whilst the left is resonant; the dullness on the right side is not affected by altering the position of the patient; fluctuation is readily elicited. The vaginal examination revealed nothing of note in the pelvis.

From the date on which this patient came under my observation—viz., Oct. 20th, 1888—until April 3rd, 1889, when she died, the stomach emptied itself of its contents once or oftener every day. During this period she was tapped twice. The first tapping was performed on Dec. 28th, when a gallon and a half of straw-coloured serum was drawn off; at the second tapping, on Jan. 5th, one gallon only was removed. The temperature throughout was practically normal.

**Necropsy.**—On opening the abdomen a large amount of straw-coloured serum escaped, and with it flakes of lymph. The large bowel in its whole extent was enormously distended, whilst the small intestines were firmly matted together. The omentum, which was spread out like an apron, was firmly adherent to the pubes. The serous covering of the liver was much thickened. The stomach was so contracted that its capacity was only equal to about three fluid ounces. Its wall, which was uniformly thickened, measured five-eighths of an inch in thickness. The pyloric orifice was so constricted that it must have been difficult for even fluid to pass through it. The pelvic peritoneum was so much thickened that it was impossible to recognise the ovaries as such. In both chests the parietal and visceral pleura were firmly and universally adherent. The microscopic examination of sections of the stomach revealed only a very great excess of fibrous tissue.

This case is one of very great interest. The serous membrane of the chest as well as of the abdomen was so universally the seat of change, and the stomach itself was likewise so extensively invaded by fibrous tissue, that I am inclined to attribute these changes to some disturbance of the sympathetic nerve, and this disturbance was most probably of the nature of sclerosis. If in an animal we cut out certain ganglia of the sympathetic violent inflammation of the peritoneum and pleura is exceedingly apt to follow. Unfortunately the sympathetic was not examined in the above case, as the idea that the whole train of events might probably have been due to change in this system did not suggest itself to me until some days after the necropsy. On studying carefully the results obtained by experimenting upon the sympathetic I am firmly of opinion that had it been examined some very decided structural change would have been detected. This hypothesis is sustained, too, by the clinical facts. For twelve months prior to coming under my care she had complained more or less constantly of a "grumbling pain" in the abdomen, and occasionally of severe stabbing pain referred to the epigastric region. About the same time she noted a proneness to sickness. For three months she had observed that the stomach had been gradually increasing in size. To what, then, I ask, may the dropsy of the peritoneum be attributed? In consequence of the change in the stomach the patient was gradually being starved, and yet a fair quantity of serous fluid was passing out of the vessels into the abdominal cavity. When the peritoneum is opened in the case of animals which have been starved very little fluid is found in this sac; it is, in fact, dry. The change in the texture of the peritoneum would undoubtedly interfere with the process of absorption, for the lymphatic orifices and channels would be more or less completely closed and obliterated, and direct absorption would also be interfered with, for in order that this may proceed the fluid should be in as immediate contact with the capillary vessels as possible. The structural change in the peritoneum did not, however, interrupt the transudation of serum—in fact, the fluid passed out more abundantly than it ought to have done. Now, it is hardly likely that the increased exudation was due solely to the structural state of the peritoneum, although it may have been aided by the change, whereas it probably was due to some disturbance of the vaso-motor nerves.

**CASE 2. Dropsy of the peritoneum in association with malignant disease of the omentum.**—E. N., aged fifty-three, a widow, had one child twenty-eight years ago. She has never had any miscarriages, and she ceased menstruating seven years since. During the last twelve months the patient has remarked that her abdomen has been gradually increasing in size, and for four months she has complained more or less of pain all over the abdomen. There is no bladder or rectal trouble, neither has there been any swelling of the feet or legs.

**Physical signs.**—The abdomen is prominent but not tense. It is dull to percussion everywhere except in the epigastric area. The dullness in the left flank is not affected by the position of the patient, whereas the right flank becomes resonant as she lies on her left side. Fluctuation is readily elicited. On palpation there is no evidence of the existence of a new growth in the abdomen. The vaginal examination reveals nothing of note. An exploratory incision was advised and made. On opening the abdominal cavity a large quantity of deep amber-coloured fluid escaped. There were no flakes of lymph. The omentum was converted into a modulated malignant mass and here and there secondary nodules were observed in the peritoneum.

What is the cause of ascites in cases of this description?

Extensive degeneration of the peritoneum is said to be a cause of dropsy of the abdominal cavity. In the case which I have just recorded and in the majority of cases of malignant disease of the omentum effusion of serum takes place usually at a very early stage, and before the peritoneum has become extensively diseased. In the late stage, when the serous membrane is studded with malignant growth, œdema of the lower extremities is almost invariably noted. This anasarca of the limbs, it would appear, is to some extent the result of pressure, since one leg is usually markedly œdematous before the other. It is probably also determined by the general constitutional enfeeblement of the patient. In those cases in which the growth is malignant the serous exudation goes on steadily increasing and accumulating, whereas when the growth is of a benign character there is sometimes a lull; and patients often tell us that on one or two occasions the abdomen has diminished in size and has even, in fact, returned to its natural size. These diminutions are due to an actual decrease in the amount of the fluid and are not to be considered as resulting simply from an alteration in the state of the intestines. There is in reality a lessened transudation and an increased absorption of liquid. Transudation of serum takes place more profusely from the peritoneum covering a malignant than a simple growth, and the blood state induced by the presence of a malignant growth favours not only the exudation of serum, but hinders endosmosis.

**CASE 3. Fluid in the peritoneum in association with a deposition of tubercle in this membrane; recovery under treatment.**—On May 20th, 1891, Mr. Harley of Rainham, Essex, consulted me regarding E. L., aged eighteen, a single woman. The patient began menstruating at the age of thirteen, and the discharge had usually lasted three days. For five months prior to coming under my observation there had been a total suppression of the catamenial discharge. About the same time—i.e., five months ago—the patient remarked that the abdomen was large, and it has gradually become more and more prominent. During this same period she has occasionally complained of pain in the abdomen and back. Three months since there was œdema of the left foot and leg, but this passed away in a couple of weeks. She has not lost flesh, neither has she complained of bladder nor rectal trouble.

**Physical signs.**—The abdomen is prominent and tense. The percussion note is dull from the pubes to two inches above the umbilicus, and the area of dullness extends laterally on each side to a line drawn vertically from the anterior superior spine of the ilium. Both flanks are resonant. Fluctuation is readily elicited. On palpation a small nodule is detected on the left side, a little above the anterior superior spine of the ilium and midway between it and the linea alba. At the upper limit of dullness and on the left side is felt a more solid body, which appears to be intestines matted together. Vaginal examination: The uterus is low in the pelvis. The os looks downwards, and the body is felt anteriorly and on the right side, lying on the pelvic floor. Fluctuation is conveyed from the abdomen to Douglas's pouch. The bladder was emptied by the catheter, one ounce of urine being drawn off. The temperature was 100.6° F. Under treatment the abdominal swelling gradually disappeared, and on March 6th, 1892, Mr. Harley informed me that this patient was practically well. Since August she had menstruated regularly every month and lost as usual. "But," he added, "for three weeks now there has been a small amount of bloody discharge every day." I have seen cases similar in many respects to this one recover not only under general treatment, but also after the removal of the ascitic fluid by abdominal section. Sometimes the peritoneum has even been studded with what appeared to be miliary tubercle, and yet the fluid did not reaccumulate. A few of the cases, in fact, appeared to be perfectly well when seen twelve and eighteen months after the abdominal exploration.

What is the cause of the dropsy of the peritoneum in cases of this class? If the change in the serous membrane is the cause of the excessive transudation of fluid in these cases, and the deposition of tubercle in the lymphatics the probable cause of the interference with absorption, it is difficult to understand how the fluid disappears in some cases under treatment and does not reaccumulate in others after abdominal section. Under the latter circumstance it is not even necessary to drain the abdominal cavity after the completion of the operation. In some cases of tubercular peritonitis there is œdema of both lower extremities as well as dropsy of the abdominal cavity, and the amount of effusion is ap-

parently regulated by the general condition of the patient. I am therefore of opinion that the transudation in cases of this group is due to an alteration in the composition of the blood, and that the effusion takes place first and most markedly into the meshes of that tissue which is the seat of irritation. To some extent it is determined and regulated by a disturbance in the relationship of the arterial and venous pressures. In many cases of tubercle improvement in the state of the constitution does take place, and this may account for the disappearance occasionally of the fluid from the abdominal cavity under general treatment and for the non-accumulation after evacuation by abdominal section. In cases of malignant disease of the peritoneum we cannot hope for absorption or arrest of secretion, for the blood dyscrasia steadily progresses and the constitution of the patient is gradually undermined.

**CASE 4. Fluid in the peritoneum in association with papilloma of the ovaries, tubes and pelvic peritoneum generally; no evidence of cystic change; papilloma rather adenomatous than malignant in character.**—H—, aged thirty and married eleven years, has had two children, but no miscarriages. The last child was born nine years ago. Menstruation established at the age of fourteen; has usually lasted five days. The discharge recurs regularly every month, and is neither altered in amount nor character. She was last unwell fourteen days ago (Aug. 23rd, 1891). For three months the patient has remarked that the abdomen has gradually increased in size. At no time has she complained of pain.

**Physical signs.**—The abdomen is prominent but flaccid. The percussion note over the greater part of the anterior surface of the abdomen is resonant. Both flanks are dull. The right flank becomes resonant when patient turns on to her left side, whilst the note in the left flank is not altered by position. Vaginal examination: The uterus, which is fairly central (mesially) is pushed rather towards the pubes. It is surrounded by free fluid. On the right side is felt a small tender swelling, probably the ovary. On the left side is felt only some ill-defined thickening. For five months I kept this patient under observation, and during this time I failed to detect any evidence of material change in the abdominal state. Important changes, however, were noted in the pelvis; the small swelling which I had at first noted to the right of the uterus had gradually increased in size and become more irregular, and other nodules of varying size were also detected in the neighbourhood of this the first swelling. The thickening noted to the left of the uterus had not apparently altered. Abdominal exploration was now advised and was performed. On opening the abdomen a large quantity of deep-amber-coloured serum escaped. The omentum was occupied by what at first sight appeared to be a few flaccid cysts; on closer inspection, however, these swellings proved to be simply localised exudations of serum between the folds of the omentum. In the pelvis, and apparently springing from the right ovary, was found a papillomatous mass about the size of a turkey's egg. This mass, which was extremely friable and very vascular, was removed. On the left side a similar but more sessile mass was also found, but this could not be removed. The pelvic peritoneum was studded with small nodules of a similar character. The ovaries and tubes, as such, were not detected. The abdominal peritoneum was apparently unaffected.

In this case the disease was confined to the pelvic peritoneum; and I am of opinion that an increased transudation of serum took place from these highly vascular papillomatous growths, and that there being no compensatory increase in absorption, but possibly rather an interference with this process in consequence of the condition of the patient, the liquid accumulated and produced dropsy of the peritoneum.

**CASE 5. Fluid in the peritoneum in association with cystic and malignant disease of both ovaries and malignant disease of the omentum; necropsy.**—H. H—, aged forty-eight, a single woman, ceased menstruating twelve months ago. Four months ago—in July, 1891—the patient began to complain of general soreness in the abdomen and, at the same time, accidentally she detected a small lump in the lower abdomen on the right side. The abdominal discomfort was aggravated by any exertion. Since July the abdomen has gradually become more and more prominent, and she has lost flesh. Seven years ago the patient says she had an illness similar to the present one and that she then as now complained of soreness in the abdomen and also detected a swelling on the right side. The swelling, however, she alleges, disappeared after three or four months'

time, and she considered herself well till the occurrence of the present illness.

**Physical signs.**—The abdomen is so greatly distended that the skin is tense and glossy. The percussion note over the lower part of the abdomen from the pubes to the umbilicus is absolutely dull and this dullness extends towards both flanks. The left flank is dull whilst the extreme right is resonant. The upper limit of the dullness is somewhat concave in outline. Obscure fluctuation is detected over the area of dullness. Chest: Both chests below the level of the scapula are dull to percussion, and clear serum was drawn off from the right by an exploring syringe. Vagina: The vaginal roof is occupied by a hard swelling, which projects somewhat posteriorly. The cervix is pushed forwards and to the right. The body of the uterus appears to be embedded in a pelvic mass. On passing the catheter it strikes against a hard body.

There was no oedema of the legs until the patient had been under observation seven days. On Nov. 3rd, 1891 (about a month after the patient had been in hospital), I inserted a small trocar at a spot midway between the pubes and umbilicus, but I only drew off fifty-two ounces of a dark greenish fluid. The specific gravity of this fluid was 1020, it contained peptone and became solid on boiling, its reaction was alkaline. The withdrawal of this fluid afforded no relief, and the abdominal tension was unaltered by the tapping. On Nov. 27th she died.

**Necropsy.**—The pericardium and heart were normal. Both pleural cavities contained a quantity of fluid, that in the right was clear whilst that in the left was deeply blood stained. A few small white nodules of growth were observed in the lungs. These were situated immediately under the pleura and were flattened. A large quantity of ordinary ascitic fluid escaped on opening the abdominal cavity. The peritoneum, which was much thickened, was studded with malignant nodules of small size. The omentum was a malignant mass. The liver, spleen and kidneys were normal. The uterus contained several fibroid growths, two of which were calcareous. It was adherent to the bladder and to two large cysts. One cyst arose from the right horn of the uterus and reached the umbilical level. It passed in front of the uterus somewhat and occupied a central position. It did not invade the pelvis. It contained a greenish fluid, and it was evident that this was the cyst which I had tapped during life. It was unilocular, and at its base were found cancerous-looking nodules. Passing from the left side behind the uterus and filling the whole pelvis was another cyst, smaller, but also unilocular and exhibiting cancerous nodules at its base. This cyst had pushed the uterus towards the right wall of the pelvis.

The diagnosis in this case was extremely difficult, although the physical signs indicated the existence of some malignant change. The history tended to mislead. The patient affirmed that seven years previously she had suffered in a very similar manner, and that then a tumour was detected on the right side, but which soon afterwards disappeared. It is impossible to say what may have been the nature of this swelling, although it is more than probable that it was not an ovarian cyst. The fluid drawn from the right pleural cavity being ordinary serum did not help us in deciding the cause, whereas if the left chest had been explored and hæmorrhagic fluid had been drawn off, the presumption would have been strongly in favour of malignant changes. The fluid drawn from the abdominal cavity did not even allow of a more complete examination, but merely informed us that we had tapped a cystic accumulation. It was impossible to draw off the ascitic fluid, as the area of dullness was so limited and the distension of the abdomen so great.

**CASE 6. Fluid in the peritoneum in association with a multilocular ovarian cyst with no adhesions, but with evidences here and there of degenerate change in the cyst wall in consequence of a partial twist of the pedicle.**—M. M—, aged fifty-seven and married thirty-five years, has had nine children. The last child was born sixteen years ago. The catamenia ceased at the age of forty-nine. Eight months ago—about March, 1891—the patient noticed that on walking the womb dropped and that sometimes it even came outside altogether. About the same time she remarked that the abdomen was increasing in size and it has gradually become more and more prominent. There is no swelling of the legs.

**Physical signs.**—The abdomen is distended, but not tense. It appears to be more prominent a little to the left of the umbilicus. Over the front of the abdomen is an area of dullness, extending from the pubes to two inches and a half above the umbilicus and transversely from the left anterior

superior spine of the ilium to a line rising vertically from a spot a little external to the middle of the right Poupart ligament. The limit of dullness is not, however, sharply defined. Both flanks are resonant. Midway between the umbilicus and the ensiform cartilage is felt an irregular mass, some of the nodules of which, especially on the right side, appear to be cystic. Below the umbilicus, and more especially to the left of the middle line, the fingers on dipping sharply displace free fluid, and come upon a hard mass which appears to be continuous with the irregular mass already noted. The vaginal walls are very flaccid. The cervix uteri is located rather towards the right wall of the pelvis.

Having seen several cases very similar, I expressed the opinion that we had to deal with a multilocular ovarian cyst and free fluid in the peritoneum, and advised operation. The abdomen contained a large quantity of ascitic fluid. The tumour which was removed was a multilocular ovarian cyst of the right side. There were no adhesions. The pedicle was twisted, but not sufficiently to produce strangulation. Here and there the cyst wall presented patches in a state of fatty degeneration. The cyst contained no papillomatous or malignant growth. Since the operation in October there has been no evidence of reaccumulation of fluid in the peritoneum. It seldom happens that a large quantity of ascitic fluid is noted in association with a simple multilocular ovarian cyst with no adhesions. It is fairly frequently observed when papillomatous growths are detected in the interior of the cyst, and which have extended more or less completely through the entire thickness of the cyst wall. In cases of this latter description rupture of the cyst often takes place. When the papilloma reaches the peritoneal covering of the cyst the general peritoneum is exceedingly liable to become similarly affected; and in many cases of this character, after the successful removal of the tumour, the patient dies eventually with malignant disease of the peritoneum. I am unable to give a feasible explanation of the manner in which dropsy of the abdominal cavity takes place in association with fatty degeneration in the wall of an ovarian cyst; suffice it to say that they are correlated. I have also seen dropsy of the peritoneum in association with fibroid of the uterus, whose structure had undergone degenerative change at spots.

Gordon-square, W.C.

## FRACTURE OF BASE OF THE SKULL WITHOUT INJURY TO THE BRAIN.

BY R. D. MOTHERSOLE, M.S., M.D. LOND., F.R.C.S. ENG.

IN his instructive and interesting lecture recorded in THE LANCET of Aug. 20th Mr. Page remarks: "A fracture of the base is not in itself of much moment; its only importance lies in the fact that a basal fracture cannot well occur without grave concomitant injury to the brain." The comparative rarity with which this fracture occurs, apart from cerebral injury, leads me to think that a short account of two such cases may be of some interest. They came under my notice as senior house-surgeon to the Liverpool Northern Hospital in 1890.

The first case was reported by me in the *Guy's Hospital Gazette* for 1890, in order to emphasise the distinction between fractured base with and without brain injury. A robust man of about forty had a heavy cask roll on to his head as he lay on the ground. If he lost consciousness at all it was only for a few seconds. On admission to the hospital there was bleeding from both ears; that from the left soon ceased, but the right continued to bleed for twenty-four hours. From the position of cuts and bruising on the sides of his head it appeared to have been "nipped" in the bi-temporal diameter. In three days' time facial paralysis appeared on the left side. He declared all along that there was nothing much the matter with him, and was with difficulty persuaded to remain in hospital even for a week. In this case there seems certainly to have been a fracture through the left petrous portion, and the copious hæmorrhage from the right ear makes it probable that a transverse fissure extended right across the base of the skull.

The second case occurred a few weeks later. R. B—, a man of forty-seven, was admitted on Sept. 8th, 1890. While taking a barrel of whisky down a flight of steps, descending backwards and steadying the barrel with his knees, he slipped and fell forwards against the steps, the barrel rolling over his

head. He did not lose consciousness. On admission into the hospital he had some cuts on his nose and forehead, with fracture of the nasal bones; there was no hæmorrhage from either ear. Next day a copious discharge of clear, serous fluid came on from the left ear, containing a small proportion of albumen. On the 10th a considerable quantity of clear, colourless fluid continued to drain away. On the 12th his temperature, which had been 100° the previous night, rose to 101.6°, and he had an attack of vomiting at 10 A.M. Towards noon he was alternately drowsy and restless, and his speech was somewhat incoherent; the discharge from the ear had almost ceased. He was placed in a dark, quiet room, and his diet reduced from two pints to half a pint of milk per diem. At 1 P.M. twitching of the left leg and right arm was noticed, but in the evening his temperature fell to 101° and he became quite sensible. For two or three days he complained of pain in the head, and on Sept. 15th paresis of the left facial muscles was observed. From that time he improved steadily, and left the hospital on Oct. 11th apparently quite well except for slight weakness of the muscles on the left side of his face.

Although these two cases may be considered rather trivial to be reported, they illustrate very well how the base of the skull may be cracked without injury to its contents. The second patient would appear to have had a slight attack of simple aseptic meningitis. I may be pardoned for differing from Mr. Page, where he says that a fractured base without brain injury "need not cause you more concern than a fracture of the tibia or fibula." The course of the above cases will justify me in this slight criticism of his valuable lecture. I am indebted to Messrs. Puzey and Hamilton for permission to publish the cases, which were admitted under their care.

Bolton.

## FOUR HUNDRED CASES OF PHTHISIS.<sup>1</sup>

BY F. M. SANDWICH, M.D.,  
PHYSICIAN TO KASR-EL-AINI HOSPITAL, CAIRO.

DURING the past seven winters 104 phthical visitors have been treated by me in Egypt, and during the last two years I have had under my care some 298 hospital in-patients. The visitors have all been from England, with the exception of six from France, Australia and the United States.

### ENGLISH PATIENTS.

It is not intended in any way to make a comparison between the English and the Oriental cases, because all the former, travelling for their health, were well provided with money and friends to help them to take care of themselves. Moreover, the bulk of them were chronic cases, not suffering from fever and not in the last stage of the disease. Hence the extraordinary difference in mortality. I have taken pains to eliminate all cases of "threatened phthisis" and of doubtful delicacy after pneumonia or other diseases, because these are the cases that are obviously the best to send abroad for one winter. I have also taken some pains to inform myself as to the after-condition of patients who improved during their stay in Egypt. The 104 cases may be classed as follows: 72 improved, 18 stationary, 7 worse, 7 deaths. The seven deaths in Egypt consisted of six men—all of whom were obviously doomed before their arrival, and some of whom were only permitted to travel to Egypt under the personal escort of doctors and nurses—and an old case of fibroid phthisis, complicated by progressive muscular atrophy, who died of acute pneumonia in the less diseased of his two lungs. The number of improvements is very encouraging to those who send patients to Egypt and will compare favourably with those of other winter resorts. The majority of the patients have reached Cairo in November, have spent two or more months, from the middle of December, at Luxor in Upper Egypt, and have then spent their time till the middle of April in Cairo itself, at Helouan or at the Pyramids. In April patients go to Ramleh, near Alexandria, or more often to the Riviera, not reaching England till the very end of May. As people in England still have a very exaggerated idea about the heat of Cairo, I should like to take this opportunity of

<sup>1</sup> A paper read before the Section of Medicine at the Nottingham meeting of the British Medical Association in July, 1892.



patients in the ward. The Soudanese mortality would have been even higher if they had not included a few cases from Red Sea ports, who mostly improved in health.

*Duration of disease before death.*—It is impossible to trace chronic patients who have left the hospital, therefore I have confined myself to those who died, taking, after cross-examination, the earliest possible symptom, such as cough, which the patient could remember. Here it must be stated that the patients, not coming from an intelligent class, are apt to ignore slight ailments which do not interfere with their work. The average among the Egyptians is twelve months and a half with a minimum of one month and a maximum of five years. The Soudanese average is seven months and a half only; the maximum of three years is the only case above sixteen months' duration, while there were as many as twelve patients who had no knowledge of being ill for more than three months. It is interesting to compare these figures with the statistics of hospital patients in Europe and America quoted by Dr. Fagge. Four observers found the duration of phthisis only two years. Dr. Pollock found it two years and a half and Dr. Austin Flint two years and three-quarters. If we allow a liberal discount for inaccuracy and want of observation on the part of my patients, the figures still show the galloping tendency which phthisis has among the blacks. Of the Nubians I have unfortunately only five notes, ranging from two months to five years.

*Hæmoptysis.*—Of 36 Egyptian patients specially examined with reference to this 22 were certain that they had never had any bloodspitting, while 14, mostly men, had spat blood once or twice at the beginning of the illness. Among 83 Soudanese 75 had never had this symptom, but 8 had had it early in the illness, and 2 of these 8 had it again while in hospital. This great freedom from hæmoptysis among the lower races is interesting. Among 20 Nubians 7 had had previous hæmoptysis and 13 indignantly denied it.

*Fever* is less high among the Egyptians than with the coloured races, for while the average hectic temperature among the former was 99° in the morning and 101° in the evening, the averages among the Soudanese ranged from 99·5° to 101·4°, and among the Nubians from 99·4° to 101·8°.

#### POST-MORTEM NOTES.

Necropsies on nearly all cases were conducted by native students in my presence, but the stress of other work prevented much time being given to them, and precluded nearly all investigation by the microscope. I have already shown that most of the cases of phthisis occur among slaves and Nubians, and that the disease kills them in a very short time. I have now to point out the terribly infective nature of tubercle in their different organs. The following analysis shows that among the Soudanese more than three-quarters have tubercle in their lungs, intestines and mesenteric and bronchial glands; nearly one-half have also tubercle of spleen, one-third of liver, one-fourth of pleura and peritoneum, and about one-fifth of kidney.

*Lungs.*—Among Egyptians 14 per cent. had only one lung affected, but only one patient had both lungs free from tubercle, while 30 per cent. had cavities, large or small. Among the Soudanese only 4 per cent. had only one lung tuberculous, but 9 had no apparent lung disease, and there were cavities in 42 per cent. of the cases. Ten per cent. of the Nubians had only one lung diseased and 3 of them had both lungs free from tubercle, but 53 per cent. had cavities.

*Larynx.*—The presence of ulcers in the larynx or trachea was noted very few times comparatively, and it was an exception to find any alteration in the voice.

*Pleura.*—Tubercle of the pleura was evident in about one-sixth of the Egyptians and one-fourth both of the Soudanese and Nubians.

*Diaphragm.*—Four of the Soudanese showed small tubercles on the under surface of the diaphragm.

*Heart.*—The heart was as a rule the most healthy organ in the body, but in one case there was well-marked tubercle of the organ itself. In one Egyptian there was mitral and aortic disease. Among the Soudanese there was mitral disease in one case, adherent pericardium in another, tubercle of pericardium in two cases, and in a third patient there was a layer of tubercle an inch thick between the heart and pericardium.

*Liver.*—Among the Egyptians 14 per cent. had tubercle scattered through the liver, 10 per cent. of the livers were fatty, 7 per cent. nutmeg and 18 per cent. were greatly enlarged, while gall-stones were present in one case. In

examining Soudanese corpses I found as many as 33 per cent. tuberculous, 23 per cent. fatty and 11 per cent. considerably enlarged. One man with general infective tubercle had a nutmeg liver containing some small tubercles and an abscess the size of an orange. Among the Nubians some 14 per cent. of the livers were tuberculous, only 4 per cent. fatty, 4 per cent. nutmeg, 9 per cent. extra large, and there was one case of abscess and one case of cirrhosis. It must be remembered that many of the Nubians drink alcohol, and liver abscess is not uncommon among them.

*Spleen.*—In the Egyptians I found 24 per cent. of the spleens containing tubercles and 20 per cent. more considerably enlarged. In the Soudanese as many as 45 per cent. had tuberculous spleen, often in big cheesy centres, while 3 per cent. had spleens more than double the normal size. Of the Nubians only 14 per cent. had tuberculous spleens, while 18 per cent. of the other spleens were decidedly enlarged.

*Kidneys.*—In 14 per cent. of the Egyptians I found tubercle in one or both kidneys, while in 33 per cent. more one or both were white and large. Some 14 per cent. of the patients had a trace of albumen in the urine during life and another 14 per cent. had about one-tenth of albumen. Among the Soudanese one patient had suprarenal tubercle, 17 per cent. had tubercle, which in one case was as large as a hen's egg; 3 per cent. had amyloid and 16 per cent. white kidneys, not always large. During life 13 per cent. had a trace of albumen and another 13 per cent. had quantities varying from one-tenth to one-third. Among the Nubians, excluding congestion and simple hypertrophy, only 6 per cent. had tubercle, 6 per cent. had large white kidneys and one patient had consecutive purulent nephritis. But, curiously enough, no less than 35 per cent. had a trace of albumen during life. Here it must be remembered that very many male patients suffer from bilharzia cystitis extending to ureters and kidneys, and this doubtless accounts for the large number of patients whose urine was affected.

*Bladder.*—In one Soudanese I found tubercle inside the bladder, and outside only in cases of general abdominal tuberculosis. Once in a black I found a vesical calculus, again due to Bilharzia.

*Stomach.*—One Nubian had tubercles on the outer surface of the stomach. I only mention it because of its rarity.

*Intestines.*—After the lungs the ileum was the most common seat of tubercle or ulcers, but, unlike phthisis in Europe, ulceration was also very common below the ileo-cæcal valve, and sometimes was present in the upper colon when no ulcers could be discovered in the small intestine. Among the Egyptians 43 per cent. had ulcers in the ileum and 18 per cent. below the valve. Among the Soudanese as many as 77 per cent. had ulcers in the lower part of the ileum, besides 6 per cent. with tubercle on mucous or serous surface, and a further 10 per cent. with ulcers below the valve. Three negroes also had dysenteric ulcers in colon and rectum. Again, 72 per cent. of Nubians had iliac ulcers, 12 per cent. tubercles, and as many as 42 per cent. of these had ulceration below the valve, while two patients had chronic dysentery. One man, besides much tubercle in the upper lobes of the lungs and two large ulcers in the trachea, had 130 separate ulcers extending from the beginning of the jejunum and becoming more numerous towards the valve, and ending with three ulcers in the upper colon. In this patient the mesenteric and bronchial glands were not affected, and I often noticed that where there were many intestinal ulcers there were often no gland changes. In another Nubian, who had large cavities at both apices, caseous centres all over the lungs, greatly thickened pleura and no obvious change in the glands, there were very small tuberculous ulcers, which could be traced to the duodenal side of the pylorus, where there were three small ones. In the ileum itself there were very few ulcers, but much small tubercle on the mucous membrane. Immediately above and below the valve there were several large ulcers, and in the rectum there were a few dysenteric ulcers.

*Peritoneum.*—The tubercle of the peritoneum varied from small miliary points to a thick caseous mass an inch thick, matting together all the contents of the pelvis and lower abdomen. Among the Egyptians tubercle was present in 19 per cent., in the Soudanese 29 per cent., and my notes of the Nubians only mention 9 per cent.

*Glands.*—The bronchial glands were enlarged and cheesy in about three-fourths of all the necropsies. Mesenteric glands were affected in about four-fifths of all cases, it being a great exception to find them not cheesy among the Soudanese. Four Egyptians had great enlargement of the cervical or sub-

maxillary glands. Eight Soudanese had swollen cervical or axillary glands, while one had axillary lumps and another supra-clavicular swellings. Only one of the Nubians had enlarged cervical glands. These lymphatic glands when cut open resemble completely the caseous mesenteric and retro-peritoneal glands.

*Brain.*—About one-half of the brains were examined. In the Egyptians I never found tubercle, but in one case there was an abscess under the dura mater. Among the Soudanese I found tubercles four times in the pia mater or choroid plexus. One man had old syphilitic sclerosis near the corpus striatum. I never found any notable change in Nubian brains.

*Pancreas* tubercle I noticed once only in a Soudanese.

The ovaries were not always examined. My notes speak of tubercle once in an Egyptian, and of a case of ovarian tumour, while the Soudanese women furnished four cases of tubercle of ovary and of uterus.

*Caries.*—I have already said that necrosis and caries are very common among the negroes in the surgical wards, and certain cases of paraplegia are admitted into the medical wards. Among the Egyptians, besides a rickety dwarf and a case of angular spinal curvature, I had four cases of multiple caries of femur, necrosis of tibia and of skull, and a boy who recovered after amputation of thigh for necrosis. Soudanese vertebræ furnished us with five cases of lumbar and five of dorsal caries, besides five cases of ribs, three of sternum and one of hand. The Nubians included one case of rib disease, another of sternum and a third in which the patient died after two years' paraplegia, with healthy lungs and other organs, but with old caries of the ninth and tenth dorsal vertebræ, which had evidently begun in the anterior surface of the bodies and intervertebral discs, and had then spread to the posterior surfaces to the right of the ninth rib and to two cheesy bronchial glands.

*Entozoa* are so common at necropsies on natives that it is impossible to avoid a brief mention of them. Ascarides were present in four Egyptian corpses, once ten in number, and another time, in a boy aged seven, there were thirty-two of these worms; fourteen were curled up in the stomach, twelve in the jejunum, three in the ileum, one in the colon, one in the œsophagus and one was trying to enter the Bûstachian tube. Once I was fortunate enough to catch an ascaris that had died in the very act of boring its way through a tubercular ulcer into the peritoneal cavity. Another time a patient died three days after admission to the hospital. I found a pint of liquid green pus in the abdomen and one large ascaris lying in the peritoneal cavity between the stomach and transverse colon. The stomach was normal and no other worms were found, but a perforation was distinctly seen from the serous side of the intestine, six inches below the ileo-cæcal valve, and this was found to correspond with one of many deep annular ulcers extending from the jejunum to the descending colon. The notes of the Soudanese cases speak of ascarides five times, tœnia medicocanellata four times, and anchylostoma duodenalis twice. There was one case of anchylostoma in a Nubian peasant.

## A CASE OF ACUTE INTUSSUSCEPTION; ABDOMINAL SECTION; DEATH.

By F. W. JOLLYE, M.R.C.S., L.R.C.P. LOND., D.P.H. ENG.

My belief that cases of acute intussusception treated by abdominal section after the failure of milder treatment should be recorded induces me to publish the following case, which, although ending fatally, shows that not only may the intussusception be readily reduced, but that a child when apparently rapidly sinking should not be denied the chance of recovery that may follow reduction after opening the abdomen.

J. H.—aged eleven months, an infant at the breast, seemed well until the afternoon of June 1st, 1891, when he began to be fretful, so his mother gave him a "teething powder." In the evening he seemed in pain and was sick and passed some blood and mucus per rectum. These symptoms getting rapidly worse I was sent for at 7.30 A.M. the next day. When seen at 8.15 A.M. the child was very collapsed, with a pale, pinched expression and uncountable pulse; taking no notice of anybody, but occasionally

he moaned and drew up his legs. The vomit had no fecal odour. On palpation of the abdomen, which was not distended, an elongated tumour could be felt extending from the left hypochondrium down into the left iliac fossa, and the child flinched and drew up his legs when pressure was made over it. The right side of the abdomen felt empty and flaccid. Per rectum the finger could just detect high up the distal end of an intussusception, and on withdrawing the finger bright blood and mucus came away. Being a mile from home I inverted the child and tried inflation with a pair of bellows, but with no result, so I ordered five drops of brandy every twenty minutes until I returned. Dr. W. D. Moore came back with me at 9.30, and having confirmed my diagnosis, administered chloroform, everything being prepared for opening the abdomen if inflation failed. Injections of air and afterwards of water with Higginson's syringe, combined with inversion of the child and simultaneous manipulation of the tumour through the abdominal wall, failing to reduce it, having well surrounded the child with hot water bottles, an incision was made two inches and a half long above the pubes, and introducing my finger into the abdominal cavity found that the cæcum and ascending colon were not in their usual places, and that the intussusception extended from a little above the splenic flexure of the colon to the commencement of the rectum. Having failed to reduce by manipulation with two fingers of my right hand in the abdomen, and my left hand outside, I enlarged the incision up to the umbilicus, and with a little difficulty drew out the tumour on to a warm sponge-cloth, and, steadying it with my left hand, with my right I gently squeezed the distal end, and in a few seconds the proximal end gradually commenced to unfold itself, and as the unfolding went on I followed up the distal end, and had no difficulty in reducing it until I came to the last two inches, which required several minutes' very gentle manipulation to free it. The intussuscepted part, which was intensely injected and flaccid, consisted of the lower part of the ileum and cæcum, as was suspected before the operation. There were a few flakes of recent lymph near the junction of the sheath and entering bowel, and a little blood-stained serum escaped on opening the abdomen. During the operation the child became pulseless, but rallied after a subcutaneous injection of brandy; the abdomen was not washed out as it was desirable to finish the operation as quickly as possible. After the dressings were applied the child was very collapsed. After several subcutaneous injections of brandy he rallied a little, but half an hour after the operation the pulse was so feeble that it could not be counted at the wrist. The child was ordered a teaspoonful of warm water every hour, and half a minim of tincture of opium and ten minims of tincture of belladonna every three hours if in pain. At 7.30 P.M. the child was quite bright and played with anything that was given to it; there had been no sickness, but he was very restless at times and had only passed, the mother said, a little flatus once with no motion. He was ordered a teaspoonful of his mother's milk every other hour through the night.—June 3rd: He had had a very restless night and was sick twice, but had slept for three-quarters of an hour, about 8 A.M. He had passed no flatus, or motion, his countenance was pinched and his eyes sunken; the abdomen was a little distended; pulse 120; temperature 100.5°. He was given several soap-and-water injections, but nothing came away except a little mucus and blood. In the evening, as his abdomen was rather more distended, he was given a little chloroform, and the three lowest stitches were removed, with the intention of irrigating the abdominal cavity, but he became so collapsed after the tube was introduced, that it was thought better to desist. The wound was quite healthy and the edges were with difficulty separated. He died at 12.30 A.M. the next morning, and no post-mortem examination could be obtained.

*Remarks.*—This case was certainly much more acute than the generality of cases of acute intussusception, for within fifteen hours the child was in a collapsed and dying condition, and the only hope of saving him was to open the abdomen immediately inflation failed. The fear was that he would die on the operation table. The operation, although it relieved the intussusception, did not relieve the obstruction, the gut never recovering from its strangulation; and the child died, no doubt, from intestinal obstruction caused partly by this strangulation and partly by the peritonitis which had commenced before the intussusception was reduced, and which continued afterwards.

Alresford, Hants.

**THE SANITARY CONDITION AND SANITARY ADMINISTRATION OF RURAL DISTRICTS.**

By J. H. GARRETT, M.D. DURH., L.S.Sc. & D.P.H. CAMB. MEDICAL OFFICER OF HEALTH, CHELTENHAM; LATE MEDICAL OFFICER OF HEALTH, AMPHILL UNION, BEDS.

*Table showing Houses found in some Bedfordshire Parishes in which the space of Sleeping Rooms was less than 300 cubic feet per Adult, two Children under twelve years of age being reckoned equivalent to one Adult.*

Locality.	Number of bed-rooms.	Total sleeping space in cubic feet.	Number of adult occupants.	Space per adult head in cubic feet.
Cranfield .. .. .	2	949	5	189
" .. .. .	2	1000	0½	164
" .. .. .	3	1450	5½	263
Marston .. .. .	2	1130	8	141
" .. .. .	2	1180	4½	261
" .. .. .	1	934	4	235
" .. .. .	2	1608	6	261
" .. .. .	2	1440	0½	221
Maulden .. .. .	2	1467	5	298
" .. .. .	2	1608	5½	274
" .. .. .	2	1600	6	251
" .. .. .	2	1896	0½	201
Clophill .. .. .	2	1507	8½	184
" .. .. .	2	1507	0½	211
" .. .. .	1	900	4½	200
" .. .. .	1	938	4½	208
Shillington .. .. .	2	1488	7	200
" .. .. .	1	1800	0½	277
" .. .. .	2	1470	0½	225
" .. .. .	2	1470	5½	267
" .. .. .	2	1470	5	294
" .. .. .	2	1668	8	190
Flitwick .. .. .	2	1600	6	266
" .. .. .	2	1600	5½	290
" .. .. .	2	1200	5	252
" .. .. .	1	875	5½	162
Greenfield .. .. .	1	672	3½	192
" .. .. .	1	672	3	224

No doubt within the last twenty years sanitary progress has been made in some rural districts, whereas in many others the conditions remain very much as they were before the boards of guardians throughout England were invested with the additional duty and dignity of rural sanitary authority. Is it that the condition of the rural population in these districts is so absolutely *comme il faut* that nothing needs to be done? Very few country dwellers outside the boards of guardians will admit that. The years slip past and little or nothing is done. The offensive cesspits, foul ditches and collections of filth remain to breed fevers; the drinking water is as polluted and dangerous as ever; the houses that were old and crazy are the same in a superlative degree, and many of those of more recent erection are damp, inconvenient and unwholesome, being almost always erected with the object of securing a large interest for money invested rather than of supplying the want of decent homes for the labouring class. The result is very visible everywhere. It is not too much to say that half the acute illness in old and young is due to it, to say nothing of the chronic affections and broken health engendered by the consequent exposure and privation. How often do we see in country districts the poor growing prematurely old, their limbs twisted with rheumatism and their powers crippled by chronic heart and lung diseases, drifting into the workhouses, putting the funds of their clubs to a strain, or swelling the visiting list of the parish doctor, when they should be in the hale prime of life? That the best health is always to be found in the best house is a safe axiom, other things being equal.

Overcrowding exists in rural districts to a large extent, and its ill effects cannot be exaggerated and are too patent to need enumeration; but the moral side of the question is a striking one. Illegitimacy and overcrowding must be nearly related. In the Amptill Union, where until quite recently there was a standing resolution that made 150 cubic feet of sleeping space per adult person a sufficiency (which had the convenient effect of shelving the subject of overcrowding), the illegitimate birth-rate has averaged 8 per cent. of the entire birth-rate, or about one such child in every twelve born. Considering that the illegitimate child is often an only child, whilst legitimate children probably average four or five in a family, the above fact constitutes a serious indictment against central Bedfordshire, and the same may be said of many another district. In Bedfordshire, as elsewhere, many houses have been built by labourers and others upon the roadside waste, the sites being often cramped, damp and unsuitable, and the result is the present existence of numbers of wretched places that never were or could be healthful. In times past houses have been put up in any place or style, being subject to no sort of inspection or control, and in numbers of places, no by-laws having been made, the same thing may still continue, excepting that there are now no free sites, as the roadside waste is no longer a no-man's-land. Numerous old thatched cottages of an ancient type are also extant, the bedrooms being in the roof, mere lofts with or without windows. Old rows are met with here and there originally put up for fagot voting, and many houses are found almost everywhere throughout rural England of very inadequate size and convenience for the large families that occupy them. Many of the habitations of the rural poor are not worthy of the name of houses, and undoubtedly the greater conveniences and comforts of town houses over those of the country form one reason why the countryman never returns to the village when once he has migrated into the town. In Italy and parts of France one notices that the poor are housed on a different principle to ours, being located in tall houses let out in flats. I have had no opportunity of noting the actual accommodation, but the houses externally have a much less meagre appearance than our poor cottages. The table appended shows the size and population of some cottages examined in the Amptill Union.

The general impression gained on inspecting the cottages is that there are many houses in a wretched condition, often great overcrowding, with unhealthy surroundings, such as pigsties and middens. Many of the houses, being built on the roadside waste, are cramped for space and have no gardens. Some cottages consist of two rooms, one up and one down, and a great many have only two bedrooms. Beds are often crowded in the bedrooms, which have small windows and insufficient ventilation. It is sometimes necessary to get over one bed to get into the further one. The rents of older places are 1s. 3s. and 1s. 6s. a week. On the western or Buckinghamshire side of the Union some lace making is carried on in the cottages. By working all day a woman can make a yard of narrow lace, which she sells for sevenpence. On the eastern side of the Union a few women are employed in straw plait and hat making. Straw plaiting used to be such a good trade that the men preferred to stay at home to work at it rather than work in the fields. This industry has been ruined by the importation of Canton plait and the introduction of plaiting machines. For twenty feet of plain straw plait threepence is now paid, and a woman works hard to earn two shillings a week. At Maulden and elsewhere plait is given out to be sewn into hats. Plain hats are sewn together at the rate of ninepence and a shilling a dozen.

Much remains to be done in regard to the drainage of villages and village towns. The best mode of sewage disposal for villages is perhaps not satisfactorily arrived at, but the old system of privy vaults or cesspits is undoubtedly the worst system, and as such should be suppressed. It is still almost everywhere in vogue, generally in conjunction with a water-supply from shallow wells. But under any circumstances a system of drainage is necessary to carry off slops and waste waters used for washing, culinary purposes &c. Wherever there is an aggregation of houses drains are required or a nuisance is sure to be caused. At present in many villages there are either no drains, the waste waters being thrown round about the doors, or a few rude pipes lead from a sink into the nearest ditch, which is consequently liable to become foul and offensive. The sanitary authorities have power to make drains in every village, but when such a matter is brought forward it is generally again and again postponed. Sometimes also, when drains do exist, their condition is such as to render them almost as dangerous as the old cesspits, so badly have they been constructed; or it may happen that new public drains or sewers having been laid down, the authority has failed to make the owners of houses drain into them. Some of the sewers have also been

very badly laid. The local bricklayer has been allowed too often to do the work according to his own ideas, there having been no proper survey and nobody to make one, for there is no officer in rural districts corresponding to the urban surveyor.

As to the disposal of sewage in villages, the question constitutes a very general difficulty. In numerous instances sewage continues to be discharged direct into brooks by right of long usage. When treatment is suggested difficulties are certain to present themselves. Somebody's interest is at stake to prevent acquisition of land for irrigation; what was good enough for their fathers is good enough for them, they argue, and point to the manure in their farmyards as an instance of the harmlessness of sewage. Then the expense of the thing, who is to bear it? The village may consist almost wholly of cottagers whose average wage is perhaps 12s. a week, upon which a family can only be poorly sustained. The whole Union will not provide benefit for the single parish. The whole parish will not provide for the limited area that is to be benefited. The large farmers upon whom the chief weight of taxation would fall are probably guardians who are not willing to tax themselves for the sake of what they consider to be a doubtful benefit for the labourers of the village. So the undrained premises, polluted wells and wretched dwellings remain. In a large village a scheme of drainage has been under consideration on and off for five-and-twenty years and nothing had been done up to 1892.

With regard to water-supply, this is often very inadequate to the requirements of the villages both as to quantity and quality, being so frequently derived from a few shallow wells. Some thirty analyses of well waters taken at haphazard from wells in Amphill pointed to the likelihood of 100 of the 200 wells there containing water unfit to drink. At Marston Moretaine the people have a choice of three pumps situate upon three separate premises, the remaining houses being destitute of any supply. A small sum per bucketful is or was charged by the proprietor of one or two of the pumps for the water. The favourite pump yields a water of bitter and saline quality, containing an enormous amount of inorganic solids—a mineral water, in fact, of greater strength than that of some of the spas. The water has often to be carried for long distances at immense inconvenience and labour. These are instances of a very general state. In some cases a better supply could be obtained at small expense. The rural sanitary authorities are as yet scarcely awake to their full responsibilities and powers. They shirk the onus of borrowing capital to construct drains and waterworks, and it does not strike them that the prevention and spread of disease are to a large extent in their hands, and that disease and premature death may be and are caused by their negligence in not carrying out necessary reforms. The delay in adopting the Notification of the Infectious Diseases Act and supplying accommodation for the isolation of infectious diseases, for instance, must have been the cause of incalculable mischief. Other and larger duties devolve upon a rural sanitary authority than the simply initialling by its chairman of the minor items in the inspector's book; yet too often this has constituted the sole business, the good done being little more than nominal. The power of the sanitary staff is immensely increased by a good code of by-laws, but some of the rural sanitary authorities appear to think that by-laws are intended for urban districts solely, and will have none of them. In the majority of rural districts no proper system of disinfection is carried out; sometimes a little money is expended upon the purchase of disinfectants, and a few bottles of carbolic acid &c. are distributed; but it is a grave question whether much good results from such imperfect methods. Disinfection of bedding and clothing by heat is a rare practice, and sulphur fumigation is irregularly performed. The houses being often so overcrowded as to be injurious to health at the best of times, isolation at home is quite impracticable, the conditions on the contrary being such as are highly favourable to the spread of the zymotic diseases, yet rarely have isolation hospitals been erected.

Altogether there is much sanitary work to be done in rural districts. Little is yet accomplished, and little likely to be accomplished under the present régime. The rural sanitary authority is formed of the chief ratepayers of the district, many of whom are farmers or others who live in isolated houses, and who reap no direct benefit from the expenditure of money on sanitary improvements, whilst they have to contribute the chief share of the cost. The knowledge of its members, again, in the main,

is not sufficient to enable them to appreciate the benefits accruing from an improved sanitary condition of the villages, whilst they are prejudiced against innovation and conservative of old methods which have existed throughout their lives and those of their forefathers. Moreover, they have little time to devote to questions of public health, and are unready to take up any matter which is likely to bring them under the fire of public criticism, especially if the borrowing of a few thousand pounds is necessitated; yet they not infrequently fritter away in small items and half measures an annual sum that would pay interest on a large borrowed capital, and also pay up the capital itself within a reasonable number of years.

As respects the medical officer of health who is appointed to advise the rural sanitary authority, he holds a very invidious position. The whole question of village sanitation initially rests with him, but his salary is generally so absurdly small, perhaps averaging £60 per annum, that it is often more than absorbed by the expenses of getting about the Union, which may contain twenty or thirty parishes and have an area of 200 or 300 square miles. The first part of his time is devoted to his private professional work; or if he be not in general practice he is obliged to undertake a combination of unions in order to make a respectable income, so that it is utterly impossible for him to cover the ground, which may extend into several counties. The presence of the medical officer of health at the meetings of each board is no doubt salutary, but to attend all the meetings is in the one case impossible or would absorb all the time, and in the other case is worth more than the whole salary paid, especially as boards of guardians show very little appreciation of a medical man's time and will keep him waiting whilst other business is in progress, as if he had nothing else to do. As regards the salary paid to the medical officer of health and the size of his district, the matter lies rather in the hands of the Local Government Board than with the board of guardians, inasmuch as every appointment is confirmed by the higher authority.

The present rural sanitary administration is therefore unsatisfactory from several points of view, and is ineffective and wasteful. It is usual to put the blame upon the laws, and no doubt the Public Health Acts are too permissive in character and too vague and limited in definition; but much good work has been done under them in towns, and much might be done in the country if they were properly administered. A change must be made, and the duty may fall upon the County Councils, which do not appear to be overburdened with work at present, to act as central sanitary administrators and manage the finance. The parish or district councils that have been promised, on the other hand, which from their very number must be constituted differently from boards of guardians, could enter into the details of their own requirements. The medical officer of health who would be appointed to such a part of the county as is compatible with an active supervision, giving his whole time to the duties, could be called in at every parish meeting where sanitary business was to be discussed, to supervise the sanitary work of his district, and to give an account of the same to the County Council at its quarterly meeting. He should also have a seat on the Council Board and give advice when called upon. A county sanitary rate would be required. Should the County Council, being moved by party politics or otherwise, decline to defray the cost of the sanitary improvements voted by the parish or district council and recommended as necessary by the medical officer of health, an inquiry by the Local Government Board could be held to settle the point of necessity.

Cheltenham.

## PERMANGANATE OF POTASH IN THE PREPARATION OF FRESH SECTIONS.

By E. T. WYNNE, M.B. CAMB.,  
PATHOLOGIST, COUNTY ASYLUM, RAINHILL.

For the past nine months I have been using permanganate of potash as a fixing reagent in the place of osmic acid for preparing fresh sections of the central nervous system, checking the results by Mr. Bevan Lewis's method. Though this reagent may not surpass the best results obtained with osmic acid, I have found it more trustworthy for every-

day work and more expeditious. I need hardly point out that it is much cheaper. Permanganate has of course long been known as a powerful fixing reagent, but I have been unable to find any evidence of its use in the preparation of fresh sections. As I have given it an extensive trial I wish to bring it to the notice of histologists, and more especially of demonstrators and others who have to prepare large numbers of sections for classes. By this method two operators (one to cut the sections and the other to carry them through the fixing process) could easily prepare sufficient sections for a class, without an inordinate expenditure of time. The sections are quite permanent. The steps in the process are briefly these: The sections are cut with a Cathcart or some similar microtome, and each as it is cut is plunged (on the knife) into a 0.1 per cent. solution of permanganate. The section must not remain more than ten seconds in the solution (four to five seconds is plenty for normal brain), but be taken out on a glass lifter<sup>1</sup> and transferred to a basin of clean cold water. The sections will be found slightly tinged yellow. This comes out in the process of washing and staining. The sections, which have been accumulating in the basin of water, are now put into a 0.25 per cent. solution of blue black (or a 0.1 per cent. solution of china blue), where they remain from ten to fifteen minutes. A large quantity of stain should be used and care taken that the sections are freely exposed to the dye. When stained they must be well washed in water, picked up on slides and allowed to dry. The best results are obtained by allowing them to dry slowly over night, but with care they may be dried in about an hour in a warm chamber. There are three points of importance—viz., to see that the water and permanganate solution are cold, to wipe the under surface of the knife-blade after cutting each section and not to freeze the tissue hard—it should cut like a potato. I use a deep quarter-plate developing dish for my permanganate solution. In it the knife can be readily submerged without wetting the handle and without having an inconvenient depth of fluid.

While on the subject of fresh section cutting, I should like to help in the removal of what seems to be a very widespread superstition with regard to the keeping of solutions of osmic acid. Osmic acid solutions are generally to be found swaddled up in brown or orange paper, or in "non-actinic" bottles, and kept huddled away in the darkest corner of a cupboard, under the impression that this will prevent decomposition. These precautions are quite unnecessary, and, unless the points to be mentioned are observed, quite useless. I have kept solutions of osmic acid over a year without any protection from light. Though they have been in daily use they are as good as when first bought (except for a diminution in strength, due to volatilisation). To keep osmic acid the bottle in the first instance must be clean. This is ensured by rinsing it out with strong nitric acid and then with distilled water. The only other precaution necessary is to wipe the neck and stopper of the bottle before using the acid, so that no dust may fall into the solution. The advantages which permanganate offers over osmic acid are these: (1) Its cheapness. (2) The solution is of a known strength, which can hardly ever be the case with osmic acid. (3) It is quicker, and by using it the section has not to be floated off the knife before being put in the fixing solution.

Rainhill.

<sup>1</sup> The lifter is a glass rod drawn out to a point and bent at an angle.

**FRIENDLY SOCIETIES' MEDICAL INSTITUTE, NORTH-AMPTON.**—The annual report of this institute just issued records a membership of 14,369. The income of the Society is somewhat less favourable than last year, as compared with the expenditure; but this is accounted for by the outlay necessary for the supply of new fittings. The death of the late assistant medical officer, Mr. J. N. Whitfield, was referred to in terms of regret for the loss of his valued services.

**HOW INFECTIOUS DISEASE IS SPREAD.**—A grocer's assistant was summoned last week at the Rotherham police court for being in a shop while suffering from an infectious disease. He went to his shop when recovering from an attack of scarlet fever, whither the doctor followed him and found him weighing up articles for sale, the defendant at the time being in a highly infectious state. The magistrates, in view of the expense to which the defendant had been put, imposed a fine of only 20s. and costs.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### SPASMODIC ACTION OF THE LOWER JAW OF SIX YEARS' DURATION CURED BY OPERATION.

BY NOBLE SMITH, F.R.C.S. EDIN.,  
SURGEON TO ALL SAINTS CHILDREN'S HOSPITAL.

ON March 26th of this year B. M.—, aged twenty-nine, came to me suffering from a spasmodic action of the lower jaw. There was a powerful grinding movement of the teeth, the lower jaw acting spasmodically towards the right continuously. This affection had commenced six years previously after an illness brought on by cold and involving paralysis of the left leg and back, for which she was laid up for six months. The teeth also became carious about this time. During the last four years the spasms had been very severe and continuous, and the pain and distress which the affection caused were becoming, the patient declared, "almost unbearable." The teeth were to some extent worn away by the constant grinding action. The temporal muscle and the pterygoids on the left side and slightly on the right were occasionally in action, but the muscle which acted incessantly and most powerfully was the masseter of the left side. I sent the patient to Mr. Collyer, who kindly extracted some teeth and informed me that he had removed every apparent source of dental irritation. There was some relief to the severity of the spasms after this, but it only lasted a few days. Mr. Collyer said he could do nothing more unless he extracted all the teeth that remained. Upon this I advised operation on the nerve supplying the masseter muscle. The patient was first seen by Dr. Hughlings Jackson and by Dr. Gowers.

The operation was performed on June 27th, Mr. Davis administering the anæsthetic. I made a vertical incision from the centre of the zygomatic arch downwards, and exposed and carefully dissected out the transverse branches of the facial nerve. Holding these branches aside, I cut down upon the masseter muscle, divided the oblique fibres and exposed the vertical, through which I cut towards the sigmoid notch, where I met with the masseteric branch of the inferior dental nerve, from which I removed a quarter of an inch. From this time all spasm of the jaw ceased, and it has not returned. It is needless to endeavour to describe the relief to suffering which the patient has experienced from the cessation of the spasm after six years' continuous pain and worry. She is nervous, fearing that the spasm may return, and sometimes, she says, gets a little twitch of the mouth, but there is nothing apparent to observation. In operating I accidentally wounded Stenson's duct, and there was a flow of saliva from the cheek for about a week. With a few applications of nitrate of silver the minute opening soon healed up. The rest of the wound had healed by first intention, and now there is only a trace of the incision.

Queen Anne-street, W.

#### HYPERTROPHY OF THE MUCOUS MEMBRANE OF THE UPPER LIP.

BY WM. ERNEST MILES, M.R.C.S., L.R.C.P. LOND.

THE case I am about to describe is of interest, not only because examples of hypertrophy of the mucous membrane of the lips are by no means of common occurrence, but because it illustrates the tendency to recurrence of these tumours *in situ* after removal by operation, unless that procedure is efficiently carried out.

A. M.—, a male inmate of Broadmoor Asylum, drew my attention to the existence of a small pendulous growth arising from the inner surface of his upper lip, a little to the left of the frenum and extending in an outward direction for the space of about an inch. The growth was not noticeable when the lips were closed, but presented a somewhat unsightly appearance when the patient spoke

or laughed. It had been slowly increasing in size and latterly had become a source of annoyance to him during mastication. Previous to his admission here he tells me he had been troubled with a similar growth in the same situation, which he removed himself with a pair of scissors. A cure however was not effected, since, very soon after the wound had healed, the growth again began to make its appearance, and had now become troublesome in the respect I have mentioned. Recognising the case to be one of hypertrophy of the mucous membrane, from the nodular and shotty character of the contents of the tumour, I decided upon removing it with the knife. This I did by means of an incision carried round the base of the tumour, taking care not to encroach upon the free margin of the lip. Having removed the superabundant tissue, I noticed several small yellowish-white bodies about the size of a split pea (the hypertrophied labial glands) scattered over the surface of the wound. These I removed carefully by means of a pair of dissecting forceps and then closed the wound with horsehair sutures. The wound healed by first intention, leaving no deformity, and although it is now some months since the operation there is no sign of a recurrence of the growth. Mr. Bryant has shown that this hypertrophy is due to an overgrowth of the labial glands and that unless these are all removed the growth is likely to recur. When my patient performed the operation on himself several of the hypertrophied glands must have escaped removal, and I have no doubt it is to this fact that the recurrence of the growth *in situ* is to be attributed.

Broadmoor, Berkshire.

#### DISLOCATION OF THE RADIUS BACKWARDS AT THE ELBOW-JOINT.

BY LEWIS E. PARKURST, B.A., B.CH., B.M. OXON.

On August 1st I was called to Mr. B—, aged sixty years, who had been thrown out of a dogcart, alighting on the palm of his left hand. I saw him within ten minutes of the occurrence of the accident, and before any swelling had arisen. His arm was semiflexed at the elbow and midway between pronation and supination, and it could not be moved without causing great pain. The elbow was found on inspection to be greatly increased in breadth when viewed posteriorly, and there was a prominence behind and just above the external condyle of the humerus, which was found, on rotating the hand, to be the head of the radius; the latter could not be felt in its ordinary position. The nature of the accident was clear and unmistakable, and that it had been caused by a fall on the hand was apparent both from the patient's statement and the existence of an abrasion of the skin over the ball of the thumb. Reduction was easily effected by extension of the forearm followed by traction, and the patient was at once able to move his elbow and fingers. The arm was put up at a right angle on a moulded posterior angular splint, and he travelled home next day. Mr. de Mesquita, house-surgeon to the Croydon General Hospital, who subsequently attended him, has kindly informed me that the progress of the case was in every way satisfactory.

This is a very rare accident. Professor Langenbeck of Göttingen, in giving an account of the only two cases of dislocation of the radius backwards" (at the elbow-joint) "must be an extremely rare occurrence, since Sir Astley Cooper<sup>1</sup> never met with this accident in the living and only once in the dead subject."

Brackley, North Hants.

<sup>1</sup> Fractures and Dislocations, 1842, page 459.

CLINICAL HOSPITAL, CHEETHAM-HILL-ROAD.—On Monday was opened, without any public ceremony, the new wing of the Clinical Hospital for Women and Children, Park-place, Cheetham-hill-road, for the accommodation of out-patients. The total outlay amounts to £2000, which has been raised by subscription.

PROPOSED NEW PARK.—There is some talk of converting the site lately occupied by the Wild West Exhibition into another breathing space for the inhabitants of London. A conference is now being arranged for by the parishes of Kensington, Fulham, Hammersmith and Chelsea to consider the new project, the estimated cost of which is £25,000.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

#### GREAT NORTHERN CENTRAL HOSPITAL.

A CASE OF TETANUS, WITH PROLONGED LOCKJAW,  
SUCCESSFULLY TREATED BY CHLORAL AND  
CHLOROFORM.

(Under the care of Dr. CHOLMELEY.)

THE successful treatment of tetanus is a subject which possesses constant interest for members of the profession, each case affording useful data for future help. It is true that this case presents characters common to the large majority of cases successfully treated, and the course was essentially chronic. We have recorded many instances of recovery from tetanus. In 1887 Mr. Meldon<sup>1</sup> read a paper on this disease and gave statistics of 937 cases collected by him. He had administered hyoscyamus, belladonna and conium in 17 cases, with only 4 deaths, in his own practice. Of the other cases, in 370 treated by chloral 83 recovered and 287 died; in 135 treated by curare 23 recovered and 102 died; 60 by nicotine, 3 recoveries, 57 deaths; 96 by opium, 4 recoveries, 92 deaths; 21 by conium, 3 recoveries, 18 deaths; 76 by cannabis indica, 12 recoveries, 64 deaths; 28 by bromides, 2 recoveries, 26 deaths; 103 by alcohol, 25 recoveries, 78 deaths; 41 by all other remedies, 17 recoveries, 24 deaths. He excluded from this table those in which the first symptoms were noticed later than the fifteenth day. In 16 cases which we have published in our columns since the appearance of that paper chloral hydrate was employed in 5 and bromide of potassium in 8; hydrochlorate of morphia, strophanthus tabloids and extract of physostigma in others; in 7 morphia was also used for the relief of pain. These, again, are not examples of the more acute form of tetanus, for the period which elapsed between the receipt of the wound and the onset of the disease varied from four days to four weeks. In the majority of cases the use of chloral produced the most marked effect, conjoined with rest and the due administration of fluid nourishment. Verneuil in 1885 recommended strong doses of chloral and bromide, with quiet &c.; and in the previous year a similar line of treatment was advocated by the Royal Academy of Medicine in Ireland. Of late there has been little new to record in the treatment of tetanus; the questions of immunity, infection &c. have, however, attracted much attention. Many experiments made with chemicals, to test their action towards weakening or destroying the cause of tetanus, have so far yielded no specific, nor indeed found a useful remedy. There are some cures announced after an extended trial of subcutaneous injections of carbolic acid. The use of chloroform to allay spasms, procure sleep and permit of proper feeding was most successful in the following case, and when this remedy is used the symptoms are usually very severe.

S. N—, aged seven, was admitted on July 22nd, 1892, with the following history. He had run a small but dirty splinter of wood into the palm of his right hand about three weeks previously. The small wound had not healed properly, but remained in an unhealthy-looking condition; a few small vesicles of watery pus occasionally formed around it. On July 18th his parents noticed that his face was apparently drawn to the right side, but as he did not seem ill he was allowed to go to school, where he was able to join in the play as well as the work and showed no symptoms of illness. On the following night he was convulsed several times, but was better in the morning and again attended school. At night the convulsions returned and he could only open his mouth a little way owing to the continued muscular spasm.

When admitted to the hospital two days later the boy was said to have taken no food for the previous forty-eight hours. His jaws were firmly fixed, his whole body was

<sup>1</sup> THE LANCET, vol. ii. 1887, p. 817.

rigid and he could only just stand. His back was arched, his abdomen as hard as a board, his head retracted, the features drawn into a grin, but he did not complain of actual pain. Attempts to feed him with a tube only resulted in still more violent spasm, the whole body being thrown into the position of opisthotonos. The spasm was, indeed, so severe that the respiration nearly ceased, the patient becoming rapidly livid. Chloroform was at once administered and the spasm passed away under complete anaesthesia. The jaw could then be opened and, a gag being inserted, the mouth was explored, but nothing abnormal discovered, with the exception of a pellet of chewed paper at the back of the tongue. By means of a nasal tube a mixture of milk, beef-tea, yolk of egg and brandy was passed into the stomach and retained, and fifteen grains of chloral hydrate were given in the same way. The child slept well for several hours, the spasm of the abdomen and limbs being quite relaxed and that of the jaw nearly so. On waking the boy seemed quite conscious but drowsy, and an attempt to feed him in the ordinary way was made, but only with the result of producing recurrence of the spasm and the necessity for the further use of chloroform. Vomiting occurred once, and for the moment the jaw spasm was relaxed, but rapidly came on again. The spasm of the trunk muscles was unaffected. There was no relaxation of sphincters.

On the second day after admission it was found possible to feed by the mouth by sips sucked through the teeth, but this improvement did not last long, and again the feeding tube had to be resorted to under chloroform and large doses of chloral administered, doses varying from ten to fifteen grains being given at longer or shorter intervals as the severity of the spasms required. This condition continued until July 31st, the child becoming very thin, the superficial veins of the trunk being very prominent and general cyanosis coming on at intervals. The pulse remained fair; the temperature never rose above 99° and the bowels acted. Steady improvement began to be noticed during the first week in August, and by degrees the general muscular spasm and finally the spasm of the jaw completely passed away and the use of chloral could be suspended with safety. The patient made an excellent and complete recovery. The case was carefully watched and very judiciously handled by Mr. Gordon Calthrop, the house physician, to whom most of the credit for the successful issue is due.

## EASTERN FEVER HOSPITAL.

### TWO CASES OF GLANDERS.

(Under the care of Dr. COLLIE.)

THESE two records of patients who died from glanders are of considerable interest at the present time, when the disease is attracting much attention, and it is important to observe that both were sent to the hospital with the diagnosis of typhoid fever, and this suggests the possibility of similar cases being treated at their own homes for that disease, when really they are examples of the much more serious one of glanders. It will also be noted that the first patient was taken into hospital in 1890, the second in August, 1891. We have recently in an annotation<sup>1</sup> drawn the attention of the profession to the dangers attending the prevalence of glanders in horses in various parts of the kingdom, and these cases further prove the necessity for much greater stringency on the part of the Government in the treatment of horses suffering from the disease. The great risk run by those attending on the horses is shown in Case 2, where the effect of sneezing on the part of the horse appears to have been sufficient to cause inoculation in that patient. "There is only too much reason to apprehend that not a tithe of the cases of glanders occurring amongst horses in London and the provinces are reported to the sanitary authorities." It is a disease which rigid supervision should stamp out. For the notes of the cases we are indebted to Mr. James Dickinson, late assistant medical officer.

CASE 1.—F. H., a male, aged twenty-five years, was admitted to hospital on Dec. 24th, 1890, certified as suffering from enteric fever. History obtained on admission: Ailing for some time. The patient was seized with shivering on Dec. 17th and since the 19th had been delirious. On admission he was delirious and was restrained with difficulty. Aspect suggestive of pneumonia, but no physical signs detected.

Dec. 25th.—Bloody matter in sputum; no physical signs found in chest. Throat generally reddened, hyperæmia over chest. Abdomen retracted; no tenderness; no diarrhoea.

27th.—Physical signs of consolidation detected over right back. Cough troublesome, with plenty of blood-stained frothy sputum; a cloud of albumen in urine. The patient grew weaker from day to day and wasted visibly. The cough was incessant, the sputum blood-stained and copious. The signs of consolidation became more extensive over the right back and appeared also on the left. Otherwise the man's condition did not present any markedly new features till the date of the following notes.

Jan. 5th, 1891.—Very prostrate, semi-conscious and inclined to mutter. Could protrude tongue, but with great difficulty, when bidden sharply. Respiration very rapid; pulse almost uncountable. All dejecta passed into bed; there had been seven motions in the previous night. Discharge from nose and left eye; the discharge from the nose had been first noticed the day before; it was then slight and watery; it was now thick and copious. On making the man blow his nose there appeared a quantity of yellow purulent matter and a large piece of tough membrane. Scattered over the trunk and limbs was a scanty eruption of papules, vesicles and pustules. One or two pustules had been noticed on the previous day. Each vesicle and pustule was surrounded by an area of injected skin. They rapidly increased in size, so that in a few hours from their first appearance they were all sizes, from that of a pin's head to that of a shilling. There were also several intense erythematous patches, all seated over joints. The joints themselves appeared to be unaffected. Deep-seated fluctuating swellings were detected in both calves and over one shoulder. No glandular swellings.

6th, 1.30 A.M.—Death.

The course of the temperature throughout is shown on the accompanying chart.

*Necropsy, fourteen hours after death.*—Pericardium unaltered; heart dilated and laden with fat. Recent pleural adhesions all over right lung; a few adhesions on left side. Right lung nearly solid throughout, with extreme emphysema at apex and anterior margin; it had a very lumpy feel and was of an intense deep-red colour, except where areas of emphysema stood out, owing to the engorgement of the bloodvessels, a bright vermilion. The condition appeared from subsequent microscopical examination to be a mixture of pulmonary apoplexy and lobular pneumonia. The left lung presented a less degree of the same condition. Both broke down easily under the finger. The throat and larynx were not remarkable; nasal fossæ not examined. The alimentary canal was examined throughout without noteworthy result beyond extreme injection and catarrh of the small intestine; the normally solid abdominal viscera were all of rotten consistence; the spleen contained one large infarct; the kidneys weighed 1½ oz., were rather pale on section, but the structure stood out with remarkable distinctness; under the capsule was a layer of intense injection; no pus in any of the joints; there were several collections of dirty-looking pus seated in the substance of muscles, particularly the calf muscles; when the skull-cap was taken off several loose collections of pus appeared between it and the dura mater; beneath the dura mater and the brain were several similar collections; there was universal injection of all the cranial contents.

History subsequently obtained from the brother: The man's work was all amongst sick horses. He had "to put the balls down their throats," and had more than once been bitten so as to draw blood. He had been ailing for two or three months from headache, cough, loss of flesh and weariness, but his doctor had told him he was not ill enough to throw himself on his club. He kept to his work, but with great difficulty, up to Dec. 17th. When he reached home on that day his knees gave way under him, and he was put to bed. He did not rise again.

CASE 2.—S. C., male, aged twenty-six years, was admitted to hospital on Aug. 14th, 1891, certified as suffering from enteric fever. The history brought with the patient was that he had been delirious for some days. On admission his breathing was rapid, and physical signs of pneumonia were at once searched for, but without result. No rash. There was a small pustule on the abdomen.

Aug. 15th.—Night. Breathing rapid and panting. Some impaired resonance at bases, but no other physical sign detected over lungs. Heart: action very rapid; no increase of cardiac area; no murmur. Patient semi-conscious. Urine passed freely into bed. There was an eruption of pustules each surrounded by a red area distributed over trunk, limbs

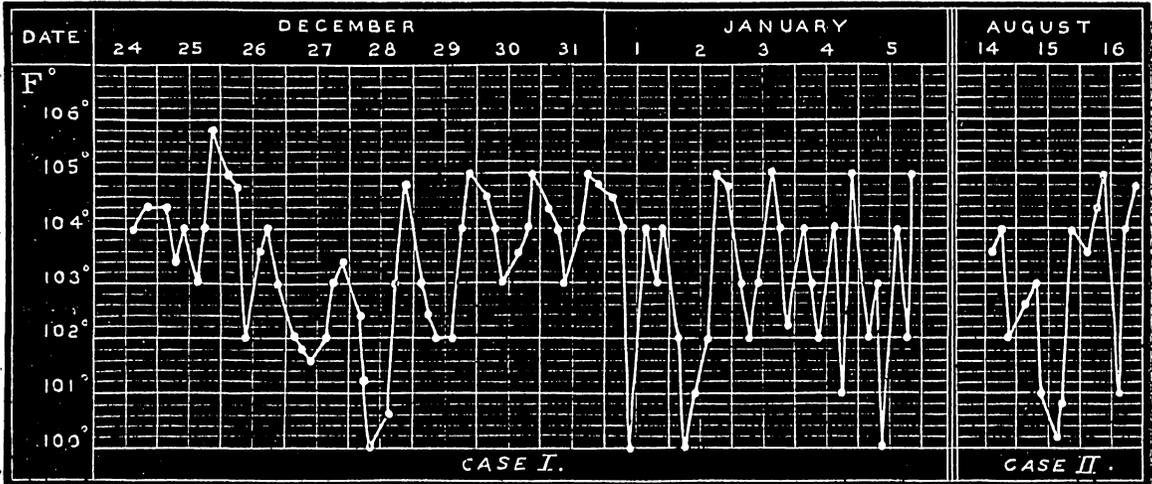
<sup>1</sup> THE LANCET, vol. II, 1892, p. 207.

neck and face. The pustules varied in size from that of a pin's head to that of a sixpence. From the appearance of the eruption glands was at once suspected and fluctuating swellings were looked for and several detected in the calf muscles. No discharge from nose or eyes; no cough; no diarrhoea. The finger-joints of both hands and one elbow-joint were swollen and red.

16th.—Eruption very copious. The individual pustules had increased very much in size and some were larger than shillings. Several large ones were broken in the centre and

17th.—1.40 A.M.; death. The course of the temperature is shown on the chart.

*Necropsy, thirty-six hours after death.*—Heart dilated and laden with fat; muscular substance rotten. No pleural adhesions. Lungs deeply congested and very oedematous; no consolidation. Kidneys weighed 16oz.; capsules moderately adherent. The cut surface had a purple-mottled hue, and the cortex could scarcely be distinguished from the pyramid. There was pus in the finger-joints and one elbow-joint. There were many intra-muscular and subcutaneous collections



seemed to be drying up. Blood had been effused into some of them and there were one or two large vesicles containing blood-stained serum. There were many fluctuating swellings, some deep-seated in the calf and arm muscles, some subcutaneous. There was a hard swelling as large as a filbert and crowned with a petechia in the glans penis. Urine was drawn off by catheter for examination. It contained a dense cloud of albumen. No discharge from nose or eyes; no glandular swellings; no fresh joints affected. At night the patient became comatose, snoring loudly.

of pus. All the other important organs were examined without definite result.

The following history was subsequently obtained from the father. The patient, in addition to his work as shopman, had charge of some horses. A horse with discharging nose sneezed in his face five weeks before admission. Two days later the man complained of pains in his limbs, headache and shivering. He did not take to his bed till a fortnight before admission. The horse died before the man.

## Reviews and Notices of Books.

*Geographical Pathology: an Inquiry into the Geographical Distribution of Infective and Climatic Diseases.* By ANDREW DAVIDSON, M.D., F.R.C.P. Edin., late Visiting and Superintending Surgeon, Civil Hospital, and Professor of Chemistry, Royal College, Mauritius. In Two Vols. Edinburgh and London: Young J. Pentland. 1892.

IN these two large handsome and well-printed volumes Dr. Davidson essays a laborious and difficult task—viz., a general survey of the distribution of infective and climatic diseases throughout the globe. "The object of this work," the author says in his introduction, "is to sketch the geographical distribution of infective and climatic diseases and to trace the influence of temperature, rainfall, altitude and soil conditions on their prevalence, character and epidemic spread." Under the term "infective diseases" the writer includes "miasmatic diseases, such as malaria; miasmatic contagious maladies, such as cholera; and the contagious diseases proper, such as scarlet fever. Climatic diseases include, amongst others, croup, bronchitis, pneumonia and rheumatism, which are either owing to, or are materially influenced by, meteorological conditions." Organic diseases of the heart, kidneys and nervous system are only noticed in some exceptional cases, where they seem to be influenced by climate. Malarial fevers in their endemic and epidemic forms receive very full attention and their consideration occupies a large portion of the work. Typhoid fever, dysentery, yellow fever, influenza, pneumonia and phthisis are dealt with at length. Only those who have personally worked

in this field of inquiry can adequately realise the immense difficulties which beset the task to which Dr. Davidson has addressed himself, difficulties arising out of scanty, imperfect and often untrustworthy sources of information, different methods of registration, anomalies in medical nomenclature and from other causes. The author says: "To determine the actual prevalence of any given disease over an extensive area with any approach to scientific accuracy is obviously, under present conditions, impossible. The utmost that can be attained is an approximate estimate of the relative prevalence of diseases in different countries. Fortunately," he adds, "such a knowledge as is attainable in regard to most countries is not only full of interest to the student but of vast practical importance to the statesman, the army medical officer and the sanitarian." In some countries, such as Norway and Sweden, all cases of disease which come under the notice of the district medical officers are regularly reported to the State authorities, who publish annual reports, which are accessible. This direct method of ascertaining the prevalence of disease is obviously the best, but it is not always available. The statistician is usually compelled to resort to such indirect methods as (1) the determination of the proportion of deaths from a given disease to a unit of the population, or (2) the proportion of deaths from a given disease to the deaths from all causes within a certain area, or (3) the ratio which each disease bears to the total treated in hospitals, or (4) the reports of physicians who have resided in, or of travellers who have visited, the less civilised countries as to the diseases they have observed to prevail among the natives." Dr. Davidson prefers the first of these indirect methods when available, and adopts it as often as

possible. It detracts from the lucidity and intelligibility of the multitude of statistical tables scattered through this work that first one system is adopted and then another; but this absence of any fixed system is one of the inevitable results of the imperfect character of the available data. The sources from which the author has drawn his information have been "the official returns of the statistical departments wherever these have been attainable. These returns have formed the basis of the accounts given of the pathology of Norway, Sweden, Germany, Austria, Switzerland, Holland, the British Isles, France, Spain, Italy, India, the British Colonies generally and the United States." For the Indian Archipelago, Senegal and Tonkin, the author has depended "on the admirable reports appearing from time to time in the pages of the *Archives de Médecine Navale*." For Borneo, Singapore, Ceylon, Cyprus, Persia, Gibraltar, the West Coast of Africa, the Congo Free State and some other places he has received special reports from medical authorities in the various localities. Dr. Davidson acknowledges his special indebtedness to the great and well-known works of Hirsch, and Lombard.

To review adequately so elaborate and exhaustive a work as the one before us would obviously require more space than we can devote to it. We have carefully studied Dr. Davidson's volumes and we regard them as an important contribution to the study of a vast and complex subject, and likely to fill a useful and honourable place in medical literature. The style is easy and clear, the information is well marshalled, the writer seems laudably free from bias, and the printing and appearance of the work leave nothing to be desired. Nevertheless, the author would probably be the first to admit the imperfections of his work—imperfections which are, to some extent, inherent in the nature of the subject. We are struck by a sense of vagueness and incompleteness in many parts, by the inconclusive character of many of the discussions in which the author engages and by the not infrequent admission of hearsay statements. We admit, however, most fully that the subject is one in which to insist upon a high degree of scientific precision would be simply chimerical. The author has introduced statistical tables when possible. We are surprised that he has made such sparing use of maps. The only principal country thus honoured is India, of which an ordinary school map of no particular value is introduced. We are at a loss to account for this exception, and we think the work loses seriously by the rarity of graphic representations of the prevalence of disease. In discussing such a subject, for example, as the prevalence of malaria in Italy, it seems obvious that a map, coloured so as to show the malarious districts and the varying degrees of virulence of the disease, would be most helpful and valuable. We are struck also in many places by a sense of disproportion in the amount of space and attention given to certain countries and diseases. Thus Great Britain and Ireland receive less space than Mauritius (42 pp. as compared with 58 pp.), a disproportion which is hardly satisfactorily accounted for by the fact that the author has spent a large part of his life in the latter island. We have noticed a few errors in the statistical tables and calculations of averages, but not such as to impair the general accuracy and trustworthiness of the work. We do not care, however, to dwell on small blemishes. If Dr. Davidson has not succeeded in producing a book which can rival, either in exhaustiveness, precision or philosophic temper, the monumental works of Hirsch and Lombard, he has made a very substantial contribution to the study of the geographical distribution of disease, and has produced (so far as we know) the best work on the subject hitherto published in the English language.

Much of the information contained in the work before us is of extreme interest. We find that "the average birth-rate in England and Wales for ten years (1878-87) was 33.5; during the first five years it stood at 34.4, but has lately been

decreasing, for during the last five it had fallen to 32.6. The average death-rate in England during seven years (1881-87) was 19.2, while in the ten years preceding (1871-80) it was 21.4. The death-rate is thus diminishing and is lower than that of any European country, except Ireland, Norway, Sweden and Denmark." We find that malaria, once so common and fatal in England, is now steadily dying out. The deaths from this cause have fallen from 8.2 per 1,000,000 living in 1841 to 3.2 in 1885. The most malarious parts of England are Bedfordshire, Kent and Huntingdon; the least, Rutlandshire, Westmoreland, and Oxfordshire. The improvement is due to better drainage and improved methods of cultivation. It is very satisfactory to find that England also shows a steadily diminishing mortality from enteric fever. The death-rate per 1,000,000 living from this cause, which was 373.8 in the five years (1871-75), had fallen to 277.2 in the succeeding five years, and to 215 in 1881-85. The investigations of Dr. Davidson tend to show that enteric fever is most prevalent in seasons when the mean annual temperature is above the average, and the temperature of the third quarter of the year especially so. He has been unable to trace any connexion between the prevalence of enteric fever and rainfall. Diphtheria appears to be increasing in England, the average death-rate from this cause, having risen from 121.3 per 1,000,000 living in the decennium 1871-80 to 155.6 in the five years 1881-85. Phthisis shows a marked and steady decline. The deaths from this cause per 1,000,000 living, which were 2526.6 in 1861-65, had fallen to 2218 in 1871-75, and to 1820.6 in 1881-85. Dr. Davidson agrees with most inquirers in attributing the prevalence of this affection partly to the character of the soil and partly to the occupations of the people. Cancer, as is well known, is increasing in these islands. "The disease is not observed to follow the course of rivers or to be affected by geological formation; it affects indifferently the poor and the rich, and occurs with equal frequency in agricultural and industrial districts."

Dr. Davidson devotes 164 pages to the interesting subject of the distribution of disease in India, and gives us one of the best accounts of the question which have appeared. Naturally, the consideration of the various forms of fever occupy most of his space. "Throughout the whole of India," he informs us, "there is no province or extensive district entirely free from malarious disease." In the year 1883, out of 5,595,648 deaths in India from all causes, 2,883,101, or more than one-half, are ascribed to fever. Malaria is most prevalent in the North-west provinces and Oudh; the Punjab comes next; Bombay, the Central Provinces and Berar are also much affected; while Calcutta, Madras and Mysore show a relatively low mortality from malaria. The forms of malarial fever in India are the intermittent, the remittent and the continued. "Among the natives the intermittent is by far the most common, but the remittent is by far the most fatal. Among the European troops the continued form is the most common." Intermittent fever is an autumnal disease on the Indian plains. In some of the hill stations a spring rise is found. The prevalence of the disease is in proportion to the mean temperature of the summer months. The influence of rainfall is more complex. It would appear that the important point is not so much the amount of rain as the nature of the soil and the facilities for drainage. "The evil effects of water-logging of the soil," says Dr. Davidson, "whether brought about through irrigation or inundation or by excess of rainfall, is a point past dispute. It must be counted a potent factor in increasing malarial prevalence." In many parts of India there is an apparent inverse ratio between fever prevalence and fatality and dysentery prevalence and fatality; but there are exceptions to this rule.

As regards the disputed point of the prevalence and frequency of enteric fever in India, Dr. Davidson says that

"enteric fever was formerly regarded as exceedingly rare in India, although it is now recognised as one of the most fatal diseases of the young European soldier during the earlier years of his sojourn in India. It is generally held up to the present time that the disease is rare among the natives of India; but," he adds, "it will probably be found that it is not so rare among the natives of India as is generally supposed, although it is undoubtedly much less frequently met with among them than among the newly arrived Europeans." Military statistics show that enteric fever causes ten times as many deaths among the soldiers in India as in England. No less than 65·2 per cent. of the admissions occur in soldiers who have had less than two years' service. Many Indian authorities incline to the view that the disease often arises independently of any specific infection. A very full account is given of cholera, but into this subject we cannot enter. Hepatitis is one of the most fatal diseases of the English soldier in India. In 1883 the death-rate from this cause in the British force was 1·13 per 1000, while in the native army it was only 0·18 per 1000. The difference, according to Dr. Davidson, is due to the freer use of spirituous liquors by the European soldier. Hepatitis is most fatal in the Madras presidency, where malarious diseases are least frequent. Leprosy is endemic in India. The proportion of lepers is 57·3 per 100,000 of the population. Berar is the province in which leprosy is most prevalent. It is also common in Bengal, in the Punjab, in the Central Provinces, and in Assam and Burmah, while it is comparatively infrequent in Ajmere, Mysore, Gujerat, Chittagong &c. "All the facts," according to Dr. Davidson, "seem to point to heredity or contagion as the means of its spread and the cause of its persistence in any given locality," while the evidence "lends no support to the view that it is caused by a fish diet."

We might enter into many other interesting questions which the perusal of these volumes naturally suggests, but our space is exhausted and we must rest content with what has been already said. The study of the geographical distribution of disease is likely to throw much light on many interesting and difficult questions. To that study Dr. Davidson's work is an important contribution.

*Annali delle Epidemie occorse in Italia dalle prime memorie fino al 1850.* Scritti da ALFONSO CORRADI, Dottore onor. dell' Università di Cambridge &c. Vol. VII. Appendice. Parte 1 e 2. 4to, pp. 1265. Bologna: 1892.

THESE two goodly quartos, containing together 1265 pages, are the supplement to Professor Corradi's previous six volumes, the first of which appeared in 1865, and are the completion of his great undertaking, all but a volume of indices and tables which is now in the press. The profession of medicine may well be proud of this achievement. The work has been designed on a scale which we are apt to think belongs only to the old days of erudition—to the age of folios and quartos; and it has been executed in the most workmanlike fashion, without diffuseness or unnecessary discursiveness, with economy of space in the use of various sizes of type and in the remarkably uniform system of citing authorities, and (so far as we have observed) with strict relevancy and point in the critical comments. From the nature of the subject this immense work has been a labour of love, made possible by the author's occupancy of a chair at Pavia and by the liberality of the Medico-Chirurgical Society of Bologna in bearing the expense of publication. No other country but Italy could have yielded the same abundance of materials to work upon, and it is in keeping with the old repute of the Italian universities and learned academies that the copious historical records should have been so thoroughly and correctly handled. With Professor Corradi's monumental book to point to, no one can say that the old spirit is extinct. Utility, or immediate

profit, may appear at times to bear down everything else or to do so in one country more than another; but there is as much learned curiosity as ever there was and a far more perfect apparatus for gratifying it.

The two quartos before us, making the seventh volume of the *Annals of Epidemics in Italy*, consist partly of matter which had been inevitably overlooked in the long series of years dealt with, partly of information which has been brought to light since the work began in the numerous recent researches of Italian antiquaries and historians. Nearly the whole of the supplementary matter belongs to the period subsequent to the arrival of the Black Death (1347-48), only some sixty pages being occupied with new facts from the earliest mediæval period or the period of antiquity. The principal supplement, occupying 1014 pages, covers the whole period to the year 1850 for the second time, and might pass for a tolerably full series of annals if there had been no six volumes already published. But new matter was still accumulating while the supplement was under hand, so that the chronology had to be gone over for the third time in 246 pages more. It is clear that the author could never have found a place for all his original facts, and for these successive additions to them, had he not designed his work under the form of annals. Under each year are chronicled events of more or less importance, at more or less length, with or without critical remarks or discussions. This is, of course, the method of Dr. Dryasdust, as if, to use Carlyle's illustration, the space for each year of the chronology bore the superscription "Dry rubbish may be shot here." But it is all a matter of taste whether such collections, methodically arranged, including often the full text of historical records, are to be accounted dry or of the nature of rubbish. The annalistic method offers many advantages in the way of fulness and precision of statement; and it may be safely affirmed that Professor Corradi could not have produced so serviceable a work if he had followed the plan of a consecutive digested story of the various types of epidemic sickness in the several provinces of Italy from the earliest times. What happens under the annalistic treatment is that certain years afford the opportunity for considerable chapters of history: such years, for example, as 1348, when the Black Death comes up; or the year 1494, when syphilis broke out; or 1528, when the French army was in Italy and the whole country was full of typhus fever; or 1557-8, when there was influenza; or 1576, when many of the Italian cities were desolated by plague. The supplementary matter alone under 1576 occupies no fewer than forty-eight pages of small type. Again, under the year 1471, we find the full text of a Modena plague-bill for that year; and under 1448 there is a comparison, in parallel columns, of the teaching of two early treatises on plague, one by Pietro da Tussignano, who died in 1403, and the other by Saladino Ferro about 1448, the problems of contagion, of incidence, of favouring conditions &c., discussed in these mediæval writings being curiously like those which interest ourselves. In his second supplement, under the year 1348, the author adduces some further evidence concerning Gabriel de Mussis, whose manuscript on the outbreak of the Black Death at the siege of Caffa in the Crimea, discovered at Breslau in 1842, has been made of primary importance, inasmuch as he claims to have seen the first of that great epidemic with his own eyes. The new evidence tends to show that De Mussis was practising the law at Piacenza all the time, so that he may have got his information merely at second-hand from some one who had returned from the East.

These are examples of the immense variety of interesting and important points dealt with by the author as they arise under the respective years. The forthcoming volume of indices will be indispensable. The promised indices or tables are ten in number: (1) Index of authors and works cited; (2) topography of the epidemics; (3) chronology of the epidemics; (4) table of dates with localities; (5) military

and naval epidemics; (6) epizootics; (7) principal meteorological phenomena; (8) other public calamities; (9) occasions of public assistance—distribution of food, medical aid, &c.; (10) index of all other notable things. It will be seen from this enumeration that the annals record all the events that may have had any relation to epidemics—earthquakes, volcanic eruptions, floods, droughts, famines, as well as the various murrains. The information from the several provinces and cities of Italy is so full that calamities of all kinds, from influenza to plague, seem to follow each other with bewildering frequency. So many famous cities of Lombardy, Venetia, Tuscany and the other Italian States had a vigorous civic life at so early a period that their chronicles are more fully written or better preserved than is the case with regard to the rest of Europe. Italy was a century or two ahead in such matters, as well as in specially medical writings like the classical work of Fracastori on Contagion. For these and other reasons the annals of epidemics in Italy afford unequalled opportunities to the epidemiologist. Professor Corradi's task has been exacting in proportion, and has been executed with scrupulous fidelity. It would be interesting to know in what way so much erudition acquired throughout a lifetime had coloured his views of contemporary doctrines and controversies. At the end of his work he permits himself four pages of epilogue in which he indicates, not without eloquence, the bearings of epidemiological study. Among other points we observe that he appears to assign a somewhat inferior part to specific living organisms in the production of specific infections. He appears to refuse altogether the high parasitic doctrine: "La storia delle grandi epidemie di *tifo*, e in particolare le navali e le castrensi, si oppongono a si recisa sentenza."

### THE CONTAGIOUS DISEASES ACTS.

In the current number of a monthly journal there appears a letter from a correspondent on "The Solidarity of Vicious Methods." In it the probability of the Contagious Diseases Acts being restored is pointed to, and the various individuals living and dead, together with the medical and lay papers which have defended these Acts and deprecated their repeal, are held up to public ignominy. The late Mr. J. Fenimore Cooper, the American novelist, warned the critics, in his preface to "The Pilot," that as a sailor he possessed the privilege of including them all under the sweeping title of "lubbers." Similarly we might regard the writers of those many articles and letters which have appeared in the lay press denouncing us and our advocacy of these Acts as ignoramuses and treat their foolish effusions with silent contempt. We prefer, however, to adopt a more courteous tone and at least to endeavour to show these writers their errors. The letter before us places us in doubt as to whether the writer belongs to the sterner or the weaker sex. In the second sentence of the letter the repealed Acts are termed the "ghastly State regulation of prostitution." It has been shown over and over again that the State never proposed or attempted to regulate prostitution, but to prevent certain contagious diseases at certain military and naval stations. This jumbling together of vice and disease is a favourite device of the opponents of these Acts, since it has the effect of securing the support of that large number of members of both sexes who possess neither logical reasoning powers nor lucidity of argument. Men and women of the world who do possess these know that vice and disease are not necessarily cause and effect. A man who keeps a mistress is quite as vicious or immoral as a man who resorts to a prostitute, yet the former may commit deliberate fornication with impunity for a lifetime, while the man who yields to the wiles of a prostitute may contract a disease which will infect his constitution for years. If he be a married man he may infect his wife and unborn child; if a single man he ought to be warned against marrying for years to come; and in either case much annoyance and suffering are involved. Again, infection with

venereal disease is governed by certain circumstances which this confusion of terms wholly ignores. Some individuals of either sex are from natural conformation peculiarly liable to contract disease; others are not. The influence of circumstance as a factor in preventing infection is well known to those practitioners who treat venereal diseases. Hence the contention that venereal diseases are a heaven-sent punishment to vicious persons is not true. The Acts were applied to a very limited area, the localities in England being Aldershot, Canterbury, Chatham, Colchester, Dartmouth, Deal, Devonport, Dover, Folkestone, Gravesend, Maidstone, Plymouth, Portsmouth, Sheerness, Shorncliffe, Southampton, Walmer, Winchester, Windsor and Woolwich. In Ireland the operation of the Acts was limited to The Curragh, Cork and Queenstown. Now, if the effects of the Acts were so vicious as their opponents contend, we should have had both negative and positive evidence of this. The places just named would, during the application of the Acts, have been remarkable for an increase of flaunting vice; while the localities not subject to them would have presented a marked contrast in this respect. But what are the facts? The evidence of perfectly independent and thoroughly unbiased witnesses given before the Royal Commission and the Lords and Commons' Committees was that the effect of the Acts in reducing the number of prostitutes and in promoting better order in all the districts subjected to them was most marked. On the other hand, the condition of London and the other large towns and cities in England and Ireland to which these Acts have never been applied has altered but little as regards prostitution within the twenty-eight years which have elapsed since the first Act of 1864 was passed. Moreover, since the Acts were repealed the towns formerly subjected to them have not improved. On the contrary, so greatly has prostitution increased, and particularly in its worst form of juvenile prostitution, that the local authorities would welcome the re-enactment of these Acts. Turning again to the letter we find that THE LANCET is abused for its article of Jan. 23rd "praising the moral effects of the Acts, and speaking of their opponents as though they were enemies of morality and mercy." Various other journals, both professional and lay, come in for severe reprehension for defending these Acts. THE LANCET being alluded to no less than five times in the course of the letter, we may briefly recapitulate our reasons for the course adopted in these columns with reference to this legislation. We maintain that it made an attempt to deal with what religion and philanthropy had failed to do—the social evil in its worst aspects. What notice had been taken of the wretched women in Portsmouth and Plymouth, in Chatham and Windsor, in Cork and The Curragh? What attempt had been made either to cure their diseases or to attempt their moral reclamation? Either nothing at all or so little that it had not even scratched the surface of this great evil. By means of the Acts these women were brought under the kindly notice of the visiting and hospital surgeons, who examined them with every regard to their feelings and ministered to them in hospital until they were cured. Being gradually humanised, they became in a better condition to become reformed. By the kindly assistance of the chaplains, and matrons, supplementing the work already begun by the surgeons, these women in numerous instances forsook their previous wretched life and eagerly embraced the facilities afforded them of commencing a better one. All these are facts which cannot be disputed or denied, and so the term "State-regulated prostitution" simply recoils on those who use it, not from knowledge, but from ignorance of these Acts and their working. These diseases are acquired not from sin merely, but from sin committed with a diseased person. Those who are really virtuous and wish to remain so can do this whether the Acts are in force or not. No man or woman need sin against his or her will. For all these reasons we shall continue to support these Acts and to urge their restoration, amended as circumstances may require, to the statute-book of this country.

**PROPOSED ISOLATION HOSPITALS.**—At a meeting of the Epsom Local Board last week it was resolved that a permanent isolation hospital be built on land belonging to the Board at Kingston-lane, and that application be made to the Local Government Board to sanction a loan of £1000 for that purpose. The rural sanitary authority of Redruth is making arrangements for the erection of a hospital for the isolation of patients suffering from infectious diseases.

# THE LANCET.

LONDON: SATURDAY, SEPTEMBER 24, 1892.

IT is easy to be critical or even cynical over the instructions of the Royal College of Physicians for the treatment of "patients suffering from cholera, choleraic diarrhoea or diarrhoea"; but admitting, for the sake of argument, that the College was obliged to formulate some instructions (and as we said last week they appear to us to be plain and practical and in accordance with the line which we ourselves recommended to be adopted by the profession) we do not see that it could very well have done better than it has done. This is, however, a considerable admission. The College might have taken different ground and given different advice. We are disposed to think that it would have acted wisely in doing so. The Royal College of Physicians is a representative and responsible body. It is not entitled at a great crisis of national sickness to withhold its sympathy and its help from the people. When called on by the Local Government Board, representing the State, for its contribution of wisdom and counsel, it is under a very grave obligation to do its best. It must be admitted further that there is precedent for going into detailed prescriptions, though scarcely, perhaps, in such detail as in the suggestions just issued by the College. We have before us a report of the action of the College in similar circumstances in 1866. On that occasion the College was set in motion by the Lords of Her Majesty's Privy Council, as represented by their distinguished medical officer, Mr. (now Sir JOHN) SIMON. Sir JOHN SIMON'S request was limited and modest as compared with that of the President of the Local Government Board. It simply raised the question of the expediency of issuing instructions to *captains of merchant vessels* as to how they should act when proper medical attendance could not be procured so as to provide for the health of their crews against attacks of cholera. Their lordships wished particularly for the suggestions of the College—first, as to the necessity of avoiding purgative medicines, and, secondly, as to the measures to be adopted when cholera appeared on board ship. On the present occasion the Local Government Board propose to issue Regulations for the guidance of local sanitary authorities, requiring them, amongst other things, to provide and dispense without charge medicines and medical appliances for the sick, and they apply to the College for instructions and prescriptions, with the flattering remark that they believe the local authorities will attach great value to the medicines which the Royal College of Physicians consider best adapted to patients suffering from cholera, choleraic diarrhoea or diarrhoea. This is a much larger request than that of the Privy Council in 1866, and one which involves much more serious consideration. The reply of the College is perhaps a very natural one, and, as we have said, if it had to undertake instructions and prescriptions could not well be better. The instructions for the maintenance of general health indeed suggest that they were framed by practitioners who cater for that section of the community who command any number of meals they please, of any quality, including choice wines, and who are equally

able to select model houses for residence, with drainage and all appurtenances complete, rather than for the poor. The prescriptions are as good as general prescriptions for individual cases could be and fairly represent present therapeutic views as to the best measures to be taken for the prevention of cholera in cases of diarrhoea. We even admire the ingenuity with which the advocates of rival methods of treatment are conciliated, and with which the general indications of experience and common sense are respected. It is refreshing to see the ancient College alive to the virtues of coto, which has as yet no place in our pharmacopœia, and which, it may safely be assumed, is still an unknown drug to many chemists and even too many Fellows of the College. There are also cognisant of the still more recently discovered powers of enemata of tannin, of which a very interesting account will be found in THE LANCET of last week, p. 682. But the question still remains whether it is a dignified position in which to place the College of Physicians to ask it to be a party to, the preparation of two or three huge bottles or reservoirs of medicine out of which practically the whole community is to be doctored. There is no disease which can be treated with advantage in such a general fashion, and cholera especially defies all routine prescriptions. It may seem very natural to some minds that the State should undertake a general treatment of the cholera of the community, and that "without charge." The ease and cheapness of the scheme are fascinating, and so is the idea of bringing the humblest citizen into the advantage of being prescribed for by the College of Physicians. Still we gravely question the advantage. It is the undoubted duty of the Local Government Board to see that the poorest section of the community in the remotest parts is medically provided for at all times, and especially in times of great and urgent sickness. But it cannot discharge its responsibility by applying for a few prescriptions to the College of Physicians, to be dispensed mechanically for cases and in circumstances which the College never contemplated. The only efficient way in which the Local Government Board can secure medical aid to the poor is to use its influence over local sanitary authorities in the direction of perfecting the arrangements for procuring easy and early medical and nursing attendance. These arrangements should include provision for house-to-house visitation in poor neighbourhoods under any suspicion of harbouring the disease or the conditions favourable to it. What is wanted is not so much physic as physicians who can attend promptly to individual cases and give them the particular treatment which each case requires. We are confident that in this view we shall have the concurrence of the College itself. It is not only that general instructions applied in a routine way cannot be relied on, but the tendency of such action on the part of the College is to diminish individual earnestness and the sense of individual responsibility. The function of a College of Physicians is to qualify men to treat disease and then to throw the responsibility for its treatment on them—not to supply chemists and medical men with ready-made prescriptions. This is the way to hinder therapeutics rather than to help it. So much as regards even the poor. It is essential to supply them not so much with medicine as with medical men. One way in which the Local Government Board can best effect this supply without undue strain on the local authorities is to restrict it to the poor. We seem to see in the letter of Sir

HUGH OWEN an intention to take the whole community in hand and to cater for those who have their own doctors and the means of paying them—"to provide and to dispense, *without charge*, medicines and medical appliances for the sick." This is a large order, for which we see no need or justification. The addition of one word will remove all objection to the sentence as it now stands. But this addition is essential if such schemes are not to be demoralising. Instead of sick read "sick poor," and in addition to medicines and medical appliances say "and medical men," and all will concur in the enlightened and benevolent energy of the Local Government Board.

THE conditions under which clothing is made are at the present time exciting unusual interest, because it has been alleged that a member of the Royal Family has been exposed to risk of infection from circumstances which, in the tailor's trade, lead to clothes being made in the homes of the workers. It does not appear from the published statements that there was more than possibility of danger; it is not alleged that the clothes of this distinguished person were actually made in a room occupied by a case of infectious disease, but the reader is left to infer that what is possible for a prince is a matter of daily occurrence for those less highly placed, and that there is for the community at large a very palpable danger of infectious disease spreading from the tailor's workshop or the homes of his *employés*.

The channels by which diseases of this class may be conveyed from the sick to the healthy are so numerous that it is impossible to ensure with any certainty that any person, however well circumstanced, shall be entirely free from all risk. That every care should be taken to lessen the chances of accident will not be disputed; but in considering what is practicable, it is necessary to remember that the workers are unable to guard themselves against disease and that the public cannot insist on the adoption of more than reasonable precautions. The lesson that has to be learnt is that we are all members of one family and that it is only by safeguarding the poorer members against maladies to which all are liable that the richer can hope to secure their own protection.

We may recall with satisfaction the fact that as long ago as the year 1884 THE LANCET appointed a Commission to inquire into the condition of Jewish tailors in the East-end of London, mostly foreigners, the greater number of whom were Poles. Our Commissioners found them working in unwholesome, overcrowded houses, where girls and women were kept employed long after the hours prescribed by the Factory and Workshops Act. Such people were wanting in even the more elementary habits of cleanliness which are possessed by the poorest of English people. These aliens arrive in England usually entirely ignorant of the language, and become the slaves of those who choose to employ them for the most scanty remuneration. The insanitary conditions under which work was done showed that there was open defiance of the Factory and Sanitary Acts. It was, indeed, matter of great difficulty to get reliable information regarding the relations in which the workers stood to their employers and to each other, for upon the appearance of a stranger steps were immediately taken to mislead. The women and children were scattered all over the house, and if questioned the answer came readily that one was a niece, another a daughter and so on. It is not matter for surprise

that these poor people could know nothing of the dangers, to themselves or to those who wore the clothes they made, of infection from a case of fever or small-pox in their family.

Later, extending our investigations to Manchester, Liverpool and Birmingham, as well as to Glasgow and Edinburgh, we found that in these towns much the same conditions existed. The subdivision of work led to insufficient feeding, overcrowding and overwork; the poorest classes were employed at the smallest remuneration for work made under conditions which rendered the workers liable to disease which might readily be conveyed eventually to the wearers of the clothing. Undoubtedly some improvements have been effected since that time, and the necessity for more detailed inspection of the places in which work is done has been recognised, for it has led the Legislature to place the supervision of workshops and workplaces entirely under the control of sanitary authorities, with the additional precaution that in the event of these bodies being found to be negligent the Secretary of State has reserved to himself the power to send, to use Mr. MATTHEWS' expression, "an army of inspectors" to carry out the law.

It is too soon to judge of the result of this legislation. The sanitary authorities will now be held to be responsible not only for the condition of the places in which the workers dwell, but of those in which they are employed, and this latter in relation to the subject which we are now discussing is not the least important matter. It may be hoped that the object of this change in the administration will not be lost sight of. For any effectual protection of the public the staff of sanitary officials must be largely increased, and if the public require protection from dangers which have lately attained exceptional prominence, they must not begrudge the cost of the administration. Precautions such as those we indicate are in every sense reasonable; they are such as everyone has a right to expect; for while the well-to-do may, when paying a higher price for their clothing, demand that work shall be done on the premises of the master tailor, the multitude must rely for their own safety upon that more general protection against disease which the enforcement of the provisions of the Public Health Acts is capable of affording.

AMONG the COKE MSS. in the possession of Earl COWPER at Melbourne Hall are several letters from ANNE, Countess Dowager of ARUNDEL, to her son, the famous Earl THOMAS (who collected the Arundel Marbles), relating, among other things, to his children, who appear to have been mostly left in charge of their grandmother, sometimes at Arundel House in London, sometimes at Sutton, a country house on the north bank of the Wey, about three miles north-east of Guildford and three miles south of Woking. The Manor of Sutton in Woking belonged to the family of WESTON, one of whom (Sir HENRY, who died in 1592) had married a daughter of Sir THOMAS ARUNDEL of Wardour, her mother having been a HOWARD of Arundel. Perhaps that is how we should explain the fact of Lord ARUNDEL'S children residing at Sutton, near Guildford, with their grandmother. Several of these letters belong to the winter of 1613-14, when the Earl and Countess were in Italy; they contain various references to the health of the three boys, which need not detain us. It is in the following two letters, undated, but belonging to the month of

February, 1619 (not "about 1616," as the editor of them for the Historical Manuscript Commission says conjecturally), that HARVEY is introduced to us as a consulting physician. The fourth surviving child, CHARLES HOWARD, who was born subsequently to 1614, fell ill suddenly; whereupon his grandmother despatched a messenger to the Earl to "send with speed the best doctor may be had." The doctor sent was HARVEY, who would doubtless have ridden down from London, a distance of some twenty-five miles, crossing the Thames probably at Kingston. Whether he arrived in time to see the child alive does not appear clearly from the second of the two letters. He met Mr. RAYNER of Guildford in consultation, and it is pleasing to note that he took the same view of the case as that practitioner. He was to stay the night at Sutton, and it was hoped, when the messenger was despatched late on Saturday, that Dr. HARVEY would be stirring early next morning, so as to ascertain "the true inward occasion"—i.e., make a post-mortem examination. The first letter, dated "Sutton," is printed as follows in the Calendar of the COWPER MSS. :—

"Presently after the despatch of my footman we found that Charles was not after his usual sort, refusing breakfast. .... bath took nothing, but tossed and drank sometime in the night. .... His wind very short, and his pulse and heart worketh so extremely fast as I never knew the like .... I assure, sweetheart, the poor child is exceeding evil. I beseech you send with speed the best doctor may be had. I fear the child very much. God bless him and you all."

The next letter is dated

"Sutton, Satr. late.

"MY GOOD SONNE—About two houres after my servant's departure towards yr Lo. this morning the poore child continuing very sicke hee cast twice a littell quantity of darke tawny color. Some time after, being then about noon, he cast a good quantity together of black color, which did offer some time to come in littell quantity so long as he had life. It pleased our blessed Savyour to take him to himselfe something before 4 a clocke this after none, having suffered very sharp pains befor his ende. Mr. Doctor Harvy is of the same opinion that my Gilford neighbour Mr. Raner was to day when he did purseve what he did avoyde, which is, that some continued impostum caused his ende. I trust Mr. Doctore will so early be sturing as Mr. Ardern shalbe able to lett yr Lo. bee satisfied of the inward true occasion, and I beseech you for godsake to comforte your selfe and my good sweet daughter with the true good of the sweet soule of your littell sonne, for I am sure wee should all have hartily rejoyced if it had pleased God to have sent him health and strength of body....

"I ever rest, your Lo. faithfull loving Mother,

"ANNE ARUNDELL."

Any glimpse of HARVEY is of interest; and the fact that he was employed by the Earl of ARUNDEL as early as 1619 is of some importance. It was through Lord ARUNDEL that HARVEY came to make the anatomical examination of old PARR, in November, 1635, his lordship having brought that aged person from Salop to London, kept him in his own house, and presented him to the King as a wonder. Next year (1636) HARVEY accompanied Lord ARUNDEL as his physician, in the embassy to the Emperor to settle the affairs of the Palatinate. But, in the above letters, we have clear evidence of his attending the HOWARD family at a much earlier period of his London career. The letters are undated, but the incident to which they relate, the death of the youngest boy, CHARLES HOWARD, is known to have been in February, 1619. HARVEY had already been ten years

physician to St. Bartholomew's Hospital. The only ambiguity relates to the place called "Sutton." There were two Suttons near Guildford—Sutton House, which was the original manor house, and has long since disappeared, and Sutton Place, which was built for the WESTONS, a fine quadrangular edifice of HENRY VIII.'s time, entered by a great gateway flanked by towers, with a gallery in which Queen ELIZABETH was entertained, and a hall of spacious proportions. It is still there, all but the fourth side with the gateway, forming one of the architectural sights of the county of Surrey. It seems probable that this was the Sutton from which the Dowager Countess dated her letters: it belonged to the WESTONS, a Catholic family connected by marriage with the HOWARDS; it had a chapel in which Mass continued to be said without interruption from pre-Reformation times; and Father WILLIAM WESTON, a leading recusant priest, was the Dowager Countess's spiritual director. Her son, Earl THOMAS, had conformed to the Anglican rite, but he seems to have left his children to be brought up as Roman Catholics by their grandmother. In 1857 the Duke of NORFOLK printed from a family MS. a life of that pious and exemplary lady, along with a life of her husband, Earl PHILIP. The incident of the boy's death, as above, is brought in to show her religious resignation; but beyond stating that the child was four or five years old and that his education had been wholly remitted to his grandmother, the Life throws no further light on the event, and does not mention where it happened. Five years later, in 1624, the Dowager Countess was living at "her house at West Horsley," which is in the same neighbourhood, "her house" having been probably the still existing JAMES I. mansion there. She was of considerable wealth, and left money to found a college at Ghent. We shall probably not err in assuming that, in 1619, she was occupying Sutton Place, or perhaps one wing of it. If that be so, we can still point to a country mansion where HARVEY is known to have been called in consultation from London, where also he is known to have expressed his agreement with the local practitioner in the judicious diagnosis of a "continued impostum,"—probably peritonitis, and perhaps intussusception.

## Annotations.

"Ne quid nimis."

### THE PHYSICIAN'S INFLUENCE IN DIPLOMACY.

COMPILERS of social and political anecdote might put together an interesting and instructive volume on the share physicians have had in moulding the opinions and determining the policy of monarchs or statesmen or diplomatists to whom they were professionally attached. The published biographies of men high in official position teem with acknowledgments of what they have owed to their medical advisers, not in the matters of health only, but in the sphere of Statecraft. One of these which saw the light not so long ago—the charming "Memoirs of an ex-Minister"—contains a memorable passage in point. Lord Malmesbury, the Minister for Foreign Affairs under the Derby-Disraeli Administration, and the author of the memoirs referred to, makes particular mention of the professional visits of Dr. Fergusson—the Robert Fergusson who figures so honourably in two such diverse books as

Watson's "Practice of Physic" and Lockhart's "Life of Scott." His lordship had asked the doctor's opinion on the state of parties and the political outlook of the day, and, having got it, adds: "I fear he is right" [as undoubtedly he was], "for," proceeds Lord Malmesbury, "nobody is a better judge of public feeling than a doctor, who is constantly seeing all kinds of people." Another illustration, of a more dramatic though of a less satisfactory nature, meets us for the first time in a similar book just published, "The Diplomatic Reminiscences of Lord Augustus Loftus, P.C., G.C.B., 1837-1862." The Emperor Alexander of Russia, brother of the Czar Nicholas, inherited a good deal of the eccentric character of their common father, Paul, whose assassination is one of the most tragic incidents in the sombre page of Russian history. Alexander, it appears, had been privately informed of a conspiracy to take his life, and, acting on the information, had altered the route. He was then passing between Moscow and St. Petersburg. By shaping his journey homeward *via* Taganrog to the south he hoped to defeat the purpose of the conspirators. At that remote town he fell ill of "bilious fever," and in his suspicious frame of mind nothing would induce him to follow the advice of his excellent body physician, Dr. Wyllie. The doctor was reinforced by the entreaties of the Empress, but in vain. Alexander, seeming to court death, ordered a priest to be sent for, and meantime Dr. Wyllie and the Empress renewed their importunities to get him to take the remedy prescribed. This he finally agreed to do, and with the arrival of the priest renewed pressure was put upon him not to commit suicide by refusing the medicine. The priest, in fact, declined to do his part until the imperial patient acted on Dr. Wyllie's orders. To relieve local congestion leeches were applied to the head, and, after a time, the Emperor, sending for his consort and Dr. Wyllie, asked them if they were satisfied. They replied they were (for the time, at least); whereupon he tore off the leeches and by preventing their action seriously compromised his chances of recovery. The disease, in spite of the physician's efforts, had to run its course and the imperial patient died. Other anecdotes of Dr. Wyllie's association with the *via intime* of the Russian court represent him in a more successful light, extra-professionally as well as in his medical capacity, and must, if collected, form a favourable specimen of the volume we have suggested to the compiler—a volume which might have many an interesting counterpart drawn from the experience of others of his compatriots in their rôle as consultants to kings and their ministers.

#### HAMBURG WATER.

THE results furnished by a chemical analysis of the water supplied to Hamburg admit of but one interpretation—the water is highly polluted, and it has thus no doubt afforded an excellent channel for the distribution of the disease which is causing sad havoc in the city at the present time. A sample of water taken from the mains by an ordinary tap, just as it is supplied for drinking purposes to the houses, was recently procured by Mr. J. B. Coppock, F.C.S., who submitted it to analysis, the details of which appear in the current number of the *Chemical News*. The water is described as turbid and very yellow in appearance, as slightly unpleasant to the taste, as possessing little odour and containing a small and dirty-looking deposit. Microscopic examination revealed animal and vegetable matters as well as mineral particles. The total solids amounted to 81.25 grains, the chlorine to 33.04 grains, the free ammonia to 0.0746 grain, the albuminoid ammonia to 0.0205 grain, the sulphates to 2.37 grains, and the nitrates to 1.95 grain per gallon. Oxygen consumed in fifteen minutes was equal to 0.065 grain, and in four hours to 0.24 grain per gallon. The most striking item is perhaps the chlorine. It occurs to an enormous extent and may have been derived from the chlorides in animal evacua-

tions, as in urine, although on the other hand there is no evidence that it is not of mineral origin. The nitrates do not appear to have been estimated, neither are any observations recorded as to the behaviour of the solid matter on heating. This is regrettable, we think, as the presence of nitrites affords fair proof of the existence of putrefactive matter still undergoing oxidation, while the character of the odour evolved on heating the solid matter frequently indicates whether the contamination is of vegetable or animal origin. Cultivation in nutrient gelatine produced an abundant crop of bacteria—bacilli, micrococci and fungi—but the consumption of the water, Mr. Coppock adds, has not produced any choleraic symptoms in the case of a cat. The water-supply of Hamburg is drawn from the River Elbe. London, he it remarked, also derives her water-supply mainly from a river, and although that river has hitherto yielded water of surprising purity after suitable treatment, yet in view of the present enormous rate of increase in the population not only is this source of supply likely to prove inefficient within a few years, but, what is still worse, it will probably become less pure, in consequence of the increasing demands made upon an already overtaxed river by the present system of sewage disposal. A consideration of these facts, especially at this time, should lend fresh impetus to the labours of the Royal Commission, which will shortly resume its sittings.

#### MIND-BLINDNESS.

IN the last number of the *Neurologisches Centralblatt* appears an abstract of a paper by Dr. Wilbrand, in the *Deutsche Zeitschrift für Nervenheilkunde*. In this paper is given the sequel to a case of mind-blindness with hemianopia, published by the author in 1887. The completeness with which the case was recorded in the first instance and the accuracy with which it was observed give the highest value to the account which is now presented of the condition of the brain. The patient was a woman, aged sixty-three, who until the onset of her illness had been healthy and intelligent. She suddenly became unconscious, and for some weeks she remained so. When she regained consciousness she mistook animals for human beings, and her ideas as to her position in time and place were rather hazy. Even in well-known places, such as her own house and amidst her own furniture, she could not find her way about; but if she closed her eyes her power of regulating her movements was much greater. She was confused and excitable; she said that she thought "upside down," that she lead "a mechanical life," and that her sense of smell was much finer than usual. She also suffered from feelings of "explosions," which took place in her head without any noise, but accompanied by a sudden perception of light. There was no paralysis of ocular muscles and no change in the fundi; there was incomplete left homonymous hemianopia and a partial hemianopic defect in the lower half of both right fields. Inside the defective left half-fields there was a zone in which only light—not form or colour—was recognised. She read writing and printing fluently with the aid of convex glasses. She could write to dictation correctly, but in spontaneous writing she made frequent mistakes, omitting words or repeating them needlessly. Her symptoms varied but little during ten years, and she finally succumbed to an apoplectic attack within a few hours of its onset. At the necropsy the fusiform lobe on the right side was found to be depressed, and it had apparently been transformed into a loose-walled cavity which extended to the extremity of the occipital lobe. The occipital convolutions were reduced in size; the whole lobe was somewhat depressed but not softened. The hinder part of the cuneus was softened, its extremity being connected with the softened area of the fusiform lobe. The cortex of the calcarine fissure was a little altered; the precuneus was normal and so were the lateral aspects of the occipital lobe and of

the whole parietal region. On the left side there was a small cavity under the grey matter of the second occipital convolution, with a softened area in front of it, evidently an old lesion, and anteriorly this was continuous with a recent softening which had completely destroyed all the central matter of the hemisphere. It will thus be seen that the centre for the reception of visual impressions in the left hemisphere was intact, but the interruption of the subcortical associational fibres had resulted in permanent mind-blindness. On the other hand, by the destruction of the cuneus and the affection of the calcarine fissure on the right side, the function of the centre for the reception of visual impressions on that side was abolished, and as with closed eyes the recollection was scarcely impaired the symptoms of mind-blindness must be wholly ascribed to the lesion in the second left occipital convolution. The total blindness which was present at the commencement of the illness is to be ascribed to the permanent destruction of the area for visual perception on the right side and to a temporary abolition of the function of that on the left side through pressure on the fibres, which had not caused complete destruction. Dr. Wilbrand had previously suggested that mind-blindness was the result of a cortical lesion in an area in the left hemisphere, subserving visual recollection, and he confirms this by the anatomical condition which he has now described—viz., the destruction of certain associational fibres of the occipital lobe. On reviewing all the circumstances of the case under consideration, he is of opinion that the following propositions may now be laid down: (1) That mind-blindness may arise through destruction of certain connecting fibres—for example, by lesions which lie close under the surface of the first and second occipital convolutions; (2) that symptoms of permanent mind-blindness, with complete homonymous hemianopsia or with hemiachromatopsia alone, are due to lesions in each occipital lobe affecting either the cortex or underlying fibres; (3) that the area for visual impressions and the area for visual recollections of one and the same hemisphere are in direct connexion; and (4) that if, when the visual area in each hemisphere is affected, the area for visual recollection in one hemisphere is unaffected, the disturbances of optical perceptions vanish when the eyes are closed. The case, it will be seen, is an extremely important one, and it will no doubt be the means of throwing light on many hitherto obscure problems.

#### VACCINATION AND SMALL-POX MORTALITY.

IT is a regrettable fact in the vaccination controversy that the opponents of this salutary measure should in their zeal to depreciate its value lose sight of essential principles. Thus in a letter which appeared in *The Times* of the 19th inst. Major-General Phelps of Birmingham cites the fact, which he says he has verified, that each of the four fatal cases of small-pox occurring amongst adults in that town last year were of vaccinated persons, but that this fact was not noted on the certificates of death. We agree with him that such an omission is to be deplored, but his own letter shows that the evidence of vaccination was obliterated by the severity of the variolous eruption in at least two of the cases. Still, if he has been able to procure unequivocal evidence—no easy matter, especially for a prejudiced inquirer—from the relatives of the deceased, it might have been equally possible to gain this information at the time of the illness. It should not be inferred that because the fact of vaccination is not mentioned on the certificate these fatalities would be placed amongst the "unvaccinated class." There is a sort of feeling amongst the opponents of vaccination that the interests of truth are not regarded by the upholders of the practice! They also seem to think that the mere fact of vaccination having been performed at all is considered by the profession to be absolutely protective against fatal small-

pox during the whole of life. If the former can show a mortality from this disease amongst the efficiently vaccinated at all approaching that amongst the nominally vaccinated and the unvaccinated, then, indeed, we may begin to question the efficacy of the practice. This demonstration *cannot* be made. Vaccination, efficiently performed and reinforced by revaccination, is—in the healthy—almost absolutely protective against the ravages of small-pox. That has been proved up to the hilt. But it has also been shown that the conditions for producing so certain an immunity are not invariably observed—nay, even that unscrupulous persons encourage the poor and ignorant to obey the law in the letter, but to obviate the effects of vaccination by artifice. Year by year in this country the numbers of the unprotected are increasing, and they include not only the really unvaccinated, but the nominally vaccinated also. Lastly, mortality from small-pox, as from all infective diseases, is influenced by the previous habits, health and age of the subject, and when all such favouring conditions for severity are struck off from each column of the vaccinated and unvaccinated alike, the disproportion of fatalities and, indeed, of severity of attack between the two classes is so evident that no one not absolutely blinded by prejudice can fail to perceive where the safety lies.

#### LATER STUDIES OF TIZZONI AND CENTANNI ON THE PROPHYLAXIS OF RABIES.

To combat the infection of rabies, even in its pronounced stage, the Bolognese pathologists, our readers will remember, employed the serum of the blood of rabbits which had received such immunity from rabies as to withstand without injury repeated inoculations of the virus. The active substance of the serum may be precipitated by alcohol together with other albuminoid bodies, and the precipitate so obtained, when redissolved in water, shows itself capable of neutralising the virulence of the medulla of a rabid dog. Professor Tizzoni, in concert with Dr. Schwarz, had already sought to ascertain if the alcoholic precipitate manifested on the organism the same beneficent virtues as the directly injected serum. His results, however, as then obtained were too uncertain and could not claim a definite character, all the more that the method of inoculation had in more than one particular to be brought to greater perfection. To solve the question he made use, in recent researches, of serum taken from animals which had resisted repeated inoculations, hypodermic and intravenous, of the virus, the serum being combined with ten volumes of alcohol and the precipitate obtained being dried and desiccated. To ascertain if the solid substance separated from the serum possessed immunifying (*immunizzanti*) virtues, direct inoculation of the rabid virus was practised on the sciatic nerves of rabbits, and eight days after this inoculation the animals were further inoculated with an aqueous solution of the precipitate. The immunifying action of the precipitate was expected to manifest itself after the virus had invaded the central nervous system and after the first symptoms of the malady had appeared. The results, checked by repeated experiments, showed in every case that the animals inoculated with the precipitate withstood the infection admirably, while the animals which had been inoculated with the rabid virus, but had not been subsequently "vaccinated," died within twenty days of rabies. Which proves that, in analogy with the findings of Professor Tizzoni and Dr. Centanni with the anti-toxine of tetanus, by means of absolute alcohol we can get a precipitate which possesses the same immunifying power as the serum, for which, in fact, it can be substituted. The importance of the preceding fact, scientifically and practically, can scarcely be exaggerated. It confirms the immunifying virtues of the serum, it introduces us to a new property of the active substance contained in the serum;

and finally it admits of our getting this substance in a form which renders it capable of being kept easily and for an indefinite time. It is thus possible to collect by little and little from the serum of immunified animals considerable quantities of the active substance, so as to have it at hand in case of need; it is also possible to pack and forward it to places at a distance. Its mode of use, moreover, is of the simplest. Professor Tizzoni and Dr. Centanni concluded their interesting communication (made to the R. Accademia dei Lincei of Rome) by the avowal that they could not pronounce exactly on the minimum dose of precipitate necessary to cure a rabbit affected with rabies; in their experiments they say that from the desire to obtain positive results they perhaps exaggerated the doses required to produce immunity. In any case, even if this minimum dose were established, it would not have been possible, by simple proportion, to draw deductions applicable to the human patient. With respect to the organism of the rabbit, that of man is so differently conditioned for the infection of rabies that only from actual proof gained from the experience of the human patient can we hope to ascertain the effective minimum dose of the immunifying substance.

#### ACTION OF ALKALOIDAL POISONS ON LEUCOCYTES.

DR. E. MAUREL of Toulouse has performed an important series of experimental researches on the action of poisons on leucocytes. The results are published in recent numbers of the *Bulletin de Thérapeutique*, and an abstract will be found in the *Boston Medical and Surgical Journal* of August 11th of this year. With regard to strychnine, he finds that the toxic action of the alkaloid on the animal economy is in the ratio of its destructive action on the leucocytes. "In poisoning by sulphate of strychnine, the death of the leucocytes and that of the animal are simultaneous." The quantity of strychnine necessary to kill immediately all the leucocytes in 100 grammes of human blood has been found to be 5 centigrammes; this amount of blood may be said to represent 1 kilogramme of the weight of the body. A much smaller quantity of strychnine—2 centigrammes—is equally fatal to the leucocytes in 100 grammes of blood, though several hours are required for their complete destruction. The immediate effect of the poison on the white corpuscles is to arrest their spontaneous activity and fix the elements in the spherical state. In investigating the action of atropine on the white corpuscles Dr. Maurel found here, too, a complete concordance between the quantity of toxic material necessary to kill the animal and that necessary to kill the corpuscles. Struck by this concordance, which suggests a special rôle of the leucocytes in death by this toxic agent, Dr. Maurel experimented with the hare—an animal which eats belladonna with impunity—to ascertain if the leucocytes of the hare's blood are affected by atropine. He found that this alkaloid was almost without effect on the leucocytes of the hare. His conclusions are formulated as follows: In the dose of 5 centigrammes or more sulphate of atropine instantly kills the leucocytes contained in 100 grammes of human blood. In the dose of 2 centigrammes these elements can live but a few hours, and from the moment of contact they present sensible modifications in their activity and in their form. In the hare, on the contrary, the leucocytes can live in a solution of 2 grammes of atropine to 100 grammes of blood, and perhaps in a stronger solution. Lastly, considering the concordance between the quantity of sulphate of atropine necessary to kill a man and that which suffices to kill the leucocytes of human blood, or impress upon them important modifications, considering, moreover, that the immunity of the hare is closely associated with the immunity of its leucocytes, Dr. Maurel is led to the conclusion that it is probable that

the leucocytes have a principal part to perform in poisoning by that alkaloid. Similar investigations relative to pilocarpine have shown that it takes 10 centigrammes of that substance to instantly kill all the leucocytes in 100 grammes of human blood; 5 centigrammes will kill them in a few hours. In another series of experiments Dr. Maurel investigated the action of cocaine on the white globules, and he concludes that death by cocaine is the consequence of the death of the leucocytes or of modifications which the latter sustain under the influence of this agent. The quantity of cocaine which is immediately fatal to the leucocytes is 1 per cent. of the quantity of the blood or about 1 gramme per kilogramme of the weight. Thirty times as much cocaine is required to kill an animal when this salt is taken by the mouth as when it is injected into a vein. In death by intravenous injections of toxic solutions the death may be caused by the leucocytes suddenly killed being swept along the blood stream and acting as emboli. These elements, in fact, after their death, take the form of rigid discs, the long diameter of which exceeds by one-third at least the calibre of certain capillaries.

#### "THE POOR AND SHAM DOCTORS."

THE *Morning Advertiser* reports an inquest under the above heading on the body of a child, in whose case a "doctor" was fetched by the father, who placed a tube on the chest, and said it "was not dead." He then said he was not "the doctor," "the doctor was away." On hearing that he purported to come from "Dr. Morrison's" in Cannon-street-road, the coroner, Mr. Wynne E. Baxter, said, "I should think he is away; he has been dead and buried a long time." This disclosure led to some uncomplimentary remarks on the kind of assistants kept by some medical men. The foreman of the jury said the question was one of great importance to the working classes and should be reported to the Medical Council. Dr. George Hill Bartlett, who was called to see the child after the visit of the gentleman who said "he was not a doctor," expressed the belief that the child was dead in the first instance. The coroner agreed to report the case to the Medical Council. The question, as the foreman says, does deeply affect the working classes, but they have the remedy in their own hands. Every respectable working man should have an understanding as to medical attendance with a neighbouring practitioner. In every neighbourhood there are medical men who are willing to meet the case of the working classes on reasonable terms. The Medical Council has its own duties, however, in regard to the question of covering.

#### CEREBELLAR CYSTS.

IN the *International Journal of the Medical Sciences* for August of this year is an important paper by Dr. R. T. Williamson on this subject, with special reference to the occurrence of simple serous cysts in the cerebellum. He gives the details of two cases presenting the ordinary clinical features of cerebellar tumour, in each of which the necropsy revealed the existence of cysts in the cerebellum, which appeared at first to be simple, and only on very careful examination of numerous parts of the cyst wall were they found to be really the result of new growth—in the one case gliomatous and in the other sarcomatous. Dr. Williamson, while not denying the possibility of so-called simple or serous cysts originating in other ways, is inclined to think it more probable that these cysts have been tumours in which the cystic degeneration has been so marked and so extreme that the whole of the tumour growth has disappeared, or only so minute a portion has remained that it has escaped detection. His reasons for this view are briefly as follows:—That the clinical history in such cases is the usual one of tumour, and that the liability of intracranial tumours to undergo cystic degeneration, as is well known, is very great. In some cases also what have been regarded as

simple cysts have been shown on very searching examination to contain in the wall a small mass of new growth, and this mass in one case was so small as to measure no more than  $\frac{3}{8}$  in. by  $\frac{1}{8}$  in., a considerable portion of which consisted of bloodvessels. Further, Dr. Williamson urges that, if the cystic degeneration can be so marked that only a patch of new growth of these minute dimensions may remain, it seems not improbable that in some cases the whole of the tumour may disappear and only a cyst remain; or the portion left may be so small as to escape detection. The occurrence of such cysts in the cerebellum suggests the possibility of treating some of the supposed cases of cerebellar tumour by aspiration and drainage. Operations for the removal of cerebellar tumour are notoriously unsuccessful on account of the difficulty of the localisation and of the operation; and if there is any reasonable hope that a cyst is present, naturally the treatment suggested would be adopted. Nor is there any reason why such treatment should not be extended to the cerebrum, as was actually done in a case which Dr. Williamson quotes as recorded by Oppenheim and Köhler. This was a case of Jacksonian epilepsy in which at the operation a cystic glioma was found in the right motor area. The superficial part only of the growth was removed and the cavity drained, with the result that the left arm, which had been paralysed, regained power, and the patient otherwise improved so much that he was discharged in good health three months after the operation.

#### THE ISOLATION OF DIPHTHERIA IN BOOTLE.

WE regret to see that a proposal by the chairman of the health committee of the Corporation of Bootle has been rejected in the Town Council by a majority of one. We regret this the more as the opposition to so reasonable a proposal was led by a medical man, Mr. Wills, who moved an amendment that, in the opinion of the Council, the pavilion was unnecessary. In the course of his speech he characterised the report of the resident medical officer as "sensational," complained that the time of the Council should be taken up with such unnecessary propositions, and wound up by saying that diphtheria was not infectious. The chairman then disclosed that a diphtheria patient admitted into the fever hospital had taken fever and died. But Mr. Wills obtained the victory by one vote. The triumph is an unsatisfactory one and ill-founded. It is a grievous thing to take a patient with one infectious disease into a hospital meant for another, and to convey the second infection to him. To say that diphtheria is not infectious but contagious is to draw an unpractical and academic distinction. Besides, the question is not open for discussion. It has been settled by Act of Parliament, which has defined certain *infectious* diseases, of which diphtheria is one, and a very deadly one, which should be isolated as much as any disease of which we know. We venture to hope that Mr. Wills will reconsider his action on this very serious matter.

#### FLOWER CULTURE AMONG THE POOR.

WE lately touched upon the movement, now extending in our great cities, which has for its object to sweeten and brighten the bitter and sombre lives of our toiling masses, and we indicated more than one direction in which it had already resulted in good. The flower culture it seeks to encourage must, indeed, bring with it many more blessings than the moral and intellectual elevation and refinement it inspires, and among these the practical knowledge it tends to give of plants, their characters, their virtues, their uses, and also of their dangerous properties, is by no means the least. How often does ignorance of the nature and qualities of fruits and seeds, roots and leaves, incur illness and even death when these are incautiously tasted or

eaten in field or wood or byway? How often are not symptoms of the most alarming, even fatal, kind induced by the consumption of non-edible mushrooms, or by mistaking *Aconitum Napellus* (monkshood) for horse-radish? The other day five children narrowly escaped poisoning by eating the seed-pods of laburnum, and, almost in the same breath, we hear of fifty-eight boys in an industrial school in the south of England chewing laburnum roots for stick-liquorice, and shortly thereafter being treated in hospital for the symptoms of narcotic poisoning. A garland of laburnum flowers worn round the neck has been said to produce headache, and a correspondent tells us of a boy mistaking and eating laburnum seeds for green peas, with the result that but for prompt medical intervention he would have died. The knowledge by which such risks are avoided is one among the many advantages that must flow from the plant and flower culture now philanthropically promoted among the humble denizens of town and village and ought to be still further developed by the action of our Board schools in following up the initiative started in city court and street alley. We must not expect too much from our educational system in its present state, nor may we hope to find botany included in the programme of our elementary schools. But surely some practical familiarity with the names and characters and properties of our wild flowering or fruit-bearing plants might be given at that stage of education, in supplement of the knowledge now eagerly sought after—as we have seen—among masses of the population to which the joy of window-gardening was, till lately, but a dream.

#### GLASGOW UNIVERSITY CHAIR OF SURGERY.

THERE is a maxim in the Koran that "a ruler who appoints any man to an office when there is in his dominions another man better qualified for it sins against God and against the State." The principle of this maxim has unfortunately not always been followed in the appointments made to the chairs in the Scotch Universities. We need not refer to several in which political or religious opinions were apparently recognised as requisites for these appointments rather than the candidates' knowledge of the subjects they were called upon to teach, or their contributions to the advance of their special departments. Fortunately the vacancy caused by the lamented death of Sir George H. B. Macleod has been filled by the appointment of a Glasgow surgeon whose claims for the post cannot be excelled. A distinguished student and graduate of the University and a former assistant of Professor Macleod, Dr. William Macewen has for long been regarded by the profession in Glasgow in the west of Scotland as the future Professor of Surgery at Gilmore Hill. Dr. Macewen was formerly lecturer on Clinical Surgery at the Royal Infirmary, Glasgow. He has been laboriously working there with his students, not only as a clinical teacher, but in enunciating the principles of surgery, and for many years sacrificing mere money-making to the advancement of surgical knowledge by his numerous clinical and pathological observations in the wards and post-mortem theatre as well as in the laboratory. As a result of his continued labours his name will for ever be associated in British surgery with osteotomy, transplantation of bone, brain and spinal surgery &c. Referring to his paper read before the Royal Society in 1881 in regard to the unique case of bone transplantation, we wrote: "Great interest attaches to this case, which is the first of the kind recorded, and Dr. Macewen is entitled to warm praise for devising and carrying to such a successful issue the many details necessarily involved in its management." Dr. Macewen's name is perhaps best known throughout the world in connexion with osteotomy. His book is the standard work on the subject, and has been translated into most European languages. He is about to publish in con-

nexion with his researches on Brain Surgery an excellent and most complete atlas of Sectional Anatomy of the Head, which will throw considerable light on our present ideas of the relation of parts within the cranium and prove of great service in enabling surgeons to localise lesions which antiseptic surgery can relieve. We understand that Dr. Macewen was the first to be offered the Professorship of Surgery in the Johns Hopkins University, Baltimore, but he did not accept that distinguished honour. In 1888 at the meeting of the British Medical Association in Glasgow the ovation he received when he delivered the special lecture on his work in connexion with Brain and Spinal Surgery will not be readily forgotten. In acknowledgment of this work his *alma mater* conferred on him the honorary degree of LL.D., and now she is to be congratulated on his appointment to the Chair of Surgery.

#### "ARE MIRACLES UNNATURAL?"

It would be no simple matter, if indeed it were not absolutely impossible, for us to succeed where so many have failed, and to settle the vexed question as to how far miracles are or are not the effects of natural agency. In approaching the subject we are met first by the difficulty of evidence—viz., how far we may trust to the accounts given of reputed miracles. Doubtless these are in almost every known case capable of misrepresentation and especially of exaggeration. The mental attitude of expectant onlookers lends itself to this, and we should not therefore be disposed to admit in such cases any testimony but that of entirely dispassionate and accredited witnesses. Again, there is the question whether, if a miracle has occurred (the term is suggestive merely of a remarkable occurrence and not necessarily of something supernatural—that is to say, unnatural), it is not still permissible to ask if the method carried out in this wonderful occurrence did not consist in a stimulation, abnormal it might be, of natural activities. Wonders which fall within this category happen daily and hourly. They are true miracles. They are also natural. They exhibit, we might say, the mode of operation commonly preferred by the Divine Being. Therefore we would again suggest that there underlies the whole series of miracles a similar mechanism, perhaps undiscovered but always natural, and therefore more, not less, characteristically divine.

#### THE FUNCTIONS OF THE STOMACH AFTER GASTROSTOMY.

SOME important investigations as regards the functions of a stomach which has been subjected to gastrostomy have been made by Professor Ewald. His results are published in the *Deutsche Medicinische Zeitung* of March 24th.<sup>1</sup> In the case described by Professor Ewald the peptic activity of the stomach was entirely destroyed and the principal processes of digestion took place in the intestines. The movements of the stomach were lessened and a certain amount of stagnation of the gastric contents occurred in consequence of adhesions. Professor Ewald has therefore suggested that the fistula should be made near the pylorus, so that the food, or at least some of it, can be introduced by a tube directly into the duodenum. So long as the patient's strength is maintained gastrostomy cannot be strongly recommended. The prognosis of obstruction due to pressure from without is much the same as that due to tumour, unless the stricture be due to syphilis. The stricture may be caused by ulceration in the lower part of the œsophagus; this lesion is probably due to corrosion by the gastric juice, and occurs principally in anæmic subjects. The age is very important. Unlike cases of carcinoma, attacks of pain are noted first and obstruction later. The patient upon whom Professor Ewald made his

observations was a woman aged twenty, who had previously suffered from gastric symptoms, and then had enjoyed an interval of health lasting some months. About one year before the patient came under observation the pain began again, followed by difficulty in swallowing. A bougie could not be passed. There was wasting; no history of syphilis could be obtained. Gastrostomy was performed by Professor Oppenheim, and the opening into the stomach was made at the end of five days. The patient gained rapidly in weight, but the constriction did not relax sufficiently to permit of the passage of a bougie. The fact of dilatation of the stomach, with delayed passage of food favoured the diagnosis of a cicatrised ulcer near the pylorus as well as in the œsophagus. Through a speculum the cardiac end of the stomach appeared too red and the pyloric end too pale. The sound could be passed five inches upward and six inches downward, but it could not be made to pass into the gullet or duodenum. The pressure in the moderately filled organ was estimated by Professor Ewald at from 30 to 35 millimetres, and with moderate internal compression at from 80 to 100 millimetres. The pressure was increased by applying the faradaic current to the abdominal wall, but not by applying the current to the inside of the stomach. This was due to the presence of adhesions. Salol excretion was delayed, salicylic acid appearing in the urine two hours and a half after food, this being due to the dilatation of the stomach. If the stomach were washed out the night before, a fluid containing free hydrochloric acid and possessing peptic properties could be obtained on the following morning. The patient survived the operation five months.

#### MEDICINE AND THE STATE.

THERE can be little doubt that a sense of personal indebtedness has had something to do with forming in the mind of Mr. Gladstone that favourable opinion of the medical profession which he is known to entertain. We must, however, look for some other source of inspiration if we would rightly appreciate his latest reference to this subject. When we find him saying that the profession is in a state of absolute advance owing to the progress of its science, we recognise no more than the acknowledgment of an evident fact. When again he speaks of advance referable to particular features which connect that onward movement with the progress of modern civilisation, we note that he has been duly observant of the silent evolution which is daily recasting into newer forms the relations of the nation with its medical advisers. It has been reserved for a comparatively late period to witness the gradual absorption of much that is medical into the science of Statecraft. No longer do we think of this latter faculty as concerned merely with the maintenance of peace, commerce and justice between different communities. These purposes continue, but we have added to them much more that has to do with individual and public health and happiness. Politicians of less sensitive intelligence than the aged Premier, who is himself a monument of personal hygiene, would do wisely to reflect upon the character, duties, and legitimate public utility of the power which medicine exercises in the government of states.

#### THE MECHANISM OF BRAIN INJURIES.

In the last number of *Brain* Mr. Alexander Miles discusses this subject with reference chiefly to the causation of the condition which follows concussion. The subject has been investigated experimentally and elucidated by a consideration of the function of the cerebro-spinal fluid and of the various theories of concussion which have been brought forward. The effect of concussion on the heart and the general circulation, as well as on the circulation in the brain, has been considered and the important rôle which the corpora testiformia are believed to play in the production of vascular disturbance is

<sup>1</sup> Abstract in the Journal of the American Medical Association, July 30th, 1892.

discovered. Details of the various experiments are given and the resulting post-mortem appearances described. They are such as to lead Mr. Miles to lend his support to the theory of the important part played by the cerebro-spinal fluid in the mechanism of cerebral concussion. His conclusions, as given in the summary at the end of his paper, are that the group of phenomena commonly spoken of as "concussion of the brain" result from temporary anæmia of the organ consequent upon stimulation of the restiform bodies and perhaps other structures in the region of the bulb. The stimulation of these parts is supposed to be effected by the wave of cerebro-spinal fluid which rushes through the aqueduct of Sylvius and the foramen of Magendie and from the subarachnoid space of the brain to that of the cord when a severe blow is dealt over the skull. Such a wave will naturally disturb the equilibrium of the nerve cells throughout the central nervous system, and the hæmorrhages found throughout the brain substance and on its surface are to be ascribed to the recession of the cerebro-spinal fluid which supports the bloodvessels of the brain. He is further of opinion that the petechial hæmorrhages found in cases of so-called concussion are not to be regarded as the proximate cause of the symptoms of that condition, but rather as an index of the force producing the injury.

#### DRUNKENNESS AMONG WOMEN.

THE *Daily Telegraph* devotes a column to the discussion of what is called "A National Shame: Drunken Women." No one who has his eyes open can fail to see that women are fatally losing modesty in the way in which they enter public-houses. Our contemporary quotes evidence from coroners, magistrates, police-court missionaries and others, all with one consent agreeing that drunkenness among women is on the increase. Young women are not excepted, but included in the statement. Mr. Wynne Baxter has said that the question of drunkenness, directly or indirectly, enters into half the inquests he holds. In 1891, in London, 8373 women were taken into custody for being "drunk and disorderly." Of 2554 women appearing at Clerkenwell, 95 per cent. were the victims of drink. Magistrates and missionaries are convinced that prison does nothing to benefit drunken women, and that they should have the power of dealing with them quite differently from ordinary criminals. This is quite obvious, but we must aim at measures which check the creation of drunkards in homes and streets.

#### THE BIRKBECK PANIC: A MANIACAL EXCITEMENT.

THE saying that "apprehension kills and apprehension cures" is of the nature of a truism, for apprehension caused the Birkbeck depositors to withdraw their money and apprehension (of otherwise losing it) caused them to replace it. Panic arises from a more or less unreasonable disturbance of that sense of security which ought to rest in all social institutions, whether commercial or structural. The sanctions of civilised life have their highest expression in this sense of security, which is totally wanting in the methods of savage existence. But while, on the one hand, a sense of security is regarded as characterising the body politic, individuals have, on the other, to be careful to cultivate the faculty of self-control which forms, as Herbert Spencer has said, a chief distinction between the human being and the brute. The "possession" of the swine by a legion of devils and their subsequent self-destruction serve well to illustrate the outcome of muscular activity where this governing faculty is conspicuous by its absence. Panic in human beings is the counterpart of this condition of things; and it is neither more nor less than a maniacal excitement with, among other symptoms of derangement, loss of appetite, watchful and sleepless nights and a total

incapacity to think soberly on any subject, the whole mind being absorbed by the one idea which swamps all its ordinary activities and diverts them from a normal, healthful flow into an insane rush of selfish impetuosity. The evils of such a rush as that upon the Birkbeck Bank are not finished when the panic has been lulled, as in this instance, by the evidence of stability and safety. The injurious effects upon individuals are not easily surmounted, and the medical profession is only too well aware of the serious extent to which the resulting nervous exhaustion and prostration are now beginning to make themselves felt among those directly or indirectly concerned in the foolish and needless excitement. The full and ultimate chronicle of such panics is written in the case-books of our lunatic asylums; and although we are well aware of the futility of advice in dealing with actual panic, we nevertheless feel it to be our duty to issue a note of warning on the subject, and to impress upon all the great necessity of cultivating and exercising in every walk of life and under every circumstance in life the all-important moral attributes of self-control, self-restraint, self-government.

#### THE MUSCULAR SENSE.

AT the eighteenth annual meeting of the American Neurological Association, held in New York in June of this year, an interesting paper was read by Dr. G. F. Preston of Baltimore on some Contributions to the Muscular Sense.<sup>1</sup> Dr. Preston thought that it might be considered definitely proved that the muscular sense, or at least one part, was composed of afferent impulses which were entirely independent of general sensibility. The next step that suggested itself was the starting-point of these afferent impulses. Clearly, as several observers had noted, the muscles alone—that was, sensations coming from them—could not give us the information we required as to the position of our limbs. Undoubtedly the tendons, the joints and their coverings, and perhaps the bones, all aided in producing the posture sense, or rather from these proceeded nerve fibres conveying posture-sense impressions. The loss or impairment of posture sense was an almost constant symptom in sclerosis of the posterior columns of the cord. It seemed probable to Dr. Preston that the fibres conveying posture-sense impressions passed into the restiform body, thence to the cerebellum and on to the great brain. In three cases of tumour of the cerebellum in which necropsies had been made he had observed loss of posture sense without impairment of general sensibility.

#### FEVER IN LONDON.

THE embarrassment of the Metropolitan Asylums Board with the extension of the epidemic of scarlet fever is very great, and, judging from previous epidemics, more pressure is yet to be expected. As early as May 14th the Ambulance Committee reported the number of cases to be larger than on the same day in any previous year. Out of 3744 patients under treatment, no less than 3353 were cases of scarlet fever. The ages of the patients are instructive. Out of 7794 fever patients admitted to the Board's hospitals between Jan. 1st and Sept. 12th, 74 per cent. were between one and ten years of age, 16 per cent. between ten and fifteen, and only 10 per cent. over fifteen. The Asylums Board have reached the limit of their accommodation and have been obliged to decline a large number of cases. The chairman of the Board, Sir Edwin Galtsworthy, at the meeting on the 17th inst., severely and with much iteration reflected on the Local Government Board for its "lamentable" delay and indecision in agreeing to the proposals of the managers for plans for meeting the unprecedented number of cases. The public will await with anxiety the defence of the Local Government Board. Meantime it appears to us as if this wholesale reception of

<sup>1</sup> Boston Medical and Surgical Journal, Aug. 26th, 1892.

cases from all classes of the community was a mistake. It is interminable and it is of questionable utility. Anybody, in however good a house, who does not like the care, cost and trouble of isolating a case of scarlet fever may send it to the hospitals which were meant originally for the poor. The law has been altered so as to allow of this without the discredit of pauperism and for the bare cost of maintenance. Is this alteration of the law justified by the results? It seems a time for questioning whether the system is diminishing the number of cases, as it certainly seems diminishing the independence of the people. Of course we entirely approve the isolation of cases occurring in the houses of the poor.

#### THE CAPE MEDICAL ACT.

THE medical profession is petitioning the Cape Legislature for an amendment of the Act lately passed, and very reasonably so. One claim in particular, leaving the practice of midwifery to uncertificated women without pain or penalty, but subjecting certificated midwives and medical men to penalties for breaking regulations to be made by the Medical Council, gave great and just offence to the profession who claim, as educated and qualified practitioners, to be a law to themselves. It is said to have the effect of hindering medical men from taking obstetric practice, and may easily tell badly against lying-in women by leaving them to be attended by the unqualified and the ignorant. We would point out to Mr. Sauer and other promoters of this Bill that such penalties are for those who are under no obligation of honour and position. Medical men have their own reputation and that of their profession to maintain, and may be trusted to take those precautions which science and self-interest alike dictate.

#### CHOLERA NURSING.

WE would direct attention to an excellent little lecture to trained nurses by Dr. Heron, physician to the City of London Hospital for Diseases of the Chest, on some important points in cholera nursing, which has been published by the Royal British Nurses' Association. The lecture was given on the 1st and 5th of the present month to over 400 trained nurses. After referring very briefly to the history of the disease and giving a graphic description of its symptoms, the lecturer states in clear and precise terms what is known about it with direct relation to the practical bearing which Koch's discovery of the comma bacillus, as its cause, has upon our methods of dealing with persons suffering from cholera. From this point of view the lecturer lays down with much perspicuity the precautions that have to be taken, the disinfectants to be used and the method of using them, the dresses that should be worn, and the course which should generally be followed in regard to the patient and the nurse.

#### "ELECTROPATHIC" ADVERTISING.

IT is with painful surprise that we find the name of a member of our profession appended to a highly eulogistic letter addressed to the head of a firm that is now deluging the British public with advertisements of its wares, which are alleged to be panaceas for almost every ill. The medical practitioner in question is an M.D. of St. Andrews, a Fellow of the Edinburgh College of Physicians, a Licentiate of the London College, a Member of the College of Surgeons of England and a Licentiate of the Society of Apothecaries. Our contemporary, the *Electrical Review*, in its issue of this week, not only exposes the fallacies underlying the "experiments" upon which this precious recommendation was penned, but also speaks in no measured terms of the wrong done to the profession and the public by this advocacy of an "electropathic" appliance.

We may leave the electrical experts to judge of the scientific value of the grounds for that advocacy; but we cannot, for the honour of our profession, refrain from expressing our strong disapproval of the uses to which the physician in question has applied his knowledge. He cannot fail to be conscious of the infinite harm that may accrue from one in his position giving such warm commendation to a method of treatment that is so closely bound up with quackery. Nor could he doubt that an opinion so directly addressed to the firm would be made the most of, and that his *littera scripta* would be sent broadcast through the land in support of a speculative enterprise which feeds on the ignorance and folly of the multitude.

#### THE PUBLIC HEALTH OF ITALY.

AN Italian correspondent writes under date the 18th inst.: "La Direzione Generale di Sanità, having been informed of the reports in American and French journals as to the occurrence of cholera cases at Naples, gives a categorical denial to such reports. The public health at Naples and in the Islands of Capri, as well as throughout the Italian kingdom, is exceptionally good; above all, there has not been verified a single case of any malady which can awake the slightest suspicion of the presence of cholera. This satisfactory result is mainly due to the steady, thorough and effective surveillance practised at the frontier, without causing any inconvenience to the traveller. Only articles of personal use and actually soiled were subjected, and that immediately, to the disinfecting process."

#### SCARLET FEVER AND MILK.

A SOMEBWHAT sharp outbreak of scarlet fever is reported at Leyton in Essex. It has transpired that most of the sufferers were supplied with milk from a single dealer who obtains his milk from Ongar. It is further reported that at a farm at Ongar, from which this dealer obtains his milk, scarlet fever is prevalent in the family of the farmer. Urgent and careful inquiry into this outbreak will doubtless be made without delay.

#### SOME HORRORS OF QUACKERY.

THE old proverb "any port in a storm" has often found practical illustration in the empirical treatment of disease. Time was when even regular practitioners in the art of healing included in their professional armament, along with many simple remedies of real value, other matters the very mention of which might almost suffice to engender illness. We may feel thankful that we have now entered upon a later and more scientific era, and that such extraordinary drugs as weasels' gizzards, does' hoofs, snails and other even more repulsive horrors do not now find a place in any pharmacopœia. There still exists, however, a species of medical folk-lore, and some of its prescribed wisdom available for use in illness is of the most remarkable kind. Times of panic, by throwing a population to some extent on its own resources for treatment, are apt to create a demand for these survivals of a dark age. This happened lately in Germany where a toad cooked with much care was swallowed as a cure for cholera. As to the result we are not informed. Most of us would probably choose to suffer rather than thus attempt our own relief. One can easily understand how such remedies as these have gained their favourable reception among ignorant persons. Used first, in all likelihood, in some case of illness mistaken for an incurable disease, the nostrum has been followed by spontaneous healing, and has carried the stolen credit and the faith which goes with reputation to other sick bedsides, sometimes with like spurious results. It cannot be doubted that some such confidence in the horrors of empiricism lingers amongst our own poorer population, especially in country districts. In view of this fact the practice lately adopted by

local vestries of inculcating active sanitary measures as the true preventive of infection and impressing the necessity of obtaining prompt medical aid cannot be too highly commended.

#### SMALL-POX IN THE PROVINCES.

THERE have been some fifteen cases of small-pox reported at Pateley Bridge in Yorkshire and three persons are to be prosecuted for failing to notify the disease. The rural authority are endeavouring to secure an old workhouse building as an isolation hospital. Small-pox is also reported to be spreading in Manchester, where, however, extra facilities for vaccination and revaccination are being offered to the public by the authorities concerned.

#### CHOLERA AND CLEANLINESS IN RUSSIA.

THE article on this subject in the current issue of the *Fortnightly Review* affords a good deal of information about what may be termed the internal economy, social life and condition of the Russian population. The picture presented to us is a most unsatisfactory one in every way, and we hope that matters are not, after all, quite so bad as they are painted. The writer says the plain truth is that, from a hygienic point of view, there is not a sound spot in the empire; food, water, air, clothing, houses, streets are all contaminated to such a degree that a Russian newspaper lately remarked that a century of effort would not suffice to bring about a perceptible improvement.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Dorpat.*—The chair of Internal Medicine, vacated by Professor Unverricht, has been filled by the appointment of Dr. S. M. Vasilieff, editor of the Russian journal *Meditzina*.

*St. Petersburg (Medico-Chirurgical Academy).*—There are at least a dozen candidates for the chair of Special Pathology and Therapeutics, vacant by the resignation of Dr. Manassein, editor of the *Vrach*, amongst whom may be mentioned Professors Kurloff of Tomsk and Afanasieff of St. Petersburg.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Anders Anderson, formerly Professor of Midwifery and Gynæcology in the Carolin Institute, Stockholm. He was also at one time President of the Swedish Medical Society. He was seventy years of age.—Dr. Deck of Laisheff, in the Province of Kazan, a well-known cholera district medical officer, at the age of fifty-three.

IN connexion with the opening, a few days ago, of the temporary small-pox hospital at Warrington, a circumstance occurred calculated to direct attention to the necessity, during the prevalence of an epidemic, of increased care in ascertaining the reality of the death of any patient. An infant, three weeks ago, was supposed to be dead from small-pox, and hasty instructions were given to an undertaker to supply a coffin. In the meantime the child was placed in a shell to be taken to the mortuary preparatory to burial. Before, however, the preliminary steps attending inhumation were completed the infant began to show signs of animation, and it was not until some hours afterwards that the actual demise took place.

MR. G. Q. ROBERTS, M.A. Oxon., has been appointed House-Governor of the London Hospital, in the place of Mr. W. J. Nixon, who has resigned after forty-six years' occupancy of that post. The combined offices of house governor and secretary will now be held by Mr. Roberts.

THE patient on whom Dr. James Murphy performed gastrotrachy at the Sunderland Infirmary on the 9th inst. died on the 19th inst., thus having survived the operation ten days. After having rallied from the shock of the operation she continued remarkably well till the 17th, when she became very much exhausted and gradually sank. On post-mortem examination the abdomen was found to be quite dry and the wound in the stomach absolutely air-tight, having contracted an adhesion with the liver, but it was not cicatrised, and immediately opposite on the posterior wall of the stomach was another ulcer the size of a sixpence, in which the mucous membrane had been eroded, but the peritoneal covering had been strengthened by an adhesion to the pancreas.

DR. ADAMI, Fellow of Jesus College, Cambridge, and formerly of Owens College and of the Manchester Royal Infirmary, has been appointed Professor of Pathology in the University of Montreal, Canada.

THE Queen has been pleased to appoint Alexander Ogston, Esq., M.D., Regius Professor of Surgery, University of Aberdeen, to be Surgeon in Ordinary to the Queen in Scotland, in the room of Sir George H. B. Macleod, deceased.

AN anonymous donor has presented a Bank of England cheque for £1000 to the Essex and Colchester Hospital. A gift of £500 has also been made anonymously to the fund for providing a public park for Colchester, and a similar sum has been given by Mr. S. F. Harnard towards the erection of a public library.

THE Queen has approved the appointment by Sir George Trevelyan of Dr. William Macewen to be Regius Professor of Surgery in the University of Glasgow, in the room of the late Sir George Macleod.

PROFESSOR VIRCHOW'S friends on Wednesday last celebrated the twenty-fifth anniversary of his first election to the Prussian Parliament, in which he still represents the Third Berlin constituency.

MR. FIELD will deliver the Harveian Lectures this year, "On the Pathology and Treatment of Suppurative Diseases of the Ear."

It is announced that the examination in Sanitary Science at the University of Cambridge will be held from Tuesday, Oct. 4th, to Saturday, Oct. 8th next.

MATER MISERICORDIÆ HOSPITAL.—It is contemplated by the managing committee of this hospital to erect a building which shall be isolated and situated at a distance from the main building, for the reception of patients suffering from infectious diseases. It is further proposed to establish a convalescent home in connexion with the hospital. This will necessarily cause a considerable expenditure, and the authorities have appealed for funds to carry out the necessary improvements. There are now 311 beds available for patients and the daily average for the last ten months of 1891 was 291.6.

METROPOLITAN ASYLUMS BOARD.—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board on the 20th inst. was as follows:—Eastern Hospital—416 scarlet fever, 63 diphtheria and 40 enteric fever; North-Western Hospital—414 scarlet fever, 88 diphtheria and 22 enteric fever; Western Hospital—302 scarlet fever, 47 diphtheria, 3 typhus fever and 11 enteric fever; South-Western Hospital—305 scarlet fever, 56 diphtheria and 24 enteric fever; South-Eastern Hospital—399 scarlet fever, 22 diphtheria and 11 enteric fever; Northern Hospital—801 scarlet fever and 20 diphtheria; Gore Farm Hospital—741 scarlet fever. On the hospital ship *Atlas* there were 3 cases of small-pox.

## CHOLERA.

### SOME CHOLERA COMMENTS.

THE epidemic of cholera is, we are glad to say, decreasing. The tide of cholera literature has consequently now begun to ebb. One thing seems absolutely certain, which was, however, well known before, and that is that the disease may be contracted in one place and carried to another or to several other places before it manifests itself. During the progress of the present epidemic we have had ample evidence of that fact as regards vessels from Hamburg, Havre and other ports. The epidemic has not manifested itself in any great force except in Russia and at Hamburg, notwithstanding that it has prevailed for so many months in the neighbourhood of Paris and the River Seine. The civilised world believes, and prudently acts on the belief, that there is such a thing as cholera infection and that a cholera patient is the source of it, specially so, by and through the micro-organisms contained in the discharges from his stomach and intestines; and we have taken a firmer grip, as it were, of the lessons taught by bacteriological science and its discoveries. It is possible, if it be proved that the comma bacillus is veritably and indeed the cause of cholera, that further researches into its life-history may show that the so-called cholera bacilli can assume a resting or spore stage and undergo certain changes of form under conditions which as yet remain to be demonstrated. Meanwhile, we can only adhere to the more exact scientific methods in the prosecution of our observations and researches.

There are still several points in the history of cholera epidemics which need further elucidation. While it is generally accepted that the disease spreads along the lines of human intercourse and has to be introduced into any given place, and can then only take root, establish and develop itself where it finds suitable nurseries and conditions, there are many persons who contend that it goes nevertheless by roads and methods of its own, pursues a definite course, advances in that area or province which for the time forms its natural limit, that it does not transgress such limits out of due season, even where the conditions as regards the movements of human beings seem favourable for its conveyance, and that it does not radiate equally in all directions from every given centre or outbreak, nor does it commonly take a retrograde course. The reply to this line of reasoning must be carefully sought for in a history of all the facts of the present epidemic. The very rapid extension of the disease on this occasion, for example, if attributable to the increased facilities for its transport, is an important consideration which requires to be thoroughly threshed out. On the other hand, it is quite conceivable that the introduction of its specific cause into any given place may not be at once followed by its active manifestation in epidemic force. This may follow later on, after a period of apparent latency or dormancy. Can any light be thrown on the causes or conditions under which an epidemic or outbreak stops? When the micro-organism on which the morbid phenomena in the affected individual depend is multiplied and reproduced at such an enormous rate it is difficult to explain the cessation of an outbreak without calling to our aid some such hypothesis as that it ceases from exhaustion of the suitable material, or that it dies out like a fire from want of fuel, in that the susceptible population have either fled from the sphere of its influence or been already attacked by it. It must be borne in mind that we are only acquainted with the presence of cholera by its manifestations in human beings—they supply, as it were, the test for it. But speculations of this kind, although they cannot avoid suggesting themselves to a reflective mind, are not likely to help us much at the present time. Some explanation sufficient to cover all the facts will probably be forthcoming one day if we only continue to observe and study the subject with logical candour from every point of view. It is curious, however, to notice the differences of interpretation and opinion regarding the history of the present epidemic. We notice in some of the Indian lay journals that they appear to be somewhat sceptical about the accuracy of the alleged origin at the late Hurdwar fair of the epidemic west-

ward. The cases which led to the breaking up of the fair and dispersion of the pilgrims were, it is asserted, very few in number, and there was no great violence in the outbreak. The course taken by the cholera this year was much the same as in 1829, 1831 and 1847, only the rate of its progress has been enormously accelerated if it had its alleged origin in March last. From the Indian point of view it is urged that it is by the overland route and not by the sea route that Europe is most susceptible to cholera invasions and that quarantine on shipping from Bombay and India is a measure aimed in the wrong direction.

Great activity is displayed on the Continent in efforts to stamp out or limit the spread of the disease by the prohibition or postponement of public fairs, fêtes and public gatherings; but the Czar, it is stated, while ordering General Gourko to report on the state of the cholera in Poland, has not countermanded the army manoeuvres this year. Telegrams from the Hague, Rotterdam, Antwerp, Havre and Berlin give returns of a small number of cases of cholera. The disease continues, but is decreasing at Hamburg, and it also still lingers in Paris and its suburbs, and has extended into Galicia. At New York the excitement regarding it has died out, but quarantine is rigorously maintained. The epidemic so far has gone to show that the populations of well-drained cities abundantly supplied with pure water are pretty well ensured an immunity from cholera, provided that a vigilant eye is kept upon the shipping and due precautions be taken against the sudden importation of cholera into their midst. The medical advisers of the Local Government Board in this country have formulated excellent regulations, and the port sanitary officers are to be congratulated on the success with which they have carried them out.

### CHOLERA AT HAVRE.

A very interesting contribution to the history of cholera at Havre is published in *La Normandie Médicale*, the writer being Dr. Gibert, the well-known physician and epidemiologist of that town. The first case of cholera in Havre occurred on July 14th, a second on the 28th, a third on Aug. 2nd, and two more on Aug. 4th. Thirteen more took place between the 9th and 13th, and up to this date no less than fourteen out of the eighteen persons attacked had died. After this the disease increased with rapidity and the severity was considerable. Indeed, Dr. Gibert states that of the first fifty cases received into hospital no less than forty-eight died. Between Aug. 16th and 31st 815 attacks and 255 deaths took place, and it was only with the month of September that any material diminution set in. Dr. Gibert's story only goes to Sept. 11th, and by that date a total of 1091 cases and 393 deaths had taken place in forty-two days—an amount and fatality of cholera that can best be judged of by the fact that had the population of Paris been smitten at the same rate there would have occurred in the same period 27,275 cases and 9825 deaths. The disease, as is well known, has been continued in Havre up to the present date, although at a diminishing rate, and hence the total effect of the epidemic on Havre has yet to be told. But perhaps the most interesting part of Dr. Gibert's straightforward narrative relates to the etiology of the disease. In the first place, he asserts that the introduction of the new term "diarrhée cholériforme" has had a most deplorable result from the point of view of prevention; it has, he says, been deceptive both as to the nature and severity of the disease, and in its clinical aspect it is altogether unjustifiable. Here it is that, according to his view, his Paris colleagues have fallen into a most unfortunate error. MM. Dujardin-Beaumetz, Brouardel and Proust declared the cholera around Paris to be a simple cholera on the ground that its diffusion was slow instead of rapid, and it was also announced that it was due to drinking Seine water. But not only were there many attacks—at Auber-villiers, for example—which were typical of true cholera in its worst form, but Seine water alone would not produce cholera. Contaminated waters have again and again been in maintained use, producing various ailments and diseases; but it is evident that Dr. Gibert holds to the view that, if water produces cholera, that water must have received the infection of cholera. These views coincide with the opinions we have all along expressed. From the first we contended that whatever the Paris disease might be called, it was for all etiological and preventive purposes what-

we term cholera; and though we have long known that the use of the Seine water was almost invariably associated with an excess of enteric fever in Paris, yet we were convinced that the cholera in the outskirts of Paris last May and June had not originated in the use of that water, whatever might have been the causes of its ultimate extension. Dr. Gibert takes up the argument from another point of view. He reminds his colleagues of all the attempts they have made at European conferences to set up a barrier in the East—namely, at the Suez Canal—against the westward advance of cholera; but if it be true that the consumption of water from a river which is polluted with sewage can in itself produce cholera, wherein lies the good of the eastern barrier? In short, Dr. Gibert has the courage of his opinions; those opinions coincide with the researches of modern science, and they are the only ones which free such occurrences as those in and about Paris from that which, more than any other cause, tends to obscure the true nature of the circumstances that have to be dealt with. As regards the Havre cholera, Dr. Gibert admits that its cause has remained undiscovered. Whether it was due to an unknown importation by means of travellers arriving from Russia and only suffering from the disease in a mild, but none the less infective, form may not now be ascertained. But the statement that the disease was imported from Hamburg by means of the steamship *Rugia* on Aug. 24th is altogether fallacious, for by that date 74 cholera deaths had already taken place in Havre. In point of time the reverse is far more likely—namely, that Hamburg received its cholera from Havre, where, notwithstanding Dr. Gibert's honesty, the disease was for a considerable time roused up. The narrative contained in *La Normandie Médicale* gives an excellent account of the energy which, under Dr. Gibert's advice, was displayed by way of prevention. The indigent poor inhabiting the worst dwellings were actually removed from their homes, and were housed, clothed, washed and fed pending the thorough disinfection and cleansing of their homes, and it was subsequently to the adoption of these amongst other measures that the diminution in the extent and fatality of the disease set in. In conclusion, Dr. Gibert states that the statistics of the epidemic which we have quoted fail to give a true idea of its severity, because other cases than true cholera were, for preventive purposes, included in the list of cholera attacks. But of those cases which were removed to hospital no less than 70 per cent. terminated fatally.

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### PRECAUTIONS ON THE FRONTIERS.

THE French Government has, it is now well known, finally abandoned all idea of establishing quarantine for travellers who enter the country by land. Instead of quarantine, a method of medical inspection and control was organised, which has been already described. I will therefore only briefly mention that everyone entering France from countries supposed to be infected passes a medical examination at the frontier, receives a sanitary passport, must have all dirty linen disinfected, and is placed under medical surveillance for five days. It was with feelings of keen curiosity that I approached the frontier station of Feignies, on the road from Brussels to Paris. When the train drew up on the platform all the doors leading to the station were carefully closed and guarded. Leading up to one door, where a gendarme stood in full uniform, a wooden balustrade had been erected, so as to enable the passengers to form a queue, as is done at a theatre, and thus prevent crowding and pushing. Railway porters examined every carriage so as to make sure that no parcels or bundles had been left in the train. As each passenger in turn approached the door guarded by the gendarme, he was asked to produce his card and to write upon it the name of the town he came from and to give in full the address of the hotel or house where he intended to stay. As soon as the door was passed the passenger found himself facing a table where two clerks were busily writing. On the left-hand side a com-

missioner of police dictated from all the passengers' cards the name and address. This was inscribed in a large book by one clerk and on a yellow card by the other clerk. The yellow card was then handed to the doctor who stood on the right-hand side of the passenger, and by whom the passenger had, it is to be presumed, been examined while these inscriptions were made. But as it does not usually take more than a few seconds to write out a name and an address, the medical examination was of the briefest. The doctor, who held a pen in his hand all the time, hastily scribbled his initials on the yellow ticket and handed it to the passenger. The passenger was now made to move on to the next room, where the porters were bringing in the luggage from the train. Thus the severest part of the ordeal was brought to an end. The only inconvenience is that some of the passengers have to wait a considerable time before they can get through; and, if they are heavily laden with bundles and parcels, this is somewhat fatiguing, as in the crowd there is no room for porters to assist. Then it must be borne in mind that if the medical examiner thinks fit he has the perfect right to detain any passenger. Fortunately no one as yet has been detained. Nevertheless the law does sanction the detention for the period of five days of any passenger who exhibits suspicious symptoms. Such symptoms, however, would have to be of a very marked character to be observed in so cursory an examination.

Having obtained my yellow card, or sanitary passport, as it is called, I was free to see after my luggage. The custom house officials, including a woman for women's clothes, showed much greater severity than usual, and caused a larger number of trunks and parcels to be opened than was the practice before the cholera epidemic. But they seemed far more concerned in preventing the smuggling of cigars than in detecting the presence of soiled linen. I was not even asked whether I had any soiled linen, but the custom house official made a very determined dive for a suspicious-looking box at the bottom of my trunk, being under the mistaken conviction of having discovered a goodly store of cheap Belgian cigars. I saw no soiled linen anywhere. Most if not all the passengers had been careful to cause their linen to be washed before starting. Whatever linen is found is taken away and disinfected by steam under pressure and forwarded to the owner by parcel post. What with the medical examination, the delivering of a sanitary passport to each traveller, and the rigour displayed by the custom officials, the delay at the frontier is from half to three-quarters of an hour longer than usual. But I fancy extra steam was put on when once the train started. In my case, when we arrived in Paris we were scarcely half an hour behind the appointed time.

On my sanitary passport I found a warning to the effect that if I did not report myself at the nearest town hall within twenty-four hours after my arrival at my destination I should, in accordance with Article 14 of the law of March 3rd, 1822, be subject (and this without the possibility of extenuating circumstances) to from three to fifteen days' imprisonment and to a fine of from five to fifty francs. It will be observed that there is no option between imprisonment and a fine, but that both fine and imprisonment are to be inflicted. Consequently I did not fail, on the morning of my arrival, to report myself at the Mairie of my district. Here my passport was stamped, and this is the proof that I duly reported myself, and therefore I need no longer fear imprisonment. But even before I had time to go to the Mairie an official had been round to my house and had inquired of the porter whether I had arrived and was in good health. Every day since this official has returned and renewed his inquiry. On being assured by the porter, or *concierra*, that I was up and about and apparently in good health the official went away satisfied. Had I failed to put in an appearance at the porter's lodge during the day he would have come up to my room to make sure that I was not suffering from cholera. This kind and polite solicitude on the part of the authorities as to the condition of my health will continue for five days, which, according to French medical opinion, is the period of cholera incubation. Assuredly this is the best of all the precautions taken. There is no harm in watching persons, so that measures of isolation and disinfection may at once be applied. So far, however, these precautions, though they necessitate considerable trouble and expense, have been taken in vain, and should be applied in the case of those who leave France rather than in that of those who enter France. The newspapers I was reading while travelling from Belgium to France recorded that there had been on the previous day three cases of cholera at Antwerp and not one at Brussels;

sea, in fact, is a great purifier; and though the sanitary conditions were forty cases in and about Paris and fifteen cases at Havre.

It was only at the end of the month of August that the decree ordering the application of the system of inspection and surveillance just described was signed. This decree was not actually put into execution before Sept. 3rd. As the first cases of cholera in Belgium occurred on Aug. 16th the French frontier remained unprotected for a good fortnight; and now that the decree is applied, from what I saw at the frontier station, it is quite certain that soiled linen can and does occasionally pass through. Thus, after all, the only real security against cholera is the internal sanitary condition of the country and not these precautions taken at the frontier. But even if no soiled linen did pass among the passengers' luggage the decree only applied to such luggage. The luggage that was not registered with the passengers, but was forwarded separately, came through without let or hindrance. Only a few days ago it was discovered that at the various railway stations of Paris there were several hundred boxes, cases and parcels that had been forwarded directly from Hamburg and other contaminated places to Paris. When claimed by the owners these boxes were handed over without any sort of sanitary precaution. Thus anyone travelling from Hamburg to Paris had only to send his luggage by goods train or by parcels express and it was delivered to him in France without undergoing any process of disinfection. One of the principal medical officers in the service of the Paris municipality, having made this discovery, hastened to inform the Premier, M. Loubet, who, as Minister of the Interior, is the highest sanitary authority in France. M. Loubet, who was not at the time at the Ministry, ultimately signed an order for all the parcels, boxes &c. that were at the stations, and which had been sent by goods and other trains, not to be delivered over to the owners, but to be opened by the owners when claimed, and all soiled linen and other suspicious objects to be taken out and disinfected. To do all this a special and novel service had to be organised at each railway and goods station. The whole was done with great rapidity, but of course a large number of boxes &c. had been delivered and introduced into Paris before this service was established. Therefore even if these measures can keep cholera out of the country, it is very certain that cholera has had ample opportunity of effecting an entrance before the measures were applied. All these incidents show how impossible it is to take thorough precautions for the exclusion of cholera. To be thorough, these examinations &c. should have been enforced on Aug. 16th, and they were only applied on Sept. 3rd. Then they only dealt with the registered luggage accompanying the passengers, whilst all luggage sent separately was allowed to pass freely.

After having neglected for too long to examine passengers' luggage a reaction in the opposite sense naturally ensued. The railway official became too keen and zealous. Thus, the other day a somewhat comic incident occurred. A large body of English tourists arrived from Homburg. They had, of course, passed the frontier without difficulty; but at the Paris railway station the officials thought they had made a terrible discovery and seized all the luggage, refusing to give up the smallest parcel. In vain the English tourists protested that they had come from a perfectly healthy country and that there was not a single case of cholera at Homburg. In vain the English tourists explained that Homburg was not the plague-stricken seaport town, but a peaceful inland watering-place; the railway official could make no distinction between Hamburg and Homburg. It was only after a great disturbance and the fortunate appearance on the scene of a medical man attached to the sanitary services, who had a better knowledge of geography, that the railway officials were made to recognise their error and restored the luggage to the English tourists.

While Paris is being thus protected from outside contamination the state of affairs within its walls has far from improved since my last visit. I have not yet had time to make many inquiries; but I have ascertained one fact, which in itself is sufficiently significant. From Aug. 1st to the 16th the municipal authorities performed 668 disinfections; from Sept. 1st to the 16th the number was no less than 1593. Of these latter disinfecting operations, 817 were due to cholera or choleric cases. In one single house where a case of cholera occurred no less than twenty-two apartments or separate tenements were disinfected. Certainly in this respect the authorities have shown the greatest energy, and no pains or expense have been spared.

Our Paris correspondent writes: "The cholera epidemic is, I am happy to announce, not making any sensible progress in this country. In Paris itself the mean daily mortality from this disease has descended from 32, the figure at which it stood for the first fortnight of September, to 12 for the second fortnight. Since the beginning of the outbreak at Havre there have been up to this date (Sept. 20th) 1197 cases and 438 deaths. The directors of the Paris hospitals are required to have the water consumed by the patients analysed, both before and after filtering, by the resident pharmacist. All nurses who succumb while on duty to cholera are to be buried free of expense at Père Lachaise, and such deaths are to be reported immediately to the Director of the Assistance Publique, the Prefect of the Seine and the President of the Municipal Council. The cholera wards at the Necker Hospital have been, since the beginning of the outbreak, under the charge of Dr. Peter. At yesterday's sitting of the Académie de Médecine this veteran disciple of Trousseau communicated the statistics of his cholera patients. He stated that from May to the 18th inst. 118 cases (including 10 of simple diarrhoea) came under his observation. Of these, 44 died, the mortality thus being 40.8 per cent. Thirty-five cases were closely watched, and it was seen that they could be split up into several categories. Thus in 4 the stools were simply diarrhoeic, in 6 they were simply bilious, in 14 they were bilious and contained besides rice-like particles, in 6 the stools were rice-water in appearance, and in 2 they were dysenteric; in 3 cases the pure comma bacillus was found, in 9 the pure bacterium coli, in 1 the comma bacillus of Finkler-Prior, in 4 this latter micro-organism was associated with the bacterium coli, and in 1 the bacterium coli was found with a diplococcus. No experiments were made with the comma bacillus, but the bacterium coli killed rabbits in from fifteen to fifty-two hours with all the symptoms of cholera. Rabbits were refractory to the diplococcus. Of 10 fatal cases, 4 had rice-water stools and 6 bilious stools with or without rice-like deposit. The total mortality as thus analysed stands: 66 per cent in cases with rice-water stools; 30 per cent in cases with bilious stools; 0 per cent in cases with common diarrhoeic stools. One of the characteristics of the present outbreak is that many patients die during the period of reaction, all vomiting and diarrhoea having ceased and cyanosis and algidity being absent. The hot weather seems to have had a malign influence on the mortality. Thus from the 22nd to the 30th of August, the temperature being low, 16 out of 27 patients succumbed. The temperature having risen on the 1st of September, 6 out of 7 cases died. As regards contagion, he considers cholera as less contagious than typhoid fever. Dr. Peter refers to the panic-stricken authorities of New York, whose stringent measures of precaution are, according to him, contrary to the dictates of common sense. As to treatment, he combats the premonitory diarrhoea with opium, and avows himself—forgive the Hibernianism—a warm partisan of the spinal ice-bag, which he finds relieves the cramps very promptly. Friction, injections of ether and caffeine, alcohol and mustard foot-baths complete Dr. Peter's armamentarium. He concluded his paper by refusing to acknowledge the existence of the varieties of cholera. This view was immediately opposed by Dr. Brouardel, who discovers such points of divergence between the Paris epidemic and true Asiatic cholera that he cannot admit their identity. The Paris form is sporadic, whilst the true Indian variety is epidemic. He points out that clinical and bacteriological observations cannot solve the problem. He rebuts Dr. Peter's assertion that cholera is less contagious than typhoid fever."

## THE CHOLERA IN BELGIUM.

(FROM OUR SPECIAL CORRESPONDENT.)

### THE DANGERS OF INLAND NAVIGATION.

WHILE great precautions are taken at seaports to prevent the importation of cholera by some sailing ship, there is a tendency to overlook the dangers of inland navigation. Yet it only requires a moment's reflection to show that a canal may be far more dangerous than the sea or a river. The

ditions that prevail on board seagoing ships are often far from perfect, there is more space and better air than on board a barge in a canal. Bad sanitation on board ship or barge is an important factor in the spread of cholera. The epidemic selects at least its first victims among those who sleep in badly ventilated, dark rooms. Though in the course of time the scourge may reach all classes of society, those who live in the worst sanitary conditions are always the first to suffer. When I mooted this phase of the question to members of the Scheldt Sanitary Commission, they urged there were special reasons to be watchful over those who travelled by water. There was always ventilation in a railway carriage. The doors were constantly opened. A ship had to be made air and water tight. This was not the case with a railway carriage. The rapid motion of the train forced the air through a thousand small fissures, so that even if the travellers were foolish enough to shut all the windows and ventilators, still there was some air. This could not be said of the steerage and the sailors' quarters on board ship. Whatever care may be taken to ventilate the saloons the fore-castle is too often neglected. Thus the sailors, by the fact that they sleep in dark, badly ventilated and often very dirty cabins, are more particularly susceptible to the danger of contracting cholera. These arguments were adduced as a sort of explanation of the contrast afforded between the severity of the quarantine regulations imposed at Doël-on-Scheldt, which I described last week, and the ease with which travellers by railway could enter Belgium. A traveller starting from Hamburg by sea would not be allowed to land at Antwerp till seven days after his departure. The same traveller, if he took the railway, could reach Antwerp in twelve hours. Of course such a traveller would be detained if just at the very moment he was passing the medical examination at the frontier he fell ill; otherwise there is no obstacle and no delay worth mentioning in the intercourse by land between Antwerp and Hamburg. Many a panic has been created in various business offices at Antwerp by the sudden arrival direct from Hamburg of some customer or business agent. Several merchants complained in my presence at having been compelled to receive and entertain customers from Hamburg whose presence at Antwerp, though usually very welcome, was scarcely desirable under existing circumstances. Certainly a prolonged habitation of the dirty, dark, ill-ventilated and crowded fore-castle of a seagoing ship is more likely to facilitate the development of cholera than a brief sojourn in a railway carriage; but this difference is not so great as to justify seven days' quarantine against travellers by sea and no quarantine at all against travellers by train.

Whatever may be said concerning insanitary conditions on board ship can be said with even greater force of the barges that glide along the stagnant and often foul water of a canal. The cabins inhabited by the bargemen and their families are extremely small, and if they appear to be clean this "cleanliness" is due to washing with the dirty water taken from the canal. There are no strong sea winds to send down gusts of purifying air into these cabins, and to impart health and vigour to those who are on deck. Also the character of the cargo taken on board a barge is often more foul than that received on board a ship. For instance, there are some very important manufactories of human guano in Belgium, which employ a fleet of barges that travel in all directions to collect the contents of cesspools. A year or so ago I saw some of these barges at Calais, where they came to fetch the contents of the cesspools which abound in that town. These barges would have to travel several days on canals to reach the guano factory in Belgium.

One very important grievance was pointed out to me by M. Vandervelde, the chemist of the Scheldt Sanitary Commission. There are actually in the docks of Antwerp some two or three hundred barges loaded with grain. It has become a regular practice to use barges as dépôts for grain. A corn merchant buys a cargo of grain which he is not able to sell at once. To put this grain into dock would cost a considerable sum of money, and there are difficulties in the way of sending labourers to stir this grain when in dock. The corn merchant therefore hires a barge, and when once in the barge the grain is ready to be delivered as soon as a purchaser is found. But it often happens that a considerable time elapses before the grain is sold. In the meanwhile bilge-water accumulates in the barge. The bilge cannot be pumped out for that would wet and spoil the grain. Then there is an invasion of rats and mice, which adds to the foulness of the barge, and fermentation sets in. Nevertheless the barge remains stationary in the docks, and the barge-

man and his family continue sleeping on board, breathing throughout the night the foul emanations of the dead rats, the fermenting bilge water &c. It has already been noticed that cholera is especially prevalent among bargemen, but M. Vandervelde is about to prepare statistics which will, he believes, show that, among the bargemen suffering from cholera, an exceptionally large proportion belong to the barges that have been made to serve as dépôts of grain.

Early in the history of the present epidemic it was found that bargemen were conveying the cholera from town to town. The sanitary authorities of Brussels were, I believe, the first to appoint medical inspectors to visit all the barges that came to Brussels. In the suburbs at Lacken and other places there had been cases of cholera on board barges coming from Antwerp. The other day a somewhat dramatic incident occurred. Dr. Huart and Dr. Matthys, who were inspecting the barges on their arrival at Brussels, found a bargeman suffering from cholera. The ambulance carriage was immediately on the spot, but a panic prevailed, and no one would help to take the bargeman out of the cabin and off his boat. The two doctors whose names I have mentioned had to perform this dangerous and difficult task themselves. They carried the unfortunate bargeman in their arms up the ladder from his cabin and on to the shore, where they soon reached the carriage. The bargeman's wife was also seized with terror; she completely lost her presence of mind, took all her husband's soiled clothes and threw them into the canal. It was with great difficulty and after a considerable loss of time that these various objects were taken out of the water. Together with the bedding used by the patient these clothes were burnt, but who shall say that they had not already contaminated the water of the canal. Apart from this peculiar and exceptional case, it is well known that the dejecta of the bargemen, whether suffering from cholera or not, are thrown into the canal. It is equally notorious that the bargemen not only wash their barges with the water from the canals, but also, and not unfrequently, drink this water. Thus, if statistics were forthcoming as to all the cases of cholera which have occurred in Belgium, it would be found that a very large proportion of the cases have occurred among bargemen and their families. It will also be found that at Malines, at Bornheim, and a number of other places, the cholera was brought to these towns by barges coming from Antwerp. So pressing has this danger become that a new sanitary post has been established at Vilbrooke, on the canal midway between Brussels and Malines. It is all the more necessary to protect the town and district of Vilbrooke as this locality suffered most severely during the last cholera epidemic. While the deaths from cholera at Brussels amounted in 1866 to 20 per 1000 of the population they were equal to 45 per 1000 at Vilbrooke.

At Brussels very severe measures are taken against the canal barges. On the slightest suspicion of illness the cabins are disinfected by the burning of sulphur. Notices are served on the bargemen urging them not to drink the water of the canal. At Antwerp a large number of barges have been disinfected as a precautionary measure, and efforts have been made to provide pure drinking water to the bargemen. Still, the bargemen constitute a rough, ignorant population and it is very difficult to make them understand the advantage of all these measures. The more the matter is studied the more necessary it seems to watch over the canal populations. The general public hears and knows a great deal more about ships and railways than about barges and canals, and there is consequently a tendency to overlook the latter. The development of the epidemic so far clearly shows that such neglect would be a fatal mistake, and that cholera may travel by canals and barges as surely if not as rapidly as by railway and ocean-going steamships.

#### CHOLERA IN GERMANY.

Our own correspondent, writing from Berlin, states that the numbers of the cholera cases and deaths reported in Hamburg on the 9th inst. were 350 and 150, on the 10th 213 and 113, on the 11th 390 and 175, on the 12th 333 and 142, on the 13th 344 and 148, on the 14th 283 and 108, on the 15th 306 and 128, and on the 16th 276 and 136. The number of cases in Hamburg down to Sept. 10th is authentically given as 13,238 and that of deaths 5805—that is, 44 per cent. of the cases ended fatally, a very favourable proportion when compared with the mortality

in former cholera epidemics in Berlin, which fluctuated between 60 and 67. The number of cases in proportion to the population of Hamburg is about 1 in 46, that of deaths 1 in 105. The corresponding figures in the Berlin epidemics of 1837 and 1849 were 74 and 113. The continuance of the epidemic will of course make the comparison still less favourable for Hamburg. Professor Koch went to Hamburg again on the 14th and was present at the meetings of the Cholera Commission there next day. On the 16th the Commission resolved to sink Abyssinian wells in many parts of the city and its environs. Dr. Koch returned to Berlin on the 16th, but declared his willingness to attend the meetings of the Commission at any time. The Hamburger Börsenhalle states that he and Privy Councillor Köhler, director of the Imperial Office of Health, inspected the hospitals and barracks, and all the arrangements for the transport, treatment and care of the patients and for dealing with the epidemic, and that Dr. Koch expressed his admiration of them in the highest terms. Such perfection, he said, had never been attained before. An Imperial Commissioner has been appointed for the hygienic supervision of the basin of the Elbe, and has divided it into eight districts, with an army doctor at the head of each. His name is Baron Richthofen. The Emperor has empowered the commanders of army corps to diminish the sentinel service, to forbid funeral parades, and to reinforce the staffs of the military hospitals from the reserve. In the Moabit Hospital, belonging to the city of Berlin, to which the few sporadic cases that have occurred here have been taken, special arrangements have been made for the disinfecting of the excreta. The latter are mixed with a 5 per cent. solution of permanganate of potash and then boiled for from four to ten minutes.

A correspondent writes from Hamburg: "There can be no doubt that the cholera in Hamburg was imported from Russia, but the exact source has not been traced and cannot now be found. It commenced on Aug. 16th, but it was not till 1 p.m. on Aug. 22nd that the foreign consuls were informed that cholera existed in the city, though 58 deaths had previously occurred; thus ships which may have been freighted with this deadly scourge were sent all over the world with clean bills of health. The most fatal days of the epidemic were Aug. 26th with 456 deaths, the 29th with 484, and Sept. 1st with 478. Up to the present time there have been probably 7000 deaths. Though considerable confusion occurred at first, now the sanitary stations, the disinfecting stations, the ambulance arrangements and the depôts for the dead are in perfect function. The cholera is all over the town, and it is reckoned that 28,000 citizens have left the place. The cholera is of a fatal character, at least 50 per cent. dying. It is of a type of disease not unusual in Europe, but not so very frequently seen in the East. The diarrhoea and premonitory symptoms are severe, rapidly followed by collapse, in which death usually occurs if the disease is fatal; but should that not happen, the reaction is comparatively mild, the typhoid fever condition not severe, and any high febrile state very rare indeed. Albuminuria is fairly common but by no means universal. Nothing worthy of remark is to be noticed in the treatment, the mild cases recovering without any complication, and those of a severe type dying rapidly in collapse, no treatment apparently making much difference. The evidence derived from the type of disease is strongly confirmatory of an importation through Russia. It is most earnestly to be hoped that the inhabitants of Hamburg will be thoroughly roused to the danger of drinking Elbe water that has gone through a mere farce of filtration."

#### CHOLERA IN AUSTRIA.

Our Vienna correspondent writes:—"The cholera has now made its appearance on Austrian territory, at Cracow. The first case is said to have occurred as early as on Sept. 8th, at Podgorze. Soon three other cases followed in the same quarter. Podgorze is a suburb of Cracow, separated from this town by the Vistula river, which is there spanned by a bridge. On Sept. 9th a case of suspected cholera had been admitted into the Cracow Hospital of the Samaritan Brothers (Barmherzige Brüder), a Catholic order of monks devoted to nursing and treating the sick. On Sept. 11th there was much talk about the occurrence of cholera cases in the town of Cracow, and similar rumours were also heard regarding Vienna. After a meeting of the highest medical council, held on Sept. 10th in Vienna,

nothing was set forth by the official organ of the Council, *Oesterreichisches Sanitätswesen*, and on the 15th inst. it stated that "no case of cholera had occurred in Austria up to Sept. 13th." The public were much surprised by an official statement of the probable outbreak of the cholera made by the official gazette on Sept. 17th, on which day also the Professor of Pathological Anatomy of Vienna (Professor Weichselbaum) was sent by Government to Cracow to make a bacteriological investigation. Precautions were thereupon taken to prevent the further spreading of the disease. In other parts of Austria the progress of the disease is watched with the greatest anxiety. Cracow itself, and especially its suburbs, Kasimir and Podgorze, are in a very bad sanitary condition. It contains a poor, filthy population, bad drinking water partly taken from the river, and an inferior system of treating the sewage. The province of Galizia, in which Cracow is one of the principal towns, with its 6,600,000 inhabitants, has only seventy-two hospitals, with 4257 beds. Most of the villages are too poor to build new hospitals. Even the number of physicians, especially in the rural districts, is too small in ordinary times to secure proper treatment of the sick people, and in the time of an epidemic a great number of physicians from the other provinces will have to be sent to Galizia.

"The circumstances under which the outbreak of cholera at Cracow occurred seem to teach the same lesson as in the case of Hamburg. In both towns the report of the outbreak of the disease has been considerably delayed by the claims of modern bacteriology, according to which the diagnosis of cholera Asiatica is only allowed to be made if the comma bacillus is stated by microscopic examination and by subsequent cultures to have been present. But regarding the cultures there seems to exist great difficulties. I believe that especially one point is easily to be overlooked by those engaged in such investigations—i.e., it is not to be expected that a culture could be easily obtained of such a micro-organism as the comma bacillus, whose vitality is so immensely lowered by most chemical bodies as soon as the patient has already undergone any medical treatment. The matter for the cultures should, if possible, be obtained from the dejections or vomited liquids before any medicine has been administered.

"By the strict system of quarantine maintained in this country the trade and the industry have already been interfered with. In the industrial districts of Bohemia and Moravia production has to be restricted on account of the want of raw materials which were imported from Germany. It is easy to understand that it is not possible to keep the population of the empire under good sanitary conditions at a yearly rate of expenditure of two and a half kreutzers, a halfpenny per head of population, and that is one reason why cholera phobia is now so prevalent among the people. Even now, in the time of imminent danger, parsimony prevails so much over common sense and humanity that local authorities—as for instance, the municipal board of Vienna—are disputing with the Government regarding the duty of erecting cholera hospitals at Vienna. Nor is it less interesting to learn that the Government is asking the hospital physicians to enter cholera hospitals, promising a salary of sixty-two florins (£5) monthly with board and lodging."

## THE SANITARY CONGRESS, PORTSMOUTH.

### PAPERS AND SECTIONAL WORK.

In the absence of Dr. J. Wright Mason, Medical Officer of Health for Hull, Dr. Groves read a paper by the former on the Sanitary Influences of Harbours and Exposed Fore-shores. He advocated the perfect sanitation of our first line of defence and mentioned the special risk of zymotic invasion by way of those ports in most constant and direct communication with the Continent.

Dr. Dawson Williams contributed a paper on the Route of the Cholera in 1892, and traced the disease from the north-west frontier of India, through Afghanistan, and along the Transcaspian railway, across the Caspian to Baku, the centre of European infection.

Dr. Lane Nottter pointed out that the strength of our first chain of defence was measured by that of its weakest link, and he asked if anyone could say what was being done in the smaller ports and along the coast generally.—

Dr. Thresh said that in the small port sanitary authority of Malden, in Essex, a hospital tent had been erected, and along the whole coast the coastguard officers had been instructed with whom to communicate should a case of cholera or choleraic diarrhoea come to their knowledge.—A Member remarked that the paper scarcely justified its title.—Dr. Lane Notter considered that yellow fever originated in slave ships, though the conditions favourable for its continued existence seemed to be associated with exposed foreshores.—Professor Cayley pointed out that in several recent epidemics of yellow fever there was no association with the slave trade.—Dr. Groves stated that cholera had often been said to follow the course of rivers. This had been observed in this country. When a young man he had assisted to investigate the cause of the outbreak in 1866, and showed how the *fons et origo mali* had been found to be pollution of the water supplied to a portion of the East-end of London.

A vote of thanks to Dr. Lane Notter, who had presided at all the meetings of the Section, was proposed by Dr. Thresh and seconded by Dr. Sandall.

In Section 2 Mr. James Lemon, the President, gave an interesting address on Engineering and Architecture. He gave the medical profession credit for having called the sanitary engineer into existence. He criticised adversely the metropolitan scale of drainage, and said that the question of dealing with rainfall should be determined by local considerations. He pointed out the care necessary in the management of sea outfalls, especially as regards the determination of the force and direction of currents, before discharging crude sewage. He also remarked upon the folly of insufficient drain ventilation, and said the ideal drain was an open one in the centre of the street, were it practicable. Finally, Mr. Lemon sketched the points to be borne in mind by the sanitary architect (a term of his own coinage) in constructing a model house.

Papers were read by Mr. Hubert L. Terry on the Smoke Clauses of the Public Health Act, 1875; by Mr. Hepworth Collins on the Pollution of Rivers and Canals by Manufacturing and Industrial Operations; by Mr. W. R. Maguire on the Causes and Prevention of Typhoid Fever; by Dr. H. Kenwood on Drain and Soil-pipe Ventilation; and by Mr. Henry Law on Apparatus for Softening Water.

#### *Visit to Haslar Hospital.*

During the afternoon about twenty medical members of the Institute visited Haslar Hospital, being conveyed across the harbour in a special launch. They were conducted over the building by Inspectors-General E. T. Mortimer and Macdonald. The hospital was erected about 150 years ago, and has had as many as 2000 patients within its walls at one time. At present there are about 500, but many of them are aged pensioners who were transferred from Greenwich. The complicated structure, absence of any artificial mode of ventilation &c. prove that it does not reach the level of modern requirements in an institution of this character. After inspecting the museum, which contains a large number of specimens of interest to the comparative anatomist, and which possibly would be of much greater service if properly catalogued and suitably housed in a more accessible situation, the visitors partook of afternoon tea and returned to Portsmouth. The weather was perfect and the trip a most enjoyable one.

#### *The Annual Dinner.*

The Congress dinner was held in the evening in the Mayor's banquetting-room at the Town Hall. Sir Charles Cameron was in the chair, and there were present the Mayor of Portsmouth (T. Scott Foster, Esq.), the ex-Mayor (Sir W. Pink) and a distinguished company. In proposing the loyal toasts, the President read a telegram from H. R. H. the Duke of Connaught regretting his inability to be present. Appropriate recognition was taken of the "Army, Navy and Reserve Forces," "The Mayor and Corporation of Portsmouth," "The President and Officers of the Congress," "The Borough Members," "The Sanitary Institute" and its "Local Secretaries," and finally "The Health of the Ladies" was proposed and duly honoured.

#### *Chemical History of the Air.*

On Friday, the 16th inst., Dr. W. J. Russell, F.R.S., the President, gave an address in Section 2 on the Chemical History of the Air, and traced rapidly and instructively the gradual evolution of facts and opinions in connexion with his subject from the days of Hero of Alexandria, "whoever he may have been," to the present time, giving a due meed of praise to pioneers such as Van Helmont, Hook, Boyle and Mayan, and

emphasising the great services of Bunsen in this matter. He gave the mean result of the quantitative analysis of air as regards oxygen to be 20.90 per cent., and stated that at the present time probably the most interesting results to be derived from the accurate determination of the oxygen in the air are in relation to this point, the using up of the oxygen, for it is difficult to suppose that two or three hundredths of a per cent. of oxygen can in itself produce any appreciable effect either on respiration or combustion. Ozone, he stated, is probably always present in normal air, but unfortunately we have no accurate method of determining its presence. Dr. Russell inclined to believe its formation was probably due to electrical action and directly or indirectly to evaporation. He then dealt with the question of solids suspended in the air, and said that the great Krakatoa eruption of 1883 had shown how dust on a large scale may be ejected into our atmosphere, and how persistently it may abide there and circulate round and round the globe.

A vote of thanks was passed to the President for his able paper.

#### *Chalk Area and the Water-supply.*

Mr. W. Whitaker, F.R.S. &c., read a paper on Maps showing the Area of Chalk suitable for Water-supply in the Central and Eastern Parts of the London Basin, and stated that the whole area coloured as chalk was not available as a gathering ground, and described the following chalk formations in the order of their permeability—namely, bare chalk, chalk covered by permeable beds, chalk protected by beds of mixed or of varying character, and chalk protected by impermeable beds.

#### *Sewage Treatment.*

Mr. C. H. Cooper then read a paper on Sewage Treatment.—The Hon. F. A. Rollo Russell discoursed on Exhalation of Vapour from the Earth, and, from a series of interesting experiments, drew conclusions the practical lessons taught by which were the importance of securing an impervious flooring and ventilation in houses and tents, of paving in towns, of avoiding "made soils" and the vicinity of graveyards, of drainage of damp and organically polluted soils, of widely separating cesspools from wells, and of preventing the exposure of articles of food and drink to night air near the ground.

#### *Entomology.*

Mr. T. B. Goodall, F.R.C.V.S., read a thoughtful and philosophic paper on Entomology as a Sanitary Science, and, sketching the life-history of the drone fly and the gnat, showed how usefully these myriads of "scavengers of nature" aided sanitation by the consumption of putrefactive matter.

#### *Organic Matter.*

Mr. W. C. Young contributed a paper on the Determination of dissolved Organic Matter in Water, and described a process which gave satisfactory results, and which was first introduced in a paper by the author before the Society of Chemical Industry in November, 1891. The process, he stated, was extremely simple in practice, required little personal attention, and was completed within four hours.

#### *The Purity of Stable Air.*

Veterinary Captain F. Smith, M.R.C.V.S., then read a paper on a Method of determining the Purity of Stable Air by a Comparison of the Temperature within and without the Building. "When we remember that the warming of stable air is derived from the bodies of the animals which live in it we can understand the *rationale* of the observation."

#### *Excursions.*

On Saturday two excursions took place, one to the New Forest and the other to the Isle of Wight. Neither was so well attended as had been anticipated, but the weather being perfect, both were completely successful.

#### *Exhibits.*

At the Health Exhibition held in connexion with the Sanitary Congress at Portsmouth, Messrs. Humphreys' Iron Isolation Hospital for Infectious Diseases attracted much interest, a special feature of the exhibit being the presence of a few children from the Portsmouth Hospital and a complete staff of nurses. These hospitals are more sanitary than hastily constructed brick buildings, and while it is possible to erect them in a few days, they are capable of lasting forty or fifty years.

A medal has been awarded to Messrs. Burroughs, Wellcome and Co. for their exhibition of medicine chests at the Portsmouth Health Exhibition, and a certificate for Kepler's Extract of Malt.

## A PLEASURE CRUISE.

(FROM A HOLIDAY CORRESPONDENT.)

THE latest development of the holiday is the pleasure cruise and there can be little doubt that if those who are interested in shipping industries adopt an intelligent and spirited policy this form of holiday-making is destined to increase. A reference to the advertising columns of any daily paper will show that already there is a fair choice of cruises for selection by those who like to take their holidays upon the great waters, and the time is within measurable distance when the whole world will be, so to speak, at the feet of the pleasure-seeker. The luxury of a pleasure cruise was formerly the exclusive privilege of millionaires, who could afford to keep vessels of their own, but by coöperation persons of comparatively modest means are now enabled to go whithersoever they will in greater comfort and greater safety than the wealthy owner of his own pleasure yacht.

A pleasure cruise has certain obvious advantages over other forms of travelling which make it a very desirable kind of holiday for those who are seeking repose after harassing professional duties, or for convalescents who wish to completely re-establish their health after an attack of acute illness. From the point of view of "change" nothing can be more effectual than a voyage which brings change of air, change of scene, change of food, change of companionship, change of daily routine.

The pleasure cruise enables the voyager to see a great deal without the daily worry which attends ordinary travelling. The packing, and unpacking, the slavery of a relentless punctuality and the fretting restraint of the *sallas d'attente*, the indifference of landlords who have more guests than chambers, and the tyranny of Ober-kellners under analogous circumstances, have none of them any necessary place in the well-managed sea voyage. Then again the air is pure and uncontaminated and has that peculiar quality of "freshness" concerning which our noses never make a mistake, although the chemist can tell us little concerning it. On the deck of a ship the traveller is sure of inhaling air of maximum purity, and the difference between sea air and land air is never better appreciated than on returning to the ship after a summer's day spent in investigating the lions of some maritime town. Apart from the initial purity of sea air, there is the most important fact that it is constantly being changed. If there be a breeze anywhere it is felt on shipboard, and if the ship be under way the air is renewed independently. It is true that between decks, and especially in foul weather when the scuttles are closed, the air of a ship may be the reverse of fresh, and it is probable that the fore-castle of a ship is of all places that in which may be found the smell of humanity in a state of maximum concentration. The purity of the deck seems, however, to compensate for the foulness of even the fore-castle, as the hard, ruddy look of the sailors tells clearly enough; and it can only happen very occasionally on a pleasure cruise that it is impossible to get on deck. On board ship the pleasure seeker is at least free from that bugbear of modern travel and monster hotels—the sewage difficulty, for every form of refuse is cast directly into the sea; and in no well regulated ship ought it to be possible to contract filth disease of any kind. The observant traveller, especially if he be a sanitarian, cannot fail to be struck by the enormous amount of refuse matter which is constantly being cast forth from a big ship into the ocean. Cinders, kitchen waste, packing cases, tins, "empties" &c. constitute the incessant "droppings" of an ocean steamer and enable him to understand the foulness of harbours and the serious nature of the houseboat question as it affects the Thames. It is of course highly advisable that organic refuse and litter should not be suffered to remain on board ship to encourage putrefaction and increase the danger of fire; but in point of view of the fact that a large proportion of what is thrown overboard is combustible, it seems to be rather a thriftless course not to make use of such combustible matter for raising steam.

There are certain points connected with a sea voyage which medical men who recommend such a course to their patients will do well to bear in mind. In the first place it is worse than useless to recommend a voyage to anyone who is not at least a tolerable sailor. There are those who become giddy and nauseated with the least move-

ment of the ship and to such as these a voyage is mere labour and sorrow without any compensating advantages of any kind. To those who can tolerate the movement of a ship the sea air acts as a vigorous tonic and causes a marked increase of appetite. This constitutes one of the dangers of a sea voyage, because with the increase of food there is a decrease of exercise and often an increase of sleep. There is often also a tendency to constipation, and thus the normal balance between intake and output is disturbed and biliousness results. Hence it often happens that during the first week at sea landmen deteriorate in appearance and the complexion shows some pallor, or sallowness, or duskiness. This condition of things is to be avoided by the judicious use of laxatives, and no one should ever embark without being provided with such laxatives as they have found by experience most serviceable. It is common to hear the remark that "sea air is too strong for me," and I think the meaning of such a phrase is that the increase of appetite and assimilation is not compensated by increase of work or increased excretion by the bowels. After the initial disturbance compensation is soon established, metabolism apparently proceeds with great vigour, and ruddy cheeks and increasing weight must be taken as the surest evidence of the benefit which the traveller is getting from the change. It would be interesting to learn with what frequency gouty people suffer from a paroxysm during the early days of a voyage. On theoretical grounds such an occurrence might be looked for; but such an accident is not very frequently heard of, and my experience at sea, which has been considerable, does not supply me with many instances.

Another precaution which it is necessary to observe at sea is to wear rather warm clothes. The deck of a ship in motion is usually colder than the shores of the same latitude, and it is customary to keep an awning continually spread to keep off not only the rays of the sun, but sooty and other particles which may escape from the funnel. This awning, useful as it is, produces a considerable draught and necessitates the provision of rather warm clothing. The mid-day sun is occasionally very powerful, but after sunset chilliness may be the predominating feature of the weather, and as the evenings are spent upon deck and in the fresh air, it is always advisable for the traveller to considerably modify his evening attire.

In the selection of a pleasure cruise the season of the year must assert its influence. The Mediterranean is perhaps the most enjoyable and most interesting cruising ground, studded as it is with places made memorable by historic events, but the Mediterranean is always too hot during the summer months and liable to be more or less unwholesome. Those who wish to take their autumn holiday on shipboard should not go to latitudes which are materially south of the British Islands. The choice of a cruising ground for the late summer thus becomes rather restricted, but the beauties of the coasts of England, Scotland, Ireland, Norway and the Baltic are so great and so varied that it would take many months of continuous voyaging to exhaust them.

My experience has been of late gained upon one of the ships of the Orient Company's well-known fleet, and the cruising ground has been the fjords of Norway and places adjacent to them. A few details of the cruise may not be unacceptable. In selecting a boat it is of course advisable to choose a big one, for, *ceteris paribus*, the comfort will be proportioned to the size of the ship. The fjords of Norway are so deep that vessels of the largest tonnage are able to penetrate to the extremities of most of them and to anchor close to the shore, so that there are no drawbacks in large vessels, and these have obviously great advantages for the transits of the open sea. The cabins of the vessel I travelled in, as arranged for these cruises, contain, none of them, more than two berths, so that if the traveller be accompanied by a friend he is secure against the intrusion of a stranger. By paying a fare and a half the single traveller can secure two berths, but this is a luxury which is not within reach of all. It should, however, be found possible to give to every traveller practical privacy without increasing the cubic space allotted to each. I remember seeing a common lodging-house in Glasgow where the beds were arranged in bunks as on board ship; and by the very simple plan of giving access to the top and bottom bunk from opposite sides privacy was secured to the occupant of each, and the confusion of articles of clothing, which is almost inevitable under existing arrangements, was avoided. The ingenious naval architects of the Clyde should visit this establishment when designing a ship intended to be used

solely and entirely for pleasure cruises, for it is certain that if the practical privacy of each traveller could be secured without additional expense the popularity of pleasure cruises would materially increase.

A word of praise must be found for the food, the cleanliness of the ship and the ample supply of clean table and bed linen which was provided, and also for the service and the general management of the steward's department which was all that could be desired. These matters are, it need not be said, of the greatest importance, and no cruise can really be pleasurable unless they receive due attention. It may be well to give a word warning to the effect that the little details upon which our happiness so much depends all cost money, and it is absurd for the traveller to expect comforts and luxuries without paying for them. A voyage such, as the one in question, costs, in one of the best cabins, inclusive of the necessary incidentals, about £2 a day, and although the sum in these days of cheap excursions is not small, it serves to keep away the crush and enables the company to perform their part of the contract with absolute thoroughness. Nobody who has not tried it knows the discomfort, not to say danger, of an overcrowded ship, where the obtaining of daily necessities means a constant struggle. My advice to intending pleasure cruisers is to select a first-rate ship, owned by persons of repute who have a character to lose, and to be ready to pay a fair sum for thoroughly good accommodation. The daily life on board the boat by which I travelled began with a cup of tea and a biscuit brought by the steward at 7 A.M. or earlier, and this was followed by a refreshing salt-water bath and a rub which set one all aglow. After the toilet a walk on deck, and at 8.30 breakfast, at which meal many of the younger men were ready (in the phraseology of the day) to "tackle" the *menu* of porridge, fish, cutlets, bacon, eggs, cold meats, preserves and fruit. After breakfast the time till the luncheon hour was spent upon deck, gossiping, reading or playing deck games. Between luncheon and dinner the hours were devoted to similar forms of busy idleness, with an interval for afternoon tea, a ceremony at which nobody was absent. After dinner there was generally a dance upon deck to the strains of an excellent band.

It is not necessary to give the details of our cruise or to descant on all the objects of interest and beauty which are to be met with in the towns and fiords of Norway; suffice it to say that dulness was impossible, and that our voyage of twenty-five days came too quickly to an end. A life of relaxation remote from the worry of that post-office cataract, which is the bane of modern existence; a life of gentle exercise and amusement in the purest air obtainable; a life in which none of us objected to take that full complement of sleep which our old adage accords only to the fool; such a life can be productive of but one result—a result which was plainly apparent in the majority by increase of weight, rounded cheeks, a ruddy colour and a bright eye, with a power of laughing at trifles which a month previously would have merely roused a half contemptuous smile—these were the characteristics of our party when we landed, albeit that it was with regret that we exchanged the pleasure ship for the galley, where (as we but too well knew) a certain oar and chain were awaiting our return.

## CONGRESS OF OBSTETRICS AND GYNÆCOLOGY AT BRUSSELS.

(FROM A CORRESPONDENT.)

### *Thursday's Proceedings.*

IN my last letter I gave a report of the proceedings up to Wednesday afternoon. The President (Dr. Kufferath) gave a dinner at the Hôtel Mengelle to about seventy or eighty members of the Congress. It was marked by being a good dinner and the commendable shortness and cordiality of the after-dinner speeches.

On Thursday morning I again visited Dr. Jacobi's hospital to see Professor Sünger operate on a case of so-called cystocele and rectocele. He first of all marked a central line down the front vaginal wall, dissected off a flap of about a finger's breadth on each side, and, cutting them off, stitched the gap up with fine silk sutures. He then drew up the uterus, and with a finger in the rectum cut a line along the posterior vaginal wall right down to the edge of the fourchette, and

dissected off similar flaps on either side, making a transverse cut along the boundary line of the vagina and vulva. He then dissected off a semilunar patch round the posterior fourchette and continued a slight nick down on the perineum. He put in some twenty fine silk sutures till he came outside the vagina, finishing with four silver wire sutures. These operations are all done at eight o'clock nominally.

At two o'clock the Congress met to hear Dr. Segond's paper on the Treatment of Pelvic Suppuration. After him the following spoke: Professor Péan (Paris), Dr. Willems (Ghent), Dr. Travers (London), in favour of abdominal operation; Dr. Jacobs (Brussels), who thought that Dr. Segond's operation should be tried as offering the best results; Professor Goubaroff (Moscow), and M. Richelot (Paris); who contended that the abdominal operation was more difficult, whereas in hysterectomy by morcellement each stage was more easily seen; also that there was even occasionally secondary hæmorrhage, showing that the uterus remained active even after the removal of tubes and ovaries, but if the uterus were removed the ovaries became inactive. Professor Sünger (Leipzig) was of opinion that Péan's operation should be exceptional. Dr. More Madden (Dublin) drew the distinction between intra-peritoneal and extra-peritoneal suppuration, saying that of old the treatment of pelvic cellulitis, which was mainly puerperal, was to leave it to nature and the cases generally got well; that in the light of modern research intra-peritoneal suppuration should be treated by abdominal section and extra-peritoneal by aspiration. M. Goulliond (Lyons) advocated puncture and draining; Professor Picheoni (Paris), Professor Delgénérière (Mans), Professor Vuillet (Geneva) puncture after careful examination. M. Walton (Brussels), M. Doyen (Rheims), M. Rouffart (Brussels), M. Duret (Lille), M. Tournay (Brussels), M. Lebec (Paris) M. Deghilage (Mons), and M. Félix (Brussels) spoke; Dr. Heywood Smith (London) agreed with Dr. More Madden in dividing pelvic suppuration into intra-peritoneal and subperitoneal. He maintained that in abdominal section the abscess could be more carefully examined and treated; he objected to Péan's operation as necessitating either the leaving of the uterine adnexa, or, on their removal, the opening of the peritoneum, which had better be done from above. Professor Mangiagelli (Milan) and Professor Chéron (Paris) also spoke, after which Dr. Segond replied.

About 2.30 the King came in and sat in his box in the Palais des Académies, where the meetings are being held, and remained listening to the discussion for about half an hour. At 3.30 the sitting was suspended to enable the members of the Congress to proceed to the Palace, where the King held a reception. The members were received in a spacious room, and were grouped according to their several countries. When the King came in each member was presented to him. He was very agreeable and gracious and spoke to each, after which tea, coffee, wine, cake &c. were served in another room. The staircase is of marble and is very elegant, and in one room are some excellent portraits of former occupants of the throne, reminding one of our own Royal Palaces. In the evening Dr. C. Jacobs, the general secretary, gave a dinner in the Hôtel Mengelle to some members of the Congress.

### *Friday's Proceedings.*

On Friday, the 16th inst., Dr. C. Jacobs removed two diseased ovaries and tubes by abdominal section in the usual way, with every aseptic care, but without any antiseptics.

Dr. Martin (Berlin) opened the discussion on Extra-uterine Pregnancy. He contended that most frequently the ovum was implanted in the tube, that ovarian attachment was less rare than was recently supposed, that the diagnosis of ectopic gestation was one of probability, and that the evolution of extra-uterine pregnancy rarely ends in retrograde metamorphosis without any intervening accident. Cases of development to term are so rare that to respect the interests of the child is to neglect those of the mother; consequently operative interference undertaken as soon as possible was advocated. Mr. Alban Doran drew attention to the fact that in so-called ovarian pregnancy what happened was that the ovary was flattened out over the sac. Professor Dimitri de Ott (St. Petersburg) urged operation in all cases.

M. Damion (Paris) read a paper on the Mechanism of Hæmorrhage in Fibrous Tumours of the Uterus and the Action of Electricity. He considered that electricity was of the greatest use for the arrest of the hæmorrhage, and that such arrest was not due to any caustic action, but to the

electro-dynamic action. Dr. Apostoli (Paris) gave a new contribution to the electric treatment, both faradaic and galvanic, in diagnosis in gynecology, and read a Note on a New Application of the Sinusoidal Alternative Current.

Dr. Murdoch Cameron (Glasgow) described his method of performing the Cesarean section. He demonstrated his use of a flat pessary, pressed over the uterus so as to avoid hæmorrhage while making the incision into the uterus, and recommended the use of Hagedon's needle to pass the stitches through the uterus.

Dr. More Madden (Dublin) submitted a communication in which he reviewed at considerable length the various diseases of the endometrium in which direct treatment was called for, and the methods by which this might be accomplished in each case. He then exhibited a set of adjustable instruments for intra-uterine work which, in accordance with his suggestion, had been made for him by Messrs. Arnold of London. Dr. More Madden, having demonstrated the method of using these instruments, concluded by urging a wider and earlier resort to endo-uterine treatment in all morbid conditions of the endometrium, by which he believed the extension of inflammatory and other lesions from the uterus and its appendages might in many instances be obviated, and the consequent necessity for grave laparotomy operations might, he ventured to think, be largely diminished.

During the course of the meeting the chair was successively taken by, among others, Dr. Barnes, Dr. Macan, Dr. More Madden and Mr. Alban Doran.

#### *Saturday's Proceedings.*

On Saturday, the 17th inst., we again visited Dr. Jacobs to see Dr. Martin of Berlin perform hysterectomy for the removal of a large fibroid, which he did with the greatest skill. He tied all the vessels as he went along with chromicised catgut, and finally dissected down carefully with scissors till he got to the os uteri, so that he removed the whole uterus; he then passed a pair of forceps up through the vagina, caught all the ligatures and brought them out through the vagina. He then sewed the peritoneum over the aperture from the abdominal aspect and closed the wound. The operation lasted about fifty minutes.

At the meeting at ten o'clock Dr. Berry Hart opened a discussion on Placenta Prævia. He maintained that our knowledge of the anatomy of the lower uterine segment is still defective, and it is in that segment that the placenta is situated in placenta prævia. He showed by a cast of the uterus taken from a frozen section of a case at the eighth month the situation of the two segments, and from diagrams and a section the anatomy of the spongy layer where the separation takes place.

Dr. Robert Barnes addressed the meeting in French. He commenced by expressing the pleasure he felt in hearing the instructive demonstrations of the anatomy of the subject by Dr. Berry Hart. He then showed that there were two methods of research: (1) the anatomical, pursued on the dead body; and (2) the clinical and physiological, pursued on the living. Dr. Hart's was an example of the anatomical method. His own, based, as he believed, upon unsurpassed experience, was the true clinical method. This it was that had led him to the true theory of placenta prævia and its treatment. At the same time he had not neglected opportunities of studying the subject on the cadaver. These anatomical observations confirmed the physiological and clinical experience. Dr. Barnes then drew attention to the fact that the division of the uterus into three zones—upper, equatorial and lower—had been described by him in THE LANCET in 1847 and again in 1857 in his Lettsomian Lectures, and that he then showed that the lower segment of the uterus was divided from the middle zone by a distinct "boundary line," thus marking out the lower segment of the uterus as the seat of placenta prævia. He contended that the whole treatment was not summed up in bipolar turning after the hæmorrhage ceased spontaneously and after artificial detachment. This had been shown long ago by Puzos, Wigand, R. Leo, Mercier, Cazeaux and others. Gellé (Provence), Verrier (Paris), Auvard (Paris), Gottschalk (Berlin) took part in the discussion.

In the museum there were exhibited a great number of useful and elegant instruments and preparations: Martin's instruments for hysterectomy, electrical machines, apparatus for the sterilisation of dressings and milk, and a machine for the relief of neuralgia by freezing. There was also a most convenient table for operations from Sweden, made with hollow tubes so that it could be warmed. Among the prepara-

tions I noticed a good one of exalgine in solution and also an elegant solution of sublimate, slightly coloured green, in a bottle marked off in divisions of five grammes for dilution; so that it could be easily measured. These were exhibited by the Société d'Hygiène Appliquée.

## CYCLING AND VITALITY.

### III.—ADVANTAGES.

IN previous articles we have exposed without any reserve certain of the evils of cycling. In that labour we have extenuated nothing nor set down aught in malice. Everything has been intended for the good of the cycling world, not a syllable for or towards its disparagement. We are willing, indeed, to admit that even in the extreme tricks with fortune which enthusiastic cyclists play there is a certain measure of good, and when they reveal to us, as they have so recently done in Mr. Shorland's ride of 367 miles in twenty-four hours, that man is, indeed, physically the strongest and most enduring as well as the most intellectual animal in creation, we are not so blind as not to admit the force of a lesson as interesting on its physiological as on its social and athletic side. It is a new truth of human possibilities, showing what in emergency a man can do and what the body can be trained to perform. Our advice to competitors like Mr. Shorland would be simply to be content with success, and not to continue to repeat great efforts until mischief is done to such fine and exceptional organisations as he and others like him possess.

Our task this week leads us to another and different subject. We are intent now on pointing out that cycling has many and signal advantages extending to the nation as a whole when, as an exercise, it is properly carried out.

The first advantage of it is that it relieves great and crowded communities of much bad air. It takes men, although in a small proportion, out of the close room or office into the open, leaves them free for ventilation and ventilates the cyclists themselves. Everyone who thinks on this matter will, even though he may have some prejudices upon it, concede so much. In such a city as London distance from the country had, so to speak, crippled healthy exercise. How could the busy youth, engaged from nine or ten in the morning until four or five in the afternoon, reach before the day was over even the borders of such places as Hampstead Heath, Barnes Common or Epping Forest? He would be wearied before he received the first breath of country air. He might go by rail; but there was the expense, the closeness and bustle of the station, the worry of a return journey, and the difficulties of so measuring out time as to catch the out-going and the in-coming trains. The result was that he was driven to remain in town month after month and year after year without change. He was by this necessity deteriorated. He might go to the billiard-table or to the bowling-alley; but his physical wants were not supplied. Man is an animal of out-door activity, and as such he demands scope for action like the strongest animals, and here he was cooped in like a bird in a gigantic cage. To such a prisoner the cycle has practically given wings. He learns to travel four times as quickly as he can walk. He learns the shortest roads into the country, and when he reaches his destination he can, without altering his mode of progress, enjoy the change he has passed into with the keenest sense of emancipation from an unnatural confinement. In addition, the exercise itself has for him its pleasant varieties; it brings into play muscles which, being long idle, add only weight to the body and become the storehouses of dead products—rusts which the eliminating organs have to dispose of by one or two channels alone which after a time are overtaxed and deranged in function. The exercise of cycling came in then opportunely for the physical wants and desires of a large and oppressed community—a community which could not ride on horseback and could not walk at such an advantage as would do good service; so far cycling rendered a service that was of really priceless value.

Something more has to be said in favour of the exercise. By it the mind is benefited as well as the body. The mind not less than the body pines under the penalty of home imprisonment. It must have freedom if it is to develop and

become sound and good. Let it rest day after day all through life, feeding on the same fare; let its eyes rest upon the same pictures, its ears receive the same grinding sounds, its nostrils absorb the same persistent odours, and how can it become anything more than a cribbed, wearied, discontented and dwarfed mind. The mind of the youth buried in the confined community was of this kind. It knew no expansion, felt no elasticity; became timorous, obstinate, feeble—what was called by the country folk the mind of Cockaigne, the cockney mind—afraid of the sight of every domestic animal, from a cow to a lapdog; frightened at sounds out of the range of Bow bells, and feeling the country to be a wilderness in which it was unpleasant and possibly dangerous to wander alone.

Cycling has changed these conditions as if by a magic spell. There are hundreds of Londoners now who know the English country better than the country people themselves, who have their road books and maps and tables of distances and lists of resting places in their pockets, who are so much master of their literature on these points that they can go everywhere, and who understand every turn they may have to make better than the yokel whose path they cross or the hotel-keeper whose house they visit. We heard one eminent military authority say quite recently that if he wished to place military scouts all over the kingdom for strategic purposes, or for the laying of electric lines, or for the conveyance of despatches from one distant place to another, he could find an efficient volunteer army of the sort in London alone within twenty-four hours in the corps of cyclists with which it is now provided. All this has been accomplished within—what shall we say!—a period of some sixteen years. Our memory carries us back to that time when Charles Spenser, in a little work called "The Modern Bicycle," introduced a charming account of a cycle journey from London to John o' Groats performed in fifteen days. We thought that a wonderful feat, and so it was, a feat as remarkably done as it was ably told. It opened the way to what is now commonplace in feats of skill and endurance; but it did more—it opened the way to that general scouring of the country by poor town dwellers, to which we have referred with so much gratification. To everything that favours the interests of health and usefulness THE LANCET has always held out a helping hand. It does so still. It has been admitted, not by us alone but by opponents of the cycling fraternity, that a complete revolution for good of mind as well as of body has been brought about by the cycle. In the work of the physician the exercise of cycling has become a prescription, and in many cases—those of melancholic dyspepsia especially—a prescription of great value. Our wish is that every good result from cycling, physical or mental, may be obtained by the exercise. It is only when we see it perverted and strained, when we see it becoming physically a cause of organic evil, that we venture to tender our admonitions. Morally everything seems good about cycling; at all events it has led to no special vice or crime. To its credit be it said that if it has excited competitive efforts, it has not done so in any spirit of gambling. It has encouraged and taught temperate habits and actually proved by hard contested trials their value. In short, whatever great evils it has called forth have been physical evils, affecting that vital mechanism which it is the duty of the medical profession to study and comment upon. Hence surely even the most enthusiastic cyclist will allow that we need no excuse for pointing out and strongly deprecating evils which our knowledge and experience have shown us to undoubtedly exist.

## TUBERCULOSIS IN THE CANINE SPECIES.

THE world-wide scourge of tuberculosis is daily attracting more attention and receiving closer investigation from the pathologist and sanitarian in regard to both man and animals. It is now a well-ascertained fact that a large number of the domesticated species have a receptivity for and are affected with this infectious disorder, and comparative pathologists are now not only engaged in finding out what species may be exempt, but the relative proportion of those likely to be infected in each species, the frequency of the lesions in different organs or tissues, the modes of infection, and the channels by which the virulent agent can obtain admission to the living body. Of course the ultimate aim of all this research is the limitation or absolute suppression of this serious devastating plague of man and beast.

It is probable that there is a unity in nature in the

tuberculosis of the various species of animals liable to the disease, the differences in the morbid anatomy and experimental results being due to differences in the soil in which the germ develops or other influences to which it is exposed during development, and that avian, bovine, equine, canine, porcine, caprine, and other forms of tuberculosis, as well as the human disease, are all one and the same in their nature, are spread and maintained in the same way, and depend for their origin and development on the same agent. We are in doubt, however, as to the species in which the disease primarily originates or originated, whether in man, the ox or other animal; but the notion has been lately started that the human race is infected from the bovine species, and that it is only among people who largely consume the milk and flesh of cattle that tuberculosis most frequently and seriously prevails.

It has been stated that bovine tuberculosis is a disease of domestication—of overcrowding and bad ventilation; but though insanitary conditions may, and doubtless do, tend to the propagation and maintenance of the malady, it must not be overlooked that there are other influences in operation in its development and extension, or why should famous and valuable herds, which are kept in the most healthy state amid the most perfect sanitary surroundings that can be devised, be decimated by this disorder? And in Queensland, which possesses one of the finest climates in the world, there is heavy loss among cattle from tuberculosis, though these have spent the whole of their existence in the open air, in the scrub or other fastnesses of the Australian bush, and have never even been in a yard except when being branded as calves. Here the majority of cases of outbreaks have been clearly traced to pedigree stud-cattle which had been imported from England, and which were doubtless infected before being exported; so that heredity might be invoked as an influence largely instrumental in keeping up and extending tuberculosis.

However this may be, the fact that the malady affects dogs can be no longer denied, and the subject has been well discussed at a meeting of the Société Centrale de Médecine Vétérinaire of Paris on July 13th, when Professor Cadiot of the Alport Veterinary School brought it forward for the second time. He had already in November last communicated three observations relative to tuberculosis in the canine species, and in these cases the range of the disease was limited to the lungs and pleura. Since that time he had continued his inquiries, with the result that he had discovered eight more cases; in these he found the localisation of the lesions variable; in some of them the lesions were generalised. He gave a minute description of two of the cases; one of them in particular was interesting from the point of view of morbid anatomy, the other being valuable on account of the manner in which a diagnosis was arrived at. In the first case, the lesions were found to be chiefly seated in the thoracic and abdominal serous membranes, and they were of such a character that a superficial observer might easily have mistaken them for malignant neoplasms. In the second case the disease appeared in the form of pleurisy—a form which is relatively common in the dog; as in twelve cases of pleural inflammation which Professor Cadiot had met with in this species during one year, six were of a tuberculous nature. In this instance, as the animal only exhibited symptoms of intra-thoracic effusion, though tuberculosis was suspected, recourse was had to a test for the presence of the disease, two guinea-pigs being inoculated by having a certain quantity of the fluid withdrawn from the dog's chest injected into their abdominal cavity. One of them died some days afterwards, and the other was killed before the dog succumbed; in both of them generalised tuberculosis was well established. In this way a correct diagnosis was arrived at in a very obscure case during the life of the affected animal.

An analysis of the cases of canine tuberculosis observed in France and elsewhere shows that the disease presents itself in all the forms observed in the other domesticated animals. The relative frequency of the tubercular localisations in the different organs is shown in the following table, which was compiled from 49 observations, 28 of these being made by Jessen, of the Copenhagen Veterinary School, and 14 by Professor Cadiot himself:—

Tuberculosis of the lungs ...	...	...	31 cases.
" " kidneys ...	...	...	17 "
" " spleen ...	...	...	6 "
" " prostate ...	...	...	4 "
" " bladder and urethra ...	...	...	1 "
" " epididymis ...	...	...	1 "
" " ovary ...	...	...	1 "

In nearly a moiety of these cases the liver, peritoneum and pleura were invaded by tubercle, and in nearly all there were multiple lesions of the lymphatic glands. Intestinal ulceration was rarely observed, even in the cases of mesenteric and peritoneal tuberculosis; from which it may be inferred that the bacilli, when they penetrate by the intestine, do not usually leave any trace of their passage through the mucous membrane. In the case of a dog, the body of which was examined by Müller, and which had been affected with pulmonary tuberculosis, there was a large cutaneous, tuberculous ulcer at the upper part of the neck; this sore had indurated margins, was covered with fine granulations, and a greyish, very fluid pus escaped from it. The adjacent lymphatic glands were indurated. These observations clearly establish the fact that in the canine as in the human species the pulmonary lesions predominate, so far as frequency is concerned, and that they are often primary—a fact in perfect accordance with the results derived from experimentation.

In the dog the ingestion of tuberculous matter only rarely yields positive results, while the inhalation of virulent dust is nearly always followed by pulmonary tuberculosis. With this animal, as with man, it would seem that infection through the air passages is the rule and inoculation by the digestive mucous membrane the exception. In the case of pet dogs, which are so frequently the inseparable companions of phthisical people, we can readily understand how infection by the lungs may easily occur; but this mode of infection could be effected in other circumstances, for dogs which frequent certain places—such as public-houses, cafés &c., where the sputa of phthisical persons are likely to fall on the floor and become dried—might become infected from inhaling dust that the sweeping of the ground raises in the lower strata of the atmosphere whence the dog derives the air it breathes.

## THE LONDON POST-GRADUATE COURSE.

THIS course has for its object the extension of post-graduate teaching in London and the utilisation of the clinical material not required by the medical schools. The year is divided into three terms, each of eight weeks' duration. The spring term commences about the middle of January and ends in March. The summer term includes May and June, and the winter term commences about the middle of October and ends in December. The teaching is essentially practical in character and the demonstrations and lectures are fully illustrated by cases.

Practitioners can enter for any single course or for a half term or for a whole term at a composition fee. The single courses consist of either eight or sixteen lectures, and the fees are £1 1s. and £2 2s. respectively. There will be twelve separate courses in the next winter term, and the composition fee is £15 15s. Arrangements have been made with the associated hospitals, so that members can enter for practice at any hospital at the rate of £1 1s. a month, and ample time is allowed for this part of the work. The demonstrations and lectures of the winter term, which will commence on Monday, Oct. 10th, and end on Saturday, Dec. 3rd, will be given by the following members of the staffs of the associated hospitals and institutions—viz.:

*Hospital for Consumption and Diseases of the Chest, Brompton.*—By Dr. Pollock, Dr. Green, Dr. Mitchell Bruce, Dr. Percy Kidd, Dr. Biss and Dr. Sidney Martin. Wednesdays and Fridays at 4 P.M.

*National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.*—By Dr. Buzzard, Dr. Gowers, F.R.S., Dr. Ormerod, Dr. Beevor, Dr. Tooth, Mr. Victor Horsley, F.R.S., Mr. Brudenell Carter and Dr. Taylor. Thursdays at 2 P.M.

*Hospital for Sick Children, Great Ormond-street, Bloomsbury.*—By Dr. Sturges, Dr. Barlow, Dr. D. B. Lees, Dr. Lubbock, Mr. J. H. Morgan, Mr. Arbuthnot Lane, Dr. Colman and Mr. Wagstaffe. Thursdays at 4 P.M.

*Royal London Ophthalmic Hospital, Moorfields.*—By Mr. Marcus Gunn, Mr. W. Lang, Mr. Quarry Silcock, Mr. Lawford and Mr. J. S. Morton. Mondays at 1 P.M. and Wednesdays at 8 P.M.

*Hospital for Diseases of the Skin, Blackfriars.*—By Mr. Jonathan Hutchinson, F.R.S., and Dr. Payne. Tuesdays at 4 P.M.

*Bethlem Royal Hospital for Lunatics.*—By Dr. Percy Smith, Dr. Theo. Hyslop and Dr. Corner. Tuesdays at 2 P.M. and Saturdays at 11 A.M.

*London Throat Hospital, Great Portland-street, W.*—By Dr. Woakes, Mr. Stoker, Mr. W. R. H. Stewart, Dr. Law and Mr. Wilkin. Thursdays at 8 P.M.

*Bacteriological Laboratory, King's College.*—By Professor Crookshank. Fridays from 11 A.M. to 1 P.M.

*Pathological Lectures at 101, Great Russell-street, Bloomsbury.*—By Dr. Galloway. Mondays at 8 P.M.

*The Parkes Museum, 74A, Margaret-street, Regent-street, W.*—By Dr. Louis Parkes. Mondays at 4 P.M.

*Midwifery and Diseases of Women, at 101, Great Russell-street, Bloomsbury.*—By Dr. Dakin, Dr. Herman, Dr. Braxton Hicks, F.R.S., Dr. Potter and Dr. Amand Routh. Tuesdays at 8 P.M.

*Central London Sick Asylum, Cleveland-street, Mortimer-street, W.*—By Sir Alfred Garrod, F.R.S., Dr. Ord, Dr. Wilks, F.R.S., Mr. Bryant, Mr. Timothy Holmes, Mr. Jonathan Hutchinson, F.R.S., and Mr. Hopkins. Thursdays at 5.30 P.M.

A prospectus may be obtained on application to J. Fletcher Little, M.B., Secretary, 60, Welbeck-street, London, W.

## THE METROPOLITAN ASYLUMS BOARD.

### STATEMENT BY THE CHAIRMAN.

AT a meeting of the Managers of the Metropolitan Asylums Board, held on the 17th inst., the Chairman, Sir Edwin H. Galsworthy, referred to the complaints made that, notwithstanding the Board possessed all information as to the prevalence of disease in every part of the metropolis, and that the financial resources of London were at their call, they had failed to keep pace with the demands made upon them for hospital accommodation. He said that to completely vindicate the Managers it would be necessary briefly to review the events of the past few months. As early as May last the Ambulance Committee reported that the number of patients under treatment exceeded by 473 the greatest number on the corresponding day in any previous year, and estimated that the Managers would have to provide at least 1000 further beds, a large portion of which, to be of any use, would have to be ready before the middle of August. In less than a fortnight preparations were being made for no fewer than 994 patients, but the committee pointed out that at the then rate of increase this extra accommodation would be occupied in less than eleven weeks. All necessary steps were taken for the temporary accommodation of patients, and instructions were given to their architects, Messrs. Harstons, to look out for suitable land for hospital purposes, temporary or permanent. The consent of the Local Government Board to use the Gore Farm Hospital for convalescent patients was also obtained. The Managers were now nearing the end of their resources. They did not wish to erect temporary buildings at the Northern Hospital or at the Gore Farm Hospital unless absolutely compelled to do so. On being applied to, the Local Government Board expressed their regret at not being able to allow the Managers of the Asylums Board to utilise any of the London workhouses for the reception of fever patients. The statement of the chairman contains reference to the tardy action of the Local Government Board regarding the erection of a new Fever Hospital at Tottenham. Sanction was eventually obtained and he hoped the hospital would be ready for patients by the end of the month. Taking into consideration these circumstances, he thought the Managers could not be blamed for the deplorable fact of the sick poor lying in their crowded homes without proper accommodation or care and without the means of alleviating their sufferings which could be obtained in a hospital. The statement concludes: "The Metropolitan Asylums Board accepts no responsibility for a state of things which they condemn and deplore, but which they did all that it was in their power to do to avoid. The responsibility is with the Local Government Board—that body which it is expected will use its extensive powers to protect the public health and to alleviate the sufferings of the poor; the body on which the Managers, with their limited and crippled powers, ought to be able to rely for all due assistance in the performance of their arduous and responsible duties. The Local Government Board for three weeks—three precious weeks—left the

Managers' earnest application of June 22nd unattended to, or at least unanswered, and then caused still further delay by holding what, under the pressing necessities of the case, would seem to have been a formal and unnecessary inquiry before they gave their consent to the purchase of the Tottenham land, and it is in consequence of these delays that the hospital is not ready and that the Managers have been and are from day to day compelled to suspend the reception of many fever patients."

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6442 births and 3643 deaths were registered during the week ending Sept. 17th. The annual rate of mortality in these towns, which had been 19·8 and 18·9 per 1000 in the preceding two weeks, further declined last week to 18·6. In London the rate was 16·9 per 1000, while it averaged 19·9 in the thirty-two provincial towns. The lowest rates in these towns were 9·7 in Huddersfield, 12·2 in Plymouth, 13·6 in Halifax and 13·8 in Bristol, to 23·4 in Hull, 23·5 in Gateshead, 25·0 in Derby, 27·7 in Preston and 30·1 in Salford. The 3643 deaths included 747 which were referred to the principal zymotic diseases, against 984 and 899 in the preceding two weeks; of these, 463 resulted from diarrhoea, 65 from scarlet fever, 59 from whooping-cough, 54 from measles, 54 from diphtheria, 50 from "fever" (principally enteric) and 2 from small-pox. The lowest death-rates from these diseases were recorded last week in Brighton, Wolverhampton, Huddersfield, Bristol and Halifax; and the highest rates in Leeds, Oldham, Hull, Salford and Preston. The greatest mortality from measles occurred in West Ham, Salford and Oldham; from scarlet fever in Salford, Cardiff, Oldham, Gateshead and Preston; from whooping-cough in Salford, Swansea and Birkenhead; from "fever" in Sunderland; and from diarrhoea in Manchester, Bolton, Gateshead, Derby, Sheffield, Leeds, Hull and Preston. The 54 deaths from diphtheria included 36 in London, 4 in West Ham, 3 in Liverpool and 3 in Cardiff. A fatal case of small-pox was registered in Leicester and one in Halifax, but not one in any other of the thirty-three large towns; four cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 3 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3412, against numbers increasing from 3088 to 3339 on the preceding four Saturdays; 349 new cases were admitted during the week, against 461 and 414 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 114 and 125 in the preceding two weeks, further rose to 142 last week, but were 35 below the corrected average. The causes of 70, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Cardiff, Sunderland, Newcastle-upon-Tyne and in six other smaller towns; the largest proportions of uncertified deaths were registered in Wolverhampton, Norwich, Liverpool and Huddersfield.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 15·7 and 16·6 per 1000 in the preceding two weeks, further rose to 17·0 during the week ending Sept. 17th, but was 1·6 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 8·6 in Perth and 11·2 in Leith to 18·8 in Glasgow and 19·0 in Greenock. The 474 deaths in these towns included 26 which were referred to diarrhoea, 13 to scarlet fever, 12 to measles, 7 to diphtheria, 7 to "fever," 5 to whooping-cough and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 67 and 61 in the preceding two weeks. These 70 deaths were equal to an annual rate of 2·5 per 1000, which was 1·3 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had declined from 34 to 24 in the preceding two weeks, rose again to 26 last

week, of which 16 occurred in Glasgow and 4 in Dundee. The deaths referred to scarlet fever, which had been 14 and 10 in the previous two weeks, rose again to 13 last week, and included 7 in Glasgow, 2 in Edinburgh and 2 in Aberdeen. The 12 fatal cases of measles exceeded by 6 the number in the preceding week and included 7 in Edinburgh and 4 in Glasgow. The deaths from diphtheria, which had been 4 and 6 in the preceding two weeks, further rose to 7 last week, of which 3 occurred in Glasgow, 2 in Dundee and 2 in Perth. The 7 fatal cases of "fever" also showed a further increase upon recent weekly numbers and included 3 in Glasgow and 2 in Paisley. Four of the 5 deaths from whooping-cough were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 57 and 59 in the preceding two weeks, further rose to 71 last week, and exceeded by 18 the number in the corresponding week of last year. The causes of 44, or more than 9 per cent., of the deaths in these towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding four weeks from 19·5 to 28·3 per 1000, declined again to 23·3 during the week ending Sept. 17th. During the first eleven weeks of the current quarter the death-rate in the city averaged 23·5 per 1000 against 17·4 in London and 16·3 in Edinburgh. The 156 deaths in Dublin during the week under notice showed a decline of 34 from the number in the preceding week, and included 18 which were referred to diarrhoea, 4 to "fever," 1 to measles, 1 to whooping-cough, and not one either to small-pox, scarlet fever or diphtheria. In all, 24 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·6 per 1000, the zymotic death-rate during the same period being 2·8 in London and 2·2 in Edinburgh. The fatal cases of diarrhoea, which had increased from 9 to 28 in the preceding three weeks, declined again to 18 last week. The deaths referred to different forms of "fever," which had been 2 and 4 in the preceding two weeks, were again 4 last week. The 156 deaths registered in Dublin last week included 39 of infants under one year of age and 22 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from those recorded in recent weeks. Only one inquest case and no deaths from violence were registered during the week; and 48, or nearly a third, of the deaths occurred in public institutions. The causes of 19, or more than 12 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

### MOVEMENTS OF THE MEDICAL STAFF.

Surgeon-Colonel Markey has embarked for Madras on the termination of his leave of absence. Surgeon-Colonel Preston has resumed duty as Principal Medical Officer at Belfast. Surgeon-Captains Bean and Addison have embarked for Bombay to perform a tour of duty in India. Surgeon-Captains Westcott and James have embarked for Hong-Kong, and Surgeon-Captain Allport for Ceylon. Surgeon-Major Franklin has joined for duty at Eastbourne, and Surgeon-Captain Cocks at Brighton. Surgeon-Major Stevenson has been granted leave from India. Surgeon-Captain Woods has arrived in Alderney for duty. Surgeon-Lieutenant Hughes has rejoined at Preston, and Surgeon-Lieutenant Holt at Gosport. Surgeon-Captain Magrath has rejoined at Portsmouth from trooping duty and Surgeon-Captain Elderton from Portland. Surgeon-Captain Mumby is on leave prior to embarking for India, and Surgeon-Captain Gubbin is on leave awaiting embarkation for Bermuda. Surgeon-Captain Leishman has been granted sick leave from Bengal. The undermentioned officers of the Army Medical Staff who are at present serving on the Bombay Establishment have, on completion of their six years' tour of Indian service, been selected to return to England during the trooping season of 1892-93:—Surgeon-Lieutenant-Colonel W. F. Burnett; Surgeon-Captains R. J. A. Durant, J. W. B. Buchanan, S. J. W. Hayman and R. J. D. Hall.

### INDIAN MEDICAL SERVICE.

H. E. the Governor in Council is pleased to appoint Surgeon-Captain H. W. Stevenson to act as Medical Officer on his

Excellency's staff during the absence of Surgeon-Major H. Martin, M.B., on privilege leave. Surgeon-Lieutenant W. E. A. Armstrong, I.M.S., to do duty in the Southern district. Surgeon-Lieutenant-Colonel D. D. Cunningham, Officiating President of the Committee of Management of the Zoological Garden, Calcutta, is confirmed in that appointment, vice Sir John Edgar, K.C.I.E., C.S.I., resigned. Surgeon-Major H. K. McKay, Officiating Civil Surgeon, Nagpur, is appointed to be Honorary Surgeon, Nagpur Volunteer Rifle Corps, vice Surgeon-Major G. F. A. Harris, I.M.S., on furlough, and who has been placed on the rolls as a supernumerary. The Queen has approved of the retirement from the Service of Surgeon-Lieutenant-Colonel John Edwd. Charnock Ferris, Bengal Medical Establishment (dated Aug. 1st, 1892).

#### NAVAL MEDICAL SERVICE.

The following appointments have been made:—Staff Surgeon Alfred Thomas Corrie has been appointed to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 8th, 1892). Surgeons: Herbert P. Shuttleworth to the *Pembroke*, additional, to be lent to the *Briton* for the training season, from Sept. 26th; Richard A. Fitch, to the Royal Marine Artillery, Portsmouth; Charles J. Fyfe to the *Pembroke*, additional, for disposal; Edward M. Dobinson to the *Wildfire*, additional, for service at Walmer Depot; Octavius S. Fisher to the *Defiance*, additional, for disposal; and William M. Craig to the Plymouth Division Royal Marines (all dated Sept. 15th, 1892); A. M. Page to Plymouth Hospital, and Daniel J. P. M'Nabb to the *President*, additional, for three months' study (both dated Sept. 22nd, 1892). M. W. Roe to be Surgeon and Agent at Helford Passage (dated Sept. 20th, 1892).

#### VOLUNTEER CORPS.

*Artillery*: 1st Lancashire: Surgeon-Lieutenant T. M. Dawson to be Surgeon-Captain (dated Sept. 17th, 1892).—2nd Glamorganshire: Surgeon-Lieutenant J. H. Rees, M.D., to be Surgeon-Captain (dated Sept. 17th, 1892).—*Royal Engineers*: 1st Lancashire: John Morgan Whiteford, Gent., to be Surgeon-Lieutenant (dated Sept. 17th, 1892).—*Rifle*: 2nd Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment): Surgeon-Captain J. Knox to be Surgeon-Major (dated Sept. 17th, 1892).—5th (Ardwick) Volunteer Battalion, the Manchester Regiment: Brigade-Surgeon-Lieutenant-Colonel J. Armstrong resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Sept. 17th, 1892).

#### THE SICKNESS AND MORTALITY AMONG YOUNG SOLDIERS IN INDIA.

Our Indian contemporary, the *Pioneer* of the 31st ult., gives some information on this point, to which we may briefly refer. It had recently instituted a comparison between the Gordon Highlanders, a seasoned regiment, and the Argyll and Sutherland Highlanders, who arrived in India last Christmas. Both regiments are in the Simla Hills. Since the latter regiment arrived at Dugshai on March 21st last there have been seventy-four cases of enteric fever, nine proving fatal. In a detachment of 115 men of the Derbyshire regiment, living a little lower down the hillside than the Highlanders, there have been only two cases of enteric fever. The soldiers of this detachment are alleged to have been acclimatised by residence in India. The West Yorkshire regiment, which went out to India in 1878, was last year stationed at Dugshai and had only ten or eleven cases of typhoid fever. Although it has been abundantly shown that new arrivals in the country are very liable to be attacked with this disease it does not follow that the station, Dugshai, is not responsible, from some cause or other, for the outbreak this year; and it would, in our opinion, be well worth undertaking a thorough investigation into everything connected with the conservancy, water and milk supplies, and the sanitary condition of that station.

#### DESIGNATION OF MEDICAL OFFICERS.

The designation of the Principal Medical Officers of Her Majesty's Forces in Madras and Bombay is to be altered to Principal Medical Officer of Her Majesty's Forces in the Madras Army and Bombay Army respectively, so as to distinguish them readily from District Principal Medical Officers located in the towns of Madras and Bombay.

Surgeon-General Longmore's treatise upon Ambulance Transport has, we understand, been undergoing revision, and will shortly appear in its revised form with all the modifications and improvements effected up to date.

## Correspondence.

"Audi alteram partem."

### "THE LANCET COMMISSION ON SANITATION IN RELATION TO THE LAW AND PRACTICE OF HOUSE-LETTING."

To the Editors of THE LANCET.

SIRS,—I have lately read with great interest the articles and correspondence which have followed the publication in your issue of Aug. 20th of the very admirable report of THE LANCET Special Commission on the above subject. To the supreme importance of this matter the Teignmouth Local Board is keenly alive, and a system of inspection, certification and registration, conducted on lines very similar to those in force at Eastbourne and Folkestone, has for some time been satisfactorily working in this district. A thorough and exhaustive inspection is performed by the sanitary inspector in person on receipt of written application from the householder. This is done gratuitously, and the inspector advises as to the works necessary to secure a certificate, which is only granted when the requirements enumerated in Dr. Sherwood's article are complied with. The incorporation of these requirements in the printed certificate is an improvement for which I owe a debt of gratitude to Dr. Sherwood, and which I shall endeavour to persuade my board to adopt without delay. The register of certified houses is kept in the clerk's office and is open to inspection, a conspicuous painted notice-board to that effect being affixed to the wall of the market-place. Further, every medical practitioner and every house agent in the district are provided with a list of certified houses, corrected quarterly, in the clerk's office. The advantages of this plan are too obvious to call for comment. This system was inaugurated in Teignmouth in 1889, and the earliest certificate bears date Nov. 28th of that year (so that we may justly claim to have anticipated Eastbourne in this much-needed work of reform by a few months), and numbers of private householders, in addition to a large majority of the lodging-house keepers, have gladly availed themselves of the facilities thus offered for ascertaining with certainty the sanitary condition of their homes.

The following brief statement of facts will help to emphasise the urgent necessity of extending the above or some similar system to all towns. From October, 1889, to the end of 1891 the sanitary arrangements of 232 houses were carefully examined. Taking the results of the smoke test alone, in only eighteen of these 232 were the drains found smoke-tight; in other words, 92.25 per cent. of the houses were liable to contamination with sewer gas. As I am not aware of any very cogent reason for believing that the condition of house sanitation in my district is markedly inferior to what prevails in other parts of the country, I am inclined to suspect that 90 per cent. may fairly be supposed to represent the proportion of insanitary houses in the average watering-place. It would be interesting to know whether the experience of Eastbourne and Folkestone supports this idea, which, as I am well aware, is a generalisation on very insufficient data; it seems to me, however, not unlikely to be true, and if true, can anything be more appalling? Short of parliamentary action on the lines of Dr. Farquharson's Bill, the only remedy for such a condition of things is that all municipal bodies and individuals alike, should realise that a positive knowledge, a certainty, of the perfection of his house sanitation is a duty which each man owes not only to himself but also to his neighbour. Moreover—and this is likely to be a more generally convincing argument—attention to the aforesaid duty is, at any rate in watering-places and health resorts, a form of honesty which is most emphatically "the best policy."

I am, Sirs, yours faithfully,

F. CECIL H. PRIGGOTT, M.D., B.C. & B.A. Cantab.,  
Medical Officer of Health.

Teignmouth, South Devon, Sept. 10th, 1892.

P.S.—One expects, with reason, before many years are

past, to observe a diminution in the incidence and mortality of zymotic disease in towns where the registration system is widely extended and efficiently carried out.

### THE NOTIFICATION OF DISEASE.

To the Editors of THE LANCET.

SIRS,—There is a point concerning this subject that I should like to ventilate, as it is an important one to a large section of medical men. Some months ago a medical gentleman in the parish of St. George's, Hanover-square, asked me to see a case of diphtheria with him and I did so. The child was choking, and the only thing that could be of any avail was tracheotomy or intubation; and I left the house after giving that opinion, and I believe that a surgeon was applied to and that an operation of some kind was performed. Some few weeks afterwards I was much surprised to receive a curt official note from the office of the medical officer of health for the said parish, inquiring why I had not notified the case to him, as I was bound to do. I replied that I never did notify; that I always left that duty to the medical man in charge. The answer I received to this was that the Act requires everyone who is called in to a case of any infectious disease scheduled under the Act to notify, and I was pointed to the wording of the Act, which reads that "everyone attending or called in to visit shall" &c. I was further politely informed that as I had sinned in ignorance no action would be taken on this occasion. In other words, I must not be a bad boy again, or I should receive a whipping.

Now there is no doubt that the strict letter of the Act is in accord with the contention of the medical officer of health of St. George's, Hanover-square, but it is obvious to me that this strict interpretation of it was not intended by its framers; for see what it leads to. In the case I have given three of us saw the case and we all were in duty bound to notify. In another instance the gentleman who first saw the case notified it as scarlatina; I came next and thought it was enteric fever; a friend who saw the gentleman in my absence did not know what it was, and after a few days it turned out to be influenza. Take one other illustration. I saw in consultation a bad case of scarlatinal nephritis in the fourth or fifth week after the fever. The boy was peeling freely. He was infective enough certainly. According to the medical officer of St. George's, Hanover-square, I ought to have notified. If so, there would be no end to the work of the medical officers of health. Their energies would be eaten up in finding out who was who and what was what. But, Sirs, I would interpret the letter of the law thus: everyone "*attending or called in to visit*" is a legal periphrasis deliberately intended by the draughtsman to cover his man—*viz.*, the doctor first called in to see the patient—and very wisely so worded, in my opinion, for there are many cases where there is no *attendance*, the doctor is merely called in to say what a disease is, and he never sees the case again. The only instance in which I have myself notified was a case of this sort. There was no one in *attendance*, but I was covered by the Act, being "*called in to visit*," so I notified. I venture to urge, Sirs, most strongly, that this is the reasonable and right interpretation of the Act as regards the duty of those called in as consultants, and indeed I have reason to know that a large number of medical officers of health do so construe the meaning of the Act; but there is at any rate one, and he unfortunately no mean authority, who thinks otherwise. The matter requires ventilation.

I am, Sirs, yours faithfully,

Weymouth-street, Sept. 20th, 1892.

J. F. GOODHART.

### THE CHOLERA SCARE AT EYEMOUTH.

To the Editors of THE LANCET.

SIRS,—I beg to forward you the particulars upon which, so far as I am aware, the report of the cholera scare in Eyemouth has been founded. When recently it became known here that the schooner *Spray* was chartered to Eyemouth with a cargo of old empty herring barrels from the cholera-infected port of Hamburg the inhabitants became greatly alarmed. For weeks past, however, in accordance with the Infectious Diseases Act, everything has been done in the way of sanitation and general precautionary measures, and the local authority, acting on instructions from the Board of Supervision, had promptly devised means to have all ships from foreign ports boarded by the medical officer of health

as soon as they should be reported to him. On the 13th inst. the *Spray* was reported in the offing and immediately intense alarm took possession of a considerable portion of the inhabitants and the opinion generally prevailed that if she came into port the risk of disseminating the choleraic virus would be by no means inconsiderable. Being unable to secure a boat and board the *Spray* outside, she was allowed to come into the harbour, and so soon as a berthing was obtained I got aboard, accompanied by the Customs officials. There was, or had been, no sickness on board, and so she was accordingly passed. The tanks were empty and no bilge-water had been made, and beyond ordering her hold to be fumigated nothing more was done. Nevertheless, a brisk controversy has taken place in regard to the disposal of the cargo, many people asserting that a public danger would be occasioned to health through the landing of this possibly infectious material. A meeting of the local authority was held to consider the situation, and it was at first resolved to ask of the captain five hours' notice of the landing of the cargo. It seems, however, that no purchaser could be found, so strong was the feeling in the town; as the result of later deliberations between Captain Wilson and the local authority, however—in view of the intense public opposition, and as remuneration for any loss the master of the *Spray* might sustain—a number of townspeople subscribed and made a present in money to him, at the same time stating that the vessel should leave this port by the next tide. Owing to some of his crew having left, the schooner *Spray* only put out to sea this morning.—I am, Sirs, yours faithfully,

JAMES FORSYTH,

Medical Officer.

Eyemouth, Sept. 17th, 1892.

### "THE ETHICS OF OPIUM AND ALCOHOL."

To the Editors of THE LANCET.

SIRS,—With reference to Dr. Mouat's very interesting article on the "Ethics of Opium and Alcohol," I should like to point out that I have had very similar experiences of the pick-me-up action of opium and have also given what I believe to be a very complete explanation of the way in which it produces the effects in question. Shortly stated, my explanation amounts to this: that opium, by clearing the blood of uric acid, frees the circulation in the small vessels throughout the body, and the effect of this on the nerve centres and muscles, for instance, is to bring about a state of affairs in which all their functions are performed with the greatest ease and smoothness, doubtless because their metabolism is well and easily maintained. But if the opium is not continued there comes what I have called a rebound; the urate begins to find its way back into the blood in greater quantity than before, because the amount previously cleared out of the blood was stored up in the body and not eliminated. The arterioles are now contracted just in proportion to their previous dilatation, the pulse is slow, the tension high, the circulation through the brain and muscles is deficient and lethargy of mind and body results.

I have often used opium as a pick-me-up and it is most efficient, and I have pointed out that many well-known persons appear to have had similar experiences and that it is a great fallacy to suppose that men are seeking for oblivion when they take opium, cocaine and drugs of similar action; but I know also that it has a rebound, and that just as my mental and bodily powers are, say, 50 per cent. above normal during its primary action, so will they be 50 per cent. below normal during its secondary action (rebound). During the primary action I may have been able to perform feats of body or mind which were otherwise, as far as I was concerned, impossible. The Sikh infantry regiment mentioned by Dr. Mouat might by their magnificent march under opium have saved their own lives and those of many others. Were they wrong in resorting to it to enable them to do this? I have also pointed out that when a small dose of opium has been taken as a pick-me-up the rebound can be almost completely averted by taking one or two doses of salicylate, as this eliminates the urates stored up during the primary action of the opium, and, the subsequent excess of urate in the blood being thus prevented, there is no rebound. This action of a salicylate affords a further proof that the action of opium first as a pick-me-up and then as a depressant is entirely due to its effects on the alkalinity of the blood, which in turn determines the amount of urate it can hold in

solution, and so the relative contraction or dilatation of all the arterioles of the body.

I am, Sirs, yours faithfully,  
Brook-street, W., Sept. 10th, 1892. ALEXANDER HAIG.

*To the Editors of THE LANCET.*

SIRS,—I should be glad if Dr. Mouat would specify the sentence in which occurs "the insinuation that the corruption of the subordinate agents of the prisons caused the smuggling of opium in such quantities as to cause a prejudicial influence on death-rates." Dr. Pringle, I observe, suggested that the smuggling exerted an opposite influence. What is Dr. Mouat's explanation of the apparent discrepancy in his vouching "absolutely for the correctness of the returns themselves," and yet saying of one of them, "This record again I believe to be inexact"?

Dr. Mouat says "the diseases chiefly influenced by opium were dysentery and diarrhoea," and that one-fourth at least of the whole mortality was due to dysentery alone. Is this an approval of the suggestion that opium predisposes to dysentery?—I am, Sirs, yours faithfully,

J. BARCROFT ANDERSON, M.B., B.Ch. Dub. Univ., &c.  
Dublin, Sept. 20th, 1892.

### THE MIDWIVES' REGISTRATION BILL.

*To the Editors of THE LANCET.*

SIRS,—In THE LANCET of Sept. 17th you publish a letter from Dr. Alderson relative to "Midwives and Abnormal Cases." Will you allow me to point out some of the errors he has fallen into? He opposed the late Midwives Bill, he says, because it would have certificated hopelessly incapable people; but he has forgotten that there was a clause requiring proof of a fair amount of knowledge before registration. In the case he gives, supposing the hopelessly ignorant woman who assumed the name of midwife had had her name placed on the Midwives' Register, it would have changed the verdict into one of culpable negligence; and even if she had succeeded in persuading the jury that registration did not imply necessarily knowledge, she would still have had her name removed from the Register and have experienced that amount of punishment now noticeable by its entire absence. He thinks that "midwives should only be allowed to act under the eye and responsibility of a medical man," and that a poor patient should be attended by the club or parish doctor. This might be desirable. These women have the opportunity of so doing now, and will not have the one while they either cannot or will not have the other; at any rate, they do not have doctors to attend them, and indeed it would be quite impossible for doctors to do all the "cheap" work thus thrown on them and live on the results. I would ask him why a medical man should bear the misdeeds of an "obstetric nurse" on his shoulders merely because he was engaged by a patient in case of the requirement of his services. He would have to wait till sent for and then be responsible for not having come sooner. Who is to pay the expense of this arrangement, for which alternative Dr. Alderson has thrown his weight against the Bill? The patient can hardly pay the midwife, let alone paying retaining fees or fees for services rendered. The fact is that the poorer classes, in their very laudable endeavours to be independent, prefer, in their ignorance of the risks they run, to be attended by a person whose charges come within their means. It cannot be denied that an immense number of poor people are attended by incompetent or untrained women. I have in front of me letters just received from two medical men practising in a manufacturing town of 60,000 inhabitants, mostly poor, and these are nearly all attended (so they tell me) by untrained women because they cannot pay doctors' fees. Dr. Alderson has opposed a much-needed Bill for fear of a provision in it which could not have been left out and which would have been remedied by lapse of time in a few years.

I am, Sirs, yours faithfully,

F. ROWLAND HUMPHREYS.  
Fellows-road, N.W., Sept. 20th, 1892.

### THE SANITARY CONDITION OF WELLINGTON, NEW ZEALAND.

*To the Editors of THE LANCET.*

SIRS,—In THE LANCET of June 11th appears a critique upon the sanitary condition of Wellington, in which the writer states that "dirt, disease and death have given this

city an unenviable notoriety among the cities of the colony." This is painfully unjust, as my report most clearly proved. Previously to 1890 there was comparatively little typhoid fever. During that year there were 109 cases, 50 of which occurred in a small area of several blocks of buildings in the Te Clio end of the town. In 1891 there were 107 cases and 57 came from this same area; while during the first quarter of 1892 there were 62 cases and 56 came from exactly the same locality, leaving 6 only from the remaining part of the city. The area under notice covers a space of about 100 acres, while the populated area of the city is 1500 acres. It is obvious therefore that only one little spot, one-fifteenth of the town area, deserves the severe criticism of your correspondent; the rest of our town enjoys comparative immunity from all forms of zymotic disease. My report clearly shows this; and of all the things said of Wellington, sanitation was the most just and at the same time the most complimentary, for it freed fourteen-fifteenths of the city from the cloud that hung over it. New arrivals who have read the scathing criticism of this our empire city must be very pleasantly surprised at the general cleanliness of our streets, the elevation of our houses on the hill-side and the ample space around each, admitting light and air and sunshine in rich abundance and surpassing purity. The affliction of a prince, not the zymotic mortality, has given Wellington a reputation almost wholly undeserved. Defects in house and town drainage may occur anywhere and at any time. Local house-drain defects caused the illness of Lord Cranley and local town defects caused the epidemic of Te Clio. The former of these have been successfully remedied and the latter are being remedied by the Council, who, despite the aspersions cast upon them, have overcome many difficulties and accomplished much in sanitary reform.

I am, Sirs, yours faithfully,  
Wellington, N.Z., Aug. 11th, 1892. W. A. CHAPPLE.

### THE PATHOLOGY OF DROPSY.

*To the Editors of THE LANCET.*

SIRS,—At the present time, when the pathology of dropsy is being so much discussed, the subjoined case of dropsy without albuminuria following scarlet fever may be worth recording:—On Sept. 5th I was called to see L. M—, a little boy aged six, who was suffering from well-marked scarlet fever; throat, tongue and rash were all typical; the temperature was 102°. The case ran an ordinary course, and by Sept. 9th the temperature was normal and the rash had almost disappeared. I had tested the urine daily as a matter of routine, but had found nothing abnormal. On Sept. 10th when I called I found considerable swelling of the whole face, especially marked on the upper lip, and the complexion pale and rather waxy-looking; there was also swelling of the left leg and slightly of the scrotum; the temperature had run up to 100.4°. I expected to find the urine highly albuminous, but was surprised to see, on testing by boiling, that there was no precipitate, nor was there any reaction with either nitric or picric acid. The amount of urine passed was unfortunately not measured, but the patient's mother stated that he had not passed nearly as much as usual. I ordered a mixture containing digitalis, and on the next day (Sept. 11th) the swelling had nearly disappeared, while to-day (Sept. 12th) there is none discoverable and the waxy complexion has given way to a more healthy colour. I have examined the urine at different times, before and after meals, but have quite failed to find any albumen. I offer no explanation of these facts, but content myself with recording them.

I am, Sirs, yours faithfully,  
Southend, Sept. 13th, 1892. W. A. MURRAY, B.A., M.B.

### THE RADICAL CURE OF INGUINAL HERNIA.

*To the Editors of THE LANCET.*

SIRS,—If it were admitted that a particular method of obtaining a definite result was the best, then I take it many methods of attempting to do so would not be recommended; but for the radical cure of hernia several operations are advocated, and no one has been adopted as the best. In drawing attention to another, the peculiarity of which is the introduction of a new principle, I hope I have not done injustice to any other procedure. I congratulate Mr. Burghard upon the success of his eight cases of radical cure by Bassini's operation, but I still think that by Halsted's recurrence is less

likely to occur than by any other plan with which I am acquainted. Naturally I cannot expect Mr. Burghard to agree with me, as he is enthusiastically in favour of another operation, but I should be very much gratified if I could persuade him to give Halsted's a trial.

I am, Sirs, very truly yours,  
Newcastle-on-Tyne, Sept. 19th, 1892. FREDERICK PAGE.

### "PSYCHO-THERAPEUTICS."

To the Editors of THE LANCET.

SIRS,—In Dr. Robertson's article on "Psycho-Therapeutics" in THE LANCET of last week he corroborates my views on the subject, as stated in the summing up of my article which he criticises. For speaking of certain occult power which some few persons possess over the minds of others through suggestion, he says "the possession of this power by one or two members is of very little value to the profession as a whole." Just so. He might have added—and there are few upon whom this power has any influence. I stop at "relics," "magnetic healing" and tricks with "cold water," "bread pills" &c., believing that in the end they can only do harm. Nor have I any faith in hypnotism, which is merely another form of the miserable farce, mesmerism, which in my youth wrecked poor Dr. Elliottson's reputation. But in the observations in Dr. Robertson's article respecting certain "physicians of celebrity" and family doctors and their success in the treatment of disease I think he corroborates my views; for by their tact and personality that "faith and hope" of which I have spoken are created in their patients which will enable them "to make at least a brave stand against their foes." I still believe, therefore, and regret that "he who expects more than this from the influence of the mind on the body in treating disease will be disappointed."

I am, Sirs, yours obediently,  
Bishop's Tselgton, South Devon, Sept. 20th, 1892. WM. DALE.

### "OUR DUTY TO OUR PATIENTS."

To the Editors of THE LANCET.

SIRS,—In the last issue of THE LANCET I notice a letter on this subject signed "Spes," which calls attention to the desirability of having some simple common-sense rules printed for circulation on various health subjects which would educate the working classes on matters pertaining to the health and comfort of their children and themselves. It is not so generally known as it ought to be that there is an institution whose special work is in this direction—viz., the Ladies' Sanitary Association, of 22, Berners-street, W. They publish a large variety of leaflets, cards, tracts, &c. on all health subjects, including those which "Spes" mentions as most needed: "The Care of Mothers recently Confined," "How to Wash and Dress the Baby," "How to Feed the Baby." A list of these useful and inexpensive publications can be obtained by application to the Secretary, Miss Rose Adams.

I am, Sirs, yours truly,  
J. SINCLAIR HOLDEN, M.D., M.O.H.  
Sudbury, Suffolk, Sept. 20th, 1892.

### ADULTERATION AND THE INSPECTION OF MEAT: RECENT BELGIAN LEGISLATION.

(FROM OUR SPECIAL CORRESPONDENT.)

THE Belgian Government has been working quietly but very earnestly during the last few years, with the result that the laws framed to ensure the wholesomeness of alimentary substances have been considerably improved and strengthened. It is a difficult and tedious matter to analyse the legislation of a country, even if such analysis is limited to one single subject. Considerations of space make it impossible to give a complete synopsis of the Belgian law on markets, slaughter-houses, and on the adulteration of food. But in the laws recently enacted there are such good points that these improvements at least merit full notice. For ample information the reader must consult the text of the laws. Thus the entire law on the adulteration of alimentary substances, published in the

*Moniteur Belge* of Aug. 18th and 19th, 1890, might be studied with advantage. For the present purpose, however, it may suffice to merely point out the more important clauses. Article 1, Clause A, authorises the inspection of the preparation and the manufacture of substances intended for food. In many countries inspection only is permitted of objects actually offered for sale, whereas it is the process and methods of manufacture, the utensils and materials employed, which should be carefully watched. Article 2 states that: "The burgomaster and the agents of the Government whose mission it is to see to the execution of the duties prescribed by the present law may freely examine the shops, warehouses and any place whatsoever where alimentary or medical substances are sold during the whole of the time that these places are open to the public. They may also examine during the same hours the depôts annexed to these shops or warehouses, even if these depôts are not open to the public; such places as serve for the manufacture and preparation of alimentary substances destined to be sold, though these places are not open to the public, are equally subject to such visit or inspection, and that at all hours."

This clause embodies a very important innovation. On discussing the matter with some of the authorities the latter expressed the opinion that the clause gives inspectors the right to visit the kitchen of restaurants and see how the food is cooked and whether it is in good condition. It is precisely in restaurants that the law up to the present day has failed to protect the public. Meat, fish &c., when sold in the market, may be in a perfect condition, but when these things have sojourned some time in a high-class restaurant and then, not having been utilised, are sold at a discount to the owner of a cheap restaurant, where they may be kept for some considerable time longer before they are cooked, their condition is far from offering that security to health which they possessed when first purchased. It is now actually proposed to organise a service of inspectors to control and watch the kitchens &c. of restaurants. If resistance is offered to inspection and the taking of samples prevented, a fine of £2 to £3 can be inflicted; and if within the following two years the offence is repeated a fine of £20 can be inflicted, with a term of imprisonment of from eight days to two months. The last clause of the Act is also an innovation and important in its way. It states in Article 8: "Every two years the Government shall present to the Chambers a report of measures it has taken to ensure the execution of this law and the effects that have resulted therefrom." This last clause is a prudent precaution to prevent the law remaining a dead letter. This Act is known as the Law of Aug. 4th, 1890.

The *Moniteur Belge* of Dec. 17th, 1890, contains a report to the King by the Minister of Agriculture, Industry and Public Works, who is the highest sanitary authority in Belgium. This report, dealing with the application of the above law, comments upon the difficulties arising from the trade in margarine, the use of saccharin, of colouring materials and of dangerous utensils and substances for packing, cooking and preserving food and drink. M. Léon de Bruyn, the Minister of Agriculture, in his report, remarks that "it cannot be said public health suffers, for margarine is not in itself an injurious alimentary substance; but the material interests of the consumers suffer, since they pay the price for natural butter and receive in exchange only butter mixed with grease of inferior value. From this it results that our agriculturists also suffer serious injury, for the farmers find that one of their principal products is driven out of the markets by a disloyal competition."

In the same way, with regard to saccharin, though this may not be a poisonous substance, it is a fraud on the public to sell sweets, pastry &c. apparently made with sugar when in reality they are sweetened only with saccharin. In response to this report another law or decree, bearing the date of Dec. 10th, 1890, was signed by the King. This law defines margarine as any sort of butter which has not been manufactured exclusively with milk. Then there follows a stipulation similar to the English Margarine Act, by which all margarine offered for sale must be labelled very distinctly, both in Flemish and in French, with the word "margarine." All cases or barrels containing margarine must also be inscribed with the name and address of the manufacturer. On all bills of lading, invoices &c. the denomination "margarine" must be employed. The same penalties as those mentioned above as the punishment for offering resistance to inspectors apply to any neglect in the observance of those regulations governing the margarine trade.

Another decree, bearing the same date, quotes the opinion of the Royal Academy of Medicine:—"Saccharin is not an alimentary substance, consequently it does not possess for the consumer the useful properties of sugar. It is necessary that the manufacturer or tradesman in substances sweetened with saccharin should inform his customers that he has employed this substance."

On the strength of this opinion the decree orders that all articles—beer, pastry, sweets, liquors, syrups, jams, chocolate &c.—sweetened with saccharin or any similar substance shall bear a large label indicating the fact. That similar announcements shall be displayed on the shops and counters where such objects are sold; and, in fact, the same measures are taken and penalties enforced against the substitution of saccharin for sugar as are enacted to prevent margarine being sold instead of butter. Then follows a third decree by which the employment of any injurious colouring matter in the preparation of articles of food is absolutely forbidden; and all manufacturers selling coloured articles of food, liquors, sweets &c. must affix to such articles their names and addresses. Finally, a fourth decree, also bearing the date of Dec. 10th, 1890, forbids the employment of any utensil, vase, coloured paper &c. in contact with any edible substance if in any way likely to poison such substance. Article 2 states that "it shall be considered as notably harmful and injurious to health and as opposed to the present decree to employ lead, zinc, alloys, soldering, enamels containing these metals, or arsenic, antimony and its compounds, or poisonous colours." Exception is made in the case of tin boxes used for preserves if the soldering is done externally and if the alloy does not exceed 10 per cent. of lead. All apparatus used for cooking purposes, such as metallic and enamelled saucepans &c., must bear in large, ineffaceable characters the name and address of the manufacturer, and it is absolutely forbidden to sell any such utensil if it is made with toxic or poisonous metals &c.

The next law to be noticed deals with the trade in meat. It was published in the *Moniteur Belge* of Feb. 11th, 1891, and is known as the Law of Feb. 9th, 1891. It establishes special enactments to regulate the slaughtering of animals and the trade in meat and poultry. All animals, including pigs, destined to provide butcher's meat must be examined after they are slaughtered by an expert inspector nominated by the communal administration, or, in default, by the Government. Veterinary surgeons are to be selected in preference, but in districts where the services of such qualified persons are not available the expert inspector who is not a veterinary surgeon must call in a veterinary surgeon in all but certain specified cases. Local authorities may also decide that animals shall be examined before as well as after they are slaughtered. A slaughtered animal must be examined not later than twelve hours after its death in summer and twenty-four hours in winter. If the flesh of the animal is unwholesome a written certificate must be given to this effect. If the meat is wholesome various parts of the carcass must be stamped by the inspector. This practice, prevalent in France as well as in Belgium, affords a good and practical guarantee to the public. The purchaser on entering a butcher's shop has only to see if the meat bears the inspector's stamp. The purchaser then knows that the meat has been examined by an impartial and competent authority. When, on the contrary, the meat is condemned, no stamp is affixed, and it must at once be given over to those entrusted by the local authority with the duty of destroying such substances. But if the owner of the meat disputes the verdict of the inspector, he may call in a veterinary surgeon and have a counter-examination. In case of disagreement between the two experts a third expert shall be appointed by the mayor of the locality to decide the matter. The fees and cost of such counter-examination are to be paid by the parties who are ultimately proved to be in the wrong. No cattle are to be slaughtered outside the slaughter-house, except in cases where a horse, mule or donkey has met with an accident that renders its conveyance to the slaughter-house difficult. For horseflesh the inspector shall use a special stamp with the word "horse" distinctly engraved upon it. All meats imported from abroad must come in entire carcasses or half carcasses, but with the lungs adhering. Such foreign meats must be examined and stamped by a veterinary surgeon before they can be sold. A record must be kept and produced whenever required stating who sends and who is to receive the meat in question; and, when such meat is sent from one district to another, the local

authorities may again examine the meat &c. before they allow it to be sold.

A Royal Decree, bearing the date of Feb. 28th, 1891, further elaborates and strengthens the laws mentioned above. The chief purport of this decree is to indicate in a more precise manner what precautions are to be taken to prevent the substitution, the subtraction or addition of some foreign matter to the specimens seized for analysis. The tradesman, by this decree, is allowed to affix his own mark or seal on the sample seized. In the same manner, whenever it is possible, the tradesman may demand that a third sample should be left in his own possession. It is important to note that it is distinctly stated that this shall be done only where possible. There are some things that cannot be divided into three portions, and because such subdivision has not been possible magistrates, in England at least, have refused to convict. Once the sample has been brought to the laboratory the work of the inspector is terminated. The director of the laboratory will proceed to make the analysis, but he will not know whence the sample came. It must only bear a sign, a number by which it can be recognised, and not the name of the person from whom it has been taken. Thus the analyst will escape all accusation of partiality. The articles seized for examination are to be paid for by the local authority if they prove to be unadulterated.

On Feb. 25th, 1891, the Minister of Agriculture sent a circular to the local authorities pointing out that the Government preferred leaving to each locality the organisation of the inspection of meat, unless this duty was neglected, in which case the Government would interfere. The Minister urges that the cost of inspection should be very moderate. In communal or public slaughter-houses the cost, including the inspector's fee, varies from 5*d.* to 1*s.* 3*d.* per 100 kilogrammes of meat. Calculated per head, the following are the maximum and minimum tariffs: For a horse, from 1*s.* to 4*s.*; a bull, 10*d.* to 4*s.* 10*d.*; a bullock, 10*d.* to 3*s.* 6*d.*; a cow, 10*d.* to 2*s.* 6*d.*; a heifer, 10*d.* to 2*s.*; calves, 5*d.* to 10*d.*; pigs or sheep, 5*d.* to 1*s.* 3*d.*; lambs, goats, sucking pigs, 2*d.* to 5*d.* The local authorities must submit their tariffs to the provincial authorities, and these will be sanctioned by the king for a period of five years.

On the 15th of September, 1891, there was a Ministerial circular issued, giving model forms of certificates which veterinary surgeons are to fill up when they inspect meat; and another circular followed on the 26th September, giving advice as to the best methods of destroying condemned meat. On the 10th of January, 1892, and on the 4th of March further circulars followed. These deal more particularly with the internal administration of slaughter-houses, and opportunities of referring to them will occur when describing the public slaughter-houses of Brussels.

Brussels.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Recent Case of Hemorrhagic Small-pox in Newcastle.*

It is only right that I should, in the first place in this letter, inform you that at a recent meeting of the Sanitary Committee of the Newcastle Corporation, at which reference was made to the circular of Dr. Whamond of Jarrow criticising the action of our city officer of health with respect to his statements about the recent case of small-pox, it was resolved "that after hearing the allegations contained in the circular, and seeing the certificate given by Dr. Armstrong, the committee were unanimously of opinion that the statement of Dr. Whamond was not correct." There is evidently some mistake in this matter.

### *A New Infirmary for Newcastle.*

The infirmary question has become rather complicated. A meeting was held on Monday night last, presided over by the Mayor, to reconsider the decision come to at a public meeting held in June last at the Guildhall, "that a new infirmary be built upon the present site." The meeting was also one for the promotion of the building of a new infirmary wing in memory of the late Dr. Bunce. The feeling of the meeting was best expressed by the motion of Professor Philipson, which was unanimously accepted—namely, "that having recognised that a difference of opinion exists in the public mind with regard to the site of the new infirmary the whole question be referred to a committee

representative of the infirmary and the general public." At the same time it is felt here that the sooner the public mind can come to a decided opinion on the matter the better it will be for the public and for the general interests of the infirmary.

#### *Sunderland.*

The Heatherdene Convalescent Home, which has been acquired for the Sunderland Infirmary, was opened at Harrogate last Thursday by the Mayoress of Sunderland, Mrs. Stansfield Richardson. The fund, which consisted of several thousand pounds, was the residue of that evoked by the wave of sympathy set in motion by the dreadful Victoria Hall disaster some nine years ago, when some 187 children were suffocated in descending the stairs on the occasion of a juvenile entertainment in the Victoria Hall. It has thus taken a long time to utilise this money, but at last it has been well spent in acquiring this building and grounds at a cost of about £3000. The home will be principally for children, and will be under the direction and management of the committee of the Sunderland Infirmary, and it will also be supported out of the funds of the infirmary.

#### *Miners' Testimonial to their Medical Officer.*

An interesting meeting took place in Eston, near Middlesbrough, last Monday, the occasion being to present Dr. W. Allan Smith, who is leaving the district, with a case of instruments costing over ten guineas. The amount was collected in small sums among the miners and their friends. Several of the miners were on the platform to congratulate the recipient of the testimonial.

Newcastle-on-Tyne, Sept. 21st.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Preparations for Cholera.*

A CIRCULAR LETTER has been issued to the medical men practising in the city of Edinburgh to the effect that amongst the precautions to be taken in view of a possible outbreak of cholera in the city it has been resolved by the Public Health Committee that cases of British cholera and choleraic diarrhoea be required to be notified, in addition to those diseases at present notifiable. The medical officer of health for the city, Dr. Littlejohn, has drawn up instructions for nurses who may be called upon to undertake charge of cholera patients. Last week, at the Queen Victoria Jubilee Nursing Institution, a lecture on Cholera was delivered to about sixty nurses by Dr. John Thomson.

#### *Leith and Cholera.*

Leith has been inspected and reported on by an official from the Board of Supervision. The report has only in part been made public, but so far as its terms are known it shows Leith to be neither well protected against cholera nor fully alive to the critical position she occupies. She has no compulsory notification of disease and she has no infectious diseases hospital. The authorities have taken one wise step in giving the local medical officer an assistant to help in the inspection of ships arriving at the port, and Dr. Purvis has been appointed to attend to this important measure.

#### *The Annual Report of the Scottish Commissioners in Lunacy.*

The thirty-fourth annual report by this Commission for the year 1891 is now in print. On Jan. 1st 1892, there were 12,799 insane persons in Scotland, of whom 10,770 were maintained by the parochial rates, 1972 from private sources and 57 at the expense of the State. As regards the distribution of patients amongst the various institutions, there are no noteworthy points when compared with the preceding year. During the year there was an increase of registered lunatics to the number of 189, 165 of whom were paupers and 24 private patients. The number of persons admitted as voluntary patients has increased, and the Commissioners regard favourably the provision for such cases. The recoveries per cent. of admissions for the year are in Royal and district asylums 35, in private asylums 28, in parochial asylums 42 and in lunatic wards of poorhouses 13. The number of deaths for the year was 152, and the percentage mortality was 9.0 in private patients and 9.6 in paupers. The Commissioners recommend the judicious extension of the provision for allowing patients out on probation. There continues to be a large change amongst asylum attendants, and this, as pointed out in the report, is not favourable to the interests of the patients. There were only 117 accidents

reported during the year, and of these only 11 proved fatal. The Commissioners whose duty it is to visit lunatics accommodated in private dwellings continue to report very favourably on the system. Dr. Fraser says, after fourteen years' experience, that his work has led him "to appreciate the happiness which may accompany humble surroundings, to form a high opinion of the intelligence, integrity and kindness which are to be found amongst the peasantry, and to satisfy myself that, when reasonable care is taken in the selection of patients and of guardians, a large number of the pauper insane who are harmless and incurable can be more suitably provided for in private dwellings than in any other way." The merits claimed for the system are: "(1) home life with its domestic surroundings and interests; (2) individualisation; (3) liberty and contentment; (4) opportunities for remunerative employment or for becoming self-supporting; and these are obtained in conditions favourable to physical well-being and to mental health." The report deals at considerable length with the increased recognition of the importance of hospital accommodation in asylums, and favours the arrangements being made in the new asylums for hospital accommodation for a third of their inmates. The idea in this comparatively new departure is that every patient requiring exceptional treatment, however temporary, should be an inmate of the hospital so long as exceptional treatment is needed. The provision made in the Royal asylums for the reception of the poorer classes of private patients is favourably referred to. As regards the daily cost to a county of its paupers, the Board gives 1s. 1½d. as the lowest and 1s. 9½d. as the highest when they are in asylums, it being lower in poorhouses and private dwellings. Since 1858 there has been an increase in the number of lunatics from 5824 to 12,799. The causes of this increase are discussed at some length, and the Commissioners think that a great variety of causes have co-operated to bring this about, one of which is "the widening of medicine and public opinion as to the degree of mental unsoundness which may be certified to be lunacy." The Commissioners further consider that there is no evidence that any considerable contribution to the increasing mass of lunacy has as yet been made from the wealthier strata of society, from which certified private patients are drawn. The report concludes by various suggestions as to the ways in which the burden of pauper lunacy may be diminished in amount or at least checked in growth.

#### *Health of Aberdeen.*

The medical officer's report for August shows that the death-rate for that month was 15.84 per 1000 per annum, as against 15.47 in July. The average for August during the past ten years was 15.48. There were 63 cases of measles reported during the month, as compared with 116 in the preceding month. The number of cases of scarlet fever during the month was 86, as against 65 in July; whooping-cough 45, as against 82; diphtheria 11, as against 8; typhoid fever 7, as against 6; and typhus fever 4 (one fatal), as against 6. The daily average number of patients in the City Hospital (Fever) was 94.35.

#### *Refusal of Site for the Deer Fever Hospital.*

At a meeting of the Deer District Council of the Aberdeen County Council the chairman announced that the hospital committee had met at Strichen and had agreed as to the construction of the hospital; they had selected an architect and fixed on an excellent site near the Parsonage, Strichen. The proprietor, however, had absolutely refused to allow an infectious hospital in or near the village of Strichen. In these circumstances matters had come to a standstill. Another attempt would be made to obtain the site, and if it were unsuccessful a position might be obtained on an adjacent estate.

#### *Glasgow University Chair of Surgery.*

The appointment of Dr. William Macewen of the Royal Infirmary to this chair, in succession to the late Sir George H. B. Macleod, has given unmixed satisfaction in Glasgow, in lay as well as in professional circles. It is seldom that a State dispenser of patronage has so easy a task as Sir George Trevelyan had in this case, for from the first Dr. Macewen's claims to the post were unquestioned. The University is to be congratulated on having found a teacher who will shed lustre on his *alma mater* and maintain worthily the best traditions of the chair of Surgery.

#### *Medical Education of Women.*

The managers of the Glasgow Royal Infirmary have, as was expected, rescinded their former resolution to exclude women

as students from the wards of the Infirmary, and have decided to afford to female students facilities for clinical and pathological instruction separately from male students. It remains to be seen how this will be received by the fifty-three male students who recently sent in an ultimatum demanding the exclusion of ladies, under threat of withdrawal to some other school. The governors of St. Mungo's College and the directors of the Infirmary are in an awkward predicament. It is really a pity that they departed from their first resolution to exclude ladies. It is quite clear and universally admitted that it is neither practicable nor desirable to carry on the clinical teaching of both sexes in mixed classes; it is also absurd to suppose that the clinical education of women can be satisfactorily carried on in sets of wards set apart for them. To have a thorough, all-round education women must have the same privileges as men—that is, they must have the free run of an entire hospital in all its departments. All the cases suitable and valuable for purposes of instruction cannot be seen in one or two "sets" of wards. The difficulty experienced by Queen Margaret's College students in keeping up their clinical study in an institution so far removed from the scene of their systematic and theoretical work will continue as great as heretofore. The only sensible and permanent solution of the trouble is the adoption of some such scheme as that suggested a few weeks ago in these columns—namely, the amalgamation of the Medical Faculty of Queen Margaret's College with the Muirhead Trust, and the appropriation of their combined funds to the building and endowment of a school near the Victoria Infirmary, to which the entire medical faculty of Queen Margaret's College might be transferred, a proper arrangement having first of all been come to with the governors of the Victoria Infirmary, securing that hospital for the clinical instruction of women exclusively.

#### *Notification of Diarrheal Diseases.*

The Glasgow local authority has issued an order to the effect that British cholera and choleraic diarrhoea are to be regarded as diseases which must be notified on the usual infectious diseases forms, this order to remain in force till the end of November next. This is doubtless in view of the possible appearance of cholera amongst us. Meantime the city remains clear of the disease, the two patients (Russian Jews) who suffered from it a week or two ago having been dismissed well from the fever hospital. The passengers who were associated with these patients were isolated, and all of them escaped the disease.

Sept. 20th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Suspected Case of Cholera at Queenstown.*

ON arrival of the Eppleton steamer at Queenstown on Sunday last considerable excitement was created when it was stated that a case of choleraic diarrhoea was on board. The vessel was placed in quarantine, and Dr. Hodges, medical officer for the port of Cork, visited the steamer and found the patient was suffering from choleraic symptoms not of a dangerous character. The case was isolated and removed on the following day to the Queenstown Intercoasting Hospital.

#### *Outbreak of Fever in Kilkenny.*

The county gaol has been closed by sealed order of the Local Government Board in consequence of the epidemic of fever alleged to prevail in the prison. Surg.-Lieut.-Col. Magee has recommended the closing of the James-street police station, inasmuch as several constables have contracted fever and have been removed to the fever hospital—a suggestion which has been adopted by the Urban Sanitary Board.

#### *Kerry Lunatic Asylum.*

The monthly meeting of the board of governors was held last week, presided over by the Earl of Kenmare. The governors had under consideration the appointment of an assistant resident surgeon, as recommended by the Privy Council, at a salary of £100 a year, with rations &c. amounting to about £80. After some discussion the following was adopted: "That the medical superintendent apply, on behalf of the Board, to the Privy Council as to whether, by the new rules 46 and 47, the appointment of a second medical officer is mandatory on the Board before a vacancy occurs in the office of visiting physician."

#### *Suggestions for the Early Treatment of Cholera.*

The Royal College of Surgeons in Ireland have furnished, amongst others, the following suggestions for the use of the public as to the treatment of early or suspicious symptoms when cholera is threatened or epidemic: The College advise no alteration in the habits of living where these have previously been moderate and regular. All excess should be carefully avoided, especially in the use of alcoholic drinks, as it is well known that the intemperate most certainly fall victims to the most fatal type of cholera as of other epidemic diseases. All debilitating causes should be carefully avoided, such as excessive and long-continued fatigue and fasting, overcrowding, exposure to moist, stagnant air, or to air loaded with organic effluvia. During the prevalence of cholera any person affected by any of the following complaints should at once obtain medical advice: (1) Diarrhoea or looseness of the bowels; (2) vomiting or sickness of stomach; (3) pains in the stomach or bowels; (4) pains or cramps in the legs. While such aid is being obtained the patient should be put to bed immediately and warmth should be encouraged by the application of heat to the body and limbs. Also, in case of sickness of stomach, a large mustard poultice should be applied over the abdomen. In the event of cramps ensuing diligent rubbing of the limbs should be resorted to.

Sept. 21st.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *A New Treatment of Oophoro-salpingitis.*

EVERY practitioner is aware of the unsatisfactory means at our disposal (short of abdominal section) for the treatment of the above condition. At the best, in most cases, the patient is relieved of the acute symptoms, leaving the disease in a chronic stage for a weary length of time. Dr. Auvar of Paris announces the successful treatment of two cases by means of intermittent pressure, which he applies in the following manner: A Gariel's air pessary is introduced into the vagina and a bag filled with shot is simultaneously maintained over the site of the abdominal induration. The weight of the shot is gradually increased from 750 to 1500 grammes and the bag is kept applied for from two to three hours every morning and evening. During the interval (the pessary being also removed) hot vaginal injections and a cold enema are administered. In one case quoted, where a very tender swelling the size of a hen's egg could be felt in the right broad ligament, the tumefaction had completely disappeared after ten days of this treatment, and in three weeks the woman was well. In another case of oophoro-salpingitis induced by intra-uterine exploration, internal and external intermittent pressure, by means of a Gariel pessary and a shot-bag weighing one kilogramme, practised once daily for an hour and a half, relieved all the suffering and greatly reduced the swelling.

#### *Toxicity of the Serum in Cases of Eclampsia.*

Puerperal convulsions are now generally regarded as the outcome of auto-intoxication. Bouchard has demonstrated the lessened toxicity of the urine passed, often only in diminished quantity, by such patients. It occurred to Dr. Chambrelent of Paris to supplement these observations of Bouchard by examining the serum of the blood drawn during the attacks. Taking as a basis the fact already established by Rummo that 10 cubic centimetres of healthy human serum is the quantity necessary to kill one kilogramme of rabbit—i.e., 10 cc. to each kilogramme of body-weight—he found that this degree of toxicity was greatly exceeded when eclamptic serum was employed, and that there was a constant relation between the poisonous properties of the serum and the gravity of the case. Six patients were the subjects of the above experiments at the Obstetric Clinic of the Paris Faculty.

Paris, Sept. 21st.

## NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

#### *First Appearance of Cholera.*

THE steamship *Moravia* left Hamburg on Aug. 18th (the day on which cholera was discovered in that city) with 358 emigrant passengers. Cholera appeared on the first day out and con-

tinued to prevail until the ship arrived at this port on the 31st of the same month. The total number of deaths was twenty-two. The vessel is in quarantine, the sick being transferred to one of the islands and the healthy to another. Four days later the *Normannia* and *Rugia* arrived, each having cases of cholera on board, and they were detained in quarantine. New cases are occurring daily at quarantine and all of the vessels are now detained. The result is that the station will soon be overcrowded if the policy of detention be pursued. From Sept. 1st to the 12th no less than 15,000 immigrants were expected to land in the harbour of New York.

#### *Proclamation of Quarantine by the President.*

One of the most extraordinary events in the history of quarantine in this country is the proclamation of a twenty days' quarantine of all vessels from foreign ports carrying immigrants, approved by, and issued under the sanction of, the President. This circular, so called, is the more remarkable because the quarantines at the immigrant ports are all under the exclusive control of the States in which they are situated. Again, an absolute rule of twenty days' detention of all vessels from foreign ports carrying immigrants is an anomaly in our quarantine system, and is, in fact, a return to the practice of the middle ages. It ignores all that we have learned of sanitary disinfection and cleansing, and makes time the chief element in eliminating an infectious disease from ships, persons and baggage. Under this proclamation our quarantines, instead of being aids to facilitate travel and commerce, will become what they formerly were—most annoying and unnecessary obstructions. Indeed, this circular, approved by the President and carrying the weight of his high authority, is very properly introduced as "quarantine restrictions upon immigrations to aid in the prevention of the introduction of cholera into the United States." If carried into effect it will certainly result in stopping immigration, or of overpopulating our quarantine stations with healthy persons.

#### *Quarantine at the Port of New York.*

Fortunately the port of New York, the great entrepôt of immigrants, has a thoroughly organised and equipped quarantine station which is exclusively under the jurisdiction of the State. The laws of this State relating to quarantine have been perfected by experienced medical health officers until they illustrate the most advanced views of sanitary officers. The quarantine station is located on two artificial islands in the harbour, one of which is devoted to the sick and the other to the healthy. Disinfection of baggage and vessels is by superheated steam. Every needed provision is made for the care of the sick, for observation of the healthy and for the disinfection of baggage and vessels. The health officer is clothed with ample powers and at his discretion the entire establishment is managed. He may detain vessels, persons and things one day or one year. As a result of this wise arrangement our quarantine has been regarded by the travelling public, by steamship companies and by commercial men as an aid rather than an obstruction. It has also proved most efficacious in preventing the introduction of foreign pestilences into this country.

#### *General Preparations for Cholera.*

The country was never so well prepared for an epidemic of cholera. Health organisations now exist in every State and municipality and the authorities are unusually well equipped for the work in hand. On every side we hear the note of preparation. Sanitary cleansing extends to every city, town and family. The general public is in a high state of alarm owing to the enormous amount of newspaper reporting, but this alarm leads to precautionary measures and tends to make the people receptive of the advice of health authorities.

New York, Sept. 6th.

## EGYPT.

(FROM OUR OWN CORRESPONDENT.)

#### *Fungous Foot of India.*

SEVEN cases of this tumour, now believed to be actinomycosis, have been seen at Kasr-el-Aini Hospital and were recognised by Mr. Milton from published descriptions of the Madura foot. The first case was that of a young girl seen in 1888, but the remaining six have all been young men, either Egyptians or negroes. The disease has not yet been met with in any other part of the human body or in animals. No light can yet be thrown upon the cause of the disease and only one case has yet shown the black variety of mycetoma.

To the naked eye and under the microscope the Egyptian cases exactly resemble the disease as seen in India.

#### *Resection of Intestine.*

This operation has lately been done here for the first time by Mr. Milton. An Italian woman was operated upon some months ago in a European hospital for strangulated hernia. The gut was gangrenous and an artificial anus was made in the groin and the patient discharged cured. However, she lost weight, and it was easily proved by watching the new anus that it existed too high up in the small intestine to allow complete digestion of eggs and other simple food. After some successful experiments upon dogs the patient's abdomen was opened and the severed intestine clamped, pared freely and sewn together upon a gelatine tube some two inches long.

#### *Alexandria Native Hospital.*

Beyond tents in the desert no accommodation has ever existed in Egypt for infectious diseases, but now a hut for six patients has been constructed in the grounds of the Alexandria Hospital to accommodate such diseases as small-pox, relapsing fever and leprosy. A disinfecting machine, specially modified by Professor Koch, has also been purchased by the municipality. As a proof of the good work done by the hospital staff the number of European patients is constantly increasing, in spite of the presence of several European hospitals, and the 170 beds are always full, even in winter, when the public health is more satisfactory. Natives come from the surrounding towns and villages for treatment. The garden is now very well laid out, and the produce, consisting of peaches, apples, strawberries, mulberries, grapes and figs, is jealously kept for the patients.

#### *Hotel Accommodation in Cairo.*

For the last ten years every winter has seen either some new hotel opened or some existing ones enlarged, and yet for two months at the height of the season Cairo has always seemed over-full. But though there is no lack in the number of visitors, it would appear that enough accommodation has now been provided. Shepheard's Hotel has been completely rebuilt at a cost of £65,000, of which £4000 was expended on sanitary fittings alone. This dry climate permits building to be carried on very rapidly and without any apparent drawback. On April 27th, 1891, they commenced to demolish the old caravanserai so well known to travellers, and the new building was completed between June 7th and Oct. 1st, so that guests were received during October. This celerity was partly aided by electric light and partly by a clause in the contract which fined the builders £70 every day after Sept. 30th. The sanitary arrangements were carried out by an English firm, who employed fifteen English plumbers to fix forty-two v.c.'s, twenty fixed baths, ten slop sinks, two hot-water circulating systems, five urinals and lavatories, and, until the drainage scheme for the town is completed, five cemented cesspools, away from the house, which are emptied by pneumatic tubes. Lifts have been introduced for the first time for passengers, luggage and servants, electric lighting throughout, special ladders for fish, vegetables and poultry; twelve water tanks on the roof in case of fire, and a dozen of Pasteur's filters for all drinking water. Seven European cooks and ten chambermaids are among the 192 servants provided for some 350 or 400 guests. The proprietors have spared no pains to render the new building healthy, and fully deserve the honour of being the first hotel possessed of a sanitary certificate in this country. To prevent all ground damp, some five feet of hydraulic concrete has been used for foundations, besides an asphaltic damp course, and the whole of the garden soil to three feet deep has been changed for clean mould from the bed of the river. The Continental Hotel is having all its sanitary arrangements perfected, and, in addition to a lift and dancing hall, has provided three hansom cabs for the comfort of the guests. The same management is now rebuilding on a new site the Hôtel d'Angleterre, with every comfort for those English visitors who wish to avoid the noise and expense of larger buildings.

#### *Heliouan Hotel.*

The sulphur springs in the desert near Cairo were lately opened up to the public by a new railway line, the owners of which have now started a large and luxurious hotel of two storeys with some 85 rooms for 100 guests. In order to rival existing hotels in Cairo and at the Pyramids, there are electric lighting, English beds and sanitary fittings, lawn tennis, croquet &c. In a detached casino there are reading and billiard rooms, and occasionally balls and concerts are given. Cairo, Sept. 1892.

## NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

*Counter-prescribing.*

AT the last annual meeting of the New Zealand Medical Association the following motion, among many others, was brought forward: "That in the opinion of the New Zealand Medical Association it is undesirable for the members practising in the four large centres in the colony to dispense and send out medicine from their houses, except in cases of emergency. Further, that in the opinion of the Association such a practice is not necessary in the interests of patients, and that its tendency is to lower rather than to raise the status of the profession in the colony." Counter-prescribing is very plentiful in New Zealand. As a matter of fact, medical men here are, in some of the leading centres, compelled to prescribe and dispense their own medicines for their own protection. Now what has brought this state of things about, and how is it to be remedied? Let us look at it from the chemist's point of view. He says he is almost compelled to prescribe over the counter, because as a business man he is called upon to cater for the wants of the public, and because certain sections of the public will not call in a medical man until the patient appears to be *in extremis*. Again, he has an active antagonist in the shape of the herbalist, who is ready and willing to prescribe and dispense for any and every complaint, and there is no law to prevent the quack, who has received no training and passed no examinations, from doing so. Under these circumstances the chemist states that if he refused to prescribe and referred his customer to a physician, he would in all probability find his customer emerging from the herbalist's with a supply of medicine. It can be laid down as a maxim that the more ignorant the quack the more he endeavours to gull his customers. It is a fact that some five years ago there was exposed for sale in a herbalist's window in a leading thoroughfare in a principal town in New Zealand a bottle labelled "Medesin' for Sekret diseases." Within the last few months another herbalist dubbed himself M.B., and explained that it represented "Medical Botanist." The herbalist is ignored. Further, it is stated that medical men by prescribing and dispensing their own medicines compel chemists to prescribe, since if they did not do so they would only have the sale of the patent and proprietary medicines as a means of livelihood to fall back upon. The only means of remedying the present very unsatisfactory state of things is to pass an Act introducing the German mode of conducting medicine and pharmacy; but such an Act is not likely to be brought forward in this colony at the present time. I feel that dispensing is degrading to the profession, for in the majority of instances the patient is under the impression that it is the medicine he is buying from you and not your advice and consideration of his case. In a district where medical men reside who do not dispense their own prescriptions there is no possible excuse for a chemist to act as a consultant. I should like to see the New Zealand Legislature take the initiative and adopt some such general principles as those which seem to work so well in Germany.

*Leprosy among the Maories.*

A very interesting article from the pen of Dr. Martin of Wellington appears in the July number of the *New Zealand Medical Journal*. It describes two undoubted cases of leprosy, and does much to decide the many contradictory opinions which exist as to the prevalence of the disease among the Maories. Two cases are described: those of a full-blooded male Maori, aged about forty, and his nephew, aged about fifteen. The elder patient was, according to the natives, supposed to have been bewitched by a Maori who had acquired this evil power from a "tohunga" who was proficient in the art and who lived on the borders of the Hauraki gulf. The cause of his exercising this power was due to a quarrel, and they state that the malady soon developed—in fact, would have one believe almost immediately. The onset was numbness of the extremities, ending in complete anaesthesia with coincidence of lumps through the skin. Dr. Martin describes in detail the present condition of these two lepers, which goes to show that this disease exists among the Maories in the immediate vicinity of the hot lakes. The family history of these cases shows that neither in the parents nor in their ancestors had the disease appeared. Case 1 had lost two brothers from natural causes; one brother and a sister (mother of Case 2) died lepers, while

one sister is alive and well at Wanganui. The Maories call the disease "ngeri-ngeri"; they state that the illness has been handed down by tradition and are rooted to the conviction that it is caused by witchcraft. The malady in the case of the boy arose, according to the natives, from his partaking of some food from a lying-in woman during the time prohibited by Maori law. Another fertile source of the complaint is the act of urination over graves, which is looked upon as a terrible breach of Maori observance. Dr. Martin ends his very able article by the remark "that leprosy in the true form exists there can be no doubt, but it is to a very limited extent and very little would be required to stamp out the disease now; but what with drink and debauchery matters may assume greater proportions and call forth greater exertions for its extirpation."

## Obituary.

ALFRED LEACH, M.B. ABERD., M.R.C.P. EDIN.

THE death of Dr. Alfred Leach may be looked upon as another instance of a member of our profession sacrificing his life in the performance of duty. The immediate cause of his death was a severe attack of English cholera, which commenced on Sept. 11th and ended fatally early on the morning of Sept. 14th. The exciting cause is believed to have been due to the inhalation of sewer air while investigating the cause of an outbreak of diphtheria in the house of one of his patients. It was two days after this that he first began to complain of diarrhoea and sickness. Thinking too lightly of these symptoms he would not have any professional aid till cramps began to appear thirty hours after the onset of the disease. The cramps were soon followed by symptoms of collapse, a feeble, intermittent, thready pulse, cold hands, cold perspiration, and sunken features. The diarrhoea and sickness were checked, stimulants and nourishment were taken and were retained in considerable quantities. Yet the state of semi-collapse never yielded, and despite the constant attention of his medical friends, Dr. Dewar and Dr. Ewart, and the assistance of Mr. Pearce and Mr. O'Donnell, the case terminated fatally twelve hours after the cessation of the sickness. The poison, acting on a constitution never robust, caused several attacks of dyspnoea, accompanied by loss of vision and excitement. The inhalation of oxygen greatly relieved these symptoms. One fact worthy of notice is that, in spite of the weak, thready pulse, which often could not be counted (though after the inhalation of the oxygen it was steadied and strengthened), death commenced at the lungs, for the heart was beating when respiration had ceased. In disposition Dr. Leach was gentle and considerate, and in all his dealings most honourable. He had no professional jealousy or meanness, but always showed scrupulous regard for the rights and the feelings of his *confrères*. In consequence he was a great favourite with his professional brethren and with his patients. He will be missed by many friends, rich as well as poor. Although Dr. Leach did not contribute much to medical literature he was possessed of fine literary qualities, and during his student days in Aberdeen he published a little book on the "Letter H" and one of poems called "The Quadrangle by Moonlight." In those days the Muse was more to him than Medicine. He was a good linguist, speaking Arabic, Italian and French. He has held for several years the post of physician to the Italian Hospital, and was only thirty-five years of age at the time of his death.

## PAOLO FIORDISPINI.

Few of the many English-speaking physicians who have visited Rome but must have made a pilgrimage to the great lunatic asylum in the Trastevere and formed the acquaintance of its highly accomplished and efficient superintendent, Dr. Paolo Fiordispini. In that institution and under his guidance they must have noted, as they passed from ward to ward, the admirable surveillance exercised over the patients, the almost total absence of all mechanical restraint and the general air of tidiness, cheerfulness and order that prevailed. If, after having made the round of the vast asylum, they accompanied their courteous host to the neighbouring heights

of the Janiculum, where villas are established amid charmingly rural surroundings for the convalescents, they must have found in the new series of arrangements for the treatment and comfort of the inmates enhanced evidence of the forethought, the knowledge and the skill which presided over every detail of the management; and on taking leave of their painstaking and experienced guide they seldom failed to receive from him, along with his hearty "a rivederla," a copy of his latest report, in which they might read an excellent digest of the *movimento* of the institution within its last statistical period, and derive the pleasure that a lucid and at the same time rigidly scientific narrative of disease in its incidence, its progress, its treatment and its issue invariably confers. To all such and to a large circle of the profession, particularly in its medico-psychological department, the news of Dr. Fiordispini's death will bring sincere regret. A Roman by birth and education, he was born in 1834 and early attracted the notice of his teachers by his quiet energy, his unobtrusive intelligence, his high standard of worth, intellectual and moral, and his great suavity of address. The study of the obscurer diseases of mind and brain had always a special fascination for him, and he was signally aided in its prosecution by one of his predecessors in office, Pope Pius IX.'s body physician, who recalled the best traditions of Valsalva and Lancisi, Dr. Viale-Prelh. Comparatively early in life he won the object of his ambition—the superintendence of the great lunatic asylum in whose service he lived and died. The Manicomio in the Trastevere, situated in the Via della Lungara, at that picturesque bend of the Tiber where it shortly leaves the city to wind wearily through the melancholy and mysterious Campagna to the sea, owed much to Pius IX., under whose enlightened patronage it was one of the first asylums in Europe to dispense with the shackles, the strait waistcoat, the "bath of surprise" and the other antiquated instruments for the coercion of unruly patients. The Holy Father found in young Fiordispini an able and sympathetic interpreter of his wishes; one who by travel or correspondence had made himself acquainted with the best doctrine and practice to be found in Europe for the care and cure of the insane. Together, Pontiff and physician, they conferred and deliberated for years to improve the institution, and the successive additions to its resources and improvements in its working were embodied in those "Rendiconti Statistico-Clinici" which came to be anticipated with eagerness and read with pleasure and profit by the medico-psychologists of Europe. When in 1878 Pius IX. died, his successor Leo XIII. maintained the same friendly and even affectionate relations with Dr. Fiordispini, and again reforms and ameliorations in the institution were being steadily introduced when the health of their devoted adopter or promoter began to give way. Still he struggled on against advancing debility of bodily and even mental power till he had to retire to Castel Gandolfo, the summer residence of the Popes on the Alban hills, for rest and mountain air. Improvement was at first manifest, but the thirty years' continuous strain in superintending the vast Manicomio was not to be overcome. On the 29th ult. Dr. Paolo Fiordispini, at the comparatively early age of fifty-eight died surrounded by his family and sustained by the presence of friends, medical and ecclesiastical, professional and lay. His remains, in a coffin covered with wreaths from sympathisers far and near, were borne by the villagers of Castel Gandolfo to the neighbouring church of S. Thomas of Villanuova, which overhangs the beautiful Alban lake. A more elaborate funeral service has yet to be celebrated, at which many of the public, including colleagues in professional and civic office, members of learned bodies and "cavalieri," like himself, of the "Crown of Italy" and of other orders have signified their wish to attend.

THOMAS AITKEN, M.D. EDIN.

GREAT grief was occasioned in Inverness on Monday, the 12th inst., by the news of the death of Dr. Aitken, Physician and Superintendent of the District Lunatic Asylum, at the age of sixty. Dr. Aitken had not been for some time in robust health, but he was travelling on the Continent when he caught a chill and died suddenly of bronchitis. His high character and his long connexion with the northern asylums, extending over thirty years, gave this news a distressing effect. Dr. Aitken graduated at the University of Edinburgh in 1858, having written a thesis on General Paralysis of the Insane. He was not only a high authority on mental disease,

but a man of high general and literary culture. He was a member of the Landward School Board, Inverness. He was a botanist of some eminence, and had made a fine collection of the flora of the district, and contributed papers on the same to the Transactions of the Inverness Scientific Society. He was a genial and much-esteemed friend. In 1861 he married Miss Torrie, daughter of Dean Torrie of the Diocese of St. Andrew, and granddaughter of the late Bishop Torrie, Dr. Aitken was a native of Dumfries.

## Medical News.

**PRECAUTIONS AGAINST CHOLERA.**—It is stated that the Corporation of London have decided to make some very substantial and necessary additions to their hospital at Gravesend.

**DRAINAGE AND WATER SCHEME FOR HENLEY-IN-ARDEN.**—The Stratford-on-Avon Sanitary Authority have directed their clerk to authorise Mr. J. E. Wilcox, C.E., of Birmingham, to prepare a general drainage scheme for Henley-in-Arden.

**DEATH OF HOSPITAL NURSES IN PARIS.**—M. Laurent of the Municipal Council of Paris, is reported to have said that nurses and ward attendants are so badly paid that they can only be recruited from "saintly heroines and the scum of the population who cannot get other employment."

**YORKSHIRE COLLEGE.**—A residential hall for the convenience of students attending the above college is now on the point of completion. Its appointments appear to be very elaborate, and the structure will be known as Lyddon Hall.

**SURGEON-MAJOR LEES-HALL,** who worked so hard in the cause of ambulance in Colombo some three years ago, is now following up his work in Halifax, N.S. The police force have already two classes amongst them, and four other classes are being formed amongst the militia and firemen.

**DEATH OF DEPUTY SURGEON-GENERAL G. W. POWELL.**—An inquiry concerning the death of Deputy Surgeon-General G. W. Powell was held on the 19th inst. by Dr. Danford Thomas. The deceased gentleman died from a fall consequent on a false step made whilst looking in a shop window; but the necropsy showed disease of several organs of the body, and that death was due to syncope.

**NEW INFIRMARY, SOUTHPORT.**—It has been decided to invite the Mayor of the borough (Alderman G. A. Pilkington, M.R.C.S., who twenty-one years ago was the first house surgeon to the present infirmary) to lay the foundation stone of the new infirmary on Oct. 29th. The new building will cost upwards of £13,000, exclusive of the site, comprising five acres, which has been presented.

**FOOTBALL CASUALTIES.**—During a match on Saturday between the captains' teams of the Nuneaton Town Football Club a player sustained a fractured leg. On the same day a member of the Harrogate Football Club, aged twenty-three, in a match between the Harrogate and Stanningley teams, collided with another player and received injuries, from which he died on the following day; and on the same day, in a match at Pateley Bridge between the Local and the Harrogate St. John's Clubs, a player aged twenty-four fractured his clavicle and was removed to the Leeds Infirmary.

**CORONERS AND THEIR JURISDICTION.**—At the close of an inquest at Warrington on the 16th inst. on the body of a man who died from a fall at Knutsford-road, Mr. Brighouse, the county coroner, explained that he was there simply to prevent a scandal, and not because he thought he had any legal right to be amongst them, although he had no objection to meet a Cheshire jury. The Local Government Act was passed in 1888, and that was the Act of Parliament on which Mr. Yates, the Cheshire coroner, relied in support of his contention that he (Mr. Brighouse) ought to hold that inquest and not himself. Mr. H. C. Yates has explained that it was only recently he had been instructed by the clerk to the Cheshire County Council that Latchford had been transferred to Lancashire. He naturally concluded that the Lancashire County Council had communicated at the same time with Mr. Brighouse, their coroner, and he was therefore astonished that the report of the accident in Latchford should have been sent to him.

**SCARLET FEVER IN LEEDS AND OVERCROWDING.**—Great efforts are being made by the Corporation to extend the hospital accommodation in this borough. The Beckett-street Hospital has already 100 beds occupied.

**THE NEW FEVER HOSPITAL AT TOTTENHAM.**—Great exertions are being made to complete the erection of this hospital as rapidly as possible. On Monday 800 men were at work. The "huts" are 100ft. long by 25ft. wide and are made of boards lined in between with felt. The estimated cost is £40,000.

**THE TREATMENT OF "CASUALS."**—An order having been issued by the Local Government Board authorising boards of guardians to admit applicants to the casual wards to be discharged early next morning without performing any work, the Lambeth Board of Guardians have adopted a resolution the result of which is that the applicants will be discharged at 5 30 A.M. and food given to them before departure.

**NEW SEWERAGE WORKS AT WEYBRIDGE.**—The inhabitants of Bysfleet have held a meeting protesting against the new sewerage works for the parishes of Weybridge, Oatlands and Hersham. It was unanimously resolved to resist the scheme by every available means, on the ground that the proposed site in Oyster-lane would seriously affect all classes in the village for people would not care to live in the neighbourhood of a sewerage farm, while it was held that the flooding of the Wey would force the sewage backwards into the village and probably cause an epidemic.

**THE DANGERS OF IMPORTED CARPETS.**—At a meeting of the Kidderminster Town Council the chairman declared that the carpets imported from the East, and purchased for the adornment of fashionable homes, often contained the germs of infectious disease. The Government had prohibited the importation of rags from the East as calculated to spread cholera, and Eastern carpets ought to be similarly tabooed. It was well known in the trade that when bales of such carpets were opened, clouds of ill-smelling dust were emitted, and the men engaged in unpacking suffered from violent purging and vomiting.

**SOCIETY FOR PROMOTING UNIVERSITY REFORM.**—On Wednesday, the 28th inst., a public meeting will be held at the Memorial Hall, Farringdon-street, when resolutions to the following effect will be submitted:—1. That in the interests of middle-class education the Greek language be removed from the list of compulsory subjects for degrees at our national universities. 2. That the eighteen months' university teaching required for the B.A. degree be spread over two years instead of three as at present. 3. That reform is urgently needed in the governing body of our national universities, as the present predominating power of the Theological Faculty tends to obstruct proposals brought forward in the interests of other branches of study essential to modern times.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

**ANCRUM, G. WAYLAND, M.B., C.M., L.R.C.S., L.R.C.P. Edin. & Glasg.,** has been appointed Assistant House Surgeon to the General Infirmary and Eye Institution, Gloucester.

**BERRY, JAMES, B.S. Lond., F.R.C.S.,** has been appointed Surgical Registrar to St. Bartholomew's Hospital, vice C. B. Lockwood.

**BLUETT, JOHN, M.R.C.S.,** has been reappointed Medical Officer of Health for the Borough of Chesterfield.

**DIXON, W., M.B., C.M. Edin.,** has been appointed Medical Officer for the Second Hougham Sanitary District of the Dover Union.

**EATON, JAMES, M.R.C.S., L.M.,** has been appointed Medical Officer for the Spittlegate Sanitary District and the Workhouse of the Grantham Union.

**EDGE, FREDERICK, M.D., B.S., B.Sc. Lond., F.R.C.S. Eng.,** has been appointed Honorary Acting Gynaecological Surgeon to the Wolverhampton and District Hospital for Women.

**HEWITSON, C. C., M.R.C.S.,** has been appointed Medical Officer for the St. John's Sanitary District of the Weardale Union.

**HOLMAN, H. C., M.R.C.S.,** has been reappointed Medical Officer for the No. 2 Sanitary District of the Hallsham Union.

**HOSKINS, E., M.R.C.S.,** has been reappointed Medical Officer for the Little Eaton Sanitary District of the Shardlow Union.

**IRWIN, STEWART, M.B., B.Ch. Irel.,** has been appointed Medical Officer for the Almondsbury Sanitary District of the Thornbury Union.

**LOWNDS, H. A., L.R.C.P., L.R.C.S. Edin.,** has been appointed Medical Officer for the Workhouse of the Doncaster Union.

**MOON, D. S., L.R.C.P., L.R.C.S. Edin.,** has been appointed Honorary Consulting Surgeon to the Royal Infirmary, Dundee.

**NICKLIN, M., M.B., L.R.C.P. Lond., M.R.C.S.,** has been appointed Honorary Assistant Surgeon to the Wolverhampton and District Hospital for Women.

**SMITH, PATRICK A., M.B., C.M., F.F.P.S. Glasg.,** has been appointed Visiting Physician to St. Peter's Seminary, Bearsden.

**STONHAM, H. A., L.R.C.P. Lond., M.R.C.S.,** has been appointed Medical Officer for the Out-door Poor of the Stenney Union.

**WILSON, ARTHUR MARIUS, M.B., B.S., L.R.C.P., M.R.C.S.,** has been appointed Assistant Medical Officer of Health (tempora y) to the Port of Colchester, to inspect all incoming vessels.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement.*

**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist.** Salary 100 guineas per annum. (Applications to the Secretary, 24, Finsbury-circus, E.C.)

**CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon.** Honorarium £40 per annum, with board, lodging, and washing.

**HOLBORN UNION.—Resident Medical Officer of the Workhouse, Shepherdess-walk, City-road, N.** Salary £200 per annum (to include midwifery fees if called upon to act), with furnished residence, gas, coals and washing. £60 per annum required towards the cost of his rations. (Apply to the Clerk to the Guardians; Offices, Clerkenwell road, E.C.)

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.**

**HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY),** Soho-square, W.—Clinical Assistants.

**KENT AND CANTERBURY HOSPITAL.—Assistant House Surgeon.** Salary £50 a year, with board and lodging.

**LANCASHIRE COUNTY ASYLUM, Rainhill, near Liverpool.—Pathologist.** Salary £200 per annum, with furnished apartments, board, attendance, and washing.

**ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London, E.C.—House Physician for six months.** Salary at the rate of £40 per annum, with board and lodging.

**ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, &c., Henrietta-street, Covent-garden.—House Surgeon for six months.** Honorarium 25 guineas; board, lodging, and washing.

## Births, Marriages and Deaths.

### BIRTHS.

**DREW.**—On Sept. 16th, at Broad-street, Oxford, the wife of Arthur J. Drew, F.R.C.S., of a son.

**GARLICK.**—On Sept. 15th, at 3, Gordon-square, the wife of George Garlick, M.D., of a son.

**MARTIN.**—On June 24th, at Ootacamund, India, the wife of Brigade-Surgeon-Lieut.-Col. P. R. Martin, of a daughter.

**WARD-HUMPHREYS.**—On Sept. 18th, at Oriel Lodge, Cheltenham, the wife of G. H. Ward-Humphreys, L.R.C.P. Lond., M.R.C.S., of a daughter.

### MARRIAGES.

**BICKERSTAFF—GREENWOOD.**—On Sept. 15th, at St. Clement Dane's, Strand, George Roger Bickerstaff, L.R.C.P. Lond., M.R.C.S., of Waltham Abbey, Essex, younger son of the late Rev. J. Bickerstaff, Rector of Bonsall, Derbyshire, to Grace Catherine Greenwood, elder daughter of the late Rev. H. B. Greenwood, Rector of Sutton-upon-Arden, Yorkshire.

**BOON—MATTHEWS.**—On Sept. 14th, at St. George's, Bloomsbury, by the Rev. H. R. Hawsel, M.A., Incumbent of St. James's, Marylebone, Ernest Gerald Boon, L.R.C.P. Lond., M.R.C.S. Eng., of St. Kitt's, West Indies, to Frances Amy, daughter of the late I. N. Matthews, of Buffalo, New York, United States.

**KEYS—WELLS—LOWNDES.**—On Sept. 21st, at Little Comberton, Worcestershire, by the father of the bride, assisted by the Rev. E. J. Rhoades, M.A., Rector of Elmley Castle, Ernest Neville Keys-Wells, M.B., fourth son of the Rev. William Keys-Wells, M.A., of Sarony-square, Scarborough, to Grace Eleanor, younger daughter of the Rev. Edward Spencer Lowndes, Rector of the parish.

**MACEVOY—HART.**—On Sept. 17th, at St. Philip's, Batterssea, Henry John Macevoy, M.D., B.Sc. Lond., M.R.C.S., L.R.C.P., of 41, Buckley-road, Brondesbury, N.W., to Mabel, youngest daughter of the late George Hart, of Wakefield, Yorks.

### DEATHS.

**COTTER.**—Recently, at Cheadle-Hulme, Cheshire, the Rev. J. L. Cotter, M.D. Dub., M.R.C.S.

**HUGHES.**—On Sept. 16th, at Bedford House, Deal, David Hughes, M.R.C.S., aged 51.

**LEACH.**—On Sept. 14th, at 21, Belgrave-road, S.W., after three days' illness, Alfred Leach, M.B., M.R.C.P., aged 35 years.

**NICHOLSON.**—On Sept. 14th, at Surrenden, Queen's-park, South Norwood, Brinsley Nicholson, M.D., aged 60.

*N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths*

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 22nd, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Sept. 16	29.76	S.W.	63	60	116	72	55	..	Cloudy
" 17	30.19	N.W.	54	51	104	62	51	.05	Cloudy
" 18	30.80	W.	49	40	107	67	44	..	Fine
" 19	29.99	N.W.	60	56	102	73	47	..	Fine
" 20	29.98	N.E.	60	57	100	70	57	.07	Raining
" 21	29.95	E.	62	61	105	68	59	.04	Raining
" 22	30.17	N.E.	68	57	70	60	57	.79	Overcast

## Medical Diary for the ensuing Week.

## Monday, September 26.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

## Tuesday, September 27.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

## Wednesday, September 28.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.30 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

## Thursday, September 29.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

## Friday, September 30.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

## Saturday, October 1.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

## Notes, Short Comments &amp; Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

## A HUMAN "SUBJECT" FOR CHOLERA EXPERIMENTS.

A LADY CORRESPONDENT writes to us that she believes that "M. Pasteur is practically at a standstill in his experiments with anti-choleraic vaccine; for though having proved its inoculation ensures immunity from the disease to animals that are open to choleraic infection, yet to conclusively prove its value as a safeguard to humanity against cholera it is necessary not only to vaccinate a human being with anti-choleraic vaccine, but subsequently to test its efficacy by administering a dose of the cholera poison itself." Having stated so much, our correspondent suggests that a voluntary subject is wanted upon whom to make the final experiment, and adds: "The cause of this letter is just to inform you that if I may be allowed I have a wish to offer myself as a voluntary subject for the required test, in the hope that thereby a means may be firmly established to obliterate a pestilence." We regret that we cannot accede to our correspondent's request that we should be parties to such an experiment, which would by no means determine the question. Moreover, the institution of such a class of experimentation is strongly to be deprecated.

F. B. (Queen's Gardens) is thanked for kindly furnishing us with a copy of the late Dr. Archibald Billing's pamphlet on the nature and treatment of cholera. Dr. Billing was a learned physician, and occupied a distinguished position as a professor and medical writer, and any observations of his merit attention; but we fear that the treatment he inculcated, on the assumption that cholera was a species of fever, will not be followed in the present day. The truth must be confessed that there is no drug or any combination of drugs known to medicine that can cure cholera.

W.—We do not publish lay opinions with reference to any drug. Our correspondent should accept the "authority" of his usual medical attendant on the subject.

L.R.C.P.E. (Downpatrick) should apply to the Home Secretary, marking the department concerned in the corner of the envelope.

Mr. James Gray.—We are glad to see that our recommendation has been adopted.

Mr. F. Lawrence.—The communication has already appeared in the lay press.

## FEES IN POLICE CASES.

To the Editors of THE LANCET.

SIRS,—In March last, during the strike riots here, I was called out by two women to attend a man in the custody of the police, who, in trying to escape, had got struck on the head and was rendered unconscious. I was with him for over two hours and then saw him conveyed to his own home and attended him for over a fortnight. At midnight on the same night the chief constable of the district and the inspector called and took me to a man who had his head cut open by a brick. I stitched up the wound and saw him next day, and he called at my surgery some days later when the wound was healed. The chief constable of the county and the chief constable of the district called on me during my surgery hours and learnt all I had to say about the accidents to both men. I was not called to the trial, but what I told the chief constable was quoted. In April I sent in a bill, addressed to the chief constable of the district, of 2½ guineas for my attendance, consultations, &c., but no notice whatever has been taken of it. Before sending in another bill this quarter I should like to inquire whether I am entitled to my fees, and if so, to what amount and to whom I should apply for them.—I am, Sirs, yours truly,  
 Sept. 10th, 1892.

M.R.C.S.

## QUESTIONABLE MEAT FOR SALE AT BIRKENHEAD.

WE cannot find room for the publication of the notes of the evidence in this case. It is unsatisfactory to find a magistrate accepting the evidence of butchers, including that of the owner of the beast in question, in preference to that of the inspector, of medical men, and of a veterinary surgeon. But it is a question for discussion in the local papers.

*Hypnosis.*—We are not prepared to advise the practice of hypnosis or to recommend the names of its practitioners. The subject is one of very great difficulty and much difference of opinion exists regarding it. As regards the mode of inducing hypnosis and the general phenomena of the state the fullest particulars will be found in such works as those of Moll, Bernheim, Forel, Wetterstrand, Lidgöols &c. A cheap translation of Moll's work has been issued in the International Scientific Series and probably this would suffice for the needs of our correspondent.

*Mr. Potter.*—Technically, and even legally, the practitioner is entitled to his fee. But it is a matter for the discretion of the practitioner how far he will go in claiming it or any portion of it. He should, we think, either claim the whole or none.

*Subscriber since 1866.*—The claim should not be legally pressed. Notice should have been given of increased fee.

*Mr. Philip W. G. Nunn* is thanked for his report, which shall have our early attention.

*S. W. Dublew* should have repeated his query in his second communication.

## WANTED A DIAGNOSIS.

To the Editors of THE LANCET.

SIRS,—As I am not at all clear about the diagnosis of the following case, which I treated as one of gall-stone, I should be thankful to know from some of my professional brethren how they would interpret the symptoms I am about to describe:—

On the 11th inst. I was called to J. W.—, a discharged soldier, aged thirty-five, who complained of intense pain and tenderness in the lower sternal, epigastric, and right hypochondriac regions, with frequent vomiting of a light yellow fluid. I was informed that as the patient was going upstairs on the previous evening he was suddenly seized with a pain across the chest, especially over the heart, which "seemed ready to burst." This continued till 3 A.M., when he went to sleep. He awoke about 6 o'clock and immediately commenced to vomit. The pain had moved more to the right hypochondriac region, and ceased about midday. The vomiting, however, which was very distressing and profuse, continued till 9 at night and then stopped suddenly. The patient continued to improve, and was about in a few days. There was no jaundice. A peculiar feature in the case was that for about six days previously to the attack the patient had noticed that movements of his tongue, such as drinking, sucking, or spitting, were painful, although on examining the tongue there was no appearance of soreness. On the subsidence of the acute attack above described this soreness of the tongue was found to have quite gone. Some years ago, while stationed with his regiment at Hong-Kong, the patient tells me he had a severe attack of hepatitis.

I remain, Sirs, yours truly,

Sept. 20th, 1892.

L.R.C.S.I.

## THE CARRIAGE OF VACCINE LYMPH BY CARRIER-PIGEONS.

SURGEON-MAJOR STREBEL, at a recent meeting of the Académie de Médecine, showed the possibility of transmitting six small tubes of vaccine lymph over considerable distances by carrier pigeons.

*Spes.*—The relations described would be very liable to render the medical man open to the charge of "covering." They should not be entered into.

*Conjoint.*—We see no objection to adding to the titles the source from which they were derived, as suggested.

*Microphone* asks to be informed where he could purchase a microphone suitable for auscultation.

*Mr. J. G. Campbell* (Belfast).—A brief notice of the rarity might be interesting.

*Brigade-Surgeon Renton* (Eyemouth) is thanked for his communication.

## HEALTH OF ROUMANIA.

To the Editors of THE LANCET.

SIRS,—The health of this port and of the Danubia in general continues excellent. A few cases of diarrhoea occur amongst adults, attributable to indulgence in melons, grapes and other fruits. Infantile summer diarrhoea exists, but in a mild form and rarely fatal. In the Adenbrul daily paper of the 23rd inst. it is reported that cholera has appeared at Cornanti, a town on the Roumanian frontier near to Buceavina. There is no other news to report, beyond stating that up to the present there does not exist anything indicating an approach of the malady to this district.

I am, Sirs, yours truly,

Constanta, Kustendjie, Sept. 6th, 1892. A. IRWIN BOLTON, M.B.

## BASHFULNESS AND ITS NEUROTIC RELATIONS.

THE quality of modesty has in all times commanded the respect of thoughtful and sincere persons. In it we recognise one of the most familiar marks of a genuine character and we should be very doubtful if, other things being equal, it has ever really stood in the way of its possessor's advantage. Where it has appeared to do so we may safely say that it has been represented by some spurious imitation, or, if present, has been associated with personal failings which ought really to bear the blame too lightly attributed to its operation. Of its imitators we may select one as an example—bashfulness. So closely do these two qualities approach one another at certain points that the distinction between them is almost lost sight of. Yet there exist essential points of difference. Both agree in avoiding prominence, but in the case of the former this is due to a humble estimate of personal capacity and an unselfish preference of others, and it is compatible with the free expenditure of effort when occasion demands this. With bashfulness it is different. Self-consciousness is here the commanding influence, and this is by no means a necessary counterpart of self-abasement. Want of acquaintance with existing social conditions is allowed to assume an exaggerated importance. There is a disinclination to abandon a resulting attitude of habitual reserve which even the claims of mutual duty which bind together members of the social whole are unable to overcome. We do not forget that a neurotic basis often underlies this inveterate shyness. The blush, the changing expression, and a variety of like indications clearly denote this. There is doubtless a mental hyperæsthesia which is congenital and therefore the less amenable to treatment. Even this, however, is but a functional condition and therefore not incurable. What is required for its relief is the steady exercise of a dominant control acting through nerve centres at the instance of the will. No good is done by closely contemplating the disorder, but the cure follows most surely when personal peculiarities are ignored, and when even identity is sunk in a sense of dutiful relationship with others. A habit of concentration upon work and the cultivation of free social intercourse constitute the most obvious aids of the will-power in this matter.

*Z. J.*—It is certainly the duty of the medical man first called, on detecting the case, to notify, and, unless the first was acting distinctly as *locum tenens* for the second, it will be right for the second also to do so. It seems superfluous; but the Act says: "Every medical practitioner . . . shall send to the medical officer of health," &c.

*W. L. S. (Buxton)* is thanked for the copy of the pamphlet by a late member of the Indian Medical Staff who was sent by Government and appointed Physician-in-Chief to the Cholera Hospital in Warsaw during the epidemic of that disease in 1830.

*Medicus.*—There would be no breach of professional etiquette in our correspondent intimating to his own patients on a card his change of address. It would simply be an act of courtesy and convenience.

## "MIDWIVES' REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent, Mr. Ramsey, allow me to say there can be no objection to stating on the death certificate such a fact as "delivered by a midwife." I have always done so, and even in the case mentioned in my letter in your last issue (p. 696) in certifying it to the medical officer of health I did, and also added to the certificate "no doctor was engaged." Such information is practical and useful.

I am, Sirs, yours truly,

Sept. 17th, 1892.

FREDERICK F. ALDERSON, M.D.

## INCINERATION OF CHOLERA STOOLS.

A CORRESPONDENT wishes for information as to the probable minimum cost of an efficient apparatus for incinerating cholera and typhoid fever evacuations &c., in connexion with an infectious hospital.

*Enquirer.*—He breaks no law by using the title. He is already registrable and registered. The use of the title in question is a matter of taste. If our correspondent is satisfied with its source and character he will be justified in using it so long as he does not represent it as implying a British degree.

*Mr. Alfred Ford.*—Such an institution should appoint a qualified dispenser, because the law requires those who dispense medicines to be qualified, and the law is a proper one.

*Mr. E. Clendon.*—Such communications should reach us through a medical practitioner.

*Mr. J. B. Chatterton* should seek the information from his regular medical attendant.

ERRATUM.—In Dr. Alderson's letter on the subject of "Midwives and Abnormal Cases" (page 696 of our last issue), twenty-sixth line from the commencement, for the word "few" read *poor*.



# EXCELLENCE IN PHARMACY.

## Blaud's Pill in "Tabloids."

(Four grains.)

The CHEMIST AND DRUGGIST, Sept. 10th, 1892, reports:—"The ingredients of a four-grain Blaud's Pill are combined in the 'Tabloid' without excipient, providing a cream-coloured mass. The first thing that strikes one about these 'TABLOIDS' IS THEIR SMALL SIZE COMPARED WITH THE USUAL BLAUD'S PILL, but we have found that the average weight is between  $\frac{1}{4}$  and  $\frac{1}{2}$  grains—a commendable degree of accuracy we should say. The colour of the 'Tabloids' is due to the fact that the alkaline carbonate and ferrous sulphate are prevented from reacting until a 'Tabloid' is brought into contact with water, when the characteristic pea-green ferrous carbonate is produced. In air-free water the carbonate is but slightly coloured, showing that the ferrous salt is remarkably free from oxidation. We have also noticed that by gentle friction the carbonate which is first formed comes off, and immediately the white surface below assumes a green colour. Hence it may be expected that assimilation of the iron will proceed steadily, without unduly neutralising the acid contents of the stomach."

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Inaugural Address,

Delivered on the occasion of the Opening of the Queen's Faculty of Medicine in connection with the Mason College, Birmingham, and the Distribution of Prizes, on Sept. 30th,

By SIR GEORGE MURRAY HUMPHRY,  
M.D. CAMB., F.R.C.S. ENG., F.R.S.,  
PROFESSOR OF SURGERY IN THE UNIVERSITY OF CAMBRIDGE.

THE UNION OF THE COLLEGES, TYPIFYING THE RELATION BETWEEN MEDICINE AND SCIENCE.

GENTLEMEN,—We are met to-day for two chief purposes. First, to celebrate the union—the nuptials, we might say—of two great institutions. The older of these was commenced in 1825 with a course of lectures by Mr. Sands Cox, a well-known figure in surgery in my early time, who had the felicity, as it was also my own privilege, to teach human anatomy in conjunction with physiology and surgery, and to impart to it the interest resulting from that union. It was chartered as “Queen’s College” by Her Majesty in 1845, and has grown into a well-equipped School of Medicine, which is now about to enter upon a fresh, hopeful career in new and extensive buildings, fitted up with due regard to the necessities of modern medical education and supplemented by the clinical material which the hospitals of a great manufacturing centre afford. The other institution has the peculiar interest of being the outcome of the intense appreciation of science by one who from the most humble beginnings and the most humble education had raised himself by practical genius and business quality to be one of the foremost and wealthiest men in this great and active town, and who rejoiced in the hope that he would hereby leave behind him “an intelligent, earnest, industrious and truth-loving and truth-seeking progeny for generations to come.” Could Sir Josiah Mason and Mr. Sands Cox be with us to-day how heartily would they shake hands in the participation of this ceremony, in the realisation of much that they longed for, and in the prospect of much more good results in time to come. The union of medicine and science which is thus typified is one that is essential to the fulness of both and one that has existed throughout their history. The only persons of scientific pretensions in the Homeric period appear to have been physicians. In the great school of Alexandria and in every subsequent great school of learning and science—in Italy, in France, in Germany and in Britain, wherein we still include Ireland, and long hope to do so—medicine has held a prominent place. The physicians—to wit, Linacre and Caius—were the most learned men of their time; and though many still rank high in learning and science the range of literature and the scope of knowledge are now so great that no man can attain the same eminence in many subjects as was reached by those masters in bygone centuries. It thrills me a little when I hear medicine designated as an art. True it is an art; but it is a science also. It is a compound of both; for it is both science and the practical application of science, and the practical application of its science advances *pari passu* with the science itself. Its subject is the human body, in which other sciences, physical, physiological and psychological, culminate, and in the aberrations—the morbid phenomena—of which the most complex and difficult of all scientific problems are found. So difficult are they that they often set scientific thought at defiance and cause charlatanism to step in and cut their Gordian knots. Hence charlatanism has ever been an attendant upon medicine, usurping the field most where science is weakest, and waiting for its expulsion in the time when the further developments of science shall have made deeper search into the mysteries of medicine. Where, it may well be asked, can physics and chemistry find higher and worthier scope than in the anatomical mechanism and in the physiological and pathological processes of man? and how can medicine make much advance except by the aid of these her true handmaids? Never did medicine turn to them with more earnestness and more longingly than at this time, when she is prying closely into the processes of life and searching anxiously into those changes which constitute disease and into the recondite

No. 3605.

sources of them, when a new and fertile field of research has been opened up and patient, careful investigation has given fresh hope of combating the maladies which devastate our people. Sad would it be for both if medicine and science were ever separated, and great reason have we to hope that the aspirations of your founders will be realised by the mutually inspiring work of their institutions; and we may confidently look forward to ever increasingly beneficial results from the proceedings of this day.

It is interesting to note, in connexion with the events of the day, that Sir Thomas Gresban, the prince merchant and great financier of Elizabeth’s time—who appreciated the value of education, having been placed by his father, who was also a great merchant and financier, at Caius College in Cambridge, and who, like Sir Josiah Mason, founded a College of Science which still exists in the city of London—left as an injunction that “the lectures were to teach things interesting to city men, but they must go to the bottom of them.” He thereby indicated his consciousness that interest and benefit lay not simply in the things themselves, but also, and still more, in the mental exercise involved in the search into their causes. Possibly he further indicated his consciousness that that source of interest never could be exhausted, forasmuch as the bottom of things never could be reached, that however deep in future ages the human search might go, a deeper still would remain to stimulate research and to inspire interest. “We speak the wisdom of God in a mystery” are the words of one of the most eloquent and earnest as well as sincere of men. How true is the remark as applied to science, and indeed to all knowledge—*σοφία ἐν μυστηρίῳ*—true now as much as when he wrote, in spite of all the, to us, enormous advance which has taken place in the intervening eighteen centuries and a half; and in spite of our pride of this nineteenth century the source of life and all force is still in what seems to be an eternal, an *Εἰς τὰ αἰώνια*, mystery. The great questions “Whence comest thou?” and “Whither goest thou?” are still unanswered and unanswerable by human ken. They need evidently a higher than human knowledge to tell; and those who are most advanced, and have the highest and clearest range of view, are most ready to admit this.

Our second function on the present occasion is to give honour to whom honour is due, to recognise those who by good work have won their way to the front in student life, and to urge them to continuance in well-doing, and to wish them the future happiness which it will merit.

THE GREEK IDEAL OF EDUCATION APPLICABLE TO MEDICAL EDUCATION.

No nation, I suppose, gave greater heed to education than the Greeks of old, and none with greater success, as is proved by their unrivalled philosophical disputations, their unrivalled dramatic productions, their unrivalled works of art and their unrivalled military prowess. Their ideal was that a man should be a “speaker of words and a doer of deeds,” which implies that he should be also a thinker of thoughts; for good thinking lies at the root of good speaking and good doing. Their aim in education was to make a man eloquent and persuasive in council and brave and resolute on the field of battle, having a good soul and a strong body—as the Romans also expressed it, “*mens sana in corpore sano*”—all the powers developed in due proportion by such mental and physical training as best leads to goodness of soul and strength of body. The consummation of the ideal was that thought should be free and action free by making both rational and so attaining to the realisation of the glorious sentiment “the Truth shall make you free”; and the prize aspired to was the crown of laurel and the respect of fellow citizens. The ideal was a high one, as the ideal of life and duty should ever be. It is an ideal well suited to the life of medicine, for to no man in a greater degree than to the medical man is the combination of goodness of soul and strength of body more requisite; and to no man is the crowning addition of goodness of heart more important. Upon him it devolves to bring hidden things to light, to step cautiously from the old road upon new ways, to weigh probabilities—wherein, I suppose, consists what we call common sense—and with severe bodily strain, by night and by day, promptly and energetically, yet with gentleness and kindness, to carry out the practical application of his knowledge to the relief of his fellow men. Upon no man, in short, is there greater demand for varied qualities of mind and body. To attain them all in any high degree is impossible, but we must not thereby be dispirited, for happily there is no line of life in which good quality of some kind is more appreciated and more telling. Energy and boldness,

quietude and modesty, keenness and inventiveness, patience and perseverance, each and all have influence in the work of acquiring professional knowledge and in gauging and influencing the bodily and mental constitution of the sick.

#### THE WORKING LIFE A HAPPY LIFE.

"Man," it has been said, "is born to trouble as the sparks fly upward." Happily there is a hereditary antidote to this inheritance, for it may be as truly said that man is born to work, and work is one of the great sources of his happiness. The work-a-day life is the happy life. Many of you have already experienced this, and all of you may be congratulated on the prospect of more fully realising it in the working life that is before you. Many of you, I say, have already experienced this, for those of you, at any rate, who have won the laurels know the pleasure of work. Everyone has pleasure in work when he takes to it with earnestness. Pleasure in work is therefore a measure of earnestness in it, and the better the work the greater the pleasure. You gentlemen who have thus far succeeded therefore had pleasure proportionate to your earnestness in the good work you have had to do. All power brings with it its measure of enjoyment, and to man is given, in addition to the animal power and the enjoyment of the body the higher and greater power and enjoyment of mind and thought. The former naturally preponderates in early life, the latter at a later period; but both, as the Greeks felt, are necessary to make up the complement of the perfect man. The young man should rejoice, not only in the growing strength and activity of the body, but also in the increasing vigour and power of his mental faculties and in the means by which both are promoted. Pleasure, therefore, in the time of student life—bodily and mental pleasure—is by all means to be compassed, and I take it for granted that you have experienced and do experience it, and the measure of it enjoyed now is the best guarantee for it in time to come.

#### EXAMINATIONS AND THEIR RELATION TO TEACHING: THEIR DEFECTS.

The examination prospect, I grant, is not always a pleasant one, and the less you look at it the better. The tendency of examinations to cast a gloom over, and to detract from, enjoyment in work is their greatest evil—an evil which much increases with the increased multiplicity of them. It was at its minimum in my day, when a single hour of oral searching was the only trial to which we were subjected at the great portal in Lincoln's-inn-fields, and as the result of it we were sent forth armed, as it was judged, *cap-à-pied*, to combat the maladies which attack the human frame and to wield the scalpel, that weapon more formidable than the sword, upon those who entrusted themselves to us. The threatening cloud, therefore, no larger than a man's hand, cast little shadow upon us. It has now spread over the horizon and almost threatens to deluge the scene and drown the joyousness of study. Well, gentlemen, the only resource is to gird up your loins and run, like the prophet, boldly before it. Examinations are a terror to idle men and should be that only. Keep steadily to your work, and the less you think about examinations the better will you pass them. They should be merely a stimulus and a guide to the diligent, the direction posts along the way telling him what paths he had better take as the best and surest road to the acquisition of that knowledge which will most fit him for the duties he has to perform. It is this feeling which should influence both the examiner and the examinee, both the teacher and the tester of that which is taught. There should be no conflict between examination and teaching. They should coöperate harmoniously in promoting the improvement of mental training and the acquisition of sound knowledge. I do not think this is sufficiently appreciated by teachers, examiners and students at the present time; and I am often surprised to hear the sentiment expressed in an aphorismal and somewhat sententious manner that "teaching should guide examination and not examination guide teaching." It is becoming rather a cant phrase, and I often wonder whether those who utter it have really thought out the purport of what they say. The real fact is that examining and teaching are, and must be, supplementary to one another. The examiners and the teachers are, or should be, guides and checks and adjuncts to one another. They should combine to indicate the best subjects and the best methods. Every teacher is improved as a teacher by examining students other than those he has taught, as well as by examining his own students, and every examiner is improved as an examiner by regarding the students from the

point of view of a teacher. I have for many years been an examiner as well as a teacher, and I do not think I ever learnt more as a teacher than by examining during a period of ten years at the College of Surgeons, where I became intimately familiar with the thoughts and methods of other teachers, realised my own failings and theirs, and appreciated more fully the qualities and the needs of the various classes of students. I would say that for the completion of the mental equipment of a teacher it is desirable that he should have the experience derived from being an examiner of students who have been taught by others. I highly estimate the value, both to the student and to the teacher, of class examinations which I have been in the habit of conducting almost daily for nearly fifty years, and I also highly estimate the value, both to the student and to the teacher, of that wider area of examination in which teachers are confronted with those who are not their pupils, whereby the range of view and thought of both teacher and pupil are widened and over-assurance in individual method and idea is checked. Each question which an examiner puts has—indeed must have—an educational bearing and should be looked upon in that light by him who sets it; and the right-minded student will not regard his examiner from a hostile point as one who is actuated by the exclusive desire to probe the depths of his ignorance. Be it remembered that it is the part of the examiner to ascertain ignorance as well as knowledge, that it is hard to do one without the other, that if the student does not know the position of the femoral artery, or the symptoms of pneumonia, or the treatment of iritis, it is the duty of the examiner to find out such voids and others of more or less serious import.

#### TOO MANY SUBJECTS AND TOO MUCH DETAIL.

The great defect in examination consists, I think, in the difficulty of estimating power in the application of knowledge. It is comparatively easy to ascertain whether there is or is not the knowledge of a fact; but it is by no means equally easy to ascertain whether or not there is the knowledge of the bearings of the fact—that is, its relation to other facts; whether, in short, there is the power of thinking about the facts known, and the power consequently of rendering the knowledge available. This difficulty of holding the balance between knowledge and thought is, and I fear must be, one of the chief defects in examinations, however conducted, and is the cause of some of the dissatisfaction which we hear now and then expressed with regard to the results in particular instances. One can quickly and easily ascertain whether a candidate knows the symptoms of a dislocation of the hip and the method to be employed for its reduction; but it is a longer and less easy process to ascertain whether he understands the *rationale* of the symptoms and of the treatment required.

#### FACTS AND THOUGHTS.

Herein lies the difference between what is called "cram" and intelligent knowledge. The one is just an acquaintance with facts, the other implies an inquiry into and acquaintance with their causes, their beings, use and ends—an acquaintance, that is, with principles. The two should go together. In this matter-of-fact age, when practical knowledge is so much in demand, the one commonly dominates over the other; and the tendency in teachers is to crowd the student's mind with copious, too often ill-digested, facts, and in examiners to estimate the amount held and producible at a given time rather than the ability to use it. This is attributable in no small degree to the number of subjects required, and still more to the increasing details in each; and it is to be corrected only by paying more attention to principles and less to details: in the subjects accessory to medicine—especially biology, physics and chemistry—to give and require a good grounding in principles, with so much detail only as serves to illustrate the principles. The same remark applies to some extent to physiology and *materia medica*. The need of this limitation of detail grows as the several subjects grow, and as the teaching and examining in them fall more into the hands of those who are specially instructed in them and highly estimate them; and whenever I read over syllabuses of study and examination papers I am impressed with the importance of narrowing the range of detail required. This feeling grows with me more and more; and I feel with regard to certain subjects that they had better be left out of the programme altogether than that the student should be overlaid and wearied and his spirit broken by the multitude of facts and details that are required to be got up. The work of pro-

essional study, above all, should be happy work, and the period spent in it should especially be a cheerful, happy period. The work is then most likely to be well done without damage to body or mind and the results well remembered; and there can scarcely be a greater bar to educational progress than that which causes a distaste for study, and which, by overloading, makes work burdensome and painful to bear, and turns into dislike that love of knowledge which is a natural feature, an inborn and most blessed quality of the human mind—that, indeed, to which all progress is mainly due. All facts have a halo of interest about them which gives them their attractive glow, without which they are scarcely worthy of a place in the human thought. Facts may be regarded as pegs whereon thoughts may be hung, and thoughts are the rivets whereby the pegs are fastened. I do not wish you to despise facts. Without them there can be no thoughts, and those who have the clearest knowledge of facts are usually the persons who have the greatest power of thinking and reasoning upon them. This must not be forgotten, for facts constitute the great stronghold of medicine; the marking of them is the basis of experience, and the best and keenest observer of facts, who is usually also the best holder and combiner of them, is the best practitioner of medicine. Hence the cultivation of the good and acute observation of facts is, or should be, one of the great aims in medical education. It is indeed to the combination of the two great qualities, observation and reflection, that man owes his pre-eminence in creation; it is to the amount of good balance of these two that one man owes his superiority over others. By this the great masters in our profession, all along the line of its history, from Hippocrates to those who now hold sway, acquired and hold their places. By this you must hope to win, and remember it is such under your own control.

#### THE IMPORTANCE OF ATTENTION.

Both observation and reflection imply and are much dependent upon attention. It may be called the cardinal talent, without which little can be done, whatever other qualities may be present. The attentive or intent worker is the good worker, whether in a manual or a mental sphere. Slovenliness in either results from want of attention. The attentive man is talented and the talented man is attentive. The cultivation and promotion of this faculty should be the great efforts of education. This indeed is the necessary effect of good education, for no good learning can be done without it. It is the soul of accuracy; it is the soul of memory. If a man cannot remember, you may be certain that he cannot attend. It is the soul of good thought and ripe judgment. Cast your eye round the dissecting room, you soon perceive who are the real learners of anatomy. You judge by their intentness, uninfluenced by slight surrounding abstractions. A glance at the dissections enables you to judge by the neatness or slovenliness—i.e., of the greater or less attention that has been given to the manipulatory process. A few questions tell you whether there is real attention and thought upon the work which is being done, whether the student is a mere manipulator or whether he knows what he is about. A few questions upon the part dissected three or four days ago gives still more valuable information, forasmuch as you then elicit information as to the enduring value of the attention—that is, of the impress which attention has made. A student reads in the ward a case which he has just taken. You judge of his attention to the case by the account he gives of the patient's appearance, tongue, pulse &c., and by his description of the malady, and you form an estimate of his thoughtful attention from the manner in which he infers the nature of the case by the collection of the symptoms. Question him upon the case a few days afterwards without his note-book and you ascertain to what extent his memory was impressed, and you judge that the recollection of the case is proportionate to the attention bestowed in taking and thinking upon it. You learn, in short, what real good the case-taking did him. How far better, as a process of mental training in observation and thought, is one case well—i.e., carefully—seen and taken as compared with many cases carelessly observed, the results in knowledge being proportionate not so much to the opportunities of seeing many cases as to the attention bestowed upon a few. It is not the walking round a hospital that gives large, rather I should say deep, knowledge. The test of this will be afforded by a few questions at the conclusion of the visits, such questioning being, I apprehend, the very best kind of clinical lecture that can be given. Unfortunately, it will be found that the knowledge acquired is often in an inverse ratio to the number of cases which

have been seen. Let a man observe carefully the cases in the Birmingham hospitals, let him note well the questions and remarks of the able and experienced medical officers in examining the patients, for each question has its import, and he will have ample field for the acquisition of medical knowledge. Let the student digest the food thus supplied him and he need have no sighing for pastures new.

#### SELF-EXAMINATION AND INDEPENDENT THOUGHT.

Finally, gentlemen, let me exhort you to cultivate the habit of examining yourselves. At the conclusion of each hospital visit consider what you have seen and learnt and thus impress the lessons on your memory. Hurry not from one thing to another. In this, as in so many other things, the more haste the less speed. At the same time do not dawdle. Be intent, but be deliberate. By questioning yourselves you will be your own best teachers. Rely not so much on others as on yourselves. By cultivating self-reliance in study you will best promote self-reliance in your future vocation. We hear much at the present time of German universities, of German teachers and German students. We acknowledge their superiority in some respects, more especially in the opportunities for, and the devotion to, research, and we would, if our restrictive laws did not hinder, imitate them in this; but we wish you to hold by the freedom and independence of thought and the energy and activity of Englishmen. We would not that you should be dragged at the chariot-wheels of any heroes, for that implies deadness or weakness, but rather that you should stand erect and march on by your own force with the firm, straight, dignified step that indicates strength of mind, determination of purpose and unselfish nobility of character.

### A CASE OF CEREBELLAR ABSCESS, SECONDARY TO EAR DISEASE, TREATED BY TRE- PHINING AND DRAINAGE OF ABSCESS; DEATH.

BY BRIGADE-SURGEON LIEUT.-COL. C. E. HARRISON,  
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GRENADIER GUARDS.

PRIVATE C. M.—, 4th Dragoon Guards, was admitted to the Guards' Hospital, Rochester-row, on the afternoon of July 22nd, 1892, with the following history. Two years prior to the present illness the patient had been the subject of purulent discharge from the left ear, which is stated to have subsequently ceased until he was laid up with scarlet fever at Aldershot in February last, when it recurred. The present illness commenced during a period of six weeks' furlough, subsequently to the attack of scarlet fever which he was spending at his mother's residence at Fulham. On or about May 29th, two days prior to the expiration of his furlough, he was seized with acute pain in the left ear and head, accompanied by vomiting. There were no marked rigors at this time, but there was some diarrhoea, which, however, did not last long. The mother states that the inability to retain food lasted fourteen days and then ceased, but recurred for three days recently. Medical treatment was obtained and his furlough extended. He improved sufficiently to be able to sit up for a short time a fortnight before the date of his admission, but on the same day a relapse occurred, accompanied by severe headache, chilliness, but no vomiting. He lost flesh rapidly. There had been delirium at times and constipation had been present. On admission his condition was as follows: Body much wasted, abdomen very retracted, skin pale, surface of body and limbs very sensitive to pressure, pupils equal and sluggish, either dilated or moderately contracted. There was no marked paralysis in the limbs, face or ocular muscles. There were and had been no convulsions. He was partly conscious and able to answer questions, but groaning loudly at times as if in severe pain. Speech was not markedly slow or cerebation particularly sluggish. He was inclined to ramble in his talk. The tongue was furred and the breath rather offensive. There was thick, fetid, purulent discharge from the left ear, which was said to have been profuse. A polypus was found to exist, and this was snared

with a wire polypus snare on the night of his admission and the stump subsequently touched with a saturated solution of chromic acid. It was difficult to obtain a satisfactory view of the optic discs; but the vessels of the fundus were seen to be well defined, and the fundus did not appear "woolly." There was no marked tenderness and no redness or œdema over the mastoid process, but he was inclined to complain of tenderness on pressure at any spot, whether on the head, trunk or limbs. Any evidence therefore to be obtained by percussion over the skull was considered to be unreliable. There was no pain or swelling down the left side of the neck. The right ear was healthy and the membrana tympani intact. Temperature, 98.2°; pulse, 56. From the history of the case and the past and present symptoms I formed the opinion that an intra-cranial abscess almost certainly existed; but whether the pus was located in the cerebrum or in the cerebellum the symptoms and physical signs left doubtful. It was hoped that some improvement would result from the removal of the polypus, which probably had obstructed the discharge of pus. It was thought advisable to carefully watch the case, unless any unfavourable symptom occurred, until Monday, July 25th, and, if no improvement had resulted, to trephine over the temporo-sphenoidal lobe and explore for pus. If no pus could be found in this situation it was determined to trephine the occipital bone and explore the cerebellum. On the 23rd he had passed a bad night and had been noisy. There was very little discharge from the ear. Evening temperature 98.4°, which fell at a later hour to 97°. Pulse, 60 in the morning, 56 at night.

On July 24th the morning temperature was 98.4°, falling before midday to 97.7°; pulse 64. In the afternoon his condition had changed for the worse, the pulse having increased in frequency to 122, and the symptoms of coma having also increased. Temperature 97°. It was thought necessary therefore to operate without delay. No anæsthetic was given, as from the condition of his circulation and his blunted sensibilities it was thought inadvisable and unnecessary. He resented the incisions through the skin and muscles, but otherwise did not appear to suffer much pain. Surgeon-Major Magill, Coldstream Guards, kindly assisted me. The measurements used for defining where the trephine should be applied were those laid down by Mr. Barker in his lectures at the Royal College of Surgeons in June, 1889. For reaching the temporo-sphenoidal lobe an incision about an inch long was made vertically, having its centre at a point an inch and a quarter behind the centre of the meatus in Reid's "base line" (passing from the inferior margin of the orbit backwards through the centre of the meatus), and an inch and a quarter above the line. A second short incision was made, passing backwards from the centre of this incision. The soft tissues having been separated from the bone a half-inch trephine was applied having its centre at the point above indicated. The circle of bone was removed and the dura mater incised. A trocar and cannula having the diameter of an ordinary knitting-needle were then passed in various directions into the brain substance. No pus was obtained. Accordingly, a spot was chosen an inch and a half behind the meatus in Reid's "base-line" and one inch below it, with a view to explore the cerebellum. A vertical incision was made, and—the smart hæmorrhage which occurred having been stopped with catch-forceps—the soft tissues were cleared from the bone with an elevator and the handle of the scalpel, and a quarter of an inch trephine applied with its centre at the above-named point. The circle of bone having been removed, the trocar and cannula were introduced into the cerebellum, when some very thick pus slowly flowed out. A larger cannula was introduced, and finally an indiarubber drainage-tube, nearly a quarter of an inch in diameter, which was left *in situ*. About three drachms of pus altogether were evacuated. Some boracic lotion was then injected with the view of washing out the abscess cavity. A rectal injection of milk and brandy had been given before the operation, and towards the close the pulse was so unsatisfactory that repeated hypodermic injections of brandy were given. The pulse improved and he was able to swallow. Silver sutures were used to close the wounds and sal alembroth gauze, moistened with perchloride of mercury lotion, was applied.

On the following morning (July 25th) his aspect was improved; he was more conscious, realised what was said to him and swallowed nourishment (half an ounce of brandy with milk every three hours); pulse varying in frequency from 102 to 110; temperature 97°. In the evening the wounds were dressed; there was no pus in the dressings. The pulse

was much the same as in the morning; temperature 97°. The drainage-tube was taken out, washed, shortened about one-third of an inch and replaced. The ear had been discharging; the pupils were equal, reacting to light, but rather sluggish; at 11 P.M. the pulse was very variable (100 to 116), temperature 97.8°; the respiration was irregular and bore much the character of Cheyne-Stokes respiration; his aspect, however, and his mental and general condition gave reason to hope at this time that improvement would continue. On the morning of July 26th his condition was unsatisfactory; he had vomited, and was evidently failing; hypodermic injections of brandy were given, but he grew gradually weaker and died in the afternoon at 3.15; during the morning his temperature had been 100.4°.

*Neuropsy, twenty-one hours after death.*—The condition of the wounds was satisfactory. The upper wound gave evidence of healing by first intention, and the trephine opening was occupied by lymph and blood-clot; the dura mater lining the left inferior fossa of the occipital bone was a little congested and roughened in places, but with this exception there was no evidence of meningitis; no subdural abscess was found, and no extravasation of pus into the meninges or ventricles; the trephine opening into the left inferior fossa of the occipital bone was found to occupy the most dependent position, thus favouring free drainage. The brain tissue was but little altered in appearance by the wounds made by the trocar and cannula. The abscess cavity in the left lobe of the cerebellum was not circumscribed, the walls of the cavity, except at the inner and anterior portion, where the tissues were somewhat indurated, being formed of softened brain tissue. The drainage-tube freely entered the abscess cavity, which contained a little very thick pus. On examining the petrous portion of the temporal bone the dura mater covering the central part of the anterior surface, and to a less extent the posterior surface, was found discoloured, and on removing this a large piece of necrosed bone not yet loosened from its connexions was observed. There was a small perforation also at the posterior part of the anterior surface of the bone leading into the mastoid antrum, but no evidence of any active inflammatory mischief in the mastoid cells was found. The edges of the mitral and aortic valves were thickened slightly, and on the latter valves were some very minute vegetations just visible to the naked eye. The other organs were found healthy.

*Remarks.*—In this case the antecedent history and the symptoms which the man presented on admission to hospital left little doubt as to the course which should be adopted. The patient's aspect and mental condition, the history of rapid loss of flesh, the subnormal temperature, infrequent pulse and retracted abdomen, taken in conjunction with the existing ear disease which had originated at some date prior to the commencement of his present acute symptoms, all pointed to intra-cranial suppuration. Although the symptoms did not lead one to hope that by freely opening the mastoid cells and scraping out the polypus and the granulation tissue occupying the middle ear relief would be given, yet it may be argued that this should have been done before proceeding to explore the interior of the skull. The patient's condition, however, on the day of the operation had become so grave that it was thought right to trephine at once rather than to prolong the operation by first opening the mastoid antrum. It was felt that this minor operation for effecting the drainage and cleansing of the middle ear might be performed subsequently in the event of the patient's condition improving. It is to be regretted that the cerebellar abscess was not opened forty-eight hours earlier—on the afternoon of the man's admission to the hospital.

**INSTRUCTION IN FEVERS.**—A notice has just been issued by the Metropolitan Asylums Board informing medical students that a course of instruction in the diagnosis and treatment of fevers will be given at the following hospitals, the fee for the course being three guineas for two months, and one guinea for each month afterwards:—Eastern Hospital (Dr. E. W. Goodhall), Tuesdays and Fridays at 10.30 A.M. North-Western Hospital (Dr. W. Gayton), Tuesdays and Thursdays at 11 A.M. Western Hospital (Mr. R. M. Bruce), Tuesdays and Fridays at 11 A.M. At the above hospitals the course will commence on Oct. 4th. The lecturers at the South-Western and South-Eastern Hospitals (Dr. F. F. Caiger and Dr. MacCombie) respectively will commence on Oct. 11th, and will be given on Tuesdays and Fridays at 11 A.M.

## THE TREATMENT OF FILARIA SANGUINIS HOMINIS.

By P. MANSON, M.D., LL.D. ABERD., M.R.C.P. LOND.

My experience of the action of thymol on the filariæ of the blood coincides with that of Surgeon-Lieutenant-Colonel A. Crombie as detailed in THE LANCET of Aug. 13th. Soon after Surgeon-Lieutenant-Colonel E. Lawrie's article on this subject appeared in THE LANCET of Feb. 14th, 1891, I had an opportunity of trying thymol in the case of a negro in whose blood both species of African filariæ—viz., filaria sanguinis hominis diurna (major) and filaria sanguinis hominis perstans (minor)<sup>1</sup>—abounded. This patient took thymol regularly for over two months without any effect whatever on his blood parasites—at all events at the time—and six months later they were quite as abundant and just as active as before treatment commenced. The attempt to cure filarial chyluria by the administration of a parasiticide, as suggested by Surgeon-Lieutenant-Colonel Lawrie, is founded on a misconception of the true pathology of this disease and of the part played by the filaria in its production. The filaria stands to chyluria very much in the same relationship as rheumatic fever stands to heart disease and gonorrhœa to urethral stricture; it starts the disease process, but its constant presence is not necessary for keeping it up. To attempt, therefore, to cure chyluria by trying to kill the filaria is as illogical and as useless a proceeding as to attempt to cure established heart disease by salicylates or stricture of the urethra by astringent injections. This is evident if we consider the order of events in the production of chyluria. This is as follows: A parent filaria is lodged in the thoracic duct. In some way not yet understood it injures the walls of the vessel, causing ulceration or inflammatory thickening. In time this lesion leads to stenosis of the duct. *Pari passu* with the development of the stenosis the thoracic duct on the distal side of the stricture dilates, owing to the rising excentric pressure from accumulating contents. After a time the stricture becomes so narrow that the lymph and chyle no longer find their way past it to the left subclavian vein. They seek, however, to reach the blood by another route; a retrograde movement down the thoracic duct sets in, and so, travelling by way of the pelvic lymphatics, the lymphatics in the walls of the abdomen, and the anastomosis between these and the lymphatics of the upper part of the body, the chyle from the intestines and the lymph from the lower extremities find their way into the circulation. Possibly there are other routes, as by the lymphatics of the œsophagus, diaphragm and back; it is certain, however, that a common course pursued is that described, which is very much the same as that pursued by the blood in the case of obstructed portal circulation. To accommodate this increased and diverted chyle and lymph circulation the lymphatics by which it passes become enlarged and in many places varicose. The tendency to varicosity is very evident in such places as the scrotum, mucous membrane of the bladder, or wherever the lymphatics are abundant and feebly supported. In many instances these varices, where superficial, can be seen or felt and their nature readily recognised. If the inguino-femoral glands are involved the varicose groin glands, so characteristic of filaria infection, are produced; if the scrotal lymphatics are in the track of the regurgitating lymph and chyle the equally characteristic lymph scrotum may be produced. Sometimes the varix is apparent on the surface of the abdomen even, as in the case related by Sir William Roberts and in another by Hævellling<sup>2</sup>: That these varices are really part of an anastomosis conveying chyle from the abdominal viscera to the blood is proved by the nature of their contents; these are usually milky white or slightly red tinted chyle—not lymph, clear and limpid, such as comes from the legs. As the lacteals are the only source of chyle these chylous contents of the varicose lymphatics must have come from that source, and the route followed must have been the retrograde one I describe. Now if the lymphatics of the bladder happen to be involved in the compensatory anastomosis, and if they give way, as the lymphatics of the scrotum so frequently do in similar circumstances, the result is a leakage of chyle into the bladder and chyluria. It is evident

from this that the embryo filariæ, although they are generally present in the blood and urine in chyluria, have nothing whatever to do with its production. This is further proved by the fact that in some few cases of genuine and persistent tropical chyluria no embryo filaria can be found either in blood or urine. I had recently such a case under observation. In such cases the parent filaria must have died after injuring the thoracic duct, or possibly there may have only been a male or an unimpregnated female parasite present. Further, although the parent filaria was necessary for the production of the lesion in the thoracic duct in the first instance, its continued presence there is not necessary for the maintenance of the lesion. So that whether the filaria which originally wrought the mischief dies or lives is a matter of no consequence as affecting the chyluria; the stricture of the duct once produced is permanent, and the chyle will continue to flow along the compensatory anastomosis, and perhaps from time to time burst the walls of the varix and appear in the urine. That this is the pathology of most cases of chyluria is proved by more than one post-mortem examination, as well as by a multitude of observations on the living subject. This being the case, it is difficult to see in what way benefit could accrue from killing either the embryo or the parent filaria, or how an anthelmintic, even supposing it were effective as such, could possibly cure chyluria. Many declare they have cured chyluria by drugs; but those who say so should bear in mind that nearly every case of chyluria ceases spontaneously from time to time and also recurs spontaneously, no matter what treatment is adopted. I have no doubt Surgeon-Lieutenant-Colonel Lawrie's cases recovered while taking thymol, but I do not think they recovered permanently, or in consequence of taking this drug; and so with Dr. Walsh's cases referred to by Surgeon-Lieutenant-Colonel Crombie. A knowledge of the pathology of chyluria, elephantiasis and filaria disease in general teaches us that our endeavours ought to be directed rather to keeping the parasite alive and in a healthy state than to interfering with it and worrying it into conditions of ill-health in which the functions of gestation are imperfectly performed. There is a considerable body of evidence to show that under normal conditions the filaria is innocuous, and that it is only when abnormally located, or when it acts as an irritant, or when from some cause the contents of its uterus are prematurely evacuated, or when it dies, that this parasite becomes a danger to its human host.

I have lately obtained some striking evidence as to the nature of the connexion of filaria nocturna with elephantiasis, and which has an important bearing on this point in the treatment of filariasis. Through the kindness of Surgeon-Major Elcum (Cochin) I received 88 slides of blood drawn during the night from 88 natives of Cochin, a district of India in which elephantiasis is excessively prevalent. Of these 88 Cochinese, 14 had elephantiasis and 74 were healthy. Of the slides from the 74 healthy subjects 20 contained filaria nocturna embryos in abundance. Assuming that these 74 Cochinese fairly represented the general population of Cochin as regards liability to filariasis, we may conclude that about one individual in every 3½ in Cochin is infested with filaria. Of the 14 slides from the 14 cases of elephantiasis only one contained filaria. At first sight this result might seem to be conclusive against the filarial origin of elephantiasis. A little reflection will show, however, that this is far from being the case; that, on the contrary, it is a very strong argument in favour of this doctrine. For why should the subjects of elephantiasis enjoy this apparent comparative immunity from the filaria in a region where it is so extensively prevalent, unless it be that the filaria is in some way connected with the elephantoid condition? The fact is that the immunity is apparent only. Elephantiasis has for its remote and originating cause obstruction of the lymphatic circulation in the part affected. This is universally admitted. I have endeavoured to show<sup>3</sup> elsewhere that the cause of this obstruction in the case of elephantiasis is an embolism of the afferent vessels of the lymphatic glands by prematurely expelled ova from an aborting female filaria. If there is obstruction of this sort in a gland-guarded lymphatic area, such as the lower extremities, then it is simply impossible for filaria embryos to traverse the glands and enter the circulation; the implicated parts are cut off as it were from the blood. Therefore it is that, although the filaria produces elephantiasis, it is a comparatively rare thing to find the filaria in the blood in these cases, as it is impossible for the embryo filariæ proceeding from

<sup>1</sup> THE LANCET, Jan. 8rd, 1891.

<sup>2</sup> Virchow's Archiv, Bd. lxxxix.

<sup>3</sup> The Filaria Sanguinis Hominis, &c.: H. K. Lewis.

the parent in the implicated area to enter the circulation. This shows the importance of protecting the filaria and the danger of injuring it. If in these fourteen Cochinese the filaria had remained healthy, never aborted, never obstructed the lymphatics, there would have been no elephantiasis. And so I hold that once established in the human body the filaria should be left alone, protected rather than persecuted. Pathology indicates that the proper treatment of chyluria is in principle the same as the treatment of acquired varix in any inaccessible region. This should be rest, elevation, lowering of the tension in the lymphatic vessels by the use of saline purgatives, limited and appropriate food, abstinence from fluids as much as possible. Certain drugs have been vaunted as specifics for chyluria; I have tried several of them, but never with success of a permanent character. Temporary recovery from time to time is the rule in chyluria, and the drug which was being used at the time the urine cleared spontaneously from healing of the rupture in the varix in the bladder is often credited with the cure. I cannot understand how a drug introduced by the mouth can possibly cause the closure of a gaping varix in the bladder.

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## HIPPOCRATES AND ELBOW FRACTURE.

By A. HANBURY FRERE, M.B. EDIN.

IN view of recent papers, notably those of Nunn before the Clinical Society of London and of Stimson and Lane before the American Surgical Association, I think it may not be out of place to draw attention to what Hippocrates says on this important subject. Reference to Adams's translation for the Sydenham Society will show that Hippocrates did not simply put the arm up at right angles; on the contrary, he gives very explicit instructions, which seem to have been entirely disregarded, and which Adams himself appears to have misunderstood. Hippocrates shows that it is bad to bind the arm in the extended and semiprone (Archer's) position, or the extended and supine position, because when the arm thus bandaged is bent to a right angle the bones at the elbow assume a different attitude from that assumed when they were bound up. He then says: "But if one will extend a broken arm as I direct, he will turn the bone situated at the extremity of the little finger into the straight line and also the one at the elbow, ..... and when the arm is suspended in a sling it will be in the same attitude as that in which it was bound up" &c. Adams in a note says it is the straight position that Hippocrates deprecates. But Hippocrates distinctly tells us to extend the arm and to place the forearm in the only remaining position—viz., in pronation. But what is the difference between flexing a supine or semiprone arm on the one hand and a pronated arm on the other? I am greatly indebted to Sir William Turner, before whom I placed this problem, for having investigated this matter for me, and through his kindness I am enabled to give my own conclusions as facts founded on actual experiment. Morris tells us that "the hand in flexion is carried towards the middle third of the clavicle, and any greater inclination of the forearm towards the median line of the body..... is caused by rotation of the humerus at the shoulder."<sup>1</sup> Associating this fact with what Hippocrates says I came to the following conclusions:—1. On flexing to a right angle a supine or semiprone arm there is rotation of the humerus at the shoulder. 2. On flexing to a right angle a pronated arm there is no rotation of the humerus. In this last the necessary rotation of the humerus takes place on pronating the forearm and while the limb is still in extension. Hence, with the arm bound, extended and prone, it is quite ready to be bent to a right angle without any movement other than flexion. The bones at the elbow may thus be said to be in the same attitude as that in which they were bound up. Now to apply this to elbow fracture, if the fragments be adjusted with the limb extended and supine or semiprone, when the arm is bent to a right angle the necessary rotation of the humerus will tend to occur, not at the shoulder, but at the seat of fracture. Thus, however perfect the setting in the first instance, there is likely to be displacement as soon as we bend to a right

angle. On the other hand, if the fracture be set with the arm extended and prone, there is not the same danger of displacement when bending to a right angle, though, in my opinion, the mere act of flexion may be sufficient to cause displacement. We thus see that there is a very good reason why Hippocrates should say that fracture of the elbow is best set in the extended and prone position. It is only in the straight position of the arm that we can be sure of accurate coaptation of the fragments; however great the displacement it will never be detected so long as the arm is bent. It is not enough simply to put the arm up at right angles and rest satisfied because we have placed the limb in the orthodox position. I do not think this is what Hippocrates meant us to do, and unless we follow the careful instructions he gives us I think the rectangular position is the worst that could be adopted. If I am correct in my interpretation of Hippocrates' words, would it not be better, in all injuries of the elbow, to dress the limb in the straight position with the forearm prone? Those who have employed this method find that they obtain a much earlier return to usefulness and, above all, obviate the deformity so frequently seen after treatment in the rectangular position. With the arm extended and prone the outward configuration of the limb becomes practically straight, so that instead of a complicated angular splint a simple straight one can be applied, thus enabling the surgeon to see that all is right. The normal outward obtuse angle at the elbow is formed by the humerus and ulna; it is still present, therefore, whether the forearm be prone or supine. Whilst, therefore, we are keeping up the normal relation of bone to bone we have a limb that is much more easily dealt with if the forearm be prone than when it is supine, and the latter position becomes extremely tedious after a time. The prone position is a natural one, and most comfortable to the patient; and since it is associated with slight flexion we avoid the danger of over-extension—an important point in treatment of fractured olecranon.

In elbow fracture the injured tissues on the flexor aspect require to be kept at their normal physiological length in order that they may not heal with shortening; the opposite holds good for the extensor surface. The straight position is certainly indicated for injuries of the elbow-joint, more especially as with the arm extended there is no impediment to the flow of the blood or lymph. Absorption can therefore proceed and healing can in this position be greatly aided by means of massage. The most important point in these cases is to obtain accurate coaptation of the fragments. The better the setting the sooner the fragments will unite. The sooner union takes place the sooner will passive motion be permissible. When the joint is first moved I hold that it should be through its natural path. If movement be painful it is very apt to be harmful. Fracture of the elbow is often overlooked; but, if the straight position were to become the rule instead of the exception, then the treatment of dislocation would not be detrimental to possible fracture. Those who use the bent position seem to be the most anxious to begin passive motion early. Those who use the straight position find early motion unnecessary. It is only a question of accurate coaptation of the fragments. In the bent position we can only hope that all is well; we cannot be sure that reduction is being kept up. In the straight position we can be sure of good position, and there will therefore be less tendency to stiffness and an earlier return to usefulness, and, further, less likelihood of exuberant callus; and we entirely avoid deformity.<sup>2</sup>

<sup>2</sup> Those interested in the subject will be glad of the following references:—Provincial Medical Journal, Jan., March, and April, 1892; Transactions of the American Surgical Association, vol. ix., 1891.

THE members of the Metropolitan Asylums Board will inspect the new fever hospital now in course of erection at St. Ann's-road, Stamford-hill, N., to-day, Friday.

NEW RECREATION GROUND FOR ST. ALBANS.—Sir J. Blundell Maple, M.P., has sent a letter to the Corporation of St. Albans in which he gives particulars of the gift which he intimated some time ago he was about to bestow on this town. The hon. gentleman will also erect a lodge and cricket pavilion and bear all expenses connected with the laying out of the grounds, which cover about 24 acres. The isolation hospital, which was lately presented to this corporation at a cost of some £4000, has just been completed.

<sup>1</sup> See also Cathcart, Journal of Anatomy and Physiology, vol. xix., 1895.

## NOTES ON SOME CASES OF DIABETES INSIPIDUS WITH MARKED FAMILY AND HEREDITARY TENDENCIES.

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I HAVE been induced to place on record the notes of certain cases of diabetes insipidus, thinking that they are of interest. Dr. Vincent Harris, under whose care the cases were in the City of London Hospital for Diseases of the Chest, Victoria-park, has kindly given me permission to send particulars of them for publication.

CASE 1.—The case which came most under observation was that of W. S—, aged fourteen, residing in Essex, who was admitted to the hospital on Jan. 2nd, 1892, with a slight cough and a history of wasting, which had been more marked for the preceding two or three months. About fourteen days previously to his admission he had what was called influenza, following on which he had one or two attacks of epistaxis of some amount. He also suffered for a day or two from considerable restlessness and feverishness at night, with drowsiness during the daytime and frequent dull headaches, localised at the top of the head, accompanied with pain behind the eyes, which were said to have had the appearance of being swollen. Since then he felt excessively weak. Even as a child he was subject to extreme thirst and passed large quantities of watery urine. At times he had an abnormal appetite. He never was a strong boy. From infancy till he was three years of age he had been subject to fits—loss of consciousness and struggling. He had measles and whooping-cough and at nine years of age some rheumatic attacks. There was no history of scarlet fever or chorea, and none of injury in childhood. He had always spoken slowly, and for some time had had a catch in his speech—a hesitancy in utterance akin to but not amounting to stammering. He was pallid, anæmic and listless, and at times drowsy; his forehead was broad and perpendicular, but the head was a fair size; his eyes were large and prominent and the pupils widely dilated; his chest was somewhat rounded in shape. There was no marked hollowing of the supra-clavicular or infra-clavicular fossæ. Expansion was good, and, with the exception of a slight harshness of the breath sounds at the left apex, there were no abnormal physical signs to be made out over the lungs. The area of cardiac dulness was not enlarged. The cardiac sounds were free from murmur, but the second sound was accentuated at the aortic base. The liver and spleen were not enlarged. So far as could be made out the kidneys were not unduly large. The bladder extended up to the umbilicus and after urination to midway between the umbilicus and symphysis pubis. The skin was dry and had to some extent a cutis anserina appearance. His hands and feet got easily cold and sometimes were quite livid. There was no hyperæsthesia or anæsthesia and no abnormal sense of heat and cold. His deep reflexes were normal, but his superficial reflexes were exaggerated, especially those over the abdomen. A tache cérébrale could be easily brought out over the chest and arms. His pupils contracted to light and accommodation only very slowly. His tongue was protruded and withdrawn slowly, and was tremulous when protruded. Movements generally were delayed. The muscular system appeared fairly well developed, but the muscles themselves were flabby. His appetite was good, his tongue was broad and flabby, slightly furred posteriorly. The bowels had a tendency to constipation. His thirst was considerable, and he passed a large quantity (about 200 ounces) of pale watery urine, which had a greenish tinge, no odour, a neutral reaction, a specific gravity of 1001, and contained no albumen or sugar and only a slight trace of inosite. The amount of urea present was about 3 per cent., and averaged from 28 to 30 grammes in the twenty-four hours. His pulse was small, regular and of high tension, and numbered 68 per minute; his temperature was 98.4°, and the respiration, which was fairly deep and easy, numbered 28 per minute. During the three months under observation he was placed on a mixed diet and was allowed as much fluid to drink as he wished. The quantity which he drank was carefully measured and a daily record kept. The quantity of urine passed was also carefully noted. Under treatment his general

condition improved considerably. His thirst became much less, and there was also on the average a falling off in the amount of urine passed. He also gained somewhat in weight. The amount of urea present remained between 0.3 and 0.5 per cent., and occasionally the urine gave the reaction for acetone. The following is a table showing the results of treatment:—

Duration of treatment in days.	Specific gravity.	Quantity of fluids taken in ounces.		Quantity of urine passed in ounces.		Treatment.
		Max.	Min.	Max.	Min.	
4	1001-1002	400	404	224	178	Tonics—tincture of nuxvomica.
10	1001-1004	400	285	306	184	
7	1002-1004	420	200	208	208	Liquid extract of ergot, increasing to 1 dr., three times a day.
6	1001-1004	840	200	320	264	Liquid extract of ergot, 1 dr. four times a day.
15	1002-1003	200	195	208	178	Liquor strychninæ, 3 min., tincture of perchloride of iron 15 min., three times a day.
13	1002-1004	205	105	236	140	Antipyrin, 10 gr. three times a day.
11	1002-1006	140	105	230	184	Antipyrin, 15 gr. three times a day.
10	1002-1006	105	60	206	156	Compound tincture of valerian 1 dr., citrate of iron and ammonia 5 gr., three times a day.

CASE 2.—P. S—, aged nine, younger brother to Case 1, had had extreme thirst from infancy, and had always passed a large amount of watery urine. Beyond measles and whooping-cough he had had no illness. There was no history of injury in infancy and none of infantile convulsions. He had been getting weaker of late. He had no cough or expectoration, and no night sweats, dyspnoea &c. His bowels were fairly regular and his appetite good; thirst was excessive. The tongue was pale and flabby, broad and thinly furred posteriorly. His pulse was 84, small, regular and of somewhat high tension; his temperature was normal and respiration, which numbered 20 per minute, easy and of good depth. The urine was pale and watery, with a greenish tinge; its reaction was faintly acid and had a specific gravity of 1002. It contained no albumen and no sugar, but there was present a trace of inosite and also of acetone acid. The patient was pale, anæmic and listless. His skin was dry and livid, due to venous congestion; the veins were well marked all over the body; his conjunctiva, lips and gums were pale; the pupils were dilated; his fingers were livid, and his feet and hands got easily cold. The chest wall was well covered; it was somewhat barrel-shaped, and there was no depression of the supra-clavicular or infra-clavicular fossæ. The expansion of the chest walls was fair. There were no abnormal physical signs over the lungs. The cardiac apex impulse was small, and was felt half an inch inside the nipple-line in the fifth space. The area of cardiac dulness was not enlarged; the sounds were free from murmur, but the second sound was accentuated both at the apex and at the base, to the right of the sternum. The liver and spleen were not enlarged. The abdominal walls were very flaccid. The bladder reached up to the umbilicus, and after micturition it was still considerably enlarged. The skin of the body and chest was very sensitive; the slightest touch anywhere caused him to shrink, as it caused a tickling sensation. The superficial reflexes were exaggerated, especially the abdominal ones. His muscular system was flabby, but fairly well developed. During the period under observation—viz., twenty-four days—the general condition remained pretty well unaltered, the patient drinking between 240 and 135 ounces of fluid, and passing between 320 and 190 ounces of urine. At the same time there was a slight gain in weight.

CASE 3.—E. S—, aged seventeen; as an infant was always crying till he got something to drink. He had what his mother called "infantile fits" from infancy till he was three years of age; none since. He had had measles, whooping-cough, chicken-pox and diphtheria; otherwise he had always been well, but never strong. There was no history of injury &c. He was always a backward boy, his intellect being slow. He had a low forehead, a flushed face, and a dull heavy expression. His pupils were somewhat dilated, his lips heavy, and the lobules of the ears were large and thick. The skin was dry and coarse. His superficial reflexes were exaggerated, his movements generally delayed; his pupils responded to light

and accommodation, but very slowly. He had no abnormal physical signs over the chest or abdomen; his bladder was somewhat dilated. He passed about 368 ounces of pale watery urine, which had a neutral reaction, a specific gravity of 1005, and contained no albumen or sugar, and but a trace of inosite. The amount of fluid drunk averaged about 265 ounces per twenty-four hours.

*Family history.*—Case 1: W. S—, aged fourteen, affected. Case 2: P. S—, aged nine, affected. Case 3: E. S—, aged seventeen, affected. One sister alive and healthy, not affected; one sister died of diphtheria, not affected. Father's family: Healthy, nothing to note. Mother's family: Mother alive, aged forty-six, slightly affected. Three brothers died of wasting, aged five years, seven months and eleven months: all had excessive thirst and passed a large amount of urine. One sister died of phthisis, aged sixteen, not affected. Two sisters alive; one suffers from heart disease and one from winter cough, not affected. Mother's mother is alive, aged seventy-four, slightly affected. One of her sisters is alive and slightly affected. Two sisters died, one of cancer of the throat and one of phthisis; neither of them affected. One brother died of cancer of the intestine, not affected. One brother is alive and is affected with extreme thirst. Neither of them had any children. Mother's grandmother died of cancer of the stomach. Mother's father died, aged seventy-two, of apoplexy. His father, two brothers and one sister died from paralysis, all over sixty years of age; none of them affected so far as known.

That diabetes insipidus is a condition which is inherited to a remarkable degree has been well shown by the cases which have been recorded by Gee and Weil, especially in the marked case of the latter observer. The present cases are also marked examples of its inheritance and what seems to be a heredity occurring chiefly in the males on the female side of the house. The similarity of the three cases is interesting. In all of them the chief symptoms of excessive thirst and the passing of an unduly large amount of urine had been present from infancy. Never in any case while under observation did the specific gravity of the urine rise higher than 1007. The amount of urine passed was always more or less in excess of the quantity of fluid taken, having been in excess as much as 76 oz. on one occasion in Case 1 and 110 oz. in Case 2. In making these observations the possibility of error was carefully guarded against. The bladder in each case was found to be enlarged, and that the capacity of it was considerable may be inferred from the fact that while in the out-patient room of the hospital Case 1 passed about two pints of urine. The retention of this amount had not caused him any inconvenience. Further, the well-marked nervous symptoms present in these cases are worthy of note. These are well exemplified in the general want of expression which was continually present in the faces of the boys; the dulness of intellect, not amounting to idiocy; thin sluggish movements, and, above all, in the greatly exaggerated superficial reflexes. That nervous symptoms had occurred in two of the cases in infancy is certain. In fact, from the circumstances mentioned, it almost seems as if the origin of the disease in these cases is to be found in some peculiarity of brain condition by which some dulling of the functions of the higher centres by which their restraining power over the lower centres has been to some extent lost or, at any rate, modified.

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#### A FEW CASES

### ILLUSTRATING THE PROBABLE DATE OF THE COMMENCEMENT OF THE INFECTIOUS PERIOD OF SMALL-POX.

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WHEN taking the histories of the patients lately admitted into the hospital ships, Long Reach, I have been much struck with the opportunities given for the spread of small-pox, without, however, that result occurring. Judging from these few cases, one cannot help thinking that the infectious nature of small-pox, at all events in the early stages, has been much exaggerated. The first case I give must be termed a small-pox curiosity, and I give it solely from its

extraordinary history and not that it has any bearing on the points I wish to bring forward.

CASE 1. Mrs. R—, aged forty-six; vaccinated in infancy (three scars); not revaccinated; initial symptoms, malaise before July 2nd, when she became distinctly worse; eruption, July 5th; admitted to the hospital ships, July 11th; discharged, July 30th.—The patient keeps a small general shop and her husband is a baker. Up to July 11th she was attending to her shop. She states that spots appeared on her face and body on July 5th, but she was obliged to serve in the shop, and therefore had a sofa in the back parlour, getting up and down to serve her customers. During this time she was looked after by her husband and daughter (aged thirty and sixteen respectively), and as she quaintly said, "lots of her neighbours would come in and argue whether she had small-pox or not," because a neighbour who had suffered from small-pox in former years declared that Mrs. R— had it then. The husband and daughter had both been vaccinated in infancy, but were not revaccinated on Mrs. R—'s removal, having some strong objections to that process. With all these possibilities no further cases have resulted from six days' exposure in a very wholesale way of a patient with a small-pox eruption. A letter from Mrs. R— after her discharge stated that her husband and daughter had not suffered in the slightest degree and that no spots had appeared on them. It seems hopeless to attempt to explain this, especially as it was definitely stated that the husband and daughter had never had small-pox as far as they knew.

CASE 2. W. J—, a male aged nineteen; vaccinated in infancy (four scars); not revaccinated; initial symptoms, malaise, July 4th, continuing up to July 8th, when he really felt ill and first noticed a rash; eruption, July 11th (about noon); admitted to the hospital ship, July 12th; discharged, Aug. 13th.—The patient is a porter and works at a milliner's, employing twenty-five hands. On July 8th he had been carrying parcels as usual and had had his meals with the rest of the employés. In the evening he went home to bed feeling really ill, where he remained until the morning of July 11th, when he walked to one of the general hospitals in London—about ten minutes' walk. He remained for about an hour in the surgery, which was rather full, until he was admitted into a general ward, from which he was soon removed to an isolation ward. The medical officer in charge has very kindly answered my inquiries, and stated that "no rash was visible, face flushed and temperature 103° 6." About noon that day the eruption appeared, "very small papules on the forehead and a few scattered on trunk," and the patient was removed about 11.30 on the next day, July 12th. Everyone who came into contact with the patient was revaccinated. On admission to the ship this patient had a distinct initial scarlatiniform rash, best marked over the gluteal region, at 9.30, and on the morning of July 13th it was still present over the front of the thighs.

CASE 3. G. S—, a male aged twenty-seven; vaccinated in infancy (stated); scars obscured by eruption; not revaccinated; initial symptoms, July 17th; eruption, July 18th; admitted to the hospital ship, July 20th; death, July 28th.—The patient was employed at a large miller's, having over a hundred hands. On July 16th he went down to Hastings with all the rest of the hands for a beanfeast, and on the 18th he was at work all day in his shop with about sixty men, the eruption having been noticed on his face about 9 A.M. He left in the evening, feeling very ill, to go to the house where he lodged, and in which there were seven other inmates. This patient was well known as a very hard drinker.

CASE 4. C. B—, a male aged thirty; vaccinated in infancy (four scars); not revaccinated; initial symptoms, July 16th; eruption, July 18th; admitted to the hospital ship, July 19th; discharged, Sept. 3rd.—The patient is a telegraph labourer at some works where about two thousand men are employed, and in his shop there are, roughly estimated, fifty men. He was at work up to 3 o'clock on Saturday afternoon, July 16th; he then went straight home to bed and remained there until his removal to the ship. His wife slept with him up to the time of removal (10.30 A.M. on July 19th), and his child, two years old, had a bed in the same room. A medical man saw the patient on the morning of the 18th, when there was no eruption; in the afternoon, about 5 o'clock, it appeared. His wife was in constant attendance and slept with him during the first seventeen hours of the eruption; she was vaccinated in infancy and so was the child, and the wife was successfully revaccinated on July 21st, and has had no signs of small-pox since.

CASE 5. *E. B.*—, a female aged sixteen; initial symptoms, July 21st; eruption, July 23rd (morning); admitted to the hospital ship, July 26th; discharged, Sept. 3rd.—This patient lives with her aunt, who keeps a general store; she does the house work and occasionally serves in the shop. Her sister, aged eighteen, who was home for a week's holiday from Saturday, July 16th, in the evening, to the morning of Sunday, July 24th, and slept in the same room, but not in the same bed, noticed spots on *E. B.*'s arms and hand about 8 A.M. on July 23rd. A neighbour from next door was shown the spots at 11 A.M. and again on the Monday, July 25th, at about the same hour, and the patient was nursed by her aunt until her removal on the 26th, about 6 P.M. The aunt was therefore exposed for three days and a half, the sister for twenty-four hours; to the eruption, and a neighbour for a short time on the first and third days of the eruption. Inquiries elicited the following facts: The aunt, aged thirty-two, was vaccinated in infancy; revaccinated unsuccessfully after patient's removal. Mrs. H.—, the neighbour, aged thirty-four, was vaccinated in infancy; neither had had small-pox. The sister, aged eighteen, was vaccinated for the first time on July 28th, which succeeded; therefore this unvaccinated sister was exposed for twenty-four hours to the eruption without contracting the malady, and since she was successfully vaccinated two days afterwards it is fair to suppose that she was susceptible to variola.

CASE 6. *M. P.*—, a female aged seventeen; vaccinated in infancy (five imperfectly defined scars); not revaccinated; initial symptoms, July 21st and before; eruption, July 24th (about 7 a.m.), face; admitted to the hospital ship, July 25th; discharged, Aug. 27th.—On July 18th she felt sick and had pains all over her; these continued and became worse until July 23rd, when she was not able to do her work. On Sunday, July 24th, she noticed spots on her face and hands when she woke up about 7 A.M. She was nursed by her father until her removal about 11.30 A.M. on the 25th, and was seen by a neighbour for about half an hour on that morning, when she was prepared for removal. The father therefore was exposed to the eruption for about twenty-seven hours and the neighbour for about half an hour on the second day. A letter from the patient's father after her discharge stated that the father was vaccinated in infancy; revaccinated some seven or eight years ago (three vaccination marks); never had small-pox. The neighbour, Mrs. L.—, was vaccinated in infancy; not revaccinated (three vaccination marks); never had small-pox.

CASE 7. *R. B.*—, a boy aged sixteen, on board a training ship; vaccinated in infancy (four scars); stated to have been revaccinated three times unsuccessfully; initial symptoms, June 5th; eruption, June 8th; admitted to the hospital ship, June 8th; discharged, July 15th.—This patient came into the sick bay on June 4th with a temperature of 99°, complaining of malaise. On the next day his temperature was 105.2°, and the eruption appeared on June 8th. The sick bay officer and six boys were in contact with the patient. The officer had had small-pox when young and three of the boys were at once revaccinated, the other three having been revaccinated in 1890. The captain of the ship kindly gave me full details and stated that thorough disinfection was at once carried out and the boy was brought to the ship as soon as the diagnosis was made. Here was full opportunity for the spread of small-pox if the disease were infectious in the incubation period; and six boys were in the sick bay with the patient during the initial illness and the first few hours of the eruption. This patient had confluent small-pox and was a good instance of Dr. Birdwood's theory of small-pox, for the captain stated that the patient had not left the gates of the ship's enclosure, but had been employed as boat boy. The eruption was extremely abundant except over the space covered by his flannel naval vest, where there was practically none; and, strange to say, the line commenced just above the gluteal region behind, as if the shirt had "rucked up" and so not protected the flanks. In front the pocks commenced just below Poupart's ligament. The pocks had sharp lines of demarcation at the shoulders, neck, gluteal region behind and Poupart's ligament in front; and with the exception of this "cuirass" of white skin he was simply one mass of pigmentation on his discharge.

CASE 8. *P. S.*—, a female aged twenty-five; vaccinated in infancy; not revaccinated (three scars, area 52 square inches); initial symptoms, July 24th; eruption, July 28th (early morning), arms then face; admitted to the South-Eastern Fever Hospital, July 30th; hospital ship, July 31st; discharged, Sept. 10th.—This patient was delivered, normal time, on

Wednesday, July 27th, at 10 P.M., by a midwife, who came at 9.30 and left about 11 P.M. Spots were first noticed about 7 A.M. on Thursday, the 28th. The midwife came again on Friday, the 29th, about 1.30 P.M., but fearing some infectious disease would only see the patient from the door for a few minutes. A medical man was then sent for, and the infant was removed soon after his arrival; it had been suckled up to that time, but had not taken the breast well. Mrs. S.—'s aunt helped the patient in her confinement and nursed her up to the time of her removal; the husband was constantly present, and patient's sister saw her for a few minutes on Friday afternoon (29th) when taking away the infant. The midwife was really only in contact with the patient for an hour or so, about nine hours before the eruption appeared, the sister for a few minutes on the second day of the eruption, whilst the husband and aunt were exposed to infection up to the time of removal. I forgot to ascertain the time of removal, but it was late on Saturday, July 30th, for the medical man only diagnosed small-pox about 1.30 that afternoon. The husband and aunt were therefore in contact with the eruption for about two days and a half.

Inquiries elicited these statements from the husband:—Mr. S.—, aged twenty-five; vaccinated in infancy; revaccinated in 1877; five vaccination marks. The sister, aged thirty; vaccinated in infancy; not revaccinated; two large marks. The infant "never had a spot;" was vaccinated when ten days old successfully in three places; died when four weeks old of, according to the father, "nervous debility and inflammation." He could give me no information about the aunt and the midwife. The probable cause of Mrs. S.—'s infection is very interesting. Her two children were sent to the ships through an error of diagnosis, having really chicken-pox on June 16th.

The notes are these: *M. S.*—, a female aged one year and a half; no initial symptoms; eruption, June 15th; admitted, June 16th; vaccinated in infancy (three scars); revaccinated, June 16th and 22nd, unsuccessfully. Condition on admission: Discrete eruption, papular, vesicular and scabbing in different places, some typical varicella vesicles; no pocks on palms, soles and palate.—June 27th (i.e., eleven days after admission): Some papules on face and a few on arms; not shotty, very little raised. Temperature normal; child peevish; no initial symptoms.

*T. S.*—, aged three months; initial symptoms, June 14th, first observed; eruption, June 15th; admission, June 16th; vaccinated in infancy; revaccinated, June 16th and 22nd, unsuccessfully.—July 6th: Drowsy during the afternoon; 10 P.M. crying out; limbs occasionally twitching; headache, flushed. Temperature 105° at 9.30 P.M.—July 7th: Punctate rose rash on legs; three small papules on face, apparently new.—July 8th: Temperature 98.2°. Child seems perfectly well. Patient discharged.

There were many opinions as regards the condition on the 7th, but no definite conclusion. Mrs. S.—'s eruption appeared on July 28th. Dating back fourteen days, makes the probable day of infection July 14th, or six days after the return of her children. Then comes the question as to source of infection: (a) Another strange source. (b) Did the child *J. S.*— have small-pox, modified to an abortive papular stage, which was capable of infecting his mother rather severely on the seventh day after the eruption? (c) The children's clothes. But the precautions taken on discharge are most stringent, and I consider this source unlikely.

CASE 9. *E. C.*—, a female aged seventeen; vaccinated in infancy (four scars); not revaccinated; worked at a dressmaker's in the West-end; initial symptoms, Aug. 13th, about 11 a.m.; eruption, Aug. 16th (morning), face; admitted, Aug. 19th.—On Saturday, Aug. 13th, the usual initial illness commenced about 11 A.M. The patient continued working at her shop until 2 P.M., when she went home to dinner, and then thought a walk would do her good, but before she had gone far she "felt unable to stand up," so returned home and went to bed. On Monday, Aug. 15th, she was seen by a medical man. Spots appeared early on Tuesday morning, Aug. 16th; on the 18th the condition was diagnosed, and the patient was removed about 10 A.M. to the South-Eastern Fever Hospital on the 19th. She was nursed by her mother during the day, by her father (who had had small-pox when young) during the night and the landlady continually saw the patient each day. On the Saturday, Aug. 13th, in addition to eleven other workers at the shop, she was seen by three cousins. On Sunday, Aug. 14th, her sister and two brothers were constantly with her. Her father and elder

brother both work at a large printing establishment, while the younger brother goes to a Board School; her sister works at the same dressmaker's, but in consequence of "slack work" has not been employed since the beginning of August. A letter from the patient's father, in answer to my inquiries, confirmed the above statements, and also added that he himself and the landlady had suffered from small-pox in former years, but that the mother, aged forty-five, who was vaccinated in infancy and successfully revaccinated about twenty years ago, had not had small-pox. The mother therefore was exposed to the infection from the eruption for over three days. I should like to draw particular attention to what might have occurred had small-pox been very infectious during this time.

(a) The patient worked at a large dressmaker's with eleven others up to the first day of initial illness, and was also (b) seen by two cousins on the first day of initial illness; (c) she was seen by a sister and two brothers (employments stated above); (d) there were no less than twelve people living in the same house, in addition to the patient.

CASE 10. J. B.—, a female aged thirty-seven; a case of confluent small-pox, who for some three days was in a most serious condition; vaccinated in infancy (four scars); not revaccinated; initial symptoms, Aug. 12th, 2 p.m.; eruption, Aug. 14th, 4 p.m., face and hands; admitted Aug. 15th.—The patient was last working at her business, at a West-end tailor's shop employing twenty-five hands, on Friday, Aug. 12th. On Saturday, Aug. 13th, she went by omnibus to Charing-cross and then by steamer to Wapping to see her daughter off to the north, returned by steamer to Charing-cross and walked home. Two of her children had lately had chicken-pox (?), but no medical man was called in. This daughter above referred to was supposed to be recovering from that disease. However, on arriving at her destination, news of her coming having been sent to London, she was taken into the local hospital as a small-pox convalescent. The patient, feeling extremely ill on Sunday, Aug. 14th, asked another lodger to come and nurse her, and was attended by this neighbour until her removal, about 7 P.M. on the Monday, Aug. 15th; this woman was therefore exposed to the eruption for about twenty-seven hours. The mother and two daughters had been sleeping in the same bed for many weeks, and one daughter and a son were admitted with their mother, no doubt infected from the others, who had had chicken-pox (?).

From these few cases it is impossible to make a generalisation, but I should like to bring forward in a tentative way the probability that small-pox is not infectious, given ordinary conditions, until the second or third day of the eruption. The only evidence I can give is negative evidence, poor at the best; but the actual incubation period is difficult to determine, especially during an epidemic. Curschmann, for instance, was only able to definitely determine that point in 10 out of 1034 cases. There are so many causes of protection from small-pox which must be eliminated before any definite statement can be made.

1. The personal idiosyncrasy—i.e., insusceptibility to small-pox contagion. This, although there hardly seems any doubt about its truth, is so rare that for practical purposes it may be neglected.

2. The protection afforded by a former attack of small-pox.

3. The protection afforded by a modified attack of small-pox, so slight that often among the poor no medical man is called in. It is quite unrecognised and taken to be chicken-pox or measles, or some sort of low fever with spots, and the diagnosis is only clinched when other members of the same family develop small-pox in its severe type.

4. The protection from recent vaccination successfully performed. (During Dr. Birdwood's time as medical superintendent of these ships over 700 people have been employed as members of the staff—namely, from June 10th, 1884, to Aug. 27th, 1892; and among these there have been only three definite cases of small-pox.)

5. The protection afforded by partially successful revaccination—i.e., vaccination not producing typical Jennerian vesicles, but reaching a papular stage and then aborting. Of this I have myself seen a fair number of instances, but for how long this protection would last the data I have are insufficient for me to give any opinion. As a general rule vaccination may be regarded as absolutely protective for two years. Among our report books there are exceptions. Up to seven years there is a certain amount of protection, and without doubt a great modifying influence; after that period the protective power is rapidly lost, but the modifying influence causing the attack to be much less severe

is retained in many cases. I have seen during the past few months cases which have only been vaccinated in infancy modify most distinctly, although their ages have been respectively nineteen, thirty-one, twelve, forty-six, forty, thirty, seventeen, seventeen, twenty-five, fourteen, and six. Whether these effects have been due to our present line of treatment or to vaccination I cannot say, but I feel rather inclined to give the vaccination the greater credit.

6. As to exposure, if Dr. Birdwood's theory of small-pox, published in the Guy's Hospital Reports for this year, be true, personal cleanliness should be a great means of warding off a possible attack of small-pox after exposure to infection.

7. That prompt vaccination after exposure is not absolutely protective is shown by twenty-two cases which I have tabulated from the report books at the ships since 1886 of concurrent vaccinia and variola, where the revaccinations varied from the day after exposure to the day of the eruption.

Taking the stages of small-pox separately and arguing from these nine cases, I have arrived at the following conclusions:—

1. During the incubation period six of these patients have definitely come into contact, more or less close, with at least a total of 261 individuals—that is, counting the training ship as having 50 boys, which is well within the mark. W. J.— came in contact with 25 persons; G. S.— with 100 at least, more or less intimately, when going to Hastings for his breakfast, and with 60 (roughly) in his shop when at work; C. B.— with 50 when at work in his shop; R. B.— with, say, 50 boys at the training ship; E. C.— with 11 when at her work; J. B.— with 25 when at her work. As no cases, to my knowledge, have resulted from these six patients, I think one may fairly claim small-pox to be not infectious under the ordinary conditions of life during the incubation period.

2. As regards the infectiousness of small-pox during the initial illness the histories given by W. J.— and G. B.— are very definite, and I have been fortunate enough to be able to confirm their statements from other sources.

3. With reference to the infective nature of the eruption, I have given statements of exposure in the case of—(a) G. S.— to about 60 men on the first day, say for eight hours; (b) C. B.—'s wife for seventeen hours, revaccinated three days after the appearance of C. B.—'s eruption; (c) E. B.—'s sister for twenty-four hours, vaccinated for the first time five days after the appearance of E. B.—'s eruption; (d) M. P.—'s father for twenty-seven hours, not revaccinated; (e) J. B.—'s neighbour, exposed to eruption for twenty-seven hours, has moved, no reply to inquiries, and patient was quite a stranger to her; (f) P. S.—'s aunt and husband for two days and a half (see *supra*); (g) E. C.—'s mother for over three days, not revaccinated; (h) E. B.—'s aunt for three days and a half, revaccinated unsuccessfully; and there have been no cases from these respective sources of infection.

Taking positive evidence instead of negative, I find in the report books for 1890 the following cases: A. N.—, a sanitary inspector, and J. C.—, the coachman, went to a patient, H. N.—'s house, to remove him to the wharf on March 13th, 1890 (his eruption having appeared March 9th). They both helped him down the stairs, and, I believe, carried him to the vehicle. On March 26th they both developed the small-pox eruption, and were therefore infected on the fourth day of H. N.—'s eruption, giving an undoubted incubation period of thirteen days to the appearance of the eruption.

T. C.— visited P. M.—, a patient, at his house on May 18th, his eruption having appeared on May 17th. C. M.—, his sister, also visited the patient on May 19th. They both developed the small-pox eruption on June 1st and 2nd respectively, having been therefore infected on the second and third days of P. M.—'s eruption, giving an incubation period of fourteen days to the eruption.

In 1891 there is this case. W. J.—, a potman, served W. D.—, a dock labourer, on March 16th his eruption having appeared March 14th. W. D.— had been drinking in the public-house all the morning, and becoming objectionable several attempts were made to actually turn him out, and there were several scuffles; so W. J.—'s exposure was more than seems to be meant by the word "served," and I believe the potman was the first to suspect what was the matter with W. D.— besides alcoholism. W. J.— developed the small-pox eruption on April 1st, therefore giving the incubation period at sixteen days and infection on the second day.

In these cases there is one weak point. I can find nothing

beyond the bare statements. No times are mentioned; so it is impossible to give roughly the probable infectious period in hours after the first appearance.

As positive evidence of the proposition I am bringing forward there is the following:—

J. S—, a male aged seven, was admitted to the hospital ship on May 11th; eruption, May 9th. He was nursed by his father, who visited him when in a dangerous condition on May 16th, and developed the eruption on May 29th, dying principally through hæmophilia on June 8th. This case strongly suggests the probability that the son was not in an infectious condition when he was removed, but that the father contracted small-pox at his visit to the ships, where revaccination was not performed.

The small-pox epidemic of 275 cases originated in January at a Swiss restaurant near Oxford-street, and is a good example of the value of isolation as carried out by the hospital ships. It is now practically over, there being at present only four patients, and a month has elapsed since the last admission. Judging from the small number of cases which I have had the opportunity of seeing, and from the information of the probable period of infectiousness which I consider I have obtained, I am convinced that early recognition and prompt isolation are the most important steps to take in stamping out small-pox, and that all persons exposed to infection should at once be revaccinated, unless that had been successfully performed within two years. Should the theory which I have, however tentatively, tried to put forward prove to be true in the future, then small-pox, providing proper precautions be taken, ought never to be dreaded by a community, and should become a comparatively rare disease.

My thanks are due to Dr. Birdwood for his courtesy and kindness in permitting me to use the reports of his cases, and for his assistance in giving me the details of the cases showing the incubation periods.

## IPECACUANHA IN DYSENTERY.

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THE following interesting case, illustrating the magical effect of ipecacuanha in large doses in the treatment of dysentery, has lately been brought under my notice whilst acting as physician to the French Hospital, Suez.

M. S—, a native of Austria, has resided for the last nine years at Ismailia. This town is notorious for malarial fever, and for three months in each year—July, August and September—she has suffered from intermittent fever. The paroxysms of fever came on about 11 A.M., terminating about 3 P.M. Towards the latter part of July of the present year she had a very severe attack of fever accompanied by acute dysentery. The diarrhoea was very troublesome, the bowels being moved as many as fifteen times in the course of the day, and the action being accompanied by much tenesmus. The character of the stools was typical of dysentery—at first yellow, then mucoid and slimy, with a very offensive odour. At the commencement of the attack retention of urine occurred for three days, and there have been subsequent attacks of dysuria. Four days after the commencement of the fever severe pain was felt in the right side, causing difficulty of breathing and accompanied by vomiting of a bilious character. On Thursday morning, Aug. 12th, I first saw M. S— in the consulting-room of the Suez Hospital. She had just arrived from Ismailia with her husband, and was supposed to be in an almost dying condition. On admission her condition was as follows: State of great prostration, with intense irritability and restlessness. Temperature 38°; abdominal tympanites and tenderness; hepatic fulness and intense sensitiveness, dysuria and diarrhoea. The stools were said by the nurse to be of the usual slimy dysenteric character, with a very offensive odour. The patient was placed in a cool ward by herself and absolute quiet enjoined. Twenty minims of tincture of opium were at once administered in a little water, followed in half an hour by half a drachm of ipecacuanha powder. Turpentine stupes were applied to the abdomen and the opium enema of the B.P. given. In the afternoon half a gramme of quinine was given in a cachet. The treatment was so immediately successful in stopping diarrhoea and easing pain that at night fifteen minims of laudanum, followed by a gramme of ipec-

uanha, was again given, with another opium enema. For the first day the patient was allowed nothing but hot milk to drink. Aug. 12th: Patient has had four stools in the twenty-four hours, the temperature being 38.6°C. The ipecacuanha caused a good deal of vomiting, but almost stopped diarrhoea, greatly easing the pain in the side. The following powder was prescribed: Two grains of salicylate of bismuth, one grain of sulphate of quinine, one grain of naphthol, one-third of a grain of opium powder. This powder was divided into four cachets, one being taken every three hours. The opium enemata and turpentine stupes were continued. Milk and soda-water, or barley-water, was all that was allowed for diet.—13th: Temperature 38°C. The patient was very comfortable; slept well. Bowels moved three times in twenty-four hours. No abdominal pain. Allowed milk, bread and bouillon. Medicine to be repeated.—14th: Temperature 38°C. One motion in twenty-four hours.—15th: Temperature 37.8°C., the patient passing natural stools. Gets up during afternoon and takes more solid food. Ordered a gramme of quinine and carbonate of ammonia instead of the bismuth preparation.—16th: Temperature 38°C. The patient progressed satisfactorily.—17th: A slight return of diarrhoea, which was effectually stopped by ten grains of Dover's powder.—18th: All unfavourable signs having passed away, at her own request the patient left for her native home in Austria, with the remark that she would have died had she stayed in Ismailia.

The specific action of ipecacuanha in dysentery is due to its dual *modus operandi* on the intestines, as (a) muscular sedative, and (b) secretory stimulant. The most characteristic symptom of dysentery is tenesmus (Dr. Woodward). There is such exaggerated peristaltic contraction of the rectum and lower portion of the colon that the patient goes to stool from thirty to two hundred times in the course of the twenty-four hours, or sits there for half an hour at a time, straining violently, but passing little or nothing (Dr. Hilton Fagge). The patient is under the delusion that he will pass something that will do him good. The fault does not lie in the irritant to be expelled, but in the irritability of the intestinal muscles. According to Heubner the average quantity of evacuation passed by each patient was found to be only from twenty-eight ounces to forty-two ounces. The great difficulty we have to deal with, then, in dysentery is exalted peristalsis. Ipecacuanha meets the difficulty by acting as an intestinal muscular sedative. A large dose of ipecacuanha stops tenesmus quite suddenly and smaller subsequent doses prevent its return. With a return of the muscular coat to its normal condition the other coats lose their irritability and the accompanying inflammation coincidentally subsides. The mucous membrane is then in a suitable condition for the second action of ipecacuanha to come into play—namely, secretory stimulation. We have now to deal with an enteritis, and here ipecacuanha acts in the same way as in bronchitis. Stimulation of the mucous membrane with secretion of mucus is effected by direct action on the peripheral endings of the gland nerves or minute ganglia (Dr. Whitla). Ipecacuanha has the same beneficial effect in dysentery therefore as it has in bronchitis. The action of ipecacuanha on the liver is that of a powerful stimulant. In dysentery the hepatic functions are in abeyance and bile is absent from the stools. Ipecacuanha directly stimulates the hepatic cells, so that very shortly after its exhibition the colourless slimy stools become feculent. In the words of Dr. Ewart, "Ipecacuanha is a non-spoliative antiphlogistic, a certain cholagogue and unirritating purgative, a powerful sudorific and a harmless sedative to the heart and muscular fibres of the intestines." According to this lucid and comprehensive description ipecacuanha is a perfect remedy for dysentery. In a certain proportion of cases ipecacuanha undoubtedly fails. Dr. Maclean says: "Where it fails it is because it has been given too late, when structural changes incompatible with life have taken place in the affected intestine, or from structural diseases of the spleen, liver and kidneys, or the combined ravages of the malarial and scorbutic cachexias." In those cases where ipecacuanha fails when success ought apparently to attend its administration the fault probably is to be found in the diet. For three hours after the first dose of ipecacuanha only a little ice should be sucked and after that a little iced soda-water and milk. Beef-tea or bread, or very light foods, are fatal to the successful administration of ipecacuanha; and to this cause a great many of the failures of ipecacuanha are doubtless to be attributed. On the second day the ipecacuanha can be reduced in quantity and supplemented by salicylate of bismuth, quinine, naphthol and opium.

Milk should still form the staple article of diet. Later on farinaceous foods and soups may be carefully given, but a return to solid meat should be deferred as long as possible. Mr. Chowdhovry<sup>1</sup> remarks "that the large doses of ipecacuanha, which have been found to be of great use in treating the dysentery of India, are often inadmissible by reason of the nausea thereby invoked preventing the patient from taking a sufficient amount of nourishment." Considering that the success of the treatment by large doses of ipecacuanha depends upon the condition of the patient in not taking any nourishment during the period of its administration, the failure in Mr. Chowdhovry's cases was evidently due to the fact that his patients were trying to take a "sufficient amount of nourishment," thereby actually causing nausea and preventing a cure. There are cases where ipecacuanha fails when administered by the mouth which may be very successfully dealt with by ipecacuanha and opium enemata.

## REMARKS ON

GONORRHOEAL SEPTICÆMIA, OR SO-CALLED GONORRHOEAL RHEUMATISM: SUGGESTED BY A CASE ACCOMPANIED BY HYPERPYREXIA WHICH PROVED FATAL.

By B. A. RUGG, L.R.C.P. LOND., M.R.C.S.

THE case upon which these remarks are founded seems worthy of being placed on record, not only on account of the extreme rarity of a fatal issue in a somewhat uncommon complication of gonorrhœa, but also as going to show the real nature of the affection to be septicæmia, depending on an absorption of the virus into the system, in the same way that puerperal septicæmia depends on a similar absorption from the uterus after delivery. There appears to have been great difference of opinion as to the exact nature of the disease. One thing, however, would seem to be quite clear, and that is that it has no connexion with ordinary rheumatic affections. It is true that it principally affects the joints, but is it not possible that the gonococci may have an elective affinity for the neighbourhood of joints in the same way that the germs of typhoid fever and cholera have a similar affinity for the intestines? The late Dr. Hilton Fagge styles the disease "gonorrhœal synovitis," and states that the pyrexia is almost always moderate, and in some instances the temperature remains normal, and that hyperpyrexia is unknown. Of the 126 cases collected by him recovery seems to have occurred in all, though convalescence was often very tedious and protracted. As regards the pathology, he says that it is quite unknown, but suggests that it may be in some way connected with the abundant nervous distribution over the prostatic part of the urethra. However, in view of this fatal case that does not appear to be at all a probable explanation. Yet he mentions on the authority of Petrone and Kammerer, quoted by Eichhorst, that the micrococcus of gonorrhœa has been found in the effused serum of the knees. Mr. Barwell suggested long since that the symptoms were due to the absorption of gonorrhœal pus, and others have held the same view. The hyperpyrexia in this case would seem to point very strongly to the septicæmic origin of the complaint, probably from the actual rupture of some small vein in the urethra, through which absorption took place.

In the case under review the hyperpyrexia came on within a few hours of the death of the patient. Previously the temperature had varied from 100° to 101.5° F., and there appeared no reason to apprehend a fatal issue. The thought occurs, may not a considerable number of cases of hyperpyrexia ordinarily attributed to rheumatism possibly have their origin in gonorrhœa? Is it altogether a mere coincidence that so-called gonorrhœal synovitis and hyperpyrexia of rheumatism should be so very much more common in the male sex? Even in ordinary cases of joint affections associated with gonorrhœa the existence of the latter has in most cases to be inquired for. Patients are usually very averse to the family medical attendant being made cognisant of the fact that they are suffering from the complaint. What is more likely therefore than that when rheumatic symptoms appear they should be reticent on the subject, especially as the discharge either ceases or becomes greatly diminished in quantity? If the case now reported should be held by the profession generally to point strongly

to a septicæmic origin of the complaint, would it not be well to discard the terms "gonorrhœal rheumatism," "synovitis," or "arthritis" in favour of "gonorrhœal septicæmia"? At any rate, it would have the effect of clearing the ground for a rational and possibly more successful treatment than exists at present, for if we cannot by any known drug kill the micrococci when they have once obtained access to the system, yet we can avoid doing harm by giving salicylates &c. which do not appear to have any very favourable effect on the disease. If given at the first onset of joint pain quinine in fairly large doses, combined with sufficient opium to control the pain, would on theoretical grounds appear to offer the best chance of success. The fatal result appears to have been due to the fact that the patient was somewhat advanced in years (sixty-two); that it was his first attack of gonorrhœa, and that his constitution was somewhat broken down from long years of alcoholic excess. The armies of the phagocytes, indeed, from their weakened powers of resistance, were worsted in their struggle for supremacy by the armies of the gonococci. Appended are a few notes of the case.

The patient, a man aged sixty-two, came to me on Aug. 10th, complaining of urethral discharge which had existed for about three days. He said that he had contracted the disease on July 31st. On examination there was a plentiful sanguineous purulent discharge; I ordered an alum and Condy injection and an alkaline mixture. On the 12th the discharge was much less, and he experienced very little pain on micturition, but seemed somewhat dejected, and complained of a little pain in the back. During the night of Aug. 13th he suffered great pain in the right wrist, shoulder and knee, and to a less extent on the left side also, being quite unable to move. Later in the day the right wrist became very swollen and inflamed, and there was considerable effusion into the right knee, but without any redness. The left ankle became both red and swollen, the left wrist painful, but not swollen; the soles of the feet painful when touched. The conjunctivæ and sclerotic of both eyes were injected. The temperature at noon was 100° F. I prescribed iodide of potassium and opium. On the 15th the pain was less and he had passed a fairly good night. The temperature at noon was 98.6°. The discharge from the urethra was very slight. The next day the right wrist was more swollen and inflamed, there being still more effusion into the knee, but no redness. Both ankles were somewhat swollen and red, and a slight muco-purulent discharge from both eyes supervened. The pain in the joints was not so severe, but he was unable to move them. The temperature at noon was 100°. On the 17th he did not complain of much pain, but the joints were swollen and inflamed still. Jokingly he said that he should like to go for a walk. He seemed quite sensible, but somnolent. Temperature at noon 101.5°; pulse 120, feeble. I was sent for to see him at 9 P.M. Soon after I left him at noon he had gradually sunk into a comatose condition and had been unable to speak or take any nourishment. At 10 P.M. he was in a deep coma. Temperature 107°. He died an hour later. It is to be regretted that no proper bath was available, and also that no post-mortem examination could be obtained.

Wood-green, N.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### A CASE OF POLYDACTYLISM.

By G. SYMERS MILL, M.B., C.M. EDIN.

THE following case may be interesting to the medical profession, as it is one of the greatest curiosity.

I attended M. S— during her confinement. She was a strong and healthy woman and had a perfectly normal labour. She was delivered of a strong and healthy male child. On examination, however, it was found that there were six digits on the left hand, there being two little fingers. The adventitious finger was well formed and similar to its fellow, with the exception of its attachment, which consisted of fibrous tissue and skin. The finger could be moved in any direction; it was attached to the ulnar side of the little finger. The other side was perfectly normal and showed no

<sup>1</sup> THE LANCET, Nov. 2nd, 1880, p. 901; quoted by the Year Book of Treatment for 1891.

vestige of an adventitious finger. The great interest of the case, however, is this, that of the six children she has had, four had more than the usual number of fingers, and all the adventitious fingers were to the ulnar side of the little finger. The first two of her children had perfectly normal hands, but the third had four little fingers, two on each hand. The fourth child had two little fingers on the left hand, the fifth had four little fingers, and the sixth was as described above. Another curious fact is that her brother's wife had a child with the condition of webbed fingers. Now, what are we to believe is the cause of this peculiar condition? I can hardly think it could be caused by maternal impression. My opinion is that it occurs in embryo by a process of dichotomy, there being a tendency in the cells which go to form the little finger in the ova of this particular woman to subdivide and form two fingers instead of one, although it seems strange that the first two children had normal hands.

Ossett, Wakefield.

#### GLYCOSURIA WITH LOW SPECIFIC GRAVITY OF URINE.

By B. H. NICHOLSON, M.B., C.M. EDIN.,

LATE RESIDENT SURGEON, ESSEX AND COLCHESTER HOSPITAL.

I HAVE lately been attending a lady whose case has interested me much, and after reading a recently published article by Sir Edward Sieveking the extreme rarity of the condition has further interested me, and I think it of sufficient interest to place before the readers of THE LANCET.

A lady aged sixty-five consulted me about two months ago, complaining of what she called "piles"—burning and itching of anus, dragging pains across the lumbar region and depression of spirits. She had been thus suffering for about a month. She had suffered occasionally before from pruritus and eczema of arms, neck &c., and her brothers and father being gouty also, I treated her condition accordingly. The patient stated that she had lost flesh since she had been suffering, and proved this by the misfit of her dress. Her muscles were flabby and wanted tone. The palmar surfaces of the hands were red and glossy and gouty in appearance. Her expression was anxious and worn and desponding from the continued itching and burning, which very much diminished her sleep. The tongue was clean, but rather red and irritable; appetite fair; very little thirst; sinking feeling after food, and occasionally acidity; bowels very irregular, and not moved without aperients; polyuria not marked, getting up twice at night; the heart, lungs &c. normal; the pulse 72, regular, good tension. There was a small papular, eczematous rash on the arms, legs &c., which itched very much. I obtained a specimen of the urine the following day: it was pale and limpid, with sp. gr. 1022, slightly acid. It yielded a trace of albumen with Esbach's solution of picric acid; and sugar was found on testing with Fehling's solution; on rough quantitative examination I found she was passing about four grains in the ounce of urine. On discovering the glycosuria the patient was immediately put on a strict diabetic diet, gluten bread &c.; strychnine, euonymin pill at night, with mineral water in the morning as aperient, and cocaine ointment to relieve the pruritus. In about three weeks she had completely lost her cares and troubles, pruritus and sleeplessness and also every trace of sugar, and the specific gravity went down to 1010. I kept her under strict diet for a month and then gradually allowed starchy food, but absolutely prohibited sugar and limited starch. The patient has remained quite well. The specific gravity of urine ranges between 1010 and 1014. The interest in this case lies in the low specific gravity combined with glycosuria and very little polyuria. I think in these rare cases we must assume the normal specific gravity to be 1010, and in glycosuria conditions 1022. This case shows the absolute necessity of careful chemical examination of the urine even with normal specific gravity.

Colchester.

#### REMEDIES IN SCORPION STING.

By R. P. BANERJEE, B.A., G.B., M.S.L.

BETWEEN April and June, 1892, I had an opportunity of treating forty-six cases of scorpion sting. Of this dreaded arachnid (*Scorpio afer*) there are four varieties: (a) A dark brown, (b) a reddish-brown, (c) one the colour of prepared

leather (pale yellow), and (d) one which is slate-blue. Of these the first and last are the most deadly. The first mentioned has the largest sting (half an inch long) and measures altogether four inches. The last, which is also most to be dreaded, measures from mandibles to telson half an inch to an inch and a half. The larger animal is sluggish and prefers dusty and manure-like soil; the smaller is found in stony places, abounds in the hills, and can endure extremes of temperature. My patients all suffered in the same way, with of course constitutional modifications. The part stung was reddish and oedematous and the pores of the sweat glands were unusually distinct. Severe burning pain was complained of in the part and extended rapidly. In some free perspiration occurred and was followed by much excitement and delirium. Females did not suffer much, and children wept much, but without exhibiting severe local effects. Men of strong build suffered most, and in some instances were very excited; but resolute persons expressed no great suffering. In all cases the joint above the part stung was almost stiff, and in some there were febrile symptoms with severe headache. Ten of my cases were treated with ipecacuanha poultices, as text-books recommend, but only with transient benefit, as I had in addition to use chloroform stupes. This relieved all pain, but the erysipelatous swelling of the affected parts remained, and continued in severe cases for seventy-two hours, requiring still further treatment. In two cases chloroform alone was used and gave instant relief, but swelling remained in this instance likewise. In five cases hydrate of chloral pure and simple was rubbed into the part. It answered well, relieving pain instantly, and with this remedy there was no subsequent swelling. The action of chloral was, moreover, less evanescent than that of chloroform. In order to use it in a more convenient and more rapidly absorbable form it was liquefied with the addition of camphor (three parts of chloral and one of camphor), and to render its action still more rapid the part was punctured with a pin or needle before its application. Menthol-camphor, and butyl-chloral-camphor were also found efficacious. Without wishing to depreciate the value of other methods this treatment, which I found successful in twenty severe cases, will, I trust, have a more extended trial from the profession in the tropics, in order that its value may be determined and its efficacy established.

Pachbudra, Rajputana, India.

#### DEATH FROM THE IRRITATION OF ASCARIDES.

By W. HENRY HILLYER, L.R.C.P. LOND., M.R.C.S.

ON Friday, Sept. 16th, I received a message to visit a child at a village some three miles off, who was said to have vomited worms and to be very ill. Having other, apparently more urgent, cases to attend, I did not see her until some three hours later, about 1.30 P.M. The patient, a child aged five years and a half, was lying on her back, half unconscious, with eyes wide open and dilated pupils. The conjunctivae were almost insensitive; the skin was cold and clammy; the temperature in the rectum was 99° 8'; the pulse was imperceptible at the wrist; the apex beat was fluttering and difficult to count, but was at least 200; the right hand was tightly clenched and there was some difficulty in getting the mouth open; the abdomen appeared normal. There was no distension and no lump could be felt on palpation. There was no specially tender spot, but the child moaned a little on being touched. The tongue was slightly furred and red at the tip.

The history of the case was as follows:—The child had never been very strong, but was in her usual health until the morning of the 15th, when she complained of severe abdominal pain. A dose of castor oil was administered, which was immediately returned, and with it three round worms. No further vomiting occurred, nor any action of the bowels, which had acted naturally the previous evening (the 14th). No worm had ever been passed per rectum. Since the vomiting of the worms the child had lain "just as you see her now," and had not complained of any acute pain, but moaned occasionally. She had never had any convulsions. I administered three grains of santalin, with three grains of calomel (which I had brought with me), but the child died ten minutes later without any change of symptoms.

On making a post-mortem examination twenty-two hours after death I found the small intestine slightly distended down to a point fifteen inches above the ileo-cæcal valve

where a mass of worms could be felt freely movable in the ileum. Below this point the bowel was collapsed and quite empty, except for two or three damson stones in the colon. The peritoneum covering the small intestine was slightly congested in patches, but not more so in one part than another. On opening the gut I found forty-two ascarides, of which eight were rolled together in a solid mass at the point noticed in the ileum, occluding but not distending the intestine. There was no perceptible narrowing of the gut at this point and no sign of intussusception. The mucous membrane was intensely congested throughout the small intestine, more especially about the occluded point. The stomach was empty and normal, and nothing abnormal was discovered in the lungs, brain, heart or any other organ.

The interest of the case centres in the question, "What was the immediate cause of death?" The symptoms were not those of acute obstruction, but rather of aggravated irritation of the bowel, and this was confirmed by the post-mortem appearances. It would appear as if the irritation had been sufficiently powerful to cause death from shock without the supervention of actual inflammation. Cases of death indirectly caused by ascarides, as by their escape into the abdominal cavity &c., have been frequently recorded, but I believe that a case of death either from the direct effects of their irritation or from obstruction by them must be exceedingly rare.

Buckden.

#### REFLEX SPASM OF GLOTTIS FOLLOWING DISTENSION OF STOMACH.

By SURGEON-LIEUTENANT B. G. SETON,   
 SECOND PUNJAB INFANTRY.

A MAN in the 2nd Punjab Infantry, a Tusufzai Pathan, was admitted to hospital on the night of Aug. 19th, with symptoms of laryngeal spasm. The patient had been on duty in an outlying fort for some days, and had been unable to get meat during that time. On his return to Fort Mastan on the evening of the 19th he ate a large quantity of very tough goat meat in pieces found subsequently to vary from four inches to seven inches and a half in length. This meat was uncooked. He then drank a large quantity of water. After his meal he sang for about an hour, at the end of which time he noticed occasional pain in his larynx and cough. This was gradually succeeded by dyspnoea, which finally prevented his sleeping, and at 1 A.M. he was taken to hospital.

On examination, beyond distension of abdomen, nothing was visible. As far as could be determined the obstruction to breathing was in his larynx. His speech was whispering and quite altered in quality. He also complained of some pain over the hepatic area. Hot fomentations were applied to his larynx, and occasional inhalations of chloroform were given, but their effect was transitory. No emetic could be administered as the spasm prevented him swallowing. At 2 A.M. counter-irritation was attempted, and blisters were applied along the course of the vagi, and cupping over his stomach repeatedly performed. The result was well marked in about half an hour, the spasms stopping for a time and then recommencing. Finally an emetic was given, and about a pound and a half of meat vomited. From this time his symptoms improved still more, though for three days he had a spasmodic laryngeal cough. Hepatitis came on the day after his meal, but was easily cured. No laryngeal examination could be made, as there was no instrument for the purpose at hand. It is important to note that when once the laryngeal symptoms began to abate the patient could swallow freely, so that direct pressure on the larynx by a mass of meat in the œsophagus was out of the question; while the marked effect of counter-irritation of the vagus seemed to point to the symptoms being due entirely to reflex irritation from the stomach. On Aug. 23rd all his symptoms had ceased.

Fort Mastan, Samana, Punjab.

**PUBLIC DISPENSARY, FALMOUTH.**—The medical report for the past year states that 456 patients had been treated during the twelve months. As far as known there were ten deaths, 104 cases cured, 300 relieved, 22 results unknown and 20 under treatment. The report concludes with the remark: "Very little sickness, and remarkably little of an epidemic character."

## A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### ST. THOMAS'S HOSPITAL.

TWO CASES OF ROTATORY DISLOCATION OF THE PATELLA.

(Under the care of Mr. WM. ANDERSON.)

WITH regard to these cases Mr. Anderson has pointed out that they derive importance from their comparative rarity and from the extreme difficulty sometimes experienced in their reduction. In the published observations by Streubel about one-sixth of the patellar dislocations were rotatory, and of these about two-thirds were turned with the articular surface outwards, as in the examples now recorded. The mechanism of the displacement is by no means clear. Sometimes the accident is attributed to a blow, at other times to an attempt to recover from a false step, at other times to a fall, but there can be little doubt that in all it is a sudden and irregular contraction of the quadriceps that is the main factor. In Case 1 the patient felt the bone twist out of place while he was trying to regain his balance after a slip, and he was confident that he did not strike the knee; while in Case 2, on the contrary, there was a clear history of a blow on the outer side of the knee while the patient was rising from a kneeling posture. It has been found impossible to produce a rotatory dislocation artificially on the dead subject except by dividing the ligamentous structures and actually twisting the bone into its abnormal position by means of a lever introduced behind it, and from this we may assume that in any case mechanical violence applied on the living subject can only act by provoking the muscular spasm, which really effects and maintains the displacement. On theoretical grounds it would be difficult to imagine the extraordinary resistance offered by the luxated bone to the strongest efforts at replacement. Not the slightest impression could be made upon it in either of the following cases by very powerful leverage, although the patient was in a condition of surgical anaesthesia, with an apparently complete relaxation of the voluntary muscular system in general. In one case, quoted by Koenig, the bone is said to have defied reduction after the section of the ligamentum patellæ, and in another even after division of this and the tendon of the rectus also (Wolf). Gaulke succeeded by the use of a carpenter's vice, and others have achieved the end by introducing a lever or a hook beneath the bone through an opening on the capsule. It is probable, however, that the great element of success is to push the anæsthetic until it vanquishes the resistance of the quadriceps extensor, the tension of which persists long after the other muscles have become relaxed; and as adjuncts to this the movement of flexion with rotation appears to be more efficacious than simple extension, and possibly because it draws upon the margins of the twisted bone through the intermediation of the stretched tibio-patellar bands. In the second case no lateral band could be detected, and here neither flexion nor rotation of the leg produced any effect. Should all manipulations, aided by full anaesthesia, fail to reduce the bone, the methods referred to above would be justifiable if carried out with due precautions; but it may be borne in mind that, although some deformity and limitation of flexion would remain where reduction is not effected, a very useful command of the joint may be regained. A female patient once presented herself before Mr. Makins, with a rotatory dislocation of two years' standing, but she suffered so little inconvenience from the defect that it was not considered desirable to interfere. A cast taken from Cases 1 and another from the patient under the care of Mr. Makins, may be seen in the museum of St. Thomas's Hospital.

CASE 1 (from notes by Mr. R. B. Williams).—A. H—, aged fifteen, was admitted into Clayton ward on Feb. 26th, 1892. The patient slipped while walking, and, in endeavouring to regain his balance, the knee gave way beneath him. He says that it was not struck in the fall, but that on rising he found his knee fixed

in the extended position and very painful. When admitted he was a well-grown lad of good muscular development. The right knee was extended and the patella was found to be dislocated, with its outer margin turned forwards and the articular surface outwards, while the inner margin rested between the condyles. The outer border of the rectus was very tense, and a tight ligamentous band extended from the projecting margin of the bone to the inner tuberosity of the tibia. The patella was quite fixed. Chloroform having been given, an attempt was made to restore the bone to its normal position while the limb was extended, but no exertion of force made any impression upon it. The quadriceps still remaining tense, the anæsthesia was pushed further, and then on flexing the joint about forty degrees and manipulating the patella the dislocation was reduced with very little effort. The limb was bandaged and placed upon a back splint. Some little effusion into the joint followed, but no other symptoms arose, and at the end of three weeks the patient left the hospital.

CASE 2. (from notes by Mr. J. R. Carver).—A. R.—, aged twenty-three, domestic servant, was admitted into Elizabeth ward on April 21st, 1892. The patient while rising from a kneeling position on the floor slipped and struck the outside of the left patella against the corner of an arm-chair. Feeling great pain in the knee and inability to flex the joint, she went to a local practitioner, who recognised the nature of the accident and endeavoured, but unsuccessfully, to reduce the dislocation. She was then brought to the hospital. The patient on admission was a stout but somewhat unhealthy looking young woman. On examination of the knee the patella was found to be dislocated, with its articular surface turned outwards, the position being identical with that in Case 1. There was strongly marked tension of the rectus, but the tibio-patellar band seen in the last case was not apparent. After the administration of chloroform attempts at replacement were made, first during extension and afterwards by flexion and rotation of the leg, but although considerable force was exercised the bone was absolutely immovable. The quadriceps still remained very rigid although the rest of the muscular system appeared to be relaxed, but on pressing the anæsthetic further the tension diminished, and during a gentle manipulation, while the knee was extended and the thigh flexed, the bone returned to its place with a sudden spring-like action. The after treatment was the same as in the previous case. The patient was discharged at the end of a fortnight.

### VICTORIA HOSPITAL, HULL.

#### OSTEOMYELITIS OF TIBIA; RESECTION; MULTIPLE (SEPTIC) EPIPHYSITIS.

(Under the care of Mr. ALFRED PARKIN.)

THIS case illustrates well what is now by no means a common form of bone pyæmia. The original mischief in the tibia undoubtedly gave rise to suppuration in the elbow-joint, probably, as afterwards found out, by a deposit in the lower epiphysal line of the humerus; and subsequently affections of the other bones resulted, from similar depositions of embolic foci, so that in all five bones and two joints became involved. It was remarkable how few symptoms there were to indicate what proved to be extensive mischief in each case. Slight swelling about an epiphysal line and around the epiphysis was the first thing noticed; pain or tenderness on pressure only developed late, and it was impossible to be certain of the affection of any one bone until a portion of the compact tissue had been removed by a gouge. Drilling the bone was useless, the caseous matter being too thick to escape in this way, and yet if that caseous matter had not been removed the chances of recovery would have been small.

R. P.—, aged ten, was admitted to the Children's Hospital, Hull, on Jan. 25th, 1892. He had been ill and in bed about three weeks suffering from a bad leg, the result of a kick. On admission he was pale and emaciated and complained of pain in the left leg, which was swollen. Over the centre of the tibia there was a sinus discharging pus freely, and around it much redness and œdema, with marked thickening about the upper two-thirds of the bone. The left elbow-joint was swollen and very painful, with fluctuation behind. Evening temperature 103°.

Jan. 26th.—The tibia was explored and a large part of the shaft found bare and yellow. A portion of the whole shaft (five inches in length) was removed. The periosteum around it

had begun to form new bone, which lay in isolated plates on the walls of the cavity from which the dead bone was removed. The medulla of the removed bone was full of pus of an offensive odour. The resected ends of the tibia were scraped out and the cavity well drained. The left elbow-joint was opened and a quantity of pus escaped. The cartilages felt firm and movement was quite free and smooth, so the joint was irrigated and drained.

Feb. 3rd.—The temperature, which had come down after the operation, has for the last two evenings been 104°. A large abscess over the external condyle of the left humerus was opened and drained. It did not apparently communicate with the elbow-joint.

22nd.—The temperature is still 101° or 102° at night. For the last six days there has been slight thickening around the head of the right ulna. Not the slightest tenderness on pressure, merely a diffuse swelling. The swelling has been explored and the bone drilled without result. On removal of a part of the compact tissue the medulla was found to be full of caseous matter extending along the lower third of the bone. This caseous matter was all scraped out.

28th.—The right tibia near the ankle is swollen and tender on exploration. The bone is found to be very soft and the medulla easily opened up at the epiphysal line. Pus was found running in different directions along small channels in the bone, some of which extended almost to the ankle-joint.

13th.—For the last three days slight thickening has been noticeable around the lower end of the left radius; to-day a little tenderness is present on firm pressure. The general condition of the patient is excellent. The left radius was explored and the lower end found to be full of pus, which had burrowed through and in front of the bone. A part of the lower end of the radius, including a portion entering into the wrist-joint, came away quite dead and devoid of articular cartilage.

April 2nd.—Marked thickening shows itself over the upper end of the right humerus. There is slight pain on pressure, but no redness or œdema. On exploration an aperture at the epiphysal line was found, and from this a large cavity full of broken-down material extended upwards into the head of the bone, nearly to the articular cartilage, and downwards for about an inch along the medulla. The left elbow-joint was excised on the supposition that it was a centre of infection; the cartilages were soft and not easily raised; extensive caries was found in the olecranon fossa.

18th.—General condition of patient excellent. A large abscess over the external condyle of the left humerus was opened and drained. The patient can now walk quite well and without limping; left leg quite straight; a firm mass of bone occupies the situation of the part of tibia removed.

25th.—The temperature is now normal, all the wounds healing up well.

June 10th.—Went to a convalescent home. Good movement of left forearm and hand and the muscles are increasing in size. Active flexion of forearm to an angle of 30°, extension to 135°; pronation and supination of hand 90°. Excision wound quite healed. Good movement at left wrist-joint; other wounds practically healed.

The case is an excellent example of the results of epiphysitis or, as some would call it, par-epiphysitis, the mischief readily extending along the epiphysal line to the outside of the bone, along the medulla, into the epiphysis or into the neighbouring joint. Fortunately in each case the disease was controlled before any one of the epiphyses had become separated, and there is no doubt that in similar cases life can only be saved by a ready resort to operation as soon as any swelling is detected. The mischief extends so very rapidly that it is worse than useless to wait until pain or tenderness appears, not to mention redness or œdema. A swelling about an epiphysal line is in itself a sufficient indication for exploration, and it will be strange if in any such case the extent of the disease is not found to be much greater than anticipated. Another feature in this case was the rapidity with which new bone was reproduced after the removal of five inches of the tibia. In about nine weeks the patient was able to walk quite well, and yet at the first operation the periosteum lining the cavity was only covered here and there by a little plate of bone. Anyone who has seen and smelt the yellowish-green material filling the centre of a long bone affected by osteomyelitis will recognise the magnitude of the danger to which a person is exposed until that bone is removed; and, when to this is added the factor that the sooner all dead bone

is removed the sooner can the periosteum begin to produce healthy bone, it is evident that we have here two powerful arguments in favour of early bone resection in such cases. It is only by prompt eradication of all septic foci, so preventing further (perhaps visceral) dissemination, that we can hope to save the life of the patient, or avoid months of troublesome suppuration with its attendant dangers.

## Reviews and Notices of Books.

*Diseases of the Nervous System.* By JEROME K. BAUDUY, M.D., LL.D. Philadelphia: J. B. Lippincott Co. 1892.

THIS is a book of 350 pages, the second edition of a work published in 1876. A second volume is promised in which brain diseases, spinal cord conditions and peripheral affections will be discussed; so that the work when completed may be expected to be very comprehensive. From the volume before us it is not easy to discover the plan on which the book is framed. It consists of nineteen lectures, and of these no less than eight are devoted to the subject of insanity in its various phases. We may say at once that the book is somewhat disappointing both as regards matter and style. However necessary or justifiable the presence of lengthy quotations from more or less classical works may be in a systematic treatise they are quite unsuitable, we think, in a work cast in the form of lectures, and the impression which such an arrangement conveys is that the author has not taken the trouble to assimilate the various views which have been stated, but, has been content to transfer to his pages, with due acknowledgment of course, extracts from the numerous works he has consulted. The result of this is a want of conciseness and cohesion in the matter and makes it difficult for the reader to arrive at the author's own views, which are evidently the result of large experience and acute observation. As we have said, no less than eight lectures deal with insanity; the other eleven are devoted to the consideration of anæmia and hyperæmia of the brain and affections of the cerebral meninges. In the next volume we hope the author will do himself greater justice than he has in the one before us.

*Les Troubles du Langage chez les Aliénés.* Par J. SÉGLAS. Paris: J. Rueff et Cie. 1892.

IT is unnecessary to do more than indicate the scope of this valuable monograph. The subject with which it deals interesting scientifically is also of great practical importance, and the author is to be congratulated on the manner in which he has done his work. The book is divided into three parts, prefaced by an introduction and two preliminary chapters. The first part deals with abnormalities in spoken language. These are discussed under three heads—viz., abnormalities in speech the result of intellectual disturbance; abnormalities of speech with disturbance of the speech function proper; and troubles in talking. Similarly, written speech is discussed on analogous lines, and finally imitative speech. This brief *résumé* of the contents will give an idea of the completeness of the plan of the work; perusal alone will reveal the excellence with which it has been carried out.

*Die Mikro-organismen der Gärungsindustrie.* Von ALFRED JÖRGENSEN. Dritte neubearbeitete und vermehrte Auflage. Mit 56 Textabbildungen. Berlin: Verlag von Paul Parey. 1892.

IT will be remembered that in 1889 an English translation of Jörgensen's work, edited by Dr. G. H. Morris, was placed in the hands of students of bacteriology; this was exceedingly well received, and very rightly so, as it gave an account of the processes of fermentation as applied to brewing such as had not hitherto appeared in our language. It contained much matter that was not given in the original, but was still not so fully up to date as the second German

edition, which appeared in the same year. So successful has the book been abroad, and so greatly in demand, that we have now before us a third German edition. The original work is so well known that little need be said in its praise. It has, since its first appearance, been the standard reference book for those engaged in industries in which fermentative processes play a part, and it certainly promises to retain its position since it has been brought up to date. Not only is the text expanded and corrected, but the illustrations are very considerably increased in number. This is specially noticeable in the section devoted to the Multiplication, Spore Formation and Sprouting of the Saccharomycetes—a section which will well repay perusal by all students of botany and bacteriology. It may be added that, though this work was written expressly for the technical student, the subject matter is treated in such a thoroughly scientific manner that parts of it might almost be used in place of a biological text-book. A short *résumé* of work initiated or influenced by Hansen's researches is given in a supplementary chapter, and a very full bibliographical list is appended.

*The Hygienic Treatment of Consumption.* By M. L. HOLBROOK, M.D. London: L. N. Fowler, Ludgate-circus. 1892.

THIS is a popular exposition of the causes, prevention and general hygienic management of phthisis. It is written for the patient, "as the author believes he can under most circumstances do most for himself, and also be better able to coöperate with his physician at the same time." Medicines are ignored, the author believing that "at most little benefit can be derived from them, and a reliance on their supposed virtues is sure to attract ('distract) the patient from the remedies here recommended." After a brief consideration of the causes of phthisis the author deals at length with the means to be taken for enlarging the chest, for promoting respiratory power, for strengthening and hardening the constitution &c. The questions of food, exercise, clothing, house hygiene, climate and travel and the cultivation of brain power are passed under review. Much of the advice given is sound and sensible, and such as every physician of experience is in the habit of giving to his phthisical patients. The two chapters on vocal exercises are the best in the book, and are worthy of the attention of invalids. There can be little doubt that much remains to be done in the direction of special pulmonary exercises, and that singing and reading aloud can be most advantageously used for this purpose. The subject of climate is very briefly handled, and nothing new is said regarding it. Dr. Holbrook praises highly the region around Florence (Arizona) and Sevier Valley in Utah as valuable sanatoria for the poitrinaire. The author is a great believer in "psychic influence" and the cultivation of the will, and relates several anecdotes of patients who, learning that they were affected by phthisis, resolved to get well, and succeeded largely, he thinks, by sheer will force. Perhaps owing to its popular aim the work has little scientific value. The physiology is often hazy, and many important points are slurred over or dismissed in a vague sentence or two. Here and there occur passages that excite a smile. Thus we are told that "what is called magnetic treatment has its value if taken once or twice a week, provided a healthy person gives it" (p. 211); and in choosing a house, Dr. Holbrook, among other instructions advises the patient to inquire "if any room is haunted" (p. 142).

*La Débauche.* Par ÉMILE ZOLA. Paris: Bibliothèque Charpentier. Pp. 636. 1892

ENGLISH readers have not become enamoured of M. Zola's realistic literature, and we remember that not so long ago the liberty of one of Her Majesty's subjects was imperilled for

doing into English some of this writer's most popular novels. Stung apparently by the criticism that he could not write a clean book, M. Zola gave "Le Rôve" to the world, expressly for the Young Person, and now "La Débâcle" has well proved itself worthy of criticism by its number reaching in a few weeks 120,000. One of the first incidents having an interest for medical readers in the novel is pictured as occurring before Sedan, a child of ten being unable to be transported to the rear because he is suffering from typhoid fever. His devoted mother remains with him, and is killed on a doorstep by a stray shell. The poor child, in raging fever, begs piteously for water, but his hearers are too intoxicated by fighting to pay the least attention to him. As the battle proceeds soldiers overcome by fear are described as losing control over their sphincters, while Napoleon makes heroic attempts to disguise his sufferings, and is rewarded for his courage by nights of torture only relieved by groaning. A first dressing place is formed for the wounded, civilians and ladies are pressed into the service to roll bandages, and improvised splints for fractures are described. In Sedan itself a station hospital was established in a convenient warehouse, and some thirteen pages are devoted to a faithful description of the operations conducted there by Surgeon-Major Bourroche. Those who remember the carnage of Sedan, Metz, Plevna and Shipka can well sympathise with the operator who, without adequate assistance, in choosing suitable subjects for the table, had to turn a deaf ear to most of those who were slightly wounded. In an atmosphere nauseated by blood and chloroform, surrounded by the dying and the dead, he disarticulates a shoulder by Lisfranc's method in thirty-five seconds, then amputates a leg by the circular method below the knee, taking care to divide the skin two inches below the point where he intends to saw the bones. While the operator is dividing the muscles from the tibia and fibula an attendant whispers in his ear that the next operation, "the arm," is dead. "Ah, well! bring the next one—the jaw." As the operation is being finished a shell bursts in the courtyard, completing the terror of the wounded, the bearers and the amateur assistants; and so the scene at the shambles continues till nightfall, and again the following day, till at last the chloroform is exhausted and the stern enemy will allow none to be admitted into the town. The surgeon-major is beside himself with fatigue and vexation, as he has 400 wounded to treat and his entreaties for help have only brought him one young assistant. The contagion of fear among young soldiers is well described, and we are irresistibly reminded of scenes even better told in Tolstoy's war stories. In another chapter we can easily picture a handful of French troops caught in a wood near Sedan and peppered so hotly by the enemy's fire that most of the little band are killed or wounded, and many are the execrations on the sun, which seemed never to be setting and never to be ending the dangerous day. The chief object of the author is to show that though the bulk of the French were brave enough their officers were hopelessly ignorant, ill-prepared, and unfurnished with maps of France, though they all had survey maps of Germany. One general ordered his men to cross the Meuse, the Moselle, or "whatever other river it was in front of them." After the fall of Sedan thousands of French prisoners were encamped on a peninsula formed by the Meuse. Here they suffered terrible privations from the failure of the German commissariat; so that eventually the hero and his comrades were driven by hunger to kill a dying horse with a pen-knife, by stealth, and eat it while half raw, without salt, bread or biscuit. Their stomachs fortunately refused this doubtful food, weakened as they already were by dysentery consequent on drinking river water poisoned by numberless corpses of men and horses. A few days later one of this company was suspected of having a secret supply of food, chiefly because he had ceased to complain of hunger. Thrice

of his comrades, by this time wholly brutes, found him eating half a loaf of bread, chased him, and eventually the least human of them killed him with the knife as he had killed the horse shortly before. It is satisfactory to note that the murderer, after bolting the bread, was shot by the sentries while trying to escape by swimming the river. The hero escapes from these dangers, finds his way into Paris, deserts there, and is eventually bayoneted by his chief friend, who does not recognise him in a Communist blouse. The friend was shot in the leg, however, before Paris was invested, and a long illness resulted, during which he was hidden on a French farm and tenderly nursed by the hero's sister, whose husband had been killed before her eyes by the Bavarians. The details of the wound are described with the care and technical knowledge for which M. Zola is justly remarkable. "Jean's wound healed extraordinarily slowly, the drainage-tube not always yielding laudable pus, which would have justified the doctor in operating, while the patient gradually weakened, obstinately refusing any operation for fear of becoming crippled." However, patience and good nursing, with a splendid constitution, pulled him through, and away he went wholly in love with the widowed nurse. Less fortunate than this were many of the wounded, who were found ten days after the fighting with their wounds alive with maggots. What wonder that they succumbed later to septicæmia, dysentery, typhus fever and hæmorrhagic small-pox. The medical descriptions are wonderfully accurate, though we may venture to doubt whether the delirious, dying of pneumonia, were wracked by terrible coughs. "Every day, at the dressing hour, the doctor examining the wounds was distressed to find bluish marks on some poor devil's skin, the sign of hospital gangrene." In spite of free amputation the patient was soon found in "the condemned ward, where he breathed his last, his body already dead and practically a corpse before the final dissolution." The book faithfully describes the treatment of wounds as it was on battlefields and in crowded hospitals in 1870, before the days of antiseptic surgery. There is no mention of the help rendered at Sedan by the Anglo-American ambulances. There is much in "La Débâcle" to entertain both professional and other readers, and we shall be interested in the future in seeing how M. Zola treats the subject of the supposed cures during the Lourdes pilgrimage, a study on which, we understand, he is at present engaged.

*The Holiday Annual, a Handbook of Practical Information on Holiday Topics.* Edited by A. B. C. London: Causton and Sons, 9, Eastcheap, E.C.

ANNUALS of this kind are among the many indications of the enormous development of holiday travel in these days. The annual before us contains papers on Spain, France, Switzerland, Arcachon, Lakeland, the Norfolk Broads, Dublin as a holiday centre, Kairwan "the holy," Penmaenmawr, North Wales &c. Here is variety enough for all tastes. The articles for the most part have no pretensions either to literary style or scholarship and deal as a rule only with obvious facts and superficial impressions. But they may be read with advantage by those meditating a holiday tour and may be the means of arousing pleasant recollections of by-gone travel on the part of others.

*Psycho-therapeutics, or Treatment by Hypnotism and Suggestion.* By C. LLOYD TUCKER, M.D. London: Baillière Tindall and Cox. 1891.

WE have little to add to what we said in our notice of a former edition of this book. It has been considerably enlarged, and contains accounts of interesting cases collected from various sources.

*Hoblyn's Dictionary of Medical Terms.* Edited by J. A. PRICE, B.A., M.D. Oxon., Assistant Surgeon to the Royal Berkshire Hospital and late Physician to the Royal Hospital for Children and Women. London: Whittaker and Co. and George Bell and Sons.

THIS well-known work of the late Richard D. Hoblyn, M.A., has now passed through its twelfth edition, having been thoroughly revised and brought up to date by Dr. J. A. Price. Many new words have been added to the work, more especially in the department of bacteriology, and a useful feature of this new issue is the addition of dates to the names of eminent medical men mentioned in the work who have passed away.

THE *Veterinary Journal* for August as usual contains a considerable quantity of very interesting matter. The original articles are on "Acute Gastritis in Cattle, commonly known as Grass Disease," by J. Clark, F.R.C.V.S., Coupar Angus; "Diseases of Horses in Mashonaland," by Dr. Rayner, Cape of Good Hope; "Lameness from Enlargement of the Inferior Tuberosity of the Small Metacarpal Bone," by Veterinary-Captain J. A. Nunn, F.R.C.V.S., D.S.O., Principal, Lahore Veterinary College, and Veterinary-Lieutenant L. J. Blenkinsop, M.R.C.V.S., Veterinary Surgeon to the Punjab Government and Professor at the Lahore Veterinary College; and by the same authors, "The Use of Cocaine in Masking Lameness"; and an article on "Sciatica" by John Scott, M.D.V. An editorial article which will be of more than veterinary interest at the present time, in view of the prevalence of glanders in London, deals with Mallein as a Diagnostic Aid in Glanders; this diagnostic agent has been utilised both in Russia and in France and it seems probable that it might be of some service in London. Reviews, reprints and reports—amongst the latter a report of Mr. T. B. Goodall's paper on the "Nasal Chamber and Facial Sinuses of the Horse," read before the Royal Counties Veterinary Medical Association—will prove of very considerable interest. This paper is characterised by very careful observation and close reasoning and is well worthy of perusal by both veterinary and medical authorities.

## Analytical Records.

### TABLOIDS OF COMPRESSED RESORCIN AND TABLOIDS OF COMPRESSED ICHTHYOL.

(BURROUGHS, WELLCOME & Co., SNOW-HILL BUILDINGS, E.C.)

RESORCIN is antipyretic, antiseptic and hæmostatic, and it may be administered very readily and conveniently in the form of the three-grain tabloid which we have recently examined. Resorcin belongs to the group of diatomic phenols, just as pyrogalllic acid belongs to the group of triatomic phenols,  $C_6H_3(OH)_3$ , and is isomeric with pyrocatechin and hydroquinone, the formula  $C_6H_4(OH)_2$  being common to the group. It gives a dark violet colour with iron perchloride and with chloride of lime, but the most interesting reaction perhaps is that in which, when treated with sodium nitrite, it produces lilmoid, a magnificent blue colour strongly resembling litmus. All these reactions were successfully obtained with the resorcin tabloid.

Organic compounds of sulphur are invariably nauseous to the taste and smell, and ichthyol is no exception to the rule. Ichthyol, or more exactly sulpho-ichthyolate of sodium, is a bituminous substance obtained by treating with sulphuric acid; and subsequently neutralising with an alkali, the products of distillation of a bituminous quartz (fossil fish remains) found in the Tyrol. By abstracting oxygen from the tissues it becomes a reducing agent of some value and is reputed to exert an invigorating and antiseptic influence throughout the organism, as well as an astringent effect on the bloodvessels; so that its use is suggested in cases where

there is dilatation of the capillaries. The tabloids of compressed ichthyol prepared by the above firm consist of the medicament in a massed form, enclosed in a coating of pure cane sugar, and as by this means the objectionable taste of the ichthyol is completely hidden, the usefulness and convenience of this method of administration are again evident. On heating the brown mass in a test-tube it rapidly swells up and gives off tarry oils possessing a strong alliaceous odour. When the drug is ignited with nitrate of potassium it deflagrates brilliantly and yields its sulphur to the potassium salt, so that on dissolving the "melt" in water sulphate is found to be present according to the barium test. Each tabloid contains two grains and a half of ichthyol.

### STARCHLESS BISCUITS.

(J. J. CLARK, GOLDSTONE BREAD FACTORY, WEST BRIGHTON.)

An analysis of these biscuits shows that they contain all the food constituents of flour minus the starch. Our own analysis, which approximately agrees with that submitted to our notice, gave the following results: Moisture, 2.51 per cent.; mineral matter (especially rich in soluble phosphate), 5.56 per cent.; albuminoids, 43.47 per cent.; extractives and soluble matter, 30.0 per cent.; fat, 18.46 per cent. Microscopical examination confirmed the foregoing analysis; there was no starch and no bran. The biscuits are exceedingly palatable, crisp and of excellent texture, and from the fact that they contain no glucose-yielding substances may well be included as acceptable and valuable food stuffs in the dietary of diabetic patients.

### ARMOUR'S ESSENCE OF PEPSIN.

(MESSRS. ARMOUR AND CO., 59 AND 60, TOOLEY-STREET; AND CHICAGO.)

Laboratory experiments furnished unmistakable evidence of the value of this preparation, inasmuch as it was found to be remarkably active in digesting hard-boiled egg, which it readily converts into assimilable peptone. Notwithstanding this activity, the essence possesses a very satisfactory flavour and odour, and, indeed, in these two respects more nearly resembles a sweet wine than a preparation destined to materially assist digestion. It is acid to test paper, and in appearance might be mistaken for sherry. Armour's essence of pepsin is a distinct advance on ordinary preparations of this class. It may be regarded as a reliable and agreeable form of pepsin wine.

### LIQUOR MANGANO-FERRI PEPTONATI.—SAPO EUCALYPTI ET ACID. CARBOLICI.—IMPROVED PATENT SEIDLITZ POWDER.

(HOCKIN, WILSON AND CO., 13-16, NEW-INN-YARD, 186A, TOTTENHAM-COURT-ROAD, W.)

Liquor mangano-ferri peptonati is a clear dark-brown liquid smelling of cloves; it is acid to test paper and contains 0.6 per cent. of iron with 0.1 per cent. of manganese. The iron is in organic combination, as is evidenced by the following tests: Ammonia gave no precipitate and potassium ferrocyanide or sulphocyanide no result till acidified with hydrochloric acid. Ammonium sulphide produced an immediate black precipitate. Manganese was separated and subsequently recognised by the test which depends upon the formation of green manganate when the metal and its compounds are fused with soda, and upon the formation of red permanganate when the alkaline mass so obtained is acidified with sulphuric acid. In spite of the presence of these metals peptone was discovered by the biuret test. It is an ingeniously prepared and reliable product and may doubtless be administered with distinct advantage in cases where the readily oxidisable metals present are indicated. Moreover, it is agreeable to the palate and devoid of styptic taste.

Sapo eucalypti et acid. carbolici, as its name implies, contains a judicious proportion of the readily volatile antiseptic eucalyptus with the less readily volatile carbolic acid. The soap with which these agents are incorporated is entirely free from excess of moisture and alkali, and gives, not too rapidly,

an excellent lather. To the practitioner a soap of this kind is of course invaluable, and obviously it may be used with benefit in the toilet, bath or nursery.

The seidlitz powder is a preparation of the highest order; it is readily soluble in water, effervesces briskly and is not disagreeable in taste. Although it is hardly correct to describe it as being composed of the ingredients of the German Seidlitz Spa, seeing that it contains no magnesium salts, it is equally effective and probably more agreeable.

#### CORBOLD'S SANITARY WHITING.

This preparation is regarded as sanitary because it is impregnated with camphor. The presence of camphor is pretty evident from the smell, but analysis shows the proportion to be very small. At its best camphor is but a feeble antiseptic. It has a popular reputation for keeping away moths, flies and similar pests, and for this purpose the whitening may be perhaps used with some advantage.

#### CIDER AND PERRY.

(JAMES HARPER AND SONS, EBLEY, NEAR STROUD, GLOUCESTERSHIRE.)

Cider is a beverage of some antiquity, and when of good quality and in good condition is no doubt a wholesome beverage. As is well known, it is made from the saccharine juice of the apple, just as perry is made from the juice of the pear, and it accordingly contains acids (chiefly malic), extractives (sugar) and salts (the carbonates and phosphates of potassium). The samples submitted to us by the above firm are thus described: 1. Royal Wilding "Harper Brand," 1880 vintage. It yielded the following results on analysis: Alcohol, 2.70 per cent. by weight, or 3.40 per cent. by volume; extract, 8.16 per cent.; and mineral matter, 0.32 per cent. The mineral matter consisted of alkaline phosphate and carbonate and contained distinct traces of iron. 2. Best English champagne perry. This liquor gave the following results: Alcohol, 1.45 per cent. by weight, 1.80 per cent. by volume; extract, 11.00 per cent.; and mineral matter, 0.35. The ash consisted, again, of alkaline phosphate and carbonate, and contained a very distinct quantity of iron. 3. Newtown pippin cider on analysis gave: Alcohol, 0.95 per cent. by weight, 1.20 per cent. by volume; extract, 9.78 per cent.; and mineral matter, 0.29 per cent. The ash was practically the same as No. 1. 4. Best American champagne cider contained 1.95 per cent. alcohol by weight, 2.45 per cent. by volume; extract, 11.26 per cent.; and ash, 0.32 per cent. The flavour and general character of Nos. 1 and 3 were of special excellence. As evidence of the genuineness of these preparations it may be mentioned that the acid of the fruit (malic) was successfully separated from each and identified. Samples 2 and 4 contained a distinct though small quantity of an added antiseptic. The samples are evidently prepared with care; they were in excellent condition and agreeably sparkling.

#### UBONE FOOD.

(BONNECHOSE AND CO., YORK-STREET, LIVERPOOL.)

Ubone food is described as a phosphatic pepto-pancreatised food. However this may be, we found it to consist largely of dextrin yielding 1.63 per cent. of mineral matter abounding in phosphates of lime and potassium, together with common salt. The preparation contains, in fact, more than double the amount of valuable mineral constituents of good wheat flour. In the face of these results it cannot be doubted that "ubone" possesses highly nutritious qualities of a certain kind, but we should like to have some evidence of the claim that it "digests itself." We emphatically object to the statement that "it supplies all the elements called for, and excludes everything that is objectionable in dealing with the 'scourge' of diabetes." On the contrary, a food such as this, containing as it does a remarkably high proportion of sugar-yielding carbo-hydrate, should of course be rigorously excluded from the diet of diabetic patients, to whom, indeed, it might probably cause very serious mischief.

## "THE ETHICS OF OPIUM AND ALCOHOL."

To the Editors of THE LANCET.

SIRS,—As one of the signatories to the document which in December last, was sent to every member of the profession, and which in your issue of Sept. 17th is characterised by Dr. Mouat as "one of the most mendacious" he had ever read, I would crave space for a very brief comment on that allegation. It is hardly complimentary, to say the least, to the intelligence of the profession that on a great public question like that of our Indian opium trade its members should be judged incapable of weighing at its proper value any statement which might be placed before them. Neither is Dr. Mouat over-complimentary to himself when he affirms his own consciousness of a grievous deception being practised upon the profession, and yet delays *nine* months to call attention to our extrememendancy. One is rather inclined to believe that had it not been for Dr. Pringle's pungent criticisms on Dr. Mouat's former letter we might have escaped altogether this late but terrible exposure. In any case it is a little preposterous that four medical men who have spent the best part of their lives in the East, who have had extremely close contact with this opium question, not only in vast numbers of opium patients, but in earnest study of the possible means of removing a great evil, should have a charge of extreme mendacity thrown at them because their opinions differ from those of Dr. Mouat. Dr. Mouat had no right to bring such a charge without attempting to substantiate it. Beyond making the specific statement he does not add one word of explanation. And this, too, in a paper dealing with ethics! Alas, poor ethics!

Let us recall the statements of the maligned document (I have sent an extra copy to Dr. Mouat for his further study). It consists of five paragraphs. The first sets forth the opium monopoly of the British Indian Government; how, according to the fluctuations of the Chinese market, the Government restricts or extends, as it pleases, the acreage of poppy cultivation; how it does this by granting or withholding licences to grow the poppy, and how the whole is manipulated with a single eye to revenue. The second paragraph asserts that the present enormous growth of the poppy, not only in British India, but also in the native states, is the result of a policy steadfastly pursued by the Indian Government during the last hundred years, and that the increase of the opium export from a few hundred chests towards the close of last century to an annual average now of 90,000 chests has been due to the one consideration of revenue. Paragraph 3 calls attention to the severe restrictions which, in the earlier days of the monopoly, the East India Company exercised over the sale of the drug in India itself, avowedly to save its people from a dangerous vice; and points out that the Company failed to realise that increased cultivation by the peasantry was bound to lead on to increased consumption in India itself. Paragraph 4 tells us how in 1871 Sir Cecil Beadon testified before a Committee of the House of Commons that with regard to opium consumption in India the only consideration which then guided the Government was to get as much revenue out of it as it possibly could. Sir Cecil Beadon had been Lieutenant-Governor of Bengal and at the head of the opium administration, and knew what he said. The paragraph further points out that besides this diminished sensibility to the evil on the part of administrators a largely diminished revenue from opium sales due to Chinese competition explained a steadily extending sale of the drug (the paper says "all over India," but "in many parts of India" would be more correct), so that the use of opium among our fellow subjects there threatens to become as widespread a curse as it is to-day in China. Paragraph 5 points out that the facility of purchase and practical invitation to it by the signboards of vendors in the public streets not only encouraged the spread of the opium habit, but opened the door in India, as in China, to innumerable acts of suicide, as also to the quiet but willful murder of little children and to the widespread inoculation of children with the opium craving through the practice of mothers narcotising their children while they themselves are at work; and after quoting the opinion of so distinguished a Chief Commissioner of Burmah as Sir Charles Aitchison on the lamentable effects of British opium policy in Burmah, the paper concludes with an appeal to the members of the profession to join in an expression of opinion on the subject which might bring about a better state of things. Will Dr. Mouat kindly state on what grounds he bases his extraordinary and I must add his unworthy charge?—I am, Sirs, yours truly,

J. L. MAXWELL, M.A., M.D. Edin.

Highbury-park, N, Sept. 20th, 1892.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 1, 1892.

THE dilemma of the Metropolitan Asylums Board continues and shows no sign of abatement. The Board is required daily to put a quart into a pint pot, or, at any rate, to find accommodation for a much greater number of cases than it has room for. The Board is not to blame for this run upon its beds. Some may think that the hospitals are attempting too much and making their accommodation too easy and cheap. But the Managers are not to blame; they have simply no option in the matter. Parliament has itself thrown the hospitals of the Board open to London generally, irrespective of class or the financial position of applicants. Consequently the officials of the Board make no troublesome or inconvenient inquiries into the social or financial position of patients. Admission can be gained without any application to the parish authorities (the very poor generally do apply through a medical officer of health) and when gained it involves no social discredit or disqualification. We must all admire the efforts of the Managers of the hospitals to meet the demand; and we may give Parliament credit for thinking that it was doing a wise and benevolent thing in practically opening the hospitals to all comers, on the principle of first come first served. But the unmistakable dilemma in which the Board finds itself compels a distinct reconsideration of the question. On one point there will be universal agreement—that the poor should have the use of the hospitals. It admits of no discussion that a sanitary authority which does not provide the means of isolation for cases of serious infectious disease in houses where isolation is impossible is neglecting one of its primary duties. But it does not follow from this that the sanitary authority should be required to provide isolation hospitals simply to relieve well-to-do families of the inconvenience of treating such cases at home. We have not the means of judging what proportion of the cases actually admitted come under this description. Perhaps Sir EDWIN GALSWORTHY, in his next statement—which is anxiously looked for—will be able to give the public some information on this point. Not very much, we fear, for the Board, as we have said, makes no definite inquiries on the subject. But it can scarcely be doubted that cases which need hospital accommodation are kept out by the admission of patients that could be isolated at home or treated in other institutions on private terms. This is the old case of hospital abuse in a very questionable form. Many simple people think that if only the State takes things in hand all is right, and they imagine that all the evils known as hospital abuse would vanish if these institutions were placed under State control. The dilemma of the Metropolitan Asylums Board does not lend much support to this view. Rather it suggests an indefinite and what might become a demoralising extension of the evils already complained of in the case of voluntarily supported hospitals. Be this as it may, the occasion is one for asking whether the use of the infectious hospitals is to be universal and indiscriminate. If so, it is evident

that a far larger amount of accommodation than the present will be needed, for we are only at the beginning of this great experiment. A reluctance to enter hospitals was the prevailing feeling of all but those whose homes were destitute of proper convenience for the treatment of sickness. This had to be overcome, and it will be satisfactory to learn that it has not been seriously impaired by legislation. It may be that the 3823 patients now under treatment in the hospitals of the Asylums Board all come from the very houses which it is necessary to clear of such cases. We should be glad to know that this is the case. If, in consequence of the state of the law, no adequate information can be given of the fitness of cases, so much the worse for the law, and the sooner it is changed the better. What has to be feared is the creation, in classes that should be able to take care of themselves, of a feeling of dependence on the State in every emergency, together with a prodigious addition to taxation; for the demand upon the State will not stop at cases of scarlet fever, but will steadily extend to other complaints far more numerous and more costly. The facts before us at present are sufficiently significant—a wide prevalence of scarlet fever and the public provision for the accommodation of cases exhausted. The knowledge now supplied under the Notification of Infectious Diseases Act and the Public Health (London) Act goes to show that if we are to have no inquiry into the fitness of cases the present accommodation may have to be increased twofold or threefold to meet the demand which will arise when the old reluctance to use hospitals has been overcome.

THE Congress of the Sanitary Institute, which met the week before last at Portsmouth, has served the useful purpose of providing material for discussion on several subjects of general interest. The address of the President, Sir CHARLES CAMERON, contained an interesting account of the progress of sanitation during the Victorian era and showed the advance which had been made in improving the condition of the country, particularly as the result of the passing of the Public Health Acts of 1872 and 1875. But, while looking back on the triumphs of the past, the President did not neglect to point out that these gains had not been equally shared by all parts of the country, and much still remained to be done in those districts which had failed to avail themselves of the opportunities which the Legislature had given them. Sir CHARLES CAMERON dwelt upon the tendency of the people in England to become aggregated in large towns, as many as ten million and a half out of its twenty-five millions living under these conditions. It was therefore surprising that the population of England had a greater longevity than that of France, Germany, Russia, Italy and Spain.

In the sectional meetings a discussion of much importance followed the reading of a paper by Mr. OLDFIELD raising the question whether tuberculosis arises from eating the flesh of animals. The difficulties of attempting to show to what extent the flesh of the lower animals contributes to tuberculosis in man was made evident by the argument of Sir CHARLES CAMERON that the Irish poor, who eat very little meat, suffer greatly from phthisis; while the rich, who consume animal food largely, do not suffer to nearly the same

extent. It does not, however, follow that because certain causes of phthisis may be present in a population it is proper to neglect to take precautions in respect to other circumstances which may give rise to fatal disease. Evidence is undoubtedly accumulating to show that the eating of tuberculous matter, even after such cooking as ordinarily takes place, is attended with risk, and the question which has to be considered is whether the excision of tuberculous masses by the butcher in dressing the carcase is a sufficient precaution, or whether the flesh of a tuberculous animal, even when it is remote from the affected parts, is fit for human consumption. But other points than this have to be borne in mind; it may be that the condemnation of meat, which would result from the acceptance of the latter view, would lead to the deprivation of the poor of a food-supply which is absolutely necessary to them. There is evidently the greatest need of a better knowledge of the amount of risk which attaches to the use of the meat of tuberculous animals and the amount of prevalence of this disease among animals which are used for food.

This object was further considered in connexion with a paper by Dr. NEWSHOLME on Condemnation of Meat of Tuberculous Animals, and a resolution was adopted unanimously expressing the opinion that where a portion of an animal was affected by disease the whole carcase should be condemned as unfit for human food. Whatever view may be taken of this question no one will hesitate to endorse the opinion at which the Congress also arrived, that the abolition of private slaughter-houses in towns is an urgent necessity.

A paper on the Disposal of the Dead led to the expression of opinion of diverse sorts. Cremation was not without its adherents, although the arguments in its favour were based upon possibilities of infection being preserved in the earth which were not supported by any actual experiences of injury occurring from this cause. The difficulty of finding land suitable for the purposes of interment in the neighbourhood of towns was a more potent argument, and Dr. AXFORD cited the town of Portsmouth as an instance where this difficulty had been experienced. Advocates of cremation have the advantage of knowing that the growth of population must eventually increase this difficulty and lead to the more serious consideration of methods of disposal of the dead other than by interment. It may be gathered that the Congress did not regard the question as so sufficiently pressing as to necessitate any collective expression of opinion at the meeting.

A paper by Dr. DAWSON WILLIAMS afforded material for the discussion of the value of Quarantine in limiting the Diffusion of Cholera. Dr. LANE NOTTER properly asked what was being done in the smaller ports, and argued that the strength of our first chain of defence was measured by its weakest link. This is undoubtedly true, but it must be recollected that the complete exclusion of cholera from England is not anticipated. Persons suffering from or incubating this disease must necessarily find their way into different parts of the country, and it is therefore a matter of urgent necessity that every district should adopt those measures which it is now fully understood must be relied upon as the only certain means of protection against this disease. If one of the English ports should suffer severely from cholera as the result of local negligence, it obviously adds to the probabilities that cases of the disease will be introduced into

other localities; but even under these circumstances there is no occasion for alarm for those who are provided with an unpolluted water-supply and a system of removal of excremental refuse which prevents the contamination of earth, air and water. Dr. GROVES, in the course of the discussion, referred to the oft-made statement that cholera frequently polluted the course of rivers, and he cited the outbreak of 1866 in London as an instance of cholera spread by a contaminated water-supply. To those who have studied the behaviour of cholera in this country the association of cholera with rivers which serve for transit and for water-supply finds ready explanation.

Regarding the Congress as a whole, it may be stated that the subjects chosen for discussion were fairly practical, and sufficiently diverse in their character to enable all present to feel interest in the meetings. The opportunities thus afforded for exchanging opinions cannot fail to be valued by those upon whom devolves the duty of advising local authorities, and certainly the Congress at Portsmouth must have answered this purpose.

IDIOCRASY, according to the great English lexicographer, is "a peculiarity of constitution," and *idiosyncrasy* "a peculiar temper or disposition of body not common to another." The latter definition would have been even more complete had Dr. JOHNSON indicated that in the term "body" he included mind, for in the English language idiosyncrasy has been so used. Sir THOMAS BROWNE, with that charming self-satisfaction so characteristic of him, remarks: "I am of a constitution so general that it consorts and sympathises with all things. I have no antipathy, or rather idiosyncrasy, in diet, humour, air, anything. I wonder not at the French for their dishes of frogs, snails and toadstools, nor at Jews for locusts and grasshoppers; but, being amongst them, make them my common viands, and I find they agree with my stomach as well as theirs. .... I feel not in myself those common antipathies I can discover in others. .... I was born in the eighth climate, but seem to be framed and constellated for all." Before he has finished his idiosyncratic analysis even Sir THOMAS BROWNE, however, discovers he has a little weakness, but complacently justifies himself by declaring that he sins in good company. "If there be any among those common objects of hatred I do contemn and laugh at, it is that great enemy of reason, virtue and religion, the multitude; that humerous piece of monstrosity which, taken asunder, seem men and the reasonable creatures of GOD, but confused together make but one great beast, and a monstrosity more prodigious than Hydra." BULWER LYTTON remarks in his essay on the knight of Norwich that he never even mentions the great civil war in his writings, although much of his work was done during that period. We cannot, however, doubt, after the above confession of faith, that our distinguished *confrère* was a "good Cavalier"; and it is interesting to note that he even anticipated THOMAS CARLYLE in his comprehensive, though curt and not very flattering, estimate of the English people. It is in the wider sense in which Sir THOMAS BROWNE used the term "idiosyncrasy" that we purpose dealing briefly with the subject.

A French physician is said to have remarked: "In France we treat the disease; in England you treat the patient."

and as the general includes the particular we feel disposed to define idiosyncrasy simply and shortly as *the patient*. We believe the experience of practitioners generally will support the conviction that it is unfortunate for all concerned to allow the disease to obscure the patient in considering and treating his case. Had Sir THOMAS BROWNE'S private physician terminated an interview with his patient by singing the praises of universal suffrage he could scarcely have hoped to further the efficacy of his remedies. Our theme then is the patient. There are certain attributes which mankind possesses in common; for example, that mode of force called life and the apparatus which enables that force to act, in which is involved sex and age. But the endless variety which we find when we descend to particulars, such as occupation, climate and environment generally, are already present in the fundamental conditions. Variety and complexity in nature afford, however, no argument against the utility of fact-gathering and classification, and without these there can be no perception of principle or law and the rational conduct based upon obedience to the latter. It is therefore our duty to note details and conditions, physical and moral, in every instance, provided we believe them to exist—in fact, even when the bearing of such is by no means apparent to us. It is, moreover, sound instinct which, *ceteris paribus*, causes patients to prefer the advice of "one who knows their constitution"; that is, of one who has had special opportunities of observing their behaviour under diverse circumstances. Granted that there is a general knowledge of cause and effect as regards many physical and moral excitants, there is also a modified manifestation of these in almost every case. We know this to be true as regards articles of diet, and it influences our treatment of many digestive derangements. A choice of residence has in like manner and in many instances to be determined by the experience of the individual even more than by *a priori* considerations of probable fitness on the part of the physician. It is sufficient to refer to the apparent arbitrariness with which *locality* influences asthmatics who occasionally by accident, and for themselves, select a residence which frees them from long-standing distress. Even diseases which are regarded as having a typical course are modified in the persons of individuals, of families, and even of races. Such modifications may be theoretically explained by an assumed hereditary elimination or want of elimination of susceptibility, whatever that may be, in some such way as animals and human beings undergo a process of acclimatisation. But while we thus recognise effects we are in most cases very far from being certain of causes, and, but for the courage inspired by the grand triumphs of a patient science, are at times tempted, in a more or less hopeless mood, to echo the old cry,

"Felix qui potuit rerum cognoscere causas."

The experience of all must have furnished them with instances of unusual tolerance or of even more unusual intolerance of many drugs, such as opium, mercury, ipecacuanha, and the iodides. The action of the latter has been most interestingly dealt with by Mr. HUTCHINSON in his lectures on Temperament, Idiosyncrasy and Diathesis. In his remarks upon the action of the iodides and bromides he details the protean manifestations of the same agent in different individuals, and the serious and even fatal consequences of sometimes small and often moderate doses of these drugs form an

emphatic argument for that knowledge of *the patient* which we have indicated as so useful to the practitioner.

What is true of physical is true also of moral agencies. The difference (which physiologists have determined to exist in the rate of conduction of stimuli applied to the nervous system in different persons) reveals a difference in physical conditions too subtle for grosser demonstration, which probably lies at the bottom of idiosyncratic reaction, both to physical and moral stimuli. The discovery of differences in the effects of the latter is, however, more difficult than in the case of physical agents. While physiognomy (which LAVATER defined as "the science or knowledge of correspondence between the external man, the visible superficies, and the invisible contents") has not led to results of any great practical value, pathognomy, or "the knowledge of the signs of the passions," the evidences of the reaction of the individual to the ordinary wear and tear of human life, is not without value to the physician. Mere configuration or shape may be racial, and may present no easily associable counterpart in the inner man, or in that inner man of whom the world or even the individual is aware; but the manifestations of the "character in motion" are worthy of study, and may lead to fruitful conclusions. It is related of COLERIDGE that his poetic soul was harrowed by the want of correspondence between his outer and his inner man, but we suspect it was rather that his sense of the beautiful did not find entire satisfaction in contemplating his own visage, than that his countenance was devoid of the signs of his intrinsic nature. BULWER LYTTON has remarked with truth that "noble thoughts make noble faces," and SAMUEL TAYLOR COLERIDGE has given us many noble thoughts. The pathognomist in *him* may have been too exacting when he wrote—

"That outward forms, the loftiest, still receive  
Their finer influence from the world within,  
Fair ciphers of vague import, where the eye  
Traces no spot, in which the heart may read  
History and prophecy. . . ."

But the eye may likewise occasionally observe remarkable differences of behaviour in individuals under the sway of identical emotions. Thus one parent may grow visibly more grey during the illness of a child, while the hair of another of like age and equally fond may remain unchanged. What is true of so easily detected a change is true also of less readily detected changes in other tissues, such as skin and fat and muscle. While, moreover, these may be *diathetic* they are no less *idiosyncratic*, for the query, "Kannst du mich lehren von meiner Schatte zu springen?" must always be answered in the negative. Various as is the physiognomy of men there is an essential identity in their emotions. "One touch of nature makes the whole world kin," and community in feeling has its counterpart, though perhaps less evidently, in an essential similarity in the expressions of emotion. Moreover, the modern localisation of motor functions in the brain renders the observation of the expression of emotions, which may become stereotyped, important. The clue to pathognomic diagnosis lies probably within ourselves, as the above quotation from COLERIDGE suggests, provided due weight is given to the influence of easily ascertainable external circumstances, such as nurture, education and work, and the less easily ascertainable facts of personal experiences—circumstances and facts of which the physician should be fully cognisant to be fully useful. With such knowledge he may

estimate to a useful degree both the strain to which a patient has been subjected and the manner in which he has borne it. To few is it given to know, like Sir THOMAS BROWNE, under which "climate" they were born, and many are quite convinced that they were not "constellated for all," but a knowledge on the part of the physician of those agents and conditions which his patient as an individual tolerates best or resents most is of primary importance in the treatment of disease.

THE gradual diminution of cholera at Hamburg and in the north of France, together with the vigilant attitude of port sanitary authorities in England and Wales, tend week by week to improve our chances of escaping any diffusion of cholera this year. We may expect further importations of the disease and we must be prepared to deal with them, but we may with some confidence regard the risk of any cholera prevalence as transferred from this autumn to next spring and summer. Under these circumstances a review of that which has actually taken place during the month—Aug. 25th to Sept. 24th—will be historically interesting, and it will serve to show what are the lines of defence against cholera on which we have relied, and how preventive measures should be applied if we are to rely upon them in the future.

It was on Aug. 25th that the ss. *Gemma* arrived from Hamburg in the port of London with a detachment of Russian Jews and three cases of cholera on board. The three patients were removed to the port sanitary hospital below Gravesend, and, having regard to the extremely suspicious circumstances surrounding the remainder of the passengers, they and the vessel were detained afloat in the river, under observation, for several days; after which they were temporarily provided for in an encampment by the port authority. This later action went beyond the powers actually conferred under the Cholera Order of the Local Government Board then in existence, but the judicious action taken in this matter under the initiative and personal superintendence of Dr. COLLINGRIDGE, the port medical officer, received its justification a few days later, when an additional order was issued to meet the case of such passengers as these—that is to say, of persons whom it is impossible to keep under observation on arrival from an infected place or on an infected vessel, for the simple reason that they have no known home or destination. Dr. COLLINGRIDGE'S action at the time received full public support, and the special approval of the Local Government Board was communicated to him. All three patients died in the hospital and no extension of the disease took place.

Three further importations of cholera took place on Aug. 27th. In two instances the arrivals were at Grimsby; both patients were removed from the infected ship to the port hospital, where they were isolated until recovery, the ship being detained at the mooring ground for purposes of disinfection. The third case was an arrival by ship at Middlesbrough. In this case the sick man was also removed to the port hospital, but he died on the same day. Liverpool was next found to be the seat of imported cholera, for on Aug. 28th four Russo-Jewish emigrants, who had crossed England and got as far as that port, sickened with the disease. They had reached Liverpool by land, and hence they were removed, not to the port hospital on the Cheshire side of the Mersey, but to one of the three isolation

hospitals possessed by the corporation as sanitary authority for the city. Two of the patients died and two recovered. Their previous movements were ascertained and every precaution, by way of cleansing and disinfection of their temporary habitation, clothing &c., was taken, and those with whom they had associated were watched for some days; in order to see if any spread or infection had taken place. Happily no such diffusion had occurred. On the same day a German, recently arrived from Hamburg, was found to be suffering from cholera in London. He was removed to the Royal Free Hospital, where he made a good recovery. On Aug. 29th a case of cholera was imported by a vessel into the port of North Shields. This patient was at once isolated in the sanitary hospital, the ordinary preventive measures were adopted and the disease was checked. On Aug. 30th a further case was imported into Grimsby; it was dealt with in the same way as the former was and with a like result. On the same day three patients were removed to St. Bartholomew's Hospital. They had arrived at Harwich by boat from Hamburg, were in apparent health on arrival, and were consequently allowed to land. But soon after reaching the metropolis two of them were found by Mr. HARRIS, medical officer of health of Islington, to be suffering from cholera, whilst the third had diarrhoea. In the end the last case turned out not to be one of cholera, but of the other two patients who were suffering from the disease, one died on Aug. 31st. On Aug. 30th a further case occurred in the port of Grimsby, but the spread of the disease was again checked by isolation and disinfection and the patient recovered. Three cases were also found in the port of Falmouth on the same day. They had arrived by ship from Hamburg, were removed to the port sanitary hospital and recovered. Here, again, measures of disinfection were adopted and suspected members of the crews were kept under observation.

After an interval of four days a case was imported into Tynemouth, the vessel bringing the patient again hailing from Hamburg. This patient was removed at once to the sanitary hospital, where he died next day. On Sept. 5th a fifth case occurred at Grimsby, the patient being, as on former occasions, a recent arrival from Hamburg. This patient died on Sept. 11th in the port hospital. Next day, Sept. 6th, a patient was brought into Blyth by a Hamburg vessel; the patient was isolated and he recovered. Then an interval of ten days elapsed, during which only a few rumours of cases, which turned out not to be cholera, occurred. But on the 16th another case reached the port of London. This case was detained off Gravesend by Dr. COLLINGRIDGE on board the ship in which the man had arrived from Antwerp, and after his recovery the vessel was allowed to proceed up the river. Three days later—namely, on Sept. 19th—a case was imported into Hull from Hamburg. The patient was removed to the port sanitary hospital, where he died; the vessel was sent to the mooring ground for cleansing and disinfection and all needed precautions were adopted. On the same day a vessel arriving from Rotterdam at Harwich brought another cholera case into a fresh port, but the patient was isolated in the port authority's hospital and no further mischief ensued. After another lull a second case reached Hull from Hamburg on Sept. 24th. The man was removed to the hospital, the usual precautions were taken and the patient recovered. Lastly, a doubtful case occurred at Bridgwater. The patient, one of the crew

of a vessel which entered the dock at Sutton Bridge, was on his way to Plymouth on the 26th when he was suddenly seized with symptoms very characteristic of cholera. The vessel came from near Archangel, Russia, and had only touched at Bergen, whence no cholera has been reported. Hence the case must for the moment remain undetermined.

But, excluding this case, it is satisfactory to note that during the month in which cholera has been making its way into our ports twenty-six cases have reached us, and in no instance has the disease spread beyond the actual individuals arriving from abroad. Precisely the same remark applies to two cases at Glasgow and two cases at Grangemouth in the Firth of Forth.

## Annotations.

"Ne quid nimis."

### THE LOCAL GOVERNMENT BOARD AND THE ROYAL COLLEGE OF PHYSICIANS.

THERE can be no doubt that the correspondence between Sir Hugh Owen, the Secretary of the Local Government Board, and the President of the Royal College of Physicians has led to some misapprehension as to the scope of the instructions asked from the latter body. In Sir Hugh Owen's letter it is stated without limitation that the local sanitary authorities are required to "provide and to dispense without charge medicines and medical appliances for the sick," but a correspondent points out in another column that Section 133 of the Public Health Act empowers the local authority to provide, or to contract with any person to provide, a *temporary* supply of medicine and medical assistance for the *poorer inhabitants of the district*. If this limit had been appreciated by the Royal College of Physicians that body would hardly have taken upon itself to publish general instructions for the management of health in view of the prevalence of diarrhoea and of cholera, and appear to supersede the medical advisers of the Local Government Board, on whom rests the duty of framing and carrying out the regulations which are deemed necessary for the prevention of these diseases. The medicines best adapted to the immediate medical treatment of patients suffering from the disease would have then been the only consideration for the Fellows of the College. The College wisely declines to give instructions for the treatment of cholera. "Every case of this disease requires separate consideration and management; no stereotyped plan of treatment would prove to be either wise or safe, and usually before the choleraic nature of an attack could be established medical assistance would have been procured." But the details concerning the management of looseness of the bowels go much beyond the former recommendation of ten grains of aromatic powder of chalk and opium or five minims of laudanum. It is scarcely hypercritical, we think, to remark that the treatment in its entirety would be somewhat difficult to carry out in the houses or rooms of the "poorer inhabitants," and would necessitate skilled nursing and medical attendance.

### STREET DUST, WOOD PAVEMENTS AND CHOLERA.

A SERIOUS accusation has been brought against one of the most popular of many conveniences enjoyed by the modern townsman. The sanitary condition of wood pavement has been called in question, and that with special reference to its influence as a possible nidus for the cholera germ. Placed as we are in the near neighbourhood of ports infected

by that disease, we would be the last to discourage any rational sanitary precaution, however trivial it might appear to be. We fully recognise the importance of maintaining at all times as perfect cleanliness as possible on the street as well as in the household; at the same time, we cannot ignore the strenuous and successful efforts put forth in this direction by local vestries and municipal councils, neither can we regard as inevitable the suggested connexion between the dust of wooden or other pavements and the spread of cholera. No such connexion has hitherto been proved in respect of other epidemic diseases which from time to time have prevailed in our cities. Furthermore, we must remember that the development of a given infectious malady requires the initial contact of its particular virus or germ. Now it is, on the whole, a happy circumstance that most of this morbid matter finds its way underground by way of the domestic drain pipe. Infection of street refuse is by no means impossible, but this, in by far its greater proportion, consists only of mud, manure and particles of old wood. Doubtless its purification is always desirable. It is also comparatively feasible if, as often happens, the streets be freely washed with disinfectant fluids. We would advise the vigilant observance of every such method. We confess, however, that in so doing we are instigated less by the dread of a special contagion than by a regard for the permanent advantages of general cleanliness.

### SEA-SICKNESS.

MOST of those who have experienced the miseries of sea-sickness, however they might differ in minor details of statement, would agree in ascribing this most dispiriting malady to one main cause—the motion of the ship. In so far the whole medical faculty would concur in their decision. This, then, is the central fact which confers upon the disorder its unique position. It is really not a pathological but a physiological disturbance. It has no natural connexion with dyspepsia. The robust and healthy, by a strange contradiction, suffer from it for the time hardly less than the weak and ill. Its variations of intensity are felt to be counterparts of mere bodily oscillation. Some find relief from it in change of posture, others in active occupation, all more or less when their storm-tossed vessel sails under the lee of land. Custom and use commonly secure immunity. These are circumstances which one and all point to mechanical causation as the source of the discomfort. It is the unaccustomed rise and fall, the jerk and relaxation of loosely attached abdominal viscera, mainly, perhaps, but not alone, of the stomach, acting upon the central nervous connexions, which must bear the brunt of accusation. It follows that successful treatment cannot be guaranteed by any one method or panacea. Recumbency, pure deck air, moderately firm bandaging of the body are all useful. Drugs have their place and their partial utility; but, as we have already suggested, there is no remedy equal to a lee shore. Nothing can be much more depressing than sea-sickness, and for this reason we should strongly advise all weak persons not to encounter, if possible, the risk of its occurrence. It is astonishing how soon and how completely those who are favoured with a fair measure of constitutional elasticity recover from its depression. In their case the benefits of a sea trip may thus, with compensations of air, diet, and appetite, be even enhanced by a few hours of mechanical nausea. It is, in truth, for such persons only that tours of this kind are advisable.

### THE WINTER SESSION, 1892-93.

THE winter session of the medical schools throughout England was inaugurated by the opening of Mason College, Birmingham, on the 30th ult., with an address by Sir George M. Humphry. To-day (Oct. 1st) Dr. Bowles addresses the students at St. George's Hospital, the same date witnessing the opening of King's College and the University of Durham.

Most of the schools will commence on Oct. 3rd and many will inaugurate their opening by a dinner. The Middlesex, University College, Westminster, King's College, the London and St. Thomas's Hospitals will all begin their sessions in this way. Dr. J. J. Pringle and Mr. S. J. Hutchinson will lecture at the Middlesex and University College Schools respectively, whilst Guy's Hospital will open with an address by Mr. A. Ernest Maylard, on the subject of "How to remain a Student through Life." Dr. Mercier will preside at the opening of the Westminster School of Medicine, and at St. Mary's Dr. A. P. Luff will address the students. At the Royal Veterinary College the address will be delivered by Professor McFadyean. St. Bartholomew's, Charing-cross and the Dental Hospitals do not open with any formal address, and their example is followed by the University of Durham. In Owens College, Manchester, the address will be given by Dr. W. H. Broadbent; whilst at Yorkshire College, Leeds, and Firth College, Sheffield, the students will listen to Professor W. Mitchell Banks and Dr. Burges respectively. The College of State Medicine will open on Oct. 5th with an address by Surgeon-General W. Robert Cornish, and on the same day the Pharmaceutical Society will celebrate its fifty-first session and its jubilee with an address by the President.

#### THE BOURNEMOUTH IMPROVEMENT ACT, 1892.

WE have before us a memorandum by Mr. Philip W. Nunn, medical officer of health for Bournemouth, directing our attention to some of the more important alterations in the sanitary laws effected by the Improvement Act of 1892, and we quite agree with Mr. Nunn that Bournemouth is to be congratulated upon the additional powers which have thus been conferred upon its sanitary authority. In many important particulars this Act is an extension of the Public Health Act of 1875. Thus we are informed that by Section 2 power is granted to the local authority to check the spread of infectious disease through defective milk-supply. Although we are not told how this is to be carried out we presume the powers now vested in the Bournemouth local authority are similar to those enjoyed by sanitary authorities in the metropolis under the Public Health (London) Act, 1891, by which the medical officer of health, upon obtaining an order from a justice having jurisdiction in his district, is enabled to inspect dairies, and, if accompanied by a veterinary inspector, the animals also; and, if satisfied that the milk supplied from the dairy has been the cause of infectious disease, to report thereon to the sanitary authority with the view of prohibiting the further sale of the infected product. By Sections 7 and 8 "the corporation may, if they think fit, from time to time provide, or contract with any person to provide, nurses for attendance on any person suffering from infectious disease within the borough, and may charge a reasonable sum for the service of any nurse so provided." No doubt the provision of nurses by the corporation may, under certain circumstances, be highly advantageous; but as we are informed that this clause aims at the arrest of infectious disease, doubtless the sanitary authority will also bring into action with their nurses a system of efficient isolation in the treatment of such cases. By Section 9 persons owning laundries are required to furnish lists of the owners of clothes. This is a most important step in advance, as it puts into the hands of the sanitary authority the power to check the spread of infectious disease through the easiest and widest of all channels. We are strongly of opinion that in those cases where the sanitary authority do not themselves disinfect clothes, bedding &c. the thorough disinfection of all such articles by the patient's friends should be insisted on before removal to a laundry. Section 13 is an extension of Section 124 of the Public

Health Act, 1875, the local authority being now empowered to regard any person as having insufficient lodging accommodation and to remove him if in their opinion there is a danger of his spreading infection to other persons in the same house. By Sections 15 and 17 power is granted to the sanitary authority to deal with the drainage of houses built before the passing of the Public Health Act and other Acts. By these sections drains and waste pipes are required to be disconnected from the sewer; and the local authority is permitted to apply the smoke test for the purpose of ascertaining whether the house drain is watertight. We notice that Bournemouth has had in operation for the past fifteen years a system of voluntary registration of houses with the local authority, and that the majority of houses in the town, having conformed to the requirements of the sanitary authority, have been placed upon their register. The large measure of success that has attended voluntary registration will therefore greatly diminish the labours of the corporation in compelling those landlords who have not chosen to accept their invitation heretofore to put their houses at once into thorough sanitary repair. Section 31 enacts that a badly constructed or ill-kept cistern shall be deemed to be a nuisance. By Section 72 slaughtering is prohibited except in corporation abattoirs, when so provided. This is a most salutary regulation, for it may be confidently expected that it will not only ensure perfect cleanliness in the slaughterhouses themselves, and a minimum of annoyance to the public, but, what is far more important, will enable a thorough inspection of meat to be made before being exposed for sale. The corporation of Bournemouth by securing these additional powers have immensely strengthened their sanitary code of by-laws, and we see in the new Act an earnest desire on the part of the sanitary authority to ensure for their town the highest standard of healthiness.

#### THE ABDUCTOR AND ADDUCTOR FIBRES OF THE RECURRENT LARYNGEAL NERVE.

THE results of an experimental investigation into the functions of the recurrent laryngeal nerve were recently communicated to the Royal Society by Dr. Risien Russell. The investigation was undertaken with the view of discovering whether it was possible to separate the adductor fibres from the abductor fibres of this nerve. It has been long recognised that in organic and progressive affections of the nerve the abductor fibres are likely to suffer sooner than the adductor fibres, but the reason of this is not at all clear. It was suggested by Sir Morell Mackenzie that possibly the abductor fibres were more superficially situated than the adductor, and that this would account for their earlier affection in cases of tumour and of pressure generally from outside. Dr. Risien Russell's experiments were carried out on dogs, the individual bundles of which the nerves were composed being separated and stimulated electrically. The relative irritability of the different bundles was also observed and the bundles were traced by dissection to their peripheral distribution. The abductor and adductor muscles were also subjected to direct observation when excited to action after dissection, and experiments and observations were made on the degenerations following the division of different bundles of nerve fibres. The results of these different investigations show that the abductor and adductor fibres in the recurrent laryngeal nerve are collected into several separate bundles, each preserving an independent course throughout the nerve trunk to its termination in the muscle or muscles which it supplies. It was also found that whereas in the adult animal simultaneous excitation of all the nerve fibres in the recurrent laryngeal nerve results in adduction of the vocal cord on the same side, in the young animal the opposite effect—viz., abduction—is

that produced by an exactly similar procedure. When the abductor and adductor fibres are exposed to the air the abductor nerves are found to lose their power of electrical excitability much sooner than the adductors, and this is true of both young and adult animals, although in the former the abductor fibres retain their excitability longer. It was, further, found possible to separate the adductor fibres from the abductor through the whole length of the recurrent laryngeal nerve to their termination in the muscles, and also to so accurately separate the two sets of fibres as to be able to produce abduction or adduction, as the case might be, without evoking any contraction in the muscles of opposite function. The complete separation of the two functions was also shown by the degeneration of the muscles related to one function which followed the division of the corresponding nerve fibres, while the muscles subserving the other function remained unaffected. The greater liability of the abductor fibres to degeneration is very curious, and no explanation of the phenomenon is forthcoming. Sir M. Mackenzie's theory does not find any support from the investigation under discussion—in fact, it is held to be disproved. The fact that in the young dog the abductor influence is found to predominate makes an explanation even more difficult, unless Dr. R. Russell's view is accepted that the greater power of adduction in the adult is related to the increased power of phonation, while in the young animal phonation is imperfectly developed.

#### RESPONSIBILITY FOR MEDICAL FEES.

AT St. Helen's a claim has been recently tried of some interest to the profession. It is reported as follows in the *Liverpool Mercury*:—"Dr. Twyford, Dr. Reid, and Dr. Masson sued Henry Stansfield, landlord of the New Market Inn, Naylor-street, St. Helens, for £11 2s. 6d. for medical attendance on his niece, Miss Caine, who was accidentally burned while working for him in his house. The plaintiffs founded their claim on the fact that when the girl was injured Mr. Stansfield sent for Dr. Masson, who after the first day sent a note to Mr. Stansfield's place by a boy asking if he should still continue to attend, as he was not the family doctor, and got a reply that he was to attend. Mr. Riley, for the defence, urged that the girl was an adult, and presumably could enter into a contract for herself. When the boy came from Dr. Masson with the note it was the girl's mother who answered and not Mr. Stansfield. His Honour said the only evidence against Mr. Stansfield was that he went for the doctor, and they surely were not going to make everybody liable who went for a doctor. As Miss Caine had since married her husband had offered to pay one-half if Mr. Stansfield would pay the other, and the judge entered a verdict against him for £5 11s. 3d., with costs." We think Mr. Stansfield has got off very easily and may congratulate himself. The judge's verdict is better than his logic. Surely when the landlord of an inn sends for a medical man to attend a patient suffering from burn contracted in his house, without disclaiming responsibility, he should be held to be liable.

#### DANGERS OF THE STREETS.

It is clear that in most cases in which one's personal safety is imperilled by so-called accident the responsibility for its preservation has a double significance. It has a positive and a negative relation. It implies protection against the culpable negligence of others and it also entails obedience to the caveat of a rational self-concern. Innumerable circumstances of daily life might provide us with illustrations of our meaning, but for the present we are content with one only. We have spoken in former issues of the dangers underfoot which threaten the security of passers-by in every thoroughfare. Trap-doors, coal-cellar plates and other occasions of injury have been repeatedly discussed. Telegraph and telephone

wires have likewise been considered. We would now notice another source of danger overhead, in the chain which hangs laden with heavy goods from the arm of a crane in front of so many warehouses. It is, indeed, surprising to note how seldom accidents happen in the working of this convenient and simple apparatus and with what accuracy the binding rope, swiftly and loosely cast about its burden, tightens at the moment of ascent. Notwithstanding, there is no absolute security—far from it—and accidents do happen. Now and then comes a slip and the load falls. The possible risk to *employés* and to casual wayfarers requires no explanatory comment. That incurred by the former is largely their own concern, though this does not of course condone the carelessness of fellow-workmen. The case of ordinary foot-passengers is different. The demand upon their personal caution is less and their title to the fullest external guarantees of safety cannot be denied. We take it, therefore, to be unquestionable that any warehouseman in loading or unloading over the public street must warn off all passers-by from the scene of his operations. A red flag of sufficient size might serve as the usual signal of danger, but surrounding the point of temporary obstruction with a rope barrier would still better secure the end in view.

#### THE TREATMENT OF TETANUS.

IN the *Therapeutic Gazette* of February, March and April Dr. Braden Kyle gives the results of a series of experiments made on the pathology and treatment of tetanus, in which he concludes that the bacillus of tetanus is an obligate anaerobe, and that its virulence is actually diminished when the organism is deprived of oxygen; that the bacillus grows best at a temperature of 98° F., but that it will grow rapidly when the temperature is as low as 51°. Pure cultures when inoculated induced fatal results in less than 50 per cent. of the cases, and from inoculated animals that died Dr. Kyle was unable to produce tetanus in other animals. In some cases the bacillus was found at the point of inoculation. He considers that the organism is polymorphous; that it is extremely resistant to the action of heat, corrosive sublimate, peroxide of hydrogen and carbolic acid, but that it is extremely sensitive to hydrochlorate of cocaine and to the fumes of bromine. He concludes that the treatment of cases of tetanus may be summed up as follows: "(1) Disinfection of the nidus of development of the bacilli; (2) the elimination of the poisonous products of the bacilli from the system; (3) drugs which are sedatives to the nervous system; (4) excision of the cicatrix."

#### AN APPARATUS FOR COLLECTING WATER FOR ANALYSIS.

IN collecting water for bacteriological investigation it is often an extremely difficult matter to obtain a number of satisfactory samples, especially from some distance below the surface, without a very great amount of what seems to be unnecessary trouble. In the *Canadian Record of Science*, January, 1892, Dr. Wyatt Johnston of Montreal describes and figures an apparatus for this purpose. This consists of a kind of weighted frame in which a sterilised bottle is placed; the neck of the bottle is grasped by a clamp, and the stopper, which is in the form of a tapering glass rod, is grasped by another clamp and is kept in position by means of a spring. Attached to the clamp holding the stopper is a cord, and the frame is suspended by another cord. When a sample of water is to be taken, a sterilised bottle with its stopper still in position is put into the frame; the whole is then sunk to the required depth, just as is a sounding lead; then the string attached to the stopper clamp is pulled, the bottle fills in from twenty to thirty seconds; the clamp string is allowed to relapse; the springs bring the stopper back into position and the apparatus is withdrawn. The bottles re-

commended are the ordinary drop bottles fitted with ground glass pipettes, the two ends of which are sealed in a gas flame, thus converting them practically into glass rods. The apparatus can be used from a boat, from a bridge, or from the shore. Dr. Johnston also makes a very good suggestion—that instead of using Petruschky's flattened flask, the ordinary flat-sided, common white glass phial plugged with cotton wool and wrapped round the end of a wooden tooth-pick may be used. Such bottles are readily obtained, and the disadvantage is that the glass is somewhat thick, so that it is sometimes necessary to use a correcting lens. They pack well and are invaluable for field work.

#### NATIONAL SOCIETY FOR THE EMPLOYMENT OF EPILEPTICS.

WE have frequently called attention to the unfortunate condition to which many epileptics, and often their friends, are reduced in consequence of their disease, and it was only recently that we alluded to the opening of Lady Meath's Home of Comfort for Epileptics at Godalming—a most laudable attempt to alleviate some of the miseries which are attendant on epilepsy and similar disorders. From a document before us we now learn that a society under the above name has been formed to provide a home for necessitous epileptics who are able and willing to work, but who are unable to obtain employment on account of their affliction. It is intended to have a series of cottages, each accommodating ten to twenty epileptics. The sexes will be separated and adults and children will also be kept apart. Market gardening, spade and barrow labour, will be the first industries, and as the colony extends other trades and mechanical arts will develop. In this way it is hoped that the institution will be, to a certain extent at least, self-supporting. It will be under medical supervision and entirely undenominational, and while in the first instance intended for the poor, its advantages will also be extended to patients possessed of means, who will be received as boarders. The institution is intended to be conducted on lines similar to those on which the Bielefeld Epileptic Colony has been so successfully organised, and a beginning is to be made with a few male patients. Only money is needed to allow a fair start to be made, and this, it is hoped, will soon be forthcoming. An influential executive committee has already been formed and many have intimated their willingness to support the scheme. The honorary secretary is Miss Burdon-Sanderson, Branksome, Greenhill-road, N.W., and the honorary treasurer Mr. H. N. Hamilton Hoare, 37, Fleet-street, E.C.

#### BACTERIA IN WOUNDS.

PROFESSOR WELCH and his pupils have for some time been doing very good work in connexion with the study of the micro-organisms found in wounds. In the April number of the *Johns Hopkins Hospital Bulletin* Drs. Hunter Robb and Albert A. Ghrisky publish an interesting contribution on the Bacteria in Wounds and Skin-stitches. These wounds were all in the abdomen or in the peritoneum. In order that as few errors as possible might creep in they adopted the most rigorous antiseptic precautions, carefully soaking the skin with a 1 in 5000 aqueous solution of bichloride of mercury before the operation, cleansing the part with warm distilled water and oleine soap, then washing with absolute alcohol, then with a warm saturated solution of permanganate of potash, followed by a warm saturated solution of oxalic acid, warm sterilised saline solution, Squibb's ether to remove fatty matter, a 1 in 1000 warm aqueous solution of bichloride of mercury, and finally giving a thorough washing with sterilised salt solution. In all cases the peritoneum is brought together by a continuous catgut suture, in order to prevent the infection of the abdomen by means of the skin-stitches. The skin and

muscular surfaces are brought together by deep silkworm gut and superficial silk sutures, and the wound is covered with a mercurialised solution of celloidin, 1 in 30,000. A piece of sterilised gauze is then placed over the incision, just enough to cover it. This is saturated with mercurialised celloidin, and sprinkled with iodoform and boric acid, 1 in 7. "Over this a piece of gauze, large enough to protect the incision on all sides, is applied, and covered with the mercurialised celloidin, and the iodoform and boric acid are again used. Finally, several layers of sterilised absorbent cotton are applied and then the scultetus, or many tailed bandage, is adjusted." Drs. Robb and Ghrisky conclude that under these conditions silkworm gut or silver wire sutures contain fewer germs or organisms than catgut, the knot of catgut sutures being specially rich in organisms, consisting almost entirely of a mass of bacteria. Silver wire sutures contain numerous bacteria, but a smaller number than catgut. Silkworm gut is the most resistant and harmless material that they have yet used; it acts as a kind of splint and is very readily sterilised. In forty-five cases examined the superficial stitches contained staphylococcus epidermidis albus in thirty-three; in five of the others staphylococcus pyogenes aureus was also found; in one staphylococcus gilvus only; in two staphylococcus gilvus and albus; in one streptococcus pyogenes with staphylococcus epidermidis albus; and in three streptococcus pyogenes only.

#### THE MICROBE AND EARLY MEDICAL LORE.

IT is curious to observe how from time to time different people lay claim for their own special school or their own country to the discovery of a bacteriological etiology of disease. The recent Oriental Congress calls to mind Pandit Janardhan's article on "Disease Microbes anticipated in Sanskrit Medical Works," which appeared in the April number of the *Imperial and Asiatic Quarterly Review*. It must be confessed that he does not bring forward anything to prove that naked-eye parasites were the cause of disease, and his illustrations in support of his theory that Indian sages looked upon organic germs as the cause of disease scarcely warrant the interpretations he puts upon them. He depicts the ordinary forms found on many of the older manuscripts and tablets: snakes, scorpions (or something like them), pediculi, star-fish, tadpoles, and curiously enough—as if the draughtsman had had some quaint conceit in his mind—outlines of manikins such as most of us have drawn on our slates during the earlier period of our lives. The article is exceedingly interesting, but we must, throughout, read "worms" or "animal parasites" for microbes, for of the presence of the microbe in the mind's eye of the earlier medical sage there is little or no evidence.

#### EPILEPSY AND EPILEPTIFORM TIC.

WHOEVER has seen a severe and typical case of facial neuralgia must have recognised the appropriateness of the term, *névralgie épileptiforme*, which Trousseau applied to it. The term was apparently used because of the analogy which the condition offered to epilepsy in the nature of its onset and duration, and not because of any supposed etiological connexion. But, as M. Fôré points out in his interesting paper on this subject in a recent number of the *Revue de Médecine*, Trousseau was not unaware of the occasional occurrence of both conditions in the same patient, and he states some facts which had led him to believe that in certain cases epileptiform neuralgia was one of the manifestations of true epilepsy. He instanced the case of a provincial *confrère* whom he had treated for some years for severe facial neuralgia and who had, towards the end of his life, epileptic fits; and that of an American who had

for two or three years suffered from severe attacks of tic with typical attacks of epilepsy. But on the whole he was apparently inclined to think that such occurrences were coincidences, and that the two conditions showed striking differences in the absence of heredity and of mental obscurity in cases of facial neuralgia, and the want of synchronism in the onset of the diseases. But as M. Féré points out, a number of the slighter signs of epilepsy are often present before the typical attacks come on, and in many cases no proof of heredity can be furnished. Further, too much importance, he thinks, may be attached to the absence of mental obscurity, for even in epilepsy such a condition can sometimes only be shown to be present by time measurement, and as pain lengthens the time of reaction a similar condition may be suspected to be present in severe neuralgia. But M. Féré brings forward a fact even more suggestive of a close connexion between the two conditions—viz., the occurrence of epilepsy and epileptiform neuralgia in the same patient, and the disappearance of both conditions under treatment by bromide of potassium. The case is one which had been under his own observation, and, in reference to this particular point, is very interesting.

#### A BACTERIOLOGIST FOR NEW YORK.

THE Board of Health of the City of New York has, the *New York Medical Journal* states, taken a step that is worthy not only of commendation, but also of imitation by other municipal boards of health. Heretofore the disinfecting corps has consisted of sixteen laymen. This division has been reorganised and is now denominated the division of pathology, bacteriology and disinfection. The chief of the division is to be an expert bacteriologist, and he will have ten physicians under his direction as disinfectors, each of whom has a certain district to supervise. The salary of the bacteriologist in chief is 3000 dols. (£600) per annum, and Professor Herman Biggs, who has been in charge of the Carnegie Laboratory for many years, has been appointed chief of the division.

#### FEVER IN LONDON.

THE pressure on the beds in the Asylums Board hospitals still continues, and we hear of patients sitting on the doorstep at Norfolk House until the ambulance can fetch them away. The scarlet fever accommodation is reported to be exhausted to all intents and purposes, for only some five beds are vacant, and those only for convalescents at Winchmore Hill. In the meantime, the new hospital at Tottenham is being pressed on to completion and it is expected to be ready in about a week's time. This will give the Managers some four or five hundred more beds and will, it is hoped, enable them to tide over the difficulty. There will be some temptation to overcrowd this new hospital, but we trust that the interests of the patients themselves will be considered in this connexion and so undesirable a proceeding avoided. At the meeting of the Asylums Board on Sept. 17th the chairman made an attack upon the Local Government Board, blaming the superior authority for the delay that had occurred in the erection of this proposed hospital and for the general delay in meeting the pressure which existed. Pending any reply from the Local Government Board, it should, however, be remembered that that body is not an initiating or executive authority, but simply a supervising or controlling arm of the State. It is the Managers who have these functions assigned to them, and it is for them to mature in times, when no pressure threatens, those measures of hospital isolation and equipment that may appear necessary in the future. Then it should be recollected that the higher board has other duties to the public besides that of granting assent to the Asylums Board for their doings. In the case of the proposed Tottenham Hospital there was considerable local opposition amongst the

residents to its erection, and the Local Government Board was obliged to institute a careful local inquiry before granting its assent. Some delay must therefore have been unavoidable, for which that Board can hardly be held responsible. The large proportions of the present prevalence can hardly be credited with the appellation of a serious epidemic; for the excess over the autumnal incidence of other years is more apparent than real, and due most probably to (1) notification and (2) a greater willingness of better class people to avail themselves of the hospitals (with this feature we have dealt fully in a leading article). In any case, the Managers have an urgent duty before them in grappling with this problem of fever hospital accommodation in London; and we trust that no time will be lost in gradually providing an adequate number of beds for its growing population, taking as a basis the recognised official datum of 1 bed per 1000 inhabitants.

#### CARRIAGE LIGHTING ON THE UNDERGROUND RAILWAYS.

TRAVELLERS by the Underground Railways are for obvious reasons peculiarly dependent upon the efficient management of carriage lighting arrangements. The time spent by them on their subterranean journeys is considerable. To those who are daily engaged in business in the City the period of tunnel transit each morning and evening would be wearisome indeed but for the page of news; and this again would be a tantalising luxury without sufficient light for its perusal. It is therefore particularly to be regretted that this much-needed convenience is not always adequate to its intended purpose. By way of justification we are told that in order to provide the gas pressure required for better illumination a much larger outlay than is now allowed would be called for. It is also pointed out that occasionally small electric lights may be obtained for the trifling sum of a penny. Here certainly is a grain of comfort, and a cheap one enough. To our mind, however, the question cannot be thus easily disposed of. Sufficient light is a primary necessity, and should therefore be provided at the cost of the railway companies, and should therefore be provided at the cost of the railway companies. We might suggest several alternative methods for securing this result. A possible augmentation of gas pressure has already been mentioned. An increase in the number of gas jets—at present two to each first-class compartment—would fulfil the same purpose, though it would also, of course, involve a greater expenditure of gas. Something might likewise be done by increasing the power and ensuring the cleanness and brilliancy of reflectors. Whatever the method employed, however, the responsibility for adequate illumination, we repeat, should certainly devolve upon the company. Light is not to be doled out at an extra charge through an automatic penny slot.

#### THE DIAGNOSIS OF HÆMORRHAGIC SMALL-POX.

OUR correspondent in the Northern Counties stated in THE LANCET of Sept. 17th, that Dr. Armstrong had informed his local authority that a case of small-pox sent from North Shields to the infirmary at Newcastle had not been diagnosed as such at North Shields, and that it was a case which nineteen doctors out of twenty might not have recognised as small-pox. We think Dr. Armstrong has been rather harshly criticised, and we do not wonder that the local authority has unanimously refused to admit the correctness of Dr. Whamond's charge that he had magnified his own powers of diagnosis as against those of 95 per cent. of medical men. Dr. Armstrong is a busy medical officer of health, and for some weeks past has doubtless been subjected to a strain of official duties in connexion with cholera which is itself an excuse for not having chosen words beyond all ambiguity of meaning. But even as his words showed, "it was a case which nineteen doctors in twenty might not have recognised as small-pox." They would seem to imply no censorious reflection on any

medical man, but only that the case was an exceptional and irregular one, in which diagnosis was far from easy. Van Swieten says: "Physicians who are conversant in practice will, I believe, freely acknowledge that it is not an easy matter to distinguish the small-pox *at first* from any other acute inflammatory disease. They will therefore be cautious how they pronounce upon that head *at first sight*." This is the expression of the largest experience and profound common sense. The man who comes second—and even a few hours make a difference in these rapidly fatal cases—has an advantage over the man who comes first. Even when the disease is epidemic and practitioners are on the look out for it, and when the course of it is regular, it cannot be diagnosed *at once*. But in the hæmorrhagic form the eruption may not be forthcoming at all, and if nothing is known of the history of the patient and his exposure to infection, it is a case not to be pronounced on dogmatically at first sight. Small-pox has of late years been in such complete abeyance that we are apt to forget its existence and especially its malignant aspects. The Tyne case should have the good effect of putting us all on our guard.

#### SHORTENING THE ROUND LIGAMENTS.

DR. CHALOT of Toulouse employs a modification of Alexander's method of shortening the round ligaments of the uterus in cases of painful retroflexion. He opens up nearly the whole of the inguinal canal, which enables him to reach the entire thickness of the round ligament even in stout subjects; each ligament is then dissected up to the internal ring, or even into the peritoneal cavity. The replacement of the uterus is not obtained by the support of an assistant, but by direct traction on the two ligaments, each of which is then stitched to the walls of the canal along its entire length. No pessary is used after the operation. The results of this method have given Dr. Chalot great satisfaction.

#### "WHY WEAR A HAT?"

PERHAPS no article of clothing has been more freely criticised in respect of its utility than that which lexicographers describe as a "covering for the head." Some, instructed by the example of savage races and of others widely different in various ways, among them the leaders of feminine fashion, whose crowns of gossamer may practically be disregarded, would have it that the hatless condition is that most characteristic of mankind. Against their opinion we find arrayed the combined force of civilised usage in every climate. From pole to pole we find that man, if he dresses at all, dresses his head. Even if bootless and guiltless of such minor trifles as waistcoat and collar, he covers the head with some form of clothing. Nay, the very savage, though he may know nothing of silk or felt, will often so decorate his vertex with feathers, or so weave its own natural wool, that not even the conventional European cylinder could protect it more effectually. Surely there must be reason in all this. There is a clearly conscious need which exists not merely in the imagination. It is thus practically admitted that though the head, like any other part of the body, may, after having suffered the attrition of atmospheric variations, become injured to their action, it still loses somewhat in the process. In the first place, it is evident that in this conflict only the fittest can hope to survive. Civilised man will not endanger his chance of survival by risking the experiment. Further, he finds that the inferior animals thus exposed undergo external changes which do not often, if ever, tend in the direction of refinement, and instinctively he shuns the possible return to coarseness and barbarism. He also recognises the fact that, given a wholesome custom in head clothing, the consequent effect will be as healthy as it is becoming. Foremost among the sanitary principles which ought to control usage in this

matter are two—the avoidance of any but the lightest pressure, and the admission through the texture worn, or by special apertures, of sufficient air for free ventilation of the head. If these elementary considerations be duly regarded, and sufficient protection be provided against changes of weather, we shall find man the better, not the worse, for wearing his "covering for the head."

#### BACTERIOLOGICAL DIFFERENTIATION.

THE process of differentiation as regards the methods of action of bacteria is gradually being accomplished, and most interesting experiments have been designed to enable us to study such differentiation in connexion with the action of the tubercle bacillus on the animal body. Koch's treatment, of course, depends entirely for its success on an accurate understanding of this question: In a "Study of Experimental Pneumonitis in the Rabbit," Dr. Mitchell Prudden of New York,<sup>1</sup> continuing an account of his researches on the action of dead tubercle bacilli, suggests that as a result of a careful study of the processes set up in the lungs of the rabbit we may make out three different actions of the bacillus tuberculosis and its products: (1) The action of the protein—which is set free from these organisms as they degenerate in contact with living cells—which sets up cell growth, and therefore probably a reparative rather than a degenerative action; (2) the caseous degeneration so frequently met with in tuberculous lesions he considers may be due to the action of some metabolic product of the growth of the tubercle bacillus, this product being wholly distinct from the cell-stimulating bacterio-protein; whilst their still remains another factor (3), probably "of toxic nature, to which many of the graver systemic effects of tubercular infection are due." This is an exceedingly interesting subject, and one well worthy of further careful study.

#### THE PUBLIC HEALTH OF ITALY.

AN Italian correspondent writes, under date Sept. 26th:—"The Government continues to display the utmost promptitude in examining every reported case of cholera and giving the results of its examination to the world. The so-called cases of cholera at Capri turned out to be no cases of cholera at all, and the same may be said of a still later announcement as to the appearance of the malady at Nola, in the Neapolitan district of Caserta. This latter case was given with some fulness of detail in the non-professional press, and from this again quoted, with exaggerations, in foreign journals. The following are the facts, taken from the official report of the Government physicians specially deputed to Nola to make the necessary investigation. A woman seventy years of age had died at that place under symptoms supposed to be choleraic, and the leading physician from Caserta performed the necropsy in presence of his colleagues. She was found to have suffered from chronic bronchitis with pulmonary emphysema, coupled with mitral stenosis and general dilatation and atheroma of the heart. There were also indications of chronic nephritis, with general anasarca, while in the intestine there were found some hyperæmia and hæmorrhagic spots on the colon—spots due no doubt to the grave obstacles to the sanguineous circulation. All characteristics of cholera were non-existent, and the symptoms which had deceived the patient's attendants were attributable to her malady in one of its later phases. No circumstance that could explain the appearance of cholera in Nola or its neighbourhood could, on the minutest inquiry, be discovered. Throughout the peninsula and in the islands, adds the Government bulletin, the health of Italy is excellent, the rates of sickness and mortality being lower than for the corresponding statistical periods in recent years."

<sup>1</sup> New York Medical Journal, Dec. 5th, 1891.

## ENTERIC FEVER IN THE NORTH OF ENGLAND.

ENTERIC FEVER is reported to be prevalent at Eslington in Durham and at Runcorn near Liverpool. At the former place it is alleged to be due to a polluted water-supply. Runcorn is more or less a home of the disease, which has been made the subject of Government investigation on more than one occasion.

## CONTINENTAL ANGLO-AMERICAN MEDICAL SOCIETY.

THE annual meeting of this Society is fixed for Oct. 6th at 4.30 P.M. at the Grand Hotel, Paris. At 7.30 P.M. the banquet will be held at the same place. It was hoped that Sir Joseph Lister would have been able to preside, but unfortunately his engagements prevent his visiting Paris.

## FINANCES OF THE MELBOURNE HOSPITAL.

AT the recent annual meeting of the governors of Melbourne Hospital it transpired that the institution was in debt to the extent of £23,000, and there was a general agreement that the hospital could not go on as at present managed. The cost per bed is £112. The matter was referred for consideration and report to the finance and house committee.

## SMALL-POX PREVALENCE.

THIS disease still prevails in the provinces, London being apparently quite free from it. Some forty cases a week are being notified, of which the great bulk are being contributed by Warrington and Halifax. Cases still continue to be occasionally reported from Dewsbury, which suffered so much at the beginning of the year. A case has also been reported from Leicester.

## THE PORT OF LONDON.

DR. COLLINGRIDGE'S half-yearly report shows an excellent amount of careful and intelligent work done under his auspices. He draws attention to the fact that the Customs have no power to detain a vessel except in the case of cholera, yellow fever or plague, and that the quarantine officers' questions do not apply to esoteric or indigenous diseases, or indeed to any but the above-mentioned complaints. These defects cause great inconvenience in administration, and should be remedied as soon as possible.

## FOREIGN UNIVERSITY INTELLIGENCE.

*Buda-Pesth.*—Dr. Imre Navratil, Extraordinary Professor of Surgery, has been raised to the rank of Ordinary Professor.

*Erlangen.*—Dr. Beckmann, Extraordinary Professor in the University of Giessen, has been appointed to the chair of Chemistry.

*Gratz.*—Professor Moeller of Innsbrück has been appointed to the chair of Pharmacology.

*Innsbrück.*—Dr. J. Nevinny, Assistant to Professor Vogl in Vienna, has been appointed to the chair of Pharmacology.

*St. Petersburg.*—Military Medical Academy: Dr. A. V. Yakovlev has been appointed Prosector in Operative Surgery. The number of *privat-docenten* at work in the Academy has reached sixty, seventeen teaching Internal Medicine, six Midwifery and Gynaecology, six Nervous Diseases, four Children's Diseases, and a smaller number other branches of medical science. Clinical Institute: Dr. N. V. Petroff, prosector in the Obukhoff Hospital and *privat-docent* in the Academy, has been appointed to the chair of Pathological Anatomy.

*Tomsk.*—Dr. J. J. Sudakevich of Kieff has been appointed to the Professorship of Pathological Anatomy.

*Vienna.*—Dr. Georg Juffinger has been recognised as *privat-docent* in Laryngology.

## DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Josef Scharff, Director of the Asylum at Brünn and one of the most distinguished alienist physicians in Austria, at the age of fifty.—Dr. José E. Ramos, Director of the Botanic Gardens and Professor of Botany in the University of Havana.—Professor Pilat of Lille.—Dr. Seligmann, Extraordinary Professor of the History of Medicine, Vienna.—Dr. W. J. Porai-Koshitz, *privat-docent* in Dermatology in the University of Kharkoff.—Dr. K. J. Leonoff, formerly senior surgeon of the 8th Russian Uhlan regiment, who was, in addition to being a very scientific man, a great linguist. He was conversant with Hebrew, Arabic, Persian and Sanskrit, and with nearly all European languages. He died at Yalta, in the Crimea, at the age of sixty-three.—The death is announced of the Professor of Oriental Languages in Halle, August Mueller, who rendered great services to the history of medicine by his works on ancient Arabic medicine.

WE have to announce with regret the death, on Monday last, at North Berwick, of Alexander Keiller, LL.D. St. And., M.D., F.R.C.P., F.R.S. Edin., Consulting Physician for Diseases of Women at the Royal Infirmary, Edinburgh, and the holder of many other appointments in the northern capital. We hope in an early number to give a record of the life and work of the late distinguished physician.

THE Royal Commissioners appointed to consider the question of the water-supply of the metropolis will, on Wednesday next and two following days, resume their meetings, under the presidency of Lord Balfour of Burleigh, for the reception of evidence.

THE Harveian Oration will be delivered at the Royal College of Physicians, Pall Mall East, by Dr. J. H. Bridges, at 4 P.M. on Tuesday, Oct. 18th.

## CHOLERA.

## CURRENT NOTES, COMMENTS AND CRITICISM.

IT is a source of satisfaction to learn the truth about the conduct of the people of Hamburg when face to face with the calamitous sickness that has prevailed in their city since the middle of August last, and which is now happily fast subsiding. The statements which were originally promulgated as to their utter helplessness and want of organising power to cope with the epidemic were, if not altogether false, grossly exaggerated and sensational statements. The letters of the special correspondent of *The Times* obviously afford a far more accurate, reasonable and trustworthy record of the events making up the history of the epidemic. What are the facts? For the first few days the number of attacks was relatively small, but shortly afterwards the epidemic began to assume alarming proportions. Where the cases could be counted by fifties they were soon to be counted by the hundred, and in about a week they reached over a thousand per diem. Up to Aug. 20th there had been only 86 cases of cholera distributed over several days, and on the 22nd, the day the disease was officially recognised, they were 200, and by the 27th they had reached the maximum of 1101. Occurrences of this kind would be likely to strain the powers of the best organised community in the world. The preparations and arrangements for coping with such a state of things were not, and could not reasonably be expected to be, adequate or perfect. Cholera in Hamburg comported itself very much as it

does in India and elsewhere, when it takes, what may be termed, the "explosive" form of a severe outbreak. The shape assumed by such an outbreak, if graphically rendered in diagrammatic outline, may be likened to that of a truncated cone—with a difference however. It rises rapidly to a maximum, continues so for a brief period and then progressively declines, but the line indicating its descent slopes gradually down and is very different to that which represented its almost vertical ascent to a maximum. In this respect an outbreak or epidemic of cholera is more nearly allied to one of influenza than to an epidemic of typhus fever for example, in which contagion from person to person is the dominating factor, for here a diagrammatic figure outlining the rise, progress and decline of the epidemic would assume a cigar or fusiform shape. The probable explanation of this form of cholera outbreak may be adverted to later on; meanwhile, we are glad that their conduct—the really splendid energy of which the Hamburgers may be proud, says *The Times* correspondent—has been fully vindicated. Time was the great difficulty—want of time to make the necessary arrangements was the enemy they had to fight in confronting the cholera. If anyone will try to realise the difficulties that would arise on a small scale from the sudden and unexpected arrival of a hundred people at one of our largest and best-managed hotels, he can easily conceive that its organisation and administration might be for the moment severely tested. But in the case of persons sick and dying of cholera the requirements are infinitely greater and more urgent. A battle causes an epidemic of wounds and injuries, and we all know the strain that this imposes on the best organisation that was ever designed, where the administration is in the hands of men accustomed to provide for such emergencies and trained to act together in that kind of work. It needs such a clear appreciation of principles and mastery of details in regard to transport and hospital management, as well as such correctness and promptitude of judgment, as to amount to a sort of genius. The authorities at Hamburg rose to the occasion, and we are assured by Dr. Koch and other competent authorities that they did their work promptly, manfully and well.

According to the official return of the total number of cholera cases from the outbreak of the epidemic in Hamburg until Sept. 24th, 17,157 persons were attacked by the disease, and of these 7339 succumbed.

But it is to the very ably written tenth letter of *The Times* correspondent, headed "The Sins of Hamburg," and published in that paper on the 27th ult., that we particularly desire to call attention. The moral of the story which is there told, like all stories worth the telling, lies on the surface; its lesson cannot be missed. It is in the application of it that people are likely to falter and fail. The sudden explosion of cholera in Hamburg was apparently a case of wholesale water poisoning. Practically it signifies nothing for the present whether the foul water were the nurse or parent, whether it disseminated or created the cholera poison. The case that seems to have been proved to demonstration in the meantime is this: Here was a city in which the drainage was fairly good, the population not greatly overcrowded, no famine, and but little prevalence of the direst sort of poverty among them, with a creditable condition of house and personal cleanliness; but the drinking water was foul. The sewage may be graphically said "to go out at the basements and in at the roofs of the houses after taking a little tour in the river and the waterworks." This intimate connexion between the prevalence of cholera and contaminated or bad water-supply has been borne in upon us on all sides. There has been cholera for the past six months in France. The first outbreak of the disease took place in the Nanterre prison and asylum early in April last. It was alleged to have been caused by the introduction of contaminated water from the River Seine. The last outbreak in France took place at Portel, a fishing village in the vicinity of Boulogne; sixteen cases occurred and the cause in every case was traced to the drinking of impure water from a well which has since been closed by the sanitary authorities. Boulogne itself has escaped; the disease has not appeared there. Samples of water from that town have been chemically tested and found to be free from impurity. To complete the picture, cholera appeared in the suburbs of Paris to the west and north and long lingered there before it spread by the River Seine to Havre and implanted itself in Paris. The disease was attributed in these cases also to the use of impure water from the River Seine fouled at various places by sewage. *En passant* we would here

call attention to the diagram on another page, representing the daily death-rate from cholera in Paris and its suburbs. It does not signify from a practical point of view whether the true cause of the disease be a comma bacillus, a spirillum, or a vibrio, and their relations one to another, or whether it be any other vitalised agent, the lesson to be learnt is the same; and the two reports which have just been issued from the Medical Department of the Local Government Board regarding the causes of the widespread prevalence of fever in the towns of Rotherham, Rawmarsh and Greasbrough, in the West Riding of Yorkshire, and of the outbreak of typhoid fever at King's Lynn, Norfolk, bring this subject of our water services in this country and the dangers to which a community is exposed conspicuously before us. In these cases also the disease was traced to water pollution. Such pollution may to-day be the cause of enteric fever and to-morrow of cholera. The medical or scientific aspect of the question is another matter. We do not of course intend to minimise or depreciate its importance, for it goes without saying that it is vastly important, and that a logical mind is impelled to seek for and identify the true cause and to differentiate it, if possible, from everything else. But the practical outcome, the object lessons, of the events which have recently taken place on the Continent and elsewhere have tended to demonstrate the importance of a pure water-supply as a safeguard against cholera, as well as against other diseases which are perennial with us, whereas cholera is an exotic and only an occasional visitant.

It appears that Professor Pettenkofer of Munich, who has been actively engaged in studying and observing the disease, together with Professor Koch, during the Hamburg epidemic, considers that the latter's theory of the origin of cholera has not altogether stood the test of experience in Hamburg. It has not been proved, according to Professor Pettenkofer, that the pestilence was brought there in the way indicated by Professor Koch, or that the comma bacillus is the sole cause of the Hamburg epidemic. As will be readily understood by those acquainted with Professor Pettenkofer's ground water theory, he considers that a combination of the two views is necessary to explain all the phenomena of the epidemic. But as it is stated that Professor Pettenkofer intends to publish the results of his observations and conclusions, we need say no more on this head.

There are, however, several points of great scientific interest which still require to be settled before the scientific horizon can be said to be clear. One of the difficulties attending the complete acceptance of the cholera bacillus theory of causation is to account for the occurrence of isolated and sporadic cases of that disease, which in the aggregate amount to a large number—in India, for example. One man is attacked and dies of cholera in a barrack-room occupied by a number of others, the air, food, water-supply and all other conditions being the same for all alike. There is, perhaps, no other case of cholera in the station at the time, nor is there any history of any having occurred before; and this is not at all an uncommon but a frequent occurrence in India at certain seasons, and outside and beyond the so-called endemic area. The relation of these cases to larger outbreaks and epidemics has not hitherto been exactly defined, for when an epidemic occurs later on it does not at all follow that it should be at the same place or time, or soon after the occurrences to which we are referring; and parallel with this is the inquiry, How did the River Seine become infested with the comma bacillus, and how was the cause of the disease introduced into Hamburg, or, to take the latest example, into the well at Portel, the fishing village near Boulogne? Some light may be hereafter thrown on these subjects. Of course it is often excessively difficult to trace out the natural history and descent of an animal or micro-organism and it may be impossible to trace the lineage of a disease, and yet the failure to do so would not at all invalidate the conclusion that it depended upon a specific organism like the comma bacillus.

While the military manoeuvres in Germany were postponed, those in France took place during the present autumn, and the *fête* of the 22nd ult. was celebrated. Whether these gatherings have had any effect or not on the prevalence of cholera in France it would be hard to say. The disease still lingers in that country, although the number of cases is relatively very small considering its population. There is a progressive decline of the disease in Hamburg, satisfactory reports from Vienna and Galicia, and from Brussels, Berlin, the Netherlands, St. Petersburg and New York, notwithstanding that the disease still prevails more or less in these places.

A word regarding the correspondent of the *New York Herald*, who got himself inoculated for cholera in Paris by M. Haffkine. This gentleman has gone through a great experience in the Hamburg hospitals, and he enters into a description of all the details connected with the various and different tests to which he has subjected himself. As regards their scientific and practical results, however, they are valueless, for we knew already that nurses and medical officers did not run any great risk of catching the disease by contact with the sick in cholera hospitals; and as regards more direct methods of infection, a negative result in any individual case will not prove that the apparent immunity was conferred by any previous inoculation; and if the experimenter were attacked and died of the disease we should be no wiser as to how he contracted it, although the occurrence would indicate that in his particular case the previous inoculation had not protected him. There is hardly any test to which some individuals have not at some time or other subjected themselves without contracting the disease, but this fact has not carried conviction to the minds of anyone or served to establish any particular view on a scientific basis.

We are glad to notice that the simplicity and efficacy of the preventive measures adopted by the Local Government Board in this country have attracted attention on the Continent.

It is reassuring to know that, with the exception of a case or two at Hull from the *Uranus* from Hamburg, this country remains free from the disease. When such success has been attained up to the present in keeping cholera out of England it is extraordinary to find a body like the Town Council of Grimsby suggesting to its fellow port sanitary authorities that they should apply to the Local Government Board for powers to detain all ships from infected ports in quarantine for seven days. It is said that the Hull authorities have strenuously dissented from this view, and we trust that no port authority in this country will be found to support the retrograde proposal of the Grimsby Town Council. Abroad the disease appears to be distinctly waning in both St. Petersburg and Hamburg. A few cases are still reported from Berlin, and there appear to be signs of the enemy still in Holland—e.g., at Rotterdam and the Hague. The prevalence of choleric diarrhoea is diminishing in Paris, but a few cases of what appears to be genuine cholera are reported from the vicinity of Boulogne. America appears to be practically free, there having been no extension of the disease which appeared, in spite of quarantine, in New York city. The German Imperial Government are now alive to the necessity of stringent sanitary administration, and a Bill is being drafted which will comprise regulations as to infectious disease applicable to the whole empire. We have already in the foregoing part of this article referred to the well-informed statements which have been made regarding the sanitary condition of Hamburg, and drawing attention to the state of the canals and of the Alster Lake, as well as of the conditions of the water-supply. It appears that the water drunk at Hamburg is nothing but Elbe sewage, subjected to no filtration, but only to a rude and incomplete subsidence. We have pointed out that facts have been adduced against the current hypothesis of the introduction of cholera into Hamburg by means of Russian emigrants and some stress laid upon a theory of soil development of the disease after Pottenkofer. But whether introduced from Russia or developed from seeds of previous epidemics left in the soil, under seasonal influences, is a problem to be settled only after much patient investigation in the future.

## THE CHOLERA IN FRANCE.

PARIS.

(FROM OUR SPECIAL CORRESPONDENT.)

### THE DEVELOPMENT OF THE EPIDEMIC.

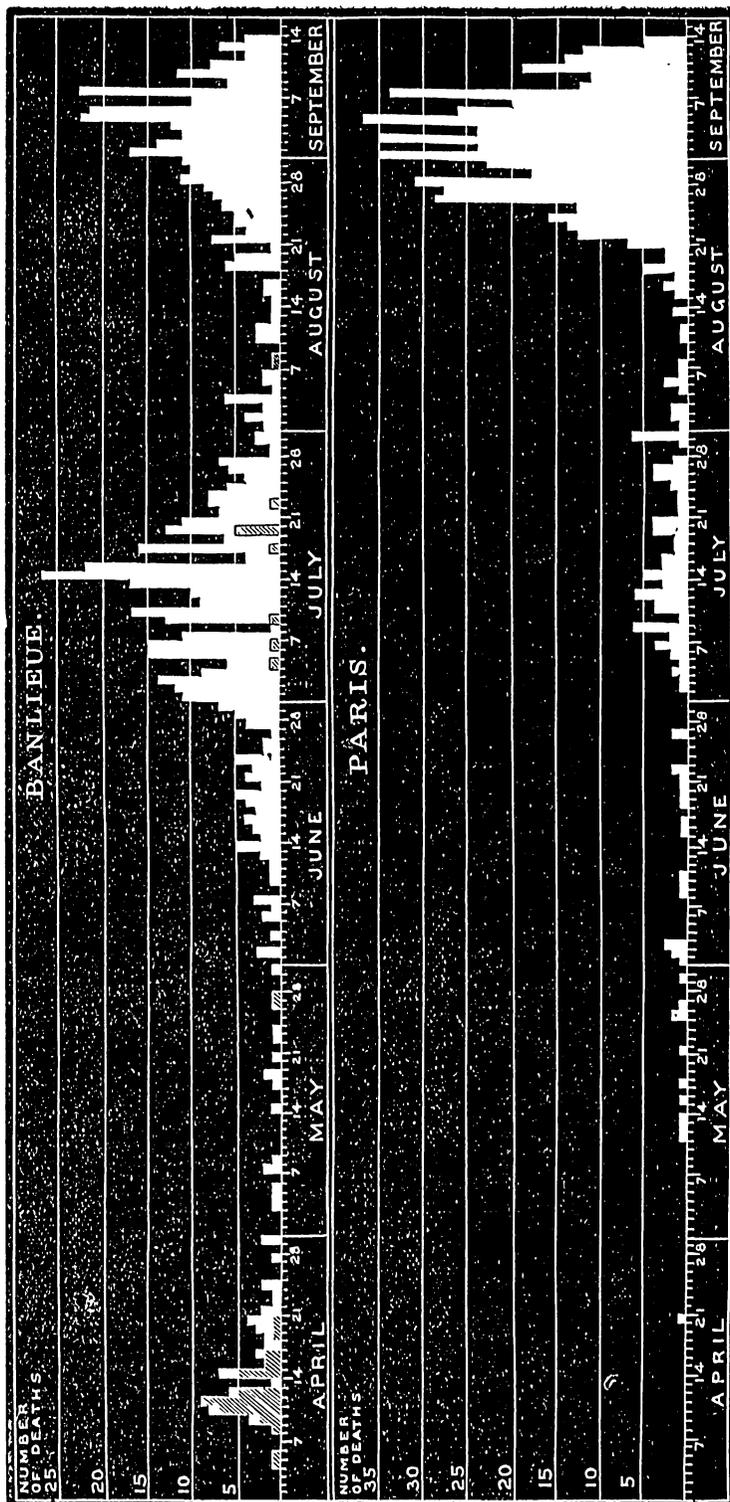
ON Sept. 13th Dr. Brouardel stated before the Academy of Medicine that the first cases of cholera occurred at Bakou on June 22nd, at Nanterre near Paris on April 2nd, at Hamburg on Aug. 11th, and at Havre on Aug. 2nd. It is something to find that the truth is at last acknowledged and this by so high an authority. In July, when I was last in Paris, every effort was made to conceal the real facts. It was said that out of ten clearly defined cases there were as many as nine deaths. It was recognised that the deaths were most rapid, occurring after a few hours; but, nevertheless, we were asked

to believe that this was only cholera nostras. The fact that the disease did not spread was not attributed to better hygiene and a more strict and skilful application of prophylactic precautions, but the slowness of development was taken as a proof that it was not an epidemic of cholera. Now, however, the disease has spread, not to a very large extent, but in any case there are already more victims than during the entire epidemic of 1884; and in that year no attempt was made to disguise the fact that true cholera prevailed in Paris. The only difference is that the epidemic spread much more rapidly in 1884 and lasted but a short time. It had been simmering in the outskirts of Paris for several months, but when it gained a footing within the town it increased very rapidly. There were two deaths on Nov. 4th, 1884, and 110 deaths on the 10th of the month. But, on the other hand, there were only 938 deaths in all, and, adding to these the deaths which occurred in the suburbs, the total was close upon 1000. In the present epidemic the number of victims is already in excess of the cholera death-roll of 1884, only this year the suburbs of Paris have suffered more acutely. Dr. Paul Brousse, reporter of the Permanent Committee on Epidemics, and Municipal Councillor, has prepared a diagram of the present epidemic (which we reproduce on the opposite page) to show the daily, weekly and monthly death-rate from cholera in the suburbs and within the fortifications of Paris. The diagram illustrates how slowly the cholera has spread but how much it increased during July and September in the suburbs and during September in Paris. The figures are as follows:—In the suburbs there were 24 deaths in April, 14 in May, 76 in June, 299 in July, 123 in August, and from Sept. 1st to 14th, 173 deaths. This gives a total of 709 deaths in the suburbs of Paris, but within the department of the Seine; for it must be noticed that there are other districts that may also be considered suburbs of Paris, such as Sarcelles, where the Belgian bricklayers from Jumet contracted cholera, which are not included in these statistics because they form part of another department or county. In Paris—that is, within the fortifications or walls of Paris—there was one death attributed to cholera in April, and this occurred on the 21st. In May there were 10 deaths, in June 19, in July 83 and in August 229. Towards the end of August the cholera had greatly increased. During the first twelve days of September there was an average daily death-rate from cholera of 24, but there has been a considerable decrease since the 13th of the month. Altogether, from Sept. 1st to Sept. 19th there were 357 deaths attributed to cholera within the walls of Paris. Adding this to the 342 deaths recorded during the previous five months, there was a total of 699 deaths within Paris. This figure, taken in conjunction with the 709 deaths in the suburbs, gives a grand total of 1408, and is therefore considerably above the epidemic of 1884, which, as already stated, for Paris and the suburbs, did not quite reach the total of 1000. These figures demonstrate only too painfully that I was justified when, in June and July, I insisted on the importance of the few cases that then occurred. I should also add that at the Nanterre prison and asylum there were 43 deaths, most of them occurring in the month of April. It is difficult to say whether these should be considered as suburban or Parisian cases; for, though the prison of Nanterre is in the suburbs, the patients, mostly vagabonds and beggars, sickened and died very shortly after their arrival from Paris. These 43 deaths increase the general total to 1451 deaths.

### THE ORGANISATION OF MEDICAL INSPECTION, OF DISINFECTATION, AND OF THE AMBULANCE SERVICE

The statistics as to the number of cases of cholera in the Department of the Seine should be fairly correct, for the most careful measures are taken by the Prefecture of Police so as to receive prompt and accurate information. M. Besançon, the courteous and amiable Chief of the Second Division at the Prefecture of Police, who in France represents the administrative side of sanitary reform, and who is a faithful attendant of the International Congresses of Hygiene, was kind enough to explain this mechanism. First I was shown a little pocket-book such as has been distributed to every doctor in Paris. It is of the size of a post-card, and should never leave the practitioner's pocket. On the inside of the wrapper the following is printed: "Prefecture of Police, Second Division, Fourth Bureau, Epidemical Service. Extract from the Decree of Aug. 29th, 1892:—Article 6: The declarations at the Town Hall of all cases that seem likely to prove cases of cholera is obligatory, and must be made within a delay of twenty-four hours by the doctor or medical officer

DIAGRAM REPRESENTING THE DAILY DEATH-RATE FROM CHOLERA IN PARIS AND THE SUBURBS.



The upper column of the diagram represents the daily, weekly and monthly death-rate due to Cholera in the SUBURBS OF PARIS AND WITHIN THE DEPARTMENT OF THE SEINE, from the beginning of April until the 14th of September. The shaded portions represent the deaths within the DEPARTMENTAL PRISON AND ASYLUM AT NANTERRE.

The lower table shows in graphic form the number of deaths from Cholera within the FORTIFICATION WALL OF PARIS during the same period.

who has seen the case, by the head of the family or the persons who are nursing the patient, and by any person with whom the patient is lodging. In Paris this declaration must be made at the Prefecture of Police, or at the Town Halls (*mairies*). Article 10: Any infraction of the present decree shall be reported and give rise to a prosecution according to Article 14 of the law of the 3rd March, 1822, which punishes by imprisonment of from three to fifteen days and a fine of from 5 fr. to 50 fr. all who have disobeyed, in sanitary matters, the orders given by competent authorities."

The pocket-book contains twelve folded letter cards addressed to the "Prefect of Police; Epidemical Service," with notice in the corner that the letter need not be stamped. Inside is a printed formula which has to be filled up, by which Doctor — declares that such person of such an age, residing at such an address, "presents choleric symptoms." Then there is space remaining for other details relating to disinfection, removal of the patient &c. The private practitioner on seeing the patient should then and there fill up the letter, gum down the edges, remove it from the pocket-book and drop it into the nearest letter-box. The inside of the wrapper at the end of this little pocket-book gives instruction for the procuring of ambulances and for disinfection.

At the Prefecture of Police a record of each case is kept on two separate cards. One card is white and headed by the name of the patient, and of course these cards are placed in boxes according to alphabetical order. The other card is yellow and is headed by the address of the patient. The latter is the most useful, for here are found in alphabetical order the streets where cases have occurred, and a glance will show where the epidemic is causing the most harm. Every morning at eight o'clock six doctors attached to the Permanent Committee of Hygiene<sup>1</sup> arrive at the Prefecture of Police, study these white and yellow cards, and determine what places they should inspect during the course of the day. In time every case reported is visited by one of the doctors from the Prefecture. These official medical inspectors carry with them white cards of a larger dimension than those already described. On the top of the card is a space for the address of the place visited. These follow personal details concerning the patient, the date of the illness and details relating to the malady. After this there is a space to fill up with information as to cases, if any, of contagion in or near the house. Another space is left, so that the nature of the water consumed in the house may be mentioned; and finally, all the details concerning disinfection have to be given.

In any case in Paris the necessity of disinfection is at last fully recognised. The services for the disinfection of private houses have been organised quite recently, but great progress has been accomplished in a very short time. The principal disinfecting station is in the Rue des Recollets, near the Eastern Railway Station, and its organisation is more perfect than anything of the sort I have seen in England. Of course the premises are divided in half with two separate entrances—the infected and the disinfected sides. The disinfectors arrive in the morning on the clean side. They are then introduced into a little room, where they take off all their clothes. From this there is a middle room with the necessary apparatus for washing and for taking a douche. In a third room they find their working clothes, and from this third room they reach the infected side of the establishment. To return to the clean side, they must leave their working clothes in the third room, take a douche in the middle room and put on their ordinary clothes in the first room. The disinfecting stoves are of course walled round, the entrance to the stoves being on the infected side, while the objects, when purified, are taken out on the opposite and clean side. What is now known as the official stoves only are used. These act by steam superheated under pressure. The temperature is generally about 118° C., and the operation does not require more than about twenty-five minutes. But these stoves have been often described. They are the same as those that are used in most parts of the world, from Belgium to the Caucasus, or from the Suez Canal, at Gibraltar and on board the large ocean liners. The attendants at the Rue des Recollets declared that they had received but few complaints as to damage done to the clothes they had disinfected.

The establishment was somewhat in a state of confusion at the time of my visit, as a new stove was about to be introduced, and it was necessary to build larger storing rooms in

which to place the objects that have been disinfected. It is a rule that no object, on being withdrawn from the stove, shall be put on the ground. It must be placed on large shelves that are built for this purpose. Last week I mentioned that the number of disinfecting operations performed from Sept. 1st to 15th amounted to 1598. This figure had increased to 2271 on Sept. 23rd. Never has such extensive disinfection been previously accomplished in Paris, and to meet such a demand it is necessary on all sides to increase the number of stoves and the size of the premises. These figures do not include the disinfection of passengers' luggage and other goods coming by train, but apply only to the disinfection of houses where there have been cases of cholera and other contagious diseases.

The disinfectors, having put on their working clothes, start out to the various houses where their services are required. They are conveyed in large closed carts. On reaching the house which has to be disinfected they put on a large pair of canvas trousers and a large blouse which fits tightly round the neck and the wrists. They have with them a counterfoil book on which they inscribe on both sides all they intend to take away. One list is left with the owner, the second list is on the other half of the leaf and remains in their book. All the bedding, curtains, carpets and soiled linen are carefully folded up in canvas and securely packed. This is placed in the closed cart which is waiting in the street. The disinfectors have with them wooden jugs of 18 litres capacity, and packages containing 50 grammes of sulphate of copper, and other packages containing 7.5 grammes of bichloride of mercury and 30 grammes of tartaric acid. One of the latter packets is emptied into one of the wooden jugs and dissolved in water. The solution is poured into the pulveriser, and the disinfecter proceeds to systematically work the spray over the walls and the furniture and into all the corners. The other wooden jug is half filled with water, fifteen packets of sulphate of copper are added, and then the jug is filled with more water. When the crystals are dissolved the solution is used to pour down the drains, to wash the floor and walls of the closets and to mix with the excreta of the patient that may still be found on the premises. This completes the process of disinfection. The disinfectors then remove their overalls, which are packed in a small bag and placed in the cart to be disinfected in the stoves with the bedding &c., and before proceeding further spray themselves over with the mercurial solution. Thus the danger of spreading infection during the process of disinfection is reduced to a minimum. It will be remarked that the process of fumigation has been entirely abandoned. The Paris authorities have greater confidence in the antiseptic properties and the penetrating powers of the mercurial spray.

In the suburbs of Paris the linen, bedding &c. are not carried away, but a portable disinfecting stove is brought to the house and the disinfection by superheated steam is practised in the street at the patient's door. For this purpose there are in the Department of the Seine, but outside the walls of Paris, fourteen portable stoves. Only two of these portable stoves are on the south side of the Seine, at Secaux and Villejuif. Two more are to the east of Paris, at Oharenton and Vincennes. These four stoves cover one half of the circle round Paris; the fact that the ten other portable stoves are in the other half of the circle eloquently indicates where the cholera epidemic has found most of its victims. The ten stoves are distributed as follows:—One at Pantin, one at Aubervilliers, two at St. Denis, one at St. Ouen, one at Clichy, one at Neuilly, two at Courbevoie and one at Boulogne. With each stove there is a pulverising apparatus.

It is important to add that all these disinfecting operations are carried out absolutely gratuitously. No payment is demanded either from the rich or the poor. It was felt strongly that any question of payment would tend to cripple the action of the administration. Success depended on the principle of perfect equality. Some wealthy persons might not object to pay, but the poor would strongly object to being treated on a different and on a humiliating footing. The enforcement of sanitary measures must not tend to pauperise certain sections of the population. Therefore disinfection is at once obligatory and gratuitous all round, and there is no difference whatsoever made between rich and poor.

Disinfection was first practised at the Rue des Recollets, because there is here a large night refuge, where nearly 300 people are given shelter for three days in the month. Persons applying for this help were required to strip, a foot-bath and douche were given them and a suit of canvas clothes

<sup>1</sup> See, with regard to the creation and functions of this committee, THE LANCET of July 23rd, 1892.

provided for the night. In the interval their own clothes were disinfected, and for this purpose a disinfecting stove was placed close at hand. This stove, intended originally only for those who came to the asylum or casual ward, was the nucleus of the public disinfecting station now so well organised and so generally appreciated. The disinfecting station in the Rue du Château-des-Rentiers, beyond the Orleans railway station, had a similar origin. Here also there is a night refuge, organised likewise by the Paris Municipality. The washing, the douche and the disinfection of the clothes are similarly enforced, and here likewise the number of disinfecting stoves is being increased, for this has become the public disinfecting station for the south side of the river. On the evening preceding my visit a poor man who was enjoying the hospitality of this asylum was taken ill a few minutes before midnight. The manager of the refuge at once removed the patient from the dormitory, poured a sulphate of copper solution on the dejections and telephoned for the ambulance. The man was promptly removed to the hospital, where he died at two in the morning. The period of illness certainly did not last more than two hours and a quarter. This is the first case of cholera that has occurred in the refuge. The next day the walls of the dormitory were treated with the mercurial spray; and 207 mattresses, 267 rugs and 414 sheets were disinfected in the stove, which is fortunately on the premises. The closets were drenched with a solution of sulphate of copper and the street pavement outside the night refuge was washed with a disinfectant. It would be difficult to do more. While speaking of these night refuges, I might mention that the cost, including all the service administration &c. of receiving the poor, of giving them a footbath and douche, of lending them a suit of clothes for the night, of disinfecting their clothes, of giving them a good bowl of meat and vegetable soup in the evening and a piece of bread in the morning, amounts per person relieved to 55 centimes at the Rue des Récollets and to 42 centimes at the Rue du Château-des-Rentiers. Finally, as an indication of the humane sentiment that animates the management of these municipal refuges, I should not omit to describe the care with which the clothes are disinfected. They are not folded up as is the practice at our English casual wards, so that they come out of the stove all creased. On the contrary, sticks are provided, to which the clothes are fastened in such a manner that there are no creases and no one can tell that the wearer has been in a refuge.

The third disinfecting station is in the Rue de Chaligny, beyond the Faubourg St. Antoine, and is only separated from the Hôpital St. Antoine by a wall. The principle of management is the same at all the three stations. The division between the infected and the disinfected sides is strictly observed, and there are the three compartments for the disinfectors, so that they may change their clothes and take a douche when they finish work.

At the Rue de Chaligny there is also the municipal ambulance service. The other municipal ambulance service is in the Rue de Staël on the south side of the river, near the Boulevard Vaugirard. I will describe the latter as being the more perfect of the two. There is a small central building where three trained nurses live. On one side there are the door and the stabling for the ambulances that are ready to start, and on the other the infected ambulances that have returned from service. These ambulances have the form of small omnibuses; they are absolutely bare inside and lined with tin, the angles being rounded off. The only furniture is an iron folding shelf that serves as a seat for the nurse. Then there are portable iron stretchers, which can be folded up in the form of an arm-chair or laid out as a bedstead. Communication by telephone or telegraph is open day and night with these ambulance stations. When the ambulance is called to fetch a patient the coachman puts on a canvas suit very similar to those worn by the disinfectors. The nurse puts on a white linen gown that fits tightly round the neck and the wrists and descends to the feet. She also puts on her service shoes. On reaching the house the coachman and the nurse, with the aid of whatever assistance may be found on the premises, place the patient on the iron folding chair, on which a small mattress and rugs have been placed. The patient is driven to the hospital and then the ambulance returns to its station. A door close to the entrance on the infected side admits the nurse to a lavatory, where she removes her gown and her shoes and washes herself in a mercurial solution. The coachman in the meanwhile has made a bundle of the mattress and rug, which are

then ready to send to the disinfecting stove. With the pulveriser he then proceeds to disinfect the inside of the ambulance waggon. The ambulance is now ready for the next case, and is sent over to the other side of the yard. At the back of the yard are the stables, where two horses are always kept ready harnessed. The ambulance carriages cost £120, wheels with indiarubber tyres cost £18 more, and the folding iron stretchers cost £5 each. In the month of August the nurses at the Rue de Staël removed 655 patients, of whom 114 were infectious or contagious cases. Up to Sept. 24th they removed 484 patients, and had generally to deal with three or four cholera cases every day.

The disinfecting stoves and ambulances are under the control of the Prefecture of the Seine, but the Prefecture of Police has also under its orders a number of carriages for the removal of the sick. A doctor or the friends of the patient may therefore apply either to the Prefecture of Police or to the municipal ambulances of the Rue de Chaligny and the Rue de Staël. This dual authority is somewhat perplexing, and it is most regrettable that it should have lasted so long. Finally, if a patient is removed to the hospital in a cab or private carriage it will be found that the Prefecture of Police has placed a policeman at the entrance of every hospital. The cab or carriage is made to enter the yard of the hospital, and the policeman is there to see that it does not come out again till it has been disinfected. In case of a cab the cabman receives 1s. 8d. as a compensation for the delay caused by the disinfection. This, however, does not take long, being done with the pulveriser and the mercurial solution.

Such are some of the methods and the precautions which the authorities in Paris are now adopting. They constitute a most notable improvement on what has been done during previous cholera epidemics.

#### NOTES ON TREATMENT.

Our Paris correspondent, writing on the 28th ult., says that it is reported that from Sept. 17th to the 24th there occurred at Portel, a fishing village near Boulogne-sur-Mer, ten deaths from cholera. The director of the Board of Health arrived there on Saturday with a disinfecting stove, and Dr. Aigre, Mayor of Boulogne, visited the place on Friday. Steps are being taken to limit the outbreak. A commission, appointed by the Municipal Council of Paris, has left for London and Glasgow, in order to study the methods employed by water companies in these towns for the filtration of drinking water. At a meeting of the Académie de Médecine Dr. Gibert of Havre uttered a protest against the closing of ports in times of cholera to vessels hailing from contaminated countries. He states that during the present epidemic Havre has so far suffered a loss of 30,000,000 francs from this cause. He points out that England has succeeded in restricting the outbreak to twenty-five cases simply by burning all objects belonging to a cholera patient, whilst keeping her ports free to all comers. At the same meeting Dr. Gaillard reported the results of a mode of treatment followed by him at the extemporised hospital situated in bastion 36. Whenever a patient was admitted in the algid stage his body was at once vigorously rubbed, repeated hypodermic injections of caffeine and ether were given, as also inhalations of oxygen. If no benefit accrued two litres (for an adult) of the following saline solution were injected into the internal saphenous vein:—Sterilised distilled water, 1000 grammes; chloride of sodium, 5 grammes; sulphate of sodium, 10 grammes. This generally suffices to revive the patient. Sometimes, however, the transfusion has had to be repeated (once five times), but an interval of at least eleven hours is allowed to elapse between the injections. When the patient is able to swallow he is given a litre of sweetened water containing fifteen grammes of lactic acid. This is followed by champagne, coffee and nutrient enemata. Dr. Gaillard's results stand thus: Cures, 173; deaths, 164; under treatment, 23—total, 360. Of the cases cured, twenty-five owe their lives to transfusion of sterilised serum. One operation generally sufficed; in three cases only was the transfusion repeated once. Fifty-two very serious cases were saved by the lactic acid treatment only, without transfusion. At the height of the epidemic there were as many as sixty-two male nurses in the hospital; of these, only one contracted the disease, and he was saved by transfusion. The youngest of the transfused patients was aged eight and the oldest—there were three of them—fifty-six years.

## CHOLERA IN GERMANY.

Our correspondent, writing from Berlin, says:—"The numbers of cholera cases and deaths reported from Hamburg on the 16th inst. were 276 and 136; on the 17th, 286 and 127; on the 18th, 241 and 115; on the 19th, 206 and 105; on the 20th, 211 and 100; on the 21st, 180 and 97; on the 22nd, 199 and 69; on the 23rd, 115 and 56; on the 24th, 81 and 49; and on the 25th, 126 and 47. After Professor Koch's last visit to Hamburg it was given out that he had spoken of the anti-cholera measures there in terms of the highest praise. The *Frankfurter Zeitung*, however, has received the following much more credible report from that city:—"It is true that Professor Koch praised some of the measures taken by the authorities, but in general he made no attempt whatever to conceal his dissatisfaction, and even severely blamed this and the other. He frankly declared to the members of the Commission that, if the State (i.e., the little republic of Hamburg) did not at once provide good drinking water for the people, we should not get rid of the epidemic. The distribution of boiled water and spring water was only a temporary make-shift, which could not last long, because, for one thing, even comfortably situated people could not long afford to boil all the water they use in their homes themselves." The immediate results of Professor Koch's visit were that the Commission resolved to have all the cisterns cleaned, the foci of contagion disinfected and Abyssinian wells sunk. Professor von Pettenkofer of Munich, one of the first authorities on cholera, who is by no means altogether at one with Dr. Koch, spent some days at Hamburg last week, studying the epidemic. Dr. Koch visited Stettin on the 19th instant and inspected the waterworks there. He is reported to have declared that the Oder was undoubtedly infected with cholera bacilli, and that, as the water-supply of Stettin is taken from that river, the city was in danger unless the filters kept the bacilli out, which was possible only if the water passed through at the rate of 100 millimetres an hour at most, whereas the rate then was from 200 to 300. This excessive rapidity was due to waste, the Stettiners having used during the last few months from one and a half to twice as much water as necessary. The magistrates have ordered the enlargement of the filtering apparatus, and the work has already begun. An interesting observation has been made in the Hamburg suburb of Sankt Pauli, where cholera raged with great severity. In a block of houses which gets its water from the adjacent Altona not a single case occurred. Altona, like Hamburg, takes its water from the Elbe, but filters it, which Hamburg does not. The fury of the epidemic, however, is not due to bad water alone, but also to the overcrowded dwellings of the poor."

A Hamburg correspondent writes:—"The Hamburg Waterworks, to which so much attention has been directed, are situated about a mile and a half to the west of the town. The intake from the Elbe is a little higher. There is no attempt to purify the water, the water-works being a mere pumping-station to force the water with all its impurities into the mains supplying the town. In this suburb the first cases of cholera occurred, the first case, so far as can be discovered, being a man employed in cleaning ships; but, as he rapidly became unconscious, it is not known on what ships he had been employed. Thus the exact source of the original infection can never be known. Immediately in his neighbourhood several similar cases occurred. The authorities declare that it was not till then that the comma bacillus was seen, and therefore that they could not be sure that cholera was present. Asiatic cholera is a most marked and characteristic disease, having specific symptoms and being invariably attended by great mortality. These symptoms were present, and a great mortality existed—far greater than could be possible with mere European choleric. Moreover, the comma bacillus has not yet by any means been universally admitted to be the cause of cholera, in spite of all the energy of Dr. Koch and his supporters. Is, then, a town to be allowed to have a severely fatal disease, attended with all the symptoms of cholera, and yet to be regarded as perfectly free from infectious disease, because a bacillus which is hypothetically looked upon by some to be its cause has not been recognised? Cholera, unfortunately, is not a theory but a reality, and will make its presence felt by its mortality; and it should be the duty of every place having a disease with all the symptoms of cholera and its mortality to 'proclaim the fact' at once—the bacillus can be searched for afterwards."

## CHOLERA IN AUSTRIA.

Our Vienna Correspondent writes:—"The reports on the course of the cholera in Galicia, which reached Vienna during the last week, led to the expectation that there were only sporadic cases to be met with at Cracow, Podgorze and Wolowice. In the first two towns during the period from Sept. 8th to Sept. 25th only fifteen cases of cholera, with five deaths, have occurred, and these cases showed the specific local character of the disease. The private buildings where these occurred were carefully isolated and their inhabitants kept under medical supervision. As may be seen from the low death-rate, the disease has not been of a very virulent character. In some of the cases infection could be traced to dirty linen. Naturally, disinfecting operations were carried out at Cracow with the greatest energy, sometimes even with curious effects, as in a case in which three young girls were brought to the hospital there with symptoms of gastro-enteritis. It turned out that they had contracted the disease from having eaten fruit which had been disinfected by carbolic acid. At Wolowice only four cases with two deaths occurred a week ago, but no other cases followed. According to official reports no case of cholera has been observed throughout Galicia within the last three days, so that the local authorities believe that the local epidemics are already stamped out. In the meantime medical examination of the passengers arriving from Galicia is carried out in the other Austrian towns, and the importation of meat &c. from the infected districts is prohibited. Last week a railway car containing over 1700 kilogrammes of Galician meat arrived at Vienna, having passed through Cracow. The meat was destroyed by fire. The lack of foresight on the part of the local authorities was also noticeable in the case of supplying Vienna with food. No arrangement had been made to secure the importation of meat from other sources in the case of an outbreak of cholera in Galicia, from which the greatest quantity of meat, eggs &c. is supplied to Vienna in normal times. In Bohemian frontier stations the observation has been made that comma-bacilli may be found also in apparently slight cases of diarrhoea. These cases occur in boatmen who have come on the Elbe from Germany in their barges."

## NOTES ON AN ACCIDENT UNDER CHLOROFORM.

BY SURGEON-LIEUTENANT-COLONEL E. LAWRIE.

No. 1433.—*Mukrum Khan, aged forty, a powerful Afghan Mahomedan male; disease sinus; chloroformed at the Ayzulgunj Hospital on Aug. 19th, 1892, by a student; full anaesthesia in 2 min. 25 sec.*

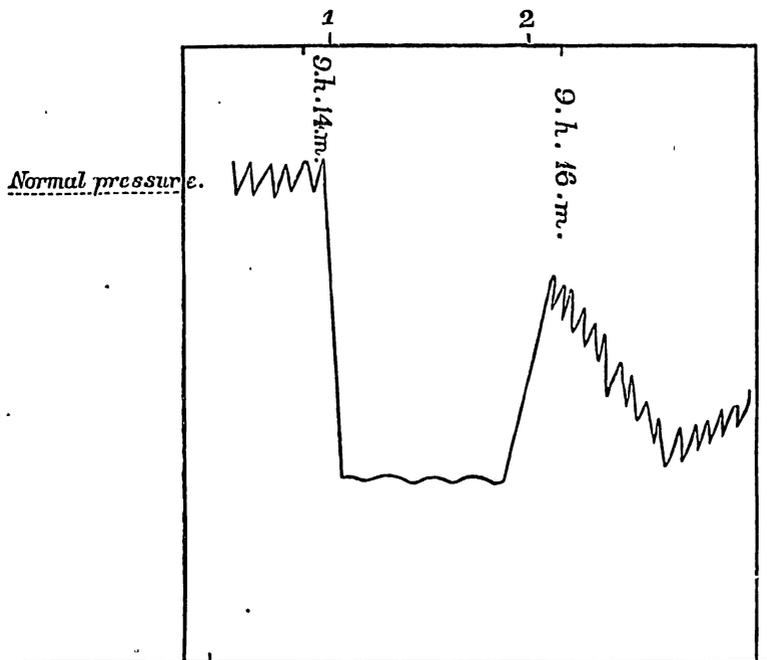
- H. M. S. OBSERVATIONS.
- 8 42 20.—Chloroform on cap; resisting and struggling very violently almost at once.
- 8 43 25.—Stopped struggling; natural breathing.
- 8 43 30.—Chloroform added to the cap; two breaths of air.
- 8 43 45.—Respiration twenty-eight a minute.
- 8 44 45.—Over; cornea insensitive; cap removed.
- 8 45 5.—Shallow breathing; jaw pushed forward.
- 8 45 25.—Natural breathing; cornea sensitive; cap reapplied.
- 8 45 40.—Stertorous breathing; cap removed and jaw pushed forward.
- 8 47 0.—Cornea sensitive; cap reapplied. The cornea became insensitive almost immediately; the respiration became shallow again forthwith, and the jaw had to be pushed forward to relieve it.
- 8 49 0.—Struggling; cornea sensitive; cap reapplied.
- 8 49 40.—Over; cornea insensitive; cap removed.
- 8 50 0.—Respiration becoming shallow; jaw pushed forward.
- 8 50 20.—Respiration stopped. Dr. Lawrie at once jumped on to the table astride of the patient and performed artificial respiration by Howard's method; natural breathing recommenced after 55 seconds.
- 8 51 15.—Artificial respiration stopped; jaw still kept forward.
- 8 52 0.—Normal respiration; jaw let go.
- 8 53 30.—Operation finished.

(The notes of this case were taken by Dr. Lawrie and, after anaesthesia was complete, by a senior student.)

*Remarks.*—Immediately after the inhalation was commenced the patient struggled violently for more than a minute, and it required six or eight students to hold him on the table. Between 8 h. 45 m. and 8 h. 47 m. signs of respiratory failure occurred three times, consequently from 8 h. 47 m. no chloroform was given until 8 h. 49 m. The administration was then proceeded with, and was stopped directly the cornea became insensitive, at 8 h. 49 m. 40 s. After the in-

halation ceased the anæsthesia deepened. At 8 h. 50 m. the respiration began to fail, and it stopped altogether at 8 h. 50 m. 20 s. The patient became deathly pale, and it is probable that there was also reflex stoppage of the heart. Artificial respiration was performed for fifty-five seconds; he then took a natural breath and gradually recovered. The accidental over-dosing in this case emphasises the rule that chloroform should never be administered during the irregular breathing which accompanies violent struggling. It was quite right to hold the patient down, but the chloroform ought not to have been given until he was quiet and the respiration was regular and natural. The rationale of the overdosing is readily explained by the research of the Hyderabad Commission. The Report of the Commission demonstrates that asphyxia renders the respiratory centre extremely susceptible to the action of chloroform, and Experiments 64 and 178 show how narcosis may be produced by residual chloroform in the system after the inhalation of the anæsthetic has been discontinued.

The following is a diagram of part of Ludwig Tracing 3 of Experiment No. 64 of the Hyderabad Commission. The tracing reads from left to right:—



1. At the point marked 1 electrical irritation of both vagi and the administration of chloroform were begun simultaneously.  
2. At point 2 the vagus irritation and chloroform inhalation were both stopped.

In Experiment 64 the administration of chloroform and electrical stimulation of both vagi were commenced simultaneously at 9 h. 14 m. 20 s., and the effect was to send the blood pressure down suddenly almost to zero and to arrest the circulation for nearly two minutes *while free respiration continued*. The air in the lungs was thus gradually charged with chloroform. When the inhalation of chloroform and stimulation of the vagi were stopped at 9 h. 16 m., the blood-pressure rose rapidly again, the circulation was resumed and the chloroform in the lungs was forthwith taken up and conveyed to the nerve centres. Narcosis was produced, and its effect is shown in the tracing by the fall of the blood pressure, which commenced at 9 h. 16 m. and continued until the residual chloroform in the lungs had been got rid of. This experiment reduces what happened in our case to demonstration. Residual chloroform, which was present in the system owing to previous irregularity of the breathing, was conveyed to the nerve centres after the inhalation was discontinued; the respiratory centre became narcotised and the breathing entirely stopped, and but for prompt artificial respiration the narcosis would in all probability have terminated fatally.

In order to prove to my students that it was the method of administration which was at fault and not the chloroform or any constitutional idiosyncrasy on the part of the patient, he

was brought before the class again on the 21st instant and the wound was dressed under chloroform.

The following is the record of the second administration:—

No. 1442.—*Multrun Khan, Afghan Mahommedan male, aged forty, chloroformed at the Afzulgunj Hospital, on August 21st, 1892, by Dr. Lawrie; normal anæsthesia was produced in 4 min. 35 sec.; before the inhalation the heart was examined and found to be healthy; the pulse, which, without my knowledge, was watched out of curiosity by Dr. Leaf, was slow, weak and regular, and it did not vary in any appreciable degree throughout the inhalation or afterwards.*

H. M. S.

OBSERVATIONS.

- 0 21 45.—Chloroform on cap; blowing regularly; cap close.
- 0 22 30.—Natural breathing.
- 0 22 50.—Chloroform added to the cap; two breaths of air.
- 0 23 5.—Respiration twenty-four a minute, regular.
- 0 24 0.—Respiration twenty a minute, regular.
- 0 24 8.—Chloroform added to the cap; one breath of air.
- 0 24 40.—Struggling; regular breathing; cap kept close.
- 0 25 15.—Chloroform added to the cap; two breaths of air.
- 0 25 40.—Snoring.
- 0 26 20.—Over; cornea insensitive; cap removed.
- 0 26 40.—Dressing finished.

The second administration helps to confirm the contention of the Hyderabad Commission that the respiratory centre is peculiarly susceptible to chloroform when it is asphyxiated. In the first administration the respiratory centre was accidentally partially asphyxiated, and full anæsthesia was promoted in 2 min. 25 sec. In the second administration, though the chloroform was given in the same way and the cap was held just as close to the patient's face as in the first, the breathing was natural and regular throughout and anæsthesia was produced in 4 min. 35 sec. Finally, it is probable that the asphyxia, which occurred at the commencement of the inhalation, was a factor in the over-dosing which took place in the first administration. I believe I am right in stating that Case No. 1433 constitutes the first reported instance of an accident under chloroform in which notes of all the events that occurred throughout the entire administration were recorded at the exact time of their occurrence.

MEDICAL MAGISTRATES.—Mr. B. Lumley, M.R.C.S., of Northallerton, has been appointed a magistrate for the North Riding.—Mr. W. D. Spanton, F.R.C.S. Edin., M.R.C.S. of Hanley, has been put on the Commission of the Peace for Staffordshire.

## DEATH CERTIFICATES AND CORONERS' INQUESTS.

AS several cases have recently occurred in which medical certificates of the cause of death have been given unwisely and even improperly, it may be profitable to call serious attention to this very important subject. The lay press, as representing the public, is very severe upon any practitioner who has given a death certificate which subsequent inquiry has shown to be incorrect. Equally severe are coroners, magistrates and prosecuting solicitors. Seeing how very dependent all classes of the public are, for protection from foul play and culpable neglect, upon medical practitioners, from the titled physician to the humble apothecary, this severity is not surprising. But the medical profession may in its turn ask all these severe critics to be just and to take equal cognisance of the following facts and figures. During the year 1890, which was a fairly typical one as regards deaths, the total number of these in England and Wales was, according to the Registrar-General's fifty-third annual report, 562,248. Of these the causes of 514,720, or of 91.6 per cent., were certified by registered medical practitioners. This represents an enormous service rendered to the State quite gratuitously, since the certifying practitioner receives no remuneration whatever from Government. Some practitioners may charge the friends of their patient a fee for the certificate; but this is exceptional, and in by far the larger proportion of cases the medical certification of the cause of death is quite gratuitous. Medical men have therefore no pecuniary motive for giving a certificate of death, as some of these censorious persons imply. It is evidently assumed also by the public that the law which governs the action of the faculty in giving these certificates is so clear and well defined as to present no difficulty. A glance at the Acts will show that this is quite erroneous. The second section of the twentieth clause of the Births and Deaths' Registration Act, 1874, is as follows: "In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death," &c. Section 3 is: "Where an inquest is held on the body of any deceased person a medical certificate of the cause of death need not be given to the registrar, but the certificate of the finding of the jury furnished by the coroner shall be sufficient." These two sections cover a very large number of cases: (1) those in which there has been medical attendance during life and in which the cause of death is perfectly natural; (2) those in which the coroner is informed of the death by the police, hospital authorities or other informants, and where an inquest follows as a matter of course, a certificate not being asked for. But it must be obvious to many lay readers as well as to all medical readers that the first of the two sections we have quoted is, as it stands, too absolute. Besides the two classes of deaths there is a third, and a very large one, in which the propriety of giving or refusing a certificate of death becomes one of the most important questions with which a medical practitioner has to deal, and upon his decision very serious consequences may ensue. Some physicians have concluded that the Act gives them no power to refuse a certificate in cases where they have attended during life; and in answer to a letter which one of these gentlemen sent some years ago to the Registrar-General that authority upheld this view, observing that the registrars had instructions to refer any doubtful cases to the coroner. With every respect to Sir Brydges P. Henniker we must observe that many cases will from time to time occur in which it is the plain duty of the medical attendant to refuse a certificate, and he will be safeguarded in doing so by Clause 39, which enacts a penalty for refusing a certificate *without reasonable excuse*. Moreover, the medical attendant might urge that he had grave doubts as to what the cause of death was, and that he was unwilling to incur any risk of a penalty under the second section of Clause 40, which punishes with fine and imprisonment anyone giving a false certificate.

Again, different Acts of Parliament must be read not in antagonism to, but in agreement with, each other, and it will be well to give here those portions of the third clause of the Coroners Act, 1887, which ought to guide medical practi-

tioners in giving or refusing certificates of death: "Where a coroner is informed that the dead body of a person is lying within his jurisdiction, and there is reasonable cause to suspect that such person has died either a violent or an *unnatural* death, or has died a sudden death of which the cause is unknown ..... or under such circumstances as to require an inquest in pursuance of any Act, the coroner, whether the cause of death arose within his jurisdiction or not, shall" &c. It is well known that the coroner's right to hold an inquest where an injury is the primary though remote cause of death extends to within a year and a day after the injury. Who but the medical attendant can be aware of such a primary cause, and under such circumstances is it not obviously his duty to refuse a certificate and refer the case to the coroner? Who but the medical attendant can tell whether the death be a natural or unnatural one, whether, if it be a sudden death, the cause is known or unknown, or whether it has taken place under such circumstances as to require an inquest? It is clear from all this that a very large discretionary power rests with members of the profession, and it is obvious that for them to communicate directly with the coroner is a more satisfactory mode of informing him than by giving a certificate with regard to which it is the duty of the registrar not to act, but to inform the coroner. Such a roundabout method can only cause loss of valuable time and great inconvenience.

So far we have dealt with cases in which there has been a medical attendant some time before death. There are, however, other cases where a certificate is asked for. Sometimes a practitioner is called in only to find the patient dying or even dead. In these cases, and especially the latter, it is obviously improper to fill up the usual certificate, and the wisest course is to send a note to the coroner stating the circumstances and leaving it to his discretion as to whether he will hold an inquest or merely make an informal inquiry. Reference to the coroner does not necessarily imply that the case is one of foul play or of neglect. The discretionary powers of that functionary are almost as wide as those of the medical attendant. From the Registrar-General's return already cited we find that the causes of 31,581 deaths, or 5.6 per cent., were certified by coroners after inquest; while the causes of the remaining 15,947 deaths, or of 2.8 per cent., were not certified. These included deaths of infants who had been attended only by midwives, and of persons attended by unregistered practitioners as well as of persons who had received no medical attention of any kind in their last illnesses. In 25,883 cases, or 4.6 per cent. of the total deaths, the cause of death was so inadequately stated that it had to be referred to the class of "ill-defined and unspecified causes." It is satisfactory to learn that the proportion of these was slightly less than in the immediately preceding years, which fact, as the Registrar-General observes, was doubtless in part due to the 3768 letters of inquiry concerning doubtful cases (against 3185 such letters in the previous year) which were sent to the medical men. The result of this process was to transfer a large number of cases from ill-defined to definite headings. Thus, for instance, 522 deaths were removed from more or less vague headings, mainly "tumour," to cancer or malignant disease and 48 to syphilis.

We reproduce these quotations in evidence of our desire to do justice all round and, while guarding our professional brethren from injustice, not to overlook their mistakes. The filling up of a death certificate should be performed with the same care, thoroughness and sense of responsibility as the performance of a surgical operation, the administration of chloroform, or the making of a post-mortem examination. The old adage, "Things which are done in a hurry are not done well," applies especially to the giving of death certificates. In almost all the cases of criminal poisoning in which the deaths were certified to as due to natural causes the certificates had been given hastily and without due thought—in some cases wrongly. In one case justice was defeated by a certificate given by a surgeon who had not attended the deceased during life and who certified that the death was due to stroke. In two other cases certificates were given by a surgeon notwithstanding the strong remonstrances of his partner, entailing consequences upon the certifier which must have been very humiliating to him. A series of deaths from wholesale poisoning by arsenic were certified as due to pneumonia, and the list might be extended *ad infinitum*. Enough has been written to warn all medical practitioners against the hasty or careless giving of certificates.

Should it be considered desirable to amend the Registrar-

tion Act of 1874 it is to be hoped that Clause 20 will have an additional section specifying the cases in which a certificate ought not to be given and thus supplying a great defect. Whether the large discretionary power thrown upon medical practitioners was intended as a compliment is doubtful; that it is a source of much worry, to say the very least, is beyond doubt. Meanwhile in this, as in other matters, members of the profession, individually as well as collectively, will do well to reform from within instead of waiting for pressure from without. Instruction in the matter of giving certificates should form the subject of at least one lecture to students, either in the course of forensic medicine or before the completion of the fifth year of study. Those practitioners who fill up certificates for unqualified practitioners must expect no sympathy from their more right-minded professional brethren, or from the medical press as representing them, still less from the Registrar-General and his superintendents. To young and inexperienced practitioners we would give this advice, Never yield to pressure from the relatives or friends of a deceased person when the propriety of giving a death certificate appears to be doubtful. The refusal may cause some inconvenience or even loss; but these are trifles compared to the humiliation which may result from giving a certificate unguardedly, with the result of having to acknowledge the error in a court of law. We would further remind all members of the profession that it is only to their careful and exact certification of the cause of death in each and every instance that accurate returns can be secured—returns which are of incalculable value to the State, the profession and the public. Still more important is the refusal of a certificate when one ought not to be given, since it is only by this means that the public can be effectually guarded against foul play in its worst form of secret poisoning, and from the many modes in which death may be caused by acts of omission, especially among children of tender age.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Newcastle-upon-Tyne Urban District.*—The death-rate for 1891 exhibited some decrease, amounting as it did to 23·7 per 1000 living; the zymotic rate was 2·5. Measles and whooping-cough were by far the most fatal of the infectious diseases, but neither small-pox nor typhus fever caused a single death, the former disease being at once stamped out, although it made its appearance on three successive occasions. In fact, the means of isolation available for the city and the excellent organisation carried out by Dr. Henry Armstrong afford excellent guarantees for the safety of the inhabitants against any preventable extension of such diseases. Considerable work was done during the year in connexion with the housing of the working-classes, and several departments of the sanitary bureau have been reorganised.

*Lowestoft Urban District.*—On a population of over 23,000 the death-rate last year was 16·2 per 1000 of the inhabitants, the zymotic rate being only 0·3, and the infant mortality 130 per 1000 births. Dr. Wynne has, in short, a satisfactory account to give of the borough, and he is able to speak most hopefully of the diminution which has been experienced as regards cases of enteric fever. Lowestoft is, however, not in a satisfactory state as regards its isolation hospital. The present building is one which is dangerous to convalescents, and its insufficiency has long been known; but the authority still hesitates as to doing its obvious duty in this respect in a proper manner.

*Lowteth Park Urban District.*—Dr. Steeves gives the death-rate of this favoured Liverpool suburb as 13·7 per 1000. The zymotic diseases notified numbered 177, including 123 of scarlet fever, but only 19 cases, of which 13 were scarlet fever, were removed to the isolation hospital. This very small attempt at isolation can hardly be accounted for by the fact that even in such a district the other cases occurred where no necessity for removal arose. It was probably due to the diminutive character of the hospital accommodation available.

*Maidstone Urban District.*—Maidstone had last year a death-rate of 16·7 per 1000 living. Mr. Matthew Adams issues, as usually, a thoughtful and interesting report, in which sound public health teaching is based on a record of local statistics and sanitary circumstances. One portion of the report deals with the London manure nuisance, as to which the Local Government Board are making some comprehensive inquiries through their medical department. He states that again and again have such diseases as diphtheria, erysipelas and septicæmia been attributed to it, and he is strongly of opinion that no excuse exists for casting so gross a nuisance on extra metropolitan districts as is involved in this London manure business. Mr. Adams advocates the automatic waste-water waterclosets for the poorer parts of his district, and he includes in his report some diagrams of the form which he recommends.

*Hanley Urban District.*—Hanley had last year a population of 54,846 and a death-rate of 22·3 per 1000. The zymotic rate was 2·5, and it was largely made up of deaths from measles and whooping-cough. Scarlet fever also became prevalent and efforts were made to cope with it by isolation in hospital and restriction in school attendances, including closure of schools. Mr. John Clare enters at some length into the precautions thus taken. A number of unwholesome tenements and houses have been closed and inspection has been made as to certain trades and occupations calculated to affect public health.

*Bridlington Urban District.*—Mr. W. A. Wetwan reported a death-rate of 19·1 last year, this being an excess largely due to the effects of influenza. The drainage and water-supply are reported as good; but, whilst some improvement has probably been effected as regards scavenging, it is still but imperfectly carried out. Contract work is generally eminently unsatisfactory in this matter, whereas if the authority were to perform the duty themselves there would be no need to discuss whether failure lay with the contractor or with the public themselves. Mr. Wetwan urges a by-law requiring that pig-styes should be at a definite distance from houses. This is an obvious need in many parts of this district, but a similar demand for restricting the keeping of fowls may involve legal difficulties.

*Bridlington Rural District.*—In this district the death-rate for 1891 was 18·8 per 1000. Mr. Wetwan urges increased action and precautions as to cowsheds &c.; he reports the approaching completion of the Flamborough drainage scheme, the need for water in that part of the district, and the desirability of better scavenging and of decent closet accommodation.

*Surbiton Urban District.*—The annual death-rate for Surbiton is given as 13·6 per 1000 for 1891 and the zymotic rate as 1·1. Of the 12 deaths making up the latter rate no less than 10 were of diphtheria, the attacks being a succession of cases spreading over ten months, and it is somewhat cold comfort to be told that the causation was a general one and that the probable reason for the diffusion has to be found in recent climatic and atmospheric conditions, "conditions common to the whole of this island, and indeed the Continent too." Damp, overcrowding and want of ventilation are, however, referred to as local causes, and it is to be hoped these have been dealt with. In all, 21 cases of diphtheria and membranous croup were notified, and Dr. Coleman probably touches the cause of the diffusion most closely where he refers to the inability to distinguish between an ordinary throat affection and mild but infective diphtheria. He suggests that all suspicious cases of throat mischief should be notified; but the danger lies mainly in the cases of those who never come under suspicion at all. The only general sanitary work referred to, apart from the inspector's list, is the thinning out of shrubs round houses, a valuable precaution as regards a town situated in a luxuriant river-valley.

*Wivern Barnet Urban District.*—After giving an account of the infectious fevers prevalent during 1891, the greater number of which were cases of scarlet fever, Mr. Hugh Stott states that the district maintains its ordinary standard of health. He adds that some houses, however, still need a proper water-supply and that sewage from outside the district flows into it and causes nuisance. He also points out the need of by-laws in order to deal with some parts where the soil is waterlogged. The death-rate for last year was only 12·5 per 1000, the zymotic rate being 1·5. For the permanent improvement of the district he urges that the water-supply should be made a constant one, that a disinfecting apparatus and a mortuary should be provided, and that some means should be available for the isolation of first attacks of in-

fectious diseases. If Friern Barnet wishes to maintain a reputation for health and for a low death-rate the sanitary authority should give heed to their health officer's counsel.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6003 births and 3361 deaths were registered during the week ending Sept. 24th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 19·8 to 18·6 per 1000, further fell last week to 17·2. In London the rate was 15·1 per 1000, while it averaged 18·7 in the thirty-two provincial towns. The lowest rates in these towns were 8·4 in Croydon, 12·4 in Halifax, 12·5 in Wolverhampton and 13·2 in Norwich; the highest rates were 21·9 in Hull, 24·2 in Bolton, 24·4 in Salford and 29·2 in Preston. The 3361 deaths included 605 which were referred to the principal zymotic diseases, against numbers declining from 989 to 747 in the preceding three weeks; of these, 344 resulted from diarrhoea, 58 from diphtheria, 56 from "fever" (principally enteric), 53 from scarlet fever, 51 from whooping-cough, 43 from measles, and not one from small-pox. The lowest death-rates from these diseases were recorded in Croydon, Plymouth, Bristol and Halifax; and the highest rates in Birkenhead, Hull, Salford, Gateshead and Preston. The greatest mortality from measles occurred in West Ham, Gateshead, Salford, Huddersfield and Oldham; from scarlet fever in Nottingham and Huddersfield; from whooping-cough in Nottingham; from "fever" in Huddersfield, Sunderland and Birkenhead; and from diarrhoea in Cardiff, Birkenhead, Sheffield, Leeds, Hull, Gateshead, Newcastle-upon-Tyne and Preston. The 58 deaths from diphtheria included 43 in London, 3 in West Ham and 3 in Birmingham. No fatal case of small-pox was registered in any of the thirty-three towns; two cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 6 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3477, against numbers increasing from 3052 to 3412 on the preceding five Saturdays; 370 new cases were admitted during the week, against 461, 414 and 349 in the previous three weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 142 in the preceding three weeks, further rose to 152 last week, but were 33 below the corrected average. The causes of 68, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Oldham, Bradford and in seven other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Bristol, Liverpool and Halifax.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding three weeks from 15·7 to 17·0 per 1000, further rose to 17·9 during the week ending Sept. 24th, and was 0·7 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·8 in Dundee and 15·9 in Edinburgh, to 19·0 in Greenock and 21·6 in Leith. The 499 deaths in these towns included 27 which were referred to diarrhoea, 15 to scarlet fever, 14 to whooping-cough, 12 to measles, 6 to "fever," 3 to diphtheria, and not one to small-pox. In all, 77 deaths resulted from these principal zymotic diseases, against 61 and 70 in the preceding two weeks. These 77 deaths were equal to an annual rate of 2·8 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had been 24 and 26 in the preceding two weeks, further rose to 27 last week, of which 16 occurred in Glasgow and 4 in Edinburgh. The deaths referred to scarlet fever, which had been 10 and 13 in the previous two weeks, further increased to 15 last week, and included 7 in Glasgow, 5 in Edinburgh and 2 in Leith. The 14 fatal cases of whooping-cough exceeded those recorded in any recent week, and included 6 in Glasgow and 3 in Edinburgh. The fatal cases of measles, which had

been 10 and 12 in the preceding two weeks, further rose to 13 last week, of which 7 occurred in Edinburgh. The 6 deaths from "fever" were within one of the number in the preceding week, and included 2 in Glasgow and 2 in Dundee. The fatal cases of diphtheria, which had increased from 4 to 7 in the preceding three weeks, declined again to 3 last week, of which 2 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 59 and 71 in the preceding two weeks, were 66 last week, and were 14 below the number in the corresponding week of last year. The causes of 33, or nearly 7 per cent., of the deaths in these towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28·3 and 23·3 per 1000 in the preceding two weeks, further declined to 19·7 during the week ending Sept. 24th. During the past twelve weeks of the current quarter the death-rate in the city averaged 23·2 per 1000, against 17·2 in London and 16·2 in Edinburgh. The 132 deaths in Dublin during the week under notice showed a decline of 24 from the number in the preceding week, and included 15 which were referred to diarrhoea, 2 to "fever," 1 to scarlet fever, 1 to whooping-cough, and not one either to small-pox, measles, or diphtheria. In all, 19 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2·8 per 1000, the zymotic death-rate during the same period being 2·1 in London and 3·9 in Edinburgh. The fatal cases of diarrhoea, which had been 28 and 18 in the preceding two weeks, further declined to 15 last week. The deaths referred to different forms of "fever," which had been 4 in each of the preceding two weeks, declined to 2 last week. The 132 deaths registered in Dublin last week included 41 of infants under one year of age and 35 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed an increase upon those recorded in the preceding week. Five inquest cases and 2 deaths from violence were registered during the week; and 38, or nearly a third, of the deaths occurred in public institutions. The causes of 16, or more than 12 per cent., of the deaths in the city last week were not certified.

### THE SERVICES.

#### ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Richard P. Ferguson to be Surgeon-Colonel, vice A. Allan, M.D., deceased; Surgeon-Lieutenant-Colonel Robert C. Eaton to be Brigade-Surgeon-Lieutenant-Colonel, vice R. P. Ferguson (both dated Sept. 6th, 1892).

#### ARMY MEDICAL RESERVE OF OFFICERS.

The undermentioned Officers resign their commissions (dated Sept. 28th, 1892):—Surgeon-Major Charles T. Vachell, M.D., and Surgeon-Captain Charles P. Oliver. The undermentioned Surgeon-Captains to be Surgeon-Captains (dated Sept. 28th, 1892):—John Kerr Butter, M.D., 2nd Volunteer Battalion, the South Staffordshire Regiment, and John Cunningham, M.B., 1st Argyll and Bute Volunteer Artillery.

#### NAVAL MEDICAL SERVICE.

Staff Surgeon Horace Edward Firmin Cross has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 3rd, 1892). Staff Surgeon Alfred Thomas Corrie has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 8th, 1892). Staff Surgeon William Berkeley Drew has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet (dated Sept. 18th, 1892). The following appointments have been made:—Fleet Surgeon Valentyne Duke to the *Dreadnought* (dated Sept. 13th, 1892). Staff Surgeons: William Tait, M.B., to the *Cleopatra* and Samuel W. Vasey to the *Nelson* (both dated Sept. 21st, 1892). Surgeons: Charles Strickland to the *President*, additional, for three months' study (dated Sept. 12th, 1892); Hugh W. Macnamara to the *Royal Sovereign* (dated Sept. 6th, 1892); Horace B. Marriott to the *Colossus* and George Ley to the *Hotspur* (both dated Sept. 13th, 1892); Herbert P. Shuttleworth to the *Pembroke*, additional, to be lent to the *Briton* for the training season from Sept. 26th (dated Sept. 15th, 1892); James M'C. Martin

to the *Daphne* and Edwd. C. Ward to the *Hyacinth* (undated); and Erington F. S. M'Kay to the *Herald* and Henry E. South to the *Nymph* (both dated Sept. 23rd, 1892); Robley H. Browne to the *Victory*, additional (dated Sept. 29th, 1892); William E. Home, M.B., to the *Swallow*, Cyril J. Mansfield, M.B., to the *Britannia*, and William A. Whiteleggo to the *Volago* (all dated Sept. 28th, 1892).

#### VOLUNTEER CORPS.

*Artillery*: 1st Essex (Eastern Division, Royal Artillery): Surgeon-Lieutenant H. Gurney resigns his commission (dated Sept. 24th, 1892).

#### INDIAN MEDICAL SERVICE.

Surgeon-Colonel W. E. Cates, I.M.S., is permitted to retire from the Service from Sept. 15th, 1892, subject to Her Majesty's approval. The services of Surgeon-Major A. F. Sargent, I.M.S., 3rd Regiment Bombay Light Infantry, are placed at the disposal of the Government for employment in the Civil department. The following gentlemen are appointed to be Fellows of the Madras University:—Surgeon-Major W. R. Browne, M.D., Surgeon, General Hospital, and Professor of Surgery, Medical College, and Surgeon-Major H. Allison, M.D., Fort Surgeon and Professor of Anatomy, Medical College. Surgeon-Major H. K. McKey, Civil Surgeon, Nagpur, is appointed to be in temporary medical charge of the Central Gaol, Nagpur, during the absence of Surgeon-Major T. R. Macdonald on privilege leave.

Surgeon-Colonel Cleghorn, Punjab, has joined the Central Committee of the Lady Dufferin Fund.

Sanction has been accorded to the construction of a new hospital for native troops and followers at Quetta.

The following deaths are reported: George William Powell, retired Honorary Deputy-Surgeon-General, lately residing in Granville-place, Portman-square, died suddenly on Sept. 15th. The deceased joined the Army in 1844, became Surgeon in 1854, Surgeon-Major in 1865, and retired in 1873. Deputy-Inspector-General of Hospitals William Campbell, of Burnside, Ayrshire, N.B., late Bombay Army, died on Sept. 19th, at 2, Manor-road, Folkestone, aged seventy-four.

#### THE PREVALENCE OF VENEREAL DISEASES IN INDIA.

Our contemporary, the *Indian Medical Gazette*, for August contains an ably written article on the remarkably high sick-rate from this cause among the troops serving in all the three presidencies of India. In 1890 no fewer than 34,000 soldiers out of a strength of a little under 68,000 in India passed through the hospital for venereal disease. This our contemporary considers to be nothing short of an alarming state of affairs, demanding the earnest attention of the Government. We have already called attention to the same subject.

#### MOVEMENTS OF MEDICAL STAFF.

The following officers have embarked for India in the *Euphrates*:—Surgeon-Major Peyton, Surgeon-Captains Eckersley, Beach, Gray, Powell, Thurston, Elliot and Jameson. The following officers are returning to India after sick leave and have also embarked in the *Euphrates*:—Surgeon-Major Croly and Surgeon-Captain Markey. Surgeon-Lieutenant-Colonel A. L. Bunne has obtained sick leave from Bombay. Surgeon-Lieutenant-Colonel Barron has arrived in Cork for duty and Surgeon-Lieutenant-Colonel Stannard has assumed charge of the station hospital at Kilkenny. Brigade-Surgeon-Lieutenant-Colonel Comerford has embarked for Bermuda to assume the duties of Senior Medical Officer in the command, and has been succeeded at the Curragh by Brigade-Surgeon-Lieutenant-Colonel Eaton. Surgeon-Captain Gubbin has embarked for Bermuda on a tour of duty. Surgeon-Captain Fletcher has been transferred to Bombay, Surgeon-Captain Wiles to Birmingham and Surgeon-Captain Nunmerley to Hulme. Surgeon-Captains Bartlett and Holyoake have obtained leave from Bombay, and Surgeon-Captain Wade has been transferred to Tregantle Fort. Surgeon-Captain Sexton has been posted to Templemore and Surgeon-Captain Daly to Dublin. Surgeon-Lieutenant Boyts has been transferred from Edinburgh to Netley and Surgeon-Lieutenant Holt has resumed duty at Portsmouth. Surgeon-Lieutenant Stallkart has been transferred from Edinburgh to Dublin and Surgeon-Captain Bell has embarked for a tour of duty in Bermuda. The under-mentioned officers of the Medical Staff, whose tour of foreign service will expire during the troping season 1892-93, will proceed to England in Her Majesty's troopships doing duty with troops during the voyage:—Surgeon-Lieutenant-Colonel W. F. Burnett, Surgeon-Captain R. G. A. Durant in exchange

with Surgeon-Captain J. D. Movi, who exchanged with Surgeon-Captain Hayes; Surgeon-Captain J. W. Buchanan, Surgeon-S. J. W. Hayman, and Surgeon A. R. D. Hall. Brigade-Surgeon-Lieutenant-Colonel H. Comerford, now at the Curragh, proceeds to Bermuda as Senior Medical Officer to replace Brigade-Surgeon-Lieutenant-Colonel J. R. Murray, whose approaching retirement next month we alluded to in last week's issue. Surgeon-Lieutenant-Colonel A. W. Duke, M.D., has arrived home from Gibraltar, and Surgeon-Major J. J. Falvey from India.

#### ASSISTANT PROFESSORSHIP OF MILITARY MEDICINE AT NETLEY.

Surgeon-Colonel E. J. Fairland has been appointed to the above position, vice Brigade-Surgeon-Lieutenant-Colonel W. F. Stevenson, transferred to the chair of Military Surgery in succession to Surgeon-Colonel Godwin. He joined the Army April 1, 1867, and served in the Abyssinian campaign of 1867-68 (medal).

#### THE SANITATION OF BOMBAY.

It appears that sanitary appliances of English design are not altogether adapted to the requirements of a city like Bombay or to the habits of its people. The corporation of Bombay recently appointed a committee to inquire into the working of house connexions with sewers, and it has now completed its researches. What with narrow streets and gullies, the overcrowding, heat and exceptional climatic conditions, the problem is not an easy one. Still a practical solution of the problem will no doubt be arrived at in the course of the experiments that have been decided on.

#### DEATHS FROM CHOLERA.

The deaths of Surgeon-Colonel Allan, the administrative-medical officer of the Rawal Pindi Division, and of Surgeon-Captain Kenny, which we recently announced, took place at Murree from cholera. It appears that the disease had broken out at Gharial, near Murree, where the Seaforth Highlanders are stationed, and that the above-named medical officers were among the first fatal cases.

#### BOY VOLUNTEERS.

Sir Evelyn Wood, V.C., is unquestionably one of the most indefatigable and energetic of our general officers. He had only just returned from Germany when he addressed a letter to the masters of all the public schools which had sent parties to join the Volunteer battalions encamped for training at Aldershot in July last. It seems that 440 boys were encamped near Aldershot in 1891, but last July fourteen schools sent up boys and 590 were encamped in one of the fields near Government House. The General says the boys' conduct was exemplary, their health was excellent, there was no sickness or casualties of any kind, and the messing arrangements were good. No doubt the boys liked the outing, and the training did them good and they were well looked after. Sir Evelyn Wood evidently considers this yearly camping out as a capital thing physically and morally for the boys, to say nothing of their acquiring a knowledge of drill and a sense of discipline and obedience which will do them no harm later on in life.

#### OUR SOLDIERS' FOOD.

Sir Evelyn Wood has manifested much zeal in the soldier's welfare, and especially as regards his feeding. Until quite recently the best was not made of the soldier's rations and groceries, and but little was known as to the means necessary to decide on the quality of the provisions supplied him. The importance of the stock-pot, which exists in the kitchens of most of our households, had not been recognised, whereas under the new system it is, and the food is both varied and well cooked and there is no waste. The soldier of to-day is probably better fed than he ever was before, provided his regiment has had the good fortune to secure the services of a cook thoroughly trained at Aldershot, and to possess officers at the same time who are interested in the subject. One officer from each regiment quartered at Aldershot has been ordered to attend a course of instruction in judging the quality of provisions intended for the soldier's consumption. The object of army hygiene is to keep the soldier out of the hospital, and this is one excellent way of doing it.

#### THE ACQUIREMENT OF THE RUSSIAN LANGUAGE.

The new regulations that have been published in India regarding the acquirement of the Russian language apply to officers of the Indian Army and of the Indian Medical Staff. These regulations lay down the terms for officers visiting-

Russia with reference to service towards promotion and pension and furlough regulations. Officers permitted to proceed to Russia from India who may succeed in qualifying as interpreters, will receive a gratuity of £200 and a further sum of £20 towards the cost of the journey to Russia, plus half of the consolidated sum of £32 or £42 which is allowed to officers who have proceeded from England for travelling expenses to and from St. Petersburg or Moscow, as the case may be.

#### WORK FOR THE NEW WAR MINISTER.

Our service contemporary the *Broad Arrow and Naval and Military Gazette* directs attention to the matters which will probably be pressed upon the consideration of the new Secretary of State for War. Our contemporary is quite right in stating that the alteration of the regulation regarding the extended length of foreign service is the most important subject. The present regulations press heavily upon officers of the medical staff in the matter of health, and the length of foreign tours of service should, in our opinion, be reduced to what it was before the order for prolonged tours abroad came into force—viz., the term of continuous service abroad should not exceed five years, as recommended by Lord Camperdown's Committee. The amalgamation of the Army Medical Staff and Medical Staff Corps into a "Royal Medical Corps or Staff" is a reform that we have also always advocated, and it was recommended by Lord Morley's Committee.

#### SCIENTIFIC RESEARCH.

The Government of India have recommended that Dr. D. D. Cunningham, of the Indian Medical Service, who is Professor of Physiology in the Medical College, Calcutta, be given two more years in which to complete his scientific observations. It is well known that he has been engaged for a considerable time past in investigating the origin of cholera, with special relation to the bacillus theory, and it is alleged that his most recent researches on the comma bacilli in cholera are highly important. If so, the publication of his observations, as far as they have extended, would be very valuable at the present time.

## Correspondence.

"Audi alteram partem."

### THE NOTIFICATION OF DISEASE.

To the Editors of THE LANCET.

SIRS,—I quite agree with Dr. Goodhart that the point he raises "is an important one to a large section of medical men." The case he refers to was a fatal case of diphtheria, the first intimation of which I received in the mortality return supplied to me by the district registrar. I of course at once made inquiries, found that three medical men had been "attending or called in to visit the patient," and wrote to them to ask why they had not certified the case to me. On receiving replies which satisfied me that there had been no intentional concealment of the case I reported to this effect to the sanitary committee, who decided at my recommendation to take no action in the matter. Dr. Goodhart seems to think that only one medical attendant is required to certify a case, and that he was not that one. The words of the Act are, however, perfectly clear: "Every medical practitioner attending on or called in to visit the patient, shall forthwith, on becoming aware that the patient is suffering from an infectious disease to which this section applies, send to the medical officer of health of the district a certificate stating," &c. As a matter of fact, if several medical men see a case and only one certifies it to the medical officer of health, the latter is quite satisfied, as he does not want more than one certificate of one case; but if neither of them certifies it he is bound to report them all to his committee as delinquents. Dr. Goodhart says, "I was further politely informed that as I had sinned in ignorance no action would be taken on this occasion—in other words, I must not be a bad boy again or I should receive a whipping."

In this I think he exactly describes the position, and as he has made it publicly known that he has neglected to certify a case of diphtheria which proved fatal my friendly advice to him is that he should take very great care to certify

any case of "notifiable" infectious disease that he may attend or be "called in to visit" in future.

I am, Sirs, yours faithfully,

W. H. CORFIELD, M.A., M.D. Oxon.,  
Medical Officer of Health for  
St. George's, Hanover-square.

Savile-row, W., Sept. 27th, 1892.

### FRACTURE AT THE SYMPHYSIS PUBIS WITHOUT INJURY TO BLADDER.

To the Editors of THE LANCET.

SIRS,—The following may interest some of your readers. Some years since, when practising in Yorkshire, I was sent for to see a man (J. W.—, aged forty); while sitting in a swing lowered down the face of a rock, working for stone, the rope broke and he was thrown down a great height, falling flat on his abdomen. I examined the man and found nothing wrong, except fracture at the symphysis pubis, the bones overriding one another. I had him placed in bed and passed a broad firm bandage round his body. He lay perfectly still for four weeks, and in twelve weeks was again at his work as a quarryman. One hour after his fall, to my great relief, he passed a good quantity of urine. On inquiry he told me that he emptied his bladder just before he got into the swing, thereby preventing rupture of the organ and saving his life. If men so engaged would only micturate before going up heights for similar work, many a life might be saved, as in J. W.—'s case.—I am, Sirs, yours truly,

H. J. RICE, L.R.C.P., L.R.C.S. Edin.

Sandbach, Cheshire, Sept. 24th, 1892.

### "THE MIDWIVES' REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—Mr. Rowland Humphreys' letter in THE LANCET of last Saturday may in the opinion of many of your readers require a reply from me, for your correspondent calls attention to what he thinks are "some errors I have fallen into." I did not forget that there was a delusive clause in the late Midwives' Bill by which a proof of a certain amount of knowledge was required before registration, but that it was a fair amount I certainly did not know and deny. The midwife's answer to the coroner, "that she had acted as a midwife for twenty years, and that as far as she knew she had never had anything amiss with any patient she had attended," would have been sufficient reason, had the Bill passed, to have placed her on the register of qualified midwives, and I too feel equally sure that her not wilful ignorance would also have been a sufficient reason with the jury to have prevented any punishment following her most reprehensible inaction and the lamentable result of her culpable, although not legal, ignorance. Your correspondent states that it might be desirable, as I suggest, that no midwife should be allowed to act except under the eye and the responsibility of a medical man, but adds, "who is to pay them? for it would be quite impossible for doctors to do all the cheap work thus thrown on them and live on the results." I differ from Mr. Humphreys. I think there are not only in London but in every town medical men who would not object adding to their daily list two or three or even half a dozen of such obstetric calls, and if the patient was too poor to pay for these needed visits the moderate fee of 2s. 6d. per visit should be defrayed, if a parish case, by the guardians, and if private, by the club or some such society as the London and Manchester, or other kindred society which provides medical aid for the industrial classes, and a very slight increase to their present very low rate of weekly payment would be sufficient. I should make my letter, even for a reply, too long did I enumerate the need and advantages and the saving of life that would result from these visits of the qualified practitioner (where a midwife had attended), who would see that the labour was progressing satisfactorily and that the convalescence was neither retarded nor prevented by dangerous or unusual symptoms; but assuredly it was far from my intention that the doctor should "bear" or even cover the misdeeds of the midwife or obstetric nurse, but on the contrary to prevent them. I opposed the late Bill because it appeared somewhat crude and unsatisfactory, but I admired the principles and desires that gave it birth, and from its ashes I look hopefully for such ripe legislation that will ensure increased safety and lessened suffering to the mothers of the poor and, at the same time, and not unmindful

of the interest of the general practitioner, who, like other toilers, lives by the sweat of his brow and is not unworthy of his hire. I am, Sirs, yours obediently,

FREDERICK H. ALDERSON, M.D.

P.S.—In the absence of some system of State medicine for our artisans and industrial classes such societies, as the London and Manchester, which provide medical aid by weekly payments, have become a necessity.

Hammersmith, W., Sept. 27th, 1892.

## "PSYCHO-THERAPEUTICS."

To the Editors of THE LANCET.

SIRS,—Dr. William Dale, commenting in your last issue on Dr. Robertson's interesting article on "Psycho-therapeutics," makes, I consider, a somewhat unfair attack upon hypnotism by asserting that it is "merely another form of the miserable farce which, under the name of mesmerism, wrecked Dr. Elliotson's reputation." The physiology of the nervous system was comparatively so little understood fifty years ago that we cannot wonder that Dr. Elliotson was unable to grasp the real causation of so-called mesmeric phenomena, and that, failing the possibility in the then existing condition of knowledge of giving a rational explanation to the effects he witnessed, he endorsed the prevalent theory of animal magnetism. There is no doubt that he lost his head, and by allowing himself to be duped by clairvoyants and spiritualists he injured his reputation. Now things are widely different, and modern research has enabled recent scientific exponents of hypnotism to place the practice of hypnotic suggestion on a rational basis. Whatever may be the opinion of individual practitioners as to the value of therapeutic hypnotism, everyone must admit that the study of suggestion by such masters as Charcot, Bernheim, Preyer and Tamburini has immensely added to our knowledge of psychology and offered us a key to the understanding of the action of the mind on bodily conditions and functions. The study of suggestion, with or without hypnotism, will help the physician to cultivate that "tact and personality" to which your correspondent attaches so much practical importance in the combating of disease. It seems to me somewhat unfair that the question of the value of hypnotism should be treated in the offhand style adopted by Dr. Dale, and I think he will modify his wholesale condemnation of the practice of hypnotic suggestion if he will study some of the recent literature on the subject and will apply the knowledge thereby gained to the treatment of a few properly selected cases.

I am, Sirs, yours obediently,

CHAS. LLOYD TUCKEY, M.D. Aberd.

Green-street, W., Sept. 25th, 1892.

## "DRUNKENNESS AMONG WOMEN."

To the Editors of THE LANCET.

SIRS,—In your issue of to-day in a short annotation, you say "no one who has his eyes open can fail to see that women are fatally losing modesty in the way in which they enter public-houses." This is very deplorable, but it is far sadder to observe that the facilities for obtaining stimulants afforded by the grocer's and confectioner's licence necessitate no violence to the sense of female propriety, and young girls or older women who would shrink from the door of a public vault complacently sit and chat over a biscuit and glass of wine, or sandwich and glass of ale, in these shelters, which, terrible to contemplate, have proved a *facilis est desoensus Avorni* to many.

I am, Sirs, yours truly,

JOHN DRUMMOND, L.R.C.P. Edin. &c.

Malvern, Sept. 24th, 1892.

## VACCINATION STATISTICS.

To the Editors of THE LANCET.

SIRS,—With reference to the suggestion in THE LANCET of the 24th inst., that the evidence obtained in the four fatal cases of adult hæmorrhagic small-pox which occurred last year in Birmingham may not have been "unequivocal," permit me to explain that I took the precaution of obtaining evidence in writing before I wrote to *The Times* on the subject. As to the placing of these fatalities among the "unvaccinated class," I understand that they would

go into the "not stated class," although in two of the cases it was well known that they had large, deep marks of vaccination. As this neglect has been shown to exist widely, it is obvious that no arguments can safely be drawn from the Registrar-General's statistics in favour of vaccination; and the fact that our medical officer of health refused to help me in tracing the relatives by giving me the addresses of the fatal cases leads, not unjustly, to the inference that the omission to enter the true facts, as required by the Registrar-General on the death certificates, is not always accidental. Whether nowadays "the mere fact of vaccination having been performed at all is considered by the profession to be absolutely protective against fatal small-pox during the whole of life" or no, it cannot be denied that it was on an assurance that it was thus absolutely protective that the compulsory law—which so nearly concerns us guardians—was passed. But if the new claim be now accepted that "vaccination, efficiently performed and reinforced by revaccination, is—in the healthy—almost absolutely protective against the ravages of small-pox," then we guardians have to consider the notorious fact that sanitation without vaccination in the Leicester and Keighley Unions is also "almost absolutely protective." In the latter town it is protective even without isolation. Therefore—even conceding, for the sake of argument, and against the evidence of Mr. Farn before the Royal Commission, that guardians are able to ensure that vaccination can be "efficiently" performed, and that a man sickened with cow-pox can be "healthy"—the at least equally efficient Leicester and Keighley plan commends itself to a guardian as cheaper and less risky than the system which failed to keep small-pox out of well-vaccinated but insanitary Sheffield in 1887. If "year by year in this country the numbers of the unprotected are increasing" and small-pox is on the whole decreasing, then the "protection" and the immunity are in inverse proportion to one another, and the latter cannot be due to the former, but to some other cause, probably to better sanitation.

Lastly, permit me respectfully to protest against your terming me a "prejudiced inquirer." As a guardian I am compelled by my duty to the poor and the ratepayer to investigate this question. If after careful inquiry I am driven to accept the conclusions of Dr. Creighton and Professor Crookshank, why should the intellectual process expose me to this aspersion? I feel it the more from THE LANCET, because that journal has not yet itself seriously controverted the facts and arguments of those scientists.

I am, Sirs, yours faithfully,

A. PHELPS,  
Major-General, F.S.S.

Edgbaston, Sept. 27th, 1892.

\* \* \* The views upon this subject held by our correspondent are so utterly at variance with our own that it would be useless to waste time and space in discussing them. We must agree to differ. We would, however, point out that it will be long before sanitation has driven away all infective diseases, including small-pox, from our midst; and that even the vigilance of Leicester and Keighley may some day be surprised by an outbreak in which it is certain that the people unprotected by vaccination will suffer cruelly; moreover neither Dr. Crookshank nor Dr. Creighton has *proved* that vaccination is of no efficacy.—ED. L.

## THE LOCAL GOVERNMENT BOARD AND THE ROYAL COLLEGE OF PHYSICIANS

To the Editors of THE LANCET.

SIRS,—Some misapprehension seems to have arisen as to the correspondence which recently passed between the Local Government Board and the Royal College of Physicians; and it is in the main due, I think, to the circumstance that the letter which the Secretary, Sir Hugh Owen, addressed to the College, and which you published on the 17th inst., has not been carefully read. The letter relates to that which would become necessary provided regulations as to cholera had to be issued under the Public Health Act, 1875. Section 133 of that Act, following the lines of the old Diseases Prevention Act, empowers local authorities "themselves to provide or to contract with any person to provide a temporary supply of medicine and medical assistance for the poorer inhabitants of their district"; and Section 134 allows regulations to be made,

amongst other things, "for the provision of medical aid and accommodation."

You rightly say that it is the "sick poor" who will mainly need assistance; it is this which regulations under the Act contemplate by the use of the words "poorer inhabitants." You properly say that early medical attendance and nursing are as essential as medicines. Cholera regulations under those sections always require the local authorities to provide a special staff of medical visitors and of nurses for the purposes of a house-to-house visitation such as you also advocate; and such intervention is only "until other provision for [the] medical attendance" of the sick is made. The letter addressed to the College had no need therefore to refer to these requirements, which are already met. But there remained "the supply of medicine" which the Act required the local authorities to provide without charge for distribution by their medical visitors and at dispensaries, to be open day and night, for such "immediate medical treatment" as the regulations specified. It was as to this supply by town councils, local boards &c., of "medicines," together with any necessary medical appliances, that the Local Government Board asked the College of Physicians to advise them, and through them the local sanitary authorities of England and Wales. And for reasons which are thus quite obvious, they asked nothing more than this.

I am, Sirs, yours faithfully,

Sept. 26th, 1892.

PUBLIC HEALTH.

### ISOLATION IN BOOTLE.

To the Editors of THE LANCET.

SIRS,—Your reference to my action, at our recent council meeting, in opposing a proposition to erect a pavilion for the treatment of diphtheria, being based upon erroneous statements, I wish to give the facts of the case and to explain the cause of my opposition.

The fever hospital here was opened only six years ago, having been built under the supervision of the late Alderman Matthew Hill, M.D., consulting physician, according to plans approved of by the Local Government Board. The then chairman of the health committee, Alderman Williams, confirms the fact, which I already understood, that complete arrangements had been made in the Western Pavilion for the separate treatment of cases of diphtheria; and the medical officer of health, referring to the fever hospital in one of his annual reports, says: "Bootle need not now, as in former years, fear the outbreak of any epidemic." Feeling confident, therefore, that ample provision had already been made for diphtheria, I opposed the erection of a pavilion for those cases. There was no truth in the statement that a diphtheria patient was taken into the hospital, caught the fever and died. The chairman now admits that he made a mistake, and the resident medical officer denies that a case of diphtheria has ever been treated in the wards along with any other disease. The statement that a fever patient, while under treatment in the hospital, contracted diphtheria and died is not supported by any evidence; in fact, there is no record in the medical officer's published annual reports of any death from diphtheria having occurred in the hospital since its establishment.

I am, Sirs, yours faithfully,

Bootle, Sept. 28th, 1892.

T. M. WILLS.

### "THE STAMPING OUT OF GLANDERS."

To the Editors of THE LANCET.

SIRS,—In one of your annotations on Sept. 17th satisfaction is expressed that more enlightened and efficient regulations are about to be enforced against glanders. I should be very glad to think so, but all that the Board of Agriculture can do under the existing Act of Parliament is to issue an Order permitting local authorities to be more efficient. There has been twenty years of permissive legislation for the diseases of animals, but no success has ever attended it; only when compulsory enactments have been made has success followed. I sincerely hope that those who know something of glanders and of the working of the Contagious Diseases (Animals) Act will speak out on this rumoured attempt of the Board to refurbish up their old weapons—weapons their advisers have so often described as inefficient. The last paragraph of your annotation says: "So long as horses are permitted to come from infected regions we shall always be liable to its introduction." This is true, not only of foreign countries,

but of our own island. If we stamp out glanders in Edinburgh and leave it alone in Glasgow, Scotland is not likely to remain free. If we stamp it out in London and allow it to exist in Birmingham we shall have to continue the work in England *ad infinitum*. A permissive order is not what is wanted. An amendment of the Act is a *sine qua non* to stamp out the disease. There are, I believe, thirty infected counties, and unless the disease is attacked in each district at the same time and in the same manner it will disappear in one place only to arise again by the introduction of horses from infected places. London is the great centre of the disease, and if the County Council is not afraid to spend the money of the ratepayers it will undoubtedly reduce the disease in a few years to a very small bulk. It must be remembered, however, that the five surrounding counties are all infected, and that until all their diseased horses have been killed or brought into London occasional reinfection must be expected. There is, as you say, "no great difficulty in combating the disease," but that depends on general and uniform measures being adopted over the whole country—a course which can only follow an amendment of the Act. Therefore the first step should not be made until Parliament meets.

I am, Sirs, yours truly,

JOHN ATKINSON, F.R.C.V.S.

Sept. 20th, 1892.

\*\* We quite agree with our correspondent as to the absolute necessity for general and uniform measures being applied to the extinction of glanders, and that these should be compulsory. It will be the business of Parliament to deal with this question, and in a comprehensive and enlightened spirit. Leaving the malady to be handled by the local authorities is simply losing time, throwing away money and causing needless embarrassment to horse owners. The amendment of Acts of Parliament applicable to the contagious diseases of animals should have been undertaken by the Board of Agriculture long ago, as glanders is now, by all accounts, widely prevalent.—ED. L.

### MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

#### *Hospital Extension: Clinical Hospital, Cheetham Hill-road.*

FOR many years past the work of this excellent charity has been impeded by reason of the cramped and otherwise unsuitable character of its administration. The out-patient department has hitherto been placed too close to the wards of the hospital, and as a consequence there is serious and constant danger that various kinds of infection may get transmitted from without to the surgical patients under treatment in the hospital, to the no small risk of the latter. To remedy this defect a new administrative block has just been completed, which, although conveniently situated for central administration, is nevertheless far enough removed from the hospital proper to render almost impossible the extension of infection from the out-patients to the occupants of the surgical wards. The new out-patient department forms a handsome structure facing the Cheetham Hill-road, and adjoining the Jewish synagogue. It consists of a large and commodious waiting-room, with smaller rooms for consultation and convenient offices for dispensing and for the performance of minor operations. The building has been erected at a cost of about £2000, on a site presented by the trustees of the late Mr. Daniel Proctor.

#### *New Cancer Hospital.*

Stanley House, a large and well-appointed residence on the Stanley Grove estates, recently presented to the Owens College by the Whitworth trustees, has now been considerably altered and adapted to the purposes of a hospital for about forty cases of malignant disease. The building stands in its own grounds, which are picturesque and very pleasantly situated, and will form a hospital which may be considered fairly accessible to the population of Manchester and the surrounding district. The Stanley House Hospital is intended to form the nucleus of a much more extensive establishment to be eventually provided on this estate for the equipment of our great school of medicine. The hospital will doubtless be utilised for teaching purposes, as well as for purposes of original research, by the medical staff of Owens College.

*Monsal Hospital.*

According to newspaper reports of the last meeting of our council, the representatives of Newton Heath are much concerned at the considerable extensions that are now apparently being pushed forward at the Monsal Hospital, which is within the Newton Heath township of the city. On inquiry, however, it turns out that the authorities do not at present contemplate the extension of the permanent hospital accommodation at Monsal. The complete separation, however, of small-pox from fever at the hospital is now being asked for by the city corporation, and accordingly an attempt is being made to accommodate each disease in a separate and distinct hospital, space being provided within the small-pox hospital enclosure for temporary extension, in the event of epidemic prevalence of that disease. The two large wooden pavilions which were recently built for the isolation of cholera patients in case of necessity will probably form sufficient means of dealing with such limited outbreaks of small-pox as are likely to require hospital provision in ordinary non-epidemic times.

*Refuse Disposal.*

In view of the recent enlargement of the city and of the increase in the amount of night soil which consequently requires removal, the cleansing committee of our corporation find themselves confronted with a similar difficulty to that with which they had to deal a few years since when, in consequence of a considerable enlargement at that time of the municipal boundaries, it was found necessary to acquire the Carrington Moss estate, and to convey thither such portions of the excretal refuse of the city as could not be converted into pondrette or "bag manure" as it is locally termed. When regard is had to the circumstance that by the City Extension Act of 1890 the area of Manchester was just doubled and its population increased by more than a third, it will readily appear that the limited acreage of Carrington Moss has now become insufficient to cope with existing requirements. In this dilemma the cleansing department have, after diligent search, eventually succeeded in securing an estate 1800 acres in extent at the village of Rampton in Nottinghamshire, to which they propose to send 20,000 tons annually of the midden refuse, for the disposal of which they have now accepted the responsibility. On Tuesday last Mr. Joseph Smith, engineering inspector to the Local Government Board, held an inquiry at the Manchester Town Hall with reference to an application by the city corporation to borrow £60,000 for the purchase of the Rampton estate. At this inquiry, and again at the adjourned inquiry, which took place at Rampton on Thursday last, considerable opposition was shown to the scheme on the ground that much local nuisance, as well as pollution of the watercourses, would accrue as the result of the proposed operations. The inquiry has been still further adjourned to Wednesday next, when further evidence will be heard at Retford, a neighbouring town, which is conveniently situated for the purpose. The inspector will probably complete his inquiry on Wednesday, and both parties to the suit are naturally anxious that the Local Government Board should lose no time in communicating to the City Council their decision on a question which is of very much more than local importance.

Sept. 27th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*Newcastle Hospital Sunday Fund.*

THE annual meeting of the Newcastle Hospital Sunday Fund, which has now reached its twenty-second year, has just been held. The report showed that last year £4744 had been collected, being the largest sum yet recorded. There was a decrease, however, in the amount received from factories &c.; but the committee explained that this did not necessarily mean that the contributions of the workmen were falling off, as weekly and fortnightly collections were made at many places, which the workmen forwarded directly to the medical charities in which they were interested. The expense of managing the fund was just  $7\frac{1}{2}$  per cent., an outlay so small as to be scarcely equalled by any other fund of the kind with collections extending over such a large area. The committee aim at the future collections reaching £5000 per annum, and they would, it seems, appear to be gradually working up to that amount.

*Fatal Carriage Accident to a Surgeon.*

A very sad accident has occurred to Mr. R. C. Richards, M.R.C.S., of Shotley Bridge, Durham, which cost him his life. Mr. Richards, with two friends, was driving in the city of Durham on Wednesday, Sept. 21st—a dark night—and not being acquainted with the streets, which in many places are dark and narrow, the vehicle came in collision with some railings and he and his friends were thrown out. Mr. Richards sustained a fracture of the skull with concussion of the brain. He was removed to the Durham County Hospital, where he died in a few hours. The coroner at the inquest said the accident was distinctly traceable to the misplacement of the lamps, and the jury, in their verdict of "Accidental death," added a rider to be sent to the Durham corporation advising the fixing of a lamp at these dangerous railings to warn drivers and others.

*Want of Ventilation and Bad Air.*

At a late meeting of the Jarrow Sanitary Committee a discussion took place on the prevalence of measles. The medical officer was empowered to close the Ellison Schools for two months. It was submitted by a member that if the schools in the town had proper ventilation these continued outbreaks of epidemic disease would not arise; the infant schools, it was stated, were in many cases overcrowded with children from three to six years of age. At Gateshead an inquest has been held on a boy aged six years and a half, who died from syncope, a fatality which would appear to have been caused by foul air. An assistant teacher said she was engaged in opening a window for ventilation when she heard a noise and saw that the little boy had been very sick. She carried him outside and sent for medical aid, but he died almost immediately. An inquest has been also held at Walker touching the death of a young man named Bandon, aged eighteen, a well-known cyclist. It was proved that he died from suffocation when taking a hot bath heated by gas, and that he had made an attempt to save himself by running off the hot water. The bath, it was shown, had been fixed only the previous day, and the deceased was the first person to use it.

*The Proposed Lunatic Asylum for Middlesbrough.*

A committee appointed by the Middlesbrough corporation was engaged last week in inspecting the various sites which had been suggested for the proposed lunatic asylum for Middlesbrough.

*Munificent Gift to Cumberland.*

Mr. Simmond, a wealthy resident of Southport, has announced his intention of giving the county of Cumberland £20,000 for hospital purposes, £1000 of which is to be used for the building of a cottage hospital at Penrith.

Newcastle-on-Tyne, Sept. 23th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

*Insanity: its Causes and the Question of Increase.*

IN the third annual report on the Certification of Lunatics in the Barony Parish, Glasgow, Mr. Carswell, the certifying physician, makes some remarks of more than usual interest. Dealing first with the supposed increase in insanity, he states that there is no evidence to show that this condition is becoming common. It is true that there has been an increase in the number of applications for admission to the parochial asylum and a small increase in the number actually certified and admitted; but the cause or causes of this have nothing to do with any actual increase in lunacy or even possibly of nervous diseases. It seems that persons suffering from delirium tremens, hysteria and various states of excitement and stupor are reported to the inspector of poor, who is supposed to have facilities at his command for dealing with such cases. These patients are troublesome at home; general hospitals do not receive them, or do so only after formalities preventing immediate removal. Whether these transient disturbances of the nervous system are on the increase or not there can be no doubt that there is now greater readiness on the part of the public to avail themselves of the advantages of public institutions, and Mr. Carswell is inclined to ascribe to the latter consideration any increase in the number of lunacy applications to the inspector of poor. Mr. Carswell thinks there is no reason for supposing that insanity is increasing, but points out the danger

of medical opinion regarding the certification of lunatics becoming conformed to the pressure of public sentiment. Opinion, he says, has shown a tendency to expand in regard to the degree of mental disturbance which requires asylum treatment; and this opinion he says has come about chiefly as a part of a general social movement towards relieving individual persons of unusual or special burdens at the public expense. Mr. Carswell refers to a desire on the part of the profession for some provision whereby temporary care may be secured for the transient forms of nervous disease and a better basis obtained for the certification of lunatics. This has been attempted at Barnhill Hospital by the establishment of wards where special supervision is exercised over cases of a temporary nature, an arrangement under which it becomes possible to make a diagnosis of a definite form of insanity requiring asylum treatment, and to make this the only ground on which a person is certified as insane. The value of such wards is seen in the fact that there were treated in them in the past year 99 cases of non-certifiable disorder, the total for the past three years being 238. During last year there were 345 persons reported to the inspector of poor as insane; of these, 192 were at once certified and removed to an asylum. Of the 153 doubtful cases remaining, some were dealt with by other parishes, some by friends, while 105 were sent to the wards at Rainhill for temporary treatment and watching; of these 105, only six were afterwards certified, the remaining 99, as above noted, requiring only temporary care. The importance of such probationary wards is thus manifest. Mr. Carswell states that the one outstanding fact illustrated by the statistical tables is that insanity is the result of various diseased or abnormal conditions of brain and nervous organisation and function, due to (a) inherent defects of brain and nervous organisation; (b) to degenerative diseases of brain structure; and (c) to diseased states of the blood-supply to the brain. All these diseased states of the organ of mind may be prevented just as, and only as, diseased conditions of other organs are prevented, by due regard to the ordinary laws of health. Unwise marriages, imprudence and intemperance in conduct, and unhealthy conditions of living generally produce insanity, just as the same conditions in other subjects produce phthisis and other similar diseases. It is a common error to suppose that a large amount of insanity is caused by the high pressure of modern life, modern educational methods and so on. It is well that people should understand that the real causes are nearer their own lives and conduct, and therefore are more entirely under their own control, than is commonly supposed.

#### Health of Aberdeen.

Fever is on the increase in Aberdeen, 66 cases of measles and 40 of scarlet fever having been reported last week. The City Fever Hospital is full and large numbers of cases have to be refused admittance. The preliminaries for extensive additions to the hospital, to cost £12,800, are being pushed rapidly forward.

#### Aberdeen Royal Infirmary.

The new surgical pavilion of this hospital is now completed and ready for use. It contains accommodation for 145 patients, the wards being situated on three floors, and comprising 6 general wards, 2 eye wards, 2 lock wards, 1 ward for diseases of women and several isolation rooms. On the ground floor are two large operating theatres, the ophthalmic department, the directors' room and offices for the clerk and treasurer. A separate block contains an excellent post-mortem theatre. Electric light is used throughout. The buildings are to be honoured by a visit from Princess Louise, Marchioness of Lorne, and the Duke of Connaught on Oct. 4th, when the Princess will formally open the wards. With these wards in use it will be possible to transform the old building into an administrative block, which, with the medical pavilion to be built next year, will complete the infirmary.

#### Professor Ogston.

The announcement that Dr. Ogston has been appointed one of Her Majesty's Surgeons-in-Ordinary for Scotland was received with high approval as well by the laity as by the medical profession in the north of Scotland. Dr. Ogston had the honour of being received by the Queen at Balmoral on his appointment.

Sept. 27th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

#### Vice-Regal Appointments.

THE following appointments, it is stated, have been made by His Excellency Lord Houghton:—Physician-in-Ordinary, C. J. Nixon, M.D. R. U. I.; Surgeons-in-Ordinary, R. F. Tobin, F.R.C.S.I., and Arthur Chance, F.R.C.S.I.; Surgeon-Oculist, A. H. Jacob, M.D. T. C. D., F.R.C.S.I.

#### Precautions against Cholera.

The Cork rural sanitary board, having received an offer of a hulk from Sir J. Arnott for the purpose of a floating hospital for cholera patients, Mr. Hodges, with Surgeon-Lieutenant-Colonel Barry and others, made an inspection in order to select a vessel for the purpose. They have reported that the *Mont Blanc* was admirably suited for a hospital of the kind. The deck space is about 150 ft., with a breadth of 24 ft. inside the bulwarks, allowing ample accommodation to construct a hospital ward 60 ft. long by 24 ft. wide. In addition there will be 45 ft. aft of the hospital ward which can be utilised for medical attendants and nurses' quarters, kitchen, dispensary, disinfecting chamber &c. The intercepting hospital will be used for small-pox and other infectious diseases. The Drogheda guardians have placed an iron hut, to serve as an intercepting cholera hospital, near the Maiden Tower, at the mouth of the Boyne. The people in the vicinity have, however, expressed their hostility to the project, and the hut has been guarded by police night and day to prevent its threatened destruction. A memorial has also been sent to the Local Government Board asking for its removal, but the Board have replied that the temporary cholera hospital will be maintained, no matter at what risk or cost. The military authorities at Waterford have asked the guardians in case the cholera broke out in that city if they would set apart a room in their cholera hospital containing eight beds, with a nurses' room adjoining, for the reception of soldiers who might be attacked with the disease. The guardians have unanimously refused to provide separate hospital accommodation for soldiers, on the ground that it was the duty of the military authorities to make the necessary arrangements to treat soldiers attacked by the disease.

#### Wanderings of a Needle.

A woman named Margaret O'Grady about two years since accidentally swallowed a needle and last week complained of a disagreeable sensation in her shoulder. On examination at Mercer's Hospital it was found that the pain was due to the needle, and it was extracted without difficulty.

#### Insanitary Condition of Coolstown Courthouse.

Last week the revising barrister adjourned the sessions *sine die*, or until the building shall have been placed in a proper sanitary condition. Since then the work of correcting the voters' list has been carried on in another building.

Mr. A. E. Wynne, late house surgeon to Mercer's Hospital, has been presented with an illuminated address and a purse of sovereigns.

A woman named Cassells died yesterday at Warrenpoint at the reputed age of 108 years.

Sept. 27th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### Subcutaneous Injections of Thyroid Extract as a Remedy for Myxœdema.

THE belief in the importance to the animal economy of the presence in the normal state of such bodies as the thyroid, supra-renal capsules &c. is steadily gaining ground in this centre of medical activity. That organs unprovided with excretory ducts do form some product which is reabsorbed into the blood is proved by the disastrous effects following their removal. The development of myxœdema in persons whose bronchocelic thyroids have been removed is a phenomenon familiar to all practitioners of medicine. It is further proved by the experiments of Hédou of Montpellier already communicated by me to THE LANCET that the continued vitality of a grafted portion of the pancreas ensures the animal against diabetes, even though the intra-abdominal portion be excised. That condition is, on the contrary, induced by the total ablation

of the normal but evicted pancreas, and also by the destruction of the grafts, the intra-abdominal portion being left *in situ*. As regards myxœdema, Professor Bouchard reports (Association Française pour l'Avancement des Sciences [Congress at Pau], September 19th, 1892), two cases recently treated by him at the Charité Hospital by means of injections of thyroid juice. Both patients were females, and the improvement was, in each instance, extraordinarily rapid. This statement is confirmed by Dr. Roger, who tells me that the effects of the application of the method were astonishing. The œdematous turgescence of the face, eyelids, lips, hands and forearms vanished rapidly, and this had the effect of appreciably diminishing the body weight. The improvement in the functional symptoms—slowness of speech, intellectual torpor, difficulty of locomotion—was no less striking. In both the subjects the temperature, which was subnormal, rose after the injections, and each dose of the thyroid extract was productive of such a sensation of warmth that they could abandon the habit they had contracted of remaining all day in bed fully dressed. Another notable result of the injections was diuresis, which was synchronous with the subsidence of the œdema. It is, however, only right to mention that these favourable results were not procured without some degree of discomfort being experienced by the sufferers. The local reaction was trifling, but headache and pains in the chest and limbs compelled M. Charrin (M. Bouchard's collaborator) to suspend the treatment more than once, and resume it after an interval of five or six days. As to the prognosis, MM. Bouchard and Charrin incline to the belief that the improvement, striking though it be, will prove to be only temporary, and they profess their inability to regard the method as a curative one. "Qui vivra verra."

#### *The Importance of Attitude in the Auscultation of Children.*

Another instructive communication made at the Pau Congress was one by Dr. Azoulay of Paris on the above-mentioned subject. The difficulty often experienced in analysing and localising abnormal heart sounds in the very young is known to most of us. The reason is that in the child the following elements come into play—viz., great rapidity of heart beats, the complicated character of the bruits and their vagueness. In such cases the puzzled practitioner contents himself with the hypothetical diagnosis of peri- and endo-carditis. Dr. Azoulay states that he has devised a means of rendering the problem much easier of solution. Dr. Jules Simon and himself have applied the method at the Paris Children's Hospital, and have thus been enabled to localise the extra- and intra-cardiac abnormal sounds. Dr. Azoulay places his little patients in the following attitude: trunk horizontal, dorsal position, arms raised vertically, lower limbs completely flexed, head raised. In this position of the body the normal sounds are considerably reinforced while the beats are slowed; consequently the abnormal sounds are intensified and better localised. The assumption by the patient of the above position notably increases the pericardial friction sound. The utility of variations of attitude is great in examinations for life insurance and in the examination of recruits. If a person supposed to be in good health experiences, when lying down, dyspœna and arrhythmia, and if the heart beats are not slowed—all of which symptoms are absent in the upright attitude—a lesion of the myocardium may be diagnosed and a fatal issue from asystole at a date more or less remote, according to the intensity of the above symptoms expected.

#### *A Method of Sterilising Water.*

Some weeks ago I supplied the readers of THE LANCET with the details of a method of sterilisation by filtration advocated by MM. Babès of Budapest. Dr. Burlureaux, Professor Agrégé at the Val-de-Grâce Military School, has devised yet another sterilising proceeding which has the merit of simplicity. Bacteriological researches have established the fact that, in depriving water of its lime salts, it is at the same time rendered free from microbes. Clarke's process (addition of quicklime) is relied on to rid the water of its calcium carbonate, and sodium carbonate is employed in the case of specimens containing calcium sulphate. In practice Dr. Burlureaux recommends the use of a powder which is composed of lime, sodium carbonate, alum and ferrous sulphate in varying proportions, according to the degree and kind of hardness of the water. For the dreaded Seine water the powder recommended is thus composed: Quicklime, 9 parts; carbonate of sodium, 5; powdered alum, 1; powdered iron sulphate, 1. As a rule, from thirty to fifty centigrammes would sterilise a litre of

water. The powder is added overnight and the water decanted in the morning for consumption. A knowledge of this simple means of sterilisation—based as it is on scientific data—will perhaps be found useful in these times of cholera. Paris, Sept. 27th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *The Human Epidemic Bill.*

THE conference on the new Human Epidemic Bill for the whole empire began in the Imperial Office of Health yesterday, and is expected to last several days. Dr. Koehler, Director of the Office of Health, presides, and Drs. Koch, Pistar, Gerhardt, Schweningner, Kerschensteiner and Pettenkofer are among the members.

#### *How to Get First-rate Drinking-water.*

Dr. Hans Brackebusch, whose proposal for the disinfecting of water on a large scale I have already alluded to, answers inquiries as to the best method of disinfecting water for household use as follows: "Fill a stone vessel capable of holding about twenty litres to within a hand's breadth from the top with water, add three heaped tablespoonfuls of cement, and stir the mixture with a large wooden spoon for five minutes. The water then clears very quickly, and is fit for washing the body and for cooking everything except pulse. To get drinking-water, filter through coffee-paper into a carafe and add seltzer till the turbidness resulting at first disappears. The cement contains so much free lime that the killing of the bacilli is certain. The dissolved lime is converted by the carbonic acid of the seltzer into bicarbonate of lime, the substance to which mountain water owes its freshness. The cement must be fresh, and must not have lain beside smelling substances. Five pfennigs' (a little more than a halfpenny) worth of seltzer suffices for five litres of water."

#### *Professor Ernst Beckmann.*

Professor Ernst Beckmann of Giessen has been called to Erlangen. He established himself first as a private lecturer, and was then appointed Extraordinary Professor at Leipsic, where he was also Professor Ostwald's first assistant in the Chemical Institute. He was called to Giessen only last year, and taught chemistry there. His writings have appeared for the most part in the *Journal of Practical Chemistry*, the *Periodical of Analytical Chemistry* and the Reports of the German Chemical Society.

#### *Ancient Hygiene.*

The 156th number of the Collection of Popular Scientific Lectures, edited by Professors Virchow and Wattenbach, contains an essay on Ancient Hygiene by Professor Hagen of Bern, an important part of which is a survey of the opinions of the Roman military engineer Vitruvius on architectural hygiene.

#### *German Death-rates.*

The death-rates of the German cities in the week which ended on the 3rd inst. were as follows:—Elberfeld 17.8, Nuremberg 18.9, Barmen 20.3, Bremen 20.7, Stuttgart 22.6, Berlin 24.7, Dresden 25, Dantzic 26, Frankfort-on-the-Main 26.8, Munich 27.6, Königsberg 29, Strasburg 29, Düsseldorf 29.4, Aix-la-Chapelle 31.4, Halle 32.4, Cologne 33.7, Krefeld 34, Stettin 35.1, Breslau 36.2, Leipzig 36.4, Brunswick 36.8, Magdeburg 37.6, Hanover 38.9, Chemnitz 44, Altona 49.7, Hamburg and its suburbs 355.6.

#### *Miscellaneous Items.*

The German Government and the Society of German Women have established a hospital at Cameroons.

Army-Surgeon Dr. Kohlstock, who served for a year as medical officer in the German force in East Africa, has been appointed to the newly-founded chair of Tropical Hygiene in the Berlin Seminary for Oriental Languages.

Dr. Eduard Schubert, of Frankfort-on-the-Main, known as an investigator of the life and writings of Paracelsus and as a writer on that subject, died a few weeks ago.

Berlin, Sept. 27th.

ISLINGTON INFIRMARY.—On September 22nd the guardians met again to decide upon the site of the proposed new infirmary. After some discussion, the Board resolved that a deputation should wait upon the trustees of the Highgate Hospital, with a view to purchasing it.

## Obituary.

GEORGE DIXON LONGSTAFF, M.D. EDIN., L.F.P.S. GLAS.

GEORGE DIXON LONGSTAFF, who died at his residence, Butterknowle, Wandsworth, on Friday, Sept. 23rd, in his ninety-fourth year, was born on March 31st, 1799, at Bishop Wearmouth, in the county of Durham. At Edinburgh, in 1828, he obtained the degree of M.D., in which university he was for some time assistant to Dr. Hope, Professor of Chemistry, and in that capacity is believed to have been the first teacher of practical chemistry to medical students in this country. For some years he practised as a physician at Hull, and was one of the first lecturers at the Hull and East Riding School of Medicine, the formation of which institution, indeed, was largely owing to his exertions. In 1838 he married Maria, eldest daughter of the late Henry Blundell, J.P., of Hull, by whom he leaves two sons. After some years' residence in America he busied himself with mercantile affairs, and for many years acted as chairman of the firm of Blundell, Spence and Company, Limited, remaining a director of that company till his death. He was an active supporter of Canon Wilberforce's anti-slavery movement; and during the Chartist agitation of 1848, though he sympathised with many of the objects of the Chartists, he nevertheless acted as a superintendent of special constables and induced many Chartists to take the side of law and order. Dr. Longstaff was a frequent lecturer at Mechanics' Institutes, an educational movement which he spared no pains to promote. His interest in the spread of education was, moreover, displayed by the presentation, in 1887, of a reading room to the Wandsworth Free Library, founded under the auspices of the Free Public Library Commission, of which he was chairman. He was a founder and Vice-President of the Chemical Society of London, and for many years acted as chairman of the Royal Maternity Charity. He was one of the first members of the Wandsworth District Board of Works, and resided in that parish for upwards of fifty years.

JOHN CHURCHILL, M.R.C.S., L.S.A. LOND.

THE deceased gentleman whose remains have been deposited in the family vault at Egmont after cremation at Woking died on Friday, Sept. 2nd, at his residence, Hall Croft, Gosforth, Carnforth, Cumberland. He was born on the 4th of September, 1815, at Chertsey, in the county of Surrey. After serving an apprenticeship to a surgeon in that town he entered at Middlesex Hospital; subsequently obtaining the diploma of the Royal College of Surgeons. He was elected house surgeon to the Whitehaven Infirmary in 1843, but left this institution three years afterwards and went to London, leaving the metropolis after a stay of only one year for a vacancy which occurred at Gosforth. In 1880 he was placed on the Commission of the Peace for the county. In local affairs he took a very great interest, and the legacies which he left under his will to the following institutions show in a marked degree the spirit of benevolence which characterised the deceased gentleman. He has left legacies to the Whitehaven and West Cumberland Infirmary, of which institution he was a life governor; to the Middlesex Hospital, London; Gosforth Church building and augmentation funds; Seascale Church building fund; Discharged Prisoners' Aid Society, Carlisle; Industrial School at Cockermouth; and the Soup Kitchen, Whitehaven.

**CORONER FOR THE WESTERN DISTRICT.**—The Public Control Committee of the London County Council have recommended that Dr. C. Luxmoore Drew should be appointed Dr. Diplock's successor as coroner to the Western District. A number of members protested against the action of the committee in failing to submit several names for the consideration of the Council, and an amendment was proposed to the effect that the report should be referred back to the committee, in order that three names might be submitted to the Council. It was finally decided to vote upon eight selected candidates who had appeared before and been examined by the committee, the result being that Dr. Drew was elected by a large majority.

## Medical News.

**UNIVERSITY OF DURHAM.**—The following candidates at the Second Examination for the degree of Bachelor in Medicine at the College of Medicine, Newcastle-on-Tyne, have satisfied the Examiners:—

*Second Class Honours.*—Lionel Claude Everard Calthrop, M.R.C.S., L.R.C.P., London Hospital.

*Pass list.*—Wilfred Ernest Alderson, Robinson Brown, Wm. Andrew P'Anson Charlton, Percival Davidson, Gilbert Gocher, William Thomas Harkness, Christopher Julius Jeaffreson, Tom Sanderson, George William Scott, William Smith, and Percy Hugh Wardell-Johnson, College of Medicine, Newcastle-on-Tyne; Leonard Harman, St. Thomas's Hospital; Alfred Grosvenor Hinks, M.R.C.S., L.R.C.P., and Edwd. John Steegmann, M.R.C.S., M.R.C.P., L.S.A., St. Mary's Hospital; William Ernest Jones, M.R.C.S., L.R.C.P., and Bertie James Mayne, Middlesex Hospital; Frank Laughton-Smith, Ernest Percy Satchell, and George Hedley Tomlinson, Mason College, Birmingham; Walter Frederic Miller and Fredk. William Rowland, Guy's Hospital; John Ralph Prior, King's College Hospital; Ferdinand Clarence Smith, M.R.C.S., M.R.C.P., L.S.A., University College, London.

**SOCIETY OF APOTHECARIES OF LONDON.**—The following candidates have passed in the respective subjects:—

*Surgery.*—J. N. Dobie, Cambridge and St. Mary's Hospital; G. Grace, Bristol; G. B. Hillman, Yorkshire College, Leeds; S. L. Martin, London Hospital; G. H. Jones, Middlesex Hospital; R. A. Smith, Edinburgh.

*Medicine, Forensic Medicine and Midwifery.*—E. Henry, St. Bartholomew's Hospital; M. Richards, London Hospital; J. M. Swanson, Charing-cross Hospital; P. M. Thomas, Cleveland, U.S.A.; A. E. Wilson, St. Mary's Hospital.

*Medicine and Forensic Medicine.*—W. Fowler, Durham; G. L. Godwin, Edinburgh.

*Medicine and Midwifery.*—W. E. Barker, Owens College, Manchester; F. B. Lewis, London Hospital; E. D. Madge, Middlesex Hospital; J. H. Roberts, Guy's Hospital.

*Medicine.*—D. Berns, Royal Free Hospital.

*Forensic Medicine and Midwifery.*—F. V. Denne, Westminster Hospital; E. J. T. Jones, St. Thomas's Hospital; A. J. Russell, London Hospital.

*Forensic Medicine.*—B. S. Foulds, Charing-cross Hospital; S. L. Martin, London Hospital; T. E. Pallett, Westminster Hospital.

*Midwifery.*—E. C. Adams, St. Bartholomew's Hospital.

To Messrs. Dobie, Fowler, Grace, Hillman, Lewis, Martin, Pallett, Smith, Thomas and Wilson was granted the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery.

**LITERARY INTELLIGENCE.**—Dr. von Schroeder has retired from the joint editorship of the *St. Petersburger Medicinische Wochenschrift*, his place being taken by Dr. Rudolf Wanach of St. Petersburg.—A new medical journal has appeared in New York under the editorship of Dr. Aulde. It is entitled *The American Therapeutist*, and is to be devoted exclusively to therapeutics.

**A PAPER on the Urgent Need for amended Legislation for Inebriates** will be read by Mr. W. H. Williams, M.R.C.P., at the quarterly general meeting of the Society for the Study and Cure of Inebriety, at 11, Chandos-street, W., on Thursday afternoon, Oct. 4th, at 4 o'clock, when the chair will be taken by the President, Dr. Norman Kerr, F.L.S.

**FIRE AT THE JESSOP HOSPITAL, LEAVYGREAVE.**—A fire, which was fortunately discovered before very serious consequences resulted, broke out on the 22nd ult. at the above hospital. The disaster was probably due to the ignition of the floor of one of the rooms which it was desired to fumigate by means of a pan of sulphur.

**WATER-SUPPLY OF HASTINGS.**—The Hastings Borough Corporation are engaged in carrying out experiments at Brede, with a view of getting an additional water-supply to the town. When the wells are sunk there will be a daily yield of 3,000,000 gallons. The cost of the undertaking is roughly estimated at £70,000. The water from the springs is reported to be exceptionally pure.

**PROPOSED ISOLATION HOSPITAL, BANSTEAD DOWNS.**—Last week a meeting of the Joint Committees of the Sutton and Carshalton Local Boards and the Epsom Rural Sanitary Authority was held to consider the suggested site on Banstead Downs for the erection of an isolation hospital. It was resolved that the proposed site, on the terms offered, be accepted. It was also resolved that application be made to the Central Board for power to constitute the three local authorities into a joint board for the management of the hospital.

**EXETER CENTRE ST. JOHN AMBULANCE ASSOCIATION, GREAT WESTERN RAILWAY BRANCH.**—On Sept. 26th the Duke of Edinburgh presented the students who had been successful in the Great Western Railway Branch of the Exeter Centre of the St. John Ambulance Association examination with certificates.

**THE NEW WESTERN HOSPITAL.**—At a meeting of the London County Council on Sept. 26th it was agreed, on the recommendation of the Finance Committee, to lend to the Metropolitan Asylums Board the sum of £46,825 for the purpose of erecting additional buildings at the Western Hospital and for the reconstruction of the Western Ambulance Station.

**NEW DISINFECTING CHAMBER FOR ISLINGTON.**—On the initiative of Mr. Alfred Harris, medical officer of health, it has been decided by the public health committee to recommend to the vestry the desirability of erecting a disinfecting chamber on a piece of ground within the bounds of the parish. The estimated cost of building and apparatus is £1500.

**FOOTBALL CASUALTIES.**—Whilst playing a game on the 17th ult. at Dixon's-green, Dudley, a youth badly fractured his left arm. On Saturday, during a match between Laurieston and King's-park, Falkirk, the King's-park goalkeeper, through colliding in the midst of a scrimmage with one of the opposing forwards, fractured his left leg just above the ankle.

**DISINFECTION OF PARCELS.**—An arrangement has been come to between the General Post Office authorities and the Clerkenwell Vestry whereby the latter undertake the disinfection of Post Office parcels at a charge of six shillings each time the apparatus is used, irrespective of the number of parcels, and this charge to include the services of two men fetching the parcels in the disinfecting truck and returning them when disinfected.

The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight in Sept. 27th was as follows:—Eastern Hospital, 415 scarlet fever, 64 diphtheria and 37 enteric fever; North-Western Hospital, 411 scarlet fever, 98 diphtheria and 21 enteric fever; Western Hospital, 302 scarlet fever, 45 diphtheria, 3 typhus fever and 12 enteric fever; South-Western, 307 scarlet fever, 61 diphtheria and 25 enteric fever; South-Eastern, 404 scarlet fever, 20 diphtheria and 9 enteric fever; Northern Hospital, 824 scarlet fever and 18 diphtheria; and at the Gore Farm Hospital there were 724 cases of scarlet fever. The hospital ship *Atlas* had 2 cases of small-pox.

**PRESENTATIONS.**—Mr. A. W. Douglas, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., of Brushgrove, Clarence River, New South Wales, was presented on July 5th last, on the occasion of his leaving the district, with an illuminated address and a gold Waltham watch, suitably inscribed.—Dr. Arthur W. Kempe, of Exeter, has been presented by the Exeter Fire Brigade with a silver salver, in appreciation of his services as their medical officer.—Mr. A. E. Wynne, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., of Dublin, has been the recipient of a handsome illuminated address and a purse of sovereigns, from the medical and surgical staff of the Mercer's Hospital in that city, as a token of respect and esteem.

## LIST OF PRIZES AT THE LONDON MEDICAL SCHOOLS.

The following is a list of the prizes &c. awarded for the sessions 1891-92.

**ST. BARTHOLOMEW'S HOSPITAL.**—Lawrence Scholarship and Gold Medal: E. W. G. Masterman. Brackenbury Medical Scholarship: E. H. E. Stack. Brackenbury Surgical Scholarship: A. H. Buck and A. N. Weir, equal. Senior Scholarship in Anatomy, Physiology and Chemistry: E. J. Toye; *prox. acc.* F. Fraser. Open Scholarships in Science, Chemistry and Physics: M. Coleman and T. Horder, equal. Biology and Physiology: H. T. Gillett. Junior: V. H. Blackman. Preliminary Scientific Exhibition: J. Hussey. Jeaffreson Exhibition: F. H. Nimmo. Kirkes Scholarship and Gold Medal: H. L. Brooksbank. Bentley Prize (Surgical): H. J. Paterson. Hichens Prize: H. J. Paterson. Wix Prize: No award. Harvey Prize: M. G. Pearson; 2, J. Currie; 3, G. A. C. Calvert; 4, G. H. Sowry; 5, A. W. R. Cochrane; 6, E. J. Toye; 7, F. A. Smith; 8, S. P. Kesteven. Sir George Burrows' Prize. Skynner Prize: A. B. Blackwell and W. B. Jones, equal. Practical Anatomy (Junior)—Treasurer's Prize: S. P. Huggins; 2, G. E. Dodson; 3, S. P. W. Bristocke and W. R. Stowe; 5, J. P. Maxwell; 6, E. J.

Simmonds; 7, W. K. Miller; 8, L. F. Marks; 9, F. H. Nunn. Practical Anatomy (Senior)—Foster Prize: J. H. Meacher; 2, T. P. Legg; 3, H. T. Gillett and A. Woodward; 5, G. H. Sowry; 6, J. Currie; 7, G. A. C. Calvert; 8, M. G. Pearson; 9, A. W. R. Cochrane. Shuter Scholarship: W. M. Borchers. Junior Scholarships: J. T. Horder; 2, J. Hussey. Junior Scholarship in Chemistry (1891): E. J. Toye; 2, J. Currie and E. G. B. Drury.

**ST. GEORGE'S HOSPITAL.**—£125 entrance scholarship: H. M. Cooper. £50 entrance scholarship: J. M. Manning. £65 entrance scholarships: F. C. Bottomley, C. Kempson. Pollock Prize in Physiology: C. R. Watson. The Henry Charles Johnson Prize in Anatomy: Reginald Norman. The William Brown £100 Exhibition: R. G. Turner. The William Brown £40 Exhibition: C. C. S. Barry. Sir Charles Clarke's: A. E. Weston. The Treasurer's: G. H. Gouldemith. The Thompson Medal: G. Carré. The Brackenbury Prize in Surgery: A. L. Tatham. Third Year's proficiency: G. R. Baldwin. Second Year's proficiency: L. G. Davies. First year's proficiency: C. R. Keyser.

**GUY'S HOSPITAL.**—The Treasurer's Gold Medal for Clinical Medicine: Arthur Mantell Daldy, Romford; Alfred Theodore Rake, Fordingbridge, *proxime accessit*. The Treasurer's Gold Medal for Clinical Surgery: Alfred Theodore Rake, Fordingbridge. Gurney Hoare Prize for Clinical Study? Herbert Edward Durlum, London. Boney Prize for Pathology: Arthur Mantell Daldy, Romford. Golding-Bird Prize and Gold Medal for Diagnosis: Charles Satchell Pantin, Blackheath. Sands Cox Scholarship for Physiology: Charles John Harnett, Guildford; Alfred Sater, Blackheath, *proxime accessit*. Michael Harris Prize for Anatomy: Henry Alfred Moffat, Grahamestown, Cape Colony. The Arthur Durham Prizes for Dissection: First Year's Students—Norman Howard Pike, Streatham-common, prize, £5; Richard Hamilton Ashwin, Spalding, certificate: Arthur George Butler, Beckenham, Kent, certificate. Second Year's Students—Richard Foster Clark, Plymouth, prize, £15; James Henry Horton, Charlton, certificate; Henry Alfred Moffat, Grahamestown, Cape Colony, certificate. Prizes for Fourth Year's Students: Francis Jordan Coleman, Hunmanby, Yorks; Charles Satchell Pantin, Blackheath, and George Frederic Still, Tooting-park, equal, £12 each; Arthur John Sharp, Bromley, Kent, certificate; William John Johnson, Shefford, certificate; David Morgan Beddoe, Merthyr Tydfil, certificate. Prizes for Third Year's Students: John Alexander Howard, Canonbury, first prize, £25; Hugh Milton Stewart, Beckenham, Kent, second prize, £10. Prizes for Second Year's Students, 1891: Guy Eugene Manning, Hammersmith, first prize, £25; Leopold Ernest Valentine Every Clayton, Nelson, Lancashire, second prize, £10; John Alexander Howard, Canonbury, certificate; Arthur Henry Leote, Wellingborough, certificate. Prizes for First Year's Students, 1891: Francis James Steward, Old Charlton, first prize, £50; Charles John Harnett, Guildford, and Alfred Salter, Blackheath, equal, £12 10s. each; Harold Nolan, London, certificate. Prizes for First Year's Dental Students: John Brodribb Parfitt, Reading, prize, £10; Charles Henry Oram, South Molton, certificate; George Sidney Frederick Manton, London, certificate. Prizes for Second Year's Dental Students: Richard Ernest Woodcock, Pontefract, Yorks, prize, £15; Samuel Ralph Athporhe, Bromley, Kent, certificate; Archibald Rutledge Henry, Hastings, certificate. Prizes for Practical Dentistry: Stephen Keele, London, prize, £10; Archibald Rutledge Henry, Hastings, certificate; Harold Arthur Turner, Eastbourne, certificate. Open Scholarships in Arts: Gerald Burton-Brown, Cambridge, 100 guineas; Norman Lavers, Tasmania, 50 guineas. Open Scholarships in Science: Arthur George Butler, Beckenham, Kent, Peter Henry Haylett, Kimberley, Cape Colony, and Hugh Milton Stewart, Beckenham, Kent, equal, £61 5s. each.

**LONDON HOSPITAL.**—Entrance Science Scholarships, instituted 1875, given for proficiency in the subjects required for the preliminary scientific M.B. examination at the University of London: £75 scholarship, H. Innes; £50 scholarship, C. E. Davenport. Buxton Scholarships, given for proficiency in the subjects required for the preliminary examinations: £30 scholarship, G. H. Warren; £20 scholarship, J. G. Wallis. Clinical Medicine: £20 scholarship, given jointly by the House Committee and the Medical Council, A. Strange; honorary certificate, F. J. Woollacott. Clinical Surgery: £20 scholarship, given jointly by the House Committee and the Medical Council, A. Strange; honorary certificates, J. W. Hull and J. E. Gilbert Rogers. Clinical Obstetrics: £20 scholarship, given jointly by the House Committee and the Medical Council, A. Strange; honorary certificates, J. W. W. Stanton and H. L. Barnard. Duckworth Nelson Prize (biennial): Awarded last year. Lethaby Prize: £30 prize for proficiency in chemistry, J. C. Spillane and D. P. Harris; honorary certificate, R. Bebb. Hutchinson Prize (triennial): Awarded 1890, W. G. Noble. Anatomy, Physiology and Chemistry: £25 scholarship, given by the Medical Council, W. B. Butler. Anatomy and Physiology: £20 scholarship, given by the Medical Council, Elgar Down; honorary certificate, H. Innes. Dressers' Prizes, for Zeal, Efficiency, and Knowledge of Minor Surgery, given by the House Committee: £15 prizes, J. D. Galloway and A. Gooding. Practical Anatomy Prizes: £6 prize, H. E. B. Porter; £4 prize, M. Cameron; £3 prize, J. V. Worthington; £3 prize, J. C. Spillane; £3 prize, A. E. Lovitt; £2 prize, A. Gooding; £2 prize, H. M. Rigby.

**LONDON SCHOOL OF MEDICINE FOR WOMEN.**—Summer Session, 1891.—Materia Medica: Examiner, Dr. Sainsbury—Prize, Miss Moffett; certificates, Miss S. Hughes and Miss Despard. Practical Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss Yardley; certificates, Miss Thornett and Miss Hull. Practical Organic Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss E. Knight; certificates, Miss Bennett, Miss de Steiger, Miss Appel, and Miss Flint. Histology and Practical Physiology: Examiner, Professor Halliburton—Prize, Miss M. Benson; certificates, Miss Appel, Miss M. Webb, Miss Turle Evans and Miss Dodson. Forensic Medicine: Examiners, Dr. Dupré and Mrs. Dowson, L.R.C.P. and S.I.—Prize, Miss Hatch; certificates, Mrs. Rye, Miss Murdoch and Miss Bale. Winter Session, 1891-92.—Physiology: Examiner, Professor Halliburton, F.R.C.S.—Prize, Miss Hayward; certificates, Miss Appel, Miss Stoney, Miss Thornett, Miss Patch, Miss Lewin, Miss Flint and Miss Vaughan. Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss Yardley; certificates, Miss Colebrook and Miss Rawlinson. Organic Chemistry: Examiner, C. W. Heaton, F.C.S.—Prize, Miss Sweetman; certificates, Miss Stoney and Miss Caine. Anatomy, first year: Examiner, Stanley Boyd, F.R.C.S.—Prize, Miss Rawlinson; certificates, Miss Stoney, Miss Colebrook, Miss Hull, Miss Long, Miss Thorne, Miss Despard, Miss Sutherland, Miss Vaughan and Miss Adams. Anatomy, second year: Examiner, Stanley Boyd, F.R.C.S.—Prize, Miss Hodgins; certificates,

Miss Lency, Miss Appel, Miss Holt and Miss de Steiger. Medicine: Examiners, Mrs. Garrett Anderson, M.D., and Dr. H. Donkin.—Prize, Mrs. Rye; certificates, Miss Moffatt, Miss Bale and Miss Murdoch. Midwifery: Examiner, Dr. Ford Anderson.—Prize, Miss Hatch; certificates, Mrs. Rye, Miss Boyle, Miss Bale, and Miss Murdoch. Gynecology: Examiner, Mrs. Scharlieb, M.D.—Prize, Miss Murdoch; certificates, Miss Jones, Miss Bale, Miss Boyle, Miss Moffatt, Miss E. Knight, Miss Gray, Mrs. Rye, Miss Westlake, Miss Harding, Miss Nicholas, Miss Corthorn, Miss Pellatt, Miss Berne, Miss Helen Greene, Miss Armitage, Miss Hatch and Miss Mitcheson. Operative Midwifery: Examiner, Mrs. Stanley Boyd, M.D.—Prize of five guineas given by Mr. Wood. Miss Hatch; certificates, Mrs. Rye and Miss Berne. No certificate is given under 60 per cent. of marks. Entrance scholarship for October, 1891, given by the executive council, value £30, awarded to Miss Latham; examiner, G. S. Carr, M.A. Fanny Butler scholarship, value £20 a year for four years, Miss Von Hippo; Helen Prideaux prize, £50, Miss M. Sturge, M.B. Lond.

ST. MARY'S HOSPITAL.—Entrance scholarship in Natural Science of 100 guineas, 1891, F. A. St. John; entrance scholarships in Natural Science of 60 guineas, B. Lewitt, H. Sugden and W. B. Stevenson; University scholarships of 60 guineas, W. J. Harris and J. A. Wright; Epsom scholarship of value of £120, no award. Summer Session, 1891.—Second year.—Midwifery: A. E. Wilson, prize; A. Stanley and G. Riddick, certificates of honour. Medical Jurisprudence: J. E. Beggs, B.A., and A. E. Wilson, prizes; W. W. Linington and R. Corle, certificates of honour. First Year.—Materia Medica: J. E. P. Davies, prize; W. Ashdowne, A. W. Sanders and J. C. Smellie, certificates of honour. Botany: B. Lewitt and F. A. St. John, prizes; C. D. Lindsey and W. B. Stevenson, certificates of honour. Practical Chemistry: W. Ashdowne, prize; J. N. MacDonald, H. G. Jones and F. Keogh, certificates of honour. Chemistry: E. Hanson, prize; C. S. Murray and W. Ashdowne, certificates of honour. Winter Session, 1891-92.—Third year.—Medicine: C. T. Parsons, prize; C. M. Rhodes, W. Broadbent, B.A., and J. L. Morton, certificates of honour. Surgery: J. L. Morton, prize; C. T. Parsons and C. M. Rhodes, certificates of honour. Practical Surgery: J. L. Morton, prize; J. E. Beggs, B.A., certificate of honour. Pathology: J. E. Beggs, B.A., prize; C. T. Parsons and A. F. Bill, certificates of honour. Third and Fourth Years.—Prizes in Ophthalmology of £10 10s.: E. L. P. Payne and C. M. Rhodes. Prize in Dermatology of £5 5s.: J. E. Beggs, B.A. Clinical Surgery: J. E. Beggs, B.A., prize (1891-92). Clinical Medicine: E. A. Nathan, prize (1891-92). Second Year.—Anatomy: A. W. Sanders, prize; J. E. P. Davies, E. Hanson and J. C. Smellie, certificates of honour. Physiology: A. W. Sanders, prize; J. E. P. Davies and R. W. Dodgson, certificates of honour. First Year.—Anatomy: W. Ashdowne and M. F. Squire, prizes; W. B. Stevenson and W. D. Wiggins, certificates of honour. Physiology: F. A. St. John, prize; P. S. Lelan and W. Ashdowne, certificates of honour. Special Prizes, 1891.—Students of First Year—for general proficiency in Anatomy, Physiology, Materia Medica and Chemistry: A. W. Sanders. Students of Second Year—for general proficiency in Anatomy, Physiology, Midwifery and Medical Jurisprudence: A. E. Wilson. Students of Third Year—for general proficiency in Medicine, Surgery, Pathology and Operative Surgery, no competitors. Prosectors: A. W. Sanders and J. C. Smellie.

MIDDLESEX HOSPITAL.—Broderip Scholarships, for the best Examination at the Bedside and in the Post-mortem Room: First, W. F. Lucas; second, H. B. Long. Governors' Prize: A. Baldwin. Exhibition in Anatomy: First year, C. W. Alford. Medicine: F. E. Rock. Surgery: H. C. Thomson. Practical Medicine and Therapeutics: H. C. Thomson. Practical Surgery: W. F. Lucas. Practical Midwifery: B. W. Nankivell. Anatomy: A. P. Coker. Physiology: E. J. Dobbin. Chemistry: R. H. S. Preston. Hotley Prize: A. Baldwin. Lyell Medal: W. F. Lucas. Dissections: E. J. Dobbin. Pathological Anatomy: R. A. Young. Midwifery: W. T. Pugh and M. W. W. Curtis, equal. Forensic Medicine: C. H. Watson. Materia Medica: A. E. Walter. Practical Chemistry: T. T. Day. Practical Physiology: N. B. Harman. Entrance Scholarships: First, E. du P. Aubin; second, Charles Roberts. Certificates of Honour, in order of merit: Medicine—W. P. Lucas, A. Baldwin, H. C. Thomson. Practical Surgery—T. W. Lockett, A. Baldwin, F. E. Rock, C. H. Watson. Anatomy—E. J. Dobbin, M. B. Pinchard, N. E. Thomas, C. H. J. Robinson. Physiology—T. H. Wells, A. P. Coker, M. A. Raper. Practical Medicine—A. E. Shepherd and A. Baldwin, equal. F. E. Rock. Surgery—A. Baldwin, F. E. Rock. Pathological Anatomy—F. E. Rock, W. M. C. Wanklyn, W. T. Pugh, A. P. Coker, A. Cortes. Midwifery—F. E. Rock, G. A. Jones, R. A. Young. Practical Midwifery—T. Carwardine, A. E. Shepherd, N. J. Smith, T. A. Beddy. Forensic Medicine—H. C. Thomson, A. Baldwin, F. E. Rock. Materia Medica—C. W. Alford, B. J. Mayne, N. B. Harman. Practical Chemistry—T. Thomas, W. H. Wykes, D. J. Jones; E. W. Hopkins, T. H. Jones and J. W. Myler, equal; C. C. Smith and E. Z. Ward, equal. Practical Physiology—F. Dodd, E. K. Herring. Chemistry—C. Roberts.

ST. THOMAS'S HOSPITAL.—Entrance Science Scholarships: A. H. Stewart, Regent's Park, scholarship, 125 guineas, and certificate of honour; F. H. Gervis, Haverstock-hill, scholarship, £60, and certificate of honour. First Year's Students: J. C. Harcourt, South Woodford, the William Tite Scholarship, £27 10s., and certificate of honour; B. Dyball, Brixton, college prize, £20, and certificate of honour; A. H. Stewart, Regent's Park, college prize, £10, and certificate of honour; F. B. Thornton, Leicester; M. Takayasu, Japan; A. J. Martineau, Lupus street; F. H. Gervis, Haverstock-hill; H. N. A. Gode, Kensington.—Certificates of honour. Second Year's Students: G. G. Gunge, Croydon, the Peacock Scholarship, £38 10s., and certificate of honour; W. E. F. Timley, Whitby, college prize, £20, and certificate of honour; E. L. Perry, St. George's-square, college prize, £10, and certificate of honour; A. L. Home, Hampstead; W. H. J. Paterson, Shepherd's-bush, and E. O. Thurston, Pantom-street, equal; W. D. Frazier, Penarth—certificates of honour. Third Year's Students: A. E. Russell, Greenwich, college prize, £20, and certificate of honour; S. W. R. Richardson, Whitby, second tenure of the Musgrove Scholarship, and certificate of honour. Practical Medicine: A. E. O. Milton, Brighton, the Mead Medal, founded by Mr. and Mrs. Newman Smith. Surgery and Surgical Anatomy: W. G. Sutcliffe, Clapham, the Cheselden Medal, founded by the late Mr. George Vaughan; E. Smith, Wandsworth Common; W. Redpath, Norwood-road, certificates of honour. Solly Medal and Prize: W. B. Winston, Oxford-gardens, medal and prize, £20. For General Proficiency and Good Conduct: E. Smith, Wandsworth Common, the Treasurer's Gold

Medal. Certificates of Honour: Anatomical Assistants—S. W. F. Richardson, A. E. Russell. Prosectors: H. C. Crouch, G. G. Gonge, A. L. Home, L. N. Pentreath, E. L. Perry, E. O. Thurston. Assistants in Physiological Laboratory: W. E. Dixon, H. M. Harrison, J. S. Hudson, W. H. J. Paterson. Pathological Assistants: J. C. Durston, E. M. Hainworth, W. G. Sutcliffe. House Physicians: C. R. Box, T. H. Kellock, C. Latter, J. J. Perkins, C. Wyman; non-resident, G. R. F. Stillwell, D. F. Shearer, W. P. Purvis. House Surgeons: L. Cobbett, T. H. Haydon, J. R. Harper, C. Wyman, T. H. Hollock, C. R. Box, W. F. E. Milton, T. A. M. Forde. Assistant House Surgeons: L. Cobbett, C. Wyman, W. F. E. Milton, T. A. M. Forde, T. H. Kellock, C. R. Box, H. Burden, P. J. Atkey. Obstetric House Physicians: Senior—J. R. Harper, W. G. G. Stokes, W. F. Umney, A. Banks; Junior—W. L. Wainwright, T. H. Haydon. Ophthalmic House Surgeons: C. H. Usher, S. G. Toller. Clinical Assistants in the Special Departments: Skin, F. W. Beville, L. G. Soudamoro; throat, P. J. Atkey, A. Dalzell, T. A. M. Forde; ear, E. H. G. Morris, J. H. Fisher, C. S. Wallace.

UNIVERSITY COLLEGE.—Winter Session.—Entrance Exhibitions: £100, W. B. L. Trotter of London; £80, C. B. Goring of London; £40 each, equal, J. C. H. Leicester of Dulwich and A. J. Rodocanachi of London. Atchison Scholarship (£30 per annum for two years): F. V. Bunch of London. Atkinson Morley Scholarship (£45 per annum for three years): Douglas Drew of London. Bruce Medal: F. B. Bunch of London. Physiology.—Senior Class: gold medal, J. H. Cook of London; silver medal, P. J. Edmunds of London; certificates, 3<sup>rd</sup>, equal, F. W. Chandler of Derby, A. Dimsey of London, T. C. H. Stevenson of Strabane; 6<sup>th</sup>, G. B. Hunt of London. Second Class: F. J. Coutts of London, F. G. Crookshank of London, S. E. Shoppee of London, C. C. Weeks of Gibraltar. Third Class: C. Banting of London, J. N. Brown of London, A. Hunnard of London, T. A. Starkey of Northwich, A. Young of Sheffield. Junior Class: silver medal, J. Shardlow of Clay Cross; certificates, 2<sup>nd</sup>, H. B. Shaw of Sydney; 3<sup>rd</sup>, D. N. Nabarro of London; 4<sup>th</sup>, J. C. H. Leicester of Dulwich; 5<sup>th</sup>, W. G. Savage of Blackheath; 6<sup>th</sup>, S. H. Belgrave of Putney; 7<sup>th</sup>, P. K. Byrne of Drogheda. Second Class: J. N. Bhadhurji of Bombay, J. A. Belcher of Gnosall, T. R. H. Bucknall of Kidderminster, F. B. Carter of Gravesend, C. C. Clark of Leicester, A. M. Connell of Barbados, C. B. Goring of London, L. S. Hughes of New Zealand, A. D. Ketchen of Middlebrough, J. H. Murray of Honour Oak, J. W. F. Rait of Forest-hill, A. J. Rodocanachi of London, T. O'N. Keel of London, J. D. Russell of Greenwich, E. Thomas of Cardigan, W. B. L. Trotter of London. Third Class: H. J. Price of New Malden, A. R. Todd of Jamaica. Pathology.—Practical Course: Tuke Silver Medal, J. L. Bunch of London; Tuke Bronze Medal, I. Costa of Jamaica; certificate, 3<sup>rd</sup>, F. T. Travers of London. Anatomy.—Senior Class: Gold medal, A. Dimsey of London; first silver, T. H. C. Stevenson of Strabane; second silver, G. B. Hunt of London. Second Class: F. J. Coutts of London, A. Hunnard of London, T. A. Starkey of Northwich. Third Class: C. Banting of London, J. C. Hibbert of Watford, A. W. Jenkins of Llandysul, W. R. Nettle of Callington, E. Stork of Ceylon, S. E. Shoppee of London. Junior Class: Silver medal, J. D. Russell of Greenwich; certificates, 2<sup>nd</sup>, C. C. Clark of Leicester; 3<sup>rd</sup>, J. A. Belcher of Gnosall; 4<sup>th</sup>, H. B. Shaw of Sydney; 5<sup>th</sup>, A. D. Ketchen of Middlebrough; 6<sup>th</sup>, H. J. Price of New Malden. Second Class: J. N. Bhadhurji of Bombay; C. B. Goring of London; D. N. Nabarro of London; A. J. Rodocanachi of London; E. Thomas of Cardigan. Third Class: P. K. Byrne of Drogheda, H. A. Günther of Hampton Wick, J. C. H. Leicester of Dulwich, J. W. F. Rait of Forest Hill. Medicine.—Gold medal, F. V. Bunch of London; first silver, M. Randall of Beaminster; second silver, J. Jones of Clydach; certificates, 4<sup>th</sup>, C. G. Spencer of New Zealand; 5<sup>th</sup>, A. D. Heath of Exeter; 6<sup>th</sup>, G. A. Stephens of Cardigan. Second Class: A. Y. Fullerton of Sydney; D. Keele of London. Surgery.—Gold medal, F. V. Bunch of London; first silver, M. Randall of Beaminster; second silver, C. G. Spencer of New Zealand; certificates, 4<sup>th</sup>, H. A. Ballance of London; 5<sup>th</sup>, E. W. Selby of Lewisham. Second Class: A. D. Heath of Exeter, G. A. Stephens of Cardigan. Third Class: A. Y. Fullerton of Sydney, W. W. Hodgins of London, D. Keele of London. Chemistry.—Prize, A. R. Tod of Jamaica; certificate, 2<sup>nd</sup>, L. S. Hughes of New Zealand. Practical Surgery.—Erichsen Prize, David Keele of London; certificates, 2<sup>nd</sup>, C. G. Spencer of New Zealand; 3<sup>rd</sup>, H. A. Ballance of London. Second Class: C. J. Harrison of Devonport, W. W. Hodgins of London, G. A. Stephens of Cardigan, F. W. Wesley of London, E. S. Worrall of Manchester. Clinical Medicine.—Senior Class: Fellowes Gold Medal, F. V. Bunch of London; Fellowes Silver Medal, F. W. Wesley of London; certificates, 3<sup>rd</sup>, H. A. Ballance of London; 4<sup>th</sup>, J. Jones of Clydach, 5<sup>th</sup>, W. T. Lister of Leytonstone; 6<sup>th</sup>, C. G. Spencer of New Zealand; 7<sup>th</sup>, M. Randall of Beaminster; 8<sup>th</sup>, C. J. Harrison of Devonport. Second Class: E. Evans of Dinas Mawddwy, A. D. Heath of Exeter, D. Keele of London, A. G. Liny of London, J. E. Ramsay of Sydney, G. A. Stephens of Cardigan, T. Streetfold of London. Third Class: A. Y. Fullerton of Sydney, J. L. Sawers of Blackheath. Junior Class: J. R. Bradford, M.D., D.Sc.; Fellowes Silver Medal, R. W. Lake of Sydney; certificates, 2<sup>nd</sup>, T. B. Stedman of Leighton Buzzard; 3<sup>rd</sup>, E. J. Smyth of New Barnet; 4<sup>th</sup>, J. L. Bunch of London. Second Class: M. Ashley of Modbury, P. Best of St. Ives, P. S. Eves of London, T. R. Llewellyn of Llantwitvadro. Third Class: W. Drake of Canterbury, E. F. Harwood of Lisbon, J. M. Stewart of London, A. M. Watts of Acton. Clinical Surgery.—Liston Gold Medal: A. B. Harris of Oxford. Clinical Dental Surgery.—Silver medal, H. A. Ballance of London; certificates, 2<sup>nd</sup>, F. V. Bunch of London, 3<sup>rd</sup>, G. A. Stephens of Cardigan and F. W. Wesley of London, equal; Second Class, H. R. S. Clarke of Malvern. Summer Session.—Histology and Practical Histology.—Gold medal, P. K. Byrne of Drogheda; silver, J. A. Belcher of Gnosall and C. B. Goring of London equal; certificates, 4<sup>th</sup>, J. D. Russell of Greenwich, 5<sup>th</sup>, J. C. H. Leicester of Dulwich, D. N. Nabarro of London and A. J. Rodocanachi of London equal, 8<sup>th</sup>, H. B. Shaw of Sydney. Second Class: H. Clifford of London. Third Class: H. R. Emms of London. Pathology.—Filliter Exhibition of £30: J. Le M. Bunch of London; silver medal, Isaac Costa of Jamaica. Chemistry (Chemistry and Chemical Physics).—Prize, R. H. Hyde of London; certificates, 2<sup>nd</sup>, L. S. Hughes of New Zealand and L. E. Cressy of Ealing. Second Class, H. Chatterton of London. Third Class: C. M. Atkinson of Ashford, P. D. Barker of Kimpton and C. G. Moffitt of Clapham. Practical Chemistry.—Prize, R. H. Hyde of London; certificates—2<sup>nd</sup>, L. S. Hughes of New Zealand; 3<sup>rd</sup>, C. G. Moffitt of Clapham; 4<sup>th</sup>, P. D. Barker of Kimpton; 5<sup>th</sup>, L. E. Cressy of Ealing, 6<sup>th</sup>, H. Chatterton of London and C. M. Atkinson of Ashford, equal. Third Class: H. H. Fawcett of London. Senior Practical Class: prize,

J. S. Bolton of Whitby; certificates, 2\*, A. Dimsey of London; 3\*, J. N. Brown of London. Second Class: F. J. Coutts of London. Organic Chemistry.—Prize J. S. Bolton of Whitby; certificate, 2\*, F. J. Coutts of London. Second Class: T. A. C. Stevenson of Strabane. Third Class: F. W. Chandler of Derby and A. Dimsey of London. Junior Organic Chemistry.—Certificate, 1\*, J. Shardlow of Clay Cross. Third Class: C. B. Goring of London. *Materia Medica* and Therapeutics.—Gold medal, A. Dimsey of London; silver medal, T. A. Starkey of Northwich; certificates, 3\*, J. S. Bolton of Whitby; 4\*, J. Pole Kitson of Southsea, and H. J. Price of New Malden, equal. Second Class: J. N. Brown of London and C. C. Clarkson of Leicester. Midwifery.—Senior class: gold medal, A. Gaskell of Dartmouth; silver medal, P. H. Stirik of Wolverhampton. Junior class, silver medal, A. W. Kirkpatrick-Picard of London; certificates, 2\*, Palemon Best of St. Ives; 3\*, T. B. Stedman of Leighton Buzzard; 4\*, A. J. Lang of Southport; 5\*, H. J. Price of New Malden; 6\*, G. P. James of Llanely. Medical Jurisprudence.—Gold medal, C. M. Spain of London. Hygiene and Public Health.—Silver medal, J. Wilkie of London. Second Class: J. Rannie of Aberdeen. Clinical Medicine.—Junior Class: Fellowes Silver Medal, W. D. Jones of Chipping Sodbury; certificate, 2\*, A. P. Nuttall of Bury. Second Class: A. W. Kirkpatrick-Picard of London. Third Class: W. E. Kirby of London. (\*Obtained the number of marks qualifying for a prize.)

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET OFFICE, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ARCHER, E. J., M.B., C.M. Dub., has been appointed, *pro. tem.*, Medical Officer for the Second Sanitary District of the Southampton Incorporation, *vice* Archer, deceased.

BAILEY, T. C., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Crewe Southern Sanitary District of the Nantwich Union.

BOSTOCK, J., M.R.C.S., has been appointed Medical Officer for the Wymeswold Sanitary District of the Loughborough Union.

BRATTON, J. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for Ewell, of the Epsom Union, *vice* Barnes, deceased.

CARNELLEY, M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Gotham Sanitary District of the Basford Union.

COWAN, RICHARD HAMILTON, M.R.C.S., L.S.A., has been appointed Honorary Medical Officer to the Royal Albert Edward Infirmary, Wigan, *vice* R. F. Woodcock, deceased.

DALISON, BERNARD E., has been appointed Medical Officer and Public Vaccinator for the Puddletown District of the Dorchester Union.

DIGBY, C. A., M.D., B.Ch., D.S.M., L.M.R.C.P. Irel., has been appointed Medical Officer for the Ticehurst Sanitary District of the Ticehurst Union.

FORRESTER, R. A. P., M.B., C. M. Edin., has been appointed Health Officer for Wycheepford, Victoria, South Australia.

FRANCIS, ERNEST EDWARD, M.R.C.S., L.S.A., has been appointed Surgeon to the Assam-Bengal Railway.

HAMILTON, R. H., L.R.C.P., L.M., J.R.C.S. Irel., has been appointed a Public Vaccinator for the District of Mount Pleasant, South Australia.

HOOVER, MARSHALL, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Codner Park Sanitary District of the Basford Union.

HOUSLEY, J., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the East Bedford Rural Sanitary District.

JACKSON, R., M.B., C.M. Edin., has been appointed Deputy Medical Officer for the Township of Sutton, St. Helen's, Lancashire.

JEFFREYS, JAS. G., L.S.A. Eng., has been appointed a Public Vaccinator for the District of Naseby, New Zealand.

KEMPE, C. M., M.R.C.S., has been reappointed Medical Officer for the Port of Shoreham.

MULLALHY, WM. T., M.D., M.Ch., L.R.C.P. Irel., has been appointed Health Officer for the Shire of Ballarat, Victoria, Australia.

PHILLIPS, GEO. G. O., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator, and also Health Officer for the Sire of Heidelberg, Victoria, Australia.

PURVIS, GEO. CARRINGTON, M.D., B.Sc. (Pub. Health) Edin., has been appointed Assistant Medical Officer of Health (Temporary) to the Port of Leith.

RICHARDSON, A., M.D. Brux., L.R.C.P. Edin., M.R.C.S., has been appointed an Honorary Medical Officer of the Port Augusta Hospital, South Australia.

WARD, A. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Christchurch Sanitary District and the Branch Workhouse of the Parish of St. Giles, Camberwell.

WILLIAMS, G. R., L.R.C.P., L.M., J.R.C.S. Irel., has been appointed Medical Officer for the Seventh sanitary District of the Depwade Union.

YOUNG, RICH. W., M.R.C.S., L.S.A., has been appointed Government Medical Officer and Vaccinator for the Lower Clarence River District, New South Wales.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BERKSHIRE COUNTY COUNCIL.—Lecturer on "Hygiene." (Apply to Mr. Colburn, Organising Secretary, 6, Russell-street, Reading.)

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's-road, Brighton.—Non-resident House Surgeon. Salary at the rate of £50 per annum.

CHELSEA HOSPITAL FOR WOMEN, S.W.—Clinical Assistant.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—Lecturer on Organic Chemistry. Minimum remuneration £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Pathologist. Salary 100 guineas per annum. (Applications to the Secretary, 21, Finsbury-circus, E.C.)

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £40 per annum, with board, lodging, and washing.

COUNTY BOROUGH OF STOCKPORT.—Medical Officer of Health for the District of the Borough, and to the Infectious Diseases Hospital, and Surgeon to the Police Force, at a salary at the rate of £400 per annum. (Applications to the Town Clerk, Lord-street, Stockport.)

COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant to the House Surgeon, for six months. Honorarium £15, with board, residence, washing and attendance (exclusive of beer, wines and spirits.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

Huddersfield Infirmary.—Honorary Physician.

INVERNESS DISTRICT BOARD OF LUNACY.—Medical Superintendent for the Inverness Asylum. (Applications to Mr. E. Davidson, Queens-gate-chambers, Inverness.)

KENT AND CANTERBURY HOSPITAL.—Assistant House Surgeon. Salary £50 a year, with board and lodging.

KENT COUNTY LUNATIC ASYLUM, Barming-heath, near Maidstone.—Third Assistant Medical Officer. Salary £175 per annum, rising £5 per annum up to £200, with furnished quarters, attendance, gas, washing, garden produce and milk. (Applications to Mr. Howlett, 9, King-street, Maidstone.)

M. C. L., care of J. W. Vickers, 5, Nicholas-lane, E.C.—Qualified Medical Man, to proceed to Mexico as Medical Superintendent of a Mining Company. Salary £300 per annum.

PORTLAND HOSPITAL FOR ACCIDENTS, Blackwall, E.—Senior House Surgeon. Salary £100 per annum, with board &c.

READING AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. Assistant Medical Officer. Terms £70, in-door. (Applications to be made to R. M. B., Dr. Stansfield, 80, Southampton-street, Reading.)

ROYAL UNITED HOSPITAL, Bath.—House Surgeon for one year. Salary £60 per annum, with board, lodging and washing.

## Births, Marriages and Deaths.

### BIRTHS.

GLYN-GRIFFITH.—On Aug. 20th, at Allahabad, North-West Provinces, the wife of Dr. R. Glyn-Griffith, Senior Surgeon, E.I.R., of a son.

HEDGES.—On Sept. 26th, at 18, Lake-street, Leighton Buzzard, the wife of J. A. Hedges, M.R.C.S. &c., Medical Officer to Local Board, of a son.

JOINSON.—On Sept. 25th, at Mickleton, Campden, Gloucestershire, the wife of James Bovell Johnson, M.D., of a daughter.

PRATT.—On Sept. 27th, at Weedon, Northamptonshire, the wife of W. Sutton Pratt, L.R.C.P. Lond., M.R.C.S., of a daughter.

SCOTT.—On Sept. 21st, at Heathfield, Bromley, Kent, the wife of John Scott, B.A., M.B., M.R.C.S., of a son.

### MARRIAGES.

FINLAYSON-SELLICK.—On Sept. 22nd, at St. Andrew's, Gibraltar, Henry W. Finlayson, M.B. C.M., Surgeon, E.N., to Charlotte Elizabeth, only daughter of Stephen Sellick, Kensington.

KEYS-WELLS-LOWNDES.—On Sept. 21st, at Little Comberton, Dr. Ernest Neville Keys-Wells, of White Parish, near Salisbury, to Grace Eleanor, second daughter of the Rev. E. S. Lowndes, M.A., Rector.

MURPHY-LLEWELLYN.—On Sept. 22nd, at St. Stephen's Church, East Twickenham, Dr. H. Howard Murphy to Annie, daughter of the late Thomas Llewellyn, Esq.

TRANTER-CARPENTER-FROOM.—On Sept. 24th, at St. Mark's Hamilton, terrace, P. Tranter-Carpenter, M.R.C.S., &c., of Stann Creek, British Honduras, to Amelia (Lillie) Froom, fourth daughter of the late Alfred Froom, Esq., of Malda-vaie, W.

### DEATHS.

ANDREWS.—On Sept. 21st, Henry Charles Andrews, M.D., M.R.C.S., L.S.A., L.M., late of Addison-terrace, Notting-hill, London, aged 65. Friends will kindly accept this intimation.

COMPTON.—On Sept. 20th, at Pelham House, Poole, Francis Charles Compton, M.R.C.S., L.R.C.P., aged 38.

HAIME.—On Sept. 20th, at Barnsley, Yorkshire, W. C. Haime, L.R.C.P., L.R.C.S. Edin.

HESLOP.—On Sept. 21st, at 92, Windsor-road, Southport, Robert Heslop, L.R.C.S.E. and L.S.A., Consulting Surgeon to St. Mary's Hospital, Manchester, aged 68 years.

LONGSTAFF.—On Sept. 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.

MACGOWAN.—On Sept. 15th, in London, Thomas Newall Macgowan, M.B., aged 22.

PRESTON.—On Sept. 24th, at Kilderminster, II. T. Preston, M.D. Abord., C.M., M.R.C.S.

RICHARDS.—On Sept. 25th, the result of an accident, Robert Crout Richards, M.R.C.S.E., L.R.C.P.I., L.M., of Orchard House, Shotley Bridge, aged 40, son of Alfred Richards, Portreath, Cornwall.

RUSSELL.—On Sept. 27th, at Worthing, John Russell, Surgeon, aged 62, late of Newcastle-on-Tyne.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Sept. 29th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maxim. Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Sept. 23	80.14	N.W.	56	55	86	66	55	..	Overcast
" 24	29.88	W.	61	59	97	62	56	.09	Dull
" 25	29.97	W.	55	53	104	66	43	..	Fine
" 26	80.08	N.W.	56	54	100	63	53	..	Overcast
" 27	29.69	S.W.	61	59	89	67	56	..	Cloudy
" 28	29.71	S.W.	61	49	104	62	49	.24	Overcast
" 29	29.81	W.	52	49	102	58	46	..	Fine

Medical Diary for the ensuing Week.

Monday, October 3.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.80 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.80 P.M., and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.80 P.M.; Thursday, 2.80.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, October 4.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.  
 GUY'S HOSPITAL.—Operations, 1.80 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.80 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.80 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.80 P.M. Consultations, Monday, 2.80 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.80 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, October 5.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.80 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.80 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2.80 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.80 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
 OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Galabin, Dr. McAdam Eccles, Dr. Horrocks, Dr. Rutherford, Dr. Amand Rowth, and Dr. Cullingworth.—Dr. Cullingworth: The Value of Abdominal Section in certain cases of Pelvic Peritonitis.

Thursday, October 6.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.80 P.M. Ophthalmic Operations, Friday, 1.80 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 7.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).—8.30 P.M. Opening Address by the President (Mr. Swinford Edwards): Urinary Surgery of the Present Day contrasted with that of Twelve Years ago.

Saturday, October 8.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

NOTE-TAKING AND MEDICAL STUDY AND PRACTICE.

THE *Phonetic Journal* of the 24th ult., commenting on an article in our Students' Number entitled "Notes and Note-takers," says:—

"THE LANCET points out that many students know a little shorthand, and wisely recommends them to improve their shorthand for the purpose. But as regards those students who have no knowledge of shorthand, it remarks that they will speedily acquire an abbreviated form of longhand which will probably serve their purpose. We do not share the opinion. To acquire a serviceable method of abbreviated longhand is a long, laborious process, and the notes taken in it when acquired are usually slovenly and illegible, as must be the case when an attempt is made to follow a rapid speaker by means of longhand, however abbreviated, and even when all that is sought to be taken down is a sentence here and there. But the ordinary run of abbreviated longhand, that which the amateur note-taker develops himself, seldom represents a saving of more than 4 or 5 per cent. of the time that would be required to write in full longhand. On an emergency it breaks down entirely. The best advice to every medical student who does not know shorthand is that he should devote some of his time to mastering an art that eminent medical practitioners declare to have proved so valuable to them. With that knowledge they will be enabled to take notes with ease and comfort—notes that they will be able to read without hesitation whenever they desire to do so. With the other piece of practical advice in the article in THE LANCET—namely, that students should secure well-bound substantial note-books—we thoroughly concur. They should be well bound and substantial in order to be available for reference in future years. Stress is laid in THE LANCET article upon the importance of note-taking as a means of cultivating in student days certain habits that are conducive to success in later life. The educational value of the practice of note-taking is too often lost sight of; but, as THE LANCET writer points out, the student who takes notes regularly is likely to develop the habit of punctuality. Like the professional note-taker, who is rarely behind time, the student who takes notes systematically will make a point of being present at the commencement of a lecture. He will also attend with more regularity for fear of missing one lecture of a course, and perhaps having to make good the gap by a prolonged study of books. The practice of note-taking tends to strengthen the power of continuous attention and thus to develop a faculty of the greatest service in every walk of life. It also helps to promote thoroughness. The student who has acquired these qualities in his student days goes forth into the world with a mental equipment of useful habits that are as valuable to him as the knowledge he has gained. To take his notes comfortably, clearly, and so that they may be easily referred to and read in after years the student must have mastered shorthand, and the one defect that we notice in an otherwise admirable article is that this point is not emphasised so strongly as it deserves to be. The medical man who has made himself proficient as a phonographic note-taker in his early days gets so accustomed to rely upon shorthand that he instinctively uses it whenever he has need to make notes, and in his professional work he has abundant need to do so. Therefore it is with confidence that we urge upon all who are, or who propose to become, medical men to learn shorthand and to make it a daily companion of their studies."

*Aqua Pura* (Biggleswade) should consult an article which appeared in THE LANCET of Sept. 12th, 1891, page 628.

## THE LIMPET'S ADHESIVE POWER.

*Mr. J. Lawrence Hamilton*, who has been continuing his experiments on the adhesive power of the limpet, informs us that he has found that whilst a force of 35 lb. is required to remove a living limpet from the place to which it has affixed itself, 25 lb. suffices to displace a limpet immediately after poisoning with corrosive sublimate, and that a force of 9 lb. will detach the limpet twenty-four hours after death. From the experiments which he has made he thinks he may, perhaps, be justified in concluding that while some portion of the adhesive power may or may not be due to atmospheric pressure, a very considerable amount, if not the whole, is dependent upon the power of the creature to throw out a very tenacious substance. In favour of the latter view is the definite evidence of the absence of a vacuum beneath the foot, or of any mechanism whereby such a vacuum might be produced—such, for instance, as is seen in the suckers of the tentacles of octopi &c., and the fact that the adhesion continues after the death of the animal.

*Mr. R. V. Boyle*.—We are not aware that any medical practitioner has devoted more attention to the ailments arising from bicycle riding than to those arising from any other cause. Any properly educated physician or surgeon would be able to treat such troubles.

*Mr. D. T. Richards*.—We think our correspondent would be well advised by delaying—for a time at least.

*Mr. R. N. Ingle* (Jersey) is thanked for his suggestion and appreciation.

## HOSPITALS AND PRIVATE PRACTICE.

To the Editors of THE LANCET.

SIRS,—Much has been said and written about abuse of hospitals, but very little about the grievous abuse of private practice. When deductions are made for the hours consumed in hospital attendances, committee meetings and the various educational, public, social and semi-political engagements which make up the daily round of duty of a hospital physician or surgeon in London, the time at his disposal for seeing paying patients and thereby making a professional income is strictly limited. And yet most men in large practice are called upon to give a considerable portion of their time to seeing patients gratuitously. Many such patients are, it is true, medical men or those dependent upon them, or other worthy persons to whom it is at once a pleasure and a privilege to be of service; but a large number do not belong to this class, and would themselves be sorely puzzled to explain to their personal friends on what grounds they consider themselves entitled to receive medical advice for nothing.

Last week I received a letter from a gentleman asking me to see at home a young woman in whom he was "interested." I replied that I was about to resume hospital work and should be happy to see the young woman at the hospital. Upon this his wife sent the following touching appeal. I should perhaps state that, so far as I know, the only ground on which this lady could base her claim to her "favour" is that eleven years ago, at the request of her medical attendant, I performed an operation upon her for a very reduced fee, and that she subsequently paid me several professional visits, for which no honorarium was ever tendered.

"Sunday, Sept. 25th.  
"DEAR MR. —,—I am going to ask you a great favour; it is this. Would you mind the young woman my husband wrote to you about coming to see you in Harley-street, instead of going to either hospital? The fact is I am so nervous just now about infection, both for the girl (who is in my service) and the fear of her bringing any germ from an out-patient's department. She is a good girl, and I am most anxious to know your opinion about her. Once more asking forgiveness for troubling you,  
"I am, sincerely yours, "\_\_\_\_\_"

Ought I to have succumbed? I did not; but answered that as the demands upon my gratuitous services were already almost unbearable, and as in order to see a patient gratuitously I should have to decline one who would pay, I regretted I was unable to accede to her request, adding that as regards the danger of infection neither she nor her maid would at the hospital encounter any greater risk than my wife and children were exposed to every time I attended hospital.

I am, Sirs, yours truly,

Sept. 20th, 1892.

F.R.C.S.

*Mr. F. P. Trench*.—In the little calendar or register published by the Medical Council of British Columbia in May, 1892, it is stated that "during the year there shall be three regular meetings and three examinations held, beginning on the first Tuesday of May and September and the second Tuesday of January." The examination papers for May, 1892, are appended.

*An Advocate for Registration of Midwives*.—Our columns are intended for members of the profession. Our correspondent's letter is not without prejudice and admits of refutation.

*G. V. (Kidderminster)*.—We regret that we must decline to reply to our correspondent's first question. With reference to the second he should address the publisher.

*M.*—The paper shall have early attention.

## PUBLIC HEALTH AND LEGAL RESTRICTIONS.

To the Editors of THE LANCET.

SIRS.—You will much oblige me by answering the following questions through the medium of your valuable journal. In cases of infectious disease—(1) Is there any law to prevent the father of a patient, or the mother, going to work, supposing the father to work at a laundry or something of that kind? (2) Supposing the mother to be a midwife, can the medical officer of health restrain her from attending cases till after a certain time? (3) Can the children be restrained from playing or otherwise mixing with other children?

I am, Sirs, yours faithfully,

Grays, Sept. 21st, 1892.

SIDNEY H. SNELL, M.D.

\*\* There is no law directly covering any one of the three questions raised. The only assistance which might be looked for from the law is provided by Section 126 of the Public Health Act (1875), by which it is enacted that "any person who gives, lends, sells, transmits or exposes, without previous disinfection, any bedding, clothing, rags or other things which have been exposed to infection from any such disorder shall be liable to a penalty not exceeding five pounds." This provision includes clothing exposed to infection; but we doubt whether the clothing worn by persons attendant on, or otherwise coming in contact with, the sick would be included in its meaning.—ED. L.

THERE are many ways of procuring pure water besides that of filtering. M. Babes has proposed a method which consists in precipitating the minute organic ingredients contained in the water by shaking up the latter with iron filings, while a current of air is passed through the liquid. The novelty of this method lies in the use of the iron filings, which, in contact with the air, undergo a certain oxidation; but the general principle, as Dr. De Santi demonstrated before the Société Biologique of Paris, has long been known and practised, particularly in localities where the water is impure and unwholesome. In Southern Algeria and in Cochín-China the natives add to the suspected water a trace of alum; then they shake it, let it stand, and pour off the liquid portion. In the case of iron filings, however, probably the oxide formed by contact with air effects in addition oxidation of the organic matter.

*Advertising Handbills*.—Some of the bills &c. are twelve months old. We should have more recent evidence.

*New Subscriber*.—We think Ellis's plates are the best for the purpose.

## A TROUBLESOME SKIN AFFECTION.

To the Editors of THE LANCET.

SIRS,—I should be very glad if any of my brother practitioners who have met with a similar case to the following, and have treated it successfully, would give me the benefit of their experience.

A young married lady, twenty-six years of age, is troubled with severe, intermittent attacks of what I believe to be urticaria, which is developed whenever she goes out into the air, and more especially if there is much sunshine; the rash makes its appearance on all exposed parts—viz., face, neck and hands—when severe spreading over the chest and occasionally on other covered parts of the body. It is accompanied by intolerable itching, lasting from half an hour to two hours, and generally leaves severe headache after each attack. The rash eventually bears the characters of an ordinary attack of urticaria, following poisoning by mushrooms &c., and when seen for the first time would be put down to this cause. Constitutionally, she enjoys fairly good health, suffers at times from slight dyspepsia, is perfectly regular, and of constant habits. I have treated her, with especial reference to her digestive organs, with alkalies, bismuth, arsenic, liquor potassæ, bromide of ammonia, citrate of caffeine and nux vomica, but with virtually no real relief. Change of air seems temporarily beneficial only. Any suggestions will be most gladly received by  
Yours truly,

Sept. 26th, 1892.

PERPLEXED.

Justice should, if satisfied with his own diagnosis of the case, press for payment. His claim is not to be decided by the different opinion of the medical officer of health. The time which had elapsed does not affect the legality of the claim.

*Dr. Max Defrenne* (Antwerp) is thanked.

## SOUTH AFRICA.

To the Editors of THE LANCET.

SIRS.—Can any of your readers kindly inform me what supply of drugs, instruments &c. it is necessary for a surgeon about to settle in South Africa to take with him? I am, Sirs, yours faithfully,  
September, 1892.

W. B.

To the Editors of THE LANCET.

SIRS.—Can any of your readers who are well acquainted with the climatology of South Africa inform me of the districts best suited to a patient suffering from bronchial asthma?

I am, Sirs, yours faithfully,

Sept. 27th, 1892.

MEDICUS.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Alderson, London; Dr. Armstrong, Newcastle; Mr. Wm. Anderson, London; Dr. F. F. Anson, Whitehaven; Mr. Bond, London; Messrs. Burgoyne and Co., London; Dr. Bagshaw, St. Leonards; Messrs. Battle and Co., Paris; Mr. Brown, London; M. Berthier, Paris; Mr. R. Fitzroy Benham, London; Dr. G. C. Bright, Switzerland; Mr. T. B. Browne, London; Mr. W. W. Brydon, London; Dr. W. H. Broadbent; Dr. John Boyd, Llanamman; Dr. Barnett, Burton-on-Trent; Messrs. Cassell and Co., London; Mr. R. B. Carter, London; Messrs. Clark, Son and Platt, London; Dr. H. Cooke, Bombay; Mr. Craven, Argentine Republic; Mr. Cowell, London; Dr. Corfield, London; Mrs. Douglas, Piccadilly; Professor D. Di Bona, Sicily; Messrs. Dawson and Son, London; Mr. Deeping, Leicester; Mr. Diver, Jarrow-on-Tyne; Dr. J. Drummond, Malvern; Messrs. Eason and Son, Cork; Mr. Fleming, London; Dr. Gemmell, Glasgow; Mr. Griffin, London; Mr. Godfrey, Northampton; Dr. A. H. Haines, Bristol; Mr. W. R. Huggard, Switzerland; Mr. Heywood, Manchester; Dr. Hitchcock, Wilts; Mr. Hudson, Edinburgh; Mr. Hughes, Kingsland; Mr. S. T. Hutchinson, Cardiganshire; Mr. Jackson, London; Dr. Macnaughton Jones, London; Mr. Kappardaki, Athens; Messrs. Keen, Robinson and Co., London; Mr. Korr, Dundee; Mr. Lipton, London; Dr. A. P. Luff; Mr. W. A. Lane, London; Mr. Livingston, Inverness; Dr. P. Manson, London; Dr. J. L. Maxwell, Highbury-park; Dr. Stevenson MacAdam, Edinburgh; M. Henri Monod, Paris; Messrs. Maythorn and Son, Biggleswade; Mr. C. Mersier, Catford; Dr. Moritz, Manchester; Dr. Mackay, Spain; Mr. Moss, London; Messrs. Oliver and Boyd, Edinburgh; Messrs. Oppenheimer, Son and Co., London; Dr. R. Pye-Smith; Mr. Pentland, Edinburgh; Messrs. Parkins and Gotto, London; Mr. Pancoast, Camden, N.J.; Messrs. Perigeux and Co., London; Major-General Phelps, Edgbaston; Messrs. Reynolds and Branson, Leeds; Dr. R. R. Rentoul, Liverpool; Mr. J. P. Ryan, Melbourne; Mr. H. J. Rice, Cheshire; Mr. T. Ryan, London; Dr. F. Ransom, Cambridge; Mr. E. Skeat, Brighton; Messrs. Street and Co., London; Dr. Soldby, Grimsby; Messrs. Southwood, Smith and Co., London; Mr. G. V. Shann, Kidderminster; Messrs. Street Bros., London; Mr. Seymour, Coventry; Dr. Brown Séquard, Paris; Mr. H. Taylor, Brentford; Mr. J. W. Taylor, Birmingham; Mr. W. Bolton Thompson, Luton; Dr. F. P. Trench, Glasgow; Mr. John Tweedy, London; Dr. Tuckey, London; Messrs. J. and T. Usher, Bristol; Dr. W. H. White, London; Dr. Wiedle, Birmingham; Mr. Williams, Cardiff; Mr. Warner, Sheffield; Mr. Ward, London; Mr. Wilson, Doncaster; Mr. Wand, Leicester; Mr. J. M. Wills, Bootle; Mr. G. S. Wilson, Oxford; Messrs. Wyleys, Coventry; Messrs. Whitworth and Stuart, Manchester; A. B., Dorset; A. B. C., London; Alpha, London; A. G., London; Corland Wagon Co., London; Cambrian, London; F. P., London; General Apothecaries' Co., London; Gamma, London; Gresham College, London; Iota, London; Johnson, London Lex, London; M.R.C.S.E., Bournemouth; Malbino Co., Bournemouth; P. H. D., Cheshire; Public Health, London; Secretary, Denbighshire Infirmary; Secretary, Brighton Throat and Ear Hospital; Secretary, Royal United Hospital, Bath; Secretary, Eye and Ear Infirmary, Edinburgh; Williams, St. David's; Zeta, London.

LETTERS, each with enclosure, are also acknowledged from—Mr. Ainley, Halifax; Mr. Alexander, co. Donegal; Messrs. Anclzar Bros. and Co., Manchester; Mr. Bruorton, Upminster; Mr. Beatty, Peel, Isle of Man; Mr. Birkenhead, Walthamstow; Mr. Bunting, Nottingham; Mr. Blackburn, Barnsley; Mr. Crawford, Worthing; Mr. Cooke, Bhusaval; Mr. Daly, Leeds; Mr. Drewry, Buxton; Miss Dunstan, Chesham; Mr. Davies, Pontypridd; Mr. Dreaper, North Walesham; Mr. Dickson, Stockbridge; Mr. Ferguson, Beamish; Mr. Fitzgerald, Middleton; Mr. Flske, Maidstone; Messrs. Gles, Schacht and Co., Bristol; Mr. Grainger, Skipton; Mr. Green, Cumberland; Mr. Gunnell, Wrexham; Mr. Garrett, Cheltenham; Messrs. Gilyard Bros., Bradford; Mr. Hornbrook, Bloomsbury; Dr. Halpin, South Normanton; Mr. Hulme, Leek; Mr. Holthouse; Messrs. Hayward and Co., Bristol; Mr. Heslop, Southport; Mr. Hedden, Finsbury-park; Dr. Hector, Bradford; Dr. Jones-Humphreys, North Wales; Mr. Lewis, Walsall; Mr. Lucas, Bury St. Edmunds; Messrs. Lyne and Son, Grantham; Mr. Ling, Kighley; Messrs. Lumb and Bailey, Leeds; Mr. Madge, Shaldon; Rev. F. Miller, Wigan; Mr. Martin, Sandown; Dr. Murray, Sutherlandshire; Mr. Maughan, Tunbridge Wells; Mr. McDougall, Newhaven; Mr. McFadyean, Belfast; Mr. Norman, Teignmouth; Mr. Pratt, Northampton; Mr. Ryan, Rathdrum; Mr. Roberts, Henley-on-Thames; Mr. Rhodes, Huddersfield; Mr. Roberts, Wellington; Mr. Somerset, Newbury; Mr. Shepherd, Ilkley; Mr. Syme, Buxton; Mr. Savage, Notts; Mrs. Tyte, Minchin-hampton; Mr. Tickner, Ipswich; Mr. Thin, Edinburgh; Dr. Wood, Douglas; Mr. Wood, Leicester; Mr. Walker, Belfast; Messrs. Wilson and Son, London; Dr. Williams, Dolgelly; Messrs. White, Druce and Browne, London; Mr. Wright, Amptill Union; Messrs. Wilcox and Co., London; Mr. Warren, Coventry; Dr. Williams, South Wales; A. Z., London; Alkaloid, London; A. G., Colchester; Alpha, London; Bachelor, London; B. A. C., London; Bone, London; Bournemouth, London; Bee, London; B., London; C. M., London; Cambrian, London; C. H., London; Denia, London; D. O. N., London; David, London; E. P. C., Wandsworth-common; E. T., Kensington; Fletcher, Uttoxeter; G., London; H., Birkenhead; Invalid, London; J. T. B., Morecambe; J. W. R., Bristol; J. J., London; Medicus, London; M. N., Brixton; Nelson, London; Orion, Manchester; Principal, Suffolk; P., London; R. L., London; Secretary, Manchester Southern Hospital; S. T., London; Sigma, London; Secretary, Hospital for Consumption, Manchester; Spes, London; Secretary, Three Counties Asylum; T., Oldham; Tassarakonta, London; Thermometer, London; Urbanus, London; Voritas, London; W., Leeds; Y. X., Barnsley.

NEWSPAPERS.—Admiralty and Horse Guards Gazette, Leeds Mercury, Yorkshire Post, Electrical Engineer, Birmingham Argus, Bristol Mercury, Liverpool Daily Post, Eastern Morning News, Daily Telegraph, Hartlepool Guardian, Hants Gazette, North British Daily Mail, Kenilworth Advertiser, Bradford Observer, Dundee Advertiser, Cork Constitution, Windsor and Eton Gazette, West Middlesex Standard, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Mining Journal, Hertfordshire Mercury, Reading Mercury, Windsor and Eton Express, Surrey Advertiser, Architect, City Press, Insurance Record, Electrical Review, Australian Medical Gazette, Builder, Le Courrier de la Presse, Citizen, Pearson's Weekly, Law Journal, Australian Medical Journal, West Middlesex Advertiser, Pioneer Mail, Sala's Journal, Times of India, Kidderminster Shuttle, Chicago News, Local Government Journal, Runcorn Guardian, Manchester Evening News, Sunday Times, County Council Times, Whitehaven News, Le Temps (Paris), Western Morning News, &c., have been received.

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Introductory Address

ON THE

METHODS, OBJECTS AND AIMS OF STUDY.

*Delivered at St. Mary's Hospital at the opening of the Medical Session on Oct. 3rd, 1892.*

By ARTHUR P. LUFF, M.D. LOND.,  
PHYSICIAN TO THE HOSPITAL.

It has fallen to my lot to-day, in accordance with our custom here, to address a few words of welcome, counsel and encouragement to those of you who are now entering upon your medical studies in this school. Diffident as I feel of my power to do justice to the present occasion, especially when I reflect upon the names of those who have preceded me in the performance of this function, yet in one respect I feel no hesitation, and that is in the heartiness with which I congratulate you on your choice of a profession, and in the welcome which, in the name of my colleagues, I extend to you upon your entry into this school. Rightly worked at, the profession that you have chosen is indeed a noble one. Of it Thomas Carlyle has written: "What profession is there equal in true nobleness to medicine? He that can abolish pain and relieve his fellow mortal from sickness, he is indisputably the usefulest of men. Him savage and civilised will honour." If, however, you are ambitious of riches or of ornamental worldly honours, then you have not chosen a profession which is likely to bring you a plethora of wealth or titles; but if you are looking to the higher aim of human life the desire to minister to the well-being of the human race, at the same time that you earn for yourselves a fair though modest livelihood, then you will not, I think, ever have cause to regret your choice. In no profession are there such great and constant opportunities of doing the good work of relieving suffering and soothing sorrow as in ours, and in the pursuit of this activity for the happiness of others you will attain to the best form of happiness for yourselves—a reward far better than those of riches or of titles. I propose this afternoon to deal with the objects of your studies and work by briefly considering (1) the methods you must adopt here for the acquisition of the requisite education and training that shall fit you for the subsequent discharge of your professional duties as medical men; (2) the opportunities that are offered by your work for the moulding and development of the moral character, so as to fit you for the discharge of the ethical duties both of men and physicians; (3) the means offered you for the training of your powers of observation and thought, so that those of you who rightly avail yourselves of the opportunities may go forth fitted to become explorers and interpreters in the fields of medical science.

With regard to your studies here, let me say at once that though but average mental power and ordinary ability are all that are requisite for the successful prosecution of your studies, for the passing of your examinations, and for the after practice of your profession, yet the one thing that is indispensable is industry. I must honestly impress upon you that it is a laborious career which you have chosen, and one to which you must come with the plain, straightforward object of bringing all that science can teach you to the relief of a suffering humanity. Without determined, steady application no success of any real worth can come to the medical student of the present day. In your work you will find that the race is not always to the swift, and that it is not so much the possession of speed as of staying power that will serve you best in the career that is now before you. If any of you have come here with the idea that the life of a medical student is to be one mainly of pleasure, or with the prospect that you will be able to devote a large share of your time to the gaieties of London life, and a small share of your time to work, I say to such—at once abandon that idea, or at once abandon a career for which you can never be fitted. There is no place for the Bob Sawyer here; the days of walking the hospitals are over and past; these are the days of working in the hospitals. Once more let me repeat that steady application and perseverance in your work are the main factors for success

No. 3806.

here; the possession of exceptional ability is not necessary, but should there be, as I trust there are not, any now joining who are contemplating a life of indolence and pleasure, to such I would say at once and emphatically—abandon hope all such who enter here. I beseech you at this the outset of your medical careers to consider carefully and earnestly the responsibilities that you are incurring and will have to incur. Your subsequent professional careers and actions will be in great measure the result of the industry you display during the next five years. I beg of you to so direct your actions that no apathy in your work, no carelessness in your studies, no neglect of the business of your profession, may be the cause of your ever failing in the future to administer rightly the relief to suffering beings, or you will assuredly have to bear with you, through life, the burden of a conscience that will be constantly reminding you of precious lives lost through your want of skill, of misery brought to many a home as the result of your neglect, of the conversion, by your own fault, of capabilities entrusted to you of doing good into opportunities of doing evil.

I address you as one who has comparatively recently travelled over the part of the road you are now about to take, and as one acquainted with its windings let me point out to you the direction in which you should travel and some of the difficulties that have to be overcome. Do not think that I am contemplating the wearying or the worrying of you with the experiences of my life. I am not, and for the good reason that I am fairly convinced that it would not be of the least use to you. Experience you must acquire for yourselves, and the higher the price you have to pay for it, the greater the suffering through which you learn the more valuable will it be in aiding you to guide and direct your lives. It is doubtless a wise dispensation that individuals profit but little by the experience of other individuals. To those of you coming straight from school or college there will open up what I venture to prophesy will be a delightful change in the nature of your work. At school and college education consists too much in the study of the writings of the past, with a corresponding neglect of the study of the marvellous works of nature. There the ornamental has been given precedence to the useful; here you will find the order reversed. I do not wish to underrate the value of a classical education; it is doubtless, as society goes, the hall-mark of a certain social rank, but I do regret that in our preparatory schools and universities scientific education and training are so subordinated to that which is used more for extrinsic effect than for intrinsic aid in the actions of life.

At the outset of your medical studies you will probably be surprised, and perhaps alarmed, at the diversity of the subjects with which you have to form some acquaintance, and with the wide range of medical education of the present day. The relationship of some of these subjects to your future work and their direct or indirect utility in the practice of your profession may not at first be apparent to you. Let me assure you, however, that the curriculum of study and work which you have to pursue, and which has been mapped out for you with much forethought and care is one that well comprises what is necessary for your training and future success. In the study of those departments of science which precede the direct study of medicine and surgery due regard has been paid to the relationship they bear to medicine and surgery, and though this relationship, and therefore their utility, may not at first be apparent to you, yet eventually you will surely recognise the mutual connexion existing between the various branches of your professional studies. Take, for instance, the subject of chemistry. No one, I presume, will deny that chemistry is a most important and useful science; but the question to you is not whether chemical knowledge is of worth, but what is its relative worth. Remembering how the time for the acquisition of knowledge is limited by our "span-long lives," we must necessarily be careful to employ that time to the best advantage, or, to use an expression of Bacon's, "we must determine the relative values of knowledges." This, I claim, is well done for you in the curriculum of work that has been drawn up for your guidance, and which you will have to faithfully follow here. Although we speak of physics, chemistry, biology, physiology &c. as sciences, do not think that they are distinct branches of knowledge, having no relation to each other. In nature there is no distinction between the so-called sciences; the distinction is a purely artificial and conventional one. It would be better that they should be spoken of as branches of science, for by science is simply meant organised knowledge. The study

of physics, chemistry and biology will prepare the way for, and lead you up to, the study of physiology, and so you will obtain the firm scientific groundwork for the study of the disorders of the human body, which is to be the field of your ultimate special work. Our forefathers adopted an entirely different system of medical training. With them a period of pupilage with a medical man preceded the studies of the medical school; so that the student of those days was first brought face to face with disease before he had learnt the facts and phenomena necessary for the comprehension of it. That, I venture to think, was a most baneful system; it was the building of the house on the sands of empiricism, instead of its erection on the rock of scientific knowledge.

Here let me point out to you that the training through which you have to go to thoroughly fit yourselves for the relief of suffering is one excellently adapted to intellectual development. In the medical school and in the hospital you will be brought face to face with facts, you will be taught to search out and learn for yourselves the truths of nature, and proceeding step by step in your observations, from simple to more complex phenomena, you will, by the inductive method of reasoning, learn the laws which regulate the order of nature. Nature does not deceive those who patiently and laboriously study her immutable laws, though from those who run counter to them she exacts a sure and certain retribution. At this the outset of your medical careers you are doubtless making good resolutions; you are doubtless determining to earnestly apply yourselves to the work that lies before you. That is well. But remember to carry those resolutions into effect. Bear in mind the words of Carlyle: "The end of man is an action and not a thought." I do not wish to underrate the value of good intentions—they are most valuable if followed by good actions. "Good intentions are at least the seed of good actions, and every man ought to sow them." It has been said that man has two lives—that of action and that of thought. Learn therefore the blending of thought and action in the practice of your profession; they are not separated, but related, for action is concrete thought. There are but three classes of men—the retrograde, the stationary and the progressive. To which of these will you belong? It is no use saying that during your first year here you can take it easy and enjoy yourselves, and that you will make it up later on. You never will make it up later on. I would therefore impress upon you at the outset the value of a proper method of disposing of both time and energy and advise each one of you to adopt some method or plan in your work. Commit to writing a time-table for your daily duties both here and at home and rigidly adhere to that time-table. Let your reading time for each evening be arranged so as to rightly apportion your hours of work to the different tasks and subjects. You will not only by such method get through more work than you otherwise would, but your knowledge, if thus systematically acquired, will be more accessible to you when required for use. A writer of distinction says that there are two species of so-called practical minds. One sort of mind is constructed according to the carpet-bag pattern, where nothing is put in any order, and, to find any article, everything else has always to be turned out. The other is the museum sort of mind, in which every specimen is arranged and labelled in proper sequence, and whatever is wanted is always easily found. As a finish to the daily work there is a very useful rule recommended by Pythagoras—to review every night before going to sleep what we have done during the day. This daily settling of the debit and credit account will give you a clear idea of how you stand. But do not devote all the time given to study to the mere learning and ingestion of facts; some part of the time should be devoted to the careful consideration of them—to the processes of mental digestion. The acquisition of knowledge is not everything—what is more important are the digestion and organisation of knowledge, so as to adapt it to the practical uses of life; and for this digestion and organisation time and spontaneous thinking are required. As Humboldt remarks, "the interpretation of nature is obscured when the description languishes under too great an accumulation of insulated facts." Side by side with the acquisition of facts should go the cultivation of the power of observation. I cannot too strongly impress upon you the importance of observing for yourselves, and you will have manifold opportunities of doing so if you will only avail yourselves of them. The accumulation of the occurrences that you observe will constitute your experience, and from such experience, aided by your reasoning faculties, will issue

your actions. The more you observe the more enjoyable will life, in the fullest sense of the term, become. But in connexion with your studies you will necessarily find the acquisition of many of the details wearisome, and you may be tempted to regard some of those details as useless and trifling. It is not so.

"Think nothing trifling, tho' it small appears;  
Sands make the mountains, moments make the years,  
And trifles—life."

Schopenhauer says: "A man shows his character just in the way in which he deals with trifles—for then he is off his guard." Do not be either surprised or dismayed if you at times feel a spirit of despondency arising at the thought that apparently you are making no progress, that however hard you may work little or no headway seems to be made. Remember that it is frequently impossible to detect your progress day by day. The knowledge is surely being acquired, and, if you persevere, I venture to affirm that no one will be more surprised than yourselves at the result of your efforts. Honest work is of all things the most ennobling, and the greatest stimulant and the fullest delight in life come from the struggle with and the overcoming of difficulties.

"Strive, endeavour; it profits more  
To fight and fall than on Time's dull shore  
To remain an idler ever.  
For to him who bares his arm to the strife,  
Firm at his post in the battle of life,  
The victory falleth never."

Moreover, let me remind you that the display of interest in your work and the energetic discharge of your duties constitute a great encouragement to your teachers and furnish a direct stimulus to them in their work of instruction. Nothing is more discouraging and depressing to a teacher than to see a student sitting in the lecture theatre or class-room looking bored and uninterested, and taking no notes—perhaps not even possessing a note-book. It requires no great gift of prophecy to foretell that man's future—there is written upon his brow failure in his examinations, failure in life. Bear in mind therefore that amongst the influences at work in a medical school and hospital like this, the influence for good or ill is not only from the teacher to the student, but that your lives affect and react on ours. We are, after all, only students together, the older ones helping the younger ones, the younger ones encouraging by their enthusiasm and earnestness the older ones. "It is by teaching that we teach ourselves, by relating that we observe, by affirming that we examine, by showing that we look."

Among your various studies, do not neglect one which is most important—the study of the human individual. Symptoms of disease must not be studied in an isolated manner, they have to be considered in connexion with the constitution of the individual and the circumstances under which they arise. Your success as doctors will not consist merely in the interpretation of symptoms, but in your recognition and appreciation of the peculiarities and idiosyncrasies which go to make the individual, and in your powers of adapting yourselves to a right comprehension of the different individuals with whom you have to deal.

The new five years' curriculum which has come into force this year will, I think, prove a boon to you, in that it will enable you to do thoroughly what it was almost impossible to accomplish under the four years' curriculum. With the exception of biology, no new subject is interpolated into this extended curriculum, but one most important and useful reform has been introduced, and that is that a certificated course of study at a fever hospital is now insisted upon as part of the curriculum. I rejoice at the institution of this reform, for it is most essential that you should obtain a practical knowledge of the principal infectious diseases before you go into practice, not only that you may diagnose them correctly and by their early recognition take means to prevent their spread, but also because under the Infectious Disease Notification Act that came into force in 1889 a power is placed in your hands which is almost the power of the *lettre de cachet*. There is one other reform which I trust we shall ere long see instituted, and of which those of you who are now commencing your curriculum will in all probability be able to avail yourselves five years hence, a reform which is sorely needed as a matter of justice and equity to the majority of London medical students, and that is the establishment of a university in London where the degree of Doctor of Medicine will be within the reach of all medical students, and where it can be obtained by a less rigorous series of examinations than the present somewhat

exclusive degree of the University of London. A Royal Commission has been appointed to recommend a scheme for establishing a new university, and I devoutly hope that their deliberations will shortly bear fruit.

So far I have referred only to your professional studies, but do not restrict your education to purely professional subjects and books. Let your reading be general, and through books cultivate the acquaintance of great minds. Just as by ascending to a height the view becomes broadened and the eye can take in so much more, so does general cultivation elevate the mind and give to it a broader and a grander view. Therefore fill up the leisure left by graver occupations with the different forms of lighter and pleasurable occupations, with the perusal of the works of novelists, of poets and with music. Do not crush beauty and poetry out of life. Allow the imagination and the emotions fair play. You will not be efficiently equipped for the discharge either of your professional or social duties if the acquirement of deep information on medical matters has been obtained at the cost of general culture in literature and the fine arts. Herbert Spencer says of the cultivation of literature and the fine arts: "As they occupy the leisure part of life, so should they occupy the leisure part of education." But however engrossed you may become in your studies, never lose sight of the necessity of carefulness of your health and of the need for daily recreation. The acquisition of knowledge is not the only thing needful. The first requisite to success in life is a healthy body, and the best brain is of little service unless there be sufficient vital energy to work it. Remember that success in the medical profession depends much on energy, not altogether on information. Never forget the great value of health as the chief and most important factor in happiness. In primitive times, when muscular power was the chief factor for success in life, the cultivation of the body was the main desideratum, and the cultivation of the mind was almost if not entirely neglected. Now the pendulum has swung perhaps too much in the opposite direction, and excessive devotion to mental education has resulted in a corresponding neglect of bodily education. We must thoroughly realise the fact that physical development underlies mental development, and that a high mental development can never be attained at the expense of the physical one. And here I am happy to say that at the medical schools recognition of this fact is well shown in the endeavour of our students to combine work with play, as illustrated by our various athletic and sports clubs. Some of the sports, however, such as football, cricket, rowing &c., are not immediately accessible, and therefore without the slightest intention of underrating the value of those sports, let me mention one which possesses peculiar advantages to the student residing in London and to the healthful influence of which, on my own life as a student, I can well testify—I refer to cycling. But I refer to rational cycling, not to the horrible exhibitions of cycling too frequently seen in our streets nowadays, not to the individual who, with crooked back and head dangling over the front wheel, tears along indifferent to the safety and comfort of others, and who is so aptly compared by the observant gamins of the London streets to a "monkey on a gridiron." I think too that it is time that we, as members of the medical profession, whilst advocating the immense benefits of athletic training, should raise our voices against the growing evils of athletic straining. A few days ago you might have read in the papers that a bicyclist rode 421 miles in twenty-four hours—that is, that, not allowing for any stoppages, an average pace of over seventeen and a half miles an hour had to be maintained for the twenty-four hours. What a frightful strain to subject the heart and vessels to, what a terrible overtaxing of the powers of the nervous centres, what a fearful price will assuredly have to be paid in the future for the vainglory of having established a *record*!

I have been a cyclist for sixteen years, and in my earlier athletic days I frequently associated with, and therefore had the opportunities of observing, young men who at that time stood prominent in the athletic world as champions and record-breakers, many of whom, alas, now sleep the long sleep, hurried prematurely to their graves by the insane desire for so-called fame of record-breaking and prize-winning.

I pass now from the question of physical training to say a few words concerning moral training. In the first place, with regard to your dealings with the patients in the hospital, be cheerful and kind in your manners to them, showing at all times that delicate consideration for the feelings of others

of which poor and rich are almost equally appreciative. The manners and address that you adopt towards the patients here will be those that will in great part remain with you when brought in contact with your private patients later on. But especially endeavour to be cheerful. It appears to me that in these days of competition and hurry men and women do not sufficiently cull the little wayside flower of cheerfulness. It will make you and others the happier if you will stoop and pick it as you trudge along the highway of life. With regard to the selection of your companions here, be slow and careful in forming acquaintances, for the character of these will probably affect your whole future career. You will, I hope, form many strong and lasting friendships here, but above all make yourselves pleasant companions for yourselves. "What a man has in himself is then the chief element in his happiness," says Schopenhauer. Self-discipline and self-control strengthen the moral fibre; self-improvement means not only self-elevation, but an addition to what should be our highest ideal—the perfection of humanity. In addition to learning the cure of disease and the alleviation of pain you learn here the laws of health, and therefore you will know, or should know, how to shape your lives so as to best conform to those laws; and it is by so conforming or not to them that you will set an example, good or bad, to others in the conduct of their lives, for every man's life, directly or indirectly, knowingly or unknowingly, affects those of others. The medical man should be a moral teacher, showing by the example of his life the lives that others should lead, for to him is given in a very high degree the opportunity of influencing the lives of those of his fellow creatures with whom he is professionally and otherwise brought in contact. There is a constant struggle between the sensual and the spiritual sides of ourselves, between the desire to do that which merely brings ephemeral pleasure or gratification and between that which the prompting of the better instincts tells us to be right and good. The outcome of these struggles must determine for good or ill our characters; according to the side on which rests victory is the position that we take, high or low, amongst our fellow men.

"Our little lives are kept in equipoise  
By opposite attractions and desires!  
The struggle of the instinct that enjoys,  
And the more noble instinct that aspires."

Remember always that it is only patient, hard work that can fit you for the discharge of life's duties—by such means only can you hope to attain to eminence in your profession. Do not think to ever attain it by some happy accident, by some stroke of luck. Believe not in luck, in chance. Those who ascribe the rise of an individual to luck do not think of or recognise the years of toil and self-denial, the struggles and the self-conquests, that have preceded the attainment of his present position. We should all endeavour to clearly recognise how great is the power which man may exert over his own destiny, the power as to whether out of himself he can raise a noble intellectual edifice or reduce himself to a moral and physical ruin. Do not delude yourselves, as so many do, by saying, "Circumstances have not favoured me; luck has not befallen me." Nothing of the kind!

"Man is his own star; and the soul that can  
Render an honest and a perfect man  
Commands all light, all influence, all fate;  
Nothing to him falls early or too late.  
Our acts our angels are, or good or ill,  
Our fatal shadows that walk by us still."

Bad actions, though unseen, though unknown to our fellow creatures, are not without influence on our lives. Evil actions, even if counteracted by good ones, still leave their marks—they are indelible. Perhaps it is well so. The memory of past misdeeds may prevent their repetition. Let me tell you a simple little anecdote. A boy whose resolutions were good but whose actions were frequently perverse was told by his father to go and drive a nail into the door-post for every bad act he committed. He shortly came to his father and with a sorrowful face informed him that there was a crowd of nails in the post. "Well, my son," replied the father, "for every good action you do henceforth go and pull a nail out." Some time later the boy came to his father and said, "The nails are all out; but, father, the marks are still there."

I lastly have to say a few words as to the opportunities that will occur to you for the training of your powers of observation and of thought. The work, and especially the clinical work, that you will do here is so arranged as to stimulate thought and to promote the cultivation of independence

of judgment. Knowledge and intellectual cultivation should be acquired side by side. By knowledge I mean the mere possession of truths; by intellectual cultivation, the acquired power of applying those truths. At the present time I think we may fairly say that Voltaire's satirical remark that an apothecary is a man who pours drugs of which he knows little into a body of which he knows less does not altogether apply to the physician of to-day. We are day by day learning more of the relations of the organism to its surroundings, and instead of endeavouring, as in the past, to treat the organism quite independently of its surroundings, in the recognition that a disturbance of these relations means disease and that a restored harmony between them is health, we are rising to a juster conception of our duties as healers of disease. One of the chief hindrances perhaps to development in our profession is an undue respect for so-called "authorities in medicine." The only sure road to truth is devotion to independent inquiry; and here let me remark that medical science is, in my opinion, markedly different from many other sciences, in that the field of original observation and work is open to all members of the medical profession, high and low, from the hospital physician and surgeon to the humblest general practitioner. Each one may alike contribute in his own way, by careful observation of disease, his share of new facts, or the fresh application of old ones; each one may help to increase the store of human knowledge; each one may render some assistance in advancing our powers of usefulness to our fellow creatures; each one may, by adding his increment, however small, to our knowledge, help to demonstrate the truth of Bacon's aphorism, that the end of knowledge is the well-being of the human race. To do this you must acquire the habit of recording your observations and not trust to unassisted memory. When you meet with symptoms in a patient that you do not understand do not be in a hurry to explain them; wait till you have investigated their causation. "Wise men investigate, while fools explain." An anecdote is told of a young doctor who, in his out-patient room, was learnedly explaining to the students around him the reasons why the right eye of the patient before him was somewhat different from the other. In the midst of a most erudite disquisition on the obvious nerve lesion which was responsible for the greater size of the right pupil, and for its not contracting to light, he was quietly interrupted by the patient with the remark that the eye he was referring to was an artificial one.

Here let me say a few words as to the important bearing on medicine of a branch of science for which I must own a personal attachment and predilection. I refer to chemistry. I am well aware that many of you will not be able to give more than a small share of your time to the study of chemistry, but to those of you who can spare the time to acquire a more extended knowledge of that science I venture to assert that you will become possessed of a factor most useful in the treatment of disease and most potent in aiding the discovery of some of the hidden secrets of the causation of disease. I do not think it is too much to expect that in the future we shall ascertain exactly how drugs act; that in connexion with many diseases, and especially in the case of the infectious diseases, we shall discover the poisons produced within the human body to which the symptoms of those diseases are due; and that, having discovered those poisons, the method of destroying them or rendering them innocuous by antidotes may be found. To those of you who can rightly use it I think it will be found that the light of chemistry will illumine many a dark corner of the still unexplored regions of the continent of disease. Therefore, whether in the direction of the discovery of new facts or in the fresh application of old ones, strive at forging a few links in the chain of progress for yourselves and so leave some marks on life's highway by which you may be remembered when dead and gone.

Although some measure of success has been attained of late years in the treatment of diseases of the individual, yet a much greater measure of success has been obtained in the prevention of the diseases of communities; and in the future preventive medicine will doubtless attain to a much higher degree of perfection. Small-pox has by vaccination and improved sanitation become almost banished from the realm of disease, and indeed in its old virulent form is now in this country simply a matter of history. Cholera, on account of the sanitary and preventive measures we adopt, is unable, as you have recently been made aware, to gain any foothold in this country. I take it as a truism that the prevention of disease is a much higher and grander aim of medical science

than its amelioration or cure. It therefore behoves us, in the furtherance of this enormously important work of preventive medicine, to look out that we are not left hopelessly in the rear by other countries, for to the advancement of what is so obviously of the greatest national importance a great obstruction has been offered in this country by what I am compelled to call the hysterical anti-vivisection movement. We, as members of the medical profession, are as much opposed to cruelty and to the infliction of unnecessary suffering on the lower animals as any members of the community, and I most thoroughly agree with the provisions in the Act of 1876, that painful experiments, with the rarest exceptions, must be made when the animals are unconscious under anaesthetics. I presume that even the most advanced opponents of so-called vivisection will agree that the lessening of the sum of suffering should be one of the highest aims of every human being, and if the abolition of much suffering and the saving of the lives of thousands of human beings can be secured even at the cost of the infliction of some pain on a few of the lower animals, is not such action not only justifiable but righteous? Moreover, the term "vivisection" is an erroneous one, and one that conveys an entirely false impression. The so-called vivisection experiments performed in this country are simply operations performed on animals, with the same skill, with the same antiseptic precautions, and with the same freedom from pain, as the operations practised on human beings, or else they consist of hypodermic injections which involve an infinitesimal amount of pain. The fact is that the utility and necessity for experiments and observations on animals cannot be rightly estimated by an unskilled public. I do not for a moment dispute that these sentimentalists are actuated by the most benevolent feelings, but I would ask them to direct some of their energy to the prevention of some of the cruel operations practised on animals to fit them for human food or labour, or to the altogether unnecessary and cruel suffering that is inflicted in the name of sport. If I, as a medico-legal expert and in the interests of justice, perform the almost painless experiment of injecting a poison into a mouse in order to observe its effects, the strong arm of the law can fall heavily upon me, although I am engaged in the vindication of the law; while at the same time the most horrible infliction of pain and suffering is permitted and even applauded at aristocratic pigeon-shooting matches, in pheasant preserves, in the hunting to death of terror-stricken foxes and tame stags; yea, in the last-mentioned instance it is even fostered and subsidised by the State. While these cruelties are allowed to continue the well-intentioned sentimentalists and opponents of so-called vivisection are straining at an infinitesimal gnat and swallowing a mammoth camel. Instead of impeding the advance of science, let them turn their attention to the suppression of this daily hecatomb of helpless animals, butchered to make an English holiday.

As you go through the course that has been arranged for you, and as you gain an increasing knowledge of the marvellous organisation and working of the human body, the more you learn, the more you will find that we are still unacquainted with what actually is life, that the sovereign reigning over all these states, the soul, is to us intangible, invisible. The more you learn, the more you will recognise that "there are more things in heaven and earth than are dreamt of in our philosophy." I deny the reproach that has been uttered, that where there are three physicians there will be found two atheists. To my mind it implies a very superficial acquaintance with science which can lead men to dogmatically assert that life is nothing more than the outcome of a series of chemical explosions taking place in certain cells, as if man were omniscient. To such the words written by one of the world's greatest philosophers will apply—"Though a small draught of philosophy may lead a man into atheism, a deep draught will certainly bring him back again to the belief of a God." Perhaps no other profession than ours better teaches and inspires the true religious feeling "that holiness is an infinite compassion for others; that greatness is to take the common things of life and walk truly among them."

Now my task is finished. I have endeavoured to give you, in a manner I know all too imperfect, a few words of encouragement and counsel at this the outset of your careers. Aim at aiding the great work of medical progress, aim at making your lives such that you will be ready, when the call shall come, to pay back again the talents you received, but ready also to pay them back with

usury. Believe me, if you will start with noble aspirations and will honestly endeavour to act up to them through life, then a successful, useful and honourable career is assured to you; and at the close of a life so spent, when the sun is setting and the twilight is gathering, there will come to each one of you the inestimable satisfaction of hearing the voice of conscience, the voice of God, saying, "Well done, thou good and faithful servant."

## Introductory Address

ON

### THE POPULAR IDEA OF THE DOCTOR TWO HUNDRED YEARS AGO AND NOW.

*Delivered at the Yorkshire College, Leeds,*

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I wish to address myself specially to those among you who are my fellow medical students. I call you so purposely, for, however old we may live to be, and however many degrees or diplomas we may succeed in obtaining, we shall still be students of medicine to the end of our days. What am I to say to you? Shall I tell you of the nobility of the profession which you have joined? Shall I speak to you of its astonishing advances—advances so amazing that many like myself, who have seen some of the greatest of them, never cease to marvel at them, albeit a day hardly passes without our making practical use of them? Have I anything new to tell you about the best way in which you may conduct your medical education and fit yourselves for your future life? I was thinking of all these things the other day when I chanced to open an album in which were the portraits of many of my old teachers. I have always been a confirmed hero worshipper. I am sure it does a young man good to have his heroes and adore them and be enthusiastic about them and believe they can do no wrong. One of the faults I have to find with your modern Cambridge and Oxford man is that his motto is *nil admirari*. With him it is the height of good breeding to utter short sentences in a monotone, to preserve a frigid calmness, and to gaze with an equally stolid and bovine eye upon a drunken cabby or a transcendent genius. Only do his pulses quicken when he comes to the consideration of a shirt collar or "the nice conduct of a clouded cane." I confess I cannot bear a fellow who stifles his natural, hearty emotions like a man sitting on the safety-valve of a boiler. To return, however, to the album. As I turned over its leaves I came to the portrait of Syme and looked at the keen, shrewd, somewhat stern face of the Napoleon of surgery, whom in my youth I had constituted my surgical hero, and whose memory I still revere. A few pages further on I came to a beautiful head—a head almost classic in its outlines, and surmounting a tall and stately frame. I recalled the gentle, tender eyes, and the mouth, which, when in repose, gave to the rest of the countenance a tinge of melancholy, but which, in happy moments, could shape itself into a smile of surpassing sweetness. The face was that of Warburton Begbie, physician to the Edinburgh Infirmary. As a student one used to dream day dreams of the future. If ever I pictured myself as a great physician, when I looked closely into that picture it was the portrait of Begbie that I saw. So he became my medical hero. There are some here who will recall him as vividly as I do, and who can tell you for what good he influenced their lives by his own. Of his great eminence as a physician and of the quality of his contributions to scientific medicine I need say nothing. They are still fresh in the memory of those who are best able to estimate their value. As a teacher he had no rival in Edinburgh when I was a student. But while there have been many great physicians and many great clinical teachers, Begbie was not only both, but he was also the gentlest and most kindly of men. When he entered a ward a new light seemed to shine in the faces of the sick. In sooth, something to illuminate their lot was much needed in the dirty, dreary medical wards of the old Edinburgh

Infirmary. The very way in which he would put his hand on a patient's shoulder seemed to give the invalid comfort and strength. It was a great lesson to us young lads. We were full of health and life and hope; somewhat too apt to think that these sick people were only pathological curiosities and that we should never have trouble and disease like them. But there stood our master, who had seen much human suffering; who had had not a few trials to bear himself; and every day he taught us not only lessons in medicine, but lessons in courteous and considerate demeanour to the poor. I have always thought of him in my own mind as the gentle doctor, and I have always striven in the hospital ward and in the clinical theatre to imitate his example. People have often said to me that after many years of surgical work a man must become case-hardened. What a mistake! The more blood a surgeon sheds, the more readily do the tears come into his eyes.

As I was musing about my old master it occurred to me that he was essentially a product of the present day and the current of my thoughts took me back a couple of centuries, which is about as far back as we know anything real about the lives and the manners and customs of doctors. Before that time all is imagination and mystery. How could a comparison best be instituted between then and now? Probably by ascertaining what was and what is the popular idea of the medical man of the period. But who is to tell us? The novelist will. The dramatist will. The painter will. At any rate, so it has appeared to me, and I purpose to take one of each from the seventeenth century and one of each from our own day and see what they individually have to tell us about the doctor.

At the end of the seventeenth century lived Alain René Lesage. He wrote the history of "Gil Blas." In it he has drawn a caricature of the doctors of the day. Doubtless it is a caricature, but, after all, a caricature is only an exaggeration of the salient points of the individual portrayed. Sangrado is immortal. As long as there are doctors he will never die, and for all time, when anybody wants to poke malicious fun at us, Sangrado's memory will be used to poison the shaft of ridicule. You remember the description of him. "A tall, withered, wan executioner of the Sisters Three, who had done all their justice for at least these forty years. This learned forerunner of the undertaker had an aspect suited to his office:—his words were weighed to a scruple, and his jargon sounded grand in the ears of the uninitiated. His arguments were mathematical demonstrations, and his opinions had the merit of originality." There was no doubt about the last statement, for, after taking six good porringers of blood from the old licentiate Pedrillo, he says to Gil Blas: "It is a mere vulgar error that the blood is of any use in the system—the faster you draw it off the better. A patient has nothing to do but to keep himself quiet; he has no more occasion for blood than a man in a trance. Drink, my children; health consists in the pliability and moisture of the parts. Drink water by pailfuls. It is a universal dissolvent: water liquefies all the salts. Is the course of the blood a little sluggish, this grand principle sets it forward. Too rapid, its career is checked." Let me recall to you the scene where the notary is summoned to make the licentiate's will. "The notary," says Gil Blas, "was a dapper little fellow, who loved his joke, and he inquired who our physician was. At the name of Dr. Sangrado, hurrying on his cloak and hat, 'For mercy's sake,' cried he, 'let us set off with all possible speed, for this doctor despatches business so fast that our fraternity cannot keep pace with him. That fellow spoils half my jobs.'"

We really must not part from Sangrado without one more touch. After Gil Blas has been Sangrado's partner for a while he becomes dismayed at the fearful mortality which their treatment seems to produce and says: "If you will take the hint, Sir, we had better vary our system. Let us give, by way of experiment, chemical preparations to our patients. The worst they can do is to tread in the steps of our pure dilutions and our phlebotomising evacuations."

"I would willingly give it a trial," rejoined the doctor, "if it were a matter of indifference, but I have published on the practice of bleeding and the use of drenches. Would you have me cut the throat of my own fame as an author?"

"Oh, you are in the right," resumed Gil Blas; "our enemies must not gain the triumph over us. They would say that you were out of conceit with your own systems and would ruin your reputation for consistence. Perish the people! Perish even the nobility and clergy, but let us go on in the old path."

This is all exquisitely funny, but in one sense it is very terrible reading, for it is obviously so true to the life. The

English translation was made by Dr. Tobias Smollett. I wonder what he thought of Sangrado. After all, I do not suppose he considered it a very far-fetched description. Look at his own novel, "Roderick Random," written a hundred years later, and containing much of his own early experience as a surgeon's mate in the navy. Could anything be more degraded than the position of a very large section of the medical profession even at so much later a period?

Turning to the drama, it is somewhat curious to note that while Shakespeare, with the exception of the Apothecary in "Romeo and Juliet," hardly makes any allusion to medicine, Molière constantly introduces medical characters into his plays. Sad to say, they were invariably brought in for the purpose of being satirised and held up to scorn. In his celebrated plays, "Le Malade Imaginaire" and "Le Médecin malgré lui," and in the smaller pieces, "Le Médecin Volant" and "L'Amour Médecin," he is so severe upon the doctors that he almost seeks an opportunity for excusing himself. In "Le Malade Imaginaire" he makes Argan, the imaginary invalid, say:

"Your Molière, with his comedies, is a fine, impertinent fellow! I think it is like his impudence to go and bring upon the stage such worthy persons as the physicians." To which his brother Béralde replies, "He does not make fun of physicians, but of the ridiculousness of physic." Béralde is always very severe upon the medicos, and when his invalid brother says to him, "But doctors must believe in the truth of their art inasmuch as they make use of it for themselves," he retorts: "That is because there are some of them who actually share in the popular errors by which they profit, and others who profit by them without sharing in them at all. Your Dr. Purgon, for instance, does not discriminate very clearly. He is a thorough-going physician from head to foot—a man who believes in his rules more than in all the demonstrations of mathematics, and who would think it a crime to wish to examine them. He sees nothing obscure in physic, nothing dubious, nothing difficult. With an impetuosity of prejudice, a stiff-necked assurance, a coarse common sense and reasoning, he flies to bleeding and purging, and stops at nothing. You must not owe him a grudge for anything he might do to you, for he would despatch you with the most implicit faith. In killing you he would only do to you what he has done to his own wife and children, and what, if there were any need, he would do to himself."

There is a most delicious interview between the invalid and a certain Dr. Diafoirus, who is accompanied by his son, young Dr. Thomas Diafoirus.

"Argand: Pray, sir, just tell me in what condition I am.  
Dr. Diafoirus (feeling the pulse of Argand): Come, Thomas, take hold of the other arm of this gentleman, to see whether you can form a good judgment of his pulse. *Quid dicis.*

Thomas: Dico that this gentleman's pulse is the pulse of a man who is not in good health.

Dr. D.: Good.

Thom.: That it is hardish, not to say hard.

Dr. D.: Very well.

Thom.: That it acts by fits and starts.

Dr. D.: Bene.

Thom.: And even a little irregular.

Dr. D.: Optime.

Thom.: Which is the sign of intemperature in the splenic parenchyma, which means the milt.

Dr. D.: Very good.

Argand: No; Dr. Purgon says that it is my liver which is not right.

Dr. D.: Well! yes. Whoever says parenchyma says both the one and the other, on account of the close sympathy there is between them through the vas breve and the pylorus, and often through the meatus cholidici. He no doubt orders you to eat much roast meat.

Argand: No! nothing but boiled.

Dr. D.: Well! yes. Roast, boiled—the same thing. He prescribes very carefully for you, and you cannot be in better hands."

"Le Malade Imaginaire" closes with an interlude, a burlesque ceremony of admitting a doctor of medicine into the Faculty. The stage directions, after describing the hall, say: "Then the whole assembly, composed of eight syringe bearers, six apothecaries, twenty-two doctors, and the person that is to be admitted physician, eight surgeons dancing and two singing, enter and take their places, each according to his rank." There is a president, who invites members of the

assembly to "heckle" the candidate. The whole is spoken in dog Latin, with an admixture of French, Italian and Spanish that is extremely diverting, but quite untranslatable. Whatever be the question, the candidate has only one answer, "Clysterium donare, Postea seignare, Ensuita purgare," and at once the chorus bursts out into "Bene, bene, bene responderere: Dignus, dignus est intrare In nostro docto corpore." One doctor propounds a case to him with the usual answer. "But what is to be done if the case won't get well?" says the examiner. "Reseignare, repurgare et reclysterisare," cries the candidate, while the chorus roar out, "Bene, bene, bene, bene responderere." Finally, clapping the doctor's bonnet on the bachelor's head, the president gives him his licence to practise, with the right of physicising, purging, bleeding, piercing, slashing, cutting and killing throughout the whole land. "Ego, cum isto boneto Venerabili et docto, Dono tibi et concedo Virtutem et puissanciam Medicandi, Purgandi, Seignandi, Perçandi, Taillandi, Coupandi Et occidendi Impune per totam terram." The whole interlude constitutes perhaps the funniest satire on medicine that ever was written.

Now for the painters. In the house of a friend of mine hangs an old engraving by Nanteuil called "Le Bassin." It is a representation of a doctor holding in one hand an earthenware vessel containing excreta of some sort, to which he is solemnly pointing with the forefinger of the other. He wears a gown. His head is adorned with a kind of big flat cap, from beneath which flows his long hair. Round his neck is a fur collar, and large white bands hang from below his chin. His eyeglasses are somewhat awry on his nose, and he is evidently giving forth some portentous prognostication as the result of his examination. A glance shows him the incarnation of quackery. Beneath the picture are some verses in old French, the sense of which may be expressed thus:—

Doctor! this precious mess test well,

And from its savour, from its smell

Your prophecies declare

Your skill should soon procure at least

A burial service for the priest,

Whose fees you'll gaily share.<sup>1</sup>

The same form of sarcasm is seen in the famous picture, "La Femme Hydropique," and in many other productions of the Dutch and Flemish artists. It comes out at a much more recent date in the savage caricatures of Gillray. I saw one the other day in which the peasants of a village are represented shooting their rubbish. A great crowd follows three wheelbarrows in which three individuals are being wheeled away. In the first is an attenuated wretch with bag and papers—the lawyer. In the last is a great fat figure with full-bottomed wig and gouty leg done up in flannel—the parson. In the middle barrow, with three-cornered hat on head and still grasping his squirts and bottles, sits the doctor.

Now, while we have the idea of the seventeenth-century doctor fresh in our heads, let us leave two centuries behind and come to our own day. What says the modern novelist? If you want to read a charming book, go and buy *Le Docteur Rameau* by George Ohnet, one of the few French authors who do not consider it essential that the chief constituent in a novel should be literary ordure—which is considered a great crime in him by those mandarins the Parisian critics. The doctor is of the humblest origin, the son of a railway employé in the country. One day a terrible collision occurs near his father's hut. Although only fourteen, he displays such energy in helping the village surgeon, Dr. Servant, to succour the wounded that the latter sees his genius. He gets him put to school, and, in due time, with the aid of scholarships, gained by his indomitable hard work, Rameau has his choice of going to the *École Polytechnique* or to the *École Normale*. Here his benefactor, Servant, steps in and says to him, "Do thou be a doctor. What I have given to thee give back to thy fellow beings. That genius, which is undeniable in thee, place it at the service of humanity." When he comes on the scene Rameau has reached the highest grade in his profession. He is a professor and operator of renown, in great request as a consultant and a famous clinical teacher. Here is the description of him: "Fifty years of age, with a vigorous constitution never weakened by any excesses, Rameau is a man of great stature, with a visage rugged as a volcanic soil. His big forehead

<sup>1</sup> De ce mets précieux goûte, friand Docteur,  
De son odeur, de sa saveur  
Tire d'Infaillibles presages.  
Voi si ton Art aura promptement procuré  
Des De Profundis de curé  
Avec qui gaiement tu partages.

is crowned with grey hair, wavy and coarse, like the mane of an old lion. His grey eyes, clear and piercing as his own steel instruments, are surmounted by eyebrows, black and shaggy: A ruddy complexion tells of blood boiling with the activity of a life absolutely devoted to toil, and his thick-lipped mouth breathes of kindness. But there is a deep wrinkle at the root of the nose, furrowed between the eyebrows, and when he is profoundly occupied or when he is annoyed this wrinkle gives him a fearsome look. At the hospital or in the amphitheatre, when the word is passed that 'Rameau has got his wrinkle,' it is a storm signal for the house surgeons and pupils. Not a man but trembles and holds his peace when that fearful furrow comes over the usually genial brow of the *savant*, for his bursts of passion are formidable and nothing can stop them. His roughness is as well known as his skill. No woman ever put on a dressing or adjusted a bandage with a lighter hand or more dexterous fingers; no carter ever swore at his horses more furiously than the doctor at his assistants. The frightened patients get under the bedclothes or bury their heads in the pillows when they hear the thundering voice of the surgeon as he flourishes with a menacing air some sharp-bladed instrument. He does what has to be done for them; and then, transported with joy, the poor things, more dead than alive, learn that the operation, which they fear has hardly begun, is already over and finished. Then it is that they bless the skill of that kindly carver and come to know why it is that the house surgeons and pupils laughingly say behind his back, 'It's only Rameau's tongue that ever hurts his patients.' Without doubt, the confidence which he inspires accounts for half the success of his treatment. It is so well established that the presence of Rameau by the bedside of a sick man puts death to rout that at the first glimpse of the doctor as he comes in the patient feels himself saved. No great person in the land ever has a serious illness without Rameau being summoned at whatever cost. When the Innspruck surgeons wanted to cut off the Archduke Charles's leg, after he had fallen into a ravine chasing the blackcock, it was owing to his skill and ingenuity that the prince was saved from being a lifelong invalid. For his trouble he demanded a hundred thousand thalers. He once went to operate on Garibaldi for a phlegmon, which was seriously endangering his life. He asked from the grand old adventurer, as a fee, a flower from his garden. Rameau is a democrat and a freethinker—a democrat because, sprung from the people, he has inherited their bitter notions about equality; a freethinker because in his profound scientific researches he has only encountered at the end of his scalpel mere matter, and because his powerful mind refuses to admit what it cannot explain."

Is not this a delightful description of a modern French doctor by a modern French novelist? I think you will forgive me quoting for you a charming incident. There are two ladies, widowed mother and daughter, who have been reduced from affluence to poverty and barely eke out an existence by dressmaking. Their old servant Rosalie still clings to them. The mother takes ill and is at the point of death, and the daughter's anguish is terrible. Then the servant Rosalie invades the crowded consulting-room of Rameau. She is arguing with the manservant, who is telling her that the doctor cannot possibly see her till the following day. Then comes this scene—

"The sound of a bell interrupted the talk and, without giving a thought to the distressed woman, the manservant opened a door and proceeded to let out the person who was leaving the consulting-room. In the half light of the waning day the tall figure of Rameau appeared. Some brief parting words were exchanged between the doctor and his patient. The woman, who was weeping, had raised her head. With the intuition of grief she divined in that unknown, barely visible person the saviour she had come to implore, and, rising sharply, she precipitated herself after him into the room. Rameau did not hinder her, but looked her all over with a smile.

"What is it, my good woman?' he said, in his deep, grave tones.

"Oh! my dear sir! Surely you are Dr. Rameau; are you not?"

"Yes, I am."

"Then it must be Providence that has permitted me to reach you. Ah! Great Heaven! your servant was just telling me that I must either wait or come back to-morrow. As if death would wait!"

"Death!"

"Yes, my dear, good sir, our doctor has said so. It is a question of hours. If the operation is not done this very evening my mistress will never get over the night. And we heard that it was only you that could save her. Then mademoiselle said to me: 'Run for Dr. Rameau and bring him. Ah! Dieu! promise him what you like; we shall sell the furniture, if necessary, to pay. Only let him save mother!'"

"Rameau knit his brows. The woman saw a cloud pass over the face of the *savant*. She reddened and stopped, quite confused.

"Forgive me,' she cried, 'I am so troubled that I say anything that comes first; but I am indeed sorry to have offended you.'

"Rameau made a careless gesture.

"Are your mistresses, then, poor?' he asked.

"Alas! Yes! The dear ladies! After having been in such an excellent position too, distress is all the more painful for them. But so good, one would be cut in pieces for them. And mademoiselle, so sweet and so beautiful. Ah! doctor! if you only knew her!"

"Well, now, what's the matter with your invalid?"

"Oh! some sort of gangrene. At first they treated her for rheumatism in the shoulder, and then, day after day, they have seen her steadily going from bad to worse. Ah! Sir! if she had been rich, as she once was, they wouldn't have let her go to the last gasp. But the poor! They can die. Isn't that so?"

"Rameau threw back his head and very gently replied, 'No, my good woman.'

"Then he calls his carriage and goes out with her, leaving the rich occupants of the crowded ante-chamber to come next day. He cures the mother and marries the beautiful m'amselle. After some years his wife dies, leaving him a daughter, and terrible griefs and calamities accumulate around him. Still he obstinately remains a disbeliever and an atheist, and under the burden of his sore troubles he only becomes more and more defiant and obdurate. His miseries culminate in what threatens to be the fatal illness of the beloved child. But she recovers and marries her father's assistant, and the story closes with a beautiful scene in the church at the marriage. Beside Rameau sits his old and faithful friend Talvanne, who has stood by him through all his troubles.

"At that moment, with measured steps, the priest descended from the altar to unite the young couple. Adrienne's uplifted veil allowed her countenance to be seen bent down in fervent prayer. At the question, 'Do you take for your husband so and so?' she answered with a clear tone, 'Yes;' and her gaze, turned a little sideways, riveted itself on her father as if to offer to him all that happiness which filled her. That look expressed a tenderness so profound that it penetrated Rameau to the heart. At the same instant the sun streaming through the windows of the choir kissed with its rays Adrienne's yellow hair and lit it up as with a golden glory. So she appeared as if transfigured, almost isolated in a divine luminosity, like some young saint come down among men. In her Rameau beheld an angel sent to him to console him for all his miseries. All that remained in him of bitterness or pain melted away in a delicious ecstasy and, full of humble gratitude, he knelt down. Talvanne, hearing him speak in a low tone, leaned over to listen and heard these words murmured with fervour, 'My God! My God!' It was the atheist who was praying."

And now, how do they put the doctor on the stage nowadays? The other night I went to the theatre to find out. I went to see Sydney Grundy's play, the "Fool's Paradise," in which the chief part, that of Sir Peter Lund, the physician, is played by my old friend, Mr. John Hare. In a character of this sort Mr. Hare has admittedly no rival in this country, and therefore it need hardly be said that the part was played to perfection. Doubtless many of you have seen the play, and will remember the admirable make-up of the old doctor, who obstinately keeps up, even in his dress, the traditions of his youth. He is brusque and dictatorial, but there is a total absence of solemn pretentiousness about him. He affects not to know anything, and would have you believe him to be a sort of medical agnostic. He actually delights in making fun of his own profession. But he has not uttered half a dozen sentences before you see that he is a shrewd man of the world, who has mixed with every class of society, from the peer to the pauper. He knows that drugging is for the most part useless, and says so; only the public will have drugs and do not believe in a doctor who talks common

sense to them. There are some capital bits of humour in the conversations between Sir Peter and his patient Philip, whose mysterious case he is quietly and accurately fathoming, while affecting all the while to talk nonsense to him. Sir Peter says to him—

“Well! what’s the matter with you?”

*Phil.*: Really, Sir Peter, that’s what I want you to tell me.

*Sir P.*: You have a high opinion of the medical profession. Do you suppose we can tell you anything if you don’t tell it us first?

*Phil.*: I have always supposed so.

*Sir P.*: Error, sir. You tell us everything we tell you. The only difference is you tell us in English and we tell you in Latin. You take a fee out of your pocket; we put it in ours.

\* \* \* \* \*

*Phil.*: You are plain-spoken, Sir Peter. Now, tell me with equal candour what is the matter with me.

*Sir P.*: Shall I tell you the truth?

*Phil.*: Of course.

*Sir P.*: I don’t know.

*Phil.*: Surely with your experience—

*Sir P.*: Sir, I have no experience.

*Phil.*: Well, with your knowledge—

*Sir P.*: Sir, I have no knowledge. Knowledge is the monopoly of extremely young practitioners. I have been doctoring for forty years, and now I stand here on your hearthrug, sir, a monument of triumphant ignorance.

*Phil.*: Nonsense, Sir Peter.

*Sir P.*: Sense, sir, sense.

*Phil.*: Be candid and tell me frankly what is wrong with me.

*Sir P.*: Your liver, probably.

*Phil.*: Only my liver!

*Sir P.*: Don’t speak disparagingly of your liver, sir. That eminently respectable organ has been much misunderstood. It is commonly supposed to serve certain functional purposes in the physical economy. Another fallacy! The liver was made by a beautiful provision of nature for the benefit of the medical profession.”

During the play I watched the audience to see what they thought of Sir Peter. They evidently liked him very much. They enjoyed him. In one scene the wicked wife, who does not wish him to prolong his stay in the house, says to him: “But what will your patients do without you, Sir Peter?” “Recover,” he answers, and bolts out of the room. This amused them amazingly. But why did they like him? I am certain they liked him for his honesty and his kind-heartedness. In spite of his odd ways and affected cynicism one could see that he was a genuine, true friend, and, in his own heart, was oppressed with anxiety for the safety of his friend and patient. And when the time came for a terrible disclosure and he had to denounce the miserable wife as the poisoner of her husband he rose to the occasion. There was no affected cynicism in the sharp clear voice with which he said, “I suspected you from the beginning.” He stood out a courageous old man, prepared to do and say anything for the right.

Finally, we come to the painter of to-day. It will not be denied that the picture of 1891, the one which stood out clearly and prominently above all the other pictures of the year, was Mr. Luke Fildes’ “Doctor.” Of the hundreds of medical men who must have stood before that picture I am sure there was not one whose pulses it did not quicken with pleasurable pride, or who left it without thinking that it already had been, and again would be, his privilege to fight against pain and suffering and death like his colleague on the canvas. For to us he is a real living man like ourselves. We have acted like him and felt like him.

Note where the scene of the picture is laid—not in some rich man’s mansion, where the doctor might reasonably expect a handsome fee for his trouble, but in a working man’s cottage, where most likely the gratitude of the people and a consciousness of having done his duty by the poor would be his sole honorarium. With admirable skill the painter has pitched on the early hour of morning for the time. The light of the lamp in the room and the light of the dawn coming through the casement are struggling with each other. It is the cold sad hour when human vitality is the lowest and when statistics tell us most men die. The sick child, worn with the raging fever that commonly burns from eight in the evening till one or two in the morning, lies spent and exhausted. Till then the parents have been fighting on with their nursing; soothing, caressing, en-

couraging their little one. But now they too are exhausted and depressed, and hoping against hope seems all that is left to them. And there sits their friend—the gentle doctor—watching with them, and still puzzling his brains to think what more he can devise to stay the lamp of life from flickering out. He is no courtly physician. He is only a country doctor, but his somewhat rugged face tells of honesty and common sense and self-reliance and gentleness. What more do you want? The men that look like that man, whatever be their business or trade or profession, whatever be their wealth or their social position, I say, of such men is the kingdom of heaven.

Let us, then, take a review of the whole matter. This much is clear, that when a personification of the doctor was presented to the public two hundred years ago, he was invariably held up to ridicule as a quack. He was a man who pretended to a knowledge that he did not possess—by consequence a man whose life was one continual fraud. His language was inflated and bombastical, and his sesquipedalian words were employed to distract attention from the unintelligible and idiotic ideas which they concealed. Having a love for collecting old medical books I have dipped a good deal into them. Often, after coming to the bottom of a page, I have read it again, and if it had been written by any lunatic in Bedlam it could not have been more absurd or vacuous. The word “experiment” was almost unknown. If there arose a question as to whether some particular thing was blue or red, men did not go to find it, and see with their own eyes whether it was blue or red, but they sat in their closets and argued about it. I must admit that if the doctors of that day were always presented to the public as quacks they did their best to deserve it. The next thing that is clear is that they were overbearing, greedy, hard-hearted quacks. Never once are we shown one of them doing a good or kind action. The doctor is an impostor whose sole object is to get his fee. That fee he must have if the wretched patient has to sell the shirt off his back for it. Such, I assert, is the impression which must be conveyed to the mind of anybody who reads the novels or dramas or looks at the pictures or caricatures of the seventeenth century. But were all those old doctors like this? No, most certainly not. There were splendid men among them. Look at the names of Morgagni and Bartholin and Willis and Sydenham and Malpighi, among many others. These men had as great patience, as keen wits, as unselfish motives and probably more courageous hearts than any of our scientific men of to-day. Their labours and discoveries were as great and as important as our own. We are every day making use of their work, just as the twentieth-century doctors will make use of ours. But they were in a small minority. Their bright and glorious example had not descended. The rank and file of the profession were still the greedy quacks that Le Sage and Molière and the Dutch artists painted. Molière has been accused of having been too severe upon the doctors of his day, but no ridicule can be too severe when it is employed to expose the humbug and the charlatan. To him, as a profession, we are under an eternal debt of gratitude. As a body we were sick men. His physic was bitter enough in all conscience, but it took hold of the disease and cleansed away many of our impurities.

Turn we now to the picture of to-day. Whatever be the shortcomings and weaknesses which the doctor has, in common with all his fellow men, they are not now seized upon and savagely caricatured and grotesqued to amuse a jaded public. Nobody makes more fun of us than *Punch*. But his fun is always so genial and good humoured that, when a medico forms the principal figure in one of his pictures, the medicos eagerly buy the paper to enjoy the joke. And when a doctor has done some self-sacrificing bit of heroism, who so ready to sing his praises as our dear old friend *Punch*? If you go to the theatre you will see that the people like Sir Peter Lund. His *brusquerie*, his pretended cynicism, and his real tender-heartedness please them. They admire his honesty and his fearlessness when the moment for decisive action arrives, and they are amused with the keenness and shrewdness which a long acquaintance with men and things has given him.

And, finally, tell me a picture that has ever appealed more powerfully to the public than Mr. Fildes’ great work? Naturally it has had to run the gauntlet of severe criticism; but to attract criticism is in itself a sign of the inherent value of a thing. As to the technical merits of the picture I say nothing. Artists are the proper judges of that. But when they accuse the painter of false sentiment I join issue with them at once. To my mind a picture is falsely sentimental

when the artist represents in it a scene or situation which does not occur and is consequently unreal, with the object of eliciting our sympathy and our more tender emotions. But the situation represented in "The Doctor" is not an unreal one. It is a painfully common and real one. It is one which occurs continually in our lives. Would that I had some Asmodeus to lift off the roofs of the houses of Great Britain to-night and to take these critics to where life and death are engaged in the final contest for the mastery. They would see to-night—this very night—Luke Fildes' doctor sitting by the bedside watching for every deeper breath, every stronger pulse that might give him hope to go on with the fight. They would see the country doctor in the Highland cottage or the Yorkshire farmhouse. They would see the physician of renown in some great nobleman's palace. They would see the house surgeon in the hospital ward. But, in whatever capacity he might be revealed, of this I am sure, that he would be seen overmastered by the one idea of how to save his patient and how to show himself the gentle comforter of the afflicted friends. I have just said that we owe much to Molière for lashing out of us the quackery and ignorance that prevailed in his day. But what do we not owe to Mr. Fildes for showing to the world the typical doctor, as we would all like him to be shown—an honest man and a gentle man, doing his best to relieve suffering? A library of books written in our honour would not do what this picture has done and will do for the medical profession in making the hearts of our fellow men warm to us with confidence and affection.

And now, my dear young friends, we are nearing the end of the nineteenth and you will be the doctors of the twentieth century. Upon you will devolve the responsibility of maintaining that honourable position in the sight of all men which your forefathers have struggled to win for the profession of their choice. You are no longer students of a mere provincial school of medicine. You are members of a college of a university, which, before your days are ended, will have revolutionised education in the north of England. The ground has been prepared and planted and watered, and you are the first fruits. Yours it is to bring forth an abundant harvest of good works, not merely for the credit of your profession, but for the glory of your *alma mater*. You must copy the intense industry, the resolute will, the single-eyed devotion to science of Docteur Rameau. You must, like Sir Peter Lund, learn to be wise as serpents as well as gentle as doves, so that you may bring to bear upon your patients' cases not merely a knowledge of morbid anatomy and drugs, but also a knowledge of the ways of the world and of the inner workings of men's lives. But, above everything, whatever may be the rank in your profession to which you may attain, remember always to hold before you the ideal figure of Luke Fildes' picture, and be at once gentle men and gentle doctors.

I take my farewell of you in the words with which Molière's president opens the examination function for the Bachelor of Medicine—

Savantissimi Doctores,  
Medicinae Professores,  
Qui hic assembleati estis;  
Et vos, atri messores,  
Sententiarum Facultatis  
Fideles excoecutores,  
Chirurgiarum et apothecarum,  
Atque tota compania aucti,  
Salus, honor et argentum  
Atque bonum appetitum.

**LOWESTOFT HOSPITAL.**—The committee of this hospital, in their report, state that there has been an increase of expenditure during the past year, due to the increased stress put upon the hospital by the terrible accident at Barnby in December last. Increased accommodation is required, and accordingly plans have been prepared for new buildings, the cost of which is estimated at £900. Sir Savile B. Crossley, Bart., has been elected president of this hospital in place of Mr. W. F. Larkins.

**A DILEMMA AT POPLAR.**—The district of Bow, Bromley and Poplar has two medical officers of health for the three parishes, Mr. Corner and Mr. Talbot. The former has resigned with a gratuity of £390, and the Board wish to place the whole of the district under one medical officer; but Mr. Talbot is not, of course, compelled to resign or take sole charge and thus the Board is in a difficulty. The sanitary committee, as a compromise, recommend the appointment of a new medical officer for Bromley and Poplar.

## Abstracts

OF

### INTRODUCTORY LECTURES ETC.

DELIVERED AT THE

LONDON AND PROVINCIAL MEDICAL  
SCHOOLS

AT THE

Opening of the Session 1892-93.

ST. GEORGE'S HOSPITAL.

INTRODUCTORY ADDRESS BY DR. R. L. BOWLES.

THE address opened with a welcome to the new students, and with some references to the great services rendered by St. George's Hospital and its medical school in the past, and to the great and peculiar advantages enjoyed by the present generation of students. They were asked to have confidence in and to cultivate the friendship of their teachers, and to preserve the tradition that "a St. George's man is expected at all times and under all circumstances to be a gentleman." The apprenticeship system was announced to be dead, defeated by the rapid march of science. This led to the main subject of the address, "the application of physics to physic." The lecturer then pointed out that all changes occurring in physiological and pathological processes, formerly supposed to depend on that unknown quantity "vital force," were really nothing more than the action of the recognised forces of nature on the organs and structures of the body. Reference was then made to his own researches on the influence of physics in the treatment of the apparently drowned, and to their influence on patients suffering from apoplexy, chloroform poisoning, and all states of unconsciousness. Coughing, sneezing, snoring &c. were all shown to have immediate origin in physical conditions. The lecturer went on to say that almost all the work of surgery is done by the proper application of the laws of physics; injured parts and broken limbs are kept at rest, dislocated parts are placed in their natural positions, redundancies are removed, and natural deficiencies often well supplied; crooked paths are made straight, and blocked and narrowed ones made patent; stiffened joints are made to move, crooked limbs put into shape; eyes are made to see that would not, and ears to hear that could not. Surgery is a department of physics; a physical art. Medicine, formerly the region of the unknown and the happy hunting ground of quacks, is rapidly following in the same lines. The so-called practical man and the believer in dogmas and nostrums are rapidly giving way to minds trained in the laws of physics. Physiology, medicine's forerunner and its handmaid, is steadily step by step, and without prejudice, elucidating the ways and doings of animal life. By instruments of the most elaborate and delicate nature, by patient and continuous observation, by anatomical and histological searchings, and by the application of the laws of gravitation, chemistry, heat, light and electricity, always by ways and means connected with physics, we are getting to understand better and more surely the movements and functions of respiration, of circulation, and digestion, of secretion and excretion, and finally we hope to understand the most subtle and mysterious of all functions, the operation of the nervous system. Physic, or the sphere of the physician, is the application to diseased or disordered conditions of the ways and means of physiology. We reduce to experiment the disordered state that we may learn its real nature and be enabled to bring it back to order by the use of natural and appropriate means. Students were advised of the necessity of acquiring sound principles and exactness in the sciences; the lecturer mentioning the difficulties which beset him in his earlier years from not starting well equipped in this respect. The value of experiment was next commented on. Sir John Simon had said: "The experiments which give us our teaching with regard to the causes of disease are of two sorts: on the one hand we have the carefully pre-arranged and comparatively few experiments which are done by us in our pathological laboratories, and for the most part on other animals than man; on

the other hand, we have the experiments which accident does for us, and above all the incalculably large amount of crude experiment which is popularly done by man on man under our present ordinary conditions of social life, and which gives us its results for our interpretation." This was illustrated in the case of cholera: on the one hand were Professor Thiersch's scientific infection experiments performed on mice; on the other the experiments in connexion with water-supply, in the 1848 and 1853 epidemics, performed on half a million of people in South London. Both gave the same result. "The experiments which illustrated the dangerousness of sewage-polluted water-supplies cost many thousands of human lives; the scientific experiments which, with infinitely more exactitude justified a presumption of dangerousness, cost the lives of fourteen mice." Passing on to the bases of all true medical work, anatomy, physiology and pathology, he said that anatomy contemplates the parts of the body in a state of rest, the structures on which functions play. Physiology contemplates the parts of the body as living and in process of change, change not only of a mechanical kind, but change of energy and of form, which are the necessary results of function. Pathology is but a part of physiology, the one declaring what is normal in function, the other what is more or less a departure from the normal. Hippocrates more than 2000 years ago proclaimed pathology to be a branch of the science of nature; the slowness of its development can only be explained by the equal slowness of the progress of the natural sciences themselves. Of late years, however, advances have been truly made by leaps and bounds. Professor Schroeder in Germany and M. Pasteur in France, by their investigations on fermentation and putrefaction, and M. Chauveau on the particulate nature of contagia, opened up an entirely new world to us all. We have now not only to study the causes as well as the changes of the disease in the body, but also the doings of the bacteria outside the body and within it. These facts applied to the State at large, forming what is called State medicine, have increased the average duration of life and diminished the suffering consequent on bad health and disease. Each succeeding year shows more and more clearly the great value of physics in the department of preventive medicine. Sir John Simon years ago showed the important part which medicine played in the political economy of the country, and he succeeded in due time in bringing the State and the medical profession into organised relation with one another. Next was pointed out the manner in which physics may be applied for remedial purposes. Change, muscular and nervous, lies at the root of all recreation. The students were reminded that "all work and no play makes Jack a dull boy," and that games and the pleasures of exercise may well be enjoyed during their pursuit after knowledge. Extremes should be avoided, and when really tired rest was a necessity, for fatigue implies diminution of the physico-chemical changes connected with the evolution of force. In some states, movement, exercise and massage may be useful; in others, air, fresh air, or change of air, more of nature's medicines, as are also heat, electricity and light; the last of these having been experimentally shown by the lecturer to produce some very singular effects in connexion with sunburn. Lastly, the lecturer said that we come to the consideration of the administration of medicines. Here empiricism has hitherto been almost supreme, but, thanks to the sciences, clearer and more certain views are taking its place. *Materia medica* or the knowledge of the remedies employed in medicine has its divisions, its departments, each and all being worked on scientific principles. Pharmacology is the knowledge of the mode of the action of drugs upon the body generally and upon its various parts. Therapeutics imply the administration of remedies suitable for the relief of particular symptoms in proper doses and proportions. Long and complicated prescriptions are to be avoided. Not a single drug ought to enter the body except under clear intention of what object it is to fulfil there. Compounds may be good cookery, but do not form scientific medicine. We cannot by any amount of training make a man distinguish himself in a subject to which he is by nature unfitted. Like a real artist the man must have "the touch of the finger of God, of the all-informing, all-creating imagination."

"There's a divinity that shapes our ends,  
Rough-hew them how we will."

In conclusion, Dr. Bowles warned the students against mistaken views of materialism. The "*ars medendi*" is practically illimitable. In Bacon's use of the term, it is coexten-

sive with the whole field of terrestrial nature and the students of the physical and biological sciences are emphatically the servants of nature. Sir Thomas Browne, in his "*Religio Medici*," tells us that "nature is the art of God." Do not ever be bewildered into supposing that there is any antagonism between religion and science; there is no such antagonism. The man of science interprets the physical laws, and equally with the teacher of religion tells us of the greatness and grandeur of the Creator. Every discovery of the scientist can only tend to increase our wonder at the omniscience and perfection of the ways of God.

#### GUY'S HOSPITAL.

##### INTRODUCTORY ADDRESS BY MR. A. ERNEST MAYLARD.

MR. MAYLARD, after expressing his appreciation of the honour which he felt had been conferred upon him in asking him to come from Glasgow to deliver the opening address, proceeded in the course of his remarks to speak of the value of cultivating a spirit of inquiry. He said he considered it one of the best attributes possessed by a student and one of the best faculties to maintain throughout life. "We needed nowadays, more perhaps than at any previous period, to cultivate an attitude of mind which was ever seeking to know the truth. Our profession was one which was peculiarly handicapped in the matter of advance. It was so easy to promulgate a principle or theory, but so difficult to be certain that its basis was sound. It was true enough that we spoke of the science of medicine and surgery, and yet we could not speak of the science of human nature. It was too variable in its formation and function to admit of the framing of general laws. Hence true advance was often hindered by the innumerable practices founded on some false theory or inculcated on insufficient grounds. One, perhaps, of the commonest errors to which we were addicted was that of generalising from a too limited field of experience, assuming, for instance, that what proved suitable or successful in one or two individual cases would effect a like result in all others. Again, we were often apt to forget that within the greater part, if not within the whole period of its existence, the human body had a constant inherent tendency to return to a certain normal standard, and we were apt to assume that measures adopted by us effected results which in reality were due to nature's own work. How should we then as inquiring students contend with these difficulties; or what should be our attitude in respect to them? If we constantly cultivated and exercised a spirit of searching inquiry we should, in the first place, ourselves not be ready to make assertions which we honestly felt had not yet stood the test of a sufficiently extended experience; and in the second we should not be over hasty in adopting every nostrum that is put under our nose, every treatment we read about, without being first fully satisfied as to the veracity of the statements made or the merits of the claims advanced." To illustrate more fully and graphically how a student should exercise and cultivate his faculty of inquiry, Mr. Maylard proceeded to picture in imagination a case of a wound dressed antiseptically. The practical treatment of such a case was carried out with the most elaborate details, formed on a very simple principle. The questions which the inquiring student would ask were whether every detail of the procedure was an accurate fulfilment of the conditions required by the principle, did every agent employed effect the result desired? It was pointed out that in view of the rapid development of the science of bacteriology many new theories and practices based upon them were and would be sent forth into the medical world. But every inquiring student should be cautious in not accepting too hastily conclusions which a more careful and prolonged consideration may prove after all to be based on some false or mistaken theory. In conclusion, Mr. Maylard said: "If the faculty of inquiry was to be exercised to its fullest advantage in our professional life, it must be cultivated to an equal extent in all our relations to the world around us. It should form as much a part of our religion and our politics as our profession. It was hardly possible to think of a man as a bigoted sectarian, a purely party politician or a rampant advocate of any sect or subject, whose mind had been broadened and his views extended, by a searching inquiry into the subject at issue. Dogmatism in any shape or form was not an attribute that belonged to the followers of our profession. It indicated a limited, not an extensive, knowledge. It is for us ever to be seeking and making each truth as it is found, not the limit of our inquiry but the basis for the discovery of another."

## THE MIDDLESEX HOSPITAL.

INTRODUCTORY ADDRESS BY DR. SIDNEY COUPLAND.

"My first words must be ones of regret and apology—regret which we all feel that Dr. Pringle, to whose address we had been looking forward, should have been ultimately compelled by indisposition, arising, I fear, from too unremitting devotion to duty, to abandon the task we had imposed on him. He has been reluctantly compelled to deprive us of an anticipated pleasure, and that has necessitated my appearance before you in an unexpected character. I am very grateful to my worthy colleague, Dr. Pastour, for relieving me of my official duties on this occasion, but I owe my hearers an apology for having rashly undertaken to play the part of understudy to the chief actor of the day. We felt, however, that to have omitted this portion of the programme altogether would have been hardly courteous or right. I trust, then, that I may have your indulgence while I endeavour to maintain this time-honoured institution. The main object, I opine, for these introductory addresses at the opening of our winter session is to welcome those who sit on these benches for the first time, to hold out to them the hand of fellowship and to bid them Godspeed in their new career. To such, then, on behalf of my colleagues and all members of this school, I offer this cordial greeting, promising that although you may find the pursuit of medical studies somewhat arduous and exacting, yet that it is full of those pleasures which are well known to accompany the exploration of new regions, and that day by day, as Nature yields up her secrets, you will find them more and more fascinating. If it were not for those examinations which loom so fearfully in the distance your career here might be almost romantic as you explore the unknown; but we are forced to realise the stern utility of our labour and think to what purpose we shall be required to put the knowledge we are gaining. I have only this to say, that he who does pursue his work in the spirit of the scientific investigator will be sure to have made his knowledge so accurate that he will have no fear of any board of examiners. Therefore, the chief advice I would give you is so to work practically and personally at all your subjects as to fully master them and never stop to inquire whether it might be better to omit some matters and to dwell long on others because they may or may not be likely topics to find favour in the examiner's eyes. You are fortunate in the time of your entrance upon this calling. For in no period of the world's history has there been such a keen desire to find out the truth of things. The sciences which at the opening of this century were emerging from obscurity are now daily enriching the world with their benefits. Never indeed were the advances of knowledge so rapid and so fruitful. We see this not merely in the multiplicity of inventions, all tending to conduce to the material comfort and happiness of mankind, but notably also in medical science, where the labours of numberless investigators in tracking diseases to their sources are leading us to more rational measures for their prevention and treatment. If the golden age ever does arrive when preventive measures will have made scarlet fever, typhoid fever, diphtheria and tuberculosis as rare in this country as typhus fever, relapsing fever, the plague and leprosy, and to a certain extent all manner of surgical septic diseases, there will still remain much for medicine to do in its task of rendering the earth fit to live in. Only quite recently we have been forcibly reminded of our ignorance and impotence. For, as if to mock our science and our skill, the world has witnessed during the past three years the recurrence of a pandemic disorder which has periodically traversed the globe in historical times—a malady which, though often apparently trivial in its immediate symptoms, has indirectly been responsible for an untold amount of sickness and mortality." Turning to the older branch of the medical art—that of healing—the lecturer asked: "Is the advance also great upon that line, and how is it being pursued? It seems a truism to say that the more we know about diseases the better we shall be able to treat them. Still, although we have learned much respecting the art of healing, we have infinitely more to learn and much, I think, to unlearn. The sarcasm which Molière levelled at the physicians of his day is not without meaning now. We too may often err in assigning too great importance to remedial measures and too little to the beneficent working of the organism itself. No one has more emphatically urged this than the late Dr. H. G. Sutton of the London Hospital, who combined in one the gifts of the practical physician, the philosopher and the poet. His lectures should be read by every member of our profession as an antidote against the common error of mistaking recovery for cure.

It has been sometimes urged as a reproach to physic that in respect to the treatment of disease her advance has been far behind that of surgery. I am not about to make invidious comparisons or to meet this criticism with the rejoinder that the opportunities for the performance of the new surgery have been largely owing to a sounder knowledge of the facts of pathology and a greater perfection in diagnosis." After alluding to the benefits conferred by this increased surgical boldness, the lecturer continued: "That there is also progress in the domain of medical therapeutics it would be idle to deny, but unfortunately in this department we are still largely under the influence of teachings framed in times when the structure and functions of the body were imperfectly known, and the operations of disease hardly understood at all. And, moreover, it is because of the darkness which still prevails concerning the intimate processes of disease that we still have to grope our way and trust to the haphazard inferences of experience in many of our prescriptions. I am far from wishing to minimise the importance of those studies in *materia medica* to which you will have to devote many hours; they have their place, not only as a mental exercise, but as a source of information upon what was once the chief armamentarium of the doctor which it would be a pity to lose. Nevertheless at the risk of being pronounced a heretic by the College to which I have the honour to belong I make bold to say that the place taken by drugs in the treatment of diseases is very often a purely subsidiary one. In saying this I must guard myself from misconception. There are many occasions where the prescription of appropriate remedies is of inestimable service, but very often this part of treatment is necessarily unscientific—that is, empirical or irrational. The difficulty lies in affirming in many cases what is the precise nature of the change introduced into the economy by the administration of physic. And this difficulty is enhanced by the fact that we deal with patients, living individual organisms, and not with abstract morbid states. That much-abused genius Paracelsus was far in advance of his contemporaries of the dark age of medicine when he declared that drugs acted on the body by virtue of chemical changes; and the lacuna that has still to be filled is to determine what is the precise change that is necessary to be effected in any given case. Of one thing at least we may be thankful, and that is that the days of polypharmacy are numbered; but, as a set-off to this, we seem to be living in times when a new remedy is vaunted every week, and after a brief but glorious existence sinks into oblivion. I tremble to think of the labours you would have to undergo were it not for the limitations imposed by the British Pharmacopœia and the Schedule of Drugs which the Examining Board has considerably drawn up as being all that is really necessary for you to know. I suppose that the old conception of the apothecary as one whose skill was bound up with the multiplicity of the remedies he might have for every ill is still prevalent, for we have ample testimony of the popular belief in the virtues of physic daily before our eyes. Few things are more surprising, and indeed more saddening, than to find in these enlightened days when the schoolmaster is abroad in all parts of the land that one of the most certain ways to a great fortune is to be the inventor of a pill or a mixture, or even of an ointment. Nay, you have only to shut yourself up in a remote castle and turn out bottles of electrified distilled water to be praised and even worshipped as a saviour of society by the learned and noble. How deeply ingrained must have been the old faith in medical magic for it to have survived so many centuries and to have thriven even amongst those who have been subject to all the culture of the nineteenth century! In this blind, unreasoning faith in panaceas—the very antithesis of the scientific spirit—we have a striking object lesson, not of the virtues of medicine, but of its weakness, of the triumph of credulity over knowledge, and in the effects of such misnamed "remedies"—of the influence of the mind over the body. It is possible, too, that even we who may wish to deal with diseases in an intelligent manner have inherited traditions and prejudices as regards healing which we are unable or unwilling to cast aside, although we cannot help feeling how little we often really know of the action of drugs in individual cases. This demands a thorough investigation of each case, and an appreciation of the conditions of life and environment which may influence the individual organism, including the tendencies to special forms of disease that may be present in the patient's family. The old practitioner who is familiar with the constitution of his patients and their children is mostly a far better guide than the consultant whose acquaintance with them is probably of not

more than ten or fifteen minutes' duration. I should have liked to trace out in more detail the directions in which it seems to me the medicine of the future will mainly tend; but under the special circumstances of this occasion I forbear to tax your patience or my powers in the pursuit of what after all would be mere fanciful speculations. I therefore hasten to turn to a more prosaic, but to all of us a more immediately pressing, question, that of medical education in general and in this city in particular. The aim of our profession being, as I have indicated, of a twofold nature—namely, to prevent disease on the one hand and to assist the natural powers of recuperation in the deranged or injured organism on the other—it is plain that the basis of all our study must be founded on a thorough knowledge of the laws and conditions of life and of the structure and functions of the body. Starting from this foundation, the next superstructure in the edifice of our art is that of pathology, the sum of all the ascertained facts concerning the mechanism by which diseases are brought about and the effects they produce on the organism. In its fullest sense, then, pathology embraces not only the changes to be ascertained by dissection and microscopic and chemical analysis of the dead body, but also the perversion of the natural vital processes and even the causes or conditions antecedent to the departure from a state of health. It is not for me here and now to criticise the scheme of study which in conformity with the revised regulations of the Conjoint Board we have adopted here. In very many respects it is a decided benefit to the student, who will find that even five years is all too brief to enable him to assimilate all the subjects that are now demanded from him. But I cannot avoid expressing my own conviction that the next step in the improvement of the curriculum must be the relegation to a period antecedent to the strictly medical course of the purely scientific subjects—physics, chemistry and biology. The great merit of the new scheme of study is undoubtedly the prominence it gives to practical work. In almost every one of the branches there are now classes and arrangements to enable each student to find out for himself most of the facts about which he reads in his book or learns from the lips of the lecturer. Time was when this kind of work—the most attractive and the most fruitful—was limited to only one or two subjects. But we live under a new régime, and if only it be faithfully carried out it should prove of great advantage. By faithfully sticking to his practical work, whether in the wards, the post-mortem room, the laboratory, or the dissecting-room, his memory will be strengthened, since the avenues to it through the senses will all have been opened up. Then when the examination day comes round the diligent dissector will have his anatomical facts almost literally at his fingers' ends, the patient histologist will see in his mind's eye what he has perceived through the microscope, and the clinical worker will recall the physical signs of the cases he has observed far more readily than he will remember the descriptions which he has merely read. It is surely well in these days, when there is a plethora of text-books and an almost inordinate amount of oral tuition, to remember that the only knowledge which is really *one's own*, that which is of the only real service in practical life, is the knowledge founded on personal observation, upon which we were told of old time that 'the whole medical art consists.' The institution of a final examination in clinical and practical medicine and surgery is a feature of the new scheme of the Royal Colleges which deserves especial mention, and the manner in which the fifth year of study is to be spent should make that period of your career the most interesting of all. It seems to me to give in a fitting manner a completeness to the curriculum not hitherto secured. With a few modifications, which experience may show to be necessary, the course thus laid down by the colleges may without exaggeration be said to be as academic as that of any university, and, this being so, it may seem to be a hardship that it does not lead to the possession of academic distinctions. When thirteen years ago I had the honour of acting in a similar capacity to the present I think that I was sanguine enough to say that there was no reason at all why the majority of the London medical students should not take London University degrees. I thought then—when perhaps the memory of my own student days was more fresh upon me—that one great reason for the singular paucity of London graduates lay in the equally singular ignorance concerning the University which would seem to exist in the schools of the country. But I have learnt since from a wider experience of other universities that this is not the sole reason, for although the number of

London graduates is yearly increasing, they still form a small minority of the London students; whereas in Edinburgh the reverse is the case. I take it that the grievance of the London medical student is established."

After detailing the history of the various proposals which have been made regarding the new London University, the lecturer proceeded: "It matters little what the solution is so long as the true interests of learning are kept in view and the welfare of the large numbers who come up to London every year to enter on the study of medicine. The time is approaching when something will be done to relieve the greatest city in the world of the reproach that it has no local organisation for higher education; and to the medical schools in particular one anticipates nothing but benefit from their union on common grounds within the *agis* of one university. Thereby medical education itself will be rendered more stable and more efficient. It would seem that the spirit of activity and unrest characteristic of the progress of the age is touching the subject in which we are most interested at present. This desire for improvement and perfection is a healthy sign, and although we may be living in the turmoil of transition we can look forward to a more peaceful period when under the new order the training demanded of those who are fitting themselves to be medical practitioners shall be founded on rational and scientific lines; for the desire of all must be that our profession should not fall behind in the race, but should continue as heretofore to lead the van in the great work of bettering the conditions of human existence. And for the individual practitioner a well-conceived and systematic course of training is of much more value than academic honours. If to knowledge he adds the common virtues of sympathy, of gentleness and of strength he will go forth to his daily contact with misery and suffering not only fully equipped for all emergencies and all trials, but with the consciousness that in his little corner of the earth he is doing something to brighten life and to assuage its woes. What higher vocation could be set before him—what could make to him life more worth living? That is the career which opens on many of you to-day, to which we welcome you, and in which we wish you all prosperity and honour."

#### UNIVERSITY COLLEGE, LONDON.

INTRODUCTORY ADDRESS BY MR. S. J. HUTCHINSON.

"LOOKING at the long roll of my distinguished predecessors, and at all the good and wise things they have said, I feel how difficult it is for me to deliver an address worthy of the occasion. To you I would most cordially say how we all are thoroughly in earnest in our desire to make your career here a pleasant and a successful one, and let me say in all friendliness that I personally, in common with many who have gone before me, look back upon the years I spent here as a student as perhaps the happiest portion of my life. It is a time when there are no responsibilities to speak of and few anxieties, except perhaps 'exams.' The simplest and best way to prepare for diploma examinations is to go in for class examinations. Of course I do not mean simply attending class examinations without previous preparation; but the whole ladder of medical education is arranged in such a manner now that by constant attendance on lectures and demonstrations and by careful note-taking, by working up the notes from text-books afterwards and by a rigorous attendance on the class examinations, the whole thing is made much simpler; the subjects, despite their increased number and extent, are more easily mastered and take a firmer hold on the memory, and are thus more available when wanted than when acquired by that pernicious system of spasmodic work, and still more by the popular but fallacious system of 'cramming' during the last few weeks before an examination. Since we met here last year many most important events have happened, not only in our college and hospital, but in the medical world generally. First of all, let me say that the building of the new hospital over the way may before long be confidently expected. A portion of the new hospital will probably be erected in the rear of the present buildings, and when completed patients would be transferred to it and a part of the old hospital removed to make room for further buildings. It will thus be seen that the number of beds will at no time be diminished nor the work of the school retarded in any way. Now, I do think all of us who are interested in University College, particularly those to whom the future belongs, must rejoice at this prospect and must feel a debt of gratitude to the

hospital committee, by whose zeal and untiring devotion this great work is so nearly consummated.

"The next important events which have happened since last year at this time are the reports of the Lords' Committee on Hospitals, and secondly the coming into force of the five years' curriculum for the Conjoint Board, and again the mountain has gone on labouring, but it has not yet brought forth the M.D. degree for London medical students. Let me urge upon every one of you the importance of striving for the 'best possible,' that is to say, make up your minds that you will take the highest degrees attainable—the M.D. or M.S. London, or the M.R.C.P. or F.R.C.S. Those of you who have had the incalculable advantage of a University career cannot be too thankful to your parents whose generosity and wisdom have given you this privilege, and you cannot better show and prove your gratitude than by turning such a training to its greatest advantage. There is always a certain fear of medical students acquiring a hospital manner, which however efficacious it may be in the exigencies of hospital practice, certainly does not suit in private practice. And this leads me to take advantage of this occasion to recommend you, gentlemen, at the outset of your career to cultivate a spirit of consideration towards the patients whom you are called upon to deal with during your studentship, and to behave towards them as far as possible as you would towards your own patients in private practice. You must forgive me if I allude to this, because I know from my own experience how easy it is to acquire certain little acerbities of manner which are meekly borne by the hospital patient, but which would be effectually resented by a private patient. Martial, the Latin poet, has said—

'I had, oh! Symmachus, a simple pain—  
You came, a hundred students in your train;  
A hundred probing fingers felt my brow;  
I had no fever then—I have it now!'

Besides all this, there are certain things to which it is worth your while to pay special attention. Need I say that I mean anatomy and physiology? To these I would add pathology in its widest sense. Without a thorough knowledge of these, the sciences of medicine and surgery are simply the 'baseless fabric of a vision.' It is well also to pay special attention to the art of prescribing. I say 'art' advisedly, for whilst brilliant skill in surgery—the *tactus cruditus* of the master—is the fine art of surgery, so is an efficient and palatable prescription the fine art of a skilful physician. I have alluded already to the burning question of a degree in medicine for London medical students. Now, the solution of this difficulty appears very simple, and I submit the suggestion for your earnest consideration, for probably the consummation will be in your hands, and not in ours. I say the solution is simply this: Let every medical practitioner who has duly gone through the curriculum ordained by the Medical Council and who has passed finally in medicine, surgery, and midwifery be thereafter legally entitled to style himself 'Doctor,' just as every clergyman or minister who has fulfilled the prescribed ordinances is styled 'Reverend.' The case is absolutely on all fours, and it would save an immense amount of trouble. I am aware that this scheme does not provide a university degree for London medical students, but it does provide a title for them, which they would not have to go away from London to procure. The State insists upon the medical student undergoing a five years' curriculum of severe study; it compels him to pass difficult examinations at all periods of his career, and then, when he has done everything and satisfied everybody and got his degree or diploma, what does the State do for him? Does it protect him in any way against the bonesetter, the herbalist, the medical electrician, the mesmerist, the midwife, or prescribing chemist, or the legion of American and other foreign gentlemen with a maybe bogus degree? Does it give him one single advantage over these gentlemen beyond allowing him the privilege of suing for his fee in the county court or being exempt from juries, of being placed on the Medical Register, of holding certain public offices and, most glorious privilege of all, it allows him to sign the death certificate when, 'at the last stage of all,' he is called in with the forlorn hope of restoring new life to the victim maybe of one or other of the practitioners I have named above. Now, I maintain that this is carrying the liberty of the subject a trifle too far, and I think the day is not far distant when it will be impossible for any of these gentry to practise any form of the healing art unless they are entitled to register.

"It would be well now to consider what the medical student had best do when he shall have duly and fully qualified, and

he will probably by that time have discovered whether he has developed any particular taste for, or proficiency in, any branch of the science of medicine or surgery, or if he prefers to work at some scientific subject, such as anatomy, physiology, or bacteriology. To those of you who desire or determine to become general practitioners, and such it is to be presumed the majority of you do, I should like to refer to the introductory address given here by Professor Victor Horsley in October, 1891, for you will there find some very practical and useful advice bearing on this subject, which it would be superfluous to reiterate. But there is one branch of practice which provides at this time a very satisfactory opening for such of you as are possessed of manual dexterity. The opening is afforded in dental surgery, a diploma being granted by the Royal College of Surgeons throughout the kingdom. Now, gentlemen, students of this college, you are singularly favoured in your opportunities for acquiring a knowledge of dental surgery on account of our proximity to two dental hospitals, one in Leicester-square and one in Great Portland-street. In face of these advantages it does not seem desirable for University College to follow the example of Guy's Hospital and establish a dental school within our halls, for whilst Guy's Hospital was more than two miles from any dental school, we are less than a mile from two. Perhaps enough has now been said about the student's work; let us devote a short time to the student's play. The advantages of a judicious admixture of play and work are so obvious that it is needless to dilate upon them. It is, however, the judicious admixture which is so important, for, like Mr. Pickwick's punch, it is possible to have too much of a good thing, and all I would venture to ask of you is this: do not neglect healthy exercise, but do not let it encroach on your work too much; go in for cricket, football, tennis, cycling, boating, anything you like, but play them for the love of them, not for 'cups' and 'pewters,' and, above all, do not in your games overtax your strength.

"I should like before I conclude to say one word about the invaluable help which physician and surgeon alike derives in the successful practice of their profession from skilful and attentive nursing, and whether in the hospital or the home, the nurse is almost as essential as the doctor, but only so far as she understands how to properly fulfil the instructions of the medical men. With regard to the social position of the medical man I am convinced that it depends entirely upon the man himself in the first place, for his education and his degrees or diplomas place him in the order of gentlemen, and it is his conduct and demeanour alone, which will enable him to remain in that honourable position or not, and to enjoy all its privileges or to be ostracised. Sir Thomas Watson once said on an occasion like this: 'The profession of medicine having for its end the common good of mankind, knows nothing of national enmities, of political strife, of sectarian divisions. Disease and pain, the sole conditions of its ministry, it is disquieted by no misgivings as to the justice or honesty of its client's cause, but dispenses its peculiar benefits without stint or scruple, to men of every country and party, and rank and religion, and to men of no religion at all; and like the quality of mercy, of which it is the handmaid, "it blesseth him that gives and him that takes," reading continually to our hearts the most impressive lessons, the most solemn warnings.' Surely you will not dare without adequate preparation to embark in such a calling as this, so capable of good if rightly used, so full of peril to yourselves and to mankind if administered ignorantly or unfaithfully. If you should be successful let it not make you presumptuous, but remember that in your most successful efforts you are but the honoured instrument of a Mightier Power—that, after all, it is 'God who healeth our diseases, and redeemeth our life from destruction.' In conclusion, let me again offer in the name of the Faculty of Medicine of University College a hearty welcome to those who join us to-day, good wishes to those who are in the midst of their work, and Godspeed to those who are going out into the world."

#### WESTMINSTER HOSPITAL.

##### INTRODUCTORY ADDRESS BY DR. MERCIER.

DR. MERCIER reviewed the altered relations of the medical profession to the public, first in regard to the relations of the individual doctor to each patient and then the relation of the profession as a whole to the rest of the community. In the first relation he remarked how the intercourse of doctor and patient had become less oracular and more confidential; how

the indiscriminating *sic volo sic jubeo* of the doctor had given place to a code of instructions whose reasons were imparted to the patient; how in the treatment of disease the doctor no longer contented himself with administering two tablespoonfuls of physic three times a day, a mode of treatment often little superior to that of wearing an amulet round the neck, but sought to take the whole mode of life of the patient into his hands and to modify and regulate it in accordance with the new conditions that the malady requires. The old view of disease that was now passing away regarded the patient as a body, some organ of which was deranged in its working. The new view regarded the patient as an acting, thinking, feeling man, whose power of acting, thinking and feeling was impaired and needed to be restored. The notion that our predecessors had of the body was much like that of an intelligent outsider might obtain of some great engineering workshop. They knew and understood nearly as well as we do the structure and working of the various organs of the body, of the machinery by which the work of the body is done; what they failed to appreciate was the nature and mode of action of the power by which the machinery was actuated and the work of the body performed. It is the working of this power, which resides in the nervous system, to which attention is now being directed, and the study of nervous action is rising continually more and more into prominence. Among the results of our increasing knowledge of the action of the nervous system and the altered views that begin to prevail with regard to what may be termed diseases of the body politic—maladies affecting the community itself—by which is meant not widespread maladies affecting large numbers of individuals, such as influenza or cholera, but disorders of the community which may coexist with a good standard of health in the individuals of which the community is composed, disorders which impair the efficiency of the social body, which impede it in its struggle to maintain its place among the nations, which diminish its welfare and retard its progress. Such social maladies are crime, pauperism and insanity. The lecturer contended that, different as these conditions are in superficial features, they exhibit upon close investigation such substantial similarity that they may be regarded as several branches of one stock. The pauper, the criminal and the lunatic are alike, it was contended, in being stragglers from the great army of civilisation. They have failed to keep pace with the great moving body to which they belong. They have fallen hopelessly to the rear and will perish by the wayside unless they are gathered into one of the three great ambulances that civilised States provide for their wounded and their inefficient, and which are called respectively the workhouse, the lunatic asylum and the gaol. An examination of the inmates of a workhouse would show that, exclusive of the sick, the children and the aged who might be termed accidental paupers, the remainder, or essential paupers, were so by reason of some defect of constitution, some want of intelligence, or of stability of character or some infirmity of temper or passion which, on the one hand, vitiates their capacity for labour or makes their labour unremunerative, and, on the other hand, allies them to the insane. A large proportion of these essential paupers will be found to be or to have been criminals, and a larger proportion to possess the instincts and habits of criminals. Of criminals, all, so long as they are in gaol, are of course paupers in fact, and a disproportionately large number are found to have obvious mental defects. In addition to these individuals, who border, and more than border, on insanity, it has been established beyond cavil by Lombroso and the school of criminal anthropologists that the criminal man is of a different physical organisation from the normal man, and resembles the lunatic in many respects. Lastly, while every insane person is potentially a pauper—that is to say, is incapable of supporting himself continuously by his own labour, all or nearly all the insane are potential criminals also; that is to say, their appreciation of their duty to their fellow men is so dim or so distorted that but for the restraining influence of asylum life they would bring themselves within the purview of the criminal law. It was further pointed out that there is a constant transference of individuals from one class to the other, and that the majority, for instance, of the insane have passed through the workhouse or the gaol; that while our gaols are being closed for want of inmates and pauperism is diminishing relatively to the population, lunatic asylums are being extended in all parts of the country. Finally, it was contended that the same remedial agent—compulsory employment—was used,

and was found efficacious in each of the three disorders; so that the poet's dictum, that "the lunatic, the lover and the poet are of imagination all compact," should read "the lunatic, the criminal and the pauper." The practical bearing of the view advocated was to be found in the modification of treatment that would follow if the close relationship of the three maladies were admitted. The process for admitting a lunatic to an asylum has already been assimilated to that for committing a criminal to goal. In both cases the detention is for a definite period, and at its termination the patient is discharged, quite irrespective of the state of his malady at the time. In the case of the lunatic the patient could be further detained if, in the opinion of his physician, he was not sufficiently recovered to render him a fit person to be entrusted with his liberty. In the case of the criminal this provision did not exist, and herein the criminal had the advantage of the lunatic; but whether the arrangement was equally advantageous to society was another matter. It was certain that if the reclamation of the criminal was to be effected the period of his detention must be indefinite in duration and must depend on the amelioration of his character. The value of these speculations from a medical point of view was claimed by the lecturer to consist in the broadened and more accurate conception that they afforded of the nature of insanity and allied disorders. It was not by poring through the microscopic that man could ever discover the reason for the existence of a delusion or be able to account for disorders of conduct. The explanation of such phenomena are to be found, not in visible structural peculiarities, but in the operation of biological and sociological laws; not in alterations of the brain, even though such alterations exist; but in the ancestral history of the individual, and in the complex interactions between the forces that animate him and the conditions in which he is placed. The lecturer concluded by inferring from these instances of non-success in life, the conditions that were necessary for success, and dealt with the respective shares of intellect and character in conducing to this result, cleverness, he said, was becoming commoner every day; it was almost a drug in the labour market. But character retained and would always retain its value. Strength of character, energy, courage and integrity were priceless qualities. They cannot be gotten for gold, neither shall silver be weighed for the price of them, and while men of brilliant intellect fail every day, men with these qualities can always command success.

#### THE COLLEGE OF STATE MEDICINE.

INTRODUCTORY ADDRESS BY SURGEON-GENERAL W. R. CORNISH, C.I.E., Q.P.H.

"THE medical schools of this country have a good old custom of opening the medical year with an introductory lecture, in which the students are advised as to what they should do and avoid doing in their training for the medical profession. In the course of my remarks I shall endeavour to give you a brief account of the origin and progress of the College of State Medicine and the aims of its founders, and to review from an independent standpoint the position and prospects of the public health medical service of this country; and, lastly, I shall submit to you a few observations regarding the great cholera epidemic, which is only kept at bay by the indefatigable vigilance and labour of our port and sanitary authorities. The College of State Medicine, in which we are to-day assembled, was established in 1886 and incorporated under a certificate from the Board of Trade in the year 1887. Its main objects are defined in the articles of association. The founders of the College of State Medicine may take this amount of credit to themselves, that they saw the defect in the existing system of education for public health officials and endeavoured to remedy it long before the General Medical Council framed its regulations for the granting of diplomas in Public Health. Since the General Medical Council has laid down rules for the guidance of medical men seeking to obtain Public Health diplomas—that is, in regard to all medical men registered subsequently to Jan. 1st, 1890—a large number of the London and provincial medical schools have established departments of teaching in public health, whether wisely or otherwise it is not for me to say; but the scheme of public health instruction adopted by the College of State Medicine has been followed by more than one of the medical schools, and as imitation is said to be the

sincerest form of flattery, the College may congratulate itself on its pioneer efforts being appreciated, even if the appreciation has taken the form of rivalry. Competition in sanitary education is, however, no evil in itself, and in the long run those institutions which combine the best theoretical with practical teaching will maintain their position; but it may be as well to state clearly that as not one medical man in twenty ever dreams of studying for a Public Health diploma, the multiplication of public health departments in medical schools is likely to result in financial loss to the organisers as well as a waste of teaching power. So far the founders of the College have limited their operations to the establishment of an institution for the training of gentlemen for the duties of health officers, and affording instruction in the methods of bacteriological research, but they do not intend to limit its operations to these subjects. State medicine includes more than hygiene and bacteriological inquiry, and the Council have only been deterred, by want of funds, from taking up other important work coming under the description of 'State Medicine.' There is, for instance, the very important subject of Mental Pathology, in which the great bulk of the members of the profession are but imperfectly trained, and in which a professorship would be desirable, if the Council could see its way to its establishment. Then, again, there is the great subject of Medical Jurisprudence and the investigation of cause of death by unnatural agencies, which subjects are supposed to be studied in the ordinary curricula of medical schools; but the daily reports of inquests appearing in the papers show these subjects to be very imperfectly taught, and more definite and practical teaching seems to be desirable. If only a fraction of the enormous wealth of this country, flowing in the broad streams of waste and prodigality, could be diverted to the narrow channels of education in sanitary principles and practice, the future of its inhabitants would be brighter and happier than it now is. A gentleman who prefers to remain anonymous has placed at the disposal of the College a sum of money sufficient to found a research scholarship for one year, and a candidate will be appointed in the course of the present month. The study of public health questions by the medical profession generally has been discouraged by the supineness or inaction of the recently appointed county councils, who, in the exercise of their authority, have not deemed it necessary, in the majority of instances, to avail themselves of their powers of appointing supervising medical officers of health of their respective areas. The 'may' of the English Local Government Act of 1888, instead of the 'shall' of the Scotch Act of 1890, has had the effect, temporarily at least, of discouraging medical men from qualifying for a public health career, and the neglect of local authorities to consolidate some of the smaller areas into workable districts sufficiently large for an officer giving his whole time to public health duties has still further tended to prevent men from devoting their attention to this branch of professional work. Although provision for the public health is more advanced in this country than in any other, it must not be concluded that everything has been done that might be done to ensure the health and longevity of the people. Legislation hitherto has aimed at throwing all the burden of provision for public health duties on local authorities, but it has not, in my view, adequately met the difficulty of insisting on local authorities respecting and practising the regulations laid down for their guidance. It is true that with well-grounded apprehensions of the approach of cholera an effort has been made to ascertain, by actual survey, the sanitary condition of many of the chief ports in regular communication with infected areas abroad. But this work ought to be undertaken, not only in regard to our first line of defence, but throughout the 1500 areas into which our sanitary defence is split up. Without in any way lessening the responsibilities of local authorities as defined by law, it is of the greatest importance that this sanitary survey of the country should be undertaken by the central Government and carried out on a defined plan. The great need of our sanitary system, in fact, is a closer touch between the controlling agency and the local authority. The vaccination laws of this and other civilised countries have been instituted in the general interests of the population, and for the protection of the public health, and where followed have succeeded in holding small-pox in abeyance, but experience has shown that these laws are systematically evaded by an increasing section of our people, and that many local authorities fail to use the legal powers entrusted to them for the public protection. The vaccination laws may or may not

need amending, but a very bad example is set by those local authorities who permit the law to be defied with impunity. All sanitary legislation must necessarily fail of its object if the fad or caprice of the individual is to be allowed to endanger and injure his neighbours. And this brings me to the consideration of the relations between the executive of the public health service and local sanitary authorities. In speaking of these relations I only attempt to give an individual opinion, biased, probably, to some extent by Indian experience. It is in accord with modern principles of legislation that the responsibility for obeying the law should rest with the local authority. The evil seems to be that the sanitary executive of the Government can take no steps on its own authority unless complaint is made, and supported by evidence, of neglect of the local authority. The Local Government Board has to deal with some 1500 local areas, some densely populated, and others very sparsely so. The consolidation of these areas and the employment of health officers unconnected with private practice, would seem to be a preferable way to carry out thoroughly the provisions of the Public Health Acts and of ensuring that sanitary supervision the public have the right to enjoy. In an ideal public health service we might expect to find all candidates entering by one portal, and liable to serve wherever the controlling authority might direct, the officers of the department being graded in accordance with the importance of their several spheres of work. In such a service we should expect the appointments to be permanent, subject to good behaviour, with a provision for retirement and old age; and although the local area should not be relieved of contribution towards the expense of such an ideal service, it should, in my opinion, have no voice in the choice or selection of the health officer, who should belong to a department presided over by a minister of health. It may be perhaps regarded as a sign of better times for men engaged in public health labours that the present Government has been pleased to appoint a member of the profession to the office of Parliamentary Secretary to the Local Government Board. In Sir Walter Foster we have a clear-headed and most excellent man of business who will bring the experience of a long professional life and sound acquaintance with the principles of sanitary legislation to the discharge of his new duties, and it is to be hoped to the amendment and improvement of the machinery of sanitary inspection and control. The epidemic of cholera which has been trying, so far in vain, to effect a lodgment in this country is one of peculiar interest to the student of epidemiology, and I will ask your attention for a brief space to discuss some of its features in relation to the probabilities of Great Britain being brought within the sphere of its influence at a later date. The present epidemic is perhaps the most remarkable of any that has been noticed, and, so far as its history is known, has moved faster than any previously recorded overflow into Europe from 1831 to the present time. All cholera epidemics, whether in India or Europe, have certain definite features as to time and place. There is in every case a period of invasion, a period of rekindling or recrudescence, and a period of decay, and these periods are usually completed within three years, when the contagium, or morbid material, appears to have exhausted its powers of reproduction, or for some other reason ceases to be active. Late information shows us that cholera was prevalent and fatal in Northern India about the end of 1891. It was certainly prevalent and fatal at the Hurdwar pilgrim gathering in March and April of the present year. It passed on to Cashmere in May and seems to have been most deadly in Afghanistan in April and May, from there to Persia in May and June, and crossing the Caspian Sea by trade routes it spread very generally throughout Asiatic and European Russia, and, attacking the German port of Hamburg in August, has, as the daily press keeps us informed, been carried to our own shores, and with almost the same rapidity across the Atlantic. It is the peculiarity of an invading epidemic to push on rapidly through new or uninfected populations. The movement is influenced by season and probably largely by temperature, for it never seems to be able to accomplish much headway during periods of frost and snow, but in the portion of country invaded by cholera seasonal changes bring about a revitalisation, or renewal of activity, and the epidemic may be more diffused or general in the second than in the first year of its introduction. The third year of a cholera epidemic is not so easy to describe. It may appear only in scattered localities and often in places but slightly or not at all affected in the first or second season, but in scarcely any locality does it survive beyond

the third year. The cholera invasions of Europe since 1866 have been mostly the fag ends of epidemics with no great vitality or inherent force of pushing on into new localities. Of this character probably was the cholera of Egypt of 1883 and of Spain in 1885-6. Of the enormous force and vigour of the present epidemic, the circumstances for its propagation being favourable, we may judge from what has occurred at Hamburg, where, out of a population of 600,000, the deaths from the middle of August up to date have been between 9000 and 10,000. The diffusion of cholera in Russia appears to have been very general from the capital on the Baltic to the Siberian coast and from the Caucasian districts to the extreme habitable north. With an epidemic so widely diffused it may be asked, Is it not possible that the germ or contagium may be exhausted in a single season, and that there may be no recrudescence in 1893? One would like to believe in such a possibility, but such belief would be in direct variance to the recorded history of previous epidemics of invasion which have not so quickly exhausted themselves. We are still very ignorant of the intimate nature of the cholera poison, but successive waves of epidemic invasion have taught us this much, that while no two epidemics are precisely alike in all points, yet in their main features there is very little difference between one epidemic and another. As cholera makes itself evident to us in one epidemic, so it will do in the next and the next, and from this peculiarity of the disease it is quite safe to anticipate that cholera invading a locality in any one year after a long period of absence will not absolutely leave that locality in the season of its invasion, but will remain to be revitalised, increasing or decreasing in accordance with surrounding conditions; so that those who look forward to seeing Europe clear of cholera in 1892 base their anticipations on some hazy notions in their own minds, and not on historical data. To have a clear perception of this feature of cholera is all important to sanitary officials. It teaches them that vigilance and precautions cannot be safely relaxed on the temporary cessation of local outbreaks, and that the measures necessary for the protection of the public health will have to be persevered in steadily while there is the possibility of an epidemic revival. The probability of keeping cholera out of this country and America is a question that comes home to all of us, and so far the first attack of the enemy in both countries has been, thanks to the splendid service of the port sanitary authorities, repulsed. The great danger I apprehend may occur on the relaxation of the precautionary measures and when the seasonal revival begins abroad. Now if there is one fact better established than another it is that the dejecta of a case of painless diarrhoea introduced into a new locality may be the means of a subsequent outbreak of cholera in such locality. In epidemic seasons like the present sanitary authorities cannot afford to give heed to names which tend to minimise danger. Such names ought not to be used in official reports of cholera. Their use is due chiefly to imperfect diagnosis and to the idea that every fatal issue of cholera must necessarily be preceded by collapse, cramps and suppression of urine, whereas a very considerable number of persons actually affected by the cholera virus never reach these stages of the disease, though the discharges from their bodies may, under certain conditions, be just as infective as those of the more advanced cases. It is in regard to the very insidious approach of cholera through the form of what may be thought a simple derangement of the bowels that communities in this country are most liable to become infected. We want and must continue to urge a sanitary stock-taking of the country, not by local officials according to their own notions of sanitary provision, but by an independent staff accustomed to such work. That a very large number of sanitary areas will pass such an ordeal with flying colours I make no doubt, but that a still larger proportion will be found defaulting in one or more particulars as regards the public safety is also, I think, very probable. At the present juncture we do not want to wait for the appearance of cholera, to hold investigation, but to determine by careful survey whether local areas are safe or unsafe as regards their sanitary arrangements. The sanitary survey of which I speak ought most certainly to include an account of our rivers and streams. The way in which our water sources have been treated is a standing disgrace to the country. Numberless commissions and committees have reported on the pollution of rivers, but practically nothing is done to remedy the evils resulting from manufacturers turning their waste products into running streams and the use of such streams as sewage receptacles. Clean, wholesome water is as much

a necessity of human life as clean, pure air, and the deflers of both have much to answer for in regard to preventable sickness and premature death. In the preventive medical service of your country you will find ample scope for all your best energies. You deal with human life in the aggregate, and whatever you may be able to effect, in the way of attaining higher standards of cleanliness, in air, food and water, will be for the benefit of thousands, instead of the units who fall into the hands of the practising physician. You will lose no opportunity of advancing your knowledge or of applying the daily advance of science to the perfecting of your methods; and if ever the glorious time is to come when men and women shall die of old age, just as ripe fruit falls, and enjoy long and healthy days, you will have the satisfaction of knowing that sanitary science, which has already appreciably added to the longevity of human life, and to which you give your loving duty and service, has been the chief factor."

#### THE ROYAL VETERINARY COLLEGE.

##### INTRODUCTORY ADDRESS BY PROFESSOR MCFADYEN.

The lecture was devoted to a review of the growth of veterinary pathology during the past twenty years. The lecturer said that there was no exaggeration in the statement that within the period specified veterinary science had made a greater advance than it did during the preceding eighty years. Every branch of veterinary knowledge had shared in this advance, but in none had the progress been so rapid as in the domain of pathology. Pathological research had discovered new diseases, had revolutionised the views formerly held regarding many others, and was pointing the way to methods of cure and prevention that were scarcely dreamt of two decades ago. Taking as an illustration tuberculosis, it was pointed out that twenty years ago this disease was generally ascribed to some mysterious quality of the tissues in certain breeds and individuals, in consequence of which almost any irritant, such as would in other individuals excite merely a transitory inflammation, might serve to light up a degenerative or destructive process capable of spreading throughout the whole body. It was not then generally admitted by veterinary surgeons—in this country, at any rate—that it was contagious or infectious, but they believed that the disease might be generated in various ways, such as by close breeding, exposure or improper feeding. At the present day, on the other hand, they had no need to speculate regarding the cause of tuberculosis. It had been proved beyond the possibility of doubt that tuberculosis was caused by the introduction into the system of a vegetable parasite or germ, and the disease had now to be classed with the contagious maladies. They knew further that tuberculosis was identical with the disease termed "consumption" in the human subject, and they had to reckon with the possibility of the disease being transmitted from the one species to the other. Anthrax afforded another illustration of the revolution which had been effected regarding the cause of important diseases. In text-books published less than twenty years ago anthrax was vaguely described as a disease in which there was a sudden change in the physical characters and physiological properties of the blood. It was believed that it originated spontaneously, and that geographical, climatic and dietetic conditions played an important rôle in its production. Furthermore, it was regarded as a disease that assumed many forms, the two best known in cattle being splenic fever and black leg. Every one of these notions has had to be discarded. Anthrax was now known to be, like tuberculosis, a disease that owned but one cause—viz., the entrance into the body of a vegetable organism—the anthrax bacillus. The so-called black leg, formerly regarded as a form of anthrax, was now known to be a perfectly distinct disease, caused by another bacillus, which, broadly speaking, was as different from the germ of anthrax as a sheep was from a goat. Glanders, again, was a disease regarding whose cause they had acquired positive assurance only within the last few years. It, too, was formerly regarded as a disease that had various causes, and that sometimes originated spontaneously, but it was now known that every case of glanders was due to infection with a germ derived from some antecedent case of the disease. But perhaps the disease regarding whose nature and cause the most complete revolution of opinion had been effected within the past few years was tetanus or lock-jaw—a disease which, from the suffering that it caused and its almost invariably fatal termination, ranked as one of the most terrible maladies of man and the lower animals. In books

published twenty years ago there could not be found the barest suggestion that this disease might be due to a germ, and yet it was well known to-day that the locking of the jaw from which the disease derived its popular name was due to the action of a deadly poison elaborated in the wound by a bacillus. After referring briefly to actinomycosis, strangles and other diseases the causal microbes of which had recently been discovered, the lecturer proceeded to notice how much knowledge had been gained regarding the means of curing and preventing diseases by a minute study of their pathology. It was a truism that the discovery of the cause of a disease was the first step towards the discovery of the means of cure or prevention. It had, perhaps, to be confessed that the discovery of remedies has yet lagged a long way behind the discovery of causes; but still, magnificent results had already been achieved in the case of some diseases. As an example, the Pasteurian method of protecting animals against anthrax by means of attenuated cultures of the anthrax bacillus was cited—a method which, it was stated, had during the last ten years saved many thousands of pounds annually to the stock-owners in France. Similar methods had, with more or less success, been applied to combat several other diseases. At the present time they appeared to be on the threshold of still greater discoveries regarding the means of combating diseases that had hitherto defied every therapeutic effort. It had recently been shown that it was possible to protect even horses against tetanus by the use of what was termed a "chemical vaccin," and the blood serum of animals thus protected was found to be capable of conferring immunity when injected into other animals. What was still more remarkable, and pregnant with promise of the most beneficent results to both man and the lower animals, it had been discovered that the blood serum of horses thus artificially rendered immune against tetanus was actually curative when injected into animals affected with tetanus. But even in those cases where the discovery of the cause of the disease had not yet been followed by the discovery of anything of the nature of a protective or curative "vaccin," the position to-day was infinitely better than before. Take, for example, the case of tuberculosis. There was unfortunately no known cure or preventive for that disease, but the discovery of Koch's bacillus and the study of its life-history had given clear notions regarding the manner in which the disease was spread, and pointed the way to confine its ravages, and possibly even to stamp it out. In the concluding part of the address Professor McFadyen discussed the place that the study of pathology ought to occupy in the education of the veterinary student. He said that it was time that they gave up the notion that every veterinary surgeon who "knew a horse" and could diagnose lameness was a "good practical man." The veterinarian who wished to deserve that name could not afford to be ignorant regarding pathology or bacteriology. At the present day a veterinary surgeon might easily bring discredit on himself and even endanger human life through errors in diagnosis from which a little bacteriological knowledge might have kept him free. It would be folly to expect every veterinary graduate to be able to carry out a difficult piece of pathological research; but although it was not expected that a veterinary practitioner should be able to carry out a chemical analysis in a case of poisoning, the study of chemistry was considered a most essential part of the veterinary curriculum. And so it ought to be with pathology, which deserved to be taught, theoretically and practically, to as full an extent as chemistry or any other branch of knowledge included in the professional education. At the present time this was not possible, for the simple reason that the three years of study prescribed did not admit of justice being done to the teaching of pathology without curtailing the time that had to be devoted to other subjects. The present was the last session during which a student could enter under the three years system. After that the veterinary curriculum would extend to four years, and every teacher ought to hail with satisfaction the near advent of the new arrangement, under which it would be possible to give a course of instruction in keeping with the times and adequate to the requirements of modern practice. Allusion was also made to the foundation of the chair of Comparative Pathology in the Royal Veterinary College by the Royal Agricultural Society. The lecturer said that this step could not fail to give a much needed stimulus to the study of veterinary pathology in Great Britain—a study which could not fail to bring knowledge of great value in their struggle with animal diseases, and which might also throw light on the cause and treatment of human maladies.

## OWENS COLLEGE, MANCHESTER.

## INTRODUCTORY ADDRESS BY DR. BROADBENT.

THE lecturer took as the subject of his address the Intellectual Interest of the Study and Practice of Medicine. Prefacing his remarks by an appreciative reference to the late Professors Morgan and Ross, he gave a rapid summary of his reminiscences of Manchester medical schools, and then entered on the main question he set himself to discuss. "What," he said, "are the conditions of happiness in a man's life, and how far are these satisfied by a medical career? The first is satisfaction of the ordinary wants—the enjoyment of the simpler comforts and freedom from care for the future of himself and his family. Unfortunately, I cannot say that the medical profession affords all of us such a livelihood as to assure us from pecuniary anxiety and the means of providing for a family; but I can say that the general level of comfort and security among medical men is high and the proportion of wrecks and failures low. What is it which, to those who are mentally and morally fitted for it and who enter it from genuine inclination, makes the medical profession the happiest career a man can choose? For such it really is. To this I answer, first and foremost the opportunity for free and continuous exercise of the intellectual faculties. With the elevation of the race have been developed intellectual appetites. There is a hunger and thirst after knowledge and a passionate desire for achievement, and the pleasure and satisfaction attending the attainment and employment of knowledge are as much higher and more durable than the gratification of the senses as mind is higher than body—as intellectual operations are superior to sensation. All the sciences are laid under contribution by medicine. As you master the principles of chemical structure and affinity, as you come to understand the relation between chemical action and the absorption or evolution of energy, thermal, electrical, and nervous, your ideas are enlarged, your imagination is excited, and the intellectual interest is awakened, which is gratified at each further step you take, but never satisfied. Pathology at the present moment surpasses in interest every other department of study and research. For a long time it was almost identified with morbid anatomy, and concerned itself chiefly with results; but it has emerged from this stage, and the attention of the new school of pathologists is concentrated upon processes, and the method of experiment in their hands is yielding results of surprising value and importance. The discussion before the Pathological Society on phagocytosis was as exciting as a debate in Parliament, and the combats between the cells and invading bacteria as realistic as one of Homer's battles. A septic wound is made, the leucocytes crowd to the spot, block up the avenues by which the hostile bacteria seek to gain entrance into the lymph spaces, and engulf and destroy them, the bacteria at the same time multiplying with amazing rapidity, and endeavouring to disintegrate the cells and to force a passage. This local war is defensive inflammation. If from any cause—the amount of virulence of the infective inoculation, or, in other words, the number, character or activity of the microbes, or, on the other hand, the imperfect afflux or defective vigour of the phagocytes—that is, the inadequate local reaction—the line of demarcation and limitation is imperfectly drawn, the microbes obtain access to the circulation, and in the blood and fluids find an unlimited supply of food and unbounded opportunities of multiplying. It has been known ever since post-mortem examinations were first made or dissection was practised that if a dissection wound were followed by inflammation and abscess the mischief would probably not go further, but that if there were only a little pain at the seat of the cut or puncture, while the lymphatic channels and glands became swollen and painful, fatal septicæmia or pyæmia was probably impending; but it is only now that the defensive process can be understood and explained.

"When I was a student the name zymotic disease had, it is true, obtained a footing in medical terminology, but under protest from many distinguished men who distrusted theory of all kinds. It was pointed out that the analogy between the action of yeast on a solution of sugar and the course of a fever was but weak at best, and was open to the objection that the successive stages of incubation, invasion and decline might represent not the life and work and organism in the system, but the stages of the reaction of the system. Especially were we warned against basing treatment upon such uncertain grounds. Now we know that the parallel holds good down to the smallest particular, just as the yeast grows and

multiplies with extraordinary rapidity, splitting up the sugar into carbonic acid and alcohol till its further progress is arrested by the alcohol which is a product of its own activity, so the bacteria multiply at the expense of the fluids of the body, form ptomaines which, like alcohol, act as poisons to the nervous system, and which, again, like alcohol, bring the action of the microbes to an end. Our methods of protection against fevers are now entirely derived from definite knowledge of the life-history of the bacteria or microbes by which they are caused, and our treatment will be more and more determined by such knowledge. We are shown, also, how the defensive processes may be reinforced or impaired. It is well known that drunkards fall ready victims to fever, erysipelas, and septic diseases generally, and the general deterioration of the tissues produced by alcoholic excess has been accepted as a sufficient explanation. But this, while true, is not the whole truth. A bacteria culture of a given kind and degree of virulence is injected under the skin of a rabbit, local inflammation, and perhaps abscess follows, but the animal does not fall a victim to the poison. In another rabbit, or in the same at another time, an injection of the same kind is made, but simultaneously a dose of chloral is injected into some remote part of the body; the local reaction is imperfect, general infection rapidly takes place, and the creature very soon dies. What is the reason? It is that chloral paralyses the leucocytes. They cease to display their wonted activity; examined on the warm stage, instead of pushing out pseudopodia in every direction and undergoing frequent changes of shape, as is observed in the normal state, they are sluggish and retain a spherical form. When bacteria, therefore, are introduced into the subcutaneous tissue, they take no notice of them, but remain perfectly passive, and leave the way open into the lymphatic spaces, whence the invaders pass into the circulation, carrying destruction to every organ of the animal's body. Now alcohol in excess has a similar action on the leucocytes, and this, as well as the deteriorating influence on the tissues of chronic alcoholism, predisposes to septic infection. A single debauch, therefore, may open the door to fever or erysipelas. Protective inoculations against various diseases have been discovered, and had it not been for the ill-judged restrictions on experiment which have deprived this country of the precedence in research which would have been earned for it by the zeal and insight of our young experimental pathologists, we might perhaps already be in the possession of protection against scarlet fever, diphtheria, and other diseases, which would do for this country in saving the lives of children what has been done for France in protecting sheep and cattle from anthrax, preventing the loss of hundreds of thousands of pounds to its agriculturists. We have at length, thanks to experiments on animals, learnt the true nature of phthisis and how it is propagated, and we can now not only direct our efforts to strengthening the constitution so as to render the soil unfit, but to the destruction of the seeds. In this respect Owens College, as represented by Dr. Ransome, occupies a leading position. Here our difficulty will arise from the apathy and carelessness of individual members of the committee. In politics, and in all other departments of public life, no honourable antagonist thinks of imputing motives. In experimental pathology all our motives are found for us, one worse than another, and we are allowed no credit whatever for a desire to alleviate the sufferings of men and animals; the very highest motive with which we are credited is scientific curiosity, and by this is really meant scientific cruelty. You may drown a superfluous puppy, but if you do it with a view to experiments as to how animation may be restored, you place yourselves within the grasp of the law.

"Scepticism in the sense of a general disbelief in the efficacy of remedies, which was formerly not uncommon, and was, indeed, the mark of the 'superior person' in medicine, becomes every day more unjustifiable. At one time, indeed, there was a great gulf fixed between science and practice. Chemistry, physiology and even pathology were left behind at the door of the hospital ward—were indeed by some carefully shut out. With some few exceptions, and these distrusted, there was no connecting link between chemistry or physiology and therapeutics. The symptoms of disease and the influence of remedies were facts of observation pure and simple, to which it was unsafe to apply reasoning or conclusions drawn from science of any kind. But this is no longer the case. When pathologists were in the habit of looking only at the effects of disease—at lungs riddled with cavities at the liver and kidneys shrunken and hardened by

fibroid change, at the brain torn by a hæmorrhage—they might scoff at the efforts of the therapist to deal with such conditions, but they have all had a starting-point, and the patients who have ultimately died have lived through all the stages which have culminated in the ruin displayed on the post-mortem table, while this same post-mortem table has displayed scores of instances in which similar disease has been arrested at one or other of these stages. Processes are now the chief object of study and research, and in proportion as these are understood power will be gained of intervening and counteracting. As we learn how to set in motion morbid changes we learn how they may be arrested. It is in functional derangements that organic disease begins, in dynamic influences that structural changes have their origin. Perturbation in the activity of cells is brought about by deviations from the normal composition of the blood. Now we can at will introduce into the blood substances which can influence the activity in one direction or another of every cell in the body; we can intensify or suspend the influence and control of the nervous system over organic operations, and it is our own fault if we cannot employ these tremendous powers for the advantage of our patients. It is true that at present our comprehension of the ultimate mode of action of remedies is very imperfect, and that we have still to be guided by the flickering light of experience rather than by the broad daylight of science, and it is true that experience is uncertain and at times misleading.

"An enormous step towards the comprehension of the mode of action of remedies has been made in the discovery of the antipyretic class of substances. In these, as in chloral, the chemical constitution of a drug is a clue to its effects, so that from the chemical constitution the effects can be predicted, and our scientific chemists know in what direction to push their endeavours in order to obtain a safer or more powerful substance. When this is fully worked out, and we know not only the factor in the drug, by variations of which the results are influenced, but the exact way in which the chemistry of the system is modified and the heat-producing reactions between blood and tissue are restrained, we shall have obtained knowledge going far beyond what we now possess. In the meantime this tremendous power of lowering the temperature and of relieving certain kinds of pain placed in our hands by these substances is, I fear, thoughtlessly and recklessly employed. We have so long looked upon a high temperature as denoting the intensity of acute disease, and as an indication of the danger attending it, that the lowering of the temperature has almost come to be considered equivalent to the cure of the disease, whereas not infrequently the patient is knocked down as well as the pyrexia, and in any case we ought to bear in mind that we are dealing with an effect and not with the cause, and that, unless the effect is itself a danger, we may be doing more harm than good. We may actually be interfering with a defensive reaction. So common is the abuse of anti-pyretics, that, from time to time in cases admitted into hospital, the drug has to be diagnosed as well as the disease.

"In what way is the study of medicine to be undertaken? No general recommendation could be made which would apply to all; one intellect is analytical, another constructive; one is characterised by receptivity and the faculty of storing up impressions and facts, another by lucidity in perceiving the relations which underlie phenomena; one man ponders slowly, another is instant in action. Memory, the very basis of intellectual operations, varies not only in degree but in kind; in one the memory is visual and a man retains only what he sees, while he thinks in pictures, in another it is auditory and he learns by lectures and thinks in verbal associations. You will have to find out for yourselves what method of working suits you best. While I do not interfere with the function of your teachers by recommendations as to the order and method of your studies, I may speak of the spirit in which they should be pursued and of the object you should keep before you. Professor Huxley—let me give him the title recently conferred upon him, but long held by him in our esteem, the Right Honourable Professor Huxley—in one of his lay sermons on education makes this the burden of his exhortation: 'Learn what is true, in order that you may do what is right.' Now, if this applies to the self-training of a man for the ordinary duties of life, it applies with special force to preparation for the medical profession. The sentence might have been devised as a motto for medical students, 'Learn that which is true, in order that you may do that which is right,' and I hope some of you will adopt it and live up to it."

## SHEFFIELD MEDICAL SCHOOL.

## INTRODUCTORY ADDRESS BY DR. DUNCAN BURGESS.

DR. BURGESS, in speaking of preliminary qualifications, referred to the ideal pupil of the old Sanskrit writers. According to the Hippocratic law "to acquire a competent knowledge of medicine, first of all a natural talent is required." The time of Hippocrates was the age of Pericles. Then no guarantee of general education or culture was required in Athens at all events; but when Galen practised in Rome in the second century of the Christian era a preliminary examination was wanted badly. For cooks and cobblers were made doctors in six months. In ancient times care was taken to exclude pupils in bad health or with obvious defects. A high standard of bodily vigour would have deprived the profession in this country of some of its greatest ornaments. The first definite course of preliminary study was that of the school of Salerno in the thirteenth century. No one was permitted to study medicine then until he had studied logic for three years. The lecturer said: "A sound general education is the only introduction to the medical curriculum demanded by our General Council. A boy, therefore, who is intended for the profession should not be made the victim of peculiar theories of education. He should be sent to a good school where he will get the mental and bodily training best suited for him, and therefore for any calling or profession he may adopt. If, when he has reached years of discretion, he cannot give his whole heart to medicine and make it the chief end of his life, he should on no account become a medical student." In speaking of the new curriculum the recognition of physics was considered a great improvement. The thorough and precise work and the accurate reasoning which characterise the exact sciences should give the medical student an invaluable training. The audience were reminded that Thomas Young, whose name occupies the most distinguished place in the history of physical optics, was a London physician; and that Helmholtz, who stands beside Lord Kelvin pre-eminent among living physicists, is a doctor of medicine. The provision in the new regulations for partially resuscitating the old system of pupilage was considered a mistake in its present form. A student would become the pupil of a registered medical practitioner to get little practical tips and useful "wrinkles" and to be made a man of the world. During the time thus occupied a formidable examination in medicine, midwifery and surgery would be hanging over his head. The degree or other title which qualifies for the Medical Register might be deferred for six months or even a year after the final examination. This interval might be profitably spent with a suitable practitioner. Probably the most valuable way of occupying it would be by residing in a general hospital as assistant house surgeon. But it might be very advantageously employed in London, at the Rotundo Hospital, Dublin, or on the Continent. The standard of the qualifying examinations has been raised by the control exercised by the General Medical Council over the multifarious licensing bodies. A State examination such as exists in the German Empire would be far simpler and much more satisfactory than the condition of things here. There should be no royal or easy road to the Medical Register. In each of the three kingdoms the same State examinations should be passed. After alluding to the first institution of medical schools in ancient Egypt and to the magnificent museum of Alexandria and to the work done by the Arabs, the lecturer then went on to say: "In the universities of the Middle Ages, wherever a medical faculty was encouraged and helped famous teachers attracted pupils from distant countries. Unfortunately medicine was not properly recognised by the English universities, and the trade marks of the corporations, formed to remedy this neglect, have been too plainly stamped on our profession. The benefactors of the famous Italian schools were animated by a very catholic spirit. The magnificent academy at Bologna was dedicated to the whole world. We are proud of Harvey, but his famous discovery was clearly the outcome of the opportunities he enjoyed during the five years he passed at Padua. For the great anatomist, Vesalius, who described the valves, the changes of form and the movements of the heart, was one of the celebrated line of Paduan professors. His pupil and successor established the pulmonary circulation as an inductive truth. And it was at Padua that Harvey had the valves of the veins demonstrated to him by his master Fabricius, who had then only recently made this important observation. The University of Paris, on which the Universities of Scotland have been

modelled, may be cited to show what France has done in the past for medical education. At the present time the Republic spares no expense on its medical schools. According to Puschmann, the salaries of the medical faculty in Paris alone amount to 700,000 francs a year. Hospitals, class-rooms and laboratories are all furnished on the same liberal scale. Enumerate the universities of the German empire, count the professors if you can, inspect the institutes and libraries with their crowds of paid attendants and costly contents, and you will be simply amazed at the liberality of the various Governments. The Emperor of Austria is equally generous. In Vienna the new University buildings vie in magnificence and architectural effect with the opera, the theatre, the town hall, the Parliament house and the Imperial museums in that city of splendid palaces. To contrast with all this the meanness of the richest nation on earth, I must appeal to Ruskin. What he said years ago is still true. We are still glad enough to make our profit out of science. We snap up anything in the way of a scientific bone that has meat on it eagerly enough, but if the scientific man comes for a bone or crust to us that is another story. Ruskin's famous illustration of the gentleman who professes to be fond of science, and who spends £2000 a year on his park but refuses to give 7d. for a unique collection of fossils is too flattering an illustration of what we publicly do for medicine. Registration fees are imposed on medical men at the outset of their career to pay the expenses of the Crown representatives on the Medical Council and to keep a Medical Register for the convenience and protection of the public. Moreover, zealous and able workers who are eager to promote researches at their own expense are forbidden by law to work on the only lines likely to yield useful results." The subjects of the Sheffield Medical School and the new public hospital occupied most of the latter part of the address. The lecturer, after quoting from Dr. Latham's "Clinical Medicine," concluded by saying: "If you follow Dr. Latham's advice you will do more than command success, you will deserve it. Success with honour is worth striving for. May it be yours ere your courage is daunted by hope deferred that maketh the heart sick. Remember the death-bed message of Dr. Wilson Fox to his students, 'Tell them the surest road to success is to have a high standard of right and honour and to adhere strictly to it.'"

## MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

## INTRODUCTORY ADDRESS BY DR. L. HEPESTAL ORMSBY.

THE lecturer, after a few introductory remarks, took for his subjects (1) A Few of the Grievances of the Medical Profession, and (2) The Five Years' Preliminary Study for a Medical Career. The second section of the address was, however, dealt with first. Having enumerated the recommendations of the General Medical Council on professional education and examinations, Dr. Ormsby proceeded to state the reasons which induced the Medical Council to institute a fifth year of study. "First, owing to the many subjects which have to be studied nowadays compared with five-and-twenty years ago, it was considered there was not time given to allow the student to master sufficiently every subject in the curriculum. Secondly, the facilities of entering the profession and the short time spent in its study led to the overcrowding of qualified men far beyond the necessary requirements. It has been said that it requires a population of at least 1800 to support each physician, giving him a fair and ample income. There are in some countries nearly twice as many physicians qualified as there is room for. In America, there is one physician for every 600 inhabitants, to say nothing about the numberless varieties of chemists and druggists who flood the country and engage more or less in practice. In England there is one physician for every 1500 persons, in France one for every 1814; in Austria one for every 2500, in Germany one for every 3000, in Italy one for every 3500. Much can be said, however, on the other side regarding the medical practical education of the last century and early in the present one. Many of our physicians and surgeons in this country who were qualified forty or fifty years ago aver that the men are not better physicians nowadays (with the numberless subjects which are crowded on their already overtaxed brains) than the qualified men of their own day. A hundred years ago there were great men in our profession with very limited advantages and opportunities. Consider for a moment what giants they would

have been had they lived now—which proves that a physician or surgeon must be born with the ability and natural aptitude for his profession and not made by a system of brain-stuffing and other artificial processes. The clever, intelligent student will be able to absorb the required information in two or three years which will take the dull or indolent one five years or more to acquire. Again, the education will be far more expensive to the parent, as it will probably entail the keeping of the student in a city or medical centre of learning for another year, with the accompanying weekly expenses of such a residence. This of course is of no consequence to the public, but it will no doubt press heavily on many impecunious parents. The five years' period of study will only apply to those students who have commenced their studies after Jan. 1st, 1892."

The lecturer then proceeded to discuss various matters falling under the second section of his address. The first grievance brought under notice was the uncertainty of superannuation in the case of Irish dispensary medical officers. "What inducement," said the speaker, "is there for highly qualified medical men to enter the service when they know that after forty or fifty years of hard and incessant work they must depend on the whims and tempers of a set of guardians to grant them a small pittance by way of superannuation to keep them in some comfort for the remaining years of their life? The present Superannuation Act has one word (*may*) which in any future legislation requires to be changed into *must* or *shall*. When that is done the guardians will have no choice in the matter, as it will then be obligatory on them to grant to all worn-out officers in the Poor-law service their just and well-earned retiring allowance. Who has not heard of the glaring case of Dr. Walsh of Ballyshannon, aged eighty-five, who, from increasing infirmities, the result of age, had to resign his dispensary and throw himself on the mercy of the guardians, who, up to the present, have not granted him one penny retiring allowance? Is this right or human in a civilised country? Yet year after year this gross and scandalous system is allowed to continue and old and worn-out dispensary medical officers are constantly to be seen at all hours of the day and night, in sleet and snow, pursuing their beneficent work in miserable cabins on sides of mountains at a time when many of their masters—the guardians—are enveloped in comfort, luxury and sleep. After a life spent in such circumstances the doctor need not look with confidence to a pension. Some boards of guardians have given the smallest retiring allowance they could, others have persistently refused to give any at all. There is no law to compel them. The doctor must resign before his application can be considered, and therefore a number of them hold on until they die in harness."

The next grievance Dr. Ormsby brought before his hearers was the exclusion of Irish and Scotch diplomates from English appointments. "What!" said the lecturer, "am I to be told that, with what Englishmen boast of—*fair play*—they tolerate a system of exclusion of Irish and Scotch diplomates from their appointments, although the same system of examination is held in the three countries, arranged and sanctioned by the General Medical Council, which is the body appointed by the Crown; the licensing bodies and the rank and file of the profession in the three countries to arrange uniform curricula and uniform final test examinations? The question is a very important one and has received the serious attention of many influential bodies. The Irish Medical Association, the British Medical Association, the Irish Medical Schools and Graduates' Association are all in line on the subject, and by their combined strenuous efforts in the direction of justice and British fair play have induced the governors of the Bristol General Hospital and the East Sussex Hospital, Hastings, to expunge from their by-laws this unfair and un-British-like disability. . . . Very recently—within the last three months—a friend of mine, a very able and accomplished surgeon, holding the Fellowship of the Irish Royal College of Surgeons, became a candidate for the assistant surgeoncy of a London hospital. Each candidate on the day of election was called in and interrogated by the governor of the institution, and the following dialogue took place between the governor and my friend:—Governor (in the chair): Mr. —, you are a candidate for the post of assistant surgeon of this hospital?—Candidate: Yes.—Governor: You have read all the regulations necessary for candidates to comply with?—Candidate: Yes.—Governor: What qualifications do you hold?—Candidate: I hold the Fellowship of the Royal College of Surgeons in Ireland.—Governor: Well, sir, we regret very much, but holding such a qualification you are ineligible as a candi-

date for the assistant surgeoncy of this hospital, and we must strike your name off the list of candidates.' I presume if I were a candidate to-morrow for the surgeoncy of a London hospital I would meet with the same rebuff, because I hold by a hard and stringent examination the Fellowship of the Dublin College of Surgeons." Another grievance spoken of by the lecturer was one in connexion with the Army Medical Service. For though, he said, the hardships formerly complained of by that service had to a large extent been removed, there still remained one requiring attention—namely, "the meagre and miserable name by which the Army Medical Service is known—namely, Medical Staff—a meaningless term. It might just as well be civil as military. I know when the Army Medical Service was made a departmental system in 1873 every army surgeon was sure it would be raised to a 'Royal Corps.' We have Royal Engineers, a corps more like the Army Medical Service than any other in work and division of labour. Then there is the Royal Artillery, Royal Marines, and many other regiments termed Royal, but the moment it is proposed to confer it on doctors prejudice and class feeling intervene between the Queen's wishes and her faithful servants in the Medical Service. In 1883 Lord Morley's Committee recommended that the Medical Service should be made a Royal corps, but it was again refused. The doctor class apparently has to work hard, but need never think of being honoured or rewarded. I do not like to prophesy, but I am inclined to think that before long you will see the service termed, as it in all justice ought to be, Royal Medical Staff. And by making the service Royal its *esprit de corps* would be increased and better officers would join it, and so its efficiency and social position would be improved. On the subject of foreign service a great injustice is practised on the army doctor. Till very recently he was compelled to remain only five years on foreign service. Now, however, an additional year has been put upon him, serving as he may have to do in the worst of climates or in a fever- or cholera-stricken district, whereas the Royal Engineers used to serve seven years abroad, but now this has been reduced to five. Where is the justice of this interchange?"

The exclusion of members of the profession from the peerage and the appointment of a Cabinet Minister of Health and Sanitary Science then came under notice in connexion with the elevation to the peerage of Sir Lyon Playfair, and the appointment of Sir Walter Foster by Mr. Gladstone as Parliamentary Secretary of the Local Government Board, this being the first occasion upon which any member of the medical profession has been appointed by the Sovereign as a member of the Government. "In the constitution of our governmental system," said Dr. Ormsby, "there should be (and it is imperatively called for) the Minister of Health and Sanitary Science, who should occupy a seat in the Cabinet, to be only filled by a physician or surgeon of eminence and ability. . . . I also fail to see why the profession of medicine should not hold at least as high a place in the public estimation, and therefore in that of the State, as any other profession. Why is England so sadly behind other countries in this respect? Look, for instance, how the profession is treated in Germany. There, when the medical man has earned by his labours for the public good the recognition of his monarch, he receives a patent of nobility and a high place in the social system, because he is a man of science and extended knowledge. Is the arbitrary word 'precedent' always to exclude men who happen to embrace medicine as a profession, who possess in many instances far bluer blood and a far more ancient and honourable pedigree than many of the members of modern society now called aristocracy? Statesmen in exalted positions are frequently in the habit of making use of statements which they either do not mean or seem not to have the moral courage to carry into effect. For it seems to me that nothing but the blindest prejudice—a prejudice unworthy of enlightened and honest men—can have so long stayed the hand of the Sovereign and prevented the elevation of representative men of our order to seats in the Upper House, which Lord Salisbury once told the country was chiefly valuable because it represented success in all lines of public usefulness, from commerce to statesmanship. It is a great honour to be Prime Minister, but it is even a greater distinction to be Prime Minister in one's eighty-third year, probably the first example of the kind in history. If medical science has had anything to do with Mr. Gladstone's health, and consequently of his position to-day—and who can doubt that it has had much, owing to the care taken of it by Sir Andrew Clark—what higher duty can devolve upon him as Prime Minister than to mark his assumption of office be

advising the Queen to at last do justice to medicine by creating at least two medical peers, Sir William Jenner and Sir James Paget, a physician and a surgeon respectively of world-wide reputation, who have personally well deserved the honour, and the medical profession at large would be ennobled by their elevation."

In the same strain the lecturer referred to the almost entire exclusion of medical men from seats on the Privy Council in England and Ireland. He remarked that England is in advance of Ireland in some degree, for within a few months one of our order, a Fellow of the College of Surgeons of England, has been advanced to the position of a Privy Councillor in the person of Thomas Henry Huxley, F.R.S. Now that England had recognised the claims of the medical profession in this respect, he trusted that Ireland would not be behind-hand in recognising the claims to a similar honour of such leaders in Dublin as Sir George Porter, Bart., and Sir John Banks, K.C.B. "I fear I have wearied you with topics which at present do not interest you as much as they will later on. Those among my junior hearers I may divide into three classes: (1) The first year's students or beginners; (2) those who are in the middle of their course; (3) those just qualified. Now, I would wish to address a few words to each class. As regards the proper and most advisable mode for a medical student to begin the study of his profession, I am convinced that the system of apprenticeship to a hospital surgeon offers the most advantages. It may be the young fellow just out of school is steady, perhaps does not require to be strictly looked after, yet he must always want advice as to how to prosecute his different studies, and in his master he has a friend, counsellor and guide as a matter of right. On the other hand, if the student is inclined to be giddy, the consciousness of a watchful eye over him in the city may be the means of regulating his conduct and frequently act as a salutary deterrent from evil paths. It is cheaper as regards cost, for in the long run the master, out of the nominal fee he receives, undertakes the entire management of the pupil's studies from beginning to end and pays for all lectures, private teaching, grinding, as well as the three separate diplomas necessary to practise. In this way the pupil is saved a lot of inconvenience and the parent has a responsible person to apply to when he wishes to know how the pupil is proceeding with his studies. As regards the course I would recommend the first year's man to adopt in commencing his studies, I would say—be extremely punctual in attendance at the hospital, try to be in time, even though the morning is wet and cold; do not let little discomforts be pleaded as an excuse for your non-attendance; if your teachers are able to be present for your convenience at an early hour, surely you ought to be there to meet them; and as beginners, I warn you not to be giving up your whole time in looking at abstruse and uncommon cases, which you will not comprehend, instead of learning to dress a cut or adjust a bandage. You must educate your minds by degrees; first grasp the elementary principles of your profession, and by this means you will lay the foundation of a sound practical knowledge of the noble science you are now entering upon."

The lecturer exhorted his hearers to endeavour to realise the greatness of their trust and the responsibility and glory of their almost Divine mission. "Remember at all times that every phase of your conduct, every word you utter, every look, every nod of your head, quiver of your lips, glance of your eye and shrug of your shoulders will be observed and considered, and may inspire hope or despair in an anxious heart. Therefore, strive to make your manner and your methods as faultless as possible. Keep your lamps trimmed and your oil ready, and observe punctuality and system in attending all who place themselves under your care, and strive to do the greatest absolute good for each and every one of your patients, that you may deserve to be called 'a model physician.'"

**THE CONDITION OF THE THAMES.**—The Main Drainage Committee of the London County Council has reported that the River Thames has been in a most satisfactory condition during the past summer. At no time has it been possible to detect the slightest discolouration of the water by sewage matters or black mud, and the foreshores at all points have been clean. The aeration of the water has shown a marked increase, the quantity of oxygen dissolved in the water being on one occasion, Aug. 31st, the maximum quantity possible. This satisfactory result is attributed to the operations at the Council's sewage precipitation works.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### MANCHESTER ROYAL INFIRMARY.

A CASE ILLUSTRATING THE TREATMENT OF FÆCAL FISTULÆ AFTER TYPHILITIS.

(Under the care of Mr. F. A. SOUTHAM.)

THE presence of a fæcal fistula after the evacuation of a perityphlitic abscess is a complication which fortunately is not of very common occurrence; for, as Mr. Treves has pointed out, if fæcal matter is mixed with the discharge, it usually indicates a direct opening into the cæcum.<sup>1</sup> It is now a well-established fact that in most abscesses of this nature the vermiform appendix—and not the cæcum—is the part primarily affected, an appendicitis being excited usually as the result of the irritation caused by the presence of a fæcal concretion or foreign body in the process. If, as frequently happens, the inflammation runs on to perforation or sloughing of the appendix, and suppuration takes place around it, the pus, though it often has an offensive odour, is not usually mixed with fæcal matter, for the communication with the bowel becomes obliterated, probably at an early stage in the course of the disease.

In the case recorded below, where a fæcal fistula followed the evacuation of a perityphlitic abscess, the appendix was found to be in a healthy condition, the communication with the bowel being situated just at the point of junction of the ileum with the cæcum. Fæcal fistulæ originating in this way generally close of themselves if the patient's diet and the state of the bowels are carefully regulated, no special treatment being required beyond attention to cleanliness and the ordinary means for preventing any retention of the discharge. In a case of this kind recently under the care of Mr. Southam the fæcal discharge, after persisting for about two months, gradually ceased and the fistula then healed. Occasionally, however, in spite of the most careful treatment, healing does not take place and the fistula remains permanently open—a continual source of annoyance to the patient, whose health is very liable sooner or later to become affected by the constant discharge. This result was illustrated in another case of typhilitic abscess which also came under Mr. Southam's observation, the fistula never closing and the patient being troubled with a fæcal discharge until his death, which occurred some seven or eight years after the abscess was opened. The surgical treatment of these cases, when spontaneous closure does not occur, is usually unsatisfactory. Mr. Treves says: "Cæcal fistulæ are very difficult to deal with by operation, no matter at what stage the attempt at closure is undertaken." The operations usually performed in a case of fæcal fistula, in whatever way it originates, are either paring the edges and suture of the opening in the bowel or resection of the intestine. The former method often fails and is as a rule not easy of accomplishment, for the margins of the perforation after a time become thickened and indurated, the bowel itself being surrounded and bound down by adhesions, and often lying at some distance from the surface. Resection of the intestine is a proceeding which is hardly practicable when the cæcum is the part involved; moreover, it is a tedious and a difficult operation, and one which is not only frequently unsuccessful, but is also attended by a high rate of mortality. The operation of "lateral anastomosis" recently introduced by Senn is a method of treatment which appears to be peculiarly applicable to cases of this nature, for by establishing a fistulous communication between coils of intestine above and below the seat of perforation the passage of the fæces can be diverted; and the fistula, being no longer irritated by the escape of fæcal matter, is therefore placed in a more favourable condition for healing. An advantage of this method is that we are enabled to operate upon the bowel at some distance from the seat of disease, where it is free from

<sup>1</sup> The Surgical Treatment of Typhilitis, p. 46.

adhesions and where its walls are in a perfectly healthy condition. It was for these reasons that the operation of lateral anastomosis (in this instance ileo-colostomy) was performed in the following case, where a faecal fistula had been present for some months, as it showed no signs of closing, and the constant discharge was beginning to undermine the patient's health.

A. T—, a male aged nineteen years, was admitted into the Manchester Royal Infirmary on April 9th, 1892, suffering from a faecal fistula, the orifice of which was situated in the right groin about an inch above the centre of Poupart's ligament. About six months previously an abscess had formed in this situation, which from the history appeared to have originated around either the caecum or vermiform process, for its formation had been preceded by the ordinary symptoms of perityphlitis. The patient was extremely emaciated, having rapidly lost flesh during the last few months. The bowels were very constipated, not being moved except by enemata. A few days after admission the opening of the fistula was slightly enlarged, and its tract, which extended backwards for several inches and was very tortuous, was scraped with a Volkmann's spoon. This proceeding was not, however, followed by any improvement, the discharge of pus and faecal matter still being so copious that it soaked through the dressings, which had to be changed several times daily. For the reasons given above it was therefore resolved to perform the operation of ileo-colostomy. In order that the intestine might be as empty as possible the patient was fed with nutrient enemata for forty-eight hours previously to operation, nothing being given by the mouth except a small quantity of milk.

On May 19th the operation was performed, Mr. J. W. Smith, resident surgical officer, assisting Mr. Southam. An incision about five inches long, its centre corresponding with the orifice of the fistula, was made above and parallel with Poupart's ligament. The abdominal muscles and peritoneum having been divided to the same extent, the fistula was followed through a quantity of soft granulation tissue to its communication with the bowel—an opening the size of a shilling, with indurated irregular margins, situated exactly at the junction of the ileum with the caecum on its anterior aspect. The caecum and termination of the ileum were firmly bound down with adhesions, and there were a few adhesions round the vermiform process, which otherwise presented a perfectly healthy appearance. A loop of ileum a few inches above the point of perforation, and where the bowel was free from adhesions, was emptied of its contents and gently drawn out of the wound; a loop of the transverse colon, which lay in close proximity to the caecum, was treated in the same way. Openings were then made in the adjacent loops of ileum and transverse colon and two of Senn's decalcified bone-plates were introduced and secured in the usual manner, care being taken to prevent any escape of faecal matter into the abdominal cavity. No attempt was made to close the perforation in the bowel. The coils of intestine were then replaced and the wound in the abdominal walls was closed with sutures, a drainage-tube being inserted at its centre.

As regards the after-course of the case, there was no diminution in the amount of faecal discharge from the wound during the first week after the operation. On the tenth day the bowels were moved for the first time, and after this date the discharge rapidly diminished. After the fourteenth day the discharge was very slight, containing only a trace of faecal matter, and the wound healed very rapidly. At the end of the third week the patient was up in the ward, the wound being quite superficial, and at the end of a month it was completely healed. The patient left the hospital six weeks after the operation, the seat of the fistula being marked by a firm cicatrix; the bowels were moved regularly once a day and he was rapidly gaining flesh. When last seen, about two months subsequently, he was in the enjoyment of excellent health.

## BRISTOL GENERAL HOSPITAL.

### TWO CASES OF ABDOMINAL SECTION.

(Under the care of Mr. NELSON C. DOBSON.)

THE following case is one of some rarity, and the record of it is important. The general characters of the disease resemble in many respects those of sarcomata of the ovaries, but the clinical cause of the disease after operation is very

different. Dr. Lomer has described<sup>1</sup> an almost exactly similar case, in which the peritoneum was also extensively infected, and his patient survived four years and a half without any relapse. Cases of this disease have also been described by Thornton, Leopold, Cohen, and Freund. In this patient the larger growths, as well as the smaller, were of a papillomatous nature, and resembled the growths found in cysts arising in the hilum of the ovary or broad ligament in connexion with remains of the Wolfian body. They were whitish-yellow in colour, friable and not very vascular. The cysts in connexion with them were each of about the size of a walnut and contained a yellow mucoid fluid and abundant intracystic papillary growths exactly resembling the large extracystic masses with which they were associated. In all probability these were also originally contained within a cyst which had ruptured posteriorly, possibly at the time when the abdomen began to diminish in size in July. The very vascular tissue cut through in cutting into the abdominal cavity was probably the adherent anterior wall of the cyst, the intestines being visible through the ruptured posterior wall. Microscopic examination showed the typical structure of papilloma, covered with columnar epithelium. Papillomatous growths on the ovaries are very rare and are not associated usually with cysts, as they were in this case. Moreover, the ovaries were not recognised in the operation. We are indebted for the notes of these cases to Mr. Charles A. Morton, registrar.

CASE 1. *Ruptured papillomatous ovarian cyst, with dissemination of papillomatous growths over the peritoneum. Laparotomy; recovery.*—A. B—, aged nineteen, began to suffer from pain in the lower abdomen in January, 1891, and the abdomen began to swell. The pain and swelling prevented her getting about, and she was in bed all the early spring and summer. Towards the end of July the swelling gradually but considerably diminished, so that she measured seven inches less than she had done some time previously. She was then able to be up again for about three weeks, but at the end of that time the swelling had again increased, and she was obliged to return to bed. On admission on Sept. 16th there were signs of free fluid in the abdomen, which measured forty-three inches and a half around at the umbilicus. Eighteen pints of watery fluid, deeply tinged with blood, were drawn off. Under the microscope numerous red corpuscles were seen in the fluid. Nothing definite could be felt in the abdomen.

On Sept. 26th Mr. Dobson, with antiseptic precautions, made a small incision in the linea alba about midway between the umbilicus and pubes. The tissue divided just before the peritoneal cavity was opened contained large veins, and after it was opened a large quantity of blood-stained fluid escaped, but no intestine presented at the wound. On passing the fingers down into the pelvis cauliflower-like growths could be felt. The wound was then enlarged so as to bring these masses into view and facilitate their removal. One the size of an orange was removed from the right side and attached to it was a cyst the size of a walnut. It had a distinct pedicle which seemed to come from the right side of the uterus. On the left side was a similar cauliflower-like growth, but slightly larger, and attached to it were several small cysts. It seemed to be attached to the left side of the uterus, and on its pedicle were some smaller papillomatous growths. It was very difficult to tie the pedicle so as to include all these growths. Both pedicles were transfixed and tied with strong carbolised silk. Several small papillomatous growths were attached to the peritoneum in the pelvis. These were swept off with the finger without ligature. The intestines were tied down by adhesions. The abdominal cavity was washed out with boric acid solution and a glass drainage-tube left in.

Two days after the operation the drainage-tube was removed, and on Oct. 3rd the wound was healed and the stitches removed. There had only been occasional pain in the abdomen after the operation, and the temperature was only once raised to 100°. In the afternoon of the 4th marked abdominal pain set in, and the temperature went up to 102° by the evening. On the 5th and 6th the pain continued and the abdomen began to swell, but there was no vomiting, and the bowels were opened. The temperature kept up at 102° at night and was not much lower in the morning. On the evening of the 6th Mr. Dobson again explored the abdomen through the old wound and found the intestines very sticky and matted together. There was not much fluid, but a drainage-tube was left in. The abdominal pain continued, and the temperature kept up until the 15th, when the

<sup>1</sup> *Sejous*, vol. II. 1891. G. 45.

pain was less marked and the drainage-tube was removed. By the 19th the patient was much better. Her condition rapidly improved after this, and she was discharged without any recurrence of the ascites at the end of November. The small sinus (where the tube had been) closed soon after, and now (Sept. 1892) she remains in good health.

Looking at the fact that the papillomatous growths were already beginning to infect the peritoneum at the time of the operation, it is interesting that there has been no evidence of the continuance of the disease.

The subject of suppuration in the abdominal cavity is always an interesting one, and it is frequently extremely difficult, if not impossible, to give the cause of such disease. In the following case the symptoms preceding the appearance of any swelling and the result of the pelvic examination seem to point to pelvic peritonitis as its cause, but the swelling reached much higher than those of this nature usually do. On the other hand, if there had been suppuration in an ovarian cyst there would have been a swelling preceding the symptoms. The facts that there were swelling and drawing up of the left lower limb and the pelvic thickening and possibility of feeling the cystic swelling from the rectum are in favour of the pelvic origin of the peritonitis. But whatever its origin, the woman's condition on admission was a very serious one and the beneficial effects of antiseptic drainage were rapid and marked.

CASE 2. *Large encysted collection of pus in the abdomen; drainage; recovery.*—M. J.—, aged thirty-four, was admitted into the Bristol General Hospital on April 11th, 1892, with the following history. She was the mother of eight children; the last was five months old. The labour had been quite a natural one. She did not suckle the child after the first ten days, and she menstruated naturally a month after her confinement. She was getting about quite well in health until ten weeks before admission—i.e., for two months and a half after her confinement—when severe pain in the abdomen came on, with vomiting and diarrhoea. The diarrhoea only lasted a few hours, but the vomiting continued for three days, and the pain (which was all over the stomach) lasted for ten days. The abdomen began to swell a fortnight after the pain ceased, and then the left lower limb became much swollen and was drawn up, but this condition of the limb passed off in a few weeks. The abdomen, however, steadily enlarged, and there was pain over the right side when she sat up. There had been no dysuria or difficulty with the bowels after the attack of abdominal pain, though dysuria was present at that time. After the first menstrual time, a month after her confinement, she did not menstruate again until two days after the onset of the abdominal pain and vomiting—i.e., a fortnight later. It was then like a natural period, but perhaps rather scanty, and lasted a week. She was an anæmic, emaciated woman. She had always been anæmic, but had lost flesh since the abdominal attack. The right side of the abdomen was greatly distended by a round swelling, which, although it just crossed the middle line, was nearly wholly confined to the right side. It was distinctly round and was very tense—too tense to get fluctuation by percussion, but fluctuation could be felt by bi-manual pressure. It was dull, and not markedly tender. It reached the costal margin above at its lower part, but did not pass underneath it; below it came to the anterior superior spine. To the outer side its edge could not be defined. It crossed the middle line for about two inches, and one could just get between it and the symphysis pubis. There was very distinct resonance in the flank on the same side. No impulse was communicated to it from the renal region. It was very fixed, so that rolling the patient over on the other side did not alter its position. There were irregular rises of temperature after admission, but not to any height.

Dr. Aust Lawrence examined the woman and found the pelvic roof much thickened by inflammatory exudation which fixed the uterus. Per rectum a swelling could be felt extending into the left side of the pelvis. The urine was clear and free from albumen.

April 14th.—Mr. Dobson made an incision in the linea alba just below the umbilicus, with antiseptic precautions, and dissected through the layers of tissue until the encysted collection of fluid was opened; the peritoneum was so adherent it could not be recognised. Several pints of pus were evacuated and a large rubber drainage-tube was put in. The patient progressed very well after the operation. There was very free discharge of pus for some days, but the drainage-tube was removed by the 22nd, as the discharge was then diminishing. She gained flesh and her general health rapidly improved, and she was

discharged on May 15th with only a small sinus. She writes now (Sept. 1892): "The wound was quite healed within a week from the time I left the hospital, and I have been very well in myself since."

## Reviews and Notices of Books.

*Pptomaines, Leucomaines and Bacterial Proteids; or, the Chemical Factors in the Causation of Disease.* By VICTOR C. VAUGHAN, Ph.D., M.D., and FREDERICK G. NOVY, Sc.D., M.D. Second Edition, revised and enlarged. Philadelphia: Lea Brothers and Co. 1891.

No more convincing proof of the important part that pptomaines, leucomaines and bacterial proteids play in our latter-day pathology can be given than a comparison of the second edition of Vaughan and Novy's work on this subject with their first issue. In it the old matter has been corrected up to date, whilst a very large amount of new matter has been added. This is especially noticeable in the chapters on the relation of bacterial poisons to infectious diseases, on the germioid proteids of the blood, and on the nature of immunity-giving substances. The chapters on the chemistry of pptomaines and leucomaines are very much extended, whilst considerable interest will be aroused by the chapter on auto-genous diseases. The tables for laboratory use have been considerably enlarged and increased in number. Although it is impossible to agree with the authors on some points brought forward and discussed, it cannot but be felt, on careful perusal of the work, that it is the result not only of a most careful and discriminating analysis, but of very great labour and anxious thought; and we must again take the opportunity of congratulating the authors on having produced such an interesting work and readers on having such a book at their command.

*The Geographical Distribution of Disease in Great Britain.*

Part I.: Cumberland, Westmoreland and the Lake District; their Climatology, Geology and Disease Distribution. By ALFRED HAVILAND, M.R.C.S. London: Swan Sonnenschein and Co. 1892.

THIS second edition of Mr. Haviland's treatise is virtually a new work. It is the first instalment of what is intended to be a complete exposition of the geographical pathology of the British islands, and Part I. is to be followed by Part II., dealing with the Basin of the Thames. The writer selects cancer, heart disease and phthisis as illustrations of disease distribution in the British Islands. As regards the first-mentioned disease, the author's conclusions are that "the prevalence of cancer in the Cumbrian areas, as throughout Great Britain, is associated with lowness of area, consisting of more or less retentive soils, overlying clayey rocks and subject to seasonal river floods, that bring down from cultivated and uncultivated land and inhabited localities much refuse, made up of vegetable and animal matter, which ultimately is subject to decomposition, which soils are formed that microphytes and other minute organisms rejoice in as conducive to their culture and propagation." As regards phthisis, he finds that the exposed and windy portions of the area under consideration show the largest percentage of mortality from the disease, and goes on to argue that the probable explanation is "that the irritating qualities of the strong atmospheric currents, more or less ozoniferous, produce pulmonary catarrh, and thus, in the untainted but susceptible, prepare the lung for the bacillus, and in the tainted expedite the process of destruction." We must demur both to these alleged facts and to the conclusions founded upon them. So far from it being the case that windy maritime localities are peculiarly prone to breed phthisis, we believe there is trustworthy evidence to

prove that the very opposite statement is much nearer the truth. The wind-swept Hebrides and Faroë Islands present one of the lowest rates of mortality from phthisis to be observed anywhere. The explanation is probably to be found in the habits of the people. Mr. Haviland's idea that "forcible winds spread havoc among the consumptive" is, we think, an error. No doubt for patients with active disease to expose themselves to trying winds such as the mistral or tramontana is likely to be injurious, but wholesome sea breezes will, on the whole, do phthisical patients much more good than harm. As regards heart disease the author finds that the sheltered districts show the highest mortality. This is not *a priori* unlikely, but we do not think that the mere question of shelter or exposure is the sole, or even the chief, factor in the complicated etiology of heart disease. The relations of this disease to rheumatism, extremely important as they are, do not exhaust the question of its etiology, and even as regards rheumatism, exposure to, or shelter from, winds is certainly not the most important point.

To review fully the work before us would require more space than we can afford. It contains much statistical information and several interesting maps. We cannot say, however, that the facts are always well marshalled or that the conclusions are drawn with sufficient precision or philosophical caution.

*Crime and its Causes.* By WILLIAM DOUGLAS MORRISON, of H.M. Prison, Wandsworth. London: Swan Sonnenschein and Co. 1891.

THOUGH we are accustomed to regard crime as a moral plague inherent in man from the earliest recorded ages, it is certainly disheartening to learn that its amount, as indicated by the number of convictions, is steadily increasing, while it shows no real diminution in seriousness. This, at all events, is the view taken by the author of the volume before us, and it is based upon extensive inquiry and statistical data. We should therefore be the more disposed to follow with interest his careful observations upon this wide field of social pathology. As might be expected, particular attention is given to the causes apparently conducive to crime. Some of these, as climate and temperature, are natural, though not therefore uncontrollable. The rule appears to be that the hotter the climate and the more liable to variation the greater the degree of moral instability. Mr. Morrison is not one of those who regard poverty as a powerful stimulus to wrongdoing. Indolence, he says, doubtless truly, has more to do with the matter. Sex and age have some influence also, woman being prone to offend later in life, and less frequently, but in a more inveterate manner than men. As to age, the years between sixteen and forty are said to be the most lawless. A chapter on the physical and mental characters of criminals is interesting, and tends to show that no such thing exists as a criminal type of man, though evil-doing is very commonly a graft on physical degeneracy. As regards punishment, the system preferred is one which is fully punitive and deterrent, but at the same time educative. A timely word in favour of Prisoners' Aid Societies forms a fitting close to this carefully thought-out and instructive work.

*Archives des Sciences Biologiques, publiées par l'Institut Impérial de Médecine Expérimentale à St. Pétersbourg.* Tome I., No. 3.

MME. N. O. SIEBER-SCHOUMOFF contributes to this number of the "Archives des Sciences Biologiques" an interesting article, "Recherches sur les Streptococcus Pathogènes," in which the question of the identity or specificity of the streptococcus of erysipelas, the streptococcus pyogenes and the streptococcus of scarlet fever is dealt with. The writer comes to the conclusion that the streptococcus pyogenes and the streptococcus of erysipelas are very closely

related, although their chemical products differ slightly. The streptococcus pyogenes forms with various soluble sugars—grape sugar, milk sugar &c.—a variable quantity of optically inactive lactic acid, the zinc salt of which contains three molecules of water of crystallisation. The streptococcus of erysipelas produces active light rotating lactic acid, of which, however, the zinc salt contains only two molecules of water of crystallisation; this acid polarises to the left. Otherwise both these organisms are facultative anaerobes; they decompose sugar both in bouillon and peptone solution, and they produce carbonic acid, but no marsh gas or hydrogen. In bouillon without sugar they produce volatile, fatty acids, and substances giving rise to iodoform in small quantities, but they do not decompose fatty matter or salol into their constituent parts. In ordinary meat bouillon or in bouillon containing sugar of milk they form a toxic albumose, that of the streptococcus pyogenes being the more toxic of the two. The streptococcus of scarlet fever, like the streptococcus of erysipelas, decomposes sugar and forms active lactic acid; like the others, it also gives rise to carbonic acid, but in addition, hydrogen is formed. It may be readily distinguished from the other two organisms by the fact that it brings about rapidly and readily the decomposition of salol. A fourth streptococcus is also mentioned, which, however, may be distinguished morphologically from the others; this also forms, from grape or milk sugar or from glycerine, carbonic acid and optically active lactic acid. This organism was found in cases of sporadic mammitis in cows.

*Transactions of the American Climatological Association, Eighth Meeting.* Philadelphia: W. B. Saunders. 1892.

THIS volume contains the presidential address of Dr. Fredk. Knight; and papers on Whooping-cough, by Dr. Musser; on Pleurisy, by Dr. Garland; on Consumption, by Dr. Thurley, Dr. Loomis, Dr. Fisk, Dr. H. F. Williams, Dr. Tynedale, Dr. Fremont Smith and Dr. Glasgow; on Influenza, by Dr. Curtin, Dr. Watson, Dr. Ingals, Dr. Munro, Dr. Mulhall, Dr. A. A. Smith, Dr. R. J. Nunn; and on various Sanatoria, by Dr. Bibber, Dr. C. C. Ransom, Dr. Darlington and Dr. H. B. Moore. The president's address deals chiefly with the desiderata of a good sanatorium as regards hotels, food-supply &c. Many of the questions in the above list are ably handled and the papers and discussions will repay perusal.

**BEQUESTS AND DONATIONS TO HOSPITALS.**—The late Mr. W. H. Rawson of Mill House, Sowerby, Halifax, bequeathed £500 to the Halifax Infirmary, and £100 each to the Royal Albert Hospital and the Royal Hospital for Incurables at Putney. The executor of the late Mrs. E. Holm has forwarded a cheque for £2500 to the Royal Hospital for Children and Women, Waterloo Bridge-road. Miss Zoe Hawke of Lapford House, New Barnet, has given £200 to the Barnet Cottage Hospital. Miss Eleanor Robson of Rye Hill, Newcastle, has sent a donation of £100 to the Northumberland, Durham and Newcastle Infirmary for Diseases of the Eye, Newcastle. The late Lord Winmarleigh bequeathed £500 to the Warrington Infirmary. Mr. Richard Turton, late of Beechenhurst, Selby Park, Warwickshire, bequeathed £500 each to the General Hospital and the Queen's Hospital, Birmingham; £250 each to the Free Hospital for the Relief of Sick Children and the Royal Orthopædic and Spinal Hospital; £100 each to the Ear and Throat Hospital, the Eye Hospital and the Skin and Lock Hospital, Birmingham. A legacy of £100 has been received by the treasurer of the Hospital for Diseases of the Skin, New Bridge-street, London, under the will of the late Mr. H. Vigne of Woodford. The sum of £141 8s. 8d. has been handed to the committee of the Victoria Hospital for Children, being the result of the recent trades' friendly and temperance societies' demonstration. The late Mr. Edwin Smallwood of Redditch bequeathed £1000 each to the General Hospital and Queen's Hospital, Birmingham, and £5000 in trust for endowing a cottage hospital at Redditch, to be called the Smallwood Hospital.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 8, 1892.

THERE is no falling off in the quality of the introductory addresses which we publish this year, and we can imagine no better employment, or one more agreeable to the student, at a time when he has not settled down to the actual tussle with the hard subjects of the curriculum, than to read the whole of them. While his new surroundings are still rather dull and dingy compared with home, and while fellow students are new and strange, the perusal of these addresses will be an occupation that will give dignity and inspiration to the work of medical education. Occasionally the giver of the address forgets the "high calling," and condescends to suggestions or considerations which do not seem equal to the occasion; but taking the addresses as a whole they justify our advice to students to make the perusal of them the first work of the session. And it is not only students that will profit by this proceeding, but teachers and examiners also. We sometimes think that it would not be a bad change for once in a way if, *vice versa*, the introductory lectures could be addressed to them rather than to the students.

The address of Sir GEORGE HUMPHRY to the Birmingham School, which we published last week, for example, contained some truths which, it seems to us, need to be much impressed on examiners and teachers. We refer to his description of the weary weight of ever-multiplying and more exacting examinations, and to the need for some limitation of the area of subjects which the poor student is expected to know something of, but which are illimitable in their detail. His description of the difference between the demand now made of students at examinations and that made of them when he passed the great portal of Lincoln's-inn should be taken to heart by those who pile subject upon subject in the curriculum and exact even more detail in examinations. He well and eloquently says that the cloud of prospective examinations, which in his days was no bigger than a man's hand, "has now spread over the horizon and almost threatens to deluge the scene and drown the whole joyousness of study." At another point Sir G. HUMPHRY, alluding to the need for limitation of detail in teaching and examining, says: "I feel with regard to certain subjects that they had better be left out of the programme altogether than that the student should be *overladen and wearied and his spirit broken by the multitude of facts and details* that are required to be got up." These are weighty words, which the wisest men in the profession will endorse. Indeed, Dr. COUPLAND, a physician and teacher of great experience, has the same account to give of our examinations—"those examinations which loom so fearfully in the distance." Sir G. HUMPHRY has done many good services to the profession and to education. He cannot do anything better than to press these thoughts of his on over-examining and over-cramming into the minds, not so much of students, who are the sufferers, and the grievous sufferers, from the present state of things, but into the minds of examiners and teachers, who are apt to think that students

were made to be examined and even rejected once or twice, instead of realising that examiners and teachers were made to coöperate justly and proportionately in perfecting medical education, in making it reasonable, and, to use Sir G. HUMPHRY's happy expression, "joyous." Students, no doubt, are often to blame; there is a great deal of bad studying from want of attention and love of idleness or pleasure; but there is also much need for better teaching and for a more just and less terrible system of examinations, that are sometimes a terror not only to idle men, but to the best men in the schools.

We cannot profess to go into detail in our comments on the various addresses. We expect students to read them. They give a good view of the many-sided profession on which they are entering—a profession that is still imperfectly recognised and rewarded by the State, but that is none the less one which is felt to be more and more sound in its basis, honourable in its objects and interesting in its practice. The address of Mr. MITCHELL BANKS will give the student some insight into the thoughts of men of former times and of the present day about the great medical profession. He has evidently a keen eye for all that is instructive in art and literature, even where these bear hardly and uncomplimentarily on his own profession. Perhaps he is a little one-sided in the quotations from which he would have us judge of the medical men of former generations and the estimate in which they were held. If so, he makes amends by his acknowledgment of the change in medical men themselves and in the appreciation of them by the public. We may, however, be allowed to express our strong conviction that the *morale* of the old practitioners was not so low and selfish and ignorant as the satirists would have us believe. Be that as it may, we live in a different atmosphere from theirs and have to be judged by different standards. We have knowledge and means of obtaining knowledge altogether different from those which they enjoyed, and we have to deal with a public intelligence of a different nature, though still very defective in regard to medical matters. We have alluded to grave words spoken by Sir G. HUMPHRY which throw, we think, a great responsibility on teachers and examiners. We shall conclude with a few words to students. Mr. BANKS well says that in a new but near century the medical students of to-day will be the representatives of medicine and will have to transmit and to enlarge the knowledge which they are about to receive. They will be without excuse if they do not do well. The preliminary study of physics which was so commended by Dr. BOWLES, and which is one great point of improvement in present medical education, will greatly facilitate their study of physiology and even of medicine. The study of biology in all its forms and branches will enlarge their conceptions of man, while it will show his vulnerability to organisms infinitely little known and till lately quite unknown. And in the study of actual disease they will encounter a problem which will move all that is best and kindest in them. Their success will mean pleasure to themselves, the diminution of suffering to their fellow-creatures and the advancement of a profession which with the growth of its own knowledge grows more and more in its own humility and in the respect of men.

No department of medical education is more important than clinical teaching. To it all other branches of training

are preliminary and subsidiary, and from its character the average practitioner draws most of the principles and inspirations that henceforth direct the practical work of his life. We propose to take a brief glance at the various methods of clinical teaching now in vogue in the chief British and Continental medical schools, and we do so recognising that each of these methods has its special advantage and its special adaptability to some types and grades of students or practitioners. Further, each of the methods presently to be enumerated is capable of being thoroughly effective in the hands of an able and experienced teacher, while none of them affords any guarantee of success in the absence of such qualities.

Let us look first at the method which is the favourite one with such men as HUGHLINGS JACKSON, NOTHNAGEL, CHARCOT and others. We mean the selection of a few typical and cognate cases of disease and the exhaustive demonstration of their symptomatology in the presence of a large class. This method is hardly practicable in the wards of a hospital, but can be readily managed in the hospital theatre or other room specially devoted to such purposes. It is certainly one of the most perfect of methods, serving to set forth in the most vivid and striking way the leading features, types and stages of the disease under consideration. The great vice of text-book descriptions is that the author, from considerations of brevity and convenience, is compelled to describe "typical cases," which are really the exception rather than the rule in actual practice. He often writes having before him a vivid picture of a disease in its most marked and accentuated form, but for one such case the student finds ten with all sorts of *nuances* of differentiation. The method of clinical teaching which we are now considering is well adapted to correct such misconceptions. When practicable the cases selected should include "type cases" by all means—they afford at least a standard for comparison,—but also cases presenting as far as possible the various stages of differentiation from that type. An ideal clinique, for which the materials even in a large hospital are not always available, would include the demonstration of two or more "typical" cases, then of several cases closely analogous to these, and lastly of examples of the disease in its most obscure and aberrant forms. It is too much to hope that such a selection could be generally available, but this is at least the standard to be kept in view.

The foregoing method, while possessing enormous and perhaps pre-eminent advantages, has also certain drawbacks. Unless corrected and supplemented by the other methods to be presently alluded to, it would tend to reduce the labour of observation to a minimum and to make the student too much inclined simply to receive without examination the *ex cathedra* statements of his teacher. The power of observation could not be cultivated to its highest point by this method alone. The observer must often be left to "break ground" for himself, to feel his way among obscure and perhaps conflicting symptoms, to make mistakes in his observations and to learn some of his best lessons from those mistakes. Further, this "comparative" method of clinical teaching which we are considering implies that the student has at least enough knowledge of his subject to understand a comparison and to check the information given to him by referring it to facts already acquired. Hence the method is perhaps not very

well adapted to beginners. It is, however, *par excellence*, the method for the advanced student. He may safely be assumed to know ordinary diseases in their general forms, and to be solicitous to observe rather the rarer features of disease and its most exceptional varieties. For this purpose no method will compare with that in which comparison and contrast play the chief parts.

A second method has been always a favourite with many of the best teachers, especially if endowed with unusual gifts of eloquent and picturesque demonstration. Sir ANDREW CLARK'S clinical lectures in the wards of the London Hospital are among the best examples of this method which the present generation has seen. We mean the selection of one well-marked "type case" of disease and the exhaustive demonstration of all its features. In able hands this is a very effective method, especially for the student who is making his first acquaintance with the disease in question. It serves to fix in his mind a vivid picture of a particular malady and ensures that its leading features shall be retained throughout life. Clinical teaching loses much from the want of this power of creating a permanent impression. Most of it is too feeble and too devoid of attraction to be long retained in the mind. It fades away, and the student, looking back on years of perhaps hard and honest work in the wards, is astonished to find how few clinical cases have retained an abiding place in his memory. This second method of clinical instruction is capable of affording the student at least a few striking cases which he can never forget and which afford him examples of how many of his cases should and might be studied. This method, while obviously much inferior to the former one in its capability for enforcing points of contrast and difference, may still be utilised to some extent for this end. A teacher, for example, while demonstrating a case of pleural effusion will take occasion to emphasise the points of contrast with pulmonary consolidation, or if *tuberculosis* be his subject he will naturally contrast it with multiple sclerosis and bulbar paralysis. This is, again, to employ the method of contrast, but in a less effective form than in the case first considered. On the whole, this second method is probably the best of all for a beginner. Until he has acquired a fair grasp of the leading features of a disease in its ordinary form, subtleties of contrast and difference are manifestly beyond him. The student should, however, be carefully warned that typical cases are not the rule in disease and that he must be prepared for many exceptions both as regards the excess and defect of symptoms.

A third method is that in which the clinical teacher assigns a case to a student or group of students, allowing time for examination and diagnosis, and then by questioning elicits the conclusion that has been arrived at. This method has, in the case of the sufficiently advanced student, much to commend it. It is as it were a "natural" method of putting the student as nearly as possible in the position which he will afterwards occupy in actual practice. It throws him upon his own resources, draws out whatever stores of knowledge or experience he may possess, serves often as a reminder of his ignorance, enables him to profit by his mistakes, and is in many other ways salutary. It calls for much tact and patience on the part of the teacher, who must know what to expect from his pupils, help them over

real difficulties, encourage them in the right place; rebuke ignorance and haste when necessary, and hold up a correct ideal of observation and diagnosis. Whatever other plans are employed, this last can never be neglected. All three methods have their place and their utility and no one of them should be regarded as in any way excluding the others.

THE therapeutics of cholera are undoubtedly secondary in importance to the prophylactic measures which guard the individual and the community, but they are none the less worthy of the closest attention of the profession. Letters on the treatment of cholera, or, indeed, of any other disease published in lay papers and addressed to non-professional readers, are open to the gravest objections. One correspondent of a daily paper, writing from Hamburg, deals with the castor-oil treatment, and says that it would not meet with the smallest support on the Continent from men "at handgrips with the cholera." On one point he betrays only a slight acquaintance with the facts. In different parts of his letter he indulges in high eulogy of Sir THOMAS WATSON and his strong condemnation of measures for "carrying off the offending matters" from the intestine, and advises his readers rather "to quiet the irritation and stop the flux as soon as they can."

This was undoubtedly Sir THOMAS WATSON's advice and that of nearly all other practical physicians in Great Britain up to the time (1866) when Dr. (now Sir GEORGE) JOHNSON pressed with so much ability the use of castor oil, which he had employed in 1854. He converted his distinguished leader and teacher Sir THOMAS WATSON, who, with that frankness and honesty of action and of language which make his character and his writings so powerful in the profession, adopted the view of Dr. JOHNSON, that at certain stages of the disease castor oil was to be given in opposition to the then general opinion that all diarrhoeas in a cholera season should be stopped as soon as possible. Sir THOMAS WATSON had no personal experience of this new treatment, and adopted it solely under the spell of his able colleague's influence. Still, Dr. JOHNSON thought much of Sir THOMAS WATSON's conversion and made much of it, and continues to do so. Nor was he the only convert. There are many others, such as Dr. MCCOY, who published in THE LANCET of Aug. 18th, 1866, notes on the treatment of 123 cases of cholera in the Liverpool Parish Infirmary. He gave castor oil for the most part after the stage of collapse had set in, and considered that the eliminative treatment had been most successful. Dr. MACLEAN of Netley (*vide* THE LANCET, Feb. 17th, 1886), though thinking that in this disease there was enough of purging, without calling in the aid of artificial purgatives, spoke respectfully of Dr. GEORGE JOHNSON'S treatment, and said that if again smitten he would rather fall into the hands of a *purging* than of an *astringing* physician. He spoke with the authority of one who had not only seen much of the disease in India, but had gone through it himself and attributed his recovery to a faithful servant, who supplied him with iced soda-water, and later to a judicious medical friend, who, instead of dosing him with much physic, sustained him with suitable food in teaspoonfuls, such as arrowroot, well boiled, flavoured with a bitter aromatic, or a teaspoonful of brandy when it could

be borne; then he gave him milk and lime-water flavoured with curaçoa, advancing to beef-tea &c. as the stomach recovered itself. Nevertheless, the general opinion of the profession and of those who have seen most of the disease has been in accordance with Sir THOMAS WATSON'S first views and against any system of treatment by purgation.

The most general agreement in reference to the treatment of cholera is perhaps in regard to the composition of the blood, to keep it normal as long as possible, and when it has lost its serum to restore the same by convenient drinks and by warm water injections more or less medicated by saline venous injections &c. No one has as yet demonstrated that in the early diarrhoeal stage of the disease a patient is the better for having purgatives systematically administered any more than a patient with typhoid diarrhoea would be the better for similar treatment. On the contrary, experience has seemed to show that by such treatment, gastro-intestinal distress is aggravated, which in cholera cases tends to hasten the collapse of the patient and bring about uræmic complications. Rather it appears that the use of medicines and food which allay irritation and diarrhoea in the early stage are very important. In the selection and use of these there is infinite room for the judgment and experience of the practitioner. As regards treatment of the later and graver stages of the disease, Sir GEORGE JOHNSON has done much good by directing attention to its complicated character and to the harm done by overpowering the patient with opium and stimulants. Our own correspondents report that on the Continent drugs are considered in this condition to be of secondary importance, and that the chances of recovery depend on the use of means by which the lost fluids of the body may be restored and the heat of the body recovered. Our Paris correspondent's account last week (p. 795) of Dr. GAILLARD'S treatment of the algide stage with rubbings, hypodermic injections of caffeine and saline injections of sterilised water with saline ingredients in solution into the saphenous vein, or, where the patient is able to swallow and keep down fluids, the gradual administration by the mouth of a litre of sweetened water containing fifteen grains of lactic acid, would seem to show that these measures have saved many lives. Of 173 cures Dr. GAILLARD attributed twenty-five to the transfusion of sterilised serum. Fifty-two very serious cases "were saved" by the lactic acid treatment only without transfusion. It is evident that the operation of transfusion deserves much attention in view of possible resuscitations of the epidemic. We have already alluded to the rectal injections of warm water, containing benzoate of soda or tannin, used and so strongly recommended early in the disease by Professor CANTANI of Naples. Pending the discovery of more specific remedies, the best hopes of diminishing the fatality of cholera seem to centre in the judicious treatment of preliminary diarrhoea, and for the later stages in the restoration of the lost constituents of the blood. If the administration of castor oil were specially indicated it would be in those comparatively rare cases in which there is choleraic collapse and cramps *without evacuations*, but with evidence of distension of the intestines with fluid. The general opinion seems still to be that purgatives should not be regularly administered in this disease, but reserved for

exceptional cases. The removal of peccant matters is an old and popular theory, but the application of it in grave disease requires much consideration.

THE present month is the one usually chosen as the time for departure by that large and increasing class who for various reasons are compelled to winter abroad. The main idea on their part is to escape the cold and fogs of November, and perhaps hardly enough consideration is given to the conditions of climate which await them in the month of October in the sanatorium they may select. Thus, whilst October is too early for Algeria or Egypt, it is too late for some of the Swiss resorts, and even at some of the most favoured spots on the northern shore of the Mediterranean there are serious drawbacks to this season. In the Riviera, for example, it is one of the wettest—often the wettest—months in the year, and the rains are frequently excessive. As much as ten inches and upwards of rain have been recorded at Mentone during this month, and the torrential character of the rains sometimes puts serious difficulties in the way of locomotion. The traveller seeking health who reaches his winter's rest amidst this autumnal deluge is apt to have his dreams of perpetual sunshine rather rudely dispelled, and as first impressions count for much as regards their moral effect, it is very undesirable that the first acquaintance with a very lovely and charming region should be made at a time when its disadvantages are at a maximum and its good qualities most obscured. Other places might be named at which malaria still lingers during October, and on the whole it must be admitted that, like April, it is a difficult month for which to suggest perfectly unexceptionable resorts. Many travellers might with advantage consider whether they can do much better than spend the month of October somewhere on our own southern coasts. By the last week in October the difficulties of choice to which we have alluded are practically over, as this is not too early to leave for the Riviera, Algeria or Egypt. November opens up the favourable season at each of these resorts, by which time both the summer heat in some cases and the autumnal rains in others are usually sufficiently abated. October is also a favourite month in which to start for the long sea voyage to Australia and New Zealand. Here, again, there is the drawback that the time marked out for departure by the exigencies of the English climate does not fit in very well with the climatic conditions to be expected at the termination of the journey. The traveller who starts for the antipodes in October may expect to arrive either about the beginning of December if he selects a steamer, or about New Year's Day if he voyages by sailing vessel. In either case he arrives at quite the worst season of the year. Many parts of Australia have a most admirable climate for at least eight months in the year, but the summer heats are nearly everywhere excessive, and the frequent dust storms are both very annoying and seriously hurtful, especially to pulmonary cases. If the traveller arrives in Australia about midsummer, two or three courses are open to him. He may try some of the elevated resorts, such as Mount Macedon in Victoria, or Katoomba, Armidale, and Mount Victoria in New South Wales, or he may cross at once to Tasmania, where the summer climate, though hot, is quite tolerable, or he may

proceed to New Zealand. In any case he should make a very brief stay in the large cities or lowlands of Australia.

Opinions differ as to whether October is a good month at which to arrive at Davos and the other elevated Swiss sanatoria. On the one hand, it is urged that there are advantages in the patient becoming habituated to the strain of altitude before encountering the strain of cold, while on the other hand it is disputed whether the full advantages of the high Alpine climate can be enjoyed until the winter snows have definitely set in. There seems little doubt that the transition stage from autumn to winter, like the corresponding period of transition from winter to spring, is one of the least agreeable portions of the year. Davos owes a good deal of its success to the general uniformity of its meteorological conditions during the period of resort thither and to the general acquiescence of patients in the somewhat rigorous rules of life which these conditions demand. Periods of transition raise various debatable points and open the door to many possible indiscretions.

On the whole, our remarks would seem to point to the conclusion that invalids proposing to winter abroad should not unduly precipitate their departure, unless under some special circumstance. The last week in October will often be found about the best time for saying adieu to the shores of Great Britain. While we would thus deprecate a premature departure for winter quarters, we would even more strongly deprecate a premature return. Many resorts, such as Egypt, Algeria and Morocco, become too hot in April, but this season is for most invalids far too early to think of returning to England. April and May are very often among the most trying and treacherous months in the year for many patients. The Riviera is still delightful at this time, or Biarritz might be tried with advantage, or such mild Swiss resorts as Montreux or Vevey. In any case the invalid, if his case be one of real gravity, should not arrive in England before the beginning of June.

Breaking off home ties and starting for foreign and often strange lands are apt to be trying to all, and especially to the invalid. But he has much to compensate him—escape from the sunlessness, the rain, the fog, the depressing gloom of the British winter, and the prospect of some months of residence in beautiful regions, full of natural and historic interest, and warmed and brightened by abundant sunshine. If to these be added the consciousness of renewed vitality and a fair hope of ultimate recovery, the fate of the invalid in his winter quarters need not call for commiseration.

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## Annotations.

“Ne quid nimis.”

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### ONE ASPECT OF THE SCARLET FEVER PREVALENCE.

WITHOUT wishing in any way to detract from the importance of the work which the Metropolitan Asylums Board are carrying out in the isolation of scarlet fever cases, we cannot but feel that the constant announcements which are being made as to the gigantic operations in progress are calculated to mislead the public mind and to convey a wrong impression as to the gravity of the circumstances at present

affecting the metropolis. It is perfectly true that scarlet fever is somewhat widely prevalent, and that great value attaches to the isolation in hospital of all those cases which cannot be properly isolated in their own homes and which would otherwise tend to spread the disease, especially by attendance at elementary and other schools. But, after all, when this prevalence is compared with previous prevalences of scarlet fever in London by means of the only comparison available—namely, the amount of death which it causes—the result is by no means alarming. During the month of July the deaths from scarlet fever in London varied in the four weeks from 2 to 4 above the average for the same weeks for the previous ten years, and in the fifth week they were 2 below the average. During the four registration weeks of July the deaths in three weeks varied between 2 and 11 above the average, and in the fourth week they were 3 below the average; and during September the deaths varied in the first three weeks between 3 and 13 above the average, whereas during the last week they were 2 below the average. Now, when we remember that we are dealing with four millions and a quarter of people there is nothing so very grave in our so-called great epidemic, which is actually detaining people in foreign cities where the risk to life is infinitely greater than in the metropolis. The truth is that were it not that we know, during this mild prevalence of scarlet fever, for the first time how many persons are attacked as well as how many die, and were it not for the efforts made to get everybody into hospital and then to announce the totals, very few people would ever have known that anything unusual was in progress. Notification is of great value; its value has largely to do with the facilities for securing the isolation of those needing removal to hospital; but the two systems of notification and isolation ought not to produce a needless scare.

#### DISEASES AND THEIR TREATMENT.

If we were in search of a title at once comprehensive and concise by which to describe the whole sum and substance of medical practice we could find no fitter phrase than that of "Diseases and their Treatment." The joint endeavours of surgeon and physician have no wider field than this, and within its compass there is more than enough of scope for their combined energies. So great a work implies an equal responsibility. By common consent also it demands for its performance a special training and an intimate knowledge of its subject matter. The state of the human body in health and in disease forms but a part of this. Its counterpart is found in the numerous means available for its relief when needful, but capable if misused of inflicting upon it lasting injury. It would be well if these critical relationships were more clearly recognised than they are by many at the present day. In all times, it is true, empiricism has treated them with reckless levity, and in this respect its character continues unaltered. Latterly, however, it has become wider and somewhat unlooked-for connexions. We find many, for example, of the general public imbued with its mock medical principles, and drugs have but to earn a nominal reputation that they may be used without further precaution than that suggested by the guess therapeutics of these amateur doctors. Perhaps a benevolent laxity of the profession in such matters has done something to maintain this practice of self-treatment. Worse if possible, as offending against a clearer light of knowledge, is the error which has led some chemists of intelligence and reputation to prescribe in illness. We are well aware of the difficulties in which men of this class are often involved on this account by the importunity of customers. We gladly acknowledge also their frequent escape from the snares thus laid for them. All the more, therefore, must it be a matter for regret that in some quarters

there exists a tendency to encourage this unwarranted form of practice. An advertisement has recently announced, for example, among the other attractions of a publication devoted to the interests of druggists, a remarkable treatise on diseases and their treatment by a London physician. We might look far and wide without finding a more evident incitement than this to counter-prescribing. There is clearly an implied fallacy in the introduction of such treatises as this into a druggist's handbook. It is impossible by any such theoretical disquisitions to make a chemist a medical man, and, this being the case, he is practically encouraged by literary efforts like the above to undertake duties of great and critical significance for which he must be unqualified. Most of his class, we trust, will have wisdom enough to disregard the subtle inducement, and, however willing to increase their knowledge of medical generalities, will prefer to seek for custom with repute in the legitimate services of their useful calling. An inquest recently held by Mr. John Troutbeck serves to give point to the above remarks. It transpired that the deceased, a child aged six, had been prescribed for by a chemist. As she got worse, Dr. Edward J. Nix was called in, who found her seriously ill. After death a post-mortem was made, and acute peritonitis was found. The chemist had prescribed aromatic sulphuric acid and tincture of capsicum, which Dr. Nix testified would accelerate the disease. The coroner pointed out the great danger of chemists prescribing, and the foreman of the jury stated that the majority of the jury were of opinion that chemists should not be allowed to prescribe in any case. A little healthy expression of opinion by juries in such cases would do much good.

#### AN IRREGULAR TAX ON MEDICAL PRACTITIONERS.

MEMBERS of the medical profession are, like all other members of society, exposed to the nuisance known as "tipping," which is meekly endured as one which cannot be cured, though they might claim exemption seeing the enormous amount of gratuitous work performed by them. There is, however, one very objectionable form of "tipping" against which a protest must be made. We allude to the practice which prevails more or less generally throughout the country by which medical witnesses are docked of the shilling part of their fees at coroners' inquests, these shillings being supposed to be, by a kind of unwritten law, the perquisites of the "beadle" or "coroner's officer." In one town the shillings are not even tendered to the medical witness, the beadle keeping these as his right. More frequently they are handed up to the witness to be duly handed down again. County coroners generally pay the fees themselves, and in these cases the police officer in charge of the case is often the recipient of the odd shilling or shillings. So far as Middlesex is concerned the custom admits of at least a plausible explanation. Although the coroner is required by a former as well as by the present Act to pay the medical witnesses immediately after the termination of the inquest, this has not always been done, and fees have been allowed to accumulate for some months. They have then been taken by the coroner's officer to the medical witness, who has felt compelled to give him the odd shillings for his trouble. This, to our own knowledge, is what happened many years ago; whether it obtains now or not we do not know, but we hope not. When these fees are paid, as they always ought to be, immediately after the inquest, there can be no reason why the medical witness should not receive the whole of the fee specified by the Act without any deduction whatever either for coroner's officer or police. In all well-regulated police forces the acceptance of any gratuity, except with the express sanction of the head constable or superintendent, is viewed as a gross breach of discipline, and if discovered is punished severely. All

medical witnesses have during their student career and subsequently rendered kind assistance to the police without any hope or expectation of requital, and police officers ought in their turn to be civil and obliging to medical witnesses, in common with all members of the community, without expecting a reward.

#### A BLEND OF CIGAR STUMPS.

A TRICK of trade which owes its recent exposure to the energy of the Inland Revenue officials deserves a passing notice. The manoeuvre in question, though ingenious and even in a sense thrifty, cannot claim the merit of originality, inasmuch as it is modelled on a well-known peculiarity of idle boyhood. It consists in collecting the unused ends of smoked cigars and retailing them as the crumbled body contained within a sound outer leaf of tobacco. We need not dwell upon the rank dishonesty of this proceeding, by which the public and the national revenue are equally injured. Its disgusting uncleanness would shock the least fastidious lover of tobacco, while, on the other hand, it is open to grave objection on the ground of health. The cigar stump, sodden and coated with mucus and saliva, could hardly be relied upon to resist the action of any germs it might harbour, and who can tell what varieties these might not include over and above the ordinary agents of putrefaction? We need not pursue the argument further. The sanitary teaching it implies is obvious.

#### PRACTICAL SANITARY WORK IN BENGAL.

WE are glad to find that at last, according to *The Times* correspondent in India, some practical action is to be taken in the direction of attempting to deal with the disease-causes of Lower Bengal. The Bengal branch of the Indian National Congress has formally represented to Sir Charles Elliott, the Lieutenant-Governor, the all-important questions of sanitation, the supply of pure water and the adoption of an effective drainage system for the province. Large tracts of land have become water-logged and the soil is a damp sponge, impregnated with human and animal impurities. Malarial fever is the scourge of whole districts and the effect on the health of the people is terrible. This is of course no new thing. It has been long known, and Government commissions and committees have reported on it again and again. The evil and the remedies were alike known, but were the people ready and willing to aid in their application and contribute towards it according to the measure of their resources? Sir Charles Elliott grasped the situation long ago, and he has wisely embraced the opportunity which this appeal to him to take in hand a system of drainage for the whole province has offered. He quite agreed that the alleged causes of the evils in question were the real ones, and that they required to be dealt with in the way and on the scale that had been represented. But under what conditions and subject to what limitations is the Bengal Government recommended to enter on so large and costly an enterprise? To test the sincerity of the appeal and the reality of its alleged representative character a mixed committee was appointed, of which the native members formed a large majority, and propositions of a very practical character were submitted to them. The members of the committee accepted the responsibility of their position and have furnished a reply, in which they show that they clearly appreciate the scope and urgency of the problem, about which there can, indeed, be no doubt, and are ready to afford support to the financial and legislative measures necessary for dealing with it. Railway embankments, the silting up of rivers and subsidiary lines of drainage, together with an increasing density of population and other insanitary conditions, have of late aggravated the evils. A Brahmin gentleman, speaking of a district within a few miles of Calcutta which thirty years ago had

a comparative immunity from malarial fever, says that now quinine is almost as much needed by a family as rice. The committee has passed resolutions of a practical character empowering the Government to require municipalities to combine together for the purpose of executing sanitary works in a combined area, and for ascertaining the wishes of the majority of the inhabitants or owners of property in districts where disease is unduly prevalent in regard to any drainage or sanitary scheme considered necessary to deal with it. If the majority, as represented by the district board, supports any such scheme, the Government is empowered to undertake it and to raise the necessary funds from the affected area. We concur with *The Times* correspondent in thinking that the Lieutenant-Governor is to be congratulated on the step he has taken in practical public health legislation and in regarding this experiment of a representative conference, with a large majority of native members, as of special interest at the present time.

#### THE SENSE OF SMELL.

IN a recent number of the *American Journal of Psychology* Professor Jashow communicates the results of observations made on a student twenty-one years of age, who suffered from complete anosmia. An abstract appears in the *Neurologisches Centralblatt*. The patient's mother had had no abnormality of smell until she was thirteen or fourteen, when she had completely lost the sense. In the patient on whom the observations were made the defect was evidently congenital. Taste as well as common and thermal sensibility were undisturbed, and the patient therefore offered a good opportunity for testing the sensations in the mouth and nose, and it might be inferred that differences which he could perceive in savoury substances were perceived not by smell but by some other sense. The interesting investigation showed that the greater number of taste perceptions, as they are commonly understood, are really to be referred to smell. No distinction could be made between tea, coffee, and hot water, so that he took the last named, with sugar and milk, as his ordinary breakfast beverage. He confused bitter almond water and water three times in five trials, while he correctly discriminated ether and water, the former, he said, producing in his throat the sensation of peppermint. With ammonia and ether he was right six times in eight trials; and Professor Jashow ascribes the two errors to fatigue. The various fruit syrups he could not distinguish, merely recognising them as sweet. Mustard produced a sharp sensation on the tongue, but was not recognised any more than pepper, while cloves and cinnamon were distinguished. Differences of one degree of temperature were easily recognised.

#### PROTECTION OF VINEYARDS FROM PHYLLOXERA BY METALLIC SALTS.

SOME interesting particulars in regard to this year's claret vintage in the Medoc district are contained in a letter published in *The Times* of the 29th ult. The report is all the more interesting as it gives some evidence of the progress made in the treatment of vines with a view to their protection from disease. The vineyards of France, it is not surprising to hear, have passed through a severe ordeal this year. In the Medoc district, as in England, bitterly cold weather was experienced on April 19th, and there was a frost such as had not been known since May 6th, 1861, the vineyards inland suffering considerable damage. On this account it was conjectured that many of the large estates would only yield half the quantity of last year's crop. On the other hand, the vines on the more elevated lands, together with those along the river, were preserved, the latter owing, it is presumed, to the water of the Gironde—which at that period of the year would be at about 43° F.—having raised the temperature of the air with which it came in con-

tact. The vineyards at Château Loudenne, which occupy a position along the banks of the river, are expected to produce 800 hogsheds of wine, which will be equal to the yield of 1891. Although the flowering of the vines took place under the most favourable circumstances, the month of August further decreased the prospects of an average yield in many places owing to the exceptional heat which then prevailed. At the Bordeaux Observatory the thermometer registered 108° F. and the grapes were in many places scorched and burnt. In spite of all these trials the quality of the 1892 vintage, it is considered, should be good. Although the crop will only be about one-half of the average yield, the vines are in a healthy condition, and the weather continuing favourable for the ingathering of the grapes, the 1892 wines of the Medoc should possess both body and colour. By care and labour the vineyards have been completely freed from the mildew; and the phylloxera, if not completely exterminated, is at least held in check on all the well-managed vineyards. How the pest has thus been combated is not explained. If, as it is suggested to us, the remedy has consisted in applying a mixture of slaked lime and copper sulphate to the vines, it would be satisfactory to hear from some decisive authority, in view of the extraordinary assimilative powers that plants possess for metallic salts, whether after this treatment any important quantity of metal finds its way into the juice of the grape. At any rate, the recent success that has attended the efforts of those who take part in this most important and interesting industry is a matter for congratulation, and those who drink claret will hail with satisfaction the report that the vintage of '92, like that of '87 and '90, is likely to be productive of a good "full-coloured and fruity wine." The total production of wine over the whole of France in 1891 was 663,000,000 gallons (of which the Gironde department alone produced 54,000,000 gallons), and its value, according to the report of the British Consul at Bordeaux, was no less than £40,600,000.

#### DISEASES AMONGST MULATTOES AND INDIANS.

In the *Boston Medical and Surgical Journal* of Aug. 25th are abstracts of two interesting papers on the above-mentioned subject. The first is by Dr. W. A. Dixon. He comes to the conclusion, from observations extending over a period of more than thirty years, that the offspring of mulattoes are the subjects of constitutional disease to a greater extent than those of unmixed blood, and when confined entirely to their own class—that is, without the admixture of pure negro or white blood—they scarcely ever reach the fourth generation in descent. Tuberculosis exists to an excessive degree among the descendants of mulattoes; they are inferior in vitality, intelligence and morality, and show a high rate of mortality. Dr. Dixon has found it quite noticeable that mulatto girls develop at a younger age than either white or negro girls, and that as women they fade much sooner; also that after the second generation of pure mulatto breeding practically all the children born are females. He remarks that it has already been proved in other races that human hybridity cannot be maintained without reversion or fresh supply from parental blood. He suggests the possibility of the danger that tendencies to tuberculosis and other strumous diseases may be increased in the United States by the large mixture of nationalities which is taking place in it, and points to the immunity enjoyed by the Jews and other unmixed races with regard to these affections. In the second paper referred to Dr. A. B. Holden, in an article on the Sanitary Effects of Civilisation, calls attention to the fact that it is the "transition period" in which the constitution of the Indian suffers. If he could be given at once a knowledge of the laws of health

and then have the best hygienic surroundings, he would undoubtedly be better off than in a state of savagery. "The evils of imperfect civilisation and misapplied efforts at civilisation, however, are serious enough to deserve careful attention." The gradual, though slight, decrease in the numbers of the Dakotas illustrates the truth of this proposition. Living in the tepee or lodge, it was easy to move away from any place as soon as it became too dirty for comfort. But now they remain in their houses in the same place, no matter how filthy the neighbourhood becomes. They have never learnt to cook the new food properly, so that there is much indigestion. When children are brought from camp to the boarding-schools a marked improvement is invariably seen in their condition, while they very often suffer from a return to camp life. Dr. Holden then considers tuberculosis among the Indians. "Consumption" and scrofula were the causes of 900 out of 1453 deaths reported in 1888. The death-rate from phthisis alone is stated by different physicians at from 40 to 75 per cent. "The savage is less liable to become sick or to be injured, but when sick or injured to the same degree is more liable to die than the civilised man." In this respect he resembles the negro. Tuberculosis is found in every Indian tribe. In a few places malaria causes more deaths than phthisis. From statistics gathered from agency physicians it appears that scrofula is often very prevalent where no syphilis can be found, and that scrofula may not be encountered at all in tribes where syphilis is common. In the life of the Indian the sanitary evils are those of dress, dwelling and diet. These evils increase the natural tendency to tuberculosis and serve as exciting causes where such a tendency already exists.

#### THE CROWN REPRESENTATIVE FOR SCOTLAND.

WE do not regret the delay which is taking place in filling the vacancy in the Crown representation for Scotland in the Medical Council. The difficulty of the Government arises partly from the fact that there are so many eligible persons in Scotland for such a post. There are colleagues, in the professoriate, of the late Sir George Macleod whose devotion to medical educational work entitles them to the post and whose voices would command great respect on the Council. On the other hand, the universities and the corporations are already so strongly, and the body of the profession so inadequately, represented that there is much to be said for the nomination of a gentleman not officially connected with either universities or corporations, but representative of the wants, educational and otherwise, of the profession. There is precedent for this in Scotland, whose Crown representative for many years was the late Dr. Fergus, one of the able general practitioners of Glasgow.

#### THE SUPPRESSION OF GLANDERS.

THE Board of Agriculture has at last been moved to do something in preventing the extension and prevalence of glanders by issuing an Amended Order, which is to come into operation on the 17th inst.; but most unfortunately the carrying out of the measures it contains is left to the multitudinous local authorities throughout the infected counties, and their enforcement is permissive, not compulsory. The Board must be perfectly aware of the uselessness of such machinery for this purpose, as it has signally failed in everything it has been called upon to undertake in this direction for a quarter of a century, and will in all probability fail again after making serious inroads upon the finances of the ratepayers. We are pleased to note, however, that the Board has recognised the necessity for treating glanders and farcy as one disease, for they were never anything else, so that the confusion and loss resulting from this error can now be avoided. Animals affected with either may be slaughtered at once, as well as those which are suspected of being

contaminated. Compensation is to be given for such slaughtered horses or mules when diseased to the amount of one half their value; in the case of suspected animals destroyed the full value is to be awarded. Such compensation is likely to prove a great inducement to fraud, and with respect to diseased animals is decidedly unfair to the ratepayer. Suspected stables may be entered and placarded if found to be infected, and power is given in other ways to control the disease; but the task of combating this destructive and dangerous equine scourge should have been undertaken by the central authority. No notice has been taken of the risk of having glandered horses imported from infected countries; in fact, we can only look upon the Order as an attempt to silence the agitation that has been going on for energetic action in dealing with the disease and to evade responsibility and trouble. Such an Order might have been issued any time during the last twenty years, and before the impotency of the local authorities had been so clearly demonstrated.

#### DEATH OF LORD TENNYSON.

At the moment of going to press we learn that Lord Tennyson, enfeebled by years, and after lingering in a condition of extreme weakness, but unruffled by physical pain, has passed away. There is probably no living Englishman whose loss will be more mourned. He has left a gap that cannot be filled, for as a poet he stood far above all his compeers. If he occupied a position beneath some of our country's greatest poets, in power of creation and dramatic force, he was above most of them in grace and delicacy and refinement of expression and diction. There was nothing false or meretricious about his verse. He had the true touch of genius, and, what is a rare gift among versifiers, an evenly balanced mind. Lord Tennyson was always true to himself. He did not seek to lead a forlorn hope of attack against the false aspirations and ideas of his age. His tolerance and charity were broad, his sympathies deep, and a vein of tenderness and reverence ran through all he wrote. He died in the early hours of Thursday morning, after a brief and painless illness.

#### THE IDENTITY OF SYRINGO-MYELITIS AND LEPROSY.

AN important paper was recently read by Dr. Zambaco before the French Académie de Médecine on the identity of syringo-myelitis and leprosy. He had seen in Constantinople a considerable number of lepers, and became gradually convinced that the affection described as Morvan's disease, or syringo-myelitis, was no other than leprosy. He had also carefully studied the subject in Brittany, where syringo-myelitis had been first described, and where later on the disease was reported to occur frequently. He observed in all cases which were detained in hospital as incurable deformity of fingers and various other trophic changes, such as loss of one or more phalanges, muscular atrophy, anaesthesia or ulcerations, and all these symptoms he had previously observed in lepers. Photographs of a large number of these were shown which indicated a great resemblance between the two affections. Names of localities, such as *lambezeller*—i.e., "leper village"—and of cemeteries, bridges &c., which are still called *des lepreux*, testify to the fact that the disease has been endemic in Brittany since the earliest times. Old pictures of saints and fairies represent lepers just as they appear now. In a picture, for instance, of the miracles of St. Vincent, the saint is represented as restoring to a leper child its missing fingers. Dr. Zambaco believes that he is justified in concluding from stones, figures, and other objects found in many graves in Brittany that leprosy was imported into the country by the Phœnicians. He had discussed the subject with many

physicians in various hospitals in Paris also, who fully admitted the resemblance between the affections. A case in Charcot's ward which had been diagnosed as typical syringo-myelitis, and in which several fingers had been painlessly amputated, was brought to the Hôpital St. Louis and introduced to MM. Vidal, Besnier, Fournier and Hallopeau, all of whom declared the patient to be a leper. In some Oriental countries leprosy assumes a much severer form than it does in Brittany, where the disease often remains abortive, and appears to inexperienced observers as an entirely different or even perfectly new disease, and as such Morvan described it. His syringo-myelitis, however, comprises, according to Dr. Zambaco, various diseases which should be separated; one division clearly representing "lepra anæsthetica," as von Daniellsen has described it; while others still lack an exact description. Permanent residents of Constantinople are not subject to leprosy, and in those rare instances in which it has been acquired it has always been found that the ancestors of the patients had lived in the Cyclades or other islands of the Greek archipelago.

#### THERAPEUTICS IN THE WESTERN INFIRMARY, GLASGOW.

It would be wrong to say therapeutics is conspicuous by its absence from the clinical teaching in the University of Glasgow, but it is a striking fact that the Professor of Therapeutics has no beds at his disposal with which to illustrate his teaching on the uses of medicines. This is a most unusual and anomalous state of matters, contrasting with that of the other Scotch universities and other medical schools. There is at present a vacancy for a visiting physician in the Western Infirmary, and it does seem most reasonable that it should be filled by one occupying so responsible a post as the Professor of *Materia Medica* and Therapeutics, to say nothing of the personal fitness and claims of Professor Charteris, which will be everywhere recognised. It is due to the students that such an appointment should be made, and that the right use of medicines in the treatment of disease should be demonstrated by one whose special function it is to study them and their action. Professor Charteris, besides being Professor of *Materia Medica* and Therapeutics, has had large experience in teaching clinical medicine in connexion with the Royal Infirmary of Glasgow.

#### THE DIGESTIBILITY OF TRIPE.

WE have been challenged to pronounce an opinion on the dietetic virtues of tripe, an article of food which is largely consumed in certain parts of the country, especially during the winter months. Tripe consists of the soft muscular walls and mucous membrane of the stomach of ruminant animals with a small proportion of delicate omental fat adhering, from which, however, all fibrous portions of the serous covering, or peritoneum, have been removed. From frequent experiments it has been proved that tripe stands high in the list of albuminous substances that are quickly acted on by the gastric juice and reduced to a state of solution, and has therefore acquired a reputation for digestibility. But plain boiled tripe in itself is a very insipid article of food, and in order to make it palatable the art of the cook has to be invoked, which, whilst making it more "savoury," causes it often when so served to be an offence to the stomach. The usual mode of serving tripe in this country is to boil it with milk and onions, and there can be little doubt that such a combination is not particularly digestible. Tripe is also sometimes fried in batter, but unless very carefully cooked it is apt to become leathery. If only plainly boiled in water it requires a considerable amount of condiments in the shape of salt, pepper and mustard to make it acceptable to the palate. There-

fore tripe, as usually cooked, though an excellent dish for strong stomachs, is, owing to the ingredients added to it, not always so suitable for persons of weak digestion as has been supposed. One interesting point regarding the consumption of tripe is the local favour it receives in different parts of the country. It is a favourite dish among the artisans of the large towns in the midlands, whilst it is apparently disregarded in the south and west. A similar local partiality prevails in France, where Normandy has acquired a special repute for the dish *tripes à la Normandie*, which is served in many Parisian restaurants as a delicacy of no mean merit. London also consumes a large quantity, where during winter it is a favourite supper dish among the artisans and lower middle classes. The preparation of tripe, as far as London is concerned, is in the hands of only a few firms, who supply the small retail shops. London tripe, moreover, has obtained a high repute on the Continent, one firm exporting annually £40,000 worth, chiefly to Russia and Baltic ports.

### THE NEW FEVER HOSPITAL.

THE events of the week only emphasise our recent remarks on the magnitude of the task devolved by the Legislature on the Metropolitan Asylums Board. Chief among these was the inspection of the new North-Eastern Hospital at St. Ann's-road, Tottenham. This hospital, meant for the accommodation of 456 patients and 207 officers, has been built and furnished in about six weeks by 900 men working under about twenty firms. The original site was fifteen acres, but it is proposed to buy neighbouring land to the extent of four acres more with property on it. It seems only fair, when buildings for fever are erected, that the owners of property immediately affected should be compensated or bought out. Some idea of the extent of the building will be gathered from the fact that a wall of 800 ft. in length has been erected next St. Ann's-road and a 7 ft. fence on the remaining sides. The buildings comprise twenty-two ordinary patients' blocks, two isolation blocks, two administrative blocks, store blocks, dormitories, laundries, disinfecting rooms &c. The whole are built of wood, with every device for warmth, ventilation &c., the architects being Messrs. A. & C. Harston. The responsible post of medical superintendent of this hospital has been given by the Managers to Dr. R. A. Birdwood, lately medical superintendent of the small-pox hospital ships, who will doubtless give a good account of the cases committed to him.

### WATER-SUPPLY IN SOUTH LONDON.

THE analyst to the Board of Works for the St. Saviour's District, Southwark, has recently reported that samples of the water obtained from the mains of the Southwark and Vauxhall and Lambeth water companies were decidedly impure and almost sufficiently bad to be condemned as unfit for drinking. In support of this statement the following results of analyses in grains per gallon were handed in:—Total solid matter, Southwark and Vauxhall, 18.50; Lambeth, 19.00; loss on ignition, 3.00 and 3.00; mineral solids, 15.50 and 16.00; albuminoid ammonia, 0.0085 and 0.0070; combined chlorine, 1.25 and 1.30; oxygen required, 0.063 and 0.073; hardness, 12.4 degrees and 12.4 degrees. Although these figures contrast unfavourably with those obtained in July last and later in October, we are not disposed to admit that they are evidence of any decided or gross pollution. As will be seen, out of from 18.50 to 19.00 grains of total solid matter from 15 to 16 grains are of mineral character, the combined chlorine being 1.25 and 1.30 and the hardness 12.4 in both instances. The loss on ignition was equivalent to 3 grains, which might or might not have been objectionable matter; there is no evidence to show. Moreover, the water was free from taste and odour, and when viewed through a 2 ft. stratum was clear and of a yellowish-green tint. These

data are hardly sufficient, we think, to establish for certain that the water was seriously contaminated. The quality of the metropolitan water cannot, of course, be expected to improve, seeing that the supply is running shorter every year, and the risk of pollution is consequently becoming greater. However, there is every hope that the labours of the Royal Commission on Water Supply, which resumed its sittings on Wednesday last, will not be in vain. But in the meantime it is very right that pressure should be brought to bear upon the existing companies by conducting independent chemical analyses of the water from time to time, so that at least efficient filtration may be ensured. The results, however, require very careful consideration before a conclusion based on such analyses can be arrived at. It will be interesting to compare the above analysis with the report on the Lambeth and Vauxhall water, which will be issued shortly by the official experts, Messrs. Crookes, Odling and Frankland.

### THE MEDICAL SOCIETIES.

THE Medical Society of London will open on the evening of Oct. 17th, at 11, Chandos-street, Cavendish-square, with an address by the President, Mr. Hutchinson, F.R.S., on "Names and Definitions in Disease." A number of papers of importance have already been promised. Dr. Bristowe, F.R.S., will deliver the Lettsomian lectures on "Syphilitic Affections of the Nervous System." The annual oration will be delivered by Professor W. Mitchell Banks, F.R.C.S. A considerable number of new Fellows have joined the Society, and the session promises to be a busy and successful one. The Pathological Society of London will hold its first meeting on Tuesday, Oct. 18th; the first meeting of the London Clinical Society will be held on Oct. 14th; and the Royal Medical and Chirurgical Society of London will inaugurate its session on Oct. 25th. The meetings will be held at 20, Hanover-square, W., and will commence at 8.30 P.M. The first meeting of the Hunterian Society will be held at the London Institution, Finsbury-circus, E.C., on Wednesday, Oct. 12th, at 8.30 P.M., when the first Hunterian Society lecture for the Session 1892-93 will be delivered by Dr. Robert Barnes on Some Observations on Absorption in relation to Physiology, Pathology and Therapeutics.

### ALLEGED INSANITARY HOUSES.

THE daily journals have done good service in calling attention to the need for remedy of insanitary conditions that are to be found in houses occupied by poor persons. But in these cases everything depends upon accuracy of statement, and we fear that unless this habit of accuracy is cultivated a tendency to disregard the utterances of the press will be eventually encouraged. At a meeting of the vestry of St. James's last week a statement recently made by an evening contemporary was discussed. This statement was to the effect that in a number of streets in that district "almost every house was full of dirty, stinking, home workshops, whose doors were tight-locked against a stranger." We quote from a report of these proceedings in *The Times*. The clerk had written to the editor of the evening journal and asked for a list of the premises referred to. A reply was received mentioning a considerable area, and hinting that certain property alleged to be owned by a member of the vestry was so notoriously overcrowded and deficient in sanitary accommodation as to lead to the belief that it must have come under the notice of the officials. Further requests for detailed information met with no greater success, and finally the medical officer of health said the charges were extremely vague and would involve him in a great amount of investigation to answer specifically. All he could say was that the matter was very grossly exaggerated in the article referred to and that there was substantially no truth in it.

If there is any foundation for the statements made in the evening journal to which we refer there ought to have been no difficulty in supplying the sanitary authority with the information necessary to enable it to remedy the evils complained of. General charges of the sort made tend only to discourage sanitary administration, and certainly tend to minimise the influence of the press. If this should result it would be greatly to be deplored, for it is chiefly owing to the influence of the press that so much good work is being done at the present time.

#### THE SCOTCH MEDICAL SCHOOLS.

THE colleges now remaining to be opened are those of Edinburgh, Aberdeen, Dundee and Glasgow. Aberdeen University will commence its winter session on Oct. 11th and Edinburgh College and University College, Dundee, will open on the same date. On the 18th the winter session in the faculty of medicine will be commenced at Glasgow University, when an inaugural address will be delivered by Professor Cleland, M.D., on "Anatomy: its Place in Education"; the students of Anderson's College will listen to an address by Dr. W. L. Reid and Professor McVail will deliver the introductory address at St. Mungo's College; whilst the lecturer on Gynæcology at the Western Medical School will open the session with an address on "Early Ovarian and Tubal Disease."

#### MEDICAL OFFICERS OF HEALTH.

AN evening contemporary has recently published letters from correspondents bearing upon the question whether medical officers of health should devote the whole of their time to their official duties. It is urged that the time has come when this system should be everywhere adopted, and to this claim we see no objection. But if the whole of the time of capable and reliable men is wanted by the public, some effort must be made to induce sanitary authorities to offer adequate remuneration. The present is not a time favourable to the full development of an efficient health service. The salaries which are often proposed bear no relation to the responsibilities and anxieties attaching to the office, and the disposition to abolish pensions renders the appointment of much less value than hitherto. When, in addition to this, the authorities further propose that their officers shall retire at a fixed age the candidate is led to think of what opportunity he will have of saving money wherewith to provide for the later years of his life. If the officer is allowed to keep in touch with other work he may look to this to provide for him when he leaves the public service. There is therefore something to be said against the whole-time system, which can only be generally adopted when the public is prepared to remunerate its officers adequately.

#### THE VACANT CORONERSHIP OF EAST DENBIGH.

THE election to the office of Coroner for the Eastern Division of the County of Denbigh, vacant by the death of Mr. B. Heywood, will, it is announced, take place on Nov. 7th next. We understand that several applicants for the post are already in the field. On the respective claims of the candidates to fill this important and time-honoured office we do not propose to offer more than a bare opinion. Their antecedents are not for the most part sufficiently well known to us to warrant anything but a general statement, to the effect that, so far as we are aware, they are all more or less fitted to aspire to the dignity of the coronership. To this, however, we must add the reservation that in the case of most of them the want of a medical qualification is, *primâ facie*, in our view a distinct drawback. But with regard to one of the candidates, Dr. Edward Davies of Wrexham, no such hesitation on our part is

either necessary or justifiable. A mere enumeration of the qualifications possessed by that gentleman will suffice to mark him out as pre-eminently worthy to obtain the suffrages of the electors in the approaching struggle. Dr. Davies has acted as deputy coroner for several months past, has lived in the principality all his life, and for over thirty years has practised his profession in Wrexham; moreover, his long experience in connexion with the coroner's court, in behalf of which he has for more than a quarter of a century conducted the post-mortem examinations, renders him peculiarly well fitted to discharge the duties of the office in question. In the interest of the inhabitants generally, we cannot but wish success to the candidature of Dr. Davies.

#### HEALTH MATTERS IN LEICESTER.

THE *Leicester Daily Post* discusses in a leading article several matters of interest in respect of the spread of disease. The chief of these is the disclosure by the chairman of the Sanitary Committee to the Town Council of "the ignorance or the intolerable carelessness" of practitioners in sending cases to the Fever Hospital as scarlet fever cases in which there was no scarlet fever, but measles, or even only a swollen gland. We know nothing of the details of these cases or of the justice of the charges of inaccurate diagnosis, but the charges themselves are serious enough to demand the attention of practitioners. Another point is that a local epidemic of typhoid fever has been distinctly traced by the medical officer of health to herb beer being sold in a shop where there were five cases of the disease. There has also been a "mysterious visitation of small-pox," which has not yet been satisfactorily traced.

#### INTESTINAL BACILLI.

THE bacilli found in the intestines have from time to time given rise to a good deal of controversy, and so far as appearances go there is every probability that the paper warfare will continue just as briskly as it has done in the past. In all the earlier literature concerning the bacillus coli communis this organism was spoken of as a simple saprophyte, but certain observers who maintained that it was not identical with Eberth's typhoid bacillus eventually suggested that it might be a cause of cholera nostras. Latterly a number of observers, amongst whom must now be reckoned Dr. Gabriel Vallet,<sup>1</sup> have come to the conclusion that these two organisms are really identical. Of course there are certain facts which tend to strongly support this thesis, although it must be confessed that, for the present at any rate, it is better to keep an open mind on the subject. However, the following facts may be cited in favour of Dr. Vallet's position. At first a considerable number of observations on typhogenous water were made, as a result of which it was stated that the typhoid bacillus was invariably found; but since investigators have come to recognise certain distinctive characters in the two organisms the bacillus coli communis is now described as occurring in typhogenous water much more frequently than is Eberth's typhoid bacillus; then, again, from careful bacteriological examination of typhoid stools it has been ascertained that the bacillus coli communis is found therein much more frequently than the typhoid bacillus itself, which is, indeed, comparatively rarely met with. After a careful morphological and biological investigation, taking the above facts into consideration, Dr. Vallet has come to the conclusion that the bacillus coli communis of Escherich is nothing more than a transition stage of Eberth's typhoid bacillus, and that there are, in fact, just as Loeffler, Roux, Yersin, Klein and others have described in diphtheria, two forms of the same organism—a pathogenic and a non-pathogenic. Some of the distinctive characters are most

<sup>1</sup> Le Bacillus Coli Communis dans ses Rapports avec le Bacille d'Eberth et l'Étiologie de la Fièvre Typhoïde.

important and those who hold that organisms may become markedly modified as they grow under very different conditions will find considerable evidence in support of their position in these observations. The bacillus coli communis may be cultivated, and will remain for a considerable length of time in liquid taken from privies and water-closets and then sterilised; whilst the typhoid bacillus, when placed under similar conditions, not only ceases to multiply, but dies out—in from one to two weeks. Acting on the idea suggested by this experiment, Dr. Vallet found that when the bacillus coli communis is cultivated in faecal solutions it becomes much more virulent, sometimes even more so than the ordinary typhoid bacillus; and he points out, therefore, how important it is to prevent fermentation of faecal matter. He maintains, indeed, that Murchison was perfectly correct in his statement that typhoid fever can arise quite independently of an anterior cause, by fermentation of this faecal matter. He also insists upon the important part played by malnutrition and exhaustion in the etiology of typhoid fever, holding, as he does, that it is only when the tissues are exhausted and the secreting surfaces are acting irregularly or imperfectly that any of these forms of the bacillus can exert any pathogenic effect. The article is exceedingly interesting and some forcible arguments are advanced, but we cannot agree that Dr. Vallet has by any means proved his position to be invulnerable.

#### THE ROYAL COMMISSION ON WATER-SUPPLY.

THE Royal Commission appointed to consider the question of the London water-supply resumed their sittings yesterday, Lord Balfour of Burleigh presiding. The first witness, Mr. Thomas Hawksley, C.E., stated that he estimated that over the Thames area of 3736 miles the rainfall would be six inches in the driest year, and that would give an average of 887,000,000 gallons; that was the quantity that might be obtained at the end of fifty years, and taking 500,000,000 from the Thames area, that would mean about twenty-five gallons per head per day, as all the supply from the Thames that the water companies could reckon upon. His experience was that not more than twenty gallons per head per day was used for domestic and ordinary trade purposes. At that rate the supply, would carry them over twenty-five years. Questioned as to whether cholera is not occasioned by the water-supply, the witness said it was not, but added that it could be communicated where the water was highly polluted, and had no chance of being oxidised, as in the case of the Golden-square wells. Cholera, he pointed out, always goes up rivers, and not down them, because oxidation is more rapid where the river broadens than where it is narrow. Sir Frederick Bramwell, who followed, said he thought the consumption per head per day could be reduced to twenty-six gallons, instead of, as at present, thirty-two gallons. There was a great deal of water that now ran to waste without the knowledge of the people, who would not object to the waste being saved. After hearing the evidence of Mr. Peregrine Birch, who stated that in his opinion 175,000,000 gallons, in addition to the quantities of water now taken from the Thames, might be taken without injury to the river, the Commission adjourned.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Buda-Pesth.*—An important proposal has been made by the professorial Senate of the Medical Faculty which, if sanctioned by the Government, will alter the examinations considerably in the direction of diminishing the Mineralogy, Zoology and Botany required and increasing the Pathology and Therapeutics, besides which some one practical subject, such as Dermatology or Laryngology, will have to be taken up. It is also proposed that no degrees from Vienna and other Austrian universities shall entitle the holder to practise

in Hungary unless he shall have spent five semesters at a Hungarian university.

*Clausenburg.*—Dr. Szabó of Buda-Pesth has been appointed to the chair of Obstetrics and Gynaecology.

*Königsberg.*—Dr. Kuhnt, professor at Jena, has been appointed to the chair of Ophthalmology in succession to Professor von Hippel.

*Naples.*—Dr. G. Melle has been recognised as *privat-docent* in Dermatology and Syphilography.

*Kazan.*—Dr. L. O. Darshévich of Moscow has been appointed to the Professorship of Nervous Diseases.

*St. Petersburg.*—Military Medical Academy: Dr. N. V. Sokoloff, formerly Professor of Physiological Chemistry, has obtained the sanction of the Professorial "Conference" to recommence lecturing in the capacity of *privat-docent*.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Poincaré, Professor of Hygiene in the Nancy Medical Faculty.—Dr. Tracou, Professeur Agrégé in the Medical Faculty of Lille.—Dr. A. Kruse, *privat-docent* in General Pathology and Morbid Anatomy in the University of Greifswald.—Dr. John J. Reese, Professor of Forensic Medicine and Toxicology in the University of Pennsylvania.—Privy Councillor Dr. Steintal, the *doyen* of the Berlin physicians and a well-known philanthropist, died on the 2nd inst. at the patriarchal age of ninety-four years.

BARON LÉON DE LENVAL of Nice offers a prize of 3000 fr. to the inventor of the best application of the principles of the microphone in the construction of a portable apparatus for the improvement of hearing in deaf patients. Instruments for competition should be sent to Professor Adam Politzer or Professor Victor V. Lang, Vienna, before Dec. 31st, 1892. The prize will be awarded at the Fifth International Otological Congress to be held at Florence in September, 1893. If no instrument is judged worthy of the prize, the jury reserve the right of announcing another competition, unless Baron de Lenval decides to otherwise dispose of the prize. The members of the jury are:—Professor Adam Politzer (president) and Professor Victor V. Lang, of Vienna; Dr. Benni, Warsaw; Dr. Gellé, Paris; Professor Urban Pritchard, London; Professor St. John Roosa, New York; Professor Grazzi, Florence.

PRELIMINARY to the improved water-supply of Florence, shortly to become a *fait accompli*, there was opened on the 2nd inst. in the neighbouring San Casciano a magnificent service of *aqua potabile*. The works, designed and carried to completion by the engineer, Dino Ugoccioni, were greatly admired by the experts invited to witness the ceremony, while the water itself, from a pure and abundant source, satisfied every test applied to it.

THE provincial medical officers in Denmark are evincing grave dissatisfaction with their position, their work being exceedingly heavy and their salaries most inadequate. They are beginning to refuse to continue to act, and the medical press urges them on and expresses hopes that no other medical men will consent to accept appointments until the pay per visit is materially improved.

DR. PAOLO FIORDISFINI, late director of the Manicomio of the Santo Spirito in Rome, of whose life and labours we recently gave some account, was, on the 30th ult., interred in the Church of S. Antonino de' Portoghesi (the National Church of the Portuguese) in presence of a large assemblage of the profession and of other learned bodies. The leading citizens, were also represented.

OUR Special Correspondent telegraphs from Sydney, New South Wales, that the Medical Congress being held in that city during the week has been a complete success. More than 600 members attended the meetings, and over 160 papers on various medical subjects have been announced.

ON Tuesday the Marchioness of Lorne, accompanied by Prince and Princess Henry of Battenberg, opened an extension of the Aberdeen Infirmary. The estimated cost of the extension will be about £30,000.

THE annual dinner of past and present students of Charing-cross Hospital will be held on Oct. 21st at the Holborn Restaurant at 6.30 for 7 P.M. Tickets (5s. 6d. each) may be obtained from Mr. Robert D. Muir.

SIR WILLIAM SAVORY is announced to deliver the opening address of the North London Medical Society in the Clinical Theatre of the Great Northern Hospital on Thursday, Oct. 20th, at 8.30 P.M.

## OPENING OF THE MEDICAL SCHOOLS.

### ST. BARTHOLOMEW'S HOSPITAL.

THE annual dinner of old students took place in the great hall of the hospital on Monday, Oct. 3rd. The chair was taken by Dr. W. J. Russell, F.R.S., Lecturer on Chemistry to the hospital. Among those present were: Sir James Paget, Bart., Sir Frederick Abel, Sir Richard Quain, Bart., Sir William Savory, Bart., Sir George Humphry, Mr. Bryant, Dr. Clifford Allbutt, Regius Professor of Physic in the University of Cambridge, and most of the members of the medical and surgical staff. Over 100 old students were present. After the loyal toasts had been duly honoured Mr. Howard Marsh gave "The Army, Navy and Reserve Forces," for which Messrs. Strickland, Jones and D'Arcy Power responded. Sir George Humphry responded for "The Old Students." The health of the recently elected treasurer of the hospital, Sir Trevor Lawrence, was given by Sir William Savory. The health of "The Visitors" was proposed by Sir James Paget, and to this Dr. Clifford Allbutt and Sir Richard Quain responded. After the healths of the chairman and the secretary, Dr. Hensley, had been heartily drunk, the party adjourned to the library, and a most pleasant reunion of old students was brought to a close.

### KING'S COLLEGE HOSPITAL.

The annual dinner of the old students of King's College Hospital was held on Monday last at Limmer's Hotel, Professor I. Burney Yeo occupying the chair. This dinner, which now replaces the former inaugural address, attracted a very large gathering of old students and friends, eighty-five having notified their desire to be present, and although at the last moment sundry inevitable telegrams of regret were received, the attendance was large and the proceedings enthusiastic. Amongst those who spoke were the following: Professor Burney Yeo, Colonel Mackinnon, who responded to the toast of "The Army and Navy"; Rev. Dr. Wace, principal of King's College and chairman of the hospital committee of management; Professor William Rose, who proposed "Country Friends," for whom Dr. Allfrey of St. Leonards replied; Dr. Fenn of Colchester, who proposed the toast of "Town Friends," responded to by Mr. Thomas Bond of the Westminster Hospital. Professor A. B. Duffin, Mr. Richard Twining, Mr. T. H. Cheater of Burford, Mr. J. H. Salter of Kelvedon and Dr. Tirard also spoke. As evidence of the interest shown in these gatherings it was mentioned that one country friend had that day travelled over 200 miles to be present at the dinner.

### ST. THOMAS'S HOSPITAL.

At 4 o'clock on Monday, Oct. 3rd, the annual prize distribution was held in the governors' hall, Mr. Wainwright, treasurer of the hospital, in the chair. After a few preliminary words the chairman introduced Sir John Lubbock, who then gave the prizes and certificates of honour. The prize

medals were then presented: The Mead medal for Practical Medicine to Mr. A. R. O. Milton; the Cheselden medal for Surgery to Mr. W. G. Sutcliffe; the Sully medal and prize for excellence of Surgical Reports to Mr. W. B. Winston; and the treasurer's gold medal for General Proficiency and Good Conduct to Mr. E. Smith. The Dean of the school then made a few remarks on the present condition of the school, changes in the staff and alterations in the building. Sir John Lubbock then gave his address.

A vote of thanks to Sir John Lubbock for his address was afterwards proposed by Sir H. Doulton and seconded by the treasurer. Tea and coffee were provided in the committee-room for the governors and their friends; light refreshments were also provided in the library. Many of the visitors availed themselves of the opportunity to visit the hospital and medical school. In the evening the annual dinner was held in the Whitehall Rooms of the Hôtel Métropole, and there was a most successful reunion of past and present students of the hospital, about 160 being present. The chair was taken by Dr. Bristowe, F.R.S., in the unavoidable absence of Mr. Henry Laver, J.P., of Colchester. After dinner the usual loyal toasts were drunk, and then Dr. Bristowe proposed "St. Thomas's Hospital," and alluded to the cordial relations existing between the governors and the medical staff. The treasurer of the hospital, Mr. J. G. Wainwright, replied. Dr. Ord proposed "The Visitors," and Mr. Phillips and Mr. F. Walker responded on their behalf. "The Medical School," proposed by Mr. Wainwright, was responded to by the Dean, Mr. G. H. Makins. Dr. Payne proposed "The Chairman," who responded. Mr. MacKellar proposed "The Old Students," a toast acknowledged by Dr. Wyman and Dr. Nichol. "The Hon. Secretaries" was proposed by Dr. Rolla Rouse, and Dr. Turney and Mr. Stahl briefly replied. A pleasant feature during the dinner was the interchange of courtesies with University College Hospital, which was holding its annual dinner in another part of the building.

### MIDDLESEX HOSPITAL.

The Introductory Address was delivered by Dr. Sidney Coupland in the large lecture theatre, to a crowded audience of students and their friends. At the conclusion of the address Dr. Pasteur (Secretary of the Medical School) read the Dean's statement for the past year. The prizes gained during the preceding year were then distributed by Sir Lionel S. Pilkington, Bart., one of the vice-presidents of the hospital, who brought the afternoon's ceremony to a close with a few well-chosen words of advice to his hearers. A well-attended reception was afterwards held in the dining-hall of the residential college.

In the evening an unusually large number of past and present students attended the annual dinner at the Holborn Restaurant. Dr. Wm. Duncan presided, and among the guests present were Sir Lionel Pilkington, Baron Rowland, M.D., Mr. Bell-Sedgwick, Mr. Vowles, the Rev. Hay Chapman, Mr. Wilhelm Ganz and others. The evening passed off most pleasantly, the usual speeches were enthusiastically received, and the admirable playing of Mr. Wilhelm Ganz was a feature of the musical part of the programme.

## CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FROM the Calendar of this institution, which has just been published by the Council, it appears there are 1110 Fellows of the College (of whom 830 obtained the Fellowship by examination, 15, who were Members of twenty years' standing, were elected Fellows, and 2 are *ad eundem* Fellows), 16,771 Members, 704 Licentiates in Midwifery and 793 Licentiates in Dental Surgery. The holders of the diploma in Public Health (granted in conjunction with the Royal College of Physicians) number 126.

During the past collegiate year 687 candidates presented themselves in elementary anatomy and elementary physiology, of whom 484 passed in both subjects, 50 in elementary anatomy, 105 in elementary physiology, and 48 candidates were referred in both subjects; 89 candidates presented themselves in elementary anatomy only, 78 of whom passed; 57 presented themselves in elementary physiology, of whom only 47 passed. The examiners are appointed in conjunction

with the Royal College of Physicians. The fees received from candidates for this examination amounted to £4048 16s., the examiners receiving as fees £573 15s. Of 753 candidates who presented themselves in chemistry, 504 passed and 249 were referred. Of 976 candidates who presented themselves in materia medica, 549 passed and 427 failed. The examiners in Chemistry and Materia Medica are elected by the Royal College of Physicians.

The examiners in Anatomy and Physiology for the Second Examination are appointed annually in conjunction with the Royal College of Physicians; they have conducted the Primary Examination under the old regulations, as well as the Second Examination of the Examining Board. 771 candidates presented themselves in anatomy and physiology, of whom 365 passed in both subjects, 152 passed in anatomy only, 64 passed in physiology only and 190 were referred in both subjects; 109 presented in anatomy only, 84 of whom passed and 25 failed; of the 178 who presented themselves in physiology only 117 passed and 61 failed. The fees received from these examinations amounted to £4291 17s. 6d., the examiners receiving in fees £1621 5s.

The Board of Examiners in Anatomy and Physiology for the diploma of Fellow, consisting of nine members annually elected by the Council, held during the past year two examinations, at which 155 candidates presented themselves, of whom 64 passed and 91 were rejected. The fees received amounted to £1018 10s. and the fees paid to the board to £697 10s.

The Court of Examiners consists of ten members, elected by the Council for five years from the Fellows of the College. They conduct the Third or Final Examination in Surgery of the Examining Board, as well as the Pass or Final Examination under the old regulations, and the Pass or Final Examination for the Fellowship. During the past collegiate year the Court has held two examinations for the Fellowship and four for the Membership. At the former there were 66 candidates, 46 of whom passed, 4 being referred for one year and 16 for six months. For the Membership there were 926 candidates, of whom 532 passed and 394 were referred. The fees paid by candidates amounted to £10,104 18s., and the fees paid to the Court of Examiners and the Examiners in Midwifery to £5792 11s. The Examiners in Medicine, under the scheme for an Examining Board in England, are elected by, and the Examiners in Midwifery in conjunction with, the Royal College of Physicians. Of the 839 candidates who presented themselves in Medicine during the year 521 passed and 318 were referred; in Midwifery, of 791 candidates 542 passed and 249 were referred.

The Board of Examiners in Dental Surgery, consisting of eight members, are elected by the Council for five years, and have held two meetings for the examination of 81 candidates, 51 of whom received their diplomas. The fees paid amounted to £535 10s.; of this the board received as fees £340 4s.

The Examiners in Public Health, appointed in conjunction with the Royal College of Physicians, have examined 58 candidates in Part I., 49 of whom passed and 9 were referred. For Part II. 52 candidates presented themselves, 40 of whom passed and obtained the diploma and 12 were referred. The fees paid by candidates amounted to £276 3s. and the fees to the examiners to £231.

With regard to the finances of the College, it appears that the income from all sources amounted to £39,619 10s. 1d., the largest receipt being, as already shown, derived from the fees paid by candidates for the diplomas of the College—viz., £20,275 14s. 6d., the next largest being from sale of stock, £11,248 14s.; investments, £5879 1s. 9d.; rent from chambers adjoining College, £665 3s. 1d.; incidental receipts—i.e., hire of rooms, sale of calendars, questions &c.—£540 11s. 4d.; trust funds, £251 16s. 11d.; fees retained for candidates, £660 10s.; balance at banker's, Midsummer Day, 1891, £97 18s. 6d.

The expenses for the year amounted to £39,283 6s. 10d., leaving a balance at Midsummer Day, 1892, of £336 3s. 3d., the largest item being for extension of College premises—viz., £10,209 6s. Fees to examiners amounted to £9256 5s.; half of the expenses for the Examination Hall and laboratories, £5373 4s. 4d.; salaries, wages and pensions for officers and servants in the three departments, museum, library and office, £4927 2s. 2d.; rates, taxes and insurance absorbed the sum of £1003 9s. 3d.; extraordinary expenses, £1959 2s. 7d.; fees returned to candidates, £560 10s.; alterations and repairs, £676 11s. 9d.; fees to council, £289 16s.; law expenses, £755 16s. 3d.; purchase of books &c. for library, £662 8s. 11d.; lectures, specimens, catalogue &c., for museum department,

£816 0s. 6d.; whilst under the heading of miscellaneous items, fuel, light, printing, stationery, trust funds &c., about £3000 appears to have been expended.

## CHOLERA.

CURRENT NOTES, COMMENTS, AND CRITICISM.

WHILST the cholera has shown marked signs of diminution in Hamburg, and is slowly but steadily declining in Paris and St. Petersburg, it still continues very prevalent in certain provinces of Russia, and it has broken out at Buda-Pesth. It also continues to prevail to some extent in Holland, Galicia, and at Havre, Antwerp and Cracow.

At Hamburg the total number of cases during the six weeks since it first appeared amounts to 17,701, and the aggregate number of deaths up to the latest official returns is 7536. It is stated that most of the public schools either have already opened or will resume work next week. The outbreak in the Hungarian capital, Buda-Pesth, seems to have been sudden and somewhat severe, affecting especially the quarters on the left bank of the Danube. As in the case of Hamburg, the drinking water is obtained from the river. The authorities at Buda-Pesth were not without some preliminary warning of what was likely to occur. It is alleged that there was at first, when the number of seizures left no doubt of the presence of the epidemic, a great want of preparedness on the part of the municipal authorities to meet the exigencies of the case, and that this had given rise to much popular dissatisfaction and apprehension—in Vienna especially. Whether this may have been the case or not, there is no doubt that the authorities at Buda-Pesth soon set to work in the direction of providing additional hospital accommodation and sick transport. It must always be borne in mind that there is a general disposition to do as little as possible where financial considerations are involved, and to raise a great outcry when it is afterwards discovered that the penalty has to be paid for any neglect or inadequate arrangements.

The reply published by the Chief of the Foreign Affairs Department to the alleged granting of clean bills of health to vessels leaving Hamburg after the outbreak of cholera appears to be a precise and straightforward statement of facts. It supplies us with certain data in regard to the manifestations of the epidemic in that city which it may be of interest to record with reference to the complaints that have been made about the steamships *Moravia* and *Normannia*. According to the official register, the *Moravia's* certificate was issued on Aug. 16th, when there was not the slightest suspicion at Hamburg of an outbreak of cholera. Through the published statements of experts it is known that unmistakable indications of the disease were not discovered until the 22nd of August, and it was still doubtful on the 23rd and 24th of August whether the disease was of an epidemic character. At the latter date the Senate ordered a daily report to be issued, and that the opinion of Professor Koch, who was in the city at the time, should be taken. Bills of health, which had been drawn up on the 24th but not delivered, were withheld, but that for the *Normannia*, dated the 24th, had already been delivered to the ship before the issue had been suspended.

It may also be well here to correct a very general misapprehension that prevails as to the part played by the Jewish Russian emigrants in the spread of this disease. It is the prevailing notion that cholera was conveyed by them and followed everywhere in their track. It is pointed out, however, by a correspondent, in the *St. James's Gazette* of the 5th inst., that such was not the case. As far as Germany is concerned, cholera first broke out in Hamburg, and it was not taken there through Germany by Russian Jews. The earliest cases occurred in the port of Hamburg among the labourers and sailors. The disease had been present in France long before, and in Eastern Russia and St. Petersburg some time before the occurrence of the outbreak in Hamburg. Exactly how it got there, and how the water-supply became infected, are matters still requiring the most careful and minute investigation.

We notice that, owing to the increase of cholera at Buda-Pesth, the military authorities have ordered that tea with citric acid should be supplied to the troops. We prefer the use of a sulphuric-acid-ade. The garrison has remained free from cholera. A bacteriological examination of the alleged

cases in the garrison hospital showed that they had not died of Asiatic cholera. It would seem, by the way, that different varieties of the bacillus had been detected in the course of this epidemic, and it might be interesting to refer to Dr. Cunningham's researches published in Part VI. of the Scientific Memoirs of the Army Medical Officers of India. This officer states, we believe, that he has discovered ten different varieties of the bacillus. If this be so, it will tend to widen our knowledge of the different forms assumed by cholera, that is, on the assumption that Koch's bacillus be the specific cause of that disease.

It seems to become clearer every day that a further extension and development or revitalisation of this epidemic disease may be anticipated during the summer and autumn of next year, and practically the lesson which has to be driven home is, that we should during the interval see to our water-supplies, drainage and general cleanliness, and to the organisation of our methods of procedure should the epidemic unhappily obtain any foothold hereafter in this country. It has not done so yet, and there is no reason why it necessarily should do so. Still, whatever we may do now to protect us from cholera is not thrown away—it is equally useful against other diseases. In view of the wisdom and foresight so far exhibited by the medical department of the Local Government Board, we think the country may feel satisfied that these things will not be lost sight of, and it only remains for the people to render all the aid they can.

A suspicious case of cholera is reported from St. Thomas's Hospital, to which institution a patient was admitted on Sunday morning last, Oct. 2nd. It appears that on Friday, Sept. 30th, the patient was taken ill with profuse diarrhoea, the stools having the rice water appearance so characteristic of the malady, and suffering from cramps in the limbs and from violent thirst. After having had eight pints of saline solution injected into the veins improvement was apparent, and this was maintained for twenty-four hours, but a relapse subsequently supervened. The patient now is slightly better but still collapsed. It has not been possible to trace any source of the infection and the cholera bacillus has not been isolated. The case is under the care of Dr. Ord.

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### THE CONFLICT OF THEORIES.—THE ICE SUPPLY.—THE SUBURBAN CESSPOOLS.

NOTWITHSTANDING the slight increase in the number of deaths due to cholera, which followed and perhaps was caused by the *fête* of Sept. 22nd, the epidemic seems decidedly on the wane. As already mentioned, there was an average daily death-rate of twenty-four in Paris during the first twelve days of September. It will be found, in all probability, that this average fell to about ten per day towards the end of the month. Still it is impossible to feel any sense of security. The fact that the last cholera epidemic did not commence until the month of November is a very disquieting consideration. Though the present outbreak of the disease seems to be gradually dying out, it is like a smouldering fire which may blaze forth again at any moment. At Hamburg it can be said that the cholera has pretty well exhausted itself, while in Paris a pessimist might argue that we have only as yet seen the forerunners of the epidemic. Then there is another grave consideration. At first it seemed very probable that the drinking of the Seine water was the only cause or vehicle of cholera. Up to the middle of August it was the suburban population who drank Seine water after it had passed through Paris who were the chief sufferers. The cases that occurred in Paris and in districts where other than Seine water was drunk were not numerous. It was therefore easy to suppose that the victims had gone for business or pleasure to the dangerous suburbs, and while there had drunk the Seine water, or had been in personal contact with a case of cholera. This theory engendered a sense of false security. It seemed simply necessary to avoid drinking the Seine water or else to boil it very carefully. But in September the tables were turned. It was Paris, where no Seine water was consumed, that suffered most and the Seine water-drinking suburbs least. In September there were twice as many deaths in Paris as in the suburbs. Evidently a large proportion of these deaths

within Paris was due to other causes than the drinking of the Seine water. In the suburb of Aubervilliers, where so many cases of cholera had occurred, an artesian well had been dug, and the inhabitants were offered other than Seine water to drink. Simultaneously with the opening of this new water-supply the prevalence of cholera at Aubervilliers notably decreased. Could there be a better confirmation of the Seine-water theory? But if one looks more closely into the matter the theoretical result of the experiment is not so evident. The commune of Aubervilliers spreads over a large district, and a very considerable proportion of the cases of cholera occurred at a distance of more than a mile from this new well, close to the walls of Paris, near the Pantin gate. On the Route d'Allemagne, beyond the Porte de Pantin, there is a numerous, poor, industrious population which has greatly suffered from cholera. Speaking to a poor woman in this district, one of the medical inspectors expressed the hope that she carefully boiled the Seine water which she used for drinking purposes. The answer given was a striking illustration of the true state of affairs. The woman was indignant at the question. She looked with commiseration upon the well-dressed medical inspector, who talked about sterilisation and microbes; he was evidently a very ignorant person; how could the Government employ such impracticable theorists? "Why," she exclaimed, with simple eloquence, "you do not know the price of fuel. I cannot afford enough fuel to cook my dinner properly, how am I to pay for fuel to boil drinking water?" Nor can the people living about here find, in their poverty, the time to walk a long distance to fetch a jug of pure water from the new supply organised by the Aubervilliers municipality. The people near the Pantin gate therefore continued to drink bad water, they rarely, if ever, boiled this water; and though the prevalence of cholera has decreased in this neighbourhood, the improvement is in no wise due to the new supply of water provided at Aubervilliers. Thus cholera is found to be decreasing where the Seine water is still drunk and increasing where it is not drunk.

These facts do not imply that the Seine water is a safe beverage, but they do indicate that there are other causes at work besides this poisoned water-supply. One at least of these other causes has been discovered, though very little has been said about it. A great many samples of ice have been submitted to analysis. The public were told to avoid iced drinks &c.; they have not, however, been told why ice is dangerous. The reason, I was told, was that it would cause too much alarm if mentioned in Parisian journals, but it would not have the same effect if recorded in a foreign technical paper. The truth is that on examining the ice sold in Paris some samples had been found to contain the comma bacillus. This fact, if generally known, might cause an unjustifiable panic. It would tend to empty the cafés of their usual customers, iced water being generally mixed with the drinks so largely consumed before meals. It is not because a few samples of ice were composed of contaminated water that all ice is unsafe. More important by far than this slight risk is the question as to how the comma bacillus could possibly have been found in the ice. A part of the ice sold in Paris is gathered from ponds &c. in the outskirts of the town. These are stripped of their ice during the winter months; and as the water is usually stagnant and often foul the utilisation of such ice was on general grounds declared dangerous. If, apart from such risks, the specific germ of cholera is in the ice, and if this be the ice that has been collected from ponds during the winter, then does not this show that the germ of cholera was here long before the month of April? Indeed, it is now very generally admitted that in all probability there were cases of cholera some time before April 5th, the date of the first officially recognised case at Nanterre. If the Seine water was the cause of the epidemic in the prison of Nanterre, somebody or something must have first contaminated the Seine water. The presence of the comma bacillus in ice is a suggestive indication of this previous contamination. This is a clue that should be carefully followed up.

A great deal is now being said about the system of drainage in Paris. The cholera epidemic has been seized upon as a pretext to advocate the continuation of the cess-pool system. The Seine, we are told, is contaminated because some houses drain directly into the sewers, and the sewers have their outfall in the river. Already, however, one-third of the sewage is utilised for the irrigation of the market gardens on the plain of Gennevilliers. In time it is proposed to throw the other two-thirds on the plains of

Achères and of Méry. Then Paris will no longer contaminate the Seine. In the department of the Seine et Oise, where these new sewer farms are to be created, the landowners and others are up in arms against the scheme. The subject has become a rallying cry at all local elections, and the rival political parties vie with each other in the zeal they display in resisting the project. Thus, as soon as the National Assembly meets, the Radical Deputy of the district, M. Hubbard, is to interrogate the Government in a manner hostile to the drainage scheme. The Moderate or Right Centre Deputy of the same department, not to be outdone, proposes also to interrogate the Government in the same sense. Fortunately M. Loubet, the Premier and Minister of the Interior, is a very competent authority on this subject; and M. Émile Trélat, Deputy for the fifth arrondissement of Paris, has a third question on the subject, but framed in a style which, while friendly to the project, will give the Prime Minister an opportunity of defending the drainage scheme which is now being gradually carried out.

Of course everybody is agreed that the sewage of Paris should not fall into the Seine. Most persons also think that the proposed extension of the main sewer from Paris to the sea is impracticable. There consequently remain only two solutions of the problem. The one is to keep the sewers pure from soil and to allow only rain water and slop water to enter. This is the old system, and involves, of course, the continuance of the cesspool nuisance. The other solution of the difficulty known as *tout à l'égout*, and advocated with so much skill by the late M. Durand Claye, consists in the introduction of the English method of water carriage drainage, with properly ventilated and flushed closets, and the utilisation of the sewage resulting at Achères and elsewhere, as is already in part done at Gennevilliers. But in carrying out this project the numerous industries that now flourish on the emptying of cesspools and the manufacture of human guano would come to a natural end. Hence the resistance against the irrigation scheme is not altogether theoretical; there are large financial interests at stake, and it is not unreasonable to suppose that financial support has been forthcoming in the present agitation in favour of maintaining the cesspool system. It is argued that what now goes into cesspools contaminates the river if thrown into the water and contaminates the soil if used for agricultural purposes; that cholera will become endemic in the neighbourhood of Paris if these sewage farms are allowed and epidemics will break out afresh at every dry season. Therefore houses should drain into cesspools, the contents of the cesspools should be removed, treated chemically, sterilised in the process and converted into innocuous manure. If, however, the contents of the cesspools are so dangerous, and must be so carefully removed and treated by chemical process, and all this, not for financial advantages, but for the preservation of public health, how is it that more care is not shown in the emptying of cesspools in the neighbourhood of Paris?

This brings me back to the probable causes of the present cholera epidemic. In Paris the authorities are opposed to the cesspool system, but are determined while it lasts that it shall be carried out in the best possible manner. For this purpose there are forty inspectors appointed by the town. One of these inspectors is present every time a cesspool is emptied. He calculates how many cubic metres of material is withdrawn from the cesspool, keeps a record of where it is to be taken, inspects the cesspool, sees that it is water-tight and ventilated. Wherever a case of cholera has occurred the cesspool has at once been emptied, even though it may have been cleaned out only a few days previously. Disinfectants are thrown in. The municipal inspector often enters the cesspools to examine their walls and see that there is no leakage. It is a notable fact that none of these men have been ill, in spite of their apparently dangerous occupation. As a result of this active surveillance it is known that last year, for instance, 1,172,916 cubic metres of matter were extracted from the Paris cesspools. Now follows an important calculation which may have a direct bearing upon the cholera epidemic. If the amount of soil taken from the cesspools or *tinnettes filtrées* be divided by the 365 days of the year a total of 3200 cubic metres of night soil per day is found. If this be again divided by the population of Paris the answer is almost correct theoretically—namely, 1 kilo 260 grammes per inhabitant; but one in twenty of the population do not drain into cesspools or pails, therefore there is a margin of difference between practice and theory. The important fact is, however, fully demonstrated—namely, that the soil taken out of the Paris cesspools corresponds in amount with the number of inhabitants.

If, on the other hand, one proceeds from Paris to the suburbs—the very suburbs where cholera has for so long prevailed—a totally different result is found. The population of the eight cantons which constitute the department of the Seine amounts to 616,539. Calculating on the basis of 1 kilo 260 grammes per person, there should be a daily yield of 778 cubic metres or 283,970 cubic metres of night soil per annum. The entries made at the dépôts, where the night soil is brought from the suburbs, only record a total of 147,490 cubic metres of soil received in the course of the year. Thus for the suburbs of Paris there are 136,480 cubic metres of soil unaccounted for. What has become of this enormous quantity of foul matter?—and the quantity is only estimated on the census return of the population. No account is taken of the large number of Parisians and others who visit these suburbs on Sundays and holidays. At St. Maur, on the Marne, for instance, it sometimes happens on a fine Sunday that there are 100,000 persons there, though the stationary population is about 18,000. The explanation is simple. The cesspools are not properly emptied. The distances are so great that it is not worth while sending extra carts when there are not sufficient to fully empty the cesspool. Therefore, a certain portion of the contents of the cesspools is emptied into the sewers, thrown direct into the river if the river is close at hand, or scattered on the soil round about. In any case, and whatever is done, the fact remains that annually more than 136,000 cubic metres of the foul soil, extracted from cesspools are surreptitiously disposed of, and this in a manner not likely to conduce to public health. The advocates of the cesspool system say it is dangerous to drain into sewers or to throw crude sewage on to the soil; what, however, has been done annually with these 136,000 cubic metres of night soil? The fresh unfermented soil which daily flows into the sewers, where the *tout à l'égout* is practised, is not to be compared for a moment with the concentration of foulness held fermenting for months in a cesspool. If the contents of cesspools have been thrown directly into small local village sewers, have been thrown directly into the river or on the ground, and if, to economise the trouble of emptying, some of these cesspools have been allowed to leak, then it is not surprising that the suburbs of Paris, where such abominations are the daily practice, were the first to suffer from cholera. Nor need the Seine be contaminated to produce the epidemic. It is easy to understand that the ice from ponds should have been contaminated long before any suspicion was cast on the Seine. There are wells also in the suburbs of Paris. It is bad enough that these wells should be near cesspools, but if 136,000 cubic metres of the contents of these cesspools are scattered about, the cesspools need not leak for the wells to be poisoned. It must be borne in mind that when the epidemic broke out at the Nanterre prison the Seine water, which the prisoners drank, was examined and found to contain 39,000 microbes to the cubic centimetre, but no pathogenic microbe was recognised. The cesspools then, rather than the Seine water, may have been the principal cause of the outbreak in the suburbs of Paris. In any case, a very strict inquiry should be instituted to ascertain what has become of the missing 136,000 cubic metres of soil from the cesspools in the suburbs of Paris. It would be curious indeed, though not improbable, if it could be shown to those who advocate the continuance of the cesspool system that it was precisely the contents of the suburban cesspools which contaminated the ice, the well water, and perhaps the Seine, which became the principal vehicle that spread the cholera.

With respect to the outbreak of cholera in the suburbs of Paris, and whatever may have been its cause or origin, there is one aspect of the question which seems very inconsistent. Why were the patients suffering from cholera brought into Paris? Belgians, fugitives from France, introduced cholera at Jumet, near Charleroi. Another epidemic has broken out at Pâturage, near Mons. When I was at Jumet the brick-makers, who had fled from the neighbourhood of Paris because of the cholera, informed me that a considerable number of their fellow countrymen lived near Mons, and had also returned home because of the epidemic. It is, therefore, probable that the cases of cholera at Pâturages, Wasmes &c. have been brought there by fugitives, and that we have near Mons a repetition of what occurred at Jumet, Roux, and other places in the neighbourhood of Charleroi. At Antwerp we have seen that it was the *St. Paul* from Havre which brought the cholera. The cholera in Belgium is imported from France, yet the French take precautions against this their own cholera, so to speak. The cholera by crossing the Belgian frontier did not mat-

rially change in its characteristics, yet travellers from Belgium are subjected to medical examination and surveillance when they are in a perfect state of health. On the other hand, persons dying from cholera are transported from the suburbs of Paris, where there are open fields, plenty of open air and space for isolation, and brought into crowded parts of the town of Paris. For instance, the Hôpital Beaujon, in the Faubourg St. Honoré, has received a considerable number of cholera cases. It is surrounded by hotels and dwellings on all sides. The dead from the hospital are brought out into the Rue de Courcelles in the midst of a fashionable neighbourhood. Other hospitals are in poverty-stricken districts, and there the danger is greater on account of the dirt, overcrowding and misery that exist in these localities. Many of these hospitals are old, badly-built structures, erected at a time when the knowledge of sanitation was limited. The attendants on the cholera patients frequented the neighbourhood, went into shops, sat at cafés, &c. Had these nurses and other persons taken all the necessary antiseptic precautions? A circular was issued at the commencement of July indicating what precautions should be taken, but the Paris hospitals had been receiving patients suffering from cholera ever since the month of April. The communes outside Paris have no hospitals, with the exception of the commune of St. Denis. They have consequently a treaty with the municipality of Paris according to which they pay a certain sum for all patients sent to the Paris hospitals. This is a reasonable arrangement, though from a sanitary point of view the reverse would be preferable. Instead of throwing into the crowded streets of Paris all the patients from the suburbs, it would be better if the hospitals were outside Paris and all the patients were sent to the less crowded suburbs. The bringing of small-pox and scarlet fever patients into Paris from the suburbs is a serious grievance; but at present people are only thinking of cholera, though less infectious. Surely it would have been more practical and more logical instead of taking precautions against the French cases of cholera that have crossed the Belgian frontier to have sent ambulance tents to the suburbs of Paris and have treated the cases in the suburbs where they occurred. Now that everyone is inquiring why the cholera has spread in Paris those who still believe the disease to be infectious will certainly blame the hospitals that received so many suburban cases. Even if the cholera is only contagious it is probable that the antiseptic precautions were not very rigorously applied during the first month or so.

The circular issued on this subject, and which is dated July, states that all persons entering the cholera wards must wear a blouse, fitting tight round the wrist and neck, which must be removed on leaving the cholera wards and disinfected at least once in twenty-four hours. All the attendants, nurses &c. must wash their hands and carefully clean their nails in a solution of sublimate before eating, and must take their meals apart from all the other persons employed in the hospital. Within the last week it has been further ordered that goloshes must be worn in the cholera wards, taken off and washed in sublimate at the door on leaving the wards. These are good precautions; but most persons would have preferred the establishment of tents, barracks or cottage hospitals in the affected suburbs.

The number of cholera patients treated in the Paris hospitals was 57 on Aug. 1st, 108 on Aug. 25th and on Sept. 5th there were 329. This was the maximum. On Oct. 1st there were 187 cholera patients in the Paris hospitals, and out of this number 39 came from the outlying suburbs. Looking over the list of these patients, without making any calculation but simply judging by a glance, it is impossible not to be impressed by the great number of washerwomen who have contracted the disease. The returns are as yet very incomplete, and in many cases the occupation of the patient is not mentioned; nevertheless, it can even now be said that, as compared with other occupations, washerwomen are proportionately the greatest sufferers. This is an important and instructive fact, and fully confirms the necessity of disinfecting all soiled linen. It also shows that a great deal of cholera has escaped the notice of the authorities. If the regulations were invariably applied washerwomen would be especially subject to contamination, for all the soiled linen would be disinfected. Of two things, one, either cases of cholera have been concealed and linen sent to the wash without proper precautions, or else linen can be soiled in such a manner as to convey cholera without the wearer of the linen being himself aware that he is suffering from this

disease. I also noticed in the list of patients a considerable number of domestic servants, and it occurred to me, just as a passing suggestion, that the cleaning of boots is perhaps not altogether a safe occupation in times of cholera epidemic. A certain number of persons have been suddenly attacked in the open street. Patients have been picked up after vomiting on the pavement and conveyed to the hospital. Other persons who enter rooms where there are cholera patients tread on the dejections and then walk out into the streets. The wearing of goloshes in hospital wards seems, therefore, a justifiable precaution. It will, at all events, be most useful to carefully record and study the professions and occupations of the persons who suffer from cholera.

#### A VISIT TO THE CHOLERA WARDS AT THE HÔPITAL NECKER.

Our Paris correspondent writes:—

"A few days ago I spent an instructive hour amongst the cholera patients now under treatment in a special block of buildings situated in the grounds of the Necker Hospital. This service is directed by Professor Peter, who, by the way, is to occupy the chair at the approaching dinner of the Continental Anglo-American Medical Society, and I am bound to testify to the air of comfort reigning in the two wards of which the service is composed and to the devotion and cheerfulness of the very polite *personnel*. I found that twenty patients were actually under treatment, and I was informed that five fresh cases had been admitted during the last twenty-four hours, and that three had died during the same interval of time. The first case was admitted on June 7th, and since then 152 persons had been admitted. Of these fifty (about a third) had died. None of the *personnel* had been attacked by the disease. It was curious to see in both wards—and very clean and airy they were, too—sufferers of both sexes in adjacent beds. Almost all were doing well. One man only presented the ghastly *facies* peculiar to the disease. I refer more particularly to the sunken orbits, and his voice was still broken. Another man was vomiting. In the ward devoted to convalescents the occupants, the female portion of which was considerably more aged than the male, were busily engaged in discussing with evident relish in most cases a meat lunch. The temperature of all the patients is taken regularly in the rectum. The lowest observed during the present epidemic was 78° 8' F. (26° C.); after the death of the patient the temperature reached 39° C. (103° F.). Before I refer to the mode of treatment pursued at Necker I may mention that one of the nurses, who had served in cholera wards during the outbreak of 1884, told me that at that time the patients were invariably given an emetic as a preliminary to other therapeutical measures. The treatment actually followed is as follows:—A patient admitted during the stage of collapse is at once vigorously rubbed with turpentine, and hypodermic injections of caffeine and ether are given. The sufferer is then placed in a mustard bath at from 36° C. to 38° C., and kept in for about a quarter of an hour. Replaced in bed, a Chapman's spinal ice-bag is adjusted along the vertebral column. Directly the power of swallowing is regained a mixture composed of lactic acid, syrup and water is given and preserved with white the stools, which are regularly tested with litmus-paper, yield an alkaline reaction. The spinal ice-bag is renewed every two or three hours, its employment being continued until the kidneys resume their functions, this event being almost always synchronous with the cessation of the diarrhoea. A trial was being given to strychnine administered hypodermically in doses of one milligramme, but their experience of its effects have been too limited to allow them to judge of its merits. I interrogated the patients very closely on the effects of the spinal ice-bag. All, without exception, testified to the relief afforded by it, the cramps being arrested and a feeling of warmth being imparted. Asked if it appeared to exercise any beneficial influence on the vomiting and the diarrhoea, they were not so affirmative in their declarations. As a rule the patient begins to micturate in about thirty-six hours after admission, but only one woman attributed this effect to the use of the ice-bag. It must not be forgotten that ice *ad libitum* is given to suck, and that paregoric and champagne are prescribed against the diarrhoea and collapse respectively. My *confrère*, Dr. Chapman, whose enthusiasm for the ice-bag treatment is well known, assures me that better results would be obtained were the application of cold along the spine trusted to, to the exclusion of opium, which drug he condemns utterly in cholera therapeutics."

CHOLERA IN AUSTRIA.

Our Vienna correspondent writes :—

“Whilst the progress of the cholera in Galicia has so far been very much restricted, an outbreak occurred at Budapest on Oct. 2nd. The Hungarian authorities attempted to conceal the fact of the outbreak of the disease as long as possible, although the first cases of cholera arose on Sept. 26th. At this date two fatal cases with suspicious symptoms were declared at the post-mortem examination made by Professor Schouthauer to be due to cholera Asiatica. Nevertheless the official announcement of the outbreak was kept back by the municipality until the 2nd inst., and no measures were taken to prevent the dissemination of the disease, which is said to have been imported from Hamburg by animal hides. The first cases occurred among railway-workers in a very poor suburban district. More than fifty cases of Asiatic cholera have now occurred at Budapest, according to the official report, but the real number will certainly be larger, as the disease has already appeared in different quarters of the town. The greatest negligence regarding sanitary provisions prevails in this unfortunate town, where the local authorities spend the time and the money of the taxpayers in political matters and ornamental buildings, giving but slight attention to sanitary improvements which the town sorely needs, such as a good system of sewage disposal and a good supply of drinking water. At the present time the water is taken from the Danube—a river which is being daily more and more polluted by the numerous factories erected on its banks and by the rapidly growing population of its towns. As at Hamburg the municipal authorities declared that it was impossible to be sure that the early cases were Asiatic cholera, as the bacillary cultures failed on account of the melting of the gelatine. But early in last week cultures of comma-bacilli had to be sent to Budapest from a Vienna bacteriological institute, apparently for the purpose of making comparisons. According to communications received there are no provisions made for transport and nursing a larger number of cases at the hospitals, and new barracks will have to be built. The behaviour of the municipality of Budapest this year only reproduces its attitude at the last cholera epidemic in 1886, when the public were first informed of the existence of

a cholera epidemic by a letter sent by the well-known bacteriologist, Professor Babes, now at Bucharest, to the daily papers. It cannot be said that any sanitary improvements have been made during the last six years, while the population has become considerably more dense. Magnificent palaces have been erected in the central parts, but the housing of the poor remains as bad as it was before. During the epidemic of 1886, 996 cases of Asiatic cholera, 98 cases of cholera nostras and 265 cases of “cholera” were reported, in which death occurred in 586 cases, giving a total mortality of 44.09 per cent. It must, therefore, be assumed that the cholera nostras and “cholera” cases were really Cholera Asiatica, and it would be well to accept with caution the official cholera statistics now being published at Budapest.”

SOCIETY FOR THE STUDY OF INEBRIETY.

A QUARTERLY general meeting of this Society was held on Tuesday last in the rooms of the Medical Society of London, the President, Dr. Norman Kerr, in the chair. The chairman called attention to the recent articles and correspondence in the *Daily Telegraph* and the work of the departmental committee now sitting to inquire into the best mode of dealing with inebriates as hopeful signs of the speedy enactment of compulsory legislation.

Dr. H. W. Williams, in a paper on the Urgent Need for amended Legislation for Inebriates, based this plea on three considerations—1st, as regards the inebriates themselves; 2nd, as regards their families and relatives; 3rd, as regards their neighbours and society at large. He contended that inebriety was a disease requiring medical and hygienic as well as mental and moral treatment. Many inebriates were so diseased that the efforts to control them had been paralysed, and they must have a lengthened residence in a home for a prospect of cure. As their will had been broken down compulsory seclusion was called for in their own interest, as well as for the protection of the relatives and the community from the nuisance and peril of a practical madman.

THE PUBLIC CARE OF FEVER IN 1892.

ACCORDING to the last statement of Mr. Mann to the Metropolitan Asylums Board 831 patients had been admitted to the hospitals in a fortnight, as compared with 862 in the preceding two weeks, with 370 in the corresponding week of 1891 and with 529 in the corresponding week of 1892. The notification system is developing apace and it is well to note the tendency of it. Already a third of all the cases of the notifiable diseases are admitted into the hospitals of the Board, without any inquiry as to need or the impossibility of care and isolation at home, to be housed and treated at the public expense. The following return, for which we are indebted to Mr. Mann, shows the number of cases of infectious disease notified to the Asylums Board under the Public Health (London) Act, 1891, and the number of scarlet fever, typhus fever, and enteric fever and diphtheria cases admitted into the Board's hospitals during the nine months ended Sept. 30th, 1892:—

the different diseases admitted to the hospitals. Thus of scarlet fever cases 48.68 per cent. are sent to the hospitals; of typhus fever 52.94 per cent.; of enteric fever only 27.34; of diphtheria 30.74; of the admissible diseases of the notifiable group much more than a third are admitted—to speak exactly, 43.4 per cent. The returns for the last fortnight, with previous ones, go to show the early age of the majority of the patients—thus patients aged from 1 year to 15 years comprise 90 per cent. of the entire admissions between Jan. 1st and Sept. 29th. It may seem a slight burden to impose on the State the care of all this sickness, but we cannot help thinking that it has been done somewhat thoughtlessly. By a mere stroke of the pen a clause is inserted in an Act affecting hospitals originally meant for paupers, to the effect that the Managers, subject to such regulations and restrictions as the Local Government Board prescribe, may admit any person who is not a pauper, and that the expenses incurred by the Managers for the maintenance of such persons shall be paid by the boards of guardians. We do not say that this is wrong, or that there are not some strong State reasons for it; but we should like the operation of the system

	Scarlet fever.	Typhus fever.	Enteric or typhoid fever.	Diphtheria.	Total.	Small-pox.	Relapsing fever.	Membranous croup.	Continued fever.	Cholera.	Erysipelas.	Puerperal fever.	Total.	Grand total.
Number of cases notified ..	17,004	17	1000	5300	24,710	344	6	300	105	45	4330	220	5446	30,105
Number of cases admitted ..	8,614	9	440	1600	10,723	—	—	—	—	—	—	—	—	—
Percentage of admissions on notifications .. .. .	48.08	62.04	27.34	30.74	—	—	—	—	—	—	—	—	—	—

It is probable that anxiety with regard to the risk run by other children or business considerations induce some parents to send their children when suffering from infectious diseases to the hospitals. It is curious to notice the different degree in which such motives operate in the case of

to be well considered, and we should be glad to learn what are the restrictions which have been prescribed by the Local Government Board. If there are none, and there are to be none, the hospitals now built will soon be altogether inadequate to the needs of London.

## IDIOT ASYLUMS: THE NEED OF MORE ASYLUM ACCOMMODATION.

At the annual meeting of the subscribers to the Royal Albert Asylum, held on the 30th ult., a favourable report was presented of the general affairs of the institution. The statement of the medical superintendent, Dr. Shuttleworth, however, contained particulars which to our readers will be of more general and collateral interest than mere financial considerations, though these are, of course, far from being unimportant. Thus we find that the average number of residents of the asylum during the past twelvemonth had been 581, whilst the aggregate number under care and training at some portion of the year was returned as 658. The number of discharges had been 35 and of deaths 18—a death-rate lower than that of the previous year, which, calculated upon the average number resident, was only 3·1 per cent. Allusion was made by Dr. Shuttleworth to the want of accommodation for infectious cases. Fortunately, no epidemic had occurred during the twelvemonth, but the medical superintendent did well to point out a want which might on some future occasion serve seriously to embarrass the officers engaged in conducting the affairs of the charity. The reading of the report of the central committee gave occasion to the Bishop of Carlisle, who presided, to offer a remark on the distinction between the words *amentia* and *dementia*—a distinction not always noted by the general public or by those who take an interest in such-like charities. The Bishop thought that the two classes of unfortunates ought, in all institutions intended for their treatment, to be separated. The speech of the day, however, was that of the Right Hon. J. T. Hibbert, M.P. This gentleman, whilst endorsing the text, so to say, of the previous speaker, suggested that it would be a good thing if the title of such charities were changed from asylums for idiots to asylums for feeble-minded people. Such a change, however, would, he thought, not be easy to effect, though the sympathies of parents would no doubt be with those who desired such an alteration to be made. Mr. Hibbert adverted to the difficulty of obtaining authentic statistics of the extent to which idiocy prevails in the United Kingdom. Families in which such afflicted ones are found are naturally desirous as much as possible to conceal the fact. The last census return—he had not yet been able to obtain the return of 1891—gave something like 41,000 as the number of the imbecile class, but that number ought, the speaker thought, to be at least doubled. Of the 41,000 imbeciles so returned 13,456 were believed to be under twenty years of age; in other words, they had that number of trainable idiots to provide for, whilst accommodation was secured for only something like 3000 patients. In this respect America was far ahead of this country, for in the United States no less than fourteen asylums existed for the purpose of housing and treating persons belonging to the afflicted class in question, some of these institutions being provided by the States in which they were established, others being founded and endowed by private beneficence or corporate grants. Surely the lack of adequate provision in our own country for the mental and physical wants of the weak-minded is a reflection on the philanthropic spirit of the age.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6072 births and 3236 deaths were registered during the week ending Oct. 1st. The annual rate of mortality in these towns, which had declined in the preceding four weeks from 19·8 to 17·2 per 1000, further fell last week to 16·6. In London the rate was only 15·2 per 1000, while it averaged 17·5 in the thirty-two provincial towns. The lowest rates in these towns were 7·4 in Croydon, 10·5 in Portsmouth, 11·2 in Brighton, and 12·1 in Bristol; the highest rates were 21·4 in Manchester, 21·5 in Preston, 21·8 in Salford, 21·9 in Hull, and 23·5 in Blackburn. The 3236 deaths included 533 which were referred to the principal zymotic diseases, against numbers declining from 989 to 607 in the preceding four weeks; of these, 252 resulted from diarrhoea, 81 from diphtheria, 61 from measles, 57 from scarlet fever, 46 from "fever" (principally

enteric), 34 from whooping-cough, and 2 from small-pox. The lowest death-rates from these diseases were recorded in Bolton, Newcastle-upon-Tyne, Gateshead, and Bristol; and the highest rates in Leeds, Sunderland, Hull, Salford, and Preston. The greatest mortality from measles occurred in Birkenhead, Oldham, Leicester, Huddersfield, West Ham, and Salford; from scarlet fever in Preston; from whooping-cough in Norwich and Swansea; from "fever" in Preston, Plymouth and Sunderland; and from diarrhoea in Wolverhampton, Blackburn, Sunderland, Leeds, Hull, and Preston. The 81 deaths from diphtheria included 50 in London, 5 in West Ham, and 4 in Liverpool. Two fatal cases of small-pox were registered in Halifax, but not one in any other of the thirty-three large towns; two cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 6 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3514, against numbers increasing from 3052 to 3477 on the preceding six Saturdays; 369 new cases were admitted during the week, against 349 and 370 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 152 in the preceding four weeks, further rose to 171 last week, but were 43 below the corrected average. The causes of 50, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Cardiff, Nottingham, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Oldham, and Hull.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding four weeks from 15·7 to 17·9 per 1000, declined again to 17·1 during the week ending Oct. 1st, but was 0·5 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·6 in Leith and 14·5 in Edinburgh, to 18·8 in Aberdeen and 22·3 in Perth. The 475 deaths in these towns included 24 which were referred to diarrhoea, 18 to measles, 17 to scarlet fever, 10 to diphtheria, 8 to "fever," 7 to whooping-cough, and not one to small-pox. In all, 84 deaths resulted from these principal zymotic diseases, against 70 and 77 in the preceding two weeks. These 84 deaths were equal to an annual rate of 3·0 per 1000, which was 0·4 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had increased from 24 to 27 in the preceding three weeks, declined again to 24 last week, of which 12 occurred in Glasgow and 6 in Dundee. The deaths from measles, which had been 12 in each of the previous two weeks, rose to 18 last week, and included 10 in Edinburgh. The 17 fatal cases of scarlet fever showed a further increase upon the numbers recorded in recent weeks; 12 occurred in Glasgow, 2 in Edinburgh, and 2 in Perth. The deaths referred to diphtheria, which had been 7 and 3 in the preceding two weeks, rose again to 10 last week, and included 6 in Glasgow and 2 in Edinburgh. The 8 fatal cases of "fever" exceeded by 2 the number in the preceding week, and included 5 in Dundee. Of the 7 deaths from whooping-cough 6 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 71 and 66 in the preceding two weeks, rose again last week to 80, and exceeded by 14 the number in the corresponding week of last year. The causes of 45, or more than 9 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 28·3 to 19·7 per 1000, rose again to 21·5 during the week ending Oct. 1st. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 23·1 per 1000, the rate for the same period being 17·1 in London and 16·1 in Edinburgh. The 144 deaths in Dublin during the week under notice showed an increase of 12 upon the number in the preceding week, and included 20 which were referred to diarrhoea, 2 to "fever," 1 to measles, 1 to scarlet fever, 1 to whooping-cough, and not one either to small-pox or diphtheria. In

all, 25 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·7 per 1000, the zymotic death-rate during the same period being 2·2 in London and 3·3 in Edinburgh. The fatal cases of diarrhoea, which had declined from 28 to 15 in the preceding three weeks, rose again to 20 last week. The deaths referred to different forms of "fever," which had been 4 and 2 in the preceding two weeks, were again 2 last week. The 144 deaths registered during the week under notice in Dublin included 30 of infants under one year of age, and 40 of persons aged upwards of sixty years; the deaths of infants showed a considerable decline from those recorded in recent weeks, while those of elderly persons showed an increase. Three inquest cases and 2 deaths from violence were registered; and 38, or more than a fourth, of the deaths occurred in public institutions. The causes of 15, or nearly 11 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

### MOVEMENTS OF MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel McD. Cuffe has been transferred from Canterbury to Colchester. Brigade-Surgeon-Lieutenant-Colonel O'Farrell, retired pay, has been appointed to the Medical Charge at Leicester. Surgeon-Captain Blackwall has been transferred to Hounslow for duty. Surgeon-Major Gubbins has resumed duty at Woolwich. Surgeon-Captain Donegan has obtained leave from Madras. Surgeon-Captain Greig and Surgeon-Lieutenant Crawford have rejoined at Aldershot, and Surgeon-Captain Windle at Chester. Surgeon-Captain Johnstone has resumed duty at Leith Fort and Surgeon-Captain Will at Piershill. The following Surgeons on Probation, who were successful at the August examination, have arrived at Netley for study:—C. E. Pollock, W. Taylor, Berryman, W. Longhurst, Rivers, F. Symons, Samman, F. Buswell, F. Manyon, and Farmer. Surgeon-Captain Hickson has joined in Dublin for duty and Surgeon-Captain Baylor at Cork. Surgeon-Major Feltham has taken up duty at Pembroke Dock. Surgeon-Major Venour, retired pay, has been appointed to the Medical Charge at Penally. Surgeon-Captain Woods has been transferred from Portsmouth to Alderney. Surgeon-Major Bolster has embarked for India. Surgeon-Captain C. R. Tyrell has succeeded Surgeon-Captain W. G. A. Bedford in command of B Company of the dépôt at Aldershot. Surgeon-Lieutenant-Colonel T. Macartney, M.D., has arrived home from Gibraltar.

### INDIAN MEDICAL SERVICE.

Surgeon-Major J. W. H. Flanagan, Medical Staff, in medical charge Station Hospital, Kamptee, has been appointed to the medical charge Station Hospital, Aden. Surgeon-Major A. E. J. Croly, Medical Staff, from general duty, Poona, to the medical charge Station Hospital, Kamptee. Brigade-Surgeon-Lieutenant-Colonel G. Thomson has been appointed Principal Medical Officer, Peshawar District. Brigade-Surgeon-Lieutenant-Colonel J. R. Greenhill, Medical Staff, will proceed home for retirement in January next. Surgeon-Colonel C. H. Y. Godwin has been appointed an Administrative Medical Officer in Bengal. The following officers of the Army Medical Staff have been selected to return to England during the ensuing trooping season, on completion of their tour of service in India:—Brigade-Surgeons-Lieutenant-Colonels H. S. Muir, M.D., R. H. Carew, D.S.O., G. J. H. Evatt, M.D., and W. McWatters; Surgeon-Lieutenant-Colonel M. D. O'Connell, M.D., in exchange with Brigade-Surgeon-Lieutenant-Colonel W. S. M. Price; Surgeon-Lieutenant-Colonel H. H. Stokes, M.B.; Surgeon-Captains N. Manders, G. Cree, H. Carr, M.D., C. H. Melville, M.B., B. L. Mills, M.D., G. S. Cardew, M.B., J. B. Wilson, M.D., J. Kearney, M.D., F. A. Saw, M.B., F. W. G. Hall, M.B., A. Kennedy, H. P. G. Elkington, T. G. Lavie, W. R. D. Crooke, M.D., W. P. Squire, C. P. Walker, M.B., and W. Downman. Surgeon-Captain C. R. M. Green, Officiating Resident Surgeon, Eden Hospital, has been appointed to act as Health Officer of the Port of Calcutta during the absence of Mr. W. Forsyth. Mr. V. L. Watts will officiate as Civil Medical Officer of Burdwan. Surgeon-Captain M. B. Braganza, I.M.S., joined his appointment in the 30th Bombay Infantry (3rd Belooch Regiment) at Loralai. The services of Surgeon-Major A. F. Sargent, I.M.S., 3rd Regiment Bombay Light Infantry, have been placed at the disposal of the Government for employment in the Civil Department. Surgeon-Captain J. P. Barry, M.B., has been appointed

Superintendent of Matheran on the expiration of the term of office of Surgeon-Major J. S. Wilkins, D.S.O. Surgeon-Major K. R. Kirtikar, Civil Surgeon, Tanna, acts as Superintendent of the Tanna Gaol, in addition to his own duties, during the absence on privilege leave of Mr. W. W. Wellis. Brigade-Surgeon G. W. McNulty, M.D., Army Medical Staff, will be retired on October 6th on superannuation. Brigade-Surgeon-Lieutenant-Colonel Hughes, Civil Surgeon, Poona, has been appointed to officiate as Principal Medical Officer, Bombay District. Honorary Surgeon W. McEvoy, Bombay Volunteer Rifles, has proceeded on six months' leave to Europe on medical certificate. Surgeon-Captain G. E. Fooks, Indian Medical Service, has been permitted by the Secretary of State for India to return to duty. Surgeon-Lieutenant-Colonel John Edward Charnock Ferris, 1st Bengal Cavalry, will retire from the Service.

### DEATHS OF INDIAN MEDICAL OFFICERS.

Surgeon-Major W. H. Cole, 3rd Dragoon Guards, at Murree, of cholera; Surgeon-Captain M. Fowler, Army Medical Staff, at Murree, of cholera; Surgeon-Major F. S. Dimond, 3rd Dragoon Guards at Murree; Surgeon-Major H. Harc, 2nd Battalion Royal Munster Fusiliers, at Cawnpore.

Arrangements have been made for appointing the Presidency Surgeons and the Civil Surgeons in the mofussil as Inspectors under the Indian Factory Act to carry out the sanitary provisions of the Act. Rigid rules for sanitary inspection have, it is said, been drawn up by the Government of India.

### NAVAL MEDICAL SERVICE.

Surgeons John Jeffreys Dinnis, M.D., and George Frederick Wales have been promoted to the rank of Staff Surgeons. The following appointments have been made:—Staff Surgeons: J. Cowley to the *Scout* and C. Macaulay to the *Castor* (both dated Sept. 30th, 1892). Surgeons: J. Thomas to the *Bellerophon*, J. L. Barrington to the *Melita*, J. Coolison to the *Ruby*, and F. Burns to the *Belleisle* (all dated Oct. 1st, 1892). Surgeon Octavius Fisher, who completed his twelve months as Medical Officer of the Plymouth Division in February last, has been appointed to H.M.S. *Impregnable*, and succeeded by Surgeon W. M. Craig, M.B. Surgeons and Agents: Henry M. Scott at Innisicrone and Pullocheny, and John J. McNulty at Derkinore and Pullendiva (both dated Oct. 5th, 1892).

### VOLUNTEER CORPS.

*Rifle*: 1st (Pembrokeshire) Volunteer Battalion, the Welsh Regiment: Surgeon-Captain G. Griffith, Honorary Surgeon-Major, to be Surgeon-Major (dated Oct. 5th, 1892).

### THE BLACK MOUNTAIN EXPEDITION.

The force which, under Major-General Sir William Lockhart, was to proceed against the refractory Black Mountain tribes has already taken the field. It is a large one, consisting of 4000 men with three batteries, in addition to a force of about 2000 strong at Durban, the base of operations. It is composed of two brigades and made up of European and Native troops. The preparations preliminary to an expedition of this nature necessarily create a great deal of work, notwithstanding the experience which the Indian officials have had of small wars of a similar nature, and the organisation of transport and medical arrangements generally must have given rise to a good deal of activity on the part of the medical service. If the Black Mountain and Wana expeditions take place and the Kurrum Valley be occupied, there will be between eight and nine thousand troops beyond the frontier.

### SURGEON IN ORDINARY TO THE LORD LIEUTENANT IN IRELAND.

Brigade-Surgeon (retired) R. F. Tobin has, as we announced last week, been appointed "Surgeon in Ordinary" to his Excellency the Lord Lieutenant in Ireland. We are glad to congratulate this officer on the appointment. Brigade-Surgeon Tobin, it will be remembered, filled the position of Assistant Professor of Military Surgery at the Army Medical School, Netley, where he did good work. He was selected to fill the post of Field-Surgeon to the Suakin expedition, where his excellent judgment and skill in operative surgery were generally recognised. He subsequently wrote an interesting report of much practical value on the surgical work performed on that occasion. In 1885 he retired from the service and was soon afterwards appointed surgeon to the St. Vincent's Hospital, Dublin, an Examiner and Member of Council of the Royal College of Surgeons, Ireland, and representative Governor of the Catholic University School of Medicine.

THE ANNUAL SANITARY REPORT OF THE PROVINCE  
OF ASSAM.

We have received a copy of the report of Surgeon-Colonel Costello, the administrative medical officer and sanitary commissioner of Assam, for the year 1891. The report deals with the vital statistics of the province and gives a brief history of the chief diseases which have affected its population during the year. The province is divided into three parts. The valley of Surma with its districts, Cachar and Sylhet, Assam proper, and the Khasi and Jaintia Hills. The total population amounts to 4,881,426. The vital statistics of the province are unreliable and are approximative only. Cholera, small-pox, fevers and the disease described by Dr. G. M. Giles, under the name of kala-azar, which is pathologically allied to the beri-beri of Ceylon, are the principal causes to the greatest mortality. We have on a previous occasion adverted to the disease known as kala-azar and its pathology. Cholera was very prevalent during the year, as it had previously been during the year 1889 in the Surma Valley, and caused great mortality. Much of the disease was attributed to importation, but the Sanitary Commissioner observes that wherever sanitation was most neglected there the cases were most numerous, and adds that a pure drinking water has been found to be the most efficacious means of ensuring freedom from cholera. Assam has a hot, damp climate and an exuberant vegetation. Its people care little or nothing for sanitation, but the tea planters might surely, if only from a selfish point of view, make things better than they seem to be on their estates.

DR. BRINSLEY NICHOLSON.

Dr. Brinsley Nicholson, who recently died at the age of sixty-eight, served in the Army Medical Service through the China War of 1859-60 and took part in the expedition to Peking. After his retirement from the service with the rank of Deputy-Inspector General of Hospitals, he devoted himself to the study of the literature of the sixteenth century, and contributed several papers to the New Shakespeare Society.

THE MILITARY RIDE.

We confess we are not at all sorry that this military ride was not received with any favour by the press of this country. No provision was made that the condition of the horses at its termination would be an important element in the matter. The ride is a purposeless undertaking from any military or scientific point of view, and, without some provision of the kind we have referred to, it is certainly not a humane proceeding as far as the unfortunate horses are concerned. Physiologically considered, it imposed relatively little strain upon the endurance of the riders, but a cruel one upon their horses. Long rides as a training for men and horses for the purposes of a campaign may find something to be urged in their favour provided they are undertaken for strengthening and developing the powers of both, but nothing of this kind entered into the present undertaking.

AMENITIES OF FOREIGN SERVICE.

In commenting recently upon the length of the foreign service tour we mentioned the fact that the number of appointments at home appropriated to officers on the Retired List made this grievance all the more keenly felt. It appears to us that if a certain number of changes were made tenable for a fixed period the grievance would be considerably lessened and the public service would be benefited. At the present moment the fixed changes are limited to the hospitals for women and children and a few other appointments. If army medical officers were guaranteed in their posts for a term of years instead of being constantly shifted about, it would be good for them and good for the army at large, and would save expense whilst reconciling them in a measure to their lengthened expatriation.

**FOOTBALL CASUALTIES.**—The following casualties occurred last week. During a match at Durham, under the Rugby rules, a Jarrow youth collided with another player and was heavily thrown. On removal to the hospital it was found his spine was seriously injured. A member, aged twenty-two, of the Thistle Football Club, Aberdeen, whilst playing in a game at Drumoak Farm, sustained a compound fracture of his left arm. In a match between the Walsall Town Swifts and West Bromwich Albion Clubs the captain of the Walsall club fractured his clavicle.—A youth aged seventeen, in a match between two junior teams at Linthorpe, Middlesbrough, fractured his left arm.

## Correspondence.

"Audi alteram partem."

### "VACCINATION AND SMALL-POX MORTALITY."

To the Editors of THE LANCET.

SIRS,—Your annotation in THE LANCET of Sept. 24th under the above heading raises a point in connexion with this controversy which I think needs emphasising. I refer to the practice of nominal or insufficient vaccination, which, while it conforms to the letter of the Act, engenders in the minds of ignorant people a false sense of security, and is therefore calculated to bring discredit on a most salutary measure. There can be no doubt, I think, that the number of those who are practically "unprotected" from small-pox is increasing year by year to a dangerous extent, and if we could include under this term only such as are "unvaccinated," our opponents would not have the grounds they now have for declaiming against compulsory vaccination. Unfortunately, however, it is only too true that numbers of persons are now growing up who can only show one or perhaps two small marks as the result of their primary vaccination, and who, when exposed to an epidemic of small-pox, will doubtless, as in the past, swell the number of those who are triumphantly cited by anti-vaccinationists as having contracted the disease in spite of having been vaccinated. These gentlemen would, however, do well to note in this respect what they seem wilfully to ignore, but what is abundantly shown by the reports of the various outbreaks of the disease which have occurred from time to time—viz., that whenever small-pox has attacked vaccinated persons the severity of the disease has been in inverse ratio to the number of marks such persons can show. This being the case, there must surely be something radically wrong with an Act which, while imposing upon public vaccinators the production of four vesicles, allows a systematic evasion of its provisions to go on unchecked; and I cannot but think that we are fast losing the advantage of protection from small-pox which that Act was framed to secure for the want of more stringent measures to ensure its efficient administration. It is notorious that at some of the public vaccination stations in our large towns the office of public vaccinator is becoming a sinecure, simply because their work is drifting into the hands of the cheap vendors of advice and medicine who, it may be, from a misplaced sympathy, encourage an evasion of the spirit, if not of the letter, of the Act which must sooner or later lead to direful results. I do not pretend to see clearly how this anomalous state of things is to be remedied; but at least it is not unreasonable to expect that if the public vaccinator has to submit to supervision of his work by Government inspectors, such supervision should also be extended to the large number of irresponsible private vaccinators who are at present quite uncontrolled. Of course, as long as the operation is in the hands of the medical profession at large it would be impossible to inspect every case, but it might at least be made compulsory to state on every certificate the number and size of the vesicles. Would not also a periodical inspection of Board schools afford some means of checking the work of private practitioners among the poorer classes? There is still the question of compulsory revaccination, but I fear I have already trespassed too much on your valuable space. I should, however, be glad to see the whole matter taken up by some of your numerous readers who may be more competent to deal with it.

I am, Sirs, yours faithfully,

Bristol, Sept. 29th, 1892.

E. H. WARNER, M.D. Edin.

### "THE NOTIFICATION OF DISEASE."

To the Editors of THE LANCET.

SIRS,—It is clear that nothing is to be expected from the medical officer of St. George's, Hanover-square, concerning the point I raised in your journal of a fortnight ago, and I do not wish to take up your space further than to make clear the point at issue. Dr. Corfield is unable to go outside the strict letter of the Notification Act, and maintains that no matter how many medical practitioners are called in to see a case of infectious disease, every one of them is bound to

notify. "As a matter of fact," he says, "if only one certifies it to the medical officer of health, the latter is quite satisfied, as he does not want more than one certificate of one case, but if neither of them certifies he is bound to report them all." But it is not a question of the *satisfaction* of the medical officer of health. The question is what is right, and the right is determined in a new Act by the administrators of that Act. Most Acts, if we abide by their letter, are in places doubtful in their meaning, or often enough absurd, and in this case I maintain that to compel three or four individuals to notify when only one certificate is required is absurd, and is not the *intention* of the Act, whatever the wording may be. I further maintain that inasmuch as the medical officers of health are the administrators of the Act they are "not bound to summon everyone who may happen to be called in to see a case of infectious disease." The one in charge of the case is the one who is responsible and none else, and the medical officers of health ought so to work the Act. How am I to know who is the medical officer in twenty or thirty parishes not my own? Moreover, I know, as I said in my former letter, that a large number of medical officers of health interpret the Act in this liberal spirit. So they tell me, and there ought to be some uniformity.

I am, Sirs, yours faithfully,

JAMES F. GOODHART.

Weymouth-street, W., Oct. 3rd, 1892.

### "GLYCOSURIA WITH LOW SPECIFIC GRAVITY OF URINE."

To the Editors of THE LANCET.

SIRS,—Dr. Nicholson, writing in your last issue, gives details of a case of this unusual occurrence, and remarks upon the extreme rarity of the condition. Possibly, if the urine were tested for sugar as a routine and not passed over with the remark, which I have sometimes heard, "Normal (or sub-normal) specific gravity, therefore no sugar" these cases might be found to be not so very rare after all. The following case was seen for the first time on Sept. 25th; it may perhaps interest Dr. Nicholson and others.

Mrs. B—, aged sixty-five, had enjoyed good health until five years ago, when she became suddenly hemiplegic and aphasic. She slowly recovered the use of her limbs, but her speech has remained much impaired up to the present time. A second similar but slighter attack occurred three years later, but she has remained fairly well and able to do her house work up till two or three weeks ago, when she had to give up on account of increasing dyspnoea. Examination showed the following:—Heart slightly hypertrophied; sounds extremely irregular both in force and rhythm; no bruit; arteries rigid and tortuous; lungs slightly emphysematous; abdominal viscera apparently healthy; ankles rather oedematous; veins of legs varicose; urine acid, sp. gr. 1020, no albumen or casts; sugar about 5 gr. in the ounce. I was surprised at these results, and at first inclined to doubt them, as there were no symptoms of diabetes, and I happened to be using for the first time the cupric test pellets introduced by Dr. Pavy; but some freshly made Fehling's solution gave precisely the same result. After three days' treatment by digitalis and diet the urine showed sp. gr. 1010, no albumen or casts, but still a trace of sugar; dyspnoea all but gone. Four days later, though the specific gravity had risen to 1015, not a trace of sugar was present.

I am, Sirs, yours faithfully,

CHARLES CLAYTON, M.R.C.S., L.R.C.P. Lond.

Broadhurst-gardens, N.W., Oct. 3rd, 1892.

To the Editors of THE LANCET.

SIRS,—The condition of urine described at p. 773 is not so extremely rare. Both in THE LANCET and other medical periodicals cases are reported with a specific gravity as low as 1005, *vide* "Medical Digest," Section 332: 1.

I am, Sirs, yours obediently,

RICHARD NEALB, M.D. Lond.

Boundary-road, South Hampstead, N.W., Oct. 3rd, 1892.

To the Editors of THE LANCET.

SIRS,—Seeing an account of a case under the above heading in THE LANCET of Oct. 1st I should like to mention the case of an old gentleman I am now attending; his age is seventy. He has the usual symptoms of diabetes as met with in elderly people: the urine contains abundance of sugar, the test used

being Pavy's method, and the sp. gr. is only 1015. Thinking that there might be some error in my manipulations I submitted a sample of the urine to a medical friend, who verified the above statements after using two urinometers. There is no albumen present.—I am, Sirs, yours faithfully,

WALTER BARBER, L.R.C.P.I

Roman-road, Bow, E., Oct. 4th, 1892.

### THE PROPAGATION OF CHOLERA.

To the Editors of THE LANCET.

SIRS,—The propagation of cholera by means of human intercommunication is a simple explanation of the extension of the disease, but the theory is not altogether satisfactory, for if it were it would be natural to expect a more frequent visitation of the disease, since the same causes which brought about the present outbreak are in constant existence. To describe cholera as a "filth" disease is to create an erroneous and misleading impression, for the utmost disregard of all the laws of sanitation will not generate cholera any more than any other disease. It is true filth naturally creates a susceptibility and that those who live amidst insanitary surroundings more readily fall victims to any prevalent disease, and therefore every epidemic might and should with equal justice be called a filth disease. Further, we are informed on the highest authority of the probability of a renewed outbreak next spring. How is this temporary abatement explained on the theory of human intercommunication? Again, this theory fails to explain how the epidemic reaches a "maximum of intensity" and then gradually declines, sometimes, however, to rise a second or even a third time. How, too, can the fact be accounted for that occasionally those who live on one side of a street are affected whilst those on the other side escape? The theory of human intercommunication lacks corroboration. As an independent observer I am convinced cholera can only exist under certain meteorological conditions, and that the poison can be, though not necessarily always is, conveyed by the winds, and I maintain that the meteorological theory offers as rational and as simple an explanation of the vagaries of cholera as the theory of human intercommunication.

I am, Sirs, yours obediently,

G. SHERMAN BIGG,

Formerly Staff-Surgeon, Allahabad, India.

Victoria-street, S.W., Oct. 3rd, 1892.

### "THE BIRKBECK PANIC: A MANIACAL EXCITEMENT."

To the Editors of THE LANCET.

SIRS,—In your issue of Sept. 24th is an annotation in which the term "maniacal excitement" is applied to the depositors who, under the influence of a scare which turned out to be unfounded, withdrew their money from the Birkbeck Bank. Will you allow me to protest against this application of a term which is a scientific one, connoting definite phenomena that were not present in the case in question, and which ought, I think, to be restricted to its true scientific meaning? By maniacal excitement, as understood in alienism, is meant excitement which (1) is in excess of what is justified by the circumstances in which the individual is placed; and (2) does not subside when the true nature and significance of the circumstances are made clear. In neither of these particulars was the excitement of the Birkbeck depositors maniacal. When they had reason to believe that the money—which in many cases was the result of the toil and saving of a lifetime—was in jeopardy a considerable height of excitement was natural and justifiable; and I do not find in the published accounts that the degree of excitement manifested was so extreme as to be in excess of what might naturally be expected of the normal or average man under such circumstances, supposing the circumstances to be as the depositors imagined. Secondly, when by the prompt payment of all claims the true nature and significance of the circumstances were made clear the excitement at once subsided. Since, therefore, neither of the qualities which are necessary to constitute the excitement maniacal was present in this case, it is, I think, to be regretted that this term should be applied to it.

I am, Sirs, your obedient servant,

CHAS. MERCIER, M.B. Lond., F.R.C.S. Eng.

Catford, Sept. 24th, 1892.

\*\* We publish Dr. Mercier's letter with pleasure. We are well aware that the removal of the cause of a disorder or

derangement will at any rate tend to the removal of the disorder itself, if it does not entirely remove it. A delusion which "subsides when the true nature and significance of the circumstances are made clear" was none the less a delusion. So may it be with other conditions where morbid mental manifestations existed, whatever names we may choose to apply to them. We are certainly not prepared to pin our faith to definitions in insanity; but as a set-off to Dr. Mercier's definition as given above we quote a definition given by the writer of the article "Mania" in Dr. Hack Tuke's "Dictionary of Psychological Medicine" just issued from the press: "Mania may be defined as being an affection of the mind characterised by an acceleration of the processes connected with the faculty of imagination (perception, association and reproduction), together with emotional exaltation, psycho-motor restlessness and an unstable and excitable condition of the temper."—ED. L.

## CENSURE OF A MIDWIFE AT WEST BROMWICH.

To the Editors of THE LANCET.

SIRS,—The *Birmingham Gazette* of August 15th last gives a short account of an inquest held at West Bromwich where a woman who had attended the unlucky subject of it was censured for not sending for a doctor, though it was allowed that she had done her best according to her ignorance. Her total incapacity to perform what she had undertaken was held to be a bar to a verdict of manslaughter, though if she had lost her patient in an attempt to remove a sloughing fibroid, for example, which nature was trying to get rid of, I very much doubt if her ignorance would in that case have been accepted as a valid excuse. There was, apparently, no medical evidence given at the inquiry, but Dr. Lawson, who was called in after death, has given me some details of the case, and he and Dr. Manley, the medical officer of health, have very kindly furnished me with some information as to the state of midwifery in West Bromwich. The patient no doubt died from post-partum hemorrhage consequent on failure to remove the after-birth; the cord was in the chamber and had evidently been torn off in an attempt to remove it by traction, but the "midwife" had refused to send for medical assistance. I learn that the town, with a population of about 60,000, "is full of women who pretend to know something" and that "the majority of the poorer classes are attended by women who are either professed midwives (not certified) or mere neighbours." "The population is very poor and they cannot all pay fees." With these facts before us that "accidents are rare" and that the mortality from puerperal fever is 2.6 per 1000 births must be looked upon as due to a fortuitous concatenation of circumstances and to the powers of the women, unless we consider that the fact of the medical officer of health knowing and to some extent supervising the "midwives," as shown by his having been directly instrumental in stopping two of them from practising, accounts for it. He considers the women now in practice to be trustworthy.

How little knowledge is required and how much a little supervision might accomplish is here sufficiently indicated, and yet what other branch of the healing art can be compared to it in respect to the trusting innocence with which it is regarded by both midwife and patient—at any rate, in West Bromwich? The administration of the domestic "Gregory's powder" or the insertion of a needle into a boil are alone on the same level. The era of obstruction and proverb which in the early part of this century ushered in the general use of the forceps is still with us. Ignorance in the use of "instruments," self-confidence in manual operations and comparative disregard for the life of the child on the side of the profession, combined with an unreasoning horror on the part of the public, long hindered the mitigating influence of the forceps; so it is at the present time ignorance as to the true state of things amongst the opponents of the Midwives Bill. In a few cases the ignorance appears to be wilful and will not be enlightened. Self-confidence as to our powers of preventing the extreme evils of ignorant midwifery, however late we are called in, forgetful as we are of the terrors and anguish sore, which in such case must precede our arrival; a belief in nature's powers, which gives rise to a passive endurance worthy of a Stoic on the part of the women, all combine to produce—

alas, how often!—a tragedy seldom equalled, except by similar cases in fact or fiction. If the indifference and carelessness of the patients of these untrained midwives could for one brief hour be swept away, how long would this want of regard for "our neighbour" exist? We know very well that the torrent of public opinion would soon put a new and healthier face on these old-standing sores. I trust that the work of the Select Committee of the late Parliament will not be allowed to waste in a pigeon-hole, only to become an interesting document for a future and wondering generation.

I am, Sirs, yours faithfully,  
Fellows-road, N.W., Sept. 20th, 1892. ROWLAND HUMPHREYS.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### Opening of the Winter Session.

THE usual opening of the Medical Faculty, Liverpool University College, with the delivery of an address and the distribution of prizes has been departed from. It was found impossible to complete the new University buildings in time, and it was therefore resolved to postpone the opening ceremony to a later date. But the lectures will all commence this week. The anatomical rooms are open, with a plentiful supply of subjects, and students are already hard at work. With the new infirmary, and the now almost completed university buildings, the local medical school is one of the most complete in the kingdom; but more space is still required in some departments and further improvements are contemplated.

### The Northern Hospital.

It is hoped that the City Council will be induced to grant a sum of money as well as a site for the proposed new Northern Hospital. The present building has for a long time past been found to be quite inadequate, and a new one is imperatively demanded.

### The Local Intra-mural Cemeteries.

On June 2nd the City Council resolved: "That the Health Committee be instructed to consider the desirability of taking steps for closing St. James's cemetery." In accordance with this the medical officer of health, Dr. Stopford Taylor, reported that the cemetery is conducted according to the regulations provided under the Burials Act, that there are no common or public graves and that no complaints have been made which would justify them in taking legal proceedings. It has been frequently inspected and no nuisance found to exist, nor has there been any evidence of injury to the health of the inhabitants in its immediate neighbourhood. Though no positive injury can be demonstrated to have arisen from it, yet the medical officer would express his entire concurrence in the resolution arrived at many years ago by the Government Commission on intra-mural interments: "that all interments in towns where bodies decompose contribute to the mass of atmospheric impurity which is injurious to public health." The Health Committee have therefore reported that in their opinion it is not at present desirable to take steps for closing the St. James's cemetery. With regard to the necropolis, an intra-mural cemetery situated on the same level as the houses by which it is closely surrounded, Dr. Taylor reported that it ought to be closed except for family graves. St. Mary's cemetery, Kirkdale, a third cemetery which has by the growth of the city passed from being an extra-mural into being an intra-mural one, is now practically closed by the Order in Council, May 10th, 1872, which limits the interments to the burial of the bodies of certain specified relatives in family vaults, walled or earthen graves, subject to strict regulations as to depth &c.

### Prevention of Cruelty to Children.

During the month of September the local society took up 78 new and 76 old cases, the former involving the welfare of 102 and the latter that of 88 children. Among the complaints were 7 cases of assaults, 1 of excessive beating, 38 of general neglect, 15 of selling when under age, 21 of begging by day, 61 of begging by night, 6 of selling at night, 23 of exposure, 11 of sleeping out, 7 of dangerous surroundings.

### Railway Passengers from Cholera-infected Parts.

A correspondent signing himself "An Eye Witness," and whose statements have been authenticated, has written in a daily paper descriptions of the very filthy condition of some Russian emigrants on their arrival at the Liverpool terminus

of the L. and N.W. Railway. Although it was possible, and even probable, that they might have come from places, infected with cholera, the medical officer has not the same powers to deal with them as he has with the crews or passengers of ships arriving in the Mersey. Still every care has been taken to prevent any ill consequences, and the number of such passengers will probably in future be very few until all danger of cholera has passed away.

Oct. 6th.

## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT)

### *The Mason College.*

OCTOBER 1ST was a memorable day in the history of Queen's College. The old associations of the past, the relations of the former buildings and the traditions of the medical school flourishing therein for many years have been uprooted and conveyed to "fresh scenes and pastures new" at Mason College. Not without a passing pang of regret to former students, but full of hope and aspirations for the future, the union of the two colleges has become an accomplished fact. The event had been signalled by preliminaries for some time past, and the occurrence was made the occasion of a large gathering of medical men to hear an address by Sir George Humphry. This was listened to with much interest. The mature wisdom, the ripe learning and practical sagacity, combined with an intimate knowledge of the educational wants of the profession, gave additional emphasis to the address, which called forth hearty applause from the audience. A vote of thanks, proposed by the Mayor and seconded by Mr. Oliver Pemberton, was unanimously accorded. In the evening there was a reception by the president, vice-president and principal, followed by a successful conversation, to which 2500 invitations were issued. The opening entertainments afford a good augury for the success and prospects of the union thus celebrated.

### *The Value of Exercise.*

In the opinion of most members of the medical profession judicious physical exercise is conducive to well-being and health, and its practice is generally recommended. The exception sometimes proves the rule. At a meeting of the Birchfield Harriers the ex-President of the Board of Trade—Mr. Chamberlain—remarked, "I do not cycle, I do not ride, and I do not walk when I can help it. I do not play cricket and I do not play football. I do not play tennis and I do not even play golf. The fact is that I do not take any exercise at all." At the same time the right hon. gentleman pointed out that the qualities which brought success in such pursuits are those which have distinguished Englishmen throughout the world, and which have made them the most enterprising travellers and explorers. The danger in the present day is not in taking exercise, but in the extremes to which it is sometimes pushed. When competition becomes an element there is a risk of the boundary line of health being overstepped and harm ensuing.

### *The Midland Medical Society.*

The admission of women as members of this Society was settled at the annual meeting held on the 5th inst. Among "the following gentlemen to be balloted for" there was the name of a lady practitioner. The lack of interest in the election was shown by the number present. Out of 322 members representing the Society there were ten present and four officials. The voting showed nine for and two against, and as the candidates, twelve in number, were balloted for *en bloc* they were all elected. The time has passed when the introduction of a question of this kind would have provoked a storm and led to a lively meeting.

Birmingham, Oct. 6th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *Lunacy in Northumberland and Durham.*

DR. McDOWALL has issued the report of the Northumberland County Asylum at Morpeth for the past year. This asylum, which was commenced in 1859 with about 130 patients, has now 600 patients under treatment. We have in this report the same story—namely, that the accommodation is nearly exhausted and that further extensions will have

to be seriously considered. There is no indication, Dr. McDowall thinks, of any diminution in the demand for accommodation for the insane poor; and this would seem to accord with the facts observed in the neighbouring county of Durham. For instance, we read that there is still a dispute in progress between the Sunderland guardians and the town council as to which authority shall take charge of the imbeciles at the workhouse. The corporation have orders to remove 300 patients from the vast asylum at Sedgelyield by June next, and to meet this they are building an asylum at Ryhope to accommodate 350 patients. The guardians, it appears, stand to their resolve to hand over to the corporation the imbeciles now in the workhouse as soon as the new building is finished. The number of patients for which the corporation and guardians are responsible is nearly 400, so there is certain to be a hitch again about this vexed question of accommodation for the insane. I hear that in the Newcastle City Asylum at Coxlodge the accommodation on the female side is now exhausted and that steps are in progress to enlarge the institution very considerably.

### *Death of Mr. John Russell.*

In THE LANCET of last week appeared a notice of the death of Mr. John Russell, M.R.C.S., at Worthing, at the age of sixty-two. Mr. Russell was a native of Durham city, and served his apprenticeship to Mr. Jephson, a well-known practitioner there. He afterwards passed to St. Bartholomew's Hospital, where he remained until he qualified. He came to practise in Newcastle at a very opportune period, two old practitioners at this time retiring—namely, Mr. Annandale and Dr. Bleazley. Mr. Russell very soon made rapid progress in his profession, and in an unusually short time acquired one of the best general practices in Newcastle. He was also appointed surgeon to the infirmary and lecturer on anatomy at the College of Medicine. He was a good surgeon, but always had a reluctance to operate in public. This and his large general practice kept him back in the surgical race. Mr. Russell had charming manners, and was a gentleman of great and varied information. He was very well liked by his professional brethren, and he was indeed honourable in all his dealings. His health began to fail a few years ago, and he decided to retire. He has left a grown-up family, none of whom have followed the profession.

### *The Supply of Impure Water to Durham Villages.*

In consequence of the prevalence of typhoid fever in the Easington district an analysis of the village wells was made and they were found to be seriously contaminated with sewage and other organic matters; indeed, some were shown to receive their supply through a churchyard. The overseers and several prominent householders have been summoned with a view to rectify matters. It seems now that this was a mistake in procedure, as a letter has been received from the Local Government Board stating that the rural sanitary authority was the body responsible for the purity of the water-supply and not the overseers. Orders for the closing of the impure wells have been made by the magistrates. Thirteen wells are more than suspected.

Newcastle-on-Tyne, Oct. 6th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

### *Professor Ogston.*

PROFESSOR OGSTON'S decision to yield to the great pressure brought to bear upon him to withdraw his resignation as senior surgeon to Aberdeen Royal Infirmary has given unqualified satisfaction to the medical profession, to the students of medicine and to the general public of the north-east of Scotland. This decision was announced to the directors of the institution by the chairman at a meeting held last week.

*Aberdeen Royal Infirmary: Opening of the New Hospital by Princess Louise.*

On Tuesday, the 4th inst., Princess Louise, accompanied by Princess Beatrice and Prince Henry of Battenberg, visited Aberdeen and formally opened the new buildings of the Royal Infirmary. The principal streets and buildings of the city were profusely decorated, and special preparations were made at the infirmary, a grand stand capable of accommodating 700 people having been erected opposite the main door, where was a raised platform for the Royal party. The Aberdeen company of the Volunteer Medical

Staff corps formed a guard of honour near the platform. The proceedings commenced by the Aberdeen Madrigal Choir singing the National Anthem. Mr. Littlejohn, chairman of directors, presented an address to Princess Louise, and Prince Henry read her reply. After another hymn and a dedicatory prayer by the Rev. Mitford Mitchell, D.D., one of Her Majesty's chaplains, a silver key was presented to the Princess, who thereupon declared the building open. The medical staff were then presented to her Royal Highness, and the nursing staff presented her with a bouquet. Thereafter the Royal party made a minute examination of the wards.

#### *Health of Aberdeen.*

On Monday, the 3rd inst., the Aberdeen Town Council decided by sixteen votes to eleven to delay for three months further consideration of the proposed additions to the city fever hospital. Last week 185 cases of zymotic diseases were reported to the medical officer of health, being an increase of 71 as compared with the previous week. This large number is composed mainly of cases of measles, of which there were 130, with 42 cases of scarlet fever.

Edinburgh, Oct. 5th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

#### *Reported Case of Cholera.*

CONSIDERABLE alarm was caused recently in Banbridge by the rumour, industriously circulated, that a farmer had died quite suddenly from cholera. An investigation, however, showed that the disease in question was not cholera, but it was thought advisable to destroy the patient's bedding and clothing.

#### *Colleges of Physicians and Surgeons: Conjoint Scheme. Five years' Curriculum.*

The following regulations will apply for the first year for candidates under the five years' curriculum:—1. Demonstrations and dissections, six months; Theoretical Chemistry, six months; Practical Chemistry, three months; Practical Pharmacy, three months; Physics and Elementary Biology may be studied before or after registration, three months. The subjects of the First Professional Examination will be Chemistry, Physics, Practical Pharmacy, Elementary Biology and Anatomy (bones with attachments of muscles and ligaments, joints). A candidate may take this examination as a whole at one time, or in four parts, but the examination in anatomy not earlier than the end of his first winter session.

#### *Dublin Main Drainage.*

In May last year a committee was formed for the purpose of instituting inquiries as to the necessity of a scheme of main drainage for the city of Dublin, and ultimately, in December, 1891, a report was adopted recommending Chatterton's scheme of main drainage. The Local Government Board also held an inquiry and approved of the suggested scheme, and an Act passed giving the sanction of Parliament to the project. The Corporation found that by charging the entire cost of that scheme and adding it to the amount of the city loans there would be scarcely any margin left for carrying out all the other schemes of equal importance, such as the building of artisans' dwellings, which were considered absolutely necessary. The late Government gave exceptional powers to get £100,000, which would not be charged under the Public Health Act to the borrowing powers of the Corporation, and the latter agreed to promote a Bill that the loan should be an exceptional one. On Monday they adopted the following resolution in reference to this matter:—

To consider and, if approved, to adopt a resolution in reference to promoting, and the expense of promoting, a Bill in the next session of Parliament for the purpose of amending, enlarging and defining the powers of the Corporation as to borrowing and application of money borrowed, and for confirming and providing for the expenditure of money on the Dublin Main Drainage and on the extension and improvement of the Dublin Corporation Waterworks, and for such other matters incidental thereto or connected therewith respectively as shall be deemed expedient, and, if approved of, to pass a resolution authorising the Corporation to proceed with the Bill, and to apply the municipal funds or rates, or some or any of them, to the payment of the costs and expenses attending the same.

#### *Meath Hospital.*

The introductory lecture on the opening of the winter session was given on Monday by Dr. L. Hepenstal Ormsby. He referred chiefly to the grievances of Irish dispensary medical officers and the exclusion of Irish diplomats from

English hospital appointments and the grievances of the Army Medical Service. You will probably, however, report the lecture either in full or in abstract.

#### *International Medical Congress, Rome, 1893.*

The following gentlemen have been nominated on the Committee for Ireland: Sir George Porter, Bart., Regius Professor of Surgery, Univ. Dublin; Sir William Stokes, Professor of Surgery, Royal College of Surgeons; E. H. Bennett, M.D., Professor of Surgery, Univ. Dublin; Samuel Gordon, M.D., ex-President Royal Academy of Medicine; W. Thomson, M.D., surgeon to Richmond Hospital; James Cuming, M.D., Professor of Medicine, Queen's College, Belfast; Henry Swanzy, M.D., Surgeon, National Eye Infirmary; J. M. Purser, M.D., Professor of Physiology, Univ. Dublin; Lombe Athill, M.D.; E. McWeeny, M.D., Professor of Pathology and Bacteriology, Cath. Univ.; C. Nixon, M.D., Professor of Medicine, Cath. Univ.; and D. Cunningham, M.D., Professor of Anatomy, Univ. Dublin.

#### *Death of a Centenarian.*

Cornelius Egan, of Dingle, county Cork, died last week at the alleged age of 120 years.

#### *Medical Magistrates.*

The Lord Chancellor has appointed Dr. Francis McLaughlin and Dr. Michael O'Kane to the Commission of the Peace for Londonderry city; also Professor Pye, M.D., of the Queen's College, and Mr. Nicholas Grealy for the city of Galway.

Oct. 4th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *Extensive Ecchymoses after an Epileptic Attack.*

At the Pau Congress of the French Society for the Advancement of the Sciences, Dr. Cabadé reported the case of a carpenter aged forty, robust and free from cardiac and vascular lesions, who, after an attack of epilepsy which occurred in bed, presented on the morrow subcutaneous extravasations of blood involving the chest from the sub-clavicular region to the base of the thorax on the right side and to the crest of the ilium on the left side. The arms and the shoulders were also enormously swollen and discoloured from the same cause, the circumference of the former being fifty-four centimetres. At the seats of the ecchymoses the skin was hard, raised and tense, and great pain was complained of in the arms and shoulders, this being probably due to compression of the brachial plexus by the effused blood. The face was not altered. The ecchymoses underwent the usual changes of colour, and it was fully two months before they finally disappeared. The patient's wife, who slept at his side on the night of the attack, heard no fall, and was only conscious of some agitation on the part of her husband. The tongue was bitten, but the temperature was normal. The man had long been subject to attacks of petit mal, and since the seizure above mentioned he has had two others of haut mal, but unaccompanied by ecchymoses. Professor Pitres of Bordeaux states that this case is unique in medical literature, and I communicate it to THE LANCET as being of possible interest to medical jurists.

#### *The Influence of an undue Consumption of Salt on the Development of Leprosy.*

The etiological importance of salt fish in the production of leprosy has been insisted on by many dermatologists, notably by Mr. Hutchinson. When years ago I accompanied the Medical Commission of Cape Colony on their visits to the leper establishment on Robben Island I found that the same idea prevailed amongst my colonial *conférrés*. Notwithstanding the prevalence of the disease amongst races who do not consume fish, and its absence in many districts where that comestible is largely eaten, the following facts cited by Dr. Azoulay at the Pau Congress appear to lend support to the hypothesis that the excessive consumption of salt (as in salt fish) may encourage the pullulation of Hansen's bacillus. A young Greek, a patient of the late Professor Darnaschino at the Laennec Hospital, and suffering from ulcerative and anæsthetic leprosy, stated that since childhood he had been in the habit of eating considerable quantities of salt, which he added to every dish he ate. Another affected with the nodular and mutilating variety of the disease made the same confession, and related how his uncle, with whom he used to inhabit an isolated hut, and

who had died of leprosy, had an inordinate appetite for salt. A leprosy patient under M. Vidal's care, whom I remember seeing at St. Louis, had by his bedside a jar of salt, of which he made free use during his meals. This patient had contracted the disease at Calcutta. Another example is furnished by a Frenchman, in whom the disease had developed during a sojourn in the province of Murcia (Spain). All the above-mentioned individuals stated that their craving for salt which they could not overcome, although fully aware of its injurious effect on their leprous troubles, was not shared by the other inhabitants of the districts where their disease had first made its appearance. Dr. Thernes said that in the Antilles, where leprosy is more frequently met with amongst the blacks than amongst the whites and the half-bloods, the former consume daily salt codfish imported from Newfoundland. M. Regnault had never noticed any particular *penchant* for sodium chloride amongst the leprous in India, but he deemed the subject worthy of investigation.

#### *The Situation of the Respiratory Centre.*

We have hitherto been accustomed to regard the integrity of a tract situated in the medulla oblongata between the vasomotor centre and the calamus scriptorius, and christened by Flourens *naud vital*, as indispensable for the continuance of the respiratory function. But Dr. Brown-Séguard has brought to the notice of his colleagues of the Académie de Sciences a series of experiments conducted by MM. Gad and Marinescoy on sixty-five dogs, rabbits and cats, which lead them to a different conclusion. These physiologists maintain that the destruction of the various centres regarded by Flourens, Gierke and Mislawsky as centres of respiration does not involve the permanent arrest of that function provided certain operative precautions be taken. They further state that there exists in the lower part of the medulla at some depth from the surface a mass of cells, the destruction of which brings about arrest of respiration, while the stimulation of the same mass determines characteristic changes in the respiratory rhythm. This region, which they are disposed to regard as the true respiratory centre, is not a clearly circumscribed zone, but is composed of a collection of nerve cells scattered on each side of the roots of the ninth nerve. The centrifugal paths along the cord are direct and occupy the anterior radicular zone.

Paris, Oct. 6th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *The Cholera in Germany.*

THE numbers of cholera cases and deaths in Hamburg on the 26th ult. were respectively 70 and 33, on the 27th 58 and 42, on the 28th 70 and 42, on the 29th 33 and 24, on the 30th 47 and 14, on the 1st inst. 43 and 21, and on the 2nd 26 and 12. Professor Gaffky of Giessen, one of Dr. Koch's companions on the famous journey to Egypt and India, in the course of which Dr. Koch discovered the cholera bacillus, has been called to Hamburg to subject the new well-water there to bacteriological tests. Unhealthy dwellings in Hamburg are being emptied with all possible energy. Professor Pettenkofer recommended the rapid demolition of the "Gängeviertel" (Lane Quarter) and of the Stain Strasse, one of the most important streets of the city. London and Paris doctors arrived at Hamburg about the end of last month to study cholera in the barrack hospitals. Professor Klebs, who has tried his new method of treating cholera in Hamburg, writes to the *Frankfurter Zeitung* as follows: "My method is by no means based on the principle of Koch's tuberculin and is therefore not exposed to the prejudice which might be awakened if it were. All that it has in common with tuberculin is that it has to do with the products of bacteria. My anticholera is a substance isolated from the raw product by chemical means, on the principle on which I obtained tuberculoidin out of tuberculin by the separation and removal of the poisonous ingredients of the cultivations, so as to get the salutary substance pure." An Imperial Commissioner has been appointed for the hygienic control of the Rhine and its affluents. It is credibly stated that the new Hamburg sand-filters, which will cost 7½ million marks (shillings), will be ready next June. The Cholera Commission in the Imperial Office of Health has published its opinion that there is no danger whatever in eating well boiled or roasted fish, crabs and other edible aquatic animals; that sea-fish may be eaten without

scruple, if only salted or smoked, that there is no reason to abstain from butter and soft cheese, unless they have been washed with cholera-infected water or prepared in unclean vessels or with dirty hands, and that goods which are forwarded dry are not fitted to carry cholera contagion. "Timid persons," it adds, "can disinfect the boxes, barrels or the like in which the goods have been received with slaked lime or solution of carbolic acid." The death-rates of the German cities in the week which ended on the 17th ult. were as follows: Elberfeld, 16.6 per 1000; Frankfurt-on-the-Main, 16.9; Barmen, 18.2; Halle, 19.3; Dresden, 19.4; Bremen, 19.9; Nuremberg, 20.6; Berlin, 21; Stuttgart, 21; Strasburg, 21.3; Breslau, 23.4; Krefeld, 24.1; Hanover, 25.2; Dantzic, 26; Munich, 26; Cologne, 26.2; Königsberg, 26.2; Stettin, 27.4; Leipsic, 28.1; Brunswick, 29.4; Aix-la-Chapelle, 29.5; Altona, 30.8; Magdeburg, 31.1; Chemnitz, 33.8; Hamburg and its suburbs, 148.5.

#### *"The Black Death."*

A Berlin paper takes the following description from Russian papers:—"The Asiatic cholera and the plague are nothing compared with the terrible epidemic which has been scourging the population of Turkestan for some days past. A report of the Governor-General of Turkestan, which arrived at St. Petersburg on Sept. 23rd, stated that 'the Black Death,' as the Tartars call the devastating epidemic, visited the district of Askabad, which had a population of 30,000, on Sept. 10th and swept away 1303 victims in six days. Against the Black Death, which has been known in Western Asia for a long time past, there is no remedy. Like a death-bringing poisonous desert wind it suddenly attacks whole regions, sweeps away man and beast, and then vanishes as swiftly as it came. It begins with violent ague fits, which last for about an hour, at intervals of five minutes, shaking the patient from head to foot. Then comes intolerable fever heat, the vessels swell, the pulse beats faster and faster and the temperature keeps constantly rising. The patient is seized with convulsions and fainting fits and tortured with terrible pains. Suddenly the limbs become cold and rigid, the patient cannot move, and only utters from time to time a wailing sound that strikes all who hear it with horror. This second stage lasts only from fifteen to twenty minutes, and then, after a short interval, during which heavy breathing is the only sign of life, death comes. Then large black plague-boils cover the body and decomposition sets in in a few minutes."

Berlin, Oct. 4th.

## Medical News.

UNIVERSITY OF DURHAM.—FACULTY OF MEDICINE.—At the Convocation held on October 1st the following gentlemen were recommended for the degrees specified:—

*Degree of Doctor in Medicine for Practitioners of Fifteen Years' Standing.*—William George Crosswell, L.R.C.S., L.R.C.P. Edin., and Arthur Bayly Vane, L.R.C.P., L.R.C.S. Ed., L.S.A.

*Doctor of Medicine.*—Percy Rutherford Adkins, M.B. Durh.; Robert Crowson Bonington, M.B., B.S. Dur.; Soptimus Bodger, M.B., B.S. Durh.; George William Davis, M.B., B.S. Durh., M.R.C.S., L.R.C.P.; Arthur William Dawson, M.B. Durh., M.R.C.S.; Charles Chester Eardley Willmot, M.B., B.S. Durh.; Arthur Hardwick, M.B. Durh.; Charles Egerton Jennings, M.B., B.S. Durh.; Arthur Waldemar Brougham Ward, M.B., B.S. Durh., M.R.C.S., L.R.C.P.; Thomas Watts, M.B., B.S. Durh., M.R.C.P., L.R.C.P.; Robert James Williams, M.B. Durh., M.R.C.S., L.R.C.P.

*Bachelor in Medicine (Honours).—Second Class:* William Harvey Maddlow, M.R.C.S., L.R.C.P., and Berthold Bezly Thorne Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Francis Herbert Marson, Mason College, Birmingham; James Powell Willis, College of Medicine, Newcastle-upon-Tyne.

*Pass List.*—Arthur Badcock and William James Nathaniel Vincent, M.R.C.S., L.R.C.P., London Hospital; William Henry Bishop, Henry King Dawson, Reginald Green, John Stratford Hall, Willo Oliver, William Ernest Peacock, Samuel Short Whillis, and George James Williams, College of Medicine, Newcastle-upon-Tyne; Ernest Chittenden Bridges, M.R.C.S., L.R.C.P., and Lancelot William Rolleston, St. Bartholomew's Hospital; Hugh Somerville Burniston and Ronald Angus Dalrymple Daniel, L.R.C.S., L.R.C.P. Edin., L.S.A., St. Mary's Hospital; Edward Eden Cass, Yorkshire College, Leeds; Francis William Clark, M.R.C.S., L.R.C.P., D.P.H., and George Elam, M.R.C.S., L.R.C.P., Middlesex Hospital; Thomas James Selby, L.R.C.P., L.R.C.S. Edin., Edinburgh School of Medicine; Harry Shore, Mason College, Birmingham; Hubert Samuel Stockton, M.R.C.S., L.S.A., Charing-cross Hospital.

*Bachelor in Surgery.*—Arthur Badcock and William James Nathaniel Vincent, M.R.C.S., L.R.C.P., London Hospital; William Henry Bishop, Henry King Dawson, Reginald Green, Willo Oliver, William Ernest Peacock, Samuel Short Whillis, James Powell Willis, and George James Williams, College of Medicine, Newcastle-upon-Tyne; Ernest Chittenden Bridges, M.R.C.S., L.R.C.P., William Harvey Maddlow, M.R.C.S., L.R.C.P., Lancelot William Rolleston, and

Berthold Bezly Thorne Thorne, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; Hugh Somerville Burniston, St. Mary's Hospital; Edward Eden Cass, Yorkshire College, Leeds; George Elam, M.R.C.S., L.R.C.P., Middlesex Hospital; Francis Herbert Marson and Harry Shore, Mason College, Birmingham; Hubert Samuel Stockton, M.R.C.S., L.S.A., Charing-cross Hospital.

**ROYAL UNIVERSITY OF IRELAND.**—The following have passed the Third Examination in Medicine of the University:—

*Upper Pass Division.*—Emily E. Eberle, William J. Forbes, Robert J. McKeown, Robert Watt. (All these may present themselves for the further examination for Honours.)

*Pass Division.*—James C. Adams, Joseph T. Ahern, William T. Allen, Charles Bluet, John G. Clokey, William J. Dargan, Mina L. Doble, Walter Farrington, Francis Gallagher, Jane S. Galletly, George W. Griffith, Joseph Lowry, Joseph McGrath, Thomas T. McKendry, Samuel M. Magowan, Douglas C. Moore, William T. Niblock, Martin O'Dea, David A. Porter, John H. Thompson, William D. T. Thompson.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.**—The following have passed the Preliminary Examination:—

J. S. Ashe, J. Beasley, R. Berthon, W. S. Canton, J. M. Conway, A. T. Cresswell, W. C. Croly, L. M. C. Cummins, T. Edwards, \*F. C. Fitzgerald, R. Fisher, R. A. Fuller, J. Glendinning, James Gordon, J. J. Greene, A. C. Ha'choll, T. Jordan, W. Jordan, J. Kean, \*S. G. Longwood, J. J. Lynch, F. J. Moore, E. Moynihan, D. J. O'Meara, M. F. O'Sullivan, R. W. Pearson, L. K. Popham, D. Power, J. J. Prescott, T. A. Rooke, W. M. Rowlett, \*J. S. Sheil, J. A. Whittle.

*Physics.*—\*W. Adrian, J. Clarke, A. O'D. Kelly, F. A. Morris.

\* For a portion of the examination only.

**CHARING-CROSS HOSPITAL MEDICAL SCHOOL.**—The scholarship of 60 guineas, open to students of the Universities of Oxford and Cambridge, has been awarded to Mr. Walter S. Sheppard, of Christ's College, Cambridge. The entrance scholarship of 120 guineas has been awarded to Mr. Sidney Herbert Berry and that of 60 guineas to Mr. Alfred Burn.

**PRESENTATION OF A MEMORIAL BRASS BY DR. R. SAUNDBY.**—A memorial brass bearing the following inscription has just been erected in Saundby Church, Nottinghamshire, in memory of an old inhabitant of the village, from whom, it is stated, the village is named. The inscription runs as follows:—"In loving memory of Robert Saundby, born June 6th, 1810, died January 17th, 1880; and of Emma Sarah, his wife, born November, 1807, died January 28th, 1880. This brass was erected by their only son, Robert Saundby, M.D., F.R.C.P., physician to General Hospital, Birmingham."

**UNIVERSITY COLLEGE, LONDON.**—Her Majesty's Commissioners for the Exhibition of 1881 have placed at the disposal of the Council of the College the nomination to a scholarship of £150 for the year 1893. The scholarship is intended "to enable students who have passed through a college curriculum to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country." Out of the late Mr. Berridge's charity legacy the trustees have allotted to University College the sum of £10,000 for the promotion of the study of hygiene. The following gentlemen have been recommended for Medical Entrance Exhibitions:—Mr. C. Bolton, £100; Mr. W. R. Battye, £60; Mr. E. P. Chennells, £40.

**ENTRANCE SCHOLARSHIPS.**—*St. Bartholomew's Hospital:* 1. Open science scholarship of £75 in Chemistry and Physics to Charles Todd, B.A. Cantab., Clare College. 2. Open scholarship in Biology and Physiology of £75 to Walter d'Este Emery, of Mason's and Queen's Colleges, Birmingham. 3. Open science scholarship in Biology, Chemistry and Physics, value £150, to Stanley Bean Atkinson, Prel. Sc. Exam., London. 4. Preliminary scientific exhibition in Biology, Chemistry and Physics, value £50, to Joseph Henry Churchill of City of London School. 5. Jeaffreson exhibition in Classics and Mathematics, value £20, to James Hugh Thursfield, B.A. Oxon., Trinity College.—*St. Thomas's Hospital Medical School:* The first entrance science scholarship—(1) of the value of £150, has been awarded to Mr. A. W. Sikes; (2) of the value of £60, to Mr. C. G. Seligmann.—*Guy's Hospital:* The first entrance scholarship in Arts, value 100 guineas, has been awarded to Arthur William Nourse of Guildford; the second of 50 guineas to Charles J. Thomas of Aberbeeg. The first open scholarship in Science of 125 guineas has been gained by Edmund Ivens Spriggs of Market Harborough; the second of 50 guineas to Frank W. Goldie of Clapham, S.W. Certificates of honour have been awarded to Richard T. Fitz-Hugh of Nottingham, and to Hubert John Starling of Warrington-crescent, W.

**MR. C. BOOTH MELLER** has been awarded a grant for successful public vaccination in the Cowbridge district of the Bridgend Union. He has also obtained a similar grant as public vaccinator for the Bonvilstone district of the Cardiff Union.

**PRESENTATIONS.**—On October 3rd the friends and patients of Dr. Alexander Morison presented him with a beautifully illuminated address and a costly service of silver, on the occasion of his leaving Highbury.—Mr. S. T. D. Weston, L.R.C.P., L.M. Edin., M.R.C.S., of Handsworth, has been presented by the railway *employés* of the ambulance class established in that district, with a handsome silver inkstand, suitably inscribed.

**THE MAYORALTY OF BRIGHTON.**—Last Monday evening a well-attended meeting of the members of the Town Council took place at the Brighton Town Hall to consider as to the selection of a gentleman to fill the office of mayor during the civic year, commencing on Nov. 9th next. The present mayor, Alderman Dr. Ewart, was unanimously invited to retain the office for another year, and in response to the earnest solicitations made to him Dr. Ewart expressed his readiness to accept this invitation. Accordingly the mayor will at the annual meeting in November be nominated once more for the position of Chief Magistrate of Brighton.

**DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.**—The report for the quarter ending Sept. 30th states that the financial position of the hospital continues to be generally satisfactory. The number of patients remaining in the wards at this date was 254. Dr. Robertson in his address, whilst crediting the success of the hospital treatment to the air of Buxton and the dietary arrangements of the institution, said that very much of the relief obtained must attach to the use of the thermal water, which had been resorted to for the relief of the same diseases from time immemorial.

**THE METROPOLITAN ASYLUMS BOARD.**—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight on Oct. 4th was as follows:—Eastern Hospital, 407 scarlet fever, 64 diphtheria and 42 enteric fever; North-Western Hospital, 399 scarlet fever, 95 diphtheria and 21 enteric fever; Western Hospital, 301 scarlet fever, 47 diphtheria, 2 typhus and 15 enteric fever; South-Western Hospital, 299 scarlet fever, 55 diphtheria and 23 enteric fever; South-Eastern Hospital, 400 scarlet fever, 19 diphtheria and 13 enteric fever; Northern Hospital, 864 scarlet fever and 18 diphtheria; Gore farm Hospital, 772 scarlet fever. On the same date on the hospital ship *Atlas* there were 2 cases of small-pox.

**LANCASHIRE AND CHESHIRE SANITARY ASSOCIATION.**—The first meeting of the council of this Association was held on Sept. 30th at Manchester, the Rev. H. S. Patterson presiding. The Association has for its object the improvement of the sanitary condition of the homes and business premises of the members. At the present time, it was stated, not one house in 100 was in a safe sanitary condition, and defective drains were the cause, directly and indirectly, of a vast amount of sickness and discomfort, and an enormous number of preventable deaths annually occurred which could be traced to the same cause. The Association enabled members to have the sanitary arrangements of their houses tested and reported upon by a thoroughly reliable and disinterested expert. The Society was entirely a mutual one. If the receipts during the year exceeded the expenses the members would have the benefit of the surplus.

**MEDICAL DEFENCE UNION (LIMITED).**—At a Council meeting held at the rooms of the British Medical Association on Wednesday, 28th ult. (Mr. Lawson Tait in the chair), the secretaries reported that since the last meeting seventy-four fresh applications for membership had been received and accepted; one application was refused. In the case of a member who was maligned by a co-official of a workhouse the secretaries were instructed to forward to the clerk of the guardians a copy of the letter of the traducer, which "this Council is of opinion is a sufficient vindication of the member's character." To counteract current systematic misrepresentations, the secretaries were instructed to make it more generally known that the London office of the Union was 64, Longridge-road, S.W. It was resolved to report the conduct of a medical man in covering a notorious unqualified practitioner to the General Medical Council and also to his licensing college.

**THE PARIS MUNICIPAL COUNCIL AND ENGLISH SANITATION.**—As a precautionary measure the Paris Municipal Council has voted a grant of £160 to cover the expenses of a journey to England of delegates appointed to study the system of filtration of the water-supply for large cities, to which the Council-General of the Seine has added its support.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

**BRUSH, G. C., M.B., C.M. Edin.**, has been appointed Clinical Assistant to the Shoreditch Infirmary.

**BRUCE, THOMAS H., M.A., M.B., F.F.P.S. Glasg.**, has been appointed Extra Dispensary Surgeon to the Western Infirmary, Glasgow.

**CARLING, W., M.B., B.C. Camb.**, has been appointed House Surgeon to Guy's Hospital.

**CHAPLIN, T. H., ARNOLD, M.B., M.R.C.P.**, has been appointed Assistant Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Tylden, deceased.

**CLARK, T. F., M.R.C.S.**, has been appointed Medical Officer for the First Sanitary District of the Darford Union.

**CLUCKIE, N. G., M.B., L.F.P.S. Glasg.**, has been appointed Oculist for the new Public Eye Dispensary, Dumbarton.

**COWAN, M. W. W., M.B., C.M. Edin.**, has been appointed Medical Officer for the Knightsbridge Sanitary District of the Martley Union, vice Tovey.

**FRIER, CHAS., M.B., C.M. Edin.**, has been appointed House Surgeon to the Royal Surrey County Hospital, Guildford, vice H. P. O. Manning, resigned.

**GODSON, A. H., M.B., B.C. Camb.**, has been appointed House Surgeon to Guy's Hospital.

**HIRSCH, CHARLES T. W., M.R.C.S., L.R.C.P. Lond., I.S.A.**, has been appointed Assistant Government Medical Officer at Fiji, Australasia.

**JEWELL, J. W. F., M.B. Lond., M.R.C.S., L.R.C.P.**, has been appointed House Physician to Guy's Hospital.

**LANDON, E. C. B., M.R.C.S., L.R.C.P.**, has been appointed Assistant House Physician to Guy's Hospital.

**LYLE, HENRY, M.R.C.S.**, has been appointed Honorary Assistant Surgeon to the Cancer and Skin Hospital, Liverpool.

**MACNAUGHTON, G. W. F., M.S., M.B. Edin.**, has been appointed Third Assistant Medical Officer at the Worcester County and City Lunatic Asylum.

**MARRIOTT, HYDE, M.B., B.Sc. Lond.**, has been appointed Honorary Surgeon to the Stockport Infirmary.

**MCKAY, J. B., M.D., M.Ch. Irel.**, has been appointed Medical Officer for the Fifth Sanitary District and the Schools of the Wycombe Union.

**NAPIER, JAMES**, has been appointed Public Analyst for the County of West Suffolk.

**PAINE, W. H., L.R.C.P. Lond., M.R.C.S.**, has been appointed Medical Officer for the West Green District of Edmonton Union.

**PARKINSON, C. H. W., M.R.C.S., D.P.H.R.C.P. Edin.**, has been appointed Medical Officer of Health to the Wimborne Local Board.

**PEARCE, J. P., M.R.C.S.**, has been appointed Medical Officer of Health for the Lewes Urban Sanitary District of the Lewes Union.

**SHEEN, A. W., M.B. Lond., M.R.C.S., L.R.C.P.**, has been appointed Assistant House Surgeon to Guy's Hospital.

**SICHEL, G. T. S., M.R.C.S., L.R.C.P.**, has been appointed Assistant House Surgeon to Guy's Hospital.

**STANFIELD, WM., M.D. St. And., L.R.C.P. Edin., M.R.C.S.**, has been reappointed Medical Officer of Health, Lees, Manchester.

**THOMAS, J. D., M.B., B.C. Camb.**, has been appointed Assistant House Physician to Guy's Hospital.

**YOUNG, F. C., M.B., B.C. Camb.**, has been appointed House Physician to Guy's Hospital.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement.*

**CHARING CROSS HOSPITAL MEDICAL SCHOOL.**—Lecturer on Organic Chemistry. Minimum remuneration £100 per annum.

**CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.**—Pathologist. Salary 100 guineas per annum. (Applications to the Secretary, 21, Finsbury-circus, E.C.)

**GENERAL HOSPITAL, Barbadoes, West Indies.**—Junior House Surgeon for three years. Salary £200 per annum and quarters. (Applications to the Secretary, General Hospital, Barbadoes.)

**HENDON LOCAL BOARD.**—Medical Officer of Health for the Urban Sanitary District of Hendon, and to the temporary Infectious Diseases Hospital for one year. Salary as Medical Officer of Health £125 per annum, and for attending the hospital patients (including medicines) £35 per annum. (Apply to the Clerk to the Board, Local Board Office, The Boroughs, Hendon.)

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.** House Physicians.

**HOSPITAL FOR DISEASES OF THE THROAT, Golden-square.**—Four Senior Clinical Assistants for six months.

**INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 20, Margaret-street, Regent-street.**—Two Visiting Physicians.

**INGHAM INFIRMARY, South Shields.**—Senior House Surgeon for two years. Salary £60 per annum, rising to £70, with board and residence.

**KENT COUNTY LUNATIC ASYLUM, Barming-beath, near Maidstone.**—Third Assistant Medical Officer. Salary £175 per annum, rising £5 per annum up to £200, with furnished quarters, attendance, gas, washing, garden produce and milk. (Applications to Mr. Howlett, 9, King-street, Maidstone.)

**LINCOLN ODD FELLOWS' MEDICAL INSTITUTE.**—Senior Resident Medical Officer: married. Salary £200 per annum, with midwifery fees, house free, and allowance for coal, gas &c. (Applications to Mr. Coulson, North Parade, Lincoln.)

**MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park-place, Cheetham-hill-road.** House Surgeon. Salary £80 per annum, with apartments and board.

**METROPOLITAN HOSPITAL, Kingsland-road, N.E.**—House Physician; House Surgeon, and Assistant House Surgeon for six months. House Physician and House Surgeon will each receive a salary at the rate of £40 per annum.

**PRINCESS CHRISTIAN COTTAGE HOSPITAL, Sierra Leone.**—A Medical Man. (Apply to the Bishop of Sierra Leone, care of A. E. Schurr, Esq., Harold-hill House, Romford, Essex.)

**ROYAL UNITED HOSPITAL, Bath.**—House Surgeon for one year. Salary £60 per annum, with board, lodging and washing.

**ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.**—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments and board.

**ROYAL FREE HOSPITAL, Gray's-inn-road.**—Junior Resident Medical Officer for six months. Board and residence provided by the hospital.

**ROYAL SURREY COUNTY HOSPITAL, Guildford.**—Assistant House-Surgeon for six months. Board, washing, and lodging provided.

**ROYAL INFIRMARY, Dundee.**—House Surgeon for twelve months. Salary £60.

## Births, Marriages and Deaths.

### BIRTHS.

**ANDREWS.**—On Sept. 29th, the wife of Dr. Lancelot Andrews, at Chayne-gardens, Chelsea, of a son, who died a few hours after birth.

**FAULKNER.**—On Sept. 30th, at Cavendish-road, Southsea, Hants, the wife of Surgeon-Major Alex. S. Faulkner, Indian Medical Service, of a son.

**GARRARD.**—On Sept. 27th, at Stancliffe, Bexhill-on-Sea, the wife of George Garrard, M.R.C.S., L.R.C.P., of a son.

**HOPKINSON.**—On Sept. 30th, at Withington, Manchester, the wife of Albert Hopkinson, M.A., M.B., of a son.

**JONES.**—On the 29th ult., at Cambridge-gardens, Folkestone, the wife of Arthur Wentworth Jones, M.A., F.C.S., M.R.C.S., L.R.C.P., of a daughter.

**SAUER.**—On Oct. 2nd, at Gower-street, W.C., the wife of Hans Sauer, M.D., of a daughter.

**STREET.**—On Sept. 30th, at Neemuch, Bombay, the wife of Surgeon Ashton Street, F.R.C.S., Indian Medical Service, of a son.

**STRUGNEIL.**—On Oct. 1st, at Brixton-hill, the wife of Walter T. Strugneil, M.D. Lond., M.R.C.S., of a son.

### MARRIAGES.

**JOHNSTONE-BROWNING.**—On Sept. 28th, at Holy Trinity Church, Marylebone, W., by the Rev. E. B. Hartley, A.K.C., Thomas Johnstone, M.A., M.B., C.M., The Limes, Nunhead, London, to Florence Caroline, eldest daughter of the late Thomas Gaul Browning, M.I.C.E., formerly Chief Surveyor of Marylebone.

**POWERS-NICOL.**—On Oct. 5th, at St. George's Church, Edgbaston, by the Rev. T. G. Watton, M.A. (uncle of the bride), assisted by the Rev. H. D. Nicol, B.A., Charles Henry Powers, L.R.C.P. Lond., M.R.C.S. Eng., of Silloth, to E. A. Bessie, only daughter of W. D. Nicol, B.A., of Edgbaston.

**VICKERY-COOK.**—On Oct. 5th, at St. Luke's, West Norwood, by the Rev. H. W. Cooper, M.A. Vicar, assisted by the Rev. H. Stansfeld Prior, M.A., Willm. Henry Vickery, F.R.C.S. Eng., of Elswick-road, Newcastle-on-Tyne, to Ada Maud, only daughter of Henry T. Cook, Millbrook, West Dulwich, S.E.

### DEATHS.

**COHEN.**—On Sept. 29th, at Formosa-street, Maida-hill, W., Douglas Cohen, M.D., in his 87th year.

**CUNNINGHAM.**—On Sept. 30th, at Violet Lodge, Bedford, Surg.-General John Phillips Cunningham, M.D., late of 20th Hussars, aged 65.

**FRIPP.**—On Sept. 27th, at Oak-hill-park, Hampstead, George Downing Fripp, M.D., aged 85.

**HASTINGS.**—On Sept. 29th, at his residence, Melita, Merton-road, Southsea, Hugh Warren Hastings, M.D., aged 72.

**LONGSTAFF.**—On Sept. 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.

**SMITH.**—On Oct. 2nd, at the Schoolhouse, Lochgoilhead, John Smith, M.A., M.B., C.M., late of Aberavenny, Monmouthshire. Friends please accept this intimation.

*N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.*

### BOOKS ETC. RECEIVED.

**APPLETON, D., & Co., New York.**  
Transactions of the Thirtieth Annual Meeting of the American Laryngological Association, Sept., 1891. pp. 105.

**BAILLIÈRE, TINDALL & COX, King William-street, Strand, London.**  
A Guide to the Examinations in Sanitary Science. By H. Jones, D.P.H. Camb. 1892. pp. 90.

**Naphey's Modern Therapeutics, Medical and Surgical.** By A. J.

- Smith, M.D., and J. A. Davis, M.D. Vol. I.: General Medicine and Diseases of Children. Ninth Edition. 1892. pp. 1034. Keep your Mouth Shut. By F. A. A. Smith, M.D., C.M. Glasg. 1892. pp. 49. Price 2s. 6d.
- A Manual of Veterinary Physiology. By Veterinary-Captain F. Smith, M.R.C.V.S. 1892. pp. 414. Price 12s. 6d.
- BERGMANN, J. F., Wiesbaden.  
Wilhelm Roser. Ein Beitrag zur Geschichte der Chirurgie. Von Karl Roser. 1892. pp. 373.
- CASSELL & Co., Limited, London.  
Breech Loader and How to Use it. By W. W. Greener.
- CHURCHILL, J. & A., New Burlington-street, London.  
Elements of Human Physiology. By E. H. S. Starting, M.D. Lond., M.R.C.P. 1892. pp. 464.
- CONSTABLE, T. & A., Edinburgh.  
Atlas of Clinical Medicine. By Byrom Bramwell, M.D. Vol. II., Part I. 1892.
- GRIFFIN & Co., Exeter-street, Strand, London.  
A Short Manual of Inorganic Chemistry. By A. Dupré, Ph.D., F.R.S., and H. W. Hake, Ph.D., F.C.S. Second Edition. 1892. pp. 365.
- HEYWOOD, JOHN, Manchester and London.  
Transactions of the Pathological Society of Manchester for the Session 1891-92. Edited by T. N. Kelynaek, M.B. Vol. I. pp. 102.
- LIVINGSTONE, E. & S., Edinburgh.  
Puberty and the Chance of Life. By J. C. Webster, M.D. 1892.
- LEA BROTHERS & Co., Philadelphia.  
Human Monstrosities. By B. C. Hirst and G. A. Piersol, M.D. Part III. Illustrated. 1892.
- LEWIS, H. K., Gower-street, London.  
Medical Microscopy. By Frank J. Wethered, M.D. Illustrated. 1892. pp. 412.
- LONGMANS, GREEN, & Co., London.  
Transactions of the Clinical Society of London. Vol. XXV. 1892.
- OLIVER & BOYD, Edinburgh.  
On Congenital Obliteration of the Bile Ducts. By John Thomson, M.D. 1892. pp. 62.  
A Manual of the Operations of Surgery. By Jos. Bell, M.D., F.R.C.S. Edin. Seventh Edition. Illustrated. 1892. pp. 300. Price 6s.
- FENTLAND, YOUNG J., Edinburgh and London.  
Regional Anatomy in its relation to Medicine and Surgery. By George McClellan, M.D. Vol. II. Illustrated. 1892. pp. 414.  
A System of Practical Therapeutics. Edited by H. A. Hare, M.D., assisted by W. Chrystie, M.D. Vol. III. Illustrated. 1892. pp. 1352.
- RENSHAW, HENRY, 356, Strand, London.  
Elements of Pharmacy, Materia Medica, and Therapeutics. By Wm. Whittle, M.D. Illustrated. Sixth Edition. 1892. pp. 646.
- SAMPSON LOW, MARSTON & Co., London; and D. APPLETON & Co., New York.  
An Illustrated Encyclopædic Medical Dictionary. By F. P. Foster, M.D., and others. Vols. I. and II. Illustrated. Cæc-Fas.
- SWAN SONNENSCHNEIN & Co., Paternoster-square, London.  
Roaring in Horses; its Pathology and Treatment. By P. J. Cadlot. Translated by T. J. Watt Dollar, M.R.C.V.S. G.B. Illustrated. 1892. pp. 78.
- SMITH, ELDER & Co., Waterloo-place, London.  
Dictionary of National Biography. Edited by Sidney Lee. Vol. XXXII. Lambè-Leigh. 1892. pp. 439.
- UNWIN, T. F., Paternoster-square, London.  
Household Nursing. By John Ogle Tunstall, M.D. 1892. pp. 116.
- THE SCIENTIFIC PRESS, 140, Strand, London, W.C.  
The Art of Feeding the Invalid. By a Medical Practitioner and a Lady Professor of Cookery. pp. 264.
- WRIGHT J., & Co., Bristol; and SIMPKIN, MARSHALL & Co., London.  
A Primer of the Art of Massage (for Learners). By Dr. S. Dowse. Illustrated. 1892. pp. 151. Price 2s.  
Golden Rules of Surgical Practice. By E. H. Fenwick, F.R.C.S. Third Edition. 1892. pp. 67. Price 1s.

## Medical Diary for the ensuing Week.

### Monday, October 10.

- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
- ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
- ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
- CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30. HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
- METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
- UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
- LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. M. Gunn: External Examination of the Eye.—101, Gt. Russell-street: 8 P.M., Dr. Galloway: Malignant Growths.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. L. C. Parkes: Water Supply.

### Tuesday, October 11.

- KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
- GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
- ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
- ST. MARK'S HOSPITAL.—Operations, 2 P.M.
- CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
- WESTMINSTER HOSPITAL.—Operations, 2 P.M.
- WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
- ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.
- LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Hutchinson: Cancer of the Skin. Bethlem Hospital: 2 P.M., Dr. P. Smith: Hysteria, Delirious Mania.—101, Great Russell-street, W.C., 8 P.M.: Dr. Potter: Albuminuria in Pregnancy.

### Wednesday, October 12.

- NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
- MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
- CHARING-CROSS HOSPITAL.—Operations, 8 P.M., and on Thursday and Friday at the same hour.
- ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
- LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
- ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
- SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
- GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
- ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
- CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
- LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Green: Cases in the Wards.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Q. Silcock: Choroidal Affections.

### Thursday, October 13.

- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
- LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Dr. Sturges: Heart Disease in Children.—National Hospital for the Paralyzed and Epileptic: 2 P.M., Dr. Ormerod: Ataxia.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. W. R. H. Stewart: Examination of Ear Cases.—Central London Sick Asylum, Mortimer-street, W.: 6.30 P.M., Sir A. B. Garrod: Medical Cases in the Wards.
- BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-sq.).—8.30 P.M. Dr. Fancourt Barnes: Vaginal Lithotomy (with specimen).—Mr. Bowman Jessett: Papillomatous Growth in the Bladder removed by the Supra-public Operation (with specimens).

### Friday, October 14.

- ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
- LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Green: Cases in the Wards.—Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M., Prof. Crookshank: The Microscope (Types of Bacteria).
- CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. W. H. Brown: A case of Intestinal Obstruction accompanied by Thrombus in the Abdominal Aorta extending down the Iliac Vessels.—Mr. Arbuthnot Lane: A case of Extensive Nævus of the Peritoneum.—Mr. Clutton: A case of Traumatic Aneurysm of the External Iliac Artery in a Boy six years of age.—Mr. Frederic Eve: A case of Cicatricial Stricture of Oesophagus; Oesophagotomy for Removal of Impacted Symonds' Tube, complete division of stricture, no recurrence two years after operation.

### Saturday, October 15.

- UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
- LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Theo. Hyslop: Mania.

Untersuchungen über die in toten tierischen Geweben vom galvanischen Strom bedingten elektrolytischen Veränderungen; von Dr. E. Perregaux (Benno Schwabe, Basel, 1892).—Wintering in Egypt; by F. Peterson, M.D.; reprint (Trow Directory Printing Company, New York, 1892).—Glanders; How it arises and spreads; How to prevent it, and how to stamp it out; by Wm. Hunning, F.R.C.V.S.; third edition (H. & W. Brown, Fulham-road, London, S.W.); price 6d.—On the Variability of Bacteria and the Development of Races; by J. G. Adami, M.D.; reprint (J. Heywood, Manchester and London, 1892).—Annual Message of Benj. J. Baldwin, M.D., President of the Medical Association of the State of Alabama, Montgomery, April, 1892; reprint.—Medical Communications of the Massachusetts Medical Society, Vol. XV., 1892 (D. Clapp & Son, Boston).—How to Become a Nurse, and how to Succeed; compiled by Honnor Morten (The Scientific Press, 140, Strand, London); price 2s. 6d.—Theine versus Tannin; or China Tea versus Indian and Ceylon Teas; by S. Cranston, Glasgow (Stuart Cranston, Glasgow, and W. B. Whittingham, London); price 6d.—On an Epidemic Skin Disease; by Thos. D. Savill, M.D. (H. K. Lewis, Gower-street, London, W.C.).—The Danger of the Non-regulation of the Practice of Midwives; by Frederick H. Alderson, M.D. (reprint from the Provincial Medical Journal, Oct., 1892, Leicester).—The Drunkard's Divorce Court; by C. S. Clarke (Burdick, Armitage and Allen, Milwaukee).—Is it a Modern Miracle? by Alfred R. Calloum (The People's Publishing Company, New York).—The Attendant's Companion; by Chas. Mercier, M.B., F.R.C.S. (J. & A. Churchill, London, 1892); price 1s. 6d.—Descriptive List of Specimens added to the Museum, St. Bartholomew's Hospital, during the year 1892.—The Journal of Mental Science, October, 1892 (J. & A. Churchill, London); price 3s. d.—Magazines for October: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 6th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 a.m.
Sept. 30	29.46	S.W.	51	50	102	61	49	.90	Cloudy
Oct. 1	29.39	W.	50	49	68	55	47	.09	Foggy
" 2	29.47	S.W.	49	48	69	51	44	.44	Raining
" 3	29.71	S.W.	47	45	95	50	42	.18	Cloudy
" 4	29.71	S.W.	50	49	95	50	44	.07	Cloudy
" 5	29.41	S.W.	50	49	65	55	49	.50	Raining
" 6	29.59	S.E.	50	49	..	53	45	0.1	Foggy

Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

A CURIOUS INCIDENT.

A CURIOUS case occurred recently in the out-patient department of one of the Metropolitan Hospitals. A woman attending for fibrous stricture of the rectum said she had swallowed a sovereign and a half about a fortnight before, "when larking." The surgeon in attendance examined the rectum and removed three sovereigns from the stricture with a pair of forceps at one grip.

Amicus asks for information on the following points:—1. What is the best way to get information respecting medical practice in the United States of America? 2. What prospects are there for an English qualified medical man with capital at command? 3. What are the fees there for advice and medicine, and visiting fees? 4. What are the medical papers of the States and when published?

Dr. W. L. Reid (Glasgow).—We shall be glad if our correspondent will forward the manuscript.

Dr. Clement Dukes.—The matter has had and is still receiving our serious attention.

Mr. John N. Brown.—We do not know the truss spoken of by our correspondent.

"DAMP DETECTORS."

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me if the instruments sold by opticians under the name "damp detectors," for ascertaining dampness in beds, are of any practical use? I am, Sirs, yours truly, October, 1892. CAUTION.

DOCTORS OF DENTISTRY IN GERMANY.

THE British Journal of Dental Science says:—

"Several American dentists in Germany have been fined by the courts for using the title 'Doctor.' The only titles of 'Doctor' recognised in the Empire are 'Doctor of Medicine,' 'Doctor of Law,' 'Doctor of Theology' and 'Doctor of Philosophy.' It has been held by the courts that anyone practising as dentist and using the title 'Doctor,' although he may possess such a diploma as Doctor of Theology, implies that he is a Doctor of Medicine, thus misleading the public. This will prevent those dentists holding the D.D.S. or D.M.D. diplomas calling themselves 'Doctor.'"

Why not here?

Madras.—We do not think it would be right to publish a letter dealing with the subjects in question unless the writer's name were attached thereto.

Mr. S. F. Hoffnung (Pont-street).—We are much obliged for our correspondent's prompt courtesy.

POISONOUS SYMPTOMS CAUSED BY EUCALYPTUS GLOBULUS.

Dr. Benjafeld writes from Tasmania:—

"I have been called in to cases of apparent poisoning by eucalyptus globulus, but all of them soon recovered. E. G.—, aged two years, climbed up to her mother's store of household medicines, and poured about a teaspoonful of pure oil on some sugar and swallowed it. Within half an hour she began to stagger. Then she became violently sick and lost all power over her legs, so that when attempting to stand she dropped down helpless. A sort of intoxicated torpor then set in. We could awaken her by shaking and calling, but she immediately relapsed. The pulse was quick and strong; the pupils were slightly contracted. This lasted for about three hours, when she woke up perfectly right and ate a good meal. Another child drank an unknown quantity out of a bottle and had the above symptoms very marked, also had great difficulty in breathing; but, by report brought to me from the Bush, where it occurred, she soon recovered. From experience here, where we have never seen Asiatic cholera, I should expect it to be a good germicide and stimulant for this disease. It might safely be given in half-drachm doses, which would quickly saturate the system with the drug; or drachm doses in milk might be injected into the bowel."

Vixen writes to inquire whether he is justified in starting practice on his own account in the village of — in face of the following facts.

1. For three months during the spring of the present year he had charge of a practice in —. This practice was too small to sell and too small to clear the expense incurred in continuing it, so it was closed. 2. During these three months our correspondent acted as locum tenens for a fortnight for Dr. A. and for a week in place of Dr. B. of the same village. 3. He then left —, but returned after an interval of two months, and acted for three weeks as locum tenens for Dr. C. and for a week at the same time for Dr. A. Six weeks have elapsed since he left — the second time. Drs. A., B. and C. object to his coming to start practice amongst them.

Ambulance (Mold).—Our correspondent should make inquiry of the Medical Department of the War Office on the subject. A letter addressed to the Director-General of the Army Medical Department, 18, Victoria-street, S.W., would no doubt procure him the information.

Dr. J. R. W. White.—The communication was received and is being considered.

Dr. W. Whamond.—We see no reason for the further discussion of the question.

WINTER QUARTERS.

To the Editors of THE LANCET.

SIRS,—I and, no doubt, very many of my professional brethren are just now being daily asked by our patients, who have been perhaps for years past accustomed to winter in the south of France, and to whom it has become almost a necessity to avoid the damp cold of an English winter, whether, in view of the epidemic of cholera now so widely spread in Europe, we can safely advise them to do so this year; but we have no means of getting such information as enables us to answer these inquiries. There are no reports in the daily papers, so far, of any cholera in that part of France. But this affords no certainty of what may really be going on there; for the authorities and others in the various *villes d'hiver* are so much concerned in concealing any such outbreaks at the present moment that they will not voluntarily give any information, or even will give false assurances on the subject. You, Sirs, have no doubt exceptional opportunities of learning the truth about this matter, and you would do us a great kindness if you could give in an early number of THE LANCET such information as you may have, or may be able to obtain, as to the freedom or otherwise from cholera of the various winter stations from Marseilles to Mentone inclusive. Of course, at first glance, as a matter of self-interest in retaining our patients here for the winter, we would rather say, "Do not go abroad this year." But even when fully considered this might not in the end be to our own advantage; for we had better retain our chronic invalid patients for the six summer months only, for perhaps years to come, than have them die on our hands this winter in England.

I am, Sirs, yours obediently,

Oct. 4th, 1892.

M.D.

Enquirer would be glad to be informed of any educational establishment where a boy aged eight years, delicate, liable to fits, and microcephalic, could be received for moderate payment. He shows some capability for learning, but is unmanageable at home and quite unfit for ordinary school training.

M.B., M.A. writes:—"The new departure taken by the editors and publishers of 'Kelly's London Medical Directory' in prepaying the reply to their queries is a step in the right direction, and for which they deserve the thanks of the profession."

Crisis.—Reports in the lay press of "cures" for this or that disease, organic or functional, are in general utterly unscientific and appeal only to those who have no knowledge of disease. Our correspondent should discredit the report he refers to.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. E. Armstrong, Newcastle-on-Tyne; Mr. Barber, Bow; Mr. G. Sherman Bigg, London; Dr. J. B. Ball, London; Messrs. Baillière, Tindall and Cox, London; Dr. Broadbent, London; Mr. R. J. Blackham, Rhondda Valley; Mrs. Behnke, London; Dr. Bobardt, Clulow; Dr. Brown-Séguard, Paris; Mr. Birchall, Liverpool; Mr. J. W. Ball, London; Mr. W. M. Banks, Liverpool; Dr. Croke, Beverley; Messrs. Condy and Mitchell, London; Mr. H. Athill Cruttwell; Messrs. Cassell and Co., London; Mr. Brudenell Carter, London; Dr. Edw. Cotterell, London; Mr. Cooke, London; Mr. Clark, Brighton; Messrs. Dawe and Co., London; Dr. Sidney Davies, Plumstead; Dr. Edwin Davies, Wrexham; Surg.-Lieut.-Col. Joshua Duke, Shidarpoore; Lord Ely, Bhl; Messrs. Farwig and Co., London; Dr. A. Hanbury Frere, Leeds; Mr. Farrington, London; Mr. Ghosal, Assam; Mr. Galton, Bayswater; Mr. W. C. Galton, London; Mr. Thos. Gann, British Honduras; Mr. R. Humphreys, London; Messrs. Hopkinson and Co., Nottingham; Dr. Hubbersty, Sunderland; Dr. Hassall, San Ramo; Mr. Heywood, Manchester; Mr. Haig, London; Mr. Sidney Francis Hoffnung, London; Mr. Hodgson, London; Mr. Hegan, London; Mr. R. N. Ingle, Jersey; Mr. A. G. Jones, London; Mr. F. B. Jessett, London; Mr. A. F. Stanley Kent, London; Messrs. Lee and Martin, Birmingham; Mr. Lidbetter, Hornsey; Messrs. Lodge, Smith and Co., London; Mr. Maw, Bradford; Messrs. Mitchell and Co., London; Mr. Muir, London; Mr. Maule, London; Dr. Ewing Marshall, Louisville; Dr. Mackenzie, Edinburgh; Messrs. Margrave Bros., Llanelly; Dr. J. A. McCallum, Cardiff; Mr. J. MacFadyean, London; Mr. Mitchel, Salisbury; Mr. Martin, Sandown; Dr. E. Maurel, Toulouse; Mr. Mainwaring, London; Messrs. Negretti and Zambra, London; Mr. Edmund Owen, London; Messrs. Orridge and Co., London; Dr. L. H. Ormsby, Dublin; Mr. Pimm, London; Mr. Pountney, Norwich; Dr. J. Priestley, Leicester; Mr. Young Pentland, Edinburgh; Mr. W. H. Paine, London; Mr. Bilton Pollard, London; Mr. Palmer, Colchester; Dr. Phillips, Birmingham; Dr. Robertson, Newcastle-on-Tyne; Messrs. Robertson and Scott, Edinburgh; Dr. W. L. Reid, Glasgow; Messrs. Reynolds and Branson, Leeds; M. Rubino, Naples; Dr. Ross, Ashton-under-Lyne; Dr. Ross, Aberdeenshire; Mr. Stenhouse, Glasgow; Messrs. Smith and Sons, Scarborough; Mr. R. Sterling, Newcastle; Mr. Robertson Scott, Edinburgh; Mr. Saunders, Manchester; Messrs. Stent and Sons, Guildford; Sir W. Savory, London; Dr. G. W. Sutherland, Sydney; Mr. Stephens, Preston; Mr. Smith, London; Dr. Herbert Snow, London; Mr. Stallard, Worcester; Mr. Trimmer; Dr. J. J. Trowse, St. Petersburg; Dr. Tirard, London; Mr. C. Taylor, London; Mr. Vickers, London; Mr. R. Vinarch, Portaudar; Herr Voss, Hamburg; Mr. Williams, Teddington; Messrs. Wright and Co., Bristol; Mr. Wallace, Weston-super-Mare; Messrs. Wilson and Blesley, London; Dr. Shuttleworth, Lancaster; Mr. Wheldon, South Shields; Mr. Warner, Sheffield; Dr. Williams, Mold; Mr. Spencer Watson, London; Dr. E. Warner, Bristol; B., London; Birmingham Daily Post; Caution, Northumberland; Crisis; Cortland Wagon Co., London; Galen, London; Grafton Furnishing Co., London; Matron, London; Moses; Madras; M.D., M.A.; Manager, Sheffield Daily Telegraph; M.D. Lond.; Maltine Co., Bloomsbury; P. N. B., London; Resident, London; R. C. S., London; Secretary, St. Luke's Hospital, London; S. T., London; Secretary, Clinical Hospital for Women, Manchester; S. W., London; S., Preston; Secretary, Guest Hospital, Dudley; Sanitas Co.; Secretary, Royal United Hospital, Bath; T. J. W., London; Veritas, London; Victoria Carriage Works, London; W. A., London.

LETTERS, each with enclosure, are also acknowledged from—Mr. Archer, Wakefield; Mr. Annandale, Co. Durham; Dr. Adam, West Malling; Mr. Buller, Whitechurch; Mr. Birkenhead, Atherstone; Dr. Bourke, London; Mr. Beveridge, Wilnathort, N.B.; Mr. Brackstone, Colwyn Bay; Mr. Brown, Manchester; Mr. Behr, London; Messrs. Blondeau et Cie, London; Mr. Branthwaite, Rickmansworth; Mrs. Chandler, Tewkesbury; Mr. Clark, Hammersmith; Mr. Collins, Queensland; Mr. Charles, London; Dr. Deas, Exeter; Mr. David, Rhondda Valley; Dr. Day, London; Dr. Eytton-Jones, Bawtry; Mr. Evans, New Quay, South Wales; Mr. Edwards, Birmingham; Mr. Flske, Maidstone; Dr. Gullemond, Southsea; Mr. Griffin, Reading; Mr. Gibson, Westmoreland; Mr. Griffith, Bristol; Mr. Hulme, Staffs; Mr. Hill, Barnsbury; Mr. Horne, West Indies; Messrs. Hooper and Co., Pall Mall; Mr. Hughes, Kingsland; Mr. Heatly, Cardiff; Dr. Hollings, Wakefield; Mr. Johnstone, Nunhead-green; Mr. Jones, Merthyr Tydfil; Mr. Jones-Humphreys, North Wales; Mr. Keyworth, Lincoln; Dr. Laughton, Enfield; Dr. Liknaitzky, Johannesburg; M. Lacey, Paris; Mr. Mechan, Erith; Miss Manley, Croydon; Mr. Mattland, South Kensington; Mr. Mahony, Keighley; Mr. Nicol, Bromsgrove; Mr. Paine, Toronto; Mr. Patterson, Durham; Messrs. Porteous and Co., Glasgow; Mr. Pillbear, Brighton; Mr. Polson, Sutherland; Messrs. Roberts and Vivian, Southgate; Messrs. Reynolds and Branson, Bristol; Mr. Robertson, Newcastle-on-Tyne; Mr. Ramsay, Melton Mowbray; Mr. Rice, Sandback; Mr. Skipton, Braunton; Mr. Smyth, Hansworth; Mr. Stocker, London; Dr. Snow, London; Dr. Skrimshire, Holt; Mr. Sutton, Cheshire; Dr. Smith, Coventry; Mr. Thln, Edinburgh; Mr. Tyte, Minchinhampton; Mr. Todd, Selby; Mr. Vaughan, Oldham; Mr. Wilson, London; Messrs. Whitworth and Stuart, Manchester; Mr. Whitehead, Leicester; Mr. Webber, London; Mr. Wilkinson, Dudley; Mr. Walter, Dorset; Mr. Wilson, Doncaster; Mr. Walker, Shrewsbury; Mr. White, Ombersley; Alpha, Whitechapel; Aristos, London; Alpha, Birmingham; Assistant, London; B. A. C., London; B. B. B., London; Clerk, Leeds Union; Canula, Dublin; C. B. A., London; D. M., London; Deka, London; Deltoid, London; Embryo, London; Forceps, London; F.P., London; G., Dorset; Gradus, London; H. F. A., Paddington; Herald Office, Sunderland; Iota, London; J. E., London; Justitia, London; J. W., London; J. T. B., Morecambe; Kasak, London; Lex, London; Lady Superintendent, Manchester Sick Poor Institute; L.R.C.S., London; L. M., London; Medicus, Piccadilly; M. S. A., Leeds; M.R.C.S.E., Bournemouth; Medicus, London; M.D., London; Medicus, Cornwall; M. Y., London; Medicus, London; Medicus, Sheffield; M.D., Loughborough; Medicus, Lancs; Offer, London; O., London; Optimus, London; Sigma, London. S. R., London; Secretary, Grimsby and District Hospital; Succession, London; Secretary, Plymouth Borough Asylum; Surgeon, Leicester; Secretary, West Bromwich District Hospital; Secretary, London Throat Hospital; Secretary, Western Infirmary, Glasgow; Tutor, Newcastle-on-Tyne, V., London; Walker, Belfast; Zeta, London.

NEWSPAPERS.—Shipping and Mercantile Gazette, The Philanthropist, The News, City Press, Surrey Advertiser, Reading Mercury, Windsor and Eton Gazette, West Middlesex Standard, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Windsor and Eton Express, Local Government Chronicle, Leeds Mercury, Liverpool Daily Post, Bristol Mercury, Yorkshire Post, Sussex News, Leicester Post, Irish Times, Birmingham Gazette, Weekly Budget, Times of Natal, Cape Times, Perthshire Journal, Eastbourne Gazette, Glasgow Herald, Sunday Times, Builder, Scottish Leader, Wolverhampton Express, Health, Sala's Journal, Law Journal, Architect, Corsica Journal, Catholic Times, Madras Mail, Statesman (Calcutta), Wiltshire Advertiser, Le Temps (Paris), West Middlesex Advertiser, Times of India, Pioneer Mail, Mining Journal, Insurance Record, Isle of Man Times, Sanitary Record, Sunday States Times (New Orleans), North Wales Guardian, Oldham Daily Standard, Brighton Examiner, Yorkshire Herald, Derby Gazette, The National Bulletin, Public Health, &c., have been received.

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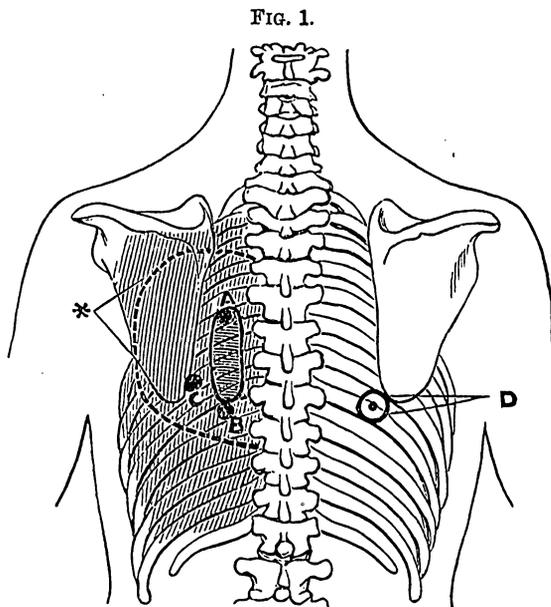
Delivered at the Middlesex Hospital on Feb. 14th, 1890,  
By SIDNEY COUPLAND, M.D., F.R.C.P. LOND.,  
PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—Although in the main the subject of excavation of the lung is of pathological interest, yet it contains also several points for consideration both in diagnosis and treatment, for whilst, perhaps, more than 90 per cent. of such cases are of tubercular origin, the remainder may be caused by various conditions which it is of prime importance to distinguish. In illustration of this I propose to relate the details of a case now in Murray ward in which the question of direct treatment has become matter for grave consideration.

F. B.—, eighteen years of age, was admitted on Dec. 28th, 1889, and at the present time is suffering from a paroxysmal cough at infrequent intervals and mostly accompanied with the expectoration of purulent sputa, airless and of a penetrating foul odour. They are easily brought up in quantities averaging a drachm at a time, after which there is an interval of freedom from cough. The odour of the breath is offensive. The sputa have been several times examined by Dr. Wynter and my house physician, Mr. Norton, and have been found to consist mainly of pus, some threads of elastic tissue being met with on one occasion, but never any tubercle bacilli. This fetid expectoration at once suggests the presence in the chest of a receptacle where the secretions can accumulate and decompose. It does not necessarily imply a pulmonary cavity, for it might occur from a loculated empyema communicating with a bronchus or from more or less general bronchial dilatation, and even some special forms of chronic bronchitis. It is not, however, a characteristic of tubercular excavation, and therefore the failure to find bacilli is not *prima facie* surprising. The patient is a sparely nourished girl; she has even gained flesh since her illness, having had comparatively slight pyrexia; her appetite has been good and the bowels inclined to constipation. It is to be noted that there is some clubbing of the fingers. The chest appears to be fairly symmetrical, but on measurement and by the cyrtometer it is found that the left side is about half an inch less in girth than the right at the lower part, whilst posteriorly the latter seems decidedly fuller. There is less expansible movement of the left side than of the right, until after a fit of coughing, when the movement becomes almost equal on the two sides. There is no inspiratory recession at any part. Vocal fremitus is weak, but equal over the two sides in front, and decidedly better marked over the left posteriorly. There is good resonance on percussion over the right lung, front and back. In the left infra-clavicular region the note is higher pitched than in the corresponding part on the right, but elsewhere in front it is of the same normal character on the two sides. The left back is, however, quite dull, except in the supra-spinous fossa, the dullness being more absolute over the lower than the upper half. On auscultation there is harsh vesicular breathing, with somewhat prolonged expiration over the whole of the right lung; but at a point just internal to the scapular angle the breath sound has a faintly bronchial character, the expiration being blowing. (Fig. 1, D.) Here also there is distinct bronchophony. Over the left lung the auscultatory signs are very different. In front, at the apex and down to the second rib, there is rather distant blowing breathing. Below this the breath sounds are almost inaudible, but the cardiac sounds are very distinct. Behind, over a wide area, extending from the spine of the scapula above and involving the whole of the scapular and inter-scapular regions, reaching outwards to the posterior axillary line at the level of the eighth rib and inwards to the vertebral column at the level of the ninth dorsal spine, there is bronchial breathing, which attains great intensity in the vertebral groove over the angle of the eighth rib below (Fig. 1, B), and also opposite to the fifth spine above (Fig. 1, A). A

third point of marked intensity is just below the angle of the scapula (C). In these sites, but especially the first named, it may be described as amphoric. Sometimes it is very feeble, but after a paroxysm of cough the sound is heard in full intensity. Then, too, some fine clicking râles are produced, and these are also to be heard on deep inspiration over the greater part of the area. Extremely well marked bronchophony and whispering pectoriloquy can be heard, especially in the vertebral groove between the two points named (A and B). The heart's apex beat is in the fifth interspace, just within the nipple line; the sounds are clear and well pronounced. The abdomen is natural and the urine normal.

Such being the clinical signs yielded by this case, there is hardly any escape from the conclusion that there is some excavation in the upper part of the left lower lobe. Although there is also blowing breathing at two other points—namely at the left anterior apex and the right scapular angle—there is not such a degree of certainty in the diagnosis of a cavity at these places. It must be admitted that the signs met with over a cavity are not distinctive; and, further, that cavities may exist in the lung beyond detection by physical examination, if they are deeply seated or not in communication with a bronchus. We may, however, have (a) flattening of chest wall, with



The area over which bronchial breathing was audible is indicated by dotted line (\*). A B C are points at which mostly intense amphoric quality of breathing was heard; whilst between A and B pectoriloquy was very well marked. At D faint blowing breathing audible.

impaired expansion; (b) dullness on percussion; (c) bronchial breathing; (d) bronchophony and pectoriloquy. These are the ordinary signs, and it will be at once obvious that they are not to be distinguished from those due to consolidated or compressed lung. If they alone were present it would be hazardous to diagnose the presence of a cavity. Nor does the absence of one or other of them disprove its existence. Thus the degree of (a) depends largely upon the site and size of the excavation and its nature. If the cavity be surrounded by a fair amount of alveolar tissue this sign may not be marked; it is usually best seen over the apical cavities of phthisis. For a like reason (b) may be obscured; or, on the other hand, when the cavity is of large size, thin-walled and superficial, the percussion note may be almost tympanitic, and the "bell sound" may be elicited or percussion may yield the "cracked-pot" sound. The occurrence of (c) and (d) implies free communication with a bronchus. They may be wholly absent if the cavity be small; but if of fair size the bronchial breathing has a more hollow character, from the production of by-notes, being either cavernous or amphoric, according as the walls of the sac are more or less irregular, or smooth and firm. Moreover, the amount of the contents modifies the sounds produced, and it may happen that they are temporarily suppressed until such contents are evacu-

ated. The quality of the râles present and their production on natural or forced breathing, and on coughing, vary in every degree in accordance with the amount and consistency of the fluid, as well as with the size of the cavity and its freedom of communication with the air passage. Even more reliable as signs of excavation, when the latter condition obtains, are (*d*) bronchophony and especially whispering pectoriloquy, which were so marked in this case. These signs, when heard over a limited area and with such clearness, afford strong presumption of the presence of a cavity. But they are not pathognomonic signs, for they may be well heard over a consolidated lung, and in certain cases over a pleural effusion. As regards the present case it is possible, from the fact that the bronchial breathing is of greater intensity at two or three different points of the area over which it is audible, that more than one cavity exists. It may, I think, be inferred, however, that one at least of them is as large as a Tangerine orange, if not larger. Still it is most difficult to be certain of the size of a cavity. This is by no means continuous with the area over which the blowing breath sound is audible. The area of marked pectoriloquy is a safer guide; but then it must be remembered that the surrounding tissue is mostly condensed, tough and solid, and therefore capable of conducting the voice sounds for some distance beyond the limits of the cavity. One noteworthy feature in this case is the scantiness of râle. Having thus arrived at the conclusion that the source of the fetid expectoration is a cavity or cavities in the lower lobe of the left lung, the next questions to determine are, What is the nature of the cavity? for how long has it existed? what is its probable issue? As guides to the answers one may glance back at the previous clinical history of the patient.

When admitted into the hospital on December 28th all that could be elicited was that both her parents had died from "consumption," but that she had two brothers and two sisters in good health and had lost none. She had been ill for a week, having taken cold, followed by a cough, difficulty of breathing and pain in the region of the left shoulder blade. Further inquiry elicited that she had never been laid up before, but that she "had had a cough for as long as she could remember"; that until two years ago the cough was dry, but from that time there had been fetor of the breath and expectoration, which had always similar characters to those existing at the present time. She was unable to assign any reason for the change in the character of the cough; had never had blood spitting or night sweats; had always enjoyed a good appetite and was never incapacitated from her duties. Even when on taking cold the previous week her cough increased and the fetid expectoration became more profuse she remained up until within two days of her admission, when the pain in the shoulder compelled her to keep to bed. In spite of the indefiniteness of the statements bearing on the origin of the fetid expectoration it is clear that this cannot be attributed to any recent change in the lung, such as pneumonic gangrene. Her week's illness was not of the severity of pneumonia, and was apparently nothing more than the lighting up afresh of some permanent mischief in the lung, and this may have been initiated two years previously. I am free to confess that at first, in face of her positive assertion that she had only been ill for a week, my impression was in favour of an acute process—e.g., a gangrenous abscess; but the result of further questioning and the course taken since her admission have shown that that view is quite untenable. The physical signs on admission were much as they are at present. The main differences consist in the fact that at first there was slight general catarrh and the area of tubular breathing on the left side was more restricted than now. It may be noted that with the progress of the case not only did this area appear to extend its limits, but the points at which the breath sound had mostly an amphoric type also seemed to shift. This may be explained by the occasional plugging of a bronchus, whilst it goes far to confirm the surmise that we are dealing with more than one cavity. In addition to bronchitis there was also at first a slight attack of dry pleurisy on the right side. The sputa throughout have had the same characters. There has been only moderate, but notably irregular, pyrexia, the average range being between 98° 8' and 101° 5', but frequently remitting rapidly. It is not true hectic, as in phthisis that is advancing, and is most likely due to the alternating retention and evacuation of pus contained in a cavity. The absence of apical signs is noteworthy, although the examination seemed to point to slight consolidation at the left apex. Still there are no signs of advancing tuberculosis. We have

had the case under observation for six weeks, and during this period there has been no appreciable change in the extent of the local lesion—no manifest constitutional decline. All this is very unlike tuberculous phthisis, in spite of the great probability of inherited taint. Moreover, the repeated failure to find bacilli in the sputum is further evidence against that disease; and, lastly, the situation of the lesion is against it. For if there is one rule in the history of phthisis better established than another it is the early implication of the apex of the lung or its vicinity. As the disease progresses the next part to be invaded, as has been so fully demonstrated by Drs. Ewart and Kingston Fowler, is the upper part of the lower lobe, the "posterior apex" as it is termed. Moreover, primary basic phthisis is a rare event. So that if there be cavity signs in this neighbourhood without any notable implication of the anterior apex of one or other lung, the chances are that the case is not tuberculous phthisis. It is, however, quite possible that the scanty signs at the apex of the left lung in this case are due to an old phthisical lesion. But whether the patient was originally tuberculous or not, we can safely affirm that she is not the subject of advancing tuberculosis at present; and we must seek for another explanation of the presence of the signs of excavation in the left lower lobe.

The only other pulmonary condition which is chronic in its course, so that it alone need be considered in determining the nature of the cavity or cavities, is bronchiectasis. This condition is more frequently met with in the lower lobe of the lung when it is localised and limited. It may be induced by several different kinds of change, of which the chief are: (1) collapse following on pleurisy, (2) pressure on a bronchus, with consequent retention of its secretions, and (3) a foreign body impacted in a bronchus. It may also be associated with chronic pneumonia and with phthisis, whilst not a few cases are really dependent upon congenital atelectasis. Whatever the cause in this case—and we must admit that the history is very deficient on this point—the signs presented are strongly in favour of bronchiectasis; more especially as we may reasonably infer from them that the cavities are multiple. For (*a*) the course has been chronic, (*b*) the sputa and breath fetid, (*c*) the cough paroxysmal, (*d*) the cavity signs are limited to part of one lobe, (*e*) there is an absence of diffuse râle, (*f*) the signs are unilateral, (*g*) the bronchial type of breathing, pectoriloquy and bronchophony, point to a free communication with a bronchus, and (*h*) the amphoric quality of the breath sound points to a certain rigidity of the cavity walls. Hence we conclude that for at least two years there has been limited bronchial dilatation and that, as so often happens, a fresh attack of bronchitis has caused increased secretion, followed by a constant formation of pus, which accumulates and grows fetid in the dilated tubes.

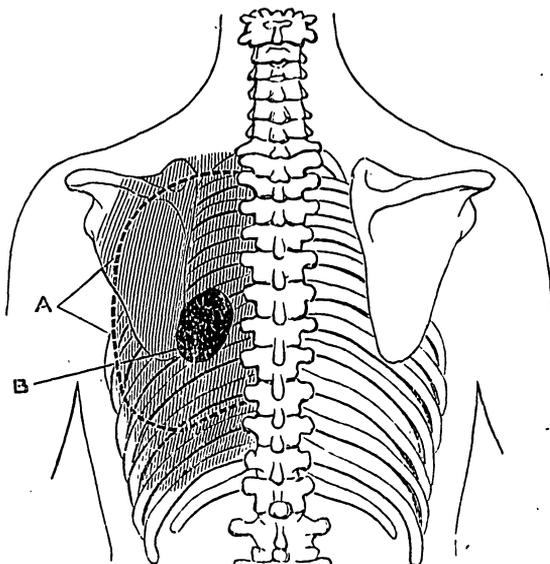
If this be the correct diagnosis, and the alternative of a localized empyema with bronchial fistula is not borne out by the physical examination, then we may inquire what is likely to be the future course of the case and what can be done in the way of relief or cure. As regards the first point, there are certain alternatives:—1. It is conceivable that under the influence of antiseptic inhalations, to correct the fetor and arrest putrefaction, a generous diet and tonic remedies, the local disturbance may abate, the cavity shrink, and for a time at least give no more trouble. 2. On the other hand, a patient with a basic cavity containing foul gas is in danger of incurring septic broncho-pneumonia, from inhalation into other parts of the same lung or even into the opposite lung, of some of the putrefying material. This is a very real and constant danger, and not uncommonly leads to gangrene of the lung. 3. Or the local mischief may extend by ulceration of the walls of the cavity and thus also lead to gangrene. It was on these grounds that last week I consulted Dr. Cayley with reference to the question of surgical interference for the drainage of the cavity. It was agreed to still further watch the progress of the case, in the hope that more favourable spontaneous relief would occur. As days go by, although there is as yet no material deterioration of the general health, but a continuance of the purulent expectoration with the above-mentioned risks thereby entailed, the need for drainage seems to become more imperative. Still we may ask what are the prospects of permanent good resulting from such a measure? Drainage would give vent to the foul discharge, and thus not only obviate the risks of secondary inflammation but facilitate the contraction of the cavity. Such a contraction would be slow and difficult without a drain in some dependent part of the sac. As regards the hope of permanent good by drainage, much depends on whether the cavity be single or multiple.

It is unfortunate in this regard that bronchiectases are mostly multiple. As Mr. Godlee says,<sup>1</sup> "Bronchiectatic cavities, when single (a very rare condition), will be cured by operation; when multiple (a very common condition), they offer but small chance of relief by our present surgical methods. Still, for the reasons stated, an attempt may be made to open the main one, if such can be found, but only if the pleura has been ascertained to be adherent." I think that in this case we should have no difficulty in pointing to the main site of the cavity, which may possibly be single; and if we are correct as regards the chronicity of the process, the probability is that the pleura is adherent, so superficial does the cavity appear to be. As regards the alternative measure of injections into the cavity, that could only be palliative, and in such a case not likely to be of much advantage.

In conclusion, and by way of contrast, I may briefly refer to another patient at present in the same ward who also has a basic cavity in the left lung. In her case the right lung is wholly unaffected, and, beyond some degree of anæmia, she is enjoying fair health, is well nourished, has no fever and has a good appetite:—E. G.—, twenty-three years of age, a maid-servant, was admitted into Murray ward on Feb. 5th, 1890. She has not been strong for the past three years, when she contracted a cold whilst attending a hospital for "housemaid's knee." Since then she has not been free from cough, and at that time she attended two special hospitals in turn. She was admitted into one and was told that she had pleurisy on the left side, for which iodine was applied, but paracentesis was not performed. More recently she has been an out-patient here. Her anæmia dates from the first onset of chest symptoms, and for the past three months she has been suffering from shortness of breath and at times feelings of faintness and palpitation. She has not lost flesh or had any hæmoptysis or night sweats, but for a short time previously to her admission she had diarrhoea, and for a fortnight had been weaker. The girl had been brought up at an orphanage, her father dying at the age of forty-three from asthma, and her mother about the same age from phthisis. No other members of the family are phthisical; there are three brothers and two sisters, some of whom are rheumatic. On admission both feet were slightly œdematous and in the left calf there was a thrombosed vein, with some pain, which soon subsided under the application of belladonna; the chest is symmetrical, and movements above are equal, but at the base the right expands better than the left. On percussion there is dullness over the greater part of the left front and over the whole of the lung posteriorly (Fig. 2); there is good resonance over the right lung before and behind. On auscultation bronchial breathing can be heard in the left infra-clavicular region but it seems rather distant; there are no râles, but vocal resonance is increased and whispering pectoriloquy distinct but slight; behind there is loud, tubular, almost amphoric breathing over the left lung from the apex to the ninth rib (Fig. 2A), where the breath sound becomes very weak; there are intense bronchophony and pectoriloquy above (B), but at the base both vocal resonance and fremitus are absent. The heart sounds are loudly conducted over the whole lung anteriorly and posteriorly. The breathing over the right lung is vesicular and very harsh. The heart's impulse is visible in the third interspace, and the apex beat appears to be in the fifth space nipple line; the first sound at the apex is rough, the second clear, and both sounds are very marked at the pulmonary cartilage, but faint at the aortic cartilage. The expectoration is scanty, purulent and no bacilli can be found in it. The temperature is normal. During the short time the patient has been in the hospital there has been very little change in her condition. Occasionally a few fine crackling râles can be heard over the left lung, both at the anterior and posterior apex and the pectoriloquy in front has become plainer. This case seems to fall into the category of so-called "fibroid phthisis," which has ensued upon pleurisy. We have no evidence that it is tubercular; indeed, its unilateral character is opposed to that as well as its quiescent course; but still one cannot exclude the possibility that the pleurisy, which was probably accompanied with considerable effusion, was of tubercular nature. The disorganisation of the lung, however, is the result of fibroid interstitial pneumonia with secondary bronchiectasis. Here there is no fetor of the secretion, and indeed very little cough or expectoration, so that, apart from the extent of lung involved, which would

itself be a bar to thorough drainage, there is no indication for such interference. So far the treatment in this case, as in the other, has been chiefly by turpentine inhalations and stimulant expectorants.

FIG. 2.



Blowing breathing audible over the whole of the area indicated by A. Well-marked pectoriloquy in region B.

## POSTSCRIPT.

*Sequel to the case of F. B.*—The termination of this case came unexpectedly and in a regrettable manner. It is right, however, to record it as it brings home forcibly the dangers attending the administration of anaesthetics in operations upon the thorax. As the fetid expectoration continued, and even grew worse with commencing indications of its telling on the patient's general condition, it was decided to explore the lung with a view to perform drainage. This was done on March 10th, about four weeks after the above lecture was given. Chloroform was carefully administered, but from the first the patient took it badly, vomiting and coughing much, ejecting a quantity of very foul sputa. My colleague, Mr. Pearce Gould, passed a trocar into the lung over a spot where the amphoric breathing had been most intense, one puncture being made above and another below the eighth rib in the back. No pus escaped, and as some hæmoptysis and cough followed the last puncture and the patient was becoming cyanosed any further attempt was abandoned. She had much nausea and vomiting for some time after the operation. The next day coarse bubbling râles were to be heard over the dull area, whilst the breath sounds were less markedly amphoric. On the 17th a diffuse inflammatory swelling appeared at the site of puncture, with an increase of fever, and as it soon became evident that an abscess was forming here, probably from leakage of pus from the lung, and another operation was decided upon. This was undertaken on the 18th. Chloroform was again the anaesthetic used, and the patient took it better than on the last occasion. It was, however, necessary to place her on the sound side to enable the surgeon to operate. The abscess was evacuated and a cavity in the lung having been found by the use of a grooved needle, a portion of rib was excised, and the cavity was about to be laid open when the patient became suddenly livid and sweated profusely. The operation was discontinued, and she was at once placed on her back, the tongue drawn forward and mucus removed from the mouth. The breathing became stertorous and infrequent, the pulse very feeble and the pupils dilated slowly. In spite of active restorative measures, subcutaneous injections of ether, artificial respiration &c., she never rallied, and died about twenty minutes after the operation had been suspended. At the post-mortem examination by Dr. Sidney Martin it was found that about one inch of the ninth rib had been excised and that the opening led into a dilated bronchus, one of several saccular bronchiectases which occupied a great part of the left lower lobe. The bronchi in the upper lobe were also dilated. The

<sup>1</sup> THE LANCET, April 9th, 1887

lung tissue between the bronchi was consolidated in patches, some of which were of recent date (probably from the disturbance excited at the first operation). The bronchi of the right lung were slightly dilated, and on each side, but especially on the left, the tubes contained blood mingled with muco-pus. The kidneys and liver were the seat of cloudy swelling. It is an instructive fact that physical signs of such intensity should have been yielded by a congeries of dilated sacculæ, of irregular shape, the largest of which did not exceed a bean in size.

ABSTRACT OF A

Lecture

ON

MELANOTIC CANCEROUS DISEASE.<sup>1</sup>

Delivered at the Cancer Hospital, Feb. 5th, 1892,

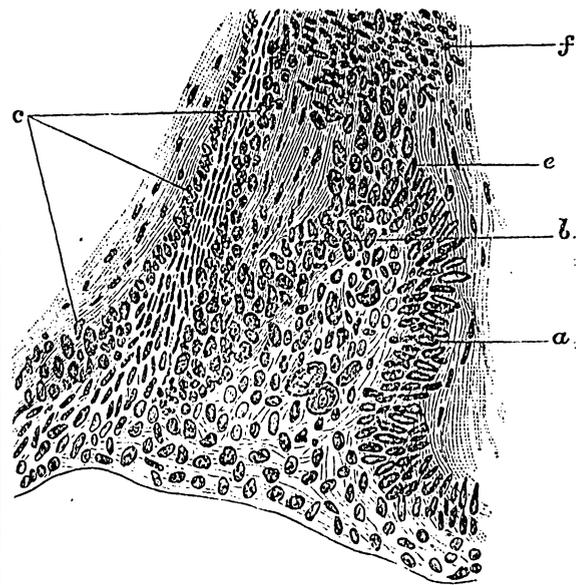
By HERBERT SNOW, M.D. LOND. &c.,  
SURGEON TO THE HOSPITAL;

MELANOTIC CANCER is characterised by the presence of a peculiar pigment termed "melanine," soluble in alkaline solutions, from which it is again precipitated by acids. It is a product of degenerate protoplasm, bears no relation to hæmatine, and so does not influence the composition of the urine. All cancerous disease is due to the proliferation of cells, and the pathological identity of any particular neoplasm is established by the resemblance of the new cells in form or mode of distribution, or in both, to the old, exactly as in the relationship of parent and offspring. Acting upon that principle, which holds good with all varieties of cancer except colloid, we are enabled to refer melanotic cancer to cells which usually secrete pigment. With two or three insignificant exceptions this species occurs in the human body in two localities only, which therefore are the sole tissue sites from which the disease in question originates or can originate. These are (a) the eyeball and (b) the skin. In the eye pigment is normally present for the most part in connective-tissue corpuscles—those of the sclerotic, iris and ciliary processes. The endothelioid cells of the iris and tapetum are also pigmented, as is the conjunctival epithelium of dark-complexioned persons. None of these latter, however, are known to originate malignant disease of any kind. Melanotic cancer of the eyeball therefore must be referred to the connective-tissue structures of that organ and is a true sarcoma. It generally springs from some part of the choroid coat, appearing as a tumour which pushes before it the retina and grows inwards. It is from the beginning extremely painful, that feature being due to the tension which the presence of the superincumbent sclerotic involves. Microscopically it consists of spindle cells arranged in bands as in the ordinary spindle sarcoma, but the new cells with their nuclei are seen to be more or less converted into the characteristic pigment. The disease tends to run an acute course and to generate numerous and widely spread metastases. Like other true sarcomata, however, it shows great reluctance to attack the lymph glands. These organs do not become secondarily infected (as in carcinoma and epithelioma) by the lymph current, but only under circumstances which indicate either a general blood infection on the one hand, or direct infiltration by contiguity on the other. With melanotic cancer of the skin, however, the case is totally different. Pigment here is normally present only in the cells of the rete Malpighii, an epithelial structure; with the exception of a casual migratory cell we find none in the corium. *A priori*, therefore, it is reasonable to infer that melanotic cancer of the integument does not arise from connective tissue, but from epithelium. On further examination this view is corroborated, not only by the microscopic appearances, but also by the clinical career of the disease. The following description is based upon an examination

of forty-three thin sections taken from twenty different cases. Among these I have not met with a single primary melanotic tumour composed of fusiform cells on the integument, although such are occasionally figured in text-books and are common in the eyeball. The ordinary starting point is a pigmented wart; the close resemblance between the warts which give birth to melanotic cancer and those which precede squamous epithelioma was long since pointed out by Sir James Paget. A non-prominent mole or outaneous stain may be antecedent to melanotic developments, as in one of the cases cited. But more commonly there is a warty prominence, such being prone to mechanical injury. The microscopic examination of a pigmented wart, which must always be regarded as a potential melanotic cancer, will aid us in comprehending the formation of the latter neoplasm. Pigmented warts [thin sections of two exhibited] are in the main epithelial structures. There is a central slender stalk of connective tissues continuous with the corium; this is coated with epidermis which sends inwards numberless columns and prolongations inosculating with one another. Pigment is plentiful in the Malpighian rete and occurs almost alone in the deepest layer of that rete—the columnar cells. The central connective tissue core is entirely devoid thereof. This is the pre-cancerous stage. It would seem necessary that the pigment should be abnormally excessive; melanotic disease very seldom begins on the healthy skin even of dark persons, or in parts such as the areola of the nipples, which naturally abound in that material.

In the next we find abnormal proliferation of these columnar cells. Those *in situ* have increased in number; many have apparently severed their original connexion with the epidermis, constituting little isolated clumps within the underlying corium. Other cell clusters, rounded in shape, are still joined to the rete by a narrow peduncle, the result being the peculiar racemose condition of each inter-papillary process shown in the slide exhibited, taken from the vicinity of a melanotic cancer on the pubes. The most recently formed cell collections are brightly stained (by logwood), and but slightly pigmented. (Fig. 1.)

FIG. 1.



From vicinity of melanotic epithelioid cancer, showing two interpapillary processes, with the cells of the Malpighian rete becoming malignant and invading the corium.  $\times 240$ .

In the second cancerous stage we find the epidermis still unbroken, but very thin, and wholly denuded of its columnar rete cells. These are seen diffusely infiltrating the corium and subcutaneous tissue, and are everywhere more or less pigmented. They are surrounded by very numerous leucocytes, the invariable accompaniments of a cancer development in any shape. (Fig. 2.)

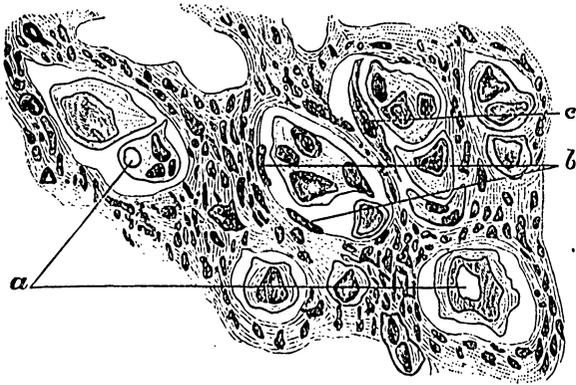
In the third stage the type is that ordinarily described as indicative of alveolar sarcoma. Within each small mesh of the fibrous stroma are found one or several large cells, identical in appearance with those of an actively growing carci-

<sup>1</sup> The substance of this paper also formed part of Cancer Researches, communicated to the Pathological Section at the Nottingham meeting of the British Medical Association.

noma. They betray no indications of connective-tissue origin, are in shape irregularly rounded, with relatively large, excentric, multiple nuclei, which become more numerous the higher the power of the microscope. Huge multi-nucleated corpuscles are common, as in acute carcinoma. Spindle cells are conspicuously absent. Many of the nuclei are vacuolated—a feature pointing to epithelial origin. Some are brightly stained by logwood; others are brownish, black and granular. The neighbouring tissues are full of brown granules and clusters of granules, obviously the product of broken-down cells. This alveolar condition is best seen in sections of a secondarily implicated lymph gland; it is the prevailing type of a melanotic cancer on the integument, though in advanced cases the microscope will display a brown or black mass of debris, with the growing cells only at its margins.

It has become of late years customary to term all melanotic cancers, with rare exceptions, sarcomata. The presence of pigment normally in the Malpighian rete, combined with its absence from the corium, seems to me entirely to negative such an opinion, which is also disproved by the absence of spindle cells. I therefore refer these growths to the columnar cells of the rete Malpighii. The virulence of the cancer proliferation seems to me sufficient to account for differences in microscopic structure between a melanotic cancer of

FIG. 2.



Melanotic cancer on pubes: epithelioid.  $\times 240$ . Showing the alveolar type of the growth. a, Vacuoles.

the skin and a common squamous epithelioma. You will note in the former the absence of globes épidermiques and the packing of the melanotic cells in small loculi. Hansemann, in *Virchow's Festschrift*, has lately pointed out that in health cell division by karyokinesis is limited to the two deepest layers of the rete. This view of melanotic skin cancer as an epithelial product is further corroborated by the early period at which the neoplasm secondarily implicates the nearest lymph glands by means of the lymph channels. In addition to their superficial resemblance melanotic sarcoma of the eyeball and melanotic epithelial cancer of the skin are both acute diseases attended by widespread metastases. Hence they have always been confounded. Both, however, are most prevalent in the cancer age—i. e., from thirty-eight to sixty. The former, however, may attack very young children; the age of two years is the earliest I have found on record. Infants are specially prone to malignant tumours of the eyeball—generally, however, gliomata. This exception to the ordinary age rule, which holds good in all varieties of cancerous disease, I attribute to the presence of vestigial remnants of unobliterated foetal structures. Both forms may insidiously attack the bones. The phenomenon is analogous to that insidious infection of the marrow by the cells of mammary carcinoma which I have lately pointed out.<sup>2</sup> Mr. Oliver Pemberton<sup>3</sup> records such latent deposits in ribs, clavicle, sternum, cranial bones and femur. In one or two of his cases the bones were “completely black, but in no other way altered from their natural state.”

A rare and interesting symptom is diffuse pigmentation of the integument. The subcutaneous tissue is a peculiarly

favourable nidus for the propagation of cancer particles of all species. Thus a man with melanotic disease of the orbit, who was lately in the Cancer Hospital under the care of my colleague, Mr. Jessett, displayed between fifty and sixty melanotic growths dotted about the trunk. But sometimes there is little or no tumour formation, and a tract of skin becomes merely puffy, slightly thickened and pigmented. This occurred on the pubes of a woman lately under my care, and Dr. Phineas Abraham figured a case in which almost the whole face and neck had become thus disfigured. The secondary lymph gland or visceral deposits may be as profusely pigmented as the primary lesion or only partially stained, or may be composed of the malignant cells wholly free from melanine. In such cases the comparative recency of the deposits may be stimulated by the amount of pigmentation. As in secondary metastases, the degree of colouration is thus seen to vary, so that there is some reason to believe that in the primary the amount of pigment may be so small as to be inappreciable to the naked eye, and as to be easily dislodged during the process of preparation for the microscope. We may thus have a cancer derived from the columnar cells of the Malpighian rete, but colourless: melanotic cancer without the melanosis. A case apparently of this character was described before the Hunterian Society in December last by Dr. Wightwick. For evidence to the same effect see also Paget's *Surgical Pathology*, article “Melanoid Cancer.”

In spurious melanosis the tumour is stained, often very deeply, by extravasated blood. Although such may seem black to the naked eye, no pigment in granules or clusters of granules is found under the microscope. The cells and their nuclei are stained as usual by the ordinary protoplasm dyes; but we have in addition the remains of abundant red blood corpuscles in the adjoining tissue. The hæmamine may be so abundant as to darken the urine. Of this character were the melanotic cancers described by former writers in such impossible sites as the stomach, uterus, rectum &c., where no pigment is normally present. Old horses, ponies and sometimes dogs are prone to black fibrous tumours, which are said to be non-malignant; the assertion needs verification, and it is uncertain to what class these actually belong. In the human subject an appreciable amount of cancerous pigment in a new growth is assuredly indicative of cancerous disease belonging to one or other of the two varieties here described.

Towards the prompt and early diagnosis of melanotic cancer developments the most important element to be borne in mind is the age of the patient. The severe pain attendant upon sarcomata of the eye generally ensures their speedy recognition by the ophthalmic surgeon. On the other hand, the apparent triviality of the pigmented papilloma which precedes melanotic growths on the skin commonly fails to excite suspicion of danger until there is extensive implication of the lymph glands and it is too late to effectually extirpate the affected area. A pigmented wart which begins to increase in size, the individual being of advanced middle age, is assuredly becoming a melanotic cancer. Any abnormal and prominent collection of pigment on the skin becomes dangerous in later life, and prophylaxis is always preferable to cure.

In respect of surgical treatment, two cardinal phenomena in the clinical course of cases wherein the skin is the primary site call for emphatic notice and indicate corresponding principles of action. These are—(a) the usually insignificant dimensions of the primary lesion; (b) its tendency to rapidly infect the nearest lymph glands. The skin tumour is in the majority of cases very small and, if not tampered with, commonly remains so to the end. Although unsightly and painful, it has *per se* little appreciable effect on the duration of life. The danger lies in the diffusion of malignant cell particles from this primary focus; these always implicate the nearest lymph glands, which intercept them for a time. Eventually they pass beyond such “traps” into the blood current; then death, with multiple visceral metastases, ensues. Palpable enlargement of these glands is unfortunately but a late symptom of deposit therein; by the time it occurs there is almost always implication of deeper organs or tissues. We thus see the utter futility of operative measures which are addressed to the primary lesion only, as also the harm of irritating any growing wart by such pernicious procedures as the application of the ligature or of silver nitrate. We further see the paramount importance of securing, whenever possible, the perfect eradication of those lymph glands which will necessarily be first infected; before enlargement takes place radical removal of such organs in the

<sup>2</sup> Vide THE LANCET, March 7th and 14th, 1891.

<sup>3</sup> Observations on Cancer, 1858, part 1.

axilla, groin, surface regions of the neck &c., before they have undergone appreciable increase in bulk, is a safe and easy measure, which, under the conditions indicated, should never be neglected.

[In exemplification of the principal points involved in the above remarks the notes of four cases were cited at length and the corresponding specimens shown.]

CASE 1.—A gardener, aged twenty-eight, had several congenital moles on the left forearm, one being large and prominent. The top of this was knocked off, and in order to heal the sore first spirits of salt, then chloride of sodium were applied. Excision of the resulting tumour, after a year at a general hospital, left a scar an inch and a half long and half an inch wide, which remained healthy until the patient's death. Two years after the operation an axillary tumour was removed at the Cancer Hospital; it was as large as a turkey's egg, was deeply pigmented in the middle, while each end of the ovoid mass was perfectly free from colour. Death took place one year subsequently, when large masses of rounded growth, devoid of pigment, covered the whole peritoneum.

CASE 2.—A charwoman, aged fifty-three, was admitted into the Cancer Hospital with a large axillary tumour secondary to a melanotic growth on the left middle finger, which had been previously removed at a general hospital. There were ascites and very numerous visceral metastases. After death the axillary mass was found highly pigmented; numerous pulmonary and pleural nodules less so; large deposits in the liver, peritoneum and omentum. On the left middle finger was a very small, white, healthy scar.

CASE 3.—A woman, aged fifty, accidentally wounded the skin about the left great toenail; the sore never healed. Several operations, including scraping of the ulcer and evulsion of the nail, had been performed at a general hospital and by the private medical attendant. When received into the Cancer Hospital there was a small fungating tumour an inch in diameter on the left great toe and a huge mass of lymph glands, some black and ulcerated, in the corresponding groin. Near the latter were numerous subcutaneous nodules, some pigmented, others whitish. The necropsy showed abundant visceral deposits only partially pigmented.

CASE 4.—A married woman, aged thirty-five, had a congenital melanotic wart on the pubes. This was irritated by the lochial discharge and neglect to change the diapers. The wart began to grow, was ligatured by the medical attendant, then became very painful and grew still more rapidly. When first seen the patient was three months advanced in a fresh pregnancy and had extensive deposit in the glands of the groins. Eventually diffuse pigmentation of the whole mons veneris took place, the skin becoming puffy and of a bluish-black colour. Under the stimulus of pregnancy death very speedily ensued, with metastases in the inguinal glands on both sides, both lungs, both pleurae, the liver and the mucous membrane of the stomach.

## REMOVAL OF LEAD FROM THE EAR BY THE USE OF METALLIC MERCURY.

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AND

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IN THE LANCET of April 30th, 1892, there appeared an article by Mr. A. Marmaduke Sheild entitled "Notes of a Case where a Mass of Lead was impacted in the Tympanic Cavity and removed by the Aid of Metallic Mercury." A man of seventy was carrying a pot of melted lead down the ladder of a ship when the vessel gave a lurch, the metal splashed over the side of his head and some of it ran down his right ear. Six weeks later when the superficial burns had healed he came under the treatment of Mr. Sheild. There were then abundant offensive discharge from the ear, total deafness on the right side and oæna. The lead is described as having filled the tympanum, the surface being just flush with the remains of the membrane. Examination with the probe and elevator showed the mass to be firmly

impacted. Shortly after Mr. Sheild made prolonged and cautious attempts to extract the lead or to shift its position, introducing a sharp and small but powerful hook between the floor of the tympanum and the lead. This being turned round took a good hold of the metal. He then exercised an amount of traction which only the gravity of the case could justify. He was able to take a firm hold in like manner of other irregular parts of the mass, but all attempts utterly failed to shift it in the least, and only impressed his mind still more with the firmness of its impaction. It was then suggested that the lead might be reduced in bulk by solvents, and accordingly Mr. Sheild made some simple experiments. He placed pieces of sheet lead in mercury for twelve hours, and found the lead (quantity not stated) that had been in contact with the mercury was brittle, soft, and much reduced in bulk, while the supernatant mercury was dark and lead-stained. The next day the patient's ear was well cleaned, and he was ordered to lie on his left side. The right ear was filled with liquid mercury, which was apparently retained there for sixteen hours. When the mercury ran out of the ear it was mingled with lead, being dark-coloured, and the plumbic stain was visible on the walls of the canal. A symptom of significance also was furnished by the patient, who felt the mercury run down the Eustachian tube into the throat for the first time. The following day the lead was comparatively easily removed by syringing. Scales of lead escaped, and then followed the mass, which was of irregular shape, resembling the contour of the tympanum and coated with mercury. It was reduced in bulk, and all protuberances and angular projections before visible had disappeared. Mr. Sheild's comment is that the mercury had obviously acted as a superficial solvent, had reduced the bulk of the lead and so allowed the stream of water from a powerful syringe to eject it. Treatment by liquid mercury is novel, and the possibility of employing this agent in cases of embedded balls at once suggests itself.

Unless we had seen this very interesting case it would not be possible to do full justice to it in criticism. We will merely remark that in reading the report we are inclined to emphasise the following points—(1) that the ear was suppurating; (2) that the swelling caused by the primary burns had apparently subsided but recently; (3) that no attempt to remove the lead by syringing had been made prior to the use of the mercury; (4) it is not obvious that the metal in the ear was pure lead; and (5) Mr. Sheild's statement that the mercury reduced the bulk of the metal in the ear is obviously an inference, not necessarily a fact. One of the writers of this paper (Mr. J. P. Ryan) had recently under his care at the Victorian Eye and Ear Hospital a boy aged six years, who had forced a small leaden bullet into his ear. After the primary swelling and discharge had subsided attempts to remove the shot were made by a number of methods. The shot could be felt and seen on the floor of the meatus close to the membrane. The hearing remained fairly good. All mechanical means to effect removal having failed, resort was made to the method of solution (?) by mercury adopted by Mr. Sheild. Before introducing the mercury into the ear, however, some experiments were made with a view of investigating the solubility of lead in mercury. A few pieces of sheet lead, varying in weight from six grains to forty-five grains, were placed in mercury for a period of sixteen hours, as mentioned by Mr. Sheild. They lost in that time next to nothing in weight or volume. If the surfaces are clean at the end of that period an amalgam of mercury is formed on them, and unless that is rubbed off the weight is sometimes slightly increased. If the lead is kept in mercury for from three to four days the effect is not much more pronounced. For periods of from three to four days, at all events, sheet lead is practically insoluble in mercury and consequently a considerable solution by mercury of lead impacted in the ear is impossible. The lead shot for the removal of which the use of mercury is suggested is even more difficult to deal with, inasmuch as the coating of the shot is resistant to the action of the mercury and no amalgam forms. Even if this coating is removed it makes little difference; the mercury produces no practical diminution in volume. In passing it may be mentioned that we endeavoured to effect the removal of the shot by taking advantage of its low specific gravity relative to that of mercury. The attempt to thus float the shot out resulted, as anticipated, in failure. It is obvious from these facts that in Mr. Sheild's case one of two explanations is possible: (1) Either the mercury had nothing whatever to do with the removal of the lead, or (2) the metal in the ear was not ear. On this latter point we have obtained some

information which throws a new light on the subject. There are three kinds of solder used by plumbers: (1) Plumber's solder, which is composed of a mixture of two parts lead and one part tin; (2) tinman's solder, one part lead and one part tin; and (3) pewterer's solder, one part lead and two parts tin. The plumber from whom this information was obtained is of opinion that the patient referred to in Mr. Sheild's article was using plumber's solder. If so, the matter explains itself. We have obtained plumber's solder and tinman's solder, and have made experiments with them. They are both affected by mercury more readily than lead alone. In one hour some reduction in bulk is effected. They tend to become friable under its influence.

It will therefore be of interest if Mr. Sheild will re-examine the case and ascertain definitely the nature of the metal extracted from the patient's ear and the nature of the sheet lead he used for his experiments. At present we are endeavouring to ascertain the possibility of dissolving the shot in the boy's ear by the method of electrolysis. In conclusion, we desire to express our hearty thanks to Professor Masson of the Melbourne University and to Dr. Webster for valuable assistance and suggestions.

We trust that Mr. Sheild will accept this criticism simply as an effort to obtain accuracy. The erroneous statements which, we believe, he has made, and for which there is probably a simple explanation, in no way affect the ingenuity of the treatment he adopted. The suggestion may end in a valuable addition to the knowledge required in the management of these difficult and fortunately rare cases.

*Result of some Control Experiments made for us by  
Dr. Webster.*

Substance.	Weight before Immersion.	Weight after Immersion.	Loss.	Time.
Plumber's solder...	22 gr. ...	10 gr. ...	12 gr. ...	16 hours.
Tinman's solder ...	22 ,, ...	17 ,, ...	5 ,, ...	16 ,,
Lead piping ...	17 ,, ...	15 ,, ...	2 ,, ...	16 ,,
Sheet lead ...	11 ,, ...	9½ ,, ...	1½ ,, ...	16 ,,

Thus in the same time plumber's solder lost much more than the weight lost by the sheet lead. In each case the mercury adhering to the surface was removed by rubbing before weighing. The small decrease in weight of the tinman's solder is probably accounted for by the piece being thick and of irregular surface, its thickness preventing the mercury acting freely, and the irregular surface retaining some of the mercury when the piece was weighed. The action of the mercury penetrates deeper into the solder than into the pure metal and a thin piece of the former becomes in a short time brittle and friable, contrasting with the pliability and malleability which the latter retains. When exposed to the air the solder at once acquires a silver powdery surface, while the lead retains the metallic appearance of the mercury.

THE

TREATMENT OF INOPERABLE MALIGNANT NEOPLASMS BY THE BICHLORIDE OF MERCURY IN OIL.

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My attention having been drawn to an article in THE LANCET of Feb. 20th, 1892, by Professor R. von Mosetig-Moorhof of Vienna, on the Treatment of Inoperable Malignant Neoplasms by the Aniline Dyes, in which it is stated that a hypodermic injection of pyoktanin has a remarkable influence over the growth and development—nay, even the destruction by absorption—of such malignant growths as are mentioned above, I shall perhaps be pardoned if I give at this distant date my experience of the bichloride of mercury when given as a hypodermic injection in cases similar to those mentioned in the above-named article. That injections of an antiseptic nature, no matter of what kind—though I would say the less innocuous and the more powerfully antiseptic the better—will do much good I feel certain, judging from the small number of trials which I myself have had in general practice and of which the following is a short account.

In December of 1890 a tall thin man named McA—consulted me, suffering from severe dyspnoea, which on examination was found to be due to the pressure of two large sarcomatous growths, one on each side of the neck, the left being double the size of the right. His principal complaint was great difficulty in breathing, which was painful to listen to and look upon. I recommended him to visit one of our hospitals to be examined, and if possible to be operated upon, when he replied that he had been there already for a time as an in-patient, but had been discharged, with the information that nothing could be done. Hearing this I gave him a note to the laryngologist in the same hospital, requesting him to do something for the poor fellow, who was suffering so much, and who could not possibly live many days. The laryngologist sent the patient back with a note concurring with my views, both as to diagnosis and the necessity of tracheotomy, while at the same time he informed me that he had looked up the journals of the hospital and found that the diagnosis was also that of sarcoma, and that he had refused to do anything with the case. The poor fellow importuned me so much to do something for him that involuntarily I became deeply interested in his case. I informed him that at the present time no remedy was known which could effect a cure, but that he might have an operation performed which would certainly relieve his breathing, but relief was all that could be hoped for. To this he replied that he would certainly submit to anything, in order that he might get some relief in his great difficulty of breathing. Acting upon this I called upon the same laryngologist and arranged that he should perform the operation of tracheotomy, which was accordingly done the same afternoon—that is, on Dec. 27th, 1890. It is needless to say that immediate relief was experienced, and for a few days afterwards he was fed by the stomach tube with various fluid foods and stimulants combined, when he rapidly gained both strength and weight. I saw him daily up till Jan. 1st, 1891, the fifth day after the operation, then on the 8th and 12th of the same month, when he made an urgent appeal that I should now do something more for him. Explanations as to the nature of his disease and its dangerous position were of no avail in lessening his pleadings, and so I promised him that the further treatment of his case would receive my most serious consideration and thought; at the same time he was instructed to pay every attention to his dietary, and so get up his strength as much as possible.

The theory as to the cause of cancer being due to a fungus had just been propounded by Dr. Russell of Edinburgh; and thinking of the relationship of carcinoma and sarcoma it struck me that I might use an injection of bichloride of mercury in olive oil, such as I was using at the time with success in cases of pneumonic phthisis. With this end in view I made a request to Mr. John Borland, F.C.S., of Kilmarnock, who has always prepared the different forms of bichloride oil used by me in the different methods adopted in the treatment of phthisis, to make a small quantity of this oil of the strength of 1 in 2000. At the same time I had made by Messrs. Hilliard and Sons a hypodermic needle of a particular pattern, to fit an ordinary hypodermic syringe, the needle to have a solid point like an ordinary sewing needle, but with several holes at the side, so that the oil might be diffused through the tissue with less danger of its being thrown into the circulation. I then inserted the needle, fixed on to the syringe, into the very centre of the large tumour on the left side, and first moving the needle freely from side to side slowly injected twenty minims of the oil mentioned; then, withdrawing the needle carefully and placing my finger on the little needle wound, I gently placed a piece of carbolie plaster upon it and awaited the result. Within two days, to my intense surprise and delight, the shrinkage of the tumour was most marked, notwithstanding the fact that it had steadily increased since the operation of tracheotomy had been performed. The shrinkage did not continue longer than three or four days, when to all appearance it then ceased. After this I did not visit him, owing to the excessive amount of work which I had at the time, till Saturday morning, Jan. 31st, his wife having called upon me the previous night and made the request that I should give him another injection, as the first had done so much good. During my last visit—that is, on Saturday morning, Jan. 31st—he received another injection; but unfortunately it was used twice as strong as the last—that is, 1 in 1000, a strength which I was then using with benefit in the intra-thoracic injections in phthisical cases. The same night I was called to the country, where the case necessitated my remaining till Monday morning, and so was prevented from

seeing him till then, but hoped that in the interim the same shrinkage which had followed the first injection would also follow the second. My chagrin and disappointment on my return were great on learning from the doctor who had undertaken the work that great swelling and acute inflammation had set in, due probably to the excessive strength of the oil used, while the doctor, not knowing what had already been done for the patient, applied two leeches on the part and then poulticed. Suppuration set in, and the poor fellow died on Tuesday, Feb. 3rd, from sheer exhaustion, grateful at the same time for the five weeks' relief and comparative comfort which had been given him.

While this case was under my care I also adopted the same line of treatment in two cases of carcinoma of the mamma, where ulceration was present in both, but in one most markedly, having a crater-like depression in the centre, as is often observed in advanced cases of carcinoma in that region. My plan in those two cases was to cleanse a small part of the surrounding healthy skin with a solution of bichloride oil (1 in 1000) and menthol (12 per cent.), the same as I was using in the intra-laryngeal injections in phthisis. I then wiped the part nearly dry and passed the needle in from this spot into the thickest part of the growth. The needle was moved about freely, as in the sarcomatous case, and twenty minims of the oil injected (1 in 2000), while the after treatment was the same as described above. This was done twice per week for three weeks with the greatest success, when injuries from a carriage accident confined me to my bedroom for nearly three weeks, after which I did not make any further investigations, owing to the great difficulty experienced in general practice of securing proper observations in such cases. What had been done in the three cases, however, taught me, even although not one of them had been brought to a successful termination, that a powerful check, if not a complete remedy, existed in the injection of bichloride of mercury in olive oil, and I would beg to recommend to anyone holding a hospital appointment a trial of the above-mentioned treatment, where under more favourable circumstances proper observations of the cases could be taken and measures thoroughly carried through.

Glasgow.

## SYPHILITIC INSANITY.

By A. H. NEWTH, M.D. ABERD., M.R.C.S.

THE study of cerebral syphilis is one of interest and importance, but it is a subject that has received more attention from continental than from English physicians. The disease is of interest because it presents many curious symptoms, and is very closely allied to general paralysis of the insane. It is important to be able to diagnose it, as in the early stages of the disease it is fairly curable, or at any rate the progress of the complaint may be checked for a considerable time by appropriate treatment. Many differences of opinion are held on the subject of cerebral syphilis, some observers thinking it has no specific significance, whilst others believe that syphilis is the sole cause of general paralysis of the insane. There is a very close resemblance between this latter disease and syphilitic insanity, so much so that the one is frequently mistaken for the other. The diagnosis, however, in most cases is not difficult if special care is taken in studying the history of the case and observing the symptoms. There are, on the other hand, cases so pronounced in similarity as to make the diagnosis extremely difficult, if not impossible. Syphilitic insanity frequently is associated with general paralysis, the latter disease developing after the former has shown itself for some time. As general paralysis attacks individuals who are given to venereal excess they are often the subjects of syphilitic infection.

Syphilis of the brain or nervous system is very variable in its development and characteristics. The nervous symptoms, as a rule, do not correspond with any special lesions of the brain or spinal cord and it is this want of coincidence that is one of its peculiarities. Whilst most cases of insanity may be traced to some remote or proximate cause, syphilitic insanity arises without any special cause, though sometimes

an injury, as a fall, blow on the head, sudden shock &c., may act as an exciting cause and start the disease into activity. A sudden and severe attack of nervous symptoms in a person previously apparently healthy affords a very strong presumption that these symptoms are due to syphilis. The erratic character of the symptoms and their abrupt development are two of the most characteristic features in syphilitic insanity.

It is always most difficult to obtain a definite history of syphilis from any patient; and as syphilis of the brain may not show itself for some years, even so long as sixteen years, it is still more difficult in this disease to elicit any account of infection. In many cases, however, the patient may show signs of syphilis. For instance, there may be indented teeth (Hutchinson's), effusion of lymph and formation of vascular nodules in the iris; perforation of the palate; copper coloured eruption; nodes on the long bones; syphilitic ulcers on the legs; signs of buboes, chancres &c.; irregular patches of baldness; linear scars running outwards into the cheeks from the corners of the mouth; a broad sunken nose, &c. He may have suffered for some time from periosteal headaches or neuralgias which were worse at night. There may also be a history of frequent faintings or vertigo, slight convulsive seizures, a want of power in using the limbs &c. He may have shown some instability of character, fits of unreasonable passion, defective memory, errors in speaking or writing—that is, using wrong words to express his meaning, omitting certain words or letters in writing, and a lack of faculty for business.

The following case will afford a good idea of what may be regarded as a very early stage of syphilitic disease of the nervous system:—The patient, aged forty, was a man in whom there was no evidence of syphilis, although there was some slight hereditary history. When the patient came under my care he was not insane but he had the insane neurosis. He was indeterminate in his actions, unstable, and frequently showed a want of coherence in his conversation and writing. His memory was defective and he had partial amnesic aphasia, often using the wrong terms to express his meaning and omitting words or letters, or misplacing them in his writing. He was somewhat deaf and myopic. His temper was most irascible; he would give way to unreasonable outbreaks of violent language and find fault without cause. He had a morbid sensitiveness to what others might say or do as regarded himself, taking offence at imagined slights or insults. At times he had a great idea of his self-importance, at others he was depressed and self-depreciatory. He frequently had slight convulsive seizures and attacks of giddiness and faintings; he walked lamely or awkwardly. He complained of confusion of ideas and a want of power to concentrate his thoughts on any given subject, and suffered from severe headaches, worse at night. He was placed under appropriate antisiphilitic treatment for some months, and eventually recovered his usual health. He is now able to write and speak fluently and to successfully carry on his work. This case would most probably have developed into syphilitic insanity had he not been placed under treatment in time.

A person suffering from syphilitic insanity has a peculiar imbecile expression; his appearance is flabby, flaccid, vacant. Though his eyes are staring he does not seem to notice anything with attention, and will not look at the person who is speaking to him in a straightforward manner. He has a slouching manner of walking; often his gait is uncertain, shambling or staggering, and he often has a tendency to fall if not supported. Sometimes he walks like a person affected with paralysis agitans; occasionally he gives a little jerky run and then stops.

The patient generally complains of giddiness or vertigo, may be subject to attacks of syncope and frequently there are slight or even severe apoplectic seizures, sometimes accompanied by hemiplegia and followed by an epileptic or semi-epileptic state. These epileptic attacks, which are often the first expression of the disease, differ from ordinary epilepsy; they are not so general, the patient is mostly conscious during the fits or can be affected by external stimuli, and may be able to record what took place whilst he was under them. The spasms affect chiefly such muscles as the biceps and recti, and are not so tonic as in true epilepsy; there is more of a quivering of the muscles and the spasms are somewhat intermittent. There may be strabismus, ptosis, contractions of the facial muscles &c. from affections of the intra-cranial nerves. Partial or complete paralysis of the extremities is not

uncommon. These paralyzes are peculiarly inconsistent in their character—that is, they do not seem to coincide with any special cerebral lesion. They are generally unsymmetrical; there may be, for instance, facial paralysis on one side and ocular motor paralysis on the other; or ptosis of one eyelid and paralysis of the abducens on the other; or aphasia may be coincident with left hemiplegia. These paralyzes are not always permanent, they very often shift and change in a peculiar manner; in fact in many points they closely resemble hysteria. The symptoms are rather disturbances of coördination and high degrees of weakness, which have been described by Dr. Hughlings Jackson as a "paralysis of energy." Locomotor ataxia is not an uncommon result of syphilis, but has then the peculiarity of being liable to remissions; and it is frequently observed that as the mental disturbances subside the ataxy increases or develops, or the converse may take place. Dr. Hughlings Jackson lays great stress on the importance of examining the fundus oculi whenever a patient has nervous symptoms, and especially if he has pains in the head. Optic neuritis is a strong evidence of cerebral mischief, and this with one-sided convulsion is, according to Dr. Buzzard, a very diagnostic feature in syphilitic disease of the brain. Dr. Stretch Dowse describes the ophthalmoscopic appearances in cerebral syphilis as being neuro-retinitis, choroiditis, and optic atrophy. The first, he says, is commonly observed, the second is an almost undoubted indication of old-standing syphilis, whilst the third is common to syphilis and general paralysis. Syphilitic amaurosis is not uncommon, sometimes there is double vision, and deafness is very frequently met with.

*Mental symptoms.*—The first observable mental symptom is loss of memory, especially for recent events. This loss of memory does not arise so much from actual amnesia as from a confusion of ideas, or an inability to collect the thoughts and concentrate the attention on what is said. It may also be due to a want of power to reproduce received ideas, or a paralysis of mental energy. There is a lack of æsthetic feeling and the ethical or moral sentiments are wanting in expression, syphilitic patients being often most obscene in their behaviour and regardless of the decencies of life. The intellectual faculties are dormant, not entirely wanting in receptivity or expression, and the innate or cognate ideational faculties are simply torpid. During sleep, or an apparently deep sleep, the intellectual faculties may act in a remarkable manner, strikingly different from the hesitating imbecile way that ideas are expressed when the patient is awake. Though, as a rule, there is a state of mental vacuity, passing into stupor or even coma, there may be attacks of mania, senseless ravings, irritability of temper, and total change of disposition. The patient often appears hysterical, laughing at one moment, crying at another. If there is furious mania, which sometimes occurs after an epileptiform or apoplectic seizure, it is the mania of impotence. Dr. Hughlings Jackson says: "A random association or a random succession of nervous symptoms is a very strong warrant for the diagnosis of syphilitic disease." In many cases there are grandiose ideas, as in general paralysis of the insane, but this monomania of grandeur is not so pronounced. In fact, the mental symptoms are not definite as regards any special feature. It is this want of coincidence in the mental symptoms, as in the paralyzes, that strongly characterises syphilitic disease of the brain. As Professor Heubner describes it: "The half and half incomplete nature of the severe symptoms, the impairment of the consciousness without its entire destruction, the loss of voluntary activity without the complete abolition of voluntary impulse, the half awake and half dreamy condition of the patient," are strong peculiarities of syphilis.

Often patients have a loss of power to express particular words or even letters or numbers. They will speak or write up to a certain point correctly and then stop unable to proceed, or they will be unable to give expression to particular things or ideas though they may be well able to recognise them, or they will transpose ideas, words, or letters in a strange way. Delusional insanity may be due to syphilis. Patients suffering in this way are very suspicious, fancy unseen agencies are plotting against them and take all manner of strange precautions to ward these off; sometimes acting on these delusions they become very dangerous. They will imagine they are the victims of diabolical intrigue from persons who follow them about and endeavour to get rid of them for some occult purpose either by actually killing them or persuading, or, as it were, irritating them to commit suicide. They will hear "vocalisation" or fancy voices are speaking to them when no one was near, or those who were near have been

perfectly silent. Dr. Clouston gives several very interesting cases of this form of syphilitic insanity. He also mentions the case of a clergyman who, twelve years after syphilitic insanity, conducted himself most obscenely towards the female members of his congregation. Of a medical man who, though otherwise able to conduct his practice well, misconducted himself towards young girls. Both of these had to be placed under treatment in an asylum. He graphically and concisely describes a case of syphilis of the brain in the following terms: "Mentally a change of character, morbid suspicions, loss of self-control and of the moral feelings, a disregard of the decencies of life, then an intense irritability, often with violence and a loss of memory, then an enfeeblement of the mental power, ending in complete dementia. Bodily, an unhealthy and cachectic general state, a lack of trophic power, with no cephalalgia necessarily, then a failure of muscular power and a tendency to partial paralysis, then occasional epileptiform fits, sometimes unilateral, but never more localised than a motor paralysis that advances and recedes in a puzzling way; then a loss of power over the sphincters, loss of trophic power and death, if that has not occurred before through an attack of convulsions." Though this is tolerably correct the sequence of the symptoms is not always exactly as Dr. Clouston describes them.

The treatment necessarily resolves itself into antisypilitic remedies; these, if judiciously and early administered, do great good. Professor Wunderlich says: "We must not use our therapeutic agents timidly, and need not wait for the complete evidence of the syphilitic nature of the affection. We can never do any harm with the inunctions or iodides, and if it turns out that the patient is syphilitic we shall then save him."

Dr. Clouston gives several cases of syphilitic insanity cured by specifics, and numerous other physicians have done so also. I have frequently met with most encouraging results from the use of mercury and iodide of potassium even in apparently hopeless cases. I generally prefer first of all to give mercury, either the bichloride by the mouth or mercurial inunctions for, say, one week, then a course of sodium or potassium iodide for about another week, and afterwards a few days of arsenic. Returning again to the mercury and iodides. This method of administering these three drugs I prefer to giving Donovan's solution, as it seems far more efficacious. Treatment must be persevered in, even though the disease seems to have subsided, for it is a peculiarity of syphilitic disease of the nervous system to have remissions; sometimes the disease seems to pass away without treatment. It will, however, nearly always recur soon, but the succeeding attack will differ either in its nature or in its seat. The pathology of cerebral syphilis is very interesting, but however much I should like to touch on it, I have already exceeded the limits of my paper. The purpose I have had in view has been simply to draw attention to a few facts on a subject which does not receive the attention its importance merits.

Hayward's Heath.

## VASO-MOTOR NEUROSES.

By W. BOLTON TOMSON, M.D. DURH., L.R.C.P. LOND. &c:

I HAVE selected the following from a considerable number of allied conditions seen and noted, as they seem to form a somewhat definite series, and to illustrate what I believe to be an extensive section of functional disorders—namely, local and general vaso-motor neuroses. To try to prove that my cases are truly neurotic affections I am obliged to first briefly enumerate the salient features of this class of disease in order to show by a prominent comparison that they are similar in kind. Neurotic patients abound in all highly cultured communities. From the standpoint of the evolutionist, instability of the highest nerve centres is due to their being the most recently evolved, and is therefore a necessary evil accompanying an intellectual advancement.<sup>1</sup> The subjects of epilepsy, hysteria, migrain, flushing and morbid blushing, hay fever, paroxysmal drink craving (for I assume this to be a neurosis), and, speaking generally, neurotic people, are not

<sup>1</sup> See Hughlings Jackson, Croonian Lectures, Brit. Med. Journ., March 29th, April 6th and 12th, 1884. Other writings include: Remarks on the Evolution and Dissolution of the Nervous System, Journal of Mental Science, April, 1887; and Remarks on Evolution and Dissolution of the Nervous System, No. 1 (John Bale and Sons, London, 1888).

dull and stupid—they are often keenly intellectual; but, like visible peculiarities of form, feature, and action, intellectual weakness has been transmitted with intellectual strength. Examining more closely, however, we see that although certainly in many instances the same disease has been transmitted, it also, perhaps with equal frequency, happens that another of the same class is the representative of the faulty habit. A parent has megrim, the child epilepsy. The child of the epileptic may suffer from paroxysmal drink craving, and I have known the sister of such a drunkard who possessed so unstable a nervous system that her face would often assume an almost death-like pallor as any stranger approached the counter at which it was her daily occupation to serve. In the cases of hysteria major described by Charcot<sup>2</sup> we find such conditions as epilepsy, drunkenness, hysteria and other diseases of the same class in the family histories of the patients affected. From these facts it would appear that it is not so much a definite disease as a faulty nerve habit, a neurotic tendency, that is transmitted, and that the tendency may produce any one of the diseases that belong to the same class. Nerve storms and faulty habits of all kinds have for their exciting cause any profound mental emotion, as disappointment, fear, love, fright, excitement, shock. Summarising, then, the distinguishing features of this group of disease we notice the intellectual calibre of the patient—the hereditary transmission of a *tendency* rather than a definite disease, and that any depressing mental emotion may be an exciting cause. As types or subdivisions of the class we see that in epilepsy the most prominent symptoms are motor; in megrim sensory, and affecting special senses; in morbid blushing vaso-motor. It is to the last subdivision that I refer the following.

CASE 1.—Mr. —, aged about thirty. Good physical health; average intelligence. Family history: Grandfather and grandmother, about whom very little can be ascertained, had five sons: *A* possessed small private means, never followed any occupation, but led a solitary and very eccentric life; *B* good mental ability, liable to periodic outbursts of ungovernable passion, vain, self-conscious; *C* good mental power, passionate; *D* great ability, rose to a prominent position; *E* weak intellect from birth, never able to manage his own affairs. *C* had two children: (1) a son, my patient, (2) a daughter, quick perception, liable to attacks of passion without any obvious external cause; for some time hysterical, with a tendency to anorexia nervosa. *D* had five children, of whom the second, a son, died of general paralysis. The third, also a son, had very small private means; would follow no occupation; took small apartments away from his family and lived alone. With this family history my patient has a tendency to shun society and lead a solitary life. He is subject to attacks of morbid blushing. These may last a few days only and be followed by periods of good vaso-motor control. He also—and it is to this I wish to draw attention—finds it impossible to be confined in a room for any length of time without the possibility of egress, as in the compartment of a railway carriage. It would be certain to produce diarrhoea, with watery evacuations. If the carriage contained a lavatory the desire would not be induced.

CASE 2.—This case is very similar in character to the last. The patient also belongs to a highly nervous and excitable family. He cannot bear to be confined in a room for any length of time without being able to easily get out. The effect on him is that large quantities of pale urine are secreted and he is seized with the desire to micturate. In neither of these cases can any disease of the bowel or kidney be discovered. The secretion of urine, it must be remembered, is a double process, consisting partly of a formation of urinary constituents by the epithelial cells of the kidney and partly of a filtration by which water is removed from the blood.<sup>3</sup> Since my patient (Case 2) passes quantities of pale clear urine it is safe to argue that it is due to an increase of blood pressure from a temporary dilatation of his renal arteries.<sup>4</sup> In the same way I consider the watery evacuations from the bowel to indicate a temporary dilatation of the intestinal vessels. The special inference that I wish to draw from these cases is that this dilatation is the direct result of a vaso-motor neurosis affecting the cerebral centres that exercise a vaso-motor control over these particular areas. Let an expectant attention be fixed on any superficial or deep area, and if the patient be neurotic, to that area the brain, against its own inclination, will direct the vaso-motor storm. I do not

believe it is because the face is uncovered that it blushes, but because the brain knows it to be uncovered and therefore conspicuous. So far, the sympathetic effect on the vascular system has, according to my argument, been transitory. I pass on to conditions of a more lasting character.

CASE 3.—Miss —, aged fifty-eight. Mother subject to periodic headaches; father had asthma. Patient has never menstruated. Apart from the attacks of megrim she is healthy. She is a very thin woman and is constantly blinking. Ever since she can remember she has suffered from megrim. During the last ten years the attacks have been much more severe. They come on with great regularity once a week, on Sunday night or on Monday morning between 4 and 5 o'clock. The symptoms consist of visual sensations in the form of black spots or bright colours, apathy and languor, flushing of the face, violent hemicrania, retching or vomiting, and then improvement. Accompanying every seizure there is a most perceptible beating of the aorta in the region of the coeliac axis. Pulsation can always be readily felt in this position, but during the megrim it is markedly exaggerated. There are no symptoms or physical signs of aneurysm, and there appears to be no doubt that this is a periodic dilatation of the aorta in this position. This patient was seen and this diagnosis corroborated by Dr. Sharkey.

The next three are cases of paroxysmal palpitation of the heart without organic disease, occurring in hysterical patients.

CASE 4.—Mrs. —, aged thirty. A brother of this patient is subject to attacks of fainting without apparent cause. Before marriage she was sometimes hysterical, crying and laughing hysterically; otherwise she was healthy. Present illness commenced about eighteen months ago, after the birth of her second child. She was just thinking of getting up when she had a sudden violent attack of palpitation. Since then she has been liable to similar attacks. They come on with any emotion or fright, as the slamming of a door, or talking to a stranger, often without any apparent cause. If she were to walk far she would feel exhausted, and might have an attack. Sometimes these attacks last a minute or so, sometimes an hour. They are attended with various sensory symptoms, the most frequent and pronounced of which are giddiness, shivering and sensations referred to different parts of the body which she finds it difficult to describe. She is very liable to headaches and neuralgic pains over the right temporal region. Attacks sometimes occur at monthly times, but often between the periods. There are no systemic symptoms or physical signs of heart disease. When the heart feels to her to be beating quietly the rate is about 108 per minute and regular. During the attack it reaches 180 to 200 per minute.

CASE 5.—Mrs. —, aged thirty-eight, says she has had good health, but has always been hysterical, especially at monthly times. Family history doubtful, as parents died in Florida when she was young. The patient has had two children. She swallowed a pin six months ago. It caused her great anxiety, and one week afterwards she had the first attack of heart palpitation. She never suffered in this way before. It was quite a month before the second attack came on. She was then very hysterical. Since that time she has had similar seizures at intervals of two or three weeks. They are worse if they occur near the catamenial period. The attack generally commences with a twitching about the limbs; she then becomes hysterical, crying and shouting, and the heart beats very hurriedly. She has not had hysteria without palpitation for the last six months, but has often had palpitation without hysteria. The heart during an attack beats 140 to 160 per minute, sometimes more. There is no evidence whatever of organic heart disease. This patient was also seen, and the diagnosis confirmed, by Dr. Sharkey. These attacks almost always come on at about the same time in the evening, between seven and eight o'clock; and after the attack the patient generally passes a quantity of urine, pale and of low specific gravity.

CASE 5.—Miss K—, aged thirty. The family history was not reliable. She suffered from attacks of palpitation of the heart and a slightly irregular beat. There was a uniform soft enlargement of the thyroid, but no other symptoms of Graves' disease. She came to see me for a typical hysterical aphonia, which was completely cured in the course of a few weeks by applications of the interrupted current.

These three cases very well illustrate a condition by no means rare—namely, attacks of palpitation that often date from a shock or profound mental emotion—the patient being neurotic. Evidence of the neurotic tendency is afforded by the frequent association of hysteria. It is also here interesting to notice that in Case 5 the attacks exhibited the same

<sup>2</sup> Diseases of the Nervous System, vol. iii., lect. xviii. and following.

<sup>3</sup> Foster: Physiology, Book II., Chap. iv., Sec. 2.

<sup>4</sup> Ibid.

tendency to periodicity that is so constantly seen in megrim. I have no intention of implying that all who suffer from paroxysmal heart hurry are neurotic, but that a percentage of neurotic people show their tendency in this form. Another illustration of what I consider to be a vaso-motor neurosis giving rise to arterial dilatation of a limited nature appears to me to be afforded by the numerous cases that are seen of enlargement of the thyroid with the following characteristics. The patients are generally young, highly nervous women, belonging to families with a marked nervous tendency. The condition is generally, but not always, associated with cardiac palpitation coming on in attacks. The swelling is not great; it is soft and uniform in outline. It may, and often does, vary considerably in size at different times, or remains enlarged for a limited period only. Such a condition may be associated with hysteria, and I have under treatment at the time of writing a patient with cardiac palpitation and this form of thyroïdal enlargement who has suffered for many years from attacks of megrim coming on every Sunday. Corroborative evidence appears to me to be afforded that this form of swelling of the thyroid is due to arterial dilatation by the following case:—

CASE 7.—Miss —, aged twenty-seven. Her mother is very excitable and nervous, and suffers very much from indigestion. She has a sister who is also of a highly nervous temperament and who suffers from an "enlargement of the throat." Catamenia commenced at seventeen. It was always irregular and accompanied by pain. She has had attacks of palpitation of the heart ever since she can remember. Sometimes on exertion, but just as often when she is sitting quite still; the heart seems suddenly to give a bound and then continues to beat very quickly. She tells me that three weeks ago, at a monthly period, a swelling suddenly appeared on the right side of the neck. She had a considerable fullness of the neck for some time previously to this, but does not think the lump could possibly have been there before and undiscovered. It was not attended by any pain. On examination there was a soft uniform enlargement of the thyroid, and on the upper right lobe there was a round, smooth, fluctuating swelling about the size of a walnut; no redness; no skin adhesions. This swelling was punctured with a hypodermic needle and proved to be a sero-sanguineous cyst. The pulse on March 11th, 1892, was 130 per minute, and on March 13th 120. There were no systemic or physical signs of heart disease. It must be remembered that at the catamenial period the general blood pressure is raised, and the tendency to rupture of capillaries and small vessels of any area would be increased by a dilatation of the arteries of that area. Consequently these cases of sudden formation of sero-sanguineous cysts occurring at a monthly time in patients with the condition of thyroid that I have described corroborate the view that the enlargement is due to dilatation of the thyroïdal arteries. I have seen three cases exactly similar to this. It has long been known that some internal organs, notably the kidneys, vary considerably in size from time to time, according as their arteries are dilated or contracted by vaso-motor influences.<sup>5</sup> Dr. T. Savill tells me that when attending Professor Charcot's clinique he saw exhibited several cases of transitory redness of the hands and forearms occurring in hysterical patients. He also refers me to the account of "Bluc Edema of Hysterics."<sup>6</sup> Here the author describes a condition in which a part of the body becomes cold and cedematous, but does not pit easily on pressure. In appearance it is bluish or cyanotic. Sensation is lost or exaggerated. Charcot considers the symptoms to be entirely due to a vaso-motor disturbance, probably spasmodic in character. Both these conditions afford interesting illustrations of neurotic patients with a loss of vaso-motor control over definite and limited areas.

The preceding cases have naturally led me to the pathology of goitre exophthalmos. The symptoms seen in the cases I have described have merely consisted of a few of those found in that disease; and, if my explanation is correct—that in them vaso-motor function has been modified in some limited area—then surely Graves' disease is a general neurosis in the truest sense, for it must be an almost universal derangement of the vaso-motor system. Analyse the symptoms by this view and the explanation of them seems rational. A neurotic family tendency may sometimes be found in the form of hysteria or epilepsy, or the disease may seem

to be directly transmitted. It is far more prevalent in women than men, and Dr. Gowers says that "no immediate cause is so frequent as a depressing emotion." Only just recently a lady, a relative of my own, saw a case in a hospital ward, and was shortly after seriously affected with the same disease. The flushing and the sweating are positive proof that vaso-motor disturbance does take place. Pigmentation of the skin may show itself in any form of skin hyperæmia. Moreover, in a patient affected with goitre it varies considerably from time to time, as one would expect if it be dependent on hyperæmia that varies. In one old patient that improved considerably from the application of electricity to the neck, as described by Mr. Cardew in THE LANCET of July 4th and 11th, 1891, large patches of pigment began to disappear from her legs directly she commenced to get better. I am at the present time attending a male patient who volunteered the question, "Why is it that brown patches frequently show themselves on my arms, last a few days, and then disappear?" Polyuria may certainly occur as a direct result of the dilatation of renal arteries, and diarrhœa may possibly in a similar manner depend on a dilatation of the arteries of the bowel, as was suggested to explain Cases 1 and 2. Moreover, as the bladder fills with this clear pale urine the same inability to hold it may sometimes be witnessed. A child with incomplete Graves' disease constantly wetted the bed. Another patient, a woman with the disease well marked, would suddenly eject urine with great force on to the floor. The thyroïdal enlargements may be due to arterial dilatation, as I have already argued, and the protrusion of the eyes to a similar dilatation of the mass of bloodvessels that comprise nearly the whole of the choroidal structure. This exophthalmos reminds one forcibly of flushing of the face. It may affect one side only, as it did in the case of my own relative and it often varies considerably in degree at different times. Increased pulsation in the arteries is sometimes seen, as in Case 3; and how frequently we see a pulsation in the temporals of neurotic women. I have described cases of heart hurry in a previous part of this paper that seem clearly to be functional and due to sympathetic derangements. The same explanation seems equally applicable here. The irregularity may be because the sympathetic stimulus resembles a constant current occasionally made and broken, or else that variations in the vaso-motor control of different areas about the body upset the rhythm of the heart by rapid modifications in peripheral resistance. Lastly, there is a tremor, an indicator *par excellence* of a highly nervous state, witnessed frequently in the subjects of flushing and morbid blushing.<sup>7</sup> The fact is easily verified by observation. My own experience is that there are patients like Case 1, in whom vaso-motor control varies, being sometimes fairly good, at others strikingly bad. The periods of weak control are always attended by a marked tremor. Those who agree with the dictum of Hughlings Jackson, that "all parts of the body are represented in the highest cerebral centres," will not consider it unreasonable to assume that the same mental condition that can and so often does produce transitory vaso-motor storms in the form of morbid blushing may similarly and with equal frequency affect other centres governing deeper structures and internal organs, nor that the effect may be transitory or lasting, just as the functional conditions affecting motor and sensory nerves may be transitory or lasting. According to this view the cases I have described vary in degree and extent, but not in kind, and differ from one another only in so far that different vaso-motor areas are involved.

Luton, Beds.

<sup>7</sup> See Dr. Campbell's work on the subject, pages 80 and 185.

PRIZE ESSAY ON RICKETS.—John Strahan, M.D., Belfast, has been awarded the Triennial Warren Prize, value 500 dollars, given by the General Hospital, Massachusetts, U.S., for a treatise on "Rickets." The prize was open to competition by the world and the subject left to the candidate. The prize was to be withheld if no essay of sufficient excellence submitted. The treatise will be published shortly. In 1886 Dr. Strahan gained the Fothergill Gold Medal of the Medical Society of London for an essay on "Typhoid Fever," and in 1889 the Jenks Memorial Prize of 250 dollars given by the College of Physicians, Philadelphia, for an essay on the "Diagnosis and Treatment of Extra-uterine Pregnancy," for which he was also elected Corresponding Member of the College.

<sup>5</sup> See investigations with Roy's oncometer in Foster's Physiology: Book II., Secretion of Urine.

<sup>6</sup> Clinique des Maladies du Système Nerveux, par M. le Professeur Charcot, tome I., published this year.

SHORT NOTE OF A  
CASE OF DOUBLE OVARIOTOMY DURING  
PREGNANCY.

By EDWARD COTTERELL, F.R.C.S. ENG.,  
SURGEON TO OUT-PATIENTS, LONDON LOCK HOSPITAL, ETC.

THE small number of cases of double ovariectomy during pregnancy hitherto recorded has prompted me to bring under notice the following case.

M. P.—, aged thirty-seven, multipara, a poor half-starved woman, consulted me about the beginning of March, 1890. She stated that she was three months pregnant, but that her abdomen was larger than it was usually at full term. She also complained of very great abdominal pain. Physical examination revealed an abdominal tumour, probably ovarian, which appeared larger on the left side, but which extended well on to the right side. There was evidence of a small amount of fluid in the peritoneal cavity together with an enlargement of the uterus, this latter being probably due to pregnancy. An operation was advised, which after some delay was agreed upon. On April 5th, 1890, I opened the abdomen and removed a large multilocular ovarian cyst connected with the left ovary. There was some difficulty in doing this, owing to a large number of old and recent adhesions. It was then discovered that there was another large multilocular cyst, also very adherent to the surrounding parts, growing from the right ovary. This was removed. The uterus was found enlarged. The operation was performed antiseptically, the spray not being used. A Keith's drainage-tube was inserted. The patient suffered severely from shock for about three hours, after which she rallied remarkably, considering her weak state before the operation. Forty-two hours after the operation the patient aborted a four months' foetus; after which she quickly became moribund, and died in about three hours. A post-mortem examination showed no evidence of peritonitis.

The following table of cases of double ovariectomy during pregnancy is taken by permission from Mr. J. Bland Sutton's "Surgical Diseases of the Ovaries and Fallopian Tubes," to which I have added my own case and one recorded by Stratz:—

Operation.	Stage of Pregnancy.	Nature of Tumours.	Result.	Place of Record.
Thornton.	Fourth month.	Dermoids.	Recovered; pregnancy went to 8th month.	Trans. Obst. Soc. Lond., vol. xxviii., p. 41.
Mundé.	Fifth month.	Dermoids.	Miscarried 72 hours after operation; recovered.	American Journ. of Obstetrics, vol. xx., p. 730.
Potter.	About fourth month.	Not stated.	Recovered; delivered of a child 5 months after operation.	American Journ. of Obstetrics, vol. xxi., p. 1028.
Montgomery.	Third month.	Removed both ovaries.	Recovered; pregnancy went to term.	American Journ. of Obstetrics, vol. xxi., p. 1084.
Bantock.	Third month.	Dermoids.	Recovered; pregnancy went to 8 mths.	Journal of the Gynecol. Soc. of Great Britain, vol. vi., p. 4.
Meredith.	Third month.	Papillomatous cysts.	Recovered; went to term.	Trans. Obst. Soc. Lond., vol. xxxii., p. 374.
Meredith.	Third month.	Dermoid and multilocular cysts.	Recovered; went to term.	Unpublished.
Stratz.	Third month.	Not stated.	Recovered; no subsequent record.	Zeitschrift für Geburtsh., Bd. v. 1880, p. 385.
Cotterell.	Fourth month.	Multilocular cysts.	Aborted 42 hours after operation; death.	Reported above.

West Halkin-street, Belgrave-square, S.W.

A Mirror  
OF

HOSPITAL PRACTICE,  
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et non-borum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

NORTH-EASTERN HOSPITAL FOR  
CHILDREN.

ILEO-CÆCAL INTUSSUSCEPTION; INJECTION OF WATER;  
LAPAROTOMY; RECOVERY.

(Under the care of Mr. BILTON POLLARD.)

THIS case presents some unusual features which render its publication of importance. There are now many examples known to the profession of successful operation for intussusception in children, and it is agreed that in some it is the only treatment likely to prove of use, and we have no doubt that if abdominal section had been more frequently resorted to within a reasonable time after failure of the injection of air or fluid more lives would have been saved. Mr. Pollard points out that inflammatory swelling of the walls of the bowel may simulate a continuance of the intussusception, but this is such an unusual occurrence that if with this abnormal swelling there is frequent mucous discharge from the rectum few would hesitate to operate. It is now more fully recognised that the abdominal exploration is not of itself dangerous when the case has not gone too far. For the notes we are indebted to Mr. R. A. Dunn, late senior house surgeon.

A. H.—, a male child, aged six months, was admitted under the care of Dr. Turner on Jan. 11th, 1892. About 10 P.M. on the previous day the bowels acted. At 6 A.M. the child, waking up suddenly, began to scream and vomited. It had vomited three times since and had had many fits of screaming. At 9 A.M. blood and mucus were first noticed on the diapers, but neither motion nor flatus was passed either then or since. On admission, ten hours after the onset of symptoms, the child's abdomen was tender but not distended. An indefinite swelling was felt in the right loin, but no tumour could be detected by rectal examination. The child was put under the influence of chloroform and then a very distinct sausage-shaped tumour could be felt in the right loin. A pint of water was injected by means of a tube and funnel, which was raised about two feet above the abdomen. As this failed to remove the tumour the injection was repeated. During both injections only the descending and transverse portions of the colon could be felt to be distended; but after the second the tumour seemed to disappear and could not be felt till an hour later.

At 9 P.M. (fifteen hours after the onset of symptoms) Mr. Pollard examined the child under chloroform and felt a tumour just about the hepatic flexure of the colon. Another pint of water at a temperature of 100° F. was injected, but this time the funnel was raised to a height of three feet and a half. The descending and transverse portions of the colon became tensely distended and the tumour disappeared, but the ascending colon and the cæcum could not be felt to be distended. An hour later a little cylindrical swelling, smaller than the one which had previously been felt, was found just above the right iliac fossa and just to the right of the linea semilunaris. At times the tumour seemed to disappear, but presently it returned. Mucus was still being passed from the rectum. Believing that a small portion of the intussusception was unreduced, Mr. Pollard explored the abdomen through a median incision commenced just below the umbilicus and carried downwards for two inches. On examining with the finger the tumour was at once felt. It was drawn out through the wound. The cæcum was congested and swollen, but there was no intussusception. The little tumour which had been felt was situated at the junction of the ileum with the cæcum. It had a cylindrical shape and could be moved to and fro for a little distance within the gut, to the interior of which it appeared to be fixed all round. It seemed to consist of the ileo-cæcal valve, which was much swollen. The gut was quickly replaced and the wound closed. The operation

caused very little shock. The child was fed by the spoon during the night and no opium was given. The temperature rose to 100·8° the day after the operation, but fell in the evening, and did not afterwards go above 98·8°. On the day after the operation the child appeared comfortable. The discharge of blood and mucus had ceased. The bowels acted for the first time on the third day after the operation; the stitches were removed on the ninth, the wound being healed, and the child was sent home on the thirteenth day after the operation. A week later the child was still quite well.

*Remarks by Mr. BILTON POLLARD.*—There was no doubt about the nature of the case, for the symptoms, as well as the lump which could be felt, were so characteristic of ileo-cæcal intussusception. The pressure of two feet of water failed to reduce the intussusception, but a pressure of three feet and a half undoubtedly did so without causing any damage to the intestine. The readiness with which the swollen ileo-cæcal valve could be felt through the abdominal wall is interesting. That the little lump really was the valve seems incontestable; it certainly was not a small intussusception, for it was just the same size and shape both before and after it had been withdrawn from the abdomen. It certainly was not a faecal mass, and it did not feel like a polypus. It is always very difficult to be sure whether an intussusception has been reduced by injections; the invagination is nearly always partly reduced by these means, but time very frequently shows that complete reduction has not been effected. In this case the injection had succeeded, although it was thought to have failed; but the laparotomy, which was quickly done, at once settled the doubt which was felt about the point without causing much additional shock. Perhaps it would be wise to perform laparotomy in all cases in which any doubt existed as to complete reduction when an hour had elapsed after the employment of water pressure, for surely less harm would be done by that operation than would result from leaving an intussusception unreduced until the lapse of time showed clearly that such was the case.

### LIVERPOOL ROYAL INFIRMARY.

POST-PHARYNGEAL ABSCESS; ASPHYXIA; LARYNGOTOMY;  
RECOVERY.

(Under the care of Dr. DAVIDSON.)

THE necessity for laryngotomy for the relief of a condition such as that described below does not often arise in the adult, in whom retro-pharyngeal abscess is comparatively rare. Mr. Davies points out the following, which appear to be of greatest interest in the case: 1, The original error of diagnosis; 2, the bursting of the abscess and the consequent flooding of the larynx with pus; 3, the resuscitation from apparent death by artificial respiration after laryngotomy; 4, the abscess occurring in the tissues behind the pharynx and the vertebrae not being affected; 5, the probability that the lesion which must have existed in the nasal cavity to account for the epistaxis afforded a suitable surface from which septic matter was absorbed, producing inflammation and subsequent suppuration in the prevertebral lymph gland, into which the lymphatics of the posterior nares open. We are indebted to Mr. P. E. Davies, house physician, for the account of this case.

J. B. S.—, aged forty, a master mariner, was sent to the hospital on the night of Aug. 29th, 1892, at 11 P.M., supposed to be suffering from acute tonsillitis. On examination the patient had an anxious expression, a pale face, and appeared to be suffering pain. The voice was nasal in character, and speaking increased the pain; the breathing was hurried but not embarrassed. The neck appeared normal, no tenderness or enlarged glands were found on palpation. An ineffectual attempt was made to examine the throat owing to the patient's inability to open his mouth and his very irritable state. He was sent to bed, and a mixture containing salicylate of soda, in ten-grain doses, was ordered to be taken every three hours. Half an hour afterwards, on arriving in the ward in response to an urgent call, Mr. Davies found the patient in a moribund state. The respiration had ceased, the eyes were staring, the pupils widely dilated, there was no conjunctival reflex, the face was livid and the pulse could not be felt at the wrist. This condition came on after an attack of "choking," following his attempt to swallow the first dose of medicine. Laryngotomy was immediately performed,

artificial respiration resorted to, and after three or four minutes breathing was restored, but the patient remained in a very collapsed state for some considerable time. During the performance of artificial respiration pus mixed with mucus was observed escaping through the tracheotomy tube, and altogether about two ounces were coughed up through the tube and mouth during the night. On the following morning at about 11 A.M. an examination of the throat was possible. The tonsils were found normal, but in the middle line of the pharynx, and extending more to the right than to the left, was an inflammatory swelling discharging pus through a small opening. On introducing the finger no irregularity or thickening of the cervical spine could be felt and the swelling proved to be an abscess cavity (retro-pharyngeal), the bursting of which, on the patient's attempting to inspire, had almost produced suffocation. The movements of the neck were normal and free from pain, denoting absence of cervical caries. The tracheotomy tube was removed twelve hours after its insertion, the patient being able to breathe comfortably; the laryngotomy wound was dressed with cyanide gauze and the throat gargled with a weak solution of sanitas. The abscess continued to discharge pus in gradually diminishing quantities for two days, when it healed; the patient then made an uninterrupted recovery and was discharged fourteen days after admission. For some time previously to the attack the patient had occasional discharges of blood from the nose; no lesion could, however, be discovered in the nasal cavities to account for the hæmorrhage.

## Medical Societies.

### OBSTETRICAL SOCIETY OF LONDON.

THE first meeting of the session was held on Wednesday, the 5th inst., Dr. J. Watt Black, President, in the chair.

#### *Abdominal Section in Pelvic Peritonitis.*

Dr. CULLINGWORTH read a paper on the Value of Abdominal Section in certain cases of Pelvic Peritonitis, based on a personal experience of fifty cases, of which the following is an abstract:—

The question considered in the paper was whether surgical interference was or was not frequently called for in cases of pelvic peritonitis. Dr. Cullingworth replied to this question in the affirmative, and supported his opinion by a detailed record of fifty cases in which he had himself operated. The paper was accompanied by a table, showing for each case the symptoms, the physical signs, the diagnosis, the actual condition disclosed at the operation, the nature of the operation performed and the results, immediate and (where possible) remote. The cases were arranged in the order of their occurrence. The cases included the whole of Dr. Cullingworth's experience of the operation up to the end of February, 1891, and are classified as follows:—Suppurating salpingitis, 20; non-suppurating salpingitis, including six cases complicated with suppurating ovarian cyst, 12; tuberculous disease of Fallopian tubes, 2; pelvic abscess, seat undetermined, 3; pedunculated retro-peritoneal cyst, with abscesses in walls, 1; tuberculous abscess in abdominal wall, with masses in pelvis (tuberculous glands) and miliary tubercle of peritoneum, 1; hæmatocele, 2; hæmatosalpinx with hæmatocele, 3; hæmatoma of broad ligament, 1; broad ligament cysts (with ovaritis 2, with hydrosalpinx 1), 3; encysted peritonitic effusion, 1; retroflexed uterus with fibroids, 1—total, 50. He then proceeded to detail his cases. There was strong presumptive evidence of gonorrhœa in a large proportion of the cases, and in 4 cases the proof seemed complete. Nine of the cases died, a mortality of 18 per cent. Seven of the deaths were due to peritonitis, probably septic, 1 to acute nephritis, and 1 to collapse on the eleventh day. Of the fatal cases, 1 was tuberculous disease of the tubes, 2 were purulent salpingitis, 1 was double salpingitis with old hæmorrhage, 2 were suppurating tubo-ovarian cysts, 1 was retro-peritoneal suppurating cyst, 2 were old peritonitis with serous cysts of the broad ligament. As experience increased, the mortality became sensibly diminished. Hæmorrhage, to a greater or less extent, existed in 12 of the 32 cases of salpingitis. In 5 cases there was amenorrhœa, in 3 dysmenorrhœa, whilst in 12 the menstrual function was undisturbed. In 16 cases the removal of the appendages was complete, in 23 partial. Of the former

15 recovered; of the latter 17. The peritoneum was flushed in 22 cases, of which 18 recovered. Drainage was employed in 47 out of the 50 cases. In 2 cases a fecal fistula formed which in each instance healed spontaneously. In 5 cases the patients complained some time after the operation of more or less persistent pain. A sinus existed in 6 of the cases when the patients left the hospital; in 2 of these it had not healed when the patients were last seen. In 4 cases a hernia occurred in the line of incision. He pointed out that a very slight amount of swelling of the mucous membrane suffices to block the tube at its uterine end; and if pus be present in the tube it must then either remain pent-up in the tube or be poured out through the fimbriated end into the peritoneum, in either case becoming a source of danger. Salpingitis being a painless affection, the wall of a pyosalpinx may be on the point of perforation before an acute attack of peritonitis gives warning of the presence of serious disease. Suppurating tubo-ovarian cysts are usually the result of ulceration on the tubal side of the adhesion between the tube and ovary, but in exceptional cases they result from ulceration on the ovarian side. One of the chief risks in the operation for the separation and removal of inflamed tubes is the liability to mistake thickened and adherent intestine for diseased tube. The way to avoid error is to trace the tube from its uterine end outwards. The exceptional instances in which pain persists after operation for gross lesions of the uterine appendages are generally to be explained either by omental or intestinal adhesions, or by the coexistence with the actual disease of a neurotic condition, of which the pelvic pain is a mere local expression. Tubal disease in the virgin is generally, if not always, tuberculous. Hydrosalpinx, in the great majority of cases, is merely a form of retention cyst due to occlusion of the distal end of the tube from without. Simple collections of serum, both large and small, were apt to form beneath the peritoneum covering the tube and broad ligament in chronic cases of pelvic inflammation, especially in those of very long standing. Probably the best treatment of these cysts, after exposing them and making certain of the diagnosis by abdominal section, is simple puncture and evacuation, the risk of removal being, in Dr. Cullingworth's experience, out of proportion to their importance.

Dr. JOHN WILLIAMS said that he felt personally indebted to Dr. Cullingworth for bringing this paper before the Society, for although he differed widely from him both in regard to his conclusions and practice, he believed that the discussion of the paper would help to place the practice of opening the abdomen for pelvic disease on a sounder and more reasonable basis than that on which it rests at present. The first difference Dr. Williams had with Dr. Cullingworth was as to the title of the paper. He thought the title was misleading, for on examining the cases he found that 24 of the 50 were of ovarian or other cysts which were simple, inflamed or suppurating, and with regard to the propriety of the removal of these there were no two opinions. In these cases the pelvic inflammation may have been independent of the new growth, although it was well known that inflammation was a very frequent consequence of the presence of cystic disease in the pelvis. Then, again, there were 6 cases of pelvic abscess in which the only reasonable plan of treatment was to open them, let out the pus and drain them. It might be a matter of opinion whether the opening should be made from the vagina or through the abdominal wall. In some cases the way through the vagina would probably have been better, while in others the abdominal method would be preferable. There were, moreover, 10 cases of hæmatocele, one with ruptured cyst of the broad ligament and one suppurating, and one case of hæmatoma of the broad ligament. The case in which suppuration had occurred should have been treated like an abscess, but it is probable that the other nine would have got well without operative interference, for death from hæmatocele is extremely rare. He had an observation to make with regard to the result. The mortality was high, but he did not think it was higher than the mortality from these operations throughout the country generally. The cases, or many of them, presented great difficulties to the operator, and it was in such cases that the mortality was high in skilled hands. He had pointed out that skill in operating favoured a low mortality and that one great secret of a very low mortality was operating upon cases in a condition as near to that of health as possible. There was a mortality which necessarily arose from the difficulties of the operation, and this mortality was eliminated when operations of this kind were undertaken for trivial devia-

tions from health. When considering the mortality of the operation that from the disease should be borne in mind. He had seen two cases only of death from ruptured tubes or abscesses, and he calculated that with a mortality of 18 per cent. the mortality of the operation was several hundred times greater than that of the disease. Then as to the permanent result: 9 died after the operation and 1 within twelve months of cancer of the stomach, 14 were seen a year or more after the operation, 8 appeared not to have been seen. Then as to the permanent result: were the cases operated upon cured? Nine died after the operation, and 1 of cancer of the stomach twelve months after operation; this left 40 to be accounted for. Of 14 only of these was anything known after the lapse of twelve months from the date of operation; of 8 there was no account at all after they left the hospital; 3 left 32.

Mr. ALBAN DORAN considered that it was good surgery to ensure the escape of pus and the other products of inflammation, and that in so far as that object was gained Dr. Cullingworth's practice was sound. Parametric abscesses required similar treatment; it was not sufficient to make a mere puncture; a free incision should be made through an abscess which pointed anteriorly, the cavity should be washed out and then explored as carefully as the peritoneal cavity is explored in an ordinary abdominal section. Then there would be no fear of leaving a deeper collection of pus unopened. He himself treated suppurative parametritis as a matter for the operating table and not for mere puncturing and poulticing. In a recent case where the appendages and parametrium were inflamed he left the tubes and ovaries alone after free opening of abscesses. Recovery was perfect, all local signs of tubo-ovarian disease steadily disappearing. Dr. Cullingworth overlooked one cause of persistence of pain after removal of the appendages. The stump was usually more or less unhealthy, like the parts cut away, and the ligature might cause much irritation. The stump of a true ovarian tumour, it must be remembered, was usually made up of tissues free from inflammatory changes, hence it bore ligature well. When an abscess was opened without removal of appendages, then, if other parts were healthy at the time, recovery was very complete; no stump and no ligature remained behind. Mr. Doran then referred to MM. Pean and Segond's practice of vaginal hysterectomy for the cure of pelvic suppuration. British surgeons would hardly adopt that operation.

Dr. CHAMPNEYS shared in the feelings of other speakers who had objected to the title of the paper. Pelvic peritonitis was a complication of a very large number of known diseases, and he thought it was evident that a good many of these were capable of diagnosis, and had indeed been diagnosed before operation. Among these were ovarian tumours, tubo-ovarian cysts and hæmatoceles. He thought it was of some importance to point this out, because one of the chief objects of the paper was to show that abdominal section was often called for in pelvic peritonitis. In the ordinary sense of the term this was not the case, nor did the cases in the paper bear out that view. But if the title of the paper were retained, he would ask, Who in that room had ever seen 9 deaths from pelvic peritonitis, or even 4 deaths (the number of fatal cases after operation in the paper and appendix respectively)? Pelvic peritonitis was one of the commonest of all affections of the pelvis and the cases were rarely dangerous to life. As regarded the duration of the disease before the operation, he did not think that mere lapse of time proved the necessity for operation. Nothing was commoner than for patients to go about for months with this affection, or to lie up after a fashion at home. When they came under observation the temperature was raised and there was pain, both of which ceased on strict confinement to bed, and might never return after proper medical treatment. As regarded the imminence of the escape of pus noted in some cases in the paper, he did not think there was often any cause for alarm even if this took place; the pus escaped, an ordinary parametric abscess formed (often with great rapidity), and its evacuation was followed by cure. Hæmatocele very rarely justified an operation. He did not agree with the opening of pelvic abscesses by abdominal section except in rare cases. The advantage of abdominal section was the opportunity which it gave of exploring, but the risk to life was considerable; drainage was in opposition to gravitation and the risk of ventral hernia was great, for sometimes these cases necessarily required drainage for a long while. The advantage of improved antiseptics in abdominal opening was more theoretical than practical, for it was quite easy to get excel-

ient surgical results in vaginal operations if we knew how to manage them. On the whole, then, he was still unconvinced that pelvic peritonitis required abdominal section except in rare and exceptional cases.

Dr. PLAYFAIR said that none of the previous speakers seemed to him to have sufficiently recognised the great value of Dr. Cullingworth's paper. He felt that his conclusions were in many respects open to criticism, nor could he at all endorse many of them. As to the general principle that when marked structural disease of the uterine appendages existed, connected with suppuration, a free exit should be given to the pus, and that such exit was often best obtained by laparotomy, everyone nowadays would probably agree. That was consistent with sound general surgical principles. He remarked on Dr. Cullingworth's extreme partiality for the drainage-tube, which was used in 47 out of the 50 cases. In his own operations he hardly ever used it, and yet he certainly should have no fear of contrasting his results with those which Dr. Cullingworth had given. He felt quite confident that Dr. Cullingworth had resorted to drainage with an altogether needless frequency.

The discussion was adjourned to the November meeting.

The following specimens were shown:—

Dr. MCADAM ÉCOLES: Distension of Vagina and Uterus with Mucopuriform Fluid, accompanied by Dilatation of Bladder and Ureters from Pressure in a Child seven weeks old.

Dr. RUTHERFOORD: Pelvis (with Bladder, Uterus and Rectum *in situ*) of a Cat which died two hours after giving birth to five large kittens.

Dr. AMAND ROUTH: Uterus ruptured during Parturition.

## WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on Oct. 7th, Mr. T. Swinford Edwards, F.R.C.S., President, in the chair.

### Presidential Address.

After alluding to the present satisfactory position of the Society, the PRESIDENT proceeded to the subject of his address—viz., urinary surgery of the present day contrasted with that of twelve years ago. The wide range of applicability of litholapaxy was first referred to, and was followed by a history of the revival of the operation of suprapubic lithotomy, the cases for which it is best suited being mentioned. The various operations upon the prostate were next discussed, including prostatotomy, as advocated by Mercier and Gouley of New York, moulding of the prostate by belled bougies, suprapubic prostatectomy as performed by McGill, and electrolysis by means of a current passed through its substance, the negative pole being inserted through the rectum. The use of the thermo-galvanic cautery as designed by Bottini was also referred to. The consideration of diseases of the bladder itself was next entered upon and the manifold and great advantages of Leiter's cystoscope as an aid to diagnosis pointed out. The advance during the past few years in the surgery of the kidney was then dealt with, the operations of nephrotomy, nephrectomy and nephrorrhaphy receiving in turn their share of attention. In relation to the surgery of the urethra the value of electric illumination for diagnostic purposes was again alluded to, the preliminary use of a 5 per cent. solution of cocaine previously to all instrumentation strongly recommended and a forcible illustration of its value as an aid to the differential diagnosis of organic and spasmodic structure was brought forward. The electrolytic treatment of certain cases of non-traumatic and resilient stricture was advocated and reference made to the diminished frequency of cases of urethral fever since the employment, both locally and by the mouth, of antiseptics. In the former relation sublimate solution (1 in 6000 to 1 in 10,000) received first preference, while boracic acid and permanganate of potash in weak solution were also recommended. For internal antiseptics salol and boracic acid were thought most advantageous, and in cases of pyuria and irritable bladder benzoate of ammonium in combination with boracic acid and buchu had been found of considerable value. Amongst the most efficacious injections for urethral discharges were permanganate of zinc ( $\frac{1}{2}$  gr. to the ounce) and the extract of Canadian pine (1 dr. to the ounce).

A hearty vote of thanks, proposed by Dr. Travers and

seconded by Mr. Lawrance, was carried by acclamation, and Mr. Swinford Edwards briefly replied.

Prior to the delivery of the presidential address the following cases were shown by Mr. KMETLEY: (1) Patient from whom he had recently removed a large cystic thyroid tumour (growth also shown); (2) young man upon whom he had operated for Undescended Testicle, bringing it down and stitching it to the scrotum; the organs on both sides were well developed and of equal size; (3) case of Sutured Olecranon-process after Compound Fracture, with resulting perfect movement.

## BRADFORD MEDICO-CHIRURGICAL SOCIETY.

TUESDAY, OCT. 4TH, 1892.

Dr. J. H. BELL, President, in the chair.

### President's Address.

THE retiring President, Mr. R. Mercer, having vacated the chair the introductory address was given by Dr. BELL, who said he had occupied that position twenty years ago, and now reviewed the changes wrought since then. These were mostly due to the intellectual activity of professional life and to the action of the General Medical Council. There was a rapidly increasing proportion of medical men to population, and the higher education of many placed them, like the clergy, out of touch with the great majority of the people; hence they were—with the masses at any rate—being supplanted by others of a lower grade. The practice of pharmacy was falling in the profession, and ere long would pass into the hands of others. With higher education amongst medical men the practice of midwifery drifted towards the midwives, who undoubtedly ought to be qualified and registered. This would probably reduce the puerperal death-rate 50 or even 60 per cent. Specialism had arisen and would develop; instead of special hospitals there ought to be special departments at general hospitals, which were cheaper, better managed and more efficient. Incurables, too, and convalescents want better looking after. In the course of twenty or thirty years these things would, he thought, be generally established.

### Exhibits.

A large number of specimens were exhibited, including histological preparations of tumours and pathogenic micro-organisms from cultures and in the tissues. One specimen of abscess of liver occurred in a man aged thirty-five, seven years after returning in good health from India; he was out of health twelve months, and when seen was wasted, jaundiced and *in extremis*. The abscess cavities contained upwards of a quart and about a pint respectively of pus.

## FORFARSHIRE MEDICAL ASSOCIATION.

### Abscess of Spleen.—Eclampsia.—Thrombosis of Basilar Artery.

A QUARTERLY meeting of the Forfarshire Medical Association was held in the anatomy class-room, University College, Dundee, on Friday, the 7th inst., at 4 P.M., Dr. Rorie, President, in the chair. There was a good attendance of members and much interest was taken in the different papers as they were read.

Dr. STALKER reported a case of Abscess of the Spleen. The patient had been seven years in the army and had had Malta fever while there and enteric fever in Egypt, but had spent the two years between the date of his discharge and the outbreak of his present illness in good health in Dundee. He came into the Dundee Infirmary after a fortnight's illness suffering from pain in the left flank, feverishness, and enlarged spleen. The fever was a continued one, latterly remittent, but with the fall of temperature there was no improvement in his general condition, and he sank after five weeks' with signs of pyemic exhaustion. A general diagnosis of enteric fever was made, but there were some puzzling symptoms throughout. At the post-mortem examination there was a large splenic abscess containing about twenty ounces of pus. There was no ulceration of the bowel.

Dr. KYNOCH then read a paper on the operative treatment of Eclampsia, in which statistics were given showing the high rate of maternal and infantile mortality in ante-partum cases of Eclampsia. This was followed by notes of a case

occurring in a primipara at the eighth month when the usual methods of treatment had no effect on the severity of the convulsions, and where recovery was much delayed on account of the rigid condition of the cervix. The various methods of treatment were discussed, and reference made to the treatment of such severe cases by deep incisions into the cervix or by Cæsarean section as advocated and successfully carried out by Halbertsma of Utrecht.

Dr. MACKIE-WHITE showed a specimen of Thrombosis of the Basilar Artery taken from a woman of seventy-three who died in the Dundee Royal Infirmary. The upper half of the artery contained clot, the outer part of which was pale and fibrous, the inner dark red and evidently recent. There was well-marked white softening of the lower two-thirds of the pons, of the anterior pyramids (superficial) and of the cerebellum in the region supplied by the right anterior inferior cerebellar artery. The duration of the illness, eight weeks, was unusual, Gowers stating that it is rare for life to be prolonged beyond a fortnight. Among the symptoms noted as characteristic were: (1) Repeated seizures affecting opposite sides of the body, the first and second with an interval of a fortnight, paralysing the right side slightly, the third and fourth on the third day before death involving the left arm and leg; (2) crossed paralysis, the right side of the face being affected along with the left side of the body; (3) conjugate deviation of the eyes to the left, while the left limbs were paralysed; (4) hyperpyrexia, temperature 108° fifty minutes before death.

#### TORQUAY MEDICAL SOCIETY.

A MEETING was held at the Torbay Hospital on July 8th, Mr. Karkeek, President, in the chair.

Several cases of interest were shown, amongst which were Primary Epithelioma of the Tonsil in a man aged sixty-three, with Secondary Enlargement of the Glands of the Neck, and a Perforating Wound of the Knee-joint treated by incision and drainage, with good recovery, by Mr. Watson, senior house surgeon, Torbay Hospital.

Dr. Wilking Stabb read notes of a case of Pernicious Anæmia which ran an unusually rapid course. The patient was a widow of fifty years of age, who had passed the menopause a year previously and had never had any serious illness. Three weeks before seeking advice she had a fall and struck her head against the kerbstone, to which she attributed her illness. She complained of debility and shortness of breath on the least exertion. She was a stout, anæmic woman. The only physical signs were a soft systolic murmur at the apex, well conducted into the axilla, and a rough systolic murmur at the base. The anæmia rapidly increased, the skin becoming waxy and the mucous membranes almost white. Slight œdema of the legs and ankles developed; also anorexia, furred tongue and much nausea, which seemed to contraindicate the administration of arsenic. Blood pale and watery; no apparent alteration in size or number of leucocytes; red corpuscles varied in colour and formed bad rouleaux. Nine days before death there was slight epistaxis, which recurred once. The disease terminated in the usual way—viz., by a severe attack of dyspnoea with shallow sighing respiration and with no sign of pulmonary affection. The attack lasted eight hours, during which time the patient lay low in bed on her left side. From the date of the fall to her decease the patient was only ill nine weeks and two days, during the first three weeks of which she was not so unwell as to seek advice. Treatment was at first by iron and digitalis; towards the close it was directed simply to relieving the digestive disturbance.

### Reviews and Notices of Books.

*Report on the Etiology and Prevention of Yellow Fever.* By GEORGE M. STERNBERG, Lieutenant-Colonel and Surgeon, U.S. Army. Washington: Government Printing Office. 1890.

In his report to the United States Government on the above subject, Dr. Sternberg has prepared a monograph on the etiology and pathology of yellow fever that should prove of very great value to those who have to deal with this fatal disease. Having carried on his investigations in Brazil, Mexico and Havana, he has had an experience that makes

the controversial part of the work much more important than it could possibly have been on any other grounds. He goes very fully into the claims put forward by Dr. Freire that he has produced a protective inoculation against yellow fever, and he maintains that Dr. Freire has not a tittle of evidence to bring forward in support of his contention that inoculated persons are less liable to the disease and that they take it in a milder form than do those uninoculated; in fact, it would appear from the statistics cited that the mortality amongst the former is even greater than amongst the latter.

In the first place Dr. Sternberg finds that the micro-organism produced as a pure culture by Dr. Freire and put forward by him as the etiological factor in yellow fever can be obtained from the skin of persons who have no trace of the disease about them; it may, in fact, be looked upon rather as a saprophytic organism than as one having anything to do with the disease. He goes very thoroughly into Dr. Freire's claims that his *cryptococcus xanthogenicus* is present in great numbers in the blood and tissues of yellow fever patients; after making a very large number of careful microscopic examinations he feels compelled to state that such organism does not occur in the body, but that it does occur with very great frequency in the skin; he believes, indeed, "that the specific infective agent in yellow fever has not yet been demonstrated," although he describes no fewer than twenty-eight forms of bacilli, eight forms of micrococci, and a torula which he has been able to separate from the blood or organs taken from cases of yellow fever; some obtained during various stages of the disease, others from the organs after they had been removed from the body and kept in antiseptic wrappings for forty-eight hours. Most of these organisms have been carefully photographed under the microscope, and in some cases photographs of colonies and drawings of the appearances of the growths in test-tubes are given, so that they may be the more readily recognised; but he failed absolutely to demonstrate the presence of any particular pathogenic micro-organism in the blood and tissues from these cases.

The organism most constantly and abundantly found was bacterium coli commune, an organism present in the intestine of healthy individuals; he considers, therefore, that its presence in the blood and tissues can have little or no etiological import. Another organism, the bacillus cadaveris, was also frequently met with. Then, too, the blood, urine and crushed liver tissue obtained from bodies recently dead were not pathogenic in the case of either rabbits or guinea-pigs, unless they were administered in considerable quantities. Dr. Sternberg found, however, that such materials preserved under antiseptic precautions for forty-eight hours were very fatal to guinea-pigs when injected subcutaneously. He looked upon the results obtained as being due to the presence of micro-organisms which continue to produce their toxins after the death of the patient. As a result of these observations, he argues that, as in the case of cholera, any specific germ if present must be in the alimentary canal, but after an extended research he has been unable to find any variety of bacillus present in any such proportion as happens in the case of cholera, for in every case he obtained a number of different species, no single one appearing to preponderate, and very few of those present liquefied the gelatine. Some of the bacilli are anaerobic, others are facultative anaerobes. One of these, which he calls his bacillus "X," he has been able to isolate from the contents of the intestine in a number of cases of yellow fever, and he holds that it may have been present in all; he has never met with it in any other conditions, and he finds that it is pathogenic in the case of rabbits when injected into the abdomen. He is, however, far from satisfied that this can be the cause of the disease, though it is the only one of all those that he has examined about which he is doubtful. From the manner in which a yellow fever epidemic extends

and from the fact that it has certain features in which it resembles cholera, he is led to believe that fecal matter is the vehicle in which the pathogenic agent passes from individual to individual, but he holds that there is no evidence that yellow fever is propagated by the contamination of drinking water, as frequently and usually occurs in the case of typhoid fever and cholera; he considers, moreover, that the organism must be a strict anaerobe.

The author lays great stress on the fact that a temporary depression of vitality is one of the most important predisposing causes in this disease, especially where the alimentary canal is affected, and, as in the case of cholera, a recent debauch is a recognised predisposing cause. "Sailors who go on shore at an infected port for a little spree very commonly turn up in the hospital, or are taken sick after they come on board ship, and serve as the starting-point of an epidemic amongst their comrades, and subsequently perhaps at the port of destination of the vessel." Finally, he says: "The experimental evidence recorded and the facts just stated seem to justify the recommendation that the dejecta of yellow fever patients should be regarded as infectious material, and such material should never be thrown into privy vaults or upon the soil until it has been completely disinfected."

The pathological part of the report, as well as the clinical and etiological, has been reprinted from the article contributed to "Wood's Handbook of the Medical Sciences." The pathological changes are evidently those associated with the excretion of poisonous products, and take the form of acute hepatitis and nephritis, characterised first of all by marked cloudy swelling, sometimes of the acute vacuolated form described by Greenfield and others, this ultimately leading in some rare cases to necrosis in patches, but usually taking the more common course of fatty degeneration. Acute interstitial changes in the above organs are also fairly well marked in certain cases. For these changes, however, we must refer our readers to the original work. Although we are naturally disappointed that no more definite results have so far been obtained, it must be confessed that Dr. Sternberg has certainly placed in a very fair light the evidence on which he has based his conclusions, and he has also given very sufficient reason for coming to the conclusion that Dr. Freire's observations and experiments are scarcely to be relied on.

*Materia Medica, Pharmacy, Pharmacology and Therapeutics.*  
By W. HALE WHITE, M.D., F.R.C.P. Lond. London: J. & A. Churchill. 1892.

THIS book contains a great deal of useful information concerning drugs, and it may at once be said that the dry details of the Pharmacopœia are reduced to insignificant proportions, while greater space has been allotted to the more interesting subjects of the action of drugs and therapeutics.

The arrangement of material does not present any novel features. After briefly defining the terms upon the title-page, the subject of pharmacy is approached and the ground is cleared by setting forth the general characteristics of alkaloids, glucosides, neutral principles and the like. Very brief notices of various pharmacopœial processes are followed by tables of weights and measures. These inevitable details lead up to a more satisfactory section, in which an account is given of the pharmacopœial preparations, which are usefully grouped according to their doses. A small oversight occurs under the heading "Glycerines," which are described as being "all liquid preparations," except glycerinum tragacanthæ, omitting reference to the glycerinum amyli, described in the Pharmacopœia as "a translucent jelly." To counterbalance this a list is inserted of non-pharmacopœial preparations, explanatory of such terms as cerata, cremora, gargarisma, nebula &c., which are often to be found in medical literature and are rarely defined in text-books. Some brief considerations connected with the prescription and with

abbreviations dispose of minor matters, and then comes an important section upon pharmacological and therapeutical actions. The author's indebtedness to those who have worked in the same branch of study is here very apparent, but his selection of material and skilful compression as a rule leave little to desire. Occasionally, as in most first editions, slight inconsistencies creep in; thus it is difficult to harmonise the statements made (p. 39 and p. 133) concerning the action of rectal injections of salt water in cases of threadworm. The greater portion of the book is made up of the pharmacopœial materia medica, only a few pages at the end being devoted to unofficial remedies which have found more or less favour. When dealing with sharply defined physiological and therapeutic actions the author has brought his material well up to date, and he writes in convincing terms devoid of enthusiastic exaggerations. It may be doubted whether much is gained from remarks like the following (p. 214): "As its action is unknown it has been given in numbers of diseases whose pathology is unknown, but without benefit." For the use of the student the value of the book is enhanced by judicious alterations of type for the more important statements.

*The Food Management of Infants and Young Children.* By G. R. SAUNDERS, B.A., M.B., B.C. Wanganui, New Zealand: A. D. Willis. 1892.

It is a pleasure to welcome this unpretentious little book, which has reached us from so far. As might be gathered from the title, it is essentially intended for the use of mothers and nurses rather than for students or members of the medical profession; hence its value lies in its lucidity and simplicity. The directions given are clear and sensible, and, although addressed to a popular audience, the author has not disdained to avail himself of the writings of many recent workers who have approached the subject from a purely scientific standpoint. The result is that in short space the author has set forth views which are fully abreast of modern teaching. He is clearly in favour of simplicity, though he gives practical rules for guidance where simplicity fails. Careful perusal of this book, which is easy to read and not overweighted with scientific detail, should go far towards helping young mothers to avoid the pitfalls incidental to inexperience and to the reckless advice of well-meaning but ignorant friends. It will also supply many useful hints for the management of the nursery and the sick room.

*On Changes in the Red Blood Corpuscles in the Pernicious Anæmia of Texas Cattle Fever.* By THEOBALD SMITH, Ph.D., M.D., of Washington.

As a result of his researches, Dr. Smith has come to the conclusion that in the anæmia that accompanies Texas cattle fever there is an exceedingly rapid diminution in the number of the red corpuscles in the blood, but it is only when the low figure of 2,000,000 is reached that what he calls embryonic or transitory forms appear. These transitory forms (macrocytes, corpuscles with granules and diffusely stained, and hæmatoblasts), however, appear very rapidly in mild cases of Texas fever and also after hæmorrhage, rising as the corpuscles diminish in number, but disappearing very rapidly after the corpuscles again begin to increase in number. In Texas fever so characteristic is this rise and fall that the presence of these transition forms "when there is suspicion of infection and no history of any very severe hæmorrhage is almost as certain a diagnostic sign as the parasite itself," and he concludes that "it is possible to estimate approximately, from the number and kinds of transition forms, the number of corpuscles still in the blood and the time which has elapsed since their destruction began. The presence of these forms is a favourable sign and may serve, when taken into consideration with the parasite, as a

fairly good basis for a prognosis." It is open to some doubt whether the forms above described are really transition forms, for recent observations on anæmia and leucocythæmia would lead us to argue that some of these corpuscles at any rate have a perfectly distinct source from that of others. It may be, however, that Dr. Smith's observations may render it necessary for us to revise our notions as to the nature of some of the peculiar corpuscular bodies met with in these conditions.

#### LIBRARY TABLE.

In the August number of the *Annales de l'Institut Pasteur* M. J. Soudakowitch continues his account of his observations on Intra-cellular Parasitism in Cancerous New Growths. He strongly combats the idea brought forward by Professor Virchow, that the parasites described by recent observers have little to do with the etiology of cancer. He still maintains that the structures he describes in the cancer cells are true parasites; that by certain features they may be distinguished from various degenerated products and altered cells; he has now been able to see falciform bodies within these parasitic cysts. He has noted the division of the body into a larger number of smaller bodies, and he has found these smaller bodies increasing in size, ultimately forming groups of the larger organisms contained in a large mass of protoplasm. In the 110 cases he has now examined he has always obtained the same results. He thinks that the young parasite passes into the substance of the cell; that there it grows slowly; that the capsule that surrounds it becomes more and more marked; that the nucleus is gradually compressed until it takes the form of a flattened layer around the capsule, to which it is closely applied; the protoplasm of the cell is also gradually distended, becomes more homogeneous, is not so brilliantly stained and ultimately may form only a thin membrane around the parasite. The parasite is then set free, its contents become divided into what may be termed "spores," and these make their way into the neighbouring cells, when the process recommences, so that a single cancer cell may give rise to the contamination of a considerable number of those cells around it. He also holds, however, that the cell containing the cancer parasite may divide and that the parasite may divide along with it, both of the resulting cells being thus infested. He does not, however, seem to take into account that these parasites as they grow must give off effete matter, which probably may have a most important influence in determining the proliferation of the epithelial cells in the immediate neighbourhood, and that therefore it is not to be expected that one of these parasites would be found in every cancer cell. These and other recent observations on cancer open up a new line of research, and one that promises to give us some new light on the etiology of this fell disease.

THE *Veterinarian* for September opens with the first part of an interesting paper by Mr. Fred. Smith, M.R.C.V.S., F.I.C., on Veterinary Hygiene, which was read in Section III. of the International Congress of Hygiene and Demography. There is a report of the Government Veterinary Surgeon of Queensland on experiments made with a view to test the various specifics in use for expelling parasitic worms from sheep; solutions of arsenic, turpentine mixture, Hayward's mixture, cocoa-nut oil, powder supplied by Dr. Thos. L. Bancroft, and salt and lime, were used, and as the outcome of two sets of experiments, it is considered that the preparation of arsenic has given the best results. Sheep take it readily. "It is recommended that three doses should be given at intervals of nine days between each dose, the sheep to be kept without food for at least twelve hours before a dose and for two hours after; they may be allowed water half an hour after receiving the medicine." The remainder of the journal is taken up with accounts of the meetings of the Royal Agricultural Society of England, the Royal College of Veterinary

Surgeons, Royal Veterinary College, Central Veterinary Medical Society (at which there was a discussion on intestinal obstruction in the horse), and the Scottish Metropolitan Veterinary Medical Society.

The *Journal of Anatomy and Physiology*. Conducted by Sir GEORGE M. HUMPHRY, Sir WILLIAM TURNER, and J. M'KENDBRICK, F.R.S. Vol. XXVI. Part 3. April, 1892. London: Williams and Norgate.—This part contains no less than eighteen separate papers, with an account of the proceedings of the Anatomical Society of Great Britain and Ireland. The more important of the papers are: 1. The Myology of the Larynx, by A. A. Kanthack, with two plates; a paper of much importance to laryngologists. 2. A Note, with a good bibliography, on Identical Malformation in Twins, by Bertram Windle, D.Sc. 3. On the Cause of the Twisting of the Umbilical Cord, illustrated by mechanical models, by F. J. Allen, M.A. 4. The Nutritive Importance of the Yolk Sac, by Arthur Robinson, M.D.; the Comparative Anatomy of the Muscles and Nerves of the Limbs of Anthropoid Apes, by David Hepburn, part 2, with a plate. 5. The Cerebral Hemispheres of the Ornithorhynchus, by Sir William Turner. 6. A Few Applications of a Physical Theorem to Membranes in the Human Body in a State of Tension. 7. On the Effect of certain Drugs on the Reflex Excitability of the Spinal Cord, by William Stirling, M.D. 8. On the Pedal Skeleton of the Dorking Fowl, by G. B. Howes. 9. On the Enzymes produced by Bacteria, by F. Allan MacFadyen, M.D.

*Eisenbahn-Verletzungen in Jarenischer und Klinische Bergichung.* Von HERBERT W. PAGE, M.A., M.C. Cantab.; F.R.C.S. Eng.; Chirurg am St. Mary's Hospital &c.; Autorisirte Deutsche Uebersetzung von Dr. S. PLACZEK, Arzt in Berlin. Berlin, 1892.—We congratulate Mr. Page on the appearance of this German translation of his excellent little monograph on the subject to which he is known to have given great attention and on which his opinions are of great value.

## New Inventions.

### URINE CHARTS.

WE have before us two useful additions to the clinical armamentarium, for the purpose of accurately and fully recording the details of the qualitative and quantitative estimation of the urine. To Mr. Manley Sims we owe a volume of these charts drawn upon a simple plan, but containing ample space for the record of the chemical and microscopical characters of the sample of urine examined. The value of such charts is twofold: it saves time to the practitioner in making his notes, and ensures that his examinations shall be systematic and thorough. On each page the outline of the report appears in duplicate, which not only serves the purpose of making a double entry, but also furnishes an ample supply of records within the compass of one volume. The other series is issued by the well-known medical publisher, Mr. H. K. Lewis, of Gower-street. Here each chart is on a separate sheet, and contains several more items than the preceding, under the headings of "normal" and "abnormal" constituents respectively, although, by the way, the first five subjects (quantity, colour, specific gravity, &c.) should not have been classed as "normal constituents." There is some utility also in the memoranda of the normal characters which are appended to each column. We commend these publications to the notice of practitioners and hospital officers, who will find them very serviceable and convenient.

### THE HAMMOCK LEG-REST.

THIS leg-rest is patented by Mr. William Carter of Masham, Yorkshire, and like many useful inventions is extremely

simple in its construction. It consists of a foot piece, two side supports, which fasten to it, one on each side, and a bag made of canvas extending across between these, making a kind of sling or hammock for the limb. It is very comfortable, can be raised or lowered, and can be got ready for use or taken to pieces in about forty seconds, the support for the



leg forming a bag in which the whole can be placed and readily packed in a portmanteau or carried in the hand. It will prove a boon to those who from one cause or another are compelled to resort frequently to the use of such aids. Its simplicity, compactness and utility will recommend it.

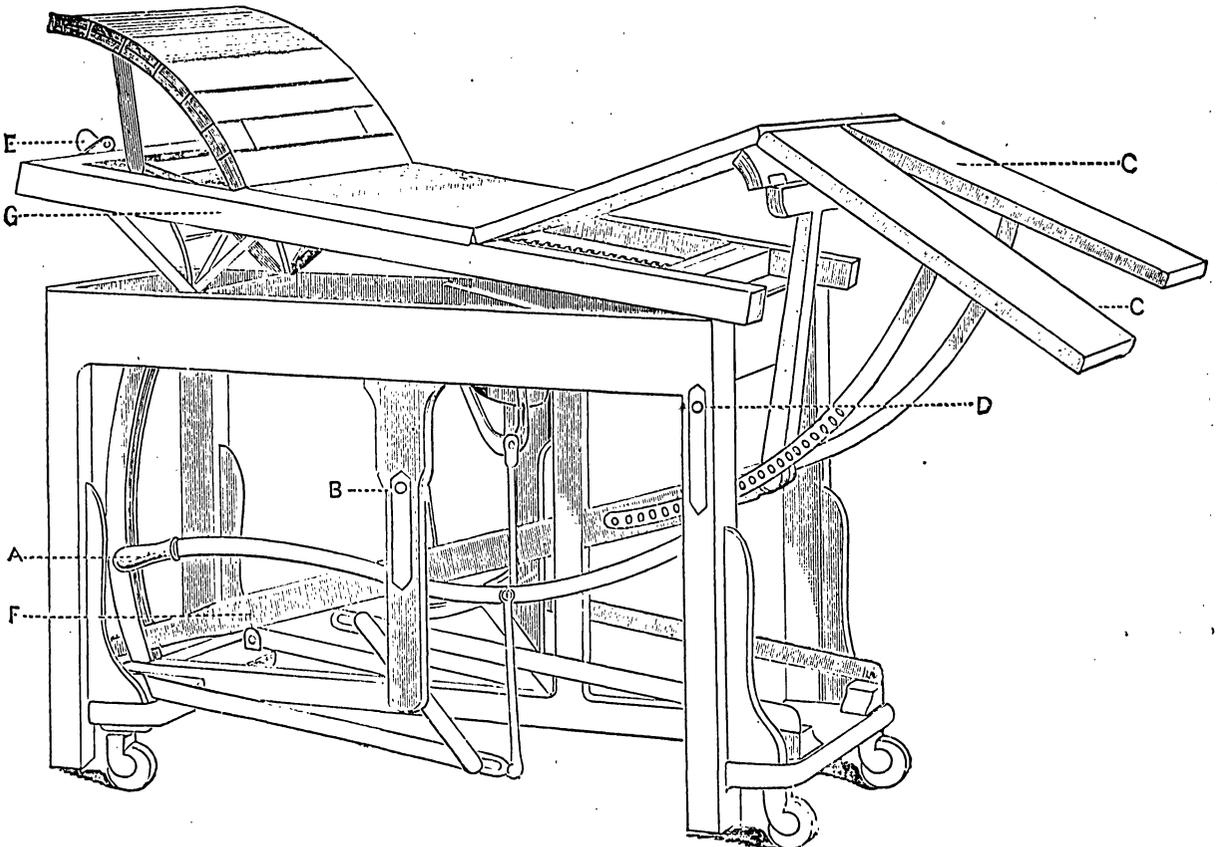
**IMPROVED OPERATING TABLE.**

This table, which has been in use for some years at King's College Hospital, was designed by Professor William Rose to meet a suggestion of Miss Monk, the sister-matron, that an operating table capable of being moved to the bedside would

be a great desideratum and saving of suffering in many cases where the frequent moving of a patient is attended with pain. Several of these have now been made and are in use in many of the London and provincial hospitals, and also abroad. The principal advantages of this table are that by a simple mechanical contrivance four rubber-tired wheels are brought into play and the table moved smoothly and silently about on them, whilst by reversing the action it can be made absolutely steady on its legs. The head-piece is jointed on the same principle as a revolving shutter, and is raised or lowered by means of a handle, so that the patient's head can be elevated or depressed at pleasure. These and other movements are indicated by the letters on the engraving, made from a photograph of the table. At King's College and other hospitals the tables are worked in duplicate, so that whilst one patient is being removed to the ward another can be at once brought into the theatre, having been previously anaesthetised, if desired, in an adjoining room, and thus much time is saved.

A. Handle for raising or depressing the rubber wheels, released by touching the button B. To place the table on wheels, depress this handle; to put the table on its legs, press the button and raise the handle. C. Leg-pieces which can be raised or lowered at pleasure, or detached entirely at the hinge. To lower them, press the side button D. E. Handle attached to revolving screw to raise or lower the jointed head-piece. F. Long lever to raise or depress the lower third of the table top. The lever as shown in the engraving is depressed to its full extent, but may be maintained in any position by a spring catch in the handle. G. Top frame of table, hinged at the lower end to the main frame, to allow of raising the upper on iron supports (not often required). Arm-pieces may be added to this top frame, but, for clearness of view, are omitted from the engraving.

The table is made by Mr. Roskilly of 7, Berkeley-road, Regent's Park, N.W.



# THE LANCET.

LONDON: SATURDAY, OCTOBER 15, 1892.

EVEN those investigators who maintain that many physiological problems can only be solved by means of experiments on living animals—experiments controlled by law and held in check by careful inspection—cannot but feel much commiseration and perhaps a trace of contempt for the pitiful arguments that were advanced by the champions of “antivivisection” last week at the meeting of the Church Congress at Folkestone. It is a curious fact that, although in many respects we retain some of the instincts of the savage, notably our love for hunting, fishing and shooting, we as a race are greater lovers of animals than any other people on the face of the earth. Nowhere is such a tenderness for, and carefulness of, the interests of the lower animals so strongly manifested, especially in regard to those animals with which we come in contact in our daily life. The sportsman who unthinkingly maims a bird which may live in pain for days afterwards will treat his dog or his horse as a friend and companion. So the medical man, being human, does not for a moment object to experiments on animals being controlled by well-defined regulations, which are already of such a character that the possibility of cruelty or unnecessary pain being inflicted on any animal may be said to be reduced to a minimum. These regulations are no doubt the outcome of the innate horror that we as a nation have of inflicting unnecessary suffering on man or beast. Taking up this position, we are satisfied that although the discussion may have opened the eyes of many infatuated and, let us charitably suppose, ignorant people, we cannot help thinking that even so intelligent and highly educated a body as that drawn together at the meeting of the Church Congress at Folkestone was not the proper court of appeal in regard to this matter, and even those who raised the question must now feel that they laid themselves open to the well-deserved reprimand which they received from the thoroughly conscientious men who took up the cudgels in defence of so-called “vivisection” as practised in this country. Bishop MOORHOUSE and Bishop BARRY have raised their own standards of morals and formulated their individual codes of ethics. As far as Bishop BARRY is concerned we have little or no information as to the basis of his code, except from what appears on the face of his paper. Bishop MOORHOUSE, however, leaves us in less doubt on the matter, for, as a contemporary points out, his code of ethics appears to be based on the necessity that his voice should be preserved to him. He assures us that “for himself he would abstain from animal food if anyone would show him how he would live without it and keep his voice.” We assume, of course, that the Bishop of MANCHESTER has consulted those best qualified to inform him on a matter of such importance—viz., those who have made the study of the body and its functions a special life-work. We must suppose, therefore, that he is quite willing to accept the opinion of the medical profession on a subject of vital personal and ecclesiastical importance. If, then, Bishop

MOORHOUSE is not guided by his own standard of morality and ethics in this, why does he appeal to the Church Congress to support him and his ethics against the medical profession in a matter of which they have also made a life-study—physiological and pathological questions, some of which, they say, can only be settled by having recourse to experiments on animals? Let the members of the Antivivisection Society place themselves in Bishop MOORHOUSE'S position as regards the ethics and morality of the question—and we cannot allow that a bishop has any right to speak except as a theologian and as one who has studied ethics and morality, and who claims to have a higher information than ordinary mortals on those points (so high, indeed, that Bishop DOWDEN says that his morality is “morality up in a balloon”)—and where will they be landed? How many vegetarians are there in the Antivivisection Society? Vegetarians have the courage of their opinions, and provided that they do not take animal life in any form, we say that they are thoroughly conscientious and honourable, though we hold that they are arguing from wrong premisses. How many are there who will not drive a mutilated horse, who will never eat a bled calf, a fattened hog, a stuffed capon or a *pâté de foie gras*? How many of them can conscientiously say that, although they have shootings, they have never been cruel to bird or rabbit or that they have killed every bird they have shot at and have left none in the fields to linger in agony and die from exposure or starvation? Who of them can say that they have never set or caused to be set traps and snares for animals, which when caught have been held by broken limbs? Such things are countenanced by many of those who are open-mouthed in their proclamation of the cruelty of experimenting on animals. We do not intend to criticise the actions or the motives of those who do these things, but we contend that so-called “vivisection” as practised at present, and as we hope it may long be practised under careful limitations and vigilant supervision, does not in one year, to put it mildly, cause one-hundredth part of the suffering that is inflicted on animals in a single day in other ways. Most of the men who perform experiments upon animals would not inflict unnecessary suffering on the meanest of GOD'S creatures; they are not guided by motives of cruelty or even of a desire to obtain pleasure, wealth or health for themselves; they are working to obtain methods by which they can prevent the spread of disease or by which they can alleviate suffering when disease has attacked their patients, be they human or animal. Anæsthetics are used in all cases where anything beyond the slightest discomfort is anticipated, and every effort is made to alleviate and to minimise suffering in the animals experimented on.

Is it not better, then, to gain a preliminary knowledge on physiological subjects even at the expense of the lives and of some slight suffering of a few animals than that experiments should be made on man? There are certain members of our profession who, doubtless from conscientious motives, maintain that no experiments should be made on animals; but, fortunately for patients, such men are comparatively few in number. There are people who, whilst receiving all the benefits that the medical profession can give (whether these benefits be the result of experiments on animals or not), are willing to join in a popular

cry and to contribute means for the advancement of its propaganda. This particular agitation, though it may have many earnest and conscientious advocates, is dependent, for the most part at least, on misrepresentation of facts, on the ignorance of credulous and simple people, or it may be on the desire for advertisement which is strong in the minds of many men who are not always too scrupulous as to the special manner in which such advertisement is obtained, and who, if "vivisection" were abolished to-morrow, would find some other means of obtaining that advertisement and public prominence. We believe that such persons are few in number, but that their influence is great we have ample evidence in the fact that so many people, utterly ignorant of the whole question, are induced to come forward with their personal support and monetary contribution to carry on an agitation which is now kept alive only by artificial stimulation.

This question having been raised at the Church Congress, we feel bound to leave no room for doubt as to the opinion we hold on this question. Let us at once say that we respect those who consider, that under no circumstances should animals be mutilated or slaughtered for the benefit of mankind; they are perfectly consistent, and we should listen to every argument which they can advance in favour of their theses, although none that have yet been advanced by them have been sufficiently strong to convince us that theirs is the right position.

The whole question of "vivisection" may be put in a nutshell. Does the end justify the means? We maintain that this question can only be answered by those who have a knowledge of the results already obtained and of the work that still requires to be done. Bishop MOORHOUSE has learned what is good for the preservation of his own voice, a voice that is often raised in the interests of justice and truth (though in this instance we believe it is used in the advocacy of error); that is a matter in which he is personally concerned and in which his experience has helped him to form an opinion. Having made up his mind that he may do evil that good may come in this matter, he must leave it to the physician, who from sad experience knows only too well how much is still required to be done in the interests of suffering humanity, to determine whether the end of alleviating suffering in man and many animals justifies the means of experiments on a comparatively few animals.

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No trustworthy account has yet been written of the results of the International Sanitary Congress which met at Venice in January last, and which it was necessary to supplement by a gathering in May. The object which was in view was practically the same as that with which the conference at Rome in 1885 endeavoured to deal—namely, to determine what restrictions it was desirable to impose on the passage of ships through the Suez Canal in order to prevent the importation of cholera into Europe. No international agreement was arrived at in Rome because, whilst a large majority who followed the lead of France demanded a stringent quarantine, both as regards sick and healthy, on so-called infected vessels, and this for a recurring period of five days, the English delegates maintained that since cholera had never spread to the Continent by means of arrivals from England, English ships ought to be allowed to

proceed to English ports without being subject to any other restriction than that they should communicate with no other port or territory on the way, whether the shores of the Suez Canal or those of the Mediterranean were concerned. The delegates of Great Britain were completely defeated in so far as numbers were concerned, but their opposition led to the entire defeat of the Conference, which adjourned, never again to assemble.

The meeting at Venice was, in certain respects, similar to the one at Rome. At the request of the Austrian Government Great Britain entered into an arrangement as to the conditions which should guide the two countries at the Conference, and an Anglo-Austrian protocol was signed accordingly. The terms of it need no discussion here, for, as at Rome, the English proposals were opposed by France; the French delegates again carried a great majority of their colleagues with them, and having done this they presented a counter proposal. This counter proposal professed to meet the views of England as far as it was possible to do so, but from the *procès-verbaux* now published, it is evident that the international agreement arrived at by the majority assembled at Venice was not assented to by this country, for the names of the British delegates are conspicuous by their absence in the convention which was signed. But, for all this, the Venice scheme presented certain great advances on anything that Europe had hitherto been willing to agree to; and even as regards English shipping, there can be but little doubt that if the scheme had been fairly worked the advantages to this country would have been considerable, especially if we compare its regulations with that which might have been enforced under the then regulations of the Alexandria Board. Indeed, the gathering at Venice will always be remembered by reason of the fact that the nations concerned consented for the first time to abandon the old practice of judging a vessel to be infected because she had come from an infected port, and decided that she was to be held infected or not according as she had had cholera on board or not. Mr. J. W. LOWTHER and Dr. MACKIE represented this country on the occasion, and they point out that had these amended regulations been in force during a term of years preceding their enactment hardly any vessels would have been subject to restrictions and detention on the ground that they were infected, whilst the minor restrictions attaching to suspected vessels would have been but trivial.

But from a Blue-book published by the Foreign Office, a volume which contains such of the papers relating to the Venice Conference as were laid before the two Houses of Parliament, it would appear that during the sittings at Venice the conclusions which were being arrived at were submitted to the Local Government Board and commented on by the medical department. Thus, in January Dr. THORNE THORNE points out that whilst the French proposals embody great concessions they also contain objectionable features of considerable importance—e.g., for infected vessels a five days' detention was prescribed, as at Rome, this period to be repeated every time some local officer chose to hold that a fresh case or a suspected one had arisen among those detained. Dr. THORNE THORNE further objected to the detention of healthy people in Egyptian or Arabian lazarets, as being calculated to spread rather than to prevent cholera; he reminds the Government that the system proposed was mis-

called "isolation," being in fact the "quarantane de rigueur" of the Constantinople Conference of 1866; and he arrives at the conclusion that many of the regulations proposed at Venice were not only unnecessary but calculated to involve danger to those who might be subjected to them. Shortly after these comments were made the delegates were informed in a despatch from LORD SALISBURY that, in his opinion, the Conference had better adjourn. The adjournment then took place, but before parting Europe *minus* England signed a convention which is embodied in the Blue-book.

Then came an interval, during which certain communications passed between the Foreign Office on the one hand and the French and Austrian Governments on the other, the outcome of which was that on May 17th the Marquis of SALISBURY, in an admirably drawn up code of instructions, deputed DR. THORNE THORNE and Mr. PHIPPS of H.M. Embassy in Paris to meet French and Austrian delegates in the French capital, for the consideration of a number of points upon which Her Majesty's Government had been unable to agree with the other European powers assembled at Venice; and the result was that on June 9th a fresh convention was signed in Paris by the delegates of the three Governments there assembled. This new convention has been accepted by the other Powers, and it therefore contains the regulations which now control the passage of the Suez Canal in so far as the prevention of cholera is concerned. These regulations, which are set out in detail in the published documents, may be briefly summarised as follows:—

Suspected ships, that is to say, ships having had cholera on board, but in which no fresh case has arisen within seven days, may pass the canal at once "in quarantine"—that is to say, without touching either shore—provided they carry a doctor and a steam disinfector on board, and that the needed measures of precaution have been taken on the ship. If without doctor or stove the ship may be detained for disinfecting and other purposes for twenty-four hours.

Infected ships constituted the class of vessels as to which the second conference at Paris was mainly held. They too are divided into two classes, according as they have, or have not, on board a doctor and a proper disinfecting stove, and they are all vessels which have had a case of cholera on board within seven days before arrival at Suez. Those without doctor and stove have to submit to medical judgment at Suez; any cholera sick must be placed in hospital, and the remainder of those on board, who in such cases will be nearly always members of the crew only, may be detained under observation for a period varying under a sliding scale from two to five days, during which time disinfection will be carried out. Vessels with a doctor and means of disinfection—that is, passenger and troop ships—are otherwise dealt with. Only the actual cholera patients need be landed, and the vessel may be detained for twenty-four hours for disinfection, which may be carried out on board, and which is limited to the part of the ship and the articles which the doctor on board decides to have been subject to risk of infection. As regards others on board, only "suspects" can be interfered with, and no one is to be regarded as suspect unless the doctor on board declares him to have been in direct contact with an infected person or with infected

things. Such persons may be detained, either on the ship or on a float to be provided, for a period varying under a sliding scale from twenty-four hours to five days, according as the last case of cholera occurred on the day of arrival or from five to seven days before arrival at Suez. After disinfection, which must be performed in twenty-four hours at the most, the vessel, if she chooses to leave her "suspects" behind, can at once pass through the Suez Canal in quarantine, and so proceed to any European port. The differences between the Venice Convention of Jan. 30th, 1892, and the Paris Convention of June 9th, 1892, are set out in parallel columns by DR. THORNE THORNE; and in submitting the table he points out that, according to data supplied by Mr. LOWTHER and DR. MACKIE, only two out of a total of 16,491 vessels would during the preceding five years have come within any of the restrictions as to infected vessels, and that according to information supplied by the chairman of the Alexandria Board the detention of these two vessels for disinfecting purposes, and of those persons who would have been regarded as "suspects," could not have exceeded a period of from twenty-four to forty-eight hours, and that even this period might have been further reduced at the option of the local authority.

The conclusions come to are based on sound medical data. The differentiation of vessels according as they carry on board a properly qualified medical adviser and adequate means of disinfection is a reasonable one; and it must be a satisfaction to this country, under whose flag 80 per cent. of the traffic passing through the Canal now sails, that a practical and scientific solution of this question has, after so many years, been arrived at. We would add that no one conversant with the history of the subject will fail to see that the French delegates must have approached their English *confrères* in a conciliatory spirit, and with an evident desire to meet British views as far as they could without alienating their less progressive colleagues representing other European States.

WESTMINSTER ABBEY in England, Montmartre, preliminary to the Panthéon, in France, have within a few days of each other received the mortal remains of ALFRED TENNYSON and ERNEST RENAN. It will be long before either resting-place admits a nobler guest. Humanists, both of them, in the highest sense of the word, they both had at heart the good of their fellow man, and gave to the end they had in common the best of their mental lives. It is not for us to bring either of them to the crux of religious orthodoxy or to appraise the ultimate value of their work. But that each in his own way sought to guide humanity to "an ampler ether, a diviner air" can be denied by no one familiar with what they wrote. In RENAN the analytic genius—in TENNYSON the sympathetic—was predominant. The former strove to purify all that was most precious in the bequest of the past and to bring it into harmony with the moral energy of the present. If he destroyed, it was to rehabilitate, if not to rebuild. It was not to make the world poorer that he consigned so much of what it cherished to oblivion. The losses he inflicted he held to be really gains, as lightening the wings of thought for yet higher flights and for the attainment of a loftier ideal. In one of his later writings he says, "J'ai tout critiqué, et, quoi qu'on en dise,

j'ai tout maintenu"; and in the same spirit he concludes, "Justice will reign, and the virtuous man will find at the end of all things that he has been the best inspired." What is this but another version of TENNYSON'S belief that "Good shall be the final goal of ill"?—a belief arrived at not by the seemingly iconoclastic methods of RENAN but by the sympathetic contemplation of the Creator as revealed in His works, by the poet's gift of divining and realising the cosmic harmony.

As in the case of all great thinkers and teachers there was an undertone of melancholy in their most characteristic utterances. The solemn admonition of the Roman satirist—

"Tecum habita; noris quam sit tibi curta supellex,"

was ever present to both. The pride of knowledge, degenerating so often into the "glorious certainty" of the sciolist, belonged to neither of them, and to the close of life they were students in fields distant from their own. RENAN, in a memorable passage, regrets the incompleteness of the purely literary or humanistic training, and desiderated in his own education a larger infusion of nature-study and of exact science. What was so bitterly felt by the teachers of the Roman Empire, that its youth were made artificially stupid "because they neither heard nor saw anything of the world with which they were in daily contact," but were nursed *sententiarum vanissimo strepitu*, was also recognised by RENAN. A happier system of education was TENNYSON'S portion; but even that he was at pains to supplement by the nature-study which reacted so healthfully on his genius and which gives so enduring a charm to much of its expression. His poems, from the earliest to the latest, teem with evidences of minute and exact observation of all life, animal or vegetable, however lowly; and the sentiment of nature thus fed and fostered preserved his genius from not a little that, under less wholesome influences, would have been unsound, not to say morbid, in speculation and practice. But the sense of the *curta supellex*, the "slender furnishing" which is all that the best instructed can attain to, he was never without; and to the last we see traces in him of the student, patiently perfecting himself on sides where he felt himself weak, and evoking latent or undeveloped capacities by what BACON has so beautifully called "the georgics of the mind."

But in the intellectual humility which impelled a RENAN and a TENNYSON never to rest satisfied with proficiency in their own *métier*, but wistfully to contemplate and even patiently to cultivate fields of knowledge from which they had been wholly or partially excluded, is there nothing for the nature-student or the man of science to take to heart? No *littérateur* could be more accomplished in his department than RENAN in French prose or TENNYSON in English verse; the former in the translucent clearness and the liquid curves of his periods, the latter in the felicity of his phrase and in the flow and cadence of his rhythm. But how few the writers who share a kindred sense of deficiency and who nobly strive to retrieve it like the master humanists of France and England. In times like these, when education is so tempted to spurn all but the "learning that pays," when the text-books of the crammer have reached the perfection of arms of precision, enabling those proficient in them to score effectively at the examining board, with the least possible expenditure of individual

thought, is it really opportune for men of science to disparage humanistic culture, to vote a decent burial for the classics, and to concentrate the student's work more and more on what simply appeals to his observation? Is it quite in keeping with the character and claims of a liberal profession to limit the range of study so as to exclude the subjects most conducive to disciplining the imagination, refining the taste and enlarging the sympathies? Such has not been either the precept or the practice of the masters of professional skill in times past. Rather would they have sided with the great leaders of humanity, such as those just lost to us, in rejecting no culture which could make the mind a more powerful and more delicate instrument, whatever the field of its exercise, but in welcoming all learning which enlightens, ennobles and refines, especially if its subject be man himself, whether in health or in disease.

WE have received from Dr. LESLIE PHILLIPS, one of the Hon. Secretaries of the Medical Defence Union, a letter on the subject of medical aid associations, which he has addressed to the General Medical Council. It is too long for insertion in our columns, but we may here give the drift of it. The subject is not a new one. We have often submitted to the notice of our readers illustrations of the working of these associations, especially in regard to the matter of their illiberal treatment of medical officers. What is now in Dr. PHILLIPS'S letter is the detail in which he gives similar illustrations and the clearness with which he argues against the fundamental principles involved in the relation of the medical man to the association. Such associations are a new invention and one by no means creditable to the working classes, who are not destitute of liberal and grateful feelings to the medical profession, or would not be so if ill-conceived forms of medical charity and pauperism did not lead them to underrate the value of medical service. The old-fashioned club and the more modern form of it, the provident dispensary, both aimed at securing the attendance of medical men for their members on easy terms; at any rate the money paid went to the medical officer, or all that was left of it after paying essentially medical expenses. But in this new-fangled institution—the "medical aid association," the medical man not only does all the medical work, but he receives a very scanty allowance for doing it, and the rest of the money paid (ostensibly for medical service) is put coolly to the credit of the association, to accumulate and to be invested in the shape of property, or to be distributed as dividends among the members. The medical officer is made not only to do medical duty, but to make money for those whom he so serves. In other words, the medical aid association is a "business" the work of which has to be done, and *can only be done*, by the medical officer, but the profits go to the association, *alias* the company. The members of this association are thus profitably interested in medical practice. Dr. PHILLIPS holds that they carry on medical practice under "cover" of their medical officer, and there is much to be said for this way of putting it. A few of the concrete instances which he gives will best enable our readers to understand his meaning. The particulars given are in no sense private, being extracts from the annual reports of the different medical aid associations.

Northampton Friendly Societies' Medical Institute receives

an income of £49 3s. 6d. from rent of property and assembly rooms, and among its assets is stated freehold property, £2718 3s. 3d.

*Lincoln United Friendly Societies' Dispensary* possesses freehold property and other assets valued at £1006.

*Bristol Foresters' Medical Institute* reports: "Our income has exceeded our expenditure by the sum of £116 5s. 7d., thus showing a very handsome profit. . . . Pay off the mortgage of £250 upon the building was successfully carried out. Thus in four years after the purchase of the large and commodious premises for the purpose of carrying on the work of the institute the building has been entirely freed from any liability." Present value of the estate, £1087. The committee, secretary &c. received fees of about £50.

*Derby Medical Association* presents a purse of £20 to a gentleman, together with a portrait of himself executed in first-rate style, and reports:—"At the commencement of the year we were enabled out of the surplus profits to declare a dividend at the rate of 3s. 6d. in the £ on the amount of levies paid for the year 1891, which absorbed the sum of about £210." Secretaries, treasurer and committee over £87 18s. 0d., the credit balance of capital account standing at £1942 14s. 8d.

*Kidderminster Medical Aid Association* has paid off the whole of a mortgage of a property owned by the Association.

*Wolverhampton Medical Association* permits a surgeon to attend midwifery cases, but his industry is taxed to the extent of 5s. a case for the benefit of the Association. In other societies, such as Nottingham, the *whole fee* belongs to and is paid to the society. In this (Wolverhampton) Association a former medical officer, Dr. —, received £250 a year; at the end of his fifth year of service he asked for an increase of salary. This was refused, although the income of the Association was £1835, and large profits were hypothecated to the acquisition of various assets—e.g., £550 worth of land. The second surgeon obtained £150, rising to £175 a year. Here we have a medical aid association carrying on, in their own words, "an increasing business," receiving an income of £1835, derived solely from medical fees, of which only £498 is paid to the surgeons, the rest being profits accruing to the Association and used for carrying on its business and increasing its wealth.

*Preston Medical Association* reports: "The mortgage on our new premises has been reduced by £250, leaving us now only £340 in debt, which, at our present rate of progress, will not be long before it is cleared off altogether." No doubt, for we read in the balance sheet: "to amount received from private practice, £369 3s. 9d.," against which is placed 'Dr. —'s share of private practice, £173 2s. 11½d." (!)

There can be little difference of opinion in the profession as to the nature of this kind of "medical business." It is undignified as respects the medical man. He demeans medical service by giving it for a paltry remuneration, not only to the working classes, many of whom get better wages as mechanics than he will get for attending thousands of patients, but to tradesmen and all and sundry that are encouraged and invited by every device of publicity and advertisement into this huge net. For not only does it tend to swallow up all the clubs and provident dispensaries of a neighbourhood, but to include, without inquiry as to fitness, the well-to-do patients of other medical men. The medical man not only sells his skill to his actual patient on low terms, but agrees to give part of his obstetric fees, or all of them, as in the case of the Nottingham Medical Association, to the Society. Can anything be more unrighteous, not to say mean, than that a medical association with an increasing business, receiving £1835, as in the case of

the Wolverhampton Association, should refuse to give, even at the end of five years, more than £250 a year to its chief officer? That a medical man should make himself the agent of such a "business" is an undignified and an indefensible position; and we challenge the gentlemen holding these posts—many of them we believe uncomfortably—to deny this. Dr. PHILLIPS intends to try to carry the matter a step further and to have the matter brought before the General Medical Council. The offence has not yet been recognised or defined by the Council—that is, the offence of enabling a medical aid association to make money by the medical practice of its medical officer. According to the present views of the General Medical Council, "covering" consists in the countenance or sanction given to an unqualified practitioner by a registered practitioner. The question raised by Dr. PHILLIPS occurred in a case that came before the Medical Council at its last meeting, where the medical officer of a medical aid association was charged first with employing an unqualified assistant, and secondly with enabling a trading company—an association of mechanics and tradesmen—to make money by employing a medical practitioner as their servant. The Medical Council considered the first charge not proved. In regard to the second, the President said, "They did not deal with that; it was not their business." If such a question is to be again raised in the General Medical Council it is important to consider whether it should be raised in the shape of an abstract resolution for the guidance of gentlemen many of whom would not willingly do what the Council disapproved, or in connexion with an actual case. It would be more satisfactory if such a question could be settled by the general action of the profession and the public spirit of its individual members. The counsel for the gentleman charged in the case to which we have alluded argued that before the Council could condemn a practitioner for entering into the service of such an association it should define and proclaim the offence. There is much to be said for this. But, as we have suggested, it would be more satisfactory if this evil could be corrected without the intervention of the General Medical Council. We notice one point more. Dr. PHILLIPS writes his letter to the Council in his own name, but he is one of the Honorary Secretaries of the Medical Defence Union. He should have made it clear whether he writes on his own account or in his representative capacity.

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## Annotations.

"No quid nimis."

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### THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

FROM Rome, under date the 10th inst., an Italian correspondent writes:—"The preliminary arrangements for the great triennial parliament of the profession proceed to the entire satisfaction of the Central Committee. Much gratification is felt at the daily increasing number of the adherents and at the cordiality of tone with which they are conveyed, while the representation of scientific bodies, not only in Italy but throughout the world, will surpass in numbers and distinction that of any antecedent congress of the kind. From America, North and South; from the United States and the Argentine Republic; from Great Britain

and her colonies; from Germany, Austria-Hungary, Denmark, Spain and Portugal, have already been received intimations to the effect that in each of these States or dependencies will be formed a committee to coöperate with the central organising committee in Rome, so as to obtain as representative a body of the profession—consultants, practitioners and lecturers—as the respective nationalities or communities can yield. Another important step in view of the approaching Congress has also been taken. The directors of the various continental lines of railway have been addressed by the organising committee with the object of making travel not only to and from but also within the peninsula as convenient as possible. Many of those taking part in the proceedings will be loth to leave Italy without availing themselves of a probably unique opportunity of seeing the treasures, archæological and artistic, to say nothing of the natural beauties, of a country renowned in history and song. For the benefit of all such the organising committee are in treaty with the railway and steamboat companies and the municipalities of the Italian kingdom for the chief conduct and comfortable accommodation of visitors to the principal centres of interest so as to ensure their enjoyment of the same as expeditiously and satisfactorily as may be. The organising committee, indeed, have already received from the Austrian Lloyd's Steam Navigation Company a spontaneous offer to reduce its fares by 30 per cent., while one tourist agency, well known in Europe, is preparing a series of special trips, for which the coöperation of the Italian railway and steamboat services is in course of being engaged. With each successive international medical congress the facilities and advantages placed at the disposal of its members seem to be multiplied and perfected, and that which meets in Rome in the last week of September, 1893, will, it is evident, mark a distinct advance in these respects on the most brilliant of its predecessors."

#### THE METROPOLITAN ASYLUMS BOARD AND ITS CRITICS.

A VERY sharp passage of arms is taking place in *The Times* between Mr. Littler, Q.C., chairman of the Middlesex County Council, and a member of the Metropolitan Asylums Board. Mr. Littler attacks the management of the Board and the way in which they invade pleasant districts of London, or rather of the county of Middlesex, for the purposes of the inhabitants of London. The latest offence is the erection of a hospital at Tottenham—for the present temporary—for the reception of scarlet fever cases. Mr. Littler describes with eloquence and with something of special pleading the grievance of residents and owners of property in a pleasant suburb who wake up one morning and find that their villas are to be confronted with a fever hospital. He suggests that the Asylums Board should be swept away altogether, and each district be required to provide accommodation for its own infectious cases. This is a very natural suggestion, but it is not so practicable as it is natural. Even if the forty local authorities could all be got to do their duty, and if they could obtain convenient sites, the expense of such a course would probably be greater than the present, great as that is. Then, as the Asylums Board Manager says in Wednesday's *Times*, it has not yet been shown that scarlet fever or diphtheria spreads unduly in the neighbourhood of hospitals for the reception of cases of those diseases, as has been proved in the case of small-pox. The question is a serious one. We cannot help thinking that a demoralising facility for going into the hospitals has been fostered, until those are tempted to use them who could isolate cases at home, to the grievous burden of the ratepayers. We agree with the Asylums Board Manager that it is not seemly to have the representatives of public bodies arguing with each other in the public press. The development of the hospitals for infectious cases has been carried already beyond the number contemplated by

the Royal Commission. The proper course, it seems to us, would be to appoint a Commission to inquire into the working of the present system, its effect in restricting epidemics, its effect on districts in which great hospitals are placed and generally on its cost and its efficiency. It is quite possible that such an inquiry would result in upholding the present system; but even so, it might suggest checks and restrictions which are now conspicuous by their absence.

#### THE SWEATING QUESTION.

THE report of the Stores Committee of the London County Council presented at the last meeting of that body affords food for reflection of a kind far from pleasant. Whether the contract system which has been adopted by the County Council in the past, and which seems to be still in favour, is the best that can be devised on economical grounds is a question which we do not now stop to discuss. Our immediate concern, as medical journalists, is rather with the bearing which that system has on the requirements of public health. On this point statements were made by certain of the speakers at the above-mentioned meeting which were the reverse of reassuring. Under what conditions, for example, can the manufacture of trousers be conducted when such articles of apparel can be produced for 3s. 6d. per pair? Imagination revolts at the picture of squalor, wretchedness and filth, with their accompaniments of disease, implied by such surroundings as must necessarily be attendant on work so inadequately remunerated. There can, we think, be but scant disagreement amongst intelligent persons who have the material, to say nothing of the moral, interests of the people at heart that the contract system has so far and as a whole failed to be capable of being safeguarded against abuses the evils of which altogether outweigh any advantages which may be derived from its adoption, except those which accrue to the contractor. Mr. John Burns, M.P., struck a sympathetic cord when he stated "that he would continue, in season and out of season, the endeavour to stamp out sweating in connexion with every department of the work of the County Council."

#### THE LATE POET LAUREATE.

IT was fitting that the poet who was the successor of Wordsworth and the follower of a long and illustrious line of such poets as Byron, Shelley and Keats, and who for half a century has indisputably held the first place in this Victorian age, should be buried in Westminster Abbey as the last tribute of national honour and respect. If he did not always express himself in the most flattering terms of the medical profession in his verses, he did so in grateful words of personal recognition of our services. Tennyson's position and experience were unique in many respects, and profoundly affected the spirit of his conceptions, the mould in which those were cast, and the garb in which he clad them. Since time began there has probably always been a conflict—varied according to the intellectual standard and tone and the aspirations of the age—between reason and faith. But Tennyson found himself in a new world of thought. He was not only a poet and idealist, but a metaphysician and speculative philosopher. His was not a scientific caste of mind, but the doctrines and discoveries of science nevertheless forcibly impressed him. He was a profoundly religious man, but no sectarian. Reverence, a sense of responsibility, a penetrating insight into the mysteries of this world, conjoined with a firm belief in the unity of purpose and harmony underlying the varied and complex phenomena of life, never forsook him. The son of a clergyman, born into the world at a time when the finality of faith and knowledge was commonly regarded as bounded by the limits of the current creeds of the day, he grew up to manhood to find himself confronted with

an iron age—an epoch of scientific discovery and material progress,—a time for the testing and proving of all things. Profoundly perplexed at times, but always undismayed, he never failed to follow the “beam in darkness” and to “faintly trust the larger hope.” Large-minded, tolerant and tender, his belief in the nexus between things seen and unseen, and in the presence of an invisible Power in whom we live and move and have our being, was unflinching. It is the dominating idea expressed in his “In Memoriam,” in “The Two Voices,” and in his touching and beautiful lines “Across the Bar,” and traces of it are discoverable in all his writings. As we have already said, if he was below some of our greatest poets in robust strength, in vigour and originality of conception and dramatic force, he was above most of them in finished workmanship, in grace and delicacy, and in the proportion and adequacy of expression to conception. To say that he was inferior to Shakespeare is simply to state that he failed to accomplish what no other “man of woman born” has accomplished; still some of his ideas were Shakespearian. Tennyson never perhaps struck home to all hearts alike, peer and peasant, like Robert Burns, nor did he possess the supremely natural, untutored sweetness and tenderness of the bard of Scotland; neither had he the rugged strength and careless power of Byron or the creative imagination of Shelley; and nuggets of gold were not unexpectedly encountered in his writings as in those of Browning. Nevertheless, his work was always wrought by the hand of genius, sometimes into fancy’s flimsiest gossamer, sometimes weighty with a big thought, but always of the true and never of the baser metal.

#### THE CONSULAR REPORTS.

SIX years ago the present Foreign Secretary, who then occupied his present post, effected an important change in the mode of publishing the Consular Reports received at his department. Prior to that date these documents had been embodied—perhaps it would be more descriptive to say entombed—in a blue-book published at irregular intervals during the sitting of Parliament. Under the system then introduced these various reports are now published separately, with the result that they can be obtained by the public at much reduced cost, since only those particular reports need be purchased which may be of interest to the purchaser. A further advantage is that these reports are now made public as received, so that the value of their contents does not suffer the deterioration consequent upon inordinate delay which was common under the earlier system. Of the substantial benefit thence accruing to the public service there can be no question; but great as the improvement is it has involved at least one slight disadvantage which should be reckoned as a drawback in any attempt to estimate the public gain. The drawback is this: that the reports not being now published in a collected form, it is far less easy than formerly to obtain a general and comprehensive view of them. Much that would attract notice, especially the notice of a reviewer, in an annual or semi-annual volume is now passed over altogether for want of a focus in which it can be discovered. Radiating lines can easily be traced if their centre is once found, but the unconnected items of the separate consular reports have no common centre and are proportionately hard to discover. To remedy this defect an Index has just been issued from the Foreign Office, which deals with the whole series of reports issued since the change of system already referred to, and gives a large number of references, alphabetically arranged, to the documents in question. The value of such an Index cannot well be over-estimated. It will not only facilitate reference, but it will in a very large measure bring the reports themselves to light and make available for public purposes what would otherwise be the mere lumber of the Stationery

Office. The reports deal, and deal in a highly competent and authoritative manner, with a vast range of subjects in which matters bearing upon the public health and sanitation in different parts of the world occupy a conspicuous place. The Index appears to have been carefully and skilfully compiled, and if not its only, at least its most conspicuous fault is that one so common in Government work—namely, that it has been too long delayed. Now that a beginning has been made we trust that the public may look for an annual index volume. That is necessary to the completeness, and not less to the full usefulness, of the Consular Reports.

#### THE BERLIN MUNICIPALITY AND THE PUBLIC HOSPITALS.

WHILE our great London hospitals, many of which are among the finest institutions of their kind in existence, are carried on in a state of almost chronic financial deficiency, receiving but little help from the greatest, oldest and wealthiest corporation in the world, it is worth while to draw attention to what is being done by the municipal authorities of Berlin in respect of providing for the sick poor of that city. It should be ever borne in mind that no expenditure is more profitable—as none responds better to the noblest instincts of our nature—than that which is devoted to the restoration of the sick to health. The millions who live from hand to mouth, dependent for sustenance on their daily earnings, are practically helpless when overtaken by disease or accident. Not only do their earnings cease under such a calamity, but they must be entirely maintained and “doctored” at the cost either of the charitable and well-to-do or of the public rates until they are convalescent. All means of preserving and restoring health are therefore means of avoiding a huge economic loss, to say nothing of the heart-breaking and demoralising effect on the poor family when the bread-winner is smitten down with disease. The municipality of Berlin since the year 1872 has devoted itself with conspicuous energy to the practical carrying out of a wise humanitarian principle in reference to this great question. No doubt the success of its efforts is largely due to the prudent counsels of one of its most able members, the world-renowned Professor Virchow. On the three great modern hospitals of Berlin the municipality expends no less than £60,000 per annum, without taking into account the Charité, an enormous old-fashioned institution. These principal hospitals contain more than 3000 beds, most of which are free, but in some cases, where patients can afford it, they contribute wholly or in part the cost of their maintenance. The Moabit Hospital is a superb institution, and was greatly admired for its site, structure, arrangements and maintenance by the visitors to the International Medical Congress in Berlin in 1891. It was originally intended for infectious diseases only, but when wards remained unoccupied for want of infectious cases they gradually came to be utilised for various diseases. The general plan is that of a parallelogram, with thirty wards, each containing thirty beds, arranged along two sides, each pavilion having two storeys. The height of the side walk is ten feet and at the centre of the roof about fifteen feet. There are no fewer than twenty-eight windows to each ward, and air and water (the latter hot and cold) are supplied in equal abundance. The supply of water for the hospital proper is no less than twenty-four gallons per head daily, but when the amount needed for other purposes, such as flushing drains, hot-water appliances, watering of flower beds &c. is included, the consumption reaches 150 gallons per head per day. Although this hospital is most admirably fitted, and so designed and maintained as to meet every requirement, it affords a striking illustration of that “efficiency with economy” which is so much desiderated and talked of, but so rarely met with. It was erected at the very moderate cost of only a little over £100 per bed. The daily cost of patients is 2-8 marks daily, or about £60 10s. per annum

The second great municipal hospital is the Friederichshain, which was completed in 1874; the third, the Urban Hospital, was opened about two years ago. They are both handsome and well-built structures, especially the latter, which is complete in every detail, including electric lighting. It provides accommodation for 600 patients, at an expenditure of £245 per bed. The average cost of each patient in the Urban Hospital is £72 per annum, as compared with £56 in the Friederichshain Hospital and £27 10s. in the old Charité Hospital. The city does not bear the whole of this outlay, as there is an offset in the shape of payment from certain patients, donations &c., so that the actual cost to the city is reduced in the case of the Moabit Hospital to £38 4s. per annum, of the Friederichshain to £36 10s. and of the Urban Hospital to £57 10s. per annum. The medical officers of these hospitals are very well paid, especially when it is borne in mind that money goes further in Germany than in England. The principal consulting members of the staffs receive from £300 to £350 per annum, the salaries of the residents varying from £50 to £75 per annum. One of the most admirable provisions in relation to these city hospitals is the convalescent homes erected on the farms connected with the arrangements for the utilisation of the sewage of Berlin. All experienced medical men know how common it is for a patient to be actually cured and ready for discharge from hospital long before he is strong enough to resume work, while the necessities of the hospital demand that he should leave the institution. The Town Council of Berlin have recognised that a patient discharged under these circumstances is very likely to lapse into chronic, perhaps incurable, ill-health, and then become a permanent charge on the rates. They have, therefore, thought it both humane and good economy to provide a means of giving two or three weeks' country air to every patient who may need it, and the results have eminently justified their forethought. It is highly satisfactory to know that should cholera unfortunately spread in Berlin there is not only a staff of medical men second to none to attend to them, but that there is admirable existing hospital accommodation and a most active and intelligent town council not only ready to devise the best means, but also to spend money freely to meet the emergency. Municipal experiments in hospitals are not to the English mind, which is proud of its voluntary hospitals, founded and maintained by personal legacy and contribution. We should be sorry to see our hospitals become dependent either on State or rate support; but it is our duty to record what is done in other countries on a different system. Such accounts as the above should stimulate the supporters of British hospitals to double their subscriptions and to show that voluntary charity has lost nothing of its ancient power to provide generously for the poor overtaken by accident or disease.

#### THE TREATMENT OF MYXŒDEMA.

A CASE of myxœdema is now under treatment the results of which will be watched with interest by the profession. The patient is a woman aged forty, who for nearly three years has been under treatment for myxœdema. In every respect it is an extremely typical case: persistently subnormal temperature, general swelling of the integuments, dryness of skin, partial baldness, clumsiness of movement, slowness and thickness of speech &c. The patient was admitted to the Royal Free Hospital in July, under the care of Dr. Hector Mackenzie, for the third time, in order to be treated by hypodermic injections of thyroid juice. In consequence of the difficulty experienced in obtaining the latter Dr. Mackenzie was induced to try the effect of feeding the patient on fresh thyroid glands. The result has been a very striking improvement. The myxœdematous swelling has entirely disappeared, the temperature has become steadily normal, the skin moist and the speech

natural. The patient says she feels as well as ever she did in her life. The change in her appearance is such that the existence of the disease would probably not suggest itself to anyone seeing her now for the first time. At first the thyroids of two sheep were given every day finely minced. This was probably more than was advisable, because a remarkable acceleration of the pulse ensued, which lasted until the thyroids were discontinued for a time. The importance of this method of treatment is obvious. In view of the recent observations on the advantage of the thyroid juice when given in the form of injections this method would seem to constitute a distinct advance. It can be easily carried out and is free from risk, which cannot be said of the subcutaneous mode of treatment.

#### REPORTED OUTBREAK OF SCURVY.

It is stated that a French barque, the *Automena*, has just arrived at Queenstown from the Mauritius, after a protracted voyage, with four cases of scurvy on board. Other members of the crew are also said to be showing symptoms of the disease. Scurvy as a disease, it is well known, has of late years almost entirely disappeared from the vessels of the mercantile marine, only exceptional and isolated cases occurring at intervals. Even in those cases the intensity of the symptoms that characterised outbreaks many years ago is rarely observed. The cause of this decline is due in great measure to the improved provisioning on board ship, the superior quality of the rations served out, the use of fresh messes in the shape of tinned meat and vegetables, and the improved hygiene generally. Both the French and American mercantile marines were in advance of us in this matter. It was a matter of notoriety in the old days that French and American vessels were much freer from scurvy than were British ships. It is strange, therefore, that the present outbreak should have occurred on board a French vessel, and it will be interesting to learn whether the outbreak is one of true scurvy brought about by a deficiency of antiscorbutic food and of lemon-juice, or whether it is that form of "scorbutic anæmia" which resembles scurvy in many respects, but is induced by privation and exposure. At first sight it is difficult to distinguish between the two forms. In scorbutic anæmia there is the same extensive ecchymosis of the skin; hæmorrhages from the mucous membrane occur and the gums are spongy; but on closer examination we find that, though the gums are spongy and bleed, they do not develop the peculiar fibrinous growth so characteristic of true scurvy, and the fibrinous exudation found in the flexure of the joints is not present. It is also stated that night blindness, which is so common in true scurvy, is absent in cases of scorbutic anæmia.

#### MR. J. A. BRIGHT, M.P., ON VACCINATION.

THE interview which Mr. John Albert Bright, M.P., had with the Rochdale Board of Guardians on the 6th inst. cannot fail to have attracted attention, not only because of the novelty of a member of the Legislature justifying his refusal to obey the laws of his country, but even more from the fact that this gentleman occupies a seat on the Royal Commission that is engaged in investigating the very subject upon which he has apparently quite made up his mind. Mr. Bright entertains strong objections to the performance of compulsory vaccination because of the "serious injuries" which he has reason to believe follow upon it; and so convinced is he of the impropriety of the practice that, with the exception of his eldest child, who was vaccinated before its parent had taken up this position, he declines to allow his children to be vaccinated, and will bear the consequences of his refusal to obey the law. With all deference we would submit that Mr. Bright by his action has incurred a very grave responsibility, upon grounds which seem to

us both untenable and illogical. The gist of his contention is that, without denying the efficacy of vaccination as a prophylactic for small-pox, the risks of possible injury to health ought not to be incurred on the problematical chance of the child being subsequently exposed to small-pox. Supposing that this view were carried to its logical conclusion—and we fear that this is not unlikely, since the action already taken by the Royal Commission is undoubtedly the first step towards the repeal of compulsory clauses—what would be the result? We venture to say that it would inevitably issue in a return to the terrible mortality from small-pox and the almost as frightful disfigurement and mutilation that characterised the disease a century ago. It is idle to talk with Mr. Bright about enforcing primary vaccination wholesale when small-pox epidemics occur. Has he realised what that means? Setting aside the difficulty of convincing parents, even in the presence of an epidemic, that vaccination neglected in infancy is essential then, what can be expected from wholesale and indiscriminate vaccinations in a time of panic? Will not “injuries” be likely to be even more frequent than under a system which provides for the regular and systematic performance of the operation upon every member of the community? And when to this is added the misery and suffering entailed by small-pox itself upon hundreds who would be unprotected, surely it is legitimate to contrast these inevitable evils with the amount of injury from vaccination that occurs at present. Mr. Bright would sacrifice the many for the possible chances of saving the few. By all means let us inquire fully into all the circumstances attending reputed injury from vaccination, so that its performance may be rendered as harmless to the minute minority that unfortunately now suffer from it as it is to the vast majority who are vaccinated; but to cast aside this beneficent measure because of its conjunction with preventable evils is a piece of folly that would inevitably and immediately recoil on the nation that performed it.

#### THE WATER-SUPPLY OF CHESTER.

OUR attention has been drawn to the deficient and unsatisfactory water-supply of the ancient city of Chester. There is evidently strong reason for the belief in the minds of many of its inhabitants that the present water is not of the purest character, but, on the contrary, deleteriously impure. This fact must be well established when the highest ecclesiastic in the city (the Bishop) has thought fit to attempt to arouse the governing body to a sense of their duty. It appears also the Duke of Westminster is fully alive to the fact, and has assisted in inaugurating a movement to secure what is an all-important desideratum to every town—a pure and abundant supply of the first element of healthy life. It seems strange to us, and is an anomaly we cannot understand, that the corporation of an important city like Chester should be so lacking in judgment as not to take the initiative in a matter of such paramount importance as the water-supply, but leave it to outsiders to move in the matter. Cathedral towns are proverbially sleepy, and Chester seems to be no exception to the rule. No consideration of economy or social obstacle should be allowed to obstruct the provision of a pure water-supply. This is so largely a medical question that we are surprised the profession in Chester has not, as one man, risen to speak out an unqualified condemnation of bad water. The Duke of Westminster, speaking on the matter, referred “to the amount of sewage which found its way into the river, and pointed out that the water company had an admirable system of filtration, and they gave as good a supply of water as they could, taking it from a tainted and impure source. The crux of the matter was whether they could convert a supply of impure water by any means into one which should be innocuous to the community. The death-rate in Chester

in 1891 was 21 per 1000, and if the water was improved as the air had been, the death-rate might be reduced to 16 or 17 per 1000.” The Bishop of Chester, at a recent meeting, moved “That the Chester water-supply is open to such grave suspicion that steps should at once be taken either to remove that suspicion, or, if on further investigation it should be established, to seek a new and purer source of supply.” His lordship spoke of the more than suspicious character of the water, and described the Dee as a glorious boating river, but from a sanitary point of view it was a main sewer. The matter is too serious to be postponed for an indefinite time, and prompt action is imperative and paramount. We would say to Chester: Remember Bangor.

#### POISONING BY FISH.

WHEN the British steamer *Yorker* arrived at Marseilles from Rangoon the captain reported that several of his crew had died in terrible agony after partaking of some fish which had been caught in tropical waters. In these regions many fishes are found which at certain seasons, or it may be in the case of some species always, are exceedingly poisonous when used as food. This is especially the case with such fish as feed on medusæ and on certain coral banks. Experts assure us that great caution has to be observed in eating fish caught in tropical waters, and too much attention cannot be bestowed on the warnings of those whose experience of the fish found in various neighbourhoods enables them to say which should be avoided as articles of diet. This subject is fully discussed in some of the earlier chapters of Gunter's “Fish,” a copy of which is to be found in the library of the Royal College of Surgeons.

#### THE NOTIFICATION OF DISEASES AT LINCOLN.

IN a letter from the Local Government Board to the Lincoln urban sanitary authority the Board say: “The Board do not understand why the Town Council of Lincoln have not adopted the Infectious Diseases (Notification) Act, 1889, which has been adopted in nearly all the great cities of the kingdom, nor do they see why the necessary steps with a view to the adoption of the Act should not now be taken.” In the discussion which followed the members of the Lincoln Town Council expressed satisfaction with their low death-rate, and Alderman Maltby, in a slightly jocular tone, expressed his belief that the deputy town clerk would take special care of the Board's letter. The worthy alderman seemed willing to have notification if medical men would do it voluntarily, which we take to be another term for gratuitously, and another member said he would like the Act adopted so far as not to involve the removal of patients to hospital.

#### THE ABERDEEN ROYAL INFIRMARY.

THE new wing of the Royal Infirmary, Aberdeen, was opened by the Princess Louise on the 4th inst. The new Royal Infirmary is a memorial of the jubilee of the reign of Her Majesty the Queen, and our readers may be interested by a few particulars in regard to it. Mr. Saxon Snell's design was selected. The surgical block consists of four storeys, three of the upper storeys being for wards and the necessary offices in connexion with them. *En passant* we may remark that we presume the height of the building is attributable to the limited amount of ground space available. The total number of beds for surgical cases is 140. The nucleus of the block, measuring fifty-five feet by thirty-eight feet, contains staircase, hydraulic lift, patients' clothes store, bath-rooms, ward kitchens, surgeons' and sisters' rooms &c. Right and left of this centre block are the surgical wards. The female wards each measure twenty-two feet by twenty-seven feet and a

half. The floor space allotted to each patient is ninety square feet, the air space 1400 cubic feet. Each ward has accommodation for thirteen patients on the female side and nineteen on the male side. In one male ward there is accommodation for twenty-five beds. Small wards with six beds are provided for special cases. Each ward has small projecting wings for sink, lavatories and sanitary adjuncts. All the ward floors are fireproof, of coke breeze concrete upon rolled iron joists; the floors are of Canadian maple in narrow width, and are of wax-polished and impervious surface; the walls are of cement plaster finished with parian; all the passages, corridor, roofs and staircases have a dado, four feet six inches high, of parian cement; all angles are rounded; the staircases are of stone, the ward windows are all alternately draw-sash and French casements; rounded balconies face the airing yard to allow of patients getting an airing. The hospital is heated with hot-water pipes. The ventilation includes the admission of heated air into the wards and the discharge of vitiated air by appliances of the latest and most approved types. The buildings will be lighted throughout with the electric light.

#### PROFESSOR BILLROTH'S JUBILEE.

THE past few days have witnessed a series of festivals at Vienna in commemoration of the commencement of the teaching career of Professor Billroth at the above-mentioned school. The event indeed has been converted into a sort of congress, which was inaugurated on the 8th inst. by the assembling of the former pupils of this distinguished surgeon in order to testify their gratitude for the advantages they had derived from his instructions. On this occasion Professor Czerny of Heidelberg was deputed to present to Professor Billroth a volume containing a record of his principal surgical works, and entitled "Contributions to Surgery." In the evening of the same day a dinner was given to Professor Billroth, at which numerous congratulatory speeches were made. The jubilee extended to the 11th, on which day his friends and admirers assembled to listen to an address by Professor Albert. The commemoration has excited great enthusiasm in the medical world of the Austrian capital.

#### ABUSE OF EYE HOSPITALS BY WEALTHY PEOPLE.

A CORRESPONDENT in an evening contemporary writes apparently in justification of wealthy persons going into the ophthalmic hospitals. He says, "The reason why people go to the Ophthalmic Hospital is because, however much wealth they may have, they get the best surgical treatment." This follows, somewhat inconsistently, an account of his own experience of the hospital, with which he was dissatisfied. He adds, "I believe it is quite true that very rich men go to the Ophthalmic Hospital. An Australian landowner was in when I was. He had come from Australia for the purpose." Wealthy and well-to-do people who go to hospitals are without excuse. They are not objects of charity and they take up beds meant for the poor. It is idle to say that the best surgical treatment is there. It is also to be had from the same surgeons privately; and it is mean and unjust not to pay for it. Such public statement of abuses of eye hospitals should make the governors more vigilant to exclude such unfit cases. Otherwise subscriptions will fall off.

#### THE HOWARD SOCIETY'S REPORT.

THE wise and practical benevolence which characterised the great prison reformer is commonly represented in the proceedings of the Society which bears his name, and of this fact we have received fresh proofs in its recently published annual report. While admitting, however, the general excellence of the matter contained in this work, we may select certain subjects with which it deals as of special interest and importance. Among these public opinion will rejoice to note

as a familiar evil marked for amendment the notorious inequality of legal sentences. No one probably will dispute the pernicious effect of that kind of magisterial good nature which has often impeded justice by condoning grave personal errors—as cruelty, drunkenness and the like—while scourging by heavy penalties the most petty sins against property. The report again strikes hard at the system of "association" among prisoners still widely practised in America and by no means unknown in Europe, or even in Great Britain and her dependencies. It would institute everywhere in place of this a method which would separate prisoners from each other while allowing them intercourse by visitation with the non-criminal outer world. It exposes with critical penetration the fallacy within that emasculated humanity which educates, feeds and clothes, but will not chastise, the offender against law. The frequently long detention of prisoners awaiting trial and their unwholesome and indecent herding together in many court-houses have given rise to protests on the part of the Association which have not been fruitless of improvement. Not the least sensible observation contained in the report is that which condemns the still too common imprisonment of children and youths, for whose misdemeanours a more effectual deterrent would usually be found in the free administration of the birch.

#### THE SEMMELWEISS INTERNATIONAL MEMORIAL.

WE have already informed our readers of the movement on foot for the erection of an international monument to Semmelweiss. We gladly revert to the subject, and direct the attention of our readers to the notice of a meeting to be held on Oct. 24th, at 5 P.M., in the library of the Royal College of Physicians, and to be presided over by Sir Andrew Clark, Bart., President of the College. We earnestly trust that he will then be supported by practitioners of every class, and not least by general practitioners who feel grateful to Semmelweiss for shedding such a flood of light on the simple means by which the conveyance of puerperal fever may be avoided, of which means the more perfect obstetric antisepticism aimed at by every good practitioner is the consummation. It is understood that subscriptions will be limited to one guinea. There will be the more need for numbers. We wish every success to the movement. It is understood that the practitioners of Scotland and Ireland will be asked to participate.

#### DIPHTHERIA AT ALBRIGHTON.

A STORMY meeting of the parishioners of this place, situated in the Shifnal rural sanitary district, took place recently, to discuss the sanitary state of the village, which had been blamed for the prevalence of diphtheria. Various allegations were made as to the circumstances of the drainage, sewage disposal and water-supply which, if true, deserve the earnest attention of the authority. But, inasmuch as some divergence of opinion appeared to exist as to the facts, the matter seems one that requires the intervention of the Shropshire County Council or of the Local Government Board.

#### THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

THE Birmingham and Midland Branch of the Society of Medical Officers of Health held last week its first meeting of the present session, and Dr. Alfred Hill, the President of the branch, read a paper on Cholera, giving an account of the different invasions of England by this disease, and especially of cholera prevalences in Bilston, and he contrasted the calamities that occurred on these occasions with the immunity enjoyed by England at the present time. The circumstances under which cholera was spread were, he said, well understood in this country, and he dwelt upon the evidence that went to prove that cholera was a water-borne disease. The dangers

of surface wells were described, and an account given of the steps taken in Birmingham to close those wells which were found to be polluted. The lesson Dr. Hill taught cannot be repeated too often. England is undoubtedly in a better condition to resist cholera now than formerly, but the work is in no way completed, and there are still in existence localities where excessive death-rates from enteric fever show that there cholera would still find fitting places for its development. The winter months give opportunities for sanitary authorities to remove many of these dangers before injury results. It is to be hoped that this opportunity will not be wasted.

#### SMALL-POX PREVALENCE.

SOME forty to fifty cases of small-pox per week are still being reported throughout the kingdom. The town of Warrington retains the preëminence of contributing the largest quota of these, equal to nearly half the total. Halifax and Barnsley come next, whilst London, it is satisfactory to know, remains practically free from the disease, only some half-dozen cases remaining under treatment.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Berlin.*—Dr. Johannes Sobotta has been appointed Assistant in the First Anatomical Institute.

*Dorpat.*—Dr. Gustav Tammann has been appointed Extraordinary Professor of Chemistry in succession to Dr. Carl Schmidt, who has retired. The total number of students in the university is 1558, or more than a hundred less than last year. Of these rather more than half belong to the medical faculty, in addition to 118 who are studying pharmacy.

*Innsbruck.*—Dr. Foltanek, the newly appointed Professor of Children's Diseases, has resigned his post on the ground of the insufficient accommodation provided for patients.—Dr. Wladimir Lukasiewicz has been appointed Extraordinary Professor of Dermatology and Syphilis.

*Kazan.*—Dr. Alexander Henrichovich Ge, Professor of Dermatology, has been appointed Dean of the Medical Faculty.

*Königsberg.*—A new Clinic for Syphilis is being established under the care of Professor Schneider. Hitherto there has been no Clinic for Mental Diseases, but this deficiency is now being supplied by the establishment of one as a department of the Town Hospital under Professor Meschede. The Prussian universities have now all, with the single exception of Kiel, a Clinic for Mental Diseases.

*Würzburg.*—The chair of Chemistry vacated by Dr. Fischer, who has gone to Berlin, has been offered to Professor Hantzsch of the Zurich Polytechnic.

*Zurich.*—The chair of Pharmacognosy and Pharmacy, vacated by Dr. Schür—who goes to Strasburg to fill Fluckiger's place—has been conferred on Dr. Carl Hartwich of Brunswick.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Eduard Ipsen, Professor of Orthopædic Surgery in the University of Copenhagen and Surgeon to the Crown Prince of Denmark, at the age of forty-eight.—Dr. A. Allenstein, one of the best known practitioners in Riga.—Dr. Steintal, Medical Privy Councillor of Berlin.

WE regret to learn that Dr. Villemin died on Friday night, Oct. 7th, at the age of sixty-five. Born in the Vosges, he began life as a teacher in the Strasburg Military School and was next professor at Val-de-Grâce, Paris. His works on Tuberculosis were the starting point of new ideas on that malady. His experiments proved it to be inoculable and contagious. At the International Tuberculosis Congress in Paris last year the greatest honours were paid to him,

THE Smith Hospital, Henley, the gift of the late Right Hon. W. H. Smith, was opened on the 6th inst. by the Bishop of Oxford, in the presence of a large audience. The site for the building was given by Mr. W. D. Mackenzie of Fawley Court, who has undertaken to lay out the ground.

PROFESSOR ANREP of St. Petersburg is stated to be suffering from cholera, but is believed to be progressing favourably.

## CHOLERA.

#### CURRENT NOTES, COMMENTS AND CRITICISM.

CHOLERA is gradually ceasing to manifest itself with epidemic force, and it is rapidly subsiding in those places in which it is still prevailing. At Hamburg there were only 13 cases and 3 deaths on the 11th inst., and for the week ending Oct. 8th the number of attacks was 155 with 43 deaths, against 474 and 180 respectively during the preceding week. The number of cases in Paris and its environs is diminishing, but there has been rather a sharp outbreak at Marseilles. At Antwerp, Amsterdam, Rotterdam, St. Petersburg, Berlin and Cracow respectively the cases are relatively few in number. At Budapest the disease still continues prevalent, as might be expected, and several isolated cases are stated to have occurred at thirteen different places in Hungary.

In the case of an epidemic disease like cholera, disappearance and death cannot, however, be used as conterminous or synonymous expressions. It does not at all follow, unfortunately, that because the disease ceases to manifest itself actively under the repressing effects of winter its cause will not be revitalised under other and favourable conditions. The influence of season on epidemic cholera is a noteworthy factor. It apparently overrides other conditions, and we might almost as soon expect a heavy fall of snow in summer as the beginning of an epidemic of cholera or its rapid and widespread extension in winter. But the active manifestation of the disease is one thing, its death and destruction another. As we have stated from the beginning, a cholera epidemic usually lasts three, or from three to four years from start to finish, and the experience derived from the history of cholera in the past indicates that it has its periods of latency and dormancy as well as those of active manifestation; and it is not only quite conceivable, but probable, that the former has a causal connexion with the latter period in the spread of an epidemic. Paradoxical as it may appear, it is well to regard the cholera-cause for the moment as something altogether separate and distinct from the human beings in whom it manifests itself and makes its presence known; for there can be little doubt that the time of its coming forward may be quite separate and distinct from the time of its introduction and distribution in any given country or locality. So much depends upon season and other conditions, to say nothing of those of locality, which may be favourable or the reverse, that we cannot prospect future occurrences with any sufficient accuracy to turn them to practical account. But of one thing we may be sure—viz., that it is a delusion and contrary to fact to suppose that because an epidemic declines or ceases altogether in winter its further progress at later dates and under other circumstances is therefore arrested and cannot take place.

As on former occasions, the present epidemic has been very unequal both in its incidence and in its effect in different places. In Russia it has given rise in the aggregate to a terrible amount of sickness and mortality. The total number of cases in the Caucasus during the months of August and September were 127,273 with 64,767 deaths, according to a telegram in the *Daily Chronicle*. Although the epidemic had almost died out before August in the government of Baku, 1800 deaths were reported during that month. In the Northern Caucasus the provinces of Kuban and Stavropol suffered most heavily. In Baku the death-rate was 70 per cent. of those attacked, while in Kars and the surrounding district it was 40 per cent. At the present time the disease is very active in the government of Erivan and to the north of the Caucasus. During the seven weeks of the epidemic in Hamburg 17,862 persons were attacked with cholera, with 7571 deaths, or a mortality of 42 per cent.

There are still several gaps that have to be filled up and some obscure points on which more light has to be thrown before we can be said to be in possession of anything like an accurate and complete history of this epidemic. The literature on the subject is voluminous enough, but we require to have all the facts chronologically set forth before we are in a position to separate the real from the assigned or hypothetical causes of its spread. To begin with, we require to have this information in regard to the epidemics in France and Russia respectively and their relation to one another, if any, and to the events which subsequently followed. Then, again, the official recognition of the disease in any given place often follows very tardily on the occurrence of the earlier cases. The names cholera nostras, cholera and choleraic diarrhoea are convenient labels but they are nevertheless embarrassing. In what relation do these stand to the epidemic disease which they sometimes precede and often accompany? Cholera presents such characteristic symptoms and is attended with such a high rate of mortality that it cannot be very well mistaken. A large number of bacteriological investigations have now been made, and we should be in a position to state definitely whether the comma bacillus has been invariably found in cases of Asiatic cholera and at what stage of that disease, whether the same micro-organism has been discovered in cases of so-called cholera and choleraic diarrhoea, and whether there are any varieties of the bacillus and their relation to these pathological congeners of true epidemic cholera. Such severe and circumscribed outbreaks of the disease as those which occurred at Nanterre, near Paris, and at the little fishing village of Le Portel, near Boulogne, should be thoroughly investigated, and an exhaustive inquiry should also be instituted in regard to the cause of the disease in the two first cases that occurred at the Runnelsburg workhouse in Berlin, for the sanitary condition of that institution is stated to have been very good, and the hypothesis that the patients contracted cholera from working on the sewage farm appears to be untenable, because they had not been at work there for three weeks before they were attacked. It is very important also to follow out the origin and progress of the disease in a village or small community of people where all the facts can be much more easily ascertained than in a large and crowded town. Assuming that Koch's comma bacillus is the cause of cholera, an explanation is required as to how it first of all was introduced into the well or water tank of a village household or institution, or into the water-supply of a village or small town, and among the large number of places that have suffered from cholera there should be some offering facilities for carrying out an investigation of this kind.

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### VISIT TO ROUEN.

**HIGH RATE OF INFANT MORTALITY.—ENDEMIC AND EPIDEMIC TYPHOID FEVER AT ROUEN.—SUBSOIL CONTAMINATION.—FOUL WATER.—INEFFICIENT DRAINAGE.**

SOME four years ago a Bureau d'Hygiène was instituted at Havre and endowed with the munificent income of £40 per annum! Practically this just covers the cost of publishing the vital statistics of the town. Insignificant as this sum may seem, nevertheless it has sufficed to render great service. Under the skilful direction of Dr. G. Panel, chief of the Bureau d'Hygiène, publicity has been given to the deplorable condition under which Rouen is placed. At least one most important fact has been clearly elucidated—namely, that in respect to infant mortality Rouen has the highest death-rate of any town in France. Of the children born at Rouen one-third die during the first year of their existence. Of course, this very materially effects the general death-rate. The following are the figures for the year 1891, and, so far as Rouen is concerned, they correspond with the average of the previous four years: 961 infants died in 1891; the average for the last four years was 956. Taking the fifty-one towns of France which have a population of more than 30,000 inhabitants, the general death-rate was 25.61, but the general death-rate for the town of Rouen was equal to 35.32 per 1000 of the population. The death-rate for the fifty-one principal towns of France from zymotic diseases was

equal to 1.74 per 1000, for Rouen to 1.73 per 1000. The death-rate from phthisis for the fifty-one towns was 3.40, for Rouen 4.84 per 1000. The infant mortality for the fifty-one towns was 4.27 and for Rouen it reached the very high figure of 9.02 per 1000 of the population. Thus, the infant mortality of Rouen is twice as high as the average of the fifty-one principal towns of France. These figures are not to be explained away by attributing the high death-rate to a high birth-rate. The birth-rate at Rouen is equal to 26.14 per 1000 and the infant death-rate to 9.02. The birth-rate at Paris is 27.04, infant mortality 3.55, St. Étienne, 28.74 and 3.94 respectively; Rheims, 29.55 and 6.76; Marseilles, 30.70 and 5.29; Havre, 33.49 and 6.56. The five towns mentioned have, it will be seen, a birth-rate much higher than Rouen, and yet their infant mortality is considerably less. The comparison may be set forth in percentages thus: For every 100 births in Paris there are 13.10 deaths of infants under one year of age, at St. Étienne 13.72 per cent., at Marseilles 17.22, at Havre 19.61, at Rheims 22.88 and at Rouen 34.68 per cent. For the fifty-one towns the average percentage per 100 births of infant mortality is 14.00, for Rouen 34.68. Nor does the placing of the children outside the town to nurse account for these figures, though it is an important factor in modifying the death-rate. Here are the figures: first, the percentage of children sent to nurse outside the town; secondly, the number of deaths per 100 births of infants below one year of age. At Lyons, where 42.40 per cent. of the infants are put out to nurse, the infant mortality is 12.05 per cent.; Paris, 29.76 and 13.10; St. Étienne, 20.42 and 13.72; Nantes, 18.25 and 19.11; Rouen, 13.35 and 34.68; Marseilles, 12.85 and 17.22; Havre, 10.65 and 19.61; Nancy, 6.84 and 20.05; Amiens, 2.21 and 21.20; Rheims, 0.03 and 22.88. Thus the infant mortality increases in the inverse ratio to the sending of the children out to nurse, and Dr. G. Panel calculates that, if we take into consideration the number of children born in Rouen and the proportion sent to nurse outside the town, the infant mortality there should be 18 per cent. of the births, whereas it is equal to 34.68 per cent. Further, if no children were sent out of Rouen, if all remained in the town and all died at the same rate as those that are not sent away, then the infant mortality would equal 39.29 per cent. of the births. Thus, though the figures may be twisted in all directions, the fact remains that at Rouen not only is there a higher infant mortality than in any other French town, but this mortality is extraordinarily high.

In connexion with the high infant mortality, it is perhaps useful to note, as bearing upon the present cholera epidemic, that typhoid fever is endemic at Rouen. The number of deaths from transmissible diseases for the years 1888, 1889, 1890 and 1891 was as follows:—From whooping-cough: 11, 14, 3, and 16 respectively. From diphtheria and croup: 61, 59, 47, 43. From erysipelas: 19, 8, 14, 8. From influenza: 0, 0, 40, 21. From measles: 43, 103, 15, 35. From scarlet fever: 14, 2, 0, 8. From small-pox: 10, 17, 2, 0. From typhoid fever, 87, 51, 102, 83. These figures give evidence of the endemic character of typhoid fever at Rouen. But if the statistics of the present year are studied, it will be found that typhoid fever assumed an epidemic intensity just at the time when cholera also made its appearance in various parts of France. Further, it will be noted that what is classed as "diarrhoea, gastro-enteritis and atrepsia" became epidemic at the same time. Under this latter heading the deaths at Rouen this current year were as follows: January, 42; February, 39; March, 34; April, 52; May, 45; June, 45; July, 110; August, 161. This last figure comprises 24 cases classed as cholera nostras or choleraic diarrhoea, and, over and above the 161 deaths for the month of August, there are 17 deaths entered under the heading of Asiatic cholera.

In giving at such length the vital statistics of Rouen, my object is to emphasise the exceptionally insanitary condition of the town and to throw out the suggestion that the inhabitants of the town who survive this state of affairs are to a great extent acclimatised to bad sanitation. Then those local conditions which render typhoid fever and diarrhoea so prevalent and so fatal are the favouring causes that facilitate the development of cholera. The possible consequences are terrible to contemplate if each individual case of cholera is not isolated, and if the disinfection is not complete. To make matters worse, a large number of cases of cholera are brought to Rouen from the surrounding rural districts; yet the sanitary condition of the town is such that the dictates of common prudence should

have suggested the necessity of keeping at a distance all possible cause of specific contamination. The first case of cholera noted at Rouen came from the outlying district of Bapeaume, situated to the west of the town and about a mile from the Seine. The man was ill, and went to a house in the Rue des Renards, which is not far from the hospital to which he was removed and where he died on July 21st. A few days later three deaths occurred in the same street in the house of a coal dealer. The inhabitants are fairly well off and lived comfortably in a clean house; but their cistern, containing rain water, was very dirty; and it is said that the first victim, a child, had drunk water from this cistern. A sempstress also died from cholera in this same street. Before the occurrence of the case imported from Bapeaume there had been, on July 18th, four doubtful cases. At the Ministry of the Interior at Paris there was found no record of these deaths from cholera occurring in July. The first case mentioned for Rouen bears the date of Aug. 23rd. Then on the 26th there were 2 deaths, 4 on the 28th, 1 on the 29th, 4 on the 30th, and 1 on the 31st. Altogether 13 deaths for August, whereas the statistics published by the Rouen Bureau d'Hygiène acknowledges 17 deaths from Asiatic cholera and 24 deaths from cholera nostras for the month of August. At the Ministry of the Interior I found a record of 25 deaths from cholera for September, 5 for Oct. 1st, and 2 and 3 for the next two days; while at Rouen, I was told, there had been from the 3rd to the 8th four more deaths, making 15 deaths in all, for the first eight days of October. This record, though probably not complete, suffices to show that, in proportion to the population, the epidemic is more severe in Rouen than in Paris.

In describing the cholera epidemic in Paris I have had to mention at length the consequences of the deplorable division of authority, between the Prefecture of Police and the Prefecture of the Seine. At Rouen there is no rivalry of authority, but a very confusing and unnecessary multiplicity of authority. Thus if a death from cholera occurs it is declared to the registrar of deaths at the Town Hall. A case of cholera is reported to the Bureau d'Hygiène. The latter office informs the general secretary of the municipality what has to be done. This official is the connecting link between the different services. First the police have to disinfect the room of the sick person. For this purpose there are two portable stoves which used to go to the houses, and the bedding was disinfected by steam superheated under pressure. Within the last few days the infected clothing &c. is conveyed by closed carts to the hospitals, where larger but stationary stoves have been established. The police agents disinfect the premises by spraying the walls with a mercurial solution. The apparatus used for this purpose is the same as that employed in Paris. At first Dr. Panel accompanied these police agents to see that they disinfected the premises with the necessary care and thoroughness. If, however, as is always the case where there is a question of cholera, the closets have to be disinfected, then another authority has to intervene. This service belongs to the architect of the town, and he has his staff of disinfectors for closets. Then should it be judged necessary to disinfect the yards, the wells in the yard, to make any alterations affecting the sewers, the streets, in fact anything outside the house, a third authority has to be convoked, that of the town engineer. But, as is most generally the case, if the patient has to be removed to the hospital, or if it is necessary to give relief to the family, then yet another authority must be summoned—namely, the administration of the hospitals or the poor relief authority. Then if the drinking water has to be analysed the municipal laboratory takes the matter in charge, while for bacteriological examination the specimen of water is sent to the hospital. Thus there are for scientific advice and statistical record the Bureau d'Hygiène; for disinfection of the room, the police; for disinfection of the closets, the town architect; for disinfection of the yards, the streets and sewers, the town engineer; for removal to the hospital and charitable relief, the administration of the hospitals; for water analysis, the municipal and the hospital laboratories. That the necessary work should have been done harmoniously thus far speaks well for mutual forbearance and the amicable disposition of the chiefs of the various departments, but it is nevertheless obvious that such subdivision of the work is as wrong in principle as it is clumsy in practice. It is due to the simple fact that the Bureau d'Hygiène is quite a recent creation, and it is a somewhat delicate matter to withdraw from existing functionaries a part of their functions.

Whether it be the want of a central and unique authority

or the ignorance and indifference of the inhabitants, the fact remains that Rouen is one of the most insanitary towns in France. This is all the more reprehensible, as there is little or no excuse for such a deplorable state. An excellent water-supply is available. M. Gogear, the town engineer, exhibited in the Sanitary Section of the Universal Exhibition of 1889 a scheme for the drainage of the town which showed that there were no local topographical difficulties of an exceptional character. The drainage of Rouen is practicable, an abundant supply of pure water is available, yet the town is not drained and the people drink foul water. In 1870 water was obtained at the source of the river Robec, a subterranean aqueduct of 6000 metres built, and spring water brought to a reservoir 60 metres above the town of Rouen. Five reservoirs hold a reserve of 29,000 cubic metres of water. These works were completed in 1885 and cost £204,000. Water pipes have been laid in every street. There are 212 public fountains, 810 hydrants for watering the streets of 0.04 metres diameter, and 88 for fires of 0.10 metres diameter. But, most unfortunately, the town instead of keeping these water works in its own hands, let them out to a private company, and a clause was introduced in the contract that the company was to augment the supply whenever the need of such increase was manifest. Now that the enterprise is in private hands it is not possible to compel the inhabitants to subscribe to the water-supply. On the other hand, the company has a sufficient number of subscribers to make the enterprise pay. If the number of subscribers was considerably augmented, new works would have to be undertaken, and the company does not care to face the risk of a large outlay for an increase of the supply; therefore it charges no less than £12 for placing a house in communication with its water mains. The gas and electric companies are glad to establish a connexion between a house and their supply gratuitously, and look to the annual subscriptions to cover the cost of the primary outlay. There are houses in Rouen that are not worth the cost of supplying water; for, apart from the £12, there is the annual subscription, which is rarely less than £1 12s. Thus it is that, out of the 15,000 houses which constitute the town of Rouen, only about 3000 houses are supplied with the pure water provided by the company.

The majority of the inhabitants drink rain water or well water. The rain water, after having washed the roofs of the houses, is scarcely clean; it is kept in cisterns and deprived of air and of light. The cisterns are but rarely cleaned. It would be necessary to empty the cisterns to clean them, and the inhabitants would have to wait till it rained again before they could obtain water to drink. In dry weather, when the cisterns are nearly empty, the dirt at the bottom is stirred and mixes with the water, which is then often totally unfit for consumption. Apart from the cisterns for the rain water there are numerous wells. Fortunately the water in a great number of these wells is so excessively foul that it cannot be drunk; thus, in the excess of the evil, some security is found. Many houses have three water-supplies: first, the company's drinking water, then cistern or rain water for washing, and finally well water for scouring the yard and pavement. Others have a fourth supply, that of the Seine water, which is generally used for the boilers of engines.

That the water in the wells should be extremely foul will seem only natural when it is considered that up to the year 1883 every house was allowed to drain into a cesspool so constructed as to allow all the liquids to filter away through the subsoil. At last, on March 5th, 1883, a municipal decree ordered that all cesspools should be rendered water-tight. Yet, though nine years have now elapsed, only about 5000 out of 15,000 cesspools have been visited and constructed according to the rule. But the town engineer himself recognises that in many cases when the inspector had verified that the cesspool was water-tight the workmen were made to return and with a few blows from their pickaxes destroy the bottom of the cesspool so as to enable the liquids to escape as usual. These cesspools on an average have a cubic capacity of 10 metres, and can therefore store 150,000 cubic metres of excremental matter under the houses and in close proximity to the wells. The emptying of the cesspools costs 4s. the cubic metre. The pneumatic system of emptying is employed, but the depot is within 1800 metres of the town. Here are large tanks, constructed by building up embankments, where the contents of the cesspools are exposed to the open air. It is necessary to evaporate 95 per cent. of liquid to produce the *poudrette*, which is sold as manure. To prevent the tanks overflowing and to dry the matter more

promptly some of the water is pumped away and simply thrown on to a neighbouring field, where it befouls the soil. Some 30,000 cubic metres of the foul matter which has previously sojourned in cesspools for about twelve months is thus treated annually in the open air and causes an intolerable nuisance.

Rouen has a few sewers; some are old and badly built, others are new and well built. The main sewer of the Boulevard Gauchois has an invert of 1 m. 25 c., which is so large in comparison to the volume of water received that deposits accumulate and foul odours are engendered. Other and older sewers have openings into the streets so badly contrived that the dirt thrown into them from the street does not fall into the sewer, but remains suspended half-way between the street and the sewer. This of course causes much annoyance and many offensive odours, which may be noticed when walking along the thoroughfares. All these sewers, old and bad, modern and fairly good, measure 42 kilometres. The total length of the streets of Rouen is 560 kilometres; thus only one quarter of the streets of Rouen has sewers. The houses in the streets without sewers drain into the gutter; the slop water and the kitchen water flow down the open street.

M. Gogcard, the town engineer, in his drainage scheme for Rouen, does not fall into the error, so common in France, of proposing large sewers. He advocates small self-cleansing pipe sewers, which are at once cheaper and more sanitary. There are lands near at hand available for the creation of sewage farms, and thus Rouen might be properly drained, cesspools abolished and the Seine no longer contaminated by sewage water. It must of course be obvious that at present the Seine is contaminated. The subsoil drainage, befouled by at least 10,000 leaking cesspools, must ultimately reach the Seine, and such sewers as exist have their outfall into the Seine. There are also 250 houses that drain directly into two little rivulets, which reach the Seine after passing through a part of the town. The water of these rivulets is extremely foul, as they receive the drainage from works and factories.

Since the outbreak of cholera an order has been given forbidding bakers to use well-water for the making of bread. It was found that, out of 103 bakers, only thirty-one subscribed to the water company. The police, profiting by the alarm caused by the cholera, have gone the round of the bakers' shops and have closed and sealed the wells, so that quite a rush on the water company is being made by bakers who are now compelled to subscribe. The Committee on Unwholesome Dwellings has also shown activity and there has been much cleansing of dirty quarters and sprinkling of disinfectants. Anyone, however, who has seen the Rue du Rosier—a name that must have been "wrote sarcastic"—the Rue du Petit Mouton and other such thoroughfares will acknowledge that the houses there can never be rendered wholesome. They must be rebuilt and the streets widened. There are streets in Rouen that are barely more than a yard wide. There are many dwelling-rooms that from year's end to year's end never receive a direct ray of sunlight. There are people who are content to live in the most dirty and miserable surroundings. Since the outbreak of cholera a good deal of out-door relief has been given, but this can never make up for the organic defects that prevail.

To sum up, at Rouen only one house out of five—3000 out of 15,000 houses—has a supply of wholesome drinking water; only one cesspool out of three cesspools has any pretence to be water-tight; more than 10,000 cesspools allow their foul liquid contents to escape in the subsoil; out of 162 kilometres of streets only 42 kilometres of streets have sewers. Many of the streets are devoid of sunlight. The sewers—the surface drainage—poison the confined atmosphere. What wonder that the infant mortality is the highest in France and that the general mortality reaches the alarming figure of 35.32 per 1000 of the population. What wonder that typhoid fever is endemic, that diarrhoea has assumed an epidemical intensity, and that cholera has found in Rouen ready victims. May the mischief go no further and may the warning be taken in time. Good water is available, good drainage is possible; both should be at once secured.

#### CHOLERA IN GERMANY.

Our Berlin correspondent writes:—The numbers of cholera cases and deaths in Hamburg from Sept. 30th to the 8th inst. were 357. On the 9th inst. 300 architects visited the new Hamburg waterworks and were almost unanimous in their praise and in blaming the slowness

with which the work of their completion is going on. Dr. von Gossler, ex-minister of educational, ecclesiastical and medical affairs, now President of the Province of West Prussia, has been appointed Commissioner of Public Health for the Vistula and its tributaries. The teachers in the village schools in the governmental district of Potsdam have been ordered to teach the children what to do and what to avoid in cholera times, and to carry out these instructions by means of short dictation exercises. At the last meeting of the Berlin Society for Internal Medicine the subject of discussion was cholera. The President, Professor Leyden, summed up the experience of the last decades concerning outbreaks of this disease, and showed how far opinion regarding it and the measures employed against it had been influenced by Koch's discovery. Dr. Paul Guttman, chief physician in the Moabit Hospital, to which all the Berlin cases have been taken, reported his experience. The cases had been 30 in number, and in 25 of these relations with Hamburg were proved beyond doubt. The great majority of the patients were bargemen and their families; and in all these cases, as well as in 2 of the 5 cases not traceable to Hamburg, the drinking of infected river water was proved to be the cause. Besides these real cholera cases the Moabit Hospital had to receive all suspects. One person of the latter class, in whom there was little to notice at first, fell ill of cholera after a short time. An important observation was that some patients who seemed to have nothing worse than diarrhoea were found to be suffering from genuine cholera, on which ground Dr. Guttman exhorted his professional brethren to send even apparently harmless cases of intestinal disorder to hospital in cholera times, because speedy and effective bacteriological examination was impossible elsewhere. He gave a minute description of the post-mortem phenomena in cholera, which were generally very characteristic.

A correspondent in Hamburg writes:—The Hamburg epidemic, though declining, still produces cases of the most virulent type. Up to the present time the official reports, which certainly do not over-estimate the mortality, state the number of cases that have occurred to be 17,673, with 7522 deaths, which would give for the entire population 44 per 1000 attacked and 19 per 1000 deaths, with a mortality of 42.6 per cent. of those attacked. All classes and all parts of the town have suffered, though, as might have been expected, the poorer and most crowded neighbourhoods were affected most. The form of cholera has scarcely undergone any change. The disease usually ends in a low form of "typhus," as it is called here. Eruptions are not frequently seen. There has been considerable activity displayed in attempting to stamp out the disease, though there has been nothing very worthy of note in the methods. The town is divided into districts, each of which has a medical officer constantly on duty for the service of the sick. A case is at once notified by telephone to the authorities. If the patient is willing, he is at once removed to a cholera hospital in an ambulance and the house is then disinfected. Any soiled linen is sent to the disinfecting house. Should the patient die, the body is removed to a special mortuary. Should a dwelling prove a veritable pest-house by repeated cases occurring the inmates are removed to another residence by the police. Boiled water is supplied from boilers which are placed in sheds in the middle of the streets, and disinfectants are supplied freely and gratuitously to all who apply for them.

The authorities are discussing the question of a new water-supply for the town. It has now been determined to continue to employ for drinking purposes the water of the Elbe, which contains all the sewage of Magdeburg, a city of 160,000 inhabitants, instead of going some forty miles to the north-east to the splendid Holstein lakes. No doubt economy is the reason, a quality for which Hamburg is celebrated. The newspapers are full of the treatment awarded to some medical candidates from the German universities who came here to take charge of the sick. They were told they would receive 20s. a day, but the moment the epidemic began to decline and it was considered desirable to diminish their number they were tendered 3s. 4d. a day—the pay of a day labourer—and when this was indignantly declined they were dismissed peremptorily with nothing. The Hamburg authorities have had to pay the common working men who removed the sick &c. 15s. a day. This action has not tended to increase the sympathy felt for the town in the rest of Germany.

CHOLERA IN AUSTRIA-HUNGARY.

Our Vienna correspondent writes:—The outbreak of cholera remains sporadic in the district of Cracow. Only a small number of new cases were reported to have occurred there during the last week. The Cracow outbreak has the character of a house epidemic, and most of the cases have been brought to the cholera hospital from one street. These houses are kept under strong quarantine by military force. Some cases of cholera were also stated to have occurred in the villages near Cracow. By the quarantine measures the trade and traffic at Cracow are reduced to a minimum, and people in Austria begin to understand that insanitary conditions sometimes become very expensive. At Budapest the cholera is spreading more and more; there were 271 cases of cholera, admitted by the official gazette to have occurred between Sept. 26th and Oct. 6th. The daily increase is said to be between thirty and forty cases, with a mortality of 40 per cent. More than 100 patients are now under treatment at the cholera barracks. Most of the cases occurred near the two principal railway stations of the State railway and of the western railway, and this is just the same locality which

formed the principal focus of the cholera epidemic in the year 1886. It is inhabited by poor people, the dwellings being extremely filthy. Now, when it is a little too late, disinfection is being tried, the streets even being moistened by solutions of carbolic acid. The daily papers are marking out now the existence of horrible nuisances, but in the meantime the disease has been conveyed to other Hungarian towns, and the outbreak of the cholera epidemic had to be reported this week at Szegedin, a town which was also infected from Budapest in the year 1886. The number of physicians at Budapest has proved so insufficient that medical students had to be engaged at the hospitals. The schools are now closed and a great number of persons have left the town. The Austrian Government has ordered a careful medical inspection of passengers and their luggage arriving in Austria from Hungary, and the importation of most of the articles from the same country is prohibited. At Vienna the mortality has been extremely low during the last few weeks, not exceeding 19 per 1000, while it is 23·0 per 1000 generally; but it seems that cases of a disease bearing an influenza-like character have occurred more frequently during the last few weeks.

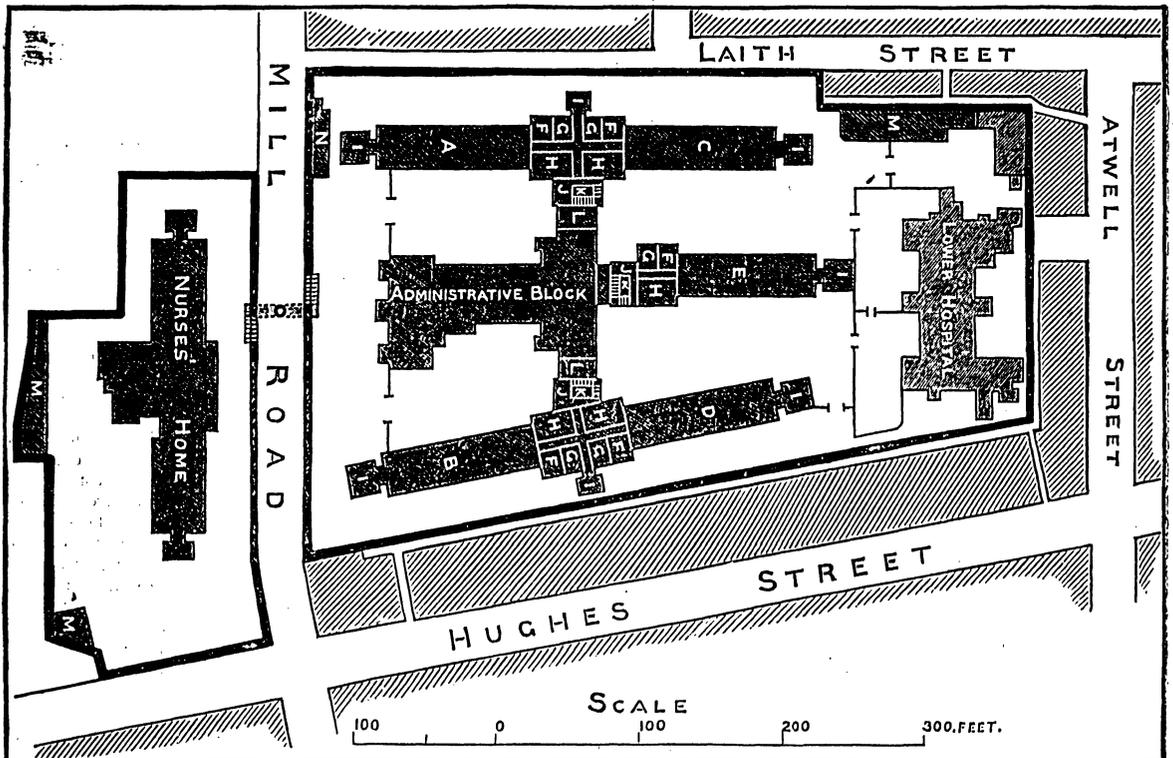
THE NEW HOSPITAL FOR THE WEST DERBY UNION.

By W. FINGLAND, L.R.C.P. & S. EDIN., MEMBER OF THE COMMITTEE OF MANAGEMENT.

It has occurred to me that a brief description of this extensive hospital, now approaching completion, would not be devoid of interest to the profession generally. First, to recognise the desire of the West Derby guardians to provide efficient modern hospital accommodation for their sick poor; secondly, as a record of the progress of hospital construction and arrangement; and, thirdly, to set forth the value of appointments connected therewith to junior members of the profession, where the opportunities for extending their practical knowledge of medical and surgical cases are virtually unlimited. The West Derby Union is one of the largest in the kingdom, both as regards area and population. It includes under its administration a large part of the city of Liverpool. The new hospital is centrally situated as regards the most

populous part of the Union, and occupies the site which was covered by a former hospital built in the early part of this century. This site has, however, been recently much extended by the absorption of a quantity of small property in its immediate neighbourhood.

The hospital is built of grey and red brick with terra-cotta and sandstone dressings. The administrative block, the only one in which any decorative effect has been introduced, is principally enriched with terra-cotta and has a projecting porch of red sandstone. It is designed in the Elizabethan style, and presents a pleasing and imposing appearance. The ground plan of the hospital may be represented by a double H, thus: [—|—], and consists of five ward blocks, the central anterior limb being the administrative block. The administrative block consists of four storeys, including the basement. The basement contains porter's room and dormitory, bath-room and lavatory, mess-room, also convenient and well arranged store-rooms for drugs, wine and beer, groceries, potatoes, meat &c. Access is also provided to receptacles, external and on each side of the building, for coal, coke, wood and potatoes. Two huge boilers are placed here to supply the hot water to the duty rooms, lavatories and to the coils of pipes to be placed in the corridors of the



hospital and Nurses' Home. On the ground floor are offices and sitting-rooms for the medical superintendent and assistants, steward and matron, dispensary, committee-room, kitchen, pantries and lavatory. On the first floor there are bedrooms and bath-rooms for the medical staff and matron, together with linen and sewing-rooms. On the second floor there is bedroom and bath-room accommodation for the house servants of the staff. Between the administrative block and the ward block immediately behind is a large and lofty kitchen, the walls of which are built of white glazed brick with dado. It is lighted from the roof, and conveniently situated to the adjacent hydraulic lifts which convey the diets to each ward. On each side, and forming a part of the transverse portion of the plan, are the male and female receiving-rooms, with bath-rooms attached thereto. Close to these are the lifts for the patients, three in number.

On each side the transverse part of the hospital is converted into a spacious balcony, where the patients who are well enough to leave the wards can enjoy the fresh air. This balcony is in two tiers, cleverly constructed on iron pillars and girders and communicates with the third and fourth floors of each ward block. As mentioned above, there are five distinct blocks of wards, each of which has four floors, including the basement (and it will be necessary here to explain that by "basement" a low dark cellar is not to be inferred); whereas the wards in the basement do not differ in any respect from those overhead, they are identical in every particular excepting in height, the ceilings being 3 ft. lower. They are surrounded by a spacious area, portions of which will be covered with glass, forming a useful and agreeable promenade. Moreover, from the contour of the site the basements of the front blocks may be almost considered as ground floors. It is not, however, intended to make use of the basements excepting when the resources of the hospital are unusually heavily taxed. There are therefore twenty wards, sixteen of which are 108 ft. by 24 ft. and 14 ft. in height, containing thirty-six beds each. The remaining four wards are in the block to the rear of the administrative block and measure 96 ft. by 24 ft. and 14 ft. high, containing thirty-two beds each. To every ward is annexed a small isolation ward for two beds. To these must be added the lunacy annexe, which is situated at the rear and transversely to the main building, containing 150 beds, but is not modern, making a grand total of 1000 beds. As the wards and their adnexa are precisely similar to each other, one description will suffice for them all. The floor is of pine blocks laid in asphalt on concrete. The margin is finished off with an oak fillet to prevent the accumulation and facilitate the removal of dust. The cornice is covered for a similar reason. Each ward is heated by two stoves centrally placed; the flues are deflected and carried up the outside walls of the building. At the base of each are fitted iron soot-doors for cleaning and examination.

The wards are lighted by windows which have an east and west aspect respectively. The upper sashes are of light iron work, the inferior half opening inwards. The ventilation is further carried on by ventilators placed under each window, which may be opened or closed as desired. Also by ventilators placed in the walls immediately below the ceiling, which communicate with shafts contained in brick pillars in the external walls, and are carried up directly to patent extractors fixed in the roof. The fanlights of the doors are similar to the windows. In the top floors the last-named ventilators are fixed in the ceilings. The wards are fitted with gas brackets placed on the walls only, the gas pipes being visible and not buried in the plaster. This remark also applies to the water pipes. At the proximal end of each ward there is a day-room, a separation ward for two beds, a duty room fitted with a convenient kitchen range, together with a sink with hot and cold water. These apartments are ventilated similarly to the wards. Two linen closets are also adjacent to the wards. At the distal end of each ward and forming a kind of annexe is placed a fire-escape staircase built of stone; bath-room, water-closets with overhead cisterns; and sink with double-way flush. These offices are all separate. The walls are lined with glazed brick in two colours with dado. The hot-water pipes are of copper, on account of its greater durability and less expansibility. The cold-water pipes are of lead. The corridors are covered with blue-and-red tiles laid on concrete. Those on the ground floor are covered with glass, in order to admit additional light to the corridors in the basement.

On the opposite side of the road on which the hospital is situated and connected with it by means of a capacious sub-

way lined with white glazed brick is the Nurses' Home. This building corresponds in style and treatment to the hospital opposite. It is built in three storeys and has an extensive frontage. On the ground floor are dining-room, sitting-rooms, kitchen, linen and store rooms, also a lofty apartment lighted from the roof, which may be used equally well as a chapel or a recreation hall. On this and the first floor there are sixty-three bedrooms for the nursing staff, together with well appointed rooms and lavatory accommodation for the lady-superintendent and her assistants. There is also accommodation for sick nurses, and the third floor contains bedrooms for the house servants. A suitable lodge is placed at the entrance gates to the hospital. A large piece of land has also been acquired adjoining the Nurses' Home on which it is intended to erect a suitable residence for the medical superintendent. This will add greatly to the completeness and symmetry of the establishment. The extensive arrangements connected with the successful progress and culmination of the scheme were carried out by Mr. H. P. Cleaver, the clerk to the union. The architect is Mr. Charles Lancaster and the contractor Mr. E. Gabbutt.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the committee of the Association of Fellows of the Royal College of Surgeons of England was held on Wednesday, Oct. 12th, at the residence of the President (Mr. George Pollock), 36, Grosvenor-street, W. There was a large attendance.

The minutes of the last meeting were read by the honorary secretary (Mr. H. Percy Dunn), and, after some discussion, were held over till the next meeting for confirmation. Letters of regret at being unable to attend were read from, Dr. W. J. Collins, Dr. George Helm of Truro and Mr. George Jackson of Plymouth.

The honorary Secretary presented a printer's account for the issue of the recent report of further proceedings of the Association of Fellows, copies of which were forwarded to Fellows of the College whose addresses were known. This account amounted to £12 8s. 6d., and was handed to the treasurer for payment.

The committee then adjourned.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Enteric Fever in the Ashby Wolds Urban District.* By Dr. F. PARSONS.—An interesting account is briefly given by Dr. Parsons of an outbreak of enteric fever at Newfield, Moira, in this urban district. Nineteen cases and five deaths of the disease occurred last year, and the circumstances leading to its diffusion are carefully discussed. On the whole Dr. Parsons is inclined to believe that the propagation of the fever took place as the result of structural sanitary defects. He draws especial attention to one wash-house used in common by the whole of the row of cottages on which the incidence of the disease particularly fell, and in which the soiled linen of the first patient was washed. In this locality the yard surface was in part unpaved, it was ill-kept, and there was a deficient water-supply. With a mining class, bad sanitary conditions, and the existence of infectious excreta, it is by no means difficult to think of a number of ways in which air and soil, if not water, might become a means for conveying the contagium of enteric fever. Amongst the urgent wants of the place is an adequate supply of wholesome water.

*Enteric Fever and Diphtheria in the Ashby-do-la-Zouch*

1 Eyre and Spottiswoode, East Harding-street, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis and Co., Dublin; Price 4d.

*Rural District.* By Dr. F. PARSONS.—From an administrative point of view and for local purposes this report is distinctly a valuable one; from an etiological point of view it simply tells the old story of excremental filth in air and water, and of a considerable amount of preventable disease. Coal-ville is the place that mainly suffered, and whether its dirty midden privies, its bad scavenging, its leaky drain pipes and "sumps," or its defective water-supply be considered, the story is one of bad administration and of neglect. The report contains no recommendations, but anyone reading between the lines can see what is wanted, and it is to be hoped that at a season like this when such nuisances are likely to be of special danger, local as well as national, that every pressure will be put upon the local authority to mend their ways on modern and scientific public health lines.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Salford Urban District.*—Mr. Charles Paget's report on this important district for the year 1891 forms one of a long series of very excellent reports issued from the health department of the borough. The annual death-rate was 26.0 per 1000, which is not a low one for English boroughs, but steady improvement is in progress with a view to its diminution, and amongst the latest instances is the opening of an admirable hospital for infectious diseases. The zymotic rate is one which has already commenced to diminish, and it bids fair to continue on its downward course. The inspectorial staff has been increased, the sanitary work has been on a larger scale than formerly, and cellar dwellings have been reduced in number; but other improvements are needed, notably some proper way for disposing of the excess of refuse and the erection of public abattoirs. Mr. Paget points out anew the statistical errors which are inseparable from our system of taking the census only once in every ten years, and urges the necessity for a quinquennial enumeration of the people.

*Kingston-upon-Hull Urban District.*—The revised population for Hull was 200,934 in 1891, and on this the general death-rate was 20.5 per 1000, the zymotic rate being 1.7. This latter rate was largely due to deaths from measles and diarrhoea. The isolation hospitals received 168 patients, and Dr. Mason, in speaking of this work, says that it cannot be overestimated. A steady house-to-house visitation was maintained during the year, 4239 houses having been examined in detail. So also 1709 visits were paid by day and night to the common lodging-houses, and other establishments, including bakeries &c., were visited in like proportion. It is steady work of this character that is, above all things, valuable. It leads to the detection and remedy of multitudinous conditions that would otherwise escape observation, and which, if not dealt with in advance, would tend to the spread of imported preventable disease and to a wasteful because hasty expenditure. The closet accommodation is kept under watchful supervision and such excreta and refuse as cannot be utilised for manurial purposes are dealt with in a destructor. Dr. Mason illustrates his report by diagrams and tables which add much to its value.

### VITAL STATISTICS.

#### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6132 births and 3470 deaths were registered during the week ending Oct. 8th. The annual rate of mortality in these towns, which had declined from 19.8 to 16.6 per 1000 in the preceding five weeks, rose again last week to 17.8. In London the rate was 16.4 per 1000, while it averaged 18.7 in the thirty-two provincial towns. The lowest rates in these towns were 10.3 in Croydon, 11.9 in Blackburn, 12.7 in Leicester, and 13.0 in Derby; the highest rates were 22.0 in Liverpool, 22.5 in Preston, 23.3 in Bolton, and 26.7 in Salford. The 3470 deaths included 505 which were referred to the principal zymotic diseases, against numbers declining from 989 to 535 in the preceding five weeks; of these, 206 resulted from diarrhoea, 73 from diphtheria, 70 from measles, 68 from scarlet fever, 45 from "fever" (principally enteric), 43 from whooping-cough, and not one from small-pox. No fatal case of any of these diseases occurred last week in Halifax; in the other towns they caused the lowest death-rates in Derby, Bristol, Birkenhead, and Blackburn; and the highest rates in Swansea, Hull, Leeds, Preston, and Salford. The greatest mortality from measles occurred in

Huddersfield, West Ham, and Salford; from scarlet fever in Plymouth and Preston; from whooping-cough in Huddersfield and Salford; from "fever" in Portsmouth, Leeds, and Swansea; and from diarrhoea in Bolton, Cardiff, Leeds, Nottingham, Hull, and Preston. The 73 deaths from diphtheria included 51 in London, 4 in Croydon, and 4 in Sheffield. No fatal case of small-pox was registered either in London or in any other of the thirty-three large towns; three cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 6 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3628, against numbers increasing from 3052 to 3514 on the preceding seven Saturdays; 412 new cases were admitted during the week, against 370 and 369 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 171 in the preceding five weeks, further rose to 184 last week, but were 53 below the average. The causes of 78, or 2.3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Oldham, Newcastle-upon-Tyne, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Blackburn, and Gateshead.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17.9 and 17.1 per 1000 in the preceding two weeks, rose again to 18.5 during the week ending Oct. 8th, and exceeded by 0.7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11.5 in Paisley and 11.6 in Greenock to 19.8 in Edinburgh and 20.6 in Perth. The 515 deaths in these towns included 22 which were referred to diarrhoea, 22 to measles, 16 to scarlet fever, 8 to whooping-cough, 6 to diphtheria, 3 to "fever," and not one to small-pox. In all, 78 deaths resulted from these principal zymotic diseases, against 77 and 84 in the preceding two weeks. These 78 deaths were equal to an annual rate of 2.8 per 1000, which was slightly above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhoea, which had been 27 and 24 in the preceding two weeks, further declined to 23 last week, of which 13 occurred in Glasgow and 5 in Dundee. The deaths referred to measles, which had been 12 and 18 in the preceding two weeks, further rose to 22 last week, and included 17 in Edinburgh and 2 in Leith. The fatal cases of scarlet fever, which had risen from 10 to 17 in the previous three weeks, were 16 last week, of which 11 occurred in Glasgow, 2 in Edinburgh, and 2 in Aberdeen. The 8 deaths from whooping-cough slightly exceeded the number in the preceding week, and included 7 in Glasgow. The 6 fatal cases of diphtheria showed a decline of 4 from the number in the previous week, and included 3 in Glasgow and 3 in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 66 and 80 in the preceding two weeks, further rose to 84 last week, but were 5 below the number in the corresponding week of last year. The causes of 54, or more than 10 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19.7 and 21.5 per 1000 in the preceding two weeks, declined again to 20.0 during the week ending Oct. 8th. During the thirteen weeks of last quarter the death-rate in the city averaged 23.1 per 1000, against 17.1 in London and 16.1 in Edinburgh. The 134 deaths in Dublin during the week under notice showed a decline of 10 from the number in the preceding week, and included 9 which were referred to diarrhoea, 3 to different forms of "fever," and not one either to small-pox, measles, scarlet fever, diphtheria, or whooping-cough. In all, 12 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.8 per 1000, the zymotic death-rate during the same period being 2.0 in London and 5.1 in Edinburgh. The fatal cases of diarrhoea, which had been 15 and 20 in the preceding

two weeks, declined again to 9 last week. The deaths referred to different forms of "fever," which had been 2 in each of the preceding two weeks, rose to 3 last week. The 134 deaths registered in Dublin last week, included 31 of infants under one year of age, and 36 of persons aged upwards of sixty years; the deaths of infants showed a slight increase, while those of elderly persons showed a decline from those recorded in the preceding week. One inquest case and 2 deaths from violence were registered; and 28, or nearly a fourth, of the deaths occurred in public institutions. The causes of 17, or nearly 13 per cent., of the deaths in the city last week were not certified.

## CALCUTTA.

The return of the health officer for Calcutta for the week ending Aug. 20th shows that the total number of deaths registered during the week was 196, against 176 and 189 in the preceding two weeks. There were 2 deaths from cholera, against 8 and 6 in the preceding two weeks. There were no deaths from small-pox. The mortality from fevers and bowel complaints amounted to 68 and 23 respectively. The general death-rate of the week was 21.9 per 1000 per annum, against 20.7, the mean of the last five years. In the amalgamated area of suburbs the total number of deaths registered during the week was 135, against 122 and 105 in the preceding two weeks. There were 3 deaths from cholera, against 5 and 7 during the preceding two weeks; no deaths from small-pox, 16 deaths from tetanus, and the mortality from fevers and bowel complaints amounted to 54 and 22 respectively. The death-rate during the week was 32.7 per 1000 per annum, against 47.7, the mean of the last three years. The general death-rate of the combined area was equal to 25.3 per 1000.

## VITAL STATISTICS OF LONDON DURING SEPTEMBER, 1892.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during the month of September in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the ten diseases specified in the accompanying table was equal to 17.4 per 1000 of the population, estimated at 4,263,294 persons in the middle of this year. Owing to the increasing prevalence of scarlet fever and of diphtheria in London this rate shows a marked further increase upon those recorded in the preceding seven months, which had steadily risen from 5.1 to 12.5 per 1000. Among the various sanitary districts the rates last month were considerably below the average in Paddington, Kensington, Fulham, Westminster, St. Martin-in-the-Fields, St. Saviour Southwark, and Lewisham (excluding Penge); while they showed the largest excess in Hackney, Strand, Holborn, all the districts of East London, and in Bermondsey. The prevalence of small-pox in London showed a further decline during September, only 3 cases being notified during the whole month, or less than an average of 1 per week, while the weekly average of cases during the preceding four months had been 27, 16, 5 and 4 respectively; of the 3 cases notified last month 1 belonged to Kensington, 1 to Bethnal Green and 1 to Poplar. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained 8 small-pox patients at the end of September, against 108, 40, 9 and 8 at the end of the preceding four months; the weekly admissions averaged 2, against 29, 11, 5 and 2 during the previous four months. The prevalence of scarlet fever in London during September showed a further marked increase upon that recorded in recent months; this disease was proportionally most prevalent in Hackney, Strand, Holborn, Shoreditch, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, Newington, Bermondsey, Camberwell and Plumstead sanitary districts. The Metropolitan Asylum Hospitals contained 3407 scarlet fever patients at the end of September, against numbers increasing from 1142 to 3213 at the end of the preceding seven months; the weekly admissions averaged 355, against 238, 335 and 378 in the preceding three months. Diphtheria showed the highest proportional prevalence during September in Hammersmith, in Westminster, in all the districts of East London, in Battersea and in Lewisham. There were 318 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of September, against numbers steadily increasing from 198 to

310 at the end of the preceding six months; the weekly admissions averaged 54, against 56 and 55 in the preceding two months. Enteric fever was proportionally most prevalent in St. George Hanover-square, Islington, St. George-in-the-East, Poplar and Greenwich sanitary districts. The Metropolitan Asylum Hospitals contained 113 enteric fever patients at the end of September, against numbers increasing from 47 to 93 at the end of the preceding four months; the weekly admissions averaged 20, against 16 and 14 in the preceding two months. Erysipelas showed the highest proportional prevalence during the month under notice in St. Giles, Holborn, St. Luke, Bethnal Green, Whitechapel and Bermondsey. Five cases of puerperal fever were notified during September in St. Pancras and 4 in Whitechapel sanitary districts.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed among the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data that can be secured upon which to calculate reliable rates of mortality. During the four weeks ending on Saturday, Oct. 1st, the deaths of 5144 persons belonging to London were registered, equal to an annual rate of 15.7 per 1000, against 17.8 and 16.9 in the preceding two months. The lowest death-rates during September in the various sanitary districts were 8.9 in Hampstead, 9.6 in St. James Westminster, 10.3 in Lewisham (excluding Penge), 11.3 in Wandsworth, 11.4 in St. George Hanover-square, 11.6 in Paddington, and 11.9 in Kensington; in the other sanitary districts the rates ranged upwards to 21.6 in Whitechapel, 22.3 in Clerkenwell, 22.7 in St. Luke and in St. Saviour Southwark, 23.4 in City of London, 23.9 in St. Martin-in-the-Fields, and 27.9 in St. George-in-the-East. During the four weeks of September 838 deaths were referred to the principal zymotic diseases in London; of these, 394 resulted from diarrhoea, 165 from diphtheria, 123 from scarlet fever, 62 from different forms of "fever" (including 60 from enteric fever, 1 from typhus fever and 1 from an ill-defined fever), 55 from measles, 39 from whooping-cough, and not one from small-pox. These 838 deaths were equal to an annual rate of 2.6 per 1000, against 3.1, 3.9 and 3.4 in the preceding three months. Among the various sanitary districts the lowest zymotic death-rates were recorded in Hammersmith, St. George Hanover-square, St. James Westminster, Hampstead, St. Martin-in-the-Fields and Strand; and the highest rates in Clerkenwell, Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, Newington and St. Olave Southwark. The 55 deaths referred to measles were 25 below the corrected average number in the corresponding month of the preceding ten years; this disease showed no marked fatality last month in any of the sanitary districts. The 123 deaths from scarlet fever were 11 above the corrected average; among the various sanitary districts this disease showed the highest proportional fatality in St. George-in-the-East, Limehouse, Mile End Old Town, Poplar and Bermondsey. The 165 fatal cases of diphtheria exceeded by 67 the corrected average; this disease showed the highest proportional fatality in St. Pancras, Hackney, Bethnal Green, Mile End Old Town, Poplar, Newington and Plumstead. The 39 deaths referred to whooping-cough were less than a third of the corrected average number; this disease showed no marked fatality in any of the sanitary districts. The 62 deaths referred to different forms of "fever" were 14 above the corrected average; there was no marked excess of fever mortality in any of the sanitary districts during the month under notice. The 394 fatal cases of diarrhoea exceeded by 20 the corrected average; this disease was proportionally most fatal in St. Giles, Bethnal Green, St. George-in-the-East, Limehouse, St. Saviour Southwark, and Rotherhithe. In conclusion, it may be stated that the mortality in London during September from these principal zymotic diseases was 4 per cent. below the average.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 149 per 1000 during September, and almost corresponded with the average; the lowest rates of infant mortality were recorded in St. James Westminster, Marylebone, Hampstead, St. Giles, St. George Southwark and Rotherhithe; the highest rates in Kensington, Westminster, St. Martin-in-the-Fields, City of London, Whitechapel, St. George-in-the-East and Limehouse.

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—SEPTEMBER, 1892.  
(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1892.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.		
		Small-pox.	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Krysipelas.	Membranous croup.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.					Diarrhoea.	Total.
LONDON .. .. .	4,263,294	3	3660	856	2	340	21	37	729	43	11	5702	17.4	—	55	123	165	39	1	60	1	394	838	2.6	5144	157	149
<i>West Districts.</i>																											
Paddington .. .. .	119,199	—	63	17	—	—	—	—	14	—	—	97	10.6	—	—	—	—	—	—	—	—	—	20	2.6	108	11.6	185
Kensington .. .. .	166,721	1	99	14	1	—	—	—	11	3	—	134	10.5	—	—	—	—	—	—	—	—	—	21	2.2	162	11.9	187
Hammersmith .. .. .	100,612	—	91	31	—	—	—	—	11	—	—	131	13.0	—	—	—	—	—	—	—	—	—	6	1.6	152	15.0	195
Fulham .. .. .	98,195	—	61	8	—	—	—	—	2	—	—	78	10.4	—	—	—	—	—	—	—	—	—	11	1.4	116	12.6	191
Chelsea .. .. .	97,300	—	61	11	—	—	—	—	2	—	—	105	10.7	—	—	—	—	—	—	—	—	—	20	2.1	137	13.8	193
St. George Hanover-square .. .. .	76,946	—	39	16	—	—	—	—	5	—	—	69	11.7	—	—	—	—	—	—	—	—	—	8	1.4	162	13.7	198
Westminster .. .. .	55,203	—	24	12	—	—	—	—	3	—	—	43	10.2	—	—	—	—	—	—	—	—	—	8	1.4	75	17.7	100
St. James Westminster .. .. .	24,368	—	15	—	—	—	—	—	4	—	—	22	11.3	—	—	—	—	—	—	—	—	—	2	1.1	18	9.6	103
<i>North Districts.</i>																											
Marylebone .. .. .	140,799	—	81	22	—	—	—	—	32	—	—	144	13.3	—	—	—	—	—	—	—	—	—	6	1.9	164	17.0	111
Hampstead .. .. .	71,652	—	27	5	—	—	—	—	4	—	—	41	7.5	—	—	—	—	—	—	—	—	—	5	0.7	49	8.9	106
St. Pancras .. .. .	234,207	—	198	49	—	—	—	—	40	3	—	319	17.8	—	—	—	—	—	—	—	—	—	17	4.7	233	16.3	136
Islington .. .. .	324,451	—	255	91	—	—	—	—	29	4	—	462	18.2	—	—	—	—	—	—	—	—	—	28	5.7	277	15.1	162
Hackney .. .. .	235,870	—	279	40	—	—	—	—	32	5	—	379	21.0	—	—	—	—	—	—	—	—	—	20	2.8	376	13.2	144
<i>Central Districts.</i>																											
St. Giles .. .. .	89,071	—	28	7	—	—	—	—	13	—	—	51	17.0	—	—	—	—	—	—	—	—	—	6	8.0	68	18.7	106
St. Martin-in-the-Fields .. .. .	14,204	—	7	2	—	—	—	—	2	—	—	11	10.1	—	—	—	—	—	—	—	—	—	1	0.9	28	23.9	294
Strand .. .. .	24,256	—	33	1	—	—	—	—	5	—	—	39	21.0	—	—	—	—	—	—	—	—	—	2	2.0	50	21.0	135
Holborn .. .. .	32,912	—	61	10	—	—	—	—	13	—	—	87	34.5	—	—	—	—	—	—	—	—	—	2	2.0	50	29.5	182
Clerkenwell .. .. .	65,482	—	52	11	—	—	—	—	18	—	—	89	17.7	—	—	—	—	—	—	—	—	—	6	3.4	112	22.5	175
St. Luke .. .. .	41,850	—	33	4	—	—	—	—	14	—	—	53	16.6	—	—	—	—	—	—	—	—	—	8	2.6	73	22.7	137
City of London .. .. .	36,692	—	27	4	—	—	—	—	6	—	—	40	14.2	—	—	—	—	—	—	—	—	—	6	2.1	66	23.4	240
<i>East Districts.</i>																											
Shoreditch .. .. .	123,033	—	127	27	—	—	—	—	36	—	—	205	21.6	—	—	—	—	—	—	—	—	—	23	2.4	151	15.9	138
Bethnal Green .. .. .	129,408	1	123	110	—	—	—	—	63	—	—	311	31.3	—	—	—	—	—	—	—	—	—	54	5.4	201	20.3	127
Whitechapel .. .. .	74,853	—	67	18	—	—	—	—	29	—	—	123	21.3	—	—	—	—	—	—	—	—	—	15	2.0	124	21.6	212
St. George-in-the-East .. .. .	45,343	—	44	17	—	—	—	—	8	—	—	82	23.6	—	—	—	—	—	—	—	—	—	8	1.9	97	27.9	248
Limehouse .. .. .	57,480	—	95	9	—	—	—	—	9	—	—	119	27.0	—	—	—	—	—	—	—	—	—	13	1.9	84	19.0	192
Mile End Old Town .. .. .	107,811	—	153	37	—	—	—	—	23	—	—	227	27.4	—	—	—	—	—	—	—	—	—	9	3.4	174	21.0	184
Poplar .. .. .	167,857	1	209	69	—	—	—	—	30	5	—	345	26.8	—	—	—	—	—	—	—	—	—	16	4.8	257	30.0	184
<i>South Districts.</i>																											
St. Saviour Southwark .. .. .	26,973	—	12	3	—	—	—	—	1	—	—	18	8.7	—	—	—	—	—	—	—	—	—	5	6.3	47	22.7	149
St. George Southwark .. .. .	69,846	—	37	7	—	—	—	—	10	—	—	56	12.2	—	—	—	—	—	—	—	—	—	6	1.7	74	16.1	117
Newington .. .. .	116,649	—	137	14	—	—	—	—	13	—	—	177	19.8	—	—	—	—	—	—	—	—	—	10	3.0	164	18.3	182
St. Olave Southwark .. .. .	12,787	—	9	3	—	—	—	—	4	—	—	16	16.3	—	—	—	—	—	—	—	—	—	2	4.4	12	12.2	167
Bermondsey .. .. .	84,440	—	94	10	—	—	—	—	27	—	—	136	21.0	—	—	—	—	—	—	—	—	—	5	1.8	186	19.4	164
Rotherhithe .. .. .	39,459	—	31	—	—	—	—	—	8	—	—	44	14.5	—	—	—	—	—	—	—	—	—	6	1.0	33	19.5	117
Lambeth .. .. .	277,917	—	237	38	—	—	—	—	37	—	—	342	16.0	—	—	—	—	—	—	—	—	—	26	4.9	308	14.4	121
Ratcliffe .. .. .	156,313	—	129	45	—	—	—	—	35	—	—	222	18.5	—	—	—	—	—	—	—	—	—	30	2.5	157	18.1	123
Wandsworth .. .. .	164,003	—	81	24	—	—	—	—	26	—	—	149	11.8	—	—	—	—	—	—	—	—	—	12	1.9	142	11.3	135
Camberwell .. .. .	241,465	—	229	22	—	—	—	—	21	—	—	233	15.5	—	—	—	—	—	—	—	—	—	25	5.1	285	16.4	168
Greenwich .. .. .	169,734	—	133	14	—	—	—	—	33	—	—	213	16.4	—	—	—	—	—	—	—	—	—	18	3.5	191	14.7	133
Lewisham (excluding Penze)	74,673	—	121	23	—	—	—	—	8	—	—	61	10.6	—	—	—	—	—	—	—	—	—	10	1.7	69	10.3	171
Woolwich .. .. .	41,376	—	30	—	—	—	—	—	8	—	—	39	12.3	—	—	—	—	—	—	—	—	—	4	2.5	42	13.2	165
Plumstead .. .. .	91,704	—	95	11	—	—	—	—	7	—	—	121	17.2	—	—	—	—	—	—	—	—	—	13	1.8	97	13.8	137

## THE SERVICES.

## MOVEMENTS OF MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Finlay has taken up duty at Hounslow. Brigade-Surgeon Gillespie, retired pay, has resigned the medical charge at Galway. Surgeon-Major Macnamara has rejoined at Portsmouth. Surgeon-Captain Leishman has obtained leave from Bombay on medical certificate. Surgeon-Captain Lambkin has embarked for Jamaica on a tour of foreign service. Surgeon-Captain A. Morris has been transferred from Ireland to Netley. Surgeon-Captain Stanistreet has taken up duty at Canterbury. Surgeon-Lieutenant Buchanan has been transferred to Pontefract. Surgeon-Major W. Venour (retired pay) has been taken on the strength of the district and posted to Penally for duty. Surgeon-Captain Hickson has been transferred from Templemore to the Royal Infirmary, Dublin, for duty. Surgeon-Lieutenant H. A. Stalkart has been transferred to the Curragh for duty.

## INDIAN MEDICAL SERVICE.

Surgeon-Captain J. Murray, I.M.S., Bengal Establishment, has been appointed Professor in the Lahore Medical College from May 24th, 1892. Surgeon-Lieutenant-Colonel Hughes, Civil Surgeon, Poona, has been ordered to Bombay to take over the duties of Principal Medical Officer of the Bombay, Aden and Deesa Districts from Surgeon-Colonel Cates, vacating on the 15th inst. on retirement. Surgeon-Major J. E. Ferguson, M.B., I.M.S., has been granted extension of leave to six months on medical certificate. Surgeon-Lieutenant-Colonel H. Stannard, Medical Staff, remains at home on extended leave.

## NAVAL MEDICAL SERVICE.

The following appointments have been made:—Staff Surgeons: Joseph Cowley, M.D., to the *Scout* (undated); Charles A. Macaulay to the *Castor* (dated Sept. 30th, 1892); John J. Dinnis, M.D., to the *Phaeton*, reappointed (dated Oct. 2nd, 1892). Surgeons: James M. France to the *President*, additional (dated Oct. 11th, 1892); John H. Thomas to the *Bellerophon*, John L. Barrington to the *Melita*, and T. P. J. Coolicon to the *Ruby* (all dated Oct. 1st, 1892); Frederick J. Burns, M.D., to the *Belleisle*; and D'Arcy Harvey to the *Vernon*, additional, for disposal, and Clement Alsop to the *Melita* (both dated Oct. 11th, 1892). Surgeons and Agents: Henry M. Scott at Inniscrone and Pullocheny, and John J. McNulty at Derkinore and Pullendiva (both dated Oct. 5th, 1892).

## VOLUNTEER CORPS.

*Artillery*: 4th Lancashire: Surgeon-Captain T. F. Young to be Surgeon-Major (dated Oct. 8th, 1892).—*Royal Engineers* (Fortress and Railway Forces): 1st Flint (Buckley): Surgeon-Lieutenant J. Williams resigns his commission (dated Oct. 8th, 1892).—*Rifle*: 1st Volunteer Battalion, the Princess of Wales's Own (Yorkshire Regiment): Surgeon-Lieutenant A. Barber, M.B., resigns his commission (dated Oct. 8th, 1892).—1st (Hallamshire) Volunteer Battalion, the York and Lancaster Regiment: Henry Temple Wightman, Gent., to be Surgeon-Lieutenant (dated Oct. 8th, 1892).—1st (Invernesshire Highland) Volunteer Battalion, the Queen's Own Cameron Highlanders: John Macdonald, M.B., to be Surgeon-Lieutenant (dated Oct. 8th, 1892).

## AN EARLY RATION FOR SOLDIERS.

OUR attention has been called by a military officer of rank and experience to the desirability of providing the soldier with an early ration before his morning drill. There is no doubt that an issue of this kind would be beneficial to the health of our young soldiers and would tend to promote contentment and sobriety and, as a consequence, discipline in the ranks. The great defect at present in the dieting of soldiers is in regard to the supper and breakfast meals. There is no doubt that much has been done of late, as we have already pointed out, in the way of the improved character of the rations and in their cooking. It should be practicable to make some regimental arrangements for providing the soldier with a cup of tea or coffee, with bread, before early parade, and we believe that this is already done in many corps. Facilities should also be offered to a soldier for cooking in military cook-houses certain articles of diet which he purchases at the canteen for his breakfast.

## THE BERLIN-VIENNA MILITARY RIDE.

As far as any practical purpose goes the late military ride, to which we alluded last week, has been a futile undertaking, and a very cruel one as far as the unfortunate

horses were concerned. A considerable number of the animals have died in consequence of the fatigue and hardship they have undergone. It has served to show, perhaps, that the Hungarian horses have endurance or "staying power," but this was pretty well known beforehand. It is stated that most of the winners declare that they will never take part in such a ride again, and that long-distance rides must in future be undertaken under very different conditions. To force on horses in the last stage of their journey when they are nearly dead with fatigue, unless under the most urgent and exceptional circumstances, seems to us to be quite unjustifiable, and we are glad that there does not seem to be a prospect of any similar rides being undertaken in future. It was altogether ignoble and demoralising exhibition.

## A DEATH RECORD.

Disease of a fatal kind has been very prevalent of late among British officers in India. Surgeon-Colonel A. Allan, Army Medical Staff, and Surgeon-Captain M. Fowler, Army Medical Staff, as was announced in our last issue, recently died of cholera at Murree, and the death of Surgeon-Captain H. N. Kenny on the 4th ult. had been previously reported; the deaths of four other officers belonging to different branches of the service have also been recorded from cholera or enteric fever. As regards the occurrence of the cases of cholera at Murree, it was attributed by some to the recent importation of the disease into that station and by others to the use of contaminated water for making soda water.

## THE LATE SURGEON-GENERAL R. C. ELLIOTT, C.B. (RETIRED).

We regret to announce the death of this officer at Devonport on the 6th inst., aged seventy-five years. He joined the Army Medical Department June 7th, 1839, went through the different steps of rank until he reached that of Surgeon-General in February, 1876, and retired from the service on June 28th of the same year. He served throughout the Eastern campaign of 1854-6, including the affairs of Burganac and M'Kenzie's farm, battles of Alma, Balaclava and Inkerman and siege and fall of Sebastopol. After promotion to the post of Senior Surgeon to the Royal Artillery he was appointed Superintendent-Surgeon to the whole of the ordnance corps in the Crimea (medal with four clasps, Knight of the Legion of Honour, 5th Class of the Medjidie and Turkish medal; thrice mentioned in despatches); served during the Indian Mutiny, 1857-9, and was present at the action of Pandoo-Nuddee, operations before Cawnpore, Nov. 27th, 28th and 29th, under General Windham, and battle of Cawnpore, Dec. 6th (mentioned in despatches; medal).

## DEATH OF SURGEON-GENERAL J. P. CUNNINGHAM, M.D. (RETIRED).

We regret to announce that this officer of the Army Medical Department died at Bedford, on Sept. 30th, aged sixty-five years. He joined the army in April, 1852, became Surgeon in March, 1859, Surgeon-Major in 1872, Brigade-Surgeon in 1879 and Deputy Surgeon-General in 1880, and retired with the honorary rank of Surgeon-General in 1882. He served as a Surgeon of the 60th Rifles, and subsequently of the 20th Hussars in India.

## THE CLOSE OF THE BLACK MOUNTAIN EXPEDITION.

We had scarcely announced the fact of the commencement of another Black Mountain Expedition before a telegram was received in this country from the Viceroy of India informing us of its close. The little war is over and the troops have returned to their quarters after destroying Baio. It is stated, but we can hardly believe it, that no field hospital accompanied the force. The questions call for answer, What was to have become of the sick and wounded in the event of there having been any and how were they to be treated? The public is getting rather weary of these small wars and expeditions in India. They seem to be undertaken without a sufficiently definite and practicable object in view; they are, too, very costly, and the Indian Exchequer is not in a position to afford any increased military expenditure. The wisdom of such a policy is not, we must say, very apparent to outsiders. The appearance of our troops simply causes the tribes to scatter and disappear until they are withdrawn. We have in the present instance destroyed some forts which Hashim Ali and his tribes will build up again and wait for the appearance of another English force.

## SIKQ QUARTERS IN INDIA.

We notice that attention has been called to the regulations affecting officers on the sick list in India by which they are

confined to their quarters and prohibited from attending mess or going to any public gathering or places of amusement. We quite concur, of course, in thinking that an officer recovering from illness or convalescing requires a certain amount of air and exercise and some companionship and change of scene, and that anything in the way of vexatious regulations in these respects should be removed; but we believe that, after all, his case is not quite so hard as represented, for he can always obtain official sanction, on the recommendation of the medical officer, to taking air and exercise or going for a ride with or without a companion, or doing anything reasonable, in short, towards the restoration of his health, except going to mess or public amusements; and we do not imagine that any officer commanding the station or district would prohibit his going to hear a regimental band or to the mess ante-room to read the papers if permission to do so were asked by the medical officer in attendance.

#### THE ACCOMMODATION OF TROOPS IN THE CHIN HILLS.

Sanction has been given for the immediate construction of barracks and huts at different stations in the Chin Hills for the accommodation of upwards of 1000 men.

#### THE PARKES MEMORIAL GOLD MEDAL.

Surgeon-Captain R. H. Firth, whom we recently congratulated on his appointment to Netley as Assistant Professor of Military Hygiene, has won the Parkes Memorial Gold Medal for 1892. This officer gained the same honour in 1889, and he also won the Alexander Medal in 1888 and 1891 respectively.

## Correspondence.

"Audi alteram partem."

### THE DEBATE ON "VIVISECTION" AT THE RECENT CHURCH CONGRESS.

To the Editors of THE LANCET.

SIRS,—The debate on the vivisection question at Folkestone last Thursday was unfortunately curtailed, but perhaps enough transpired during the discussion to show the true relation which exists between the clergy (I will not say the Church) and the medical profession on this vexed matter. I had hoped to be present and to address a few remarks to the meeting. I now beg leave to offer in your columns the gist of my opinions, and, for the sake of brevity, I will state them categorically as follows: 1. That the very great majority of thoughtful and prudent members of the medical profession fully recognise the value of the services which have been, and are constantly being, rendered to humanity by researches involving experimentation upon living animals, such services distinctly aiding them daily in improving their methods of treating disease, in relieving suffering and in saving human as well as other lives. 2. That the objections commonly made to this practice, as now carried on in Great Britain, are quite unwarrantable, and result from prejudice and culpable ignorance on the part of those who publicly make them. 3. That a Church Congress is a most unfit body to discuss any such question, inasmuch as it must necessarily and mainly consist of persons who are quite unfit to form trustworthy opinions on the matter. 4. That if the whole body of Anglican bishops or of any other bishops, and all the dignitaries of the Church, with the added weight of a large Church Congress, were to pronounce against the practice of experimentation upon living animals, we of the medical profession would pay no heed to any such verdict, and would continue, as we judged best, to prosecute such researches without any misgivings or qualms of conscience. 5. That members of the medical profession have now, as they have always had from the time of St. Luke, as delicate and refined a moral sense as that possessed by any body of ecclesiastics, and have nothing to learn in such respect from the latter. 6. That persons who make public charges of inhumanity and cruelty against medical experimentalists, be they bishops, statesmen, or irresponsible women, simply deserve pity, and they are unworthy of the attention of right-minded men, inasmuch as their views are the outcome either of a distempered brain or of a wilfully distorted judgment.

As a Churchman, I consider the authorities of the Congress

to have made a grievous mistake in sanctioning the reading of Bishop Barry's paper, and that its delivery constituted a lamentable blot on the proceedings of what was otherwise a very brilliant meeting, redounding much to the honour and credit of the great Anglican Communion.

I am, Sirs, yours truly,

DXCE DUCKWORTH, M.D., LL.D.,  
President of the Clinical Society of London.

Grafton-street, W., Oct. 8th, 1892.

To the Editors of THE LANCET.

SIRS,—I had intended to speak last Thursday at the meeting for the discussion on vivisection during the Church Congress, and had sent in my name to the Archbishop for that purpose, but so much time was wasted at the commencement of the proceedings that none was left for myself and other speakers. I had intended to say that, with the greatest respect for the Church Congress, its objects and its members, I yet did not consider it a fit or proper tribunal before which to discuss so technical a question as vivisection, a subject which very few of those present were capable of either understanding or appreciating. In proof of this assertion, I may instance that one reader introduced the subject of the Hyderabad Chloroform Commission and raised the question as to whether death from chloroform resulted primarily from failure of the cardiac or respiratory centres. Scarcely, Sirs, a question for such a meeting to deal with. Pasteur's anti-rabic injections were ridiculed and deprecated by one reader, defended and commended by another. Are these questions for clergymen and ladies to decide? Are they not better left to those who are really practically conversant with the subjects? For these reasons I should have declined to discuss the morality of vivisection before such an audience, as I consider it would have been derogatory to the dignity of our profession; at the same time I meant to have pointed out that every administration of a new drug (however valuable it might afterwards prove to be) was essentially "an experiment on living animals," and yet I suppose there are few of even the most rabid anti-vivisectionists who would not prefer to have that drug previously tested on one of the lower animals rather than on themselves.

I was agreeably surprised to note the distinctly sympathetic tone manifested by the meeting for the scientists, the marked approval with which Mr. Victor Horsley's powerful address was received and the ill-concealed impatience with which some most unworthy utterances on the other side were listened to, all which showed that the clergy of to-day are resolved not to identify themselves with the cause of scientific obstruction. Surely the medical profession is the best, the only judge, of the necessity—the painful necessity, if you will—of experiments on living animals, and the public, who trust us with all else, their lives, their health, their honour, will trust us in this matter also, remembering that doctors are not only honourable gentlemen, but of all men the most compassionate.—I am, Sirs, yours truly,

CH. EGERTON FITZGERALD, M.D.

Folkestone, Oct. 10th, 1892.

### PHTHISIS IN EGYPT.

To the Editors of THE LANCET.

SIRS,—I shall be much obliged if you will allow me a small space in your columns to make some remarks on the very valuable contribution of Dr. Sandwith to the natural history of phthisis, which appeared in THE LANCET of Sept. 24th. Although I have not had the extensive experience of Dr. Sandwith, I paid considerable attention to this subject during a residence of four years in Egypt, having been early struck by the frequency of phthisis among the natives. Dr. Sandwith has collected some valuable data, but I think he does not rightly interpret them. First, as regards the universally admitted high mortality from phthisis among the Soudanese, principally slaves or ex-slaves, I found that about half the deaths of Soudanese in Cairo were from phthisis. Dr. Sandwith attributes this high mortality to their coming to a climate "less hot and less dry than their own," adding that phthisis is rare in the Soudan. The Soudan having a vast and vague extent, it is difficult to speak of its climate, but it seems to me very questionable whether the cultivated parts are on the whole drier than middle Egypt, if they are warmer. And as to phthisis being rare, Pruner distinctly states that it is common among negro captives in Khartoum. I expect we should find, if opportunity allowed, that phthisis is by no means uncommon in any large towns of the Soudan.

On the other hand, while I was Principal Medical Officer of the Egyptian Police I found by carefully kept records that phthisis was no commoner among the Soudanese gendarmerie than it was among the English army of occupation in Egypt; and further, Dr. Sandwith himself states that phthisis is common among white Circassian slaves in Cairo. It is evident, then, that it is not the climate but the conditions of life of the Soudanese in Cairo which must explain their special proneness to phthisis. These conditions are the depressing effects of slavery, confinement, poverty and insufficient food, added to the general insanitary condition of Cairo. Dr. Sandwith shows that phthisis is also common among the native Egyptians, but he does not examine into the causes of this frequency. I found that in 1882-1885 inclusive 8.5 per cent. of the total deaths registered in Cairo were attributed to phthisis, and the death-rate from this disease was 42.5 per 10,000 of population. These figures show that the proportion of deaths from phthisis in Cairo to the whole number of deaths is rather less than in London; but in proportion to the population many more die of phthisis in Cairo than in London. To anyone who knows the insanitary conditions which prevail in the capital of Egypt these results are in no way surprising. There is no drainage, and the soil is waterlogged and saturated with filth. I quite agree with Dr. Sandwith in what he says as to the benefits to be derived from a visit to Egypt, and the great interest the country possesses from an archaeological, ethnological and political point of view will always make it attractive to visitors beyond most health resorts. But I think physicians who are sending patients to Egypt should be warned that they cannot safely reside long in Cairo, but must spend their time at Helouan, the Pyramids, or up the Nile.

I am, Sirs, yours faithfully,

SIDNEY DAVIES, M.A., M.D. Oxon.,

Late Principal Medical Officer, Egyptian Police.

Plumstead, Oct. 4th, 1892.

### "GLYCOSURIA WITH LOW SPECIFIC GRAVITY."

To the Editors of THE LANCET.

SIRS,—The attention directed to the subject of occasional low specific gravity in diabetic urine by Sir E. Sieveking's paper and letters in THE LANCET induces me to state that I published a paper on this subject in the *Dublin Journal of Medicine* in April, 1883. I mention several cases of low specific gravity in this paper; one is that of a patient of the late Dr. Ringland, in which the specific gravity varied from 1008 to 1035. No matter how low the specific gravity was there was a proportionate amount of sugar present. Sir William Stokes had a patient suffering from glycosuria in which I found on several occasions the specific gravity of the urine is very low, and on one occasion actually 1005. Like other medical analysts I come across now and then specimens of urine above 1030 which, though exercising a reducing power on Fehling's solution, contain no sugar.

I am, Sirs, yours truly,

CHARLES A. CAMERON, F.R.C.S.I. &c.

Dublin, Oct. 12th, 1892.

To the Editors of THE LANCET.

SIRS,—The occurrence of sugar in urines of low specific gravity ought to be generally known, as the fact is of fairly common occurrence in hospital practice. In my lectures on diabetes I refer to it (p. 84), and expressly say that a low specific gravity is no proof of the absence of sugar. But the fact is abundantly illustrated by the cases, for out of fifty quoted in the text no less than five, or 10 per cent., had urine of a low specific gravity. These are: Case 14, E. R—, aged thirty-seven; sp. gr. 1020; Case 16, W. F—, aged fifty-seven, sp. gr. 1020; Case 19, E. H—, aged sixty-five, sp. gr. 1013; Case 21, W—, aged fifty-six, sp. gr. 1021; Case 28 A. L—, aged eight, sp. gr. 1013. The last case shows that this may occur even in young persons, though this little girl was a very chronic case, like her sister, whose history is recorded on page 93 (the urine in her case was only 1025). There is only one true method of clinical study, that is to examine each point with the best available means. All short cuts, guesswork, attempts to follow the "method of Zadig," and so forth are untrustworthy, and those who follow them can never hope to increase their own knowledge or that of others.

I am, Sirs, yours obediently,

ROBERT SAUNDBY.

Edmund-street, Birmingham, Oct. 8th, 1892.

To the Editors of THE LANCET.

SIRS,—Not long ago I was called to see a lady who was dying comatose. From the smell I felt that the case was one of diabetes. On examining the urine the specific gravity was under 1020, but there was abundant sugar present. She died in thirty-six hours. I am, Sirs, yours truly,

Oct. 7th, 1892.

E. A. B.

### SALICYLATE OF SODA IN CHOREA.

To the Editors of THE LANCET.

SIRS,—In your issue of July 2nd, under the heading "Notes from a Practitioner's Case-book," Dr. H. H. Murphy records a case of chorea in the adult which was successfully treated with salicylate of soda. In a number of cases of chorea lately under my care the use of this drug has been entirely without beneficial result, and I think the following case is of interest in this connexion.

F. S—, a girl aged seven years, some months ago was seized with a well-marked attack of rheumatic fever, accompanied by endocarditis of the mitral valve. Under salicylate of soda the symptoms rapidly disappeared, as they usually do, and the child became convalescent. Three days afterwards she was regarded as well, and while the salicylate of soda treatment was being continued as a precaution against relapse symptoms of chorea developed, beginning in the left hand and arm, and rapidly spreading so as to involve the whole muscular system. The patient could not sit upright, and had to be restrained in bed. There were also well-marked mental symptoms. Salicylate of soda seemed if anything to increase the disorder, and I then had recourse to arsenic, rapidly increasing the dose until fifty minims of the liquor arsenicalis were taken per diem. This amount was well tolerated. In a few days there was marked improvement, and in four weeks' time no signs of chorea could be detected.

I have mentioned this case because the chorea developed while the patient was under salicylate of sodium, and after this remedy had removed the symptoms of rheumatic fever. It would be interesting to know whether the salicylate treatment of rheumatic fever has had any influence on the number of cases of chorea immediately following the fever. I note that in Dr. Murphy's case arsenic in increasing doses was given. It is not improbable that this drug played a very important part in the successful result, for without doubt arsenic is a most valuable remedy in chorea, especially if pushed to the limits of toleration.

I am, Sirs, yours obediently,

GEO. W. SUTHERLAND, M.D. Lond.

Sydney, Australia, July 23th, 1892.

### REGISTRATION OF MIDWIVES.

To the Editors of THE LANCET.

SIRS,—The letter of Mr. Rowland Humphreys, in your last number on the subject of the ignorance of midwives induces me to send you an account of a case I had last week and which is similar in some of its features to that which he mentions. I was sent for on the 3rd inst. (by a telegram from a village "midwife") to see a woman whom I found in the last stages of exhaustion from post-partum hæmorrhage and who died shortly after my arrival. On making investigations I was informed that the patient had suffered from ante-partum hæmorrhage for some six weeks previously, that she had been confined of her tenth child about three hours before, and that the midwife (who arrived a few minutes after the birth of the child) exerted traction on the cord with the view of removing the placenta. The placenta tore in two with the force used, and the midwife thereupon introduced her fingers into the vagina and tore away the remainder, together with a considerable portion of the uterus, measuring about three inches by two. At the necropsy ordered by the coroner I found a small piece of very firmly adherent placenta near the fundus, and the part where the laceration had occurred was very evident; the serous coat of the organ was intact. The uterine wall was extremely soft and lacerable, and broke down readily on pressure with the finger; the muscular tissue under the microscope showed advanced fatty degeneration. It would seem that, as a consequence of the ante-partum hæmorrhage, the placenta had become adherent to the uterus, and that this, softened by the many and rapidly following pregnancies, had given way under the unskilled violence of the midwife. As in the West Bromwich case, it was allowed

at the inquest that the midwife had done her best according to her lights, but as she had sent for a doctor she escaped censure. I do not know of any recorded case in which this particular accident followed excessive traction on the cord, and should be glad if any of your readers can mention one. I send you a newspaper cutting with a report of the inquest.

I am, Sirs, yours obediently,  
LEWIS E. PARKHURST, M.B. Oxon.

Brackley, Northamptonshire, Oct. 10th, 1892.

## ECCHYMOSES DUE TO NATURAL CAUSES.

To the Editors of THE LANCET.

SIRS,—Your Paris correspondent is right in supposing that the case reported at the Pau Congress of the French Society for the Advancement of the Sciences would be of interest to medical jurists in this country. It is well known already that during the convulsive struggles of the epileptic hæmorrhages may be found beneath the conjunctiva or in the cutaneous tissues about the face, much in the same way as bloody extravasations are found in children suffering from whooping-cough; but few would be prepared to hear of the enormous ecchymoses met with in Dr. Cabadé's carpenter, in whom the convulsion must have been inordinately severe to bring about the startling appearances found on the chest, trunk, shoulders and arms. Such a unique case will tend to emphasise the remarks found in forensic text-books on ecchymoses occurring in the body from natural causes. I am not clear, however, that it is as widely recognised as it ought to be, that the convulsive struggle associated with sudden asphyxia may be the cause not only of punctiform ecchymoses in various parts of the body, but of submucous extravasations, which may give rise to suspicions of foul play. Possibly the mucous surface has not been the subject of as much attention in post-mortem records of suffocation as it deserves. In cases like Dr. Cabadé's, where the external skin showed such extensive evidence of venous pressure from interrupted circulation of the blood from an epileptic fit, it is not unreasonable to believe that the mucous surface more or less shared the damage. In suffocation from the impaction of a foreign body in the windpipe, where the death struggle would be prolonged for four or five minutes, submucous extravasations of blood would in all probability be found in the vaginal mucous membrane and mucous linings of various organs as well as in the serous coverings of the various viscera, and such marks of ecchymosis might readily be attributed to a felonious cause.

I am, Sirs, yours faithfully,

Carlisle, Oct. 12th, 1892. HENRY A. LEDIARD, M.D. Edin.

## NOTIFICATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—It is quite unnecessary for me to answer in detail Dr. Goodhart's letter in your last issue, as I find that in a letter from the Local Government Board to the town clerk of Uppingham, under date Dec. 29th, 1890, the following rule is laid down: "If two practitioners are in actual attendance on or are called in to visit a patient, whether at the same period or successively, and their attendance or visiting is connected with the medical treatment of the patient, both are bound to send certificates, and these must be duly paid for by the sanitary authority." As a matter of fact, my authority every month sanctions payments to two or three medical men for certifying a single case, and this in several instances, and the Metropolitan Asylums Board refunds such payments.—I am, Sirs, yours truly,

W. H. CORFIELD, M.A., M.D. Oxon.,

Medical Officer of Health for St. George's, Hanover-square,  
Saville-row, W., Oct. 10th, 1892.

## ENFORCEMENT OF MEDICAL LAW.

To the Editors of THE LANCET.

SIRS,—A query in your issue of Oct. 8th, p. 867, deserves the attention not only of dentists, but of the whole profession. You cite the case of practitioners in Germany who, possessing only the American diploma of doctor of dental surgery, have lately been fined for styling themselves "doctor," it being held that this was calculated to lead the public to mistake

these men for duly qualified doctors of medicine. You suggest the question, Why should not similar abuses be checked here? The evils arising from illegal assumption of professional titles might, there can be no doubt, be very much diminished if any body or functionary existed whose duty it was to enforce the present laws; but in this country no such authority is to be found. Neither the Medical Council, the corporations, nor medical associations take any heed of these matters, and in the absence of a public prosecutor medical law in great measure remains a dead letter. That magistrates are ready to administer the law is evident. The College of Veterinary Surgeons, under the Veterinary Act, the penal clauses of which are the same as those of the Dentists Act, has lately found no difficulty in obtaining convictions for offences in no degree so flagrant as those constantly committed by medical and dental quacks. For merely exhibiting a sign inscribed "Veterinary Smith" an unregistered farrier has been heavily fined within the last few weeks, and it is not credible that magistrates will refuse to apply laws for protection of man whilst enforcing those for protection of beasts.

That quackery outside the profession—practice by unqualified pretenders—does no harm, from the sordid point of view, to the legitimate practitioner in any department is capable of proof. Quackery creates disease and aggravates simple cases, and in the end makes a vast amount of work for legitimate practitioners, into whose hands a large proportion of the victims ultimately gravitate. The injury from quackery falls upon suffering humanity; upon the simple, the confiding and the weak; upon the needy and poor rather than the rich; upon the classes whose claims to protection by the State are paramount. To put the law in force would be to gain the sympathy and support of the public. The profession, if challenged, could demonstrate the purity of its motives. It seems to me time this matter was taken in hand. I would propose the immediate formation of an Association for Enforcement of Medical Law, and in order to bring my proposition to a practical issue I now undertake, if forty-nine other members of the profession will do likewise, to pay in at once to a guarantee fund any sum up to £100 which may be agreed upon by the promoters of such an association, and to contribute besides an annual subscription. If a few examples were made among the quacks it is tolerably certain the need for prosecutions in the future would not often arise; it would be necessary to interfere only with flagrant offenders—if any such exist—not with unqualified individuals who, under no false pretence, may be practising for gain in any department of medicine or surgery.

I am, Sirs, your obedient servant,

Wimpole-street, Oct. 8th, 1892.

HENRY SEWILL.

## "ELECTROPATHIC ADVERTISING."

To the Editors of THE LANCET.

SIRS,—Having returned from my vacation, I find that I am indebted to your courtesy for sending me a copy of your issue of Sept. 24th. In that copy you express "painful surprise" at finding my name "appended to a highly eulogistic letter" addressed to Mr. Harness, and you add that I have "advocated an electropathic appliance, and that you cannot, for the honour of our profession (the italics are mine), refrain from expressing your "strong disapproval of the uses to which I have applied my knowledge." You proceed to say that I have "given warm commendation to a method of treatment closely bound up with quackery." I give a point-blank denial to your assertions. As the author of a standard work upon medical electricity, which you have yourselves approved, it was my undoubted duty to investigate the claims advanced by any inventors of new electrical apparatus claimed to be improvements. In the above capacity I called upon Mr. Harness, telling him that I proposed to investigate the electrical properties claimed by him to be possessed by his apparatus. He courteously supplied me with several varieties, and I have mentioned the results of my experiments with them in the forthcoming new edition of my book. I there state that the only two important questions are: (1) Does the apparatus generate electricity? (2) If generated, does that electricity penetrate the skin? And I add in italics: "These are questions which must be determined, not by the effect of the appliance upon the patient, not by theoretical considerations, but by the test of instruments of precision, and quite irrespective of any claims advanced by the manufacturers or vendors."

As in duty bound, I gave the result of my investigation,

and I wrote a note to Mr. Harness, to which I say that he was thoroughly entitled; but I did not express any opinion as to therapeutic value, as that question did not come within the scope of my investigation.

I notice that a London physician, a general practitioner, a surgeon-general in the army, a navy surgeon, a second general practitioner and another physician, amongst ourselves, to say nothing of continental opinion, speak in terms of praise of the institution; and personally I challenge you to tell me where I could find, at any rate in this country, such perfect static and other machines as those which Mr. Harness possesses and which he advertises are at the service of the medical profession.

I protest against your insinuation that I and of course the medical practitioners I refer to above are insensible to the "honour of our profession." To me such an insinuation is of no moment, as my valued friends will not be influenced by it, but to younger men it might prove of grave import.

I am, Sirs, yours obediently,

HERBERT TIBBITS, M.D., F.R.C.P.E.

Welbeck-street, W., Oct. 11th, 1892.

## THE MEDICAL OFFICERSHIP OF HEALTH OF KINGSTON-ON-THAMES.

To the Editors of THE LANCET.

SIRS.—The Council of the Borough of Kingston-on-Thames have, it appears, received notice from their medical officer of health that he is about to resign his appointment, and they have consequently authorised their clerk to advertise for candidates for the vacancy. The committee, who had originally to consider the matter, came to the conclusion that it would be best to increase the present stipend and appoint a medical man who was not engaged in private practice. But the Council, on hearing the decision, entered on a further discussion, and at last came to the conclusion that as they had a good inspector of nuisances the medical officer of health would have but little to do, and they might therefore very well reduce the present salary. Now, with all due deference to this authority, I venture to say that the sanitary condition of Kingston-on-Thames is far worse than they appear to imagine, and the medical officer of health, if he is determined to bring to light and correct all sanitary defects, will have his time more than closely occupied. However, should the Council, in spite of the advice tendered, determine to adhere to their decision, it would surely be advisable for them to make the election an annual one till some scheme for consolidating the various health appointments were agreed upon.

I am, Sirs, your obedient servant,

SANITAS.

Oct. 12th, 1892.

\*.\* Kingston has a population of some 27,000, which is not large enough to engage the whole services of a medical officer of health. We have always argued against annual appointments because it is unfair to put the medical officer of health in the position of submitting to an annual chance of losing his office, a result which has often happened if by too much zeal he has offended any members of his Authority. The proper course for Kingston is to combine with other districts, and in this way secure the whole time of a medical officer.—ED. L.

## ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editors of THE LANCET

SIRS.—I feel assured you will find room to insert the following most gratifying correspondence between the teaching staff of Epsom College and the Council. The evidence of such a body of men must be pleasing confirmation to you that the munificent aid you have given has been rightly bestowed. I shall most gladly receive any contributions towards these most necessary objects—a larger charity to our pensioners and increased accommodation for our pupils.

I am, Sirs, yours faithfully,

C. HOLMAN, M.D., Treasurer.

26, Gloucester-place, Portman-square, W., Oct. 10th, 1892.

Bursar's Office, Epsom College,  
Oct. 4th, 1892.

DEAR SIR.—I have to-day forwarded to the Secretary a donation which the members of the Common Room here would like to subscribe to the Extension Scheme Fund as set forth at the Biennial Festival in April last.

Believe me, very faithfully yours,

W. DOUGLAS CROSSLEY, Bursar.

Royal Medical Benevolent College Office, 87, Soho-square, W.,  
Oct. 7th, 1892.

DEAR SIR.—I am instructed to inform you that the donation from the Masters of Epsom College towards the extension fund has been received by the Council with very great pleasure.

The generally improved tone of the school, the distinctions gained by pupils at the universities and elsewhere, and the successes in the playing fields all point to good work done by the staff and most loyal and hearty devotion to the best interests of the College.

Such a practical expression of confidence in the future of the school and belief in the necessity for extension by those so well qualified to know is most gratifying. The Council would assure the contributors that this question of enlarging the accommodation is constantly the subject of their thoughts, and they would express the hope that this gift coming from such a body of men may prove to the profession and to the public how necessary extension has become, so that many may be incited to follow their example.

The larger charity to the pensioners needs no demonstration.

The desire of the Council has always been to feel that they were in touch with their staff.

They believe that this donation in aid of their work is a proof that the Masters feel themselves to be at one with the Council in their earnest desire to make Epsom College one of the best schools in England. With hearty cooperation they hope to see the College a blessing to the children of medical men and a centre from which a first-rate education shall be offered to the public at large.

I am, dear Sir, yours faithfully,

J. BERNARD LAMB, Secretary.

W. D. Crossley, Esq., Bursar of Epsom College.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### Opening of the Medical Institution for the Winter Meetings.

THE first meeting of the Medical Institution for the present season took place on the evening of Thursday, the 6th inst., and was very well attended, there being 160 members and associates present. An address was given by the President, Dr. Thomas R. Glynn, on the Diagnosis of Hysteria. It was an extremely able discourse, well illustrated with cases, diagrams, tables &c., and it is satisfactory to learn that it will be published, as it will form a valuable addition to the literature of the subject. Mr. John Newton followed with an address on Art. Cordial votes of thanks were passed to both of these gentlemen, and the meeting adjourned to another part of the building, where a substantial supper was provided and a most agreeable evening was passed.

### Mr. Mitchell Banks's Address at Leeds.

The address delivered at Leeds by Mr. Mitchell Banks of this city is a very felicitous illustration of the advice given by him in an address at the Medical Institution here last winter. In it he urged his brethren to cultivate the reading of good general as well as medical literature. It will be seen from a perusal of the lecture published in THE LANCET of last week that Mr. Banks does not confine either his remarks or his attention to English literature, but embraces French as well. Even the hardest worked members of the profession have some leisure, and this example of "learned leisure" may well be followed.

### Medical Students and Doctors in Fiction.

It is somewhat remarkable that while Dickens's well-known characters, Benjamin Allen and Bob Sawyer, still continue to reappear every recurring October, how very little account is taken of another character drawn by the same master hand—that of Allan Woodcourt, the nobly self-denying young doctor in "Blenk House." The concluding words of the story, in which the doctor's wife describes their happy life and the esteem in which her husband is held by rich and poor alike, are among Dickens's finest writings, and yet how seldom they are heard or quoted. The student career of Allan Woodcourt must presumably have been very different from that of Benjamin Allen or Bob Sawyer, nevertheless the public cling to these two with a tenacity worthy of better subjects. Similarly, in the two characters of Mr. Samuel Huxter and Dr. Firmin the immortal Thackeray has portrayed two very undesirable specimens of members of the profession. But his Dr. Goodenough is a noble character, of which any profession may be proud. The original is said to be the late Dr. John Elliotson, to whom its author dedicates his famous work "Pendennis" in the following terms: "Thirteen months ago, when it seemed likely that this story had come to a close, a kind friend brought you to my bedside, whence in all probability I never should have risen but for your constant watchfulness and skill. I like to recall your great goodness and kindness at that time, when kindness and friendship were most needed and welcome, and as you would

take no other fee but thanks, let me record them here in behalf of me and mine and subscribe myself—Yours most sincerely and gratefully, W. M. Thackeray.”

Liverpool, Oct. 12th.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *Victoria University.*

THIS year the authorities of Owens College have made a new departure which is calculated not only to further the cause of education, but also to increase public sympathy with university work in Manchester. A prospectus has been issued by Dr. Ward, Principal of the College, intimating that during the ensuing winter months a course of popular evening lectures will be given in the College, admission to which will be free—i.e., by tickets, any number of which will be obtainable on application to the Registrar. The syllabus of lectures is an attractive one, and contains the names of many of the professors and teachers of the College as lecturers in this course, our much respected Principal himself delivering the opening lecture. I shall be much surprised if Manchester does not show its appreciation of this public-spirited act on the part of the College staff, many of whom are busy men already fully employed in ordinary tutorial work.

### *Ancoats Healthy Homes Society.*

It is fortunate for the slum-dwellers of our city that the working people of “Old Manchester” have recently adopted the rational plan of associating themselves together for the purpose of bringing pressure to bear on the constituted authorities for the improvement of the districts and houses in which they are forced by circumstances to spend their lives. As the Ancoats district is well known to be one of the dirtiest and most neglected in the city, it was appropriately the first to bestir itself for purposes of self-help in the matter of health. Accordingly the Ancoats Healthy Homes Society, whose fourth winter session was inaugurated last week, was the pioneer association of this kind formed in Manchester. At the New Islington Public Hall the first lecture of the season was delivered to a crowded meeting on Thursday evening last by Dr. Pankhurst, a distinguished member of our local bar, who gave a stirring and most interesting address on the subject, “Health and Responsibility, Individual and Corporate.” Monthly, evening meetings will be held throughout the coming winter and spring, either at the New Islington Hall or at some other large public building in the district of Ancoats; and from the names of the gentlemen (and ladies also) who have undertaken to address future meetings one is led to augur favourably of the success of the current session.

### *The Watercloset System.*

At a meeting of our City Council on Wednesday last several matters of sanitary importance came on for discussion. The sanitary committee proposed that, with the object of superseding the “pail system” which several years ago was adopted here in place of the filthy midden of olden time, the watercloset system should now be made universal in Manchester. The chairman, Alderman Smith, candidly stated that inasmuch as the pail system had been forced upon the property owners of Manchester against their will some fifteen years since it would be unjust to saddle them now with the cost of its reconversion into waterclosets simply in obedience to the will of the Council. He thereupon suggested that, in obtaining Parliamentary powers for the conversion of the pail-closets of Manchester into waterclosets, the corporation should seek permission to pay out of the rates half the cost of such conversion and of the necessary reconstruction of the drains in connexion therewith. The seriousness of the proposal, involving as it does the dealing with closet accommodation for 98,000 tenements, at a cost of half a million sterling, was properly acknowledged and the usual device adopted of referring the matter to the committee for “further consideration.” As, however, the Council had previously decided that Manchester should eventually become a water-closetted town, there is no doubt that the committee will ultimately have their way. Practically the only question which remains for debate is the important one of the incidence of cost. The committee think that justice will be satisfied if the total cost, estimated at £452,000, is divided between the

Corporation and the property owners, but the latter retort, through their representatives, that when the conversion of the old middens into pail-closets was commenced in 1874 the Corporation gave an undertaking that any further change in the closet system should be paid for by the Corporation and not by the property owners. As the whole question is now being fairly and publicly discussed it is to be hoped that an equitable and permanent settlement will shortly be arrived at.

### *River Purification.*

At last the joint committee appointed some time since for dealing with the pollution of rivers in the Mersey and Irwell watershed have shown themselves really in earnest. They have already instituted proceedings against the Corporation of Bury, and have ordered the prosecution of the local boards of Chadderton, Dunkinfield, Marple and Gorton. At a meeting of this committee in Manchester on the 3rd inst. extension of time for the execution of necessary sewage works was granted to several local sanitary authorities in the watershed. Attention was drawn to the difficulties encountered by this committee in consequence of the tardy action of the Local Government Board. In consequence of the recent change of Government a deputation was appointed to wait upon the new President of that Board, urging the need for an unusual degree of attention in regard to their treatment of sewerage schemes generally. A further resolution was also passed, at the instigation of Mr. Hibbert, M.P., formally drawing the Board's attention to the great delays which ordinarily took place in these matters, and urging the necessity that in future the Board should deal with such sewerage schemes as may be submitted to them with as little delay as possible.

Oct 11th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *University of Durham College of Medicine, Newcastle.*

THE winter session of the University of Durham College of Medicine, Newcastle, was inaugurated by the Bishop of Durham, who gave an address and distributed the prizes. In reference to the late Dr. Heath's gifts to the College, he said he not only admired the munificence of his bequests, but also the wisdom with which he had directed them to be distributed. In respect of the proposed enlargement of the College in the way of a residential hall, he said that the fellowship of common residence was one of the greatest privileges of a college, and he trusted that before long the students of that College of Medicine would have the enjoyment of the crowning privilege of university life.

### *Rutherford Memorial College, Newcastle.*

The foundation-stone of the Rutherford Memorial College was laid on Wednesday last by Mr. Joseph Cowen, who was one of the late Rev. Dr. Rutherford's oldest and warmest supporters. The college will cost about £15,000, and when fully completed and equipped will afford means of supplying an intermediate and high-class education. Mr. Cowen also distributed the prizes, and delivered an eloquent oration in the evening at the meeting, which was well attended by all classes of citizens.

### *New Degrees in the University of Durham.*

The University of Durham has just added two more degrees to the already comprehensive list which is available for those who undertake the study of medicine in connexion with its university. The degrees in question are to be known by the symbols “B. Hy.” and “D. Hy.,” or, more explicitly, Bachelor and Doctor in Hygiene respectively. The course will not only partly cover the ground comprised in the “D.P.H.” and the diploma in Public Health granted by several of the other universities, but it will also include examination in such subjects as bacteriology, vital statistics, sanitary medicine &c.

### *An Alleged Death from Vaccination at Sunderland.*

An inquest was held at Sunderland on Saturday last on a child aged five years, who was said to have died from the effects of vaccination performed nearly five years previously. It was shown by the mother that the child had always been healthy up to the age of five months, when it was vaccinated. Since then it had sore eyes and abscesses, and had been generally ailing. She stated that she had thirteen children, six of whom died in infancy from teething

and convulsions. At this stage the coroner said he would adjourn the inquiry in consequence of an intimation from the Home Office that whenever an allegation of death from vaccination took place a representative from the Royal Commission on Vaccination would attend the inquiry. The inquest was accordingly adjourned. A post-mortem examination was in the meantime to be made. I shall make no remarks here on this case further than that five years seems a very long time to go back for the cause of death in the case.

#### *North Riding Infirmary, Middlesbrough.*

The report of the working of the North Riding Infirmary at Middlesbrough shows a serious deficit in the funds for the last half year amounting to £432, owing to the disastrous effects of the Durham colliers' strike. Not only this, but the stoppage of works consequent on the strike checked the regular contributions of the workmen to the extent of £253 and greatly interfered with the other collections in aid of the Hospital Sunday and Saturday Funds and also with the attendances at the charity football matches.

#### *Proposed Cottage Hospital at Morpeth.*

It is proposed to erect a cottage hospital at Morpeth at an expense of, say, £1000; but Morpeth should have the courage, considering the importance of the town and district, to venture beyond this and to provide a cottage hospital suitable for its requirements.

#### *Workmen's Hospital Demonstration.*

On Sunday last the workmen of Houghton-le-Spring Friendly Societies paraded and marched to church to a special service, and it is said 1000 attended, after which a collection was made in aid of the Grange-over-Sands Convalescent Homes.

#### *Royal Infirmary, Newcastle.*

There is a vacancy at the Newcastle Royal Infirmary for the vacant post of assistant-surgeon. Mr. T. Dodd, who has just resigned, held the post for, I believe, fourteen years.

I hear that his Grace the Archbishop of York has consented to preach the sermon at St. Nicholas' Cathedral, Newcastle, during the forthcoming meeting of the British Medical Association.

Messrs. Mawson, Swan and Morgan of this city have published an excellent autotype likeness of the late Dr. Heath—not for profit, but to enable his many friends and late pupils all over the world to possess it.

Newcastle-on-Tyne, Oct. 11th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Appointments to the Royal Infirmary, Edinburgh.*

LAST week the managers of the Royal Infirmary elected Dr. Ralph Stockman and Dr. G. Lovell Gulland, assistant physicians, and Dr. David Wallace, F.R.C.S. Edin., and Dr. Alexis Thomson, F.R.C.S. Edin., assistant surgeons to the institution. Owing to Dr. Brakenridge and Dr. John Dnucan having completed their term of office in the infirmary as physician and surgeon respectively, Dr. James has got charge of a ward, and Dr. McGillivray, as senior assistant surgeon, has also got wards. Dr. Brakenridge has been appointed a consulting physician. Owing to the generous action of Dr. A. G. Miller Dr. Duncan's connexion with the surgical wards is still retained, Dr. Miller, with the sanction of the managers, having handed half his beds over to Dr. Duncan. This is felt to be a distinct gain to the hospital and highly creditable to Dr. Miller. Dr. Bramwell, as senior assistant physician, is to have charge of the wards for the clinical instruction of women in medicine, and Dr. Cotterill, as senior assistant surgeon, those for clinical instruction in surgery to the same body.

#### *Opening of the Winter Session, Edinburgh.*

The winter session commenced on Tuesday. There was no opening function of any kind.

#### *Leith and the Board of Supervision.*

As has been already mentioned here, the report by the inspector appointed by the Board of Supervision as regards the sanitary condition and arrangements at Leith did not show a satisfactory state of matters in that burgh. The local authority did not like the report and have rather resented the action of the board. The board has, however, written a

letter to them saying they have no desire to enter upon a controversy with the local authority, that their aims are the same, and suggesting a conference between the board and the local authority.

#### *Health of Aberdeen.*

During last week 176 cases of measles and 69 cases of scarlet fever were reported in the city of Aberdeen, making, with 6 cases of diphtheria and 2 of erysipelas, a total of 253, an increase of 67 as compared with the previous week. In the county 48 cases of zymotic diseases were reported, including 30 of measles, all in one suburb of Aberdeen.

#### *Aberdeen District Nursing Association.*

The first quarterly meeting of the general committee was held this week, Dr. A. Fraser presiding. Miss Armstrong's report for the past three months showed that 46 new cases had been entered on the register and that 1g were still under treatment. During the quarter 732 visits had been paid. It was intimated that suitable lodgings had been secured for Miss Armstrong and an assistant nurse. Gifts of old linen, nourishing food and articles of clothing had been received. It was agreed to circulate a pamphlet describing the aim and working of the Association.

#### *Opening of the Aberdeen University Medical Session.*

On Tuesday, the 11th inst., the winter session of the medical classes was commenced. There was a good attendance in all the classes. Professor Cash, F.R.S., made reference to the new ordinances, and expressed the opinion that the commissioners had made a mistake in placing materia medica and pathology in the same year. He thought it was also matter for regret that the number of meetings for practical work in materia medica had been reduced from fifty to twenty-five. Professor Ogston also referred to the new regulations and complained that too much effect had been given to the theoretical rather than to the practical teaching of surgery. He referred to his appointment as surgeon-in-ordinary to Her Majesty the Queen, and said that he regarded it as a high distinction conferred upon the medical profession in Aberdeen, the medical school and the University. He also spoke of the kindness shown him by the directors of the infirmary, and he was glad to say that he would have more opportunity of meeting with the students at the infirmary than formerly.

#### *Extension of Marischal College, Aberdeen.*

At a meeting of Aberdeen University Court this week Lord Huntly read the following letter from Mr. Charles Mitchell, Newcastle-on-Tyne:—"To remove any doubt as to the terms on which I wish to obtain permission to build the proposed block in the rear of Marischal College, your lordship might have the goodness to state to the Court that my desire is to build the block in question to contain a graduation hall and a students' union; the only conditions I attach to the arrangements are that the plans be approved by the University Court and the Executive Committee, and that the work be completed to their satisfaction." The letter was received with hearty applause by the members of the Court. The Lord Rector (the Marquis of Huntly) mentioned that the gift involved a sum of not less than £13,000.

#### *Induction of Professor William Macowen at Glasgow University.*

At a meeting of the University Senate held last week Dr. Macewen presented the Commission from the Crown appointing him to the chair of Surgery in succession to the late Sir G. II. B. Macleod. In accordance with the ancient usage, which requires a newly appointed professor to "make trial of his abilities" by reading a Latin essay on some scientific theme prior to his induction, Dr. Macewen read a paper entitled "Quibus Indiciis Externis Locus Suppurationis in Cerebri Regione Temporo-sphenoidali Recte Reperitur." This essay having been gravely listened to and approved by the Senate, Dr. Macewen signed the declaration *de fidei*, was duly inducted into his chair, and took his seat as a member of the Senate.

#### *Chair of Pathology in Glasgow University.*

An announcement of great importance for the welfare of the university was made at the last meeting of the University Court—namely, that Miss Agnes Barr of Carphin, Cupar-Fife, had given a sum of £2500 to endow or assist in endowing a chair of Pathology in the University. This should enable the Court to do what ought to have been done years ago—to erect the extra-mural lectureship on Pathology into an intra-mural professorship, and thus do away with the ridiculous injustice that a teacher who taught a compulsory subject and performed

all the functions of the professor in the way of lecturing and conducting professional examinations should be regarded as an extra-mural teacher and deprived of senatorial rank, simply for want of a trifling endowment. It should also permit of the removal of a long-standing grievance of extra-mural teachers—that pathology being treated as an extra-mural class, and students being compelled to take it, the four subjects which University students are ostensibly allowed to take extra-murally amount in reality only to three.

#### Professional Examinations.

The published list of those who have passed the Second Professional Examination at the University contains 64 names. The first professional list contains 104 names, including, for the first time in the history of the University, those of eight ladies.

#### A "Black List" for Coatbridge.

The practitioners in Coatbridge have formed an association, among the members of which is to be circulated periodically a list of those in the district who are bad payers and who are apt to go round from one medical man to another, victimising each in turn. It is to be regretted that the moral tone of Coatbridge should have rendered such action necessary, but the practitioners concerned will have to exercise much care to prevent injustice being done to the poor and impecunious.

Oct. 11th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### Royal Academy of Medicine.

THE annual general meeting of the Academy will be held in the Royal College of Surgeons on Friday, the 28th inst., when the report will be submitted and the election of officers will take place. There will be vacancies for members of Council in the Sections of Medicine, Surgery, Obstetrics, Pathology, Anatomy and Physiology, and State Medicine.

#### Royal University of Ireland.

A general meeting of the graduates was held this week, presided over by Dr. A. L. Stuart. The report of last year's conversazione committee was submitted and adopted, and it was agreed to hold a conversazione in the university building on Friday evening, the 28th inst. A committee was appointed to carry out the necessary arrangements.

#### Royal College of Surgeons.

A supplemental preliminary examination, under the regulations of the conjoint Colleges of Physicians and Surgeons, will be held on Nov. 2nd and 3rd, to enable students to commence their medical studies for the present winter session. Stanislaus Zichy-Woniarski, M.B., B.Ch., University of Melbourne, has obtained the Fellowship of the College.

#### The International Medical Congress, Rome, 1893.

It is rumoured in medical circles in Belfast that the attention of the officials of the coming International Medical Congress at Rome will be drawn to the extraordinary constitution of what is called "the committee for Ireland" (as published in THE LANCET of Oct. 8th) in connexion with that meeting. It would appear that this committee consists of twelve members, of whom eleven reside in Dublin and one in Belfast. If such a body were called "the Dublin committee" one could understand the designation; but to style it "the committee for Ireland," when Belfast, the seat of one of the largest colleges and medical schools in the country, is allowed the honour (?) of having only one representative, while the rest of Ireland, outside Dublin, is completely ignored, is little short of an insult to the great body of the medical profession in this country. Imagine Sir James Paget selecting eleven medical men in London and one in Birmingham, Leeds, or Liverpool, and calling such a body "the committee for England," or Professor Grainger Stewart nominating on "the committee for Scotland" eleven representatives from Edinburgh and one from either Glasgow or Aberdeen!

#### The Winter Session.

The winter session of the medical school will open on the first week in November, and Dr. Nelson is to give the introductory address at the Royal Hospital on Nov. 1st. A movement is at present on foot to give a dinner at the beginning of the new year to teachers and old students of the Belfast Medical School.

#### Extra-uterine Gestation.

Dr. Byers performed an abdominal section on an interesting case of ectopic pregnancy at the Royal Hospital, Belfast, on last Tuesday week. The patient on admission was very anæmic from great intra-peritoneal hæmorrhage, and at the operation the ruptured tube and the ovum (which was found amongst the intestines) were removed. She has had a rapid recovery. This, I am told, is the first case of ectopic gestation which has been treated by abdominal section in Belfast. Dublin, Oct. 12th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### The Disposal of the Insane of Paris.

I ANNOUNCED in a former letter the despatch to London, Edinburgh and Glasgow of a commission appointed by the Paris Municipal Council to study in those centres the methods utilised by water companies for the filtering of water supplied by such companies. M. Pétrot, a member of the commission (now returned to Paris), has, in a conversation with a representative of *Le Temps*, communicated his impressions concerning the plan of filtering adopted by the Lambeth and Kew Companies. While objecting to the replacing, after washing, of the upper layer of sand in the filtering bed—he thinks fresh sand should be used—he sums up by saying that the system, simple and primitive though it be, is productive of excellent results. He believes that the same method might with certain improvements be usefully put into practice in Paris for the supply of water taken from the Seine up-stream, until we obtain that great desideratum—a plentiful and constant supply of good spring water. But your readers will be asking what the water-supply has to do with the disposal of the insane. Well, M. Pétrot states that the labours of the Commission were not limited to the study of the water question, but that they took advantage of their stay in Edinburgh and Glasgow to inquire into the working of the system by which lunatics are treated either at the un-asylum-like Royal Asylum of Glasgow or as boarders in private families in the neighbourhood of the Scottish capital. M. Pétrot appears to have been most favourably impressed, and he strongly advocates the founding in Paris of an institution analogous to the Glasgow Royal Asylum. The Commission visited several villages counting amongst their inhabitants the mentally degenerated of Edinburgh. They could not fail to notice the *bien-être* of these poor harmless creatures and their happy, if stupid, mien, so different from the discontented or, at best, resigned demeanour of the demented who crowd the close and malodorous Paris asylums. Last year the General Council of the Department of the Seine voted a trial of this home treatment of the harmless insane. The first essay will be made next spring. One hundred of the mentally affected will be distributed amongst the families of Dun-sur-Auron, a commune of the Department of the Cher. The plan will subsequently be generalised, and it is hoped that private asylums will gradually disappear, to the great advantage of the insane of this city.

#### The Curative Action of High Temperature on Wounds.

The complete removal of tissue invaded by tubercle by means of instruments is in most cases a matter of difficulty, and the surgeon is obliged to supplement cutting by the application of caustics such as zinc chloride or of the thermo-cautery, but even then tuberculous nodules may be left and disappointment result. M. Félizet of Paris recently gave a trial to a blowpipe flame giving a temperature, as tested by the pyrometer, of 1500° to 1600° C. The blowpipe is fed with a mixture of one-third air and two-thirds petroleum. With this flame the morbid spots on the surface of the operation wound are "licked," so to speak, for a few seconds. The tissue immediately shrinks, the blood coagulates, but there is neither charring nor hæmorrhage. In a case of resection of the knee-joint, a forty seconds' contact of the flame suffices. M. Félizet has derived good results in thirty-eight cases, which comprised excision of the knee, hip, and elbow-joints, and the treatment of tuberculous abscesses. M. Nélaton states that he operated on two cases of cancer of the os uteri, the operation consisting of scraping, followed by the application of the flame yielded by the gas cautery invented by his illustrious father. By this means recurrence was, in both instances, long delayed. M. Félizet reminds us that the thermo-cautery

at dull red has a temperature of 700° C., and at white one of 1400° C. Charring of tissues occurs at these temperatures, which is not the case with his blowpipe flame at 1500° to 1600° C. M. Moty claims for the thermo-cautery at a white heat that held at a certain distance from a wound-surface it produces a kind of erection of the granulations and brings about a more rapid cicatrization. He believes that heat influences the vitality of the tissues and that the destruction of the germs which infest them is altogether a subsidiary process.

#### *Deaths under Chloroform.*

An order has been issued by M. Peyron, Chief of the Assistance Publique, to the directors of hospitals in Paris, to render an account of all accidents caused in their establishments by chloroform inhalation. The following details are to be furnished: the date of the accident, the service in which it occurred, the name of the surgeon, the name, age and profession of the patient and the malady or operation necessitating the administration of chloroform. These statistics will go back to April 1st, 1890.

#### *Continental Anglo-American Medical Society.*

The annual meeting and banquet of this young but useful Society took place on the 6th inst. at the Grand Hôtel, Paris. A fair sprinkling of British and American practitioners residing on the Continent attended both functions, the company including Drs. the Hon. Alan Herbert, Chapman, Dupuy, Maure-Miller, Hogg, Austin, Bull, Hjalstead Boyland and Barnard of Paris; St. Clair Thomson (Florence), Brandt (Royat), Bagnell (Pau), Cormack (Viçhy), Linn (Nice), and Gilchrist (Nice). Drs. Polk, Keyes, Lusk and Jacobi of New York, Dr. Wilks, F.R.S., and Mr. Nunn of London were elected hon. presidents, five new members were admitted and Drs. Warren Bey, Clarke, Austin and Hjalstead Boyland were selected by ballot to fill the vacancies in the executive committee. Dr. Barnard of Paris was unanimously elected hon. secretary to the Society in the place of Dr. Ball, who is now hon. treasurer. The dinner, presided over by Professor Peter, was a decided success. The guests included Mr. Malcolm Morris of London, Dr. Seely of Cincinnati, and Drs. Budin, Gellé, Vidal and Apostoli of Paris. The Society now numbers over 100 members, and everything points to a career of long-continued prosperity and usefulness. The hon. secretary, Dr. Barnard (362, Rue St. Honoré, Paris), will, I understand, be glad to supply any information concerning the scope and objects of the Society.

Paris, Oct. 12th.

#### BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *A Fatal Mistake by a Druggist's Apprentice.*

A VERY sad case of bodily injury, due to the carelessness of several persons, came before a Berlin court on the 6th inst. On June 14th, 1889, a doctor went to an apothecary's shop to buy bandages and silicate. The articles were not in stock in the quantity required and a promise was given that they should be there next day. A kilogramme of silicate was ordered by telephone from a druggist's, where an apprentice was entrusted with the matter. He went into the cellar with a lamp, fetched a vessel which he supposed to contain silicate, and weighed off a kilogramme of its contents, which was sent to the apothecary. At noon next day one of the apothecary's assistants was relieved by another, to whom he handed the doctor's order with the remark that the bandages and silicate would be called for in the afternoon. When the woman for whose child the dressing was wanted called she received half a kilogramme of the stuff sent by the druggist and went to the doctor, who, with the assistance of a younger doctor, laid the bandage round the child's leg. It struck the older doctor at the time that he noticed a burning feeling in one of his fingers, but he attached no importance either to that or to the vehement and incessant crying of the child. Next night he awoke with severe inflammation in his finger. It occurred to him that a mistake might have been made: Early next morning he took some of the fluid to a chemist, who at once ascertained that it was a solution of caustic soda. He hastened to his patient and took off the bandage. The skin was all destroyed, and the leg had to be amputated to save the child's life. The druggist and one of the apothecary's assistants were fined 300 marks (shillings), the

druggist's assistant, who had entrusted the order to an apprentice, 100, and the apprentice 30. The doctor has disappeared.

#### *Miscellaneous Items.*

The library of the Berlin Medical Society has been removed to the Langenbeck House.

The late Professor Hermann von Meyer bequeathed his valuable anatomical collection to Senckenburg's Institute in his native city, Frankfort-on-the-Main.

Berlin, Oct. 11th.

#### NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

#### *The Present Condition of the Maori Race.*

GOVERNMENTAL officers residing in native districts have recently presented to Parliament their annual reports. It is a pleasure to notify that these reports show a distinct improvement in the general condition of the native people as compared with former years. The resident magistrate at Auckland (Mr. H. W. Bishop), for instance, states: "One very important subject for congratulation in connexion with the social state of the natives is their ever-increasing sobriety. This becomes more noticeable every year, and drunkenness is now considered a perfect disgrace." Unfortunately this state of things is not universal in this part of the colony, for the resident magistrate goes on to state that "there are a few places in the north where the resident natives unfortunately show themselves to be the exception to what I may term the rule." Again, the native agent at Otorohanga forwards a very voluminous report, and sums up the social condition of the Maoris in the King country in the following words: "It is satisfactory to be able to report that they still remain remarkably temperate, and crime of a serious nature is very rare amongst them." Mr. Bedwell, at New Plymouth, too, adds for his district "that the drinking habits of the natives have very much decreased during the last year or two." Mr. Booth, resident magistrate at Gisborne, states "that the natives on the east coast as a whole have almost entirely given up drinking; it is very rarely now that a native is brought up on a charge of drunkenness." The report received from Captain Preece, resident magistrate at Kaiapoi, runs in a similar strain, for he says "the natives seem to be remarkably sober." From the above very satisfactory reports it is no wonder that the general health of the natives is found vastly improved compared with last year. I regret to say, however, that the chief reason why the natives have become so abstemious of late is, in my opinion, due to the fact that they have not any negotiable property to part with. They subsist chiefly on the pittance granted to them by the Government, for the land at present held by them is for the most part so secured that they cannot part with it. If they had more land to sell I fear alcoholic indulgence would be immediately resumed. The general immunity from sickness is not due to other improvements in the mode of living, for the vast majority of the Maoris still cling to the old style of living, although here and there one comes across a native who builds for himself and his family a residence on European lines. In former times, when life and property were not safe in New Zealand, the natives were of necessity obliged to live in fortified paha, much resembling those fortified settlements seen to such perfection near Taormina in Sicily. Their buildings were erected consequently on high land and efficient drainage was thus obtained. Nowadays, however, all this is changed. The Maori settlements are all, or nearly all, situated in low-lying, swampy localities, so as to be handy to their cultivations; the long, low, badly ventilated houses (whares) are usually crowded with men, women and children, and the atmosphere in these whares is simply unbearable to a white man. Carelessness in dress—one day being muffled up and the next nearly naked—and these bad sanitary surroundings are the chief causes of the pulmonary complaints so extremely prevalent among the Maories of to-day. Phthisis is extremely common. Notwithstanding constant warning from the proper authorities, the natives pay no heed to these things, and although they admit the evil they disregard the consequences. It is no wonder, then, that under these conditions the Maori race is gradually but surely diminishing in numbers. Let us hope that the great improvement shown in the general health of the natives owing to their recently acquired temperate habits will

stimulate them to further efforts, and that they will now aim chiefly at sanitary reform in their paha.

Wanganui, N.Z.

## Obituary.

WALTER PYE, F.R.C.S. ENG.

THIS excellent surgeon and most estimable man, one of the surgeons to St. Mary's Hospital, died on Sept. 2nd in his fortieth year. The son of Mr. Kellow Pye, a name both honoured and widely known in the musical world, Walter Pye went when a boy of nine to Magdalen School, Oxford, as a chorister in the college choir, and there it was that his early training and the associations of the place gave him that love of art and literature which so characterised him. When he left school he had no thoughts of medicine, but he wandered and learned much in many lands—first, in the south of Spain, where, under Professor Young, the head of an expedition sent from America to observe an eclipse of the sun, he helped in making observations of the solar corona; next, in China, where he had brothers and friends and where he made the acquaintance of Dr. Manson, and it was the interest aroused in him by the work of this distinguished man that induced him to join the medical profession. On his way home he spent some months in India and thereafter entered as a student at St. Bartholomew's Hospital. He filled in time the appointments of house physician to Dr. Southey and of house surgeon to Mr. Callender and Sir William Savory, and in these capacities he must have made the best use of his opportunities, for his wide knowledge both of the practice and literature of medicine and surgery was very obvious to all who were subsequently brought in contact with him. Physiological inquiries now engaged him, and he wrote on the "Development of the Kidney," and it was as Lecturer on Physiology that he first became connected with St. Mary's Hospital Medical School. A vacancy occurred soon afterwards on the surgical staff of the hospital, and this, when aged only twenty-four, he was elected to fill, so high had been the opinion formed of his surgical attainments at St. Bartholomew's Hospital. That was in 1877, the year before he became a Fellow of the College of Surgeons. At this time also he worked as clinical assistant at Moorfields, and having after a couple of years resigned the chair of physiology, he became surgical tutor at St. Mary's Hospital, and at a later period assistant surgeon to the Victoria Hospital for Children. For some years before his death he had lectured on practical surgery. In all these various offices he worked hard—harder, many thought, than his physical strength could bear. An encouraging success was, however, in store for him, for it is no exaggeration to say that his writings on "Surgical Handicraft" were of a high order of merit. He was the very man to choose this subject for his pen, for his surgical knowledge and experience were large. He had a clear and graceful style, and the work of his own hands was always dexterous. Moreover, apart from occasional papers in the journals, he was the author of works on "Elementary Bandaging and Surgical Dressings" and on "Children's Deformities," and as Professor of Pathology and Surgery in 1890 at the College of Surgeons he gave a course of lectures on "The Growth-rates of the Body in their relation to the Processes of Rectification of Deformity." It was in July of that year that his health began to fail. He had never, indeed, fully recovered from attacks of influenza in the two preceding winters, and he had been overworking himself both by preparation of his lectures at the College and of the forthcoming third edition of his "Surgical Handicraft." Throughout the past twelve months he had not had a day's rest, and when at length he broke down in September it was hoped that prolonged change and quiet might restore him to health. He got three months' leave and went to Cairo with his wife, but when he returned home he was obviously worse, and the suspicion of general paralysis was very soon confirmed. A terrible blow this to his relatives and friends, and to himself also, for he then was conscious and often spoke of what was the matter with him—a blow falling at the very moment when the reward of steady work was certainly at hand. The disease ran its usual course with steadily increasing weakness and enfeeblement, but throughout his illness of two years his thoughts were often of his work which had been arrested and, with the happy hopefulness of the dire malady, of his return in good health to St. Mary's Hospital. Thus there was ended all too soon a life of no ordinary interest, usefulness and

promise, the life of one whose natural disposition, wide culture and varied experience of men and things made him ever a genial and intelligent companion. He will live in the affectionate remembrance of many friends.

ALEXANDER KEILLER, M.D., LL.D., F.R.C.P., &c.

THE death of Dr. Alexander Keiller at North Berwick, on the 26th ult., will be regretted by the medical profession generally, and more especially by those directly associated with the obstetric and gynaecological branches of medical science. Dr. Keiller, who was born in 1811, took the degree of M.D. at the University of Edinburgh in 1835. As a teacher of midwifery in the extra-mural school, Edinburgh, he earned distinction of a very high order, and was the inventor of many instruments now in common use in connexion with obstetrics and gynaecology. He was an intimate friend of Sir James Young Simpson. For many years he acted as physician for the diseases of women at the Edinburgh Royal Infirmary, and was also physician to the Edinburgh Maternity Hospital. At the University of St. Andrews, University of Edinburgh, and Royal College of Physicians and Surgeons he held the post of examiner. He was greatly liked by his professional brethren, and his opinion was much valued by his old pupils in cases of difficulty. Dr. Keiller was a Fellow of the Obstetric and Medical Chirurgical and Harveian Societies of Edinburgh, an Hon. Fellow of the Obstetrical Society of London, and an hon. member of the Gynaecological Society of Boston, U.S.

## ROYAL COLLEGE OF SURGEONS.

At a quarterly meeting of the Council held at the College on Thursday, the 13th inst., Mr. Thomas Bryant, President, in the chair, the minutes of the ordinary Council of Aug. 1st were read and confirmed. The Secretary reported the death of Mr. Edward Cook, J.P., past president and member of the Council and Court of Examiners of the College, and also of Mr. Samuel A. Lane, a past member of the Council and of the Court of Examiners of the College, and the Council unanimously passed a vote of condolence with their respective families.

Mr. Davies-Colley was admitted a Member of the Court of Examiners. The appointment of Examiner in Anatomy which he thus vacates will be filled in December.

It was agreed that, as recommended by the Committee for General Purposes, a sum not exceeding £120 be expended in fitting up the room next to the Secretary's office as a common room for the Fellows and Members.

It was agreed on the recommendation of the Committee of Management to recognise the Lancashire County Lunatic Asylum at Rainhill for the attendance required by the regulation referring to clinical demonstrations.

In pursuance of the rules laid down by the two Colleges in December, 1890, relating to the recognition of Laboratories for the Course of Practical Instruction required by the regulations for the Diploma in Public Health, returns have been furnished by the lecturers of the courses delivered at St. Bartholomew's Hospital and at the Bristol Medical School; and it was agreed that, as such courses fulfil the requirements of the two Colleges, they be now recognised.

It was also agreed that the Durham College of Science be recognised as an institution where candidates may receive instruction in chemistry, physics, practical chemistry and elementary biology for the first examination of the Board.

Mr. Hutchinson was re-elected a member of the committee. Mr. Thomas Bryant, the President, was appointed a member of the same committee in the vacancy caused by the retirement of Sir William Savory, Bart.

Mr. Hulko was re-elected a member of the Laboratories' Committee. Mr. Howse was appointed a member of the Court of Examiners' section of the Board of Examiners in Dental Surgery, Mr. Bryant having ceased to be a member of the Board of Examiners.

The draft report prepared by a committee of the statement to be made to the Fellows and Members at the meeting to be held on Nov. 3rd next was agreed to and will be forwarded to the Fellows of the College on the 20th of this month, on or after which date it can be procured by Members on application.

The Secretary reported that he had received from Mr. Wilde, the solicitor of the College, a cheque for £181 7s. 2d., being the amount of the first promissory note given by Dr. Danford Thomas in respect of the costs of the action of Steele v. Savory.

The Bradshaw Lecture will be given by Mr. C. Heath on Thursday, Dec. 1st next, at 4 P.M. The subject is not yet announced.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen, having previously passed the necessary examinations and conformed to the by-laws and regulations, and having now attained the legal age (twenty-five years), were, at the quarterly meeting of the Council on Oct. 13th, admitted Fellows of the College:—

Eccles, William M'Adam, M.B., L.R.C.P. Lond., St. Bartholomew's Hospital; diploma of Member dated Feb. 13th, 1890.

Pennell, Theodore Leighton, M.B., L.R.C.P. Lond., University College Hospital; Nov. 13th, 1891.

Hamilton, Edward Thomas Ernest, B.Sc., L.R.C.P. Lond., Guy's Hospital; Nov. 12th, 1891.

The following gentlemen, having passed the necessary examinations and having conformed to the by-laws and regulations, were, at the same meeting, admitted Members of the College:—

Cartwright, Ernest Henry, L.R.C.P. Lond., Oxford University and Guy's Hospital.

Cooper, Dossabhoj Nowrojee, L.R.C.P. Lond., Madras and St. Bartholomew's Hospital.

Francis Ernest Edward, L.S.A., St. Bartholomew's Hospital.

**UNIVERSITY OF CAMBRIDGE.**—The following gentlemen have been approved by the Examiners in State Medicine as entitled to diplomas certifying to their competent knowledge of what is required for the performance of the duties of medical officer of health. The names of all those approved are on the Medical Register of the United Kingdom:—

James Barr, M. M. Bowlan, W. H. Brazil, C. H. H. Cameron, William Campbell Downs, James Elias, A. G. R. Foulerton, J. Kingdon Frost, Hugh R. Jones, Masha Alla Khan, Jas. Mason, J. P. Mumby, William Pormowan, Edward Scott, George Severs, John Watson, E. Monkhouse Wilson, and M. G. Yunge-Bateman.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.**—The following have passed the First Professional Examination:—

W. Carroll, T. P. Cormack, E. Corsellis, F. Dudley, L. E. Fannin, Anthony Gill, J. J. Gill, W. Glenn, G. Hungerford, H. Loverock, V. A. Magee, J. D. Murdock, and C. J. D. Odevaire.

**PHARMACEUTICAL SOCIETY OF IRELAND.**—The undermentioned have obtained the Licence of the Society:—

J. W. Harvey, R. S. Chapman, P. P. Lee, G. G. Featherston, R. O. Harman, M. R. Nugent, S. L. Cleland, J. Hill, and T. M. Joze. Three candidates were rejected.

**ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.**—Mr. Stanislaus Emil Antony Zichy-Woinarski, M.B., Bac. Surg. Univ. Melbourne, having passed the necessary examination, has been admitted a Fellow of the College.

**SOCIETY OF APOTHECARIES OF LONDON.**—The following candidates have passed the Primary Examination in the subjects indicated:—

*Chemistry, Materia Medica, Botany, and Pharmacy.*—E. E. Evans and P. von Himpf, Royal Free Hospital.

*Chemistry.*—E. G. Adams, M. H. Harris, M. Thorne, and C. S. Vines, Royal Free Hospital.

*Materia Medica, Botany, and Pharmacy.*—C. Adams, A. M. Browne, M. K. S. Holst, E. F. Lamport, and M. Sharp, Royal Free Hospital; W. Alder, Guy's Hospital; G. T. Branson, Queen's College, Birmingham; P. Chown and N. S. Monnier, St. Mary's Hospital; R. S. H. Fuhr, Belfast; A. W. Haines, Birmingham; T. H. Hunt, Owens College; W. Latham, Liverpool; W. H. Tomlinson, Manchester; H. E. Wise, Middlesex Hospital.

*Anatomy and Physiology.*—G. J. Branson and A. W. Haines, Queen's College, Birmingham; G. Broadbent, Yorkshire College; C. E. R. Bucknill, Edinburgh; F. Chown, St. Mary's Hospital; U. M. Fowler and E. L. Mitcheson, Royal Free Hospital; R. S. H. Fuhr, Belfast; T. H. Hunt, Owens College; W. MacLellan, Edinburgh; A. P. Murtz, King's College; H. J. Richards, St. Bartholomew's Hospital; A. T. Savage, Cambridge Union; E. E. Willis and L. F. F. Winslow, Charing-cross Hospital.

*Anatomy.*—C. Basan, Middlesex Hospital; E. C. W. Bensley, St. Mary's Hospital; H. A. Burridge, King's College; P. R. Gango, University College; W. J. Henson, Guy's Hospital; A. Hilton,

Owens College; A. R. McCullagh, Charing-cross Hospital; N. S. Monnier, St. Mary's Hospital; W. A. Montgomery and A. C. Thornton, St. Thomas's Hospital.

*Physiology.*—F. IV. Elkington and A. H. Wade, St. Bartholomew's Hospital; W. H. Tomlinson, Owens College.

At the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on the 11th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £56 was distributed among the several applicants.

**THE BIDEFORD HOSPITAL SHIP.**—The hulk purchased by the local port sanitary authority for the purpose of an isolation hospital is now lying off Bideford Quay and will, after having been dismantled, be permanently moored in the river opposite Barnstaple.

**GUY'S HOSPITAL.**—At Guy's Hospital the winter session was, as usual, inaugurated by a meeting of the Physical Society, which took place at eight o'clock on the evening of Oct. 3rd, in the anatomical theatre. It was preceded by a house dinner of the students' club, held at half-past six in the dining hall of the college. About 120 students, guests and members of the staff sat down to dinner, amongst others present being Mr. Lushington, the treasurer, Dr. Wilks, Dr. Braxton Hicks, Dr. Pye-Smith, Mr. Davies-Colley, Dr. Brookhouse of Nottingham and many other old Guy's men. After the dinner the company repaired to the anatomical theatre, the seats of which were crowded with students eager to listen to Dr. Wilks's address and the paper by Mr. Maylard of Glasgow, which was to follow the president's speech. The subject chosen by Mr. Maylard (whose address has been published in our columns) was "How to remain a Student through Life," and it was handled in a manner which evoked great enthusiasm amongst his hearers, as he pointed out the true lines of advance in the healing art and the duty of those who would become physicians worthy of their high calling. The meeting over, the company again returned to the college, where tea and coffee were served in the club rooms, and there was a display of instruments, microscopical preparations and photographs taken by members of the society during the past year.

**CHARING CROSS HOSPITAL MEDICAL SCHOOL.**—The following prizes have been awarded for the Session 1891-2:—Llewellyn Scholarship (Certificate and £25), Mr. G. H. Hooper; Golding Scholarship (Certificate and £15), Mr. D. P. Gabell; Governors' Clinical Gold Medal, Mr. S. L. J. Steggall; the Pereira Prize (Certificate and £5), Mr. E. Brown; Anatomy (Senior) (Prize), Mr. W. C. D. Hills; and Certificates to Mr. W. E. Wyborn, Mr. G. B. Clarke, and Mr. W. R. Coldicott; Anatomy (Junior) (Prize), Mr. F. H. Atkinson; Certificates, Mr. L. Brown, Mr. W. W. Gabell and Mr. R. W. Stanistreet; Physiology (Senior) (Prize), Mr. G. B. Clarke; Certificate (Proxime Accessit), Mr. H. Green, Certificate, Mr. M. Molloy; Physiology (Junior) (Prize), Mr. D. C. Rees; Certificates, Mr. J. R. Langley, Mr. F. H. Atkinson, Mr. W. W. Gabell, Mr. B. E. Potter; Practical Physiology (Certificates), Mr. D. P. Gabell, Mr. J. C. Furness, Mr. W. E. Wyborn; Chemistry (Prize), Mr. J. R. Langley; Certificate, Mr. W. H. Park; Practical Chemistry (Prize), Mr. D. P. Gabell; Certificates, Mr. G. B. Clarke, Mr. E. Mosely, Mr. A. R. McCullagh, Mr. W. W. Woolliscroft, Mr. W. H. Goodman, Mr. W. C. D. Hills, Mr. C. S. Gardner, Mr. A. W. H. Edgelow; Osteology (Prize), Mr. G. L. Austen; Certificate, Mr. H. H. Ham; Medicine (Prize), Mr. N. R. J. Rainier; Certificates, Mr. T. E. Sandall and Mr. P. J. Probyn; Practical Medicine (Prize), Mr. W. T. White; Certificates, Mr. T. W. Goldney and Mr. T. E. Sandall; Surgery (Prize), Mr. W. J. Robertson; Certificates, Mr. E. Brown, Mr. T. E. Sandall, Mr. E. J. Godwin, Mr. P. J. Probyn; Therapeutics (Prize), Mr. V. P. Footo; Certificates, Mr. H. H. Woods, Mr. S. L. J. Steggall and Mr. J. E. H. Phillips; Materia Medica (Prize), Mr. G. B. Clarke; Certificate (Proxime Accessit), Mr. H. J. Stevens, and Certificates, Mr. W. Hardcastle, Mr. W. C. D. Hills, Mr. P. J. Probyn, Mr. W. R. Coldicott; Midwifery (Prize), Mr. P. J. Probyn; Certificates, Mr. A. E. Hine, Mr. W. T. White; Forensic Medicine and Toxicology (Prize), Mr. W. T. White; Certificates, Mr. S. L. J. Steggall and Mr. A. E. Hine; Pathology (Prize), Mr. H. H. Phillips; Certificates, Mr. T. H. Symons, Mr. A. Hudson; Public Health (Prize), Mr. H. H. Woods; Certificates, Mr. S. L. J. Steggall and Mr. J. E. H. Phillips; Dental Surgery (1st Prize), Certificate and £6 6s., Mr. H. J. Stevens; 2nd Prize, Certificate and £4 4s., Mr. E. W. Harwood; Certificates, Mr. J. W. Tomlinson and Mr. F. T. Trott.

**BEQUEST.**—Mrs. Winifred Hunter has left £200 to the Mater Misericordiae Hospital, Dublin.

**MR. ROBERT McNICOLL**, the Medical Officer of Health of St. Helens, was, on the 6th inst., entertained at a complimentary dinner by the members of the Medico-Ethical Society, of which he is president.

**NEWBURGH, N.B.**, is to be supplied with a thorough system of drainage and an increased water-supply, the benefits of which the inhabitants of the district as well as its numerous visitors will no doubt thoroughly appreciate.

**A NEW HOSPITAL FOR INFECTIOUS DISEASES.**—At the Felixstowe and Walton Local Board meeting last week it was announced that the Local Government Board were prepared to hold an inquiry into an application by the former board to borrow £21,000 for sewerage purposes.

**INFECTIOUS DISEASES IN NEW YORK.**—The following are the number of cases and deaths reported to the Health Department for the fortnight ending Sept. 27th:—Typhoid fever, 126 cases and 36 deaths; scarlet fever, 102 and 19 deaths; measles, 55 and 8 deaths; diphtheria, 116 and 54 deaths; small-pox, 12 and 3 deaths; and cholera, 6, all fatal. There were no cases of typhus fever reported.

**SURGICAL AID SOCIETY.**—At the town hall of Brighton last week the Lord Mayor (Alderman Dr. Ewart) presided over a meeting of medical gentlemen to consider the advisability of establishing a local branch of the above Society. The subject had, it appears, succeeded in interesting a number of influential people in the town. After Mr. Tressider had given a detailed account of the work of the parent society it was unanimously resolved, on the motion of Rev. Prebendary Hannah, to establish a branch of the Society for Brighton and Hove.

**THE METROPOLITAN ASYLUMS BOARD.**—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight on Oct. 11th was as follows:—Eastern Hospital, 400 scarlet fever, 62 diphtheria and 45 enteric fever; South-Eastern Hospital, 396 scarlet fever, 24 diphtheria and 12 enteric fever; North-Eastern Hospital, 138 scarlet fever; North-Western Hospital, 405 scarlet fever, 104 diphtheria and 23 enteric fever; Western Hospital, 303 scarlet fever, 44 diphtheria, 1 typhus and 18 enteric fever; Northern Hospital, 907 scarlet fever and 17 diphtheria; and at the Gore Farm Hospital there were 788 cases of scarlet fever. The hospital ship *Atlas* had 3 cases of small-pox.

**FOOTBALL CASUALTIES.**—During last week the following casualties occurred. While playing in a school match at Barnes two youths collided, one sustaining a fracture of his left leg, just above the ankle, and the other a dislocation of his humerus.—In a match between the Belper Reserves and Heanor teams a player severely injured his knees and was admitted into the Infirmary at Derby.—In a match on the Holderness-road ground between Hull A and Batley A clubs a Batley forward fractured one of his ribs.—In the course of a match at Kinross a player fractured his right leg above the ankle, and a member of the Baillieston Thistle Reserved, Lanark, whilst playing in a match, fractured his clavicle.

**PRESENTATION OF A MEDALLION TO THE ROYAL INFIRMARY, ABERDEEN.**—The proposal which was made some time ago to the directors of the Royal Infirmary by Drs. Ogston and Blaikie Smith on behalf of the staff, and favourably received by them, has now taken practical shape by the presentation of a medallion of the late Dr. Alexander Kilgour by his widow and son. The proposal was to have marble medallions of some of the chief past medical and surgical officers of the Infirmary placed within the hospital. The first of these will be the medallion of Dr. Kilgour, which has been executed by Mr. John Hutchinson, R.S.A., and temporarily placed in the pathological theatre of the newly opened wing. The medallion is executed in high relief and bears the following inscription:—"Alexander Kilgour, M.D., Clinical Lecturer 1838-1864. Born 1803. Died 1874. Presented by his Widow and Son."

**MEDICAL MAGISTRATE.**—Dr. A. Johnston of Ambleside has been placed on the Commission of the Peace for Westmoreland.

**CHESTER GENERAL INFIRMARY.**—The funds of this hospital have by the generosity of the Duke of Westminster been enriched to the extent of £600 by the proceeds of fees paid by visitors to Eaton Hall.

**VACCINATION.**—Mr. William F. Carter, public vaccinator of Bedminster, has again received a handsome award for successful vaccination from the Local Government Board.—Mr. F. N. Williams, district medical officer for Brentford, has been awarded a gratuity of £28 for the satisfactory performance of vaccination in his district.

**CHEPSTOW DRAINAGE SCHEME.**—After an official inquiry into the merits of this Scheme the Chepstow Local Board has been empowered to carry it out, and last week the ceremony of cutting the first sod was performed by the chairman of the board. The contract was placed at £3500, the work to be executed within nine months.

**CONVALESCENT HOME FOR LEICESTERSHIRE.**—Plans of a building designed to accommodate some fifty patients, and capable of extension, are being prepared by an architect of Loughborough. The total cost, including purchase of site, water-supply and laying out of grounds, is estimated at £5000, a large part of which is already promised.

**HOSPITAL SATURDAY FUND.**—The report of the council of this fund, presented at the quarterly meeting of the board of delegates, held at the Drill Hall, Farringdon-street, last week, showed that the receipts up to Sept. 3rd amounted to £11,349 12s. 2½d. as compared with £10,481 15s. 5d. at the corresponding period last year. The street collection exhibited a large increase on former results.

**PRESENTATION.**—Last week the Mayor and Mayoress of Halifax, Yorks, held a reception, at which a testimonial in the shape of a portrait in oil, together with a silver tea service, was presented to Dr. Solomon C. Smith on the occasion of his leaving the town. The portrait bore a tablet with the inscription: "This portrait of Solomon Charles Smith, M.D., was presented to the Halifax County Borough Council by some of his fellow-townsmen, who wished to mark their sense of the great value of his many public services and their esteem for him.—Oct. 6th, 1892." The presentations were made by the Rev. F. E. Millson in a laudatory address.

**THE LONDON HOSPITAL MEDICAL COLLEGE.**—An old students' dinner was held in the library of the Medical College on Monday, Oct. 3rd, and took the place of the opening ceremony and introductory address, which have been discontinued for some years. The chair was taken by Dr. Langdon Down and about 150 old London men were present. Among the guests were Mr. Murray Ind, the chairman of the hospital, Mr. Carr-Gomm, Mr. W. J. Thompson, and many others who are concerned in the administration of the hospital. After the usual loyal toasts, "Prosperity of the Hospital and College" was proposed by the chairman, who enlarged upon the progress the institution had made within recent years and the numerous changes which had taken place in the methods of medical education. Mr. Murray Ind, who responded for the hospital, alluded to the admirable manner in which the hospital and college authorities had always worked together and to the pride and interest which were taken in the medical school. Mr. Hutchinson, in responding for the college, spoke of the improved conditions under which the work of the school was being carried on and of the vast additions which had been made to the building to meet the requirements of a modern medical education. He dealt especially with the elaborate arrangements which had been made to render perfect the department of public health, to the facilities available in the wards and in the college for practical teaching and to the establishment of the post of a medical tutor. He explained that this latter appointment had been rendered possible by the generosity of Sir Andrew Clark. After the dinner most of the guests retired to the museum, which was converted for the time into a lounging room. Much interest was shown in the new osteological gallery—a gallery in which selected marked specimens of the bones are so mounted upon special turn-tables as to be available for ready study.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BASSANO, T. M., M.B., C.M. Edin., L.R.C.P. & S. E., has been appointed House Surgeon to the Huntingdon County Hospital.  
 BROCKBANK, E. M., M.B., has been appointed House Physician to the Birmingham General Hospital.  
 BURNS, R. J., L.R.C.P. Lond., M.R.C.S., has been appointed Police Surgeon for the Borough of Sunderland, vice Wood, resigned.  
 CAMPBELL, W. S., M.B., C.M. Glasg., has been appointed Medical Officer for the Crediton Sanitary District and Union Workhouse of the Crediton Union.  
 CONWAY, A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the No. 2 Sanitary District of the Stourbridge Union.  
 CROSS, A. J., M.B., C.M. Edin., has been appointed Medical Officer for the Dalton Sanitary District of the Ulverston Union.  
 DRYLAND, LESLIE WINTER, M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Northampton General Infirmary.  
 FOXCROFT, F. W., M.B., C.M., has been appointed House Physician to the Birmingham General Hospital.  
 GREEN, REGINALD, M.B., B.S. Durh., has been appointed Assistant Medical Officer to the Gateshead Dispensary.  
 HOSKINS, WM., M.B., C.M. Aberd., has been appointed Medical Officer for the Nazeing District of the Epping Union.  
 HEELAS, WALTER W., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician to the General Lying-in Hospital, Lambeth, S.E.  
 JAMES, W. E., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Abercarn Urban Sanitary District of the Newport (Mon.) Union.  
 LANCASTER, ERNEST LE CRONIER, B.A., M.B., B.Ch. Oxon., M.R.C.S., has been appointed Pathologist and Chloroformist to the Swansea Hospital.  
 LARKING, A. E., M.D. Durh., M.R.C.S., has been appointed Medical Officer for the Eighth Sanitary District of the Aylesbury Union.  
 NICOLL, JAS. H., M.B., C.M. Glasg., has been appointed Surgeon to the Department for Diseases of the Urinary and Genito-urinary Organs at the Glasgow Central (late Anderson's College) Dispensary.  
 NORTON, JOHN, M.D., D.P.H., has been appointed Medical Officer of Health to St. Peter's Close, Westminster.  
 ORTLEPP, A. J., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Female Lock Hospital, Harrow-road, vice Dr. Kingston, resigned.  
 PARSONS, J. F., M.R.C.S., has been appointed Medical Officer of Health for the Frome Urban Sanitary District of the Frome Union, vice J. Parsons, deceased.  
 ROBERTSON, J. S., M.R.C.S., has been appointed Medical Officer for the Bloxham Sanitary District of the Banbury Union.  
 TWEDDY, R. C., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Birmingham General Hospital.  
 VINRACE, FELIX, M.D., F.R.C.S., has been appointed Surgical Casualty Officer to the Birmingham General Hospital.  
 WACHER, FRANK, M.R.C.S., has been reappointed Medical Officer of Health for the Canterbury Urban Sanitary District.  
 WARE, H. S., B.A., M.B., B.C. Camb., L.S.A., has been appointed House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, E.  
 WRIGHT, H., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Gainsborough Rural Sanitary District.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Medical Staff Vacancy.  
 BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance.  
 BOROUGH OF KINGSTON-UPON-TYAMES.—Medical Officer of Health for the Borough. Salary £150 per annum.  
 BRISTOL EYE HOSPITAL.—House Surgeon. Salary £120, without board or residence.  
 CRICHTON ROYAL INSTITUTION, Dumfries.—Assistant Medical Officer. Salary £200 per annum, with board and residence.  
 DOVER HOSPITAL.—House Surgeon. Salary £100 a year, with furnished apartments, board, coals, lights, and attendance.  
 DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100, rising by an annual increase of £10 to £120, with board, lodgings, and washing.  
 GENERAL HOSPITAL, Birmingham.—Pathologist (non-resident). Salary £120 per annum.  
 GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House Surgeon for three years. Salary £200 per annum and quarters. (Applications to the Secretary, General Hospital, Barbadoes.)  
 HENDON LOCAL BOARD.—Medical Officer of Health for the Urban Sanitary District of Hendon, and to the temporary Infectious Diseases Hospital for one year. Salary as Medical Officer of Health £140 per annum, and for attending the hospital patients (including medicines) £35 per annum. (Apply to the Clerk to the Board, Local Board Office, The Boroughs, Hendon.)  
 HUDDERSFIELD INFIRMARY.—Honorary Physician.  
 KIDDERMISTER MEDICAL AID ASSOCIATION.—Qualified Assistant, out-door. Salary to commence at £120 per annum. (Apply to Dr. Martin, Spring Bank, Kiddermister.)

LEEDS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary to commence at £120 per annum and midwifery fees. (Apply to Mr. Wilson, Incorporated Accountant, 8, South Parade, Leeds.)  
 MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park-place, Cheetham-hill-road.—House Surgeon. Salary £80 per annum, with apartments and board.  
 NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer for six months, and Assistant Resident Medical Officer for six months. Salary for the senior post £50.  
 ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks), and washing provided.  
 ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments and board.  
 SHEFFIELD SCHOOL OF MEDICINE.—Tutor, to take charge of Dissecting Room and hold classes in Anatomy and Physiology. Salary commencing at £100.  
 WALSALL COTTAGE HOSPITAL (Surgical).—Resident Surgeon. Salary £100 per annum, board, lodging, and washing.  
 WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary attached to the Hospital. Salary £60 per annum, with board, lodging, and washing.

## Births, Marriages and Deaths.

### BIRTHS.

ASHFORD.—On Oct. 8th, at Westbourne-park-road, Bayswater, W., the wife of Claude H. Ashford, M.R.C.S., L.R.C.P., of a daughter.  
 COLLINS.—On Aug. 11th, at The Residence, Peak Downs District Hospital, Clermont, Queensland, the wife of M. J. Collins, L.R.C.S. Edin.—J.P. (Surgeon-Superintendent), of a daughter (Eileen Violet Cope, land).  
 FRANCIS.—On Oct. 7th, at The Bulwark, Brecon, South Wales, the wife of George P. Francis, L.R.C.S., of a son.  
 GWYTHIER.—On Oct. 8th, at Upper Woburn-place, London, the wife of James Gwyther, M.B., of a son.  
 KEEGAN.—On Sept. 20th, at Indore, Central India, the wife of Brigade-Surgeon-Lieut.-Colonel Keegan, F.R.C.S., Residency Surgeon, of a daughter.  
 LEESON.—On Oct. 9th, at Clifden House, Twickenham, the wife of J. R. Leeson, M.D., F.L.S., of a son.  
 MARTIN.—On Oct. 5th, at Prudhoe-terrace, North Shields, the wife of A. Angus Martin, L.R.C.P.E., L.R.C.S.E., of a son.

### MARRIAGES.

BAYLOR—LOVELL.—On Oct. 5th, at All Saints', Kensington-park, W., Edward Arthur Crampton Baylor, B.A., M.D. T.C.D., of Ash, Dover, to Harriette Marianne (May), only daughter of Arthur G. Lovell, Cornwall road, Westbourne-park, W.  
 BEARDSLEY—WADDINGTON.—On Oct. 6th, at St. Paul's Church, Grange-over-Sands, by the Rev. Canon Cooper, Richard Henry Beardsley, L.R.C.P., L.R.C.S., E., &c., to Margaret (Mrs. W. E.) Waddington.  
 DAWE—MARTIN.—On Oct. 6th, at St. Paul's Church, Stonehouse, James H. Dawe, M.B., Surgeon R.N., H.M.S. Vernon, eldest son of the late J. E. E. Dawe, of Plymouth, to Minnie Florence, elder daughter of the late C. J. Martin, Paymaster R.N.  
 ELAM—MORRISH.—On Oct. 6th, at Christ Church, Sreatham-hill, George Elam, M.B., B.S., of Upper Montague-street, Russell-square, to Ethel Marion, youngest daughter of the late James Morrish, Clapham-park.  
 FOSTER—SHIPLEY.—On Oct. 11th, at the Parish Church, Tavistock, by the Rev. W. H. David, Michael George Foster, M.A., M.B., son of Prof. Michael Foster, F.R.S., of Ninewells, Great Shelford, Cambridge, to Charlotte, eldest daughter of the late General Reginald Younge Shipley, C.B. formerly of the 7th Royal Fusiliers.  
 HARRIS—HIGGINSON.—On Sept. 14th, at St. John's Church, Paddington, by the Rev. T. B. Clarke, B.D., Herbert Elwin Harris, B.A., M.B. Cantab., M.R.C.S., L.R.C.P., Medical Superintendent of the Infirmary, East Dulwich, to Edith, eldest daughter of the late James Pickford Higginson, Liverpool.  
 MABERLY—SMITH.—On Oct. 4th, at St. Martin's Church, Laugharne, Carmarthenshire, Ernest Maberly, M.R.C.S., fourth son of F. H. Maberly, late Assistant Surveyor G.P.O. (Exeter and Bath), to Hilda Gertrude, fourth daughter of the late Major S. Lionel Smith, 54th Regt., and of Milton Bank, Laugharne.  
 MATHEWS—DAWSON.—On Oct. 8th, at Clacton-on-Sea, the Rev. W. S. Mathews, B.A., LL.B., to Edith Frances, daughter of Major E. B. Dawson, of Tower Lodge, Clacton, and granddaughter of the late Wm. Kendall Dawson, of Fraying Hall, Gt. Bentley, Essex.  
 ORD—BILLINGS.—On Oct. 5th, at St. John's Church, Georgetown, D.C., William Walter Ord, M.D., M.A., Oxon., of 2, Queen-street, Mavfair, W., to Mary Clare, eldest daughter of John S. Billings, M.D., D.C.L. Oxon., of Washington, D.C., U.S.A.  
 RIMMEL—BULLOCK.—On Oct. 6th, at St. Mary's Church, Warwick, Alfred Tom Rimmel, Surgeon R.N., H.M.S. Alexandra, elder son of the late Dr. T. W. Rimmel, R.N., Hardley-crescent, Earl's-court, S.W., to Elsie, eldest daughter of T. W. Bullock, Esq., East Gato, Warwick.

### DEATHS.

LONGSTAFF.—On Sept. 23rd, at his residence, Butterknowle, Wandsworth, George Dixon Longstaff, M.D., in his 94th year.  
 SANDERSON.—On Oct. 9th, at Bridge-street, Musselburgh, Alexander Macdonald Sanderson, F.R.C.S. Edin., aged 60.

N.B.—A fee of 6s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

# Medical Diary for the ensuing Week.

## Monday, October 17.

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturday at the same hour.  
**St. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M., and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2.30 P.M.; Thursday, 2.30 P.M.; Friday, and Saturday at the same hour.  
**HOSPITAL FOR WOMEN, SOHO-SQUARE.**—Operations, 2 P.M., and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPEDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Royal London Ophthalmic Hospital: 1 P.M., Mr. W. Lang: Lachrymal Affections.—101, Gt. Russell-street: 8 P.M., Dr. Galloway: Heart, Valvular Lesions.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. Louis C. Parkes: House Drainage.  
**MEDICAL SOCIETY OF LONDON.**—8.30 P.M. The President (Mr. Jonathan Hutchinson): On Names and Definitions in Disease. (Opening Address.)

## Tuesday, October 18.

**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**St. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**St. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**St. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Hutchinson: Hybrid Forms of Skin Diseases—Bethlem Hospital: 2 P.M., Dr. H. Corner: Hypochondriasis.—101, Great Russell-street, W.C.: 8 P.M., Dr. Potter: Eclampsia.  
**PATHOLOGICAL SOCIETY OF LONDON.**—Mr. E. Hurry Fenwick: Two cases of Myxœdema treated by Injections of fresh Thyroid Juice—Dr. H. D. Rolleston: Specimens of "Fat Necrosis" associated with Disease of the Pancreas.—Mr. Edgar Willett: Two Specimens of Congenital Cystic Disease of the Scrotum.—Dr. Percy Kidd: Cirrhosis of Liver from Valvular Disease of the Heart.—Mr. Sydney Jones: Unstriped Myoma from Penis. Card Specimens.—Dr. Percy Kidd: Embolic Aneurysm of the Pulmonary Artery.—Dr. E. C. Perry: (1) Perforating Ulcer of the Duodenum; (2) Fatal Intra-pneural Hemorrhage in Pneumonia.

## Wednesday, October 19.

**NATIONAL ORTHOPEDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**St. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday & Saturday, same hour.  
**St. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Examination of the Sputum.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Q. Silcock: Various Ophthalmoscopic Cases.  
**ROYAL MICROSCOPICAL SOCIETY.**—3 P.M. Dr. C. E. Beever: Methods for Staining Medullated Nerve Fibres.—Mr. G. Maseee: Heterosporium Asperatum, a parasitic fungus.—Dr. H. G. Piffard: Notes on the Use of Monochromatic Yellow Light in Photomicrography.

## Thursday, October 20.

**St. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Sick Children, Great Ormond-street: 4 P.M., Mr. J. H. Morgan: Vesical Calculus and its treatment.—National Hospital for the Paralyzed and Epileptic: 2 P.M., Dr. Beever: Paralysis Agitans and Tremors.—London Throat Hospital, Great Portland-st.: 8 P.M., Dr. E. Law: Examination of the Throat and Nose.—Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Mr. Thomas Bryant: Surgical Cases in the Wards.  
**HARVIAN SOCIETY (Stafford Rooms).**—8.30 P.M. Mr. Lawson Tait: Peritonitis.  
**OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.**—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. Henry Juler: Melanotic Tumour growing from the Ciliary Region.—Mr. W. M. Beaumont: Neoplasm (Sarcoma?) of the Iris.—Mr. Hartridge: A case of Double Neuro-Retinitis following Influenza.—Mr. E. Treacher Collins: Congenital Defects of the Iris and Glaucoma.—Mr. H. Work Dodd: The Optical Conditions of Fifty Persons suffering from no Ocular Disturbance. And other papers.

## Friday, October 21.

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Examination of the Sputum.—Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M., Prof. Crookshank: Cultivation of Bacteria (Cultivations).

## Saturday, October 22.

**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Melancholia.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 13th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Oct. 7	29.86	S.W.	49	47	81	57	40	.10	Overcast
" 8	29.62	W.	49	47	70	55	43	.	Overcast
" 9	29.44	W.	53	51	66	55	43	.17	Raining
" 10	29.74	S.W.	48	46	89	50	40	.14	Overcast
" 11	30.05	W.	44	42	86	50	38	.01	Hazy
" 12	30.07	N.E.	45	43	82	53	43	..	Fine
" 13	29.91	N.E.	50	48	68	54	39	.01	Cloudy

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### COMPLICATIONS OF SCARLET FEVER.

THE most common complications of scarlet fever in the hospitals of the Metropolitan Asylums Board last year were (giving the percentage of cases on the total number under treatment)—albuminuria, 8.5; otitis, 7.7; adenitis, 6.1; rhinitis, 4.8; diphtheria and diphtheritic condition of the fauces, 3.4; rheumatism, 2.3; and acute nephritis, 2.8.

*Dr. G. L. Johnson.*—No means have yet been discovered of opening the eyes of the public to the fraud of such "cures" or of punishing the authors of the advertisements, so long as they do not use titles which imply that they are registered practitioners.

*Mr. J. H. Straker* should consult articles in THE LANCET, 1892, Aug. 6th, p. 318, and July 23rd, p. 207, in which will be found all the information he requires.

*F. D. S.* wishes to be informed as to what degree it is necessary to possess before practising in Belgium.

### TERRITORIAL DISTINCTIONS.

To the Editors of THE LANCET.

SIRS,—I do not think Dr. Ormsby is quite fair in his complaint about the exclusion of Scotch and Irish diplomates from appointments at English hospitals. There is the other side of the question. Are English diplomates freely admitted to appointments at Irish and Scotch hospitals? I think not. There may be no rules excluding them, but such candidates are rarely, if ever, elected. Is there any physician or surgeon holding only English qualifications on the staff of any of the larger hospitals in Scotland or Ireland? If, then, it be the case that at the Scotch or Irish hospitals English diplomates are admitted as candidates but are rarely, if ever, elected, where is the "fair play" which Dr. Ormsby cares for? The English hospitals have, at any rate, the credit of being straightforward, since they will not admit a candidate whose qualifications are certain to be objected to.

I am, Sirs, yours faithfully,

Oct. 10th, 1892.

FAIR PLAY.

## OUR BREAD SUPPLY.

A CORRESPONDENT writes:—"Although much has been done of late years to improve the condition of our bakehouses and recent legislation has imposed new duties on medical officers of health with regard to them, it appears to me that one, and I may say a very important, matter has been overlooked. I refer to the condition of the sacks in which the flour is kept. I have often noticed the particularly dirty appearance of some of these sacks when full, and have come to the conclusion that no proper means are taken to cleanse them before they leave the mill for the bakehouse. Some millers, I believe, have a process for brushing the sacks; but is this sufficient? It is a common practice in some bakehouses in London for the men employed in the bakehouse to use the empty sacks as floor mats, and if anything is spilt on the bakehouse floor a sack is thrown over it. Most medical officers know the usual state of bakehouse floors. Surely flour must become to a certain extent unwholesome by being placed in filthy sacks, and I should like to call the attention of sanitarians, medical men and others to this matter, to see if some steps cannot be taken to ensure the delivery of flour to the bakehouses in, at any rate, wholesome sacks. I think this subject will be found interesting to many, and if ingenuity can be brought into action to invent a process for the thorough cleansing of the sacks it will be amply repaid."

*Mr. Isaac Westley.*—It is obviously right in ordinary cases to send for the practitioner in regular attendance. In emergencies, of course, it is legitimate to ask the nearest practitioner to attend.

*Lieut.-Colonel W. H. A.* (Junior Carlton Club) is thanked. We have alluded to the subject.

## GREEK AND THE M.D. DEGREE.

To the Editors of THE LANCET.

SIRS,—Under the new ordinances prepared by the Commissioners under the Universities (Scotland) Act, 1889, students who commence their studies before the date of the ordinances coming into effect may graduate under the old or new regulations. Under the old regulations it was necessary to take Greek before proceeding to the M.D. degree, but under the new regulations one may substitute a modern language, such as French or German. I think this is a very great boon, as for one boy who nowadays learns Greek at school dozens learn French and German, as being more likely to prove of ultimate use. At the present time there is a large amount of medical literature written in both of these languages, and many of us like to run over to Germany or France to see the practice of these schools. But there is a great anomaly, and it seems to me a great hardship to many others who, like myself, have passed the M.B. and C.M. Unless I am misinformed, an M.B. and C.M., under the old regulations, is not to be allowed to substitute French or German for Greek for his M.D. Why, I should like to know? We passed, it seems to me, quite as severe, and I believe a more extensive, examination in general education than is now asked at the preliminary. We had to pass in mechanics and also in at least two of the following subjects:—Greek, French, German, higher mathematics, natural philosophy, logic and moral philosophy; so that we had to take mechanics and one of these subjects as an extra over and above Greek, which was compulsory for the M.D. Under the new regulations mechanics is not required at all and only one extra subject, which may be Greek or German or French. I fail to see why one is less a student after he has taken his M.B. than before; but so the powers that be seem to make out, as we are not, I understand, to be allowed to graduate M.D. under the new regulations. Had we not passed our M.B. degree we could have graduated M.B. under the new regulations and ultimately M.D., but because we have graduated M.B. under the old regulations we may not take our M.D. under the new regulations—i.e., have the right to substitute German or French for Greek if we are so minded. As well as making the M.D. more attainable for new students and those old ones who have not graduated M.B. as yet, the old M.B. should have at least an equal privilege. Many of us have been in practice for years and would have graduated M.D. long ago had it not been for this bugbear Greek, and had we had the choice there is under the new ordinances. An appeal should be made by all M.B.'s to be granted the undoubted privilege of substituting German or French for Greek (as under the new regulations), and on passing one of these, one of the old extra subjects and writing a thesis to be allowed to graduate M.D.

I am, Sirs, yours faithfully,

Oct. 6th, 1892.

M.B. & C.M.

## "GOUT IN THE THROAT.

To the Editors of THE LANCET.

SIRS,—I shall esteem it a very great favour if you will kindly insert a question for me in your valued journal. What is meant by "gout in the throat"? I am unable to obtain any information on the subject from works at my command. Quite recently a patient of mine was told by an eminent physician that he was afflicted with it, when it turned out to be a bad "drain throat," followed by infiltration and suppuration of the cervical glands. The daily papers, too, have recently spoken of some distinguished sufferers from this malady.

I am, Sirs, yours obediently,

ALFRED W. GEORGE, M.B., M.R.C.S.

Burton-road, N.W., Oct. 10th, 1892.

## AN UNPLEASANT EXPERIENCE.

A CORRESPONDENT sends us an account of an unpleasant experience he recently had while bathing at Folkestone. He says:—

"As I intended returning to London by the 8.20 express in the morning, I went at 7 o'clock to have a final bathe opposite the Switchback, and after a considerable swim, and when not more than twenty yards from shore, I experienced a violent shock in the left forearm, which I can only describe as being like a brush of needles, instead of bristles, driven in with great force. I immediately suffered the most intense pain, and in less than ten minutes (before I had finished dressing) so virulent was the poison and so thoroughly impregnated was my blood that I experienced the most agonising pain in every part of my body. By the time I got home at, say, half-past seven, I was in a high fever, my veins standing out like whipcord, and the blood surging through them as hot water through the pipes of a high-pressure boiler, and the only way I can describe the torture was as if red-hot needles had been run into every vein of my body. A local chemist, to whom in my agony I applied, gave me a lotion to rub on the part, but I might have known it would afford no relief, as by that time I was in a raging fever, the poison having permeated my whole system. The only relief I found was in taking the most violent exercise, and I climbed at least a dozen times from the beach to the Leas. Let your readers should say it was a jelly fish, I may as well say that I have swam through shoals of them, and on the very visit to Folkestone I am describing was stung more than once, but then the effect was purely local and resembled more than anything a nettle sting, which passed away in an hour or so."

Supposing the statement of our correspondent to be correct in all respects and not an unconscious exaggeration—which, of course, is always possible—one would imagine that he was either peculiarly sensitive to the stings of the jelly fish, which at the time in question appear to have been more severe than those he had previously felt; or it may be that he was unfortunate enough to come in contact with a "Portuguese man of war," which is known to be far more virulent in its effects than the commoner jelly fishes. It is, however, unusual to see them round our coasts, except on the southern shores and in warm weather.

*Nineteen Years in Practice.*—The position is a delicate one. The more quietly practice is resumed and the facts explained the better. Any thing like a written or printed communication is to be avoided. Some of the patients must necessarily have drifted away and become the patients of other medical men, who are not to blame.

*Mr. W. G. W. Collins.*—A temperature of from 58° to 60° F.

## MEDICAL PRACTICE IN MEXICO.

To the Editors of THE LANCET.

SIRS,—I see that in THE LANCET of Sept. 3rd, 1892, with regard to practice in Mexico, you say that no examination is required. By Mexican law no person is allowed to practise medicine or surgery without having passed an examination conducted by properly appointed examiners. This examination consists of written papers and *visu voce* examination of cases in hospital thesis, and all must be passed in Spanish. This latter proviso may sometimes be relaxed. About a year ago I intended to try for a Mexican degree, and I wrote on the subject to the legal adviser of the firm I work for, asking how to proceed. He wrote me a long reply, in which he told me that it was quite useless my attempting to obtain a degree in Mexico city, as the examiners would pass no man not holding a qualification from Madrid, (?) Berlin or Vienna, but at the same time telling me I might obtain a degree in Zucatan or Mentereiz, if I got good letters to persons in authority. Practically in country districts one is not interfered with, as the so-called doctors (Mexicans) are themselves unqualified men. In town men arrange with a Mexican doctor to sign death certificates. In my particular case, as I am a doctor only to men employed on these works, I am let alone; but I have to keep on friendly terms with the town authorities and obey all sorts of peculiar rules and regulations.

I am, Sirs, yours truly,

R. F. HILEY, L.S.A., B.A. Cantab.

Zumgrango, Mexico, Sept. 10th, 1892.

P.S.—My legal friend (who, I may remark, is one of the first men in Mexico) also told me that if I attended Mexicans I was very likely to be sued if a patient happened to die, and even if I won the case I should be put to endless expense. I see my letter has rather spun itself out. Please put it down to the influence of the Spanish language, in which a letter terminates "I am, your humble, faithful servant, who kisses your hands."

## "BALDNESS AND ITS TREATMENT."

To the Editors of THE LANCET.

SIRS,—In a letter in your issue of Sept. 10th, referring to an annotation upon the above subject, attention is drawn to the value of the percuter in restoring the growth of hair. May I ask what the percuter is and its mode of application?—I am, Sirs, yours truly,

Oct. 10th, 1892.

H. W. S. W.

## OWNERSHIP OF PRESCRIPTIONS.

*Dr. Rentoul.*—1. It is obvious that a prescription belongs to the person who pays for it—viz., the patient. 2. We regret that we cannot find room for the letter.

"A CURIOUS INCIDENT."

To the Editors of THE LANCET.

Sirs,—No doubt many stories can be told of persons passing per rectum larger sums of money than they were supposed to have swallowed. Some years ago an anxious parent told my father that her son had swallowed a sixpenny piece. A day or two after he passed two sixpenny pieces, my father remarking that he had got good interest for his money. Can you inform me what happened in the case of a nobleman's son, who was so ill after swallowing a half-crown some years ago?

I am, Sirs, yours truly,

Plymouth, Oct. 10th, 1892.

J. ELLIOT SQUARE.

ERRATUM.—In our last number, on page 838, it was announced that the trustees of the late Mrs. Eliza Holmes had forwarded to the treasurer of the Royal Hospital for Children and Women the sum of £2500. The sum should have been £250.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Communications, Letters, &c., have been received from—

- A.—Messrs. Allen and Hanbury, Bethnal-green; Messrs. Arnold and Sons, London; Lady Atkin, London; Mr. Atkins, Paignton; Dr. Adam, Boston; Anti-vixen; A. B. C., London.
- B.—Dr. J. H. Bell, Bradford; Mr. A. Blair; Messrs. Burgoyne and Co., London; Mr. S. W. Black, Devon; Mr. E. A. Barton, Kensington; Dr. Robt. Barnes; Dr. J. H. Bridges, Notting hill; Mr. Ball, Netley. Messrs. Barker and Sons, London; Mr. W. M. Beaumont, Bath; Mr. Byrnie, Manchester; Mr. T. B. Browne, London; Mr. Botwood, Ipswich; Dr. John Boyd, Slomanan; Mr. Butterfield, Suffolk; Mr. Bell, Lancaster; Messrs. Blondeau et Cie, London; Bristol Eye Infirmary; B., London.
- C.—Dr. A. Cook, Cardiff; Messrs. Crossley, Moir and Co., London; Messrs. Cassell and Co., London; Mr. J. W. Collett, North Shields; Mr. Cocking, Sheffield; Messrs. Clark, Son and Platt, London; Prof. Cielland Glasgow; Carlos, London; Cortland Wagon Co., London; C. P. G., Camberwell.
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- N.—Dr. Horace T. Newman, Audlem.
- O.—Optimus, London.
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Letters, each with enclosure, are also acknowledged from—

- A.—Assistant, Harlesdon; Alton Union; Anthon, London; Alpha, London; A. B. C., London.
- B.—Messrs. Burroughs, Wellcome and Co., London; Mr. Bristow, Westmoreland; Messrs. Banger and Co., Manchester; Dr. Ball, Risham; Dr. Barnes, Suffolk; Mr. Beatty, Peel; Mr. Breech, Newbury; B., London; B & M., London.
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- T.—Mr. Thin, Edinburgh; Ton, London.
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- X.—X., Norfolk; X. Y., London.
- Z.—Zeta, London.

NEWSPAPERS.—Western Morning News, Sussex News, Birmingham Gazette, Law Journal, Nottingham Guardian, Sheffield Independent, Newcastle Journal, Scottish Leader, Le Temps (Paris), Cycling, Lundee Advertiser, Yorkshire Post, Scotsman, Leeds Mercury, Liverpool Daily Post, Bristol Mercury, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Insurance Record, Windsor and Eton Gazette, Hertfordshire Mercury, The News, Reading Mercury, Mining Journal, West Middlesex Standard, City Press, Newcastle Daily Leader, Surrey Advertiser, Catholic Times, Food, Drugs, and Drink Review, Surrey Comet, North Wales Guardian, Guy's Hospital Gazette, Local Government Journal, Windsor and Eton Express, Llandudno Advertiser, Saturday Review, Galignani's Messenger, The Sunderland Daily Echo Times of India, Sunderland Herald, The Hotel, Pioneer Mail, The Urn, Sunday Times, Hampshire Post, Lincoln Gazette, Guernsey Advertiser, Haddington Advertiser, Builder, Electrical Review, Architect, &c., have been received.

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## An Address

ON

## SYMPTOMS IN PERSPECTIVE.

*Delivered before the North London Medical and Chirurgical Society on Thursday, Oct. 20th, 1892,*

By SIR WILLIAM SAVORY, BART., F.R.S.,

CONSULTING SURGEON TO ST. BARTHOLOMEW'S HOSPITAL AND TO THE GREAT NORTHERN GENERAL HOSPITAL.

GENTLEMEN,—Allow me, before I proceed to the subject of my short paper, to congratulate you on the prosperity and progress of this Society. It is, perhaps, somewhat late in the day to discuss the advantages of such a Society as this, yet I venture to doubt if it is estimated at its full value by many even of its members. We should all agree, I take it, that great benefits are conferred by it, not only on those who belong to it, but throughout the profession. Every profession has its advantages and defects. The chief advantage of ours, in one respect, is its independence—the ample scope it gives for liberty of thought and action. We are conspicuously free to say and do what we deem right. “Doctors differ” should be, when properly understood, no term of reproach, for it means that the different views of doctors are so apparent only because they are very freely expressed. Medicine and surgery are not more uncertain than theology and law, but the uncertainties are more constantly and openly acknowledged. Now I think this is an advantage; but there is also a defect. As our thoughts and opinions are not regulated or controlled, so we greatly lack any formal bond of common union. We are as a body too loosely knit together. In one sense we should be stronger, in another happier, if as a profession we were more closely bound; and I think that a Society such as this goes far to supply the want, and that therefore in this respect it has signal value beyond all the encouragement it gives to work and the facilities it affords for the publication of it. But it has another claim, and a wide one. I for one often feel the force of the objection which is taken to the ease and rapidity of publication. I cannot help sometimes thinking that we should be better off if a wiser care and stricter selection were exercised over what is called our literature. A free press is not always an unqualified blessing. But I observe that almost all the evil comes from a particular, and that a very limited, quarter. Comparatively few make all the noise. On the contrary, the great body is perhaps too silent. While on the one hand sound is too often a sign of emptiness, on the other what wealth of information, what a mine of knowledge must exist unrevealed! A Society like this, then, has, I conceive, its chief purpose in encouraging those to speak who ought to be attentively listened to. It ought to be the means of bringing to the surface much useful knowledge which but for it might never appear; and in this direction there is one point further to which I would allude. It has always seemed to me admirably adapted to the character of very much of our knowledge—to the growth and development of that kind of knowledge with which we have to deal. I think that the history of medicine shows that the truth we reach is wont to emerge only very slowly out of error and confusion. In its earlier stages it is not a thing to fix and formulate, but to discuss and criticise; and the principles we endeavour to establish are not, perhaps cannot be from their very nature, final ones. Of our work, beyond all others, it may be said that the goal of to-day is the starting-post of to-morrow; and so at least very much of our knowledge may be called floating knowledge. It is not fixed and crystallised, but is uncertain and constantly shifting. Now it is with knowledge of this kind—this mixture of half truths with much error and with more confusion—that our societies are particularly well fitted to deal, for here it is thoroughly criticised and discussed. It is considered from various points of view, and the chaff is winnowed from the grain. We are often reproached, and not without justice, with the kind and degree of evidence we are too disposed to accept; but this to a great extent is inevitable to the nature of the inquiry we are engaged in, and the mischief is largely corrected when it passes through the ordeal of an evening's discussion. And, finally, a society like this brings out not only strength on the intellectual side, but surely it does good work also on the moral side. This may not be the most prominent, but I

No. 3608.

venture to think that it is very far from being one of the least of their functions, and in this they discharge a duty which cannot be so easily handled elsewhere. Those of equivocal character and antecedents they may even reject as members, and in every well-regulated body none but those whose career is without stain or reproach can be elected to high office. On the other hand, they have the enviable privilege of placing publicly the stamp of professional approval on noble lives and worthy work. This great moral influence which our societies are especially fitted to exercise, who shall measure it?

And may I pause a moment here to pay a passing tribute to the memory of Le Gros Clark, who was, you know, a member of the staff of this hospital? In the death of Le Gros Clark the profession has sustained a severe loss—a loss far greater perhaps than may appear to many who did not know him well; for although the singular charm of his courtesy was appreciated by all his friends, some of the finest qualities of his nature were only reached by those who had the privilege of close and constant intercourse. It was my good fortune to have been intimately associated with him for many years as an examiner at the College of Surgeons, and so I came not only to admire his attainments, but to hold him in very high esteem. That he was not only a distinguished surgeon and a very wise and safe one, but a man of wide general culture, will be admitted by all. He had read and thought much, enjoyed good literature, and was deeply interested and well versed in the scientific questions of the day. His sympathies were always with the higher and nobler views, and he strove to raise the thought and tone of his profession. To regard surgery as a mere art he believed to be a very inadequate expression of it; scientific surgery was his aim, and his thought and work were ever in this direction. This careful culture of his mind and its constant exercise upon the higher lines of thought were evident in a remarkable refinement, and to this was added the attraction of great modesty and deference to the judgment of others, even of those far beneath him in power and attainments, which in the practice of his profession sometimes became almost weakness. He was singularly conscientious. This was carried so far as to lead frequently to indecision, which detracted from the weight, if not the value, of his opinion on difficult questions in surgery. He was apt to hesitate and qualify when a more ignorant man would have greater influence with others by more direct and confident assertions. This distrust of himself and deference to the opinion of others, with perhaps dislike of grave responsibility, may go some way to explain how it was that Le Gros Clark, although very eminent as a surgeon, never occupied the place in professional and public estimation to which he was entitled. But he had little regard for popularity and cared still less for the fruits of it. He valued far more the place he occupied in the esteem and affection of his friends. His ideal was a lofty one, and by this standard he always tried himself. He was from first to last a thorough gentleman, simple and sincere, pure and upright in word and deed. And now to the proper subject of my paper.

## ON SYMPTOMS IN PERSPECTIVE.

Everyone knows that the various symptoms of disease and injury possess very different degrees of importance; that they differ widely in value to the surgeon. For instance, as symptoms of calculus in the bladder the frequent presence of blood in the urine has a much higher value than abnormal frequency of micturition. In the diagnosis of fracture of the neck of the femur shortening is of more importance than eversion, and as evidence of acute inflammation rise of temperature is far more trustworthy than pain. And everyone knows, too, that the diagnosis of a case usually depends on an assemblage of symptoms, no one of which may be in itself very strong, but which in conjunction with others may mean much. For instance, neither a rigor nor an attack of sweating, nor a rise of temperature by itself or in association with certain other symptoms, may be significant of septicaemia, but a rigor followed by profuse sweating and associated with a high temperature occurring for the first time at a certain period after the infliction of a wound is indeed very strong evidence of the occurrence of blood poisoning. Again, as evidence of disease of the hip-joint in childhood, neither lameness nor stiffness of gait is by itself very strong, but a combination of these two signs in a child, with a history of their gradual onset and perceptible progress, followed by alteration of form, points very clearly to the disease in question. Once more, neither change of colour nor decline of temperature nor loss of sensibility is by itself of much

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value as evidence of mortification, but an association of these three is strongly suggestive of impending death. But furthermore, symptoms are sometimes in apparent contradiction, and then more skill and judgment are required to appraise their relative significance. For example, how often are the characters of tumours apparently discordant in evidence of their nature? A tumour in the neck or elsewhere may be hard enough for cancer, yet so painful, tender and hot, with superficial redness, as to suggest strongly the result of inflammation. Or a tumour in the breast may present some of the more obvious of the physical characters of scirrhus; yet if it occur in a young woman, an element of doubt is introduced into the case. Or again, suppose a smooth, uniform, fluctuating tumour in the scrotum, which is not translucent. Is it a hydrocele? The contradiction here must be resolved by further evidence. In syphilis also how often are the characters of the disease presented at the time of examination at variance with the history given of the case. And here is an illustration of the pitfalls which may beset the surgeon on either side. The more experienced men will usually, and for the most part justly, with confidence in their ability to judge correctly from what they see, ignore that part of the history which seems in contradiction to the facts before them. Yet, by the too rigid practice of disbelieving all that is not in harmony with their own fixed ideas, they may become confirmed in false doctrines, while younger men with conscientious zeal for knowledge, by attaching too much importance to what they are told and too little to what they see, may be led into confusion or error. Again, the obscurity which besets the nature of so many cases of intestinal obstruction is no doubt largely due to the fact that with our present knowledge we are not able to appraise even the absolute, and still less the relative, value of many symptoms which are apparently in contradiction. But of all classes of affections none illustrate so forcibly the diversity and opposition of symptoms as those which are called hysterical. In some of these cases all the resources of the surgeon are severely taxed in the endeavour to form an accurate and complete diagnosis, and perhaps no cases in surgery demand greater delicacy of judgment in diagnosis than those in which a hysterical or neuralgic state is engrafted on some actual mischief. The difficulty is not in forming a decided opinion and acting on it, even perhaps to the patient's advantage, but in estimating at their proper value the several symptoms that arise and reconciling them with a sound view of the nature of the case.

So, then, each of the symptoms which present themselves in any given case is to be regarded not so much in its absolute value as in its relative significance. The true meaning of any particular sign is not to be reached by considering it alone, but by viewing it in relation to the rest. No doubt it sometimes happens that a single symptom may have a value which outweighs that of all the others put together; but, even then, this will be made all the clearer by comparison, and it is in such instances especially that the importance of being able to estimate the relative value of the several symptoms is most plainly seen. So that as surgeons by observation and reflection become more skilful they learn to place the symptoms which present themselves in any given case in their proper relative position, and in taking measure of the proportion of each they learn to form a mental picture of the actual state of things. Certain signs are brought into the foreground; others are put back into the distance. In short, what the rules of perspective are to the artist this sound judgment of the relative proportion of symptoms is in surgical diagnosis. And thus it comes to pass that at length in many cases only a few points in each are taken much notice of. Many features, which to those less conversant may seem to be of great importance, are unheeded. Take, for example of this, a case of strangulated hernia. A surgeon familiar with his work will listen to the complaint of pain and general distress. He will of course note the condition of the abdomen, the character of the pulse and so on; but he will grasp at once the two great facts of vomiting and a tumour in the inguinal region, and from these he will promptly decide on his course of action. Nor will he be led to falter in his decision of the necessity of giving immediate relief to the strangulation by statements that the patient is too weak to bear an operation or that the sickness is less urgent than it was an hour or two since. He understands the relative value of the several symptoms and knows how to assign to each its due degree of importance. But it is not always thus with a surgeon who is strange to

the work. He too sees that there is sickness and ascertains the existence of a tumour; but he learns that the tumour is not tender, that the patient himself attaches no importance to it, states carelessly that it is of long standing, and has not altered for years; that the pain is in another part of the abdomen; that he is too weak to bear an operation, and would be stronger, he is sure, if he could have a little previous rest; and so on. Then, on pondering over the case, the doctor comes to give undue importance to the many reasons which appear to tell against an immediate operation, and he allows these to outweigh the two or three which should have been decisive.

I know of nothing which marks more plainly the different degrees of excellence of different surgeons than this ability of estimating the value of symptoms in their relation to each other. It is the natural fruit, and can be the fruit only, of work at the bedside. In spite of the nonsense which is often talked about theory and practice, we know very well that it is not always the man who can discourse most learnedly upon disease that can deal with it most ably when it is brought before him. And I believe that comparative failure in clinical work lies chiefly in this direction. A man may know what to look for and how to look for it; he may investigate a case thoroughly and scientifically and yet, by the very multiplicity of the facts which he has elicited, he may be drawn into error. He has plenty of subject for the picture he has to form, and the effect should be consistent and satisfactory; but he breaks down in the disposition and arrangement of his material; he has no skill in grouping the several objects; everything is too much on the flat; there is no depth of space in the landscape, and the result is either a false idea or mere confusion. But although the ability to judge correctly of the relative significance of symptoms is in practice of paramount importance, yet out of the confidence which comes of the long-continued use of it evil may arise. If the habit of seizing on certain symptoms only for guidance in diagnosis and treatment become too much a matter of routine, mistakes, and perhaps serious ones, will occasionally occur. Signs neither usual in a particular case nor prominent may be neglected, which nevertheless, if carefully considered, might materially modify or altogether change the view taken of it, and this perhaps is most likely to occur in cases which appear to be clear and free from all doubt. Where neither the nature of the case nor the proper treatment is at once obvious the sound plan of making a thorough examination throughout is the best safeguard against such errors; and even in the clearest and simplest cases it is always well, as a matter of precaution, to supplement our diagnosis by a general investigation such as this. Such a course can hardly ever be amiss, and even if nothing more should come of it a thorough and complete examination will be always useful to ourselves as a matter of discipline.

Hence a chief source of the weakness of specialism, as it is called. By the too exclusive devotion of attention to a particular part or subject symptoms which are elsewhere revealed may be either overlooked or ignored, or, if recognised and considered at all, are in danger of being relegated to the background in the presence of others which point in the direction to which the practitioner is accustomed to look. Anyone with such a restricted view works, as it were, in blinkers. He can see only within the limits of a narrow space; he is unable to look around. The defects of exclusiveness are perhaps too often seen even in physicians and surgeons. A patient may have two ailments, one of which falls within the scope of the former, the other of the latter. It may be said that it is but natural that the surgeon should give more heed to the one and the physician to the other. But is there not danger from this want of comprehension that neither will be able to do justice to the claims of both?

Errors in diagnosis and practice may be arranged under two heads; those due to ignorance and those due to carelessness; and very many, no doubt, are the result of the two causes combined. Consciousness of one's ignorance may do much to avert the errors of carelessness, and he who has confidence in his own judgment should be of all men most careful in inquiry. It may be truly said that in the examination of a patient, or in the notes of it, a man will often disclose much more of himself as a surgeon than of his patient's case. An inquiry may be very full and complete, and yet the result may be confused or obscure from the absence of all proportion in the adjustment of symptoms. Or, again, the salient points of a case may be at once detected, and yet the view taken of it may be

defective through the neglect of subordinate yet withal very significant features. In short, an examination of any given case can be regarded as satisfactory only when all the symptoms that can be elicited are carefully considered and then duly estimated according to their relative value.

It may be observed that in the foregoing remarks I have assumed the existence of the symptoms I have spoken of to be matters of fact. I have spoken of them as real and actual because I could state the case more clearly and make my meaning plainer in this way. But of course in one sense everything depends on the reality of symptoms. I need not dwell on the distinction between real symptoms and feigned ones, nor upon the well-worn and hackneyed division of objective and subjective symptoms. Accuracy of observation is an art to be acquired only by education and practice; and accuracy of statement is an art, too, to be acquired only by education and practice, dependent often upon accuracy of observation, but by no means always associated with it. Hence the need of long and careful training on the part of the student and surgeon before he can become sufficiently skilful and trustworthy in this respect, and hence the error into which patients of all persons are liable to fall. For most of them not only lack the education and training just spoken of, but, being the sufferers, the impulse to over-statement and exaggeration is naturally very strong. Every surgeon of course in some measure understands this and allows for it, and so of course attaches far greater importance and value to the symptoms which he can ascertain for himself, and which are called objective, than to those the existence of which he can learn only through the statement of the patient, and which are termed subjective. Yet a great, if not an equal, danger besets the surgeon here on either side. He stands, indeed, on firm ground in the presence of objective symptoms, but if so assured he comes to ignore the subjective ones, he may be led into serious error. A man who had previously suffered from gout in the form of phlebitis and in other ways gradually became jaundiced, while a tumour which everyone recognised as a distended gall-bladder presented itself. Weakness and emaciation gradually increased, but his chief complaint was of constant, dull, but severe pain in the back. The case seemed tolerably clear to most who saw it, and more than once it was proposed to open the gall-bladder. But he died without an operation, and after death malignant disease of the pancreas in an advanced stage was discovered, which had not been suspected during life; no disease of the liver, and only a few small gall-stones in the bladder, none of which were impacted. The objective symptoms were so marked that they and the persistent and severe pain in the back were referred to a common cause, which was believed to be confined to the region of the liver. Subjective symptoms cannot for the most part be compared with objective ones, but sometimes—and this perhaps is too often the case with the most experienced men—they are cast so far into the distance as to be lost sight of altogether. We depend most on what we can ascertain for ourselves by sight, hearing, touch, and so on, for here we have to do with facts and can, comparatively speaking, accurately measure them; while the others are not only of uncertain dimensions, but vague and obscure in other ways, especially in relation to our present knowledge, or rather our ignorance, for we are far less skilful in their correct interpretation.

The uncertainty of medicine and surgery! Yes; our knowledge and practice are uncertain enough truly—not more uncertain than many other studies, not so uncertain as some of them, I repeat. But we do best not in excusing or explaining this, which can easily be done, but by working with the view of erasing the reproach. And in this, indeed, in looking back over recent years, we may be of good cheer, for the great progress of medicine and surgery has been by the application of more exact methods and instruments of research; facts have been more industriously and thoroughly sought for and their existence and value subjected to a more rigorous and searching criticism. Theories and speculation and guesses are being superseded by more scientific methods of inquiry. Sciences more exact in themselves, such as physics and chemistry, have been brought, by the advance of a sounder physiology, into closer relation with medicine and surgery, while pathology, the lineal descendant of these, is springing into new and vigorous life. Yes; the issues of our work at the bedside are still uncertain enough, but look at the progress of recent years, and think of what it means for the time to come.

## Hunterian Lecture

ON

### ABSORPTION IN RELATION TO PHYSIOLOGY, PATHOLOGY AND THERAPEUTICS.

*Delivered before the Hunterian Society, Oct. 12th, 1892,*

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MR. PRESIDENT AND GENTLEMEN,—When I received from Mr. Poland your invitation to address you I am afraid I too hastily assented. I was attracted by the force of old associations, by a desire to revisit the arena of former work, and to renew pleasant intercourse with old friends. Had I waited to reflect that I was expected to bring with me an address worthy of my audience I should have adopted the wiser course and not have come. Not only is the choice of a subject difficult, but, when chosen, to treat it in a manner worthy of the occasion, is more difficult still. However, being committed to the task, if you should feel disappointed in your expectation of instruction or entertainment, I can only submit that you have brought the infliction on yourselves. But I feel sure that, if I cannot appeal to your judgment, I may with confidence rely upon your generosity. It is useful from time to time to revert to first or fundamental principles in studying the mode of action of nutrient, medicinal and toxic agents on the system. To pursue this study with any approach to fulness would require many addresses, and I fear that even the one I have rashly undertaken will be a heavy tax on your patience. In recent times great advances have been made in extending the methods of bringing the system under the influence of nutrient and medicinal agents. We are no longer so limited in practice as formerly to the simple method of introducing medicines into the stomach. Every part, every tissue of the body has been made use of as a route of entry or discharge. Indeed, whether we will or not, all those surfaces which are in direct contact with the atmosphere are in constant use as routes of entry or of exit—that is, of exchange of elements, useful or noxious. Although we are never free from the influence of atmospheric pressure, we know that this is nearly always uniform. The pressure upon the external surface of the body is counterpoised by the pressure upon the lungs. On the other hand, the relative pressure upon the heart and bloodvessels and the lymphatics and other tissues of the body is constantly varying, and according as the pressure changes from the one side to the other, exudation and absorption change. Artificially, again, almost every internal tissue of the organism may also be made the medium for introducing foreign agents into the system. This is now familiar enough, and so no doubt is much that I am about to say in relation to my theme. There are physical laws so familiar, so intimately linked with our habit of thought, that we are apt at times to fail to trace or fully to appreciate the part they play in the living work before us; and still more are we apt to fail in calling these forces to our aid when seeking to restore or to preserve that happy equilibrium of all the functions which is physiology in perfection, and when we essay to assist physiology in her contest with intercurent trials. I do not say that we shall try to counteract pathology, for pathology is simply physiology under difficulties. I say that all the surfaces and almost every tissue in the body may be the medium for the entry of nutrient and noxious elements into the system. But there is a correlative fact not so generally remembered upon which I wish more especially to insist. This is that we may often chase and control noxious elements through the same routes. A wider theme could hardly be chosen. It embraces the whole science of medicine. One may easily fall into disconnected discursions. I shall therefore limit myself as much as possible to some illustrations and reflections that flow from my personal experience.

Let me start with one or two general propositions on the phenomena of absorption. I will not attempt a task beyond my powers, that of tracing the action of the several tissues and vessels in absorbing and carrying elements from without

into the system. I will content myself with affirming my belief that all the powers these structures are, credited with are but examples of physical laws. Take one illustration from meteorology: When the air is saturated with moisture, as indicated by the dry and wet thermometers marking the same temperature, or by a bit of seaweed having absorbed the utmost amount of moisture it can take up. There we see one of the physiological forces under which the living body exists. This is the hygrometric state of the air, constantly varying in its relation to the body. Another force is that of atmospheric pressure, also varying, and yet in constant action. These conditions are both within certain limits under our command, and may be called in to the aid of the physician. Through this law of atmospheric pressure we may understand the phenomenon of hunger and thirst. Everyone knows what a vacuum in the stomach means. It is as true as the Torricellian vacuum. This is a fundamental condition of absorption.

Before going further I may state parenthetically that the art of modern hygiene consists in the application of the laws of physics to the preservation of health. The progress of medicine rests upon the right understanding and application of the same laws; and this study is only to be successfully pursued by the scientific observation of nature in her universal relations. If the day shall ever arrive when these laws of physics shall be universally recognised and applied to secure the good of mankind, we shall have attained that millennium when medicine, whose function, as long understood, was simply the art of curing diseases, or the accidents that afflict mankind, will have for its chief, if not only, function to prevent disease. The main obstacle we have to fight against is the prejudice that is born of ignorance, and that strives to perpetuate ignorance by erecting arbitrary barriers against the advance of knowledge through the observation of nature by experiment. In intimate and constant connexion with the processes of absorption and effusion under varying conditions of pressure, centripetal and centrifugal, we must not forget the influence of the law of diffusion of gases and liquids, and especially that of capillary attraction, which last is not immediately under the power of the heart and arteries. The two greatest masters of science to whose teachings I—and I may with just confidence add those who have come under my care as patients and students—I am most deeply indebted are Magendie and Marshall Hall. I name these two not because they stand alone, but because it was my especial good fortune to be their pupil. To Magendie I owe my first and enduring proof of that great truth which lies at the root of the theory of absorption. His experiments are quoted, or ought to be in every text-book of physiology. I allude to those in which having injected water into the veins of a dog, poison being administered subcutaneously, immediately before or soon after, it was found that the poison was absorbed and acted very slowly; whilst after bleeding it acted very quickly. An artificial thirst, acting like a vacuum, was created, attracting the poison rapidly into the circulating system. When I was a student in Paris bleeding was largely, no doubt empirically resorted to. Bonillaud especially I remember. His bleedings upon patients often exemplified the lessons taught by Magendie's experiments. I also remember that one of the physicians at St. George's Hospital when I was a student bled very freely. When I was an apprentice in the country the surgery was invaded every market-day in spring by farmers, who came to be "blooded." I have "blooded" four or five in a morning. Perhaps it did little good, but I do not know that it did them any harm. They soon made good the loss by absorption. They probably lost some more or less noxious elements, and certainly they were relieved of plethoric excess, and what they absorbed was, excepting perhaps too much brown stout, wholesome. In recent times bleeding has become obsolete, or nearly so. But we still have the instructive opportunity of witnessing the effects of what may be called physiological and accidental bleedings; and if the opportunities thus afforded be carefully observed by the light of Magendie's experiments we may witness similar proofs of the influence of depletion of the circulating fluid in promoting absorption. And now I may add that I have seen reason to regret that the lancet has been thrown out of the armamentarium of the physician. It is urged by the modern school that venesection is no longer useful because the constitution of mankind has altered. I will not contend that this argument or assertion is altogether unfounded; but of this I am convinced, by clinical and physiological observation—that in some cases the loss of

blood artificially or spontaneously brought about is a potent factor in the cure of disease and in the recovery of the system, under severe physiological trials.

Let me give an illustration from the history of pregnancy; and I take the opportunity of repeating what I have often insisted upon—namely, that the intelligent observation of the pregnant woman will reveal a series of vital and physical phenomena, equivalent in scientific value and as suggestive of useful practical application as many well-designed experiments. In fact, we may look upon pregnancy as a great physiological experiment. I will pass by the exalted nervous tension and other nervous phenomena induced—I made this the theme of my Croonian Lectures at the Royal College of Physicians—in order to fix attention more especially upon our actual text: absorption and some allied phenomena. During gestation there is a greatly increased formation of blood, tending to high vascular development and tension and even hypertrophy of the heart. There is what I have ventured to describe as extreme "physiological plethora." This condition is adverse to absorption. It is not indeed an absolute or trustworthy safeguard against zymosis, but I believe that it is to a certain extent protective. The predominant force of the circulation in pregnancy is constructive and excentric, disposing to exudation and hæmorrhage. Of course this work demands material for the construction, and therefore involves absorption. But still the preponderance of energy is from the centre to the periphery. The "physiological plethora" makes itself manifest in many ways. We not seldom witness hæmorrhages from the nose, the lungs, the stomach and the intestines. These hæmorrhages are evidence of the effort of nature to relieve the vascular tension. May we not say that they are significant indications to the physician? Can nature speak more plainly? She tells us to do what she is compelled to do—she bleeds. The difference is this. A physiological hæmorrhage once started is not easily arrested. It is too apt to run to excess, even to a fatal result, and this not only because the bleeding surface is not always under our control, so that we can stop the hæmorrhage at the right moment, but because the organ from which the bleeding proceeds will not tolerate the injury inflicted upon its structure. I well remember the case of the wife of a medical friend many years ago, who being three or four months pregnant and of plethoric habit, was seized with apoplexy from hæmorrhage in the brain. Abortion, with hæmorrhage also set in, but too late to save her. Two reflections forced themselves upon my mind. The first was that a timely venesection might have saved her. The second was that had the abortion occurred earlier she might have been saved by this event—one usually regarded as a calamity. Experience has convinced me that abortion is often an example of the *vis medicatrix nature*. It is often a conservative process, acting in regulating the circulation, bringing down the excessive turgor within healthy physiological bounds. Is not the lesson obvious that the physician should on proper indications obey the teaching of nature and bleed beimes? In Italy not many years ago I observed that pregnancy alone was still a sufficient reason for bleeding. Of course this, as a common practice, is an irrational, even barbarous, submission to prejudice and custom; but we have now gone to the opposite extreme, which I venture to think is hardly less irrational. I have had reason to congratulate myself that in some threatening cases I have had the courage to bleed; and, on the other hand, I have seen reason to regret that this powerful and safe operation had been neglected. The sphygmograph and subjective symptoms indicating excessive vascular fulness and turgor will supply the indication. In some cases of eclampsia it has undoubtedly done good whilst waiting for the response to the means employed for the induction of labour.<sup>1</sup> The effect of loss of blood and of abstinence from food is similar. Almost as soon as the stream begins to flow there seems to be a transudation of watery fluid from the tissues into the current of blood; it is drawn in to fill the vacuum. To a certain extent purging may take the place of bleeding. As a mode of depletion its action is similar, but it is far less prompt and efficacious.

Now we come to labour at term. At the moment of labour all is changed. There is probably no experiment in nature or in the laboratory so full of instruction as that seen in the sudden revulsion which follows upon labour. The nervous tension at once falls; the need for the physiological plethora ceases. The first step taken towards the restoration of the

<sup>1</sup> In one case I gave the blood to Professor Bernays to analyse. He found in it urea and uric acid.

ordinary physiological equilibrium is marked by the loss of blood. The natural limit of this loss may be taken to be the discharge of that quantity which is in excess of what is required for the mother's need—that is, of the quantity which had been provided for the development of the embryo and of the maternal structures concerned in the process of childbearing. But the discharge of blood is really—to say nothing at present of extraordinary hæmorrhages—in excess of this. The loss is enough to cause at once what may be regarded as a degree of vacuum in the system; and the consequence of this is almost immediate. A process of active absorption at once sets in. The work to be done is one of demolition and of removal of the tissues, and fluids used in the process of construction now become superfluous. In the first place there is a large amount of fluid, serous chiefly, which had been effused in the broad ligaments and in the cellular tissue of the pelvis, and often throughout the cellular tissue of the body and limbs; this is taken up very quickly. Secondly, there is the excess of more or less solid matter in the uterine walls, in the specially developed bloodvessels and lymphatics and in the heart; this matter undergoes first a degree of fatty conversion and liquefaction. In the third place there sometimes occurs, unhappily, absorption of decomposing blood, of necrotic tissue resulting from the injuries sustained in labour, and of other noxious matter, chiefly from the uterus. This constitutes what I may call endogenetic toxæmia, or simple puerperal fever. This is enough without the absorption of poison from without. When this occurs there is the heterogenetic toxæmia added to the endogenetic. This view is, I believe, now generally accepted. Like the simple endogenetic form it is largely due to the increased activity of absorption caused by hæmorrhage; but there is one important point to remember in this association. It is that the poisons taken in from without include all the zymotic poisons, malaria of all kinds, the septic poisons from filth; and that when one of these is taken in it has to meet the endogenetic poison already in action or, if not in action, quickly brought on. We thus have a compound toxæmia, not always, I think, represented by the two original poisons, each acting in its own way; but probably a greater complication, resulting from the interactions of the two, generating a compound more dangerous than either of the two out of which it sprang. One observation I have often made which leads to this hypothesis is that in the case of a zymotic, as scarlet fever, the ordinary characters, as witnessed in the non-pregnant subject, are so changed or overridden that the simple zymotic is not always recognised. The same thing occurs with small-pox. It is when small-pox seizes the parturient woman that it is especially apt to take the hæmorrhagic character. There is a remarkable fact in this connexion as bearing on absorption. It has been observed by Braxton Hicks, by myself and by others that, although a woman may have been exposed for months continuously before labour, still the zymotic disease does not generally manifest itself till the third, fourth, or fifth day after labour. This suggests the question, Does the poison lie dormant until labour, when the arterial tension is lowered, and active absorption brings a rush of waste-matter into the blood; or does the plethora of pregnancy really act as a protection against the entry of the poison, warding it off?

Pardon me another digression. It was said—I believe by no less a man than John Hunter—that two poisons could hardly exist together in the same subject. “*Haud bene conveniunt nec in unâ sede morantur.*” Many years ago I published a case in which it appeared to me that a child had absorbed the poisons of small-pox and scarlet fever. There was evidence that the patient had been exposed to both poisons, and then that small-pox had been communicated to one person and scarlet fever to another. Notwithstanding cases of this kind we cannot fail to recognise the truth of Hunter's aphorism as exemplified in puerperal history. No poison can exist in the same subject along with another, each maintaining unchanged its specific characters. If the one does not neutralise the other, they generate between them a third, endowed with increased virulence. Happy would it be for mankind if they would but destroy each other. We find something analogous in chemical reactions of inorganic substances. Two elements uniting produce a third unlike either of those of which it is composed. This liability in the puerperal condition to rapid absorption of poisonous matter, due in large measure to sudden loss of blood, creating comparative vacuum in the vascular system, supplies an argument in favour of transfusion of blood or of saline or nutrient fluids. Of course we have at our disposal the ordinary routes of absorption by stomach or intestine; but absorption cannot,

we know, be always depended upon. It is too slow; it may be superseded by pouring what is wanted directly into the circulation. The effect of this is twofold. The immediate effect is to fill the vacuum—that is, to restore the equilibrium of pressure. This is essentially a physical result, for it is attained by the injection of fluid, as a saline solution, which can hardly be nutrient. The secondary effect is one not so generally recognised. The vascular system being renovated, the absorption of noxious stuff from the uterus and surrounding tissues is retarded, if not arrested; and thus time is gained for other antiseptic proceedings. Amongst the most valuable of these methods is the liberal supply of good food in a concentrated liquid form, admitting of easy absorption and assimilation. I am here delighted to express my indebtedness to an old friend and member of this Society, Dr. Oldham, who was one of the first to raise his voice against the old injurious rule of starving puerperal women.

Following the immediate revulsion of labour and puerperity we witness another interesting natural experiment in the course of lactation. The centre of activity of development and secretion is changed to the breasts. The action of the heart, at first lowered under the influence of hæmorrhage and the sudden revulsion from labour, soon rises again, and we witness the remarkable return of absorption and secretion. Here I am tempted again to cite a case from John Hunter. A man aged fifty had twins. The mother nursed the girl, he nursed the boy; and having begun this duty, he helped his wife in suckling eight succeeding children. The secretion held on long after he had ceased to suckle. He found that when he suckled the first child all his natural secretions were diminished, especially the sweat, to which he was much subjected before.

Another cognate reflection arises in illustration—the specially remarkable absorptive energy in children. It is a fact so familiar as almost to require an apology for intruding it; it is that when epidemic specific fevers are raging the children are attacked in larger proportion than adults. This is generally attributed to the immunity conferred upon adults by the protection conferred by previous attacks. Certainly this is true to a great extent, but it is not the whole truth; the vastly greater activity of absorption and assimilation in children is overlooked. The stimulus of developmental craving in children is so intense that the system seizes upon almost everything that comes within its reach. In childhood we also know that medicines and poisons are more active; and, on the other hand, we know that as maturity and age advance, in proportion as the developmental necessity diminishes, the need of absorption is greatly limited to the simple maintenance of the body. We may also, I apprehend, add that this argument applies not alone to our physical, but to our mental, constitution. As age creeps on the faculty of absorbing new knowledge wanes. We fall back on the past.

Let me add a few more illustrations, drawn from special clinical observations, but yielding evidence of general truths. The skin is more active in elimination or excretion than in absorption; as an excretive organ we are all familiar with the proofs given by the odours it emits. It often gives evidence of morbid internal absorption, as in the case of retained fecal and menstrual matter. To this I shall presently recur. As evidence of its absorptive capacity I may, however, mention that when a student at St. George's Hospital I saw severe vomiting follow a bath in which tartar emetic had been dissolved. With this personal observation I will pass over the subject of balneology and mineral waters. The familiar action of mercury by friction and of lead poisoning in painters may be cited, but I have seen cases that led me to believe that lead may enter by the lungs, carried perhaps by turpentine from living in rooms newly painted. I have known, as no doubt many of you also know, of cases of arsenical poisoning from inhaling the dust thrown off from arsenical wall paper; but in this case it is probable that some enters the stomach as well.

The absorptive capacity of serous membranes is well known. I will mention one example. A patient upon whom I had performed ovariectomy was poisoned by my assistant washing out the peritoneal cavity with an excessive quantity of carbolic acid solution. It seems superfluous to mention the absorptive capacity of the stomach and intestinal canal. This may be called the absorptive tract or route *par excellence*. I mention it simply for the purpose of calling attention to the tale it sometimes tells of arrested or obstructed eliminations by the natural routes. The history of obstructed evacuation or elimination is full of interest. Let any natural door of exit be closed and the imme-

diate effect is that waste stuff, the retention of which in the system is injurious, is liable to be reabsorbed under the influence of pressure turned inwards. We see continual examples of this in practice. There is the too familiar one of retention of feces, especially apt to affect girls and women. A retrograde absorption takes place, leading to a peculiar form of anæmia, sometimes to amenorrhœa. This has been worked out by Sir Andrew Clark. I have described it as a form of toxæmia, to which I gave the name "copræmia."

There are two conditions favouring absorption: (1) Comparative thirst for suction inwards; (2) obstruction at the natural outlets for evacuation. We have seen how these two conditions act in producing copræmia, urinæmia, cholæmia. Let me now give you another example replete with practical lessons. When there is mechanical obstruction to the discharge of menstrual fluid there is a retrograde absorption. This is seen in the most striking manner in cases of complete occlusion of the uterus. In these cases the serum, or more fluid elements of the blood, is absorbed back, leaving the remaining portion in a state of coagulation or liquid inspissation. This leads to a peculiar form of toxæmia. This absorption is, however, to a certain extent conservative. If it did not take place the uterus might burst, and rapid death ensue. This actually does take place in some cases of tubal ectopic gestation. When the obstruction is not complete, we meet with similar phenomena taking a chronic course and perhaps presenting intervals of recovery. This is obstructive dysmenorrhœa. I almost hesitate to trouble you with this very obvious reference; but there are men who have studied the question and deny the inference. The two forms of mechanical obstruction with which we are most familiar are the narrowing of the os externum uteri and the flexion of the cervix. When dysmenorrhœa and menstrual retention are pronounced, one or other or both of those conditions will probably be found; but some men contend that where a sound can pass, menstrual fluid can pass. Two facts dispose of this objection. First, during the turgor of menstruation the canal may become smaller by the approximation of its walls. Secondly, enlarging the opening by incision and dilatation rarely fails to give relief. Then, as to flexion, there are men who contend that fluid can flow as easily along a bent canal as a straight one, the two being of equal calibre. This is not far from true in the case of rigid metal tubes so bent that they maintain an equal calibre throughout their course; but take a living flexible tube and bend it in a strong curve, the calibre will hardly preserve uniformity throughout, and the elbow formed will certainly retard the onward flow. Again, let anyone watch the course of a stream and measure, as I have taken the trouble to do, its rate of current when the channel keeps a straight course and when it takes to meandering. In the latter case the current is not only slowed, but at every bend there is a return current or eddy which further hinders its course. Then, again, there is the clinical proof of relief following upon straightening the cervix. And this mechanical relief is soon followed by cessation of the retrograde absorption.

I said at the beginning of this lecture that almost every surface and tissue may be used as a route for the entry of nutrient and noxious matters, and I stated the correlative fact that the same routes may be used to chase noxious matter through the system. The first indication, of course, is to stop the entry of more poison; the next is to eject it; the third is, if we cannot drive it out, to neutralise or destroy it or counteract its action. Amongst the most familiar means of effecting this last indication are intravenous and subcutaneous injections; but I am anxious to mention another. The absorptive capacity of the uterus we have already seen in the case of obstructive dysmenorrhœa. I have often turned this to account by injecting solutions of iodine in septicæmic puerperal fever. The poison is thus chased through the system, and, I believe, neutralised. That iodine so injected permeates the entire organism I have often proved. It is detected by the starch test in the saliva and in the sweat. This is an example of the forces of endosmosis and of capillary attraction. Certainly the entry is not made by the veins or lymphatics alone or even chiefly. There is one undeniable proof that the iodine permeates every part of the uterus. In cases of hyperplasia, and even of fibro-myoma of the uterus, I have seen the superabundant and neoplastic tissues completely absorbed under the action of repeated injections. We may surely see in these cases telling illustrations of the good we may achieve by turning to account the absorptive energies of the system.

Here let me intrude one or two general propositions. The

true principle that should govern the physician is to interrogate all the functions, not only objectively, but also subjectively. In this way we may hope to arrive at a knowledge not only of symptoms and their true significance, but also of the physical conditions of the organs upon whose actions the symptoms depend. And thus we are directed to the true treatment not alone of symptoms—that is, the empirical medicine which has so long prevailed—but also to the direct treatment of causes which distinguishes the rational surgical medicine of the present day. Admitting, as we all must, the truly admirable and magnificent results of surgical treatment of diseases of the nervous centres achieved by Macewen and Horsley, we cannot shut our eyes to the fact that the greatest advances in our knowledge of the pathology and treatment of abdominal and pelvic diseases are due to surgical gynecology. Indeed, gynecology is nothing if not surgical. Looking at these things, we cannot help seeing that the immediate objective observation of organs whose functions are deranged leads not only to the direct treatment which takes away the disease; but that it also leads to such knowledge of the nature and properties of those organs that we may use them as media for the treatment of diseases in other organs or in the system at large. Thus the absorptive faculty of the uterus may be turned to account as a means of carrying remedial agents into the system, and so of encountering morbid germs, bacteria or other, wherever they may be. There is no agent known to me so generally powerful in this way as iodine, and we have seen that there is nothing more easy than to send iodine into every fibre, every cell of the body through the uterus. How to deal with cancer is an ever-painful problem. We may sometimes think we extirpate a cancerous growth by the knife or cautery; but we all know too well how little faith we are justified in giving to strictly local treatment. The malignant germ has seized upon internal tissues beyond the reach of the knife; but it may be chased into the remotest cell through the medium of absorption, and so kept continuously under counteracting influences.

And now I am afraid your faculty of absorption must be exhausted, and I must bring this discursive discourse to an end. I wish I could have thought out something less unworthy of association with the memory of the great physiologist whose name is the standard we bear.

## Lecture

ON

## ANATOMY AS A SCIENCE AND IN RELATION TO MEDICAL STUDY.

*Delivered at the Opening of the Medical Session in the University of Glasgow, Oct. 18th, 1892.*

By JOHN CLELAND, M.D., L.R.C.S. EDIN. &C.,  
PROFESSOR OF ANATOMY AT THE UNIVERSITY.

GENTLEMEN,—The present is a period of change in our university. Possibly this may be the last occasion on which our medical session will be arranged to open apart from the commencement of the classes in the other faculties. We trust that all changes of legislation and custom in the university will be for the better, and that if any of a contrary tendency will be imposed, at least honest and earnest work may be able to triumph over them. But there are other changes from which no institution is exempt. Students and professors alike are floated onward on the stream of time, and since last we met an unanticipated blow has fallen in the sudden removal from us of one whose happy smile and commanding figure will long be remembered, but will never again greet the eye. Of the skilful hand and kindly nature of Sir George Macleod it is not necessary that I should speak. They were well known to all his students. His sorrowing relatives and friends have the consolation that it can be said of him, as it can be proudly said of every great surgeon, that he lengthened the lives of many of his fellow men ere called himself to quit this earthly scene. But as convener of the successive committees appointed by the Senate in connexion with the University Union since the movement to originate it began, I may be permitted to call to mind the willing and important services which he whom we lament has rendered to that

institution. Nor was it at its commencement only that he gave his assistance; he continued to devote to its well-being an unremitting attention which he allowed no professional engagements to interfere with, and even so late as a few months ago he took occasion to express in writing his view of the duty devolving on the Senate to guard against the intrusion of aught which might impair its usefulness in furthering those student interests which a university ought to promote. In the Union you will remember your loved teacher as well as in your studies, and preserve that best of clubs as a centre of moral health and of earnest endeavour.

We are entering on a new era of medical tuition in this country. In accordance with recommendations made by the General Medical Council for the purpose of giving additional time for clinical study the Scottish University Commissioners have ordained that our curriculum shall henceforward extend over five years. It is a long period, but at least the universities recognise that for their students it is not too long. Even the beginners among you can already understand that to enable the humblest professional position to be occupied intelligently a foundation must be laid in a certain acquaintance with the elementary methods and principal results of the sciences on which medicine is based, and that time is required both for this purpose and to superimpose on such a foundation a rational appreciation of the present doctrines and practice of the healing art—an art which, however far it may fall short as yet in its endeavour to give to man the longest and healthiest possible life and smooth the passage to inevitable death, has made strides within the recollection of its present teachers almost incredible in variety and extent. It is, moreover, well that at the outset of your studies you should bear distinctly in mind that there is a difference between the objects to be held in view by a university bestowing degrees and a corporation or combination of corporations granting the licence to practise. It is required of the corporations to see that they license no one who is not, so far as education is concerned, fit to be trusted with the care of health and the treatment of the sick; and the universities have the same responsibility thrown on them, but with this addition: that, being the chartered guardians of the higher education of the country, it is their duty not to be content that their graduates have information up to the standard reasonably to be exacted for the safety of the public, but to demand such a course of study as shall enable those who pursue it with intelligence to examine critically the foundations of medical doctrine. It is much to know the various disturbances of health and the lesions to which the body is liable, to recognise them when met with, and to apply the remedies which the experience of others has found beneficial; but it is much more to follow out the causation of both symptoms and remedies so far as science has been able to trace them; and to do this requires a wider knowledge of the operations of nature and of the properties of substances both within the human body and in the world around. Still more special study in some particular direction will be necessary to enable you to wield with success the methods of science against the fortresses of the unknown; and not only more special study, but certain aptitudes and habits of mind, not often found in the successful practitioner, will be required, and different both from the dexterity of the born surgeon and the clinical tact of the accomplished physician. Such aptitudes and such additional study we have no right to expect from the general body of our graduates, and if we did we should not get them. It has not occurred to even the most absurd of hostile critics to demand that our medical graduates should all be men of science. Not only do I maintain that the public is entitled to expect that every graduate should have had ample opportunity of becoming acquainted with the sciences on which medicine is founded, and should have been taught to look at the details of practice in relation to these, but I would point out that the theory which has been held in the Scotch universities and raised their medical schools to note, when commissions and medical councils were unknown, is that every medical graduate should, to some extent, have systematically studied as a distinct branch of learning each of the sciences on which medicine immediately depends, and that within the walls of the university the standard of teaching in each should be maintained as high as possible. As long as this theory is held, and not one moment longer, will the faculties of medicine continue to give strength to our Scottish universities and defy the sneers of detractors. It is the merest puerility to suggest that professorial work is to be limited and pruned down to preparing students for a pass examination]

So far as the subject is concerned which is specially committed to my care, recent legislation makes little change. Anatomy will naturally be attended with chemistry in the first winter and with physiology in the second, as heretofore. The student is to be admitted to examination in the whole subject of anatomy at the end of the third winter session, the same period as that at which hitherto he has been examined in regional anatomy. But it has been considered, not incorrectly, that until then he should continue to give attention to physiological anatomy as well. The new ordinances save the student from the temptation to leave off his physiological studies immediately after attending the course of lectures on that subject, and before he has had time to master the relation of the more recondite anatomical details of function, and they leave undisturbed the opportunity of continuing the pursuit of practical anatomy in the third winter, when there is some possibility of appreciating its bearing on surgery and medicine.

The position which anatomy holds in medical education is remarkable. Assisted by chemistry and physics it forms the basis of physiology, disclosing the construction of the machine whose healthy operations physiology describes; it furnishes also the starting point of all accurate pathology, whether we regard the larger changes produced by disease or the microscopic elements out of which these are wrought; while the explicit and, to a certain extent, irksome details of its topography furnish the means of explicit diagnosis to the physician, and enable the surgeon to perform operations which without them would be impossible. These are the aspects in which anatomy is more immediately useful to medicine, and in the first of them—its connexion with physiology—it puts forward a fair claim to have an elementary knowledge of it included in general education as well. It would be a happy thing for the world if every father and every mother had some notion of physiology, and took care that their teachings and doings were in conformity with the laws of life; and, as regards higher education, it might surely be by this time apparent that some knowledge of the relation of the mind to the walls and windows of its present abode is a necessary preliminary to a correct psychology. Still all this gives no adequate idea of the scope of anatomy as a science; and seeing that the other sciences with which you are brought in contact as medical students stand in the same position, in having spheres of their own which only intersect the sphere of medicine and yet ought to be justly conceived of though not all subjugated by the medical student, I shall offer a few remarks on what anatomy really embraces. The name is misleading; it only describes a method, and that method one which in the minds of the uninitiated, even those who have been subjected to the narrow course of training supposed to constitute culture, calls up repulsive and sometimes superstitious ideas; and although everyone admits that the objects to be laid bare by that method are the details of the most complex organism that exists, this but awakens the antipathy of the lazy, while it seems never to be suspected that those details are subject to law, and result from the operation of causes, and that these also it is the business of the anatomist to discover. But when we consider how long the higher aspirations of the science have taken to germinate in the minds of those who have pursued it we learn to understand very well how the word "anatomy" came into use.

Modern anatomy is justly enough said to date from Andreas Vesalius, born in Brussels in 1514, who may be held to have originated the accurate observation and description of a large part of the body. But it must be remembered, on the one hand, that not till a later period was the whole face of the study changed by Harvey's discovery of the circulation of the blood and by the gradual growth of microscopic methods paving the way for a more rational comprehension of the objects displayed; and, on the other hand, it is not to be forgotten that the ill-satisfied longings after a knowledge of structure go back, not merely to Sylvius, the teacher of Vesalius, and to Mundinus, Paduan professor and manual-writer of the fourteenth century, but far into antiquity, to the writers whom Mundinus consulted, to Galen specially and to Aristotle, and even to Hippocrates. The crude beginnings had their origin partly in a professional desire to advance medicine, partly in the scientific ardour of speculative philosophy; but it was long before the objects laid bare by maceration and by the scalpel awoke any other thought than that of function; and thus anatomy was nothing more than such methods as the name expresses used for advancing physiology. Even Galen's work, so long authoritative, professed to be devoted to the use of the parts of the body.

(To be concluded.)  
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## THE THERAPEUTICS OF CHOLERA.

By SIR GEORGE JOHNSON, M. D. Lond., F.R.S.,

EMERITUS PROFESSOR OF CLINICAL MEDICINE AND CONSULTING PHYSICIAN  
TO KING'S COLLEGE HOSPITAL; PHYSICIAN EXTRAORDINARY  
TO H.M. THE QUEEN.

IN THE LANCET of Oct. 8th there is an editorial article on the "Therapeutics of Cholera," in which such frequent reference is made to me, my doctrines and my practice that I am induced to ask permission to comment upon some of the statements contained therein. The writer declares that Sir Thomas Watson in 1866 was induced to recommend the evacuant treatment of cholera "solely under the spell of his able colleague's influence," the colleague thus referred to being myself. That one of the wisest and most cautious of men, at a time when, as President of the Royal College of Physicians, he was officially at the head of the medical profession in this country, should have adopted and published a new doctrine with regard to the pathology and treatment of cholera without evidence which to his powerful and logical mind appeared conclusive is a suggestion so incredible as to require no serious refutation. The history of Sir Thomas Watson's "conversion" is simple enough. During the epidemic of cholera in 1849 I had witnessed the deleterious effects of the treatment of cholera by opium. During the next epidemic, in 1854, I ventured to give castor oil, with the result that, while in a large proportion of cases patients were rescued from extreme collapse, not one out of a large number of cases of diarrhoea so treated passed into collapse. From that time I felt assured that the theory which suggests the indiscriminate employment of opium to arrest choleraic diarrhoea must be erroneous, and that the discharges from the stomach and bowels, although they may, like the eruption of small-pox, be so copious as to kill, are yet the means by which the morbid poison is ejected from the system. Death may take place without discharges: recovery never.

Now what is the history of the theory which attributes the worst symptoms of cholera to the drain of water from the system? There is no trace of it or of the practice which it suggests in the writings of the earlier Indian practitioners. Before I published my book on "Epidemic Diarrhoea and Cholera" in 1855, I had carefully read most of the reports and books on cholera which had been published by practitioners in India before the disease appeared in Europe in 1831-32, and in not one of them did I find the slightest indication that opium was given to arrest the choleraic discharges. Opium was given to relieve the painful cramps, while at the same time purgatives, and sometimes drastic purgatives, were taken to remove the morbid secretions. The loss-of-water theory and the repressive treatment suggested by it had their origin sixty years ago when cholera first invaded Europe. This theory and practice soon gained almost universal acceptance, and one result has been that the percentage of deaths from cholera in India has been much greater than formerly. Thus Dr. Edmund Parkes, in his "Researches on the Pathology of the Asiatic or Algide Cholera," says (p. 195): "I cannot account for the astonishing success which attended the practice of several gentlemen in the earlier periods in India." He, however, thinks that the epidemics he witnessed were above the ordinary degree of severity and the mortality was proportionately great. It does not appear to have occurred to Dr. Parkes that his comparatively unfavourable results might be due to the different operation of purgatives given to remove offensive secretions and opiates given with the object of preventing their escape, the latter having been his own practice. I had observed the unfavourable results of the repressive treatment of cholera by opium and other astringents, and the comparative success of the opposite or eliminative treatment of the disease before I had formed any theory as to the nature of the disease. After a careful study of all the phenomena of cholera I arrived at the conclusion that the essential cause of choleraic collapse is obstruction of the circulation through the lungs—a result of the contraction of the pulmonary arterioles excited by the poisoned blood—and that the gastro-intestinal discharges are the means by which the poison is eliminated. This theory, which I first published in the work before mentioned in 1855, also in a smaller work entitled "Notes on Cholera" in 1866, and with much additional corroborative evidence in the chapter on Cholera in my "Medical Lectures and

Essays" in 1887, was accepted by Sir Thomas Watson and by many other competent authorities as affording a complete explanation of all the phenomena of the disease. Sir Thomas Watson says: "It is consistent with the symptoms noticed during life and with the conditions discovered after death. In truth it derives strong confirmation from the fact that it unlocks, like the right key, the whole of the pathological intricacies of the disease." Again, he says: "If the doctrines advanced by Dr. Johnson are well founded, as I firmly believe them to be, it must be wrong to dam the choleraic poison and its products within the body."

This, then, is the explanation of Sir Thomas Watson's acceptance of my theory and treatment of cholera. And surely a man in his position is to be highly commended for having the courage to publicly proclaim the fact that he had seen reason to change the opinion which he had formerly held and taught with regard to so important a subject. We know how eloquently, in his introductory lecture, he has expressed his deep sense of the grave responsibility of a public teacher. He says: "Doctrines and maxims, good or bad, flow abroad from a public teacher as from a fountain, and his faulty lessons may become the indirect source of unspeakable mischief and suffering to hundreds who have never even heard his name. These thoughts fill my mind with an almost painful sense of the obligation, imposed upon me by my present office, of closely sifting the facts and meditating carefully the precepts which I offer for your instruction and guidance." I venture to say that if all the men in high position in the profession who have privately expressed to me their entire assent to my theory of cholera and the practice deducible therefrom had, like Sir Thomas Watson, the courage to publish their opinions, there would no longer exist that conflict of opinion which at present prevails and which is a continual reproach to the profession.

It is alleged that Sir Thomas Watson had no personal experience of the evacuant treatment of cholera. In reply to this it may be observed that he had too much good sense and freedom from prejudice not to avail himself of the personal experience of others. He had read the reports of the numerous cases which I had published in detail and he refers to the still more numerous cases published by Drs. McCloy and Robertson in their very able and elaborate paper in the fiftieth volume of the "Medico-Chirurgical Transactions." In his lecture on cholera he makes repeated reference to "this most instructive communication." In their paper it is shown that 375 cases of cholera were admitted into the Liverpool parish infirmary in 1866. Of these cases ninety-one were treated with astringents and stimulants, camphor and iced water, applications of ice and hypodermic (opiate) injections, and the mortality per cent. was 71.42. Eighty-seven cases were treated with castor oil, with liberal use of food and alcohol, the mortality being 41.37 per cent. The authors express their belief that food and alcohol given during collapse were injurious and to some extent counteracted the good effect of the evacuant treatment. One hundred and ninety-seven cases were treated by castor oil alone, with a mortality of 30.45 per cent.

With regard to diarrhoea, they say, "Our experience was very extensive. Several thousand cases came under our observation in the different dispensaries connected with the West Derby Union and in the Liverpool Parish Infirmary. Among these were doubtless many which would have recovered under any mode of treatment, or by the *vis medicatrix naturæ* alone. There were many, too, of a most severe choleraic type. The treatment adopted was generally evacuant in its nature; and consisted in the administration of castor oil, calomel, rhubarb or magnesia. In every case relief was afforded 'quickly, pleasantly and safely.' It was but seldom that more than two or three doses of castor oil were required. In one of the public dispensaries (Booth) many cases of diarrhoea were treated with evacuants, and the testimony of the medical officers is in accordance with our own. 'We certainly had less trouble with the evacuant mode of treatment. Our patients seldom gave us a third visit, two doses of castor oil or rhubarb mixture being generally sufficient to cure the disease.' We never saw a diarrhoea patient treated from the commencement of his attack require subsequent removal to hospital. In a large proportion of our cases there was premonitory diarrhoea, which had been treated—often for four or five days—with astringents. Diarrhoea patients undoubtedly recover when treated with astringents, but the recovery is not consequent upon the arrest of the discharges as these are invariably restored

before the patient feels well." The authors state emphatically that "Whatever the treatment adopted the result was the same—recovery never occurred without the continuance of the intestinal discharges or their restoration if previously arrested."

In THE LANCET of Aug. 18th, 1866, p. 184, there is a report of 201 cases of diarrhoea successfully treated at the Bloomsbury Dispensary, mostly by evacuants; a pill of half a grain of calomel with three grains of rhubarb, followed in two hours by half an ounce of castor oil. If next day the purging continued a slightly astringent mixture was given, "but this was necessary in only a small number of cases." All the patients recovered, and the report states that a considerable number of them had been previously treated at other institutions unsuccessfully by astringents. "One man had been ill for a week, taking astringents the whole time; after the above treatment he went to work the next day quite well." Twenty-two of the cases were treated with coloured mint water, of whom two only returned for further treatment. I challenge the advocates of the repressive treatment of choleraic diarrhoea by opium and astringents to produce evidence in support of their theory and practice as conclusive as that which I have given in favour of elimination. The fact is that practitioners who are "under the spell" of an erroneous theory have had no experience of the evacuant treatment which they condemn on theoretical grounds alone. I have elsewhere quoted from MM. Briquet and Mignot the result of their treatment of diarrhoea by opium. Of 200 patients who came under treatment at the commencement of the attack, no fewer than 26, or 13 per cent., passed into collapse. This is a striking contrast with the many thousand cases of diarrhoea successfully treated by Drs. McCloy and Robertson. The result of the administration of opium by the mouth would be more frequently and decidedly injurious than it is were it not for the fact that the outward flux of liquid from the blood impedes the absorption of the drug, and the diarrhoea continues in spite of repeated doses of opium for a period varying from a few hours to several days. In such cases the curative efforts of nature eject the morbid poison from the blood and bowel, together with the drug, by which an attempt is made to arrest the elimination. It is now well known that Dr. Koch failed to produce cholera in guinea-pigs by introducing the poison into the stomach, unless at the same time he injected into the peritoneal cavity a dose of tincture of opium; his object being "to render it possible for the cholera bacillus to remain longer and gain a footing in the intestine." Is it not obvious that those who endeavour to arrest the choleraic discharges by opium, especially by hypodermic injections, are repeating upon the human subject the lethal experiments which Koch and others have performed upon guinea-pigs? I have reason to believe that the majority of the profession know little more of my work in connexion with cholera than that I have treated it with castor oil. They are led to suppose that I *always* give castor oil and *never* opium; the fact being that, in my detailed directions for the treatment of diarrhoea, I indicate that while there are some cases in which there is no need to give castor oil or other laxatives—the object and effect of which is, not to increase the secretion from the blood, but to quicken the expulsion of morbid materials from the bowel—on the other hand there are many cases in which, after the expulsion of the poison, opium may be usefully given to allay irritation. It is surely not too much to expect that those who publicly criticise my practice should do me and the public the justice to ascertain what that practice actually is, even if they have not the time, opportunity and inclination to make themselves acquainted with the facts and arguments upon which is based my explanation of choleraic collapse.

The influence of an erroneous theory upon the treatment of cholera affords a melancholy illustration of the truth of the following statement by Buckle: "There is no well-attested case on record of any theory having been abandoned because it produced dangerous results. As long as a theory is believed men will ascribe its evil consequences to any cause except the right one; and a theory which is once established will always be believed until there is some change of knowledge which shakes its foundation. Every practical change may, by careful analysis, be shown to depend, in the first instance, on some change of speculative opinions."<sup>1</sup> A change of speculative opinion with regard to the pathology of cholera it has been my endeavour during the last thirty-eight years to

bring about, and I am confident that the time will come when it will be generally acknowledged that my efforts have been in the right direction and that their object has been attained. Savile-row, W.

## SOME PRACTICAL DIFFICULTIES ARISING IN THE DIAGNOSIS OF PHTHISIS PULMONALIS.<sup>1</sup>

By W. S. LAZARUS-BARLOW, M.B. CAMB., M.R.C.P.

THE importance of a correct diagnosis in this the most common of the serious diseases which the profession is called upon to treat is so great that it may not be amiss to consider all some of the practical difficulties which lie in the path of medical men. I do not propose on this occasion to touch at upon the treatment of these unfortunate patients. I leave that in abler hands than mine; but the value, if there be any, in the following remarks, arises from the fact that all of the difficulties I mention have arisen to myself even in my short experience.

If a patient come to a medical man with a history of having lost two stones in weight during four or five months, if he say that he had brought up a pint of frothy blood, that he sweated copiously at night, that he had a distressing cough and expectorated much thick, yellowish mucus, and that a near relative had died of phthisis, the fears of the medical man are naturally aroused. If on examination dulness be found over one or both upper lobes of the lung, extending downwards perhaps to the third rib or lower, with tubular, cavernous or amphoric breathing associated with many moist fairly large sounds, with increased vocal fremitus and vocal resonance, increased in the case of resonance to bronchophony or pectoriloquy, his fears are realised. The patient is suffering from phthisis and probably from very actively advancing phthisis. But such is not usually the form in which the disease is seen for the first time, and particularly it is not the form in which the general practitioner sees it for the first time. It is rather in one of the other two stages, the earliest or the later stage, though doubtless in a special hospital the typical form is seen only too often. Here I should like to mention the way in which I propose to regard the stages of phthisis. I shall speak (1) of incipient, (2) of advancing, and (3) of receding phthisis. This will eliminate the difficulty which otherwise arises from the use of the stages as (1) the stage in which tubercle is laid down, (2) the stage of excavation, and (3) the vomica condition, with the attendant paradoxes that the "last stage" of phthisis may be the most favourable to the patient and the "first stage" the most dangerous. This division seems to me to be more nearly allied to the course of the disease and to afford a better explanation of the rarity of cures, as it brings so large a number of cases under the head of advancing phthisis. For the incipient stage is usually an advancing one, and while receding above the disease may be advancing below in the lung. But it is also useful as that upon which a prognosis can be most safely based, for the whole question of prognosis depends on whether, in a patient suffering from phthisis, the disease, as a whole, is advancing or is receding in activity. As the incipient stage not only comes first in order of time, but also in order of importance and of difficulty, we will discuss the difficulties then arising in the diagnosis. The second or true advancing stage, where the disease, having once taken hold of the patient, proceeds by more or less rapid strides, I do not propose to enlarge upon, as it is by far the most easy of diagnosis, cases differing but little, and that chiefly in degree, from the typical case mentioned above. In the first place, then, it is important to recognise that in the very early incipient stage a patient may not—and, indeed, is very likely not to—have any symptoms that lead to a suspicion of lung mischief. He is run down, has perhaps some dyspepsia with nausea, and probably this dyspepsia is obstinate; he is tired and languid and seems to require merely judicious diet, tonic medicine and perhaps a sea trip. Now this train of symptoms is very common and particularly so in young women. It is very common too in early summer, after the strain of winter and spring; but it is just at this season of the year that incipient phthisis is particularly likely

<sup>1</sup> History of Civilisation in England, vol. II., p. 545.

<sup>1</sup> A paper read at the North London Medical and Chirurgical Society, Jan. 14th, 1892.

to begin. I wish to enforce the necessity of not allowing such a patient to leave the consulting-room without an extremely careful examination of the apices of her lungs. Many times, no doubt, we shall find that our suspicions have not been verified; but I am confident that the earliest signs of phthisis are to be found in cases of this kind rather than in any other. Cough, expectoration, hurried breathing, perspiration and hæmoptysis are conspicuous by their absence; but a careful examination may reveal a little dulness in the supra-scapular fossa, a slight roughness, harshness or waviness of breathing, particularly in expiration, perhaps a few clicks, not cleared up by deep inspiration or cough, and we shall congratulate ourselves on having avoided that greatest of errors—the overlooking of the prime cause in the prominence of extraneous symptoms. I need not say that the importance of careful examination in such cases is essential to the advantageous employment of climatic treatment, and in no stage of phthisis is climatic treatment more advantageous. Perhaps we may not have time to examine for bacilli, but if we do we may be rewarded for our pains. I have notes of one case that occurred when I was house physician at the Brompton Hospital which illustrates this point very forcibly. The patient, a young girl of nineteen, had absolutely nothing the matter with her but some persistent dyspepsia, and to get sputum for examination it was necessary to make her cough. There was even then expectorated a little watery mucus alone, nothing similar to the ordinary phthisical sputum; but bacilli were present in large numbers, and within the three months of her stay signs appeared in the left apex. The fact that bacilli were discovered within the first week after her admission negatives the possibility of her having contracted the disease within the hospital.

We may now advance a little further. We have in early spring, or perhaps even in summer, a patient who has persistent slight cough, with slight glairy expectoration, which has lasted through the winter and has got a little worse; perhaps some lassitude and maybe a phthisical family history. Is the patient the subject of incipient phthisis? To my mind this all-important question is most difficult to solve. Many persons show a liability to cold and their catarrhs go on to a bronchial catarrh. It is particularly in the upper lobes that this bronchial catarrh is likely to persist for some time, and it is especially under the conditions of a prolonged bronchial catarrh that tubercle is likely to be deposited. How are we to determine whether the patient is suffering from a mere bronchial catarrh or from early phthisis? Frankly I confess that I cannot do so with certainty; nothing but time will show with absolute certainty. But there are some indications that may give one or other of these diagnoses more probability. In such a case it is of especial importance that the bodily temperature be taken regularly, and not only night and morning, when it will very likely prove to be normal, but especially in the middle of the afternoon. If the temperature rises in the afternoon from 2 to 5, but is not elevated above the normal night temperature in the evening, or only slightly, I believe the probabilities are greatly in favour of the tuberculous condition. Next we should notice the effect of causing the patient to cough while we are auscultating. The long inspiration following the expiratory effort of coughing will very possibly clear up to a large extent the sticky râles, or the clicks, which in such a patient are heard during ordinary breathing. If after repeated cough with subsequent deep inspiration, and after several auscultations, these clicks remain, the probability of phthisis is increased. Then there is help in the question as to whether the conditions of the two lungs are similar. If there is no dulness, if the moist sounds may be heard equally low on both sides, if the degree to which they are heard varies from one day to another, and if an occasional click may be heard at the bases, then the probability is in favour of bronchial catarrh. If the sounds are not heard equally low, and particularly if the left apex be more involved, there is increased fear of the condition being phthisis. The question of time will usually clear up the difficulties in these cases, and it is important not to let a patient who has had this condition in early summer enter upon the next winter without carefully arriving at a definite conclusion as to the actual condition of the chest. If, when the patient is examined in autumn, nothing is found, the mystery has solved itself; if the same condition remains or has advanced the probability is vastly increased that he is suffering from slowly advancing early phthisis, and by this time other symptoms will probably have supervened, converting the diagnosis from a comparatively

doubtful to a comparatively certain one. Nevertheless, I do not ignore the fact that a bronchial catarrh may creep on. At any rate, if we thus exercise caution and take pains over the diagnosis we shall have nothing to reproach ourselves with in case the more serious condition ultimately manifests itself. We shall in the meantime have given the patient the best chance of escaping that tuberculous disease, and shall have put him under those conditions which militate most against its rapid advance. Such considerations are amply sufficient to compensate us for the extra trouble we have taken in arriving at a diagnosis.

We now come to a very different class of case, one in which the diagnosis is no less difficult, but which cannot alter our treatment to any considerable extent, though the prognosis may be materially modified. An example of this class is very vividly before my mind, as it was one of the cases given me in my examination by the Censors' Board of the College of Physicians. I will briefly run over the chief points. A man in the prime of life was admitted to hospital with acute pneumonia; the case never had a definite crisis, but went on for about two months, at the end of which his condition was as follows: Dulness, with all the signs of fluid in the lower axilla and at the base on the right side, with a few crepitations throughout the lung; temperature irregularly raised, pulse rapid and copious perspirations. It was evident that pleural effusion had been added to the pneumonia, but the question was whether tuberculous mischief was not, after all, underlying the whole. Now the effusion at the right base raised the tone on percussion of the upper lobe, though it was by no means of the Skoda type, and thus abolished a means of comparison with the left upper lobe. The onset of the pleurisy was definite, with rigor and pain. But the onset of a tuberculous pleurisy is most commonly insidious and pain is not a marked symptom. The condition of the patient was quite explicable on either of three hypotheses: (1) unresolved pneumonia, (2) empyema, and (3) phthisis being laid down on an unresolved pneumonia. There was no tuberculous family history, and yet the man looked of a tuberculous diathesis and his finger-ends were clubbed. He had had no previous illness, no history whatever of cough or wasting; he expectorated much frothy mucus. And yet, in spite of all, there was in my own mind, from the first no doubt—and I may add that the Censor examining also fully concurred in my view—that the case was tuberculous at bottom. Upon what could that diagnosis be upheld in the face of so many contradictory signs? In the first place, there was some harsh breathing at the left apex, and this side was duller on percussion than the right, though I admit the abnormal condition of the right lung gave no satisfactory standard of comparison. Then, next, the finger-ends were clubbed. I do not know how long it takes for obstruction to the pulmonary blood-supply to exist before clubbing is present, but it appeared to me that two months was long enough. Thirdly, the peculiar hopefulness of phthisical patients was present here, and this, with the transparent skin and pearly sclerotic, together with the fact that now, two months after admission, his lung condition was not cleared up, but actually more obscure than ever, led me to the conclusion that phthisis was the disease which would later on, by rapid strides, infiltrate and perhaps excavate the lungs on both sides, but particularly the right; in short, that tubercles were being laid down throughout the area of an unresolved pneumonia. Here was a case where discovery of the bacillus would have been of inestimable advantage to the diagnosis; but I was assured that examinations of the sputum had been repeatedly made without success.

Closely allied to the above case are those somewhat rare cases of apical pneumonia. They occur more frequently in children, are accompanied with much more pronounced symptoms, and are long in resolving. One must not forget that though tubercle going on to excavation is far less common amongst young children than amongst adolescents and adults, yet that it is not infrequently met with. If in a case of apical pneumonia in a strumous child we can get but a very poor history of onset, I do not myself see, unless delirium be marked, how we can differentiate the two diseases. Dulness, tubular breathing, bronchophony, and even pectoriloquy, are present in both, and the onset of phthisis in children is often so rapid that the mode of onset in any particular case may help us but little. I think here in many cases, though we must recognise the condition as extremely severe, we are unable to give a definite diagnosis. The case is different from broncho-pneumonia in children; moist sounds and dulness are very widespread, but they are

not as a rule confined to the apex, being heard in patches all over the chest on both sides, and particularly below the angle of the scapula. In children cases of broncho-pneumonia ought not usually to cause any difficulty. But it is different in adults. When broncho-pneumonia is present it may lead to a condition very similar to that occurring in basal phthisis. True phthisical cavities also rarely occur at the bases of the lung, and may be confounded with bronchiectatic cavities. A diagnosis may usually be effected by considering other symptoms—such as the deteriorated condition of health dependent upon some long-standing acute illness which has exhausted the vital forces, leading to broncho-pneumonia and the peculiar mode of expectoration with the characteristic odour of the sputum in bronchiectasis. In a short time influenza, leaving broncho-pneumonia, may further increase our difficulties in diagnosis. With regard to morbid growths in the lungs I can speak with less confidence, as I have met with but few, and those such in which the diagnosis was not difficult, and in any case not to be confounded with phthisis. Primary growths in the lung are very rare, and generally the organ is invaded from the mediastinum, and presents many points of contrast to what occurs in phthisis. I can nevertheless easily imagine that a localised, easily softening growth might be very difficult of recognition.

Having now briefly pointed out the main conditions found in the lungs which may considerably affect our diagnosis of phthisis I should like to refer to a few of the more important symptoms which, though often of extreme diagnostic importance in phthisis, are nevertheless not pathognomonic. Firstly I will deal with hæmoptysis. Dr. Burney Yeo lately said that often hæmoptysis was the most favourable condition towards the cure of phthisis, as it made the patient take adequate precautions. That is no doubt true, but we must primarily be certain that the hæmoptysis is of tuberculous origin. I need not speak of the importance of deciding whether the case be one of hæmoptysis or hæmatemesis. I assume that it is undoubted hæmoptysis. Now in middle-aged and elderly persons hæmoptysis is not so simple a matter as it seems. Most probably, I grant, it comes from a cavity with vessels running in its walls that, being unsupported on one side, have become aneurysmal. But there are two other questions to be disposed of: (1) Does the hæmoptysis depend upon the same causes as lead to cerebral hæmorrhage and epistaxis in the subjects of chronic renal disease? and (2) Does the hæmoptysis arise, as Sir Andrew Clark has shown it sometimes does, in a person of arthritic tendency and quite apart from either renal changes or phthisis? Now renal hæmoptysis, if I may so call it, may be easily diagnosed by the state of tension of the pulse, and above all by deciding by gentle percussion the extent of the cardiac area. The size of the heart will settle the question. If dulness extend up to the upper border of the third rib and beyond the middle of the sternum I believe phthisis may practically be put out of the question; for the heart in phthisical patients, in the immense majority of cases, is below the normal weight and size, while in chronic renal disease, as is well known, it is generally hypertrophied. So far I have only seen one case of Sir Andrew Clark's arthritic hæmoptysis, and in that the amount of blood expectorated was considerable and lasted over several days; the patient was about fifty years of age; there was no renal disease and absolutely no ground for assuming phthisis after many most careful examinations. On the other hand, the patient exactly answered to the type of case Sir Andrew Clark has described. I confess though that at first I regarded the blood as coming from an undiscovered phthisical cavity. Secondly, wasting may mislead us. There are few diseases in which wasting is so great or so rapid as phthisis, and yet I remember one case I saw early in 1890 in which most marked wasting took place as the result of mere inanition in a patient suffering from hysteria; she was fifteen years of age and was reported to have maintained life on half a pound of grapes and some raspberry jam for a period of three months. That fact, aided by the knowledge that she was regarded as a marvel in the small village where she lived, caused me to doubt the diagnosis of phthisis publicly given out by the medical man in attendance. I examined her most carefully, found no tuberculous mischief, but had my provisional diagnosis of hysteria confirmed in a number of ways that need not now be recapitulated. Removal from the surroundings, strict moral treatment combined with forced feeding and massage, produced in a month so considerable a change in the patient's physical condition that I had great trouble to protect her from the unkind remarks of her neighbours, who had previously been so

loud in their expressions of compassion. If she had had a slight "bronchial catarrh" at the same time I should not have felt so certain of my diagnosis. Thirdly, as regards cough and expectoration. It is necessary to remember that cough need by no means be caused by a lung condition. Irritability of the fauces, a pendulous uvula, any irritation about the larynx or in the ear may cause it, and when combined with some expectoration, as it usually is, and of lengthened duration, any of these causes may lead to an unfounded suspicion that phthisis is incipient. The granular condition of the pharynx common in cigarette smokers is a typical example of this. The cough and expectoration will last throughout a summer and give rise to alarm. Whenever, therefore, cough and expectoration are present and chest symptoms are absent or of very small extent, we must not assume the existence of phthisis until we have decided that the throat cannot possibly or sufficiently account for them. There must be a cause for them, I grant, but with patience it will be found, and possibly not in the lungs; while it is as satisfactory to find them dependent upon a remediable throat condition, for example, as it is unsatisfactory not to refer them to a lung condition upon which, notwithstanding the absence of chest signs, they may nevertheless depend. With regard to the expectoration, some slight reference is necessary. The sputum of phthisis, though typically nummulated, is not always so. Many cases, and particularly those in an early stage, produce only "bronchitic" sputum, and yet bacilli may be found in quantities. This was the character of the sputum in the first two cases I have mentioned above. Next you will find some cases of bronchiectasis and of chronic bronchitis in which the sputum is typically nummulated. With these cases one word of caution is necessary. Cases of chronic bronchitis are not always uncomplicated and often with them coexists an old fibroid phthisis; it is very necessary to inquire for a history of phthisis in early years before one concludes with certainty that the nummulated sputum in an apparently simple case of chronic bronchitis does not come from an old much-contracted cavity. Fourthly, hectic temperatures and sweating are not peculiar to phthisis; I remember at least one case of empyema where such a mistake was made. Remember also that apical emphysema may surround and mask an old nodule of tubercle. The importance of searching for underlying quiescent phthisis in chronic bronchitis and emphysema is great on account of the tendency such lesions have to smoulder on and some time or other burst into active growth. Lastly, I should like to mention two small points of practical value in the diagnosis of a cavity, and the first is that in examining a patient for pectoriloquy or whispering pectoriloquy it is advisable to make him read from a book rather than say the familiar "one, two, three," or "ninety-nine." If, in taking care that the unoccupied ear does not receive the sounds we are able by means of the auscultating ear to understand the words whispered, the diagnosis of a cavity may be absolute, but when the words are familiar we are apt to think we hear more than we actually do hear. The second point is that the character of the cough is important; an impulsive cough, seeming to rush up the stethoscope, may be heard when pectoriloquy is not obtainable, and, I believe, is of extreme value in diagnosis. Such a condition I have often noticed in cases of receding or fibrotic phthisis in which a cavity is becoming contracted. As may be easily understood, it is a particularly valuable sign from a prognostic as well as a diagnostic point of view.

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## DYSPEPTIC HEADACHE: A HISTORICAL SKETCH.

By HARRY CAMPBELL, M.D. LOND. &c.

THE intimate sympathy between the head and the stomach was well known to the ancients. Thus Galen alludes to the vomiting which may follow upon fracture of the skull and to the headache which may result from gastric disturbance.<sup>1</sup> Cœlius Aurelianus and Alex. Trallianus also, among other writers of antiquity, insist on the consensus existing between these two parts of the body,<sup>2</sup> and it has been con-

<sup>1</sup> Kuhn's edit., vol. viii., pp. 178, 179.

<sup>2</sup> Labarraque: *Essai de la Céphalalgie et la Migraine*, p. 24. Paris, 1837.

stantly commented upon from their time to our own.<sup>3</sup> But while thus recognising it, and even observing that a similar sympathy or consensus obtains between all parts of the human frame, these old writers had only dim notions as to how it was set up. Nevertheless, in their gropings after its cause they came very near to the true explanation, so far as head and stomach are concerned. Galen, for example, definitely attributed the headache resulting from gastric disorders (1) to the numberless nerves which, passing from the head to the stomach,<sup>4</sup> allow any gastric disturbance to be readily felt in the head, notably disturbances arising from the presence of yellow bile<sup>5</sup>; (2) to indigestion causing certain irritating humours and vapours to pass from the stomach to the head—"for the head does not only ache when itself diseased, but on account of the stomach, which transmits the vapours of morbid humours."<sup>6</sup>

Coming down to a much later date, we find the subject summed up by Montalto in the following passage: "Magnus enim cerebro consensus ex duplici pendet causa; prima est positus et rectitudo, cuius causa ascendentes vapores prompto suscepat; altera nervorum est communitas."<sup>7</sup>

The views of Galen are remarkable, for they are fundamentally the same as those held at the present time. The modern theory is that morbid states of the alimentary tract affect the head in consequence (1) of nerve currents streaming upwards, (2) of the accumulation in the blood of poisons resulting from indigestion. These substances the ancients regarded in the light of morbid humours and their vapours, while we call them ptomaines, leucomaines, and nitrogenous excreta. They recognised as clearly as we do the existence of something which, travelling about the body, exercises an injurious influence upon it. Nor does the harmony between the views of the ancients and those held to-day end here; they, too, attributed a greater influence in the production of the head troubles resulting from gastric disturbance to the "morbid humours" than to the nervous system. It was for the men of a later age to lead us awhile into the error of regarding the nervous factor as the more effective of the two, and perhaps it is not to be wondered at that, just when the functions of the nervous system were beginning to be understood as they had never been before, its importance in this respect should have been unduly rated for a time. Indeed it was but natural that the brilliant work done in neurology by Willis, Whytt, Marshall Hall, and Brown-Séguard should, by awakening a proper sense of the importance of peripheral irritation in causing central nerve disturbance, somewhat blind the eyes of pathologists to the other agencies aiding to produce the headache and other cephalic effects of indigestion. Now, however, that we are no longer dazzled by the new light, we are beginning to see again what the ancients dimly saw long ago—that it is blood poisoning that plays the most important part in the causation of the phenomena under consideration. Nevertheless, even now there are some who attribute a very marked influence to irritation of the visceral nervous system. Thus Mercier holds that the abdominal viscera influence the head by their power of modifying the nerve tension in the visceral moiety of the nervous system.<sup>8</sup>

Seeing then that so many ill-effects of indigestion are undoubtedly due to the action of poisons—call them acrid humours, vapours, leucomaines, urates, or what we will—I shall briefly pass in review some of the theories which have been current on the subject so far as they relate to headache. Since the time of Galen yellow bile, one of the cardinal humours, has been regarded as a cause of headache, and it still is by the laity and by not a few physicians. Trallianus,<sup>9</sup> who lived some years later than Galen, and Haly Abbas, who,

<sup>3</sup> See such passages as "Consensus ventriculi cum capite et capitis cum ventriculo" (Hoffmann); "Magnum inter ventriculum et capitis interiores membranas ipsumque cerebrum esse consensum, multis experimentis novimus" (De Dolore Capitis, J. F. Stuckens, Brux. 1787). Similar remarks are frequent.

<sup>4</sup> "For the brain transmits to the stomach, and the stomach to the head, its own affections, by reason of the abundance of nerves passing from the brain to the mouth of the stomach." Kuhn's edit., vol. viii., p. 179. Galen was familiar with the vagus and its distribution. The two vagi constitute his sixth pair of nerves. He speaks of the sixth nerve giving branches to the larynx, the lungs, the heart and the stomach, and he names the branches which enter the larynx from below "the recurrent laryngeal." He was also acquainted with the motor and sensory nerves. See vol. iv., pp. 371, 528, vol. iii., p. 384.

<sup>5</sup> Galen says in effect: "Headache may be caused by yellow bile either in the stomach or the head." Opus cit., vol. xvi., p. 49.

<sup>6</sup> Opus cit., vol. vi., p. 807.

<sup>7</sup> Archæopathologia, p. 137. 1614.

<sup>8</sup> Sanity and Insanity.

<sup>9</sup> See Livinge: On Megrin &c., p. 235. London, 1873.

in common with most Arabian physicians, borrowed largely from Galen, both follow him in looking on bile as one of the commonest causes of sympathetic headache, and allude, like him, to the relief to the head obtained by vomiting.<sup>10</sup> Very much the same views are to be found in the writings of the Middle Ages and later. Thus Charles Lepois attributes megrim to bilious vapour forcibly travelling upwards and distending the cerebral vessels,<sup>11</sup> and in the Sepulchretum of Bonetus<sup>12</sup> we read of a case of headache: "Cujus nulla alia in corpore causa deprehensa quam bilis cystim fellæam distendens." It is argued that the gall-bladder being distended with bile and having no room for more, this secretion "crurori confusa ad cerebrum delata est." Fernelius speaks of headache arising from bilious vapour, and, indeed, cases of this kind might be quoted from the older writers *ad infinitum*. No doubt these views took their origin in the phenomena of megrim, which is commonly known as "bilious headache." That a headache attended by bilious vomiting, and in many cases distinctly relieved by the act of vomiting, should be thought to have a biliary origin was but natural. When, however, megrim came to be regarded as a nerve storm and the gastric symptoms as secondary—the results of a primary central discharge—the influence of the bile in provoking the attack was in large measure disregarded. No writer has done more towards consolidating and furthering our knowledge of megrim than Livinge, and he, in his anxiety to emphasise the secondary character of the gastric phenomena accompanying the paroxysm, seems unwilling to admit that errors in biliary secretion may be a possible factor in causing the attack, although he acknowledges that previous dyspeptic troubles may contribute to it. Alluding to the popular opinion, which regards bile as a cause of headache, he writes: "As in so many other instances, what was once the teaching of the philosopher is preserved to us only in a fragmentary form in popular language and traditions."<sup>13</sup> There are still, however, physicians who hold that the bile may play some part in causing megrim. Lauder Brunton, for example, thinks that the popular belief in regard to bilious headache is not altogether erroneous. He looks on bile as an accessory, not a primary, factor in its causation, the poisonous element consisting of an alkaloid; and he points out how in these attacks the mere effort of retching, without bringing anything up, sometimes does good, probably by its mechanical effect on the liver.<sup>14</sup> But even granting that disorders of the biliary secretion take little or no part in causing megrim, few will deny their power to set up headache of some kind; and we have to take into account not only excessive, but also deficient, secretion of bile. Deficient secretion implies a sluggish liver, and a sluggish liver is obviously a cause of headache, leading as it does to blood poisoning; for not only is there imperfect transformation of the poisonous substances brought to it, but the insufficient supply of bile in the intestines resulting from its inactivity gives rise to the undue generation of poisons there. How profound are the nervous disturbances (headache included) which may result from errors in the hepatic function is well shown in acute yellow atrophy. Murchison, as we all know, attributed lithæmia, of which headache is a prominent symptom to the liver, and more recently Haig has pointed out the causal relation between uric acid (the formation of which is perhaps closely associated with the hepatic function) and megrim. If, then, we regard the biliary secretion as typifying the hepatic functions in general, we must admit a considerable measure of truth in the old views which represented bile as a cause of headache.

Another cause, according to the ancients, was imperfectly digested food. Thus Haly Abbas writes that defective sleep causes headache by occasioning "a corruption of the food in the stomach," and he adds, "protracted sleep in like manner fills the brain with vapours"<sup>15</sup>; while, like Galen, he alludes to the plentiful supply of nerves passing from the stomach to the head, he does not attempt to explain how headache can be induced by their instrumentality, and there can be little doubt that he followed the old Roman physician in regarding the vapours which were supposed to pass from the alimentary canal to the head as exercising the preponderating influence. That this view prevailed even down to the time of Willis is evident from the following passage: "Headaches which

<sup>10</sup> See Paulus Ægineta; Trans. from the Greek, with a commentary, by Francis Adams, 1844, London, vol. i., p. 864 et seq.

<sup>11</sup> Selectiorem Obser., 1, My. Opus novitate doctrinæ &c., 1618.

<sup>12</sup> Quoted by Wepfer: Observations &c. de Affect. Capitis. Scaphusii, 1727.

<sup>13</sup> On Megrin &c., p. 225. London, 1873.

<sup>14</sup> Disorders of Digestion, p. 295. London, 1830.

<sup>15</sup> Paulus Ægineta, opus cit., vol. i., p. 364.

seem to begin in the viscera, and commonly called sympathetic, are wont to be ascribed to vapours—viz., by supposing a mine of noxious humour to lie hid in some inward, from which being moved, whilst the effluvia ascend to the head and thence sharply pierce thorow and pull the nerve fibres, pains are excited."<sup>16</sup> Here no mention is made of any theory of a nervous connexion between stomach and head; and it can scarcely be doubted that so learned a physician as Willis would have referred to it if such had been generally held in his time. Galen, in fact, did little more than state as an anatomical truth that the head and the stomach were connected by nerves; he did not elaborate the physiological aspect of this connexion, and hence his observations seem to have had little influence on subsequent thought, so little indeed that Willis may almost be said to have rediscovered the connexion. Far from contenting himself with a bare anatomical statement, this physician sought to explain how the head is influenced through the gastric nerves. As a result of an irritating humour in the stomach, "a convulsion or corrugation, very troublesome, is impressed on the fibres and extremities of the nerves there inserted, which immediately being continued into the head by the passage of the same nerves of the eighth pair (vagus) and of the intercostal<sup>17</sup> (sympathetic) is communicated to the membranes and the nervous fibres predisposed to painful wrinklings ..... [and thus the headache is produced]. By reason of the same reciprocal communication between the stomach and the head a nauseousness and vomiting follow upon the headache—viz., the membranes being stirred up into painful wrinkling ..... and transferring the evil by the passage of the nerves to the ventricle [stomach], guiltless itself," &c.<sup>18</sup>

More than a century later, however, we find from the writings of Whytt, another English physician, that these views had gained little hold on the medical mind. Whytt, it may be remembered, explained the sympathy between the various parts of the body as due to the union of nerve fibres in the centres of the brain and cord, and not, as Willis had conceived, by the anastomosis of the nerves; "for," he argued, "there is a remarkable sympathy between many parts whose nerves have not the smallest communication with one another."<sup>19</sup> The fallacy which Whytt points out is constantly maintained even to-day. The renowned Hilton was misled by it. But this by the way.

That the observations of Galen, or of even those of so late a writer as Willis, on the nervous connexion between the stomach and the head made little impression on Whytt is shown by the following passage: "Hippocrates was not wholly ignorant of a general sympathy between the parts of the body, and Galen treats particularly of those diseases which arise from sympathy or consent, but he was so far from having any notion that sympathetic affections were owing to the nerves that he ascribes those headaches which do not proceed from any fault in the head to vapours ascending from the stomach or uterus. Succeeding writers, even as far down as Fernelius and Sennertus, seem to do little more than copy what Galen has said on this subject."<sup>20</sup> Living<sup>21</sup> is not slow to point out that Whytt fails here to do full justice to Galen, nor, indeed, is he fair to Sennertus, who in his chapter on headache insists most explicitly on the great sympathy established between the head and the stomach by virtue of the nerves, though he attaches the chief importance to the influence of humours and vapours in causing the head to suffer secondarily to the stomach. These, he contends, are especially apt to come from the stomach, "from which they ascend to the head by means of the œsophagus. Humours and vapours may also come by the veins and arteries and other channels, from the liver, the spleen, the uterus &c., for the head, like the roof of a smoky house, receives whatever fumes rise from below, and is necessarily influenced by all parts of the body, owing to the intercommunication of vessels which ramify through it."<sup>22</sup>

Indeed, there can be little doubt that not only Sennertus, but writers down to the end of the last century, explained those cephalic disturbances which follow upon gastric trouble chiefly on the lines of the humoral pathology, nervous influence (in spite of the brilliant work of Willis) receiving but little consideration. With an increased knowledge of nervous action we have seen, however, that these came for a time to be considered the chief means by which the stomach affects the head, and at the present day we are practically reverting, if not to the actual letter, at all events to the spirit of the older pathology in that we are again giving more weight to the influence of poisons in the blood. We are, in fact, beginning to see that just as Willis; when he wrote of a nerve being "convulsed and corrugated," was expressing in his own way a great truth, so, underlying the quaint conception of morbid humours and vapours, lay a grand fundamental verity—that cephalic troubles which are set up by gastric disturbance are chiefly caused by blood poisoning.

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## Clinical Notes :

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### ACUTE THYROIDITIS.

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LATE ASSISTANT MEDICAL OFFICER, DERBY BOROUGH ASYLUM.

THE rarity of acute thyroiditis, together with the gravity of the symptoms and its sudden onset, makes, I think, the following case worth recording.

M. B.—, a nurse aged twenty-three, was taken ill suddenly on April 5th, 1892, with general malaise and pain in the neck. That evening her neck began to swell, her temperature rose to 105.3°, and she complained of difficulty in swallowing and breathing. Next morning, on examination of the thyroid region, there was found to be a large tense swelling extending laterally to the sterno-mastoids downwards to within an inch of the sternum; above it was limited by the hyoid bone, which could just be felt, but on each side of that structure it extended upwards to the angle of the jaw and the mastoid process. On palpation it was exceedingly tense, non-fluctuating and very tender to the touch, and did not move on deglutition. The enlargement was of such a size that the patient could scarcely separate her teeth, and that the normal depressions over the anterior triangles and the prominence of the thyroid cartilage were completely obliterated. Deglutition was extremely difficult and there was occasional inspiratory stridor. The fauces were slightly congested, but otherwise normal. The patient was evidently very weak. Pulse 140, soft and small. On April 7th the general condition was rather better; temperature 102°. The swelling was now fairly localised to the thyroid gland, and moved slightly on swallowing. The difficulty of deglutition was much less and the inspiratory stridor was absent. On April 8th the enlargement had slightly decreased, but some subcutaneous œdema, most marked on the right side, had appeared; there was no redness of the skin and no definite fluctuation, and as the urgent symptoms were abating, the surgical interference, which at first was thought would be necessary, was postponed. Leeches were applied, and the hot fomentations which had been used from the commencement were abandoned. After this the patient steadily improved; on April 14th the swelling was almost confined to the right lobe of the thyroid, which was still tense and tender and semi-fluctuating. The measurement round the most prominent portion of the neck was fifteen inches and a quarter. The temperature still went up to 101° at night. On April 21st the swelling had sensibly decreased, neck measurement fourteen inches, and the patient had been getting up for a little time each day, her temperature being normal. On May 24th she came back, having been away for a change, and stated that she felt quite well. The measurement of the neck was thirteen inches, and she now wears the same collars that she did before the attack.

The treatment adopted was expectant. The two great difficulties were, first, to diagnose the trouble in the first forty-eight hours from a diffuse cervical cellulitis; and, secondly, to determine in the later stage whether pus was forming in the

<sup>16</sup> De Anima Brutorum, Sect. on Headache. Eng. Trans.

<sup>17</sup> Up to this point Willis's conception may be regarded as almost exactly representing our views to-day. The conception of a convulsion or corrugation being continued along a nerve corresponds pretty accurately to the modern notion of a nerve current. Indeed, in some respects the phraseology which Willis employs is preferable to our own. The term "current" suggests the flowing of some material thing along the nerve, and is, I suppose, the relic of the old notion of a nervous fluid. Willis was much before his time as to the mode in which a nerve shock is propagated.

<sup>18</sup> I find the above passage from the English translation of Willis's works quoted almost word for word in the Sepulchretum, vol. i., p. 4.

<sup>19</sup> Observations, p. 42. Edinburgh, 1765.

<sup>20</sup> Ibid., p. 87.

<sup>21</sup> Op. cit., p. 255.

<sup>22</sup> Sennert Opera, tom. ii., p. 630. Lugd., 1660.

thyroid. Fortunately this did not occur. She was freely fed with nourishing food and was ordered ten minims of tincture of perchloride of iron every three hours. It appears that before the attack she had always a slight fullness of the front of the neck, but it was so slight that it had never been noticed by her friends. The exciting cause is unknown, there having been no definite exposure to cold; but with regard to the predisposing cause it is interesting to note that the patient had had acute rheumatism, which disease was said to be in close relationship to such cases as those related by Dr. Angel Money at the Clinical Society in 1887, when the only other similar case I can find reported was read by Dr. Barlow.

Liverpool.

#### ARSENICAL POISONING: DEPOSIT OF SULPHIDE OF ARSENIC ON THE ENDOCARDIUM.

BY SURGEON-MAJOR R. D. MURRAY,  
CIVIL SURGEON OF HOWRAH, BENGAL.

THE following case is extremely interesting both from a police and a medico-legal point of view.

On Aug. 7th last at 9.30 A.M. I received intimation that the police had brought a box to the Howrah General Hospital dead-house. They stated that the box had been booked as a consignment from Patna city to Howrah. On arrival at Howrah the odour and fluid leaking from the bottom of the box attracted the suspicion of the authorities, and it was determined to break it open and find out the nature of the contents. It was then discovered to contain a decomposing human corpse packed in paper shavings. A post-mortem examination was made at 11 A.M. on Aug. 7th. The body was that of an adult Mahomedan female, perfectly naked, without ornaments and laid on its back with the limbs doubled up on the trunk. Decomposition was fairly advanced, but there was comparatively little odour. The features were bloated beyond recognition; the left eye was protruded, mouth open, lips swollen and everted, left lateral incisor tooth of lower jaw absent, body purple and green in places, cuticle peeling, prolapsus of vagina and rectum. No distinct external signs of violence could be detected beyond a suspicion of injuries inflicted over the front and upper part of the chest, where there was an appearance of general diffuse ecchymosis and congestion. These may have been post-mortem changes. The scalp was swollen and congested and indented from pressure against the side of the box. The membranes were of a livid purple colour, the brain decomposed and diffuent. On opening the body I was struck by the fresh and well preserved appearance of the viscera and the absence of the usual foul putrid smell. This was especially marked in the case of the abdomen. The air passages and pleura were deeply congested. The lungs were semi-collapsed, much congested, and floated very heavily in water. The pericardium was normal. The heart was soft, from post-mortem changes, and empty; valves healthy. The endocardium of the left ventricle presented a peculiar bright-yellow stain or deposit over one-third of its area, as if iodoform had been powdered on it. The peritoneum was generally congested and of a rosy hue, especially over and in the region of the stomach. The mucous membrane of the stomach was intensely congested and ecchymosed in patches; it contained about eight ounces of reddish-brown fluid. The small and large intestines were congested throughout and contained a bright-yellow odourless fluid. There were no faeces. The liver and spleen appeared healthy; the kidneys were deeply congested; the bladder was empty, and the rectum, uterus and vagina were prolapsed. The stomach and its contents, the heart, portions of the intestines and their contents and also portions of the solid viscera were preserved and sealed for chemical analysis. I suspected that death was the result of poisoning by arsenic, and subsequently the chemical examiner's report fully confirmed my opinion. The important points were: (1) The unusual degree of preservation of the interior of the body as contrasted with the external decomposition owing to the antiseptic action of the arsenic; (2) the remarkable action of foul odour on opening the abdomen and alimentary tract (from the same cause); (3) the extreme congestion of the peritoneum, stomach and entire intestinal canal; (4) the bright-yellow odourless fluid contained in the intestines and the small mineral particles floating in it at once suggested yellow arsenic in suspension; (5) the deposit of yellow sulphide of arsenic on the endocar-

dium as reported by Professor Warden. So far as I know this is the first time that metallic arsenic has ever been found as a deposit or precipitate in the heart in cases of arsenic poisoning. In this case the dose of arsenic administered must have been very large, and the poison was probably mixed with or given instead of turmeric, which is so largely used by the natives in their diet. Being tasteless its detection during the meal would be easily frustrated. Arsenious oxide, however, may have been the form administered, as it can be converted into sulphide in the body. The appearances of the chest-walls, lungs and air passages were suggestive of violence by compression of the chest and strangulation, but on account of decomposition a definite opinion was impossible on this point. Most probably the woman's cries were stifled so as to prevent an alarm being raised, especially as the dose of poison administered must have been large and the pain and gastric disturbance severe and urgent. The murderer has since been captured and has confessed his crime. The police found a packet of yellow arsenic in his house.

Howrah, Bengal.

#### FRACTURE OF UPPER END OF THE ULNA, WITH DISLOCATION OF THE HEAD OF THE RADIUS.

BY HENRY WILLIAMSON, M.R.C.S., L.R.C.P. LOND.,  
LATE HOUSE SURGEON, ANCOATS HOSPITAL, MANCHESTER.

G. R. P.—was brought to the hospital on June 4th with an injury to the forearm caused by direct violence. On examination I found a fracture of the upper end of the ulna nearly three inches and a half from the top of the olecranon. Not being able to rectify the displacement of the upper ulna fragment I made a more careful examination of the limb and found that the head of the radius was dislocated forwards. On reducing the dislocation it was found that we had partly rectified the displacement of the upper ulnar fragment. It was now an easy matter to get the ulna into correct position and a good result was thereby ultimately obtained. The case is of great interest when taken into consideration with Professor Macleod's recent paper on this injury, and certainly demonstrates very clearly the great importance of two of his practical precepts—viz.: (1) Whenever we find a fracture of the upper end of the ulna careful examination for a dislocation of the head of the radius should be made; (2) should such a dislocation be found it must be reduced at once and endeavours made to rectify the displacement of the upper ulnar fragment at the same time. From my experience in this case I conclude that the reduction of the dislocation is by far the most important item in the treatment.

Manchester.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

### ST. MARY'S HOSPITAL.

TRAUMATIC PERITONITIS; ABDOMINAL SECTION;  
RECOVERY.

(Under the care of Mr. EDMUND OWEN.)

DURING the last few years there have been many contributions and discussions of moment on the subject of the treatment of peritonitis by abdominal section, and our appreciation of its value in many instances, especially where the inflammation has passed on to suppuration, whether localised or diffused, has grown in proportion to our knowledge. To say that it has proved successful in peritonitis following simple contusion, rupture of viscera by injury, perforation from disease, puerperal infection, tuberculous infection and simple contusion indicates in some way its range of usefulness. We do not urge its employment in every case—far from it; each case must be judged on its

own merits and treated in the way which is most likely to yield the best result. There is no doubt, however, we think, that in the past there has been too great timidity in dealing with the group of cases of which Mr. Owen's is an example—acute peritonitis following contusion of the abdomen. It is true that in this instance the inflammation had been in existence for some time, and therefore there was at first less apparent urgency than in the more acute traumatic inflammations, but it is also evident that without operation only one result—that a fatal one—could have ensued. The reason why peritonitis of such intensity followed the injury in this case will probably not be known; it could not have been due to a rupture of the intestine or of the bladder. In a case of acute peritonitis operated on by Mr. Owen, which was published in *THE LANCET* some years ago, ruptured intestine was found, but the mischief had gone too far for cure and death rapidly ensued. Even in such cases operation may not be too late, for Bouilly has made known a case in which, as a result of operation twenty-eight hours after the kick of a horse which produced a rupture of the intestine, the ensuing peritonitis subsided, after resection and suture, but with the formation of an artificial anus. The proceedings of the French Surgical Congress of October, 1889, a paper by Mikulicz read at the eighteenth German Surgical Congress in 1890, a paper by Krecke in the *Münchener Medizin. Wochenschrift* of 1891, and isolated cases by various surgeons, notably two by Mr. Keetley published in *THE LANCET* (vol. ii. 1888, p. 1021), may be read with advantage. For the notes of the following case we are indebted to Mr. J. W. Summerhayes.

On Friday, June 24th, 1892, a man aged twenty-three was admitted into this hospital with the following history. On the evening of June 7th he was riding a 56 in. bicycle in the country and his lamp went out. This was noticed by a policeman who tried to stop him, with the result that the patient was pitched across the sharp top of a wooden fence. Thus he was struck upon his abdomen, and from the top of the fence he fell to the ground. He was helped up and taken home. Towards the end of the week diarrhoea set in, and on the Sunday his abdomen was swollen and painful. These troubles continued and increased, and on the day before his admission, which, as already noted, was the seventeenth day after the accident, he vomited. He had during this time lost a good deal of flesh. His mother said that he had always been fairly strong, but that one of his brothers had died of "consumption."

When seen in the ward his aspect was much like that of a typhoid fever patient. The pulse was 130 and the temperature was 103°; the face was flushed, but he had no headache; there were no spots. He complained of constant pain, especially on the left side, and the abdomen was considerably enlarged; the peritoneal cavity contained a good deal of fluid, on which the intestines were floating. There was a faint flush of the skin. The bowels were regular. Turpentine fomentations were applied to the abdomen and half-drachm doses of sulphate of soda were prescribed every hour until a free purgation was produced. The diet consisted of a little brandy and beef jelly with some milk. Dr. Sidney Phillips saw the man with Mr. Owen, and on the second day after admission, as the patient was steadily going down-hill and had, moreover, the aspect of one about to die, it was agreed that an abdominal section should be performed, partly with the view of clearing the peritoneum of a possible collection of pus, and partly with the view of searching for and repairing a possibly damaged viscus. As the chief pain lay about the sigmoid flexure the incision, of about three inches, was made in the left linea semilunaris. About five pints of blood-stained serum were removed, together with several large clots of fibrine, which latter, together with a general roughening of the peritoneal lining, testified to the intensity of the serous inflammation. As no intestinal fluids, blood, or actual pus were found, the operation was completed by the closure and dressing of the wound. Next day the pulse had come down to 120 and the temperature to 101°, and on the following day the pulse had fallen to 88, whilst the morning temperature reached only to 99°. The man left the hospital completely recovered at the end of July.

*Remarks by Mr. OWEN.*—If it be urged that abdominal section is a severe measure for adoption in the treatment of traumatic peritonitis, the criticism must be considered fair. But, on the other hand, it would be maintained that the term "peritonitis" includes many various conditions. It was certainly my opinion, as well as that of most of those who watched the case with me, that this operation saved the

man's life. Possibly it was the relief of tension to which the improvement was to be attributed. And if so, a large cannula and trocar might possibly have served as well as a scalpel. But with the use of the former instrument no introspection would have been possible, and an introspection, especially in the case of traumatic peritonitis, may prove of inestimable value. The more that I see of abdominal surgery the more satisfied am I of this—that in an obscure case the only way for the surgeon to assure himself of what is wrong is by the means of transperitoneal touch or sight. To stand at the bedside and take part in a speculation as to what is wrong, and to wait for the necropsy for positive information, is not Surgery. For my own part, I have never yet had cause to regret performing an exploratory abdominal section; but I have often found occasion to mourn for an error on the side of over-caution. There is, I think, a close analogy between a case of inflamed peritoneum and one of acute inflammation of the synovial membrane of the knee-joint. At any rate, the local signs and the effects of tension are alike in each case, and in some cases the indications for treatment are identical. Not a few remember the time when in every instance the surgeon was loth to interfere; but, with the march of science, times are changed; and he is an unwise surgeon who, deeming his therapeutic knowledge to be complete, is disinclined to admit of changes in his routine treatment.

## DENBIGH INFIRMARY.

### SUBCUTANEOUS LACERATION OF THE SMALL INTESTINE; NECROPSY.

(Under the care of Mr. WM. GRIFFITH.)

WE are of opinion that much good will ultimately result from the publication of cases such as the following, in which a fatal peritonitis was found after an injury of the abdomen which had caused rupture of the intestine. There appeared from the history of the case no cause for suspecting the presence of so grave a lesion as rupture of the intestine, for such would, with but few exceptions, be caused by a definite and direct blow. The symptoms were similar to those described in some cases where intestinal rupture has been found post mortem or at the time of operation, but the history was misleading; and it is not surprising that other than operative treatment was tried. Until a few years ago the surgical treatment of subcutaneous rupture of the intestine, even when diagnosed, was based on a policy of "masterly inactivity"; the surgeon watched the case for a time, peritonitis ensued, and it was then too late to do good if an operation was performed. It has been fully proved by Mr. Croft and others that success may follow laparotomy and suture of the bowel, or even the formation of an artificial anus if the operation is done at an early stage, and this must be attempted by the surgeon responsible for the patient. The publication of these cases increases our knowledge of the varying symptoms which may be met with, and more may be gained by the account of them than is apparent always to those under whose care an isolated case may come. We have only to point to the good which has followed the publication of cases of bullet wounds of the intestine by American surgeons, whether the cases ended fatally or not, in order to emphasise this statement. Some of the most brilliant results are now attained after operation for these wounds. Formerly any attempt to save life by means of a surgical operation was considered useless.

R. J.—, a labourer aged twenty-three, was admitted into the Denbighshire Infirmary about 5 P.M. on Aug. 12th, having met with an accident about an hour before while engaged in loading a waggon with timber. His fellow workmen stated that a piece of timber had rolled from the top of the waggon, hitting him on the back and knocking him over. The first shock caused him to faint, but he soon recovered consciousness, complained of pain in the back and abdomen, and vomited. When examined in bed after his admittance he was found to lie on his left side with his legs drawn up, was perfectly conscious and rational, described the accident and gave particulars of his injuries. He had been struck with the timber over the middle and upper portion of the sacrum; there was some swelling and bruising over the spot, but no fracture or dislocation; there was also some bruising over the left hip bone a little below and about two inches behind the anterior superior spine of the ilium and a faint bruise on the front of the abdomen a little below

and to the right of the umbilicus. The patient was suffering from severe shock and his general condition was that of collapse; he appeared to be drowsy and somnolent, but took notice when spoken to, and complained of severe pain in the abdomen, which was extremely tender in the region of the bruising. His pulse was hardly countable, being exceedingly small and quick. The temperature was 97°. The abdomen was rigid, tense, immobile and slightly distended. There were no symptoms of spinal injury. A catheter was passed into the bladder and about four ounces of urine were drawn off, clear and free from blood. He again vomited soon after admission. His countenance was pale and anxious-looking, and he was covered with a rather profuse cold perspiration; the lips were pale and dry, and there was considerable thirst; the respiration was thoracic in type, quick and shallow. He lived for twenty-five hours after admission; his condition throughout continued to be much the same as when admitted. He passed urine once naturally. There was no evacuation of the bowel and no flatus expelled. He vomited three times while in hospital; the last time, which occurred immediately before death, the vomit was stercoraecous. The abdomen was gradually getting more distended. The patient became rather delirious and took to lying on his back. About twenty minutes before death the patient, who a short time previously to that had become a little excited and restless, jerked himself up suddenly in bed and fell back with a loud groan, senseless and pulseless, expiring without again recovering consciousness.

The treatment consisted in wrapping the patient warmly in blankets and applying hot bottles. Ether was given subcutaneously and a little hot stimulant administered by the mouth; hot fomentations were applied over the abdomen and morphia given hypodermically to allay pain. A little fluid nourishment was also given and retained. The necropsy, two days after death, yielded the following results: Peritonæum, both visceral and parietal, and the omentum were reddened and hyperæmic; no flakes of lymph. The small intestine was carefully examined inch by inch; starting at the cæcum about a foot and a half above the ileo-cæcal valve, the intestine was found to be completely cut across and its mesentery deeply lacerated. The cut ends of the intestine were dark in colour, bruised and bloodstained; the abdominal cavity contained a large quantity of blood. The other abdominal organs were normal. Nothing unusual was found in any other part of the body.

### THE GESTO HOSPITAL, SKYE.

#### A CASE ILLUSTRATING THE SUCCESSFUL TREATMENT OF INTERNAL HÆMORRHOIDS BY CHRYSAROBIN.

(Under the care of Dr. KEITH NORMAN MACDONALD.)

THE success which attended the application of chrysarobin in the following case renders it worthy of being placed on record. It would be interesting if others of our readers who have tried this remedy would give us their experience of its use. On July 9th, 1892, D. M.—, aged sixty-one, was admitted into the Gesto Hospital suffering from bleeding hæmorrhoids. He seemed very feeble, anæmic and emaciated from loss of blood, tottering in his gait, and altogether he appeared a rather unpromising-looking subject. His family history was good, and he himself enjoyed robust health up to about six years ago, when, in consequence of a fall from a scaffold, he felt some weakness of the spine for which he was treated in the Glasgow Royal Infirmary, but has ever since suffered more or less from atrophy and weakness of the lower extremities. His first attack of hæmorrhoids occurred two years ago, and in October, 1890, he had them ligatured, and made a good recovery at the time. His present attack commenced three months ago, and ever since then he has been losing more or less blood with almost every evacuation of the bowels, and the "lump" which came down he described as being as large as a hen's egg, which often took him fifteen minutes, and even half an hour or more, before he could return it into the bowel. On the morning following his admission—a drachm of compound liquorice powder having been administered the night before—it was found that a mass of hæmorrhoids, fully as large as a Tangerine orange, occupied the cleft of the nates, from which arterial blood escaped on attempting reduction; but this was effected after free lubrication with carbolic oil. The proper line of treatment was clear enough—viz., to arrest the hæmorrhage by surgical procedure; but, owing to the state

of his general health and all the circumstances of the case, Dr. Macdonald resolved to temporise—holding everything in readiness in case of need—and endeavoured to improve the general health by administering quinine and iron, with the application of cold and the usual styptics locally, suitable diet and regulation of the bowels &c. Before resorting to more active measures it was decided to give a trial to Kosobudki's modification of Unna's treatment by chrysarobin; accordingly the following formula from Whitla's "Dictionary of Treatment" was employed: One grain of chrysarobin, a quarter of a grain of iodoform, an eighth of a grain of extract of belladonna, thirty grains of cocoa butter, with a sufficiency of glycerine to form a suppository, one to be introduced daily. One was inserted on July 15th and the treatment continued daily until the 31st, when a large slough came away, followed by a little hæmorrhage, since which date he has been practically cured. During the treatment there was a little hæmorrhage on several occasions, but since the removal of the slough there has not been the slightest sign of hæmorrhage, pain or protrusion, and as far as can be seen the result is most satisfactory, even if the cure does not turn out to be permanent. No pain or discomfort was felt throughout, neither did the patient lie up entirely. He was allowed to sit up every afternoon, and, with the exception of a dose of compound liquorice powder every other night, no other treatment was considered necessary beyond what has already been stated, and he is now going about as well as he was before the attack came on, and is likely to continue so, regulation of the bowels being the only precaution practised.

## Medical Societies.

### MEDICAL SOCIETY OF LONDON.

#### Presidential Address.

THE opening meeting of the Medical Society of London was held on Oct. 17th, the President, Mr. Jonathan Hutchinson, in the chair.

THE PRESIDENT delivered an address on Names, Definitions, and Classifications in Disease, of which the following is an abstract:—

"I propose, with your permission, to avail myself of your President's chair in order to make a few suggestions and criticisms in reference to a topic of great importance, and at the same time of much difficulty. I allude to the necessity, which is probably felt by most investigators, for a large reform in medical nomenclature, for better classification of disease, and, above all, for more precise definitions of the terms which we use. We have outgrown the nomenclature of our forefathers and it would be strange if it were not so. If the few and simple names which sufficed to express the diagnostic achievements of a century ago were sufficient for us now the fact would imply disgrace. For the multifarious manifestations of the results of the innumerable influences which combine together to evoke disease in man our names are, I cannot but think, in ludicrous disproportion to our needs. Though there exists an intense dislike, which to some extent is well based, to the introduction of new names, and especially to attempts at new classification, yet, having regard to the future progress of clinical knowledge, I here make my most earnest protest against the present restriction of our nomenclature and the artificiality of our classifications. Let us not for one moment underrate the importance of the everyday achievements of ordinary diagnosis, or of that common knowledge of common things which is a *sine quâ non* to all of us. Our concern is rather to assert strongly that so soon as the specialist attempts to transcend his specialism; as soon as the physician or surgeon tries to get out of routine and makes the attempt to understand not alone some but all the problems of pathogenesis which are brought before him, so soon will each and all find themselves cramped and hindered by our narrow and conventional system of nomenclature and our fragmentary classifications. I ask the neurologist whether such names as 'tabes dorsalis' and 'epilepsy' do not now each include a number of separate maladies which require separate grouping. I ask the physician whether he is content with the terms 'diabetes' and 'hysteria;' whilst, respecting dermatology, I venture to offer my own opinion that there are at least twenty maladies classed under the name of 'lupus' which require to be discriminated, and,

putting all these aside, some five or six different types of tuberculosis of the skin. But nothing can be more obvious than that names, definitions and classifications are far more difficult in our department of natural observation than in any other. Such words as 'species' and 'genus' in our special pursuits are terms having only an exceedingly restricted use. The more we know the less we are inclined to admit respecting any given disease that it is substantive and self-complete; but the fact that definitions and classifications are in the case of medical pursuits immeasurably more difficult than in most other branches of knowledge does not make them of any the less importance. An orderly arrangement of the materials before us is the first requisite to success in the pursuit of further discoveries, and just as an adequate vocabulary must of necessity precede the making of definitions, so must carefully studied definitions precede any attempt at classification which will not necessarily result in error. Whilst in a progressive science like ours stereotyped definitions and fixed laws of classification are impossible, I yet protest against that idleness of mind which is content to go on using words to which no definite meanings have ever been assigned and to abstain from attempts at natural classification merely because such classification is difficult. A distinction must be drawn between a description and a definition. A good description should neglect nothing which may help to identification and is not a difficult achievement to any good observer, whereas a definition may be very good, yet from the fact that it concerns itself rather with abstract qualities may give but little immediate aid towards the recognition of the thing defined; to formulate it demands much thought as well as observation. In order to illustrate what I have been trying to urge we will take the names of three common diseases—phagedæna, erysipelas and diphtheria—and try to define them, and at the same time show how their definitions affect their position in any system of classification founded on natural affinities. Respecting phagedæna, it may perhaps be said that it is not the name for a disease, but rather for a certain condition occasionally assumed by the inflammatory process. I will assume that between simple phagedæna, sloughing phagedæna and hospital gangrene there is no difference of kind, but only of degree of severity; that hospital gangrene is simple phagedæna having become epidemic in a hospital containing patients affected with wounds. I assume also that the gangrenous affections which attack the mouths and genitals of young children, and which are known as noma and cancrum oris, are really of a closely similar nature, though of a more severe type, with the phagedæna which we so often encounter in syphilis. These data being granted, we have first to note that it is undoubted that cancrum oris, noma and syphilitic phagedæna may begin quite independently of contagion. It is therefore not a specific malady in the sense of being dependent upon the implantation of a specific virus. Next we must record that, although these inflammations may occur to persons seemingly in robust health, they are almost invariably those who have suffered from syphilis or, in the case of noma and its congener, recently passed through a specific fever, measles, variola or whooping-cough. With somewhat more hesitation another assertion may be made—that the use of mercury has often preceded, not only the syphilitic forms, but also those seen in children. We come, then, to the definition of phagedæna as a locally destructive form of inflammation which attacks sores and wounds, which varies much in severity in different cases and which occurs for the most part in those who have recently suffered from some specific disease. To this must be added the important proposition that, although capable of a spontaneous origin under the conditions mentioned, it is infective to adjacent parts and may become contagious to other patients with open wounds. We abstain from any description of a phagedænic wound, for the appearances may differ very widely in different cases. For classification purposes we have enough. Phagedæna is not to rank with the specific fevers, although it may become epidemic; it is a type-form of specialised inflammation occurring under certain known conditions of predisposition. The term 'erysipelas' is suggestive of controversy. For long there have been two schools of opinion—the one regarding it as a specific fever and classing it with the exanthems, the other ranking it only as a specialised form of inflammation. The difference is very important. I am glad to observe that the philosophic Dr. Hirsch has ranged himself with the latter, and defined erysipelas as 'an infective inflammation-disease of the skin or of one of the mucous mem-

branes &c.,' and speaks of 'the infective fever which accompanies the local process.' On the other hand, most recent English authorities prefer to regard it as an exanthem. The facts which oppose this claim appear to my mind to be definite and conclusive. When erysipelas attacks a wound its development is always local, and the constitutional disturbance is in ratio with the extent of surface involved. It may develop without any appreciable incubation stage, and it may be cut short at any period by suitable local treatment. Its duration is not uniform, but may be indefinitely protracted. One attack does not prevent a second, but, on the contrary, predisposes to others. Thus, then, I come easily to the conclusion that erysipelas is a name for a form of inflammation presenting peculiar features, very infectious to the tissues—the lymph spaces of the patient—easily spreading by contagion to the wounds of others, and of which one attack leaves proclivity to a second. We have to add to this, however—unless, in contradiction of all probability, we insist that medical and traumatic erysipelas are two quite different things—that it is capable of origin from exposure to cold and without either wound or contagion. Erysipelas is, it will be seen, placed according to this definition by the side of phagedæna, and just as it would be more correct to speak of phagedænic inflammation rather than of phagedæna, so it would be better to use the expression 'erysipelatos inflammation' rather than erysipelas, since the latter is too suggestive of a substantive disease which always runs the same course and always presents the same conditions. Let us now see how the case stands with diphtheria. It is interesting to note that this name has been substituted for what was not improbably a far more correct one—diphtheritis. What is there to hinder us from defining this affection as a contagious inflammation of the mucous surfaces, and chiefly of the throat, frequently attended by the formation of pellicles, infective by continuity in the patient and easily spreading by contagion to others? It would surely be wrong to make the formation of the diphtheritic false membrane a part of the definition, for when the disease passes by contagion through a household there are always some cases which show very little membrane and often a few in which there is none at all. We do violence to probable truth if we deny that these latter are diphtheritic cases, for they originate from contagion from those which undoubtedly are such. The medical officers of those metropolitan asylums which receive fever and diphtheria cases always in their reports count a certain number of cases sent to them as 'errors in diagnosis,' and of these a considerable number are 'non-specific sore-throats' sent in as diphtheria. This is surely rather hard upon those who send them. It is to make the diagnosis of disease depend not upon its origin, but upon the degree of severity with which it develops certain peculiar phenomena which are common but not invariable. No man attending a number of patients with sore-throats, in a house with diphtheria, can possibly tell which will develop extensive membrane and which may have none. There are other important facts which ought to be taken into consideration in the definition of diphtheria. It is quite impossible to distinguish the sporadic cases of membranous croup from those of epidemic diphtheria; and admitting, as I think we must, that they are exactly the same, we are almost forced to conclude that a disease which becomes contagious may originate independently of contagion and in connexion with exposure to cold and damp. In these points the facts as to diphtheria are exactly parallel with those as to erysipelas and phagedæna. All three occur sporadically and in connexion with individual proclivity rather than specific influences, yet all may become contagious, may prevail as epidemics, and when they do so keep close to the type. I have ventured to attempt explanations of these three words, not with any object of giving model definitions, far less with any hope that what I have expressed will satisfy others, but rather to illustrate the importance of the matter and the lines upon which I think we ought to proceed. I feel sure that I shall incur criticism for not admitting to a foremost place in the definition of such affections as diphtheria and erysipelatos inflammation the parasitic microbes which have been demonstrated to be usually present. Whilst I fully admit the importance of the facts which have been established in respect to them, and think that it is highly probable that they do take a large share in the process of contagion, I am not yet convinced that they constitute the disease. It may be one thing that these parasites should be capable of conveying the disease and another that it should invariably depend for its origin

upon their implantation. In the same way the precise rôle of the bacillus of leprosy is, I think, far from being as yet established, whilst it would certainly be very premature to define any one form of lupus as the product of the bacillus of tubercle. In other maladies, such as rhinoscleroma, the presence of a microbe has been demonstrated in only a few instances, and to this and to others in which the search for a parasite has up to the present been fruitless I think that the disease, which is well characterised, should take its name independently of them. It is mainly in reference to very rare maladies that the invention of new names is required. For their illustrative value they are of extreme importance and ought as promptly as possible to become objects of general knowledge. In the same way the varieties of well-known diseases are worthy of recognised distinctive names. It becomes therefore of much importance to find out the most convenient method of giving names, what kind of names are the easiest to use and to remember and the least liable to suggest error. With regard to those supposed to be derived from Greek roots and to be more or less descriptive, we may object that they are intelligible only to Greek scholars, and not always to them; that to all others they are very unattractive, as, in addition to their being meaningless, they may possibly be difficult to remember and a little uncertain as to pronunciation and orthography, and principally because it is impossible to condense into Greek words, however composite, anything approaching to a correct description of a disease. Another class of names is that in which the name of the observer is affixed to the morbid phenomena observed; but it has the obvious objection that it cannot be indefinitely or even widely adopted. If, then, we revert to the proposition that names for new diseases or new varieties or combinations of symptoms should be selected solely with a view to the convenience of the profession, a few simple rules may, I think, be laid down. Such names should be short and easily remembered; they should be in the vernacular; they should be available from the very beginning, and such as the observer himself may without indecorum apply; and they should have in themselves no meaning, the reader being left to find that out by reference to the writings of the observer who first named them. I myself have long been in the habit of naming diseases which were new to me after the patients who first displayed them. It is a subject upon which I have thought much, and respecting which I have some little experience, and seriously I have no better suggestion to make to the systematic case-collector than that he should at any rate temporarily designate what appear to him to be novelties by the names of the patients displaying them. The present plan of trying to make a small number of names suffice for a vast variety of objects and of slavishly grouping together, because our fathers did it, under one and the same name diseases which differ widely is one which has encumbered us too long. Probably there is no better plan in aid of exactitude in clinical observation than to take type-cases, to follow them to their end, describe them in detail, and, wherever possible, to illustrate them by photography or drawings. By the side of the type-case place all others which really fit with it and none else. I have often thought that in such a subject as dermatology it might be well to throw aside all our names and take simply good, well-illustrated case-narratives, and sort them afresh. We should escape in this way the trammels which education has imposed and we should see natural differences and resemblances which at present elude us. I have left myself but little time to deal with the topic of classification, which I know well is a *bête noire* with many. It is supposed that the state of our knowledge does not as yet permit it. Let us remember the enormous gain to botanical science which resulted from the substitution of the natural system for that of Linnæus. Diseases of the skin have perhaps been classified with more elaboration than any other, yet not only has no really natural grouping been attempted, but the arbitrary classes and orders which have been arranged cannot, I think, be said to afford to the student anything approaching the amount of assistance which the scheme of Linnæus, artificial as it was, undoubtedly gave to the young botanist. Yet is it not possible to attempt something in the way of a natural classification of skin diseases which should be of the utmost value to the student? And what is possible in dermatology might be attempted in general medicine. He who would classify with success must enter upon his task with courage. He must not be afraid of details, he must

resolutely eschew all pedantry, and be determined that nothing shall induce him to put two things in the same family group unless he is sure of their relationship. He must be willing to forgo the hope of completeness and think but very lightly of finality. Under these conditions I certainly believe that a very useful classification of skin disorders according to natural affinities is both desirable and possible. We could not assign at once all maladies to their proper places, but this is not requisite. What is wanted is to effect such an orderly arrangement of classes and groups that when once the real nature of a disease is recognised there is a place for its reception. I would take a hint from botanists and name the several orders after their most prominent and typical example. Thus the disease known as 'psoriasis' having been carefully defined, I would place with it in a psoriasis family all forms of skin diseases which conform to similar laws. So with acne, pemphigus and many others. Perfectly natural groups might be formed of those caused by animal parasites and of those due to cryptogamic growths. Other groups might be constituted by those due to congenital peculiarity of tissue (Kaposi's malady and the like). In every case real affinities—in other words, relationship by sameness of cause—should be the guide in the formation of our family groups. In conclusion, I can only hope that the topics I have been bold to bring before you have not seemed to you unsuitable for the first meeting of a new session of the Medical Society of London."

#### CLINICAL SOCIETY OF LONDON.

*Intestinal Obstruction accompanied by Thrombus in the Abdominal Aorta extending down the Iliac Vessels.—Extensive Nævus of Peritoneum.—Traumatic External Iliac Aneurysm in a Boy.—Cicatricial Stricture of Œsophagus treated by Complete Division.*

THE first ordinary meeting of this Society for the winter session was held on Oct. 14th, the President, Sir Dyce Duckworth, being in the chair. The President first addressed a few words of welcome to the members on reassembling after the vacation.

MR. W. H. BROWN of Leeds read the details of a case of Intestinal Obstruction accompanied by Thrombus in the Abdominal Aorta extending down the Iliac Vessels. A man aged fifty-eight, previously healthy, was seized with sudden pain in the body; the usual symptoms of obstruction followed, but were never severe, and entirely subsided before death, which took place seven days later, the cause of death being gangrene of both lower limbs. The post-mortem examination showed a band enclosing five feet of small intestine in a gangrenous condition, together with a clot (thrombus) in the abdominal aorta plugging the vessel from just above the bifurcation to the termination of the iliac vessels.—The PRESIDENT regarded the thrombosis of the aorta as coincidental rather than consecutive. He asked if the omental adhesion acted as a band and compressed the intestines, thus causing the gangrene.—DR. GLOVER inquired for further details as to the previous history.—MR. BROWN, in reply, said the omental adhesion had acted as a band and constricted the intestines. It was not attached to the aorta. The mesenteric vessels were very fully laid open, but contained no clot. There was no previous history of illness or syphilis.

MR. ARBUTHNOT LANE related an instance of Extensive Nævus of Peritoneum. The boy, aged seven, was said to have had a tumour in the right side of the abdomen at birth, which increased rapidly with the growth of the child, till it attained a considerable size. It fluctuated in parts, was apparently situated beneath the abdominal muscles and was not free in the abdominal cavity. The skin covering it was normal. The bulk could not be affected by pressure, nor could it be displaced from its position in the right side of the abdomen. As it extended to the umbilicus it was impossible to determine the condition of the kidney or its relationship to the tumour. Mr. Lane cut down on the tumour, which proved to be navoid, containing large cysts filled with fluid blood. It extended backwards over the peritoneum, to which it was inseparably connected, and from which it apparently grew over the surface of the kidney and beneath the diaphragm over the liver, and in front to the middle line, at which limits it terminated gradually by becoming thin. It was thickest about the centre. It infiltrated somewhat the abdominal muscles which covered it. The peritoneal cavity

was opened, when its inner aspect was seen to be livid and to present rounded masses, some of which were partly pedunculated. All of the growth which could be got at was removed, only a thin layer being left on the outer surface of the peritoneum. The child became entirely collapsed from the considerable loss of blood consequent upon this part of the operation, its pulse becoming extremely feeble and about 170 a minute. This collapse was at once removed by the introduction into the circulation of a pint and a quarter of normal saline solution. The lad recovered without a bad symptom and now presented no sign of any recurrence of the tumour. The growth proved to be nœvoid in structure.—Mr. SURTON inquired if the growth was really a nœvus, or if it was a very vascular nœvo-lipoma. Lipomata were common in the subperitoneal tissue?—Mr. EVE had recently operated on a nœvus of similar character at the London Hospital. It occurred in a young girl of sixteen, and involved the thigh near the knee. The history was indefinite and it was regarded at first as an encysted abscess in the knee-joint. An exploratory incision showed the tumour to be deep-seated, and on opening it there was a great gush of blood. It consisted of numerous cysts filled with blood connected by tissue of a spongy nœvoid structure. It had spread into the muscles and had extended into the knee-joint, involving the deeper layer of the synovial membrane. The tumour extended upwards nearly to the junction of the upper with the middle third of the thigh. He removed it and the patient recovered without a bad symptom. He regarded the growth as a nœvus, but would not be surprised if it contained sarcomatous structure.—Mr. BARKER asked if there were signs of lymphatic structure in the growth. He assisted Mr. Marshall to amputate the thigh for an enormous nœvus in a child, and in this growth the lymphatics were as much involved as the veins.—Mr. GOULD inquired how great an extent of peritoneum was removed.—Mr. LANE, in reply, said that the growth contained no fatty tissue. He snipped off many grape-like masses which projected into the abdominal cavity, but left the intervening peritoneum which was covered with nœvoid structure. There was no evidence of lymphatic enlargement.

Mr. CLUTTON read a paper on a case of Traumatic Aneurysm of the External Iliac Artery in a boy six years of age. On May 24th, 1891, Mr. Clutton was summoned by Messrs. Pitts and Holland of Chelmsford to see a case which they stated was a traumatic aneurysm of the external iliac artery. A boy, aged five years and a half, on April 29th, was presented with a pocket-knife, and in cutting some cake ran it into his abdomen. Mr. Pitts found a small punctured wound an inch and a half wide above the centre of Poupart's ligament. There was very little external bleeding, but a rounded deep-seated swelling could be felt beneath the wound. The next day emphysematous crackling could be detected for about eight inches around the wound, but no increase of the deeper swelling. On May 4th the swelling was first felt to pulsate, and at the same time a bruit was heard extending from this spot down to the femoral cavity. At the consultation on May 24th it was agreed there was an aneurysm of the external iliac artery above the origin of the epigastric. As there were no urgent symptoms it was thought best to wait for a few weeks in the hope of improving the collateral circulation. On June 15th the aneurysm was exposed and a kangaroo tendon applied to the external iliac artery immediately above the aneurysm. A similar ligature was also applied to the external iliac artery below the aneurysm, which was thus completely cut off from the circulation. The wound healed rapidly and the case made an uninterrupted recovery. There was no return of pulsation, no sign of gangrene, and the boy was now perfectly well. A small hard lump could be felt in the position of the original aneurysm and the pulsation of the femoral artery below Poupart's ligament was not so distinct as on the opposite side of the body.—Mr. W. H. BROWN had recently tied the external iliac artery from the front and found it very difficult to reach. He asked Mr. Clutton how it was that he first opened the peritoneum and then eventually tied the artery behind it.—Mr. CLUTTON, in reply, said that owing to the thinness of the child he found so little tissue intervening between the peritoneum and the vessel that he preferred before trying to strip up the membrane from the artery.

Mr. EVE brought forward a case of Cicatricial Stricture of the Oesophagus in which œsophagotomy was performed for removal of an impacted Symonds' tube and the stricture completely divided; there was no recurrence two years after the operation. The patient, a girl aged seventeen, came

under his care in July, 1889, for a stricture of the œsophagus which resulted from swallowing some nitric acid twenty months previously. During this period she had been repeatedly treated by passage of bougies with constant recurrence of stricture. This was low down in the neck and admitted a No. 11 bougie. For the purpose of facilitating feeding and keeping up continuous dilatation a No. 7 Symonds' tube was passed and left in. On July 29th this was replaced by a No. 11 tube quite new. On July 31st the house surgeon, in attempting to remove the tube, pushed away the thread attached to it, leaving the tube impacted in the stricture. A prolonged and unsuccessful attempt to seize the tube with forceps having been made the same afternoon, œsophagotomy was performed on the left side on Aug. 3rd. The operation was performed as low as possible, but after incising the œsophagus it had to be drawn up with forceps before the tube could be reached and extracted. By still further drawing up the œsophagus the narrowed part was completely divided with scissors. The wound in the gullet was closed with sutures, but the internal wound was left open. The patient made a good recovery. She disappeared on Nov. 16th, and was not seen again till Nov., 1891, when she called at the hospital in answer to a letter from Mr. Eve. At this time, more than two years after the operation, she stated that she had been quite well in the interval and had no difficulty in swallowing whatever, a No. 18 bougie passed rapidly encountering no obstruction. He drew attention to the fact that the stricture was an exceedingly obstinate and resilient one before the operation, which might be claimed to have effected a permanent cure. The operation might be compared to external urethrotomy for stricture, but the tendency to recontraction appeared to be less in the case of the œsophagus than of the urethra. During the operation he was surprised at the mobility of the œsophagus in the direction of its long axis. This allowed of division of strictures very low in the neck, even impinging in the upper part of the thorax. After referring to the relative mortality of œsophagotomy and gastrostomy he pointed out that in cases of stricture of the œsophagus in the neck in which gastrostomy would otherwise be indicated, œsophagotomy fulfilled the same purpose, admitted of complete cure by division of stricture and was less fatal. Oesophagotomy might also be sometimes indicated in less severe cases of resilient stricture which had resisted other methods of treatment.—Mr. CLUTTON alluded to a case which he had recorded last session of a fibrous stricture in a child which had been treated by œsophagotomy, and in which, though he added much to the risk of the patient, he could not get the stricture up to the wound nor could he pass anything through it, being obliged in the end to do gastrostomy. He was inclined to think that œsophagotomy would not be of general use in this class of case.—Mr. MAKINS referred to a case of permeable stricture of the œsophagus in which it was difficult to pass bougies. It was treated by rapid dilatation by means of an instrument devised for the purpose much like that of Holt's for splitting urethral strictures. The result was strikingly successful.—Mr. EVE, in reply, said Mr. Clutton's case was not a parallel one because the stricture was not in the neck, but in the thorax. In cases of stricture at the lower part of the neck the result of this operation would be speculative. In the case he related the stricture was so resilient that he doubted if dilatation by any method would have been productive of permanent cure.

#### PATHOLOGICAL SOCIETY OF LONDON.

*Myxœdema treated by injections of thyroid juice.*—*"Fat necrosis" associated with disease of the pancreas.*—*Con genital cystic disease of the scrotum.*—*Hepatic cirrhosis from cardiac valvular disease.*—*Unstriped myoma of penis.*—*Fibrous plaque from penis.*—*Specimens illustrating parasites of malignant disease.*

THE first ordinary meeting of the Pathological Society for the present session was held on Oct. 18th, the president, Sir George Humphry, being in the chair.

Mr. HURRY FENWICK showed two female patients who had been suffering from Myxœdema and who had been treated by injections of fresh thyroid juice. Both had improved and in both the injections had been followed by a gradual increase in the daily average of urine passed. Usually there was a large increase in the urine the day

following the injection; the amount then fell, but rose again. The character of this extra urine was essentially nervous in type. There was often a remarkable increase on excitement, such as the visiting of friends, and also during the period of menstruation, and these variations introduced fallacies into the investigation as to how far the injection acted as a diuretic. Control injections of water were without result; also in healthy people the thyroid juice usually proved negative. Mr. Fenwick, after reviewing the details of the cases, was inclined to believe that thyroid juice had feeble diuretic action; that the *rationale* of its renal action in myxœdema was the change it produced in the blood which permitted of an easier transudation of secretion by the kidneys. He founded the latter supposition on the very marked effect which the injections made in the growth of the hair, the secretion of sweat and the catamenial period. The tables of daily urine seemed to favour Mr. Fenwick's belief that congestion of the kidney arose in congestion of the pelvic viscera such as obtains in menstruation, coition &c.—The PRESIDENT asked the author if he believed that the improvement was due to mucin being passed by the kidney.—Dr. HADDEN said that during the summer he had injected two cases of myxœdema with thyroid juice, and the condition of urine which had been described did not exist in these cases. As regarded the existence of mucin in the urine, many cases had been analysed and no excess of mucin had been found in the tissues.—Dr. ARMAND RUFFER referred to two cases he had seen in Paris which had been injected; in neither was there any change in the urine, but they both suffered from intense headache as a result of injection. One was a young woman twenty-five years of age, who three months after the first injection was practically cured. The second case was an older woman, and the result of the treatment was also a striking therapeutic success.—Dr. A. MORISON said he had seen similar great benefit follow systematic massage; the urine increased and the patient improved for a time, but ultimately the massage lost its apparent effect and a fatal result ensued.

Dr. H. D. ROLLESTON showed specimens of "Fat Necrosis" in the fat of the mesentery, the great omentum, and in the appendices epiploicæ. The areas of necrosed fat were of an opaque white colour; in size they varied from a pin's head to half a split pea; in shape they were round or oval. They were not raised above the surface and were not surrounded by an area of congestion. The contents of these opaque spots gave the reactions of fat. Microscopically the areas were composed of fat cells distended with granular material, which was in places crystalline; the nuclei of the cells did not stain; these areas were immediately surrounded by normal fat cells; some of these areas of fat necrosis showed some small cell proliferation at their margin, but usually on one side only, and near a small vessel. The specimens were taken from two cases under Dr. Cavafy's care in St. George's Hospital; the first case was chronic, the second very acute. In the first case a woman aged fifty received a blow on the abdomen, which was followed at once by pain and the next day by severe vomiting, inaction of the bowels and collapse, simulating intestinal obstruction. The vomiting continued and slight diarrhœa came on. An abscess developed in the right hypochondrium three weeks and a half before death, which took place eighty days after the injury. Post mortem there was found an abscess in the head of the pancreas and fat necrosis in the subperitoneal fat. The liver was in a condition of fatty infiltration, but there was no necrosis of the fat globules. In the second case a man thirty years of age had suffered from an injury to his abdomen eighteen months previously, by a cart passing over him. Since then he had had severe attacks of abdominal pain. After his dinner he was suddenly seized with abdominal pain, vomiting and collapse, accompanied by constipation. Laparotomy was performed, and death occurred thirty-six hours afterwards. At the necropsy hæmorrhage was found round the pancreas, the origin of which was not manifest. There was disseminated fat necrosis in the abdomen, but there was no evidence of pancreatitis. In neither case was there any fat necrosis in the fat of the thighs or of the abdominal wall. The author said that there were two theories: (1) That the fat necrosis was a primary change in the fat of the fat cells, which set up a surrounding inflammation, which, becoming confluent around the pancreas, produced changes in, and often ultimately necrosis of, that organ (Langerhans). (2) That pancreatitis, hæmorrhagic, suppurative or gangrenous, or pancreatic hæmorrhage was the primary lesion which by extension produced fat necrosis (Fitz). Dr. Rolleston said that neither of these hypo-

theses was very satisfactory, and that he thought that the occurrence of fat necrosis might be explained as a trophic lesion, the result of the morbid process spreading from the pancreas to the solar plexus. This view was supported by the clinical symptoms, which were those of great disturbance of the sympathetic (vomiting, collapse and constipation), and the distribution of the fat necrosis would fit in with this view.—Professor ADAMI said that this disease was not necessarily associated with inflammation, and in the instances related he could confirm this from an examination of the author's specimens. Any small cells which were present near the necrosed areas were to be accounted for by the action of the fat necrosis as a foreign body. In the acuter case he thought that the fat necrosis was primary, and had existed before the lesion of the pancreas. He agreed that the nature of the change was probably nervous and trophic.—Dr. HALE WHITE said that hæmorrhage in the neighbourhood of the pancreas was rare. He asked for fuller clinical details of the case, and inquired as to the state of the intestines. These cases had been more than once mistaken for intestinal obstruction.—Dr. ROLLESTON, in reply, said that in neither case was there intestinal obstruction. In both there were some peritoneal adhesions, but they did not compress the gut.

Mr. EDGAR WILLETT showed two Congenital Cystic Tumours of the Scrotum. In each case the tumour was removed from the scrotum of a boy; the testis, though lying adjacent, was not adherent or affected; their pathology remained obscure. Microscopical sections were also shown.—Mr. TARGETT said that Mr. EVE had formerly shown a somewhat similar specimen as a dilatation of the ducts in connexion with the organ of Giralddès. It was from a boy aged seven, was congenital and consisted of a mass of fibrous tissue containing smooth-walled cysts. Another similar case he had recently seen in a child aged five. He regarded them as degenerated nævi, for the cysts had no epithelial lining and some of them contained blood-clot.—Mr. BOWLBY had seen similar specimens both in the scrotum and in Nuck's canal in the female. He believed that they were not congenital nævi; the material obtained from the cysts was a clear serous fluid. They were precisely similar both to the naked eye and microscopically to the growths often found in the neck.—Dr. NORMAN DALTON said that some years ago he had examined one of the congenital tumours of the neck by staining it in the recent state with nitrate of silver. He then found that the lining of the spaces was of epithelioid character, such as that which might be found lining an old nævus or a lymphatic cyst.—Mr. WILLETT, in reply, said that the cysts in these cases were quite separate from each other, which he thought would not be the case if it were a degenerated nævus.

Dr. PERCY KIDD showed specimens of Cirrhosis of the Liver, Pancreas and Kidney from Obstructive Valvular Disease of the Heart. He said it was a case of severe long-standing valvular disease of the heart, with enlargement of the liver, terminating with anasarca, ascites and hydrothorax. At the necropsy it was found that the liver was enlarged and very hard, but smooth on the surface. The hepatic veins were dilated and thickened. The heart showed an extreme degree of stenosis of all four valvular orifices, and was greatly hypertrophied and dilated. The pancreas and kidneys were also greatly indurated. Microscopical examination disclosed undoubted cirrhosis of the liver, pancreas and kidney. The etiology of the case was discussed and reasons were given for attributing the cirrhotic change in these organs to the extreme degree of cardiac obstruction. No evidence of alcoholism could be obtained. The lungs were in a condition of brown induration.

Mr. SHATTOCK showed for Mr. Sydney Jones an Unstripped Myoma of the Penis. There was a thickening of the fibrous investment of the corpus cavernosum, with a small gritty plate lying in its centre. This he had carefully analysed to see if it were of gouty nature, but it contained no trace of uric acid and was composed of phosphate of magnesium and lime. Beneath the fibrous thickening there was a remarkable increase in the involuntary muscle fibre of the trabeculae. There was nothing in the history of the case to give a clue as to its nature. There was no history of syphilis or of gout.

Mr. EDGAR WILLETT showed a Small Calcareous Plaque which had been removed from beneath the skin of the dorsum of the penis of an elderly gentleman. It apparently arose in a part of the fibrous tunic of the penis. It had been noticed for two years and a half, and its substance was, as in the preceding case, mainly composed of unstripped muscle fibre.

Dr. HEBB showed some specimens illustrating the parasites of malignant disease. They were taken from the body of a

young man twenty-six years of age, who died of ascites and jaundice. There was found a diffuse subperitoneal fibrosis, and there was the scar of an old ulcer an inch or so from the cardiac end of the stomach on the lesser curvature. A microscopical examination of the subperitoneal fibrous inflammatory deposit showed it to contain giant cells, which were for the most part mono-nucleated and contained spheroidal bodies. In the centre of each was an aggregation of granular matter and from these granules lines, also granular, radiated to the periphery. In other specimens the spheroidal bodies were larger, with a circular centre like a nucleus, but with granular contents. These bodies had a distinct capsule and they stained quite differently from a tissue nucleus. He showed them as specimens occurring quite independently of malignant disease, but in an ordinary chronic inflammatory growth. He had stained them according to the method recommended by Dr. Russell two years ago.

The following card specimens were shown:—

Dr. PEROY KIDD: Embolic Aneurysm of the Pulmonary Artery.

Dr. E. C. PERRY: (1) Perforating Ulcer of the Duodenum; (2) Fatal Intra-pleural Hæmorrhage in Pneumonia.

## Notices of Books.

*The Journal of Pathology and Bacteriology.* No. 2. October, 1892. Edinburgh and London: Young J. Pentland.—The second number of this new and high-class periodical contains matter of even more interest than the first, and well justifies the undertaking. Dr. R. Muir of the University of Edinburgh contributes a paper on Leucocythæmia, consisting of a careful study of the blood by modern methods. His observations tend to the conclusion that the changes in this disease depend on an "excessive and indefinite proliferation of a certain kind of cell," but he abstains from constructing any more definite hypothesis until he has had further opportunity for the study of the subject. Mr. A. A. Kanthack of Cambridge University writes on Madura Disease (Mycetoma) and Actinomycosis, in which he clearly establishes the identity between them—an identity suspected by Vandyke Carter, to whom is owing much of our knowledge of the pathology of mycetoma. Mr. Rubert Boyce of University College, London, describes the characters of an example of Aspergillæ Pneumonocystis which occurred in a subject of cardiac disease, and to the unaided eye resembled small white bodies within a few bronchitic cavities at the apex of the lung. Dr. T. Haldane and Mr. J. L. Smith of the University of Oxford contribute a paper of considerable importance upon the Physiological Effects of Air vitiated by Respiration, in which they show that these effects (hyperpnœa, headache &c.) are due mainly to excess of carbonic acid and deficiency of oxygen rather than to any special poison. Dr. Archibald Garrod writes on Hæmatorporphyrin as a Urinary Pigment in Disease, based on an extended examination of a variety of cases. A paper of some elaboration, and embracing a topic of great interest at the present time, is that on some Parasitic Protozoa found in Cancerous Tumours by Drs. Amand Ruffer and T. H. Walker. It opens with a history of previous investigations on the subject, and is itself a most important pathological contribution, which goes far to establish the fact of the parasitic nature of cancer. Dr. Joseph Coats describes the Pathology of Sudamina and Miliaria, in which the histological examination of the skin from a fatal case of rheumatism leads to the conclusion that these states are essentially inflammatory, excited probably by poison excreted in the sweat. Mr. Rubert Boyce and Mr. Cecil F. Beadles describe fully the features, macroscopical and microscopical, of a case of Myxœdema in which there was enlargement of the pituitary body, and their paper as well as the observations of others point to some correlation between the thyroid body and the hypophysis cerebri. The latter, it is well known, is generally found enlarged in

acromegaly. Mr. E. H. Hankin has a paper on the Method of testing the Bacteriocidal Power of Alexin Solutions; and the number closes with a description of Papier-mâché Casts of Pathological Specimens by Mr. C. W. Cathcart, and one on a Rapid Method of Dehydrating Tissues by Mr. G. L. Cheatle. The excellence of the illustrative plates, which are numerous, is very great, and altogether we think that the journal does credit to the British School of Pathology.

*Trattato d'Igiene Publicca.* Del Dottore CARLO RUATA. Vol. I. Citta di Castello. 1892.—We have now so many treatises on public health that Dr. Carlo Ruata's work on the same subject is likely to be less resorted to than it otherwise would have been. But it has qualities of distinct merit which place it amongst the foremost of such works; and if action is taken on the principles which are advocated in it in those countries where the Italian language is spoken the result will be a distinct saving in loss of life due to preventable causes and a greater capacity for remunerative labour amongst those who are spared from the debilitating influence of avoidable sickness. The first volume issued deals with general considerations. It takes up the subjects of vaccination and other preventive inoculations, of the isolation and disinfection called for in infectious disease; and it deals on what we are inclined to regard as very much our English lines—with the question of quarantine. The sanitary cordons in Italy in 1884 are set out as typical of an error of administration. Non-infectious maladies which are affected by public health considerations are next dealt with, as are also questions of vital statistics. The scope and character of sanitary administration generally and of the existing Italian law are next considered, and the volume concludes with some valuable considerations which go to show how public prosperity is dependent on public health. In this and in other parts of the volume Dr. Ruata pays many a compliment to English sanitary work, but he also takes some of his examples of failure from our records. Thus he refers to Dr. Thresh's excellent account of the injurious influence of the bad housing of the population in Ancoats; and since we are involved in that which is bad as well as that which is good, we can the more freely express the opinion that this last chapter should be read by all Italians who are patriotic enough to take interest in the welfare of their country, and since this doubtless includes the whole nation, we trust the volume will have a wide circulation quite beyond professional circles.

*The Sheffield Medical Journal*, Vol. I., Part I. Edited by SIMON SNELL, F.R.C.S. Edin. Sheffield: Pawson and Brailsford.—It speaks well for the pursuit of scientific medicine in this country that the practitioners in so many of our leading provincial towns should be willing to undertake the responsible task of issuing a medical journal. To Bristol, Birmingham, Liverpool and Manchester may now be added Sheffield; and this new journal, which is to be a "Quarterly Review of the Medical Sciences for Yorkshire and adjoining Counties," seems likely to prove a fitting compeer to those above indicated. The general plan of the journal is that followed in most publications of the sort, notably the long-established *American Journal of the Medical Sciences*. Thus it consists in the first place of original articles, next of abstracts and summaries of literary contributions to medicine, surgery and therapeutics, then of reviews and notices of books, new drugs, instruments &c., and medical news. The first article, by the editor, is on Accuracy in Observation and the After History of Cases, being the Presidential Address to the Sheffield Medico-Chirurgical Society, delivered on the 13th inst. Mr. Dale Jones and Dr. Norman Walker relate an Unusual Case of Tuberculosis of the Skin, well illustrated by lithographic reproduction of photographs of the general and histological characters of the case. Dr. W. Dyson describes a well-marked case of Myxœdema in the Male, and another case of Myxœdema, with an account (illus.

trated) of the changes in the thyroid, is contributed by Mr. R. J. Pyc-Smith and Dr. A. J. Hall. Mr. Arthur Jackson, under the heading "Chapters in Local Medical History," commences a description of the history of the Sheffield General Infirmary. The abstracts and summaries are well selected, and the reviews and notices include careful criticisms of such works as Wilson Fox's Treatise and Hack Tuke's Dictionary of Psychological Medicine.

*The Quarterly Journal of Microscopical Science.* Edited by Professors RAY LANKESTER, KLEIN, SEDGWICK and MILNES MARSHALL. No. CXXXIII. August, 1892. London: J. & A. Churchill.—This Part contains the two following Memoirs: 1. The Anatomy of Peritastomum Toretiusculum, a parasite found in the lung of the copper-headed snake (*Hoplocephalus superbis*) of Victoria, by W. Baldwin Spencer, Professor of Biology in the University of Melbourne, with nine plates. 2. The Minute Structure of the Gills of Palæmonetes Varians, by Edgar J. Allan, B.Sc. University College, London, with a plate.

In the September number of the *Annales de l'Institut Pasteur* Messrs. E. Hankin and F. F. Westbrook, in their paper entitled "Sur les Albumoses et les Toxalbumines Sécrétées par la Bacille Charbonneuse," again take up the subject of the albumoses and the toxalbumins secreted by the anthrax bacillus. Following up the experiments of Paternmann, Hankin, Brieger and Fraenkel, and the earlier observations of Sidney Martin, they attempt to bring into harmony the somewhat conflicting results obtained by those various experimenters, and they take up the position formerly held by Martin that there are formed during the growth of the anthrax bacillus, in certain media, albumoses which are not toxic to susceptible animals, but which exert a distinct protective influence against the attacks of the anthrax bacillus, and toxalbumins which possess a distinct toxic power, but have little protective virtue. They found, for instance, that when they produce the albumose directly—that is, by allowing the anthrax bacillus to act on fibrin ferment in bouillon at a low temperature, that such albumose, when injected in small doses into a mouse, confers immunity, but that when they allow a proteolytic ferment to be formed by the anthrax bacillus (this takes place especially at higher temperatures) they cannot obtain any protection; whilst the products that are formed have the toxic action above referred to. They found, moreover, that after separating the albumoses from the purest commercial peptone obtainable that the remaining pure peptone, if acted upon by the anthrax bacillus at a comparatively low temperature, would also yield a protective albumose, though they were not able to obtain it in sufficient quantity or in sufficient activity to produce complete immunity in mice. It is interesting to note that the albumoses do not cause symptoms of poisoning in animals susceptible to anthrax, such as mice, young rabbits and rats &c., whilst it is distinctly poisonous even in small doses to non-susceptible animals, such as frogs and old rats. The results of these experiments are of very great interest, though they go directly against the results obtained by several observers who have found that so long as what may be called the fundamental molecule is present in any series of products the poisonous activity is present, though often necessarily in somewhat varying degree, and it would be expected that similar protective properties would be bound up in this fundamental molecule. However, as the relation of chemical composition to physiological action has not yet been completely or satisfactorily worked out in regard to the better-known poisons, it may be some time before a knowledge of the same relationship is obtained with respect to these complicated albumoses and toxalbumins with which the bacteriologist has to work.

In the October number of the *Veterinarian* Professor Fred. Smith, M.R.C.V.S., F.I.C., of the Army Veterinary School,

Aldershot, continues his article on Veterinary Hygiene, taking up specially ventilation, drainage and individual hygiene, clipping, shoeing and feeding, and concluding this part of his article with the treatment of calves used for the production of vaccine matter. An editorial article on the diagnosis of tubercle by the use of tuberculin leads us to believe that this substance as a diagnostic agent is not so valuable as at one time it was anticipated it might be. Professor Wortley Ayo contributes a paper on "Pleuro-pneumonia: Slaughter justified." An account of the meeting of the veterinary profession held to consider the amendment of the law relating to glanders and farcy is given, together with resolutions adopted and to be forwarded to the Board of Agriculture and the County Council. These recommend amendment and consolidation of the law, immediate and compulsory slaughter, systematic inspection, an increase in the number of veterinary inspectors, compensation and closure of water troughs. The number is completed with accounts of the meetings of the National Veterinary Association, Midland Counties Veterinary Medical Association and South Durham and North Yorkshire Veterinary Medical Association.

*Locke's Annual Register.*—This publication, which the compiler states in his preface will be issued annually, is a work likely to be of use to men of all professions. The work, which is in two volumes, contains, in a convenient form for reference, all notices of births, marriages and deaths advertised throughout the United Kingdom in the leading newspapers. A special feature of the publication is the double indexing of marriages (1) under bride's maiden name and (2) under bridegroom's name. Part II. deals with deaths.

## LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY (LIMITED).

A MEETING of the council of this Society was held on Tuesday, Oct. 4th, and the chair was occupied consecutively by Mr. Bruce Clarke, Mr. Balding, J.P., and Mr. J. Hutchinson. Dr. Cleveland and Mr. Musgrave were elected vice-presidents of the Society. Ninety-eight new members were enrolled.

The following divisions were formally recognised and their respective officers elected—viz., Cornwall: President, Edward Sharp, J.P., M.R.C.S., Truro: hon. secretary, George Frederick Helm, M.A. Cantab., M.D. T.C.D., F.R.C.S. Eng., The Greenfield, Marazion. South London: President, J. W. J. Oswald, M.D. St. And., F.R.C.S. & L.R.C.P. Edin., Kennington-road; hon. secretary, John P. Henry, M.D., B.Ch., L.R.C.P.I., Brook House, High-street, Lewisham, S.E. South-east London: President, Arthur Roper, M.D. St. And., M.R.C.S., Lewisham-hill; hon. secretary, S. Noy Scott, L.R.C.P. Lond., M.R.C.S., Lewisham-hill, S.E. Somerset: President, Thomas Cole, M.D., F.R.C.P. Lond., Bath; hon. secretary, Hugh Lane, L.R.C.P. Edin., The Circus, Bath. Northumberland: President, Walter Ridley, M.S., F.R.C.S. Eng. Newcastle-on-Tyne; hon. secretary, Francis W. Clark, L.R.C.P. Lond., D.P.H. Camb., Dispensary, Newcastle-on-Tyne.

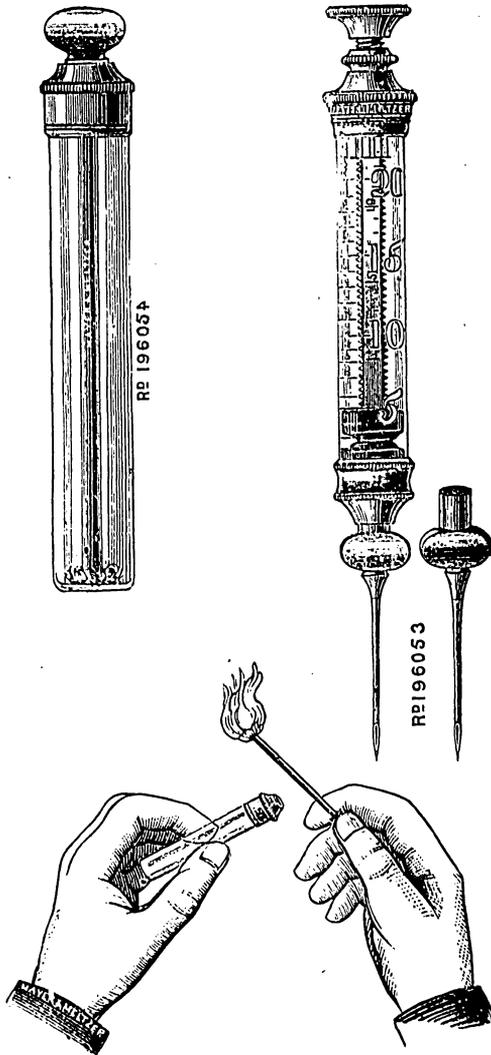
It was unanimously resolved that duly qualified and registered medical ladies should be eligible as members of the Society. The secretaries reported, with regard to the unjust censures of coroners' juries on medical men, that while condemnatory riders to coroners' verdicts were quite irregular, yet it appeared that such statements by coroners' juries were in law regarded as privileged, as also the publication of these in *bona-fide* reports by newspapers. Mr. Balding thought that some legal remedy for the present undesirable state of affairs might be found. It was resolved that Mr. Balding, J.P., and Dr. Cooper Rose, be requested to confer on the subject and to report to a subsequent meeting of the council.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—The dinner of the members and friends of this Association is announced to take place at the Holborn Restaurant on Nov. 2nd.

## New Inventions.

### ANTISEPTIC HYPODERMIC SYRINGE.

WE owe to Messrs. Meyer and Meltzer the invention of a hypodermic syringe capable of being thoroughly sterilised after use by the best of all possible means—viz., the application of heat. This is effected by means of a small spirit lamp included in the same case as the syringe, the needle of the latter being removable. The needle is made of an alloy, so that when heated it does not lose its keen point, as happens

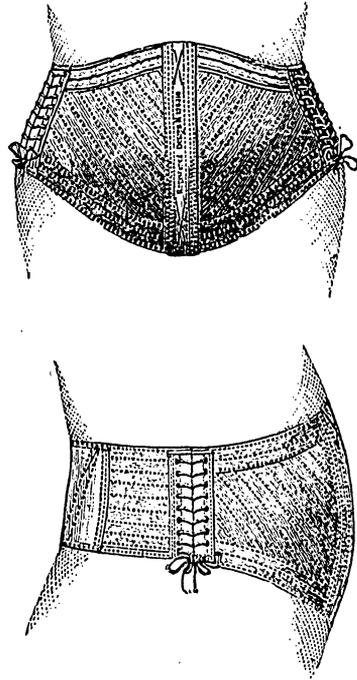


with an ordinary steel needle. Another improvement consists in the needle being of such a shape as to accurately fit the nozzle of the syringe and to be in contact with the piston, thus enabling the quantity injected to be accurately measured. It is needless to emphasise the importance of these instruments being kept perfectly clean and the value as well as simplicity of the means adopted to that end in the present instrument.

### NEW "ORTHONEMIC" ABDOMINAL BELT.

Messrs. SALT AND SONS of Corporation-street, Birmingham, have submitted to us for examination a new form of abdominal belt which they have designated as above, and the construction of which exhibits exceptional features. Two illustrations of the belt are given, a front and a side view. From these it

will be seen that the diagonally arranged front elastic webs (separated by the central whalebone) follow the direction of the external abdominal muscle, and supply the *lifting* support so desirable in these appliances, transmitting the weight of the abdomen to the upper portion of the hips, whence it is distributed by the horizontal side webs equally towards the back, the lacing being also elastic. The transverse top and bottom webs in the front clip the body and retain the belt in



its proper position, thus dispensing with perineal straps which cause so much discomfort. The complicated straps and bands added to most belts to assist their fit are avoided, and the appliance is consequently very simple, the arrangement of the elastic fibres causing it to fit perfectly in every way. The belt appears to be well calculated for increased efficiency, and at the same time an acceptable advance towards simplicity of application.

**VACCINATION GRANT.**—Mr. John P. Balbirnie, L.R.C.P., L.R.C.S. Edin., has been awarded by the Local Government Board a grant of £7 6s., as public vaccinator for the Staveley district of the Kendal Union.

**QUEEN VICTORIA'S JUBILEE INSTITUTE FOR NURSES.**—The report of this institute for 1891 states that the number of nurses trained during the past year and now at work in different places is 19. At the present time there are 27 probationers, 12 of whom are receiving hospital training. Since the commencement of the work 32 nurses have been trained under the institute. The number of nurses under the immediate supervision of the institute in connexion with associations affiliated to it is about 101. The total number of nurses upon the roll is 167, and of these 132 have been added during the past year. Applications are being steadily made to affiliate kindred nursing associations. There are now 32 nursing associations which have been affiliated in England and Wales. All associations are inspected as to their nursing arrangements and the qualifications of the nurses before the request to be affiliated is acceded to, and periodically afterwards. Berkshire, Devonshire, Essex, Gloucestershire, Hampshire, Kent, Norfolk, Somerset, Surrey, Worcestershire and Yorkshire have established associations under the same rules and regulations as the institute. There are in all 34 nurses engaged in rural nursing work in the different counties above named.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 22, 1892.

IN his admirable "History of England in the Eighteenth Century," Mr. LECKY has the following passage:—"Hardly any other of the great branches of human knowledge is at present so backward, tentative and empirical as medicine, and there is not much doubt that the law of supply and demand is a main cause of the defect. Almost all the finer intellects which are devoted to this subject are turned away from independent investigations to the lucrative paths of professional practice; their time is engrossed with cases most of which could be treated quite as well by men of inferior capacity, and they do little or nothing to enlarge the bounds of our knowledge." Criticism from so eminently judicious and moderate a writer as Mr. LECKY is entitled to respectful consideration, even when it trenches on questions outside the range of his own life studies, and we propose to consider how far the above remarks are well founded, and whether any conclusions of value can be drawn from them.

In the historian's view two facts stand out prominently regarding medical science: first, that its progress is unduly slow compared with that of the other great departments of human knowledge; and, secondly, that this slow rate of progress is attributable to the absorption of all the abler intellects in the routine of private practice and their consequent inability to devote sufficient time and effort to original research. Now we do not pretend that the progress of medicine has ever been rapid. It is perhaps the most ancient of the sciences. In all probability, long before primeval man had begun to note with intelligence the movements of the heavenly bodies, or to develop any department of the physical sciences, the hard necessities of a state of constant warfare had compelled the direction of his attention to such subjects as the treatment of wounds and the relief of pain. Botany probably arose partly from the search for articles of food and partly from a desire to discover herbal remedies for disease. Medicine is thus long prehistoric, and its origin is lost in the mists of extreme antiquity. Its progress seems to have followed two main directions: first, that of the theorising school, of whom GALEN is the best ancient representative, whose prevailing characteristic was a desire to bring all the phenomena of disease under a few wide generalisations and far-reaching formulæ; and, secondly, the empirical school, who simply sought remedies for certain ailments without much regard to the *rationale* of their proceedings. Whilst most of the ancient theories about the constitution of the human body and the action of remedies have been proved to be false, experience has shown that some of the ancient empirical rules regarding treatment possess a permanent usefulness and validity. Thus much of the teaching of HIPPOCRATES concerning food, exercise, diet &c. still holds good, even in the light of the most advanced modern knowledge.

This distinction helps to explain what is a most patent but

at first sight somewhat puzzling fact—viz., that the Baconian philosophy and the general adoption of habits of systematised observation and careful induction, which so revolutionised and accelerated the progress of the physical sciences, produced a vastly smaller effect in the field of medical science. Medical science, in fact, owes much more to empirical observation and happy accident than is generally admitted. Such discoveries as the therapeutic virtues of mercury in syphilis or of cinchona in ague probably arose in this way, and it is quite out of our power voluntarily to create that combination of circumstances likely to afford similar fruitful results. The power of creating the special conditions most favourable to observation—of "varying the circumstances," as logicians say—of bringing into play the logical "method of difference" is, in the field of medicine, much restricted. Lack of material in some cases acts as a bar; in others the promptings of humanity restrain us. In fact, the more we reflect upon the subject the more we shall be convinced that any analogy between the progress of medicine and of the physical sciences is wholly illusory. In the first place no science dealing with life can hope to rival in completeness and in rapidity of progress the science of the not-living. A comparison between, say, physiology and mechanics is perfectly futile and wholly un instructive. The mysterious element of life, so subtle, so pervasive, so potent and yet so inscrutable, increases to an altogether incalculable degree the difficulties of observation and induction. When philosophers have determined what life is, what mind is, where the influence of mind or body begins and ends, they will be in a position fairly to reproach with backwardness and slowness of progress a science which has so largely to deal with these difficult questions, and which, amidst the painful exigencies of disease and the claims of suffering humanity, cannot always stop to bring its practice precisely into line with its theories.

The factor of disease adds new and manifold difficulties. If normal physiological life presents much that is perplexing, much more is this true of abnormal and pathological life. Probably no two cases of disease were ever exactly alike. The response of the organism to the imitation of disease always varies, and often within very wide limits. The play of hope and fear, of strength and feebleness of will, of acquiescence in and resistance to medical advice and authority, is never ceasing, and introduces elements of altogether incalculable complexity. We must take our science with its necessary and intrinsic limitations, and, perhaps all things considered, the real wonder is not the slowness of medical progress or the fallibility of medical knowledge, but the almost unerring certainty of insight which is the characteristic of our greatest doctors.

While thus demurring to the principles of comparison implied in Mr. LECKY'S remarks, we are quite in accord with him regarding the necessity of a fair share of the best medical intellect being devoted to the work of original research. Such an end can only be achieved by national endowments or private benevolence. A beginning has no doubt been made in respect of such subjects as anatomy, physiology and pathology, in which chairs of sufficient value exist to enable their occupants to devote themselves entirely to their study. But no chair of medicine, surgery, gynecology or kindred subjects exists with an endowment suffi-

cient to enable its occupant to relinquish private practice and devote himself wholly to original research. It is not too much to hope that the day will come when this gap will be filled up. Many tasks might well be assigned to the occupants of these chairs, such, for example, as the determination of the real practical value of the hosts of new remedies which are now constantly brought under our notice. Most of these are worthless, but it would be a great misfortune to humanity if through lack of sufficient care and thought any really useful additions to our therapeutic armamentarium were thrown aside with the useless.

It is well for medical men to study the diseases of other races than their own. Civilisation is apt to be regarded in these days as not an unmixed blessing, and one of the chief charges brought against it is that it makes us more sensitive and develops many diseases and ailments which our more savage fellow creatures escape. The development of nerves, with all their possibilities of pain and multiplied disorder, is a responsibility especially laid at the door of civilised life with all its luxurious provisions for comfort and enjoyment. Perhaps these ideas are accepted a little too readily. It is certain that we are spared some diseases to which less favoured races are subject. During the course of the session of 1890 of the Clinical Society Dr. STEPHEN MACKENZIE brought to the notice of its members the case of a much-respected native of the Congo who laboured under "negro lethargy," or "sleeping sickness," a disease described by Dr. WINTERBOTTOM and later writers, and which in many villages on the Congo is very fatal, although European races never suffer from it. The non-exemption from sickness and ailment of savage races is illustrated in an interesting way in two papers in the *Medical Record* of New York of Sept. 17th and 24th respectively, by Dr. HOLDER, Assistant Professor of Physiology in the Memphis Medical College and formerly Agency Physician of the Crow Reservation, Montana, of which we may give our readers some account. The severity of eruptive diseases in such backward races has been often shown. The same fact is illustrated by Dr. HOLDER in respect of both small-pox and measles. In 1873 small-pox played sad havoc among some Indian tribes; one-ninth of the Santee Sioux of Nebraska died, and in 1878 over one-fifth of the Mohave and Chimehucvis Indians of Arizona succumbed to the disease. Vaccination has been practised of late years, with the result that no epidemic has raged among any Indian tribe; but they hold small-pox in mortal dread, and a case of it or the report of its occurrence will cause greater consternation and stampede than a hostile invasion. Few tribes are without the traces or its ravages in pitted faces and sightless eyes. Measles is a fatal disease—it is very fatal in some tribes—even when the cases are carefully nursed by the *employés* of the Agency; but much depends on shelter and care. Thus Dr. TRON, of the Crow Creek Agency, in a severe epidemic in 1888 lost 1 in 15 of the cases treated in camp; but of 130 cases treated in the boarding school, where favourable surroundings and good nursing could be procured, not one was lost. Dr. TRON made the curious observation that the stage of incubation was more protracted than among the whites, and that there was a greater tendency to severe capillary bronchitis. In

certain Sioux Reservations in Dakota measles has been shown to be a steady cause of declining population. Epidemics of whooping-cough usually follow measles. Mumps occur frequently, and take a course similar to that among whites, including frequently metastasis to the testicle. Erysipelas occurred in 2065 Indians out of 500,000. Dr. HOLDER'S cases were generally mild, and unconnected with traumatism. In the first cases his attention was drawn to enlarged cervical glands. The next complaint noticed (constipation) is one often thought to be the monopoly of civilised people, living in easy circumstances and pampered ways. Dr. HOLDER finds the Indians universally and persistently constipated; indeed he comes to the conclusion that this is an ailment common to the human family. The Indians do not understand the utility of a medicine which does not either purge or produce vomiting. Like Sir HENRY HOLLAND, Dr. HOLDER moralises on the use and abuse of purgatives. From their wide use he draws the double inference that thorough intestinal evacuations must be beneficial in many different ailments, and that medical men should intelligently combat the enormous abuse of such medicines. The notorious laziness and inertia of the Indian, except under great motives to activity, may account for his constipation, but Dr. HOLDER attributes it partly to diminished animal food and the increased use of bread, made of bolted flour and potatoes, both cooked with grease. He thinks that calomel acts with unusual violence on Indians, though he has often had to give from three to five drops of croton oil to secure a good evacuation. Conjunctivitis is common, and is attributed largely to the smoke of the huts, to the paint applied to the skin and eyelashes by the Indians, and sometimes to the glare of the sun on the snow. Blindness is not common among the Indians, though it results, as we have seen above, from small-pox, as has too often happened in more civilised countries. In fractures, and even compound fractures, the Indian makes a fend for himself with a fracture-box filled with dung, or splints of a plastic clay. In Dr. HOLDER'S experience fractures unite readily, but trivial wounds do not heal by the first intention. Skin diseases are observed, including vitiligo, which is "not rare." Another proof of the amount of "human nature" that there is in Indians is the testimony of Dr. HOLDER and others to the frequency of hysteria among them. They suffer also from epilepsy and hysterical epilepsy; and trance epilepsy is said to be common. Insanity in an acute form is very rare. The teeth of Indians are nearly always perfect, but those of half-breeds are very inferior. Earache and otorrhœa are frequently met with. Valvular heart lesions were found with great frequency among Indian school children. The Indians have the same sense of shame and discredit in contracting venereal disease that more civilised people have, and are in the habit of attributing it to spider bites, though they admit that they never saw the spider. Though so like his fellow creature in most of his complaints, the Indian is generally considered stoical. This is probably due to his having less acute sensation of pain. In spite of this, he is fascinated with anaesthesia. Dr. HOLDER makes some interesting observations on the use of intoxicants. He says he has not the slightest evidence that they are used by any north-west tribe unless supplied by white men—another judgment that fastens on the white races the tremendous responsibility

of alcoholism among savage or barbarous people. Tobacco is not much smoked by the Indian, but smoking, "chiefly of a kind of ground laurel resembling *uva ursi*," is a social and religious ceremony of great importance and interest. The medicine man is rather divested of his medical character by Dr. HOLDER and made to appear as a sort of charmer or magician, being priest or saviour, rather than physician. Even the few that can be called native doctors depend more on the song and the drum than on drugs. They are ignorant even of herbs and are in every way a great hindrance to the success of the Government physician. Still, Dr. HOLDER wisely sees that they can only be superseded gradually and by the Government well supporting efficient men when they find them. Bloodletting is roughly practised, as also a kind of actual cautery with burnt wood. The "sweat house" is an institution in Indian life in which a sort of Turkish bath is extemporised, after which the Indian generally goes out into the snow, with which he rubs himself, and with impunity, even when the temperature is below zero. Here we see a difference which has not been so apparent in the ailments of the races. There is one disease, however, which is conspicuous by its absence in Dr. HOLDER'S Indian nosology—and that is gout.

AMONG other useful measures passed before the close of the last Parliament was that of the Coroners Act. Prior to this becoming law, which it did on June 28th, a deputy coroner could not act after the death of the coroner whose deputy he was, and every borough coroner was obliged to appoint as his deputy a barrister or solicitor. Both these anomalies have been removed by the Act of 1892. It is a short Act, containing only three clauses. The first contains eight sections, and the first section provides that every coroner, whether for a county or a borough, shall appoint by writing under his hand a fit person, approved by the chairman or mayor of the council who appointed the coroner, not being an alderman or councillor of such council, to be his deputy. This, therefore, repeals that clause of the Municipal Corporations Act which limited the appointment to solicitors or barristers, and removes a great injustice to the medical profession. It was manifestly absurd that though a borough coroner might be a medical one his deputy could not. This odious restriction did not obtain in the case of county coroners; but as the larger proportion of these are solicitors it is only natural that they should appoint members of their own profession. We have already noticed a happy exception to this in the case of the late coroner for the Wrexham division of Denbigh, the late Mr. THELWALL, who appointed as his deputy Dr. EDWARD DAVIES, now a candidate for the vacant office. The next two sections provide for necessary formalities which need not be detailed; but the fourth section is very important, since it provides that the deputy of a coroner shall, notwithstanding the coroner vacates his office by death or otherwise, continue in office until a new deputy is appointed, and shall act as the coroner while the office is so vacant in like manner as during the illness of the coroner. It is very marvellous that such a provision was not made long ago. The death of a coroner rendered it necessary for one of the coroners of the adjacent districts to perform his duties in addition to his own, to the

greatest inconvenience of all concerned. In the city of London the Town Clerk had to act. But this was not all the evil resulting from such a condition of matters. The appointment of a new coroner had to be filled up within ten days from the death of his predecessor, which led to hasty and ill-considered elections. This is changed, since the sixth section provides that "a council may postpone the appointment of a coroner to fill a vacancy, either generally or in any particular case, for a period not exceeding three months from the date at which that vacancy occurs." Thus another injustice to the medical profession, will be, it is hoped, removed, as the interval of three months will enable a medical candidate to lay his claims for the office fairly and fully before the council and the public. Too often the death of a legal coroner has been followed by one of his brother solicitors being elected to the office, for no other apparent reason than because he was a solicitor. The claims of medical candidates for the office are so incontestable that only a reasonable interval is required for their admission by the council who have to appoint. This Act is not quite so well known as it ought to be, and we hope all medical coroners will secure a copy of it. There are, we believe, fourteen medical coroners for boroughs, and we hope in due course to hear of at least an equal number of medical deputies being appointed. Possibly also some legal coroners may be as generous as the late Mr. THELWALL. They will have this justification—that an experienced medical practitioner is likely to make a better deputy coroner than a solicitor or barrister who has had no experience whatever.

## Annotations.

"No quid nimis."

### ST. LUKE'S DAY AT THE ROYAL COLLEGE OF PHYSICIANS.

THE Harveian Oration was delivered at the Royal College of Physicians on Tuesday last (Oct. 18th) by Dr. Bridges, before a distinguished auditory, and was generally pronounced to be an admirable and most appropriate address, the text of which we shall publish next week. In the evening the President and Fellows dined in the College, the guests being the Lord Bishop of Rochester, Lord Sandhurst, the Right Hon. Mr. Justice Denman, the Right Hon. H. H. Fowler, President of the Local Government Board; Admiral Sir Edward Inglesfield, K.C.B.; Sir Charles Russell, Q.C., M.P., Attorney-General; Dr. John Peile, Vice-Chancellor of the University of Cambridge; Sir James Paget, Bart., Vice-Chancellor of the University of London; the Rev. G. Salmon, D.D., Provost of Trinity College, Dublin; Mr. T. Bryant, President of the Royal College of Surgeons; Sir Joseph Lister, Bart.; Sir Hugh Owen, K.C.B.; W. E. H. Lecky, Esq.; J. Macvicar Anderson, Esq., President, Royal Institute of British Architects; the Very Rev. Francis Paget, D.D., Dean of Christ Church; Sir Albert Rollit, M.P.; Sir W. H. Flower, K.C.B.; Sir Archibald Geikie, President of the British Association; and Frederic Harrison, Esq. The toast list was very full. The President proposed "The Health of the Queen," and then gave the toast of "The Church," which was responded to by the Bishop of Rochester. Dr. Priestley proposed "Her Majesty's Government," for whom the President of the Local Government Board replied. The "Army, Navy and Reserve Forces"

was given by Dr. Broadbent and responded to by Admiral Inglefield. Dr. Dickinson, Senior Censor, proposed "Her Majesty's Judges," which was acknowledged by Mr. Justice Denman. "The Universities" was proposed by Sir Dyce Duckworth, Treasurer of the College, and acknowledged by the Provost of Trinity College, Dublin. The toast of "Literature and Art" was given by Dr. Russell Reynolds and responded to by Mr. Lecky; that of "Science" by Dr. Pye-Smith, to which Sir A. Geikie replied. "The Health of the Harveian Orator" was proposed by Dr. W. Ogle and responded to by Dr. Bridges. The company did not separate until a late hour.

#### COMBINATION OF MEDICAL MEN TO SECURE PROPER PAYMENT.

COMBINATION seems the order of the day and medical men seem to be catching the infection of it. They have been so long-suffering and patient under a tacit system of non-payment or under-payment by the public that it has come about that while everybody is paid they are left unpaid or are paid last. As we announced in our last issue, the profession in Coatbridge have determined in justice to themselves and all honest people to frame a minimum scale of charges and to issue quarterly a black list of defaulters, or of those who evade the payment of medical debts by the mean system of going from one doctor to another. It is a pity that such means should be necessary. But we are not disposed any longer to blame an honourable profession, confessedly treated very badly. A local paper, commenting on such a state of matters, traces it finally to certain members of the profession who undersell their brethren and demoralise the public. There is some truth in this, and delinquent members of the profession will only have themselves to blame if they are defined and discountenanced. Such a procedure will have no terrors for honourable men in practice, nor for the honest poor, who do what they can to meet the modest charges of their best friend, the faithful medical man, who is at their service by night or day.

#### REMARKABLE RECOVERY FROM CHLOROFORM BY SUSPENSION AND INFLATION.

A VERY remarkable recovery from apparent death from chloroform is related by Dr. Prince in the *New York Medical Record* of Sept. 17th. Chloroform was administered to a gentleman who had a cardiac bruit for the purpose of opening an abscess of the mastoid cells. Just at the beginning of the operation it was found that both respiration and the action of the heart had ceased. The order of these events was not ascertained, but it was thought that the heart was the first to cease. "No time was lost in temporising," but resort was at once had to the inverted position, the patient being suspended by the flexed knees from the shoulders of Dr. Prince, who trotted round the operation-room with his burden so long as his strength lasted. He then stood still and the assistant practised the Silvester method, the body still inverted and suspended from Dr. Prince's shoulders. There was no response. The patient was again placed on the table, to all appearance dead. No time was lost, and the patient was now suspended from the assistant's shoulders and trotted round the room for about one minute. Then Dr. Prince remembered the account of the resuscitation of an infant by blowing directly into the mouth. He stopped, knelt down, put his mouth to the patient's, and drove air from his own lungs into those of the patient. "The chest expanded, the diaphragm, with the weight of the intestines, was raised," and Dr. Prince does not doubt that the flaccid heart was emptied of its blood. After auscultation, in which no sound was heard, artificial expansion of the lungs was resumed, expirations being effected by the elasticity of the chest. This was continued for about three minutes, when

the persevering operators had the gratification of seeing the colour of the lips improve. Another interval for auscultation was allowed, but no sound of natural respiration or pulsation could be detected. Inflation was again resumed and continued for about two minutes, when the gratification was experienced of hearing the first natural effort at respiration. After a short time the operation was finished under ether. Dr. Prince adds: "This is the sixth case of suspended functions which did not respond to either the Marshall Hall or Silvester method, the first five of which recovered under suspension treatment. Without this all would have been lost. The foregoing is the only one that did not respond to the suspension method, and I am under unutterable obligation to Dr. Forest for paving the way to the direct inflation in the inverted position." Both gentlemen are to be congratulated on the result.

#### ERRORS OF DIAGNOSIS.

WE carefully abstained from accepting the accuracy of the Chairman of the Sanitary Committee of the Town Council of Leicester as to the "ignorance and intolerable carelessness" of notification work in Leicester, contenting ourselves with the remark that the charge was one for the medical men to note. We are glad to see that our remark has had the proper effect of stimulating at least one reply in the public papers where the charges appeared. We are alive to the difficulties of diagnosis, and persuaded that errors cannot always be avoided; but there is need for much consideration on the part of the sanitary authority before bringing wholesale charges of ignorance and intolerable carelessness. The following paragraph from a letter signed "Medicus" in the *Leicester Daily Post* suggests that the sanitary authority itself makes great mistakes, which should make it a little kinder in its estimate of human error: "With your permission, sir, and through your columns, I will ask the sanitary committee to answer the following questions:—(1) Whether an infant fifteen months old was sent into the Fever Hospital some three weeks ago—having been certified as suffering from scarlet fever—and was sent out in three days—back home—with an intimation that it was measles from which it was suffering? (2) Whether within fourteen days there was another case of scarlet fever in the same house from which this infant was sent? And (3) Whether, when the sanitary authority observed its error, both children were admitted—the infant readmitted, that is in a state of peeling, together with the other child to whom it had given the disease?"

#### THE QUEEN'S VISIT TO FLORENCE.

A FLORENTINE correspondent writes:—"Queen's Weather" in the 'City of Flowers' is what the residents here are promising themselves from Her Majesty's projected visit to Florence—a visit now placed in the category of 'fixtures' by the presence of the Royal courier in the city, where that emissary has been in treaty with the proprietors of several patrician villas in the suburbs, on one or other of which Her Majesty's choice is expected to fall. Four, or more nearly five, years ago—in the March of 1888—the Queen spent some weeks in the Villa Palmieri, in order, it was said, to combine with her vernal *villeggiatura* a visit to the scenes hallowed byearly associations. Nothing could have been more gratifying, from every point of view, than Her Majesty's sojourn. The Tuscans, and indeed the Italian people generally, were most favourably impressed by the deep and intelligent interest taken in their past and present by the Queen-Empress, and Her Majesty in turn lost no opportunity of signifying, in the most gracious manner possible, her appreciation of all that Florence has to show of natural, artistic and historic attractiveness. Even the weather, which for eight weeks

before the Queen's visit had been broken and inclement, became suddenly so serene and steady as to invite the visits of other royal personages to the city—i. e., the Emperor of Brazil, and King and Queen of Wurtemberg, the Queen of Servia and (in the capacity of hosts) of the King and Queen of Italy—insomuch that a local bard commemorated the 'congestion of royalties' in a distich not yet forgotten by the people:—

'Non si fa passo la gente Fiorentina  
Senza incontrar un Rè o una Regina.'

(We Florentines cannot venture abroad without encountering a King or Queen.) Another feature of Her Majesty's visit scarcely less gratifying to Florence was the increased attention to 'nettezza pubblica' (outward tidiness) on the part of the civic ædiles—a concession to the proprieties seldom vouchsafed to the Florentines or, indeed, to the citizens of any Italian town, but deemed *de rigueur* during the sojourn of a monarch whose subjects have always led the van in public cleanliness and sanitation. The initiative then taken has been more or less of a tradition ever since, and now, in the improved hygienic surveillance practised throughout Italy in terms of the recent 'Codice Sanitario,' above all in the increased attention paid to pure and abundant water-supply, Florence may pose as a 'winter city,' with a right to which she had too long neglected to entitle herself. The exact date of Her Majesty's visit has not yet been communicated to those in authority, but at whatever time it may take place I cannot be wrong in asserting that, of all similar august events, none could be more welcome to Florence or to Italy than the sojourn within the city and kingdom of a monarch so endeared to the Italian nation as the Queen-Empress Victoria."

#### THE LONDON WATER-SUPPLY.

FROM the tables contained in the report of Messrs. Crookes and Odling on the condition of the metropolitan water-supply during August it appears that the water continued to be of excellent quality, the proportions of organic matter present being, as now for some months past, extremely small. In periods of flood or after heavy rainfall these experts occasionally find in the course of their examination a sample which, when viewed in bulk, exhibits a distinct turbidity; and from some cause or other one such instance (a sample of water from the Southwark Company's mains) was met with among the 175 samples examined last month. Dr. Frankland, who examines the water on behalf of the Local Government Board, reports that the water taken chiefly from the Lea by the New River and East London companies was somewhat inferior to that sampled from the same source in July; but the water actually delivered by these companies possessed even a slightly higher degree of organic purity than the samples collected in July. The bacteriological examination of the waters as they left the filters of the various companies by Dr. Koch's process of gelatine plate culture gave the following results:—One cubic centimetre of each water collected on Aug. 25th, 23th and 27th developed the following numbers of colonies of microbes: Kent, 1; Chelsea, New River and East London, 4; Southwark—No. 1 well, 4, No. 3 well, 996; West Middlesex, 6; Grand Junction, 11; and Lambeth, 16. In reference to the high number found in No. 3 well of the Southwark company the engineer of the company wrote to Dr. Frankland as follows:—"In consequence of the construction of the new filters at Hampton it has been necessary to employ a temporary engine and pumps to lift the water from No. 3 filter into the engine wells. In all the other cases, Dr. Frankland's report goes on, the high degree of bacterial purity is very satisfactory, and during the present disturbance it should be spared to maintain this high standard. The condition of the water supplied by the Southwark company has been in question before, and only a few weeks ago we had

occasion to comment upon the results of analysis laid before the Southwark Board of Works by their analyst. Water derived from rivers into which sewage is discharged cannot be expected to approach a high degree of organic purity, but at least we may demand that it should be thoroughly and efficiently filtered before delivery. If the filtering process is suspended even for a short time results of a most serious nature may follow. The Royal Commission on Water Supply resumed their sittings on Wednesday last, when evidence on the supply which might be expected from chalk districts was chiefly given.

#### THE HEALTH OF THE POPE.

AN Italian correspondent writes:—"Whatever rumour may say to the contrary (and more than one ill-omened *canard* is already on the wing), the health of Leo XIII. continues good. True, within the last few days he has had to modify his routine and, for the remainder of the year, will not resume the open-air life he led all the summer in the gardens of the Vatican, where he hardly allowed a day to pass without an excursion to the most charming spot of that charming domain, the Villa of Pius IV., and wound up with a modest refectio in the pavilion of the Torre. All he now allows himself in the matter of out-door exercise is a short turn, weather permitting, in that portion of the gardens in the immediate vicinity of the palace; while as to the giving of audiences, he vouchsafes these only to personages accredited on special business of Church or State. Even to morning mass in his private chapel the privileged outsider is very rarely admitted, and persons of distinction who are reluctant to leave Rome without seeing him can do so only 'sul passaggio'—that is, on his way back from one of the brief turns aforementioned in the gardens. In November next, if his health maintains its present satisfactory tenor, he will resume his ordinary Thursday receptions; meanwhile his daily life for the month of October has been, and is, exactly as I have described it. Since June last he has suspended audiences on anything like a numerous scale; but the time thus gained he devoted with all the greater energy to study and business—to the work, in short, which is at once his discipline and his delight. At present he is engaged in weaving the Encyclical which is to be published on the approaching celebration of his jubilee—an anniversary which is eagerly anticipated by the faithful in all parts of the world, if one may judge from the announcements already made of intended visits to Rome for the occasion."

#### A PLEA FOR THE SIX-YEAR-OLD MOLAR.

THE question whether it is justifiable as a conservative measure to remove teeth in cases where there is overcrowding, with its tendency to destructive caries, and if so, which teeth should be selected and at what age it is most advantageous to do so, was the subject of an interesting discussion at the Manchester meeting of the British Dental Association. The first point was tacitly accepted and the chief argument arose as to the relative advantage of removing the six-year-old molars or the bicuspids. Speaking of the intrinsic value of the molar Dr. Davenport of Paris, who opened the discussion, expressed views which are briefly as follow:—"Lateral contact of the teeth is an essential factor of the normal arch, and good arches cannot be disturbed without injury. After extraction the roots of the remaining teeth move less than their crowns, and so the relations of the grinding surfaces are disturbed and much of the interlocking support of the masticatory surface is lost. When the six-year-old molars are lost a large amount of masticating surface is at once removed and a large space is left which requires much diminution in the size of the arch to obliterate, a proportion as the jaws are unsupported by the remaining teeth so do they approach each other ("shortening

of the bite" as it is commonly called), the lower incisors biting too deeply upon the upper incisors, perhaps flattening inward the lower or pushing out the upper incisors. The bicuspidis are often not well articulated even when fully erupted, and the incisors offer no positive resistance to closure of the jaws, whence it follows that the principal force falls upon the molars. The great importance of the six-year-old molar from a masticatory point of view was acknowledged by all speakers at the meeting, but the question was whether it was in a saveable or an unsaveable condition. If these teeth were badly decayed their removal was indicated; if they were sound, the bicuspidis should be sacrificed. Professor Stack is wont to compare the first molars to veterans and bicuspidis to raw recruits. One member went so far as to say that to extract a sound first molar was almost a criminal offence. On the other hand, some members gave it as their experience that the extraction of the first molars gave much better results than was the case where the bicuspidis had been removed. It was strongly urged by Mr. Rose that if the six-year-old molars were decayed at an early age they should be filled in view of a possible improvement in the general condition of the mouth, and that they should be retained at any rate until the second molar came into position. It was pointed out that the results of symmetrical extraction—that is, of all four teeth—gave much more satisfactory results than was the case if only one or two were so treated. "The best time for the extraction of the six-year-old molars," Mr. Quinby said in his summing up, "is immediately after the twelve-year molars are fully erupted, so as to be in complete occlusion; because this usually, though not always, occurs when the patient is about twelve years of age—that is, before the period of greatest danger to the teeth from decay. There are then plenty of masticators, so the loss of these will not be seriously felt. The articulating surfaces of the twelve-year molars, when they are in occlusion, give a natural support to these teeth, and assistance to prevent tipping and turning in their sockets; and what is of very considerable importance, the jaws have then gained all the growth they are likely to attain for two or three years at least, or until the wisdom teeth have become more developed." This discussion, which of course was simply intended to formulate some general rules, leaving each case to be judged on its own merits, will, it is to be hoped, do something to check the indiscriminate extraction of the six-year-old molar which was so prevalent but a few years ago, and is still too common a practice.

#### NEEDLES IN AN EPILEPTIC.

In the newly issued volume of the Clinical Society's Transactions Dr. Charlton Bastian has recorded a case in which at various times no less than eighty-six needles were removed from different parts of the left side of the body of a female epileptic. The patient was under the care of Mr. James Merryweather, and from him and Dr. Oxley Wilson Dr. Bastian had received the particulars of the case. The patient was a spinster of fifty-five who had been subject to fits from an early age and had on two different occasions been an inmate of an asylum. She is now described as fairly intelligent, with occasional fits of bad temper but no morbid appetites, and her conduct in the workhouse of which she is an inmate is described as good on the whole. The fits are frequent, usually several in a day, but no automatism has ever been observed to follow them. She usually employed herself in sewing, darning or knitting, and before needles were found in her body she often had packets of assorted needles in her possession. The needles have appeared in almost every part of the left side of the body, more especially in the leg. One has been expelled from the mouth during a fit of coughing; so far as is known none have ever passed per rectum. As has been said, eighty-

six in all have been found, and of these no less than thirty-four were removed during a period of two months. The patient does not seem to have been hemi-anæsthetic, and she complained of nothing except a little irritation when a needle was about to emerge. No abscess has even occurred, and no satisfactory explanation is forthcoming as to how the needles got there. As Dr. Bastian remarks, it is surprising that such a number of large needles could have been pushed in and should have made their way through different parts without injuring any vessels or nerves, or apparently causing much inconvenience. In a note appended to the communication reference is made to a case subsequently recorded by Dr. J. D. Craig of a woman, an inmate of an asylum, from whose body 286 needles were taken during life. Three were passed per rectum during sickness and eleven were taken from the tissues after death.

#### EPIDEMIC IN ITALIAN SWITZERLAND.

"RESIDENTS on the Swiss banks of the Lago Maggiore," writes a holiday contributor under date of the 15th inst., "have been much disquieted by the outbreak of an epidemic which, having appeared for the first time some weeks ago among the pupils of an infant school at Brissago, has lately spread to the families of the town and neighbourhood, and now includes the adults of the population. Its chief symptoms are violent emesis and intestinal dejections, accompanied by high fever, which is followed after some hours by remission and finally by complete defervescence. Hitherto no case has proved fatal, but the prostration ensuing on recovery is extreme, and time may yet develop sequelæ of a character more or less grave. At its first outbreak the water and food supplied to Brissago and its environs were suspected, and analysis of these by local experts was made with promptitude and care. The results, however, were in each case negative, and accordingly the sanitary authorities of the Canton Ticino lost no time in despatching commissioners to the seat of the outbreak, if only to minimise the alarm which had taken possession of the population. Their report will shortly be made *publici juris*, and will give the official account of the causation and course of the outbreak and contribute, I hope, to restore confidence to the inhabitants, resident or migratory, of this 'earthly Paradise.'"

#### "ASTASIA-ABASIA."

DR. PHILIP COOMBS KNAPP, of Boston, published a few months ago in the *Journal of Nervous and Mental Disease* a paper with the above heading, in which he gave an account of the various cases, forty-nine in all, which had been published under this name. The text of his paper was furnished by a case of his own, which he fully described as one of "paroxysmal trepidant abasia associated with paralysis agitans." The subject of this combination was an Irishman fifty-eight years of age, who had lived a sober and on the whole healthy life. His troubles began in 1889, when after a catarrh he began to have difficulty in walking and what he called "trembling" in the legs. He also had some pain in the shoulders, especially the left, and some cramps in the legs. His difficulty in walking occurred at the commencement of the act. Then, and when he attempted to turn, he was seized with spasm; his steps became short; there were rapid flexions and extensions of the legs on the thighs, and the thighs on the pelvis; he rose slightly on the toes, while the feet seemed to cling to the floor until the spasm became extreme and the feet appeared for a moment almost to cease to move. A tendency to fall forward was then evident, but he not unfrequently recovered himself and proceeded with a natural gait. His difficulty was increased under excitement, but he had no emotional disturbance. He was directed to practise the "balance step" of military drill with the idea apparently of distracting the attention, and this was

for a time successful in arresting the spasm. He relapsed, however, and when seen some months later the spasm was unchanged in character, but now distinct retropulsion was present and the case bore a very striking resemblance to one of paralysis agitans without shaking. Dr. Knapp evidently regards the case as one of abasia in paralysis agitans. We have frequently protested against the multiplication of names, which are perhaps to a certain extent descriptive, but which bring us no nearer to a true scientific classification. The cases which have been designated by the name "astasia abasia" are for all ordinary purposes cases of so-called functional paraplegia, and we have as yet failed to find any necessity for the introduction of a new name. The old one is perhaps vague and unsatisfactory, but the new one is no better and, we venture to think, unnecessary. As regards Dr. Knapp's case itself, the association of the symptom "abasia" with apparently paralysis agitans is interesting. So far as we can judge, it seems to be an intensification of the disturbance of locomotion which is present in that disease.

#### "A HOME FOR THE DYING."

WE have received from Dr. A. T. Schofield the copy of a circular letter with regard to the above Home. We refer to it the more willingly as we are convinced that there is a manifest need of an asylum which may be resorted to by those sufferers who have passed beyond the hope of effective hospital treatment. Briefly, the history of this movement appears to be as follows: Seven years ago a Scotch lady came to London with the need of this particular class so impressed upon her that she opened, and has maintained with the help of a few private friends, ten beds exclusively for dying people, whom she has tended until the end. So numerous and pressing, however, were the applications for admission to this private home that this lady and her friends felt that the time had come for the establishment of a more permanent refuge for cases of this kind. For this purpose steps have been taken to secure, as a "Home for the Dying," a capacious mansion, together with some two acres of ground, situated in the Upper Avenue-road, St. John's Wood. The institution, named "Friedenheim," will be opened on Nov. 7th next by the Duchess of Teck, accompanied by the Princess May. As we have said, there is much need of a home for cases which are for the most part ineligible for temporary hospital relief. The resources of our medical charities are even now strained to the uttermost, and any addition thereto in the shape of an adjuvant such as that above referred to cannot but be welcome to the benevolent public of London.

#### PRESENTATION TO DR. DICKSON.

THE *Civilian* of Oct. 1st contains the report of a very interesting event—the presentation of a service of plate to Dr. Walter Dickson, on his retirement from the position of medical inspector of the Customs establishment in the London district. The meeting was large, consisting of officers of the out-door department of the Customs. It was held at the Customs House, Thames-street, and presided over by Mr. C. H. Barton, Surveyor-General. The present consisted of a silver coffee pot, teapot, sugar basin and two goblets, which were enclosed in a substantial oak case. Some 540 officers of the out-door department subscribed. The testimony of all the speakers to Dr. Dickson's efficient and kindly service of thirty years and of the esteem in which he was held by the families of the men was very thorough and hearty. This is not the time—may that time be long deferred—to write a notice of Dr. Dickson's character and work, extending over fifty years. Roughly and shortly speaking, his active life divides itself into two main periods—twenty years in the Royal Navy, with manifold

naval experiences in the Baltic, in the Indian mutiny, in China, and thirty years as a medical inspector of the Customs. He has been in many ways a chief promoter of naval medicine and hygiene. Those who know him best will best understand the honours and the regret which mark his retirement from the Customs' service, in which he is succeeded by his son, Dr. T. H. Dickson. Such events are among the pleasantest and the fittest which medical historians have to record. Dr. Dickson's retirement by seniority has been the subject of a very respectful intimation of regret from the Board of Customs through their secretary, Mr. R. J. Prowse.

#### THE PUBLIC HEALTH (LONDON) ACT.

WE gather from the accounts of proceedings under the Public Health (London) Act that sanitary authorities are being encouraged to enforce its provisions to a greater extent than those of the Acts which preceded it. Last week the owners of two houses in Hackney were proceeded against for neglect to carry out an order made by the magistrate, who had himself visited the premises. It is stated that he found them in very bad condition, rooms which were entirely underground were inhabited and used for sleeping purposes, and the waterclosets were faulty. Mr. Rose, before whom the case came on the second hearing, imposed in respect of one house a penalty of five shillings a day from Aug. 12th to Oct. 13th, and a like penalty in the case of the other house, from Sept. 8th to Oct. 6th, the penalties and costs amounting in all to £23 6s. The imposition of these fines will have a salutary influence upon others than the persons immediately concerned. If the owners of insanitary houses learn that neglect to comply with orders for their improvement will be followed by monetary loss which is not merely nominal, the work of sanitary authorities will become much easier, and there will be a general improvement in the condition of tenement property in London. The existence of a large staff of sanitary officials is rendered necessary by the neglect of such persons as the owner of the houses referred to, and this entails a considerable cost upon the ratepayers. The infliction of heavy penalties is the only method of saving the ratepayers expense.

#### PROSECUTION FOR EXPOSURE OF INFECTION.

A CONVICTION, including fine and costs amounting to £2 8s. 6d., was obtained in Worcester last week under Section 126 of the Public Health Act, 1875. The case was one in which a child in the desquamating stage of scarlet fever was allowed to run about in the bar of a public-house. Some conflict of evidence arose as to the precise injunctions of the medical attendant in so far as safety might be ensured by the use of oil for greasing the skin; but whatever the view held as to this, it was clear that no permission was even implied that should have admitted a desquamating child into a public bar. Dr. Mabyn Read gave evidence as to the notification of the disease and as to the child being allowed by its mother to expose itself while in an infectious state. There are few places where risk of infection is greater than in public-houses, and hence we trust the results of this prosecution will serve as a salutary lesson. But another point deserves notice. Hitherto it has been difficult to obtain convictions under the section in question, because the Act requires proof of "wilful" exposure. The Notification Act seems to have stepped in to supply much of the wanting link. Where an infectious disease is notified the parent can rarely plead ignorance as to its nature, and since notification of scarlet fever is almost always, as it was in this case, followed by a visit of the sanitary officials who leave printed advice as to the precautions which it is necessary to take in order to avoid the spread of infection it becomes practically impossible for parents, or other persons in charge, to plead that they

acted in ignorance of the results that might be brought about. Hence, probably, in this case the unsuccessful effort of the parent to shelter herself by the plea that she understood much more than seems to have been sanctioned by the practitioner who had been in attendance upon the child. In the future successful action under the section may largely depend upon the due following up of notification returns by the delivery of printed precautions at infected houses.

#### THE CAPE MEDICAL ACT.

THE dissatisfaction with several provisions of the Act, notably those affecting registered practitioners practising midwifery, has found further expression in a petition to the House of Assembly from about forty medical men practising in Cape Town and the neighbourhood. They find that the clauses in question tend to deter qualified persons from obstetric practice. No greater unkindness and injury can be done to lying-in women. They also complain of the clause preventing the sale of medicines by medical men unless they are also registered as chemists. Another great evil is the wholesale sale, without lot or licence, of patent medicines, made up by irresponsible persons and sold indiscriminately to the public.

#### "PSYCHO-THERAPEUTICS."

WE published in THE LANCET of Aug. 20th, 1892, an article entitled "Psycho-Therapeutics: a Scientific Fragment, by Wm. Dale, M.D. Lond." It has been brought to our notice that a large number of the quotations contained in the paper are the same as those given in the well-known work by Dr. Hack Tuke, entitled "The Influence of the Mind upon the Body." Seeing that Dr. Tuke's name did not once appear in the article, we have directed Dr. Dale's attention to these circumstances and he has forwarded us the following letter of explanation, which, in justice to Dr. Tuke, we reproduce.

Bishopsteignton, Oct. 8th, 1892.

DEAR SIRS,—It is six or seven years, as well as I can remember, since I gathered together the contents of the paper on Psycho-Therapeutics, and I have no record of the places and people from whom they came. Yet I remember we had Dr. Hack Tuke's work in the library of the hospital, where I was physician at the time, and that I made extracts from that work. The article Psycho-therapeutics, let me add, has no pretence to originality; but I sincerely regret that in it I was not able to give as quotations the matter that was not my own, on the ground I have already stated. I have never seen Dr. Tuke's book from that day to this. I hope this explanation will be satisfactory; at least, I have no other to give. I remain, dear Sirs, yours faithfully,

WM. DALE.

P.S.—I think you will see that under the circumstances I was not guilty of any intended plagiarism.

#### REMOVAL OF THE GASSERIAN GANGLION.

ON Saturday, the 15th inst., at King's College Hospital, Mr. Rose operated on a case of inveterate trigeminal tic in a woman aged fifty-six. Inasmuch as both the second and third divisions of the nerve were involved, it was decided after consultation with Dr. Ferrier to attack directly the Gasserian ganglion. This was accordingly done on the same lines as detailed in Mr. Rose's recently published work on the subject ("The Surgery of Trigeminal Neuralgia"). The base of the skull was trephined a little anterior and external to the foramen ovale, and the intervening bridge of bone removed. The dura mater was not damaged by the trephine in this case, but the operation was somewhat protracted on account of severe hæmorrhage from the internal maxillary vein. The third division was traced up into the ganglion and excised and the second division isolated and divided, the ophthalmic trunk being left intact. No attempt was made to remove the whole of the ganglion,

but it was freely divided by the cutting hook as high as possible and broken up with a small curette. The patient has made satisfactory progress since the operation; she is perfectly free from pain and, as far as can be ascertained without disturbing the eye-pad, there is total anæsthesia of the right side of the face, nostril and tongue. The temperature has been practically normal, and the patient expresses herself as very comfortable. There has been a considerable discharge of cerebro-spinal fluid, probably from wound of the dural sheath surrounding the ganglion. This is the seventh patient on whom Mr. Rose has operated. The sixth case proved fatal from septic meningitis, possibly due to contamination through a damaged Eustachian tube. It occurred in a feeble old woman of sixty-eight, who had suffered intensely for many years. In the other five cases there has been no recurrence of the neuralgia, except in one neurotic individual, where the pain, however, has not been severe. The first operation was performed in April, 1890, so that this patient has had immunity from pain for two years and a half.

#### SMALL-POX PREVALENCE.

SMALL-POX still prevails largely at Warrington, some thirty cases a week being notified. The disease smoulders in some of the badly protected Yorkshire towns, as Dewsbury and Halifax, and there has been a distinct appearance in Manchester. The metropolis does not appear to be suffering at all severely, only a few cases being reported per week. All these several facts are, however, not reassuring with regard to the prospects of a general epidemic extension of the disease at a later period. The type of the disease at Warrington appears to be severe and fatal. Already eleven deaths have occurred in the hospital, and hæmorrhagic cases are beginning to occur amongst the 112 who are now isolated there. Small-pox has also appeared in the village of Woodhouse, near Sheffield, and the cases have been sent to the Lodge Moor Hospital.

#### NERVE ENDINGS IN THE INTESTINE AND KIDNEY.

In the *Bulletin of the Johns Hopkins Hospital*, No. 23, a paper is published by Mr. Henry J. Berkley a *résumé* of which appears in a recent number of the *Neurologisches Centralblatt*. His experiments were carried out on dogs and mice, and he found that in the outer layers of the muscularis mucosæ of the small intestine of the mouse a well-developed plexus of fine and coarse fibres exists which in general run parallel to the muscular fibres. Immediately under the muscle in the mucosa are more or less regular bundles of two or three fibres which are arranged around the bloodvessels. Some of these run to the free surface of the gut or of the villi. In the cortex of the kidney generally are numerous nerve fibres. The larger branches run between the tubules, the smaller anastomose in all directions with each other.

#### LIGATURE OF THE VERTEBRAL AND CAROTID ARTERIES IN EPILEPSY.

THE operation of ligaturing the two vertebra arteries, with an interval between the operations, for epilepsy not having given satisfactory results, and having been abandoned both by English and continental surgeons, Dr. Chalot of Toulouse has proposed, and indeed carried out in a few instances, some modifications. First of all he ligatured the vertebral arteries of the two sides at one operation, and subsequently he constricted the common carotid artery, so as to lessen its lumen by about one half, at the same time and with the same incision as he used for the vertebral artery. When this was done an interval of a week or a fortnight was allowed to elapse before the corresponding operation was performed on the other side.

He is not as yet able to speak positively as to the effect on the epilepsy, but there seem to be indications that some improvement has occurred.

#### THE NEW RAG ORDER.

ON account of an increase in the importation of Danish rags and of the continued prevalence of cholera in Northern and Central Europe, which might lead to the shipment of infected rags through Danish ports, the Local Government Board have drawn up another rag order in the usual terms applicable to the circumstances of the case. This takes effect on and after Oct. 26th, and applies to rags, bedding and clothing delivered from Denmark.

#### THE COST OF A SMALL-POX EPIDEMIC.

A CAPITAL object lesson has lately been presented to local authorities who are recalcitrant in carrying out the Acts which provide for the efficient protection by means of vaccination of the populations entrusted to their charge. It has been authoritatively stated that the cost of the recent small-pox epidemic at Brighouse, Rastrick and Clifton in Yorkshire amounted to between seven and eight thousand pounds; and a general district rate of 1s. 4d. in the pound has had to be levied to meet the largest item in this amount—viz., the charges of the hospital administration. Much, if not all, of this could have been avoided if vaccination of infants, followed by revaccination of adults, had been carried out as it should have been. Altogether, 231 cases of small-pox occurred in the district, costing the inhabitants on an average over £30 per case. This figure is in striking antithesis to the few shillings that it costs the ratepayers for public vaccination, both primary and secondary. Perhaps this financial aspect of the question will appeal to those whom a broader public-health standpoint would not affect.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Berlin.*—Professor Hirschberg, the Ophthalmologist, being abroad, is not likely to resume his lectures this session.

*Naples.*—Dr. G. Melle has been recognised as *Privat-docent* in Dermatology and Syphilis.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Antonio Garcia Cabrera, Professor of Anatomy in the University of Granada.—Dr. Isidore Henriette, Professor of the Diseases of Children in the University of Brussels.

THE Società Italiana di Laringologia, Otologia e Rinologia will hold its annual meeting in the Aula Magna of the Roman University on Wednesday, Oct. 26th, at 10 A.M. After the opening address of Professor Vittorio Grazi, the President, a paper will be read by Dr. Alessandro Trifiletti on "The Importance of Laryngology, Rhinology and Otology to the General Practitioner." After business preliminaries, including the constitution of the Sections, the agenda will be proceeded with, and a number of "Relazioni" (reports) assigned at last year's meeting to various experts for the investigation and discussion of debatable or obscure points in laryngology, rhinology and otology will be read and considered.

"PHTHISIS in relation to Life Assurance" will form the basis of a special discussion at the Hunterian Society on the 26th inst., at 8.30 P.M. The subject will be introduced by a paper by Dr. Glover Lyon, and Drs. Pye-Smith, J. E. Pollock, E. Symes Thompson, Sedgwick Saunders and others will take part in the debate.

WE understand that a few appointments to the Indian Nursing Service will very shortly be made by the Secretary of State for India. This service, which was founded on a small scale in 1888, mainly on the lines of the Army Nursing Service, has since been gradually extended to nearly all the larger military stations in India, where it ministers to the needs of the sick British soldier. Candidates must have at least three years' previous training in a general hospital, preference being given to those trained at the larger metropolitan and provincial hospitals, where naturally the widest experience is gained in medical and surgical cases.

THE Royal Commission appointed to inquire into the granting of a Charter for the formation of a Teaching University in London and to modify in any way the Gresham Charter so that it may be best adapted thereto has resumed its sittings. Witnesses on behalf of the Working Men's College, the Birkbeck Institution and the London Society for the Extension of University Teaching have been heard. It would appear that the Commission has completed, at any rate for the present, the examination of the medical witnesses.

THE autumnal general meeting of the Irish Medical Schools' and Graduates' Association will be held at 11, Chandos-street, Cavendish-square, London, W., on Wednesday, Nov. 2nd, 1892, at 6 P.M. On the same evening the Association will dine at the Holborn Restaurant at 7 P.M. Mr. James N. Dick, C.B. (Director-General Medical Department, R.N.), President, will be in the chair.

AT the meeting of the General Council of the Royal British Nurses' Association, to be held at 20, Hanover-square to-day (Friday), at 5 P.M., H.R.H. Princess Christian will preside.

A NEW Italian medical fortnightly has just appeared under the title of *Gazzetta Medica di Pavia*. It is brought out under the auspices of the Pavia Medical Society.

THE death is announced of Dr. Conway Evans, medical officer of health for the Strand district.

## CHOLERA.

#### CURRENT NOTES, COMMENTS AND CRITICISM.

THE report for the week as to the progress of cholera is, on the whole, satisfactory. The statistics for the eighth week of the epidemic at Hamburg, which ended on the 15th inst., were 82 attacked, with 24 deaths, against 173 and 46 respectively during the preceding week, bringing up the total registrations to 17,962 cases, of which 7598 ended fatally. The new cases for the 18th inst. were 11 and 1 death. The patients in hospital had declined to 575. The rapid spread of the disease at Hamburg, once it had really obtained a foothold there, is a noteworthy feature. Up to Aug. 20th the cases seem to have been comparatively few, but by Aug. 27th the attacks had risen to 1000 a day. All the arrangements were dislocated for the moment, and it was only after a period of perplexity and confusion and by strenuous efforts that the local authorities were able to cope with the evil in the way they did.

As regards Holland we learn that there have been 35 fresh cases in the whole country during the past seven days, 9 of which occurred at Utrecht. One case of Asiatic cholera and 1 death from cholera nostras occurred on the 18th at Rotterdam, and 1 fresh case and 2 deaths from Asiatic cholera at Utrecht, while 6 additional cases are reported from various other towns. At Budapest there were 17 cases and 11 deaths recorded on the 18th; at Cracow a few cases;

at Antwerp the authorities have decided to discontinue the daily issue of bulletins, as cholera had disappeared from that city; at Berlin the hospital in Moabit at present contains no case of Asiatic cholera, and as none have appeared for some time past it is intended that the hospital shall shortly revert to its original character as a general infirmary; at St. Petersburg fresh cases continue to appear, notwithstanding the marked decline which has taken place; and as regards Paris and its suburbs, there are some deaths reported from cholera and but few fresh cases. The epidemic at Marseilles, which was of a limited character, appears to be subsiding. There are still numerous cases at Marseilles spread over various parts of the town. This outbreak was attributable, according to Dr. Brouardel, to the contamination of water with sewage. *The Times* correspondent at Brussels informs us that the director of the sanitary service has laid a report before the Superior Council of Health, from which we glean the following information. Between July 21st and October 1st 1135 cases have been reported to the authorities, of which 564 proved fatal. In the port of Antwerp there were 244 cases and 89 deaths. With the exception of Antwerp the places where the visitation has been most marked are those which communicate with the metropolis by water. The provinces of Liège, Limbourg, Luxembourg, and Namur, possessing the purest drinking water, have been very slightly attacked. In view of the slight gravity of the cholera outbreak in Belgium the Government suspended on the 1st inst. the medical control established on the frontiers. The report of the director of the sanitary service shows the futility of these restrictive measures, which are more vexatious than effective. A sounder legislation and the diffusion of a better understanding of the simpler rules of hygiene are, it is stated, surer safeguards against the evil.

We wish, as we have said already, that we were in a position to assure our readers that this decrease and apparently gradual cessation of the epidemic at the present time was a guarantee of immunity in the future; but of that we cannot be at all sure, if we are to follow the lesson taught us by epidemics of cholera in the past. From the accounts that are coming in we are beginning to realise the nature and extent of the scourge which the present epidemic has proved. In Teheran, where the disease began on Aug 4th with a mortality of 14, it rapidly increased, and according to the latest accounts had only recently disappeared. The total mortality amongst the natives is estimated at over 20,000, and out of a very small European colony 21 died. At the outbreak of the malady about 30,000 people fled from the city, but a considerable number died of the disease, which they had already contracted at Teheran. There was, speaking generally, an absence of doctors, nurses, hospitals and all sanitary supervision. At the meeting of the Hygiene Council on the 17th inst. M. Monod submitted statistics showing that the cholera victims in France from April 14th to Oct. 15th numbered 3184. These deaths took place in 212 parishes. In April there were 65, in May 28, in June 107, in July 466, in August 841, in September 1411, and in October 266. In 1884-85 there were 11,685 deaths in 639 parishes. Havre now shows a clean bill of health. It would be very interesting to ascertain the exact results of the bacteriological observations of the cholera that has prevailed so long in and about Paris, more especially of those made during the earlier period of its prevalence. We do not at all desire to decry the systems adopted by other nations and extol our own methods, but we imagine that as far as New York is concerned the unnecessary hardship and evils attending their late wretched experience at that port have been fully recognised and are not likely to be repeated by such an intelligent, clear-headed and practical people as the Americans. We cannot be surprised at the appeals, expostulations and representations that came from the unfortunate passengers arriving by various steamships at New York. It surely cannot be justifiable to adopt a method of detention of ships which compels the healthy to remain in contact with the sick. Apart altogether from all questions of infection, it is obviously cruel to subject innocent and healthy people to the fear of it and under circumstances such as so frequently obtain on shipboard—viz., overcrowding, discomfort of all kinds and probably insufficient or improper food. That strikes us as the best conceivable way of increasing and developing the spread of the disease; whereas a strictly sanitary detention of a ship, the separation and segregation of the sick in hospitals on shore and the dispersion of the remainder, due and proper precautions being of course taken in regard to

them, seems to be the only really practicable course that can be adopted. It is the best and most merciful procedure as regards the sick themselves; it is the only workable one as regards the healthy, and it affords a safeguard as to the future in that it enables the authorities to warn those directly concerned at the localities whither they are going. It has so far worked admirably on the present occasion. Until we have arrived at the end of this epidemic and are looking back at it as a thing of the past it is not becoming to boast, but it may be truthfully said that the arrangements in this country have proved sufficient for the purpose. And, after all, where is there any country that has such direct and constant communication with other countries and with India, the alleged home of cholera, as England? The Red Sea route to India was opened in 1842 and the Suez Canal completed in 1869. Eighty per cent. of the shipping that comes through the Suez Canal is British. Our intercourse with the East is constant, and our commerce extends to every country in the world, and we should consequently be more exposed to the introduction of the disease than any other country. But Great Britain has indisputably not suffered more than her neighbours from epidemic cholera. She has, on the contrary, for very many years past had an almost complete immunity from it. There have been between twenty and thirty instances in which cholera has been introduced into this country, and at the moment of writing it is reported that the medical officer of the port of London, Dr. Collingridge, had removed a case of cholera from the steamship *Biafra* to hospital and detained another steamer, the *Libby*, which had landed a case at Cuxhaven, for fumigation. A vessel had arrived at Belfast Lough from Ibrail, on which a death, believed to have been from cholera, had taken place. It is but right to recognise our indebtedness to the health department for its foresight and administrative capacity and to the port sanitary officers for the vigilant supervision they have exercised and the prompt action they have taken.

By way of conclusion we desire to call attention to the graphic chart prepared for the use of the French Government, representing the daily cholera mortality per million at Paris, Rouen, Havre and Hamburg respectively during the months of August and September and for a portion of the present month. The chart graphically indicates the way in which the disease comported itself and the relation between its rise and fall at these different places. The continuous low-level rate of prevalence of cholera at Paris and its suburbs is in striking contrast to the rapid, almost vertical, rise of the Hamburg outbreak, with its irregular and oblique line indicating its fall. It is also a noteworthy feature in the chart that it shows similar fluctuations of prevalence of the disease at places widely apart, as if in obedience to some common influence.

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### VISIT TO HAVRE.

CHOLERA DIAGRAMS.—THE EARLIEST CASES AT HAVRE.—LATE YET EFFICACIOUS MEASURES.

THOUGH England has so far escaped from the cholera epidemic which prevails extensively in Asia and in Europe, this immunity should not make us unmindful of the very great dangers with which we are still beset. Perhaps it is not fully realised that all the nearest ports, and the ports with which we are in almost daily communication, are, without exception, more or less contaminated with cholera. From Hamburg, on the North Sea, through the Straits of Dover, all down the Channel to Cherbourg there has been cholera in and about every harbour. In some ports the epidemic was severe, in others there were but a few cases; but whether slight or severe, cholera has travelled along the whole coast line. There has been cholera at Rotterdam. I have described the cholera at Antwerp. The epidemic still continues there, and many other small towns in the neighbourhood are infected. Here at Havre I find that ships from Dunkirk are put in quarantine. Near Boulogne, at Portel, 31 deaths from cholera occurred in a few days out of a population of 5327 inhabitants. Some 400 inhabitants of Portel go to Boulogne every day. At Tréport in two or three days 12 persons died from cholera out of a population of 4569, and at Dieppe up to Oct. 4th 40

persons had died from cholera out of a population of 22,700. At Honfleur, whence so much poultry and dairy produce generally is exported to England, there have been cases of cholera, and at Cherbourg cholera so far prevails that the ships arriving here from that port are not allowed free access. Havre, like Antwerp, though itself infected with cholera, imposes quarantine and restrictive measures on ships arriving from other ports where there have been a few cases of cholera. The fact that in some of the ports mentioned there have been barely half a dozen cases does not suffice to remove all anxiety. If the sanitary condition of these ports were thoroughly satisfactory, there would be little cause for alarm. Unfortunately this is not the case; and when once the germs of cholera have been introduced in an insanitary locality it is impossible to say when and with what intensity the epidemic may revive.

At the Ministry of the Interior at Paris I had an opportunity of seeing a map of France. Pins pierced every town and village where cases of cholera had occurred. The result was a perfect forest of pins, stretching from Paris in a north-westerly direction towards the sea and forming thick clusters on both banks of the Seine. It was not till I had examined this map that I realised the widespread nature of the epidemic. It was gratifying to see by the side of this map of France a map of England and Scotland. Twenty-five pins, indicating twenty-five imported cases of cholera, were affixed in thirteen different places. There were six pins in London and the port of London, five at Grimsby, one at Middlesbrough, one at North Shields, one at Tynemouth, one at Blyth, three at Falmouth, four at Liverpool, one at Grangemouth and three at Glasgow. M. Henri Monod, Director of the Poor Relief and Public Hygiene Department at the Ministry of the Interior, explained to me that he had this map prepared to show the members of the French Government and the Consultative Committee of Hygiene for France how England had succeeded in preventing the spread of imported cholera, and to impress on all concerned the necessity of reporting the first cases, for if this were done promptly the danger could at once be stamped out. M. Monod, in his official report to the French Government, speaking of this cholera map of England, says: "Thus in England and Scotland 25 cases of cholera arrived in various ports; 9 patients died, 16 recovered, and not a single inhabitant was contaminated. It is difficult to attribute this result to the climate of England, for in 1832 and 1849, and on several other occasions, the cholera had many victims. We must render all honour to the progress accomplished in public hygiene, and it is certainly not at this moment that England will regret the expense incurred to accomplish sanitary reforms, and to organise in so powerful a manner her sanitary services."

Gratifying as this language must be to all who in England have at heart the cause of sanitary reform it must not blind us to the dangers we still incur. The germs of cholera are scattered along the whole coast line facing England and trading with England, and though great sanitary works have been accomplished in England there still remain dark spots where the cholera could spread as readily as on the Continent.

M. Monod further showed me a very interesting chart, which gives the actual daily number of deaths from cholera occurring in Paris, Rouen, Havre and Hamburg. The lines crossing the chart, which is reproduced on the opposite page, give the absolute number of deaths for each day. The figures to the left show for each day the proportion of deaths per million of the population. Thus we are able to see, simultaneously and at a glance, not only the fluctuations of the four epidemics, but the mathematic demonstration of their proportionate intensity. The difficulty in preparing this chart has been to include the city of Paris, for there the number of deaths, in proportion to the population, is very small. For this purpose it has been necessary to make the proportion per million of the population. I was allowed to have a copy made of this interesting chart, which was courteously placed at the disposal of the Editors of THE LANCET by the Director of the Sanitary Administration of France, M. Henri Monod.

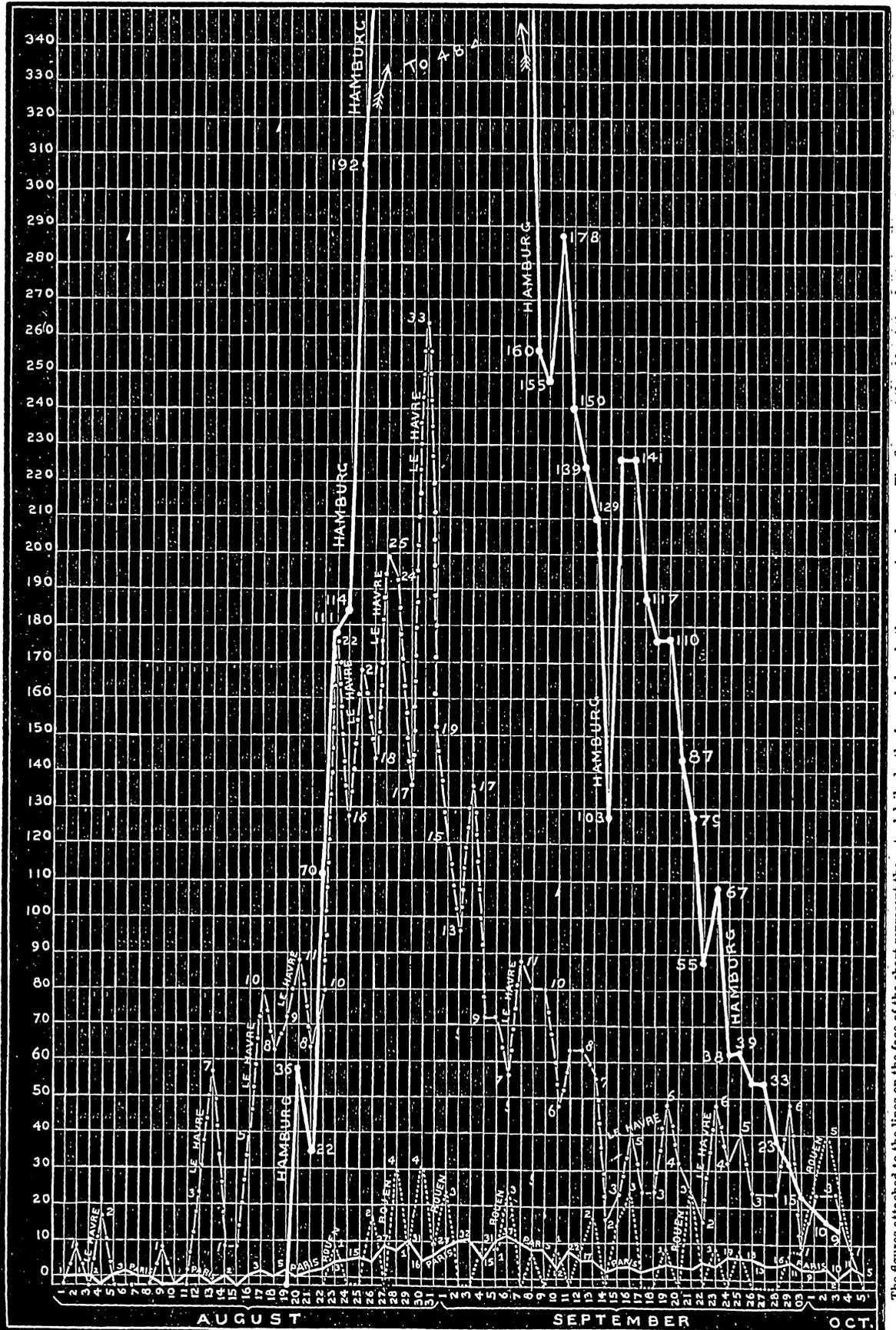
Seeing how high is the proportion of deaths at Havre it seemed most necessary to study on the spot the probable causes of so unfortunate a state. But here as elsewhere there are two causes—the actual cause and the predisposing cause. It seems now clearly established that the infection came by land from Paris and reached Havre before Rouen was attacked. The fatal tendency to deny the existence of cholera is the cause of its epidemic prevalence at Havre.

The first case—not the first death—occurred on July 5th. Dr. Courbet was called to attend a woman sixty-five years old, who lived at the extreme east of the town near the *Barrière d'Or*. This person had been staying at Courbevoie, and had left because there were several cases of cholera in the immediate neighbourhood. Shortly after her return to Havre from Paris, and after having suffered from slight diarrhoea for a few days, she commenced to vomit and felt very feeble. Dr. Courbet found her very anxious, with drawn features, the nose pinched, the extremities cold and the voice much enfeebled. Under treatment the patient soon recovered, but remained very feeble for a considerable time. The house was clean and no other case occurred on the premises. On July 13th another and more marked case was seen in the *Cours de la République*, a broad thoroughfare also to the east but somewhat nearer to the centre of the town. Again, the patient was an elderly woman aged sixty. There was no premonitory diarrhoea. Dr. Courbet, who also attended this patient, states that "in the night violent diarrhoea suddenly set in; incessant vomiting, choleric dejections, terrible cramps, broken voice, anuria, cold extremities, blue colouring of the nails, thready and rapid pulse." The reaction was satisfactorily brought about, but the convalescence was long and painful. There is no reason to believe that this person had travelled. On the next day (July 14th) a workman was taken ill in the *Rue du Château-Graville*. The symptoms were complete, but he also recovered. It was on July 15th that the first death was recorded, the victim being a sailor who lived in the *Rue des Drapiers*. This street is situated behind the *Grand Quai* in a part of the old town which became one of the principal centres of the epidemic. The sailor had been two months at Havre, so he cannot be supposed to have contracted the disease abroad. He died after a few hours' illness, and Dr. Lebreton, who attended him, did not hesitate to consider this as a true case of cholera. The woman with whom this man lodged also died from cholera, but somewhat later. The next death did not take place till July 23rd; the case occurred in the *Rue Viviers*. The third death was that of a rag sorter, and happened on Aug. 3rd. The deaths now became more frequent, yet no official notice was taken of the epidemic. It is important to note the early date of the first cases and the first deaths, then that these cases were scattered in different parts of the town, and there seemed in the earlier stages to be no focus of disease. The first case mentioned was at the extreme east of Havre; at the *Port d'Or*. Early in the epidemic three cases and one death occurred in the *Rue Frère Constant*, at the extreme west of the town. Then there were cases in the centre—in fact, all over Havre; but, on the other hand, when once the epidemic was developed cases occurred in well-defined clusters, proving most conclusively that particular parts of the town were especially susceptible. The reason of such susceptibility I will subsequently attempt to explain.

There are no medical officers of health in France, but there are doctors for epidemics—*médecins des épidémies*—who, on receiving instructions from the Government, have to report and advise upon epidemics. No salary is attached to this post, but travelling expenses may be claimed, as also some compensation for loss of time. The doctor has, however, himself to estimate the value of his time and send in an account, which must be examined and approved by the Prefect of the Police, with the result that an undignified wrangle sometimes occurs between the doctor and the prefect as to the various items. Under such circumstances it is not surprising if some doctors prefer doing the work gratuitously, and it is still less surprising if the work is at times neglected or accomplished in a very hasty and unsatisfactory manner. There is one *médecin des épidémies* for every *arrondissement*. The department of the Seine Inférieure is subdivided into six *arrondissements*, and the *arrondissement* of Havre comprises twelve cantons, involving a distance from one canton to the others of twenty miles and more.

On July 5th, when the first suspicious case was noted, the *médecins des épidémies* should have been informed of it then and there. At Havre the result would have been most beneficial, for this town has the good fortune of possessing as its "doctor for epidemics" one of the most eminent and best-known sanitary reformers of France, Dr. Gibert. For twenty years Dr. Gibert has insisted on the insanitary condition of the town, and it is due to his energetic and eloquent pleading that Havre was the first town in France to institute a *Bureau d'Hygiène*. It will scarcely be credited that more than a month elapsed before Dr. Gibert was informed that there was cholera at Havre. On Aug. 10th he heard from some of his colleagues

CHART REPRESENTING THE PROGRESS AND PROPORTIONATE INTENSITY OF CHOLERA AT PARIS, ROUEN, HAVRE AND HAMBURG DURING THE MONTHS OF AUGUST AND SEPTEMBER AND FOR A PORTION OF OCTOBER. (Vide p. 956.)



The figures attached to the lines on the face of the chart represent the actual daily deaths from cholera in the respective places. The figures at the side of the chart represent the death rate per 1,000,000 of the population in these towns.

what had happened, and at once hastened to the hospital to ascertain what was the true nature of the malady. Convinced by thus seeing the patients of the gravity of the situation, he hastened to send an energetic communication to the Minister of the Interior. It will be remembered that it was on Aug. 14th that the *St. Paul* left Havre with a clean bill of health and brought cholera to the port of Antwerp. The first cases of cholera, it seems now clearly established, occurred at Havre before any cases of cholera were noted either at St. Petersburg or Hamburg. There is also good reason to believe that the cholera was brought from Paris to Havre towards the end of June and the beginning of July. As at that time in Paris every effort was made to deny and to disguise the true nature of the epidemic it is not surprising that it spread broadcast, infecting numerous towns and villages not merely in France, but across the frontier, in Belgium. In spite of these facts and these dates some attempts have been made to infer that the cholera was imported from Hamburg to Havre. Certainly the *Isyria* from Hamburg brought some cases of cholera to Havre, but this ship only arrived on August 23, and, as Dr. Gibert remarked in his paper read before the Academy of Medicine, there had been at that date already seventy-one deaths from cholera at Havre. The proportion of deaths was also such as to denote that the epidemic was of the most virulent character. To those who spoke of choleraform diarrhoea and home cholera, and used other attenuated terms, Dr. Gibert opposed the appalling fact that out of the first fifty cases removed to the hospitals no less than 48 had died. To those who argued that it was not real cholera because the disease did not spread rapidly—and this was a very general argument, especially in Paris—the reply could be given that at the Western Hospital of Havre twelve internal cases had followed upon the reception of cholera patients. Though this showed that the disease could spread a proof was soon forthcoming that with good sanitation the disease did not spread. Orders were given that no more cholera patients were to be received at the Western Hospital; henceforth they were all taken to the Eastern Hospital, which is built on the Tollet system, and consists of isolated pavilions in the shape of the gothic arch, devoid of angles, well ventilated, and surrounded on all sides with light and air. Not a single internal case has occurred in the Tollet hospital, though more than a thousand cases of cholera have been treated there. On the other hand, at the Western Hospital, which is a block building several storeys high, there were but fifty-seven cholera patients and yet this sufficed to produce twelve cases of cholera contracted within the walls of the hospital.

In the town, as in the hospitals, good sanitation has held the epidemic in check. Acquainted with the existence of the epidemic on Aug. 10th only, it was on Aug. 16th that, as "doctor for epidemics," Dr. Gibert was able to propose a plan of defence to M. Louis Brindeau, Mayor of Havre, and M. Lardin de Musset, sub-prefect. This plan was approved. On Aug. 18th the medical practitioners of Havre were gathered together at the Town Hall, the method of procedure explained; and twenty-four doctors then and there placed themselves at the service of the administration, and on Aug. 19th the new system was inaugurated; but what precious time had been lost since July 5th! Dr. Gibert estimates that the methods of disinfection and isolation were not satisfactorily applied before Aug. 26th. On the following day seventy-two cases of cholera were notified. This was the maximum for any one day. On the 30th there were sixty cases notified and thirty-three deaths. This seems to have been the maximum number of deaths recorded in one day. By that time the rigorous measures adopted began to take effect; five days later, Sept. 4th, there were twenty-seven cases, and not half that number of deaths. After Sept. 10th the deaths were below ten per day. During the first eleven days of October there have been only twenty-seven deaths from cholera. But, unfortunately, there are still occasional, though comparatively rare, cases of cholera. The means taken seem to have successfully prevented the disease spreading, but they were taken too late to completely stamp out the epidemic.

M. Louis Brindeau, the Mayor of Havre, whose great energy, courage and activity very materially helped to save the town from worse disasters, carefully explained to me the system adopted. Six police stations were converted into sanitary centres. For day duty eight doctors were attached to these stations; two to the two stations situated in the most popular quarters. It was the duty of these doctors to call at least once in every three hours, and to proceed

immediately to any case signalled in the district. The doctor was accompanied in his visits by a sergeant of police, and on the doctor declaring that the person visited was suffering from cholera the sergeant of police at once telegraphed or telephoned for the ambulance and the disinfecting staff. The presence of the police officer was also very useful and resulted very generally in consent being given for the patient to be removed to the hospital, though the law does not arm the authorities with the power of compulsory removal to the hospital. For this work the doctors were paid 3 fr. a visit, and as the epidemic subsided and there were no visits to be made, the mere fact of calling at the police station will be credited to them as a visit. On the other hand, it was laid down that, however numerous the patients, no doctor was to charge more than 40 fr. for one day's work. At night all the services were centralised at the Town Hall or Hôtel de Ville. Here two doctors had to sleep and two carriages were kept in readiness all night. At present, as cases of cholera are of but rare occurrence, there is but one doctor on night duty. These doctors are allowed 10 fr. per night and 8 fr. for each patient seen—on condition, however, that the total sum does not exceed 50 fr. for any one night. Every case seen by these doctors was entered in a register and communicated to the mayor and the Bureau d'Hygiène. As a result every case was reported, notification to the nearest police station being obligatory on all practitioners, and was at once seen, and removal to the hospital and disinfection of the premises followed with equal promptitude. Arrangements were made that all chemists should supply whatever medicaments were required free of charge to patients, the cost being refunded by the municipality. At one time twenty men and four brigadiers of police were employed day and night disinfecting premises. There are three portable stoves and two larger fixed stoves at the hospitals. Four of these stoves disinfect by steam under pressure, the fifth by heat and steam, which, however, is not under pressure. The disinfection is divided into two distinct operations. The first is the removal of all linen, bedding &c. to the disinfecting stove, excepting such objects as can be burnt then and there. After that the walls, furniture &c. are sprayed over with a solution of sublimate. The second operation is carried out by the architect of the town, who has fifteen men under his orders for this purpose, and consists in the main of scraping the walls, whitewashing them, scrubbing them &c. When once these various operations were strictly applied, the epidemic began to subside. This hard experience has taught, however, many lessons, and throws considerable light on the causes favouring the development of the disease, but I must reserve this phase of the subject for another occasion.

## THE HYDERABAD CHLOROFORM COMMISSION.

WE have received from Hyderabad the following letter which Dr. Wood has addressed to Major Percy Gough, Secretary, Hyderabad, Deccan:—

1025, Chestnut-street, Philadelphia, Aug. 30th, 1892.

DEAR SIR,—I write to acknowledge the receipt of the two volumes of the report of the Hyderabad Commission, and to state that we will present them to the Library of the College of Physicians of Philadelphia, which is the largest medical library in the United States except that belonging to the Government at Washington. Will you please express to His Highness the Nizam the great gratification it has given me that while the Government in England, moved by the clamours of misguided fanatics, has been suppressing scientific researches, in India a ruler should appear who is so wise and so munificent as to do this great thing which His Highness has done for science?

With profound respect, I remain,  
Your obedient servant,  
(Signed) H. C. Wood.

[TRUE COPY.]

Ed. Lawrie, Surg.-Lieut.-Col., Hyderabad, Sept. 20th, 1892.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 14th inst. the degree of Bachelor of Medicine was conferred on Mr. John Cropper, Trinity.

THE ENTRIES FOR THE SESSION 1892-93.

The entries at the Medical Schools for the ensuing session, so far at least as the metropolitan schools are concerned, are now nearly complete, and by the courtesy of the Deans of the various institutions we have been enabled to tabulate the figures in a manner which will prove useful in many ways. Returns have not been received from either the Scotch or

Irish Schools of Medicine, as work there has been resumed only during this present week. Notwithstanding the fact that the General Medical Council now requires medical students to attend for five years instead of four, the entries at five of the Medical Schools are much larger this year than they were last year. The total number of entries at all the Medical Schools show an increase as compared with last year.

	Analysis of new entries.					Total number of students at present on the roll.				
	General students.	Special students.	Dental students.	Preliminary scientific students.	Totals.	First year.	Second year.	Third year.	Fourth year.	Totals.
St. Bartholomew's Hospital .. ..	112	23	—	17	150 <sup>1</sup>	150	110	95	115	470
King's College Hospital.. ..	28	57 <sup>2</sup>	—	10	95	†	†	†	†	256
St. Mary's Hospital .. ..	61	30	1	7	105	1.5	113	63	141	412
University College Hospital .. ..	51	33	5	63	155	†	†	†	†	†
The Middlesex Hospital .. ..	35	43	11	3	92	40	71	63	75	253
Westminster Hospital .. ..	12	4	0	3	19	12	17	17	42	88
Guy's Hospital .. ..	106	30	20	23	191	132	124	101	175	532
St. Thomas's Hospital .. ..	71	17	—	8	96	†	†	†	†	†
Charling Cross Hospital.. ..	40	17	25	3	85	70	73	33	70	261
The London Hospital .. ..	50	65	1	5	121	50	30	54	142	232
Mason's College .. ..	32	42	4	14	91	†	†	†	†	230 <sup>3</sup>
Yorkshire College.. ..	32	9	—	27	68	†	†	†	†	†
Bristol Medical School .. ..	23	—	2	—	30	†	†	†	†	†
Owens College .. ..	60	30	5	55	156	†	†	†	†	†

<sup>1</sup> Exclusive of those Preliminary Scientific Students who have also entered for the Curriculum or for Special Courses.

<sup>2</sup> Including Bacteriology.

<sup>3</sup> Entry not complete

NOTE.—The Scotch enrolment goes on for nearly a month, yet the statistics cannot be obtained. † Information not supplied.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6153 births and 3382 deaths were registered during the week ending Oct. 15th. The annual rate of mortality in these towns, which had been 16.6 and 17.8 per 1000 in the preceding two weeks, declined again last week to 17.3. In London the rate was 17.1 per 1000, while it averaged 17.5 in the thirty-two provincial towns. The lowest rates in these towns were 8.4 in Croydon, 12.0 in Derby, 13.0 in Bolton, and 13.4 in Cardiff; the highest rates were 20.2 in Liverpool, 20.9 in Blackburn, 23.3 in Salford, and 30.6 in Preston. The 3382 deaths included 389 which were referred to the principal zymotic diseases, against numbers declining from 989 to 505 in the preceding six weeks; of these, 123 resulted from diarrhoea, 77 from measles, 59 from diphtheria, 53 from scarlet fever, 39 from "fever" (principally enteric), 34 from whooping-cough, and 4 from small-pox. No fatal case of any of these diseases occurred last week in Derby; in the other towns they caused the lowest death-rates in Plymouth, Wolverhampton, and Halifax; and the highest rates in Manchester, West Ham, Oldham, Salford, and Preston. The greatest mortality from measles occurred in West Ham, Brighton, Bradford, Huddersfield, Oldham, and Salford; from scarlet fever in West Ham; from whooping-cough in Nottingham, Birkenhead, and Preston; from "fever" in Sunderland; and from diarrhoea in Leeds, Manchester, Gateshead, and Preston. The 59 deaths from diphtheria included 46 in London, 2 in West Ham, and 2 in Manchester. One death from small-pox was registered in Liverpool, one in Manchester, one in Oldham, and one in Leeds, but not one in London or in any other of the thirty-three large towns; four cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 7 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3796, against numbers increasing from 3052 to 3628 on the

preceding eight Saturdays; 503 new cases were admitted during the week, against 369 and 412 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 184 in the preceding six weeks, further rose to 241 last week, but were 32 below the average. The causes of 70, or 2.1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Leicester, Bradford, Leeds, Sunderland, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Liverpool, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17.1 and 18.5 per 1000 in the preceding two weeks, declined again to 18.0 during the week ending Oct. 15th, but exceeded by 0.7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12.6 in Leith and 13.4 in Dundee to 20.6 in Perth and 21.5 in Greenock. The 500 deaths in these towns included 33 which were referred to measles, 16 to scarlet fever, 13 to diarrhoea, 8 to whooping-cough, 3 to "fever," 2 to diphtheria, and not one to small-pox. In all, 75 deaths resulted from these principal zymotic diseases, against 84 and 78 in the preceding two weeks. These 75 deaths were equal to an annual rate of 2.7 per 1000, which was 0.7 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased from 12 to 22 in the preceding three weeks, further rose to 33 last week, of which 17 occurred in Edinburgh, 8 in Glasgow, and 4 in Leith. The deaths referred to scarlet fever, which had been 17 and 16 in the previous two weeks, were again 16 last week, and included 11 in Glasgow and 2 in Edinburgh. The 13 fatal cases of diarrhoea showed a further marked decline from recent weekly numbers, and included 8 in Glasgow. The 8 deaths from whooping-cough corresponded with the number in the preceding week, and included 6 in Glasgow. The fatal cases

of diphtheria, which had been 10 and 6 in the previous two weeks, further fell to 2 last week, of which one occurred in Greenock and one in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had risen from 66 to 84 in the preceding three weeks, were 82 last week, and were 29 below the number in the corresponding week of last year. The causes of 59, or nearly 12 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21.5 and 20.0 per 1000 in the preceding two weeks, rose again to 20.7 during the week ending Oct. 15th. During the thirteen weeks of last quarter the death-rate in the city averaged 23.1 per 1000, against 17.1 in London and 16.1 in Edinburgh. The 139 deaths in Dublin during the week under notice showed an increase of 5 upon the number in the preceding week, and included 4 which were referred to different forms of "fever," 3 to diarrhoea, and not one either to small-pox, measles, scarlet fever, diphtheria, or whooping-cough. In all, 7 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.0 per 1000, the zymotic death-rate during the same period being 1.7 in London and 4.7 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 3 in the preceding two weeks, further increased to 4 last week. The fatal cases of diarrhoea, which had been 20 and 9 in the previous two weeks, further declined to 3 last week. The 139 deaths registered in Dublin last week included 34 of infants under one year of age and 31 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase upon those recorded in recent weeks, while those of elderly persons showed a further decline. Five inquest cases and 5 deaths from violence were registered; and 46, or nearly one-third, of the deaths occurred in public institutions. The causes of 9, or more than 6 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

#### MOVEMENTS OF MEDICAL STAFF.

Surgeon-Major Foss (lately on retired pay) has been posted to Dublin for duty. Surgeon-Captain Bond has embarked for duty in Barbadoes. Surgeon-Major-General Madden has resumed his duties as Principal Medical Officer at Malta. Surgeon-Captain Burnside has been transferred to the North British district. The following officers from the School of Instruction at Aldershot have joined the stations named:—Surgeon-Lieutenants Thurston and Smythe, London; Surgeon-Lieutenants O'Reilly, Walker, Moore, Jones, Marden, McDermott, Hodgens, McNaught, and Conden, Ireland; Surgeon-Lieutenants Faichnie and Mansfield, Colchester; Surgeon-Lieutenants Lewis and Chambers, Dover; Surgeon-Lieutenant Slayter, York; Surgeon-Lieutenant Reed, Devonport; Surgeon-Lieutenant Erskine, Woolwich; Surgeon-Lieutenant Thompson, Chatham. Surgeon-Major McNece has been granted sick leave to England from Bombay.

#### ARMY MEDICAL STAFF.

Surgeon-Captain J. D. Moir has resigned his appointment as a medical officer attached to the 2nd Battalion Grenadier Guards. The following officers have been ordered home during the trooping season on completion of tour of Indian service:—Oct. 8th, Surgeon-Major W. L. Lane, M.B., and Surgeon-Captain S. C. Phipson; Dec. 31st, Surgeon-Captain F. A. B. Daly, M.B.; Jan. 11th, Surgeon-Captain T. H. Corkery; March 12th, Surgeon-Major G. D. Bourke and Surgeon-Captain H. H. Brown, M.B.; March 25th, Surgeon-Captain F. T. Skerritt; April 6th, Surgeon-Lieutenant-Colonel N. B. Major and Surgeon-Captain F. S. Le Quesne, N.C.

#### YEOMANRY CAVALRY.

Herts: Veterinary-Lieutenant W. S. Harrison resigns his commission.

#### INDIAN MEDICAL SERVICE.

Surgeon-Major W. K. Hatch, I.M.S., proceeded to England on privilege leave on the 24th ult. per s.s. *Oriental*. Surgeon-Captain C. J. Addison, A.M.S., is expected from England for duty in India. Surgeon-Captain C. M. Moore, I.M.S., proceeded to Agar from Deesa on the 23rd ult. to join the 2nd Regiment Central Indian Horse. Brigade-Surgeon-Lieutenant-Colonel G. Thomson, I.M.S., has been appointed Principal Medical Officer of the Peshawur district. Surgeon-Captain J. E. Trask will proceed to Bombay to take Medical Charge of the 3rd Dragoon Guards during their voyage to Natal in the R.I.M.S. *Clivo*. Surgeon-Captain G. S. Thomson, M.D., has been appointed to the Medical Charge of the 4th Regiment (1st Battalion Rifle Regiment). Surgeon-Captain H. C. L. Arnim has been appointed to the Medical Charge of the 10th Bombay Infantry. Surgeon-Captain G. E. Fooks arrived at Bombay on the 2nd ultimo from furlough in England. Surgeon-Captain J. Fyrrer, M.B., M.S., has been appointed to the Civil Medical Charge of the Muttra district, in addition to his military duties, from the forenoon of Sept. 1st, 1892. Surgeon-Major J. J. Falvey, A.M.S., having been struck off the strength of the Bengal command, is directed to return to England on transfer to the home establishment. Surgeon-Captain H. W. Stevenson and Mr. H. A. Hall respectively delivered over and received charge of the Yerrowda Central Gaol on Aug. 31st, 1892. Surgeon-Major H. McAlman, M.D., and Assistant Surgeon P. P. Moolan respectively delivered over and received charge of the Ratnagiri Gaol on Sept. 22nd, 1892. Surgeon-Captain J. P. Barry, M.B., and Surgeon-Major J. S. Wilkins, D.S.O., respectively delivered over and received charge of the Bijapoor Gaol on Sept. 22nd, 1892. Surgeon-Major W. Barren and Surgeon-Captain R. W. S. Lyons, M.D., respectively delivered over and received medical charge of the Yerrowda Central Gaol on Sept. 26th, 1892.

#### NAVAL MEDICAL SERVICE.

The following appointments have been made:—Staff Surgeon William Rogerson White, B.A., M.B., has been promoted to the rank of Fleet Surgeon. Surgeon D'Arcy Harvey to the *Vernon*, additional, for disposal; and Surgeon C. Alsop to the *Melita*. Surgeons and Agents: W. O'Donnell at Tribane; J. E. Lanyan at Portnoo.

#### THE LATE DEPUTY-SURGEON-GENERAL FASSON.

The Edinburgh Royal Infirmary has sustained a great loss by the death of its superintendent on Saturday, the 15th inst. The late Deputy-Surgeon-General Charles Fasson united in his personality several qualities which are not invariably found associated together. He possessed qualities of head and character. As a young man he was very handsome, with a pleasant, genial expression of face and a fine manly presence. He was a very able organiser and administrator and was universally recognised as an admirable official at the head of a big institution like the Edinburgh Royal Infirmary. His judgment was sound; he was full of initiative, and at the same time industrious and conscientious, added to which he was such an amiable and courteous gentleman, with the stamp of sincerity and truth in his bearing and intercourse with everybody, that he was not long in making friends in Edinburgh, where he was greatly respected and beloved. When he relinquished the Army to take up the post of Superintendent of the Royal Infirmary he went to Edinburgh as a comparatively unknown man and a stranger there, and it is pleasant to know that his regard and affection for its people went on increasing year by year and he delighted to recognise and express this to his friends. Deputy-Surgeon-General Fasson's service in the army extended throughout a period of about twenty-seven years. He had seen a good deal of active service abroad, notably in the Indian Mutiny. At the time of his retirement he held the post of Registrar at the Herbert Hospital, Woolwich. His military service and training, no doubt, proved advantageous to him subsequently in civil life, at the head of a large hospital. He was appointed to the Edinburgh Infirmary in 1871. When the present buildings were opened the duty of transference from the old infirmary fell to him, and he carried out the work with great ability and to the entire satisfaction of the managers of that institution. He held the post of superintendent from 1871 to the time of his death, and the good feeling that existed between the medical staff, the managers and himself was thoroughly mutual. He had the sincerest interest in the welfare and progress of the Edinburgh Infirmary and University. Deputy-Surgeon-General Fasson's health had lately been delicate. He had an apoplectic seizure not long ago, which was followed by hemiplegia; he was in his seventy-second year at the time of his death. His brother was a distinguished army medical officer, and died in the service some years ago.

#### SOLDIERS' RATIONS.

We recently called attention to the advisability of doing something in the way of providing the soldier with the means

of procuring some refreshment before his early morning parade, such as a cup of tea or coffee with a little bread. A cup of cocoa would really be preferable to either of the other beverages, especially during the cold weather, but this might fairly be left to the soldier's individual choice. We notice that this question of the soldier's ration forms the subject of correspondence in some of the Indian journals. The soldier in India is exempted from payment for groceries whilst in the field; the Indian Government issues these free on active service. But some of our soldiers in India are asking for the charge for groceries to be abolished altogether, and contend that when they went to India they understood that rations were issued free to the British soldier whilst serving there. Complaints are also made as to the bad quality of the rations supplied. On the other hand, and with much greater regard to accuracy, we think, others contend that it is entirely the soldier's own fault if he is not supplied with good rations, and that it is the cooking that is to blame. A soldier in India has only to complain of his rations and his objection, if reasonable, is always attended to at once. The natives of India are usually excellent cooks; still it is not every native that can cook, and it is not always easy to secure good ones; moreover, the cook-houses are not always so clean or so good as they might be. These are matters, however, which, after all, greatly depend upon the internal economy of a regiment. The cooking for the soldier in India is really an important consideration as far as the maintenance of his health and strength is concerned, and no reasonable pains should be spared to make the soldier contented in this respect.

#### THE FALL IN THE RUPEE.

The curtailment of income of officers and others serving in India by the great fall in the value of the rupee is really a serious matter. Medical officers of course come in for their share in this unfortunate loss with the rest of the army, and civil officials, and those who have to transmit money home—as so many have—for the support of their wives and families and the education of their children are great sufferers. There is no doubt that the Indian Government is fully alive to the discontent which exists and is spreading amongst the members of the European services in India, and some intimation as to the action that will have to be taken, sooner or later, by the Secretary of State and Treasury in this country is anxiously looked for.

#### PROGRESS OF CHOLERA IN INDIA.

According to the latest intelligence in the Indian papers it would appear that cholera is not only prevalent in the Bittan country, north of Gomal Pass, but has also broken out in the Wano Post in Waziristan, lately occupied by the Afghan troops. Cholera is also stated to be rapidly spreading in Peshawur, both in the city and cantonments. The Royal Welsh Fusiliers are under canvas, and there are cases also in the Royal Artillery and Royal Scots Fusiliers. In cantonments the epidemic appears to be confining itself to Europeans only. Brigade-Surgeon-Lieutenant-Colonel Thomson has arrived from Patiala and taken over the administrative medical charge from Brigade-Surgeon-Lieutenant-Colonel Brown.

#### THE LATE DEPUTY-INSPECTOR-GENERAL BRAKE, R.N.

One of the old school of naval medical officers, Mr. Wm. Newman Brake, R.N., Deputy-Inspector-General of Hospitals and Fleets, passed away at Porchester, Hants, on the 5th inst., aged seventy. He was an old St. Bartholomew's man and was a dresser to Lawrence. In his early career in the service he was an esteemed friend of the late Captain Burgoyne, who went down in H.M.S. *Captain*. In later years he had the confidence of the two present naval lords, Sir Anthony Hoskins and Sir Frederick Richards. The deceased officer entered the navy in April, 1845, was promoted Staff-Surgeon in January, 1855, Fleet-Surgeon in 1867, and retired with the rank of Deputy-Inspector-General in September, 1878.

#### CANTONMENT GENERAL HOSPITALS.

Funds have been allotted for the completion during the current year of general hospitals at Bareilly, Allahabad, Jubbulpore and Peshawur.

#### THE LATE SURGEON-MAJOR CARLAW, M.D.

Surgeon-Major J. Carlaw, M.D., Retired List, Army Medical Department, died at the Crescent, Sandgate, on the 10th inst. He joined the army April 22nd, 1858, became Surgeon-Major April 1st, 1875, and retired Aug. 12th, 1878.

The "Diario Oficial" of the Republic of Paraguay

announces that Dr. William Stewart, British subject and Honorary Colonel of the National Army, is now a Paraguayan-citizen.

## Correspondence.

"Audi alteram partem."

### MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—I am particularly anxious to make it plain that, although these coöperative medical businesses grotesquely masquerading as provident institutions must be dealt with by appearing to treat harshly the surgeons connected with them, this is more apparent than real. It is equally for their benefit as for the benefit of their professional brethren that this course is pursued. I may be permitted to point out that, as a matter of fact, it was at the direct request of several surgeons to medical aid associations that the Medical Defence-Union has asked the General Medical Council to express its judicial opinion that their conduct is "infamous in a professional respect" within the meaning of Section 29 of the Medical Act, 1858. These surgeons recognise that only by this means can a radical reform be accomplished. May I ask medical aid surgeons who have not yet communicated with me to do so? I will take care that their names shall in no way be made public without their express permission, for I know this might lead to their instant dismissal; but their coöperation will be valuable. May I also appeal to the practitioners who know the workings of these aids to enlighten their brethren? Many men resident in large towns do not understand the question, while those in small towns have too good reason to appreciate the evil consequences of the system. The following resolution would be a fitting one on which to raise the question for discussion at meetings of the branches of the British Medical Association and other medical societies: "That anything which tends to degrade the professional standing of medical practitioners, to diminish their self-respect or to detract from the quality of their professional work is detrimental to the public interest, and that the system and practice carried on by medical aid associations is calculated to produce this evil result."

I shall be glad to forward to any medical man a copy of my letter to the General Medical Council or a sheet of a petition addressed to that Council praying that this question may be taken into their consideration. The scope of the word "covering" is far too wide to allow of its arbitrary restriction to those cases where the unqualified person "covered" actually and personally practises medicine. In its intention and without unduly stretching language it includes by implication those cases in which, although not personally engaged in the actual practice of medicine, an unlicensed person is pecuniarily interested in the conduct of such practice.

The unqualified man who toils not but participates in fees earned by a duly qualified medical man is in a sense a much greater offender than the unqualified man who actually works and earns money, although to do this he occasionally is "covered" by a qualified man. The offence of the coverer in the former case, in thus putting his licence at the disposal of unqualified persons, is surely not less professionally discreditable? But, even apart from the "covering" line of argument, I contend, with regard to the authority of the General Medical Council in this matter, there is no *non possumus*. If the self-evident proposition be accepted that anything which tends to degrade the professional standing of medical practitioners, to diminish their self-respect, or to detract from the quality of their professional work is detrimental to the public interest, and if it be demonstrated that the system of medical aid associations does these things, it follows that not only is the profession being deeply injured, but, what is of more importance, the public suffer also. Under such conditions the General Medical Council can hardly come to any other conclusion than that the toleration and sanction of this system by duly qualified practitioners are professionally "infamous," and the Court of Appeal has held that if the Council, acting *bonâ fide* and after due inquiry, adjudged a medical practitioner guilty of "infamous conduct in a pro-

essional respect," no court, not even the House of Lords, has jurisdiction to review their decision.

The evil of these medical aid associations is at last being recognised by the lay press of the country, which with almost one voice is now crying out against the abuse in far stronger language than in even the medical journals. When Mr. Masterman told the General Medical Council that since the foundation of this new-fangled medical system a frightful rise in infant mortality was taking place in Stourport, its significance was disputed and not recognised, as I will show it should have been. Mr. Masterman says: "For the ten years ending 1889 the average death-rate was 15.0—1890, 19.2, 1891, 20.23—for the month of January, 1892, 37.7 per 1000, and in the rural districts still higher—in other words, forty more persons died in Stourport, or, with the district, sixty above the average." In reply it was said that this increase of the death-rate did not apply particularly to members of the Medical Aid Association, but to the population as a whole. It was not shown, however, that these two things—(1) the Medical Aid Association and (2) the population as a whole—are practically identical. In 1891 the population of Stourport was 3504, while the number of members receiving medical attendance from the Medical Aid Association was 3058, although it is probable that some small proportion of these lived outside the town.

All thoughtful men must recognise how directly the public suffer by this system; while with regard to ourselves I have no hesitation in saying that no greater injury, no greater insult, no greater systematic robbery, has ever been offered to, or submitted to by, the profession.

I am, Sirs, your obedient servant,

LESLIE PHILLIPS,

Secretary, Medical Defence Union (Limited).

Birmingham, Oct. 18th, 1892.

To the Editors of THE LANCET.

SIRS,—I see in a leading article which appeared in THE LANCET of last Saturday you challenge us, the medical officers of these societies, to defend our position, and I beg formally to accept the challenge. I am of course aware that in opposing the opinion of the editors of a journal by letters addressed to themselves I am going to law with an absolute sovereign in the courts of his dominions, and that, even when I am obliged to comment unfavourably on your remarks, I have to rely solely on your sense of justice to give my reply publicity. Some three months ago a correspondence on this subject appeared in THE LANCET, and then our supporters gained so complete a victory that our last two letters remained, and still remain, unanswered. We should therefore, it seems to me, be justified in replying to a renewed attack by asking our opponents, if their courage has revived, to reply to these letters, and I assert, without fear of contradiction, that when you—in spite of the fact that when last assailed we repelled the attack and silenced the guns of our enemy—pronounce our position "indefensible" you do us a great wrong. Our position as that of men without capital can be justly compared only with that of men who have not practices of their own, and I therefore, in commenting on your remarks, shall have frequently to contrast it with that of assistants to private practitioners. I wish, then, to premise that want of capital is the point on which we agree, and that I do not say we are in the position of assistants to the associations.

I shall now proceed to criticise such of the statements in your article as seem to require it. You assert that medical associations are "by no means creditable to the working classes," but as you give no proof of the statement, and as we hold an exactly contrary opinion, we can only say we are amazed to find anyone differ from us. Doubtless you have reasons for your opinions. May we ask you to let us know them? You tell us we receive "a scanty allowance," and our answer is that it is more than we could get in private practice or we should not accept it. How can you taunt us with being badly paid when you publish advertisements every week wherein qualified men of mature years, with good testimonials and many other advantages, are offered salaries of £70, and even £50, per annum in-doors? Very rarely indeed do you advertise more liberal offers to men without capital than those of medical aid societies. A few of your words describe so exactly the position of an assistant to a firm of medical men that I may be allowed to quote them in full:—"The medical officer is made not only to do medical duty, but to make money for those whom he serves. In other words, the Medical Aid

Association is a 'business,' the work of which has to be done and can only be done by the medical officer, but the profits go to the association, *alias* the company." How many thousands of pounds are yearly earned by the toil of unfortunate medical assistants at work which the principals cannot do (they are doing already as much as they are capable of, suppose)? Where does this money go if not into the pockets of "the firm"? Can you expect an assistant to care where it goes unless you offer him a share of it? Would it not be better for him to pay to an association 5s. out of each midwifery fee he earns than to pay them all to an employer in private practice, as many assistants are obliged to do? The answers to these questions must, we believe, tend to show that the *employé* of the association is in a better position than that of an ordinary assistant.

You say that "there is much to be said" for the view that the medical officers "cover" the associations because the latter are "profitably interested in medical practice." We shall be glad to hear any part whatever of the "much," and meanwhile express our opinion that the contention is childish, and proceed to give our reasons for thinking so. Taking the words as they are used, without any qualification, we see the absurdity the moment we reflect that our wives and children, our servants even, and the tradesmen we employ, are "profitably interested" in our practices. Our opponents now probably will wish to qualify their expression and will tell us they meant a "direct monetary interest." Let us agree to this and consider the new view they put before us. Cases occur daily in which, a medical man having died, an assistant or locum tenens carries on the practice till it is sold, or a relative of the deceased qualifies, or his widow marries another medical man, or in some instances indefinitely. Is the assistant to be considered guilty of "covering" in such a case? Similar cases are those in which a practitioner's widow sells a practice for an annuity to be paid out of, or for a percentage of, the proceeds. Similar also are the cases where a lay friend advances money to buy a practice on the understanding that he is to be repaid out of the proceeds. In none of these cases could we justly punish the medical man, and yet if we are not prepared to do so we must abandon altogether the phrase "profitably interested."

You blame us for taking well-to-do patients from other medical men; but all other practitioners do the same. Is there a case on record of a medical man refusing to treat the ex-patient of a professional brother whose fees are higher on the ground that the patient was rich and could afford to pay the higher fees? 'Till you produce such instances you cannot justly accuse us of doing worse than others. You pass an unfavourable judgment on certain employers who refused to raise an *employé's* salary after five years' service, but you cannot expect us to agree with you till you show us that the *employé* was worth more than he received. Is his market value, as tested by your advertisement columns, greater than his present income? If so, why does he not get that larger salary elsewhere? Can you assure us that the association in question did not intend their refusal as a gentle intimation that a resignation would be accepted, or that they were not restrained from dismissing him solely by the thought that they would thereby throw him on the tender mercies of his fellows, who seldom give more than £150 a year? Since you have passed sentence on the employers, we presume you have the information required to enable us to judge correctly, and we respectfully ask you to make it public.

You assert that the income of medical associations is "derived solely from medical fees," and here, again, we cannot agree with you. The members know that only a part of their subscriptions goes to pay their medical officer, for out of them have to come the rent of the consulting-rooms and surgery, the cost of drugs, of conveyance, of fire and light, of instruments, and of many other items. If after all these are paid a portion of the fund is left it must belong to the association, for the medical man has had what his agreement entitled him to. If the association feels itself strong it returns a part of his subscription to each member, as it has been proved by the existence of a surplus that they have paid too much. If it fears that "bad times" may come it provides for them by buying out the consulting-rooms &c., or by investing the money so as to secure an income for a bad year; so that the medical officer's salary, the rent and so forth may be forthcoming even should some calamity reduce the members to half their previous numbers. It would seem from your article that you think it reasonable that associations should rent houses, but infamous that they

should buy them. Is my view of your meaning correct? We, Sirs, have escaped from the slavery, the hard work and the bad pay which were ours as assistants to medical men to comparative freedom, comparative ease and comparative affluence. The working classes were oppressed by our oppressors, for if they sought cheap dispensaries they were given cheap and even worthless drugs; and if they joined clubs they were no better off in this respect, and were bullied into the bargain. We united our forces; their pence provide us with a competency; they buy us drugs and supply us with all other essentials; and we laugh at our former masters. Of course the latter are not satisfied. Not only have their slaves escaped them, but they have taken off what the masters regard as their private property, their *matériel*, and both reduce their income directly, and by reducing competition raise the salaries of assistants. That line of action which causes them loss they naturally consider low and disgraceful, and they will do their utmost to put down the associations and to force us to serve them as of old. A great victory has been theirs of late, for they have won over—we say it with deep emotion—the Editors of THE LANCET to their way of thinking. We feel it much. You threw open your columns to us last summer, and metaphorically saw fair play while we conquered. Our opponents either remained silent voluntarily or, becoming unparliamentary under the sting of defeat, were refused publication. Now you seem to have forgotten all this, and publish the astonishing announcement that we hold an indefensible position!

A step further is to be taken, you say, and the subject brought again before the General Medical Council. Well, what reason have we for thinking that this body is less wise now than it was last May, when it decided that it was "not their business"? Does anyone fancy these gentlemen are foolish enough to enter on a hopeless contest with the democracy of this country? As well might a porcelain vase expect to collide victoriously with an iron cauldron as the General Medical Council to reduce to their former, or even keep in their present, position those "mechanics and tradesmen" whom you seem to value so little. When Mrs. Partington's mop avails against the tide then will the Medical Defence Union subdue the people, but till then the members of the Union would find throwing stones at the moon a more remunerative occupation than attacking such deservedly popular institutions as the Medical Aid Associations.

I must apologise for the length of this letter, which is due to the length of your article against us.

I am, Sirs, yours sincerely,

Oct. 18th, 1892.

VERAX.

To the Editors of THE LANCET.

SIRS,—Dr. Leslie Phillips, in his paper about Medical Aid Associations, takes an entirely one-sided view as to the small fee the doctor receives for his work. As a matter of fact the drudgery of a club practice, at least in the provinces, is not done by the doctor himself, but by his unfortunate assistant, who in nine cases out of ten is unqualified. By your kindness I have before now expressed my views against the hateful practice of putting unqualified men in charge of surgeries; but I am not going to ignore the proper unqualified man, if I may be allowed to so call him—I mean one who has passed all but his final, but for some reason cannot qualify. I contend that qualified men cannot and will not do the same amount of drudgery work as the unqualified. The major portion of a club and dispensary practice does not require a qualified man, as it consists in treating nothing particular, but almost entirely a class of chronic hypochondriacal females who really visit the surgery for a gossip with the doctor, and in ninety-nine cases out of a hundred a bottle of Epsom salts and burnt sugar will cure all of them. I can assure you, Sirs, in a practice like the above an M.B. Lond. or F.R.C.S. Eng. would simply be lost. He would have no opportunity of utilising his superior knowledge. My predecessor was an unqualified man, but with no medical education whatever. He had not even passed a preliminary examination and had never been inside any hospital or infirmary attached to any university; in fact, he professed to be quite ignorant of the names of any of the bones of the body, and even of any of the diseases he treated. Yet for a period of nearly ten years he had charge of a surgery, attended midwifery, performed vaccinations, visited the people's homes and prescribed at the surgery. I confess I cannot do the same amount of work as this person, nor am I ashamed to say that I cannot diagnose the cases so quickly as he did, nor talk so

professionally as did my predecessor to the patients. Without a doctor the Medical Aid Association could not exist, and if Dr. Leslie Phillips could infuse into doctors a feeling of unanimity to refuse to accept the medical officership of these Medical Aid Associations, then some good would result. But in these days of competition and the multiplying of quack remedies what one doctor would refuse fifty are ready to accept. My principal has actually a dispensary charging the modest sum of a halfpenny a week for children up to the age of fourteen and one penny for adults. These sums include visits and medicine and appliances in case of accidents. Out of these deduct commission for collector, price of labels, corks and physic, then see what is left for the doctor. By these clubs and dispensaries I assert more work is put on the doctor for but a small fee, and the people are able to spend more in drink. This is the case in the town I am in now, and I am sure there are many who could corroborate me. Thanking you in anticipation,

I am, Sirs, yours faithfully,

Oct. 17th, 1892.

GENERAL PRACTITIONER.

To the Editors of THE LANCET.

SIRS,—I have read with much interest your article in last Saturday's issue. I trust the resident medical officers of the various associations will now put forward all their exertions to emancipate themselves from the yoke of thralldom which they have been long labouring under and will loyally come forward and assist their brethren in exposing the iniquitous system of "sweating" which is no doubt being carried on with impunity in the greater number of these associations. All information should be addressed to Dr. Leslie Phillips without delay, which of course will be regarded as confidential. It is to be hoped also that the general practitioners will be fully alive to their own interests and communicate also all information bearing on the grievances they suffer from the working of Medical Aid Associations, and the injury they are causing both to the profession and the general public. I remain, Sirs, yours faithfully,

Oct. 18th, 1892.

A MEDICAL AID OFFICER.

## EXPERIMENTS ON ANIMALS.

To the Editors of THE LANCET.

SIRS,—Whether it was wise for the Church Congress to discuss the subject of animal experimentation or not it would be useless to enter into. The majority of the subjects-committee determined that such discussion should take place, and, this being the case, it was right that the best exponents of the two sides should be selected. For my own part, I believe that the meeting has done a great deal of good, for the experimental research has rarely or ever before had such a public hearing. The anti-vivisectionists, through an active and well-organised association, are working systematically throughout the country. At the Church Congress Art Exhibition a stall was erected for the distribution of their literature, and tracts were freely circulated even at the doors of the great Congress Hall. It seems to me that it is incumbent upon the members of the profession to be educated in this matter, and there should be some quick and sure way of imparting knowledge to those who wish to speak or write on this subject. It is useless for a man, unless he is well prepared with the subject and is an apt and ready speaker, to get up at an ordinary anti-vivisectionists' meeting. The speakers chosen are men well versed in the way of dealing with the gentler sex and with men of illogical minds. I believe that in no town in England at a public meeting, were the profession well represented, would the anti-vivisectionists carry the majority with them. The general public want to know the truth on this subject, but so far they have had only the opportunity of hearing one side.

I am, Sirs, yours truly,

Folkestone, Oct. 17th, 1892.

W. J. TYSON.

## AN IMPORTANT QUESTION OF ETHICS.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me a small space in your columns to call the attention of the medical profession to a question of principle involved in an inquiry which, I believe, is about to be entered upon by a subcommittee of the Manchester Medico-Ethical Association; and may I beg for an expression of your own opinion and the opinions of con-

sultants throughout the country who may consider it worth while to give the matter a moment's consideration? About the beginning of this year a gentleman called upon me and asked me if I would see a case with him in consultation. He gave me his name and address and I met him as proposed. I had vaguely heard that the practitioner in question had started in a somewhat humble way by keeping a dispensary; and I had some dim recollection of a complaint that one of our leading consultants here had met him in consultation. Having heard of these things, I had to decide before going to the consultation on what principle I must proceed. I found from the Register that the practitioner in question was a qualified member of the medical profession; I had never heard that his professional conduct had been publicly called in question; and there was no reason in our personal relations why I should refuse to meet him. I had also to remember that possibly the interests of a patient were involved. Some weeks afterwards I received a letter from a general practitioner residing in the same district as the gentleman whom I had met in consultation inquiring if I was aware of his neighbour's character and the opinion entertained regarding him by other members of the profession in their district of the city. Believing my correspondent to be friendly, I explained the grounds on which I had to decide the question of meeting such practitioners in consultation, and I had little doubt at the time that I was addressing a reasonable man. The next incident was a letter from my correspondent, containing a veiled threat to deprive me of any consultations that he could influence if I did not promise to decline to meet his neighbour in consultation in the future. I need not say what I replied to that letter. Yesterday I attended a meeting of the committee of the Manchester Medico-Ethical Association in my capacity of member of that committee, and to my surprise I was asked by one of the secretaries if I had any explanation to offer regarding my "case." I then learned that my former correspondent had brought a formal complaint against myself on the ground of the consultation referred to, and that I was in the position of defendant in connexion with some supposed breach of medical etiquette. That the committee of this Association are really serious seems to me to be proved by the fact that they have already, at the instance of the secretaries, nominated a subcommittee to try the case.

If you open your columns to the discussion of the principle involved in this matter I shall ask you to permit me on a future occasion to say something about the judicial functions of the Manchester Medico-Ethical Association. I will only say now that it is well known that their committee sought legal advice on the question of framing a "black list" and of prosecuting some member of the medical profession who was accused of underselling his neighbours by means of a dispensary, but that on economical grounds they decided not to proceed. I should also add that the deliberations of the subcommittees are supposed to be secret, and their conclusions are stated without reason assigned. Consequently one result of most of their inquiries is the spread of injurious gossip about somebody, originating in obscure hints from the irresponsibles who sit in judgment. One obvious question arising from this case is—Who is to be the inquisitor? If the consultant, how far is he to go in his inquisition as to the character and professional position of qualified members of the medical profession whom he is asked to meet? And that inquisition would also involve the question of when a member of the profession who commenced practice in a humble, perhaps dubiously ethical, fashion becomes white-washed and a respectable person whom anyone might be proud to meet in consultation. I do not think the answer to these questions far to seek; and but for the existence of a committee of a Medico-Ethical Association which plays at performing judicial functions, I do not think it would have ever arisen; but the matter is to me a real source of worry and annoyance, and I shall be grateful to you if you will insert this letter and either give expression to your own opinion of the matter, or permit any consulting members of the profession who may think it worth while to state their opinion on the principles involved.

I am, Sirs, yours faithfully,  
Manchester, Oct. 15th, 1892. W. J. SINCLAIR, M.D. Aberd.

#### "THE TREATMENT OF MYXŒDEMA."

To the Editors of THE LANCET.

SIRS,—As your annotation on the above subject in THE LANCET of Oct. 15th is apt to convey the impression that hyroid juice is difficult to obtain, and that it is dangerous

to give it by the hypodermic method, I wish to point out that this is not really the case. For the benefit of those who may wish to treat cases of myxœdema with thyroid juice I may mention that Messrs. Brady and Martin of Newcastle prepare an extract of the thyroid glands of freshly killed sheep in the manner described by me.<sup>1</sup> This extract, which consists of equal parts of thyroid juice, glycerine and 0.5 per cent. solution of carbolic acid, is prepared each week, and I am informed by the manufacturers that it is at present being employed in the treatment of some forty cases of myxœdema. Sufficient evidence has now been brought forward to show that thyroid juice can remove the symptoms of myxœdema. This was clearly shown in the discussion which took place on this subject at the meeting of the British Medical Association at Nottingham last July. It is remarkable how small a quantity of the thyroid juice can accomplish this. A gentleman who was recently under my care with typical symptoms of myxœdema had three drachms of thyroid extract—which are equivalent to the amount of juice contained in two whole thyroid glands—injected in the course of six weeks, when all the symptoms had practically disappeared. There can be no doubt about the efficiency of the remedy; but more extended observations are necessary to enable us to determine the most suitable dosage and the best means of administering it. Formerly I injected as much as twenty-five minims of the extract at a time, but now find that it is better not to give more than fifteen minims in a single dose. This dose of the fresh extract may be given twice a week, and if injected slowly in a part where the skin is loose and not exposed to pressure, with proper antiseptic precautions, unpleasant results rarely follow. The advantages of the hypodermic method are considerable. It is easily carried out, and only requires to be repeated twice a week at first, and afterwards an injection once a week or once a fortnight will maintain the patient in the improved condition. The main object of the treatment is to introduce the secretion of the thyroid gland into the circulation of the patient slowly and in as natural a condition as possible, and this end is attained by the hypodermic method.

I am, Sirs, yours truly,  
Newcastle-on-Tyne, Oct. 19th, 1892. GEORGE R. MURRAY.

#### "REMOVAL OF LEAD FROM THE EAR BY THE USE OF METALLIC MERCURY."

To the Editors of THE LANCET.

SIRS,—I am not unprepared for the criticism of Mr. Ryan and Dr. Barrett in your issue of Oct. 14th. Several chemists have already expressed their surprise that "quicksilver" should have acted in the way I described. The statement of my critics that the syringe was not used prior to the employment of the mercury is "an inference, not a fact." We in this country well know the utility of syringing in cases of foreign body in the ear. In the present case syringes with nozzles of different curvatures were several times applied, with the head of the patient in different positions, quite unavailingly. Yet it is a significant consideration that in the first employment of the syringe after the mercurial application the piece of metal escaped with ease. As over six weeks had elapsed since the primary injury and the patient had been most judiciously treated, inflammatory swelling had subsided, and no rational person who saw the firm impaction of this piece of metal could have attributed it to inflammatory swelling. The piece of lead I used for my preliminary experiment was that thin short lead used to wrap round fishing lines. I have no means here of ascertaining its actual composition, but as the mercury rendered it brittle it was doubtless an alloy and not pure lead. The experiment was a rough one indeed and lacking in scientific accuracy, but it afforded me a hint which the extreme urgency of the case compelled me to at once act upon. I believe that the firm impaction of the metal was largely due to fine processes of it passing into the anatomical foramina and canals. After the quicksilver had been some hours in the ear the patient noticed it running into his throat, as though the mercury had diminished the size of the prolongation of metal in the Eustachian tube. It is possible, too, that the fine processes may have been chemically altered by prolonged contact with the gases and salts of the serum and pus at the temperature of nearly 100° F. I do not gather that my critics observed this

<sup>1</sup> Brit. Med. Jour., Oct. 10th, 1891.

temperature or the possibility of chemical changes in their experiments. On reading their article I at once wrote to the patient. He replies that the metal was "plumber's solder, lead mixed with tin." This settles the question between us, for it is this mixture that my critics found most affected by mercury in their experiments. The original piece of metal is in the custody of the College of Surgeons, and I should be sorry in any way to mutilate it. During the past fortnight there has been extracted from the nose of this patient, by means I need not occupy space in describing, two irregular masses of metal, obviously of the same origin and composition as the metal in the ear. These I have exhibited to Sir William Dalby, who has taken great interest in the matter, as he himself once removed impacted plaster of Paris from the ear by chemical solution. Anyone can see them who cares to do so, and I will in the future have them examined. I was not aware that the prevalent general commercial impurity extended so largely to lead, but when we consider the number of mixtures in use the full consideration of the question becomes purely a chemical one of some complexity. I am convinced of the efficacy of the mercury in the case related, and am content to leave the explanation of undoubted fact in the hands of others. If I have committed any errors in the relation of the case, such errors are purely those of inference, not of fact.

I sympathise with my critics in their efforts to extract the shot from the ear, and must confess that the failure of the mercurial method has disappointed me. I am informed that the composition of shot and ball differs also very widely, and a chemical examination of the metal in their case is as needful as in mine. It would be interesting to know if they have employed the syringe, especially one with a curved nozzle, while the ear is in a dependent position. As they can see the shot "lying on the floor of the canal," I should have expected this to succeed.

In conclusion, I will thank my Australian *confrères* for the interest they have taken in this case, for their ingenious explanation of an undoubted difficulty, and for the courtesy and kindness of their criticism.

I am, Sirs, yours truly,

A. MARMADUKE SHEILD, M.B. CAMB., F.R.C.S. ENG.  
Stratford-place, W., Oct. 10th, 1892.

## CORROSIVE SUBLIMATE INJECTIONS IN LUPUS.

To the Editors of THE LANCET.

SIRS,—Dr. Cowan Lees' suggestive remarks on the treatment of inoperable malignant neoplasms by the bichloride of mercury in oil in THE LANCET of Oct. 15th, induces me to refer to the treatment of lupus in its initial stages by the subcutaneous injection of corrosive sublimate in 1 per cent. aqueous solution, five or six minims of this being injected into the infected part with a suitable syringe. Three years ago I showed a patient before the Northumberland and Durham Medical Society affected with hypertrophic lupus of the left ala nasi, who had undergone the treatment and eventually recovered with only slight loss of tissue. In another case not of a hypertrophic character the patient recovered after a single injection, the site of the lesion being also in the left ala. This is now perfectly sound, but the seat of a round perforation and slight atrophy. In another case where the lupus was situated just under the left ala nasi, extending to the floor and slightly on to the septum naris, with considerable swelling of surrounding parts, three injections sufficed to cure, little recourse having been made to other remedies. It will be observed that I use a stronger solution of this salt than Dr. Lees, but it is the strength proposed by the author of the treatment, whose name I cannot for the present remember. The injection causes very considerable reaction with swelling of the tissues now and then, going on to the formation of abscess. As to its merits, as I have shown in lupus in its early stages, it is of great value, and I have adopted it as a matter of routine when I meet with suitable cases.

I remain, Sirs, yours faithfully,

WM. ROBERTSON, M.D. Glas.

Newcastle-on-Tyne, Oct. 10th, 1892.

## AN UNUSUALLY THIN SKULL.

To the Editors of THE LANCET.

SIRS,—The following case may be of interest to many, not only on account of being curious, but also from its bearing in a legal aspect.

On Saturday, Oct. 1st, at 5.15 P.M., I was called to see G. B—, labourer, aged about forty-five, who, it was stated, had been fighting. I found him insensible and suffering from fracture of the base of the skull, evidenced by bleeding from the ear; but with very careful examination both at the time and on the following day (Sunday) I could find no marks of violence whatever. He died on Monday morning at 1.15 without having recovered consciousness, thirty-two hours after the fight. I subsequently made a post-mortem examination and found two very slight, scarcely perceptible bruises on the point of the chin, as if caused by knuckles. On opening the cranium I found the base of the middle lobe of the brain lacerated by the plate of bone forming the glenoid fossa being driven in by the condyle of the inferior maxillary bone and a fracture extending across the base of the skull, and on the left side across the squamous portion of the temporal bone and the left parietal; but the bone of the left side of the head (parietal and squamous temporal) was nowhere thicker than the thin plate of a scapula, and the petrous portion of the right side was so friable that I crushed it quite easily with my finger and thumb. The man who is alleged to have caused his death is stated by several witnesses only to have struck him once, and was far too drunk to have hit very hardly.

I am, Sirs, yours faithfully,

FRANK OLDFIELD, L.R.C.P. Edin.

Boyson-road, S.E., Oct. 17th, 1892.

## PROPAGATION OF EPIDEMICS.

To the Editors of THE LANCET.

SIRS,—Adverting to the letter from Mr. Sherman Bigg in THE LANCET of Oct. 8th, under the heading, "The Propagation of Cholera," it might be interesting to quote the following passage from the Oration delivered before the Medical Society of London in the spring of 1820—viz., "I am aware the expression 'pestilential constitution' has been objected to on the ground of its involving the supposition of a latent undefined state of the air which it has been stated is nothing more than a creature of the fancy. But if we consider that the phrase is used to denote an ultimate fact or that state of things when the whole complication of causes which conspire to originate or propagate pestilence takes effect it is not unphilosophical, and when such men as Hippocrates, Sydenham, Bacon and Russel thought it necessary to take such a fact or principle for granted. I do conceive that we of the present day who have not witnessed what came under their individual observation are not at liberty to reject it because we cannot explain the cause. I therefore assume that during the prevalence of every pestilence there is a peculiar state of the atmosphere which—whether it be called corruption, as it is by Mead, or pestilential constitution, as by others; whether it be the absolute or only the concurring cause; whether it be a principle or only a quality—is no more necessary to be known in reasoning upon its effects than a knowledge of the gravitation, principle or power is essential to the proof of the existence of the law."<sup>1</sup> It seems legitimate to maintain that there may be such a condition of the atmosphere as that referred to above having a subtle affinity for the propagation of contagium and equally a pernicious effect on the resisting power of animals (man or otherwise) to become infected by that particular contagium. Otherwise, is it possible to understand how it is that some diseases which may be endemic in a locality pass from the sporadic to the epidemic type, and yet under continuous local conditions revert to their original character? Probably it may be that the contagium of a disease increases in such "a peculiar state of the air," thus leading to an epidemic, and then diminishes as it itself exhausts the pestilential pabulum or "constitution."

I am, Sirs, yours faithfully,

Sanitary Institute, Oct. 16th, 1892.

C. E. MACNAMARA.

## "NOTIFICATION OF INFECTIOUS DISEASE."

To the Editors of THE LANCET.

SIRS,—Dr. Corfield cites the Local Government Board as having ruled in accordance with his views on this subject, and one can only say, "pity 'tis 'tis true." I agree nevertheless with Dr. Goodhart in thinking that, whatever the letter of the

<sup>1</sup> Vide Hancock on the Laws of Pestilence, pp. 81 and 82.

Act may be, it cannot have been its intention to make each one of a number of medical men who may have seen an infectious case notify the same, such an obligation being neither in accordance with reason.—Dr. Corfield admits that "he does not want more than one certificate of one case"—nor with economy in the expenditure of rates. The word "every" in the quotation from the Act, commencing "Every medical practitioner" &c., may obviously be read as implying one of two things: (1) a provision that the Act shall not be frustrated by one man not notifying his infectious cases; or (2) that every infectious case must be notified by each medical man who may see it even when two or three do so. The latter is certainly a strained interpretation and, with all due respect to Dr. Corfield, the authority that "every month sanctions payments to two or three medical men for certifying a single case" in my opinion by so doing opens the way to confusion in its returns and sanctions an unnecessary expenditure of public funds.—I am, Sirs, yours faithfully,

Hull, Oct. 15th, 1892. G. F. ELLIOTT, M.D. Oxon. &c.

## WILLIAM HARVEY AT SUTTON PLACE.

To the Editors of THE LANCET.

SIRS,—The conjecture in your leading article of Sept. 24th, that the great William Harvey was sent for to Sutton Place, near Guildford, to attend a grandchild of the Countess of Arundel in 1619, is quite correct. I happen to have in the press a volume giving a history of the house, which has been for some time in the occupation of my family. When my father was making some alterations in 1875 a deed was found executed by Anne Countess of Arundel, April 13th, 1621. She was in occupation of the house during the absence abroad of the owner, Sir Richard Weston, who was a distant cousin of the Howards. Undoubtedly William Harvey stayed in the house, as did many other historical personages from time to time:—Henry VIII., Catherine of Aragon, Wolsey, Thomas Cromwell, Queen Elizabeth and her court, and many others.

I am, Sirs, yours faithfully,  
FREDERICK HARRISON.

Westbourne-terrace, W., Oct. 14th, 1892.

To the Editors of THE LANCET.

SIRS,—I see in your issue of Sept. 24th that the celebrated Dr. Harvey is mentioned as having been called in from London to attend a child at Sutton Place near Guildford. Your article is very interesting, as I am now the owner of the property through my mother, who was a Weston. Perhaps you will be interested to hear that the history of this house is about to be published soon by Macmillan, with many illustrations &c.

I am, Sirs, yours truly,  
F. H. SALVIN.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

### The Food of Seamen.

At a late meeting of the Tees Port Sanitary Authority the medical officer drew attention to the improper nature of the food served to seamen. In a case where he was present he saw that a crew was supplied with food consisting of "biscuits running alive and stinking meat." It was agreed to bring the matter under the notice of the Local Government Board.

### Durham University Intelligence.

Amongst the scholarships in arts, as the results of the late examinations issued on Saturday last, Mr. M. A. Archdall has gained the Medical Scholarship, value £100.

### Relief Fund in Newcastle for the Cholera in Hamburg.

A meeting has been held in the Mayor's Chamber, Guildhall, for the purpose of raising a relief fund for the cholera sufferers at Hamburg. The meeting was very well attended and the sum of £300 was subscribed in the room. While on the subject of cholera I may mention that the answer of the Local Government Board to the memorial of the Tyne Port Sanitary Authority came up for consideration at the last meeting of the Tyne Improvement Commission and the answer, in short, refused to grant the Tyne Sanitary Authority increased quarantine powers in case of cholera. It was stated at the meeting that they ought to

have larger powers to control the men and their movements when they came into the river a few hours after leaving an infected port. It was the general opinion that the medical officer had discharged his duties well with his limited powers, but that it was impossible for him at present to trace hundreds of sailors after they had left their ships and were dispersed in various parts of the country, and at present they were in the position that if there was a probability of cholera being introduced they had to apply to an authority that knew very little about them. It was agreed, in view of the great importance of the subject, that a special meeting of the Tyne Commissioners should be held shortly.

### Ambulance Work in the North.

An important meeting connected with ambulance work at the Elswick Works was held last week. Some idea of the interest taken in the ambulance classes in these great factories may be formed from the fact that last session 230 students entered for instruction, the greater number of whom completed the full course of lectures and instruction under Mr. R. C. Clark Newton, of this city, who was highly complimented on the success of his teaching and work.

### Sheffield Medico-Chirurgical Society.

The opening meeting of the session took place on Oct. 13th, when Mr. Snell delivered the inaugural address. Having alluded to the establishment of the *Sheffield Medical Journal*, the President proceeded to consider some of the lessons which he thought could be drawn from a glimpse at the life and work of the late Sir W. Bowman. It was, Mr. Snell said, Sir W. Bowman's habit of exact observation that placed him early in his career among the leading histologists of this century. Reference was made to his influence on ophthalmic surgery, which had been more the result of his oral teaching than of his writings. The distinct personality of the man, his dexterity as an operator, the charm of his manner were all alluded to, but the lecturer said that he was essentially an accurate and close observer, and it was on those characteristics that his enduring reputation rested. The method of Zsigmondy as mentioned by Dr. Lauder Brunton was referred to, and from this Mr. Snell passed on to speak of an aspect in the work of our societies which he thought was worth following out—he meant the after-histories of cases. The time at which a case was recorded might or might not be the most interesting or most important. He believed the Ophthalmological Society was undertaking some such work. A study of the records of the Society had shown him that he had records of the after-histories of many of the cases he had at different times either related or shown before the Society. Some of these he proceeded to sketch. One was the case of a girl with recurrent third nerve paralysis associated with migraine. At the time this case was published (in 1884) only two other cases of the kind had, he believed, been published. He had followed up this case, and at the present time the attacks of migraine persisted and were still accompanied with ocular palsy. Allusion was also made to cases of Graves' disease, to one of sarcoma of the eyeball, which had supervened after sclerotomy for glaucoma after a long interval, and whilst the interior of the eyeball could be illuminated there had been no growth detected. Mr. Snell also gave further particulars of a series of cases of extra-genital syphilis, some of which had already been recorded. Remarks were made as to the lessons to be learnt from these cases. The possibility of ulcers in different parts being syphilitic chancres should be borne in mind. The cases mentioned had come under notice in the ordinary course in an ophthalmic practice; the general surgeon had the opportunity of gaining a far larger experience from a much wider class. After referring to published statistics as to the frequency of non-venereal syphilis, Mr. Snell concluded an interesting address by saying that he hoped he had done something to show that the after-histories of cases were fraught with interest and value if founded on close and accurate observation.

### Medical Men as Magistrates.

Dr. Page and Mr. H. W. Newton of Newcastle-on-Tyne have both been placed on the Commission of the Peace for the county and city of Newcastle-on-Tyne. Newcastle has always had in the ranks of the profession men of public power and importance, and it is so still. Mr. Newton has been mayor and may possibly be so again. There is a great public rôle for medical men, though it should be one well above the rough level of mere party strife.

At a recent meeting of the rural sanitary authority at

Kirkby Stephen it was stated that the contracts had just been let for the construction of extensive waterworks for a group of villages in the Eden Valley.

Newcastle-on-Tyne, Oct. 10th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

### *Aberdeen Royal Infirmary.*

At a meeting of directors held last week, Dr. Scott Riddell, assistant surgeon, was specially attached in that capacity to Professor Ogston, and it was resolved to appoint a second assistant surgeon at the next meeting of directors on the 26th inst. Dr. Riddell is assistant professor of surgery in the University. Candidates for the vacant post are already in numbers in the field and are canvassing eagerly.

### *Health of Aberdeen.*

The death-rate in September was 16.36 per 1000, as against 15.84 in August and against 16.51 in September last year. There had been 307 cases of measles with 4 deaths, as against 63 with 5 deaths in the previous month; scarlet fever, 121 cases with 3 deaths, as against 86 with no deaths in the previous month; whooping-cough, 16 cases and no deaths, as against 45 cases and 8 deaths in the previous month; diphtheria, 6 cases; typhoid fever, 10 cases with 3 deaths; and typhus fever, 3 cases. The average daily number in the City Fever Hospital was 78.9. The medical officer of health again drew attention to the great and urgent want of increased accommodation at the hospital. He said it was absolutely necessary that immediate steps should be taken to provide better accommodation for the nurses, and the Public Health Committee decided to do as the medical officer suggested. Last week 356 cases of measles and 73 of scarlet fever were reported—an increase on the week of 192.

### *Aberdeen University: Dr. Hamilton on Asiatic Cholera.*

At the opening of the winter session in medicine at Aberdeen last week, Professor Hamilton delivered an impressive address on Asiatic Cholera. He first complimented the sanitary authorities for their vigilance in warding off any possible source of contagion from these shores. He then traced the history of the last epidemic from its source in India westwards, showing how it followed the lines of steamboats and railways, and explaining how an epidemic which used to take years to spread from India to the Atlantic, could accomplish the distance now in three months and a half. Cholera is essentially a dirt disease and is carried by dirty people to dirty places. The Holy Well of Mecca is a veritable hotbed of the malady. The disease in Hamburg was traceable to the pollution of the Elbe and Alster, from which the drinking-water was drawn. The famous case of East London and the Lea in 1866 was next quoted, and the lecturer finished by criticising the Aberdeen water-supply and pointing out dangers which might arise in the event of an outbreak of cholera.

### *Unwholesome Food in Aberdeen.*

The sanitary inspector of Aberdeen, in his report as to the inspection of unwholesome food, states that during the month of September he seized 1568 lb. of beef, 850 lb. of fruit, 1085 lb. of wet fish, and 2016 lb. of smoked fish, all of which had been destroyed either by the order of the magistrates or with the owner's consent.

### *Proposed Hospital for Turriff, Aberdeenshire.*

At a meeting of the Turriff District Committee of the County Council, the clerk intimated that it was practically impossible for them to get their fever patients treated at Chalmers' Hospital, Banff, and it was formally agreed to remit to a subcommittee to act along with the police commissioners of the burgh of Turriff in selecting a site and obtaining plans of a hospital to be built at or near Turriff.

### *The Glasgow Societies.*

The working season in the various societies has begun. The Medico-Chirurgical Society was opened last week with an address from the President, Dr. Joseph Coats, on the Infective Theory of Cancer. The first meeting of the Pathological and Clinical Society was held on Monday last, Dr. A. Napier showing two cases of myxœdema, in one of which remarkable improvement, which is maintained now three months after cessation of treatment, had followed the subcutaneous injec-

tion of an extract of sheep's thyroid; the second was a well-marked case, in which the same treatment was about to be adopted. Dr. R. M. Buchanan showed some very beautiful microscopic sections of thyroid gland from a fatal case of myxœdema. Drs. S. Gemmell and Lindsay Steven showed an aneurysm of the posterior wall of the transverse part of the arch of aorta in which there had been a remarkable absence of physical signs. Dr. A. E. Maylard showed a traumatic aneurysm of the radial artery which had been removed by excirpation.

### *Population; Public Health; Glanders.*

The medical officer of health for Glasgow has just made his calculation of the population in Glasgow proper for this year based on the number of tenanted houses—namely, 139,038. After deducting 1½ per cent., representing houses not occupied, and multiplying by 4.778 (the average number of inhabitants per house in 1891), the population was estimated as 654,361 persons. Adding to this inmates in institutions, harbour population &c., the population is estimated as 667,531. The death-rate for the fortnight ending Oct. 1st was 18.5, as against 18 for the previous fortnight. Since notification of "British cholera" and "choleraic diarrhoea" became compulsory on Sept. 22nd, twenty-one certificates of the former disease and fourteen of the latter had been sent in, but in none of the cases was there the slightest ground for suspecting a choleraic element in the strict sense of the term. The medical officer of health reports a case of glanders in a man. The unfortunate patient became ill on Sept. 20th and died on Oct. 3rd. He had been employed as a foreman in the service of the Glasgow Tramway Company. Glanders had existed for some time in the stud under his charge, and he believed that an infected animal had coughed or snorted in his face.

### *Fees for Attendances in Street Accidents.*

Some time ago the municipal authorities determined to allow a small fee for services rendered to the subjects of street accidents, especially in cases in which a practitioner had been called by the police. But lately some accounts have been presented not relating to street accidents, and as the four or five accounts rendered per month were felt to be a burden by this wealthy corporation, it has been determined to repudiate such accounts unless the doctors claiming certify that they have made every reasonable endeavour to recover the accounts from the patients or their friends and have failed. As Glasgow has quite the average number of accidents occurring in a large city, it is evident that as only "four or five" accounts have been sent in monthly, the medical men of the city have been doing practically their usual amount of gratuitous and often thankless work. As each individual fee in such cases is small, it is probable that few doctors will put themselves to the trouble of first "worrying patients and their friends." The authorities will have the satisfaction of telling their constituents in November next that they have effected a saving of "four or five" doctors' fees per month. But what a petty and undignified economy for the city of Glasgow!

### *Opening of the Medical Schools.*

This week sees the various medical schools in full swing. In the University the inaugural address was delivered by Professor Cleland in the Bute Hall. The ladies from Queen Margaret's College, thirty or forty in number, present in virtue of the absorption of their college by the University, were seated in one of the side aisles. [We publish part of Professor Cleland's lecture in another column.] At Anderson's College Medical School the session was opened by Professor W. L. Reid, who took for his theme the Life of Smellie, from which many lessons were drawn of courage, perseverance and devotion to science for its own sake. St. Mungo's College was opened with an address from Professor McVail, who first of all expounded and criticised the new five years' curriculum, devoting the remainder of his lecture to consideration of the questions: "Do we know disease in all its variety better than our predecessors, and can we deal with it more successfully than they could?" to which he replied most emphatically in the affirmative.

### *Western Infirmary.*

At a special meeting of the managers of the Western Infirmary yesterday Dr. Macewen was unanimously appointed one of the visiting surgeons in room of the late Sir George Macleod.

### *Professor Macowen's Opening Address.*

This was given on Wednesday, in the Bute Hall of the

University. Professor Macewen first warmly thanked those who had supported him and so enthusiastically congratulated him in connexion with his appointment to the chair of Surgery. He then referred in touching terms to his long connexion with the Royal Infirmary, speaking most gratefully of the services rendered to him by his nurses, his house surgeons, his colleagues and the directors of the infirmary. In the latter part of his lecture he recorded his early impressions of his teachers in the University, and referred to some of the distinguished men who had graced the various chairs in times past. His reference to the Hunters contained at least one good story. He said:—"However the Londoners may have been wanting in appreciation of John Hunter's genius while he lived among them, they have amply compensated for it by the care they have since bestowed upon his magnificent museum, to which they are constantly adding, and by the establishment of 'Hunterian Orations' the memory of his achievements is annually revived. Contrast this with what is done in Glasgow to perpetuate the memory of these two great men. The public have almost forgotten their name, and this is even the case at their birthplace, Longcalderswood, to which, in company with Dr. Mather, I made a pilgrimage in search of Hunter's house. When the question was put to one old lady as to the whereabouts of the house which used to be inhabited by the Hunters, she naively answered in the Scotch fashion: 'What hae *they* been daen that ye're speerin' for *them*?'"

Oct. 20th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

### *The New Lord-Lieutenant*

THE Royal College of Physicians has presented an address of welcome to the Lord-Lieutenant on his arrival in Ireland. They assured his Excellency that they were now ready, as in the past, to afford to Her Majesty's Government their hearty assistance in all matters relating to medicine and the health and welfare of the people.

### *Vice-Regal Appointments.*

The following is a complete list of those attached to the Lord-Lieutenant's household:—Physician in Ordinary, Christopher Nixon, M.D.; Surgeons in Ordinary, Richard F. Tobin, F.R.C.S., and Arthur Chance, F.R.C.S.; Surgeon Oculist, A. H. Jacob; Surgeon to the Household, T. Nedley, M.D.; Surgeon Dentist in Ordinary, Daniel Corbett, M.D.

### *Health of Dublin for September.*

The death-rate was 2.14 lower than the mean rate for the previous ten years. As compared with the preceding month there was a very great decrease in the mortality caused by measles, and the epidemic may now be considered as at an end. Owing to the prevalence of cholera in certain parts of the Continent precautions were taken to prevent the disease from invading Dublin. Great attention was paid to the cleansing of the streets and the flushing of sewers. About £130 worth of disinfectants were used in the flushing of courts, alleys, lanes &c.

### *Royal University of Ireland.*

The graduates' third annual conversazione will be held in the University buildings by permission of the Senate on the evening of Conferring Day, the 28th inst. The programme will include a concert, scientific exhibitions and demonstrations, and a military band will attend.

### *The Admission of Lady Students to the South Infirmary, Cork.*

The trustees have adopted a resolution permitting lady students to attend clinical instruction at this hospital, and the minutes of said meeting were signed on the 14th inst. Some of the trustees, however, consider that Rule 26 has been broken, and after an animated discussion for and against the admission of lady students, it was determined to hold another meeting of the board to consider the following notice of motion:—"That at the next board meeting the resolution of the 15th ult. relative to the admission of a lady applicant and other females as students to the clinical teaching of this hospital be rescinded on the grounds that such combined instruction of the sexes is prejudicial to the good working of the institution and has been found to work un-

satisfactorily in other hospitals." I believe I am correct in saying that there is no by-law of the infirmary which would prohibit the admission of lady students for clinical instruction, and that their application for admission is merely an act of courtesy on their part, which some of the trustees appear to be unable to appreciate.

### *Proposed Cottage Hospital for Bray, Co. Dublin.*

The medical officer of health and the consulting sanitary officer have recommended to the Bray Town Commissioners the erection of a cottage hospital for the use of the township, as in the event of an outbreak of cholera there is at present no proper place available but the Loughlinstown Workhouse Hospital, which is situated at too great a distance for patients suffering from cholera to be removed there. If not required now for the cholera it would be at all times available either for accidents or for epidemic diseases. The report has been referred to the Public Health Committee of the township.

### *American and Irish Surgery.*

Mr. N. Grattan, F.R.C.S. Edin., of Cork, who has just returned from the United States, has been elected a corresponding member of the Orthopædic Section of the New York Academy of Medicine. He is the first Irish surgeon who has received this honour. He gave a demonstration of his method of treating deformities before a large meeting of the Orthopædic Association at the Hospital for Cripples, Twenty-fourth-street, New York. Afterwards he gave a second demonstration to members of the profession at the Post-Graduate Medical School and Hospital. On Wednesday, Sept. 24th, Mr. Grattan gave the opening lecture and demonstrated his method of operating at the clinic of Dr. Sayre, Bellevue Hospital and Medical College. Last year the honour of giving the opening lecture was accorded to Sir William Mac Cormac, who is also a distinguished Irish surgeon.

### *Royal College of Physicians of Ireland.*

The annual meeting of the Fellows was held on St. Luke's Day for the purpose of electing a President and other office-bearers for the ensuing year. Dr. Finny's second year of office as President having terminated, the Fellows elected Dr. W. G. Smith as his successor. Dr. Smith is physician to Sir Patrick Dun's Hospital, and Professor of Materia Medica in the Medical School of the University of Dublin. Dr. Lombe Atthill was again re-elected representative of the College on the General Medical Council, and Dr. J. Moore, late registrar, has been succeeded by Dr. G. P. Nugent. At the same meeting Mr. Michael F. Cox, senior physician to St. Vincent's Hospital, was elected to the Fellowship of the College. Dr. Samuel Gordon has presented the College with a half-length portrait of its founder, Dr. John Stearne.

### *Hospital Dinner.*

The medical staff of St. Vincent's Hospital and some friends dined together at the Shelbourne Hotel on Tuesday evening, the first of a series of annual reunions.

### *Dispensary Medical Officers' Grievances.*

The Chief Secretary has refused to receive a deputation on the subject of the grievances of Irish dispensary medical officers on the ground that there would be no prospect of considering the necessary legislation in the approaching session of Parliament.

Oct. 18th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

### *High Altitudes and Health.*

A FEASIBLE explanation of one of the factors going to make up the sum of causes which brings about that often-marked amelioration in the health of phthisical persons who have recourse to the high altitude treatment would appear to be emphasised by the communication made by M. Egger at the recent meeting of the Swiss Society of Natural Sciences held at Bâle. This observer, taking the Alpine station of Arosa as his example, came to the same conclusion as Viault, who found that after a certain residence on these elevated plateaux the red corpuscles of the blood increased to a very notable extent. After two or three weeks' sojourn at an altitude of 1890 metres M. Egger found in a number of individuals an augmentation of the red discs to the extent of 1,500,000 per cubic millimetre. Now was this increase in the capillaries only apparent; it was real

and found to be the same in the larger arterioles. Neither was it due, in M. Egger's opinion, to any desiccation of the tissues by the dry atmospheric influences of the mountain. These observers further note that the red discs again diminished in quantity after a certain stay in the plains. M. Egger adds that he believes one of the causes of mountain malaise to be due to a relative anæmia of the organism, which latter must adapt itself to surrounding conditions. The benefit thus derived by tuberculous subjects from a stay on a mountain top on the one hand, and the anæmia which is an almost constant premonitory as well as a later sign of tubercular lung mischief on the other, appear to lend support to the theory that there is an antagonistic action between the tubercle bacillus and certain other embryonic elements, and would seem to say much in favour of the views of Pasteur's disciples.

#### *Intra-uterine Injection of Glycerine.*

The injection of glycerine into the rectum has for some years been current in practice, and it is recognised in certain conditions to be a very convenient and efficient method of administering an enema. It strikes me as strange that a substance so efficient in emptying the rectum should until now have been put to comparatively few trials in emptying the uterus of its contents, for *a priori* it seems a likely agent for this purpose. M. Pelzer records some observations made in the latter direction, and speaks favourably of intra-uterine injections of glycerine for the inducing of necessary premature labour as well as in cases of insufficient uterine contraction. His method of procedure is as follows: He takes a syringe of the capacity of 150 grammes, or a little over four ounces, and, having filled it with pure glycerine, he attaches it, through the medium of a gutta-percha tube, to a perforated sound. Having cleared the apparatus of air in the usual way, he introduces it into the uterine cavity between the posterior wall and the membranes to the fundus of the organ. The glycerine is then injected and the pelvis elevated to prevent its too rapid escape. In a very brief space of time energetic contractions are set up. The effect of the glycerine is due in part to its mechanical action in separating the membranes from the uterine wall and in part to its chemical affinity for water, by virtue of which some of the amniotic liquid is abstracted, which in turn contributes to a further detaching of the membranes. On the whole M. Pelzer was pleased with his results and suggests glycerine as worthy a further trial in obstetric practice.

#### *General Education of Midwives.*

Whilst in England the whole position and status of the midwife, to say nothing of her education, general (if any) or professional, is one of doubt and uncertainty, if not worse, and while schemes for her improvement off or on the face of the earth appear to be matters of sore contention, here in France it must be admitted the practice of midwifery by women as well as the position and professional scope of the midwife are on very clearly defined lines, the study of which by those interested for or against the Bill now or lately before the Westminster Parliament might well repay. Doctors' fees for obstetric work in France and its large towns are well known to be high, by comparison with those in England; but the explanation is not always added, which is that almost all the cheap midwifery here is done by the "sage-femme" or midwife, and those who are unable to afford even the services of the professional midwife have recourse to the lying-in wards attached to mostly all the general hospitals or to the maternity hospitals. The "sage-femme" of Paris thus occupies an intermediate but distinct professional position, and no complaint is ever made that she interferes with or encroaches on the doctor's sphere, to whom, however, she must always have recourse in cases of difficulty, for she is not allowed by the law to perform obstetric operations or use any instruments. It was only the other day that special permission was accorded to her to use perchloride of mercury in vaginal douches. Her professional education is well looked after, for she must do the curriculum and pass the examination prescribed before her diploma issues. As to her general education, the following letter from M. Bourgeois, the Minister of Education, to the rectors of the various faculties shows that in that respect also she will compare somewhat to the disadvantage of her English confrère:—"Monsieur le Recteur,—My attention has been called to the increasing inconvenience caused by the deficiency in primary education too often betrayed by the candidates for the diploma of midwife. .... For the future the possession of a certificate of primary study

will in no sense exempt candidates for the midwifery diploma from the preliminary examination instituted by the decree of Aug. 1st, 1879. Be good enough to inform the deans and directors in your academical centre of this division, and invite them to place it within the knowledge of those interested."

#### *Statues of Eminent Doctors.*

I cannot recall to mind where in England there is to be found a statue to any of the good and great men in our profession who have an undoubted claim on humanity, unless it be the single exception of Harvey's in Folkestone. Not so throughout France. Paris alone has statues to Broca and others, and will shortly have one to Ricord, for which the President of the Republic has approved the sanction of the Prefect of the Seine authorising the erection of the statue in one of the public places of Paris. To-morrow also will be inaugurated at Morlaix the bust of Depaul, formerly the well-known professor of obstetrics at the University of Paris. Oct. 19th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *The Cholera in Germany.*

THE number of cholera cases officially reported from Hamburg last week was 101, the number of deaths twenty-seven. The Imperial Office of Health has been for some time past investigating the behaviour of cholera bacilli on and in various kinds of fruit, beverages, tobacco, sweetmeats and fish, and will publish the results of the experiments soon.

#### *Professor Virchow's Inaugural Address as Rector of Berlin University.*

Professor Virchow was formally installed as Rector of Berlin University last Saturday, and delivered an address to the students and professors, in the course of which, while gratefully acknowledging the valuable results of classical education in the past, he declared that "the golden triad of mathematics, philosophy and natural science" must be the main staple of high education in future. I quote the following sentences as of special interest for medical men. "No schoolboy will be the worse for being able to name and distinguish a certain number of plants, animals or stones. But the essential discipline should consist in the training of the senses, especially those of sight and touch. At present we have to complain that a large number of our hearers have no exact knowledge of colours; that they make false statements about the form of the things they see; that they show no understanding for the consistency of bodies and for the nature of their surfaces. Nothing should be easier than to develop accuracy of judgment regarding colour and form, if not only observing but also simple drawing and painting were taught. Everyone can make use of such knowledge; for the medical man it is of the greatest value, as the diagnosis of the most important conditions not unfrequently depends on it. The experimental natural sciences, especially physics and chemistry, are also indispensable for school instruction, for they show better than anything else the genetic and causal connexion of processes, and prepare for the systematic study of the more abstruse problems of biology."

#### *Surgeon-General Dr. Mehlhausen.*

In accepting Surgeon-General Mehlhausen's resignation as Director of the Charité, the Emperor appointed him surgeon-general "at disposal," and bestowed on him the Star of the Crown Order of the second class. The decoration and the document accepting his resignation were conveyed to him by the Minister of Educational, Ecclesiastical and Medical Affairs. The Society of the Physicians and Surgeons of the Charité have elected him honorary president and presented him with an album containing photographs of all the former and present members.

#### *The New Director of the Charité.*

Surgeon-General Dr. Hermann Schafer, Surgeon-General Mehlhausen's successor as medical director of the Charité, received his medical education in the Berlin establishments for the training of medical men for the army. He graduated in 1864, passed the State examination in 1866, and served for some time after the French war in the Charité. He afterwards served in the garrison in Hanover. His last post was that of medical officer to the 17th Hussars at Brunswick,

where he was also Physician-in-Ordinary to the Prince Regent, Prince Albert of Prussia. Except a booklet on the care of children—which appeared in 1878—and lectures on various hygienic questions—which he published in 1884—all his medical writings have appeared in the *Militärärztliche Zeitschrift* (*Military Medical Journal*). Their subjects are the transference of small-pox by skin-grafting in the preliminary stage of the disease, Weil's disease, purpura &c.

#### Medical Incomes in Berlin.

From the income-tax returns recently issued the profession of medicine in Berlin would not seem to be one to be followed by men ambitious of financial success. There are 1747 medical men in this city—nearly half the profession—who make less than £150 a year. Only 250 make £400, and 170 more than £500. If this is the state of matters in the capital, what must it be in the country?

Berlin, Oct. 18th

## Obituary.

### DR. PIETRO PELLIZZARI.

ON Sunday, the 2nd inst., the Florentine school lost this able and accomplished teacher and consultant after an illness of several months' duration. Dr. Pellizzari held the chair of Dermosyphilopathy in the Istituto de' Studi Superiori, and in connexion with it had charge of the wards set apart for syphilitic and cutaneous diseases in the hospital of the S. Maria Nuova. In both capacities, as an expounder of system and as a clinical instructor, he had rare gifts and accomplishments, the combination of which rendered him the most popular and the most effective teacher and examiner in his special *métier* throughout Italy. Students from all parts of the peninsula flocked to his prelections and clinique, while for years he had established among his compatriots the highest position as a practitioner and consultant. "The Italian Ricord" was a title he was well and widely known by. His youth, like that of so many other Italians who have risen to professional distinction, was spent in an atmosphere of revolution, and in sympathy with the cause of his country's independence and unity he served in the ranks of the volunteers in more than one patriotic rising. The consummation of a "united Italy with Rome for capital" once achieved, he threw himself with ardour into medical study—ardour all the more intense for the interruption so nobly incurred—and speedily rose to the front rank in the speciality which became his own. He was a powerful advocate of the disposal of the dead by cremation, and had indeed for many years been President of the "Società dei Cremazione" in Florence. In the terms of his will, and in keeping with his life-long precept, his body was on the 4th inst. reduced to ashes in the local "Tempio Crematorio." His funeral, which took place on the 3rd inst., was one of the most largely attended and the most impressive lately witnessed in Florence. The leading lights of the Florentine and other Tuscan schools, whether in the medical, legal, or literary faculties, were numerously represented, and professional colleagues from all parts of Italy, and even foreign delegates like Professor Moriz Schiff of Geneva, assisted in person. Notable in the funeral *cortège* was the large attendance of students of present and former years, and still more so the few survivors of the revolution of 1848, who, under the banner of the "Reduci delle Battaglie Patrie," accompanied their old companion-in-arms to his last resting-place. A selection from his numerous papers and prelections on obscure points of syphilitic and cutaneous diseases will, it is understood, be collected shortly and, preceded by a biographical memoir, be published. Dr. Pellizzari was in his seventieth year.

### DR. JULIUS VON BEREKSZASZI.

To students who have worked at laryngology or rhinology in Vienna the name of Dr. Julius von Berekszaszi is familiar. Those who were so fortunate as to be admitted to his classes regarded him with respect and affection. All who knew him will be grieved and surprised to hear that he died recently of aneurysm of the aorta. He was only forty-five years of age, and from his appearance seemed destined to live the full span allotted to mortals. His death took place during a holiday visit to Bad Zardpoort in Holland. Shortly after his bath he sank down before the door of his hotel and expired. Dr. Berekszaszi will be greatly missed by a large circle of

friends. By his genial manner he had endeared himself to his colleagues as well as to students and patients. More than one thousand letters of condolence were received by his widow.

## Medical News.

**EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.**—The following gentlemen passed the Second Examination of the Board in Anatomy and Physiology at a meeting of the Examiners on the 10th inst. :—

Julio D. Amenábar, of Owens College, Manchester; Edward L. Roberts and Horace R. Wilson, of University College, Liverpool; James Boyd, of Glasgow University and St. Mary's College; William J. Gray, of Edinburgh University; Edward T. Coady, of the Catholic University, Dublin; John A. Hall and Leonard K. Thomas, of Mason's College, Birmingham; Stephen Y. Howell, of the College of Physicians and Surgeons, New York.

**Anatomy only**—Harold Jackson, of Yorkshire College, Leeds, and St. Mary's Hospital; Sydney Crompton, William S. Freer, and William Sutcliffe, of Mason's College, Birmingham; John B. Chadwick, Harry P. Dalley, and William Chapman, of Owens College, Manchester; George R. Sparrow, of University College, Liverpool; John A. MacPhail, of McGill College, Montreal; Edward J. C. Kennedy, of McGill College, Montreal, and Mr. Cooke's School of Anatomy and Physiology.

**Physiology only**—Cyril H. Flory and Herbert A. L. Banam, of Sheffield Medical School; Percy A. Chilcott, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Duncan N. MacLennan, of Queen's College, Kingston, Canada, and London Hospital; Arnold J. Thompson, of Mason's College, Birmingham; Charles A. Phillips, Percy Kitchen and William S. Dibbs, of Yorkshire College, Leeds; John H. Wigham, of Yorkshire College, Leeds, and St. Mary's Hospital; Albert Hodge, of Owens College, Manchester.

Eleven candidates were referred in both subjects, six in Anatomy only, and six in Physiology only.

Passed on the 11th inst. :—

**Anatomy and Physiology**—Charles E. Layton and George C. Belcher, of Mason's College, Birmingham; Charles G. Higginson, of Owens College, Manchester; Eldon Pratt, of St. Bartholomew's Hospital; Robert A. Nesham and James R. Kingdon, of Cambridge University and St. Bartholomew's Hospital; Chintaman R. Bakhtia, of Grant Medical College, Bombay; Robert P. Smallwood, of Cambridge University; George W. Penny, of St. Thomas's Hospital.

**Anatomy only**—Arthur Cant, of Mason's College, Birmingham; Mohamed A. Ghani, of Lahore Medical College, Punjab; Frank R. Proctor-Sims and Richard L. Roberts, of Guy's Hospital; Guy P. U. Prior and John R. Benson, of King's College; Finch White, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; Frederick E. H. Keogh, of St. Mary's Hospital; John S. Hosford, Gerald H. Goddard, and John Blackwood, of University College; Alfred B. Wright, of London Hospital; Alfred W. Wilson, of Melbourne University and London Hospital; Alexander S. Grant, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Walter P. X. Hopkins, of St. Bartholomew's Hospital.

**Physiology only**—Edward H. Phillips and George Y. Myrtle, of Yorkshire College, Leeds; Arthur T. Jones and Henry W. Lloyd, of University College, Liverpool; William E. Bracey, of Mason's College, Birmingham; Ernest William Ormerod, of Bristol Medical School and Mr. Cooke's School of Anatomy and Physiology; Joseph Broadbent and John T. Barritt, of Owens College, Manchester; William M. Coghlan, of St. Bartholomew's Hospital; Walter H. Morgan, of Charing-cross Hospital and Mr. Cooke's School of Anatomy and Physiology; Thomas W. Turner, of London Hospital and Mr. Cooke's School of Anatomy and Physiology.

Eight candidates were referred in both subjects, four in Anatomy only, and eleven in Physiology only.

Passed on the 12th inst. :—

**Anatomy and Physiology**—Harry J. M. Smith and John W. Bird, of Guy's Hospital; Herbert S. Oliver, of Charing-cross Hospital; Herbert E. Gibson, of University College; Robert Hughes, of St. Thomas's Hospital; Charles H. Hopkins, of St. Bartholomew's Hospital; George C. Hancock, of Westminster Hospital and Mr. Cooke's School of Anatomy and Physiology.

**Anatomy only**—William G. Mitchell, Berthon F. Pendred, Ellis R. Thomas and Archibald A. Price, of Guy's Hospital; Edgar Thomas Inkson, of University College; Ernest T. Clayton, of Charing-cross Hospital; Richard Armitage, of St. Bartholomew's Hospital.

**Physiology only**—Edgar T. Lanyon and Alfred E. Sears, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Eugene Moore, of Guy's Hospital; Alfred W. Hayles, of King's College; Edward G. Moon and Basil Pares, of St. Mary's Hospital.

Fifteen candidates were referred in both subjects, three in Anatomy only and nine in Physiology only.

Passed on the 13th inst. :—

**Physiology only**—John W. Ensor and Ernest H. Tipper, of Guy's Hospital; Lionel H. Y. Stephens, of Yorkshire College, Leeds, and Guy's Hospital; Cyrus W. Smith, Joseph L. F. de Gannes, Algernon C. Bean and Arthur B. E. Sworn, of University College; Samuel B. Blomfield, of Westminster Hospital and Mr. Cooke's School of Anatomy and Physiology; James H. de Villiers, George W. Brown, Frank E. Saunders and Percy L. Blaber, of St. Thomas's Hospital; George Candler, of Cambridge University and St. Thomas's Hospital; Thomas Horbert, Francis H. Bailey-King and Alan P. Brehm, of Middlesex Hospital; Alfred K. M. Curtis and Lewis Savin, of Middlesex Hospital and Mr. Cooke's School of

Anatomy and Physiology; William T. Dempster, Thomas H. Parker and Alexander S. McSerey, of King's College; William F. Brooks, of Charing-cross Hospital; Hubert H. Thomas, of Charing-cross Hospital and Mr. Cooke's School of Anatomy and Physiology; Thomas Hood and Arthur H. Beadles, of St. Bartholomew's Hospital.

Eleven candidates were referred in Physiology.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.**—The following have passed the Second Professional Examination:—

U. J. Burke, T. Cairns, R. Coffey, E. P. Coogan, B. Coyle, C. J. Fallon, L. A. Hare, R. Hassard, E. J. Hogan, T. J. Jordan, H. T. Kennedy, W. P. Marriott, J. G. Morgan, I. J. M'Donogh, C. J. O'Gorman, H. S. Roberts, W. Ryan, J. Sheridan, S. Stewart, W. Stratton, J. H. Walsh, J. S. Watson and M. A. Wilmé.

**ROYAL UNIVERSITY OF IRELAND.**—The following have passed the Medical Degrees Examination:—

*Upper Pass Division*—James Lyness, William A. Rountree. (These candidates may present themselves for the further examination for Honours.)

*Pass Division*—James F. Barrett, Francis Brannan, Francis H. Clements, Peter Deo, Hugh J. Dickey, Victor G. Fielden, Matthew Ledwich, Herbert C. Mooney, Adam Moss, Patrick J. O'Brien, Daniel O'Callaghan, John O'Donnell, Daniel O'Driscoll, Thomas Pedlow, Joseph M. Richey, Lawrence Rowan, David J. Ryan, Howard Sands, James A. Scott, John Scott, William Scott, Edwin S. Topping, Edward T. Vint and John J. Yorke.

*Diploma in Mental Diseases*—John Mills and William C. Sullivan.

The following have passed the first examination in medicine of the University:—

Hugh Bell, H. F. Browne, Wm. Calwell, S. D. Clements, W. G. Cousins, S. L. Cummins, J. Danaher, J. Dorgan, F. E. Dowling, D. Fleck, T. H. Gloster, E. S. Gorman, T. F. Heas, J. T. Hunter, R. J. Johnstone, T. Kennedy, E. A. Kirkwood, J. Kirwan, E. J. Liddle, Geo. Liddle, J. M. Lynch, J. H. McComb, P. W. McHugh, F. C. McKee, T. Magner, Wm. McWhirter, A. Montgomery, D. H. O'Brien, T. P. O'Carroll, R. O'Flaherty, E. F. O'Sullivan, J. Park, J. Shinkwin, J. Slattery, R. B. Throfall, W. White, and William J. Wilson.

The undernamed will be allowed to present themselves for honours in the following subjects:—

*Botany*.—W. J. Cousins, R. J. Johnstone, E. J. Liddle, W. H. Mewhlrter, E. F. O'Sullivan, James Park, Wm. White, Wm. J. Wilson

*Zoology*.—J. Dorgan, E. S. Gorman, R. J. Johnstone, Thos. Kennedy, E. J. Liddle, J. M. Lynch, T. O'Carroll, J. B. Slattery, William White.

*Experimental Physics*.—S. D. Clements, T. H. Gloster, E. S. Gorman, Robert J. Johnstone, Thos. Kennedy, James St. L. Kirwan, Alexander Montgomery, Daniel H. O'Brien, Joseph Shinkwin, William White.

*Chemistry*.—E. S. Gorman, Robert J. Johnstone, Thomas Kennedy, Daniel H. O'Brien, Patrick E. O'Flaherty, and William White.

**MEDICAL MAGISTRATE.**—Dr. T. Starkey Smith, of Warrington, has been placed on the Commission of the Peace for that borough.

**METROPOLITAN ASYLUMS BOARD.**—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight on Oct. 18th was as follows:—Eastern Hospital, 404 scarlet fever, 53 diphtheria and 45 enteric fever; North-Eastern Hospital, 218 scarlet fever; North-Western Hospital, 401 scarlet fever, 101 diphtheria and 17 enteric fever; Western Hospital, 304 scarlet fever, 39 diphtheria, 1 typhus fever and 18 enteric fever; South-Western Hospital, 304 scarlet fever, 55 diphtheria and 25 enteric fever; South-Eastern Hospital, 395 scarlet fever, 26 diphtheria and 13 enteric fever; Northern Hospital, 904 scarlet fever and 17 diphtheria; Gore Farm Hospital, 779 scarlet fever. On the hospital ship *Atlas* there were 5 cases of small-pox.

**CHARITABLE BEQUESTS.**—It is not often that great wealth accumulated by commercial enterprise comes to be so beneficently bestowed as in the case of the distribution of the effects of the late Mr. Berridge. The trustees, too, are to be congratulated on the judgment with which they have, according to our information, apportioned the legacy of £150,000 recently bequeathed by the testator for public purposes chiefly connected with public health. The Sanitary Institute receives £10,000; the British Institute of Preventive Medicine £40,000; King's College, £10,000 towards the expenses of founding its Public Health Department; University College £10,000, for the chair of Hygiene. The sum of £2000 is to be handed over to the Plumbers' Company in support of their scheme for the registration and training of plumbers; whilst a large sum has been set apart for the teaching of cookery in schools. The late Mrs. Maria Macdonald of Newcastle has bequeathed the following charitable legacies:—Newcastle Infirmary, £1000; Blind Asylum, £300; Sick Children's Hospital, £300; Northern Counties Orphanage, £300; Boys' Refuge, £300; Aged Female Society, £300.

**THE NORTH BIERLEY JOINT HOSPITAL.**—This new hospital for infectious diseases, erected by the North Bierley Joint Hospital Board, was formally opened on Saturday by Mr. Arthur Anderson of Cleckheaton. The total estimated cost of the site, buildings and furnishing is £8500. The buildings comprise an administrative block, a pavilion with two wards of six beds each, an isolation block, with four wards and ten beds, a mortuary and other necessary accommodation.

**MEDICO-PSYCHOLOGICAL ASSOCIATION.**—There will be a meeting of this Association at Mullingar Asylum on Oct. 27th, when the following papers will be read:—Dr. Finnegan: Dress of Asylum Inmates. Dr. West: Farms for Asylums. Drs. J. N. Eustace and Parsons: Pachymeningitis Hæmorrhagica Interna. Dr. Nash: (a) Alcoholic Neuritis and Insanity; (b) Puerperal Insanity with High Fever. Dr. Rutledge: Muscular Atrophy limited to certain groups of muscles. Dr. Nolan: Syphilitic General Paralysis.

**UNIVERSITY OF ABERDEEN: EXAMINERS FOR GRADUATION IN MEDICINE.**—The University Court, at a meeting on Oct. 11th, appointed the following to be examiners for 1892-3:—Anatomy: Bertram C. A. Windle, M.D. &c., Mason College, Birmingham. Botany and Materia Medica: Jas. Galloway, M.D. Lond. Chemistry and Medical Jurisprudence: Alfred Hill, M.D. Aberdeen, Birmingham. Natural History and Institutes of Medicine: George N. Stewart, M.D. Camb. Practice of Medicine and Pathology: Sidney Coupland, M.D. Lond. Surgery and Midwifery: George M. Edmond, M.D. Aberdeen.

**ROYAL COLLEGE OF PHYSICIANS IN IRELAND.**—The following officers have been elected for the ensuing year:—President: W. G. Smith. Vice-President: J. Moore. Censors: J. Moore, C. Norman, Joseph O'Carroll, W. Smyly. Additional Examiners to take the place of an absent Censor: Medicine, H. C. Tweedy; Medical Jurisprudence and Hygiene, Joseph Redmond; Midwifery, A. Horne. Examiners for the Licence to practise Midwifery: A. J. Horne, A. V. Macan. R.C.P.I. Examiners under the Conjoint Scheme with the R.C.S.I. (not including the above Censors, who examine at the Fourth Professional Examination)—Chemistry and Physics: H. T. Bewley, Edwin Lapper. Materia Medica and Pharmacy: Ninian Falkiner, F. J. Quinlan. Physiology: John Purser. Medicine (second and third professional examinations): W. Beatty, E. Cosgrave. Hygiene and Forensic Medicine: John Molony. Membership Examiners—Clinical Medicine: J. Moore, Joseph O'Carroll. Pathology: H. T. Bewley, C. Norman. Practice of Medicine and Principles of Public Health: Joseph Redmond, H. C. Tweedy. R.C.P.I. Examiners for the Conjoint Diploma in State Medicine—State Medicine and Hygiene: F. J. Quinlan. Meteorology: J. Moore. Chemistry: Edwin Lapper. Engineering: A. Murray. R.C.P.I. Examiners in Preliminary Education—Science: E. Cosgrave. Languages: H. T. Bewley. R.C.P.I. Representatives of the Committee of Management: J. M. Finny, T. Grimshaw, C. J. Nixon. Representative on the General Medical Council: L. Athill. Registrar: G. Nugent. Librarian: S. Wilson.

**FOOTBALL CASUALTIES.**—On the 6th inst., while teams representing the Victoria Rangers of Aberdeen and the Cutter Club were playing a match at Cutter, a member of the latter club, aged twenty-three, came into collision with another player and received injuries from which he died the next day.—During a match (Brimington United against Brimington) on the 11th inst. a player had his "kneecap severely kicked."—The following four accidents occurred on Saturday: In a match at Holburn (Thistle against Grammar School, F. P.), the Thistle Club captain sustained a serious injury to the nose; during a match (Branston Unity against Perriams Teams) at Sattley a player, aged twenty-one, collided with another player and fractured his left leg; in the course of a match at Kelbourn-park, Kelvinside, Glasgow (between the Perthshire Athletic Club and the Royal Scots Fusiliers), a member, aged twenty-five, of the Perthshire team had his left leg fractured above the knee; also a boy aged eleven, while playing in a field off Dumbrick-road, fractured his leg.—In a match between some youths in the Vicarage-road, King's Heath, a player, in attempting what is called a "scrow kick," gave himself a violent twist, death ensuing shortly afterwards. A post-mortem examination revealed that the intestines were twisted and caused the fatality.—A boy aged seven, while playing in a game on Tuesday in Gledhow-street, Leeds, received an injury to his leg and was admitted to the Leeds Infirmary.

**MEDICAL CORONER.**—Mr. Albert Green, M.B. Lond., M.R.C.S.; L.R.C.P., has been appointed deputy coroner for the Hundred of Scarsdale, North Derbyshire.

**SCARLET FEVER AT SOUTHAMPTON.**—An outbreak of scarlet fever has taken place at Southampton, resulting in the closing of a school. So far it has been strictly localised, and all the cases have been conveyed to hospital. One person has been fined 5s. for illegally exposing his son in the street whilst suffering from the disease.

**CHESTER INFIRMARY.**—The new Humberstone wing of this infirmary was opened by the Duke of Westminster on Wednesday last. The addition has cost upwards of £2500, and was designed as a memorial of the late Colonel Humberstone, who for twenty-five years acted as chairman of the board of management of the institute.

**ST. VINCENT'S HOSPITAL, DUBLIN.**—The following prizes have been awarded for the past session:—Senior Class—Bellingham Medal in Clinical Medicine: James P. Marnell. O'Ferrall Medal in Clinical Surgery: James F. Barrett. Third Year's Class—Prize: John R. O'Brien. Junior Class—Junior Clinical Prizes: John H. Davis and Patrick F. Morrissey (equal).

**ANOTHER UNDERGROUND LAVATORY.**—In opening to the public the underground lavatory in Watterton-road on Thursday, the 13th inst., Mr. John Williams, chairman of the Works Committee, stated that the vestry had now been convinced that establishments of this kind, if carefully managed, were self-supporting, and expressed a hope, endorsed by Mr. Whur, Deputy-Surgeon-General Jessop and Mr. Rayner, that the time was approaching when lavatory accommodation would be provided in all suitable thoroughfares in the parish.

**SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.**—Sir James Paget, President, took the chair at the quarterly Court of Directors held on Wednesday, Oct. 12th. Fifty-eight widows, 12 orphans and 4 orphans on the Copeland Fund made applications for grants and it was resolved that a sum of £1256 should be distributed among them at the next Court. The directors had great pleasure in recommending that a Christmas present should be given this year to the widows and orphans on the fund—viz., £5 to each widow, £2 to each orphan and £5 each to the 4 orphans on the Copeland Fund—in all, £334. Four new members were elected and the deaths of 4 reported. The death of a widow was announced and 3 orphans had ceased to be eligible for further grants. The expenses of the quarter were £63 14s. 6d. A legacy of £20 had been received from the executors of Mr. J. G. Davies, a life member.

**ÆSCULAPIUS LODGE, No. 2410.**—The installation meeting of this lodge was held on Wednesday, the 12th inst., at the Café Royal, Regent-street, W. Brother Brindley James, P.M., W.M., presided, and there were also present, besides the officers of the lodge, Brothers the Rev. R. J. Simpson, M.A., P.M., P.G. Chap.; Ralph Gooding, M.D., P.M., P.G.D.; M. Coates, M.D., P.M.; W. Ernest Dring, P.M.; Lewis Lewis, H. G. Blackmore, Edward S. Bell, C. Luxmore Drew, M.B., and N. E. Yorke Davies. After the lodge had been opened &c., Brother Brindley James, P.M., installed Brother Deputy-Inspector-General Belgrave Ninnis, M.D., P.M., G. St. Br. as W.M. for the ensuing year. The newly installed Master then appointed the following brethren officers for the year:—Brothers Brindley James, I.P.M., F. Ernest Pocock, M.D., P.M., S.W.; Jacob Pickett, M.D., J.W.; G. Danford Thomas, M.D., Treasurer; Thomas Dutton, M.D., P.M., Secretary; G. Crawford Thomson, M.B., S.D.; Anthony Nutt, J.D.; Lennox Browne, F.R.C.S. Ed., P.M., D.C.; Frank Oldfield, P.M., S.G.; E. H. Ezard, M.D., Steward; Henry W. Kiallmark, P.M., Steward; Samuel Ellis, Tyler; Mr. William Arbuthnot Lane, M.S. Lond., F.R.C.S. Eng., and Mr. Frank Fowler, L.R.C.P. Lond., M.R.C.S. Eng., were then admitted into Freemasonry. Brother J. H. Garland Wrighton, L.D.S. Eng., P.M., was duly elected a joining member. A handsome Past-Master's jewel was presented to Brother Brindley James for the admirable manner in which he had carried on the work of the lodge during the past year. The auditors' report was read by the treasurer and unanimously adopted and other routine business transacted, after which the lodge was closed. The usual loyal and masonic toasts were given at the banquet with commendable brevity, and a very pleasant reunion of the brethren took place.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

**ALLAN, FRANCIS J., M.D., D.P.H.**, has been appointed Lecturer on Sanitary Science to King's College, London.  
**DAUNT, E., L.R.C.P. Lond., M.R.C.S.**, has been appointed Medical Officer for the West Brigg Sanitary District of the Lincoln Union.  
**FOOT, E. G., M.R.C.S.**, has been appointed Medical Officer for the First Sanitary District of the Takeham Union.  
**GOODMAN, F. G., M.D., M.Ch. Dub.**, has been appointed Medical Officer for the East Brigg Sanitary District, Public Vaccinator for the Barnetby Sanitary District, and Medical Officer for the Workhouse of the Lincoln Union.  
**MASON, GEORGE A., M.A., M.B., B.C. Cantab.**, has been appointed House Physician to the Great Northern Central Hospital.  
**MAYNARD, D. F., M.B., C.M. Edin.**, has been appointed House Surgeon to the Sussex County Hospital, vice Calvert, resigned.  
**MERCER, W. B., B.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P.**, has been appointed House Physician to the Royal Hospital for Diseases of the Chest, City-road, E.C.  
**PEARSE, FRANCIS J., M.R.C.S.**, has been appointed Divisional Surgeon to the A Division of the Metropolitan Police; also Medical Officer to the United Westminster Almshouses.  
**RADFORD, WILLIAM J., L.R.C.P. Lond., M.R.C.S.**, has been appointed Senior House Surgeon to the Poplar Hospital for Accidents, vice Hawtrey Collins, resigned.  
**ROE, M. W., M.R.C.S.**, has been appointed Medical Officer for the Constantine Sanitary District of the Falmouth Union.  
**ROGERS, J. F., L.R.C.P. Edin., M.R.C.S.**, has been appointed Public Vaccinator to St. Luke's Holborn Union, vice Yarrow.  
**SNADDEN, JAMES, M.B., C.M. Edin.**, has been reappointed Medical Officer of Health for the Fourth Sanitary District of the Wortley Union.  
**SMITH, JOHN A., M.R.C.S.**, has been appointed Medical Officer for the Shitlington Sanitary District of the Wakefield Union.  
**SWALLOW, F. McDONALD, L.R.C.P., L.R.C.S. Edin.**, has been appointed Medical Officer of Health for the Rural Sanitary District of the Penistone Union.  
**WEBSTER, A., L.R.C.P. Lond., M.R.C.S.**, has been appointed Medical Officer for the First Sanitary District of the Middlesbrough Union.  
**WILLOCKS, A. D., M.R.C.S.**, has been appointed Medical Officer of the Taunton Workhouse, vice Iles, resigned.  
**WOOD, J. C., L.R.C.P., L.R.C.S. Edin.**, has been appointed Medical Officer of Health for the Sunderland Urban Sanitary District of the Sunderland Union, vice A. E. Harris, resigned.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement.*

**BIRMINGHAM GENERAL DISPENSARY.**—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights and attendance.  
**BRISTOL EYE HOSPITAL.**—House Surgeon. Salary £120, without board or residence.  
**CHURCH OF SCOTLAND JEWISH MISSION.**—Medical Missionary for the mission and Hospital at Smyrna. Salary £300, with dwelling-house. (Applications to the Rev. Dr. Alison, 1, South Lauder-road, or Mr. J. A. Trail, W.S., 17, Duke-street, Edinburgh.)  
**DEVON COUNTY LUNATIC ASYLUM.**—Assistant Medical Officer. Salary £100, rising by an annual increase of £10 to £120, with board, lodgings and washing.  
**EAST LONDON HOSPITAL FOR CHILDREN,** Glamis-road, Shadwell, E.—House Physician. Board and lodging provided.  
**GENERAL HOSPITAL, Barbadoes, West Indies.**—Junior House Surgeon for three years. Salary £200 per annum and quarters. (Applications to the Secretary, General Hospital, Barbadoes.)  
**GLAMORGAN COUNTY COUNCIL.**—County Medical Officer. Salary £750 per annum, of which £150 is intended to cover all travelling and office and laboratory expenses.  
**HENLEY UNION.**—Medical Officer for the Watlington District of the Union. Salary £105 per annum, and the extra remuneration provided by the Order of the Poor Law Commissioners, and 10s. per case for midwifery cases.  
**HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNAECOLOGY),** Soho-square, W.—Clinical Assistants.  
**HUNDERSFIELD INFIRMARY.**—Honorary Physician.  
**LONDON THROAT HOSPITAL, 204, Great Portland-street, London.**—House Surgeon for six months. Honorarium at the rate of £50 per annum.  
**METROPOLITAN HOSPITAL, Kingsland-road, N.E.**—Surgeon.  
**NATIONAL DENTAL HOSPITAL, Great Portland-street, London.**—Anesthetist.  
**NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS,** Soho-square.—Physician.  
**NORTH-WEST LONDON HOSPITAL, Kentish Town-road.**—Resident Medical Officer for six months, and Assistant Resident Medical Officer for six months. Salary for the senior post £50.  
**NORTH-WEST LONDON HOSPITAL, Kentish-town-road.**—Assistant Surgeon.  
**POPULAR HOSPITAL FOR ACCIDENTS, Blackwall, E.**—Junior House Surgeon. Salary £50 a year, with board &c.  
**ROTTERHAM HOSPITAL AND DISPENSARY.**—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks) and washing provided.

**ROYAL NATIONAL HOSPITAL FOR CONSUMPTION**, Ventnor, Isle of Wight.—Assistant Resident Medical Officer. Salary £70 per annum, with board and lodging in the hospital. (Applications to the Board of Management, 34, Craven-street, Charing-cross, London.)

**SHEFFIELD SCHOOL OF MEDICINE**.—Tutor, to take charge of Dissecting Room and hold classes in Anatomy and Physiology. Salary commencing at £100.

**WESTON-SUPER-MARE HOSPITAL AND DISPENSARY**.—Medical Officer to the Provident Dispensary attached to the Hospital. Salary £60 per annum, with board, lodging and washing.

## Births, Marriages and Deaths.

### BIRTHS.

**BAKER**.—On Oct. 15th, at The Hawthorns, Church-end, Finchley, the wife of James Barrington Baker, M.D., of a son.

**BRODIE**.—On Oct. 17th, at Fakenham, Norfolk, the wife of F. Cardon Brodie, M.B., of a daughter.

**HARDING**.—On Oct. 10th, at Douro-place, Dover, the wife of Surgeon-Major A. Harding, Army Medical Staff, of a son (premature).

**HEWITSON**.—On Oct. 16th, at Park Villa, Hetton-le-Hole, co. Durham, the wife of William Andrew Hewitson, M.R.C.S. Eng., L.R.C.P. Ed., of a son.

**HUMPHRY**.—On Oct. 17th, at Townsville, Queensland, the wife of Ernest Humphry, M.R.C.S. Eng., of a daughter.

**POCOCK**.—On Oct. 12th, at Manor-view, High-road, Streatham, the wife of Alfred Pockock, M.R.C.S. Eng., L.R.C.P. Lond., of a son.

**RANSOME**.—On Oct. 13th, at The Downs, Altrincham, the wife of Herbert F. Ransome, L.R.C.P., M.R.C.S., of a daughter.

**SEATON**.—On Oct. 14th, at the Limes, Capham-common, S.W., the wife of Edward Seaton, M.D., F.R.C.P., of a daughter.

**SKIPPER**.—On Oct. 17th, at Tollington-park, N., the wife of Edward Skipper, M.D., of a son.

### MARRIAGES.

**CRAN—BERTRAM**.—On Oct. 12th, at Post Cliffe, Peterhead, Aberdeenshire, by the Rev. James Aird, M.A., Minister of the parish, assisted by the Rev. Gavin E. Argo, M.A., Kincardine, O'Neil Robert Cran, M.D., M.C., Ballater, to Elizabeth Bertram, only daughter of John Johnston.

**FERGUSON—MACHIN**.—On Oct. 18th, at Christ Church, Brondesbury, N.W., by the Rev. C. Dale William, M.A., Rector, assisted by the Rev. W. G. Whinfield, B.A., of the Parish Church, Eastbourne, Robert Bruce Ferguson, M.A., M.B., B.C. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., of 26, Woodland-road, New Southgate, N., eldest son of the late William Ferguson, Esq., of Leeds, to Florence, youngest daughter of Frederick Machin, Esq., of Ismeer, Willesden, N.W.

**HAWORTH—KNIGHT**.—On Oct. 12th, at St. John's Church, Cayton, near Scarborough, by the Rev. A. N. Cooper, Vicar of Filey, assisted by the Rev. F. G. Stapleton, Vicar of the Parish, J. T. Haworth, L.R.C.P., L.R.C.S. Edin., of Filey, to Beatrice Mary, youngest daughter of the late J. C. Knight, Chapel Allerton, near Leeds.

**HUGHES—RANKIN**.—At Stambridge Church, Essex, by the Rev. E. F. Russell, of St. Alban's, Holborn, assisted by the Rev. G. W. Keighley, M.A., Rector of the parish, Wilfrid Kent Hughes, M.B. Lond., M.R.C.S., youngest son of the late C. W. Hughes, of Melbourne, to Clementina Jane, second daughter of Alfred M. Rankin, Bromhills, Rochford, Essex. Australian papers please copy.

**TILLEY—TILLEY**.—On Aug. 22nd, at St. Paul's, Rockhampton, Queensland, by the Rev. C. Warrington, Wm. Jas. Tilley, L.R.C.P. Lond., M.R.C.S. Eng., eldest son of William Tilley, late of Krongrat, S.A., to Harriette, widow of the late Thos. Tilley of Gillon, S.A., and third daughter of the late John Law, of Kidderminster, England.

**TUCKETT—SOPER**.—On Oct. 12th, at Wanstead Church, by the Rev. R. D. Swallow, Head Master of Chigwell School, assisted by the Rev. G. B. Doughty and the Rev. L. S. Staley, Walter Reginald Tuckett, M.R.C.S. &c., of Woodford, late House Surgeon of Maldstone Hospital, son of Wm. F. Tuckett, Esq., J.P. Bath, to Annie Jane Philpott (Nancy), eldest daughter of the late Henry Lewis Soper, Esq., of Wanstead. No cards.

### DEATHS.

**BRAKE**.—On Oct. 9th, at Grove-cottage, Porchester, Hants, William Newman Brake, R.N., Deputy Inspector-General of Hospitals and Fleets, aged 70.

**CANNON**.—On Oct. 12th, at 10, Eaton-place, Henry Mills Cannon, Surgeon-General, aged 72.

**CARLAW**.—On Oct. 10th, at the Crescent, Sandgate, John Carlaw, M.D., Surgeon-Major, late of H.M. Forces, aged 61.

**EVANS**.—On Oct. 18th, at The Hyde, Middlesex, Conway Evans, M.D. Lond., aged 62.

**FASSON**.—On Oct. 15th, at Meadow-walk, Edinburgh, Charles Hamilton Fasson, Deputy Surgeon-General, Superintendent of the Royal Infirmary of Edinburgh, aged 72.

**HAWKINS**.—On Oct. 17th, at Wellington-place, Cheltenham, Clement James Hawkins, F.R.C.S., aged 78.

**MAC KENZIE**.—On Oct. 16th, at 47B, Welbeck-street, Mr. John Ingleby Mac Kenzie, M.B., Cantab., aged 68.

**MURRAY**.—Suddenly, at his residence, Weymouth-street, Portland-place, James Murray, M.D., aged 63.

**OSWALD**.—On Oct. 15th, at Glencraig, Edinburgh, Henry Robert Oswald, M.D., Surgeon-General H.M. Indian Medical Service (retired), aged 65.

**SPURRELL**.—On Oct. 13th, at Belvedere, Kent, Flaxman Spurrell, M.D., aged 77.

*N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.*

## BOOKS ETC. RECEIVED.

**BLACKWOOD, WM., & SONS**, Edinburgh and London.  
Mona Maclean, Medical Student: a Novel. By Graham Travers, In Three Vols. Vols. I, II, III. 1892.

**CASSELL & Co., Limited**, London.  
The Medicine Lady. By I. T. Meade. Vols. I, II, III. 1892.

**DAVIS, F. A., Co.**, London and Philadelphia.  
Book on the Physician Himself and Things that concern his Reputation and Success. By D. W. Cathell, M.D. Tenth Edition. 1892. pp. 325.

**GRIFFIN, CHAS., & Co.**, Exeter-street, Strand, London.  
The Diagnosis of Diseases of the Heart and Thoracic Aorta. By A. Ernest Sansom, M.D., F.R.C.P. Lond. Illustrated. 1892. pp. 507.

**KEGAN PAUL, TRENCH & Co.**, Charing-cross-road, London.  
First Aid in Illness and Injury. By James E. Pilcher, M.D., Ph.D. Illustrated. 1892. pp. 304.  
Somnia Medici. By J. A. Goodchild. First, Second, and Third Series. Second Edition. 1892. Price 3s. 6d. per Volume.

**KELIHER, J. J., & Co.**, King William-street, London.  
Manual for the Volunteer Medical Service. By Reginald Sleman, M.A. 1892. pp. 70. Price 2s.

**LONGMANS, GREEN & Co.**, London.  
Chemical Lecture Experiments: Non-Metallic Elements. By G. S. Newth, F.I.C. 1892. pp. 323. Price 10s. 6d.

**PENTLAND, YOUNG J.**, Edinburgh and London.  
Disease in Children. By James Carmichael, M.D., F.R.C.P. Edin. Illustrated. 1892. pp. 501.  
Malignant Disease of the Throat and Nose. By David Newman, M.D. 1892. pp. 213.  
A New Pronouncing Dictionary of Medicine. By J. M. Keating, M.D., LL.D., and H. Hamilton. With an Appendix. 1892. pp. 818.

**PUNTS, G. P., Sons**, London and New York.  
Temperament, Disease and Health. By F. E. Chadwick. 1892. pp. 85.

**SAUNDERS, W. B.**, Philadelphia.  
An American Text-book of Surgery for Practitioners and Students. Edited by W. W. Keen, M.D., LL.D., and J. W. White, M.D., Ph.D. Illustrated. 1892. pp. 1200.

**SMITH, EIDER & Co.**, Waterloo-place, London.  
Croonian Lectures, 1892. On the Chemistry and Therapeutics of Uric Acid Gravel and Gout. By Sir Wm. Roberts, M.D., F.R.S. 1892. pp. 136.

**THE SCIENTIFIC PRESS, Limited**, Strand, London.  
The Art of Massage. By A. C. Hale. Illustrated. 1893. pp. 144. Price 6s.

**THE RECORD PRESS, Limited**, 370, Strand, London.  
The Practical Treatment of Cholera. By G. Sherman Bigg, A.M.S. Price 1s.

**THIN, JAS.**, South Bridge, Edinburgh.  
Pharmacopœia of the Royal Infirmary, Edinburgh. Compiled by Chas. Arthur. 1892. pp. 131.

The Medical Magazine, October, 1892 (Southwood, Smith & Co., London).  
—The Journal of Comparative Pathology and Therapeutics; edited by J. M'Fadyean, M.B., B.Sc., F.R.S.E.; September, 1892 (W. & A. K. Johnston, Edinburgh and London).—The American Journal of the Medical Sciences; edited by E. P. Davis, A.M., M.D.; October, 1892 (Lea Brothers & Co., Philadelphia).—Archives of Podiatry; edited by W. P. Watson, M.D.; October, 1892 (H. K. Lewis, London; Fairchild & Co., New York).—University Medical Magazine, Pennsylvania; October, 1892 (University of Pennsylvania Press, Philadelphia).—Calendar of the Royal College of Surgeons of England, July, 1892 (Taylor & Francis, London); price 1s.—Some Thoughts about Nursing; by Oswald Browne, M.B. Cantab., M.R.C.P. (Griffith, Farran & Co., London, 1892); price 6d. net.—The Satellite of the Annual of the Universal Medical Sciences; edited by Chas. E. Sajous, M.D.; August and September, 1892 (F. A. Davis, London and Philadelphia).—Cholera Epidemic in Kashmir, 1892; by A. Mitra, L.R.C.P., L.R.C.S. Edin. (Thacker, Spink & Co., Calcutta).—Consumption from a Public Health Point of View; by N. Carmichael, M.D., F.F.P.S.G. (A. Love, Glasgow, 1892).—Domestic Electric Lighting, treated from the Consumer's Point of View; by E. C. De Segundo (H. Alabaster, London); price 6s.—Treatment of Sacculated Aortic Aneurysm by Electrolysis through Introduced Wire; by D. D. Stewart, M.D. (Reprint from the American Journal of the Medical Sciences, Philadelphia, October, 1892).—The Early History of Instrumental Precision in Medicine; by S. W. Mitchell, M.D., LL.D., Harvard (Tuttle, Morehouse, & Taylor, New Haven, 1892).—Mechanical Restraint in the Care and Treatment of the Insane; by Clark Bell, Esq., of the New York Bar; with Opinions of Medical Men (Reprint from Medico-Legal Journal, New York, 1892).

# Medical Diary for the ensuing Week.

## Monday, October 24.

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturday at the same hour.  
**St. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M., and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2.30 P.M.; Thursday, 2.30 P.M.  
**HOSPITAL FOR WOMEN, SOHO-SQUARE.**—Operations, 2 P.M., and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPÆDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. Stanford Morton: Affections of the Eyelids.—10, Gt. Russell-street: 3 P.M., Dr. Galloway: Lungs, Tubercle and other Lesions.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. Louis C. Parkes: Sanitary Appliances.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Dr. James W. Bond: Diseases of Thyroid Gland.  
**MEDICAL SOCIETY OF LONDON.**—8.30 P.M. Mr. G. R. Turner: Traumatic Volvulus of the Small Intestine treated by Abdominal Section.—Mr. W. A. Meredith: The Treatment of the Peritoneum in Abdominal Surgery.

## Tuesday, October 25.

**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**St. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**St. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**St. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Hutchinson: The Treatment of Syphilis.—Bethlem Hospital: 2 P.M., Dr. T. Hyslop: Insanity of Puberty and Adolescence. 101, Gt. Russell-st., W.C.: 8 P.M., Dr. Braxton Hicks: The Forceps.  
**ROYAL MEDICAL AND CHIRURGICAL SOCIETY.**—8.30 P.M. Mr. R. J. Godlee: Amputation for Diabetic Gangrene.—Mr. J. W. Hulke: A case of Rupture of Hepatic Abscess into the Peritoneal Cavity.

## Wednesday, October 26.

**NATIONAL ORTHOPÆDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**St. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday & Saturday, same hour  
**St. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 5 P.M., Dr. Sidney Martin: Cases of Aortic Regurgitation.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Toxic Amblyopia.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Dr. R. Norris Wolfenden: Pharyngitis.  
**HUNTERIAN SOCIETY (London Institution).**—8.30 P.M. Special Discussion on "Phthisis in relation to Life Assurance," after the reading of a paper by Dr. Glover Lyon.

## Thursday, October 27.

**St. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultation on Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Barlow: Illustrations of Nervous Diseases in Children.—National Hospital for the Paralyzed and Epileptic: 2 P.M., Mr. Brudenell Carter: Ocular Symptoms in Nervous Diseases.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. George Stoker: Chronic Glandular Diseases of the Nose and Naso-pharynx. Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Dr. Wilks: Medical Cases in the Wards.  
**BRITISH GYNÆCOLOGICAL SOCIETY.**—Mr. G. A. Hawkins-Ambler: What makes for Success in Abdominal Surgery?

## Friday, October 28.

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. Sidney Martin: Cases of Mitral Stenosis.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Anthrax (Gram's Method).  
**CLINICAL SOCIETY OF LONDON.**—Living Specimens at 8 P.M.:—Dr. Hadden: A case of Rhythmical Rocking Movements in a Child.—Mr. W. A. Lane: A case of Macrocholla treated successfully by Electrolysis.—Mr. Bland Sutton: Two cases of Amputation of the Arm for Lymphatic Œdema.—Mr. Arthur Barker: Case of Subcutaneous Suture of the Patella.—Mr. Hurry Fenwick: Two cases of Suprapubic Cystotomy illustrating New Methods. Papers at 9 P.M.:—Dr. Bristow: A case of Sarcoma of the Skin.—Mr. Arbuthnot Lane: Two cases illustrating an Operation of Complete Erasion of the Ankle-joint.

## Saturday, October 29.

**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Bethlem Hospital: 11 A.M., Dr. H. Corner: Delusional Insanity.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 20th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maxim. Temp. Shado.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Oct. 14	29.64	S.E.	50	49	63	53	49	.26	Raining
" 15	29.85	E.	45	45	70	55	44	.02	Foggy
" 16	29.73	N.E.	49	47	62	52	45	..	Cloudy
" 17	29.01	N.E.	43	41	81	50	40	.02	Bright
" 18	30.21	N.E.	40	33	83	50	37	.02	Overcast
" 19	30.30	N.	40	39	70	51	38	..	Hazy
" 20	30.10	W.	41	40	75	50	38	..	Raining

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligenoe of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### ADVERTISEMENT OF CHANGE OF ADDRESS.

**W. J. B.**—Advertisement through a newspaper is objectionable. The proper course is to send a visiting card by hand or post to the patients of the particular practitioner specifying change of address.

**Vizen.**—There can be no doubt that our correspondent is in honour prohibited from practising in a place where he has been the locum tenens of three or four medical men.

**Mr. J. Lister Wright.**—We are obliged for our correspondent's courteous communication. The matter to which he alludes has received attention.

**Mr. John A. Bright's** communication has reached us too late for publication in our present issue

**T. B. G.** has not enclosed his card.

### "EXPERIENTIA DOCET."

To the Editors of THE LANCET.

**Sirs,**—Kindly allow me, by relating a late experience, to caution country practitioners how they give orders to travellers from firms in distant towns.

On Feb. 1st, 1889, a traveller from a firm called — and Co. called and importuned me so that I gave him an order for about £2 worth of small instruments &c. The order was badly executed: some articles not sent, and one I returned, being only half the size of the one ordered. For what I kept I at once sent a cheque, which was cashed, but never yet acknowledged in any way. Eight days later, on returning from my morning round, I found a parcel that had arrived by railway and the fare on which my servant had unfortunately paid in my absence. I opened the parcel, and to my surprise found an expensive article I had distinctly told Messrs. — and Co.'s traveller not to send. It was at once returned, and a letter sent stating that it had

never been ordered and must have been sent by a mistake. Messrs. — and Co. refused to take it back, and threatened me with legal proceedings if I did not pay for it. As I had then a witness (who died in January this year) who heard me tell the traveller not to send the article, I replied they could do as they pleased. From that date (Feb. 25th, 1880) to July this present year (nearly three years and a half) I heard nothing from them, and then was served with a county-court summons for the article, priced higher than its published price. This week I defended in —, and the judge ruled that I was liable since the railway fare had been paid by me, although there was nothing to show what was in the parcel, as the plaintiffs neither in their bill or otherwise advised me (as they could and should have done) that it would be forwarded. Judgment was given for nearly 5s. less than claimed.

I wish practitioners to note that in all such cases they must defend in the towns the plaintiffs belong to and not in those where the orders were given, also the danger of receiving and paying for carriage on parcels with unknown contents. If an order is given in the way mine was it would be well to have an exact copy of it signed by the traveller. Perhaps best of all is to give no orders whatsoever to strangers, however they importune, and so escape the trouble, annoyance and expense I have experienced. I am, Sirs, yours truly,  
Ormskirck, Oct. 16th, 1892. HENRY PILKINGTON, M.R.C.S., &c.

#### INFECTION IN SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—As the question of infection in the early stages of scarlet fever has lately been discussed in your columns, and as one positive case is worth a dozen negatives, I think the following record of cases which happened in my individual experience will be interesting to your readers. It seems to me to prove that sometimes, at any rate, scarlet fever is infectious at the very beginning.

A patient was brought into hospital for, if I remember rightly, leucocythæmia, was placed in the end bed of the back ward nearest the door, and quite close to the ward kitchen door. In a few days' time she developed scarlet fever, and was removed to the fever hospital as soon as the rash was pronounced. The ward was not disinfected, but the bedstead &c. was—the bedding being, in fact, destroyed, floor and walls scrubbed with carbolic, and, in short, all the ordinary precautions were taken, in spite of which the next patient placed on the bedstead developed the disease. The same precautions were again gone through, but again the next patient developed scarlet fever. And this went on for quite a series of cases—I believe six or seven,—including the ward maid (who passed the bed frequently on her way to and from the kitchen) and one of the clerks of the ward; but no case occurred in any other bed in the ward. Finally, the whole ward was turned out, all the bedding destroyed and the place thoroughly disinfected with sulphurous acid. After this there were no more cases. There had been no scarlet fever about the hospital previously.

To me this occurrence affords unmistakable evidence that scarlet fever must be in some instances infectious during the first stage. Moreover, the peculiar obstinacy of the infection and the vigorous measures necessary to getting rid of it were well shown.

I am, Sirs, yours truly,

E. D. FITZGERALD, M.R.C.S., L.R.C.P.

Sandgate-road, Folkestone, Oct. 18th, 1892.

#### "GREEK AND THE M.D. DEGREE."

To the Editors of THE LANCET.

SIRS,—Your correspondent's letter in your last issue on the substitution of German or French for Greek before proceeding to the M.D. degree is one of considerable importance, and affects a large number of men who find it impossible in the worry and work of practice to settle down and grind up Greek; whereas German or French come so much lighter on account of the medical literature that is written in these modern languages. Union is strength; and if the authorities of the universities are made aware of the feeling of graduates of some years' standing on this question they will, I hope, accede to their wishes. The difficulties in the way of signing any petition are so great that it would be almost hopeless to attempt it; but I would suggest that all who feel that it is desirable to make this new regulation retrospective should write without undue delay to the Dean of Faculty, asking if it be possible to grant their request.

I am, Sirs, yours obediently,

Ashburn-place, S.W., Oct. 17th, 1892. AUGUSTUS W. ADDINSELL.

#### "OWNERSHIP OF PRESCRIPTIONS."

To the Editors of THE LANCET.

SIRS,—You say (page 921 of your last issue), "It is obvious that a prescription belongs to the person who pays for it—viz., the patient." It is obvious, then, that the F.R.C.P. is a tradesman and sells his prescription, and thus violates the by-law of that Society. The F.R.C.P. is supposed to accept an honorarium for his advice, and because he does not make up the medicine he advises should be used gives the prescription to be taken to an apothecary, the medicine to be used for the length of time prescribed by the F.R.C.P. It is a fraud on the part of the patient either to use the prescription for a longer time himself than first prescribed or to give the same prescription to another person. It is a fraud also on the part of the apothecary to make up the prescription for any longer time than intended by the F.R.C.P. or for any other person.

I am, Sirs, yours truly,

Oct. 17th, 1892.

H. F. S.

#### MEDICAL PRACTICE IN THE UNITED STATES OF AMERICA.

To the Editors of THE LANCET.

SIRS,—The laws regulating practice in the different States vary considerably. In the New England States, Ohio, Wisconsin and Kansas there are no restrictions at all, while in New York and Pennsylvania a pretty stiff examination must be passed prior to registration. An examination is held at intervals at certain fixed centres in New York State—viz., the University of New York, E. 20th Street (Charles Pardu, M.D., Secretary), Buffalo and Syracuse. The fee is twenty-five dollars. Candidates are examined in anatomy, physiology, medicine, pathology, surgery, obstetrics and hygiene, in a similar fashion to Licentiates of corporations over forty years of age who go in for M.D. of Durham or St. Andrews in this country. Professor Melvil C. Dewey, Secretary to the Regents of the State University, Albany, N.Y., will furnish full particulars of dates and subjects and supply a schedule to be filled up on application. The diplomas of successful candidates are endorsed by the Regents of the State University, M.D.'s having a "special form setting forth the fact," and Licentiates another form somewhat differently worded. The diplomas after endorsement must be registered by the County Clerk—in New York City at the City Hall, and in rural districts at the court-house of the county in which it is intended to practise. The fee is a dollar. If it be wished to practise in two or more counties registration in each is necessary at an additional cost of fifty cents. In Pennsylvania candidates must pass a similar examination at either Jefferson Medical College or the University of Pennsylvania, Philadelphia, those being the only universities empowered to grant medical degrees in the State. In Chicago, which is probably the most suitable opening for an Englishman, the diploma is simply produced before the State Board of Health. Chicago is increasing in population more rapidly than any other city in the States. It now stands second. The States present a very wide field, and it would be no easy matter to predict success or failure in a given instance. A good deal of local prejudice exists against foreigners. They prefer the home-made article, even if inferior. The sanitary laws are enforced very strictly at New York, especially the notification of infectious diseases. The profession, as almost everywhere, is overstocked; but it will be said that "there's always room at the top." A polyglot dictionary would not be a bad investment to start with. I am not joking. I have had Greeks, Poles, Russians, Armenians, Hungarians, Chinese, Italians and Dutch patients. Some speak a little English; but the greater part of the conversation was carried on by signs or through interpreters who know little more than the patients themselves. The fees depend on the class of the *clientèle*. Working men pay a dollar per visit, and the same for advice and prescription; small shopkeepers &c. two dollars, and so on upwards. Midwifery from ten to twenty dollars and upwards, according to class. Medical men never do their own dispensing, unless in the backwoods. The chemists in Pennsylvania are well qualified, many being Doctors of Pharmacy. All Government appointments—such as coroner, medical officer of health &c.—are open to citizens only, but a foreigner may, of course, act as surgeon to Oddfellows, Foresters or any private clubs. Practices are rarely bought or sold as in England. Beware of them as an investment. A practitioner usually starts on his own account—"hangs out his sign," as the local phraseology goes, or he may occasionally obtain an assistantcy to an older man. Assistantships are difficult to secure, because local men "know the ropes" better and are accordingly more sought after. A surgeon in the army or navy becomes *ipso facto* a citizen. I fear my communication grows lengthy, so I shall conclude by saying that the prospects of most men with British qualifications would probably be better in a British colony, although I am personally acquainted with four such in New York city (two being hospital surgeons) who have done well; but I am convinced they would have done equally well, if not better, in any English or Australian town presenting sufficient scope.—Yours truly,

J. A. McMUNN, M.D.

(Registered at New York in 1891).

October, 1892.

#### LUNACY CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—Four months ago I received a magistrate's order to examine a person as to her mental condition. After several visits to assure myself of her mental unsoundness I certified her. The day after I did so she was so weak from self-starvation that I delayed her removal for six weeks and had her fed with nutrient enemata during that time. Then I re-certified her and she was removed, but, as I afterwards casually heard, only to the union infirmary, not to the asylum. I have not been paid for my certificate. The usual course of late years is for the magistrates' clerk to direct the Poor-law guardians to pay the medical man who certifies. I called upon the magistrates' clerk, but could not get a satisfactory reply from him. On a former occasion I was not paid for certifying the patient because (as I was informed by the partner of the magistrates' clerk) the patient was not sent to the asylum but to the union infirmary. I do not see that the medical man has anything to do with that.

I should feel obliged if you would kindly inform me what steps I ought to take, as I consider it monstrous that after all my trouble I am to be defrauded of my fee. And I should be glad to know whether I should be at liberty to refuse to act upon receiving any future magistrates' orders, or if I am compelled by law to examine and report without fee or reward. In this latter instance I still have the magistrates' order by me; but in the former case I was directed (rather smartly, I thought) to write my report on the back of the magistrates' order and not upon a regular printed form.

Yours truly,

THORAX.



## Harveian Oration.

### HARVEY AND HIS SUCCESSORS.

*Delivered at the Royal College of Physicians of London on  
Wednesday, Oct. 18th, 1892,*

By J. H. BRIDGES, M.B. OXON., F.R.C.P. LOND.,  
MEDICAL INSPECTOR TO THE LOCAL GOVERNMENT BOARD.

MR. PRESIDENT AND GENTLEMEN,—Within a few days of Shakespeare's death, William Harvey, physician to St. Bartholomew's Hospital, opened his course of lectures as Professor of Anatomy and Surgery at this College. The rough notes used by him in these lectures were published a few years ago by the College in facsimile, and few documents of greater importance for the history of European science have been given to the world in the present century. For not merely do we find in it clear proof of the completeness of Harvey's great discovery twelve years before the accepted date of its publication, but it opens a window through which we may watch the workings of a powerful and most original mind, and appreciate the breadth with which at a most critical period of scientific history he handled the problems of life. In appreciating the life of a great man, as in that of the humblest protozoan, we have to bear in mind the essential fact of life first propounded by Comte and subsequently illustrated with such fulness by Herbert Spencer, that it is a mutual action, ever tending to adjustment, between organism and environment. The environment of higher organisms, no longer limited to the contact of surrounding particles, embraces all the social and intellectual influences to which a highly organised brain may be sensitive. Estimated in this sense what was the environment of Harvey? He was born at the greatest period of English history, not that of her world-wide empire, of her enormous wealth, of her crowded population, but the period in which she gave birth to her greatest men. Within the compass of Harvey's life there lived on this island Shakespeare, Spenser and the galaxy of Elizabethan dramatists, followed by the great epic poet, who was in his prime when Harvey died. In philosophy there were Bacon, Hobbes, Locke. In science there were Napier and Briggs, the inventors of logarithms; Hariot, the forerunner of the mathematical revolution of Descartes; Wallis, the algebraical precursor of Newton; Gilbert, the founder of electrical science; and that most fertile and ingenious of physicists, Robert Boyle. If statesmanship were in question, it would be sufficient to name Elizabeth and Cromwell.

Passing from England to the Continent we may say that Harvey was born into the full splendour of this philosophical and scientific Renaissance. In art the Renaissance had set in a century before, under Ariosto, Raphael, Da Vinci and others. The awakening of science was not slow to follow. Thirty years before Harvey's birth the "Revolutions of Celestial Bodies" had been published in the last month of its author's life. The work of Copernicus was carried on during Harvey's youth by Tycho Brahe and Kepler. The cometary genius of Bruno was flashing through the universities of Europe, preaching the gospel of the new astronomy; and with a yet greater man than these the young Harvey was brought into near contact. In 1597 Harvey took his degree at Cambridge, at that time a school of no great importance; in the following year he went to Padua, and studied under one of the greatest among the many great anatomists of that century and country, Fabricius of Acquapendente. Six years before this time a young man had been appointed to the professorship of mathematics in that university who was to open a new epoch in European thought. Galileo Galilei had already made his mark in his native city of Pisa. He had studied medicine under Cesalpino, chafing no doubt under his interminable pedantries. He had made his brilliant discovery of the equality of time in the oscillations of the pendulum, and had applied that discovery, by a pendulum of suitable length, to the study of the speed and regularity of the pulse; the first instrument perhaps ever constructed for the precise observation of phenomena in a living organism. He had already done fierce battle with the

powers of darkness in attacking the petrified philosophy that was called Aristotelian, and in laying the foundation of the true science of motion. The mathematics in which he was interested were applied mathematics; the interpretation and measurement of physical forces. From the beginning to the end of his life his unflinching conviction was that the phenomena of motion and energy which constituted the world were calculable quantities. The very use of the word "mechanics," to denote the abstract sciences of static and dynamic, dates from his treatise, published in 1593, on the Utility of the Scientific Study of Machines. In this work the great modern conception of the conservation of energy is, I believe for the first time, traceable in his discussion of the paradox that the smaller weight on the longer arm of the lever balanced the heavier weight on the shorter one. "Philosophy," he said, "is written in the great book of the universe, which lies always open, but we must first understand the language and the character in which it is written; that language is mathematics. Without it we cannot understand the words, and wander through a dark labyrinth without a clue." His lecture-hall in Padua held 2000 students, and was crowded with strangers from every part of Europe. He had the art of forming a school and of attracting young men round him. Torricelli, the first measurer of atmospheric pressure, was one of his pupils. The thermometer, first invented by Galileo himself in an imperfect form, was completed by another pupil shortly afterwards. Of the telescope I need not speak; and again it must be repeated that Galileo took the first step to that all-important condition of science—the precise measurement of time. In a word, the science of physics was founded by Galileo. Of personal intercourse between Galileo and Harvey we have no record, but that the influence of his mighty genius is to be taken into account as one of the incident forces which moulded his mind there can be no doubt whatever. He came back from Padua with the sense that nature was not merely to be observed, but measured. He had imbibed elementary truths as to motion and energy which stood him in good stead when he began himself to think on the mechanism of the human body.

Let us briefly review the condition of biological science at the close of the sixteenth century. It may be summed up in one sentence—an advanced state of descriptive anatomy; hopeless confusion as to the functions of the organs described. The debt we owe to the descriptive anatomists of the sixteenth century has perhaps never been adequately recognised, though Vesalius, Eustachius, Fallopius and others have left their names inscribed on various structures of the human body. They were the worthy successors of Galen, whose works are themselves a cyclopaedia of the anatomical and medical knowledge gained in the schools of Alexandria, enlarged by his own observations and experiments. In the schools of Padua, Bologna and Pisa every part of the body was dissected and scrutinised as minutely as was possible before the invention of the microscope, and none more minutely than the heart. With regard to the functions of these organs, the confusion of men's minds was complete and seemingly hopeless. Physiological science was far below the level at which Galen had left it. He was a strictly scientific observer and thinker, inheriting the results of six centuries of Greek inquiry, from Hippocrates onwards, and pushing them forward with marvellous zeal. In the thirteenth century the great schoolmen—notably, Albertus Magnus and Roger Bacon—had shown themselves his worthy successors. They brought Aristotle's scientific researches into prominence, and held them up as models for imitation. Afterwards came a time of stagnation and retrogression. For several generations the professorial chairs of Europe were filled by men who worshipped Aristotle not as a keen observer of nature and a progressive thinker, but as an inspired prophet who saved them the trouble of thinking. Even their Greek science they read backwards. If Galen in the second century A.D. differed from Aristotle in the fourth century B.C., so much the worse for Galen. Thus, for instance, we find the man who is sometimes held up to us as the true discoverer of the circulation—Cesalpino of Pisa—rejecting Galen's admirable investigations into the nervous system, and reverting to the curious doctrine of Aristotle, that the brain was a refrigerator of the blood which had been raised to boiling point in the heart. Similarly on respiration, where Galen's views, though very imperfect, were far less wide of the mark than Aristotle's, Cesalpino had no hesitation in following Aristotle rather than Galen. Pedantry, obscurantism, indolence account for much of this, but not for the whole. The doctrines of the Church had become inseparably intertwined

with Aristotelian metaphysic and logic. To assault Aristotle was to proclaim yourself a heretic.

Now, by Aristotle and all his successors the heart was regarded as a furnace, or at least a reservoir of heat, by the agency of which animal heat was maintained and the food was concocted. It was regarded also by Aristotle, though not by Galen, as the *sensorium commune*; it was the first organ that arose in the embryo, it was the last to die; it supplied the tissues with that which made them sensitive. In the fifth of the Peripatetic Discussions of Cesalpino we have the following thesis maintained. The soul is not made up of separate parts, each residing in a separate organ; nor does the whole soul reside in the whole body, but the whole soul resides in the heart. He quotes with approbation the view of Aristotle that the animal is a commonwealth of organs, the soul being the ruler of that commonwealth. The heart is the soul's court; and as in a community all things are done by the soul's decree, though the king does not intervene in each detail, so do all organs live by virtue proceeding into them from the heart. For instance, in the function of respiration, the beginning of the series of actions concerned was the heart's heat. The blood boiling up in the heart not merely dilates the heart and so produces the pulse, but it dilates the lungs also by sending into them a continual stream of heated blood. The lungs being thus enlarged, it follows that external air streams in through the bronchi, and this we call inspiration. Thence results a cooling of the blood and a diminution of its bulk, as when drops of cold water fall on boiling oil. The lungs collapse and air is given out. This we call expiration. The heart's heat is thus the initial force in respiration. The whole of this alchemistic apparatus set up inside man's body, the heart boiling the blood to the point of evaporation, the subtler spirit thus produced condensed in the cooling chamber of the brain and issuing from it in the form of nerves, the lungs acting as an additional cooler, so that the part of the blood which remained liquid might be brought to the right temperature—all this confused and complicated fabric melted away as a morning mist before the touch of positive science applied by Galileo to inorganic matter and by Harvey to living organisms.

Let us not be unjust to Harvey's predecessors. It is quite true, and it should never be forgotten, that certain partial anticipations of his discovery had been made in the sixteenth century. By Servetus and by Colombo the transit of the blood from the right ventricle through the lungs to the left side of the heart had been distinctly put forward as the most probable hypothesis; and it is also true that Cesalpino had shown that, in consequence of the arrangement of the mitral and the aortic valves, the flow of blood was from the left ventricle towards the various organs of the body. I quote his actual words: "There is a motion from the veins into the heart while its heat draws in aliment; and at the same time there is a motion from the heart into the arteries, because, owing to the position of the valves, the blood cannot flow in any other way, for the same motion opens both apertures—that of the vein into the heart, that of the heart into the arteries."

Combining the view of Servetus and Colombo with that of Cesalpino, it might seem that a true and complete conception of the course taken by the blood would be reached; but, as a matter of fact by no physician or anatomist of the sixteenth century were they at any moment so combined. Cesalpino was entirely unaffected by Colombo's hypothesis of the minor circulation, and throughout his work I have not been able to find a single reference to it. The substantial identity of the fluid moving through the vascular system was never grasped by him or by anyone else. There were, men thought, two kinds of blood—one which was perpetually being manufactured in the liver and thence sent to the right side of the heart as fuel or aliment for the heart to work upon; the other was the concocted fluid flowing from the heart to the tissues, part of it having passed to the lungs for cooling purposes, and part filtering through the partition wall dividing the right side of the heart from the left. When we leave the consideration of the motion of the blood and turn to that of the motion of the heart, we find Cesalpino, like all his predecessors, hopelessly in error. In his view the expansion of the heart with blood was the efficient cause of the blood's motion, this being produced, as we have seen, by the boiling up of the blood when exposed to the imaginary heat residing in the heart. He insists emphatically that the contraction of the heart was a mere collapse due to a temporary cessation of the boiling process. In death the collapse, he remarks, is complete; in the mori-

bund it is nearly complete. To attribute any expulsive force to the heart in this condition would therefore be out of the question. Thus the pulse results not from systole, but from diastole. Indeed, the consideration of the pulse is the main subject in this chapter of Cesalpino, the question of the heart and its motions being quite secondary. It may be stated broadly that the conception of a complete circulation of the blood and the conception of the heart as a contractile organ exercising mechanical energy were alike foreign to him. Nothing is more interesting than the vivid, pithy way in which the true view both of the heart and of the blood is expressed in Harvey's MS. notes. "The heart, when contracting, moves like a muscle," he says. "By the impulse of the heart there is a perpetual movement of the blood in a circle." Again, if I may quote the quaint mixture of Latin and English, "Constat per fabricam cordis sanguinem per pulmones in aortam transferri as by two clacks of a water-bellows to raise water." The imaginary furnace that had been set up for so many centuries within the human thorax disappeared, and in its place there was an organ of definite construction, comparable with one of Galileo's machines, exercising a measurable amount of energy. The overwhelming importance of Harvey's researches, the feature that marks them as an epoch in the history of modern science, is the positivity of their method. We pass from metaphysical haze into an atmosphere of reality, utility, certainty and precision. He uses every method of biological research, direct observation and measurement, experiment and, above all, the great Aristotelian method of comparison; an instrument of research created, so to speak, by biology, and one so potent in every branch of scientific investigation that, apart altogether from its application to medicine, the science of biology would deserve all the pains that have been spent upon it. It is to the use of the comparative method that Harvey himself explicitly attributes his success, yet to what an extent he used it could hardly be appreciated till the publication of the notes of his lectures. In these the anatomy of eighty animals examined by himself is referred to.

It has sometimes been said, especially of late years, that experimentation on living animals was the process through which Harvey's discovery was achieved; but this, though it has been used as a potent argument before an uninstructed public, has always appeared to me an exaggerated view. I am not about to enter, even in the most cursory way, into the ethics of the subject. It was not imagined in Harvey's time that any ethical problem was involved in it. So far as I can find, the first to recognise the existence of such a problem and to distinguish himself from his contemporaries by voluntarily accepting a certain measure of parsimony and restraint in experiments on living animals was that great and successful experimenter, deep thinker and humane man, Sir Charles Bell. But the question by what methods the discovery of the circulation was reached is one for the dry light of historical research. Harvey's MS. notes show, even more emphatically than his published work, that direct observation of the pulsating heart in the higher vertebrates taught him but little. "Neque visu neque tactu" are his emphatic words in these notes. "I could not follow the heart's motions by sight or by touch, though I watched them for hours together. Videte quam arduum et difficile discernere. See," he says, pointing at the moment to the experiment he was performing, "see how hard it is to distinguish by sight or touch as to dilatation or contraction, which is systole which diastole." When the animal was moribund and the movement slow, or when he operated on cold-blooded animals with a simpler form of heart, he was more successful. When the discovery had been fully made, and the business of convincing others of its truth began, vivisectional experiments were of use to him. But the principal paths that led to the discovery seems to me to have been—first, the conception of the heart as a machine, exercising definite and measurable force on the fluid which it contained; secondly, that for the first time there was an attempt to measure the amount of blood contained in the heart and voided with each contraction, the result being to show that the rapidity of the current, and consequently the mass of blood returning to the heart, was far greater than could be accounted for by new formation of blood resulting from ingested aliment; thirdly, a far more careful examination of the anatomical facts than had been made by Harvey's predecessors. To the careful study of the heart's valves the important discovery of the valves of the veins, due to Fabricius, was now added and for the first time interpreted. Finally, the whole was illumined by the

light of the comparative method, by the examination of the fetal circulation on the one hand and of the vascular systems of the lower vertebrates on the other. The motto from Aristotle prefixed to his lectures shows that the comparative method was his guiding star. Leaving this part of my subject I pass now to the consideration of the effect produced by Harvey's discovery on the progress of medicine.

It is obvious that Harvey had struck into a new path. His discovery was assuredly the most momentous event in the history of medicine since the time of Galen. It was the foundation stone of scientific medicine. It was the first attempt to show that the processes of the human body followed or accompanied each other in accordance with laws as certain and as definite as those which Kepler was at that time revealing in the solar system, and Galileo in all moving bodies on the earth's surface. Henceforth it became clear that all laws of force and energy that might be seen to prevail in the organic world were applicable to the human body. As an engine performing work the heart stood on the same footing as any of the shipbuilding machines the operation of which Galileo had so carefully studied in the arsenals of Venice. The action of fluids in closed vessels under pressure was investigated in Harvey's youth by Servetus, and in his later life by Pascal. The results were applied at once to the contents of the human vascular system. Still greater prominence was given to Harvey's achievement by the all-embracing philosophy of Descartes, which during the latter part of Harvey's life had secured dominion over the intellect of Europe, and which retained it through the remainder of the seventeenth and a large part of the eighteenth century. That Descartes was among the first to appreciate the importance of Harvey's work has been often mentioned. Yet the question has not so often been asked, Why should Descartes, absorbed as he was in a general philosophy of the universe and of the human mind, have taken special notice of Harvey? It was extremely rare for Descartes to mention the name of any contemporary. I cannot call to mind in his writings more than one or two instances of his doing so. The explanation, as I believe, is this. Descartes had put forward a vast scheme of evolutionary philosophy, in which all the phenomena of the universe were to be explained as resulting from successive differentiations of a primitive homogeneous matter to which motion had been imparted. The scheme embraced the motions of the solar system, the forces of light, heat, gravitation and the phenomena of living beings—all these being conceived as successive differentiations of primitive rectilinear motion impressed on the ubiquitous ethereal substance with which space was filled. In his view there were no facts in nature which were insusceptible of explanation on mechanical principles, and which could not be deduced from such principles by a sufficiently powerful mathematical calculus. He had himself taken the first decisive step towards the construction of such a calculus in his *Geometry* published in 1637, leaving further steps to be taken half a century later by the infinitesimal analysis of Leibnitz, Newton and the Bernoullis. In his treatise on the nature of man Descartes had seized on the facts of the reflex action of the nervous system as illustrations of the automatic mechanical process by which the most complicated phenomena presented to our consideration could be explained. He welcomed Harvey's discovery as a yet more conclusive example of the applications of the new philosophy. The course of the blood, hitherto conceived as governed by vital spirits, by a vegetative soul, or by some other metaphysical fignent of a like kind, was now seen to be determined by natural forces, to be regulated by the same laws of motion as those which governed inanimate matter. We know from the immortal prelude to his *Philosophy*, his *Discourse on Method*, how high were the hopes which Descartes founded on the future of biological research. "Health," he says, "is the first of good things and the foundation of all other good things in this life. For so close is the connexion of the mind with the temperament and the arrangement of bodily organs that if there be any instrument for making the mass of men wiser and more skilful than they have been till now, I believe that medicine is the art wherein to look for it. It is true that the medicine now in use offers little that is strikingly useful. But though I have no purpose to disparage it I feel sure that no one, even of those who now practise it, will deny that what is known is but a mere fraction of what remains to be discovered; and that we might gain freedom from a multitude of diseases both of mind and body, and perhaps also from the enfeeblement of old age, had we sufficient knowledge of their causes and of all the remedies with which nature has provided us."

Thus it was that under the combined influence of Harvey's discovery and of the Cartesian philosophy the vision of scientific medicine, the application of the laws of nature to the art of healing, dawned upon the world in the first half of the seventeenth century. It is worth our while to inquire with what results. Comte has remarked on the fact that the two initial discoveries of physics and of biology, the law of falling bodies and that of the circulation of the blood, were made simultaneously; and he has contrasted the immediate sequel in each case. Galileo's discoveries led by direct roads on one side to Newton and scientific astronomy, on the other to Torricelli, Pascal, Boyle, Mariotte, Black, Watt. To what did Harvey's discovery lead, and why the difference? The truth is that the medicine projected by the ambitious brain of Descartes was from the first foredoomed to failure. It aimed at satisfactory explanation of the facts of living organisms by the laws common to them with other kinds of matter; it recognised no phenomena exhibited by living bodies that could not be so explained. Biology was to Descartes a corollary of physics; it was not an independent department of science, with physics for a foundation, but having a superstructure peculiar to itself, requiring inductions of its own, methods of its own; it was a body of knowledge which was to be made amenable as soon as possible to mathematical treatment. This mode of regarding the subject imported into medicine a spirit of reality, of certainty and of precision which had never before belonged to it; but in each and every case the attempted solution fell short of the mark. There remained always a residuum that could not be accounted for in this way. Hence during the seventeenth and eighteenth centuries two opposing schools of medicine—the first fastening upon the lower more general laws which were susceptible of precise determination; the second dimly recognising the existence of certain higher and more special truths, which, however, they were unable to quantify or even to discern with clearness.

Before describing the opposition of these schools let us take stock of the scientific material available for medicine in the middle of the seventeenth century. We have already seen that in all that related to mechanical force as applied either to solids or fluids the first great steps had been taken by Galileo and Servetus. By Galileo's principal disciple, Torricelli, a discovery had been made the importance of which to medicine cannot be over-estimated—the discovery that the atmosphere had gravity, and that its pressure could be precisely measured. For the first time in the history of medicine the mechanism of the respiratory function became intelligible. It was seen to be a simple result of atmospheric pressure consequent on certain muscular contractions which enlarged the thoracic cavity. To Borelli and to Mayow of Oxford the credit must be given of first describing the respiratory apparatus with unmistakable clearness and accuracy. To Mayow also is due the first, or nearly the first, attempt to explain the chemistry of respiration. On the subject of heat, its formation, its propagation, its relation to mechanical force and its connexion with vital action there was complete, or almost complete, ignorance. Descartes, indeed, with the present instinct of genius, had put forward the conjecture that heat, like light, was a violent, insensible motion of the ethereal substance pervading the universe. But no proof was offered, no relation of this insensible molecular motion to molar motion was indicated; and the conjecture was buried with many other far cruder hypotheses of this great philosopher, to be revived in our own century. On animal heat the beliefs of physicians were of the most fanciful kind, and were in no respect sounder than those which had prevailed since the time of Aristotle. Descartes—and Harvey seems to have been in the same case—was content with the old view that the heart was a spontaneous source of heat. By this heat Descartes—deviating here from the sounder view of Harvey—held that the blood on entering the heart was expanded, such expansion being the principal motor force which, when the mitral valve was closed, propelled the current of blood through the body. A full century was to pass before Black and Lavoisier were to place the study of heat on a scientific foundation. The second great hiatus rendering a scientific grasp of vital facts impossible was the absence of anything that could be called a science of chemistry. We know life as a series of molecular changes, anabolic and katabolic, old substances decomposing, new compounds arising in their place. This continuous metabolism, following predetermined paths, is the distinctive fact of living organisms; that which most obviously demarcates them from inorganic matter. No event that takes place in a living body, no function of any organ, is

intelligible without it; yet of the chemistry of life Harvey and the generation following Harvey were entirely ignorant. A few metals had been added to the list of those found in the virgin state and known to the ancients, the principal alkalies and some of the mineral acids had been formed and several mineral salts had been investigated, but no step of the first importance had been taken since the time of Paracelsus, and, above all other deficiencies, there was no pneumatic chemistry. In John Mayow, indeed, there was a dim apprehension of the fact that something was contained in nitrate of potash of an ethereal volatile nature akin to the respirable atmosphere and essential to the maintenance both of life and of combustion, and I know nothing more interesting in the history of science than to trace in his works this clutching at the discovery of oxygen which yet eluded his grasp and that of other searchers after truth for a hundred years. The composition of air and water, the difference between air and other gases, remained undiscovered. Combustion was explained by the comprehensive though false theory of phlogiston, the ethereal substance endowed with negative gravity, a theory destined to hold its ground so tenaciously that even Priestley, a century afterwards, could not escape from its shackles. The chemistry of respiration remained unknown. Harvey, to whom both the mechanism of this function and its chemistry were alike obscure, has told us in his printed work, and still more clearly in his manuscript notes, how obscure a problem the whole subject of the lungs was to him, how great an obstacle to his discovery. Before birth the lungs were not needed for the circulation of the blood. Why should they become necessary afterwards?

As the scientific study of life presupposes a clear apprehension of these physical and chemical laws, it is abundantly clear that in Harvey's time a scientific conception of life was not possible. As the art of medicine rests, or at least is ultimately destined to rest, upon biological science, it follows that medicine regarded as a scientific art—an application, that is to say, of scientific principles to particular cases—must have remained throughout the seventeenth and the first half of the eighteenth century extremely crude and imperfect. Nevertheless, in the seventeenth century the attempt was made for the first time to found medical art on such scientific laws as had been then discovered. Harvey was not, perhaps, the conscious originator of this line of action; it was rather due to the stimulating influence exercised by the scientific philosophies of Galileo and Descartes. Still Harvey's discovery of the circulation was unquestionably the starting point from which it proceeded. It is worth while, as I have said, to watch closely the course of this procedure. For if much is to be reaped from the history of truth, something may also be gleaned from the history of error. Of Harvey himself we are told that after the publication of his discovery his practice fell off; the implication being that the propagation of a new truth aroused hostile prejudice and alienated those who had previously consulted him. Is there any valid proof of such alienation? By this College he was from the first held in profound respect; he enjoyed Royal favour so long as there was a king in England. Under the Commonwealth his old age was passed amid every sign of universal regard. I hope it will not be attributed to disrespect of so great a name if I suggest that among the reasons for diminished success in the practice of his art one may have been that his great discovery reacted upon it unfavourably. Had that treasure of his "Medical Observations," to which reference is so often made by him, been preserved to us, we should be able to answer this question with some certainty. As it is, we can but express a doubt whether the dazzling splendour of a new truth may not have brought about a temporary blindness to the old; whether this one function of the circulation, accurately and precisely determined, may not have seemed so overwhelmingly important, by contrast with the nebulous haze in which other functions were still wrapped, that the observer was tempted to account for the myriad phenomena of disease by disturbances of a single organ, and lost his power of regarding the organism as a whole, on which, nevertheless, the art of medicine has rested since Hippocrates, and must for ever rest. If this were so, it was not to be the last time in the history of modern medicine in which the two opposing processes of analysis and synthesis came into disastrous conflict, for that history records analogous reactions on medical practice of almost every important scientific discovery. What happened in Harvey's case we do not and cannot know, but as to the effect of his discovery on subsequent theories of

medicine we are not left in doubt. A school of medicine arose, commonly known as the iatro-mathematical, which numbered many distinguished names, and held its ground for nearly a century, avowedly based on Harvey's discovery, and having for its aim the explanation of vital phenomena by mechanical forces. Some of the most important representatives of this school may be here mentioned. The first on the list is Giovanni Alfonso Borelli, born thirty years after Harvey at Naples, a professor of mathematics and of medicine at Rome and Pisa. He died in 1679. His great work, "De Motu Animalium," appeared the year afterwards. He was the first to analyse distinctly the operation of the muscular system and to attempt to assign with mathematical precision the exact mechanical energy exerted by each muscle. Before his time it had never been realised that the bones were levers and that the muscular tissue was the moving power; the resultant action depending on the angle at which the force was exerted and on the distance of the point of insertion from the centre of articulation. So long as the problem was one of elementary statics he was on safe ground; but many of the problems handled by him needed a higher calculus than was in his possession, and here he made serious miscalculations. The important step was, however, to break ground in this new field, to regard muscular energy as a measurable quantity. Borelli framed a careful and elaborate theory of muscular contractility. The muscle in contracting shortens. What makes it shorten? The first explanation is to compare it with what takes place in a rope when a weight attached to it is lifted, and successive parts of the rope become slack as the work is done; but in the muscle the contraction is simultaneous throughout the whole length. Secondly, the contraction of muscle is not elasticity; this would imply previous extension, and shortening could only take place to the point from which extension started. But, thirdly, can it be said that the contracted muscle is in a state of strain, which being removed the muscle shortens? If so, effort would be felt in the state of rest; while if any exertion was made there would be a feeling of repose. Again, it has been suggested that muscles contract by animal heat, as hair and other animal substances contract on scorching. Of such a rise of temperature there is no evidence whatever. Again, muscular contraction has been compared to the corrugation of worms or snakes, but this corrugation is itself the result of muscular contractions. Finally, he dismisses with scorn the view held by some that the process was not a mechanical one at all, but a vital one. "As though nature," he cries, "could dispense with the laws of destiny fixed by divine wisdom!" What, then, takes place when a muscle contracts? Some bodily substance, he conceived, is transmitted by the nerves to the muscular particles creating an explosion or ebullition, as when oil of vitriol is poured on chalk or water on quicklime. So long as this nervous juice continues to be distilled into the muscle, effervescence goes on, the fibres of the muscle are driven apart as by a wedge, and shortening of the muscle results. When the supply of nervous juice ceases things revert to their former state. Borelli's theory of nutrition was equally mechanical. Over-estimating the force of the heart as a mechanical agent, he conceived the blood as rushing through the vessels with sufficient force, first, to drive away worn-out particles from the tissues and eliminate them through the pores or otherwise; and, secondly, to rebuild the tissues by wedging in new particles adapted to the shape of the pores, just as in mosaic work stones of various shapes are fitted each into its proper place. This sample of Borelli's physiology will prepare us for his pathology. The central fact for the pathologists of that day was fever. What was Borelli's theory of fever? The accepted view was that it was a heat kindled in the heart. A fermentation was supposed to be set up in that organ, the result of which was to set free the spirituous and sulphurous parts of the blood, and thus to bring about the quick pulse and other phenomena of constitutional disturbance. "But where," asks Borelli, "is the proof that the heart is the scene of these chemical processes? What warrant have you for saying that the heart is hotter than the rest of the body? I," he says, "have tested the matter with a thermometer and can find no difference. [This, by the way, is the first instance known to me of the application of thermometry to animal physiology.] As to ferments contained in the heart, the lining membrane," he continues, "is perfectly smooth, and a torrent of blood rushing through it would sweep the imaginary substance away with it. Besides, it is easy to show by injection of hot substances into the blood that heat will not produce fever. No; it is not heat that causes the rapid motion of the blood, but the rapid

motion of the blood that produces fever. My theory of muscular action explains it. The nervous juice is poured out more abundantly into the heart and all the involuntary muscles, and arouses them to increased action. After a time the voluntary muscles cease to be voluntary, and these also are convulsed." Borelli was no doubt obliged to imagine some other cause at work to produce this excess of nervous juice. Either that juice was poisoned by some ferment in the glands which were richly supplied with blood, or the nervous tubules were mechanically obstructed and the fluid contained in them fermented. In any case the visible symptoms of pyrexia—the heat, the swelling, the redness, the pain—were due entirely to mechanical causes. The essential facts in fever were, in Borelli's view, facts of hydraulics. His followers, Lorenzo Bellini and Archibald Pitcairn, carried out the same view in a still more systematic way. Their names may be forgotten now, but in their own day their fame was European. Pitcairn was a native of Edinburgh, and practised medicine in that city, where he was the leading physician, but he had also occupied a chair at two foreign universities of the highest repute, Montpellier and Leyden. In the latter city the illustrious Boerhaave was among his pupils. It is to Pitcairn that Lorenzo Bellini dedicated his work.

Pitcairn's remarkable work, *Elementa Medicinæ Physico-Mathematica*, is a systematic treatise on medicine, beginning as was usual at that time with a statement of physiological principles. This is interesting if only as evidence of the overwhelming importance attached by his school to the discovery of Harvey. Life and the circulation of the blood are identical, he says; life is the circulation; there is no independent life of the parts. It is the body which lives, not any part of the body. Circulation, which is life, depends not on parts but on the whole. "Dividitur corpus in partes continentes et contentas, id est, canales et liquores." Vessels and the contents of vessels make up the whole substance of the body. The differences between one body and another were differences in the fluidity or viscosity of the contained liquids. Then follows his explanation of what was rightly looked on as the fundamental problem of animal heat. He conceived heat to be an explosive substance locked up in certain particles of the blood, and liberated by the attrition of those particles; this attrition, of course, proceeding more rapidly as the circulation was more vigorous. The notion that animal heat resulted from a certain residuum of blood left in the heart and continually fermenting he scornfully rejected, as Borelli had done. There could be, he said, no such remnant. The lining of the heart was smooth, and the whole mass of blood swept through it and passed on. To invoke the chemistry of fermentation was needless. Mechanical causes accounted for the whole. For the pathological fact of fever, or at least pyrexia, mechanics supplied sufficient explanation. "By the word fever," he says, "I understand the velocity of the circulation uniformly increased in equal intervals of time." Increased motion of the blood produces rarefaction, as blood flows more rapidly from capillaries to veins. On rarefaction follows increased secretion of nervous fluid; on this again increased action of the heart's muscular tissue, hence a quicker pulse, so that the effect of increased cardiac action also becomes its cause. The classical symptoms of fever—flushing, swelling, pain, want of sleep, convulsions, hæmorrhage, cutaneous eruption, parched tongue, thirst, anorexia, loaded urine—are each in turn explained as the result of mechanical processes. Intimately associated with Pitcairn was Lorenzo Bellini, one of Borelli's pupils, who carried on the same line of research in an even more systematic way. The problem specially attacked by him was that of secretion, attributed by the chemical school of physicians to the action of ferments. For this school the familiar fact of fermentation, with its attendant phenomena of effervescence—heat, change of substance &c.—did duty as the one solitary representative of the vast domain now known as organic chemistry. It had very naturally and legitimately forced itself upon the attention of those men, offering as it did a prompt explanation of a multitude of obscure facts. The liver was supposed to secrete bile by virtue of its ferment; so did the pancreas, so did the salivary glands, the kidneys, the gastric mucous membrane; nay, as we have seen, the fact of animal heat itself was supposed to be elucidated by an imaginary ferment residing in the heart and acting on the blood as it passed through. Everything could be explained in this way. Men soon become the slaves of words; and so here the word "fermentation" (which in reality held the clue—as 200 years afterwards we have come to see—to some of the hidden secrets of life and disease) became a mere metaphysical figment like

the dormitive influence of opium in Molière's play. It solved hard problems by the simple process of restating them in obscurer and more pedantic language. Against these crude chemical theories the mechanical school of physicians, with Bellini at their head, waged fierce battle. "What sort of an explanation," he asked, "do you arrive at by your theory of ferments? If secretion is caused by a ferment contained in a gland, then what is it that secretes that ferment? Suppose, for instance, that bile is secreted from the blood by some special ferment; that ferment requires a second ferment to secrete it, and that second yet a third, and so on without end." But in truth the whole of this chemical apparatus is, he maintained, unnecessary if we think for a moment what is meant by the cohesion of particles of matter. Two molecules press towards one another with a given force and in a given direction. Change the force and the direction and we have a new arrangement of molecules—in other words, a new compound. To effect this change some external force is needed, but this need not be a ferment; the action is mechanical, not chemical. Secretion is the separation of certain elements of an animal fluid from the rest. Now we see this separation taking place outside the body without these imaginary ferments, as, for instance, after blood-letting, in the separation of the clot from the serum. What takes place outside the body may take place inside. "See again," he continued, "what takes place when blood is placed in a vessel and subjected to Mr. Boyle's new machine for extracting the air. Ebullition, evaporation takes place—that is to say, portions of liquid at once separate from the rest, which had previously been held down in contact with them by the pressure of the superincumbent atmosphere. So it is that inside the body changes of mechanical pressure suffice to explain all that takes place. A gland is simply a closed vessel with extremely small perforations of different shape and size. What takes place in it is as purely mechanical as what goes on in the formation of a blood-clot or the filtering of fine sand from coarse. There is not the slightest necessity for complicating the matter with ferments. *Deus natura conditor est Deus facilitatis* (God does everything in the simplest way)." As time went on the potent mathematical calculus of Leibnitz, Newton and the Bernoullis held out increasing hopes of being able to overtake the subtle processes of nature, and of anticipating direct observation by a reasoning process. Dealing with the infinitely little as well as with the infinitely great, prepared to represent every natural form, even the variations of each human countenance, by an algebraical equation, it seemed to them that they were entering on a path leading directly to omniscience, and surely capable of unravelling the intricacies of life and of disease.

It would be interesting, were there time to do so, and it would not be uninteresting, to trace the influence of this extraordinary scientific stimulus upon the great physicians of the early part of the eighteenth century, more especially upon Boerhaave, a pupil, as I have remarked, of Pitcairn, and upon Richard Mead. In Boerhaave's theory of fever the excited pulse indicated the effort of the heart to sweep away, as by a flood tide, the obstruction in the capillaries, and a similar attempt to explain biological facts by the mechanical forces of the circulation is to be noted in Mead's discussion of the operation of poisons. But these great physicians were preserved by the wise empiricism of their clinical instinct from the extravagances that beset more one-sided men.

Thus it was that the devotees of the two great sciences of mathematical physics and of chemistry—the one brought to a high degree of perfection, the other crude, imperfect, struggling to be born—strove strenuously for their exclusive application to the art of medicine. The intro-physicists were far more fitly furnished than their adversaries with the armament of scientific discovery. They had arisen with Galileo and Harvey; they were carried triumphantly onward by Torricelli and Pascal, by Boyle, Newton and the Bernoullis. The great discovery of Harvey was their own domain; to extend its application to every bodily function was the goal of their efforts. The chemiatic school, on the other hand, could rely only on the sinister though seductive memories of Paracelsus, and on the dawning hopes of a future which they were not to witness. The struggle was watched by a third school of medical investigators, who saw weak joints in the armour of both the combatants—I speak of the animist school, which arose at the end of the seventeenth century under the leadership of Stahl. He was the most prominent chemist of his time. His hypothesis of phlogiston

was accepted as a satisfactory explanation of combustion for three-quarters of a century. But Stahl felt in a confused, dim, strenuous way that the facts of life—the selective, coördinating, prearranging processes presented by the humblest animal or plant—were not to be accounted for by the play of mechanical or chemical forces. So strong were his convictions on this point that his Archè, or Vital Principle, dispensed altogether with mechanics and chemistry. It was a metaphysical figment, involving error at the least as gross as that against which he contended; but within the husk lay the germ of an all-important truth.

Later in the eighteenth century the discoveries of Black, Cavendish and Lavoisier fulfilled the preliminary conditions for the evolution of biology as a distinct science. Haller, Hunter, Bichat and others brought that science to the birth. From that time to this it has become more and more plain that physics, chemistry, biology each has its own domain, its own methods, its own body of inductions, each of the latter terms in the series using the results of its predecessor and adding new results of its own. Life is a structure built up of physical and chemical facts. Yet to the building, to the arrangement, to the ordering of those facts there goes something that neither physics nor chemistry can explain any more than algebra can explain the behaviour of a magnet. To strive to interpret the series of events which make up the life of an animal in terms of chemical metabolism or of conservation and expenditure of energy is an endeavour which will fail; though it is a useful endeavour, because only thus can we eliminate what remains. That something remains the greatest of living British physicists has recently assured us. The admitted insufficiency, to take one instance from a thousand, of Lavoisier's theory of combustion to account for the phenomena of animal heat, the admitted necessity of seeking in the nervous system for a thermotaxic centre or centres to account for the amazing adjustments of the organism to changes of temperature in the environment, were enough to convince the biologist that though he receives his building material from the physicist he must construct the edifice for himself.

The history of medicine is a strange and fascinating though sometimes a melancholy record. We see in the fifth century before our era a man of genius, gifted with that marvellous union of the observing eye with constructive imagination which astounds us in the sculptors of the Parthenon, building up without science, without anatomy, the fabric of medical art of which what we still practise is but the enlargement. Inheriting from the priestly guild from which he sprang a vast store of observations, and adding yet more of his own, Hippocrates was guided in dealing with them by two fundamental principles—(1) that diseases, like other phenomena of nature, follow a natural sequence; (2) that the organism of man, however complex, is yet an individual whole, each part receiving and impressing reactions on every other. After Aristotle and Galen had done their work long centuries ensued of blind and sterile routine, followed by a period of acute but one-sided analysis. By the help of such analysis it may be that the Hippocratic synthesis will be again built up on a more enduring basis. The ideal perfection of medical art rests upon an equally ideal perfection of the science of human nature, summed up in complete knowledge of our organism and of the influences that act on it. The goal is unattainable, yet till it be approached the physician must be content with empirical knowledge of an infinite array of facts—biological, psychological, ethical, which, though certain as mathematics, yet do not admit of quantitative determination. It is only within the last generation that the word "subjective" has become familiar to the biologist. As the student of sensory organs deals with some of these subjective facts, so does the student of human passions deal with others, for these, no less than sensations, are functions of our organism. To determine the way in which this or that man will be affected by any morbid process without taking account of such facts is assuredly impossible. They must be taken into account at all costs; if not by scientific process, then by wise empirical instinct. I shall conclude with saying that as medical art has been affected by the rise of physics and chemistry in the seventeenth and eighteenth centuries, so will it be affected by the scientific sociology of the nineteenth and the twentieth. Not till science has fully embraced every aspect of human life can medical art, as founded upon science, hope to be complete. But at the dawn of modern science in the seventeenth century the dazzling brilliance of mathematical and physical discovery led the keen and daring minds of whom I have

been speaking to the belief that all phenomena with which the physician deals could be spoken of in terms of mechanics. It was a legitimate and inevitable stage in the progress of the human mind. Without it the later stages would have been impossible. It initiated the great discovery of Harvey, whom not merely we, but future generations, will continue to venerate as the principal founder of scientific medicine.

## Lecture

ON

## ANATOMY AS A SCIENCE AND IN RELATION TO MEDICAL STUDY.

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PROFESSOR OF ANATOMY AT THE UNIVERSITY.

(Concluded from page 929.)

As in every other branch of science, including the science of medicine itself, so also in anatomy the lowest stage consists of observation, either direct and simple, or aided by artificial helps. This is the stage of "phenomenology," as it has been aptly called; and although deservedly described as not in itself rising to the dignity of science, it is fundamental, all the rest being superstructures whose validity depends on the soundness of the observations on which it rests. It has, moreover, this dignity and educational value, that it requires for its prosecution a faculty which, like every other faculty, must be trained to do good work, and one which cannot be neglected without detriment to the mind as an instrument for discovering truth. The faculty of observation is that by which attention is deliberately bestowed on details appreciated by the senses; by which also they are accurately and consciously recognised and recorded in the memory, so as to serve as data for guidance in further observation. The artisan and scientist train it, each in his own line; but in general education it is very often neglected, while the jaded memory is brought to the front. From observation the mind passes on to reflection; and, just as in the development of the individual mind, so in the growth of every science, the accumulation of facts leads to inquiry into their meaning. Then generalisations and meanings learned as explanations of phenomena demand in turn to be themselves explained, till at last studies which had become more and more distinct as they diverged into territories opening before them meet again as from different sides they are brought into contact with the inscrutable problems of being. But though the progress of science may be analysed into stages, it is not to be supposed that these are practically altogether distinct. Anatomy having come into being in the service of physiology, has busied itself from the commencement with questions of final cause, the uses which organs serve in the economy. It never had a prephysiological era; it was impossible at the outset to consider structure apart from function, and inasmuch as structure cannot have come into developed existence, either in the individual or in its totality, except by the operation of function, any more than function can exist without structure, anatomy and physiology cannot be permanently dissociated. Vesalius saw clearly, and I suppose he was the first to do so, that a temporary retreat from physiological considerations was necessary for anatomical progress. He seems to have appreciated that there was nothing constant in the human body, however purposeless it might seem to be, which was not worthy of close inspection and accurate description. The importance of anatomical fact lay to him in its constancy. Doubtless in later times, heavy and painful description has often been elaborated and taught to students as important, in a way which furnishes a good discipline to them, by men who have simply run in the grooves which others have made who have thought that in carrying elaboration further for its own sake they were making the highest advances possible,—worthy men incapable of looking below the surfaces of things, though full of the peaceful enjoyment which comes to the honest worker. But to initiate a system of elaboration which requires generations to carry out is a different thing, and denotes faith that it will

lead to something more; and this was the position of Vesalius. One of those men who seem to have had a fever for hard work, directed even in boyhood to anatomy, he was capable of enjoying the luxury of the courts of Charles V. and his son Philip of Spain, and leaves evidence in the truly wonderful illustrations of his masterpiece, "De Corporis Humani Fabrica," of a keen enjoyment of artistic beauty of form and the appreciation of it as pervading internal structure. But the work stands out mainly as a monument of a new idea of precision of observation and accuracy of detail, contrasting with what went before and laying the foundations of descriptive anatomy apart from physiology.

It is not till modern times that we find anatomy rising to the conception of a rational morphology. It is only in modern times that the word "morphology" makes its appearance. During the last decade or so it has been a good deal employed in an altogether unnecessary way as a mere synonym for anatomy as opposed to physiology. Such a use of the word is to be condemned. The word is not morphography, but morphology, and means not the description of forms, but the study of their relations one to another—morphological and not topographical relations. These relationships are of different kinds. There is a symmetrical correspondence of right and left sides, obvious to the eye but as yet never grappled with in its causation. There is sexual correspondence, or the fundamental identity of organs differently developed in the two sexes, a correspondence to a certain extent vaguely appreciated even by the old anatomists. More remarkable are two other kinds—viz., the serial correspondence of different parts in one animal and the correspondence of parts in different animals. One digit manifestly repeats another. The lower limb also manifestly repeats to a considerable extent the upper, and the mind is led on to compare the two more and more in detail. Architectural harmonies throughout the whole body become apparent—in some instances so obvious that at first it does not seem necessary to remark upon them; in others so questionable that further research is required to ascertain if they are real; and even when a correspondence undoubtedly exists there may be questions as to its details. For example, a part of the hand obviously corresponds with the heel; but it requires a good deal of investigation to settle precisely how much of the hand corresponds with the heel-bone. These inquiries cannot be successfully carried out unless we look at corresponding structures in different animals, and it is a matter of fact that it was only when comparative anatomy came to be systematically studied that these inquiries began to be made. Besides this, it is really the same sort of task to make a just comparison of the bones of the skull of a fish with those of the human skull as it is to arrive at the morphological relations of the skull to the vertebral column in man. Thus, pure human anatomy rises to a higher than a mere observational stage, and leaves physiology for a time only to find itself part and parcel of a larger science of which the study of the lower animals forms a necessary portion. At this stage it has not reached its highest level, but it has gained a vantage ground from which the mind is influenced in its whole conception of animated nature. There springs up, as there sprang up before the eye of Geoffroy St. Hilaire, a vivid view of what he called the unity of organisation—a unity which has to be recognised in many details before the questions can be profitably asked, "How did such unity come to be, and how did the objects come to exist in which it is exhibited?"

Doubtless the same unity in variety which is studied in homology of structure pervades other things as well. Time and chance have their influence on everything, and the researches of the philologist into the origins and affinities of words and languages display in like manner the derivation of the complex from the elementary and of dissimilars from common origin. Perhaps simpler illustrations of gradual variation, evolution and degeneration are furnished by the history of architecture, and illustrations even more familiar are abundant in the history of dress. The hats, coats, and boots of the present day cannot be accounted for without knowing those which have preceded them and the influences which have operated to produce change. Perhaps you think that because fashion is largely founded on caprice its changes are sufficiently accounted for by attributing them to that cause. But caprice itself is subject to law—namely, to the causation of antecedence and environment, and every shape of garment is descended from another which leaves its mark on it. The lapels of dress-coats, with useless nicks and jagged points and impossible button-holes without buttons to match, are the vestigial

remains of fronts which buttoned across the chest, collars that protected the neck, and the space left for the chin when the breast was buttoned and the collar up. Thus, also, there is not a discovery, not an act, not a thought which is not evolved from its antecedents, both external and internal to the thinking agent; but the homologies of living structure, whether animal or vegetable, have their special interest in being, not the result of the succession of human ideas, like the homologies of words and clothes and buildings and many other things, but part of the order of growth by which the organisms exhibiting them exist. There are three ascending series of forms which demand attention in the prosecution of the higher anatomy—viz., first, that passed through from the earliest stages of existence, the embryological series; secondly, the adult forms at present existing, from the lowest to the highest, constituting the comparative anatomy series; and, thirdly, the forms existing in different geological epochs—the palæontological series. The last is so imperfect at the best, and so almost disappeared as regards soft textures, that its relics stand out only as guides to what has been when they are translated by that which now exists. Thus it is present forms which in their adult diversities and their more similar early stages furnish the field from which the data for the higher anatomy are derived. Not otherwise than with eyes ready to consider all can the purely morphological investigation of the architectural meaning of parts be properly carried on and the steps of evolution from the simple to the complex be rightly understood. But pure morphology is not the final goal of anatomy. The history of the body is not completed when the stages through which it has passed have been described and its parts have been compared one with another and with those of other organisms. The recognition of stages and resemblances opens up questions of causation. What is it which effects from the ovum the development of the aggregate of millions of shapely structures constituting the organism into one shapely and finely determined whole? The starting of such an inquiry leads to another important, though much smaller, question, Is there any genetic bond of relationship between different kinds of organisms? This latter question is now universally answered, or almost universally, by biologists, in the affirmative, not because the answer can be proved, but because scientific probability points altogether in that direction. It was raised and answered in the affirmative by Lamarck and St. Hilaire, and the affirmative answer has become popular since Darwin wrote. But the genetic connexion of different beings, when established, only presents us with a development or a series of developments through the ages which is comparable with the development of the individual adult from the ovum. It makes it all one genesis with which we have to do, but it still remains to investigate the causation which, carried down from parent to offspring, in a manner called heredity, passes through the narrow channel of a fertile ovum and moulds different beings to their shapes. Such a tremendous problem is naturally liable to be attacked piecemeal, and more or less partial solutions have been offered at different times in Lamarck's theory of appetency, Darwin's theory of natural selection and Weismann's hypothesis already nearly shelved. These theories all deal with heredity, but none of them can be said to give any idea of what the source of heredity is. It is a common notion among biologists that the whole secret of life is to be explained by the operation of the laws of dead matter, and those who hold this notion think it highly philosophical, but neither the physical nor the chemical laboratory reveals any phenomenon similar in kind to organisation, reproduction or heredity.

There are two propositions which I shall now lay down; both of them are founded on purely anatomical data, and already made familiar to some of you in the class room. I claim them as my own, and think it is important to keep them in view in investigating the causation of life. The first does something to simplify, though not to explain, the problem, and is that all segmentation or metamerism, animal or vegetable—all serial homology—is simply a variety of reproduction; that process which in its simplest form converts a unit of texture or a unicellular organism into more than one, and in the form known as gemmation or budding of complex organisms presents not a single corpuscle resolving itself into a number, but an undifferentiated mass of corpuscles resolving itself into repetitions of the forms from which it sprang. My other proposition, already laid before the scientific world, is that the organising power, including heredity, is in vertebrate animals demonstrably not resident in the individual living corpuscles of which the embryo is composed, but in masses of these. The demonstration comes from the study

of malformations, from instances in which heredity is opposed by mechanical obstacles, and I shall on this occasion take for example the development of the eye in cyclopia, that curious form of development in which an eye is placed, not indeed in the forehead, as in the fabled cyclops, but underneath the nose. The seniors among you know that the eyes take origin separately one from another. But in cyclopia there is a single mesial eye, shapely, though not perhaps perfect in all details. The masses which ought to have produced two eyes, being mechanically prevented from moving outwards, produce not two imperfect eyeballs crushed together, or intercalated one with the other, but a single symmetrical globe with muscles arranged around it, and often with a perfect cornea. This is only one instance among many of the same kind showing that masses of corpuscles act consentaneously, ordered by some pervading influence different from the chemical or structural composition of each. Therefore, *life is not, as has been alleged, a mere property or set of properties, chemical or other of protoplasm.* Life, mere organic life, is not an evolution of the properties of the chemical elements; it is something more, a new order of things made manifest on the earth.

I pursue this subject no further at present. My object has been to show by illustration from anatomy the stages of advance of a division of natural science,—how, devoting itself in the first place steadily to intricate details, it deals as it progresses with high and varied problems and becomes more and more evidently a factor in philosophy. I have done this that you who are students of medicine in this university may see how the hand of Medicine herself beckons you on to the largest and deepest inquiries, to a culture of the mind and a recognition of the universe second to none that can employ the intellectual powers.

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ABSTRACT OF THE

## Introductory Address.

Delivered at Anderson's College on Tuesday, Oct. 18th, 1892,

By W. L. REID, M.D., F.F.P.S. GLAS.,

PROFESSOR OF MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN,  
ANDERSON'S COLLEGE, GLASGOW.

[THE lecturer introduced his subject by recounting the early career of Dr. William Smellie, whom he regarded as the type of a truly successful medical practitioner, and the prominent features of whose character formed the gist of the address.]

1. Smellie did not believe that poverty was a barrier to success. We find careful notes of cases dated 1722, within a few months after he began practice, and there is something touching in the idea of this man courting science so assiduously, while yet obliged to sell cloth to keep himself in daily bread. Afterwards, when a somewhat scurrilous opponent, amongst other charges, taunted him with the fact that he had at first to advertise his lectures on a street lamp, he took pains to refute thoroughly the more serious charges, but was not concerned to deny that poverty had compelled him to resort to such a device. I have known many students who were ruined by having too much money; very few, indeed, through having too little.

2. Smellie was a man of great industry. We see this from the elaborate and accurate notes he took of his cases, as well as from the fact that he taught midwifery clinically by attending cases of labour with his pupils, in whose presence he delivered 1150 women during his first ten years of teaching. I know something of the labour involved in work of this sort amongst the poor, and we have evidence in the details of his work that time and labour were not much thought of when expended for this purpose. He was not industrious by fits and starts. His record of cases for the forty years he was in practice is almost uninterrupted except during the year 1739, when he was searching in London and Paris for further instruction in his favourite subject. According to the views of certain people Smellie should have spent one evening a week at the theatre and another at a music-hall, or what in those days represented such. In my opinion

he did better. He varied his usual work by studying music and painting as personal accomplishments. Thus, in his will he left to the Lanark Library, which he founded, "nine English floots with the thick 4to gilt music-book," and the only known portrait of Smellie is an oil painting now in the possession of the Royal College of Surgeons, Edinburgh, painted by his own hand. Again, his obstetric plates, of which the late Dr. McClintock of Dublin says that they "have been universally admired for their accuracy and their execution, in which important particulars they far surpassed anything that had ever appeared before and have seldom been equalled since," are known to be partly his own work, as he speaks of having been "assisted" with them by Dr. Camper, Professor of Anatomy at Amsterdam. I should advise you, gentlemen, especially while you are students, to copy Smellie in his steady work. It is true that a clever man may put on a spurt towards the end of a session and distance his fellows, but the greatly safer plan is to keep well abreast of your work by doing the day's work every day. No less would I advise you to have some relaxation, but let it be one which need not take you out of your own rooms in the evening, the evening hours being, at least for the medical student, those in which he has most opportunity of reading steadily. The late Dr. John Brown of Edinburgh thought that a doctor's relaxation might wisely be literary in its character. "I like to show," he says, "that our medicus may be not only, like Locke, at once a good physician and metaphysician, or, like Adams, equally great as a scholar and a domestic 'leech,' but that he may be a poet too."

3. Smellie was an enthusiast in his work. Our world at present is cursed with half-hearted workers, men who occupy positions and profess to do work in which they have little or no interest. The man of whom we are speaking was not of this sort; indeed, in his heartiness he was occasionally betrayed into making statements that sound self-laudatory. Thus, in speaking of "phantoms" and "dummies" as we now call them, he says: "I considered that there was a possibility of forming machines which should so exactly imitate real women and children as to exhibit to the learner all the difficulties that happen in midwifery, and such I actually contrived and made by dint of uncommon labour and application." A pamphlet was published in 1773, directed against the practice of midwifery by men, which practice Smellie had strongly supported. Yet this antagonistic author felt bound to speak of Smellie as an individual in the following terms: "I knew him well ..... he was an honest man ..... and, what ought to recommend him and enforce his authority with those of his fraternity, he was an enthusiast in his profession. Man-midwifery was the idol of his heart; he believed in his forceps as firmly as he believed in his Bible." Dr. McClintock, in giving this quotation, adds: "The indomitable perseverance he displayed in very many of his operations is most remarkable, and, considering the strong popular prejudices then existing against instruments and male practitioners, it must have required no small degree of moral courage and confidence in his own resources to have acted as he did." If any of you, gentlemen, find, as you go on with the study of this profession of medicine, that for you it lacks real interest and that you look forward to its practice simply as a means of earning a living, I forewarn you that you may look forward also to a life of comparative drudgery; for, unless brightened by real interest, the work will be found hard to a degree.

4. Smellie's thoroughness was remarkable, and this, of course, followed on the heartiness with which he did his work. In the preface to his volume of lectures he says that he hopes the reader will not imagine that it was "cooked up in a hurry," and informs him that he had taken six years to write it and that it had been "from time to time altered, amended and digested." What a boon it would be to us students and practitioners if all authors of medical books could say this truly of their productions. Dr. McClintock, in his memoir of Smellie, and in its very first words, refers to this matter of thoroughness. "As a teacher, author and practitioner there is no British obstetrician—certainly none of the eighteenth century—who deserves so high a place in our estimation as William Smellie." Is there not an important lesson for us here? How can a man do effectual service to his neighbour or raise himself in his own estimation if he knows in his heart that his work is done in a slipshod slovenly manner? Let us, then, determine firmly—for we must all find it a difficult task—to do to the very best of our ability what duty brings to our hand.

5. Smellie had great power of observation, which is usually

another way of saying that he had carefully trained himself to get at facts, to see things not as they seemed but as they actually were. He, like all men who have done good, original work, believed in a constant appeal to nature. Dr. McClintock says of him that "he was a keen and accurate observer of nature and exercised the utmost care in obtaining correct data on which to found his conclusions. Here was the secret of his unrivalled success as a reformer and improver of midwifery." Rigby also, in the preface to his translation of Naegelé's "Mechanism of Parturition," says that "any person who has devoted his attention to midwifery and is at all acquainted with the history of this branch of the medical profession must acknowledge the immense advance it made during the beginning and middle of the last century in the hands of Smellie and others." In this respect, gentlemen, we shall all do well to imitate Smellie. Let us learn carefully to observe facts, note them as carefully and not less carefully reason from them afterwards. In this way we may hope to rear on the foundations laid by those who have gone before us a superstructure of abiding truth. Dr. John Brown had strong views on this subject. Writing near the end of his eminently thoughtful life he said: "Although recognising fully the immense enlargement of our means of knowledge in these latter years, I would put in as strong a word as ever for the cultivation and concentration of the unassisted senses. Microscopes, sphygmographs &c. are good, but do not let us neglect the drawing out into full power by the keen and intelligent use of them those eyes which we can always carry with us."

6. Smellie was very disinterested, generous in his disposition and ready to give credit to others for their good work. Thus in connexion with his knowledge of obstetrical instruments he said: "In particular I was obliged to Dr. Gordon of Glasgow and Dr. Inglis of Lanark in Scotland; the first made me acquainted with the blunt hook, the other with the noose; and in London, Dr. Nisbet assisted me in improving the forceps, and Dr. Hunter in reforming the wrong practice of delivering the placenta." One of his old pupils remarked of Smellie that "no man was more communicative without the least self-sufficiency or ostentation." It is difficult to estimate how far his good influence went, for, amongst many others who afterwards became more or less famous, he taught William Hunter and Denman, Dr. McBride of Dublin and Professor Roederer of Göttingen, and through them hundreds of their successors. Smellie was at first bitterly opposed by the midwives and many of the medical men of London, and I could give no end of amusing instances of their more or less disguised attacks on men midwives in general and him in particular. A big female practitioner in London in those days was Mrs. Elizabeth Nikell of the Haymarket, who in 1760 published "A Treatise on the Art of Midwifery." A few extracts from her "Treatise" will give you some notion of the kind of opposition Smellie had to encounter in the introduction of the forceps and improved methods of delivery in general. Thus she sought to bring his phantom and dummy into ridicule in the following passage: "This was a wooden statue representing a woman with child, whose belly was of leather, in which a bladder full, perhaps of small beer, represented the uterus. This bladder was stopped with a cork, to which was fastened a string of packthread to tap it occasionally and demonstrate in a palpable manner the flowing of the red-coloured waters. In short, in the middle of the bladder was a wax doll, to which were given various positions. By this admirably ingenious piece of machinery were formed and started up an innumerable and formidable swarm of men-midwives, spread over the town and country. . . . I hope, too, that it is an injustice done to that doctor by those who say that his pupils have too often a way of hurrying out the waters, which can only serve to render the labour more dry, consequently more laborious, and by that means furnish a handle for setting their instruments to work." Again, in advising ladies as to what kind of practitioner they should employ, she says: "If, on the contrary, and what the most frequently happens, you fall into the hands of one of the common men-midwives, either of that multitude of disciples of Dr. Smellie, trained up at the feet of his artificial doll, or, in short, of those self-constituted men-midwives, made out of broken barbers, tailors or even pork butchers (I know myself one of this last trade, who, after passing half his life in stuffing sausages, is turned an intrepid physician and man midwife), must not, I say, practitioners of this stamp be admirably fitted as well for the manual operation as for the prescriptions?" That this lady

had a vein of genuine sarcasm may be observed in the following quotation: "But if it is not too presumptuous for me to offer so learned a gentleman as the doctor a hint of improvement for his man-practitioner's toilette, upon these occasions I would advise for the younger ones a round-ear cap, with pink and silver bridles, which would greatly soften anything too masculine in their appearance on a function which is so thoroughly a female one. As to the older ones a double clout pinned under their chin could not but give them the air of very venerable old women." Of the calling of obstetrics, as practised by men, it is said to be "an upstart profession, sordidly mean in its motives, infamously false in its pretences, shamefully ridiculous in its practice, and yet dreadfully serious in all its consequences." "Yes, an ignorant midwife, without perhaps anatomy enough to know where the *pineal gland* is, or without so much as having heard the name of the *ossa innominata*, and with purely her expertness, and with that sort of knowledge she has at her fingers' ends, will give you a more useful and practical account of matters as they go, where it is sometimes so infinitely important to know how they go, than the most learned anatomist that ever dissected a corpse, brandished a forceps, stuck a crotchet into a child's brain-pan, or tore open a living woman." These quotations may serve to give us some idea of the difficulty, and even danger, to which Smellie exposed himself in delivering poor women instrumentally in those days, and it is a matter of fact that, but for the happy termination of some of his cases, he would have suffered bodily injury at the hands of the mob.

7. Smellie had a high idea of the dignity of his profession. In speaking of the efforts of himself and others to improve the different forms of obstetrical instruments, he adds, evidently referring to such men as Roonhuysen and the Chamberlens, who had concealed their inventions of the vectis and the forceps from their medical brethren, "I hope every gentleman will despise and avoid the character of a secret-monger." Let it be your ambition, gentlemen, should you be fortunate enough to discover any new means of relieving weakness and pain to make such known as widely as you can, so that the honour of our profession may be sustained and suffering humanity benefited. Be sure that in some shape you will not lack your reward.

To sum up, gentlemen, I would advise you to consider carefully whether you are carrying on your work as medical students *con amore*, and if not to turn to something more congenial. Next, to make up your minds to work steadily with wise and reasonable relaxation, holding in view that the relaxation may possibly be made such as to subserve your professional progress. Perhaps some of you may meet me with the assertion that there are now so many "ologies" to be learned that one has no time for relaxation. Well, there is some truth in this, and you must exercise your judgment as to how far you should go in prosecuting such studies. My own belief is that a steady worker can easily go as far as the pass examination demands and yet have time for sufficient relaxation, both physical and mental. Dr. John Brown, whom I have already quoted, had no great faith in theoretically over-educated medical students. He recommends men to study vigorously the essentials of their profession, so as to get them well by the back, not meanwhile overloading themselves with the "ologies," but afterwards when time and opportunity offer studying those interesting and important, but less practical subjects. "Often," says he, "when I see some of our modern Admirable Crichtons leaving their university armed *cap-à-pie*, and taking the road, where they are sure to meet with lions of all sorts, I think of King Jamie, in his full armour—'Naebody daur meddle wi' me, and, with a helpless grin, 'I daur meddle wi' naebody.'" We may differ from Dr. Brown when he asserts that a man too full of certain kinds of knowledge may be thereby incapacitated for effective everyday work; but we can hardly differ from him when he says that "sagacity, manual dexterity, cultivated and intelligent presence of mind, the *taotus eruditus*, a kind heart, and a conscience—these, if there at all, are always at hand, always inestimable; and if wanting, though I speak with the tongues of men and of angels, I am as sounding brass, or a tinkling cymbal; and though I understand all mysteries and all knowledge, I am nothing." I can profit my patient and myself nothing." Smellie in the introduction to his "Treatise on Midwifery, after reviewing the work of those who had gone before him and pointing out the fact that with their limited opportunities they had done wonders, concludes with some observations which I also, in concluding, commend to

you and myself for careful consideration: "True it is we have established a better method of delivering in laborious and preternatural cases by which many children are saved that must have been destroyed by their manner of practice; but are not many modern practitioners justly branded for their sordid and unsocial principles in professing nostrums, both with regard to medicine and methods of delivery? Insomuch that I have heard a gentleman of eminence in one of the branches of medicine affirm that he never knew one person of our profession who did not pretend to be in possession of some secret or another; from whence he concluded that we were altogether a body of empirics. Such reflections ought to make a suitable impression upon the minds of the honest and ingenuous, prompt them to lay aside all such pitiful, selfish considerations, and for the future act with openness and candour, which cannot fail of redounding to the honour of the profession and the good of society, as well as their own advantage."

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ABSTRACT OF THE

## Inaugural Address

*Delivered at the Opening of the Session at St. Mungo's College, Glasgow,*

By D. C. McVAIL, M.B. GLAS.,

PROFESSOR OF CLINICAL MEDICINE AT THE COLLEGE.

I HAVE the honour to bid you welcome to this College on this first day of a new session. The work you will be engaged in and the manner in which you will do it is of the greatest importance to you now, and in the near future will be of importance not only to you, but to countless numbers of your fellow men and women. You will have the lives of your patients in charge, and no human responsibility can be greater than that. The field of medical study overlaps, in part at least, every department of scientific knowledge. Physics, chemistry, botany and zoology you must master in their broader features and in many minute particulars. When you have acquired a sufficient knowledge of these four preliminary and vast subjects you will then proceed to study the structure and functions of the human body. Not much more is known of macroscopic human anatomy than was known fifty years since, but you must study it with far greater precision than until recently was required, for since the inauguration of aseptic surgery by Lister many more regions of the body have come within the scope of operative surgery. Physiology, unlike anatomy, has advanced and is advancing with ever-increasing strides. Thirty years since a man would have been dull who could not have disposed of "Kirkes' Handbook" in a fortnight, but you will find that the nine months you will devote to the subject by no means too long a time for what you have to do. When from anatomy and physiology you have learned much concerning the human body in health you will then proceed to the great and modern science of pathology—a science that, as known to us, has been created in the lifetime of men still living. Pathology will teach you the essential nature of the modifications of structure and function which constitute the basis of disease. Get a firm grip of pathology, and let me tell you there is no institution in the kingdom where the opportunity of doing so is greater than in this hospital and school. At the same time that you are engaged with pathology you will also be engaged in a study of a very different kind. You will be in the class of *materia medica* and you will be amazed at the number and variety of the substances that are or have been in recent times in use in the treatment of disease. When you have completed attendance on these four great subjects which form the second group of your course of study, you will enter on the final subjects of the curriculum—systematic medicine and surgery in the class-room and clinical medicine and surgery in the wards; and by the new regulations of the Medical Council your fifth year must be entirely clinical and practical. The enormous importance attached to clinical teaching now is in complete contrast to the perfunctory methods of by-past years. You shall not walk the hospital as men of only thirty years since did. They came

and went as they pleased and got their certificates by merely writing their name once every two months in the infirmary album. In your fourth year, in addition to systematic medicine and surgery, you will have midwifery and gynecology and forensic medicine; and in your fifth year, besides ordinary work in the wards, you will have many special departments to attend.

The Royal Infirmary is a hundred years old. When it was opened the Hunters were but recently dead, and the greatest work of the greater of these brothers—that of "Inflammation"—was as a posthumous work not yet published. Their famous nephew—Matthew Baillie—was on the eve of printing his great work on "Morbid Anatomy," the pioneer of so many books on that subject that have come since. The stethoscope was thirty years away in the future, together with the marvellous clinical and pathological observations on pulmonary conditions by its inventor, Laennec. Mediate percussion was thirty-five years in the future. Rude forms of the microscope had been employed by a few, a very few, physiological investigators, but to hospital practice it was as foreign as the telescope. It was not until 1829 that the elder Lister made the microscope achromatic, before which time there was little accuracy in its revelations. Lister's invention was the necessary forerunner of physiological and pathological histology, and eight years afterwards the first important contribution to the subject was made by the publication of the famous paper entitled "Contributions to Phytogenesis," by Schleiden, where, for the first time, was demonstrated the cell structure of plants and the cell shown to be the ultimate rudiment of life. Next year, 1838, the second great step was taken by the publication of Schwann's "Microscopical Researches into the Structure and Growth of Animals and Plants," in which he demonstrated that in animals also the cell is the ultimate unit of life. The application of the cellular theory to pathology necessarily followed, and Goodsir of Edinburgh was the first to direct attention to cell alterations as constituting the fundamental phenomena of disease. Virchow followed in the lines of Goodsir's suggestions, and by the force of his perseverance and genius created for us the pathology of the present day. An early contemporary of Virchow, the late Professor Bennett of Edinburgh did for a time brilliantly oppose the cellular theory of physiology and pathology, and proposed in opposition to it his own molecular theory of organic structure. That did not long engage the attention of histologists; but recently in another form it is again forcing itself into consideration, particularly in recent observations of the changes that occur within cells that are about to divide and multiply.

About the year 1620 Harvey demonstrated the circulation of the blood, but until the time of the Hunters there was little further contribution to the inductive observation of the vital actions and processes in health and disease. John Hunter was the first of the modern school of physiologists and pathologists, but your predecessors in the early years of the Royal Infirmary could form but little idea of the far-reaching consequences of John Hunter's work. Baillie, in his "Morbid Anatomy," tells all that was really known of pulmonary disease up to 1793, and all he has to say could be read in an hour and might be remembered by reading it once. This hospital was twenty-six years old when Laennec was appointed to the Necker Hospital in Paris, and two years thereafter he published his immortal treatise on the "Diseases of the Chest," and for the first time then the students of this hospital began to be taught the broad outlines of pulmonary disease in many respects not greatly different in their clinical aspects from the manner in which you are taught them now. In 1825 his teaching was supplemented by the invention of mediate percussion by Piorry. From that time the advance of knowledge regarding pulmonary disease was not very great until the development of bacteriological research and the discovery of the tubercular bacillus by Koch and the pneumonic micrococcus by Friedlander and others. All our authorities on diseases of the nervous system have been men of the present generation—Brown-Séquard, Duchenne, Erb, Hitzig, Ferrier, Hughlings Jackson, Macewen, Victor Horsley and many others, and most of them are still alive. Before the invention of the stethoscope little was known regarding diseases of the heart. To Laennec again we owe the beginnings of our knowledge of abnormal cardiac conditions, but here he was far less successful in disclosing the secrets of disease than in the case of the lungs. Our cardiac knowledge is derived from many sources. We are perhaps more indebted to the treatise of James Hope, published

in 1832, than to any other source, and it was a great discovery that of Peter Latham, when he first demonstrated in 1826 to the students of St. Bartholomew's Hospital the connexion between rheumatism and peri-endocarditis. If there was one department of disease more than another in which our predecessors might have handed down to us accurate information it was that of the contagious fevers, for they had opportunities of studying these that fortunately for you are now greatly circumscribed. In the early years of the century all great towns were hotbeds of fever, but half of the century was yet to elapse until in 1850 Sir William Jenner finally established the difference between typhus and typhoid. The effect of isolation of contagious fevers has only been carried out effectively within the last two decades.

How vast, then, is the change, development and expansion of our knowledge of disease since the first medical students of the University of Glasgow and the extra-mural teachers in College-street began to study in the wards of the Royal Infirmary. The change entails vastly more work on you, but that I am sure you will not grudge. But here the question arises, Has there been an expansion in our ability to deal with disease at all commensurate to our increased knowledge of the symptoms and pathology of morbid conditions? In surgery beyond all dispute the advance in operative and non-operative treatment has been immense. But in the diseases with which the physician has to cope the answer is much more doubtful. In the first half of the present century one-half of the total expenditure of the Royal Infirmary in the department which supplies to the physicians and surgeons all drugs, agents and appliances of treatment—one-half of the total expenditure—was for leeches. I think it questionable if to-day there are a dozen leeches in the house. Bleeding was then a universal panacea in the treatment of disease in every form. Every doctor carried his lancet and every doctor performed vivisection every day of his life. He bled on his first visit, and the blood drawn was kept for his inspection on his return, and if it had a buffy coat—and it generally had—he bled again. Vivisection, leeching and cupping were in continual use until after the first half of this century had passed away. Besides leeching there was starvation; besides starvation there was mercurialisation; in almost every illness the production of salivation was reckoned necessary. At the beginning of all acute affections emetics were indispensable. Antimony was in daily use, and in such a disease as pneumonia it was continued from beginning to end. Only when the patient was given over as hopeless were feeding and stimulation permissible. No wonder, then, that so many diseases were regarded as dangerous which we now can confidently hope to see cured. Pneumonia in our day is generally amenable to treatment. In the early part of the century the mortality was more than 30 per cent. In this country we are indebted chiefly to Bennett of Edinburgh and Todd of London and Graves of Dublin for our awakening and true estimation of the evil treatment of disease. Graves said "Feed fevers," Bennett, in effect, said "Feed everything," Todd said, "Stimulate everything." In a few years the reaction was in full swing and possibly went a little too far, particularly as regards stimulation, and to no one more than to Gairdner of Glasgow are we indebted for a moderating influence in the use of alcohol in acute disease. We have got rid of emetics. We seldom salivate and we do not use depressants, and the actual cautery and Corrigan's button have no longer a place in the instrument bag of the physician. But if we have ceased to do harm how much good do we accomplish? In the meantime the wise physician gives much scope to the *vis medicatrix natura*. He gives his patient rest, he gives strength by judicious feeding and stimulation, he relieves pain, he procures sleep where he may, he lessens cough, he promotes digestion where that is necessary, and, in addition, he attempts to deal, with what success he may, with symptoms as they arise, and as far as he can he endeavours to restore organs to a better performance of their functions. He has an enormous pharmacopœia of drugs at his disposal, but he is chary in his employment of it. The good physician of the present day is most emphatically a student of the action of drugs—I say the good physician, for it is too much the custom so to combine drugs in prescriptions that it is impossible to decide as to the particular action of any one of them. Every year some new drugs are brought under the notice of the profession with a certainty of statement regarding their use which is most captivating, and every year almost as many recent remedies cease to be used by the profession. The very aptness of the profession to employ new remedies on the most slender basis

of fact demonstrates the unsatisfactory condition of drug-giving as a whole.

What the profession at large has yet to study is the natural history of disease—the course of a disease when no drugs are used. Fortunately we now know that well in so far as acute diseases are concerned, but we know it far less well when the course is chronic. In acute disease few drugs are given, and they are chiefly given as tonics or stimulants; but in chronic affections the physician is apt to ring the changes through a great part of the pharmacopœia. In acute diseases he trusts to the *vis medicatrix natura*; he rests, feeds and stimulates his patient according to the condition of his general strength. In chronic disease he drugs his patient, and often with results that are unsatisfactory. And yet in many instances chronic disease differs from acute disease only as regards the time occupied by the processes of structure and function. Nature tends to stability of type and structure.

Few physicians now alive deserve greater honour than Sir George Johnson. He has devoted a long life and a powerful mind to the study of diseases of the kidney, and particularly its chronic diseases, and he is now able to tell us that many forms of these chronic diseases are amenable to treatment. How general is the impression that fatty cells and casts appearing in the urine necessarily mean incurable disease of the kidney; and yet Sir George Johnson has shown that a patient may have albumen in large amount, anasarca and dropsy and fatty cells and casts, even, for years, and yet that there is possibility of cure. How does Sir George Johnson treat the case. Merely by rest and a milk diet; and that in the firm belief that just as the racehorse and drayhorse of Darwin will, in the absence of the circumstances that have produced their special features, and with sufficient time, revert to the original type, so will the cells and tubes of the diseased kidney revert to their original type and structure in the prolonged absence of the causes which brought about a departure from normal type and structure. For many years to come the practice of medicine must be experimental, and the more you deal with it inductively and the less you deal with it deductively the better. It is by observation and experiment that we have arrived at our present position, and it is only by observation and experiment that we shall make further advances.

In all times the human mind has associated great deeds with the localities where these great deeds were achieved. The spot on which we have now assembled and its neighbourhood have for many centuries been distinguished for achievements many of which have influenced the whole life of the country and some that have profoundly affected the whole civilised world. Three movements of world-wide influence began within the walls of, or in direct connexion with, the University of Glasgow. The first of these was the inauguration of popular scientific and technical education by Professor Anderson about 1758. He invited the mechanics of Glasgow to attend the experimental lectures in his course of Natural Philosophy, he admitted them without fee, and not only did he open his doors to them, but he visited their workshops and specially invited them to attend; and that this work of popular scientific instruction might not come to an end with his life he bequeathed his apparatus, library and his money to found a college expressly for the purpose of continuing it. Anderson's College, both directly and indirectly, has more than fulfilled the expectations of its founder. The second event of world-wide importance that occurred in the old college was the invention of the condensing steam engine by Watt in 1765, an invention that has revolutionised the life of mankind. The early development of this invention, that has placed at the disposal of man the material wealth and resources of the earth, ran concurrently with the working-out of the third great contribution of world-wide importance by a Glasgow professor—the "Wealth of Nations," by Adam Smith. Watt gave to the world manufactures and commerce; Smith laid down the principles on which these were to be regulated and worked between individual and individual, between class and class, between nation and nation. It was in the year when the first perfected engine left the Soho Works of Boulton and Watt at Birmingham that Adam Smith's book was published. The coincidence was marvellous. From standpoints of thought far distant from each other the two men laboured, but what the one did was the complement of what the other did. Their combined work began a new era in the world, and the one was mechanist to the college, and the other was its professor of moral philosophy. If the shade of Pope Nicholas can revisit the world he may bemoan

the suppression of the archiepiscopal see, but certainly he will not regret the survival of his "Studium Generale."

After the line of archbishops came to an end the great castle they had occupied fell gradually into decay. In its courtyards children played, and in one of them a booth was erected where the first theatrical performances in Glasgow took place. But somewhat more than a hundred years since the ruins were removed to make way for the erection of the Royal Infirmary. The site where for many centuries the spiritual wants of the community had received consideration and care was now to be devoted to the treatment of their physical infirmities. Although more lowly in station the physicians and surgeons of the Royal Infirmary have been on the whole fitting successors to the ancient bishops. At first a hospital for eighty patients, the Royal Infirmary now accommodates 586, and soon provision must be made for more. Since its foundation many thousands of students have received clinical teaching in its wards. In every county in the kingdom, in every country in the world, you can meet members of the profession who studied in the Royal Infirmary. In the century that has elapsed since the building of the hospital its staff has contributed much to the advancement of medicine and surgery. Dr. Andrew Buchanan first demonstrated in these wards the causes of the coagulation of the blood and first introduced the operations of plastic surgery. The late Dr. Perry did much to prepare the way for the final differentiation between typhus and typhoid fever by Sir William Jenner. Dr. Morton here first performed his glycerio-iodine injections in spina bifida. Mr. Macewen here first attempted his operations of osteotomy, his transplantation of bone and his work in cerebral surgery; and in the Royal Infirmary Professor Lister inaugurated the methods of aseptic surgery, the greatest contribution to surgery by far that has been made in the nineteenth century.

I have in brief compass placed before you the great work that has been carried on for so many centuries in the locality in which we are met to-day, where you also for a few years are to do your work. The *genius loci* appeals to you as it has done to so many generations of scholars in the past. The old college left the classic neighbourhood of the cathedral: St. Mungo's College takes its place. Will the new college carry on the splendid traditions of enterprise and achievement with which its site is associated? That question the future alone can answer, but the answer will to some extent depend on you.

AN ANALYSIS OF  
TEN THOUSAND CASES OF DISEASE OR  
DISTURBANCE OF THE EYES, SEEN IN  
PRIVATE PRACTICE:

WITH NOTES AND COMMENTS.

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INTRODUCTORY.

I PURPOSE to bring to the notice of the profession something which may be called a statistical view of the private practice of an ophthalmic specialist in London, followed by such comments as groups of cases may suggest. Existing ophthalmic statistics, in so far as I am acquainted with them, have either been limited to particular diseases or have been derived from hospital sources; and in the latter case they bear very little resemblance to those which would be furnished by the work of a private practitioner. In his consulting room, cases which might be described as comparatively trivial will always be found in considerable numbers; partly, perhaps, because the wealthy classes are more sensitive to mere discomfort than the poor, partly because the occupations of the educated are more likely to produce such discomfort than those of the uneducated, and partly on account of greater leisure and better opportunities of seeking relief. I have for some years kept note-books with sufficient fulness to record all important particulars about my patients; and it occurred to me that by going back over these books until a sufficient number of cases had been reached it would be in my power to obtain considerable information on points concerning some of which I had only impressions, possibly not always correct. The number decided upon for this purpose

was 10,000, and it was an essential part of my scheme to include all the cases which had presented themselves, whether trivial or severe, without selection. Three classes only have been omitted—boys or young men who were brought to me because their parents wished to ascertain whether they were eligible, as far as sight was concerned, for some particular calling, as the army or navy, and whose eyes were perfectly healthy; patients who consulted me on account of headaches, supposed to be ocular, but for which I could not discover any ocular explanation; and a few, perhaps a hundred in all, about whom for any reason my notes did not contain sufficient information. With these exceptions, I have gone straight backwards through my books from April, 1891, until the required number was reached, and have included everything which has come before me. For the purposes of comment or illustration I shall feel at liberty sometimes to refer to cases treated during the last eighteen months, but none of these will be included in the actual numbers recorded.

Of the 10,000 persons from whom my figures have been derived, 4621 were males and 5379 were females. According to the census of 1891 the females in England and Wales are to the males nearly as 149 to 140; so that the proportion of females corresponding to 4621 males would be 4860. Apart, therefore, from the numbers of each sex in the population, there has been a distinct preponderance of women and girls among my patients; but this circumstance cannot be entirely attributed to any special proclivity on the part of the female sex to any single form of eye disease. There is, as I shall hereafter show, such a special proclivity in relation to senile cataract; but the figures which express it are not large enough to account for the whole of the feminine preponderance. I should be inclined to refer it to the greater sensitiveness of the female sex, to the more sedulous employment of their eyes over a variety of sedentary occupations, and to their weaker muscles, which are less able, as a rule, than those of men, to maintain prolonged efforts of accommodation or of convergence.

When the cases are classified according to the shape of the eyeball the various forms are found to bear the following proportions:—

	Males.	Females.	Total.
Emmetropia .. .. .	2123	2318	4441
Myopia, including simple and compound myopic astigmatism .. .	1464	1684	3148
Hypermetropia, including simple and compound hypermetropic astigmatism .. .	995	1328	2323
Mixed astigmatism .. .	39	49	88
Totals .. .	4621	5379	10,000

The cases of astigmatism amounted to 1412 (630 males and 782 females), of which 805 (369 males and 436 females) were of the myopic form; 519 (222 males and 297 females) of the hypermetropic form; and, as shown above, 88 (39 males and 49 females) were of mixed form. Among the last, mixed astigmatism, properly so called, was present in both eyes in 48 cases; in one eye, variously combined with other conditions of refraction in the other, in 30 cases; and the remaining 10 cases were not strictly mixed astigmatism, but presented nearly as many combinations of different forms, such as simple myopic astigmatism in one eye with compound hypermetropic astigmatism in the other, the details of which, in consideration of the smallness of the numbers, it would fulfil no useful purpose to specify.

In estimating the prevalence of disease among the 10,000 patients it must be remembered that the subjects of myopia, of hypermetropia, and of astigmatism, are often compelled to seek aid merely on account of the existence of these malformations, and of the difficulties which they place in the way of the continuous employment of the eyes; while the emmetropic persons, apart from disease, require aid on account of presbyopia only, for which, moreover, they are frequently content to use spectacles supplied to them by dealers. The cases of myopia and hypermetropia, on this account, present a smaller proportion of disease than the cases of emmetropia; and I find that 2347 cases of myopia and 1656 of hypermetropia are recorded as uncomplicated, while disease existed in 801 of the former and in 667 of the latter. The proportion borne by each form of disease to the total number of persons must therefore be reckoned upon a total of only 6000, or exactly 5997, instead of upon 10,000; but, on the other hand, a large number of patients will appear under more than one heading—as, for example, in the instance of one who was suffering from iritis or from episcleritis, and whose lenses presented indi-

ctions of commencing cataract. Some patients will even find place under more than two headings; so that the gross total will be made to appear larger than the number of persons from whom the figures were obtained. In classifying the observed conditions I have followed the table given by Cohn in Eulenburg's Encyclopædia; and, apart from the 4003 persons with simple myopia or hypermetropia, I have recorded—

Affections of the conjunctiva .. .. .	in 870 persons
"    "    cornea .. .. .	in 492 "
"    "    sclera .. .. .	in 20 "
"    "    iris .. .. .	in 202 "
"    "    choroid .. .. .	in 145 "
Glaucoma .. .. .	in 176 "
Affections of the retina and optic nerve, including } amblyopia and amaurosis .. .. .	in 871 "
Affections of the lens .. .. .	in 933 "
"    "    vitreous .. .. .	in 184 "
"    "    globe .. .. .	in 115 "
Affections of refraction and accommodation .. .. .	in 2481 "
Affections of the muscles .. .. .	in 542 "
"    "    fifth nerve .. .. .	in 18 "
"    "    lacrimal apparatus .. .. .	in 150 "
"    "    orbit .. .. .	in 14 "
"    "    lids .. .. .	in 340 "
Various .. .. .	in 07 "
<b>Total .. .. .</b>	<b>7607</b>

The sum total of recorded affections, therefore (among which, although it is only a senile change, I have thought it convenient to include presbyopia), has amounted to 7607 in the 5997 persons; or, in other words, nearly 30 per cent. of these have admitted of being ranged under more than a single head. This percentage has been largely composed of the numerous cases in which presbyopia has existed in combination with commencing cataract, and of those, even more numerous, in which chronic congestion of the conjunctiva has been produced and maintained by other morbid conditions, or by the fatiguing efforts incidental to defective strength or tonicity of the ocular muscles.

In this and the following papers of the series I purpose to take the more important of the above-mentioned groups in succession and to illustrate such remarks as I may venture to make by the citation of any cases which appear to be of sufficient importance for the purpose.

**AFFECTIONS OF THE CONJUNCTIVA.**

The total number of affections of the conjunctiva amounted to 879, of which 437 occurred in males and 442 in females. The cases were as follows:—

	Males.	Females.	Total.
Acute (catarrhal conjunctivitis) .. .. .	82	47	129
Acute (purulent) conjunctivitis .. .. .	15	8	23
Chronic conjunctivitis .. .. .	272	323	595
Follicular granulations .. .. .	25	38	63
Gouty concretions .. .. .	4	3	7
Fatty growths .. .. .	18	15	33
Subconjunctival hemorrhage .. .. .	3	7	10
Conjunctival hypertrophy .. .. .	2	0	2
Dermoid or warty growths .. .. .	2	2	4
Pterygium .. .. .	0	2	2
Conjunctival cysts .. .. .	1	2	3
Epithelioma .. .. .	5	0	5
Nevoid patches .. .. .	1	0	1
Lacerated wound .. .. .	1	0	1
<b>Totals .. .. .</b>	<b>437</b>	<b>442</b>	<b>879</b>

The cases of acute (catarrhal) conjunctivitis were mostly of no great importance or severity, and included—besides those which were attributed, possibly for want of better knowledge, to cold or to atmospheric influences—some which were produced by the direct application of irritants. In several of these the irritant was a dense and sulphur-bearing London fog; in two it was chrysophanic acid, which had been applied as a remedy for some form of skin disease, and had accidentally found entrance into the conjunctival sac. Perhaps the point most worthy of notice in conjunctivitis is the very complete manner in which the use of nitrate of silver as a curative local application may be said to have been rehabilitated by the introduction of cocaine. Those who remember the Guthrie school of ophthalmic practice will remember that the nitrate, often in solutions or ointments of considerable strength, was regarded almost as a specific for many superficial ocular affections; and that it fell into comparative disuse chiefly on account of the pain attending its employment. By the use of cocaine, however, this objection may be completely removed; and I am accustomed, in all cases of acute, and in many cases of chronic, conjunctivitis of the catarrhal type, to apply cocaine first, generally in the form of a wafer containing the fiftieth of a grain, but sometimes by a drop or

two of a 10 per cent. solution; and, when this has had time to act—a time ranging from ten to twenty minutes—to paint the inflamed portions of the insensitive conjunctiva with a solution of nitrate—generally of five grains to the ounce, sometimes stronger—by means of a camel's-hair pencil barely moistened with it, so that it is only applied to the portions of membrane which the pencil actually touches. In cases of no great severity a single application of this kind, followed every four hours by the instillation of a drop of a solution containing two grains of cocaine and four of boric acid to the ounce of water, will generally be sufficient; but it will sometimes be necessary to repeat the nitrate daily or on alternate days for a short period of time. The use of the cocaine is not only attended by the advantage of rendering that of the nitrate painless, but it also limits the action of the latter to the parts actually touched by the brush. The absence of pain prevents lachrymation, and there is then nothing to cause the solution to be diffused over the conjunctiva or cornea. Even for adults the complete absence of pain is a strong recommendation of the method; but in children it renders the use of the nitrate absolutely unobjectionable, and thus restores to ophthalmologists what is, in my judgment, by very far the best and most efficacious of the so-called astringents.

The twenty-three cases of acute purulent conjunctivitis were mostly infantile. One of the exceptions was caused by accidental inoculation from an infant, and resulted in the loss of one eye of the patient, a young lady of twenty; while three cases were complications of diphtheria, all ending badly. I should perhaps include in this category a very remarkable instance in which I did not see the patient until long after the acute stage, and in which I was only consulted with reference to the propriety of endeavoring to reduce, by operation, the prominence of the staphylomatous cornea. The patient was the child of parents in good position, and the eyes were clearly described as having been quite healthy up to the age of fourteen days, when they became a little injected. It is therefore quite certain that the case was not one of ordinary ophthalmia neonatorum. The monthly nurse did not think the redness of the eyes sufficiently important to require the care of the doctor in attendance, and she proceeded to bathe them with milk, taking for the purpose a portion of the ordinary family supply. They speedily became intensely inflamed, with swollen lids and profuse discharge, and ultimately both corneæ perished. With our recent knowledge of the part played by milk in the diffusion of diphtheria I cannot but think it likely that in this case the milk was infected by the diphtheritic poison, perhaps not in sufficient intensity to affect any healthy persons who swallowed it, but in a way which produced the specific disease in conjunctivæ rendered vulnerable by the prior existence of slight catarrhal inflammation. It seems to me that the case affords a striking illustration of the dangers which may attend the use of milk; and that it should not be forgotten by those who undertake the duty of instructing midwives and nurses. In some of the midland counties of England the maternal urine was formerly a favourite domestic remedy for infantile purulent ophthalmia, and has no doubt been answerable for the destruction of hundreds of corneæ; but it requires only a little reflection to show that the use of milk, still a favourite application among ignorant people in many circumstances, may be fraught with many possibilities of danger.

The cases of infantile purulent ophthalmia were all seen in consultation when the disease was fully established, but they all terminated in complete recovery if seen while the corneæ were still bright. They were numerous enough to acquaint me with a very dangerous modern practice, that of treating such cases with solutions of perchloride of mercury, a plan which I do not hesitate to say is calculated to bring about the loss of many eyes which ought never to have been endangered. I believe it is adopted as the result of devout faith in three unproved hypotheses: first, that ophthalmia neonatorum is produced by the presence of certain bacteria in the conjunctiva; secondly, that to destroy these bacteria will be to cure the disease; thirdly, that perchloride of mercury is the best bactericide for the purpose. Clinical experience forbids me to accept the whole of these hypotheses. If the first and second be true, the third is certainly erroneous; and if the first and third be true, the second is at least doubtful. Before bacteria were ever heard of we knew how to cure ophthalmia neonatorum with absolute certainty, and the proper treatment is as efficacious now as it was then. My own first infor-

mation on the subject was derived from the "Lectures on the Principles and Practice of Physic" of the late Sir Thomas Watson, and I will quote from the first edition of these lectures, published in 1843. He says: "Purulent ophthalmia, as it occurs in newly born children, is a very common disease. It is very serious when neglected; it is very easily managed when it is seen and treated in time. . . . The disease may continue for eight or ten days without any affection of the transparent parts, and so long as these remain uninjured the eye is safe, provided that proper treatment be adopted." After an admirable description of the symptoms Sir Thomas Watson directs the use of a solution of four grains of alum in an ounce of water, and adds that the results of this method have been so entirely and uniformly satisfactory that he would never think of employing any other, although if the eye became insensitive to the stimulus of the alum a solution of nitrate of silver, of a strength ranging from one to four grains to the ounce, might be substituted with advantage. He also cites the experience at Moorfields of the late Sir William Lawrence as being absolutely in accordance with his own.

Forty years ago, when antiseptics were unknown in midwifery, and when the maternal secretions were scarcely suspected to be the ordinary cause of infantile ophthalmia, the disease was, as Sir Thomas Watson wrote, "very common," and it so befel that I had frequent opportunities of observing and of treating it. I thought it best to use a two-grain solution of nitrate of silver from the first, its action appearing to me to be more rapid, if not more certain, than that of the alum. The disease is now, fortunately, rare among the richer classes, but in the forty years I have no doubt seen many hundreds of cases, and I can most emphatically endorse Sir Thomas Watson's statement that the eye is safe as long as the cornea remains bright, provided that proper treatment be adopted. In the general term "proper treatment" I should include the effectual application of the silver or alum drops with sufficient frequency, at first usually every four hours, the purulent secretion being first removed by gentle irrigation with warm water and then the superfluous moisture absorbed by means of a soft rag. The edges of the lid should at the same time be prevented from adhering by the application of any simple ointment, and then the eyes will rapidly get well. I have not seen one single case in which the eye sustained injury when this treatment was adopted while the cornea was still bright; but I have seen several—comparatively lately—in which one or both corneæ had become cloudy, or had even ulcerated, under the use of a perchloride of mercury lotion, and I have not always been in time to prevent the occurrence of destructive mischief. It may be that nitrate of silver is a better bactericide than perchloride of mercury—I cannot tell; but of this at least I am certain, that the former will invariably cure infantile ophthalmia and that the latter will frequently fail to do so. Fortunately the habitual use of antiseptics in parturition has greatly diminished the frequency of the disease; but I can have no doubt that, if it were still as frequent as formerly, it would, under the treatment now too often practised, be far more destructive than it was when the precepts of Sir Thomas Watson were fresh in the recollection of practitioners.

I have lately seen a case which is perhaps worthy of being placed on record, and in which the appearances of purulent ophthalmia were curiously imitated. The patient was a little girl seven years of age, who was brought to me from the country on a certain Tuesday. The history was that on the previous Friday morning she was in her nursery playing with a sponge while she waited her turn for a bath. Something, it was supposed from the sponge, was said to have "squirted" into her left eye, which soon became painful, and the family medical man was sent for. He prescribed some lotion, probably containing cocaine, for it gave relief, which was speedy, but only temporary. On the next day the eye was worse, and the doctor is said to have everted the upper lid with some difficulty, but to have found nothing to explain the symptoms, which increased in severity day by day in spite of I know not what lotions and other treatment, the doctor himself not having made any communication to me. On the Tuesday morning I found the lids much swollen and a copious purulent discharge exuding from them. Partly on account of the swelling, and partly owing to the local tenderness and the fear and resistance of the patient, I was unable to see the cornea, so that I found it necessary to bring the child under the influence of chloroform. When this was done I lifted the upper lid and removed from beneath it a piece of

sponge of considerable size. The cornea was uninjured. As soon as the child recovered consciousness I said to her, "There was a piece of sponge in your eye." "Yes," she answered. "I put it there." This was her first confession, and none of the people about her had the least suspicion of the state of affairs. Some simple application was prescribed, and the conjunctiva speedily recovered from the irritation to which it had been subjected.

*Chronic conjunctivitis.*—The cases of chronic conjunctivitis—595 in number—include all those in which some surface irritation was associated with defective endurance of the ocular muscles, or with troubles arising from abnormal refraction or accommodation. Whenever under any of these conditions the patient is conscious of difficulties in working with the eyes it is very common to find the portion of the conjunctiva which lines the lower lid flushed and somewhat swollen, or studded with hypertrophied papillæ more or less numerous. The retro-tarsal folds often quite bulge out when the lower lid is drawn down and everted, and the veins which traverse the surface are often tortuous and distended. Gritty sensations will be described as consequences of even a very moderate use of the eyes upon any kind of near work, such as reading, or drawing or needlework, and there will be a general consciousness of the possession of the organs such as ought not to exist with regard to any part of the healthy human body. In these conditions it is common to find some demand for unusual or abnormal muscular effort in using the eyes over near occupations, and the people who suffer are usually those who write or read continuously, or who are engaged in other fine work, such as drawing or painting, which requires to be brought very near to the eyes. Often there will be need for spectacles, or those in use will be inadequate or in misfitting frames, which latter are fertile sources of discomfort. In such conditions we shall usually find that lotions alone are useless, and that better spectacles relieve without curing the conditions. It is usually necessary to combine both agencies: to place the eyes optically in the most favourable circumstances for their work, and then to use such astringents as occasion may require. In mild cases my first prescription is usually a drop of a solution of sulphate of zinc of the strength of two grains to the ounce, to be applied at bedtime, and a drop of a solution containing two grains of cocaine and four grains of boric acid to the ounce, to be applied twice a day, the lower lid being drawn down as completely as possible, so that either liquid has free access to the retro-tarsal fold. In cases of greater severity the application of a solution of nitrate of silver to the previously cocaineised conjunctiva, in the way already described under the heading "acute catarrhal conjunctivitis," will often expedite the cure, and may be repeated twice or thrice according to circumstances or to the severity or obstinacy of the case. And, as a rule, it may be safely said, in these conditions, that appropriate glasses will be insufficient without astringents, and that astringents will be useless without glasses.

As a pendant to the case in which acute conjunctivitis was produced by the presence of a piece of sponge, I may mention one of a chronic character which was brought to me as having resisted treatment. On everting the upper lid of the affected eye I had the good fortune to obtain a glimpse of some foreign body, high up under the retro-tarsal fold, and presently succeeded in removing an end of sewing cotton rather more than half an inch in length, which was occupying a horizontal position quite above the cornea. The patient was a young lady, from whom no admissions were to be obtained, but, some months later, she returned in a similar condition and another piece of cotton was removed. In a general way foreign bodies in the conjunctival sac, especially when in their most common position, just above and within the margin of the upper lid, act chiefly by the irritation of the corneal surface. The effects which they produce will be best considered when the affections of the cornea come under review.

*Follicular granulations.*—In the chronic cases last referred to it is not uncommon to hear the somewhat hypertrophied papillæ of the lid linings described as "granulations," but such an employment of the word is very misleading; it should be reserved for a much less common condition, of which, as will be seen from the figures given above, only fifty-eight examples came before me among the ten thousand patients. In these the retro-tarsal folds, especially those of the lower lids, were studded with semi-transparent lumps, which have been likened by imaginative people to boiled sago grains. These lumps are strictly analo-

gous to enlarged lymph glands ; and in some persons they give rise to great irritation. They are extremely intractable to astringent applications, and to destroy them with any kind of caustic leaves a hard cicatrix which may in itself be an abiding cause of trouble. For several years it has been my practice to crush them with forceps as a means of causing them to be absorbed, but quite lately I have been made acquainted with a still better method devised by Dr. Knapp—that of squeezing them between roller forceps, by which means the whole of the contained substance is forced out without any appreciable solution of continuity of the conjunctiva, and the subconjunctival tissue is completely freed from the morbid material. The operation, although short, is painful, and the patient should be brought under chloroform or ether. A large fold of the affected conjunctiva is pinched up with ordinary forceps and then grasped between the blades of the special forceps, which are made to compress it firmly as they are drawn off. A quantity of pulpy matter and blood is pressed out, and the proceeding must be repeated until every affected portion of the membrane has been emptied of the growths. The lids will be a little tender for a day or two, but even from the first the relief to the patient is considerable, and I have not yet seen any reproduction of the material. The special forceps terminate in portions which may be compared to stirrup irons, and the cross-piece corresponding to that on which the foot rests in a stirrup is a steel cylinder which revolves freely upon an axis. The most convenient length for this cylinder is about half an inch, and it is essential that the instrument as a whole should be strongly made and capable of subjecting the tissues which it holds to firm pressure.

*Gouty concretions* of the conjunctiva form an affection about which there is little to be said. They appear to be composed of the same material as ordinary chalkstones, and can be easily turned out of the tissues by the point of a cutting needle or cataract knife, cocaine being first applied. As a rule, however, they are well covered by the conjunctival epithelium, and produce less irritation than their appearance would at first lead one to expect.

*Fatty growths* of the conjunctiva are only an exaggeration of a normal condition. In nearly all persons, as middle age is reached, a slight deposit of fat may be observed among the interstices of the subconjunctival tissue ; and this deposit, when it is formed in more than usual quantity, becomes forced into the horizontal line by the pressure and closure of the lids, and often projects in the form of a little yellow prominence on either side of the cornea. These prominences are absolutely harmless and unimportant, but I have seen them attain such magnitude as to become pedunculated where they were nipped between the lids. Moreover, they are often attended by an increased development of the conjunctival vessels ; and partly on this account and partly owing to their colour and occasional prominence they may easily become somewhat unsightly. If their removal is desirable for cosmetic reasons, they may be pinched up with ordinary fixation forceps, and cut off with scissors, cocaine being first applied. The conjunctiva should then be undermined along the upper and lower edges of the wound, and these drawn together by one or two threads of very fine suture, which may be removed on the following day. When the vascularity which immediately follows the healing has subsided, the cicatrix will be invisible, and it will at the same time produce so close a union between the conjunctiva and the sclera that no fresh accumulation of fat is to be looked for.

*Subconjunctival hæmorrhage*, apart from the causes from which it occurs, may be regarded as a trivial affection. A small vessel may easily be ruptured by a slight blow or by severe coughing, or by the straining of parturition. When no manifest cause of the rupture is discoverable it may be of somewhat grave significance. In advancing life it may point to brittleness of the bloodvessels generally, and may be the precursor of intra-cranial hæmorrhage ; and in youth I have twice seen it produced by nocturnal and previously unsuspected epilepsy. Looked at as an isolated occurrence it is unimportant. The effused blood will be quickly absorbed, and although the feelings of the patient will usually be soothed by the application of a lotion, I have no reason to believe that absorption will be thereby promoted.

The remaining conjunctival affections, which, as the figures will show, are comparatively seldom met with, do not appear to call for any special remark, either as regards causation or treatment.

(To be continued.)

## A MODIFICATION OF THE OPERATION FOR THE DIVISION OF THE SUPERIOR MAXILLARY NERVE.

By RUPERT C. CHICKEN, F.R.C.S. ENG.,  
SURGEON TO THE NOTTINGHAM GENERAL HOSPITAL.

ALTHOUGH the methods of operation that have been devised for neurectomy of the second division of the fifth are numerous, I fail to find one which seems to me free from one or more of the following essential conditions to be fulfilled in order to constitute an operation which, at the same time that it gives the operator a clear view of the structure he is seeking, entails the least possible structural damage and disfigurement to the patient with the most complete relief from his symptoms. (1) A well exposed situation for incision ; (2) non-implication of important structures or organs, such as the orbit or eyeball ; (3) good anatomical landmarks ; (4) avoidance of bleeding or oozing ; (5) free access to the nerve trunk ; (6) practicability of removal close to the foramen rotundum ; (7) the least possible disfigurement or loss of function afterwards. The first and seventh of these conditions limit the choice of the seat of operation to either the cheek or zygomatic fossa, but the performance of the operation through the infra-orbital foramen and canal is in opposition to the second, third, fourth, fifth and sixth ; whereas a carefully planned opera-



A, Zygoma. B, Masseter. C, Temporal. D, Posterior surface of superior maxilla. E, Pterygoid. F, Superior maxillary nerve.

tion through the zygomatic fossa fulfils all the conditions. In the operation through the antrum the oozing is very free, and the area of operation necessarily so extremely limited, especially at the far end of the funnel-shaped tunnel made by the trephine, that the view of the parts sought for is most imperfect and obscure. In the operation about to be described through the zygomatic fossa there is practically no bleeding, but there is plenty of room for work and a good view of the nerve in its course from the foramen rotundum to the infra-orbital canal, and the whole of that portion of the nerve lying between these two points can be readily excised.

In April of this year H. W—, aged fifty-six, was transferred to my care at the Nottingham General Hospital suffering from severe and sudden seizures of neuralgia. He had been subject to the attacks for about seven years, and in this period every conceivable form of treatment, including the

extraction of all his teeth, had been adopted without any benefit. His attacks of pain commenced quite suddenly in the region of the right upper canine, gradually extending over an increasing area until the whole of the second division was involved. The paroxysm having lasted a minute or more, as suddenly left him. He had many attacks in the twenty-four hours. He earnestly asked for relief by operation. On April 26th a vertical incision was made over the broad base of the zygomatic process of the malar bone about two inches long; another parallel to this over the zygoma, just in front of the temporo-maxillary articulation. These were joined about an inch above the zygoma by a horizontal incision and the flap reflected downwards. The temporal fascia was now divided along the border of the zygoma and the bone sawn through as close as possible to the frontal process of the malar bone anteriorly and the temporo-maxillary articulation posteriorly. This fragment was turned down with the attached masseter. A director was passed under the temporal muscle, its fibres divided close to the coronoid process, and the belly of the muscle turned up with the temporal fascia. The fat filling in the temporal fossa, the pterygoid muscles and the internal maxillary artery were exposed. With a slender blunt raspatory a dissection was made along the posterior surface of the superior maxilla until the prominent spine at the corner of the pterygoid ridge was distinctly felt by the left finger. Internal to this the superior maxillary nerve running from the foramen rotundum to the infra-orbital foramen was easily caught on a strabismus hook. The nerve was now drawn upon anteriorly and divided as close as possible to the foramen rotundum. Traction was made posteriorly and the nerve again divided close up to the infra-orbital foramen and removed. There was no bleeding and the various structures were clearly visible. The deep temporal artery was tied in two places and divided, as it lay exposed in the wound, as a precautionary measure; but I cannot say that it was absolutely necessary. The parts were now replaced and a drainage-tube inserted. The zygoma was wired at each end with silver and the flap of skin replaced. The patient made an excellent recovery and has been entirely free from pain since. He has a firm zygomatic arch and can bite as hard and as firmly as ever. There is no disfigurement except the slight scar. He can use well his temporal and masseter muscles. The chief points to be observed in the performance of this operation are: (1) The division of the zygoma as anteriorly as possible, the masseter to be left attached to the zygoma; (2) the division of the temporal muscle instead of the coronoid process of the jaw; (3) the subsequent use only of blunt instruments in separating the tissues. By these means hemorrhage is prevented and the various steps of the operation clearly seen.

Nottingham.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### METROPOLITAN HOSPITAL.

COMPOUND DEPRESSED FRACTURE OF THE SKULL;  
TREPHINING; REPLANTATION OF BONE; COMPLETE  
CLOSURE OF THE WOUND; RECOVERY.

(Under the care of Mr. WALSHAM.)

IN THE LANCET of May 28th, 1892, reported by Dr. C. F. Marshall, the then senior house surgeon, we published a case of compound depressed fracture with replantation of bone, and immediate and complete closure of the wound, that had recently been under the care of Mr. Walsham in the Metropolitan Hospital. The present is an almost identical case, differing only in that the child was a year older and that the trephine had to be applied before the depressed bone could be raised. In this as in the former case the edges of the wound were refreshed before the sutures were inserted, the wound was accurately closed without the employment of any drain and the

fragments of bone that had been removed replaced. At the first dressing the wound was found to have healed by the first intention. In some editorial remarks on the former case special attention was drawn to the entire closure of the wound at the completion of the operation without employment of a drain. "This case of compound depressed fracture," we said, "offers a very great contrast as regards treatment to the method of procedure which is usually practised for these injuries, and it is obvious from the description that the number of patients in whom it can be carried out with safety is a limited one." It is obvious that it belongs to a different group from the others mentioned in Mr. Walsham's remarks, for, as we pointed out in the former case, the infliction of the wound is in no way under the control of the surgeon in the compound fracture, and there is a great possibility that it is already infected beyond hope of remedy. It is interesting to note that this case resembles some others which were brought before the Medical Society last session by Mr. J. H. Morgan and Mr. W. H. Battle, in that the patients were children and the bone was healthy and vascular. We are indebted for the notes of the case to Mr. Fraser, senior house surgeon.

C. H.—, a girl of nine, was admitted to the Metropolitan Hospital at 11 P.M., June 4th, 1892, with a compound depressed fracture of the vault of the skull caused by a blow with the iron bar of a swing. The wound was about two inches long and situated over the right upper frontal region. The scalp was much bruised and the skin ingrained with dirt. At the bottom of the wound the bone was felt depressed about half an inch below the surface of the skull over a circular area the size of a halfpenny. There were no cerebral symptoms. The wound was temporarily cleansed and dressed. On Mr. Walsham's arrival at the hospital the scalp was shaved for five inches around the wound, washed and scrubbed with soap and water and a stiff brush, all grease removed with turpentine, again washed with clean water, and finally with perchloride of mercury (1 in 2000). The wound itself was next carefully cleansed, all hair that had escaped in shaving the scalp removed, and ragged and dirt-ingrained portions of tissue carefully excised. The wound was then prolonged, a flap of the scalp turned up and protected, and as the depressed bone could not be raised a medium-sized trephine was applied over the outer edge of the depression and the depressed fragments removed. These were placed in hot perchloride solution (1 in 4000). The dura mater was not injured. The fragments of bone were next replaced with their smooth surfaces towards the dura mater, but the periosteum could not be brought over them, a large piece having been torn away. The bruised edges of the scalp having been cut off all round the wound, the flaps were brought accurately together with silk sutures. No drain was employed. The wound was dressed with moist sal alembroth gauze and wool, and firm pressure applied over the whole vault of the skull. The child was given ten grains of calomel at once and kept on slop diet for a week; she had no bad symptoms. On June 13th the wound was dressed for the first time and found completely healed by the first intention. A fluctuating swelling was felt beneath the scalp over the situation of the wound, but was not touched. On the 16th the wound was again drained and the stitches removed. On July 18th the child was discharged; the fluid swelling had completely disappeared and the skull at the seat of fracture was firmly consolidated. She was kept under observation in the hospital for over a month, but she was practically well at the end of ten days from the injury.

*Remarks by Mr. WALSHAM.*—This makes the sixth case recently under my charge in which I have completely closed the wound without drain after operation on the skull. In all, union by the first intention has practically been the result. In two of the cases (those at present under review) the operation consisted in the removal of depressed and loose fragments of the cranium. In three the operation was that of craniectomy, and in the remaining case trephining for loss of memory. With the exception of the last case, a man aged thirty, the patients were children. In the craniectomies and the case of trephining for loss of memory the bone was of course not replaced. Thus there is a series of six consecutive operations on five patients (one of the craniectomies having had a strip five or six inches long removed at an interval of a month from either side of the head) in which success attended the complete closure of the wound. To attain this end the greatest care and attention to detail are no doubt necessary. In the first-

place, it is obvious the wound must be rendered absolutely aseptic. Thus in both the cases of compound fracture the scalp was shaved for at least five inches around the wound. It was then washed with soap and water and scrubbed with a brush, next washed with turpentine, and then with perchloride of mercury solution (1 in 500). When the toilet of the scalp was completed the wound next received attention; the edges were especially looked to; any short hairs that had escaped when shaving the scalp were removed, all dirt was scrupulously washed away, loose tags of bruised and lacerated tissue cut off close with curved scissors and the dirt-ingrained tissue dissected off. Finally, the skull was irrigated with perchloride lotion (1 in 2000). All this of course takes time; indeed, fully three-quarters of an hour was thus spent before beginning the operation; but the time was saved in the end, for nothing further, after the wound was once closed, was called for till it had healed. Perhaps one of the most important points to ensure immediate union is to completely cut away the edges of the original wound in the scalp, and this is best done last thing before applying the sutures, as then no further injury of the soft tissues is received by the use of retractors or forceps or by handling. Indeed, all injury of this kind should be carefully avoided by enlarging the original wound considerably, turning back large flaps of the scalp and protecting them whilst thus reflected by soft, moist compresses of warm lint so arranged as, when once placed in position, to allow free room for manipulation on the bone; the edges need not be again touched till the operation is complete. Any wound of the dura mater should be closed by fine aseptic silk sutures, so as to cut off as quickly as possible communication between the subdural space and the wound. It appears probable that when the serous surfaces of the dura mater are brought into contact healing occurs as rapidly as in the case of the peritoneum. Sufficient bone should be replaced to completely fill the wound, picking out such portions as have the smooth surface of the inner table intact to place in contact with the dura mater. By clipping the pieces with bone scissors they can be made the better to fill up inequalities; and it would seem an advantage when two portions have to overlap that the opposing surfaces should consist of exposed diploë. One would argue from analogy that the replaced bone would be more likely to retain its vitality and new bone be more likely to be formed to fill up the interstices in the replaced bone, when the pericranium can be brought over it. But that a covering of pericranium is not absolutely necessary is well exemplified by these two cases, since in both so much pericranium was torn away that the replaced bone could not be thus covered. It has been advised that when the wound is accurately closed after the operation of trephining &c. if any fluid collection is felt beneath the scalp a probe should be introduced under some of the stitches to let it escape. This is quite unnecessary, and further I think exposes the patient to a risk of septic trouble. Our aim, I hold, should be to get the edges to unite throughout by primary union and thus render the wound subcutaneous as soon as possible. Then if we have ensured the wound being aseptic to start with, any danger of secondary infection is, one might almost say, completely avoided. The fluid, if left alone, is slowly absorbed. I have seen so much fluid collect beneath the closed wound that a distinctly raised and freely fluctuating swelling was produced, but so evenly and completely have the edges of the wound united that not a drop of fluid escaped on fairly firm pressure being made over the fluctuating swelling and complete absorption occurred without rise of temperature. On the other hand, where a probe has been introduced to let the fluid out, I have known it continue to escape for some weeks. Where there has been no wound of the dura mater the fluid, I take it, is merely the serous exudation from the surfaces of the wound, but in other instances, especially where it has continued for some weeks, through some slight, though possibly at times imperceptible, lesion of the dura mater from the subdural space.

### SUNDERLAND INFIRMARY.

#### TWO CASES OF VAGINAL HYSTERECTOMY FOR CANCER; RECOVERY.

(Under the care of Dr. JAMES MURPHY.)

WHEN this operation was first introduced to the notice of the profession it did not yield good results, but as the technique has become more perfected the recoveries have

been much more numerous, and it is viewed with considerable favour at the present day. Much has been written on the subject during the last year or two, until the literature is extensive, and the greater part of the testimony of the various writers is in favour of this operation for cancer of the uterus, when it appears possible to remove all the disease by it, and of its performance as soon as possible after the disease is recognised. Martin<sup>1</sup> thinks the operation should not have a mortality of more than 5 per cent. Leisse gives the statistics in eighty cases which had been operated on by him over two years previously. Of these, 56.25 per cent. were living, and 43.75 per cent. died. Of the 35 deaths 8 died of other affections. Of 70 cases operated on by Schauta 5 died (2 as a result of the operation).

On July 13th, 1891, Mrs. W—, aged forty-seven, was sent into Dr. Murphy's wards for vaginal hysterectomy on account of malignant disease of the cervix from which she had suffered for several months. The disease was limited to the cervix, which was fairly long; the vagina and glands were not involved. The uterus was freely movable and could be pulled down as far as the perineum. For four days carbolic injections were administered three times daily and on the 17th hysterectomy was performed. She was placed in the lithotomy position and secured by Clover's instrument. The cervix was seized by Péan's large vulsellum and pulled down; the mucous membrane was cut through well above the diseased part with scissors curved on the flat both posteriorly and anteriorly; the bladder and rectum were carefully detached, partly by scissors but chiefly by the fingers, and the peritoneum before and behind was torn through. Greig Smith's clamps were applied and the uterus removed by his knives. No vessel required ligature; the clamps were left on for forty-eight hours; boracic acid injections were carefully used twice daily. There was no rise of temperature and no constitutional disturbance, and she left the hospital in a month quite well. It is reported that she continues quite well, and so far there is no sign of recurrence of the disease.

On May 2nd, 1892, Dr. Bernard of Silksworth sent in Mrs. D—, aged forty-two, in a similar condition; except that the cervix was very short and the mucous membrane had to be stripped off before the uterus could be grasped by the vulsellum; in other respects the operation and the result were the same.

*Remarks* by Dr. J. MURPHY.—Operations for malignant disease of the uterus, as operations for malignant disease elsewhere, are very unsatisfactory as regards the prospects of absolute cure, or of any great prolongation of life, yet life may be somewhat prolonged and made very much more comfortable by free scraping with Volkman's spoons in cases unsuitable for hysterectomy, but where the disease is confined to the cervix and the uterus movable, the operation of hysterectomy presents great advantages. It is not particularly difficult or dangerous in suitable cases, still it is not even yet as frequently resorted to by English surgeons as by our Continental and Transatlantic *confrères*. Vaginal hysterectomy is much safer than hysterectomy by abdominal section. Whether some form of clamp or by ligature is the best means of securing the broad ligaments is still an open question. It is both unnecessary and dangerous to completely retrovert the uterus, as was formerly done in securing the broad ligaments.

<sup>1</sup> Sajous, 1892, vol. II., f. 22.

THE TRUSS SOCIETY, LONDON.—On Tuesday last, at a meeting of the governors of the City of London Truss Society, it was unanimously agreed that sufficient stocks be sold out to produce £3000 in order that the committee might be enabled to provide new buildings for the better accommodation of the increasing number of patients, to pay off a recent loan, and generally to meet the increased requirements of the Charity.

ROYAL COLLEGE OF SURGEONS IN IRELAND: SCHOOLS OF SURGERY.—On Tuesday next, November 1st, at 12 o'clock, Mr. Hamilton, President of the College, will present the prizes awarded to the successful students of the previous sessions 1891-92. The prizes annually awarded in the schools of surgery consist of gold, silver and bronze medals, the Barker Anatomical Prize of £21, the Carmichael Scholarship of £15, the Mayne Scholarship of £15, the Stoney Memorial Prize, together with other money prizes amounting to about £100. On the same occasion the schools will be opened for the winter session 1892-93, when lectures will commence.

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

#### *Amputation for Diabetic Gangrene.*

THE first ordinary meeting of this Society for the present session was held on Oct. 25th, the President, Sir Andrew Clark, in the chair.

Mr. R. J. GODLEE read a paper on Amputation for Diabetic Gangrene. He said that his excuse for bringing some rather ordinary cases before the Society was that the term "diabetic gangrene" was made to include several different conditions now beginning to be recognised, and also that modern surgical improvements had modified our views with regard to amputation for this disease. Diabetics were more liable to gangrene, when once started, than others for several reasons, but the determining causes were the same as in other forms of gangrene. These were inflammatory conditions, including carbuncles, noma vulvæ, and rapidly spreading ulcers of the legs, as well as extensive sloughing of septic wounds; atheroma of vessels and peripheral neuritis, which was now generally recognised as being caused by glycosuria, and as giving rise to many neuralgic and other symptoms. The object of the paper was to point out that the so-called diabetic gangrene in most cases depended on one or other of these conditions. If the former, progress of the disease was rapid and the pain was great; if the latter, the pain was insignificant or absent and the progress slow. The former must be treated by amputation at or above the knee, because it had been shown that in these cases the degeneration almost always reached the knee, but very often did not extend further; the latter might either be left alone or treated by amputation close to the necrosed part. The following cases were illustrations of these facts. 1. A man of forty-eight, who had partaken freely of alcohol for many years. Gangrene started from a sore by the nail, and proceeded rapidly on to the dorsum of the foot. A circular amputation was done above the knee, and the patient made a good recovery. The vessels from the part removed were shown, and it was seen that the degenerative changes were very far advanced and extended as high as the popliteal artery. Microscopical sections of the vessels were also shown. The patient was present. 2. A man aged sixty-one had gangrene of the little toe caused by a corn. A line of demarcation formed and amputation was done through the dusky tissues close above the spiculated part. The wound was left quite open and the patient made a good recovery. 3. A lady, aged seventy-three, had gangrene of one toe, not very painful, and starting from a suppurating corn. The toe separated and the wounds healed after several incisions had been made in the sole and on the dorsum of the foot.

The PRESIDENT suggested that perhaps the exceeding dryness of the tissues might act as a probable cause both of the gangrene and of the neuritis.

Mr. HUTCHINSON referred to a paper which he had read before that Society some time ago on amputation above the knee in cases of senile gangrene, and in one of the cases which he instanced there was sugar in the urine. In discussing this subject it should be remembered that there were cases of diabetes and diabetes, and that many cases in elderly people with sugar in the urine were not at all acute. He had done many operations—certainly many cataract operations—in young people with diabetes, and he had not been accustomed to regard the presence of the latter disease as adding much to the risk. All his experience since the writing of his paper had confirmed him in the idea that operation above the knee was the right procedure.

Mr. GOLDING-BIRD, referring to Mr. Godlee's recommendation to amputate low down in cases due to neuritis, wished to relate a case which bore upon that point. A patient suffering from locomotor ataxy came under his care; Mr. Durham had previously removed a toe and the adjacent part of the foot for perforating ulcer. Two fresh ulcers had formed under the ball of the foot. A Syme's amputation was performed after failure of repeated endeavours to get the sores to heal. The amputation was done low down, because the disease was due to a neuritis and not to a disease of the vessels. The man did well, and the wound healed up. Later an ulcer reappeared on the stump, but the surface was

liberally destroyed with nitric acid, and it was scraped, with a good result.

Mr. SPENCER said that the paper which he communicated to the Society at its last meeting covered much the same ground as that of the author, and the conclusions arrived at were the same. He related a case to illustrate the value of amputation where an inflammatory lesion was present.

Mr. CRIPPS said that he found that some time ago cases of senile and diabetic gangrene were commonly classed together and the older surgeons condemned amputation in either variety. The treatment had since been completely changed by the introduction of the antiseptic system and the more accurate knowledge that had been acquired of the manner of treating wounds. He thought that with antiseptic measures it would not be necessary to amputate so high up as the knee.

Mr. SHEILD referred to four cases of whitlow which he had seen and which he thought had an important bearing on some of the remarks which had been made. If an elderly person without an accident developed a severe whitlow of the finger, sugar would be found in the urine. They usually sloughed and sometimes ended fatally. In one case in which the finger was amputated the digital arteries were secured with great difficulty and the patient died from a spreading of the gangrene to the hand and wrist. In another case of gangrene of the finger after amputation a large slough formed on the dorsum of the foot, which afterwards separated, and the ulcer healed soundly. This class of case occurred in elderly people who were glycosuric rather than in young diabetics. In a certain number of cases of diabetes he had observed an acute extensive necrosis of the mastoid as a complication.

Mr. TREVES thought that the paper would go far to upset what had been regarded as a surgical constant. His experience in the matter of operation in diabetic gangrene was short and decisive. He did the high amputation in two cases, and in both the patients died with what he could only term a reckless rapidity; he had declined similar operations since. There seemed to be a time in the affairs of diabetes when operations could be carried out with safety, but at other periods of the disease they were fraught with danger.

Dr. DAWTREY DREWITT said that the gist of the debate seemed to emphasise the fact that every small scratch or blister in a case of diabetes ought to be treated antiseptically.

Mr. RIVINGTON said that evidently no hard-and-fast rule could be laid down with regard to the treatment of diabetes, but every case should be judged on its merits. He had had one or two cases which bore out the value of Mr. Hutchinson's method. In cases in which the gangrene was affecting the constitutional condition of the patient it was only fair to give a chance of recovery by amputation. With regard to frost-bite gangrene, some advocated leaving all cases alone, but that rule he had departed from with advantage.

Mr. GOULD related the case of a man forty-nine years of age who for five years had suffered from diabetes. In February last he sustained a trifling injury to the left foot and the wound did not heal. In July there was gangrene and spreading suppuration reaching up as far as the middle of the leg. Free incisions had been made, opium administered and a moderate restriction of diet enjoined, but this did not affect the excretion of sugar. He then amputated at the knee-joint by Stephen Smith's method, using antiseptic precautions. Within three days the sugar was nearly gone, and within nine days it had entirely disappeared. The wound healed well, and at the present time there was a trace of sugar in the urine.

Dr. GEORGE HARLEY remarked that in many cases of diabetes in which the patient was seized with a severe intercurrent malady the sugar entirely disappeared, and remained absent until convalescence began to be established.

The PRESIDENT corroborated this observation, and said that in cases of enteric fever in diabetes, as soon as the fever had fairly set in the sugar disappeared and remained absent till convalescence.

Mr. GODLEE, in reply, said that so little was known of the reaction of tissues to micro-organisms that he purposely avoided discussion of the influence of dryness &c. on the progress of the lesions. In one of his cases the diseased condition of the vessels demonstrated the futility of amputation low down. It certainly was not safe to amputate, or, indeed, to operate in all cases of diabetes. He had heard it stated that even so slight a thing as a more strenuous modification of the diet had produced a fatal result in some cases; and

this was worth bearing in mind, because in some of the fatal cases the patients might probably have died, not of the amputation but from the highly scientific diet to which they were subjected.

### MEDICAL SOCIETY OF LONDON.

*Traumatic Volvulus of Small Intestine treated by Abdominal Section.—The Treatment of the Peritoneum in Abdominal Surgery.*

An ordinary meeting of this Society was held on Oct. 23rd, the Vice-President, Dr. Symes Thompson, in the chair.

Mr. G. R. TURNER read a paper on a case of Traumatic Volvulus of the Small Intestine which was treated by abdominal section. The patient, a boy aged seven, was admitted to the Seamen's Hospital on July 26th, 1891, having fallen from a height of twelve feet against the pole of a boat and then into the river mud. He was much collapsed and vomited several times. He soon became restless, with abdominal pain and tenderness referred chiefly to the right iliac fossa. The vomiting continued and acquired a faecal odour. Mr. Turner was sent for, and some twenty-four hours after the accident he opened the abdominal cavity. There was no evidence of any rupture of the intestine and no general peritonitis. A mass of entangled intestines (ileum) was felt to the left of the middle line. This was easily unravelled. On examining the intestine two collapsed, flattened parts, one foot and two feet in length, and separated from each other by about four feet of intervening intestine, were discovered. The collapsed gut at either end passed abruptly into the neighbouring intestine. There was no tear or rent found in either mesentery or omentum and no band of any kind was discovered. There was no further vomiting after the operation. Flatus was passed on the second day and the bowels acted naturally on the eighth day. The patient made an uninterrupted recovery. Mr. Turner made some remarks on the diagnosis, and suggested that the volvulus was caused by the fall, as the boy was previously perfectly well. The success of the operation was attributed to its early performance before abdominal distension or intestinal adhesion was present.—Mr. SHEILD remarked that these cases were excessively rarely met with in practice. When grave intestinal symptoms appeared, so to speak, spontaneously without obvious traumatism, there were still many who doubted the propriety of immediate operative interference; but in a case such as that related, where the symptoms developed immediately after an injury, he thought that most surgeons would at once perform laparotomy.—Dr. FRANCOIS HAWKINS said that when fifteen years ago he was a pupil at a county hospital he remembered seeing a female admitted, between thirty and forty years of age, who had fallen from a chair and sustained an abdominal injury. She died with symptoms of acute intestinal obstruction, and at the necropsy, when the abdomen was opened, there was found a figure-of-eight twist of the intestine at the level of the umbilicus which became easily unravelled on removal of the pressure of the abdominal wall.—Mr. JESSERT referred to some experiments which were brought before the Congress at Berlin some time ago, in which a loop of intestine was cut off from the main channel and both its ends were closed with suture. The continuity of the main channel of the bowel was then restored by uniting the upper and lower cut ends. In a few days it was found that the portion of intestine which had been closed gave rise to obstructive symptoms, owing to its becoming distended with its own secretion. He had repeated this experiment on a dog and confirmed the observation. He detached a piece of small intestine sixteen inches in length, washed it well out with carbolic solution, and then closed both ends of the loop, of course leaving the mesenteric attachment intact. He then re-established the continuity of the main bowel with a circular suture and the dog recovered from the operation. Twelve days later the animal was killed and the closed loop was found filled with fluid; six ounces of this were collected and analysed; it contained leucocytes and fat and was evidently succus entericus. If, therefore, one had to deal with a volvulus, which on exposure was found to constrict the gut above and below at the twist, and which could not owing to adhesions be untwisted, and if it were decided to short-circuit the intestine by means of Senn's plates and leave the volvulus with closed ends, it would be necessary, owing to this secretion, to provide for the drainage of the closed loop by anastomosing it with a neighbouring coil of intestine. The cases requiring this were of course very rare.—Mr. STABLEY re-

lated a case which had happened in the practice of Dr. Nicoll of Margate, who was called to see a child five years of age which while playing had struck its abdomen against a seat. When he saw the girl a short time afterwards there was no shock, but some colic, a little tenderness to the left of the umbilicus and vomiting of undigested food. The next day there was no action of the bowels and no tenesmus, though the vomiting continued. Twenty-four hours after the onset of the symptoms the child died, and at the necropsy a volvulus of the small intestine was found thirty inches from the pylorus; there was no abnormality in the length of the mesentery.—Mr. CRIPPS advocated a long incision in cases of exploratory laparotomy. Surgeons too often made a short incision, and were then much hampered in their inspection of the gut. The intestines should be allowed to crowd out of the wound and be received on a warm damp cloth. If there were much difficulty in returning them a puncture should be made, the contents evacuated, the incision closed and the gut would then readily return.—Mr. TURNER, in reply, said that the case related by Dr. Hawkins bore out some experiments which had been made as to volvulus; that it could be easily produced when there was some obstacle in front like the anterior abdominal wall, but when the resistance of the latter was removed it just as easily unravelled. In a case which he operated on, which was moribund where the obstruction had been unrelieved for six days, it was found at the operation that the volvulus was nevertheless quite easily unravelled. The patient, however, died from shock. He preferred a long incision in these cases; he found first the end of the ileum near the caecum, and traced the small intestine from below upwards till he arrived at the obstruction.

Mr. MEREDITH read a paper on the Treatment of the Peritoneum in Abdominal Surgery. We reserve an account of this paper for our next issue.—Mr. DORAN said that the substance of the paper was insistence on avoiding unnecessary injury to the peritoneum. It was impossible to determine what amount of necessary injury the peritoneum would tolerate, and it was quite impossible to distinguish between the harm done to the peritoneum itself and that arising from cold or handling. He asked Mr. Meredith if he thought that accumulations of flatus could bring on peritonitis. He was certain that manipulation of the peritoneum had in certain cases a salutary effect.—Mr. SHEILD remarked on the difficulty in some cases of preventing the peritoneum from being stripped up from off the anterior abdominal wall, and to prevent this he usually stitched it provisionally to the skin before proceeding to manipulate the abdominal cavity.—Mr. MALCOLM said that it was essential after the operation to maintain a clear intestine. The great majority of the fatal cases died from septic peritonitis or from obstruction to the bowels. The modern plan was to adopt starvation as to food by mouth in order to rest the intestine and to give far less opium than was formerly the case.—Dr. SYMES THOMPSON said that since the introduction of antiseptics much better results had been obtained in operations on the pleura and lung at Brompton.—Mr. MEREDITH, in reply, said that he still believed thoroughly in antiseptics as used by Lister, with the exception of the spray, his reasons for abandoning which he had stated fully in the paper. Stripping off the peritoneum from the anterior abdominal wall might occur where one had to deal with a thick cyst wall firmly adherent to the serous membrane; in such cases it was important to allow no blood to remain between the peritoneum and the muscle sheath. His great point was that the peritoneum should be left as much as possible in the normal state; avoiding rough manipulations and flushing without sponging was the best means for securing this. In cases of tubercular peritonitis, on the contrary, rough sponging was wanted over the affected surface.

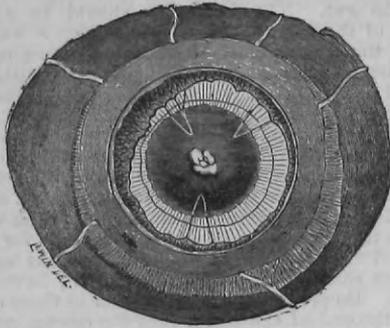
### OPHTHALMOLOGICAL SOCIETY.

*Congenital Defects of the Iris and Glaucoma.—Neuro-retinitis following Influenza.—Optical Condition of Fifty Persons complaining of no Ocular Disturbance.*

THE first ordinary meeting of the session was held on Thursday, Oct. 20th, the President, Mr. H. Power, in the chair.

Mr. TREACHER COLLINS gave a lantern-slide demonstration of the microscopical characters of three eyes—(1) Congenital absence of the iris and opacities in the lens; (2) congenital

coloboma of the iris and lens outwards, with glaucoma; and (3) traumatic aniridia and glaucoma. In the first case he found that the ciliary body ended in a rudimentary iris in its entire circumference, though clinically none could be seen. On one side of the sections a small piece of the sphincter muscle was present; on the other no such structure could be made out. The uveal pigment on the back of the iris ended in a double fold, and there were abnormal adhesions passing between the ligamentum pectinatum and the root of the iris, and remnants of the pupillary membrane were present. There was, besides other opacities in the lens, one at its anterior pole raised above the surface, and evidently due to subcapsular proliferation of the lining epithelium. He thought the arrest



Anterior half of right eye of Case 1. The cornea and sclera have been peeled off, exposing a narrow rim of iris, some tags of pupillary membrane, and an anterior polar opacity of lens. ( $\times 2\frac{1}{2}$ .)

of development of the iris, as well as the other changes found in this eye, could be explained by the theory put forward by Manz, which attributed them to abnormal adhesion or late separation of the lens and cornea, and which mechanically prevented the growth inwards of the iris. He pointed out that there was quite sufficient iris in this case to block the whole of the posterior surface of the ligamentum pectinatum should it have become pushed forwards, and that it was therefore quite possible for eyes in which no iris can be seen to become glaucomatous. In the second case the filtration area in the region of the coloboma of the iris was found more than half closed by a small process with a double layer of pigment on its posterior surface, in which the ciliary body terminated. The ciliary processes opposite the cleft in the lens were directed backwards. This he thought due to the absence of any forward traction by the fibres of the suspensory ligament, which were probably wanting in that position. In the third case there had been a wound of the cornea, through which the whole of the iris and a great portion of the lens had escaped eight and a half months before excision. The eye became glaucomatous, and the nerve was deeply cupped. There was a broad adhesion of the lens capsule to the corneal cicatrix. The advanced position it had thus taken up had drawn forward the ciliary processes, so that the most anterior of them were in contact with the cornea and blocked the filtration area.

Mr. HARTBRIDGE read notes upon a case of Double Neuroretinitis after Influenza. The patient, a girl aged sixteen, suffered from a severe attack of influenza in May, 1891, and a less severe attack in June, 1892. The second illness was soon followed by gradual and progressive failure of vision. The vision is now  $\frac{1}{8}$  in each eye, with correction of some astigmatism. The patient has suffered during the past six weeks from constant headache on the right side. The optic discs are white, blurred and rather swollen; arteries slightly diminished in size, veins slightly tortuous, white lines along some of the large vessels; numerous bright scattered patches in the macular region; no hæmorrhages. There has been no evidence of renal disease; the patient is anæmic, but well nourished.—Mr. CROSS mentioned two cases in young women in whom sight failed a few months after an attack of influenza and whose fundi exhibited changes almost identical with those in the case exhibited. He also alluded to three other cases in which optic atrophy followed close upon an attack of influenza.—Mr. TWEEDY, who had seen one of the cases of atrophy spoken of by Mr. Cross, was of opinion that it was a consequence of influenza. He thought that neuritis after influenza was by no means uncommon and sometimes there was strabismus.—Mr. JULER remarked on the close similarity of the case with one under his own care. He thought, if anything, the

ocular appearances suggested renal rather than intra-cranial disease.—Dr. JAMES TAYLOR said that the appearances in the fundus closely resembled those he had met with in cases of cerebellar tumour. As the case had not been observed in the acute stage, he thought the inference inconclusive.

Mr. WORK DODD presented some observations on the sight of fifty individuals who had made no complaint concerning their eyes.

## DEVON AND EXETER MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, OCT. 21ST.

Dr. J. WOODMAN, F.R.C.S., President, in the chair.

Dr. WOODMAN, on taking the chair at this the opening meeting of the fourth session of the Society, congratulated the large number of members present on the very satisfactory position the Society had now taken in the regard of medical men in Exeter and in the county. Dr. Davy then introduced a discussion on Typhoid Fever, and illustrated his remarks by giving details of interesting cases that had come under his notice in private and hospital practice. An interesting discussion followed the reading of his paper.

Mr. H. ANDREW (house surgeon to the Exeter Hospital), then showed two patients with Locomotor Ataxy and who were suffering from Charcot's joint disease (knee). One patient was under Dr. Davy's care and the other under Dr. Blomfield's care, and both cases had been treated with silicate of potash splints with decided benefit. Excellent photographs, taken by Mr. G. Stewart Abram, M.B., were shown and admirably illustrated the particular displacements in both cases.

The annual dinner of the medical men of Exeter and the neighbourhood was held at the New London Hotel, Exeter, the same evening, Mr. Lewis Mackenzie, F.R.C.S., of Tiverton, in the chair.

## TORQUAY MEDICAL SOCIETY.

A MEETING was held at the Torbay Hospital on Oct. 12th, Mr. Karkeek, the President, in the chair.

The PRESIDENT gave an address on Recent Experiences in Sanitary Matters, in which he showed the advantages of early notification and isolation of infectious diseases and the terrible risk daily run by urban communities who obtain their milk supplies from rural districts where no practical control is exercised over such diseases. He cited an instance where great mischief was caused in a town by milk so supplied being polluted with typhoid germs.

Mr. G. YOUNG EALES (hon. sec.) read notes of a case of Ptialism of Neurotic Origin associated with Bilateral Deafness and Dyspepsia. The patient, a man aged sixty-six, a labourer by occupation, had suffered as long as he can remember from deafness and dyspepsia. Four years ago dyspeptic symptoms became aggravated and increased in severity up to June, 1890, when salivation ensued. At first salivary secretion was viscid and variable in quantity; since March, 1891, more profuse and watery, principally from parotid glands, of faint alkaline reaction and sp. gr. 1005. Amount of saliva expectorated averages a pint and a half to two pints and a quarter in the twenty-four hours, and the patient's nights are constantly disturbed by saliva finding its way into the larynx and causing a choking sensation. No obvious cause for deafness; family history unimportant. Has not had syphilis or usual infantile disorders as far as he knows. Has lost flesh considerably since onset of salivation. Appetite voracious; no thirst; bowels sluggish; urine shows constant sp. gr. of 1025 and diminished in volume; no albuminuria; no anæmia; no obvious organic disease. Opium and belladonna preparations, strychnine, galvanism and hyoseyamus afford no relief. Local application also failed. Tannic acid as a gargle checked secretion somewhat for a few days only.

KING'S COLLEGE, LONDON.—The following entrance scholarships have been awarded:—Warnford Scholarships of £75 to E. C. Plummer and C. E. Fenn, and of £50 to J. C. Briscoe; Sambrooke Exhibitions of £60 and £40 to R. P. Williams and P. C. Colls; Clothworkers' Science Exhibitions of £60 and £40 to T. A. Watson and R. E. Shawcross; Rabbeth Scholarship of £20 to P. C. Colls.

## Reviews and Notices of Books.

*Die Syphilis und die venerischen Krankheiten. Ein kurzgefasstes Lehrbuch zum Gebrauche für Studierende und praktische Aerzte.* Von Dr. ERNEST FINGER, Docent an der Universität in Wien. Mit 5 lithogr. Tafeln. Dritte wesentlich vermehrte und verbesserte Auflage. Leipzig und Wien: Franz Deuticke. 1892. [*Syphilis and Venereal Diseases: a Concise Textbook for Students and Practitioners of Medicine.* By ERNEST FINGER, M.D., Docent in the University of Vienna.]

DR. FINGER endeavours to place before his readers in this, the third edition, the pathology of syphilis viewed from the modern bacteriological standpoint. In this he certainly has succeeded, while at the same time he testifies to the gaps in our knowledge of the syphilis microbe. He states at length Lustgarten's method for the demonstration of the bacillus in the tissues as well as in the secretions, and also Doutrelepont's; inoculation and cultivation experiments are still wanting. Dr. Finger does not allow his facts to be warped by theories; he draws attention to the latter on the nature of the syphilis virus only in order to impress the former. The result is a thoroughly reliable treatise and one that can be recommended. The author terms his work "concise" (*kurzgefasst*); as a matter of fact it is most fully worked out under the various headings and sets forth the most recent researches in syphilis and venereal disease. He successively treats of syphilis (acquired and inherited), soft chancre, gonorrhoea, and, lastly, of venereal affections, which sometimes occur singly and sometimes complicate the three leading venereal disorders. Symptomatology, diagnosis, prognosis and treatment are fully considered; the sections devoted to treatment deserve commendation, and the various methods of drug administration are set forth with terseness. The author gives his reasons for preferring one method to the others, but avoids being dogmatic on the subject. The opening paragraphs are devoted to a sketch of the history of syphilis, without, however, adding to our knowledge in this respect. Dr. Finger is a staunch "dualist"; he bases his position on personal observation and supports it by trenchant criticism of the opposite view. The classical division of syphilis into three stages is followed. The first stage is made to include the multiple glandular affections and terminates only with the appearance of the eruption. The polymorphic character of the eruption and its bearing on prognosis are prominently set forth. The prognosis in secondary syphilis as regards the appearance of tertiary symptoms is more favourable in the moist form of the eruption than in the scaly and dry forms, and as the former are more frequently met with in women, tertiary symptoms are less often seen in them.

Dr. Finger does not admit the infectiousness of tertiary syphilis. He regards this stage as a specific cachexia produced by syphilis toxine, and, the severer the symptoms of secondary syphilis are, the earlier, speaking generally, does tertiary syphilis make its appearance. In fact, in severe cases (*ues maligna*) the cachexia is concomitant with secondary syphilis and then tertiary sores are infective, but only by reason of the activity of the syphilis virus of the second stage. Further, if tertiary syphilis were a manifestation of active syphilis, reinfection, which is known to occur during the tertiary stage, would, he thinks, be inexplicable. Dr. Finger lays great stress upon the care which should be bestowed upon the teeth and gums during the administration of mercury, and gives several useful formulæ. He regards inunction as the most, and administration by the mouth as the least, favourable method of placing the patient under the influence of mercury. Under tertiary syphilis are described the various gummatous affections that are met with in the different organs and structures—including

the nervous system—of the body. Dr. Dimmer contributes a section on Syphilitic Affections of the Eye and its Adnexa. In the section of Inherited Syphilis the various points concerning infection on the part of mother and child are well discussed. Dr. Finger considers treatment should be continued at least for two years uninterruptedly, and then at intervals during the third year as long as no evidence of relapse is present. He regards the various sulphur baths as most beneficial in the tertiary stage or at the end of an energetic course of mercurial inunction. Marriage should not be permitted till three years after infection, and then only provided no symptoms had occurred during the third year. Even then a course of mercury might be with advantage prescribed, followed by the administration of potassium iodide. Tonic treatment is also insisted upon, and the formulæ of Zittmann's decoctions (strong and weak) are given *in extenso*. Dr. Finger denies that there is a specific virus producing the soft chancre. He regards it as the product of suppuration—i.e., of pus cocci—and states that the pus of acne, scabies and impetigo may produce soft sores in healthy subjects. He mentions Cooper, Bumstead and Taylor as having demonstrated these points some years ago. He alludes to Ducrey's bacillus, and draws attention to the want of proof of its relation to *ulcus molle*.

Dr. Finger fully admits the etiological relationship of Neisser's gonococci to gonorrhoea. He gives easy methods for recognising their presence in suspicious discharges. The complications of gonorrhoea are fully treated, and Dr. Dimmer describes the blennorrhœic affections of the eye. Under the division, "Venereal Affections occurring singly or complicating the three chief Venereal Disorders," Dr. Finger describes balanitis, vulvitis, venereal warts, phimosis, paraphimosis, lymphangitis and adenitis.

In conclusion, we may remark that the subject matter is clearly and concisely stated. The author's style is lucid, in marked contrast to many German medical works. English readers whose acquaintance with German may not be very extensive will have no great difficulty in arriving at the writer's conclusions. The type is clear, and a comprehensive index adds to the value of the work. The five coloured plates are good specimens of German work, and represent various lesions of syphilis, soft chancre, incipient stricture, gonococci and syphilis bacilli.

*Inoculation a Preventive of Swine Plague.* By F. S. BILLINGS, M.D.

SINCE M. Pasteur introduced protective inoculation for anthrax by means of specially prepared virus or "vaccine," as he unfortunately named it, efforts have been made to protect the porcine species in a similar manner from the intensely infectious and extremely destructive disease generally designated swine plague and swine fever. On the Continent much attention has been given to the subject, and, according to report, a large measure of success has attended the inoculation of cultivated virus into herds of pigs exposed to infection. In the United States of America, where the scourge rages almost continually and causes startling havoc, protective inoculation has likewise been tried on a somewhat extensive scale, and, according to one account, which has been disputed, with beneficial results. For some time the discussion arising from this difference in conclusions has been carried on in a somewhat acrimonious spirit, and the book just issued by Dr. Billings is the culmination of the dispute. In it, while adducing evidence to show that his mode of inoculation of pigs to preserve them from the malady has been on the whole satisfactory, he is unsparing in his denunciation of the administration of the United States Agricultural Department, which he stigmatises as a public scandal. He is particularly severe on the secretary

of that department, who seems to have been the chief offender. The language employed by Dr. Billings is very vigorous, much of it is what has been of late euphemistically termed "Saxon," but which gentlemen and men of science might easily dispense with in favour of milder and equally effective terms. More harm than benefit results from such hard-worded altercations, and it is matter for regret that Dr. Billings, who has done some really good work as director of the Patho-biological Laboratory of the State University of Nebraska, should have committed himself to the publication of a book that reveals a very unpleasant state of affairs. It is to be hoped that his system of inoculation will be submitted to a fair and impartial examination and the evidence he gives thoroughly tested, so that the truth may be arrived at. Unfortunately, the wide prevalence of this plague of swine in some of the States affords ample opportunity to realise this desire, and we are certain that if the public interests are kept in view by both sides we shall hear no more of the public scandal. It might be remarked that as the disease is so common in this country, and inflicts so much damage on the pig industry, inoculation should be tried here. At present nothing is done, the control of the epizootic disease being left to the local authorities, who may do little or nothing in checking it just as the spirit moves them.

*A Manual of Veterinary Physiology.* By Veterinary-Captain F. SMITH, M.R.C.V.S. London: Baillière, Tindall and Cox. 1892.

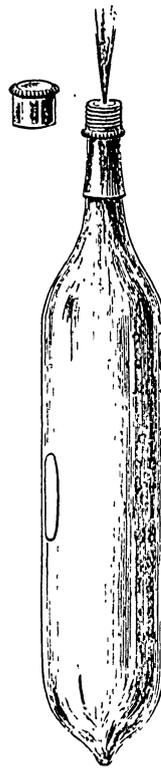
A HANDY book on physiology for the special use of veterinary students was much needed, and the one now prepared by Veterinary-Captain Smith, who is well known from his "Manual of Veterinary Hygiene" and other contributions to veterinary literature, as well as from his prominent position of professor at the Aldershot Veterinary School. The work will commend itself to those for whom it was written by its conciseness and the able manner in which the important facts relating to the physiology of some of the principal domestic animals are dealt with and arranged. For this reason it will probably supplant to some extent Meade Smith's "Physiology of the Domestic Animals," which treats the subject in greater detail. Mr. Smith appears to have availed himself of the assistance of many of the best authorities, English and foreign, and so has made the manual more complete and reliable as a work of reference, while many of his own observations are original and interesting. The chapter on Digestion is very instructive to horse owners, as is also that on the Locomotor Apparatus. In reading the chapter on the Physiology of the Horse's Foot—a most wonderful and highly important organ to study—it is stated that a horse's sole carries but little of its weight, only the margin, which is immediately in contact with the wall, assisting. "When we remember that the sole is concave it will be clear that it has some other function than that of weight-bearing to perform—its function is to protect the sensitive sole and pedal bone." We should imagine that the entire sole was designed to support weight, and that its being concave was rather an argument in favour of its utility in this respect. The strongest bridges are those which are concave underneath, and the author must have overlooked the fact that the human foot has a concave sole, and yet it has no analogous structures like those of the horse's foot to protect. No doubt one of the uses of the horny sole is to shield the sensitive parts resting on it, but it must also support a good share of the weight, like the sole of many other species of animals.

There are many curious and suggestive remarks to be found interspersed throughout the 400 pages of which the work is composed, and that at the termination of the last chapter is one of them. Speaking of the causes of death the result of disease, it is mentioned that, no matter what the cause may

be, horses seldom die quietly; "by far the majority of them leave this world in powerful convulsions, fighting or struggling to the last, lying on their side and galloping themselves to death. Rarely, indeed, does one witness a quiet death in horses, and the subject presents a problem for solution by the physiologist. Shortly after death rigor mortis appears, and within an hour or two tympanites of the abdomen is apparent, reaching such a degree in a few hours that post-mortem rupture of the diaphragm is exceedingly common. The explanation of this disturbance is the enormous amount of gas generated by vegetable food."

## New Inventions.

### ADMINISTRATION OF CHLORIDE OF ETHYL.



A USEFUL and ingenious instrument for the administration of chloride of ethyl as a local anæsthetic has been devised by Dr. Bengué of Paris. Hitherto this anæsthetic has been supplied for this purpose in small glass capsules, which required to be broken before the fluid could be applied to the skin. This, however, is overcome by placing it in a stoppered bulb. Having unscrewed the stopper the warmth of the hand will send out the spray. If applied at a distance of a quarter of an inch for thirty or sixty seconds to a spot, the skin first becomes pink coloured, then red, and finally white, when local anæsthesia is complete. The anæsthesia will last for more than two minutes. As a means of applying an ethereal spray to the spine in chorea, or for the relief of certain neuralgias, the advantages of this apparatus are very obvious. It is cheap, convenient, economical and handy. For the minor operations which present themselves in dentistry and in minor surgical operations, such as the incision of abscess, carbuncle, evacuation of subcutaneous tumours, removal of foreign bodies and the like, the use of the spray will be found to be exceedingly effective. The sole agency for the United Kingdom has been secured by Mr. B. Kühn, Eastcheap, London, from whom the bulbs charged with ethyl chloride and ready for use may be obtained.

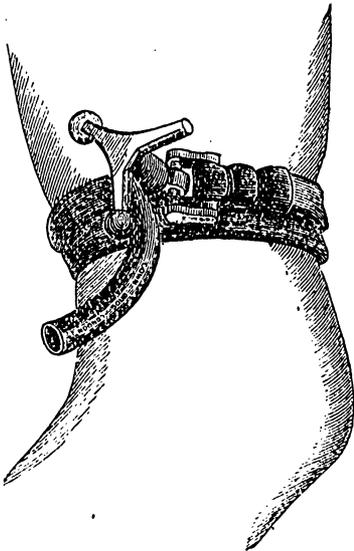
### IMPROVED TRUSS FOR HERNIA.

MESSRS. SALT AND SONS of Corporation-street, Birmingham, have submitted to us an improved hernia truss of their construction with patent celluloid pad. The object of this invention is to impart an increased elasticity to the surface of the pad or cushion, to lighten it, and to provide by the use of suitable material a truss presenting a perfectly smooth surface, and capable of being easily cleansed. To effect this pads are constructed entirely of celluloid, a material which when rolled in thin sheets becomes elastic. These pads are made hollow, the back of the pad being thickened to give the necessary rigidity, for attachment to the spring, the front or convex portion which comes in contact with the body being of the material sufficiently attenuated to present a highly elastic surface. The celluloid used is polished and semi-transparent, and the spring is covered with a sheath of the same substance, which being sealed at each end effectually protects it against the action of the perspiration, presenting also a perfectly smooth surface to the body, and thus entirely

doing away with the ordinary leather cover, which may become a receptacle for dirt and infection. The entire surface of the appliance is of celluloid, and it can therefore be washed daily. Owing to the hollowness of the pad, and the thinness of the coating of the spring, the truss is extremely light, and especially is the surface presented by the pad to the hernial ring smooth, elastic and comfortable. Peculiar attention has also been paid to the shape of both pad and spring, and the instrument appears to be calculated to adapt itself to the body and fulfil its purpose.

#### SAMWAYS' TOURNIQUET CLIPS.

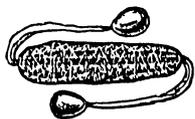
THE tourniquet forms a very important part of the armamentarium of the surgeon and any improvements which tend to render its application at once simple and efficacious are to be commended. The tourniquet before us, patented by Messrs. Down Brothers, certainly comes within that category. The band is of strong rubber and by a simple arrangement can



be fixed at any point without twisting. The clip by which fixation is effected is of two patterns—the anchor pattern and the grapnel. Whichever may be used equal security against slipping can be secured. Its simplicity and the ease with which it can be applied to and removed from the limb will render it acceptable to most surgeons.

#### FAVETS' LOOFAH FLESH RUBBERS.

WE illustrate below what will prove to many a useful adjuvant to the morning douche—"the Loofah Flesh Rubber." It has for its object stimulation of the cutaneous circulation, slowness of which in those of feeble hearts subtracts so largely from the utility of the daily bath, and manifests itself by coldness of the hands and feet and a general feeling of chilliness. By the use of these patent flesh rubbers these unpleasantnesses may be avoided. While it is a valuable aid in the bath it may be used for dry friction. The rubbers are supplied in various forms to suit different skins.



They may be had plain with tape throughout double and handles, or with towellings and fancy attachments at both ends, and they may be half covered or entirely with towelling, which can be removed if desired. They will be found useful for stimulating the circulation in the lower extremities. They may be obtained from the patentee and manufacturer J. Favet, Seething-lane London

### THE TREATMENT OF MYXEDEMA.

To the Editors of THE LANCET.

SIRS,—That considerable interest is taken in the method of treatment of myxœdema which I have found so beneficial in a case under my care at the Royal Free Hospital, as noted in THE LANCET of Oct. 15th, is shown by the large amount of correspondence I have since had on the subject. Among other questions I have been asked whether the thyroids were given raw or cooked, how they were prepared, how procured, from what animal they were obtained. The glands I have used were from the sheep, but I do not think it matters whether sheep's, pig's, or bullock's thyroid is used, except that the latter is larger than is required for the purpose. I found both the hospital butcher and my own butcher were quite ignorant as to where or what the thyroid gland was. They knew the thymus by the name of the throatbread, and sent that at first. The simplest plan to get the thyroid was to have the larynx and trachea with the muscles sent entire soon after the animal was killed. As the part is of no value to the butcher, he should be able to supply it for quite a small sum. The thyroid gland can easily be separated from the other parts. In the sheep the lobes are rather smaller than in man and the isthmus is rudimentary. The lobes can be easily distinguished from the muscle by their oval shape and darker colour, although this varies in different cases. I have throughout given the glands raw, except at the very outset, when they were cooked by mistake. I cannot say whether they would have any effect if given thoroughly cooked. That could only be found out by experiment; but I can see no objection to very slightly cooking them—for instance, by frying. It is highly probable that thorough cooking would entirely destroy their effect. The mode of preparation in my case has been simply to mince the gland finely and give it either plain or with a little brandy. The addition of the latter was found to make it more acceptable to my patient, and also diminished the tendency to nausea which she experienced when she knew she was having something raw. Currant jelly might make it more palatable. As mentioned, I gave my patient two whole thyroids (four lobes) every day at first, but found this was too much, as the pulse rate after a time was much increased. I do not think it will be necessary to give the patient more than one thyroid every other day.

Some may prefer to employ a home-made extract of the gland, which may be prepared by mincing up the thyroid, placing it in a mortar with a little crystallised sugar and glycerine, rubbing it up with a pestle, then adding a little water and, after allowing it to stand an hour or two, filtering through muslin or calico. It is, of course, possible that a stable thyroid extract may be obtained which will in practice be found more convenient than the process I adopted. The important point is to have shown that the thyroid gland contains something which, given by the mouth, has as distinctly curative an effect as hypodermic injections of thyroid juice.

In regard to my patient I may add she has now left the hospital, but attends there twice a week to have a thyroid gland. She looks and feels very well. One of my colleagues who was lately taken to see her without being told what the case was actually did not recognise it as a case of myxœdema. She has lost two stone in weight, having previously scaled over eleven stone. One of the most curious effects is the growth of hair on the crown of the head, where only a couple of months ago she was bald. The hair is growing so thickly that at present the scalp somewhat resembles a doormat. Her hands, which completely desquamated, are quite normal in appearance. Her face exhibits no sign of its former alteration. Her spirits are good and she is quite lively in her movements. I am glad to know that the treatment is being adopted in a considerable number of cases, not only of myxœdema, but in sporadic cretinism, and I look forward with confidence to its effects in uncomplicated cases. I may be allowed to point out that many cases of myxœdema are complicated by the coexistence of other diseases, and that in these only partial benefit can possibly result.

I am, Sirs, yours truly,

HECTOR W. G. MACKENZIE, M.D., F.R.C.P.

Oct. 22nd, 1892.

# THE LANCET.

LONDON: SATURDAY, OCTOBER 29, 1892.

IN the history of medicine, full as it is of vague fancies and erroneous assumptions, there is one period which stands as the inauguration of a new epoch, which marks indeed the birth of ideas that have never ceased to influence our conceptions of animal function and its derangements. The lessons taught by the life of HARVEY and his work, which are annually commemorated in the College of which he was the greatest son, have seldom been more amply and fittingly brought home to us than they were by the orator of this year in his highly finished and discriminating address. In Dr. BRIDGES, as a representative of that branch of medicine which in the present day is recognised as an essential department of the State, and for which there is a future of almost unlimited expansion, the Royal College of Physicians of London found an orator who seems to have grasped clearly the conditions under which HARVEY laboured and the far-reaching efforts which have flowed from his memorable discovery of the circulation. As Dr. DICKINSON last year pointed out, and as was equally dwelt on by Dr. BRIDGES, the age in which HARVEY flourished was one of exceptional fertility in men of genius; but one of the most striking incidents in the career of the first of physiologists was the fact that he must have come under the influence of GALILEO, who was attracting students from all quarters to his classes at Padua when HARVEY went there to study. Dr. BRIDGES thinks, and with reason, that the doctrines of GALILEO, embodying the principles of physical science and forming the basis of the modern doctrine of the conservation of energy, cannot but have impressed the young English student, and may possibly have materially assisted him in his subsequent study of the forces at work within the living body. Whilst GALILEO, then, was breaking down the old dogmas and revealing the truths of mechanical science, it was reserved for HARVEY to dispel at one word the fantastic ignorance that prevailed concerning the primary facts of biological science. The fact that SERVETUS and COLOMBO on the one hand, and CESALPINO on the other, came so near doing what HARVEY did and yet remained so far away from the real explanation of the function of the heart and bloodvessels makes manifest the strength of the hold which preconceived ideas had upon them; whilst it also serves to show how great must have been the scientific spirit which could break away from those dominating influences and arrive at a first and bold generalisation after patient and diligent observation and experiment. HARVEY realised that the heart was a muscular organ and that the blood moved through the body "in a circle," because the facts which he saw were perceived through no hazy medium or authoritative dogma, but with the clear vision of an unprejudiced observer. To us, in these days, there must often come the occasion—not indeed fraught with such momentous issues, but like in essence—when the

principle underlying all HARVEY'S work must find its application. For it is the root-principle of all scientific work which can only be rendered of service when combined with an absolute freedom from bias on the part of the observer. Well and truly may Dr. BRIDGES say that scientific medicine dates from HARVEY.

In reflecting on the effects which this discovery had upon medical thought and practice Dr. BRIDGES dwelt upon the fact that it introduced vital functions within the sphere of law, and that it was adopted by DESCARTES as a main support of his mechanical philosophy of vital action—a doctrine which failed because of its narrowness. Still, as was pointed out, the immediate effect of HARVEY'S work did not result in any striking progress, because no attention had then been paid to the chemistry of the body, partly owing to its being lost sight of in too great concentration of thought upon vital "mechanics." When, however, chemistry was re-born in the eighteenth century, which also saw the rise of physiology (i.e., biology), then indeed was the full value and meaning of the circulation of the blood properly appreciated. We may smile now at the various "schools" (which were so happily sketched by Dr. BRIDGES) of opposing theories of the functions of the body and their application to its diseases, but we must not forget that they were each of them the expression of ideas arising out of the introduction into the study of vital actions of many new and true facts; and in the light of its past history it would be vain indeed to think that medicine will not traverse many another period of crude notions and partial theories before it can attain a sure position among the sciences. There are scope and range enough for many a discovery which may throw quite a new light upon certain phases of animal life and function, which may create a revolution in ideas similar in kind if not so vast in extent as the change instituted by HARVEY. Of one thing at least we may be sure, and that is that the principles which he laid down in all his research will, if adhered to with similar fidelity and single-mindedness, lead us nearer to that goal which ever seems to recede the wider knowledge grows—that, namely, which is the aim of all the sciences, the revelation of the Truth that lies hidden in the heart of Nature.

UNLESS legal redress is to be sought by those who think themselves aggrieved in the controversy which has arisen out of the recent meeting of the Church Congress, no harm would accrue to science or to morals by letting it drop for the present. No good comes of polemics conducted at such high temperatures; and the pyrexia of controversy is very like that of certain forms of continued fever—it requires time for abatement. Defervescence takes place only gradually and after the lapse of weeks; indeed, we doubt whether the discussions and processes of a law court—though doubtless acceptable to lawyers and interesting to the public—with all the leading *savants* and ecclesiastics as witnesses, would much further the progress of truth and justice in this matter; they would rather, on the contrary, tend to obscure the clear appreciation of the questions at issue. The wordy strife which has been going on in and since the Church Congress has been rough, but it has not been without its effect on all sensible and moderate people, and, after all, they are the people in this country who

decide controversy and generally decide it with a fair recognition of the merits of both sides. Undoubtedly rough things have been said and forcible language has been employed. Mr. VICTOR HORSLEY has used against a lady the little word of three letters which jars on polite ears. He would have done better to have avoided it ("Gentle words are always gain"). There are synonyms which would have served; and his case is so overpoweringly good and strong that it does not need to be bolstered up with disfiguring nouns and adjectives. We are quite alive to the provocation he received. The public does not know half the hysterical abuse that has been heaped on scientific men in England—and even on their wives—who defend or use experiment on animals under a complete conviction of its uses. But, even so, they must not lose self-control. They may decline controversy with such unfair or unworthy opponents and explain their ample reasons for doing so, but they should rely solely and confidently on their own character and work and not on the strength of unparliamentary monosyllables. With this qualification the case for humane experiments on lower animals with a view to elucidate the nature of disease or the action of remedies has been completely established by the recent discussions. Sensible men—and women too—begin to see that there are deep reasons for such experiments in the solidarity of the animal creation, in a great community of interests between man and his lower fellow creatures, and in the obvious right of man—more than a mere right founded on might—to use the lower creatures for medical purposes. Such people begin to see that a great and beneficent profession, whose nature and function it is to *heal*, does not inflict suffering wantonly, and that it has incalculably good results to show for the slight pain that it does inflict. The poor appearance in argument of leading divines as compared with that of leaders of the profession has not increased respect for them as guides in moral questions. The exposure of the fact that when extreme opponents of experimentation on animals are bitten by suspected dogs they repair to Mr. VICTOR HORSLEY for guidance, sanctioning him even to sacrifice two rabbits to relieve their fears, shows that they are either very selfish or very superficial in their views, or that they conceive of themselves as having a strange authority to grant medical men such indulgences. The ordinary fair-minded man has had brought home to him with great force that, whereas bishops and clergymen have rarely a word to say against forms of sport which must necessarily cause pain to animals, they empty all their vials of wrath on those who can be shown to inflict the minimum of pain on animals, and this only for the most benevolent of purposes, and in the carrying out of experiments which have given precision to physiological knowledge, and have suggested operations which have saved many human lives and give promise to save life on an enormous scale, and to strengthen the whole foundations of medical science. Bishop BARRY, in *The Times* of Monday, is candid enough to say that he "questions the moral right" to perform such experiments on animals even in hope of the advancement of knowledge and physical benefit to mankind. Bishop BARRY was Principal of King's College for fifteen years, and during that period had as colleagues Professors RUTHERFORD, GERALD YEO, Sir JOSEPH LISTER, FERRIER and WATSON CHRYNE, all of whom were well known as having

made experiments on living animals. Bishop BARRY must have forgotten that such experiments had been made at King's College or he could not now have stigmatised his colleagues as having been demoralised and cruel in the making of these. Did he ever ask them as to the details of their experiments or object to their laboratories being used for this purpose? It must be pointedly brought home to him that he was constantly meeting these colleagues and at that time made no complaint as to their investigations, and he cannot escape from the dilemma that he either was unaware of the work then done at King's College or that he did not oppose these methods for the advancement of medical science as cruel, demoralising and unnecessary. He was in daily communication with those who were well known to everybody as experimenters, and whose researches were duly made public. These members of our profession, then, colleagues of Bishop BARRY, must be included among those against whom he has formulated his unkind accusations. At the present time Bishop BARRY is a Life Governor and Member of the Council of King's College, and we are told that among the most recent developments of the College laboratories for bacteriology, surgical pathology and neuro-pathology have been established. Experiments on living animals, if these laboratories are to be of any value, must be and are carried on. We only notice this as another instance of the inconsistencies into which members of the Anti-vivisection Society, who do not take regard of all the bearings of the question, are apt to fall. Bishop BARRY could have known all about vivisection at first hand from his colleagues, and is little to be pitied when he finds himself in an inexplicable position owing to his having trusted in the incorrect narratives circulated by the officials of the Society. Another prelate once said that if an experiment on the life of a rabbit would save a human being he could not approve it. Fortunately one bishop has told us that for the preservation of his voice he does see his way clear to give orders to his butcher which involve the killing of animals much larger than rabbits.

It is with no insincerity that we express our regret at seeing religious leaders so weak and unpractical in a practical and earnest age. Two things strike us in these bold opponents of science in its most urgent and benevolent form—for is not medical science urgent and benevolent above all others? They are characterised by two great mental defects which make us almost hopeless of their conversion. One is their want of *faith*. The scepticism of these men is amazing. They have absolutely no faith in the very cream of the medical profession. The testimony of men like Sir ANDREW CLARK, Sir JAMES PAGET and other leaders, to say nothing of the rank and file of the profession that is face to face with sickness and death by night and day, has no effect on men like Bishop BARRY. We are not going to use strong language about men whose profession is that of faith, but who are deplorably sceptical of a whole class of the truest witnesses, of men who see deeper into life and morals than many clergymen do. How men who believe so much can be so sceptical puzzles us. We cannot understand men who believe in GOD having no faith in their own fellow creatures. The other great defect in "anti-vivisectionists" is the entire *want of the sense of proportion* which they display. They allow that men may kill an animal to afford them pleasure at the dinner table or on the *ors*, as does a butcher or a sportsman, but deny

that a physician may perform an experiment on the same animal, on a rat or a rabbit, to save life. The want of the sense of proportion here is quite ludicrous. There is a certain difference, despite these theologians, between the value of a sheep and that of a man. This point of proportion is much insisted on in a certain book whose authority the clergy all recognise. The book declares that a man is of "more value than many sparrows," and that he is "*much better* than a sheep." But our clerical friends have no sense of proportion and cannot see that the infliction of pain on an animal is justified if necessary to save the pain of all other animals and of man, who is "better" far than them all. These defects in common men would be of less consequence; but in men who profess to be moral guides they are almost as grave as a want of charity. To think that these defects should be exhibited in clergymen—in men who pose as the moral teachers of mankind—is serious matter for reflection for all who wish well to the cause of morals and religion. If such defects are not remedied it is not the medical profession that will suffer, as it will certainly not be diverted from its own methods in the unravelling of the mysterious processes of disease.

AFTER a trial lasting five days THOMAS NEILL—or more correctly THOMAS NEILL CREAM—was convicted at the Old Bailey on Friday, Oct. 21st, of the wilful murder of MATILDA CLOVER. There were seven counts in the indictment—four charging him with having killed severally ELLEN DONWORTH on Oct. 13th, 1891; MATILDA CLOVER on Oct. 20th, 1891; and ALICE MARSH and EMMA SHRIVELL on April 12th of the present year; two with having sent threatening letters to Dr. BROADBENT and Mr. JOSEPH HARPER demanding money with threats; and lastly, one of having feloniously attempted to administer to LOUISA HARVEY a large quantity of strychnine with intent to murder her.

The prosecution elected to proceed first with the case of MATILDA CLOVER, inasmuch as the evidence was more varied and complete than in those of the others. It was urged by counsel for the defence that each case should be taken on its own merits, and that the facts as regards the alleged murder of DONWORTH, MARSH and SHRIVELL were inadmissible as evidence against the prisoner in the case of CLOVER. Mr. Justice HAWKINS, with sound common sense—and, as it seems to us, sound common law—ruled that if the evidence was corroborative it ought to be received. In each instance the victim belonged to the class of "unfortunates," and in each strychnia was the means by which death was brought about.

The convict was born at Glasgow in 1850. When two years of age he was taken to Canada. He received a medical education at McGill College, Montreal. He remained abroad until October, 1891, when he arrived in England. His career in America and Canada seems to have been a catalogue of crime. A self-professed abortionist, he was found guilty of murder in the "second degree," having killed a man by administering strychnine. For this he was sentenced to penal servitude for life, which was afterwards commuted to seventeen years. He remained in prison from 1881 to 1891, when on his release he came to this country and resided at Lambeth Palace-road. On Oct. 9th, 1891, he was seen by two wit-

nesses to accompany CLOVER to her lodgings. On Oct. 20th a man answering to the description of NEILL, although his identity on this occasion could not be sworn to, went to the house with her and remained for some time. After his departure CLOVER went out again and returned between 1 and 2 A.M. At 3 A.M. the servant heard her shrieking and called the landlady. Up to the time of her death, a period of five hours and three-quarters, she remained in a state of agony, suffering from spasms or "convulsions." Her consciousness remained, for she expressed the belief that she had been poisoned, that she would die, and asked to see her child. In the absence of Mr. GRAHAM, who was sent for, Mr. COPPIN, Mr. M'CARNEY'S assistant, visited her. Mr. GRAHAM had attended her for nine days before her death for alcoholism, and, from his knowledge of her ailments and from the facts communicated by the landlady and Mr. COPPIN, he came to the conclusion that she had died from "delirium tremens and syncope." The death was registered and the body interred. Shortly after this episode NEILL asked Miss SLEAPER, the daughter of his landlady, to make inquiries at CLOVER'S residence if the latter was dead, and told her that she (CLOVER) had a child living with her. Upon Miss SLEAPER demurring, NEILL said he would take the letter himself. The next link in the chain of evidence was also forged by the criminal himself; for on Nov. 28th, a month after CLOVER'S death, he sent, in a false name, a letter to Dr. BROADBENT charging him with having murdered her by *strychnine* and demanding money. This letter was sent to Scotland Yard. Now up to this time it was not even suspected that CLOVER had died a violent death, much less that poisoning by strychnine was the form it assumed. About Easter, 1892, NEILL made inquiries of Miss SLEAPER concerning the position of Mr. HARPER, son of Mr. HARPER of Barnstaple, who resided in the same house. Soon after he sent a letter—again under an assumed name—to Mr. HARPER, saying that he had evidence that his son had poisoned MARSH and SHRIVELL (who died April 12th, 1892) and attempting to levy blackmail. On May 4th he told Mr. HAYNES, an acquaintance, that Mr. HARPER had poisoned CLOVER, MARSH and SHRIVELL as well as "LOU" HARVEY. HAYNES communicated with the police, and on June 3rd NEILL was arrested and charged with having demanded money with threats from Mr. HARPER. Then followed the result of Dr. STEVENSON'S analysis of the exhumed remains of MATILDA CLOVER. Strychnine was detected by chemical, physical and physiological tests.

It may be added that in January, 1892, NEILL went to Canada and returned to England on April 9th. A remarkable fact transpired in connexion with the case of HARVEY. NEILL met her by appointment on the Embankment, as it turned out for the alleged purpose of giving her pills to remove some spots from her face. He requested her to take them then and there, but she only feigned to do so. No doubt he believed, as in the other cases, his fell purpose had been effected and that HARVEY had died, for we find him telling HAYNES of her sudden death in the streets. It was only during the hearing at the police-court of the charge against NEILL of having poisoned CLOVER that the woman HARVEY came upon the scene and tendered her evidence. It will be seen that following the deaths of CLOVER, MARSH and SHRIVELL, NEILL falsely accused others of having mur-

dered them, and accompanied his accusations with threats to extort money as the price of secrecy. To add to his villainy he went so far as to induce his *fiancée* to write some of the letters. In no instance, however, does he seem to have intentionally disclosed his identity, or taken further measures to have his demands satisfied. In his possession were found the names and addresses of the girls MARSH and SHRIVELL in MARSH's handwriting. This was written on paper having a foreign watermark similar to that on which he had penned his letter to Mr. HARPUR. He had also shown to HAYNES the same address in a book; but this, as well as a box of capsules, disappeared. There was ample evidence that he had strychnia in his possession, for pills containing this drug were found in his rooms. Moreover, on several occasions he had purchased nux vomica in quantity beyond his individual need. Analyses in the cases of DONWORTH, MARSH and SHRIVELL showed that fatal doses of strychnia had been administered.

Having stated the salient facts proved at the trial, several points of forensic interest may now be considered. In the first place, it is a painful duty to subscribe to the remarks made by the judge and the Attorney-General in regard to the giving of a death certificate by Mr. GRAHAM. No doubt he believed on ample evidence that CLOVER was suffering from alcoholism, but this surely did not warrant him in ascribing the death to "delirium tremens and syncope." A close inquiry into the final sufferings of the deceased should have suggested at least that the symptoms were consistent with a theory other than "death from natural causes"—if alcoholism may be so termed. The girl was about as usual on the night preceding her death. She had shown no signs of delirium. During her agony she was not only sensitive but sensible. Delirium tremens does not usually end fatally within a few hours. Mr. GRAHAM certified, as we gather that he last saw deceased on Oct. 21st; but it was only her dead body that he viewed. The above is a regrettable instance of the shortcomings of the legal requirements as to the certification of death in this country.

Fortunately for the cause of justice strychnia, though a vegetable poison, has great resistance to decomposing forces. MATILDA CLOVER had been buried between six and seven months before the analysis of her remains was conducted, and yet Dr. STEVENSON was able to show the presence of the alkaloid in the various tissues and that, too, in quantity representing the administration of a fatal dose. Mr. GEOFFRIGAN for the defence argued consistently with the *fas* of advocacy when he attempted to discredit Dr. STEVENSON's testimony, but he was strong in a lost cause, for in skilled hands proof of the existence of strychnia is not difficult. His contention that the physiological test with the frog was inapplicable to the question of poisoning in the human being, though ingenious, was certainly at variance with accepted scientific teaching.

MATILDA CLOVER lived longer than do most persons who have taken a lethal dose of strychnia; but then there are no absolute limits within which death must occur. The quantity ejected in the vomit (if any), the presence or absence of food in the stomach, the simultaneous action of antidotal or antagonistic drugs and the power of absorption by the mucous membrane at a given time are important factors in determining the duration of life.

The jury had before them evidence more than enough to substantiate their verdict without being called upon to fix a motive to the crime of which they convicted NEILL. To the psychologist, however, his case is one of absorbing interest. That he willed to do the murderous deed, or, in other words, acted under conscious motive there appears to be no shadow of doubt, leaving aside the absurd legal proof of criminal responsibility—"the knowledge of right and wrong, or of the nature and quality of the act." Nor can we argue in NEILL's favour impulsive homicidal insanity as usually understood. At the same time it is difficult to believe that the convict perpetrated these unutterable crimes with a mind constituted to realise their enormity and with a power of will equal to inhibit their commission. As to what motive may have impelled him to the commission of these singularly cold-blooded murders we are at a loss to conceive. Perhaps after all there is some reason in the lines:—

How oft the sight of means to do ill deeds  
Makes ill deeds done.

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## Annotations.

"Ne quid nimis."

### INTERNATIONAL MONUMENT TO SEMMELWEIS.

A MEETING was held in the library of the Royal College of Physicians of London on Monday, under the presidency of Sir Andrew Clark, the object of which was to combine with all admirers of Semmelweis—"the father of antiseptic midwifery"—to raise in his native city of Budapest a monument to this great pioneer of antisepticism. It is nearly fifty years since Semmelweis demonstrated the septicæmic nature of puerperal fever, and for many years his work was appreciated by only a few followers and his name was almost forgotten. We rejoice to think that his professional brethren in Hungary have determined to raise by international subscription a memorial to their distinguished countryman, who, like many a martyr, was not appreciated while he lived. Dr. Routh was the first to bring before the profession in this country the important work of Semmelweis in an article published in the *Transactions of the Royal Medical and Chirurgical Society* for 1849, and his name and work were revived some seven years ago by his countryman, Dr. Duka, now resident in London, and formerly Surgeon-Major in the Bengal Army. In sympathy with this movement we think a few details of the life of him whose work it is intended to commemorate may be of interest at the present time. Ignatius Philippus Semmelweis was born on July 17th, 1818, and at the age of nineteen he entered the University of Vienna and graduated in 1844. About two years afterwards he became temporary assistant professor in the maternity department of the great General Hospital at Vienna under Professor Klein. The records of the puerperal mortality had been at times very alarming, sometimes 16 per cent., or even higher. There were two clinics, one attended by students and the other by midwives, and the average mortality of 9.29 per cent. in the clinic attended by the students, who also attended the dissecting-room, compared with the lower mortality of 3.38 in the midwives' clinic attracted his attention. All kinds of theories were advanced to explain this difference. So bad was it in the clinic of Dr. Klein when Semmelweis became the assistant that "patients, on finding themselves inmates of the dreaded clinic, fell on their knees and with clasped hands begged to be allowed to return to their homes." Semmelweis was of a highly sensitive nature and he most graphically describes

the scenes: "I myself was terror-stricken when I heard the sound of the bells [rung in the wards when the priest was administering the last sacrament to the dying]. A deep sigh rose in my breast for the unfortunate mother, who was the victim to a cause hitherto unknown. This worked on me as a fresh incentive that I should to the best of my ability endeavour to discover the mysterious agent, and a conviction grew day by day that the prevailing fatality in the Clinique No. 1 could in no wise be accounted for by the hitherto adopted etiology of puerperal fevers." The view then taught was that these epidemics were due to "atmospheric, cosmic or telluric influences." He, following the truly scientific method, showed that this theory was unable to explain the facts, for the fatal fever did not exist in other parts of Vienna. Overcrowding was suggested, but the clinique of the midwives contained more patients than the students. Then the theory of fear was advanced as a cause of the unfavourable result. Protracted labour was fatal in all cases in the one clinique, whereas in the other this circumstance had but little effect. The whole story of rejection of theory after theory is a most interesting example of the exercise of that true scientific spirit called by Sir Andrew Clark "the scientific instinct." Semmelweis's friend Professor Kollatschka died of a dissection wound. "Then the revelation came to me," he said: "Kollatschka's fatal symptoms unveiled to my mind an identity with those I had so often noticed on the deathbed of puerperal cases." At last he felt able to explain the etiology and at once enunciated the doctrine of septicæmic poisoning and ordered the use of antiseptics—namely, the washing of the hands with chlorine water or chlorinated lime-water before proceeding to examine patients. The mortality immediately before this was 12·24 per cent., and in the course of six months it fell to 3·04 and afterwards to 1·27 per cent. After careful observation he further discovered that "not particles from dead bodies alone, but any material in a state of decomposition proceeding from a living organism, even air contaminated from such sources, may generate symptoms of puerperal fever." Very soon his term of office expired, and, by a combination of jealous *conferes*, his reappointment was resisted and he had to quit the field of his scientific observations and betake himself to his native city in 1850. He there wrote his great work "Die Ætiologie," in which he also propounded the doctrine of auto-genetic infection. He was appointed professor of midwifery in Budapest. Though he was conscious of having discovered and set forth a great truth, yet his teachings met with considerable opposition, and his sensitive nature gave way. He was removed to an asylum in Vienna in July, 1865, and on Aug. 17th he passed away, the actual cause of death being pyæmia: a strange coincidence that he should die of a disease to the elucidation of which he had devoted the best years of his life. Such is the story of this most remarkable man, and we trust that the profession in this country will join with all admirers of true heroism in establishing this memorial. By the limitation of the maximum subscription to one guinea, suggested by the committee at the meeting on Monday, the rank and file of the profession, who have benefited most of all by Semmelweis's discovery, will, we trust, unite to send a contribution worthy of our country, feeling assured that in assisting in honouring him we are doing honour to our profession.

#### ANNUAL GENERAL MEETING OF FELLOWS AND MEMBERS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Fellows and Members of the College who are interested in the reform movement are reminded that the annual general meeting of Fellows and Members of the College will take place at 3 P.M. in the theatre of the College on Thursday, Nov. 3rd. We understand that the Associations of Fellows

and Members are now engaged in considering what resolutions shall be moved at this meeting, and the Association of Members is prepared to follow the guidance of the Fellows' Association instead of taking the independent action which has proved in the past to be disadvantageous to the common cause. We would strongly urge all Fellows and Members who have the good government of the College at heart to attend the meeting on the 3rd and support the resolutions which will then be submitted. The prospects of progress were never brighter, but it is necessary to remember the ancient maxim *festina lente*. Too great eagerness to advance is apt to engender opposition and to lead to disappointments, which delay the attainment of the objects in view. Those who intend to be present are referred to our special articles on the work of the past collegiate year, the calendar of the College, and the report of the Council of the College to be presented at the meeting.

#### WORRY, DRINK AND LUNACY.

It is no new thing to hear of the close connexion between indulgence in alcohol and the development of insanity. Accordingly we feel no surprise at a statement by Dr. Augustine Plaus that a large proportion of the cases of lunacy registered in Paris of late years are attributable to this form of excess. Far more significant is his observation that drunkenness has increased very markedly in the French capital. This effect is, of course, due to a variety of causes. Among these one is of particular interest from its bearing upon the neurotic aspect of the alcoholic dyscrasia. It is the pressure and worry of overwork, probably combined as usual in the like circumstances with irregular feeding and want of sleep. Though felt by all classes of workers, an important characteristic of its action as a cause of alcoholism is its increasing influence among those who labour with their brains. Artists, authors and especially journalists—a group of persons by no means usually given to excess—are enumerated as having succumbed to the subtle poison; and this result has, doubtless with truth, been attributed to the craving depression of mental fatigue. It is not difficult, indeed, to trace a connexion here, and we may accept it as a warning that forced labour is ever prone to become the natural parent of other and worse excesses. The best work, however hard, is always methodical enough to permit of timely rest and of regular nutrition, and the full recognition of this fact is a mere question of public utility which we hope to see more and more widely admitted in practice.

#### THE LONDON COUNTY COUNCIL AND GLANDERS.

WE recently alluded to a new Order which had been issued by the Board of Agriculture for the better controlling of glanders, and we commented with approval on the recognition by the Board of the identity of glanders and farcy and some other features in the management of the disease. We had to condemn, however, the continuation of the local authorities as the instruments through which the regulations were to be carried out, as the experience of years had amply demonstrated that they are incompetent to undertake such a function. The Public Control Committee of the London County Council has taken the same view, for at the meeting of the Council held on the 18th inst. it reported that the law in force in England with regard to the disease was much behind that of other countries; and, after showing how the disorder had increased in London and, that the Council had urged the Board of Agriculture to provide more effectual means for dealing with it and so putting an end to the fallacious measures already in force, it afterwards offered suggestions for the improvement of the new Order, a draft of which had been placed before it by the Board. These suggestions were: (1) the insertion of a

provision for compulsory notification of cases of disease by veterinary surgeons, following the principle already adopted in the case of infectious disease in man; (2) power to require the isolation and branding of suspected animals; (3) a certificate of freedom from contagious disease from a veterinary inspector should be necessary before horses could be submitted for public sale; (4) extension of the powers of inspection; (5) sanitary regulation and supervision of trade stables; and (6) compensation should not be payable when the animal slaughtered was diseased when it entered the district of the local authority ordering its slaughter. Of these suggestions the Board only incorporated in the Order that portion relating to branding and that having reference to the withholding of compensation. This the committee of the Council greatly regretted, as they attached much importance to the principle of compulsory notification, while the condition of London stables was in many cases notoriously bad and conducive to the spread of disease amongst horses. After duly considering the subject the committee came to the conclusion that a permissive order would be ineffectual as a means for stamping out glanders in England, and that to be effective the law must be uniformly administered throughout the country. They submitted the following recommendation to the Council: "That, having regard to the necessity for uniform action throughout the country for successfully dealing with glanders and farcy, and to the heavy expenditure that compensation without contribution from money voted by Parliament would impose upon the rates, and also to the fact that the Order does not include several provisions to which the committee attach great importance, the Council do not enforce the new provisions of the Glanders and Farcy Order, 1892, as to compulsory slaughter and compensation." This recommendation, we are pleased to know, was agreed to by the Council, which is to be heartily congratulated on the enlightened views it entertains as to the measures required for combating glanders. It is certainly in this instance much in advance of the Board of Agriculture, and it is to be hoped other county councils will follow its lead in this matter, and so compel the Board to apply to Parliament for further powers and no longer trifle and dally with such a damaging and dangerous disease.

#### THE SANITARY CONDITION OF SOUTHEND-ON-SEA.

In consequence of the continued prevalence of typhoid fever in this seaside resort it will be remembered that two years ago Dr. Thresh was called in by the local board to report upon the sanitary condition of the town, and if possible to ascertain the cause of the annual outbreaks of fever. The result of Dr. Thresh's investigations, which led him to consider the defects in the drainage and sewerage and the faulty method of sewage disposal as the most important factors in the causation of the disease, was not favourably received by the members of the board, and it required another sharp outbreak of typhoid fever to persuade them to carry out his chief suggestion—that an engineering expert should be called in to examine and report upon the whole sewerage system. Mr. Mansergh was commissioned to make the necessary examination and to advise the board. A few months ago he reported on the sewers, making recommendations for their extension and improvement, involving an outlay estimated at £10,000. He has now presented his second report dealing with the outfalls. He proposes to impound the sewage during certain portions of the day in two large tanks, allowing these to discharge during the falling tide only. The sewage from the lower portion of the town will have to be raised into one of the tanks by pumping. Two new sewer outfalls of 30 in. and 27 in. drain respectively are to be carried about one mile from the shore, the present outfalls for which they are substituted being utilised as storm

overflows. It is also proposed to place a 36 in. storm overflow immediately under the loading pier. Mr. Mansergh says he is aware that objections will be raised to its being placed in this position, but he is unable to suggest a better. The estimated cost of the intercepting sewers, tanks, pumping plant, outfall sewers &c. is £25,000, but this does not include any sum for land or easements. To carry out both the engineer's schemes in their entirety will therefore cost the town something like £40,000, a large sum certainly; but the first town council, which will in a few days be elected, cannot do better than boldly undertake the task and place the sanitary condition of the borough beyond reproach.

#### GRACEFUL GRATITUDE.

THE fitness of things does not often find more apt or more eloquent expression than that which reaches us through the medium of a recent kindly action of the well-known singer, Madame Nilssen. Many years ago, so the story runs, the voice, then in its childhood, which has held in silent admiration so many audiences, was often exposed to the wintry weather of a northern home. On one occasion an attack of acute laryngitis had nearly extinguished it for ever, but the care afforded by a neighbouring hospital preserved for later times its still unawakened melody. The assistance then given was not unacknowledged, and a sum of £1000 contributed towards the founding of a Parisian throat hospital attests to-day the gratitude of the illustrious singer and her sense of the priceless aid once rendered her by the medical profession. Her debt has in a great measure been already cancelled by the pleasure which her melodious notes have given to listening thousands, but there is nevertheless a singularly appropriate grace about this last expression of her feeling. Undoubtedly it has been rendered with excellent taste.

#### THE OPENING OF THE SCOTCH SCHOOLS.

THE custom prevailing in the University of Paris and elsewhere of the professor in each subject giving an introductory lecture at the opening of the session is carried out with a certain amount of uniformity in the Scottish universities. Reference was made to these addresses in our correspondent's letter last week, but it may not be amiss to glance through them once more, since, as may be expected from their authors, they are worthy of more than passing notice. It was pardonable, no doubt, for Professor Chiene at Edinburgh to point with pride to the growing numbers that flock annually to its medical faculty. He recalled the fact that thirty years ago the medical school of Edinburgh numbered only 400 students, and sent out 60 graduates a year, whereas at present the roll amounts to 2000, and over 200 are "capped" annually. It was characteristic of the genial and modest professor to couple with this legitimate pride an expression of humility as to whether he had done his duty to the vast numbers of pupils that had passed through his hands since he was chosen for the chair he holds. It is a thought which should be uppermost in the mind of every teacher earnestly seeking to fill his part adequately. In the course of his remarks Professor Chiene evoked great enthusiasm by his declaration that Lister had saved more lives by his labours than "had been lost by the greatest war waged between hostile nations." Professor Grainger Stewart dwelt on the prevalence of epidemic disease, and in particular upon influenza and cholera, asserting that there was not a shadow of doubt that the latter was caused by the comma bacillus, but admitting that the treatment of the disease had not progressed in the same proportion as the knowledge of its source and means of its prevention. Professor Fraser, as became the Dean of the Faculty, detailed to his hearers the numerous important changes that had been introduced into the curriculum, including provision for the

study of special subjects after graduation by those who desired to obtain a diploma of efficiency in one or other of the "specialties" which have become apparently a necessity of the age. This is, as it should be, the engrafting of a special branch upon a basis of sound general learning. He spoke with some warmth and sarcasm upon the requirement of the Commission that the subject of pathology should be taken after that of therapeutics, and stigmatised as "irrational" that the teaching and study of the treatment of disease should be undertaken before any knowledge had been acquired of the nature of the latter. We sympathise with Professor Fraser in his complaint, and feel sure that it will not be long before it is rectified; whilst at the same time we agree with Professor Greenfield, who, also speaking of the curriculum, pointed to the great advantage derived from postponing the pathological course until after those of anatomy and physiology had been completed. He also expressed the hope that a closer association would arise between the teaching of public health and that of pathology through bacteriology, which links them both together. At Glasgow the newly elected Professor of Surgery, Dr. Macewen, after alluding in befitting terms to his predecessor, dwelt upon the roll of illustrious names connected with the University of Glasgow, including William Hunter, whose fame had been overshadowed by that of his younger brother John, whom he encouraged and aided in every way to pursue the career that did so much for surgery and pathology. Professor Gairdner spoke well and wisely upon the future of therapeutics, the basis of which was, he said, being firmly laid by pharmacological research; but he deplored the waste of time and energy in imperfect observation and trial of remedies, and reiterated his conviction that systematic co-operation amongst practitioners would do an infinite service in establishing the value of measures of treatment. At St. Mungo's College Professor McVail, whose address is published on page 986, also dwelt upon the present position of medicine, particularly in regard to treatment, and sensibly referred to the extremely unsatisfactory way in which new remedies were brought to notice. He believed that we required to know more of the natural history of diseases, and that then there would be less indiscriminate drug-giving with possibly far more satisfactory results. Thus both Professor Gairdner and Professor McVail, representing as they do the highest position to which medicine has attained, see clearly the defects that are inherent in our art. It is not, as the shallow deem, because they are sceptical of the value of drugs in disease, but rather with the desire to possess a faith founded on knowledge and not on conjectures, that they seek to show us a more excellent way of establishing the truth of therapeutic laws. The work which is being done by such men as Lauder Brunton, H. C. Wood, Ringer, Fraser, Cash, Whitla and many others, is work in this direction. It will and must result in a simplification of our methods, and in a clearer insight into derangements which we term "disease," as well as into the means for rectifying them.

#### THE DEATH FROM PUERPERAL FEVER IN TYNEMOUTH WORKHOUSE.

An inquest was lately held at the Tynemouth Workhouse on the death of a single woman named Isabella Proud, from puerperal fever a few hours after admission. This much was clear and was certified by the resident medical officer, who added, however, that the death had been accelerated by improper removal, consequently the chief question at the inquest was the propriety of the removal of the patient, who was in a single room with a male lodger. The stench of the room was unbearable according to the relieving officer, who visited the case on the suggestion of the medical attendant, who proposed her removal to the workhouse. The relieving officer referred the case to the district medical officer, Mr.

Robson. In his absence, his father, Mr. James Robson, L.S.A. and J.P., saw the patient promptly. No one was attending to her, and the neighbours would not go into the house with him. The house was in a deplorable and offensive condition. Three women in the same house all refused to go into the room, being afraid. Mr. Robson saw there was no chance of life in such circumstances. He decided on her removal, and kindly undertook to accompany her. We entirely agree with the coroner that the removal was not improper at all, and, with a jurymen, that every credit was due to Mr. Robson for removing the woman. Recovery in a poisoned room was impossible, and even to die with a little attention is less pitiful than death would have been untended at home. Mr. Robson's humanity as well as medical wisdom redeem a sad incident from utter discredit. It is another instance of the medical man being almost the only friend of the infected and abandoned poor.

#### RELIGION v. CHARITY.

THE Dublin Corporation on Monday last, by 32 to 10 votes, refused to consider the annual grant of £250 to the Rotunda Lying-in Hospital, simply because the majority of its governors were not Roman Catholics. As a pronounced Nationalist, Mr. T. D. Sullivan, M.P.—to his credit, be it said—remarked that the wisest and noblest course the corporation could do would be to restore to the useful institution the grant which had been withheld for several years. It is acknowledged that the vast majority of the patients are Roman Catholics; neither is it denied that the subscriptions chiefly are derived from Protestants. As showing the one-sided action of the corporation, it may be mentioned that the following Roman Catholic institutions receive corporate grants as follows:—The Hospice for the Dying, £450; Mater Misericordiae Hospital, £500; St. Vincent's Hospital, £400; while the Adelaide Hospital, managed exclusively by Protestants, does not receive a single penny from the rates. The money of the ratepayers should be fairly allocated to all charitable institutions, or not at all.

#### THE "INDISCRIMINATE" SYSTEM OF THE INFECTIOUS HOSPITALS.

"WHETHER the patients be sent from the slums of St. Giles's or from Grosvenor-square the Asylums Board has no option whatever but to admit them." There is a universal admission of the fact that there is no let or hindrance to the reception of any person of any rank into the Asylums Board hospitals. And it may well be that a considerable proportion of the patients are of the class that could be well treated and isolated at home. The medical officer of health of St. Pancras is of opinion that as soon as the Foundling Hospital authorities found how easy it was for a wealthy private charitable institution to throw the cost of isolation, treatment, nursing and maintenance of their infectious sick on the ratepayers, they retraced the steps that they were taking for the treatment of their own cases within their own grounds. This point in the controversy between Mr. Littler and the Asylums Board is not the least interesting in the dispute, which is of high public importance. It is clearly public policy for sanitary authorities to provide easy and comfortable and effective treatment and isolation for the poor, but we must draw the line somewhere, unless we are to exclude the poor and to demoralise those who are able to take care of themselves. If the people in wealthy quarters are to be spared every cost and discomfort of infectious disease, we shall part with one wholesome protection against it—one of the strong motives for guarding against it. It is not only in regard to the question of admission to these hospitals that the rich have been demoralised by recent legislation, but also in provisions for throwing all the cost of disinfection

on the ratepayers as respects infected houses, rooms, articles &c. This sensitive consideration for the owner—even if perfectly able to do his own disinfection—at the cost of the ratepayer is a feature which distinguishes the Public Health Act of London from that of the provinces. True he is offered the choice and chance of doing it; but what tenant or landlord will undertake such duties when he knows that if he does not do so within twenty-four hours it will be all done for him at other people's expense? The legislation suggests the influence of property owners not only in London vestries but nearer the seat of Government, and is a part of that system which demoralises the individual and burdens the State. We are glad to notice that the Asylums' Manager does not undertake the defence of the system. He says the Managers are not to blame. Who is? In the name of the poor, for whom these hospitals and these provisions for disinfection are made, and in the name of the overburdened ratepayer, who has no right to bear the cost of the avoidable diseases of the rich, we press this question. We are only at the beginning of this system of making the State responsible for infectious diseases. Within limits it is certainly a right system, though it involves public vaccination, isolation, and all sorts of invasions of private liberty; but the limits are already becoming invisible, and we must not overdo it.

#### DISEASES OF ANIMALS.

A CONTEMPORARY states that cancer is reported to have made its appearance in one of the ponds of the Dunedin Acclimatisation Society of New Zealand. American brook trout only have been attacked, and none of the fish suffering from cancer have recovered. The statement that the disease has hitherto been unknown amongst fish is open to serious doubt. New growths are often found in animals, especially when they have been kept long in confinement. The animals which die in the Gardens of the Zoological Society are rarely of much use for dissection, as they so commonly suffer from tumours of the bones and viscera. Such diseases probably also occur in a state of nature, but would most likely lead to early death, the animal succumbing in the struggle for existence. In fish myxomatous and sarcomatous tumours have been seen. The fish *Platax arthriticus* has been known from the time of Hunter as possessing very commonly, if not always, in the adult dense bony tumours symmetrically disposed on many of its bones. Reptiles and birds appear to be the lower animals that are most subject to malignant sarcomatous growths.

#### INSANITARY ARTISANS' MODEL DWELLINGS.

It is not usual to find the owners of so-called model dwellings in the police-court to answer a charge of allowing their premises to remain in a condition dangerous to health. But the owners of the artisans' dwellings in Gun-street were recently summoned by the Southwark Vestry for allowing Nos. 1 and 2 Blocks in those buildings to be in such a state. The proceedings were taken at the Southwark Police-court under the Housing of the Working Classes Act of 1890. The sanitary inspector found the dust shoots in a bad state of repair, and with absent or deficient coverings; the soil-pipe ventilators were defective and only a few feet from the water of the uncovered cisterns on the roof, which contained vegetation from two to three inches in depth; on account of the absence of proper air inlets into the drain there was danger of the traps at the bottom of the soil pipe being forced by backward pressure of sewer gas; the waterclosets were unprovided with casements. Indeed the whole property was in a dilapidated and neglected condition. It was shown that these conditions were associated with a prevalence of enteric fever and bowel complaints in the dwellings. Dr. Waldo, the medical officer of health, gave evidence on behalf of the vestry; and some rebutting evidence was called to show that

the water was chemically pure, and that the basement drains were secure. Eventually the magistrate decided the case in favour of the prosecution, and made an order to close, which was to be suspended for a fortnight, to see whether some improvement could not be made in the meantime. At the adjourned hearing on the 13th inst. the health officer reported that he was substantially satisfied with what had been done, and the magistrate thereupon withdrew the order to close, but inflicted a penalty of £10 and £1 1s. costs in each case. We congratulate the Southwark Vestry and Dr. Waldo upon their vigour and on the success attending this important prosecution.

#### THERAPEUTICS IN THE WESTERN INFIRMARY, GLASGOW.

DR. CHARTERIS, Professor of Materia Medica and Therapeutics in the University of Glasgow, has not obtained the appointment of visiting physician to the Western Infirmary, in spite of the highest personal claims and the reasonableness of giving to a teacher of therapeutics the opportunity of illustrating the action of medicines in actual cases. We adhere to our view that such a professor ought to have such a clinical appointment, and that without it both the students and he are placed at a great disadvantage. The appointment was given to Dr. Samson Gemmell, lecturer on the practice of medicine at Anderson's College, Glasgow. Dr. Gemmell will of course make good use of his new appointment, but the defect of Professor Charteris's position remains.

#### MR. BRAXTON HICKS ON UNQUALIFIED ASSISTANTS.

MR. BRAXTON HICKS has made some very strong observations on the employment of unqualified assistants at an inquest on Robert Barnet, aged eighty-two, who had died of apoplexy. The friends sent for Mr. Graham, whose private residence is 56, Upper Kennington-lane, but whose surgery is at 123, Tyer-street. An unqualified assistant went, and administered brandy. Mr. Graham maintained that in using an unqualified assistant so, at a different residence even from his own, he was only doing what was the practice of the medical profession. He did not tell the jury what he ought to know, that it is a practice which has been severely condemned by the Medical Council and one for which many practitioners have been removed from the Register. It is lamentable to see a medical man not only doing that which is forbidden, but saying that it is the practice of the profession. The coroner intimated his intention to report this and every such case to the Medical Council.

#### AN AMENDED RABIES ORDER.

A NEW rabies order will come into effect on the 1st proximo, which, it is to be presumed, the Board of Agriculture expect will tend to allay apprehensions excited by the reports of outbreaks of the disease in different parts of the country and of persons dying from hydrophobia. The order only extends to England, Wales and Scotland, with the exception of the county and city of London, and its provisions are left to be carried out optionally by the local authorities. The order includes cattle, sheep, goats and swine, in addition to horses, asses, mules and dogs, and it sanctions compensation in those cases in which slaughter of animals is found to be necessary. In respect to dogs, every local authority is empowered to seize those which have wandered into its district, subject to the usual provisions as to the duration of detention, giving notice to owners, recovery of penalties for infringement of the order and repayment to the authority of reasonable expenses incurred. If dogs are not claimed within three days they may be destroyed; if the owner has had notice, slaughter may take place within two days. Every person who has possession or charge of any rabid animal

must immediately give notice to a constable, who is to report to the local inspector and to the Director of the Veterinary Department of the Board of Agriculture. Inspectors have authority to resort to prompt action when they suspect the existence of rabies; and the local authority may, if it is considered necessary, warn the public by placard of the existence of the disease at any particular place. Local authorities may issue any other regulations they may deem requisite for the muzzling of dogs or keeping them in control; also for prohibiting the movement of animals affected with rabies, for cleansing places where they have been, for disposal of carcasses, and for the production of licences and the names and addresses of owners.

#### "SCHOOLS" V. "HOSPITALS."

At the opening of the medical session of St. Vincent's Hospital, Dublin, the lecturer, Dr. McHugh, propounded the suggestion of the advisability of instituting systematic courses of instruction in the wards of hospitals to replace in great measure that which is still carried on in the old scholastic style. He urged also upon all students not to defer acquaintance with clinical work until they had perfected themselves in anatomy and physiology, but maintained that clinical instruction should go on *pari passu* with scientific studies, the growth of which was tending to draw students away from the source of their purely professional knowledge. We fear rather that the latter suggestion would not work well in practice, but we cordially sympathise with Dr. McHugh's desire to make clinical teaching more thorough and systematic. Dr. Myles, who proposed a vote of thanks to the lecturer, feared that the proposal to transfer the teaching of medicine and surgery from school to hospital would not be acceptable, since it would tend to lower the general average of teaching power now concentrated in the few selected for their special qualifications as teachers. Mr. Tobin, however, who seconded the motion, contrasted the advantages of bedside instruction with that given in the lecture theatre.

#### LONDON SLAUGHTER-HOUSES.

LAST week the Public Health Committee of the London County Council sat as the licensing authority for London slaughter-houses and cowsheds. Licences for these premises are granted annually, and there is thus opportunity for the committee to deprive any person of his licence who has failed to comply with their requirements. During the last year the London County Council has adopted new by-laws for slaughter-houses, and, as a result, a number of butchers have been unwilling, or found it impossible, to meet the demands of these by-laws and have not made application for the renewal of their licences; the butchers, in fact, have learnt that they can obtain their meat supplies at the Metropolitan Meat Market, and that fresh meat is procurable from Scotland or other parts of the country, and again, the large quantities of dead meat which come from abroad, especially the colonies, have rendered less necessary the killing of animals in London. The *St. James's Gazette* contains this week an interesting article on the subject of meat-supplies to London, in which it is shown that farmers are increasingly adopting the practice of killing their cattle and sending the carcasses to the meat salesmen. It is admitted, however, that there is one serious objection to a general system of farm slaughter-houses—viz., that it does not give the opportunity for meat inspection which is thought to be necessary. This question of meat inspection is one which has attained less prominence in England than in many continental countries, but it cannot be long before communities will have to consider whether they must adopt some method which will prevent the sale of unwholesome meat. If bovine tuberculosis be alone considered there is already reason for the adoption of a system to ensure that the purchaser is made

aware that the flesh he is buying is not that of a wholly sound animal. It is impossible for meat to be properly inspected in London while animals are killed in some 600 different places. The suggestion made in the *St. James's Gazette* deserves consideration, viz., that public slaughter-houses should be provided in different parts of the country—at Cambridge, for instance, not far from the Eastern counties' farms—where animals could be killed without undergoing the fatigue and terrors incident upon their conveyance to London.

#### THE HEALTH OF WINDSOR.

WE note with satisfaction that during the last six months the death-rate of the borough of Windsor has been as low as 10·8 per 1000, and that during the month of September there has been no death within the borough from diarrhoea or any of the zymotic diseases. It is now some years since we felt it our duty to publish certain statements concerning the sanitary condition of the Royal borough—statements which were in the first instance denied and subsequently were the cause of an inquiry by the Local Government Board. The report of the inspector entrusted with this duty vindicated the accuracy of our statements; it is therefore with the more satisfaction that we are able to return to the subject and to give publicity to the low death-rate of which Windsor can now boast.

#### PERFECT COMBUSTION AND SMOKE PREVENTION.

THE system of firing which formed the subject of an investigation by THE LANCET Analytical Sanitary Commission in the early part of the year, a full account of which appeared in our issue of March 5th, 1892, was the subject of a demonstration on Tuesday last at 100, Shaftesbury-avenue. Amongst those present were Sir Frederick Abel, Mr. Alderman Hammond, J.P., Sir Guyer Hunter, Sir Nathaniel Barnaby, Sir E. Reed, Professor W. H. Robinson, Professor W. Corfield, Mr. H. S. Foster, M.P., Mr. Ernest Spencer, M.P., and the Mayor of Bradford. In addition to the ordinary kitchen range, which was the subject of our report, the same principle has now been successfully applied to fires for dwelling-rooms, steam boilers and destructors. In view of the comprehensive account already alluded to it is hardly necessary to describe the system further. Suffice it to say that the engineers and other experts present expressed their entire approval of the device. The stove burns the commonest kinds of coal, produces little or no soot, and is so constructed that the smoke first produced is forced to pass through an incandescent mass by which the temperature necessary for its complete destruction or combustion is attained.

#### INSANITARY HOUSES.

WE commented last week with some satisfaction on a heavy penalty imposed upon the owner of a house who had neglected to obey the order of a vestry requiring him to put it into a proper sanitary state of repair. We may now refer to the imposition of a penalty of £21 14s. upon the owner of six cottages in White-square, Clapham, for a similar offence. We are convinced that the punishment awarded by the magistrate in these cases will have a salutary influence upon the owners of other insanitary property. We have also before us the fact that the owner of a house in Harleyford-road, Kennington Oval, was fined for allowing the premises to be in a state dangerous to health. He had been unable to recover possession owing to a room in the house being occupied by a woman and her two children who would pay no rent, and who refused to go out. The windows and doors had been removed and eventually the sanitary authority had to intervene. An order was made for the closing of the house. Again, on Saturday last

Mr. Carttar held an inquest on the body of a boy who died at Diiston-road, Rotherhithe. He had been living in a house in St. Helena-road with his father and eight other members of the family, but, having got into arrears with their rent, the landlord, after warning the father, had taken off the doors and windows in order to force him to leave the premises, and as a result the deceased died from chill. A sadder story can scarcely be told. It is obvious if rent cannot be paid that the landlord is entitled to possession, but the law must be very faulty if there is no better way of evicting the tenant than the course adopted in the last two cases. It may be hoped that this occurrence will not pass unnoticed and that its repetition will be rendered impossible.

#### OVERCROWDING OF THE PROFESSION IN NAPLES.

ACCORDING to some statistics collected by the *Riforma Medica* the number of medical men in Italy is steadily and rapidly increasing, and the overcrowding is especially great in Naples, where there is one medical practitioner to every 513 inhabitants. Medical incomes are consequently diminishing, and are shown by the income-tax returns to be distinctly inferior to incomes earned by members of other liberal professions, as lawyers and engineers. The outlook is, according to the *Riforma Medica*, a very gloomy one for medical men, and it does not seem possible to doubt that their position will soon become decidedly worse than it is now.

#### THE NEW ENTRIES AT THE MEDICAL SCHOOLS.

IT is premature to draw conclusions as to the numbers commencing the study of medicine in the present year. So far as our returns go, in spite of the lengthened curriculum imposed by regulation of the General Medical Council, these numbers show an increase. Our readers may remember that last year there was a very considerable rise in the number of medical students registered during the year, a rush which was naturally attributed to the desire to get the advantage of the older and shorter curriculum. If the Scotch and Irish and other returns not yet to hand should show, as our present returns seem to do, a further rise, we shall have to seek another explanation. One thing seems clear: that that calamity once feared by Lord Playfair is not likely to be realised—a dearth in the supply of medical men.

#### TYPHOID FEVER ON SEWAGE FARMS.

IT is alleged that two boys, each aged sixteen years, have died of typhoid fever, contracted from working on the sewage farm of the Manchester Corporation at Carrington. This is a very serious allegation against the management of the farm, which will doubtless be fully met by the corporation. For the negative evidence on this point of the production of enteric fever from sewage farm effluvia is so strong, from the history of the Croydon, Edinburgh, and other farms, that, if the facts be true, a strong presumption against the farm is raised. In the meantime, another question crops up, as to whether boys of such age should be employed at all on a sewage farm; and whether, in view of enteric sewage being often dealt with on them, it would not be better to employ men of middle age for the purpose.

#### DINNER TO SIR WALTER FOSTER, M.P.

A DINNER, presided over by Dr. Withers Moore, President of the Council of the British Medical Association, and attended by a large gathering of leading members of the medical profession, was given on Wednesday evening last at the Hôtel Métropole to Sir Walter Foster, M.P., in honour of his appointment as Parliamentary Secretary to the Local Government Board. The chairman, in proposing Sir Walter Foster's health, congratulated him upon being the first member of the medical profession to be appointed

to a post in an English Government. In replying, Sir Walter Foster said he had held almost every office in the British Medical Association, and that it was in the Association that he received his chief training for public work. He believed that in the great problems with which the Government would have in the future to deal the coöperation of medical men as authorities on the laws of public health would be more and more required. Mr. H. H. Fowler, President of the Local Government Board, whose health was most enthusiastically drunk, referred to the number of medical men with whom that department had become officially associated as being between 4000 and 5000; that department had recognised the fact that the most valuable part of a man's property was his health, and the statistics of recent years showed a remarkable diminution in the death-rate.

#### BUCHANAN PRESENTATION FUND.

WE understand that a final meeting of the committee of the above fund is to be held on Thursday, November 3rd, at the residence of the treasurer, Dr. Bristowe. Any intending contributors to the fund should forward their subscriptions at once to one of the secretaries—Dr. W. H. Hamer, 73, Dartmouth-park-hill, N.; Dr. J. C. Thresh, The Limes, Chelmsford, Essex.

#### ALLEGATIONS AGAINST A MEDICAL OFFICER.

SERIOUS charges of neglect of duty have been made against one of the medical officers of the Birkenhead Union by certain of the guardians. He is accused of having neglected three cases that he was called upon to attend. The inquiry has been adjourned, when it is hoped that the officer will be able to exonerate himself from the charges made against him. In the meantime it would be premature to comment upon the case.

#### TOUCH AND TEMPERATURE SENSE.

AN interesting case, illustrating peculiarities in sensory perception, is recorded by Cavazzani and briefly mentioned in the *Neurologisches Centralblatt*. It is that of a patient whose median and ulnar nerves had been injured and then sutured. On testing the sensibility after this it was found that in certain areas where the temperature sense was retained there was no sensibility to ordinary impressions, and in other areas the converse was the case, thus giving support to Goldscheider's idea that the end-organs and conducting paths are different for the different kinds of sensibility. As, too, there were areas where only cold was perceived, while tactile and thermal impressions were not felt, it seems as if there were separate paths for heat and cold. It was also curious that a trial made when the patient was about to leave the hospital at a time when he was somewhat excited should have furnished results not quite the same as those obtained before—a change which is ascribed to the altered condition of the nervous centres due to the excitement.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Berlin*.—The Second Anatomical Institute is now finished. It is under the direction of Professor Hertwig and will be devoted mainly to microscopical anatomy and development. Dr. van Ackeron has left the Second Medical Clinic for Chicago and Dr. Vogel has been appointed to his post.

*Breslau*.—Dr. Beerwald has been appointed Oberarzt of the hospital in place of Professor Rosenbach, who has resigned.

*Innsbruck*.—Dr. Juffinger of Vienna has been appointed Honorary Lecturer in Laryngology and Rhinology.

*Moscow*.—Dr. Krinkoff has been appointed Extraordinary Professor of Ophthalmology.

*Tomsk*.—Dr. Barteneff of Kharkoff has been appointed Extraordinary Professor of Children's Diseases.

THE HODGKINS donation of £20,000 to the Royal Institution of Great Britain is, we understand, unfettered by any narrow restrictions. The utmost latitude in applying the interest accruing from it is left to the managers of the Institution, who will doubtless employ it in promoting those researches into the properties of liquid oxygen which have recently reflected renewed lustre on the laboratories in Albemarle-street. Impressed by the great scientific interest and practical importance of these researches the Goldsmiths' Company has contributed £1000 towards the expenses connected with them.

A LIVERY BANQUET was given by the Fishmongers' Company in their hall on Wednesday to a large number of the members of the medical profession. Among the guests were Sir J. Paget, Sir W. S. Savory, Surgeon-General Sir J. Fayer, Sir E. H. Sieveking, Sir J. Crichton Browne, Sir T. S. Wells, Surgeon-General Sir W. G. Hunter, Sir W. Roberts, Sir Dyce Duckworth, Sir G. Johnson and Mr. T. Bryant (President of the Royal College of Surgeons).

A PUBLIC BANQUET will be given to Alderman Joseph Ewart, M.D., Mayor of Brighton, on his formal re-election on Nov. 9th, in recognition of the able manner in which he has performed the responsible duties of his office during the past year.

AMONG the witnesses who gave evidence before the Royal Commission on Vaccination, which met for the first time after the recess on Wednesday last, were Dr. J. C. McVail and Mr. H. H. Sturge, M.R.C.S.

THE Doncaster Infirmary has received £25 from the Duke of Portland out of money charged to visitors to the Welbeck grounds.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### *The Work of the Past Collegiate Year.*

THE following summary of the work of the past Collegiate year (1891-92) at the Royal College of Surgeons is arranged under the headings of the Secretary's Report and the Report from the Council to the Meeting of Fellows and Members which is to be held on Thursday, Nov. 3rd, 1892, at 3 P.M.

### *Laboratories on the Embankment.*

The Council of the College approved in November the decisions of the Laboratories Committee that a short series of lectures should be given during the month of December, and that papers by workers in the laboratories should be allowed to appear in scientific journals with the approval of the Committee. During the year about forty-two applications were made for permission to work in the laboratories, and of these thirty were approved by the committee. Lectures were delivered by Dr. Sims Woodhead (the Director), Dr. Ruffer, and Dr. Wright in the theatre at the Examination Hall.

### *The Committee of Management and the Curriculum of Study.*

On June 17th, 1891, Dr. Mitchell Bruce submitted to the Royal College of Physicians, on behalf of the examiners in *materia medica*, a list of drugs contained in the Addendum to the British Pharmacopoeia, which they thought should be added to the schedule for the First Examination, Part II.; and the committee, having had the letter referred to it by the Royal College of Physicians on July 30th last for consideration and report, recommended that in view of the approaching extension of the curriculum of professional study from four to five years, and the consequent alteration and rearrangement of the subject, it was undesirable to make any addition to the schedule of drugs in use at the present time.

On Nov. 2nd, 1891, the committee considered the following rule relating to the conditions of admission to examination for diplomas in State Medicine adopted by the General Medical

Council on Nov. 25th, 1890, and referred to the committee for consideration and report by the Royal College of Physicians and by the Royal College of Surgeons on June 25th last:— "Every candidate shall have produced evidence that during a period of six months after obtaining a registrable qualification he either has practically studied the duties of out-door sanitary work under the medical officer of health of a county or large urban district, or else has himself held appointment as medical officer of health under conditions not requiring the possession of a special Sanitary diploma"—and recommended that such regulation be added to those at present in force for the diploma of Health for the two Royal Colleges. This recommendation was adopted by the Colleges. The scheme for the extension to five years of the curriculum of professional education for the diplomas of the two Colleges adopted last year by the two Colleges has undergone revision and has been published in THE LANCET.

### *New University for London.*

The action of the Council in regard to the proposed Gresham University was described in THE LANCET of Nov. 7th, 1891.

### *Army Medical Examinations.*

On Jan. 14th, 1892, a committee consisting of Sir William S. Savory, Bart., Sir William MacCormac and Mr. N. C. Macnamara, with the President and Vice-Presidents, was appointed to consider and report to the Council on a letter addressed to the President from Sir Ralph Thompson, K.C.B., requesting, by direction of the Secretary of State for War, to be favoured with the views of the President on the suggestions for the mode of conducting the competitive examinations for admission to the medical staff of the army, especially with regard to the following suggestions—viz. (a) That the examinations should be conducted by the joint board of the Royal Colleges of Physicians and Surgeons which examines candidates for entrance into the civil branch of the profession; or (b) that the appointment of examiners should be made on each occasion by the Royal Colleges.

A similar letter was received by the Royal College of Physicians, and a committee was also appointed by that College to consider the matter. The two committees having held separate meetings, and the result of their deliberations proving to be practically similar, subsequently met together and agreed upon a joint report to the two Colleges, in pursuance of which a reply was sent to the Secretary of State for War stating that the two Royal Colleges were willing to undertake the conduct of the examinations for admission to the Medical Department of the army subject to the following conditions—viz.: 1. That the examinations shall be under the control and management of a committee, to consist of representatives of the War Office, of the Royal College of Physicians and of the Royal College of Surgeons. 2. That the examiners shall be nominated by the committee and appointed for a definite period by the two Royal Colleges. 3. That every candidate shall be examined in each subject by two examiners in conjunction.

In the event of these conditions being accepted by the Secretary of State for War the Colleges further recommended that the committee referred to in condition No 1 should be at once appointed; and that it should be referred to such committee to draw up a scheme of examination for consideration by the War Office and by the Royal Colleges. No further communication has been received from the War Office on this subject.

### *Annual Meeting of Fellows and Members.—Steele v. Savory.—Further Advantages to Fellows.*

These topics have been fully dealt with in the pages of THE LANCET.

### *Miscellaneous Topics.*

Addresses of condolence on the occasion of the death of the Duke of Clarence and Avondale from the President, Vice-President and Council were drawn up and forwarded to the proper authorities for presentation to the Queen and to their Royal Highnesses the Prince and Princess of Wales. A vote of condolence with Mrs. John Wood and family was passed on Jan. 14th, when the decease of Mr. John Wood, F.R.S., was reported. A similar vote of condolence with Mrs. Hill and family was passed on the decease of Mr. Berkeley Hill. The death of Mr. Charles Hawkins elicited a unanimous expression of regret, which was sent to his sister, Miss Hawkins. The penalty of removal from the list of Members was inflicted on Caleb Charles Whiteford, convicted of a criminal offence, and on Michael Perry, of Sydney, N.S.W., for continuing to issue his unprofessional

advertisements, notwithstanding his statutory declaration that he would discontinue them.

At the quarterly meeting of the Council in July Mr. Howard Marsh and Mr. John Tweedy were admitted members of the Council. Mr. Thomas Bryant was re-elected President, and Mr. Arthur Durham and Mr. Christopher Heath were elected Vice-Presidents for the ensuing year.

#### *Library.*

Considerable progress has been made with the new catalogue; as far as finished it is available for use by readers. The library was open on 263 days during the past year, as against 277 in the previous year; the extra closing was rendered necessary by the drainage works carried out during the summer. The number of readers for the year was 9787.

*Fellows and Members.—Examinations.—Board of Examiners.*

*Finances.—Income and Expenditure of the College.*

Full information will be found in the Special Article, Calendar of the Royal College of Surgeons.

The report of the Council brings into prominence the following facts with reference to finance.

#### *Income.*

The total income of the College for the past year exceeds that of the previous year by £438. This difference is due to the increase in the amount of the fees received for the several examinations, the total gain under this head being £881 17s. The dental examination fees have increased nearly £100, but the gain is chiefly made on the examinations for the diploma of Member. In the case of the examinations for the Fellowship there is, however, a decrease of £171 5s. In most other cases the receipts are slightly smaller. The incidental receipts both at the College and from the Combined Examining Board are rather smaller, and the receipts from house property are also less, owing to a change of tenants and readjustment of rents at No. 37, Lincoln's-inn-fields. The income from dividends and stocks and shares has been reduced to the extent of £228 5s. 6d. by the sale of stock.

#### *Expenditure.*

The total expenditure, exclusive of that on buildings, is within a few pounds the same as that of last year, and on being deducted from the total income leaves a balance of £450. This sum would, however, have been considerably larger if it had not been for the unusual amount of nearly £2000 disbursed this year under the head of Extraordinary Expenditure, including the cost of a conversatione, furniture and fittings, and part of the outlay on extensive alterations to the drainage of the College buildings. With regard to the standing or ordinary expenses there is no very marked difference from those of the previous year. The total sum expended on examiners' fees is, of course, larger in proportion to the increase in the amount received from examination fees. The expenditure at the Examination Hall is almost the same, while that for the laboratories is £300 less—a smaller amount, as was anticipated, having been spent on furniture and fittings. The expenditure on the laboratories is, however, still £100 in excess of the sum estimated before their institution as the amount of probable annual expenditure. In the general working expenses of the College there is an increase of £650, chiefly due to alterations and repairs in the museums and at 44, Lincoln's-inn-fields. The special expenses of the museum are about £300 heavier this year, this being due to payments for catalogues, and the expenses of the library remain about the same. The extraordinary expenditure on buildings &c. amounts to £10,209, on the extension of the College premises, and to £1000 on the extension of the Examination Hall buildings, and to meet this it has been necessary to sell out £12,000 stock. The contracts for these works have now been completed, and the College has no further liability in this respect.

#### *Probable Income and Expenditure.*

Assuming that the examination fees remain about the same as in the last year, the income of the College will probably be about £200 less, owing to the loss of dividends by the sale of stock. On the other hand, the total expenditure should also be about £500 less, as the expenditure on fees to the Court of Examiners, on alterations and repairs, on law expenses and on museum catalogues, will probably be smaller than in the previous year. This would leave a balance of £750. As in the last year, there will be heavy expenses beyond the standing or ordinary expenses, the chief of these being a further payment of about £1300 on the drainage

works, and this consequently makes the balance on the revenue account appear somewhat small.

#### *Obituary.*

The list of Fellows and Members contained in the report of the Council whose deaths have been reported as having taken place during the year includes the names of 44 Fellows and 298 Members.

#### THE REPORT OF THE COUNCIL.

The report of the Council of the Royal College of Surgeons of England for the collegiate year 1891-92, which has just been issued and will be presented to the annual meeting of Fellows and Members on Nov. 3rd, follows the lines of the report last year. The matter is arranged under the sixteen headings following: the Curriculum of Study, New University for London, Army Medical Examinations, Annual Meeting of Fellows and Members, Steele v. Savory, Further Advantages to Fellows, Removal of Members, Elections, Museum, Library, Finance, the Laboratories on the Embankment, Lectures, Returns of the Results of Professional Examinations, Statement of Receipts and Expenditure, the three last being contained in the Appendix. The most notable improvement in this report is the substitution of an abstract of each course of lectures delivered at the College, supplied by the lecturer himself, for the stereotyped syllabus, and the most notable difference between the secretary's report in the Calendar and the Council's report is that in the former there is a full shorthand report of the trial Steele v. Savory, whilst in the latter only Mr. Justice Romer's judgment is inserted. It may be interesting to state that the total costs of the College in the action amounted to £1216 13s. 4d., and in Tait v. Savory to £48 3s. 2d. The sum of £43 14s. 4d. was received from the plaintiff in Tait v. Savory, and the taxing master's certificate for the taxed costs in Steele v. Savory amounting in all to £722 14s. 4d. was obtained. The sum of £360 has been paid on account of the taxed costs in Steele v. Savory, and promissory notes have been given by Dr. Danford Thomas for the balance of the taxed costs payable at four and eight months from June 2nd, 1892. The benefit to the cause of constitutional progress resulting from the settlement of the action is exemplified in the section relating to further advantages to Fellows. The Fellows and Members have gained a common room at the College, and the principle of calling the Fellows together separately from the Members for consultative purposes has been established. The first meeting of the Fellows was held on July 7th, and the report naïvely states: "No special subjects were announced for consideration, the object of the meeting being to afford the Fellows an opportunity of expressing their views on any points they might wish to bring forward." This statement is remarkable, because when notices of the meeting were sent out no kind of intimation of this object was vouchsafed. The Fellows were merely invited to meet the Council, and, as occurred at the celebrated meeting at Ephesus, the most part of those assembled knew not wherefore they were come together. The idea of withholding the statement of the object of the meeting in the summons and describing it some months later in the Council's report is singularly collegiate.

Notwithstanding the inclination which has been shown by the Council to advance, it must be obvious to all that, if any substantial concessions are to be obtained, the Fellows and Members will be obliged to continue to press upon the Council those points of reform in which they may be unitedly or severally interested; and it is for the Association of Fellows and the Association of Members to take care that the present opportunity shall be properly utilised. It ought not to be forgotten that the annual general meeting of Fellows and Members has narrowly escaped abolition during the past year owing to the effervescence of reformers last November, when the near approach of the action Steele v. Savory and too sanguine anticipations of victory disturbed the balance of some of the more eager disputants. That no similar error will be committed this year we are well assured, and the danger is that reaction will produce an apathy and want of life and interest in the proceedings which may be cited as evidence of the inutility of the annual general meeting. The finances of the College do not wear an altogether satisfactory aspect. There is, it is true, a balance of £450 in respect of revenue over expenditure, but the extraordinary expenditure of £11,209 for extension of the College premises and the Examination Hall buildings has necessitated a sale of £12,000 worth of stock. The contracts for these works have now been completed, and the College has no further liability in that respect. There will be, however, a

further payment of about £1300 to be made for drainage works, and it is very doubtful whether the possible balance of £750 which is expected next year will be realised. Owing to the loss of dividends by the sale of stock the income will be so far less by £200, and just as it is the unexpected which happens, so extraordinary expenditure may ordinarily be looked for. In our article on the finances of the College published in February we contended that the present expenditure at the College ought to be reduced so as to ensure a margin sufficient to admit of a substantial annual investment for the purpose of bringing up the fixed income to a level with necessary expenditure. If this were done the College would be less dependent upon the fluctuating receipts derived from examinations, and the finances would be placed in a far healthier condition.

## INTERNATIONAL MONUMENT TO SEMMELWEIS.

A SPECIAL MEETING of the profession in aid of the movement now on foot to erect an international memorial to Dr. Ignatius Philippus Semmelweis in his native city of Budapest took place in the library of the Royal College of Physicians on the afternoon of the 24th inst., Sir Andrew Clark, Bart., President of the College, in the chair. Dr. Cullingworth, one of the honorary secretaries, read a number of letters expressing sympathy with the object of the meeting, and regretting inability to be present. These included, amongst others, messages from Sir James Paget, Sir Joseph Lister, Sir Richard Quain, Professor Simpson of Edinburgh, and Dr. J. W. Byers of Belfast. The meeting was open to all the members of the profession, and amongst those present were Sir Spencer Wells, Dr. Routh (who first brought Semmelweis's discoveries before the profession in this country), Dr. Duka (a fellow-countryman of Semmelweis), Dr. Watt Black, President of the Obstetrical Society, &c.

Sir ANDREW CLARK, in taking the chair, said: The story of the circumstances which have brought us together this afternoon is, I think, one of the most interesting and most instructive and one of the most touching and most inspiring that I have ever read. I venture to think that perhaps nowhere else than here, where traditions of self-sacrifice in the service of truth abound, could such a history be better told. I presume that all here are so well acquainted with Semmelweis's history that it is unnecessary for me to enter upon it now, or to occupy your time in dwelling on the points in that life story which have made it famous in the whole history of science. Instead of that I shall ask Sir Spencer Wells to move the first resolution. He will have the opportunity of recalling to the minds of those present at this meeting those points in that history which make it so exemplary to us all.

In proposing the first resolution, "That the project of erecting a monument to Semmelweis by international subscription deserves the support of the medical profession of Great Britain and Ireland," Sir SPENCER WELLS said: This movement will derive importance from being held here. I need hardly ask why it deserves our support, because the work done by Semmelweis is honourable to us all, to the whole profession, not only in his country but in our own and in all the world; because all have a pleasure in giving credit to all true workers who have done good to mankind, who have studied the causes of disease and sought out how diseases could be prevented and human life could be saved. Semmelweis has done this, and the influence he has exerted is honourable to us all and of immense benefit to our patients. He deserves a monument, and we honour ourselves by supporting the project of his fellow-countrymen. After fifty years—when his chief work was done—he has been partly forgotten and never sufficiently known or appreciated here. In 1849 Dr. Routh first brought before the profession the work of Semmelweis by reading a paper to the Royal Medical and Chirurgical Society on Endemic Puerperal Fever in Vienna. Semmelweis demonstrated that puerperal fever was due to inoculation, to the direct application of poisonous matter to the vagina, and that the poison—such as organic matter below the nails or in the epidermis on the examining fingers of the students and doctors who had been engaged in anatomical or pathological investigations—so communicated was the cause of the malady,

and that women attended by those operators were attacked, whilst those patients escaped who were attended by midwives not so occupied.

Dr. DUKA, in seconding the resolution, said: I feel deeply honoured by having been charged to second the resolution so ably and most kindly proposed by Sir Spencer Wells. I am unable to speak as I should wish on the merits of the man whose memory his professional brethren of a later generation are here assembled to honour, nor of the details of his work which gave him most justly the appellation of the "Father of Antiseptic Midwifery;" his struggles in the service of humanity and the touching incidents of his melancholy end at the age of forty-seven I refrain from dwelling upon. Semmelweis was a countryman of mine, and as I have been for some months past in correspondence on the subject with our professional brethren in Hungary I am enabled to give some account of the origin of the movement, the object of which is to erect a statue to Semmelweis by international subscription at Budapest. Semmelweis died in 1865 at Vienna, and was buried there a quarter of a century after—namely, in April, 1890—at the instance of relatives. His remains were transferred to Budapest and reinterred in a spot specially designated by the authorities of his native city. The solemn rite was performed amid manifestations of universal sympathy and respect. Following that solemn occasion the idea of a permanent public memorial was mooted, and in consequence of it the professors of the University conjointly, with certain members of the Medical Society of Budapest, formed a committee to take the necessary steps in the matter. Thus the Central Committee of the Semmelweis International Monument was constituted, with Dr. Késmarszky, professor of gynecology, as its president. From that body emanated the letter addressed to Sir Spencer Wells, who, with his usual kindness and devotion, aided by the *ad interim* committee, and particularly by Drs. Cullingworth and Boxall, successfully paved the way for this meeting of the profession under the distinguished chairmanship of the President of the Royal College of Physicians. I am commissioned by the Central Committee at Budapest to express deeply felt gratitude for the countenance and patronage given to this movement in this country. The Committee are issuing special invitations to the profession throughout the civilised world, except to the United Kingdom, India and our colonies, which are to be left to be dealt with by the British Committee. They furthermore hope that when the next International Congress of Hygiene meets at Budapest in 1894 they will be in a position to submit to the subscribers at large the final plans of the undertaking. The Central Committee hope also that they may look with confidence to their professional brethren in the United Kingdom for sympathy and substantial support, knowing their humane and generous feelings. If there should be any who are insufficiently informed on the subject as to the great work Semmelweis has done for suffering humanity, I venture to submit the testimony of two authorities whose judgment no one can call in question. Sir Andrew Clark, in a letter to me in 1888, wrote, in acknowledging my pamphlet on Semmelweis: "The story is at once interesting, instructive and touching, and you have told it with grace and sympathy. It seems inexpressibly sad that one who rendered so great a service to mankind was not spared to find his services acknowledged and his work crowned with a great and growing success." The late Dr. Matthews Duncan, in the same connexion, said: "Thanks for your little book to the glory of Semmelweis. I have lived through it all, and never doubted his great merits. It will do good to spread his name." I beg formally to second the resolution.

Dr. ROUTH, in supporting the resolution, said that he had had the honour of communicating to his brethren in this country the first fruits of Semmelweis's labours. In looking back to his student days he remembered the man, full of intelligence, full of intense sympathy, never allowing anything to interfere with his duties.

Sir ANDREW CLARK, before putting the resolution to the meeting, remarked that there were three qualities about the man himself which had not been noted. First, there was that great quality of scientific instinct; that remarkable quality, secondly, of moral heroism; and thirdly, the question of his martyrdom, for a true martyrdom it was. As to his scientific instinct, he made the resolution to discover the cause of childbed fever or die. He took up theory after theory, and, in spite of all the difficulties in his story, he continued his work with a patience, a self-denial

and self-effacement rarely seen. It touches one not only on account of the perseverance with which he followed his scientific instinct, but also because of the success by which, through the accident of his friend Kolletschka's death, it was crowned. The question and details of the friend's death he spent weeks and months in studying, and thus made his first discovery and bit by bit got out the light until it flooded him entirely. He discovered that it was dead matter carried under the nails of the students; but this did not explain the whole of the questions. He made the second discovery, that it was living matter in a state of septic change. Still he was not satisfied, but by further investigation he came to the conclusion of the autogenetic infection. There are few such parallels in the history of science. In regard to his tremendous moral heroism, in spite of every conceivable difficulty, in positions of misrepresentation, in spite of persecution, he continued his labours until crowned with a full clearing up of the difficulties. As to his martyrdom, there is not such a history. The persecution to which he was exposed in the later years of his stay in Vienna, his being hounded out of Vienna and settling in Budapest, and his premature end in loss of reason, form indeed a sad story and one of the highest examples that can be presented. I most warmly concur in the movement and feel constrained to do everything in my power to assist its promotion.

The resolution was carried unanimously.

The second resolution, "That India and the English-speaking colonies be invited to coöperate with this country," was proposed by Dr. PRIESTLEY. In doing so he said that no better illustration of the saying that the good a man does lives after him could be seen than in the result of the discoveries of Semmelweis.

Dr. GLOVER had the greatest possible pleasure in seconding the resolution and taking part in such a movement. He could imagine nothing more fit than the use of the College of Physicians for the purpose of the meeting, and nothing more worthy of the President's power of exposition than the careful definition of Semmelweis's work and his high eulogy of it. What could be more meritorious than a discovery, however simple, that reduced so hugely the mortality and the sufferings of lying-in women? Next to the great human interest of the question was its deep professional interest, especially to general practitioners, who were brought into closest touch with those for whose benefit Semmelweis had laboured. By demonstrating the way in which the practitioner can avoid the risk of conveying puerperal poisons Semmelweis and his antiseptic followers had added immensely to the happiness of general practitioners. He sincerely trusted that the great body of practitioners whom he had the honour to represent would do their part in raising a lasting, if a late, monument to the genius and the merit of the much decried Viennese professor; and also that the committee would be able to devise some means of appealing effectually to the practitioners in India and the colonies.

Dr. WATT BLACK proposed the third resolution—viz.: "That the maximum subscription be one guinea." Hitherto, he said, there had been unanimity in the meeting, but in reference to the subscriptions the committee, after discussion, had come to the conclusion that it be limited to one guinea.

Dr. A. WALLACE, in seconding this resolution, said that he considered that Dr. Glover had struck the note which had determined the committee to make a limitation of the subscription, for it was to the rank and file of the profession they must appeal for this noble cause. He was second to no one present in his admiration and appreciation of Semmelweis, for as a practitioner of obstetrics and a former teacher, he had long ago learned to realise the value of Semmelweis's discovery. As a junior student in the Royal Infirmary of Glasgow he was privileged to watch the early experiments of Lister in antiseptics, and the exercise of that same spirit, so beautifully put by Sir Andrew Clark, of the scientific instinct. The labours of these two men, though quite independent, were naturally associated in his mind.

The fourth resolution, proposed by Mrs. GARRETT ANDERSON and seconded by Dr. GRAYLY HEWITT, was to the following effect:—"That the carrying out of the above resolutions be relegated to a professional committee, with power to add to their number, with Sir Spencer Wells as chairman, Dr. Cullingworth honorary treasurer, and Dr. Boxall honorary secretary."

A vote of thanks to Sir Andrew Clark for his able conduct in the chair was felicitously proposed by Dr. Cullingworth, and the meeting separated.

## CHOLERA.

### CURRENT NOTES, COMMENTS AND CRITICISM.

THIS disease, although it has greatly abated, still continues to prevail in many places and to linger in others where it had manifested itself with more or less intensity during the autumn months. It is not so much the number of cases at any given place as the occurrence of a small number of attacks at so many different localities widely separated from one another that is so significant, for this serves to indicate how widely distributed the disease-cause is. In the case of a malady like cholera it unfortunately happens that the time of its distribution is not necessarily the season of its epidemic manifestation; the seed-time and harvest-time do not always follow one another closely. At Hamburg the official statistics of the disease for the last nine weeks since its first appearance in the city show that 17,989 persons were attacked, of whom 8261 died. The latest accounts report seven fresh cases and two deaths for the 26th inst. There still remain in the hospitals under treatment more than 400 cases. It is stated that the outbreak of epidemic cholera having subsided at Hamburg, the immigration of pauper aliens—mainly Russian and Polish Jews—into England has already recommenced. If this be so, it is to be regretted, we think, for with the winter before us any addition to our east end of London population can only tend to increase the poverty, overcrowding and disease already prevalent there. Fresh cases of cholera are reported from Amsterdam, Rotterdam, Huysen, Kondekerk, Utrecht and Semlin. Twenty-one deaths occurred in Holland during the past week. From St. Petersburg we learn that cholera has disappeared from Astrakhan. Since the outbreak of the epidemic there have been 125,000 cases of cholera and 65,000 deaths in the Caucasus, nearly 31,000 cases and over 11,000 deaths in the province of Saratoff, while at St. Petersburg the total number of cases has been 3300, with about 1150 deaths. At Warsaw 20 deaths have occurred from cholera, which broke out in that city from two to three weeks ago. At Budapest the disease continues, fresh attacks occurring daily, but the numbers seized and the fatal cases are diminishing. There were 23 cases and 11 deaths at Budapest from cholera on the 26th inst. The disease has reached Vienna, after having previously prevailed for some weeks in Galicia and Hungary. One fatal case occurred in Vienna on the 23rd, and another on the 24th inst., followed by a few other cases of cholera. There seems to be some difference of opinion as to the origin of these cases. By some they are attributed to the drinking of water from the river Danube, by others the disease is supposed to have been introduced by bales of rags from Budapest, but the assigned causes are purely conjectural, and rest on no scientific basis or real investigation of the facts. There have been other suspicious cases in Vienna, but the disease is not epidemic and has not given rise to any alarm. As regards France, there have been a few fatal cases at Marseilles during the week. The presence of cholera at Calais is officially announced; there have been 3 cases and 1 death in the town and 5 cases and 3 deaths in the neighbouring village of Barrate. It is alleged that at the present time there are several cases in the town, and the authorities are adopting very energetic measures. The disease is supposed to have been imported from the fishing village of Le Portel, near Boulogne. According to a report laid before the Hygienic Committee at Paris there were 90 deaths from choleraic disease in various parts of France from the 16th to the 22nd October. Of these, 9 were reported in Paris, 7 at Havre, and 33 at Marseilles. An important debate took place at the opening of the sitting in the Chamber on M. Raspail's presenting a Bill for the construction of a sewage canal from Paris to the sea, at which M. Proust, the Government Commissary, made a long speech in which he defended the present system. M. Proust rejected the idea of a canal carrying all the sewage water direct to the sea, and pointed out that the parallel currents in the English Channel would throw back all the filth on to the shore and contaminate the coast for a long distance. He alluded to the diminished violence of the different cholera epidemics from 1832 to that of 1892 and

considered the improvement was due to the improved sanitary arrangements. The best plan of disinfecting the river Seine was to increase the number of sewage farms in the direction of the sea. M. Raspail's Bill was rejected by the Chamber.

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### VISIT TO HAVRE.—PART II.

WASHERWOMEN AND THE DISINFECTING OF ALL LINEN.—THE DISTRESS.—POOR RELIEF AS A PROPHEXY.—MEASURE.—THE HAVRE SANATORIUM.—THE WATER-SUPPLY AND THE SHIPPING.

It has already been explained with what energy the authorities at Havre proceeded to isolate the sick and to disinfect their premises. So much energy was shown that in some cases patients were removed to the hospital and the premises they occupied were disinfected, though the occupants were not suffering from cholera. At my hotel, for instance, the servant, being overworked, was suffering from nervous exhaustion. Neighbours noticed that she had not been seen for two days, and rumours of cholera soon began to circulate. The young woman was therefore conveyed to the cholera wards of the hospital. There had been no vomiting and she was suffering from constipation. The attendants applied hot frictions, though she did not feel cold. Of course the mistake was soon discovered and the patient removed from the cholera wards. The incident proves that, if anything, the authorities sinned by excessive zeal. But for the first cases no such zeal was displayed, and it is now impossible to trace the cause of the spread of the disease. The woman who was taken ill on July 5th carefully concealed the fact that she came from the infected suburbs of Paris. Also it was not generally known that cholera prevailed in the neighbourhood of Paris, therefore no special precautions were taken. It was much later, and when the epidemic had already developed, that the first patient stated she had been to Courbevoie, but she could not remember where she had sent her soiled linen to be washed. The same uncertainty exists with regard to the second case, which occurred on July 13th and not far from the first case. It was only when a death occurred on July 15th—and this was the fourth case of cholera—that any precautions were adopted. This is the only explanation as yet forthcoming. To this early neglect is attributed the easy spread of the epidemic. If the epidemic spread easily it was also checked with comparative facility when once the sanitary service was thoroughly organised. I have already described at some length the measures taken, but there still remain in this respect some important facts to be recorded.

Havre was not the only town contaminated. Cases of cholera occurred in a number of surrounding towns and villages and it was noticed that washerwomen especially fell victims to the malady. Thereupon the mayors of the neighbourhoods where linen from Havre was brought to be washed adopted a very energetic measure. They decreed that no linen should be brought on the territory of their respective communes unless such linen had been previously disinfected by steam superheated under pressure. All the linen—not the infected linen, but all the linen now given to a washerwoman—is first taken to a disinfecting stove, and it is only when a ticket is attached to the linen notifying that it has been properly disinfected that the washerwoman is allowed to take it out of the town and wash it. Since this rule was enforced not a single case of cholera has occurred in the neighbourhoods near Havre where washerwomen live, though, as already stated, there were numerous cases before the linen was disinfected. The Minister of the Interior has taken similar precautions against Havre with a view to protecting the rest of France. A doctor is on duty at the railway station; he watches the passengers who are about to start; he has the power to prevent anyone leaving Havre who may appear to be ill. Of course persons who are ill do not generally travel, so that I do not believe anyone has been stopped. A great many passengers, however, have had to open their trunks, and if they had soiled linen it has been detained and disinfected. The doctor on duty has a list of all the addresses where cases of cholera have occurred, and asks the passengers where they come from. If they come from a house known

to have been infected the medical inspector proceeds to a more rigorous examination of their luggage. As a rule this service has been carried out with the greatest leniency, and many passengers are not even aware that they are the subjects of special observation. In other instances the linen is merely sprinkled over with the spray of sublimate used for disinfecting rooms. This latter process seems to be a most futile proceeding. The sort of pump used is very powerful; it sends forth a spray with great force, and doubtless, when brought to bear upon a surface, the disinfection of that surface is complete; but a bundle of soiled linen cannot be thus disinfected. Each article would require to be spread out, and this cannot be done in a railway station and during the few minutes there may be to spare before the departure of the train. On the whole this watch established over travellers who leave Havre is not likely to have rendered very great service, except in an indirect manner.

It is probable that the town of Havre has lost something like two millions sterling through the cholera epidemic. Dockers, labourers and others at Havre were thrown out of employment and thronged to the Hôtel de Ville. They crowded the corridors and the passages, clamoured at the gates, gathered in crowds on the open space before the municipal buildings. The position was critical. All the troops generally garrisoned at Havre were away at the grand annual manoeuvres. In the crowd there were a great number of women and children, who shrilly clamoured for food. Others were weeping, and not a few by their dignified yet distressed attitude clearly denoted that they were honest, hard-working people. It was impossible to refuse relief. There is a municipal bakery at Havre as at Paris. Tickets for bread at the municipal bakery were freely distributed. Then tickets for soup were also given. Apart from local resources the municipality received £6000 from the Government for the relief of the distress. When this became known every touter, every beggar, every impostor came pouring into the town from many miles round. When they obtained tickets for bread they handed them over instead of cash to the keepers of low dram shops. The latter obtained in exchange either money or bread from the bakers, who, in their turn, were reimbursed in cash by the municipality. Thus a good many tickets given for bread were in reality spent in drink. During the month of September the sum spent in giving tickets for soup, bread &c. amounted to about £80 per day. Now that the distress is not so widespread and that impostors have been discovered and dismissed the cost does not exceed £44 per day. Apart from this, a public subscription has yielded a sum of £8000, which for the most part is being spent to help the families of those who have died from cholera. All these difficulties with regard to the relief of the poor are important questions which have a very practical bearing in dealing with an epidemic. It is very certain that if a large section of the population had been left to starve the epidemic could not have been checked in so short a time.

In one respect the municipality of Havre has fallen short of what might have been expected. Great difficulties in dealing with the epidemic arise from the dirty habits of the people. The Normans are comparatively clean, but there is a colony of some 12,000 Bretons at Havre. They are for the most part navvies and labourers who came from the neighbouring province of Brittany when the docks were being constructed. They were followed by their families and have remained here ever since. They are notoriously the most obstinate and ignorant population of France. A great many of these people have been recipients of relief, and the assistance thus given might have served as an object lesson in cleanliness. It would not have cost much more to engage the services of one or two extra helpers to keep the place scrupulously clean, to establish a lavatory and to insist on personal cleanliness.

At the sanatorium matters were better managed. The Chambers of Commerce lent the town one of the handsome iron dock sheds. This fine structure measures 100 metres in length, 22 metres in width and is 17 metres high. Here were sent the inhabitants of houses that were being disinfected. On entering each person was placed in a bathing machine, which had been brought up from the beach for this purpose, and was made to undress and to wash. The clothes were taken away and disinfected, new clothes being lent and very often given in their stead. With a rough wooden framework and some canvas the floor of the shed was partitioned off and divided into rooms, small and large, so that families might be

separated one from the other and a certain amount of privacy might be maintained. At one end of the shed there was an oven, and here meals were cooked; at the other end a separate partition was called the infirmary, and here those who were taken ill could be kept apart till the hospital ambulance came to fetch them. This sanatorium was opened on Sept. 5th and closed a few days ago. In all 296 persons slept there, and the greatest number present at any one time was eighty-six. It has been calculated that the cost for food &c. amounted to 1s. 3d. per day per head. It was difficult to persuade the people to leave their homes and go to the sanatorium, but when once there it was still more difficult to get them to return to their homes. All the inmates having come from houses infected with cholera, it was natural to expect that some among them were in the period of incubation. This expectation was realised in six instances. It is very important to note that all these six cases occurred within two days of their arrival at the sanatorium. In no case did the period of incubation last beyond two days. This experience is of course of too limited a character to enable any conclusions to be drawn, but it should be compared with what has been noted elsewhere under similar circumstances. Already the French authorities are convinced that the period of incubation for cholera does not extend beyond five days.

In coping with the cholera epidemic the authorities at Havre have possessed the inestimable advantage of a good supply of pure spring water. Formerly there was a private company which had the monopoly of the water-supply, but it was felt that the private interests of the company might clash with public interests, and in the spring of 1884 the town bought all the rights of the company, which had been conceded for a period of ninety-nine years. It was agreed that the town should pay to the company for the seventy-one years that still remained to complete the term of the concession the subscription for water which the company was receiving. The value was calculated on the average of the previous six years and amounted to the sum of £15,000 per annum. This is a very heavy tax on the town, but the number of subscribers to the water-supply have now increased and the receipts for the year 1891 were equal to £17,840. More important far than this profit of close on £3000 in the year is the fact that water is much more widely distributed.

Leaving aside for the moment the question of the water that may be required for the purposes of drainage, the most important consideration is that at Havre no other water is available save that given by the town. In most of the places I have so far visited there were by the side of the town water-supply, which was generally pure, any number of private wells or rain-water cisterns where the water was anything but pure. The danger has arisen from the fact that in many circumstances it is not possible to ascertain whether the water used came from the public supply or from some private source. At Havre this danger does not exist. Nearly all the water is taken at the source of the St. Laurent and brought to Havre in a closed aqueduct. This water is hard but pure, and the yield is 21,000 cubic metres per day. From five other and nearer springs 2500 cubic metres more of water are secured and brought to Havre. At first it was thought that the cholera was due to the contamination of one of these minor springs, but on analysis it was shown that the water was only a little harder than that of the St. Laurent. Also, and this is more to the point, the district to the north-east of Havre supplied by these minor springs is almost entirely exempt from cholera. As for the water of the St. Laurent, it was drunk equally in the districts where there were the greatest number of cases of cholera and in the districts totally exempt from the disease. Under these circumstances the water-supply of Havre cannot be regarded as a factor in the spread of the epidemic; and by and by I shall have an opportunity of showing that this is the case not only in respect to the cholera, but also to other diseases, notably typhoid fever.

As Havre is the second seaport town of France, and, in normal times, a large number of ocean-going passenger-ships leave this port, it is a matter of international interest that these ships should have on board pure water. The water on board ships, as well as the passengers the ships carry, may be a means of spreading disease. But it is not necessary to point out how essential it is that only the purest water should be used during a sea journey. The fact now to be noticed is that at Havre, where so many sanitary defects exist, there is at least this one great advantage—a supply of water free from contamination, and there is no other and less pure source

at hand. Thus there is no danger that through ignorance, carelessness or for motives of economy impure water should be given instead of the spring water provided by the town.

Havre, Oct. 23rd.

#### CHOLERA IN AUSTRIA-HUNGARY.

The first case of cholera occurred in Vienna on Oct. 21st, when a coachman who was working on the Danube embankment was taken ill with symptoms of acute gastro-enteritis and was brought to the hospital for epidemic disease, where he died on the 26th. The bacteriological examination made by Professor Weichselbaum proved the presence of cholera bacilli and at the post-mortem examination the case was declared to be one of cholera Asiatica. In this case the patient had drunk large quantities of Danube water before his admission to the hospital, and it is believed that the infection may have been due to this influence. Fortunately the population of Vienna has not to rely on the drinking of Danube water, which would prove by this fact to be a source of cholera infection, and the navigation on the Danube will be stopped this week to prevent dangers arising from this side; but there are so many industrial and trading establishments situated on the embankments of the Danube that sporadic cases of cholera may be expected to occur there. Two other cases of suspected cholera were also brought to the hospital for epidemic diseases on Tuesday, but the bacteriological examinations have not yet been concluded. In one of the suburbs of Cracow Piaskiwickje, 12 cases of cholera have occurred during the last week, and sporadic cases were observed in some of the Polish villages near Cracow. At Budapest cholera showed the same morbidity and mortality as in the previous weeks, and 20 to 25 cases with 12 to 18 deaths are reported there daily; and at least 50 cases are occurring daily in the different towns and villages which have been infected already from the capital. Southwards it has reached Semlin, the town opposite to Belgrade; eastwards Temesvar, and northwards Pressburg. Two sporadic cases of cholera have occurred in Bohemia, both having been reported from Germana and Galicia. Three suspected cases have occurred at Pettau (Styria). It seems also that the germs of the disease are widely dispersed in the water of the rivers, and a Cracow physician was able to get cultures of comma bacilli out of the water of the Vistula river far away from Cracow. One of the most recent discoveries relating to the bacteriology of cholera, made some time ago by Professor Hueppe of Prague and his assistant, Dr. Scholl, has been disproved here by the experiments made by Professor Max Gruber of Vienna. Professor Hueppe had made cultures of the cholera microbes in hens' eggs, which were closed after their inoculation with the bacilli and exposed to the heat of the incubator; and he had maintained that by intra-peritoneal injection of the cultures thus obtained from the egg albumen all the characteristic symptoms of cholera could be obtained. Dr. Scholl then tried to separate the poisonous principle produced by the action of the bacilli in the egg albumen by treating it with water and alcohol. He obtained an aqueous extract which when injected into the peritoneum of animals produced severe symptoms of poisoning, especially paralysis of the muscles. But he had omitted to make control experiments with fresh, not infected, pure egg albumen treated in the same way. These control experiments have now been made here by Professor Gruber, and proved that by the method of Dr. Scholl a highly poisonous albuminoid body could be obtained even from perfectly fresh egg albumen.

**THE ROYAL BRITISH NURSES' ASSOCIATION.**—Sir William Savory presided at a meeting of the council of this Association on the 21st inst., at 20, Hanover-square. Princess Christian was also present. After the presentation of the report of the executive committee Dr. Bedford Fenwick briefly narrated the history of the labours of Miss Kate Marsden among the lepers of Siberia, and announced that the council had decided to bestow upon that lady the silver medal of the Society. The decoration was then pinned by Her Royal Highness upon the breast of the recipient of the honour, and the Princess read a statement expressive of her gratification that two of the members of the Society, Misses Annésley and Henrietta Kenealy, had distinguished themselves by the efforts they had put forth on behalf of the sufferers from cholera at Hamburg.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5.30 P.M. on Oct. 20th, 1892, at 36, Grosvenor-street, Mr. George Pollock, President, in the chair. There was a very full attendance. Letters of regret at inability to be present were read from Mr. Mayo Robson, Mr. Purnell, Mr. Vincent Bell, Dr. W. J. Collins and Mr. A. T. Norton. The minutes of the previous meeting, which had been held over for confirmation, in order to allow of the entry of important letters referring to certain matters at issue between the Association and an official of the Royal College of Surgeons, were read and confirmed. At the previous meeting a subcommittee, consisting of the President, Mr. T. Holmes, Mr. John Tweedy and the honorary secretary, was appointed to draft a reply to statements made by the gentleman referred to in substantiation of allegations reflecting upon the accuracy of documents issued by the Association. The subcommittee met on Oct. 15th and now presented the draft reply. This reply was considered clause by clause, carefully revised and unanimously passed. The honorary secretary was directed to have it type-written in the amended form and forwarded without delay to the official of the College. The Committee sat till 7 P.M., when it adjourned, there being no time for further business.

## THE LATE SUPERINTENDENT OF THE ROYAL INFIRMARY, EDINBURGH: DEPUTY-SURGEON-GENERAL FASSON.

THE Army Medical Department may well feel proud of the late Deputy-Surgeon-General Fasson, who received his training in the Army Medical Service.

At the meeting of the Board of Managers of the Edinburgh Royal Infirmary, held on Monday, the following minute commemorating the services of the late Deputy-Surgeon-General Fasson was approved of:—

"The managers record their sense of the great loss sustained by the Royal Infirmary in the death of Mr. Fasson. Appointed superintendent of the infirmary in 1871, he brought to the work of his office a combination of gifts and experience which singularly fitted him for its important duties, and these he has throughout discharged with eminent ability, unwearied assiduity, and well-deserved success. That work included the difficult and responsible task of transferring the infirmary to the present buildings, and the reconstruction, to a large extent, of its administrative department. Yet by no startling change, but by the steady introduction of improved methods of which he had satisfied himself was reform carried out. Ever intent on schemes for securing smoother and more efficient working of the hospital, he gladly welcomed and adopted suggestions from any quarter which tended in this direction. Firm in his administration, exact in his demands upon himself, and expecting equal fidelity and efficiency in others, his relations to all whose duties he had to superintend were distinguished by great consideration and courtesy. It was in no small measure due to the practical sagacity and foresight of Mr. Fasson that the fever wards of the infirmary were in 1886 transferred to the city authorities—a change which, as the event has proved, has been greatly to the public advantage. The nursing department of the infirmary underwent entire reconstruction during Mr. Fasson's tenure of office. This was a work in which he took a profound interest, and the high position which the Royal Infirmary now holds among hospitals as a training school for nurses owes much to his ever-ready and hearty sympathy and coöperation. In providing the nurses with adequate accommodation Mr. Fasson warmly interested himself, and the building of the new home, now nearly completed, was undertaken by the managers largely upon his strong recommendation. The arrangements for its furnishing and occupation were engaging his attention in the last days of his life. The tone which happily pervades every department of the noble institution with which Mr. Fasson was so long and honourably connected is undoubtedly to be ascribed to the influence which he quietly but most effectively exercised. Of Mr. Fasson's personal qualities it is impossible to speak too highly. His gentleness, his perfect fairness, his unvarying courtesy and his tenderness of heart endeared him to all by whom he was known. These qualities ever worked outward from what were the dominating influences of his life—high principle and Christian character. The managers share deeply in the feeling of personal loss which Mr. Fasson's death has evoked in all who in any capacity minister within the walls of the infirmary, and they are keenly sensible of the very difficult duty which, through his death, has devolved upon them of finding a superintendent worthy to succeed him. They resolve that an extract of this minute shall be sent to his afflicted family, with the assurance of the managers' heartfelt sympathy with them in their bereavement."

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6280 births and 3524 deaths were registered during the week ending Oct. 22nd. The annual rate of mortality in these towns, which had been 17.8 and 17.3 per 1000 in the preceding two weeks, rose again last week to 18.0. In London the rate was 17.7 per 1000, while it averaged 18.3 in the thirty-two provincial towns. The lowest rates in these towns were 7.9 in Croydon, 12.4 in Birkenhead, 14.1 in Derby, and 14.9 in Halifax; the highest rates were 21.3 in Burnley, 21.7 in Leeds, 22.9 in Oldham, and 23.0 in Preston. The 3524 deaths included 387 which were referred to the principal zymotic diseases, against numbers declining from 991 to 389 in the preceding seven weeks; of these, 94 resulted from diarrhoea, 88 from measles, 68 from diphtheria, 58 from scarlet fever, 46 from "fever" (principally enteric), 29 from whooping-cough, and 4 from small-pox. These diseases caused the lowest death-rates in Birkenhead, Wolverhampton, Bristol, and Blackburn; and the highest rates in Salford, Plymouth, Oldham, Sunderland, and Preston. The greatest mortality from measles occurred in Croydon, Plymouth, Oldham, Leicester, and Salford; from scarlet fever in Plymouth and Swansea; from "fever" in Preston and Sunderland; and from diarrhoea in Bradford, Norwich, Sunderland, and Preston. The mortality from whooping-cough showed no marked excess in any of the large towns. The 68 deaths from diphtheria included 41 in London, 5 in Birmingham, 4 in West Ham, and 4 in Manchester. Two fatal cases of small-pox were registered in Oldham and 2 in Halifax, but not one in any other of the thirty-three large towns; 3 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 2 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3936, against 3515, 3628 and 3797 on the preceding three Saturdays; 484 new cases were admitted during the week, against 412 and 503 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 241 in the preceding seven weeks, further rose to 267 last week, but were 72 below the corrected average. The causes of 82, or 2.3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bolton, Leeds, Sunderland, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Preston, and Hull.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18.5 and 18.0 per 1000 in the preceding two weeks, rose again to 19.0 during the week ending Oct. 22nd, and was 1.0 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 8.6 in Perth and 14.1 in Dundee to 20.4 in Aberdeen and 25.1 in Edinburgh. The 529 deaths in these towns included 39 which were referred to measles, 15 to scarlet fever, 14 to diarrhoea, 10 to whooping-cough, 5 to diphtheria, 4 to "fever," and not one to small-pox. In all, 87 deaths resulted from these principal zymotic diseases, against 78 and 75 in the preceding two weeks. These 87 deaths were equal to an annual rate of 3.1 per 1000, which exceeded by 1.1 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased from 12 to 33 in the preceding four weeks, further rose to 39 last week, of which 26 occurred in Edinburgh, and 10 in Aberdeen. The deaths referred to scarlet fever, which had been 16 in each of the previous two weeks, were 15 last week, and included 8 in Glasgow, 3 in Edinburgh, and 2 in Paisley. The 10 fatal cases of whooping-cough exceeded by 2 the number in the previous week, and included 5 in Glasgow, 3 in Edinburgh, and 2 in Paisley. The deaths from diphtheria, which had declined from 10 to 2 in the preceding three weeks, rose again to 5 last week, of which 2 occurred in Aberdeen. The 4 fatal cases of "fever" differed but slightly from those

recorded in recent weeks and included 3 in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 84 and 82 in the preceding two weeks, rose again to 97 last week, and were within one of the number in the corresponding week of last year. The causes of 49, or more than 9 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 20.0 and 20.7 per 1000 in the preceding two weeks, declined again to 19.4 during the week ending Oct. 22nd. During the first three weeks of the current quarter the death-rate in the city averaged 20.0 per 1000, against 17.1 in London and 20.9 in Edinburgh. The 130 deaths in Dublin during the week under notice showed a decline of 9 from the number in the preceding week, and included 4 which were referred to diarrhoea, 2 to "fever," one to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 7 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.0 per 1000, the zymotic death-rate during the same period being 1.8 in London and 7.9 in Edinburgh. The fatal cases of diarrhoea, which had declined from 20 to 3 in the preceding three weeks, were 4 last week. The deaths referred to different forms of "fever," which had been 2, 3, and 4 in the preceding three weeks, declined again to 2 last week. The 130 deaths registered in Dublin last week included 31 of infants under one year of age and 32 of persons aged upwards of sixty years; the deaths of infants showed a slight decline, while those of elderly persons slightly exceeded those recorded in the preceding week. Two deaths from violence, but no inquest cases, were registered; and 29, or nearly one-fourth, of the deaths occurred in public institutions. The causes of 17, or more than 13 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

#### THE EFFECT OF THE LEBEL RIFLE.

To military surgeons and others who have been experimentally studying the effect of different arms of precision and of bullets of small calibre with high initial velocity on the carcasses of dead animals the experience gained by the French in the war in Dahomey will be of much interest. Everything appears to depend upon the distance at which these small-bore bullets are fired. At a great distance they inflict very clean wounds, which might not be fatal unless some vital part were struck and their "stopping power" might, it is supposed, be relatively small. But at short distances their effect is very different, and the wounds are said to resemble those made by explosive bullets. According to the somewhat sensational description of the first encounter of the French expeditionary corps in Dahomey with Behanzin's forces, published in the *Figaro*, the effects of the Lebel rifle were a revelation for everyone. The largest trees afforded no shelter for the enemy, for they were pierced right through; and it is difficult for those who have not actually seen it to form any idea of the nature of the wounds and the rending action of the projectile on the human body. As the correspondent of the *Figaro* mentions that the attacking force numbered about 4000 men and that the attack itself was of the nature of a surprise the distance which separated the Dahomey native force from the French was inconsiderable—barely more than thirty yards from the tents of the headquarters' staff—at the first onrush—when the fighting was most severe and the destruction caused by the Lebel rifle greatest. The official account of the battle and further particulars as to the effect of the Lebel weapon will probably furnish us with more correct information than we possess at present.

#### MOVEMENTS OF MEDICAL STAFF.

SURGEON-MAJOR JAMES has been transferred from Shornecliffe to Windsor. Surgeon-Major Ring has resumed duty at Belfast. Surgeon-Lieutenant-Colonel Duke has assumed charge of the Station Hospital at Canterbury. Surgeon-Captain Wiles has joined at Worcester. Surgeon-Captain Long has resumed his duties at Sierra Leone after sick leave. Surgeon-Captain Kay has succeeded Surgeon-Captain Cotrell in Medical Charge of the Women and Children's Hospital at

Chatham. Surgeon-Captain Stanistreet has joined at Dover for duty. Surgeon-Lieutenant-Colonel Hensman and Surgeon-Captain Hamilton have arrived with the 1st Life Guards at Shornecliffe.

#### REGULATIONS IN INDIAN SERVICE.

We understand that the medical officers proceeding to India to carry out the reliefs this trooping season are not detailed to specific presidencies as heretofore, but are for service in India generally, their destination being left in the hands of the authorities in India. This change, dictated presumably by local requirements, appears at the first blush an unmixed evil as far as the officers themselves are concerned, for choice of presidencies, when permitted, was doubtless a great privilege; but, on the other hand, when there was no choice—which must frequently have happened—the whole tour of service had to be performed in the presidency apportioned, whereas it may be assumed that under the new system changes from presidency to presidency will be constant.

#### ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Oscar Frederick Molloy retires on retired pay. Surgeon-Major John Edward Vaughan Foss, from half-pay, to be Surgeon-Major. Surgeon-Major-General G. L. Hinde, C.B., having attained the age of sixty, will be placed on retired pay.

#### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain David Edgar Flinn, F.R.C.S. Irel., to be Surgeon-Major.

#### INDIAN MEDICAL SERVICE.

Surgeon-Captain F. P. Maynard, 13th Bengal Infantry, has been granted leave to proceed out of India on private affairs. Subject to Her Majesty's approval the following Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels:—A. S. Lefthbridge, M.D.C.S.I., A. Stephen, M.D., and J. H. Newman, M.D. Surgeon-Lieutenant-Colonel F. Lyons, M.D., is transferred to Poona district and appointed to the Medical Charge of Station Hospital, Poona. Surgeon-Lieutenant-Colonel J. Riddick, on arrival from England, is appointed to the Medical Charge of Station Hospital, Colaba, vice Surgeon-Lieutenant-Colonel F. Lyons, M.D., transferred to Poona. Surgeon-Major W. A. Simmonds has assumed Charge of the Civil Medical duties of the Hazara district. Surgeon-Captain F. R. Ozzard has assumed Charge of the Civil Medical duties of the Kohat district. Surgeon-Lieutenant-Colonel Edward Mulvany and Surgeon-Major George Augustus Cones have retired. The Queen has approved of the following admissions to Her Majesty's Indian Medical Service, to be Surgeon-Lieutenants:—Bengal: Patrick Balfour Haig, Thos. William Archer Fullerton, Ralph Henry Maddox, Edward Victor Hugo, Harry George Melville, Arthur Oldham Hubbard, Charles George Robson Scott, Herbert Austen Smith, Douglas Richard Green, Geo. McIver Campbell Smith, Hubert Malins Earle and Joseph Geo. Hulbert. Madras: Pulteney Charles Gabbett and John Lewis Macrae. Bombay: Francis Edwd. Swinton, Sidney Harvey Burnett and Thomas Jackson.

#### VOLUNTEER CORPS.

1st Lincolnshire (Eastern Division, Royal Artillery): Surgeon-Lieutenant E. B. Reckitt is promoted to Surgeon-Captain.

#### THE LATE SURGEON-GENERAL MILLS CANNON.

We regret to have to announce the death of Surgeon-General Henry Mills Cannon, in his seventy-third year. He died at his residence, 10, Eaton-place, S.W., on the 12th inst. The deceased, who entered the Army in 1846, served in the Punjab Campaign of 1849-50, and was present at the actions of Ramnuggur, Chillianwalla, and Goojerat, receiving for his distinguished services a medal and three clasps. He earned the thanks of the Supreme Government and of the Local Government of the North-Western Provinces for services in the Rohilkund and Meerut Divisions during the Mutiny period. He was also recommended by the Commander-in-Chief for brevet promotion, and a good-service pension of £100 a year was conferred on him.

#### DEATH OF SURGEON-GENERAL H. R. OSWALD, M.D.

We regret to record the death at Edinburgh of Surgeon-General H. R. Oswald, M.D., after a lingering and painful illness, on Oct. 15th last. Dr. Oswald entered the Indian Medical Service as assistant surgeon in 1850, and was employed in the Madras Presidency. Having undergone the usual experiences in different stations of a junior surgeon, he was appointed for a brief period to attend Dr. Deatly

Lord Bishop of Madras, on his tour of visitation. Subsequently, in 1853, he was transferred from B Troop, Horse Artillery, to proceed on active service in Burmah under the officer commanding the Madras Division of the Army of Ava. He served in the second Burmese war till invalidated from the Pegu Division back to Madras, and in 1854 obtained special civil employment in the Mysore Commission, of which he obtained full medical charge in 1865 at Bangalore. His promotion to the rank of Surgeon-Major followed in 1870, but he continued his civil duties till 1876, when he was raised to the administrative rank of Deputy Surgeon-General and once more found himself in Burmah. In 1879, however, Dr. Oswald was made Surgeon-General of the Madras Presidency with temporary rank. His retirement with the rank of Surgeon-General took place in 1881, previously to which he had been in charge at Secunderabad of the Hyderabad Subsidiary Force and Hyderabad Contingent. Such is a brief record of an active life always marked by an able and conscientious discharge of duty. In his various capacities—civil, military or social—Dr. Oswald obtained the esteem and respect of his seniors and the love of his subordinates. Graceful in bearing, of a fine appearance, courteous in manners, and unvarying in kindness, few officers in his service have obtained a wider or better deserved popularity than his—a popularity which attended him also in private life. His loss will be mourned by a wide circle of friends both in and beyond his profession as well as by his family.

#### ARMY COMPETITIVE EXAMINATIONS AND PHYSIQUE.

We are glad to notice that our "Service" contemporary, the *Broad Arrow and Naval and Military Gazette*, has called attention to the question of the value which should be attached to physical qualifications at entrance examinations for the military services. Whilst recognising the difficulty of devising a practical scheme for carrying this out, we nevertheless consider that superior physical qualities should certainly count for something in a candidate for a commission in the army; whereas at present a candidate who is, as far as physical qualifications go, a well-grown, fine young fellow, proficient in manly games and exercises, enjoys no advantage over other candidates whose physical qualifications perhaps only reach the required minimum standard. No doubt mental and physical energy are frequently combined in men of small stature, and it would be easy to cite instances of such who have distinguished themselves in all walks of life, including the army and navy. Still, the possession of physical attributes, manliness and vigorous health are most important qualifications for a soldier, and our system of competitive examination takes no account of these, except to exclude those who are unfit in this respect, and the youth who is perhaps a bookworm with good receptive faculties enjoys a manifest advantage over other and more desirable candidates in every other respect. It does not at all follow either that the youth who successfully passes a competitive examination will develop any intellectual superiority later on. Anyway, mental and physical powers are Nature's gifts, and as regards army candidates both are valuable; but only one is at present taken into account. There should not be any insuperable difficulty, we imagine, in devising a scheme by which very desirable candidates, as far as physical qualifications are concerned, with school certificates of proficiency in out-door exercises and games, should have a limited number of marks assigned them as the result of their physical examination. Some regulation might be framed by which youths of a given height, chest measurement and weight at different ages would be entitled to a certain number of marks, provided they were in all other respects physically fit and produced certificates of the kind we have indicated.

#### THE RUPEE.

Medical officers and others serving in India will be glad to learn that the Viceroy of that country has received a dispatch from the Secretary of State for India announcing that an India Currency Committee has been appointed under the presidency of Lord Herschell. The members of the committee are Mr. Leonard Courtenay, M.P.; Sir Thomas Farrer; Sir Reginald Welby, Permanent Secretary of the Treasury; Lieutenant-General Strachey; Mr. Currie, Member of the Council of India; and Mr. Arthur Godley, Permanent Secretary of the India Office. Lord Herschell was president of the Gold and Silver Commission of 1887 and 1888. The problem to be solved is no doubt an extremely difficult one, but we trust that some solution will be arrived at, as the present rate

of exchange and the depressed value of the rupee grievously affect the pockets of Europeans serving in India.

#### THE GERMAN ARMY BILL.

There appears to be a good deal of trouble hatching in Germany over the new Army Bill, the object of which is to decrease the length but to increase the strength of the military service by an enormous addition to the army of that country. Action and reaction follow one another in politics as in physics. The first Napoleon, by exacting that Prussia should only have a limited standing army, gave rise to the development of the German system of organisation which played such an important part in the Franco-German war of 1870, and the loss to France of Alsace and Lorraine has since led to the huge and increasing armies that have been since maintained in both those countries and in the rest of Europe. The addition that will require to be made to the medical service of the German army in the event of the new Bill passing, which does not seem probable, must be very considerable, and the amount of medical aid of all sorts that will be necessary in any actual campaign in future, with all the advances which have been made of late in the art of war, will severely tax the powers of any nation.

#### CHOLERA IN INDIA.

As regards the occurrence of the outbreak of cholera at Murree that was attended with a disastrous death record, to which attention was called in THE LANCET of the 15th inst., it appears, according to the Indian papers, that it is to form the subject of investigation. The cause of the outbreak was alleged by some to be attributable to importation, the disease having been conveyed by two regiments of Kashmiri infantry and a battery of artillery, who were subsequently attacked with cholera, having been allowed to pass from a district where that disease was prevailing through military camps and the station of Murree. On the other hand, it was rumoured—but with what degree of truth we do not know—that the use of contaminated water in the manufacture of soda-water was the cause of the attacks. The *Times of India* calls attention to a report by the Sanitary Commissioner of the North-West Provinces and Oudh, detailing the success which attended the sanitary arrangements that were made for the great Hurdwar fair last year. About three-quarters of a million of Hindoo pilgrims assembled to bathe in the sacred pool of the Ganges; but in consequence of the precautions that were adopted and the extreme care that was taken no epidemic or outbreak of cholera occurred, nor was the disease transported to other localities. This was contrary to the experience of previous gatherings of the kind. The Sanitary Commissioner considers that the experience obtained in 1891 proves that the disease is preventable by the adoption of due precautions and the immediate application of measures for arresting the spread of infection. The Government of the North-West Provinces, however, while giving every credit to the Sanitary Commissioner for the success of his sanitary measures on that occasion and recognising their immense importance in such cases, nevertheless hold that they are not necessarily effective in preventing the spread of the disease, and, by way of illustration, refer to their experience in connexion with another great native gathering where the same measures were followed without a similar amount of success. The Government of the North-West Provinces apparently would rather put their trust in dispersing fairs and turning back pilgrims on their way thither, and have applied to the Government of India for legislation to give them the power to do this whenever considered necessary. These pilgrimages are great religious ceremonies, and, it is presumed, could not be stopped without causing great fanatical discontent, otherwise their suppression altogether would probably be the best course to be adopted.

#### ALLEGED DEATH OF AN OFFICER FROM EATING TINNED FISH.

It is alleged as the result of a post-mortem examination on the body of Lieut. W. Huddleston, R.E., who was recently found dead in his bed at Chatham that death was the result of blood-poisoning caused by eating tinned fish. The deceased officer is stated to have complained of feeling ill shortly after having partaken of the tinned fish in question. The death of this young officer has given rise to much regret and sympathy in the garrison.

#### HOSPITALS IN INDIA.

The *Globe* of the 22nd inst., in an article on this subject, remarks that the institution of hospitals in India must be

regarded as one of the beneficial results of British supremacy and gives many instances of their good effects on the people and princes of India. It is not forgotten, our contemporary says, that some of the earlier and most important concessions to the Honourable East India Company were obtained by Surgeon Gabriel Broughton in 1645 for professional services rendered to the Mogul Emperor Shah Jehan. Some of the larger hospitals date from the period of the Governorship of Warren Hastings, when the whole service of civil hospitals was reorganised. Now this system of civil medical institutions, hospitals and dispensaries has attained enormous proportions, there being in 1890 1641 such, treating 265,000 in-door patients and 11,978,000 out-door, or a total of 12,243,000. It is worthy of note, while we in London are somewhat recklessly multiplying the facilities for medically helping those who can help themselves, it has recently been proposed in India to withdraw all Government aid from medical institutions in large and wealthy localities, which, having been taught the value of hospitals and dispensaries, ought to take on themselves the whole burden of their support.

## Correspondence.

"Audi alteram partem."

### "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—A licence to practise medicine for gain carries with it the privilege of so doing; the privilege belongs to the licence and without the licence the privilege does not exist. Medical aid associations are unqualified bodies carrying on practice and as a rule make considerable profits thereby. Whatever their aim or original intention might have been, I have shown elsewhere they, as a rule, make these profits. From these considerations the question arises: Is it not the confusion of the privileges of a qualified person and of an unqualified body of persons which originates the special pleading on behalf of these medical aid associations? A qualified man may legally carry on practice with a view to profit-making; he may invest his capital in such an undertaking, or by his skill create both capital and revenue; and he may properly employ such assistance at the current market price as necessity may demand. But is it right or proper for a body of unqualified persons to do these things? And if so, wherein is the value of a qualification? This is done, however, at the present time by medical aid associations under cover of a qualified man or in partnership with him, and the definition of the technical word "covering" must be very restricted indeed, in order to be rendered inapplicable to the condition of affairs.

The line of defence of the system of medical aid associations adopted by interested persons opens a very fine field for the profitable employment of capital, and before long we may have this field exploited, for things are already shaping in that direction. Upon the principles urged by your correspondent a company may run one or more medical practices for gain by employing qualified practitioners at a fixed salary. All the net profits will belong to the company, and as the directors do not personally practise it is alleged that the doctor does not cover them, nor is any professional offence committed. Based upon these principles it will be seen that a very taking prospectus could be drawn, and such a document might point out the following considerations amongst others: "The objects and conduct of the company will be similar to those at present adopted by medical aid associations—viz., to provide the thrifty poor, and especially the public generally, with excellent medical advice and medicine at a purely nominal price; and the scheme gives promise of large and increasing profits. It has been decided that there is no technical or legal objection to the course the company proposes to adopt, and as the proprietors and directors will not personally practise, no legal or professional offence is committed, and there is no possibility of any question of covering or other offence being raised in connexion with the business of the company. It has in fact been justly urged that such a contention is childish. It is intended to begin operations by the organisation of one hundred practices only, and for this purpose the services of a hundred duly qualified men will at once be secured. It has

been ascertained that the cost of these will be about £150 per annum each, rising, as the trade of the company develops, to £250. The other expenses, house rent, advertising &c., will amount to a similar sum; while directors' and managers' fees will not exceed £5000 a year. For a sum of £35,000, therefore, the first hundred practices will be fully equipped and maintained during the first year. It is expected that on the first year's trading a loss will result; that during the second year income and expenditure will balance; and that after this large and increasing profits will result. As the directors will be entirely beyond the disciplinary control of any authority, the company will have the advantage of unrestricted advertising and canvassing, and a contract has already been entered into, dated Oct. 22nd, 1892, by which admirably displayed advertisements will be posted by Messrs. Billhead and Co. As the salaries of the medical officers will be a fixed sum the proprietors will be in the happy situation of possessing the surplus profits, which under the old system belonged to the private practitioners. This fixed-wage system, too, will enable the company to supply excellent advice and medicine at prices very far below those ever offered to the public, and it is believed that very large profits will be made on farthing consultations. No injury will be done to the medical officer, for he will be in the desirable position of being in receipt of a fixed income, which is more than he could get in private practice, otherwise he would not accept it. It is true that the result of our system will probably be to transfer to the pockets of the shareholders profits generally acquired by the general practitioner and to degrade the profession of medicine; but, as we do not injure in any way our medical officers, these gentlemen tell us all other considerations may be ignored. Our medical officers will be bound down not to practise within the radius of the company's operations; and as this radius will, it is confidently believed, in a few years extend to every town in the kingdom there will be no fear of the company's permanent interests being injured by our medical men wishing to leave us or being dissatisfied when they are refused increased salaries. It has been ascertained from the experience of similar undertakings that one medical officer will be sufficient to deal with 3000 or 4000 patients. It is proposed to develop a very large midwifery practice by means of invitingly low fees, and if our medical officers should under the strain of night and day work permanently break down in health they will be, under existing circumstances, quite easily replaced without interruption to the company's business. It has been decided by worthy opinion that the term 'sweating' as applied to our desirable scheme is an unjust and improper one, and this view is shared by our prospective medical officers. The boon we offer to the public is so great that the scheme commends itself to all those who have the public interests at heart, and the suggestion that our work will act injuriously to the profession, and through it react upon the public, may be dismissed at once as prompted by selfish trade interests."

I will only add one word to this paraphrase of your correspondent's arguments. The profession should with one united voice protest, as I, an individual unit in that profession, vehemently protest, against the astounding indecency of your anonymous correspondent's threat. The General Medical Council has been entrusted by the State with the preservation of our professional principles, and as in the past so will it in the future fearlessly discharge its sacred trust with the unanimous support of our great profession, unseemly threats of democratic opposition notwithstanding.

I am, Sirs, your obedient servant,

LESLIE PHILLIPS,  
Secretary, Medical Defence Union (Limited).

Birmingham, Oct. 22nd, 1892.

To the Editors of THE LANCET.

SIRS,—Will you permit me to reply to a letter signed "Verax" in THE LANCET of last week, who endeavours to meet your charge "that the position we occupy in holding medical aid appointments is indefensible"? Before doing so, however, allow me to mention that Dr. Phillips has forwarded a copy of his letter to the General Medical Council and to the various resident medical officers. If "Verax" will only read this letter carefully through he will find that, if the recommendations contained therein are adopted, they will tend to improve materially the present position of the various resident medical officers ("Verax's" included), while having a tendency to prevent the further growth and development of these coöperative businesses. I cannot see, then, very much

for "Verax" to grumble about. In trying to place as roseate a complexion as possible on his present tenure of office your correspondent only tells half the story. I have had experience of several of these associations, having acted as locum tenens and assistant before accepting my present appointment as resident medical officer, which latter, I may say, I undertook "from sheer stress of circumstances." I am, therefore, in a position to supply some particulars which "Verax" has carefully ignored or left in the background. I may say I possess the acquaintance of many occupying a similar position to myself, and I have never yet met one who holds, or ever held, such an appointment that has not complained bitterly of the treatment received. The rules, management &c. of all these associations are based on similar lines. All the members of the association are generally supplied with a copy of the rules. There is one which is being continually brought under the members' observation—viz., "Complaints against the medical officer &c." From the copy which I enclose you can see it is somewhat similar to those generally placarded in omnibuses, so that to all intents and purposes, in the estimation of the management committee, a surgeon in this respect is placed on no higher a level than an omnibus conductor. It is no uncommon thing for me to be told—"You are our servant." "We keep you." "I will report you," &c. Does "Verax" consider that any medical man occupying a position of this character is upholding the dignity of the profession? It sometimes happens that members for very trivial causes lodge complaints with the managing committee, who, by the way, are empowered if they think proper to suspend you without a moment's notice. You are then duly summoned to appear before this august tribunal to meet the complainant. The latter is permitted to cross-examine the medical officer after making his statement, and in so doing the latter has to submit to the humiliating ordeal of being asked either by the complainant himself or his friends or the managing committee perhaps many insulting questions. Nothing, I assure you, Sirs, in my experience affords greater pleasure to some of these ignorant men than "sitting" on their intellectual superior. In one case I was reprimanded for being insolent to a member, the insolence consisting of a mild suggestion "that the said member might wash himself before coming to the surgery to see me directly from an offensive smelling occupation he was following." I trust "Verax" is more fortunate and experiences none of these unpleasant incidents.

I contend that it is quite unprofessional, as well as illegal, for any medical man to barter away portion of his midwifery or vaccination fees to the association. If the managing or general committees pay themselves for attending quite (to my mind) unnecessary meetings out of fees so earned, I see very little practical difference between this and covering. The more fees the committees obtain the more frequently they go "up and down the town" extolling the excellent qualities of the association and their doctor—all for the purpose of "bringing more grist to the mill." From the vast numbers I have to see between visiting and at the surgery—sometimes as many as one hundred and fifty daily—I find that I am inevitably drifting into very careless habits in examination and diagnosis. I am painfully cognisant of the fact that one day, only a very short time ago, having a great number of people to visit, I overlooked a case of intussusception not having time to make a sufficiently careful examination. Here is a life that might have been saved had I been otherwise circumstanced. This is not I regret to say a solitary incident. There are many other points in connexion with our appointments which from the length this letter has already reached I am unable to touch upon.

I trust, in conclusion, "Verax" will have the good sense to abandon his present untenable position, and throw in his lot with his brethren in endeavouring to ameliorate their position and terminate a system which, as far as my experience enables me to judge, I have no hesitation in characterising as an injury to the profession, a fraud on the public, besides being disgraceful in a professional sense to every medical man who countenances it by lending his support.

I remain, Sirs, yours faithfully,  
A MEDICAL AID OFFICER.

Oct. 20th, 1892.

To the Editors of THE LANCET.

SIRS,—Certainly something should be done to rectify these growing evils, and I appeal to the General Medical Council for their support. In your article on Dr. Leslie Phillips's

report you suggest that the remedy should come from individual members; but I maintain that it is useless looking for hope from that quarter, for though I hold one of these appointments I know perfectly well that if I resigned forty candidates are ready to take my place. A vigorous and determined stand should now be made, and, if aided by the Council, there should be no difficulty. Unless they are altered there will soon be no private practitioners, but plenty of "businesses" with patients as "customers."

I am, Sirs, yours faithfully,

Oct. 19th, 1892.

L. R. C. P. LOND.

## INTERNATIONAL MONUMENT TO SEMMELWEIS.

To the Editors of THE LANCET.

SIRS,—When I was preparing the Goulstonian Lectures on Puerperal Fever (1872), I was of course obliged to study deeply and widely its history. There was no point which interested me more than the claims put forward in favour of Semmelweis, and I think that I showed clearly to what extent such claims were justified. I found that these claims were advanced by those who were evidently not acquainted with the history of this subject and what had been done in this country long before the time of Semmelweis. I am not one of those who would discourage the expression of admiration for those who have worked unselfishly in the interests of science and humanity, but we must not sacrifice justice to generosity, otherwise more harm than good is done.

I am, Sirs, yours truly,

Savile-row, W., Oct. 24th, 1892.

ROBERT LEE.

## "COMPULSORY VACCINATION."

To the Editors of THE LANCET.

SIRS,—In reference to your paragraph about me I may say that I am not aware that I have made up my mind on the subject which I am investigating more than other members of the Commission. I held my present opinions long before I joined it and was appointed in succession to the late Mr. Bradlaugh because I was understood to hold similar views. I appeared before the Rochdale guardians as any other parent may do—my being a member of the Vaccination Commission was only a coincidence. I asserted that there are no known means of securing the purity of lymph or of limiting with certainty its inflammatory effects, and that serious results have occurred from vaccination. I also asserted that where isolation has been adopted it has been found effectual without vaccination, and when vaccination has been tried without isolation it has been found very ineffectual. Will any doctor deny these assertions? Small-pox is so rare that I think that the risk my unvaccinated children run of catching it is less than the risk of the injury which might come to them from vaccination, even supposing the protective powers of the operation to be as great as some think it is. I do not enter into the question as to how much the diminution of the disease is owing to vaccination and how much to better medical knowledge and improved sanitation—I speak of the present risk. I should not object to a Compulsory Isolation Bill.

I am, Sirs, yours truly,

Reform Club, Oct. 21st, 1892.

JOHN A. BRIGHT.

\* \* \* If it were possible to have a perfect system of isolation in every part of the land there might be no need for other preventive measures; but certainly we cannot agree that up to the present time, where "isolation has been adopted, it has been found effectual without vaccination." As regards the comparative risks referred to by Mr. Bright, we would venture to suggest that it is not a mere question of "catching" small-pox, but of having it in a severe and dangerous form.—  
ED. L.

## DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—I have to report a case of death under chloroform which occurred at Stockport Infirmary on Friday, Oct. 21st. The patient was admitted into the infirmary suffering from carcinoma of the rectum. He was an old man (aged sixty-three) and much emaciated, and though the heart was rather weak, still there was no valvular disease. Both the patient and his

friends were very anxious that an operation should be performed. Lumbar colotomy was proposed. The chloroform used in this case was Duncan and Flockhart's. Patient had been inhaling the chloroform for ten minutes, when his breathing suddenly became very shallow and pulse hardly perceptible. The administration of the anæsthetic was at once stopped and artificial respiration commenced, ether injected hypodermically, the head was lowered, legs lifted up and nitrite of amyl in capsules held before the nose. All, however, proved of no avail, though artificial respiration was kept up for half an hour. We have had very few deaths under anæsthetics in this infirmary. In a case previous to the above mentioned, which happened two years ago, the anæsthetic employed was ether and the operation was also for carcinoma of rectum. In neither case had the operation been commenced.—I am, Sirs, yours faithfully,

H. R. BELLAMY, L.R.C.S. & L.R.C.P. Edin.  
Senior House Surgeon to the Infirmary.

Stockport, Oct. 25th, 1892.

N.B.—The amount of chloroform used was only one drachm and a half.

## EXPERIMENTS ON ANIMALS.

To the Editors of THE LANCET.

SIRS,—General practitioners will agree with Dr. Tyson in his appeal for facts in support of vivisection. What we need is something definite to put before our patients to justify the position taken by the medical profession on the subject. The public is in search of the truth, and when we know that amongst the public are such men as Lord Coleridge and the late Serjeant Ballantine trained in the analysis of evidence, it is the worst possible policy on our part to treat them as a pack of hysterical women. We must remember they have the whole literature of the subject before them, and that it is useless to say the painful experiments are few and the pain trifling. When the public see the rivalry between distinguished professors and the undisguised pleasure it gives one to show how that all the experiments conducted by a brother experimenter are futile, they look upon the talk about a deep love for humanity on the part of the scientist as cant. The scientist is human, like the rest of us; research is his work, and the discovery of a new law is more to him than the possible applicability of the law and the needs of the human race. The science of the physiology of the animal kingdom must, like that of astronomy or any other branch of knowledge, stand upon its own merits; and it is to be regretted that it has ever been thought necessary to call in the immediate applicability of its results and the practice of medicine to justify its pursuit. Let us be candid with the public, and we shall be on more secure ground. We cannot expect men like Browning, Manning, Ruskin and their successors to be put off with anything short of the truth.

I am, Sirs, yours truly,

Fulham, Oct. 25th, 1892. WM. F. CLARKE, M.D. Lond., B.S.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

*Small-pox.*

THE recently published returns show that small-pox cases still continue to crop up in and around Manchester, the principal foci of the disease being Warrington and certain of the smaller Yorkshire towns which are uncomfortably near Manchester. At their last meeting the clerk to the Chorlton guardians reported the occurrence of two cases of small-pox in that union, a circumstance which naturally produced considerable uneasiness at the board, for the union seems to have been exceptionally free from this disease for a lengthened period. The guardians, however, had previously taken steps to encourage vaccination and revaccination in their district, and as the cases reported were promptly removed to the small-pox hospital it is hoped that the further spread of the disease will be prevented. If we may judge from the printed reports to be submitted to the Council at their meeting to-day, there seems to be an unfortunate hitch in completing the hospital accommodation for small-pox at Monsall. It appears that the two temporary sheds which were erected some few weeks since for the segregation of any cases of cholera that might possibly find their way hither from the Continent are

to be utilised for the treatment of small-pox. The medical officer of health, however, will not sanction the use of these sheds for that purpose until they are surrounded by a high wall and provided with separate administrative buildings, so as to render the small-pox hospital absolutely independent of the fever wards and to secure its complete isolation from them.

*The Chair of Surgery.*

It is rumoured that Professor Hare is about to resign the chair of Surgery at Owens College, unhappily on the ground of ill-health. Mr. Hare has only held the professorship for about three years, but during that period he has devoted himself assiduously to the teaching of surgery, and he certainly has won the esteem and goodwill of the great body of the students who have been members of his class. His departure from Manchester will be much regretted by a wide and increasing circle of friends, both medical and lay, amongst whom his courteous bearing and unassuming conduct have made him a general favourite.

*The Manchester Crematorium.*

On Friday last a special meeting of the advocates and supporters of cremation was held in the grounds of the Manchester Crematorium, the Duke of Westminster being present as chairman. The attendance was considerable, and there is no doubt that public opinion in these parts is being gradually influenced in favour of cremation as a means of disposing of the dead. The speeches delivered at the meeting of last week were in good taste, and will probably do much to dissipate the not unnatural prejudice against cremation which still lingers in the minds of many of our most thoughtful and public-spirited citizens.

*The Municipal Elections.*

As the 9th of November draws nearer the usual preparations become apparent for the coming contest for vacant seats in our local parliament. Ours is the largest municipal council in the kingdom outside the metropolis, and consists, since the enlargement of the city by the Act of last year, of 104 members. As is usual at election times, there is a general protestation amongst the combatants that imperial politics are to have no weight in the selection of candidates for the several vacancies; and, equally as a matter of course, every candidate whose address has hitherto been published is well known to be the nominee of one political party or another. The so-called "labour candidates" who were sent into the Council some time since with a considerable flourish of trumpets do not seem to have turned out an unqualified success, and there are indications in some of the addresses recently issued that some other expedient is about to be tried for securing the due representation of the working classes on our municipal Council. Since the recent enlargement of the Council a considerably larger proportion of medical representatives has been returned than at any previous period on record. The Council now contains five members of the medical profession; and, as these gentlemen are in every case members of the sanitary committee, it is to be hoped that their influence on the operations of that committee will be in all respects salutary. A complete list of candidates for this year's vacancies has not as yet been published; but in a city where so very much still remains to be achieved before its sanitary condition can be regarded with anything approaching complacency it is much to be desired that the number of medical members of the city Council should be still further augmented. It must be kept constantly and prominently before our representatives in the Council that the death-rate of Manchester is still exceedingly high; and I hope that, whatever may be the result of the forthcoming elections as regards the balance of political parties in the Council, every member of that body will remember that the public is getting impatient at the continuation from year to year of the present needless sacrifice of human life.

*Nottingham Medico-Chirurgical Society.*

The inaugural meeting of the ensuing winter session was held on Friday, Oct. 21st, at 8.15 P.M., Mr. R. C. Chicken, F.R.C.S., President, in the chair. Dr. P. H. Pyc-Smith, F.R.S., of Guy's Hospital, delivered an address on the Prognosis of Certain Diseases. The influences of age and sex on prognosis were considered in connexion with a large number of diseases. Chronic constitutional states often had an unfavourable influence on acute disease, this being marked in the case of chronic Bright's disease and diabetes. The importance of the gouty diathesis was, however, apt to be overrated. In conclusion the lecturer carefully examined

the prognostic import of some of the symptoms met with in the course of phthisis and typhoid fever respectively. The retarding influence of mitral stenosis or insufficiency on phthisis was fully considered. A cordial vote of thanks to the lecturer was passed, on the motion of Mr. Joseph White, seconded by Dr. Brookhouse. About fifty gentlemen were present.

*Manchester Pathological Society.*

The annual meeting of this Society was held at the Owens College on Wednesday, Oct. 12th, T. C. Railton, M.D., retiring President, in the chair. The following gentlemen were elected for the ensuing session:—President: J. S. Bury, M.D. Vice-Presidents: F. A. Southam, M.B., and W. Coates. Treasurer: W. Thorburn, B.S. Secretary: T. Harris, M.D. Committee: H. R. Hutton, M.B., T. N. Kelynack, M.B., W. Milligan, M.D., R. Patrick, M.D., C. E. Richmond, E. Roberts, R. B. Wild, M.D., and J. B. Wolstenholme. Auditors: H. Lund, M.B., and A. T. Wilkinson, M.D. After receiving the report of the treasurer and committee a considerable portion of the evening was taken up with a discussion on certain recommendations of the committee. A considerable number of card specimens were shown by Dr. Bury, Professor Delépine, Dr. Thomas Harris, Dr. Hutton, Dr. Martin, Mr. Roberts and Mr. Wright.

Oct 26th.

**BIRMINGHAM.**

(FROM OUR OWN CORRESPONDENT.)

*Health Lectures.*

THE Athletic Institute advertise a series of free health lectures. The first is to be given by Sir Andrew Clark on Saturday, the 29th, the subject being "The Religion of the Body." The chair is to be taken by Sir Walter Foster. At the annual meeting of the Birmingham and Edgbaston Debating Society on the 19th inst. Mr. Jordan Lloyd, the president, gave an address on "Some Errors of Civilisation," pointing out the nerve-strain entailed by the rate of living and its accompaniments in the present day. The facts of the discourse are indisputable, but it is not easy to find the remedy in the present constitution of society or to stem the tide of wear and tear in our surroundings.

*Hospital Sunday.*

The return of this anniversary on the 30th inst. brings reflections as to the growth and maintenance of the fund raised on the occasion. For years past the amount subscribed has been declining. The rival Hospital Saturday collection has diminished seriously that of the more sacred day, owing to the splendid organisation and method of collecting in workshops and factories. The eloquence of the divine can hardly compete with the activity of the commercial man, whose opportunities of obtaining contributions are of a more practical kind. The growth of Hospital Sunday appears to have followed that of most institutions in reaching an acme of development and then declining. "This year the collections go to the General Hospital, and in the face of the earnest appeal for funds made by that charity it is hoped that a large sum will be realised.

*The Mason College.*

This College, with which is incorporated the Queen's Faculty of Medicine as representing the former medical school of Queen's College, has issued an elaborate and complete calendar. The information given is carefully and exactly worked out, and a varied programme of the different faculties enables any seeker for knowledge of the teaching details to find readily what is wanted. The subject of a midland university in connexion with this College has lately been receiving attention and finds favour in every quarter. There are arguments which would make such a scheme desirable in the interests of education in the midland counties. Meantime the requirements of medical teaching, at least, are provided for in a manner calculated to compare favourably with any other school in the kingdom.

*Crime in Birmingham.*

The chief constable's report for the year ending Sept. 29th has just been issued. The return consists of two tables, the first relating to offences indictable at quarter sessions and assizes; 965 crimes were committed, as against 950 last year and 901 in the year 1890. The second class relates to the

magistrate's jurisdiction. Proceedings were taken against 14,795 persons, as compared with 14,043 in the previous year and 13,447 in 1890. Persons proceeded against for drunkenness show an increase of 273. It is true that the extension of the municipal boundaries makes some difference in the figures, but the evidence does not tend to show that crime is retrogressive in this best-governed city.

Oct. 25th.

**NORTHERN COUNTIES NOTES.**

(FROM OUR OWN CORRESPONDENTS.)

*Memorial to the late Albany and John Hancock.*

A TABLET to the memory of the late Albany and John Hancock has just been placed in the entrance hall of the Natural History Museum, Newcastle, by a number of their friends and admirers in recognition of their invaluable work of research in natural history. The tablet, which is a very handsome work of art in Sicilian marble, with a frame of Derbyshire alabaster, has been designed by Mr. Joseph Craggs, of this city, and bears the following inscription:—"To the memory of the Brothers Albany Hancock and John Hancock. Albany was distinguished for his anatomical researches among the invertebrata and received in 1858 the gold medal of the Royal Society for his investigations of the brachiopoda. John was celebrated as an ornithologist and for the lifelike character he gave to the birds which he preserved. It was through his personal influence that funds were obtained for the erection of this building, on the completion of which he presented his ornithological collection to the Natural History Society."

*Tynemouth.*

The report of the chief constable for Tynemouth for the past year has been published, and without some explanation it would in some respects be an alarming document. It shows that 1269 males and 372 females had been charged with drunkenness—a heavy record for a town with a population under 50,000 were it not also shown that one-half were seamen who occasionally visit the port and visitors who come to Tynemouth on Sundays and holidays. The number of public-houses in the borough had been reduced during the year by six. With reference to persons arriving from cholera-infected ports, the *Newcastle Courant* says that the medical officer of the borough has complained of the delay that takes place after they come on shore before he is informed by the Sanitary Authority of their arrival. Each communication it seems has to pass through four different parties' hands before the medical officer receives it, three and four days thus elapsing, so it is suggested that in this very important matter some more simple and direct mode of procedure might well be adopted. The Tynemouth Corporation have decided to utilise the present infectious diseases hospital, should it be necessary, for cholera cases. For other infectious diseases they have decided to erect a new hospital, and are negotiating with the Duke of Northumberland's agent for a suitable piece of land in the outskirts of the borough.

*Alnwick Infirmary.*

The annual general meeting of the governors of the Alnwick Infirmary was held last week, Earl Percy presiding; 538 patients were treated during the year, and the financial state of the institution was good, the year closing with a substantial balance in hand.

*The proposed Infectious Diseases Hospital at Keighley.*

Messrs. Marshall and Dick of this city have been awarded the first premium for their plans for the Borough of Keighley (Yorkshire) Infectious Hospital. The competition was open to architects from all parts, and about thirty plans were sent in. The hospital has been designed to accommodate thirty beds, and separate wards of ten beds each have been planned for small-pox, typhoid fever and scarlet fever, besides the usual administrative department and residences for matron, nurses &c.

*Death of the Deputy Coroner for South Northumberland.*

Mr. Wm. Brewis Elsdon, Deputy Coroner for South Northumberland, died last week from acute pneumonia after a very short illness.

*Deaths of Medical Men.*

Dr. Andrew Gibb Russell, J.P., of Harrogate died at his residence in that town on Wednesday last after a short illness.—The death is also announced of Mr. R. P. Edger, of Helton-le-Hole, county Durham, in his ninety-fourth year.

Mr. Edger qualified as far back as 1823. I hope in my next letter to say more about his career.

#### *Odds and Ends.*

The annual dinner of the Newcastle Clinical Society took place last Thursday, and it passed off very successfully. Mr. Galloway of Bighton Banks presided.—Our medical officer of health states that for the fortnight ending the 15th sixty-seven cases of infectious disease were notified as occurring in Newcastle; of these, fifty-seven were cases of scarlet fever.—It is stated, as showing the pressing demand for chloride of lime during the late cholera alarm, that a few weeks ago it rose to £15 per ton, and although there is still a larger inquiry than usual for it and the manufacturers' stocks are small, the price has now fallen below £8 per ton on the Tyne.—Dr. Scott Purves, instructor of the ambulance class at Long Houghton, has received a presentation of a handsome piece of plate from the members of the class.—An earthquake tremor was experienced in Newcastle on Sunday night last.

Newcastle-on-Tyne, Oct. 28th,

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

### *General Council of the University of Edinburgh.*

THE statutory half-yearly meeting of the General Council of the University of Edinburgh will be held in the University on Friday, the 28th, at 3 P.M. At this meeting the reports of the business committee, the ordinances committee and the finance committee will be considered in addition to other routine business. These reports and their fate at the Council will be referred to in detail after the meeting of the Council.

### *New Municipal Bill for Edinburgh.*

A new Municipal Bill has been under discussion in the town council for some time. At a special meeting held in the beginning of this week several important provisions in the proposed Bill were considered and approved or left for further report and consideration. One of these was a clause providing for the removal of the slaughter-houses and cattle market beyond the city's boundary. This was remitted to the Lord Provost's committee. The next set of proposals bearing upon city improvements included proposals to open up and improve the property immediately adjoining the University new buildings. This especially referred to the property to the east of the University, which is in an indifferent condition, and from its proximity to the University mars considerably its architectural effect. The acquisition of this property by the town and its conversion into an open space would be a great improvement to the locality as a whole, as well as to the University buildings and the Students' Union. The proposals were opposed by a few of the Council, on the ground that it was done entirely for the sake of the University. This view, however, was not taken by many, and the proposals were carried by a large majority. The next proposals dealt with the acquisition of sites and the erection of refuse destructors. Permission is sought for the erection of four destructors within the city. This also met with a good deal of opposition, it being asserted that the destructors would be a nuisance in the localities in which they would be erected; this was denied by various members, including the Lord Provost, who referred to the Bradford destructors and said that they were worked without nuisance. Of course the carting of refuse would always be more or less of a nuisance, but it was that at present. These proposals were also carried.

### *Opening of the Royal Medical Society, Edinburgh.*

On Friday evening of last week the new session of this Society was inaugurated by an address from Dr. Lauder Brunton. The chair was occupied by the senior President, Dr. Miles, and the lecturer was well received.

### *Health of Edinburgh.*

The mortality last week was 123, making the death-rate 24 per 1000. Diseases of the chest caused 64 deaths and zymotic diseases 37, of which 27 were due to measles. The intimations were: Typhus fever, 1; typhoid fever, 4; diphtheria, 9; scarlet fever, 66; and measles, 296.

### *Pauper Infirmaries and Medical Students.*

Professor Ogston, in performing the ceremony of opening a new infirmary for the Oldmachar Poorhouse, Aberdeen,

spoke of the benefit which would accrue to the students, to the guardians of the poor and to the paupers themselves if the hospital were open for clinical purposes to students of medicine. Dr. Ogston continued: "I think I am quite correct in saying that the introduction of students into the wards will be found to have a still further humanising effect upon the institution; for the more advanced and more intelligent students, who would be those selected, are really the most admirable critics and suggestors in regard to all that is most beneficial in such an institution, and their attitude towards the poor becomes speedily of itself an extremely humanitarian agency." The chairman promised that Dr. Ogston's suggestions should have the consideration of the board.

### *Health of Aberdeen.*

Last week there were notified 388 cases of measles, 33 of scarlet fever, 3 of diphtheria, 1 of typhus fever, 3 of whooping-cough, and 7 of erysipelas (a total of 435 cases), being a decrease of 10 as compared with the previous week.

### *Aberdeen University Extension Scheme.*

At a meeting of the University Court held this week, after a long discussion, in the course of which several motions were proposed, that of the Lord Rector was carried by a large majority. His motion was that they proceed at once with the extension of the north wing and the front wing at Marischal College, and with the erection of a new wing for natural philosophy at King's College, and that the architect be instructed to bring up detailed plans for the new graduation hall and students' rooms and the addition to the anatomical department in Marischal College.

### *Northern District Asylum, Inverness.*

On Tuesday the vacancy in the superintendentship of this asylum, caused by the death of Dr. Aitken, was filled by the appointment of Dr. Cumming Mackenzie, assistant superintendent of Northumberland County Asylum at Morpeth.

### *Death of Dr. Cran of Ballater.*

Dr. Robert Cran (Ballater, Aberdeenshire) died suddenly after a few hours' illness at Wemyss Bay on Sunday, the 23rd inst. Dr. Cran had spent most of his professional life in Assam and had been but four years in practice in Ballater. At the time of his death he had been married only twelve days and was on his honeymoon.

### *Death of an Aberdeen Graduate in Egypt.*

On Monday the sad news reached Aberdeen that Dr. William Smith Robertson died that morning at Port Said, where he held the appointment of senior medical officer in the Egyptian Government hospital. Dr. Robertson graduated at the University of Aberdeen in 1877. He was only thirty-seven years of age and leaves a widow, who sailed for Port Said last week to join her husband.

Oct. 25th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

### *Royal College of Surgeons.*

THE following address was presented to his Excellency last week:—

TO HIS EXCELLENCY LORD HOUGHTON, LORD-LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

MAY IT PLEASE YOUR EXCELLENCY.—We, the President, Vice-President, and Councillors of the Royal College of Surgeons in Ireland, desire to offer to your Excellency our most respectful congratulations upon the occasion of your Excellency's assumption of the high office which Her Majesty has entrusted to you. We beg to assure your Excellency that the College which we represent has, since its incorporation more than one hundred years ago by Her Majesty's Royal decessor, King George the Third, been animated by sentiments of loyal devotion to the Crown and Government of the United Kingdom, by an anxious desire for the maintenance of prosperity and good order of the country, and by an earnest wish efficiently to discharge, by sound education and searching examination, the duties imposed upon it more than one hundred years ago in its original charter, to provide "a sufficient number of properly educated surgeons, as well for the service of the public in general as for that of our army and navy." The important public functions which were confided to this College by its charters have been discharged faithfully, and, we venture to hope, with success. Your Excellency's inherited, as also self-earned, claims to high literary distinction will enable you to estimate at its proper value the fact that this College, from its foundation up to the present moment, never has admitted to even its lowest qualification anyone who had not previously passed an examination in Arts; and its early recognition of the importance to the public weal of a knowledge of sanitary science may be inferred from the fact that some fifty years ago it instituted its Professorship of Hygiene. We trust that your Excellency will be pleased,

by visiting our College, and by inspection of its various departments, to satisfy yourself that it is in a condition to fulfil satisfactorily its duties to Her Majesty and the public.

The prizes obtained by students, at the schools of surgery during the session 1891-92 will be awarded by Mr. Edward Hamilton, President of the College, at the opening of the winter session on Nov. 1st.

#### Royal College of Physicians.

The portrait of the founder of the College, Dr. John Stearne, S.F.T.C.D., presented by Dr. Samuel Gordon, was referred to briefly in these columns last week. The picture, which is a half-length portrait, is a copy by Mr. Catterson Smith, R.H.A., of the original in the possession of the University of Dublin. It represents the deceased in the scarlet gown of a doctor and a voluminous wig of the Queen Anne period, and must be regarded as a worthy addition to the portraits of distinguished Fellows possessed by the College.

#### Rotunda Lying-in Hospital.

An appeal has been made for funds to enable the governors to place the hospital in a condition of thorough efficiency worthy of its established and world-wide character. About £10,000 will be required to carry out the necessary alterations, and of this some £5000 have already been collected. It is proposed to erect a new building for the treatment of diseases peculiar to women; to provide suitable day and night accommodation for nurses, probationers and female students; to erect a lift to convey helpless patients to the wards and to provide lavatories, bath-rooms &c. The sum now required is not so much but that the charitable public could easily supply the necessary amount, and I hope that they will do so, for the institution is well worked and a credit to any city. I do not envy the feelings of those members of the corporation who refused the trifling grant of £250 to the hospital, and trust their act of intolerance may stimulate the charitable people of Dublin to aid and assist to the utmost an institution so worthy of support as the Rotunda Lying-in Hospital.

Oct. 27th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### The Legality of Bequests to Medical Attendants.

IN England one hears occasionally of a professional brother having his grief at the loss of a profitable patient by death attenuated by a more or less important legacy bequeathed him by the deceased. In France, such a compensation is, in most cases, out of the question, for, by the terms of Provision 909 of the Civil Code, a practitioner is debarred from inheriting from a patient whom he attended during his last fatal illness, provided the will containing the bequest was made during the said illness. It was, however, ruled by the Court of Cassation in 1834 that the above law did not apply to a doctor called merely in consultation. It is therefore necessary, in order to establish the nullity of a testamentary bequest made in favour of a member of our hard-worked profession, to prove—(a) that the would-be legatee was actually treating the patient; (b) that the bequest was made during the course of the disease, which (c) proved fatal. A short time ago the heirs of a gentleman were cited before the tribunal of Angoulême, at the instance of Dr. Fournier, to show cause why a legacy of 21,500 francs should not be paid to the doctor. Fortunately for our *confrère* he was able to show that, as he only replaced for a time the deceased's regular attendant, the validity of the bequest could not be impugned. I may mention that chemists, *sage-femmes*, and indeed any unqualified person who undertakes the care of a malady which proves fatal, enter within the scope of the above law. In the case, however, of a *sage-femme* in whose house a lady died the validity of a bequest made in favour of the midwife was upheld, it having been proved that a medical man called in was responsible for the treatment pursued.

#### Precautions against the Spread of Tuberculosis.

The Sanitary Commission of the 10th Arrondissement, which comprises the populous district radiating from the St. Louis Hospital, have, with the view of stemming the tide of tuberculosis, proposed the following measures: That the dwellings and clothing of tuberculous patients be submitted to the same process of disinfection as in the case of

other contagious diseases; that all railway compartments, cabs and omnibuses, or at least the floors of such vehicles, be disinfected daily with a solution of zinc chloride. Manners as regards what may be dubbed public-expectoration are disagreeably free amongst this otherwise very polite people, and this consideration, together with the undoubted contagiousness of tuberculosis, renders the purification of public conveyances very necessary. The Parisian has an unwholesome dread of fresh air when travelling, and the tyranny exercised by the lively but stuffy Gaul in the matter of sealed windows is well known to all British tourists.

#### A Congratulatory Banquet.

On Thursday last Dr. Pietra Santa, editor of the *Journal d'Hygiène*, was entertained at dinner at the Grand Hôtel by a large gathering of admiring colleagues, the occasion being the fiftieth anniversary of his appearance on the world's stage as a doctor of medicine. Dr. Pietra Santa's fearless advocacy of sanitary reforms during the many years he has directed his valuable journal rendered him worthy of such a compliment, the remembrance of which will be made more durable by the presentation of a handsome gold chronometer and chain. Numerous English *confrères* were amongst the subscribers. Another veteran in sanitary science was present in the person of Dr. Benjamin Ward Richardson, who triumphantly accomplished an unusual feat for a Briton—viz., delivering an admirable discourse in French. The opportunity was seized for commemorating the visit of Dr. Richardson to Paris in June last at the head of the Association of Sanitary Inspectors of Great Britain. With this intent the Société d'Hygiène offered Dr. Richardson, through Dr. Brémond as their mouthpiece, their bronze medal. Everybody—and their name is legion—acquainted with Dr. Richardson's lifelong efforts in the cause of public and personal health will rejoice at the great honour paid him by such a distinguished body as the Société d'Hygiène.

Paris, Oct. 26th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### The Cholera in Russian Poland.

THE Prussian Commissioner for the basin of the Vistula states that there were 54 cholera cases and 12 deaths in Warsaw between the 13th inst. exclusive and the 18th exclusive, 45 and 24 in the governmental district of Kielce between the 9th and the 14th, 74 and 37 in that of Radom between the 7th and the 14th, 235 and 128 in that of Lublin between the 12th and the 16th, and 132 and 46 in that of Siedlee between the 11th and the 16th.

#### Guttmann's Reichs-Medizinal-Kalender.

The first part of Guttmann's *Reichs-Medizinal-Kalender* (*Medical Calendar for the German Empire*) contains an essay by Professor von Pettenkofer on the Hygienic Lighting of Dwellings. The second part contains a list of all the German doctors, a list of the officers of the ambulance corps according to rank and seniority, and statistics concerning medical men, apothecaries' shops, hospitals &c.

#### Appointments &c.

Dr. August Wagenmann of Heidelberg has been appointed Professor of Ophthalmology at Jena. He is a frequent contributor to *Graefe's Archiv für Ophthalmologie*.—Dr. Krehl of Leipzig has been appointed Professor and Director of the Medical Policlinic at Jena. His special field is heart disease. He has published most of his writings in the *Archiv für Physiologie* and in the *Archiv für klinische Medizin*. He is only thirty-one.

Professor Bechmann of Giessen has been appointed Professor of Pharmacy and Director of the Pharmaceutical Institute at Erlangen.

The sentence of Dr. M. Wiederhold, head of a private hospital at Wilhelmshöhe near Kassel, to three months' imprisonment, for whipping one of his lady patients, has been commuted by the Emperor into the much less disgraceful one of three months' confinement in a fortress. This act of grace is said to have been actuated by the circumstance that the convict belongs to the military profession as an assistant doctor of the first class.

Berlin, Oct. 25th.

## VIENNA.

(FROM OUR OWN CORRESPONDENT.)

*The Anglo-American Medical Association.*

THE first meeting of the Anglo-American Medical Association took place on Oct. 14th, and was very well attended by numerous English and American physicians, who are now in Vienna continuing medical study at the General Hospital in various special branches of medicine. The meetings will now be held more frequently than in former years, and it is intended to arrange lectures from time to time to keep the members informed of the progress of medicine in their native tongue.

*A Poison prepared from Fresh Egg Albumen.*

At the last meeting of the Vienna Society of Physicians Professor Max Gruber showed some experiments on animals (guinea-pigs and rabbits) with a substance obtained from fresh egg albumen of chicken. The egg albumen is shaken with pure water and then treated with absolute alcohol. The precipitate thus obtained, treated with water again for some time, yields a yellowish alkaline solution which proves to be highly poisonous, exhibiting a curare-like action if injected in animals. If small quantities of five cubic centimetres are injected into the peritoneal cavity of guinea-pigs, after a short period of excitation paralysis of the voluntary muscles, with fibrillary contractions of the muscles, is produced, the frequency of respiration becomes lowered, but after some hours the animal recovers again; but if fifteen cubic centimetres were injected complete paralysis of the voluntary muscles would set in within two minutes, and after six to nine minutes the animal died, as if under the action of curare. The poison seems to be an albuminous body, similar to some of the snake poisons; it loses its poisonous action by being exposed for some days to the influence of air and light. The poisonous solution does not coagulate if cooked in the fresh state, but it coagulates readily by heat if the solution has become some days old.

*Inhibition of Growth in Sheep after Thyroidectomy.*

Dr. von Eiselsberg, assistant of Professor Billroth, in continuing his researches on the influence of the extirpation of the thyroid gland on the growth of animals, has found considerable differences in the development of sheep after thyroidectomy. In two lambs soon after birth the thyroid gland had been extirpated, and now, after eight months, the animals showed the following differences from two other lambs of the same age: The bodily weight was only 10 and 14 kilogrammes in the operated animals, while it was 35 and 27 kilogrammes in those not operated upon. The hind part of the head and the abdomen of those operated on are considerably enlarged and gives to them a peculiar appearance, their tails are only rudimentarily developed, their testicles are atrophied, their fleece is bad, their intelligence is lower than in the normal animals and they are suffering from chronic bronchial catarrh with viscous secretion similar to that which is often observed to occur in human beings after thyroidectomy. Various therapeutical experiments will shortly be made on these animals which were demonstrated at the last meeting of the Vienna Medical Society.

Vienna, Oct. 27th.

## AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

*The Medical Profession in Australia.*

A VERY interesting State paper has recently been issued from the Government Statists' office, dealing with the professions, trades and occupations of the people of Victoria as set forth in the census returns of 1891. In the last decade the population of Victoria increased by a little over a quarter of a million, being now 1,140,000. It is instructive to note in what walks of life the increase has been most marked. To understand the subject aright it must be remembered that the last decade was remarkable for the large amount of money borrowed from British investors by the Government of the colony; for a consequent abnormal activity in industrial pursuits; and for an outburst of speculation in comparison with which the South Sea Bubble and the railway mania were mere emotions. Bearing these

facts in mind it is not surprising that there has been a considerable increase in the number of persons described as of "independent means" and of "no occupation"—the class "who toil not, neither do they spin." The number of artisans and mechanics has more than doubled, while the agricultural and pastoral community has made little or no increase. The mining population has diminished by a third, while the devotees of literature and science have increased their numbers by a third. Clergymen, lawyers and doctors have more than doubled their numbers. Under the heading "Medical Profession" are included "physicians, surgeons and druggists." In 1881 there were 1595 such persons in the colony. In 1891 the number had increased to 3474. In 1881 the proportion to the population was 1 to 540; in 1891 it was 1 to 328. That there has been a large increase in druggists and quacks is undoubted, but there has also been an abnormal increase in the number of qualified medical practitioners, so that now the number of doctors in the colony is out of all proportion to the population. Victoria, and in fact all Australia, as a field for medical emigration is played out. The large cities are overrun with medical men out of employment, anxious to grasp at anything that offers. Whereas only a few years ago there were one or two applications for appointments to country hospitals, there are now dozens of applicants for the post of resident surgeon to even the most out-of-the-way country institutions. It is a matter for regret that the rising generation despite the trades and occupations of their fathers when these occupations entail earning their bread by the sweat of their brow, and they unfortunately all aspire to enter a profession where they can wear a black coat and put on the gentleman by Act of Parliament. This apotheosis of snobbery is a very sad phase of our civilisation.

*The Treatment of Club-foot.*

At a recent meeting of the Medical Society of Melbourne Mr. G. A. Syme, F.R.C.S. Eng., read a thoughtful paper on the Causation and Treatment of Club-foot. His researches had led him to believe, with Parker, Eschricht and others, that "club-foot is an arrest of development—the permanence of a certain stage in the evolution of the lower limbs," and he brought evidence to show that this arrest of development was due to compression of the fœtus in the womb owing to largeness of size, presence of twins or deficiency of liquor amnii. Setting out with these views, Mr. Syme advocated the treatment of the whole limb and not merely the foot. Division of tendons and ligaments might reduce the deformity, but the improved position was only transitory. He had adopted and improved on Mr. T. N. FitzGerald's treatment as described in the records of the last Intercolonial Congress. His method is to divide freely the ligaments of the astragalo-scapoid joint and to forcibly twist the foot into position. Then the bones and cartilages are divided and the divided structures are crushed and moulded into position, so that when union takes place the position of the foot is permanent and the foot is strong and solid. This was the great point in the operation, and so far as the foot is concerned the results are splendid. Mr. Syme did not think that one need be very particular as to the exact bones divided or the direction of the chisel, provided they are separated on the inside and well broken up, compressed and approximated on the outer side. The last proceeding was of great importance, the union and ossification of the crushed fragments firmly holding the foot in its improved position. Mr. Syme then went on to say: "Admirable as this operation is, however, I venture to think it often requires to be combined with further procedures. By it the shape of the foot and its position in relation to the leg can be completely rectified and the patient can stand to be photographed, so that the result excites admiration, but when the child walks it will often be found that he or she still does so with a peculiar gait, turning in the toes. To obviate this I think it is advisable, as before observed, to divide the tibia and rotate the whole foot out, and very possibly it will be necessary to divide the femur as well. Ogston divided the tibia and fibula, without interfering with the foot at all, and says 'the results were as satisfactory as those he obtained by Lund's operation,' but 'some bayonet-shaped deformity of the leg and ankle' resulted, 'produced by the great rotation outwards of the foot.' I think that by combining the procedures less interference is required in each. The inversion and part of the adduction can be rectified by Mr. FitzGerald's method, the further adduction and inward rotation by division of the tibia, which yet need not be rotated so far as to produce any

'bayonet-shaped' deformity. If this be not sufficient, the femur can be divided, and the limb slightly rotated out. If the whole rotation out be obtained by division of the femur only, an awkward deformity may be produced at the knee, the patella looking outward."—Mr. T. N. FitzGerald took part in the discussion which followed, and warmly congratulated Mr. Syme on the improvement he had made in the operation and on the admirable results he had produced.

## Obituary.

### CONWAY EVANS, M.D. LOND.

OCTOBER has been a black month, and many *dies atri* already blacken the calendar. Dr. Conway Evans had of late complained much of dyspnoea and cardiac weakness, but did not give up work until some two months ago, when he consulted Mr. Gowan of Stanmore and Dr. Wilks, who found he was suffering from Bright's disease, heart trouble and dropsy. He obstinately refused all medicines, and died, at the age of sixty-two, on Oct. 18th, at his residence, Hyde Cottage, The Hyde, Hendon. He was buried last Saturday at his birthplace, Pontrhydyrun, in Monmouthshire. He was born in 1830; his father was the Rev. D. D. Evans, a Nonconformist minister, and his mother's maiden name being Conway, he was given the name of David Conway Evans. As a boy he was sent to Mill Hill School, where he rapidly rose to the highest place. He was afterwards apprenticed (as was the custom in those days) to Mr. Lawrence, surgeon, of Pontypool. He entered as a medical student at King's College in October, 1849, where he was remarkable for his industry and brilliant talents and where he obtained several honours and distinctions. He was appointed house physician for the winter session of 1854-5, and the manner in which he performed the duties of his office may be estimated by a reference to the preface to the Clinical Lectures of the late Dr. Todd, in which the fullest and warmest acknowledgment is made of Dr. Conway Evans' valuable aid in making clinical reports and important analyses in Dr. Todd's cases in King's College Hospital. He graduated at the University of London, took his M.B. and the scholarship and gold medal in medicine in 1855, and his M.D. in 1857, in which year he was elected physician to the public dispensary; he was also for many years assistant physician to King's College Hospital, where he was a very successful teacher and a great favourite with the students. He was pathological registrar and curator of the Pathological Museum from 1865 to 1868, and showed many interesting exhibits to the Pathological Society. Dr. Conway Evans also filled the position of medical adviser to the firm of W. H. Smith and Son in a manner that obtained for him the gratitude and respect of all with whom he thus became associated. He was appointed medical officer to the Strand District Board of Works on the formation of that board in 1855. Here he found work exactly suited to his taste, and he soon became a typical medical officer of health. His annual reports are models of what such reports should be, and are specially referred to and commended by Mr. Firth in his great work on the municipal government of London. The district has more people in proportion to houses than any other and the population is less migratory; yet Dr. Evans made it remarkable for the excellence of its sanitary arrangements, its freedom from epidemic and contagious disease and its comparatively low death-rate. During the last cholera epidemic of 1866, no district was better organised, and the deaths from cholera were 23 only, as against 111 in 1854 and 156 in 1849. To show their high appreciation of his work in general, the board doubled his salary at once without a dissentient voice, and for his work during the cholera epidemic of 1866, they voted a special gratuity of £150. As physician to the Lincoln's-inn public dispensary Dr. Evans gave to every poor patient the same time and careful study that he gave to a rich one, and, although he professed an utter scepticism as to drugs, his practice indicated a strong belief in them. Such inconsistency of conduct with creed is, fortunately for us all, not uncommon in this as in other matters; but, unfortunately for him and for us, Conway Evans was consistent in his own case and in his last illness, for he

persistently refused to take medicines that would certainly have given him relief and possibly prolonged his days. His quickness and accuracy in diagnosis were marvellous; but no one was more painstaking in the investigation of a case in which there might be room for doubt. One glance of his would often reveal to him the patient's disease. In this he resembled the late Dr. Addison of Guy's, whose eye, like a speculum, brought hidden things to light. Conway Evans was a man of various tastes, accomplishments, and pursuits; he loved country life and was always happy when farming, gardening or building; he was also fond of collecting valuable pictures and books. When the old Hyde cottage was burnt down in November, 1886, most if not all of these were destroyed, and he thought his last illness originated in the shock he then received and the long night of exposure to the cold, damp air. Conway Evans's mind was original, independent and thoroughly honest. His work was thorough and he held strong views and opinions, from which he never swerved; he had little of the *suaviter* and less of the conventional; but he did much quiet, useful work and helped many who were in trouble and did his duty without fear or favour; "because right is right, he followed right, in scorn of consequence." In short, he was a very uncommon man, and the profession and the poor will be all the poorer without him. He will be sadly missed by his intimate friends and pupils, all of whom will *feel*—if they do not say of him—what Wordsworth said of one he dearly loved—"but Conway's in his grave, and oh, the difference to me!" A sterling honest man and a most able and thoughtful physician bound by no man's special views has passed from our midst.

### F. J. BURGE, M.R.C.S. ENG., L.S.A.

WE regret to have to announce the death of Mr. F. J. Burge at Hastings, on the 13th ult. The circumstances connected with the career and work of the deceased gentleman merit, however, more than a brief reference to the event. As one of the original medical officers of health for an important suburb of London, his labours for the promotion of the public well-being in sanitary matters ought not to be suffered to be forgotten. Mr. Burge studied at St. George's Hospital and obtained his surgical diploma in 1843, after having successfully passed the examination at the Hall at Blackfriars. He commenced practice in the first instance at Blagden, Somersetshire, but subsequently removed to Shepherd's Bush, where he soon secured a numerous  *clientèle* . The work for which he will be most remembered, however, was that connected with the duties of his appointment as medical officer of health for Fulham and Hammer-smith, which post he held for twenty years, and from which he retired on a pension. In this sphere of activity he distinguished himself by his zeal and activity, at a time when sanitation had not attained the degree of public estimation it has now secured. In his twentieth annual report to the Board of Works for the Fulham district, dated May 24th, 1876, Mr. Burge gives a summary of the work accomplished under his direction and advice during the period of his tenure of office. Moreover, for the discharge of the duties belonging to it he did not fail to qualify himself by the study of technical matters pertaining to his charge. He took great interest in the analysis of water and food under Mr. Crookes' tuition, and worked many an hour in his laboratory or with his microscope after a hard day's general practice. Whilst his daily attention was given to the routine work of his district, he did not overlook matters which at that time were regarded as outside his special province. Thus he gave attention to the condition of surface wells, to the necessity for the construction of good sewers in connexion with the main drainage scheme, the importance of isolation in infectious cases, the ventilation of bakehouses, and many other subjects of public sanitary interest. He was ever a willing helper in the promotion of any agency which he regarded as likely to further the physical and moral interests of the people. On retiring from practice in 1877 Mr. Burge went to reside at Wraybury, but afterwards removed to Hastings, though he still maintained an active interest in local affairs. He was twice married, the issue of the first wife being three sons and one daughter. One son, who is at present in practice as a physician at Shanghai, and the daughter alone survive.

## ROBERT PHILIPSON EDGER, L.S.A.

At the great age of ninety-four the subject of this notice passed away on the 21st ult., at Hetton-le-Hole, where he had lived and practised for sixty-six years. Mr. Edger, who obtained his qualifying certificate from the Apothecaries' Hall in 1823, belonged to a family of surgeons, his father and three brothers having followed the profession of medicine in the north of England. In 1826 he obtained the appointment of surgeon to the Hetton Coal Company and for more than fifty years discharged the duties of that office with general acceptance. He was ever foremost in the promotion of movements of public utility in the district. Amongst his endeavours to advance the physical well-being of his neighbours may be mentioned the large share he took in establishing a company for the supply of pure water. He also took great interest in building societies, feeling such associations to be active agencies for the fostering of prudent habits in working people and for promoting the encouragement of the provision of healthy dwellings. As an able practitioner, as a courteous and upright man and a worthy citizen, the memory of Mr. Edger will not soon be forgotten.

## ROYAL COLLEGE OF PHYSICIANS.

THE quarterly Comitia of the Fellows of the College of Physicians was held on the 27th inst., the President, Sir A. Clark, Bart., in the chair. Eight gentlemen were admitted Members of the College, and licences were granted to those who had passed the recent examination.

The College seal was affixed to a copy of the new edition of the by-laws.

The executors of the late Dr. Ditchfield having presented a further collection of engravings, the property of that gentleman, the thanks of the College were accorded for the gift on the motion of the Senior Censor, seconded by the second Censor.

The annual accounts of the College and the quarterly report of the Finance Committee were received and adopted.

Two Reports from the Committee of Management were read and adopted. They embraced the recognition of Rainhill Asylum as a place of study for the Final Examination, the recognition of the courses of instruction in Public Health at St. Bartholomew's Hospital and at the Bristol Medical College as fulfilling the requirements for the Diploma of Public Health, and the recognition of certain schools of science as places of instruction in the subjects of the First Examination.

A report from the Laboratories Committee was also adopted.

Dr. W. M. Ord and Dr. Pye-Smith were re-elected members of the Management and Laboratories Committees respectively.

On the motion of Dr. Allchin it was resolved to add to the by-law clxxvi. a clause embodying the resolution passed at the last meeting of the College with respect to the sale or purchase of practices by Fellows or Members.

The quarterly report of the Examiners for the Licence was adopted on the motion of Dr. F. T. Roberts, seconded by Dr. N. Moore.

## Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, IRELAND: CONJOINT SCHEME.—The following have passed the Third Professional Examination:—

J. W. Burne, E. Cairns, J. Campbell, P. J. D. Coen, T. C. Cummins, J. E. Dobbs, Thos. Fagan, W. B. Felton, R. C. Fisher, J. Fleming, G. L. Freeman, C. Kapp, J. P. Martin, D. Molyneux, J. A. Morgan, T. M. Morton, F. Nolans, J. J. O'Donnell, C. Skelly, E. W. Smith.  
Second Professional Examination.—In addition to the list already published, the following have been allowed this examination:—G. E. Calthness, E. A. Chartres, J. F. Smyth.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed an examination in the subjects indicated:—

Surgery.—J. B. Bate, Bristol; J. C. Bawden, Liverpool; C. H. Broadhurst and E. D. Cox, St. Mary's Hospital; A. D. Davies, London Hospital; H. T. Dufton Cambridge University and St. Bartholomew's Hospital; J. L. Iredale, Yorkshire College, Leeds; H. R. Mortis, Charing-cross Hospital; S. Wilkinson, Liverpool.

Medicine, Forensic Medicine and Midwifery.—C. D. Cardinal, St. Bartholomew's Hospital; N. Elvington, St. George's Hospital; W. S. Mercer, Charing-cross Hospital; H. W. Oborn, St. Thomas's Hospital.  
Medicine and Forensic Medicine.—J. C. Bawden, Liverpool.  
Medicine and Midwifery.—H. E. Cooper and C. W. H. Newington; St. Bartholomew's Hospital; J. F. Stockwell, St. Mary's Hospital; E. Williams, London Hospital.  
Forensic Medicine.—W. R. Clarke, Belfast.  
Midwifery.—W. A. Jones, Bristol; F. Melandri, University of Bologna; B. Saul, Charing-cross Hospital.

To Messrs. Bate, Broadhurst, Clarke, Iredale, Melandri, Mercer, Oborn and Wilkinson was granted the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery.

ST. JOHN AMBULANCE ASSOCIATION.—On the 22nd inst. the medallions and certificates won by the successful students attached to the No. 2 district of the St. John Ambulance Association were presented by the Lady Mayoress at the Mansion House. After the presentation the Lord Mayor made a few remarks on the value of the first aid movement, and Sir V. Kennet-Barrington congratulated the members of the organisation on the success and utility of its labours.

FIRE AT AN ANATOMICAL MUSEUM.—The anatomical collections of the Karolin Institute in Stockholm have been seriously damaged by fire. The valuable series of Swedish skulls and skeletons is completely destroyed. By the strenuous exertions of the firemen some of the other collections were saved, including the embryological series. There was, however, very serious damage done to the valuable collection of Egyptian and Lapp skulls made by Professor Retzius.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The annual meeting was held at the Royal Kent Dispensary, Greenwich, on the 7th inst., H. W. Roberts, Esq., President, being in the chair. The following gentlemen were elected as officers of the Society for the session 1892-93:—President: George Newton Pitt, M.A., M.D. Cantab. Vice-Presidents: John MacGavin, L.R.C.P. Edin., and Peter Cooper, M.R.C.S. Council: A. Stewart Brown, F.R.C.S. Edin.; Wm. Arbuthnot Lane, M.B., B.S. Lond.; John Gordon Mainwaring, M.R.C.S.; Williams Nicholson, M.D. Edin.; Charles Jas. Parke, M.R.C.S.; F. S. Smyth, L.R.C.P. Edin.; Francis T. Tayler, M.B. Lond. Treasurer: Prior Purvis, M.D. Lond. Secretary: Ernest Clarke, M.D., B.S. Lond. Librarian: John MacGavin, L.R.C.P. Edin.

SCHOOLS OF SURGERY, ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following is the prize list for the session 1891-92:—Junior Descriptive Anatomy: G. E. J. A. Robinson, First Prize (£3) and Medal; C. B. Martin, Second Prize (£1) and Certificate. Senior Descriptive Anatomy: E. J. Moore, First Prize (£3) and Medal; E. A. Meeke, Second Prize (£1) and Certificate. Practical Anatomy, First Year: J. R. Sinton, First Prize (£3) and Medal; F. J. Purcell, Second Prize (£1) and Certificate. Practical Anatomy, Second Year: A. Leventon, First Prize (£3) and Medal; E. J. Moore, Second Prize (£1) and Certificate. Practical Anatomy, Third Year: H. R. Sweeney, First Prize (£3) and Medal; L. F. Corbet, Second Prize (£1) and Certificate. Practice of Medicine: W. Taylor, First Prize (£3) and Medal; J. J. O'Donnell, Second Prize (£1) and Certificate. Theoretical Surgery: W. Taylor, First Prize (£3) and Medal; H. R. Sweeny, Second Prize (£1) and Certificate; A. M'Cann and J. J. O'Donnell, Certificates. Midwifery: W. J. Trewhella, First Prize (£3) and Medal; M. D'Exeter Jordan, Second Prize (£1) and Certificate. Physiology: W. L. Martin, First Prize (£3) and Medal; E. C. Hayes and A. M'Cann, Second Prize (10s. each) and Certificates. Chemistry: M. J. Carroll and E. W. Siberry (equal), First Prize (£2 each) and Medals. Mayne Scholarship, £15: G. Hamilton. Operative Surgery: G. Hamilton, First Prize, Gold Medal; O. W. Elsner and J. C. Prittie-Perry (equal) Second Prize, Silver Medals; H. G. LeFanu and F. Warren (equal) Certificates. Practical Chemistry: H. Eardley, First Prize (£3) and Medal; H. F. Conyngham, Second Prize (£1) and Certificate. Practical Histology: E. A. Meeke, First Prize (£3) and Medal; E. C. Hodgson, Second Prize (£1) and Certificate. Materia Medica: E. J. Moore, First Prize (£3) and Medal; E. A. Meeke, Second Prize (£1) and Certificate. Pharmacy: R. M. Hamilton, First Prize (£3) and Medal; H. B. S. Montgomery, Second Prize (£1) and Certificate. Medical Jurisprudence: J. J. O'Donnell, First Prize (£3) and Medal; L. F. Corbet, Second Prize (£1) and Certificate.

**TASMANIA.**—Dr. A. J. Neale, of New Norfolk, has been appointed a Justice of the Peace for the colony.

**WESTERN AUSTRALIA.**—Three new hospitals are being erected in the colony—namely, at Katanning, Newcastle and York.

**DEATH OF A CENTENARIAN.**—Hannah Cooke, who on Sept. 2nd last was said to have reached the age of 100 years, died on the 20th inst. at Kidderminster, of which town she was a native. She retained her physical powers and mental faculties until the day of her death.

**THE MUNTZ TRUST.**—The following are the grants made for the year 1892.—Queen's Hospital, £150; Children's Hospital, £150; Eye Hospital, £50; Homœopathic Hospital, £50; Ear and Throat Hospital, £50; Lying-in Charity, £50; Women's Hospital, £50; District Nursing Society, £50; Orthopedic Hospital, £25.

**THE MORLEY CONVALESCENT HOME.**—By the opening of the new wing of this institution it is estimated that from 1500 to 1600 patients can be annually accommodated. The foundation stone was laid about a year ago by the Lord Mayor. The cost of this extra accommodation at St. Margaret's Bay has amounted to £5000.

**THE SURGICAL AID SOCIETY, SUNDERLAND.**—The report of this Society, read at the first annual meeting which was held last week, stated that the local subscriptions for the year amounted to £54 17s. 3d. It was also announced that Mr. D. H. Haggie, J.P., had promised a life subscription of five guineas.

**PRESENTATIONS.**—A handsome travelling clock subscribed for by the poor of the borough of Chard has been presented to Mr. S. A. Clarke, with an address, for the kindly and valuable services he has rendered them in relieving their sufferings, and among whom, in consequence, he is a great favourite.—Dr. G. E. Morrison, resident surgeon of the Ballarat Hospital, Victoria, Australia, and Dr. E. G. Ochiltree of Ballarat have each been presented with an illuminated address by the Ballarat Branch of the Railway Employés' Association, in appreciation of professional services to several members of the Association.

**THE LIABILITY OF OWNERS OF INSANITARY HOUSES.**—At the Clerkenwell County Court on the 18th inst., before Judge Eddis and a jury, Emma Corfield, of 90, Atlantic-road, Brixton, was sued for damages for making certain misrepresentations respecting the sanitary condition of 91, Corbyn-street. The plaintiff had been consulted by the judge and had taken the case to the High Court, from which tribunal it was sent back to the county court. Evidence having been given that the house in question was in an insanitary state, the jury found for the plaintiff and costs. The amount claimed—£13 10s.—was for expenses of removal and doctor's bills.

**CHRIST'S HOSPITAL.**—It does not appear to be generally known that the Governors of Christ's Hospital are prepared to receive applications for the admission to Christ's Hospital of "children being sons and daughters respectively of persons distinguished in Literature, Science or Art, or in the service of the Crown, or for services rendered to the public or to Christ's Hospital." All such children must be between ten and eleven years of age, must pass the prescribed examinations, and must be subject to the provisions of the scheme for the hospital. A statement of the distinguished services of the parents must in every case accompany the application.

**CHESTERFIELD HOSPITAL.**—On the 20th inst., at the Stephenson Memorial Hall, Chesterfield, a meeting, presided over by his Grace the Duke of Devonshire, was held for the purpose of raising the necessary funds for adding a new wing to the Chesterfield and North Derbyshire Hospital and Dispensary. So great have the demands upon this institution been of late that additional accommodation has become absolutely necessary. Upwards of £1700 was raised at the meeting. Among the contributors were the following:—Duke of Devonshire, £500; the Duke of Rutland, £50; Mrs. Hunloke, £50; Mr. W. Arkwright, £50; Mr. C. Markham, £100; Colonel Seely, M.P., £100; Mr. W. G. Turbutt, £50; the Stavely Coal and Iron Company, £200; the Sheepbridge Coal and Iron Company, £100; and the Clay Cross Coal and Iron Company, £100.

**WESTMINSTER HOSPITAL MEDICAL SCHOOL.**—An Entrance Scholarship value £60 has been awarded to Mr. H. Hilton Cheesman.

**POST GRADUATE COURSE.**—Dr. Braxton Hicks having been prevented by his duties as examiner from giving his first lecture on October 25th will do so on November 1st and 22nd.

At the Medical Society of London on Monday evening next Dr. B. W. Richardson will read a paper on Intra-organic and Thoracic Auscultation—a preliminary chapter on a research in which he has recently been engaged.

The town of Sudbury, Suffolk, has been presented by Sir George Humphrey with a portrait of himself, and also of Mr. G. W. Andrewes, who was mayor of the town in the year of the Queen's accession, and likewise in the year of her Jubilee.

The annual general meeting of the St. George's Hospital Graphic Society will be held on Tuesday next, Nov. 1st, at 2.30 p.m. By permission of the board of governors the annual exhibition will be in the board-room of the hospital, and will be opened immediately after the meeting; it will remain open until the end of the week.

**FOOTBALL CASUALTIES.**—Of the following casualties, four occurred on Saturday. During the progress of a Berks and Bucks Junior Cup match, at Maidenhead, between the Maidenhead Norfolkiens and Maidenhead Reserves, a player collided with an opponent, sustaining a compound fracture of one of his arms. In a College match, at Oxford, a player fractured his leg. At the Wilts County Asylum, in a match between the Southbroom and the Asylum Teams, a player sustained a compound fracture of the right arm. Prior to the commencement of a match, whilst at practice, between Leicester A. and Moseley A. at Leicester a member of the local team fractured his clavicle. A reserve forward of the Darwen Club died on Sunday from injuries received in the abdomen whilst playing against Newton Heath in a combination match in the previous week.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

A'BECKETT, W. G., M.R.C.S., has been appointed Honorary Medical Officer of the Melbourne Hospital for Sick Children, Victoria, Australia.

ALDOUS, G. F., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer to the Plymouth Public Dispensary.

ASHE, E. OLIVER, M.D. Lond., F.R.C.S. Eng., has been appointed Senior House Surgeon to the Kimberley Hospital, South Africa.

BROWN, JOHN, M.D., Dip. San. Science, Vict. Univ., has been re-appointed Medical Officer of Health for the Borough of Bacup.

BUCHAN, W. A., M.B., C.M. Edin., has been reappointed Medical Officer to the Plymouth Public Dispensary.

CARRUTHERS, ALAN E., M.A., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Sussex County Hospital.

DAUNT, E., L.R.C.P., M.R.C.S., L.S.A. Lond., has been appointed Medical Officer for the West Brigg Sanitary District of the Glass-Brigg Union, and also Public Vaccinator of the Brigg District.

DAVIES, RICHARD, M.B., C.M. Edin., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Royal United Hospital, Bath.

ELLISON, J., M.D., M.Ch. Irel., has been appointed Health Officer for the Shire of Numurkah, Victoria, Australia.

FORDYCE, B. E., M.B., C.M. Edin., has been appointed Medical Officer for the Sixth Sanitary District, also to the Workhouse, and Vaccination Officer to the Chesterton Union.

FOX, E. L., M.D., B.Ch. Camb., M.R.C.P. Lond., M.R.C.S., has been appointed Second Physician to the Plymouth Public Dispensary.

GEMMELL, SAMSON, M.D., C.M., F.F.P.S. Glasg., has been appointed a Visiting Physician to the Western Infirmary, Glasgow.

GIBBS, S. A., M.B., C.M. Edin., has been appointed Honorary Surgeon to the H Battery, New Zealand, Regt. Artillery Volunteers.

GOODMAN, R. N., B.Sc. Lond., M.B., D.P.H. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Parish of Ham, Kingston-on-Thames Union.

GOW, WILLIAM J., M.D. Lond., M.R.C.P., has been appointed Physician Accoucheur to Out-patients at St. Mary's Hospital, London.

HOOPER, ALFRED, M.R.C.S., has been reappointed Medical Officer of Health for the Second Sanitary District of the Burton-on-Trent Union.

JAMIE, R. W., M.B., C.M. Edin., D.P.H. Camb., has been appointed Medical Officer of Health for the Coalville Urban Sanitary District of the Ashby-de-la-Zouch Union.

LEMPRIERE, C. L., M.B., C.M. Edin., has been appointed Honorary Medical Officer of the Melbourne Hospital for Sick Children, Victoria, Australia.

LYNDON, ARNOLD, M.D. Lond., M.R.C.S., has been appointed Surgeon to the Wellington and District Cottage Hospital, Somerset.

MALLAM, W. A., M.R.C.S., L.R.C.P., has been appointed House Physician to the Sussex County Hospital.

MAYNARD, EDWARD F., M.D., has been appointed Senior House Surgeon to the Sussex County Hospital.

NORTON, E. E., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer of the City-road Workhouse, Holborn Union.

BEADMAN, THOS., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Aldburgh Sanitary District of the Skirlaugh Union.

REED, H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for North Carlton, Victoria, Australia, vice Doolan, resigned.

REES, A. H., L.R.C.P. Edin., M.R.C.S., has been reappointed Assistant Physician to the Plymouth Public Dispensary.

ROUSE, EUSEBIUS R., M.R.C.S., L.R.C.P., L.S.A. Lond., has been appointed Third Assistant Medical Officer to the Colney Hatch Asylum, vice C. J. Ewart, promoted to the Senior Female Department.

RYAN, C. S., M.B., C.M. Edin., has been appointed Honorary Medical Officer of the Melbourne Hospital for Sick Children, Victoria, Australia.

SHARMAN, EDWD. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed an additional Vaccinator for the Districts of Auckland and Onehunga, New Zealand.

SHAW, HUGH GROSVENOR, M.R.C.S., L.R.C.P. & M., has been reappointed Assistant Medical Officer to the Female Department of the London County Asylum, Colney Hatch, vice C. F. Beadies, appointed to Male Department.

SNOWBALL, WM., L.R.C.S. Edin., has been appointed Honorary Medical Officer of the Melbourne Hospital for Sick Children, Victoria, Australia.

SORLEY, JOHN, M.B., C.M. Edin., has been appointed Honorary Surgeon to the Manchester Rifle Volunteers, New Zealand.

STEVENS, WM. E., L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for the District of Kurow (Otago), New Zealand.

STEVENSON, R. D., M.B., C.M. Glasg., has been appointed Health Officer for the Shire of Glenlyon, Victoria, Australia, vice Swindells, resigned.

STOCKWELL, F., M.D. Lond., M.R.C.S., has been appointed Medical Officer for the Seventh Sanitary District of the Shepton Mallet Union.

WILSON, W. C., M.B., C.M. Edin., has been reappointed Assistant Physician to the Plymouth Public Dispensary.

WINTER, LAURENCE A., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Kent and Canterbury Hospital.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH OF BOOTLE HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Officer. Salary £100 per annum, with board, washing, and apartments at the hospital.

BRISTOL EYE HOSPITAL.—House Surgeon. Salary £120, without board or residence.

BRITISH MUSEUM (Natural History).—Articulator and Preparer of Skeletons. Salary £2 per week, rising after three years to £2 6s. (Applications to the Director, Natural History Museum, Cromwell-road, London, S.W.)

CANON SCOTT, Leeds.—Duly qualified Medical Man, for Mission work in the interior of Shantung, China. No stipend. Passage, keep, and all requisites found.

CHURCH OF SCOTLAND JEWISH MISSION.—Medical Missionary for the Mission and Hospital at Smyrna. Salary £300, with dwelling-house. (Applications to the Rev. Dr. Alison, 1, South Lauder-road, or Mr. J. A. Trail, W.S., 17, Duke-street, Edinburgh.)

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square.—Lecturer on Dental Metallurgy.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square.—Demonstrator. Honorarium £50 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. Board and lodging provided.

GLAMORGAN COUNTY COUNCIL.—County Medical Officer. Salary £750 per annum, of which £150 is intended to cover all travelling and office and laboratory expenses.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Ophthalmic Surgeon.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—House Surgeon for six months, Salary £25, board and residence in the hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant Physician.

LIVERPOOL NORTHERN HOSPITAL.—Resident House Surgeon's Assistant for six months. No salary, but certificate of attendance, together with board and lodging, will be given.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant Surgeon.

MOULSFORD LUNATIC ASYLUM, near Wallingford, Berks.—First Assistant Medical Officer. Salary to commence at £140 per annum, rising by annual sums of £10 to a maximum of £180, with residence and board in the Asylum.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Surgeon.

REV. C. E. BROOKE, 127, Vassall-road, S.W.—Fully qualified Doctor for Corea, in connexion with Bishop Corfe's Mission. Guaranteed salary for a three years' engagement £300.

ROYAL INFIRMARY, Edinburgh.—Superintendent. Salary £500 per annum, with free house, coal and gas.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, Isle of Wight.—Assistant Resident Medical Officer. Salary £70 per annum, with board and lodging in the hospital. (Applications to the Board of Management, 34, Craven-street, Charing-cross, London.)

SMEDLEY'S HYDROPATHIC ESTABLISHMENT, Matlock, Derbyshire.—Resident House Physician, for six months. Board and residence free. An honorarium of 20 guineas.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Honorary Surgeon.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Second Dental Surgeon.

## Births, Marriages and Deaths.

### BIRTHS.

APPLETON.—On Oct. 23rd, at Ferndale, Britannia-road, Fulham, the wife of Thos. Alfred Appleton, M.R.C.S., L.S.A., of a son.

BALY.—On Oct. 14th, at Tunstall, Staffordshire, the wife of Price Baly, Surgeon, of a daughter.

BICKERTON.—On Oct. 26th, at 88, Rodney-street, Liverpool, the wife of T. H. Bickerton, Ophthalmic Surgeon, of a son.

CARR.—On Oct. 24th, at Rue Faidherbe, Boulogne-sur-Mer, the wife of Alfred Carr, M.R.C.S., of a son.

DAVIES.—On Oct. 20th, at Bow-road, E., the wife of Hughes Reid Davies, M.R.C.S., L.R.C.P. Lond., of a son.

DAVIS.—On Oct. 23rd, at Sunnyside, Sidecup, Kent, the wife of Geo. Wm. Davis, M.D., M.R.C.S., of a daughter.

EVANS.—On Oct. 20th, at Castle Hill House, Shaftesbury, the wife of C. Silvester Evans, M.A., M.B., of a daughter.

FACEY.—On Oct. 21st, at West-square, Malden, Essex, the wife of W. E. Facey, M.B., of a daughter.

FITZ-GERALD.—On Oct. 21st, at Southsea, the wife of Staff-Surgeon M. Fitz-Gerald, H.M.S. *Shannon*, of a daughter.

LEWIS.—On Oct. 22nd, at Bouvetie-place, Folkestone, the wife of Dr. Percy Lewis, of a daughter.

LOWNDS.—On Oct. 25th, at Prospect House, Kirkburton, the wife of Charles J. Lownds, B.A. Cantab., L.R.C.P. & S. Ed., D.P.H. Ed., of a son.

PRYN.—On Sept. 28th, at Garrison, I. of Ascension, the wife of Surgeon W. W. Pryn, R.N., of a son.

SMITH.—On Oct. 22nd, at Albany-place, Aberdeen, the wife of Patrick Blaikie Smith, M.D., of a daughter.

STREET.—On Sept. 30th, at Neemuch, Bombay, the wife of Surgeon Ashton Street, I.M.S., F.R.C.S., of a son.

TAYLOR.—On Oct. 20th, at Wimpole-street, Cavendish-square, W., the wife of Frederick Taylor, M.D., F.R.C.P., of a son.

### MARRIAGES.

ANDREWS—THOMSON.—On Oct. 6th, at St. Luke's Cathedral, Halifax, Nova Scotia, Alexander Gordon Andrews, Surgeon, R.N., youngest son of S. W. Andrews, Solicitor, Bourne, Lincolnshire, to Christine, Emily, younger daughter of James Thomson, Barrister, of the former place.

HEATH—WILSON.—On Oct. 19th, at St. James's Church, Kidbrook, Charles Heath, F.R.C.S., of Eastcombe-villas, Blackheath, to Agnes Fridzwede, daughter of Colonel Wilson, Royal Engineers (Ret.), of Shooter's-hill-road, Kidbrook.

MACKESON—GLOVER.—On Oct. 12th, at St. Mary's, West Kensington, Guy Mackeson, L.R.C.P. Lond., M.R.C.S., oldest son of the Rev. Charles Mackeson, of Mansfield-road, to Marion, youngest daughter of Wm. B. Glover, of Bendon.

MILNE—HAST.—On Oct. 20th, at St. Mary's, Wimbledon, Jas. Kershaw Milne, L.R.C.P. Lond., M.R.C.S., of Newlands, Morton, to Ada Blanche, second daughter of the late R. Grimes Hast, Wimbledon.

SIMPSON—SOUTAR.—On Oct. 19th, at the Waterloo Hotel, Edinburgh, James Bertie Simpson, M.A., M.D., Golspie, to Alice Peacock, youngest daughter of the late K. K. Soutar, M.D., Golspie.

THOMSON—THORPE.—On Oct. 20th, at Holy Trinity Church, Lenton, Nottingham, by the Rev. Canon Ebsworth, Vicar of East Retford, assisted by the Rev. Percy E. Smith, M.A., Vicar of Lenton, Dr. Thomson, of East Retford, to Ada, Eldest daughter of William Blankley Thorpe, Esq., of Lenton House, Lenton.

### DEATHS.

ARNOTT.—On Sept. 28th, Sandford Arnott, of St. Vincent, W.I., M.D. Edin., aged 74.

CRAN.—On Oct. 23rd, at Wemyss Bay Hotel, after a few hours' illness, Robert Cran, M.D., Ballater, Aberdeenshire.

OSWALD.—On Oct. 15th, at Edinburgh, Henry R. Oswald, M.D., Surgeon-General, Indian Medical Service (retired), aged 65 years.

CROSSE.—On Oct. 22nd, at St. Giles'-street, Norwich, Thomas William Crosse, F.R.C.S., in his 67th year.

GIBSON.—On Oct. 21st, suddenly, John Rowland Gibson, F.R.C.S., aged 78.

PODE.—On Oct. 10th, lost in P. and O. s.s. *Bokhara*, off the Pescadore Islands, while on duty as Medical Officer, Ernest Duke Yonge Pode, B.A. Oxon., M.R.C.S., L.R.C.P., aged 80.

ROBERTSON.—On Oct. 23rd, at Port Said, Egypt, William Smith Robertson, M.D., in his 37th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.

# Medical Diary for the ensuing Week.

Monday, October 31.

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturday, at the same hour.  
**ST. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M., and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2.30 P.M.; Thursday, 2.30 P.M.; Friday, and Saturday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPEDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Royal London Ophthalmic Hospital: 1 P.M., Mr. W. Lang: Conjunctival Affections.—101, Gt. Russell-st.: 3 P.M., Dr. Galloway: Liver and Spleen.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. Louis C. Parkes: Disposal of Refuse and Sewage.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Dr. Greville MacDonald: Laryngitis, Acute and Chronic.  
**MEDICAL SOCIETY OF LONDON.**—8.30 P.M. Dr. E. W. Richardson: On Intra-organic and Thoracic Auscultation—a New Departure in Physical Diagnosis.—Mr. Alban Doran: On the Surgical Treatment of Cysts of the Vulvo-vaginal Glands.

Tuesday, November 1.

**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**ST. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**ST. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**ST. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Hutchinson: The Nature of Yaws.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Stupor and Dementia.—101, Great Russell-st., W.C.: 8 P.M., Dr. Braxton Hicks: Pelvimetry.  
**PATHOLOGICAL SOCIETY OF LONDON.**—Mr. Raymond Johnson: Traumatic Dermoid Cyst of Hand.—Mr. Chas. Morton: (1) Adenoma of the Soft Palate; (2) Tumour resembling in structure an ordinary Parotid Tumour, without gland tissue, growing in the Cheek in front of the Masseter.—Mr. H. Betham Robinson: Psorospermial Cysts from a Rabbit.—Dr. F. C. Turner: Acute Empysema of Lung—(a) traumatic, (b) respiratory. Card Specimens:—Mr. D'Arcy Power (for Mr. G. N. Stephen): (1) Specimen of Lepra Mutilans; (2) Calculus encysted in a Child's Bladder.—Dr. E. C. Perry: Secondary Sarcoma of the Small Intestine.

Wednesday, November 2.

**NATIONAL ORTHOPEDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**ST. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday & Saturday, same hour.  
**ST. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. Sidney Martin: Cases of Apical and Basal Syphilitic Murrurs.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Intra-ocular Tumours.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Mr. F. G. Harvey: Chronic Rhinitis.  
**OBSTETRICAL SOCIETY OF LONDON.**—8 P.M. Specimens will be shown by Dr. Cullingworth, Dr. Galabin, Dr. Horrocks and others. Adjourned Debate on Dr. Cullingworth's paper on "The Value of Abdominal Section in certain cases of Pelvic Peritonitis."—Dr. F. J. McCann and Dr. W. A. Turner: On the occurrence of Sugar in the Urine during the Puerperal State.

Thursday, November 3.

**ST. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. W. Arbuthnot Lane: The Treatment of Chronic Purulent Otitis and its Complications.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Buzzard: Cases in the Hospital.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. C. G. Wilkin: Nasal Polyp.—Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Mr. Jonathan Hutchinson: Surgical Cases in the Wards.  
**HARVEIAN SOCIETY.**—8.30 P.M. Dr. Stephen Mackenzie: Dermatitis Herpetiformis.—Dr. Rayner Batten will exhibit and explain a Clinical Pulse Manometer.

Friday, November 4.

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M.; Dr. Sidney Martin: Cases of Mitral Regurgitation.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Tuberculosis (Examination of Sputum).  
**WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).**—8.30 P.M. Specimens &c. at 8 P.M. Mr. E. F. Benham: Large Ovarian Cyst with Adherent Vermiform Appendix.—Dr. J. Cromble: Specimen and Notes of a case of Ulcerative Endocarditis.—Dr. Thudichum: The Origin and Treatment of Gall-stones.—Dr. Henry Sutherland: The Prevention of Suicide in the Insane.

Saturday, November 5.

**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Bethlem Hospital: 11 A.M.; Dr. Theo. Hyslop: Climacteric and Senile Insanity.

## METEOROLOGICAL READINGS.

(Taken daily at 8.50 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 27th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Oct. 21	29.72	S.W.	46	44	75	51	40	..	Overcast
" 22	29.59	N.W.	42	39	77	48	39	.02	Cloudy
" 23	29.60	N.W.	33	36	83	53	35	--	Bright
" 24	29.78	N.W.	35	34	80	50	33	--	Hazy
" 25	29.70	E.	40	39	60	45	35	--	Raining
" 26	30.06	N.E.	36	35	65	48	34	.02	Foggy
" 27	29.65	S.W.	41	39	54	50	35	.04	Overcast

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher." We cannot undertake to return MSS. not used.*

### A PATHOLOGICAL BANQUET.

AT Rome a congratulatory symposium was given to Signor Adolfo Rossi, correspondent of the *Tribuna*, on his safe return from Hamburg, whither he had been sent to report on the outbreak of cholera. The menu was intended to give the guests—some fifty in number—a notion of the dangers Signor Rossi had encountered in the discharge of his commission. Here it is:—

"Recipe—Bacilli virgola al consommé—Pesci dell' Elba in salsa inquinata—Filetto alla 'Stanhope'—Cultore di fagiolini—Polli arrosto uso Koch—Gelato algido—Dessert, frutta e disinfezioni a piacere—Iniezioni epidermiche di Chianti—Cantanoclium di Champagne."

(*Nota*) Bacilli-virgule al consommé—Elbe fish with river sauce—Filet à la "Stanhope"—"Cultures" of *haricots verts*—Roast chickens à la Koch—Ice *frappé*—Dessert: fruits and disinfectionary ad libitum—Subcutaneous injections of "Chianti"—Champagne imbibed à la Cantani. "In spite of its alarming bill-of-fare, the banquet received ample justice," says the *Tribuna*, which journal seems to think such pleasantries a not ineffectual way of laughing down the tendency to panic which such epidemics evoke among Italians.

*M.R.C.S. (Bournemouth)* should apply at the offices of the company.

*Mr. Hugh Lane (Bath).*—The paper is receiving attention.

### "AN IRREGULAR TAX ON MEDICAL PRACTITIONERS."

To the Editors of THE LANCET.

Sirs—Medical men who complain that the coroners' officers expect the odd shilling of their fee should request the coroners of their districts to pay them by cheque, which is always the method of payment here. I am, Sirs, yours truly,

Plymouth, Oct. 10th, 1892.

J. ELLIOT SQUARE.

## ARE MEDICAL MEN BOUND TO GIVE DEATH CERTIFICATES?

*Mr. Laffan.*—Registered medical practitioners are certainly bound to give death certificates in cases which they have attended, as Mr. Laffan will see if he reads the 20th Section of the 37 and 38 Vict., cap. 83, passed in 1874, an extract from which is given in the death certificate book supplied gratuitously by the Registrar-General. By Section 30 penalties are imposed for not giving any certificate required by the Act, the penalty not to exceed forty shillings. Clause 3 of Section 20 provides that when an inquest is held a medical certificate need not be given.

*Dr. Forbes-Ross.*—Our correspondent is inconsistent surely in some of his statements. Thus whilst he denies the presence of potassium he admits the presence of albuminoids, which, he says, "must of necessity contain potassium salts." The phosphates were found in the preparation after incineration, as is distinctly stated. The test for potassium was not that which our correspondent mentions, but one upon which the formation of crystalline tartrate depends when tartaric acid is added to the solution. The fact that the preparation "digests" milk is no proof that it digests itself. We thank our correspondent for his letter, and are glad that he entirely agrees with our remarks respecting the fitness of the article for diabetic patients.

## "MIDWIVES' REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—If every member of the profession would place on record but one of the instances of flagrant ignorance on the part of midwives which are constantly coming under our notice a mass of evidence would soon be accumulated which would perchance cause those enthusiasts for "cheap doctoring" who are proposing to register these unskilled persons to pause. The following is a case in point.

Some time ago I was attending the worst case of erysipelas I ever saw either in hospital or private practice. A midwife who is reputed to do the most extensive practice of any woman in the town was a neighbour of my patient. At my second or third visit I found this midwife in the sick room. As soon as I heard who she was I told her that the case before her was of a very infectious nature, especially as regards puerperal patients, and that if any of her patients became infected by her the result would more than likely be fatal. This produced no effect. She was very pressing to be allowed to hold the patient's limb while I dressed it, and it was only my declaration that I would at once leave the house if she laid her hands on the bed that kept her off. Notwithstanding this, she came on several subsequent occasions into the room, even when I was there. That she would have been utterly incompetent to deal with, or even to recognise, any effects of septic infection which her patients might have exhibited was proved by a more recent experience. I was called in to see a patient whom she had attended in her confinement when the child was a week old. The patient had felt herself ill for some days, but the midwife declared that she was going on satisfactorily. When I saw her her temperature was 101° F. There was an obvious mass of exquisitely tender pelvic cellulitis reaching from the uterus to the brim of the true pelvis on one side, and the patient experienced almost agonising pain when fecal matters passed through the rectum, showing that the cellulitis extended far both deeply and backwards. The midwife was unable even to realise the necessity for obtaining more skilled assistance. If the order for decorating with diplomas the midwives in practice at the present time had gone forth this woman would certainly be as much entitled as anyone to be registered, and as—unfit.

I am, Sirs, yours faithfully,

A SURGEON.

Oct. 17th, 1892.

## PECULIAR SYMPTOMS OF POISONING BY SANTONIN.

To the Editors of THE LANCET.

SIRS,—The following case may be of interest to your readers (I have never seen or heard of a similar one). I found my oldest son, aged nine years, to be suffering from ascariides on the 9th of this month. In the evening I gave him an enema of quassia, which relieved the irritation until the 12th. As it returned I gave him, on the morning of the 13th, at 7.30, nearly five grains of santonin in milk. At 8.15 he had his breakfast of oatmeal porridge and would have gone to school, but I thought he would be better at home. About 9.15 I asked him to do something for me, to which he replied, "Yes, father." He did not do it, and after a minute I asked him if he did not hear me, to which he replied, "No." I noticed he looked pale, so went to him and carried him on to a couch. He was no sooner laid down than he turned a nasty bluish-green colour, the lips became blanched, limbs convulsed, teeth clenched, eyes wide open, pupils dilated, pulse absent at wrist, and he was bathed in a cold, clammy perspiration and unconscious. I forced open his teeth and gave him some brandy-and-water and went off at once for my nearest colleague. In about ten minutes the twitchings became less and the pulse began to return at the wrist. When my colleague came he was improving, but remained unconscious until 10.30, when he spoke a few words and then fell into a sleep. He was not himself for the rest of the day, but now seems quite well. If any of your readers have seen any such experience in similar cases I should be glad to hear of them. I must confess I thought my child was dying. I did not think the dose excessive.

I am, Sirs, yours truly,

Oct. 17th, 1892.

M.R.C.S.

## WINTER QUARTERS.

*R. J. S.* writes:—"Your leading article (Oct. 8th) on 'The Departure for Winter Quarters' will be read with much interest and profit. I beg leave to suggest, however, that those who have to winter abroad would find their requirements exactly suited during October, and even in the last week or two, at Pau. Pau has much to recommend it. It is undoubtedly the best-drained town in the south of France, and the cholera has never been known to visit it. Its large English-speaking colony makes it seem almost like home to the English. It has a pure and abundant water-supply. Its climate is, owing to its altitude (between 600 and 700 feet) peculiarly dry and at the same time soft, balmy and invigorating. It is on the road to the Riviera by the Midt Railroad via Toulouse. The weather for the last three weeks has been almost perfect—genial, warm and agreeable, with just enough rain and storm to give pleasant variety. If the weather is bad at Pau it is sure to be worse elsewhere in the north." We allow our correspondent's statements to speak for themselves, but we must point out that in several points he is in error. Pau does not possess a dry climate. The rainfall is forty-three inches, and rain falls on 119 days in the year (cf. Nice, with twenty-five inches of rain and sixty days on which rain falls). Nor can the climate of Pau be correctly described as "invigorating." In fact, authorities are pretty well agreed that it is remarkable rather for its sedative quality—a view with which our own personal experience entirely accords. Pau has rather receded in favour of late years; but its mild, soothing and rather moist climate suits some varieties of pulmonary and neurotic invalids very well, and we think our correspondent is probably right in maintaining that autumn and early winter are its best season. It is only by a considerable latitude of expression that Pau can be described as "on the road to the Riviera."

*Curio.*—Our correspondent should take the advice of a solicitor. It is impossible to give an opinion on a document which is not before us and the effect of which may be modified or governed by circumstances of which we are unaware.

## EFFICIENT VACCINATION.

To the Editors of THE LANCET.

SIRS,—One of the causes of the disrepute into which vaccination has fallen is, as one of your correspondents lately pointed out, the inefficient way in which it is frequently performed. I hold the office of public vaccinator for a small urban district, and on the occasion of my last series of visits to one of the out-stations only one baby was brought to be vaccinated, instead of the usual nine or ten. On my inquiring the reason the mother told me that Dr. — (naming an unqualified assistant) was vaccinating nearly all the babies at a small fee, and mothers would not bring their babies to have "four spots" at the station when they could have one, or at most two, small ones put on at home. No doubt the assistant takes the papers home to be signed, but how far the "one or two small spots" act as a protection is surely a matter of doubt.

I am, Sirs, yours faithfully,

October, 1892.

PUBLIC VACCINATOR.

A VERY OBJECTIONABLE COMBINATION OF MEDICAL ADVERTISING AND PHILANTHROPY AT TENTERDEN.

The following advertisement is from the *Kentish Express and Ashford News* of Oct. 8th. We need not say more of it than we have implied in the heading.

"FREDERICK FITZHERBERT JAY, M.D., late of Leamington, who has commenced practice at Tenterden as a general practitioner, will, upon receiving a recommendation from a lady or gentleman resident in Tenterden or the neighbourhood, give advice gratis to any poor person every Saturday, between the hours of three and five in the afternoon. Apply at private door (Mr. Freeman's), West-View House."

## STATUES OF EMINENT MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—Your Paris Correspondent, in calling attention to the statues of Broca and Ricord, mentions Harvey's statue at Folkestone as the only statue to distinguished English medical men which he can remember. There is an excellent statue at the Fountains in Kensington-gardens of Jenner, which was, I believe, first erected in Trafalgar-square in front of the Royal College of Physicians, but afterwards removed to its present site in consequence of the agitation in Parliament against vaccination.

I am, Sirs, your obedient servant,

Oct. 22nd, 1892.

CHAS. ROBERTS.

## THE HISTORY OF QUACKS AND QUACKERY.

To the Editors of THE LANCET.

SIRS,—Would any of your readers kindly give me references to works or notices respecting quacks and their doings? I have promised to give a lecture on the subject, and shall feel thankful for any information that may prove of service in its preparation.—I am, Sirs, yours truly,

October, 1892.

A.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Communications, Letters, &c., have been received from—

- A.—Dr. Clifford Allbutt, Cambridge; Dr. Addison, Colchester; Dr. J. E. Allen, Todmorden; Dr. Abercrombie, Paisley; Messrs. Allen and Hanburys, London; A. A. B.; Apothecaries' Hall, London.
- B.—Sir James Crichton Brown, London; Dr. A. G. Blomfield, Exeter; Dr. Adolph Bronner, Bradford; Dr. J. B. Bull, London; Mr. Bigg, London; Mr. Butler, Retford; Mr. Browning, Sheffield; Mr. Botwood, Ipswich; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. W. Braime; Mr. F. G. Burge, Shanghai; Mr. A. E. Barker, London; Mr. C. F. Beadles, Colney Hatch.
- C.—Dr. John Curnow, London; Dr. W. H. Cheetham, Leeds; Mr. Cadogan-Masterman, Sturport; Mr. A. Carter, London; Mr. W. T. Cocking, London; Mr. Coates, Brighton; Messrs. Condy and Mitchell, London; Messrs. Clarke, Son and Platt, London; Mr. J. Brendon Curgenvin, Teddington; City Hospital for Infectious Diseases, Newcastle-on-Tyne; Chelsea Hospital for Women; Curio; Cato, London.
- D.—Dr. Clement Dukes, Rugby; Dr. Andrew Davidson, Lasswade; Dr. Wm. Donovan, Birmingham; Mrs. Davies, Cambridge; Mr. Douglas, Matlock; Mr. Davis, Sierra Leone; Mr. A. Duke, Cheltenham; The Dean, St. George's Hospital; D. P. H., Cambridge.
- E.—Mr. G. Y. Eales, London; Mr. C. H. Eyles, British Honduras.
- F.—Dr. W. Fowler, Echuca, Victoria; Mr. Hugh Fitzpatrick, Birmingham; F. H. S.; Fairplay.
- G.—Dr. Samuel Gee; Mrs. Gann, Hayling Island; R. Gopalrao, Somali Coast; General Hospital, Birmingham.
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- L.—Mr. Hugh Lane, Bath; Dr. E. Little, Wimbledon; Messrs. Lee and Nightingale, Liverpool; Mr. Little, London; Mr. H. Newman Lawrence, London; Mr. Lord, London; Messrs. Lovett and Co., Coventry; L.R.C.P.
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- O.—Messrs. Oliver and Boyd, Edinburgh.
- P.—Dr. Priestley, Leicester; Mr. F. G. Penrose; "Power and Matter," Mr. Palmer, East Dulwich; Mr. Pontland, Edinburgh; Mr. Pinchard, Taunton; Mr. Paynter, London.
- R.—Dr. R. R. Rentoul, Liverpool; Dr. Russell, Glasgow; Mr. Chas. Roberts, London; Mr. C. J. Rawlings, London; Dr. Ridge, Enfield; Messrs. Robinson and Co., Norwich; R. K., London.
- S.—Dr. Sturges, London; Canon Scott, Leeds; Dr. F. J. Shepherd, Montreal; Mr. Stone, Venice; Miss F. Saunders, London; Mr. T. Smith, London; Messrs. G. Street and Co., Cornhill; Mr. Steadman, Borough; Messrs. Shepherd, Clark and Co., New York; Messrs. Slinger, York; Statim, Sheffield.
- T.—Mr. J. Tweedy, London; Miss Taylor, Brighton.
- U.—Mr. Unsworth, Liverpool.

V.—Mr. Vickers, London.

W.—Dr. Tucker Wise, Davos Platz, Switzerland; Messrs. Willing; Dr. Alexander Weir, London; Mr. Wand, Leicester; Mr. Wolf, London; Mr. Warrilow, Chelsea;

Mr. Williams, Battersea-park; Dr. Wilhelm, Cape Colony; Mr. Williams, Anglesey; Mr. Wilmer, Oxford.

X.—X. Y., London.  
Z.—Z., London.

Letters, each with enclosure, are also acknowledged from—

- A.—A. Lewisham; A. B., London; A. G., London.
- B.—Mr. Bourke, Hastings; Mr. Bonar, Cornwall; Mr. Brooch, Newbury; Messrs. Blondeau and Co., London; Mr. Borthwick, Glasgow; B., Finsbury-park; B., London; Bradford Infirmary.
- C.—Dr. Clegg, Windermere; Mr. Chapman, Child's Hill; C. B., London; Class Rooms, Edinburgh; Cairo, Newcastle-on-Tyne.
- D.—Messrs. Duncan, Flockhart and Co., Edinburgh; Dextra, London;
- E.—Mr. Edwards, Birmingham; E., London.
- F.—Mr. Flood, Leeds; Mr. Fiske, Aylesford; Miss Field, Guy's Hospital; Mr. Flynn, co Dublin; F. P., London.
- G.—Mr. Gibson, Worcester; Mr. Gilyard, Bradford; Gamma, London; G. H. H., London; Guy's, London.
- H.—Mr. Hulme, Leek; Mr. Howse, London; Dr. Hayward, Birkenhead; Dr. Holmes, Southam; Mr. Harper, Ripley; Hygiene, Sheffield; Dr. H., Edinburgh.  
—Dr. Joll, Woolton; Mr. Johnson, Leicester; J. T. B., Morecambe; Jove, London; Johannis Co., London.
- L.—M. Lorette, Paris; Messrs. Leo and Martin, Birmingham; Dr. Langdon, Preston; Mr. Lownds, Kirkburton; Lex, London.
- M.—Dr. McKay, Rosshro; Manchester, London; M., London; M.A., London; M. T., London; M. C. M., London; Medicus, Dover.
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- P.—Mr. Peacock, Thornton Heath; Mr. Price, Longton; Mr. Plnder, Broughton; Princes, London; Practitioner, London; Principal, London.
- R.—Mr. Rhodes, Huddersfield; Mr. Robinson, Barnard Castle; Mr. Richards, Glamorgan.
- S.—Mr. Saunders, Eton; Messrs. Schacht and Co., London; Mr. Scriven, London; Mr. Suvart, Victoria; Messrs. Simmons and Co., London; Mr. Saunders, Manchester; Mr. Smith, Fleetstreet; Simpson, Bristol; Scotus, London; Scalpel, London; Sheffield Public Hospital; Statim, Sheffield.
- T.—Mr. Turney, London; Mr. Thin, Edinburgh; Mr. Tyte, Minchinhampton; Mr. Taylor, Ruthin; Theta, London; The Abbey, Derbyshire; T. R. M., London.
- V.—Dr. Vintras, London; Veritas, London.
- W.—Rev. Mr. Watson, Farnham; Mr. White, Twyford; Dr. Waring, Brighton; Mrs. Wilson, Edinburgh; W. C., Ealing.
- X.—X. X., London.
- Z.—Zygoma, London.

NEWSPAPERS.—Surrey Advertiser, West Middlesex Standard, City Press, Weekly Free Press and Aberdeen Journal, Local Government Chronicle, Reading Mercury, Windsor and Eton Gazette, Hertfordshire Mercury, Our Dumb Animals (Boston, U.S.A.), Mining Journal, Leeds Mercury, Scotsman, Bristol Mercury, Liverpool Daily Post, Food, Drugs, and Drink Journal, Yorkshire Post, Windsor and Eton Express, Cleckheaton Guardian, Guy's Hospital Gazette, West Middlesex Advertiser, Elgin Courant, Law Journal, Lincolnshire Chronicle, Electrician, Midland Counties Express, Derbyshire Times, Dartmouth Chronicle, Canterbury Journal, Waterford Mirror, Worcestershire Chronicle, Birmingham Gazette, Sheffield Independent, Montreal Gazette, Whitehall Review, Court Circular, Sunday Times, Le Temps (Paris), Builder, Observer, European Mail, Dundee Courier, Woodford Times, Manchester Guardian, Architect, Bolton Evening News, Carnarvon Herald, Evening News and Post, Kidderminster Shuttle, &c., have been received.

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## Post-graduate Lecture

ON

THE GREAT PRACTICAL IMPORTANCE OF  
SEPARATING RHEUMATOID ARTHRITIS  
FROM GOUT.*Delivered at the Central London Sick Asylum, Oct. 13th, 1892,*By **SIR ALFRED B. GARROD, M.D., F.R.S.,**PHYSICIAN EXTRAORDINARY TO H.M. THE QUEEN; CONSULTING  
PHYSICIAN TO KING'S COLLEGE HOSPITAL.

GENTLEMEN,—Let us suppose that we are examining a diseased joint—say, a knee,—and we find it swollen and out of shape, perhaps showing evidence of containing fluid and possibly exhibiting some redness and heat of surface. These symptoms we can ascertain at once by touch and sight; but we are unable, unless we proceed further, to discover the real alterations which have taken place in the articulation or to know the condition of system which has given rise to the morbid state of the joint. 1. It may possibly have arisen from some accidental sprain which has excited traumatic inflammation of the joint. 2. A gouty condition of the system may be the cause. 3. It may be the result of true articular rheumatism. 4. Pyæmia due to the presence of pus in the blood may have caused the appearances we have noticed. 5. It may be the result of what may be termed "urethral rheumatism"—a disease in many respects allied to pyæmia, and connected with the formation and absorption of a specific form of pus. 6. It may arise in a condition of the system which may be termed "rheumatoid arthritis"—a condition which I shall have occasion to dwell upon in this lecture, and which therefore I need not speak further of at present. In order to have a chance of combating with success the various forms of articular disease, it is absolutely essential that we should have a clear insight into the various pathological changes which the different structures exhibit when carefully examined, and likewise a knowledge of the many morbid conditions of system in which they may occur.

Having but a single hour at my disposal I think I shall spend it more profitably in attempting to clear up one or two points of great practical importance rather than in treating of many in a less complete and satisfactory manner. That the points I have chosen are of the greatest importance may be gathered from the fact that hundreds, probably thousands, of patients have been reduced to a crippled state simply from want of rightly understanding them. The subject I shall select is the differential diagnosis of true gout, and an affection, formerly, and even now, by many medical men termed "rheumatic gout." The study of articular affections some thirty years ago led me to the conclusion that the majority of the cases then called "rheumatic gout" were related neither to true gout nor true rheumatism, and that they had an independent pathology of their own; and if such is the case, the term "rheumatic gout" was doubly wrong. I must confess that even before I proposed to change the name of the disease it struck me as very peculiar that there should be such a compound malady; it would have appeared to me no more surprising to hear of scarlet-fever-measles or any other combination of diseases. I proposed the name of "rheumatoid arthritis"—a name which does not imply any error, but assumes the disease to be an arthritic or joint disease having some of the external characters of rheumatism,—and the name has of late years been very extensively used, nor should I wish to alter it, although I allow that a better name may one day possibly be found. Arthritis deformans has been applied to the malady, and this again is not an erroneous name, though in the earlier stages of the disease it is by no means a characteristic one. The term "rheumatoid arthritis" is nearly, or at least half, as bad as that of "rheumatic gout," as it implies the existence of one error instead of two. I am not aware of any two joint affections which are so frequently mistaken for each other as gout and rheumatoid arthritis, and I know of no errors of diagnosis which have led to so much mischief; nor is it difficult to understand why such terrible results are apt to follow, seeing that both the medicinal and dietetic treatment so useful in the one disease may prove most injurious in the

No. 3610.

other. My case books, even of the last ten years, contain fearful instances of the ill effects which may arise from such errors of diagnosis; and if in the present lecture I am able to prove to you the truth of these statements, I shall feel that I have not devoted my allotted hour to a useless purpose.

Before selecting actual cases of these diseases and pointing out the way in which one may be separated from the other, it will be necessary for me to bring before your notice the principal features which characterise both gout and rheumatoid arthritis. This I shall endeavour to do in as few words as possible; and first we shall speak of gout. You have probably been accustomed to hear gout spoken of as simply a joint affection, in which occasionally the disease is transferred either from one joint to another, or sometimes from a joint to some other organ. This was my own idea a few years ago; but a very extensive experience has disposed me to look upon gout as a systemic disease, invariably connected with a peculiar and characteristic state of the blood, which I shall shortly describe, and to consider that it may and does frequently exist for many years without the development of any joint affection, but confining itself to the production of changes in numerous other tissues and organs. The characteristic features of gout may be thus described:—1. In all cases of gout, articular or not there is an excess of uric acid in the blood. 2. The tissues of the joints which have been subjected to gouty inflammation always exhibit deposits of uric acid in the form of the biurate of sodium in a crystallised state, and this deposit must be looked upon as the cause, not the result, of the inflammation—in other words, the deposited urate is antecedent to the inflammatory action. 3. The inflammation which occurs around the deposited urates produces a destructive action upon them. 4. Gout is often manifested in non-articular structures, as the skin, kidneys, bladder and prostate, throat, digestive organs, muscles and so forth. 5. (a) Gout has a close relation to the patient's diet, especially to his alcoholic beverages; (b) gout is much more common in men than in women; (c) gout is a strongly hereditary disease. We must now discuss at least some of these different statements.

1. Many years have now elapsed since uric acid was discovered in the blood. In June, 1847, I procured the blood of a patient suffering from a severe attack of typical gout, and on carefully examining the same was enabled to separate uric acid from it, either in the form of the crystallised acid or as the biurate of sodium. These researches were published in the Transactions of the Medical and Chirurgical Society in 1848 and following years. It may perhaps be well to mention that at the time I made these observations there was no difficulty in procuring a sufficiency of blood; venesection was constantly performed and even looked for by patients who had any inflammatory disease. At the present time it would be practically impossible to make such investigations as I then was enabled to pursue.

2. A proof of the truth of our second statement—namely, that the deposition of urates in the tissues is antecedent to the occurrence of the inflammatory action—is seen during the formation of the little bodies which so often occur in gouty subjects in the helix and other parts of the external organs. At first we observe a little vesicle; the contained fluid is almost transparent; this fluid gradually becomes more or less opaque or milky, then creamy; afterwards the consistence gets cheesy, and lastly chalk-like in its hardness. In by far the great majority of cases these deposits in the ear are unattended with any inflammation; there are, however, well-marked exceptions to the rule. Every post-mortem examination shows the uniform occurrence of urate deposits whenever any joint has been attacked with gouty inflammation, and I was enabled to show the deposits in two interesting cases: one that of a man who during life had two distinct attacks of gout confined to the ball of one great toe, and in this subject examination showed the deposit in this joint only; the second case was also that of a man who had but one attack thirteen years before his death, and in this instance the deposit was found in parts known to have been implicated during life, and in these only. Extensive deposits of urates are often found in the bursæ or the elbows, which at times are unaccompanied with inflammation.

3. If a large joint, such as a knee, which has been often subjected to gout be examined after death, it will be seen that the deposits on the synovial surface do not approach near to the bloodvessels, which would seem to show that the bloodvessels of the inflamed surface have caused the partial

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destruction of the previously deposited urates. That the blood of any tissue in a state of gouty inflammation contains less uric acid than that of any other part of the same subject is not difficult of proof and may be easily shown by the application of a blister to the part. I have found, for example, that the fluid from the inflamed dorsum of the hand has been free from uric acid when that from the chest of the same person was rich in that acid. The slight inflammation caused by the blister itself to some small extent destroyed the uric acid.

4. In the non-articular manifestations of gout, which are far more numerous and frequent than I was formerly disposed to admit, and which are perhaps less frequently found in hospital practice, the parts most commonly affected are the following:—

(a) *The Skin.*—Now and then, in gouty conditions, we find different varieties of erythema. It may, however, be questioned if this cutaneous affection is more frequent in gout than in many other diseases—it is certainly much less common than in rheumatism. Eczema, on the other hand, is the skin disease which is so characteristic in gouty subjects; it presumably occurs before the articular manifestations and becomes relieved by their occurrence; but it often remains during the course of the joint disease, and at times continues for an almost indefinite period afterwards. It is not uncommon to meet with eczema in the children of gouty parents, even when they are still quite young. On the other hand, it is often the bane of gouty subjects in the latter years of their lives. The production of eczema is doubtless a means of getting rid of uric acid from the blood; but, contrary to what might have been at first supposed, the fluid of eczema contains no urates. This is easily explained, for each vesicle, the product of inflammation, causes the destruction of the acid, which is converted into other products. I have as yet failed to discover uric acid either in the liquid exudation of acute eczema or the scales from the surface of the dry variety.

(b) *The kidneys.*—The kidneys are perhaps equally as liable to be attacked, but certainly not so early in the disease, as the skin. Traces of albumen are most common in the urine of gouty patients, often most minute in quantity, but still indicating the presence of some gouty action, and of a deposit of urates in the intertubular structures. In the early stages I frequently found albumen to be quite absent during the complete intervals of gouty attacks. With regard to the occurrence of gravel and calculus, it may be remarked that some gouty subjects are troubled with calculi, and the children of such are rather liable to this malady. My friend, Sir William Roberts, has well said in his recent Croonian Lectures that “many gouty people are never troubled with gravel, and conversely that many subjects of gravel are never troubled with gout. In both complaints there is an aberration of uric acid; but the error is essentially different in the two cases, both in regard to its site and to its nature.” Albumen in the urine is doubtless often caused by a gouty change in the kidney; but, on the other hand, albuminuria from any cause will certainly predispose to the production of a gouty state of the system.

(c) *Muscular system.*—The voluntary muscles are often affected in gout in the form of cramps, and this symptom can sometimes be made use of as a diagnostic mark. Nothing is more common than to find patients complaining of cramp in the calf of the legs, and feet early in the morning for days and weeks before the commencement of an attack of joint affection, which passes off at once when the articular inflammation comes on. My experience would lead me to think that the involuntary muscles are not very frequently affected in gout. The heart is supposed to be so at times, but true spasm in an otherwise healthy heart it has not been my lot to become acquainted with. Lumbago and other forms of the so-called muscular rheumatism are very frequently associated with a gouty state of the system.

(d) *Digestive organs.*—For weeks, months and even years, before an attack of gout in the joints it is not unfrequent to find patients suffering much from indigestion, usually of an irritative character, often accompanied with much flatulence, pain, red tongue and hæmorrhoids—symptoms indicating that the mucous membrane of the stomach is slightly inflamed, and that the portal vessels are in a state of congestion. I have also thought that gouty patients are very liable to have a loaded state of the colon and fulness of the liver; but whether this condition is more common in gouty than in other subjects I could not positively say. When gout has been induced by the mode of living it is probable that the whole portal system has been also disturbed by the same

cause. The throat, nose, prostate gland and testicles are at times implicated in gouty patients. Sore-throat is exceedingly common and often alternates with other manifestations of the disease. The tonsils usually exhibit a peculiar purplish colour, without showing any appearance of acute soreness. In a very few cases I have seen the end of the nose unmistakably affected by gout, causing great inconvenience and suffering. The prostate gland is not unfrequently attacked, and its gouty character can be easily seen after a time by the quick subsidence of the symptoms, especially if a large joint becomes inflamed. In several cases I have seen one or both testicles attacked with gouty inflammation.

(e) *Circulatory and respiratory systems.*—There is a very prevalent idea in the profession, as well as amongst the public, that the heart is often attacked by gout, and there are records of many men, some of considerable eminence, who have died suddenly from this cause. I have never myself seen acute pericarditis or endocarditis brought on during an attack of articular gout. Doubtless the subjects of gout very frequently have chronic valvular disease, as the causes which induce gout lead also not uncommonly to slow valvular changes.

#### RHEUMATOID ARTHRITIS.—ARTHRITIS DEFORMANS.

It will now be necessary for me to state the chief characteristics of the second disease, which we have agreed to call “rheumatoid arthritis,” before we attempt to separate the two maladies from each other, or bring under your notice illustrative cases of these maladies. 1. In rheumatoid arthritis there is an absence of any excess of uric acid in the blood; in this respect it differs altogether from gout. 2. The examination of the joints which have been implicated in rheumatoid arthritis fails to exhibit any evidence of the presence of biurate of sodium, either on the surface of the cartilages or in the surrounding articular tissues. 3. On the other hand, even in the earlier stages of rheumatoid arthritis, there is a marked alteration in the cartilages; there is ulceration from the very first, and in time the bones become completely denuded. In one instance a man under my care in the hospital had the inter-articular fibro-cartilage of the left maxillary joint completely removed, the surface of the maxillary bones denuded and the projection of bony prominences fitted so closely as to cause complete locking of the jaw. 4. Rheumatoid arthritis, as far as my knowledge of the disease at present goes, manifests itself only in the joints. We have no evidence of the existence of any morbid state of the blood. There is in all cases some defect of nutrition which appears to affect such tissues as the cartilages, which are comparatively free from vascularity. In this respect it differs completely from gout, where so many organs of the body may be implicated. 5. There certainly is a close connexion between rheumatoid arthritis and the state of the nervous system. Severe and long-continued mental depression is a very fruitful cause of the disease; but physical causes, such as frequent losses of blood, will also lead to its development. 6. There is no known relation between the condition of the kidneys, skin or digestive organs and rheumatoid arthritis. 7. The selection of the joints which become implicated in rheumatoid arthritis differs much from what is seen to be the case in gout. A knowledge of this fact is often of much use in arriving at a diagnosis. If a first attack begins in the great toe specially it is highly probable that the case is one of true gout; the frequency of its occurrence in this locality is so great as to render the symptom almost pathognomonic. There are, however, a few exceptions which must be carefully investigated when they occur. There is a special tendency in rheumatoid arthritis to an affection of the jaw and also the back of the neck; the number of cases in which one or both of these parts are attacked is very great. I should imagine at least two-thirds of the patients affected with this disease experience these symptoms during its course. At times, however, the neck may become quite set from an ankylosis of some of the cervical vertebrae, and occasionally the jaw becomes so rigid as to require the removal of a tooth in order that nourishment may be introduced into the mouth. There is scarcely any other disease in which these symptoms are found; so that their occurrence is of great value in the diagnosis of this malady. 8. The effect of diet in rheumatoid arthritis is much less marked than in gout. I am not aware of any special articles of diet influencing the progress of rheumatoid arthritis when it is present, or leading to its first development. It may be regarded as certain that any diet which is insufficient to keep up

the general health leads to the increase of the disease; and, on the other hand, any diet which improves the strength tends to lessen the affection. With regard to alcoholic beverages, I may remark that malt liquors, port, sherry, champagne and other wines, so potent in the production and keeping up of true gout, have no influence in causing rheumatoid arthritis. This I shall be able to prove to you before the end of the lecture. Total abstainers are quite as liable to rheumatoid arthritis as those who have taken ordinary alcoholic drinks. I have had many cases illustrating this point—one a clergyman who had never in his life tasted alcohol, and whose father and mother had been rigid abstainers. 9. Females are more liable to rheumatoid arthritis than males, and there can be no doubt that the influence of heredity is very much less marked in rheumatoid arthritis than in gout. 10. Rheumatoid arthritis may occur at any age. I have seen a well-marked case in a child of three years and a half old; I have also seen it commence in patients eighty-seven years old; but the more common time is from about fifteen to thirty years. Gout, on the other hand, is much more commonly met with after forty years of age.

Having brought before your notice the chief characteristics of the two maladies which engage our attention in this lecture, I shall endeavour to point out such diagnostic marks of each disease as will enable us, with something like certainty, to separate the one from the other. I must here repeat that I consider it a matter of extreme importance to form a correct diagnosis, and that the failing to do so must not be looked upon as a mere pathological error, of consequence only from a scientific point of view. To mistake true gout for rheumatoid arthritis is, perhaps, of comparatively little importance; it might, and probably would, by the treatment adopted, lead to a prolongation of the attack and inconvenience to the patient; but to mistake rheumatoid arthritis for true gout is often the cause of irreparable mischief, and may lead to the worst form of crippling. Yet I feel absolutely certain that this is daily done with the most disastrous results. It is only this day on which I am writing these lines that I have met with two new cases thus mistaken. A few years ago I was written to by a physician of very high repute, a gentleman who had been for many years connected with one of our largest hospitals. The substance of his remarks was as follows: That he had been extremely interested in reading what I had made out concerning the two diseases we have been considering, but he practically allowed that up to that time he had in his practice failed to recognise the distinction, and had acted accordingly. It must therefore be admitted that physicians, who in most respects are fully up to their profession, may be in grave error in reference to the separation of gout and rheumatoid arthritis. This was certainly the case but a comparatively few years ago. In the moderately advanced stages of true gout, when chalk stones are visible either on the helix of the ears or bursa of the elbow or other parts, it is difficult to see how any error of diagnosis can be made, for urates are never deposited except in true gout. I must direct your attention to the fact that deposits often occur in the external ear before they are visible in other parts of the body, and this may become very important in diagnosis. In many cases I have been materially assisted by attending to this pathognomonic sign.

In the early stages of gout the diagnosis is, as a rule, very easy: the suddenness of its invasion, often during the night; the acuteness of the pain; the joint most frequently affected; the short duration of the attack, usually not more than ten days; the history of the case as to diet, and more especially as to the character of the alcoholic beverage; the presence or absence of hereditary predisposition—these taken together are usually sufficient to ensure a correct diagnosis. There are, however, cases of true gout occurring in elderly people, more especially in women—they often affect the knee or other large joint—in whom the inflammation is by no means acute, but the joint remains a long time affected. These cases are difficult to diagnose correctly. The effect of treatment in such cases assists greatly in the diagnosis. The fear, however, is usually not that true gout may be mistaken for rheumatoid arthritis, but that cases of this latter disease may be looked upon as of a gouty character. This error is infinitely more common and infinitely more serious than the other. Let us take as an example the case of a young woman who is suffering from inflammation of the ankle, wrist or hand, with little, or at any rate no great, constitutional disturbance. From my experience cases of this kind are constantly looked upon by many practitioners as of a true

gouty nature, and are treated accordingly. Moderate attention to the character of true gout and of rheumatoid arthritis would enable anyone to form a correct diagnosis. In such a case we should in all probability fail to find evidence of any hereditary predisposition or of any habit of the patient likely to lead to gout—for instance, the absence of eczema, cramps, kidney mischief and other gouty symptoms. We have, in fact, an alteration in one or more joints which, as far as we can make out at present, constitutes the disease. The treatment is usually of the following character: abstinence from meat (red meat especially), sugar and all alcoholic beverages. Many patients are not allowed vegetables, and fruits are often altogether prohibited. As far as medicinal treatment is concerned, salines, iodide of potassium and colchicum are most frequently administered. Under this treatment, accompanied as it frequently is by long immersion in baths, the invalid almost invariably gets worse, new joints become affected, and not infrequently the patient becomes gradually crippled.

I will first bring before your notice a few cases of rheumatoid arthritis illustrating most of the statements I have made about this disease, some of them showing the fearful effects produced by wrong treatment; others the marked good obtained by appropriate medicine and food. The following case is most instructive:—

CASE 1.—A girl nearly nineteen years of age came to me in October, 1891, in the following condition and with the annexed history. She had no hereditary predisposition to gout, and had up to seventeen years of age been in good health, but then she became weak, tired on exertion, and generally out of health. After about three months some swelling of the feet and ankles came on. She was then sent to a mineral water institution, where she remained three months under treatment. During this time the left elbow and hands became implicated, and soon after her return home one knee. When I saw her she looked somewhat emaciated and pale; the pulse was 84, small and weak. Besides the mineral water treatment she had been kept decidedly low; no meat nor stimulants being allowed. The left elbow was much injured, could neither be fully extended nor flexed; the right knee was limited in its movements, but less injured than the elbow. I prescribed for this patient the syrup of iodide of iron, to be taken twice a day, and two sulphur lozenges at bedtime, with two teaspoonfuls of cod-liver oil. As to diet, I ordered her to have daily a good amount of meat together with bread and vegetables, and with her solid food she was to take a moderate quantity of good stout. Between nine and ten months afterwards I again saw this patient, and her condition had wonderfully improved; all the functions were healthily performed and she had gained health in every respect. I suggested that she should persevere with the treatment, with the addition of five minims of the solution of arseniate of soda to the iodide of iron; the diet was to remain the same, and to include the cod-liver oil.

Now I think we may learn something from this case. I cannot say if it was called a gouty case, but certainly the treatment was most injudicious. Under the influence of the bathing, the absence of meat and stimulants, the disease made rapid progress, and joints previously free became implicated, and some, I fear, permanently injured; even shortly after her return home there was still a tendency to further mischief. Anyone examining this case, unless lamentably ignorant, must have felt assured that it could not have been of a true gouty nature. The absence of hereditary tendency to gout, the age and sex of the patient, are alone sufficient to negative the idea of true gout, even in the early stages, and the subsequent injury to the joints at once pointed out its true nature. This case is also instructive as showing the effect of diet and medical treatment. The lowering effect of the treatment produced by the baths and the poor diet was well seen, and, on the other hand, the rapid and marked influence of the tonic treatment and the meat diet and stout were equally apparent. Quite recently (three months after having last seen the patient) I have heard of a still further improvement in all respects from her father, a medical man, who fully recognises the error which was made in his daughter's case, but who had naturally entrusted her treatment to other hands than his own. Had this young lady been put under her present treatment a year before she would in all probability have been spared her injured elbow and knee, which at the best can only be alleviated, as some ulceration of cartilages has doubtless taken place.

I may remark that this patient had the characteristic jaw and neck affection well marked.

The following is another instructive case.

CASE 2.—Mrs. —, aged thirty-three, married, no children. Seen March, 1889. Has had slight pain in different limbs for five or six years; but about four months ago the hands became swollen and cannot now be fully closed; they are also somewhat painful. The elbows are slightly implicated, as also the wrists. There is the characteristic affection of the neck and jaw; the right knee is a little swollen and stiffish; all the pains are worse while the patient is in bed. For some years there have been hæmorrhoids, which have bled much at different times. The pulse is small and quick, and there is some anæmia. This was a well-marked, but not very advanced, case of rheumatoid arthritis. The patient was put under a treatment I frequently adopt, and the progress of the case was as follows: In July the right knee had become straighter and the general health had improved; there had been an operation for hæmorrhoids in May, which had stopped the loss of blood and thus taken away any constant source of debility. In October much improvement had taken place, although she still suffered from her knee and ankle; no new joint had been attacked since she began this treatment. In April, 1890, she was fairly well. In December, 1891, she was remaining well, but had not taken much medicine, except that she had continued regularly the sulphur lozenges. In May, 1892, the patient still remained well; also in July.

This case is a good example of the value of a tonic treatment in rheumatoid arthritis. I feel absolutely sure that had the true nature of the disease under which she suffered been mistaken and had she been treated in a way supposed to be desirable in gouty conditions of the system, she would long ere this have become a cripple. The treatment adopted consisted mainly of syrup of iodide of iron and small doses of arseniate of soda, sulphur daily in small doses, cod-liver oil, a generous meat diet and claret with the meals.

CASE 3.—A man aged fifty-five, after having had bronchitis for some months, which had lowered his system and caused him to relinquish his occupation, noticed that his hands were becoming stiff; the small joints were large, tender and painful, the wrists stiff, the elbows limited in movement and incapable of either full extension or flexion; there were also well-marked stiffening and pain at the back of the neck, and especially of the right maxillary articulation. The hips were affected so as to prevent him from crossing one thigh over the other, and the knees were somewhat stiffened. This was a case not unlikely to be taken for one of gout. The age and sex of the patient were somewhat in favour of that idea; but the gradual coming on of the disease and the mischief done to the joints were, on the other hand, much against it. He was sent to a well-known mineral water establishment and went through the course, but to his surprise had not found any relief. On the contrary, he was rather worse for the treatment, and the disease was slowly but very steadily on the increase. The injurious effect of this treatment was in favour of its being rheumatoid arthritis. In such a case all lowering treatment is sure to be followed by an aggravation of the disease, and the only chance of arresting it is the steady perseverance in a proper tonic medicinal treatment and diet, and, in fact, everything should be done to sustain the general health at the highest possible pitch. Colchicum and all such drugs should be avoided.

The following is an instructive but terrible case:—

CASE 4.—A young lady aged twenty-four. This patient when she came under my notice was in the following state: Nearly every joint in the body was ankylosed; her neck was quite fixed; she was unable to turn her head in the least degree from side to side; her lower jaw was quite set fast, and she could only be fed from the absence of one or two teeth allowing a tube to be introduced for the purpose of giving nourishment; the elbows were perfectly fixed at about right angles, the wrists were rigid and the fingers curved inwards and unable to be either further flexed or extended; the knees were fixed at a right angle and the ankles and feet more or less useless. I cannot call to mind ever having met with a more complete cripple; she could not attempt to stand, and she was obliged to be propped up with pillows when she was placed in an armchair. The history of this case was most lamentable. She had been suffering from well-marked rheumatoid arthritis for some months, but still was able to walk about. She was persuaded, or her friends advised her, to try the effect of Turkish baths. She went to a hydropathic institution, where she remained thirteen weeks, and during that time had always one Turkish bath, often two, a day; it was during this lowering treatment that joint after joint became ankylosed,

and she was reduced to the state of utter helplessness which I have described. I must add here that it has been my lot to have seen many cases of rheumatoid arthritis which have been very seriously made worse by the use of these baths. I do not consider that they act injuriously by their effect on the skin, but by their causing great debility and prostration of the system. This is a point to be thought of carefully when an idea of ordering baths in this disease is entertained.

CASE 5.—A gentleman aged forty-nine was seen in July, 1869. He had no marked hereditary predisposition to any disease. For about nine months the left shoulder had been troublesome, and from that time the disease gradually progressed; the right shoulder, back of neck, jaw, elbow, wrists and hands, knees, ankles and feet were one after the other affected; in some of the joints the movements were limited, as the elbows, which could not be fully flexed, extended or rotated; the patient had become thinner and somewhat pale. He was put upon a tonic treatment and took iodide of iron with much benefit, also a nutritious diet. He persevered in this treatment for some years, going to Aix-les-Bains two or three times and once to Schwalbach. He steadily improved, although I must confess at first I much feared he would become crippled. I saw him in September, 1888, nineteen years after his original visit, and he was then quite well. No case could possibly have been more satisfactory than this one. From the first he had the characteristic symptoms of the jaw and neck stiffening and was altogether in a very unsatisfactory condition. His complete recovery and his remaining well for so many years must be attributed entirely to the medicinal, dietetic and hygienic treatment which was employed.

I could bring forward many very similar cases, but in most the time since recovery is of less duration. Although I have said that cases of gout and rheumatoid arthritis can generally be separated from each other without much difficulty by attention to the various characteristic symptoms of each disease, still I have no hesitation in stating that instances now and then come under our notice in which there is much obscurity, which may require a knowledge of the effect of treatment before we can feel a certainty of a correct diagnosis. I will bring before you a case of this kind.

CASE 6.—A lady aged twenty-three. She knows nothing of the health of either parents or grandparents. About nine or ten months before I saw her she had swelling, heat and pain, first of one, then of the other foot, which lasted from six to eight weeks in all; and the inflammation was confined to the ball of the great toe. She afterwards remained free from any symptoms till a month before I saw her, when the same thing occurred as at first, but this had almost subsided and there was a little tenderness only remaining. The patient was very weak, distinctly anæmic, and somewhat breathless on exertion, and a blood murmur was heard in the neck. She had suffered from eczema of the ears, face, hands and legs when ten years of age, but not of late. Catamenia deficient, pale, and not occurring more than once in two months or so. Heart sounds healthy; no marked indigestion. She had been almost an abstainer from alcohol, and had taken but little meat. Pulse small, 96. In the interval between the first and second attack the toe-joints became well, except that there was a little enlargement. What was the nature of this case? Many things would point against its gouty character, as age, sex and mode of living; but there were two well-marked symptoms which could not be passed over. The most important was the locality of the inflammation—the ball of the great toe in each foot. Now we have seen that this is the joint which is *par excellence* affected in true gout; but I have known cases of severe gout of long standing in which the great toes have never been attacked; and, on the other hand, I have seen these joints affected in rheumatoid arthritis, though perhaps never so exclusively as in the case under consideration. The previous existence of eczema was somewhat in favour of the gouty nature of the disease; but as this occurred when she was young it might not have had any relation to a gouty state of the system. The great-toe joint remaining somewhat large in the intervals between the attacks was in favour of the affection being rheumatoid arthritis, as true gout seldom leaves appreciable enlargement from a first attack. I should be inclined to think, upon the whole, that the case was one of rheumatoid arthritis. Had I seen the effect of treatment I should soon have been quite certain as to the correctness or not of the diagnosis. After a little time I may probably have an opportunity of coming to a more definite diagnosis.

CASE 7.—A lady aged fifty-nine years; she knows nothing about her hereditary predisposition, as her father died when

she was one year old, her mother when she was two years of age. She herself has had nine children, their ages varying from thirty-eight to twenty-six. For nearly five months she has suffered first from the right knee, which became swollen and painful, tender, and contained some fluid. All the functions were performed well; pulse 84, good. Such a case as this is not uncommon and the correct diagnosis is important, not only to the patient, but to the medical man, as far as his credit is concerned. It certainly was a slight case either of true gout or of rheumatoid arthritis. In favour of its being of the nature of the latter disease there were but few symptoms; the general health was fairly good; no depressing causes had been at work. The only thing in favour of it was the duration of the disease, nearly five months. Still, from the appearance of the knee-joint I could not have said which diseased condition of the system was the cause of the articular affection. A further investigation of the case will, however, enable us to come to a right conclusion. It was noted that there had been two patches of eczema, one on the left shoulder, which had disappeared; the other, a large one, on the right thigh. This rendered it very probable that the disease was gouty. Again, before the knee became inflamed she had been much troubled with cramp in the calf of the legs and also a numbness of the hands and arms on waking in the morning; both these are markedly gouty signs. As to her habits, she had usually drank sherry, and often, when nursing her children, stout. These beverages were likely to induce a gouty habit, and, taking all these circumstances into consideration, I looked upon the case as one of gout and prescribed accordingly. The treatment consisted in the administration of ammoniated tincture of guaiacum, citrate of lithia and a very small quantity of colchicum, under which the knee rapidly became better. The effusion in a fortnight could not be detected, and in a short time the patient was well, the pulse sinking from 84 to 72, and she was quite able to walk. In this case the effect of treatment became quite a diagnostic mark. Had I prescribed for her as I should have done if I had entertained the idea that the case was one of rheumatoid arthritis, I feel quite sure the disease would have increased rather than diminished, and that she would have long remained in the condition in which I first found her. Time does not allow me to speak of many cases of gout, nor do I think it is necessary to do so, as the difficulty of making a correct diagnosis in such cases is usually small, and, as I have already said, any error would be of less practical importance.

Before finishing I think I must say a few words about a term which has been made use of lately—"rheumatic arthritis." I have already said that I consider this term erroneous if applied to the disease rheumatoid arthritis, as it would imply that it had in it an element of true rheumatism, which I altogether deny, but Dr. Lane has recently tried to differentiate between true rheumatoid arthritis and what he terms "rheumatic arthritis," considering that a disease exists which is connected with rheumatism but still is not simple rheumatism. I quite think that the occurrence of true rheumatism, in the form of rheumatic fever, may be one of the many causes which lead to the production of rheumatoid arthritis; but if the induced disease has the characteristics of rheumatoid arthritis I do not think this name is appropriate. The disease may be the same whatever the causes which may have given rise to it.

In concluding this lecture I feel I must apologise for the imperfect manner in which I have treated the subject; but the shortness of the allotted time must be partly my excuse, and my own shortcomings I must not forget. I trust, however, I have been so far successful as to convince you of the intense importance of clearly diagnosing rheumatoid arthritis from true gout, and of making you realise that the health of your patients is greatly at stake and dependent on the correct knowledge and treatment of their cases. Want of time has been the only cause of my not bringing before your notice many other cases. My note-books are so full of them that their very number causes difficulty in their selection.

**SUDDEN DEATH OF A MEDICAL MAN.**—On the 21st ult., at the Holborn Town Hall, an inquest was held on the body of Mr. J. R. Gibson, F.R.C.S., who had been surgeon at Newgate Prison for fifty years, but was now retired. The deceased gentleman was found lying on the footway in Devonshire-street, Queen-square, on Oct. 20th. The medical evidence went to show that death was due to heart failure, and the jury returned a verdict of "Death from natural causes."

## INTRA-THORACIC AUSCULTATION: A NEW DEPARTURE IN PHYSICAL DIAGNOSIS.

*A paper read before the Medical Society of London on Oct. 31st, 1892,*

By BENJAMIN WARD RICHARDSON,  
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MR. PRESIDENT AND GENTLEMEN,—I had promised to bring before the members of the Medical Society of London this session a paper on Some New Researches in Synthetic Pathology, but as I was not prepared for so early a call for the paper as that which has been assigned to me I have been unable to complete it in the form in which I would wish to present it. It happens, however, that I have at hand a short communication which I have much pleasure in submitting to you, and which, because it is extremely simple and practical, will, I trust, be accepted as a substitute for the longer and more ambitious essay. I call the present essay a study of Intra-thoracic Auscultation: a New Departure in Physical Diagnosis, and I cannot introduce it to your notice better than by relating how it came into my mind and practice. A few months ago a patient consulted me who was suffering from serious and obscure symptoms referable, by the process of exclusion in diagnosis, to the upper portion of the alimentary canal. He had lost flesh to an extreme degree, was very feeble, had often a difficulty in swallowing food, at times retained food of a fluid or semi-fluid kind in the stomach for long periods, and then after suffering severe pain vomited it with difficulty, returning it in a partially digested state. I looked upon the symptoms with suspicion as possibly indicating malignant disease of the lower part of the œsophagus; but as I found he had been following an imprudent dietary I was content at the moment to regulate diet carefully and to prescribe a mixture of dilute hydrochloric acid and pepsine. He left me, to return in two months reporting himself in every respect better. He had gained in flesh, he retained food, was free from acute pain, had improved in strength and had lost the sense of weariness of mind as well as body, which had been most oppressive. He had determined to take a holiday, and I agreed with him that the change he suggested would be advantageous. I did not see this patient again for three months, when he consulted me once more in consequence of a sudden return of his worst symptoms, to which were added others pointing more decisively to œsophageal mischief low down in the tube. With difficulty he had partaken of a rather too copious meal one day previously, and soon afterwards had been seized with acute pain, which lasted until the undigested mass had been vomited with free secretion of the gum-like mucus characteristic of stricture. He was again greatly emaciated, presented a condition of circulation so feeble that I could scarcely detect the radial pulse, and the heart was so weak that it was difficult to distinguish clearly the two sounds.

I tried in this case what I have called the water-gurgle test for the diagnosis of stricture, as described in *The Aselepiad*, vol. vii., p. 332—that is to say, I got the patient to attempt to swallow fluid whilst I auscultated in the line of the œsophagus anteriorly and posteriorly. Whenever there is true stricture of the organic class I have usually found by this method a point where there is heard a loud gurgling sound on attempts to swallow, followed by a sharp noise as of a passing current of fluid through a constricted passage, and I do think there are few more characteristic points of diagnosis of stricture existing in the lower third of the tube. There was no response to this test in the present instance, and the patient expressed to me that the tumbler of milk-and-water which he had swallowed went down without his being conscious this time of obstruction. I turned, therefore, naturally to the use of the œsophageal tube—an operation which led me to the new facts I have to record. I passed along the œsophagus a medium-sized tube and ran it without difficulty down to the stomach. There was no serious obstruction at any part, but I thought I experienced some sense of friction of a very slight kind. Whilst endeavouring to be certain on this matter an idea which I had once before had in my mind, but had not before acted upon, suddenly occurred to me. Why not auscultate

through the exploring tube? At once I sliced off a portion of the free end of the tube obliquely, slipped over this sliced end the terminal part of the double stethoscope, and made in this fashion the exploring tube a continuous stethoscope. The effect of auscultating in this way was most interesting and satisfactory. I could hear soft friction of the tube against the walls of the œsophagus and was made quite sure that the friction was uniform throughout and that there was no special constriction or induration in any portion of the tube. When I passed the tube into the cavity of the stomach itself I obtained a sound new to me, like a gentle seething as of air or gas agitated in a thickish fluid and at times a gurgling sound of gas with another sound probably due to muscular contraction of the stomach itself. As the patient experienced no trouble or inconvenience during examination I had ample time for inquiry, and I leisurely withdrew the tube, noting the sounds audible in the course of the movement. In the tube at this time there were only two openings and those at the extreme end. I succeeded therefore in catching sounds at such points only as were in apposition to the openings. I withdrew the tube until the opening on the left side came in contact with that portion of the œsophagus that lies in immediate proximity with the heart. By previous auscultation of the heart over the thoracic wall I had failed to detect clearly the two cardiac sounds owing to the feebleness of the cardiac action, but now both sounds were as distinct as they would have been from a normal heart. They were not, however, the same precisely as the sounds we hear through the thoracic wall; they were duller in character, as if they wanted the resonance which is probably produced by the pleura stretched over the thoracic cavity. At the same time they were loud and were singularly distinct. By moving the tube gently up and down I could get the second sound separately from the first and *vice versa*; but when I had the opening of the tube midway so as to compass both sounds there was not so much difference between the first and second sound as is common to that distinguishable in ordinary auscultation. I was quite prepared for all these modifications of phenomena; they corresponded precisely with what I had learned many years ago when, in combination with the late Drs. Baly and Sibson, I had seen Dr. Halford demonstrate Brien's valvular theory of the cause of the two sounds. We listened at that time directly to the sounds from an opening in the chest wall of a lower animal under anaesthesia, and detected that with such immediate auscultation the sounds were deficient in sharp resonance, and more equable in tone than was common from ordinary auscultation. It was the same now. I counted the beats of the heart very deliberately from the inside of the thorax, seventy beats per minute, the sounds and the pause in proper order and the action perfectly regular. I expected that on withdrawing the tube further out of the œsophagus it would be possible to hear a loud sibilant or vesicular murmur in respiration. In this I was disappointed to a certain extent. It was impossible to catch a murmur, even on a deep inspiration, so distinct as the murmur heard from the chest wall outside.

From these observations I have been led to the new departure in physical diagnosis in which I am anxious others should take part, and I have devoted some time to certain preliminary steps in its development. Briefly it is a means for auscultating on an extensive scale the organs of the body *from within the body*. I shall occupy most usefully the short remaining time at my command, first, by indicating the lines of research in which the plan promises to be most useful; second, the limitations of the plan and, if I may so express myself, the objections to it; and, third, the modes by which it may be improved from this its original start, so as to make it ready, safe and in its broadest sense useful.

Touching the first of these points, the method promises to be useful—I hope very useful—in the diagnosis for which I first applied it. It proved of service to me; at the moment it told me distinctly, in the case I have referred to, that there was no constriction, no induration, at any part of the œsophagus, so that the hearing confirmed the touch, or, rather, corrected it in a manner that could not have been more satisfactory. The advantage will be that stricture may be detected in its very earliest stage—the stage in which, according to my experience (unfortunately an experience specially large in this disease), there is the only chance of doing good by dilatation. The new auscultation may prove also an aid to diagnosis in diseased conditions of the stomach itself. It is certain from the sound I heard from within the cavity of the stomach that there are going on there changes of a physico-chemical kind, leading

to a sort of effervescence that is distinctive in character. It is most probable there are differences of sounds connected with special fermentations, and that by study and experience these differences may become detectable at once by auscultation. Here there is an open field for research in which I have been unable as yet to enter. Again, as bearing on the stomach, the motions of that organ evidently produce sound that will admit of interpretation. A healthy stomach may possibly give forth no sound or it may give forth a definite sound when full of food, with other sounds during various stages of digestion. These are points to be inquired into and will be of curious interest. Still it is certain that in diseased conditions of the stomach a whole series of diagnostic symptoms will be learned, bearing not only on the fermentative action in progress, but on alterations in the walls, and on contractile functions. The stomach, in short, will admit of being sounded like the chest. Scirrhus affecting the stomach should easily be diagnosed by auscultation. Through the stomach it may also be possible to diagnose physically and more correctly than we now diagnose the nature of some pulsating abdominal tumours which are, as they have been since the time of William Harvey himself, a constant source of disagreement amongst physicians. With the terminal of a full-sized œsophageal stethoscope in the stomachic cavity a loud murmur from an arterial source will be detected without the interposition of pressure and an important difficulty in diagnosis removed. A third service that may be rendered by intra-thoracic auscultation is forecast in the observation I have already made respecting the detection of the cardiac sounds in conditions when those sounds are inaudible under the usual method owing to extreme feebleness of the circulation. We are called sometimes to persons in such entire collapse that it is doubtful whether they are alive or dead. The sounds of the heart are imperceptible to the ear through the thoracic walls. Here, then, is an instant and ready method of deciding whether the action of the heart is still in progress. We have a new proof either of absolute death or of continued life. In acute collapse, as after death from chloroform, we not only can institute a good diagnosis in the same manner, but we are half way, by our manipulation, towards assisting to restore life. Through the œsophageal tube, after disconnecting the stethoscopic tubes that go to the ear, we could inject a free quantity of heated water or water with oxygen peroxide into the stomach; or, if we had learned the practice correctly, we could direct a faradaic current upon the heart itself, so as to excite contraction of the right side.

The use of the intra-thoracic method may be turned to account in diagnosis of heart disease and of aneurysm of the large thoracic arterial trunks. Stricture of the œsophagus arising from aneurysmal pressure would be instantly diagnosed. These cases are often most perplexing. The pressure causing the obstruction varies, and no sufficient sign of aneurysmal murmur in the early stages reaches the ear at all times. An auscultator fortunately catches the murmur, another does not, and so contradiction upon contradiction amongst the best diagnosticians occur. By the process of intra-thoracic auscultation this difficulty would be immediately met, the pulsation would come under direct observation, and the precise seat of the pressure would be descended upon. We should hear a pulsating stricture. In heart disease itself the intra-thoracic mode of examination should be of service. By it we ought to be able, in cases of enlargement, to distinguish between dilatation and hypertrophy. The diagnosis of clot on the right side might be made clear by this plan and the differential diagnosis of valvular affection on the right or left cavities ought to be rendered absolute, when we have learned sufficient of œsophageal auscultation to discover the new distinctions of sound that will have to be made, in some cases at least, between the tone of the first and the second sounds, and shall have defined all new lines of distinction between these sounds as heard from within and from without the exterior walls of the chest. The clearest definition by this test should be obtainable also as between pericardial and endocardial friction sound and between pericardial as distinct from pleural friction.

As this is only a preliminary note I must leave untouched the subject of pulmonary auscultation by the intra-thoracic method and also that of pharyngeal exploration. The pharynx is within such easy reach it should admit of more frequent auscultation than lower parts of the œsophageal canal. Its size, too, renders it more accessible. From it we should be able to reach the apices of the lung and the greater part of the air passages from the larynx down to the bifurcation of the bronchi. Exploration of these parts will

be easy when a set of appropriate and convenient exploring instruments have been constructed, and will afford help to diagnosis of changes incident to the apices of the lungs in subclavian, innominate and carotid murmurs, and in thickenings and obstructions of the trachea and larynx.

Having given an outline of what may be gained by intrathoracic auscultation, I shall now refer to the limitations of the plan and to the objections which may be taken to it. I assume at once that this mode of research is not called for when by the ordinary auscultation diagnosis is clear. It may come in usefully in all cases where the œsophageal tube is used for exploration, but it will not be always applicable in instances where it might be useful, owing to the circumstance that many patients are unable to bear the introduction of the tube and that it may sometimes be unadvisable to subject them to it. I met with a patient last week suffering from probable thoracic aneurysm in whose case the exploration would have been most valuable; but the introduction of the tube caused so much retching and straining I was obliged to withdraw the tube before I had explored as fully as I could have wished, although what was effected was sufficient to inform me of the existence of aneurysmal murmur from the left carotid or subclavian. The explorations might also be objectionable in cases of irritable stomach or where there was severe cough or cough with hæmorrhage. I need not dwell any longer on particular points of this kind, since the whole is summed up in a sentence whenever the practitioner feels he can safely and prudently pass a tube into the stomach, then he can bring into practice intrathoracic auscultation.

The third point, the modes in which this method may be improved by mechanical means, opens up a very wide field of inquiry. I commenced my work with the ordinary flexible tube, and up to the present time I have found nothing better than a good-sized tube with a large lateral aperture at the extreme end. I have used another tube charged with several apertures an inch from each other, and this answers fairly well. Apertures are essential in these tubes; if they are not made there is little or no conduction of sound. Messrs. Krohne and Sesemann have been making tubes for me of different materials, and one of metal, of malleable nature, is good in many ways, but I have not yet obtained what is precisely wanted even in so simple an invention as this at first sight would appear to be. The best tube at this moment is the long œsophageal flexible tube with the stethoscope attached as shown to-night.

I leave now this contribution in the hands of a Society to which it has been my high privilege to communicate many of my first thoughts from the very opening of my long career. I would not on any account attach an undue importance to the effort, or look upon it as anything more than an extension of the simple act of the illustrious Laennec, when, in the Necker Hospital one day in 1816, he improvised a stethoscope out of a roll of paper and projected thereon a new science to which there seems to be no end. I put forward this addition, however, without apology, not knowing to what—small as it is at this precise moment—it may lead. In his magnificent eulogy on his master, Cullen, Benjamin Rush said: "Let no fact in medicine, however unimportant it may at first appear, be allowed to pass unnoticed by the public eye; for there are mites in science as well as in charity, and the ultimate results of each are often alike important and beneficial." In that spirit, Sir, I offer to-night, through you and my fellow colleagues of the Society, one more mite to the treasury of practical medicine.

**ST. GEORGE'S HOSPITAL.**—The following scholarships have been awarded for the year 1892-93:—£145 scholarship to Mr. Henry N. Coltart; £50 scholarship to Mr. Frederick G. Peck; £50 scholarship to Mr. John B. Christian. A scholarship of £65 (open to University men) to Mr. Edmund T. Fison and Mr. Arthur Trethewey.

**THE NEW POLICE CONVALESCENT HOME, BRIGHTON.** On Saturday last Princess Christian, attended by Colonel and Mrs. Gordon, visited Brighton for the purpose of laying the memorial stone of the new police convalescent home. Her Royal Highness was received at the station by Mr. T. Cave, Mr. C. B. Woodruff, J.P., Dr. Ewart, J.P. (the mayor), and Mr. Gerald Loder, M.P., and was afterwards accompanied to Bertram-road by an escort of Inniskilling Dragoons, where the stone was duly laid. The building will cost £6000 and will, when completed, accommodate over 600 patients.

## THE RADICAL CURE OF HERNIA, WITH A DESCRIPTION OF A METHOD OF OPERATING FOR FEMORAL HERNIA.

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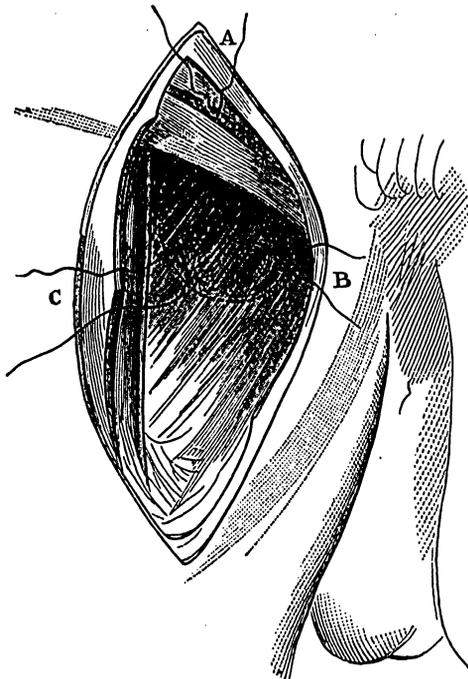
WHILE I wish to say a few words on the method of operating for the radical cure of inguinal hernia my main object in this paper is to describe a method which I put in practice some months ago for the radical cure of femoral hernia. Although the radical cure of inguinal hernia now leaves little to be desired as regards both immediate and permanent results, this is by no means the case with any of the methods which have as yet been described for the treatment of femoral hernia. Practically all the methods for the closure of the femoral canal consist, after tucking up the sac, in the attempt to approximate Poupart's ligament and the fascia over the pectineus. Now Poupart's ligament is a tense band and when stitched down to the pectineal fascia one of two things happens. In the first place, if it keeps down the tension is so great that the stitch very soon cuts its way through the ligament; in the second place, what usually has happened in my experience is that if the pectineal fascia alone is taken up in the stitch it is at once torn off the pectineus and carried forwards to Poupart's ligament, and the stitch soon cuts through the fascia. The result, in my experience, has not been at all certain and not to be compared to the result after the radical operation for inguinal hernia. On thinking over the matter, it seemed to me that the only satisfactory plan would be to turn in some tissue which would fill the femoral canal and at the same time not be subject to any tension. On looking about for material to form a flap to turn into the canal the only available structure seemed to me to be the pectineus muscle. I at first thought of turning up a flap of the pectineal fascia, but it is often very thin, and the cases in which it had been drawn forwards to Poupart's ligament were not on the whole satisfactory, and therefore I came to the decision to turn up a flap of the pectineus muscle itself. Curiously enough, although at the time that I worked out the operation on the dead body (now more than a year ago), and, indeed, at the time I put it in practice, I could find no indication that this idea had occurred to anyone else. I find in looking over the recent numbers of the *Centralblatt für Chirurgie* that on Aug. 20th, Salzer of Utrecht describes a method of turning up the pectineal fascia which he put into practice about the same time that my cases occurred, the guiding idea of which is the same as mine. He, however, uses the pectineal fascia, which I had rejected for the reasons I have mentioned, and which I feel sure will not prove to be satisfactory.

My plan of operating will be evident from the accompanying engravings. After the hernia has been reduced the neck of the sac is ligatured and stitched to the abdominal wall (A in Figs. 1 and 2). A flap is then marked out in the pectineus muscle of sufficient size to fill up the crural canal without any tension, and including the whole thickness of the muscle. The incision in the muscle begins at the inner wall of the crural canal, runs for a short distance parallel to Poupart's ligament and then curves downwards, outwards and upwards (see dotted line in Fig. 1). At the two lowest angles of the flap stitches are passed and tied so as to get a good hold (B and C in Fig. 1) of the muscle. The flap is then peeled up from the bone and the stitches (B and C) are passed through the abdominal wall, B above Poupart's ligament and C just at it. (See Fig. 2.) The result is that the femoral canal is completely filled up with a thick mass of muscle, which soon unites to the sides of the canal; and although its muscular elements may atrophy, a dense mass of fibrous tissue will be left behind. The stitches which I used were Chinese silk of medium thickness. I have operated in two cases by this method and the results are so far perfect; the region of the crural canal remains a hard mass, without the slightest impulse on coughing, and the patient does not wear a truss. I may in a few words mention the notes of these two cases.

**CASE 1.**—This patient, a female, aged forty-seven, was admitted to King's College Hospital on June 20th, 1892. She first noticed the swelling in the right groin three years

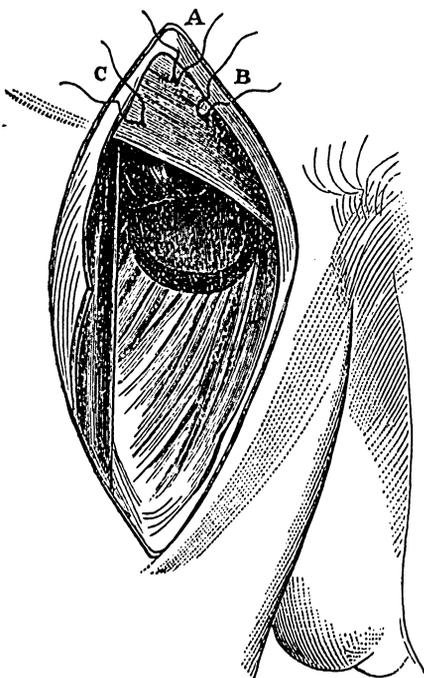
previously, and it has never disappeared; in fact, on the whole, it has increased in size. For the last three months it has been getting much larger and very painful. She also suffers from uterine trouble and ruptured perineum. In

FIG. 1.



the right groin there is a large, elastic, smooth swelling about the size of a large orange passing upwards and outwards from the region of the crural canal and in appearance resembling a femoral hernia. It is very tender and

FIG. 2.



fluctuates, and the skin is reddened over it; there is no impulse on coughing; no signs of strangulation. Various opinions were expressed as to the nature of this swelling, but I concluded that it was an altered sac of a femoral hernia.

On June 21st I therefore made the ordinary incision for femoral hernia and exposed and opened the sac, which I found to contain straw-coloured fluid, the wall being covered with layers of altered blood-clot. On clearing it out it proved, as I had thought, to be an old femoral sac, the communication with the abdomen having been obliterated at the upper part of the crural canal. I then ligatured the neck as usual, cut off the sac and stitched the neck to the abdominal wall. The canal allowed the easy passage of two fingers through it, and this I closed with the pectineal flap as before described. There is nothing to remark about the after-progress of the case. The wound healed by first intention, except at the middle, where a little glairy fluid could be squeezed out at the first dressing. She was kept in bed for about ten days after the wound had healed, and was sent out on July 21st. At that time there was a hard mass to be felt in the neighbourhood of the crural canal and no impulse on coughing. She was told to wear a bandage for a few weeks, and when seen on Oct. 7th the repair seemed perfect and there was no impulse on coughing.

CASE 2.—A female aged forty-five. This patient, sent by Dr. Williams of Wood Green (who also sent the former case), was admitted to King's College Hospital on June 27th, 1892. She has suffered from right femoral hernia for eight years, and wears trusses, but the hernia is always coming down and getting obstructed, and then there is considerable difficulty in returning it. On examination I found a femoral hernia about the size of an egg on the right side, which could only be partially reduced. On June 28th a similar operation was performed to that already described. The wound healed without trouble and she was discharged on July 21st. At that time the parts were quite hard and there was not the slightest impulse on coughing, and when I saw her a few days ago her condition was perfect.

Before concluding this paper I should like to say a few words as to the radical cure of inguinal hernia, an operation of which I have had a large experience. I may say that I have tried practically every method which has been described, and no doubt several of them give excellent results. I now adopt two procedures, according to the nature of the case. Where the hernia is quite small, and where there is no great dilatation of the external oblique muscle, what I do is practically Macewen's operation, cutting off the sac and stitching it up after Barker's plan, but approximating the conjoined tendon to Poupart's ligament with silk stitches after Macewen's plan, and sometimes putting a stitch in the external ring. I may say that in performing this operation, where the external ring is not particularly large, I have found considerable difficulty in getting the hernia needles of Macewen's pattern insinuated beneath the external oblique so as to pick up the internal oblique and conjoined tendon, and in several cases the result of the attempt has been to split up the external oblique for a short distance. That, of course, is quite readily closed again by stitches, but with the view of avoiding it I have altered the shape of Macewen's needle from a curve to an angle (see Fig. 3), and this is then readily pushed up between the external and internal oblique or conjoined tendon after separating them with the handle of the knife, and then, by depressing the point before bringing it back again, it is easy to take up the latter structures. I may say that in these cases Macewen's operation is most satisfactory, and I have never had recurrence except in three or four cases where operations for strangulated hernia or for radical cure by imperfect methods had been previously adopted and where I had mainly scar tissue to work with. I believe that by the adoption of the next plan even these cases would now be successful.

Where the hernia is larger and where the external oblique has become a good deal stretched, I perform an operation which is in its essence Bassini's. After freeing the sac and returning its contents its neck is transfixed, ligatured and stitched to the abdominal wall, in the manner described by Barker. The external oblique is then slit up as far as the internal ring, the incision being carried a considerable distance away from

FIG. 3.



Poupart's ligament. The inguinal canal is thus fully exposed, and the cord is then freed from its coverings as high up as possible. It is held forwards by the assistant, and then a series of stitches are passed through the internal oblique and conjoined tendon (generally four or five in number) above and including Poupart's ligament below, in the manner introduced by Macewen. When these are tied the inguinal canal is completely closed, the only communication with the abdomen being at the point of exit of the cord, which is now above the middle of Poupart's ligament. The cord is now laid on the surface of the internal oblique and the incision in the external oblique is closed by a bootlace suture of fishing gut, sufficient hold of the tendon being taken to render it tense over the cord and only enough room being left at the external ring to allow the cord to escape. It is thus evident that for a hernia to find its way into the scrotum it must push its way through along the cord and then burrow along dense cicatricial tissue for two or three inches till it reaches the external ring. The operation as I have described it is in its essence Bassini's, but it is not carried out exactly as he describes; in fact, it is a combination of various operations. Thus the method of cutting off and tucking up the sac and the use of silk is borrowed from Barker; the principle of bringing the internal oblique to Poupart's ligament behind the cord is Bassini's, but the mode in which the stitches are applied is borrowed from Macewen; the use of silkworm gut for the incision in the external oblique is from Stanley Boyd; the bootlace suture I used myself, but I find that Boyd had also used it.

I have now performed a large number of operations by the former plan and some twenty by the latter, and, while I have lost none, the results are, as far as I can judge, perfect. In none of them, with the exceptions I have already mentioned, is there any tendency to recurrence, and those done by Bassini's method are particularly firm and satisfactory. In view of such results, which have been obtained also by other surgeons, it is curious that many patients with hernia well suited for operation are advised to be content with a truss, and that some surgeons still say that the so-called radical cure of hernia is not really a radical cure. I can only think that the origin of the latter opinion is partly from the observation of operations imperfectly performed and partly because the patients are ordered to wear a truss afterwards. The usual fault committed in the operation is, I think, that the internal oblique and conjoined tendon are not separately attached to Poupart's ligament, but that the stitch is made to include the internal pillar and the conjoined tendon at the same time. The results of that procedure are, so far as I have seen, unsatisfactory. A much better repair of the inguinal canal is got by bringing the conjoined tendon to Poupart's ligament independently of the external oblique. I do not think that it is so much the adhesion between Poupart's ligament and the edge of the internal oblique and conjoined tendon which prevents the recurrence of the hernia as the adhesion between the external oblique and the structures beneath it in a new position, which prevents the conjoined tendon slipping up again and leaving the inguinal canal open. The second reason, I think, is that some surgeons recommend the patient to wear a truss afterwards. This is radically wrong. If the repair is properly accomplished the only effect of the truss will be to cause absorption of the new material thrown out, and I always insist on the patient leaving off all support in about two months after the operation and only wearing a light bandage up to that time.

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## REMARKS ON THE SCOPE AND ORIGIN OF FIBROID PHTHISIS.

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SINCE the discovery of the tubercle bacillus an immense propulsion and show of stability have been imparted to the theory of the tuberculous origin of the several varieties of phthisis. It is held that of the genus "phthisis" there are several species whose separate features are the outcome of the different reactions which take place between the bacillus and its host. If the parasite flourishes apace and the resulting products get heaped together, and likewise rapidly disseminated through the lung, acute phthisis, com-

monly called "galloping consumption," is produced. If the tuberculous masses are gradually evolved and dependent chiefly on inflammatory products, ordinary caseous phthisis results; while if the tubercles are chiefly and also slowly formed in the peribronchial rather than the alveolar tissues undergo a fibroid metamorphosis, and are likewise accompanied by the growth of fibroid tissue more or less generally throughout the lung, the disease is fibroid phthisis. And it assuredly must be admitted that in this simple and well-ordered scheme of the unity of phthisis there is not only a fascination, but also the illustration of a principle which reigns supreme both in nature and in art.

Now in so far as phthisis pulmonalis is tuberculous there can, I think, be no serious objection taken to this explanation of its various phases; but many at the present time go so far as to affirm that phthisis is synonymous with a local tuberculosis in the lungs, and has no wider signification. This limitation, be it observed, is not made in an arbitrary fashion or for the sake of convenience; far otherwise, for it is held that in all cases which can possibly fall under the designation of phthisis, or, in other words, in all cases which are characterised by the progressive destruction or excavation of a non-malignant pulmonary consolidation, the bacillus tuberculosis indubitably exists. Let it, they say, be conclusively shown that such a destructive lesion can arise and proceed which at no period throughout its whole course is associated with the tuberculous organism, and then the question of the identity of phthisis and pulmonary tuberculosis may be reconsidered. Now this demand, even granting it can be fulfilled, is excessive. For in the case of pulmonary inflammations or consolidations which at a certain period of their course happen to become contaminated with the tubercular bacillus, it is evident that the bacillus, not having originated the disease, can hardly lay claim to an undivided sway. Such, for example, are cases of fibroid phthisis in which the tuberculosis occurs as a late accident of the disease; and if such tuberculosis should be limited, undergo fibroid change, and not very materially alter the regular progress of the signs and symptoms of the malady, the scientific narrowness involved in denominating the affection a tuberculosis of the lungs becomes palpably manifest.

In order to assist in the solution of this problem of phthisis and tuberculosis it becomes almost imperative at the present time that any case which possesses unusual features, such as the absence of bacilli from the sputum with signs of much mischief in the chest, should be carefully noted. In particular post-mortem examination of such cases should be thoroughly carried out, for the failure to find bacilli in the sputum during life is by no means conclusive as to their absence from the lungs. With this end in view I submit a short account of a case which made a deep impression on all who had the opportunity of seeing it at the post-mortem examination, and the features of which during life have been pretty accurately obtained. It is that of a young man aged thirty, by occupation a tinsmith, who was received into the infirmary in June, 1886. He looked pretty well, though somewhat emaciated, and his family history revealed no phthisical taint. He dated his illness from an attack of inflammation of the lungs ten years previously. Ever since, more or less cough had troubled him; this cough had become constant and attended with a yellowish spit, occasionally blood-streaked, for the last four years. Two months before his admission to the hospital he observed that the expectoration was acquiring a disagreeable odour. He complained of a pain in the chest to the right of the sternum, and his expectoration was profuse, muco-purulent and of a somewhat fetid odour. His respirations numbered 22. On inspection the right side of the chest was flattened and expanded but feebly. Palpation revealed general dullness over this lung, and the respiratory murmur is described as much deficient. The left lung was found to be practically normal; the other organs normal. The temperature hovered irregularly between 99° and 103°. This incomplete note is supplemented by the statement that the patient left the hospital after six weeks, greatly improved and with the expectoration in a much healthier condition. The patient again came under observation, this time in the Western Infirmary, after an interval of four months. He had much cough and dyspnoea and a yellowish expectoration of an offensive odour. The left lung had now become involved. Retraction, dullness and tubular breathing existed over the apex. Crepitations were heard in the supra- and sub-scapular regions. The respiratory murmur was impaired throughout and tubular breathing was likewise noted at the base. Dullness on per-

cession and hollow breathing existed generally over the right lung, with crepitation at the base and vocal fremitus markedly increased, especially over the subclavian region. The patient was rather emaciated and nocturnal perspirations were profuse. A hectic flush appeared at times, and there was clubbing of the fingers. In short, the classical signs and symptoms of advanced phthisis pulmonalis were exhibited to a marked degree. But the patient improved, left the hospital after a few weeks' duration, and was not heard of for four years, when he returned to die a few days after admission. At this time the sputum was profuse and mucopurulent, but not fetid, and careful examination completely failed to discover in it any tubercle bacilli. At the post-mortem examination conducted by Dr. Coats, the right lung had to be dissected from the chest wall. It was the seat of several cavities. One was huge, extending from apex to base, and was seven inches in length and four in breadth. It was lined throughout by a perfectly smooth, fibrous membrane, considerably sacculated, and reflected at several points over bridges which stretched across the cavity. This large cavity communicated with a smaller one in the posterior aspect above, and an isolated cavity, two inches and a half in diameter, existed posteriorly below. All these cavities were quite empty, quiescent and lined by smooth, fibrous membranes. Hardly any lung tissue was left and no trace of active disease could anywhere be seen. This specimen is preserved in the Infirmary museum. The left lung was united to the chest wall by adhesions of cartilaginous consistence, especially at the apex. The upper lobe was somewhat shrunken and consisted of dense fibrous tissue of a dark grey colour. In the midst of this tissue were frequent collections of a pultaceous and calcareous matter; the rest of the organ was the seat of apparently recent lobular condensations and was otherwise oedematous. The other organs were healthy. Careful microscopical examination of this lung made both by Dr. Coats and myself revealed entire absence of tuberculosis. The indurated upper lobe contained condensed and partially cretified pus, while the lobular condensations were composed of a dense fibrinous exudation which filled both bronchi and alveoli.

Without dwelling at length on this remarkable case, will it not at once be conceded that it affords a most striking illustration of the degree to which destruction of the lungs may proceed without the demonstrable presence of tuberculosis? What objections or arguments can be adduced against its non-tuberculous nature? Suppose it be said that tuberculosis may have existed at some time, but had become quiescent or disappeared. Now if the tuberculosis had become quiescent, so would the symptoms of the disease, but the patient died of a disease other than tuberculosis. Again, seeing that the right lung was the seat of disease to begin with, how is it that no remains of old tuberculous disease was discovered in it? By no subterfuge can the conclusion be evaded that this was a case of non-tuberculous phthisis. And we are therefore warranted in believing that there are two varieties of fibroid phthisis—one which is either complicated with or originated by a tuberculosis, and another which is not associated with that neoplasm, or, in the words of the distinguished physician who has done so much to elucidate this subject, there is a bacillary and a non-bacillary fibroid phthisis.<sup>1</sup>

I here wish to draw attention to a confusion of terms which has centred round this lesion. Some regard fibroid phthisis as synonymous with Corrigan's cirrhosis, interstitial pneumonia, chronic pneumonia &c. The late Dr. Wilson Fox described under the title of "chronic pneumonia" a large number of chronic inflammatory lesions differing both in their origin and progress. Some originated in acute pneumonia, others in broncho-pneumonia, others in pleurisy and probably a few in bronchiectasis. A simple progressive interstitial pneumonia akin to cirrhosis of the liver or kidney he could find no evidence of, while the existence of an idiopathic fibroid change in the alveolar walls independently of inflammatory action (the "fibroid degeneration" of Sutton) he denied. This chronic pneumonia, according to Fox, "is commonly unilateral; it is frequently associated with dilatation of the bronchi and it tends either through ulcerations proceeding from these or from secondary inflammation of the indurated tissue to give rise to cavities in or gangrene of the lung."<sup>2</sup> As has previously been mentioned, probably many of Fox's cases would now be regarded as tuberculous,

but some assuredly are not, and I would therefore venture to suggest that the terms "chronic pneumonia" and "interstitial pneumonia" should receive a more limited meaning than they have hitherto possessed. If the term "chronic pneumonia" were employed as signifying a simple fibroid consolidation in the lung, while fibroid phthisis were regarded as signifying the accession and course of destructive changes in such a lung, this leading to cavities, a gain would be made in the matter of nomenclature. Moreover, it is scientifically inaccurate as well as an injustice to the patient to style a simple fibroid consolidation "phthisis."

A summary of the various modes of origin of such conditions as ultimately assume the characters of non-tuberculous or simple fibroid phthisis may not be amiss here. Regarding chronic pneumonia as a generic term, and to represent the pre-phthisical stage of the disease; it may be held to embrace cases which originate more or less definitely and acutely and likewise a group of cases which are more or less chronic from the first. Of the latter class the existence of a primary cirrhosis of the lung, resembling renal cirrhosis, is held by many authorities, and it is certainly the characteristic lesion of pneumoconiosis. More commonly, however, chronic bronchitis, with peri-bronchitis leading to localised lobular indurations and bronchiectasis, form the starting point of the disease. In other cases bronchiectasis appears early, and the stagnant secretions cause circumscribed inflammation round the dilatations, ending in induration. More or less pleurisy is frequently associated with these lesions which form the basis of the most classical type of fibroid phthisis. Of the other or acute class of cases pleurisy and acute broncho-pneumonia are most frequent. Some doubt whether a simple pleurisy can originate an induration of the lung, but the evidence is in favour of such a sequence, for inflammatory changes in the lung are frequently traceable to progressive ingrowth from the pleura. In the last place, and least frequent, is acute pneumonia. Evidence has lately been accumulating in favour of its occasional, though very rare, issue in induration. Some confusion has arisen here because two different forms of induration have been observed to occur after this affection. In one of these the lung appears much shrunken, either in whole or in part, bronchiectatic and altogether resembling Corrigan's cirrhosis. Now in such cases it will invariably be found that the lesion is due to pleurisy which has complicated and outlived the pneumonia. The other or genuine pneumonic induration has individual features of its own totally different from those presented by any other chronic affection of the lungs, and hence I claim that it is justly entitled to a separate designation. Dr. Coupland, in this country, was the first to put on record the microscopical appearances in this affection, which consist in a fibroid transformation of the pneumonic exudation. Working further at this subject led me to suggest the name "fibroid pneumonia" for it. It shows but slight bronchiectasis, but may issue in fibroid phthisis through intercurrent inflammation or necrosis of the indurated tissue.

Glasgow.

## THE TREATMENT OF THE PERITONEUM IN ABDOMINAL SURGERY.<sup>1</sup>

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THE attainment of success in abdominal work, as in any other department of surgery, must naturally in great measure depend upon the training and special experience of the individual operator. But apart from these general factors the observance of certain important details in relation to the methods of treatment employed undoubtedly tends to influence the proportion of successful results obtained in any given instance. Surgical procedures implicating the peritoneum may in some degree be considered as regulated by different laws from those which guide the surgeon in dealing with other serous cavities. This fact is dependent not alone upon the large extent of the peritoneal surfaces, with their numerous folds and recesses, but, further, upon the peculiar vital properties which characterise this membrane as regards both its special structure and its intimate relation to the main excretory organs of the system, through the ready channel afforded by the subjacent lymph and bloodvessels.

<sup>1</sup> Lecture on Fibroid Phthisis, by Sir Andrew Clark, THE LANCET, July 2nd, 1892.

<sup>2</sup> Diseases of the Lungs and Pleura. Edited by Dr. Coupland, p. 412.

<sup>1</sup> A paper read at the Medical Society of London on Oct. 23rd, 1902.

In evidence of the enormous powers of secretion and excretion possessed by the peritoneum, so long as its epithelial surface is comparatively intact, one has but to consider the readiness with which effusion of so-called ascitic fluid takes place as a result of interference with the return of blood through the portal system; and, again, the equally wonderful rapidity with which such effusion may disappear upon the re-establishment of the normal balance of circulation within the vessels underlying the serous membrane; whether as the result of removal of the original hepatic obstruction, or as a consequence of relief to the vascular engorgement obtained by derivative action through the renal and intestinal excretories.

With these facts in view, and therefrom considering the peritoneum in the light of a huge lymph sac, one cannot, I think, too highly estimate the practically unlimited powers for good as for evil which it possesses in relation to operative measures involving its cavity. From such a standpoint as this it seems to me that success in abdominal work, apart from the general factors already alluded to, may be said to largely depend upon the attainment by the surgeon of three main objects which should be kept constantly in view when dealing with the peritoneal cavity.

First of these three I will place "avoidance of the introduction into the serous cavity of any septic or potentially septic material," comprising under this latter denomination any substance or fluid which may, under favouring circumstances, afford a protective nidus or medium for the subsequent development of organisms within the peritoneal sac. It may, I believe, be definitely asserted that the surest and most effective protection against the risk of such introduction of mischief from without during abdominal operations lies in the rigid routine employment of antiseptic—preferably carbolic—lotions for sponges, ligatures and instruments, as well as for the hands of the operator, his assistant and nurses. While expressing this opinion, the truth of which is to my mind absolutely certain, I am fully prepared to admit the possibility of the attainment in skilful hands of good results without the use of any antiseptics whatever during intra-peritoneal operations, providing always that scrupulous cleanliness of procedure be observed, and that the recognised methods of flushing and subsequent drainage of the abdominal cavity be followed in suitable instances. But, at the same time, I have no hesitation whatever in stating that a surgeon who thus trusts to the use of plain water as a substitute for carbolic lotions unwisely neglects one of the surest safeguards against septicæmia, and that, although he may for a while secure good results, his work in the long run must inevitably suffer from such omission. The explanation of this fact is not far to seek. It is not possible, even with the strictest use of antiseptic methods, to entirely banish all risk of septicæmia from abdominal work, since one is constantly exposed to meeting with cases where the poison in an active or potentially active state is present within the peritoneal cavity before operation—e.g., ovarian cysts with septic contents as a result of previous tapping, putrid gestation sacs, tubes distended with puriform fluid, pelvic abscesses &c. Under such conditions a free use of antiseptics with the object of minimising the risks of subsequent mischief by weakening the already existent germs of infection, and thus rendering them an easier prey to the destructive power of the leucocytes, offers indisputable advantages over those afforded by the employment of plain water for mere cleansing purposes. A further advantage possessed by a Listerian operator—one more readily appreciable, perhaps, in hospital than in private practice—is the degree of protection afforded by the routine use of antiseptics against the recurrence of disaster after a death from septicæmia. Anyone who will take the trouble to examine the record contained in Sir Spencer Wells's work on "Ovarian and Uterine Tumours" (London, 1882) of consecutive ovariectomies performed previously to his adoption of the antiseptic method in 1879, cannot fail to observe that a death from septicæmia, occasionally succeeding to a series of as many as twenty-five recoveries, was almost invariably followed by a more or less interrupted succession of fatalities attributed to septic causes. Such a noteworthy fact—accountable for only by the transmission of infection from one case to another, whether through sponges, silk, instruments or by the hands of the operator or nurses—constitutes, to my mind, one of the strongest arguments in favour of antiseptics in abdominal work, since we know that by their use we can surely lessen, if we cannot altogether avoid, the risk of thus unwittingly conveying infection from one patient to another.

Turning now to the *second* of the objects to be kept in

view by the abdominal surgeon, I would define it as "avoidance of the infliction of any unnecessary injury to the peritoneum whereby its vital properties may be impaired." It was long ago pointed out by Sir Joseph Lister that any suspension of vital activity in a tissue as the result of injury leads to paralysis of its special functions and to consequent impairment of its ability to resist the entrance of parasitic organisms. This observation is one of very grave moment when considered in relation to its bearing upon so delicate a structure as that which characterises the serous membrane lining the abdominal cavity, and in confirmation of its importance we have the statement of so high an authority on this subject as Professor Watson Cheyne, to the effect that "one of the conditions favouring the development of peritonitis as a consequence of the introduction of cocci into the peritoneal cavity is an abnormal state of the serous membrane whereby its absorptive power has been diminished—as, for example, by the action of any substance which weakens, or kills the serous tissue, and thus provides a suitable soil for the penetration of the cocci."<sup>2</sup>

Now depression of vitality may be either general or local; and any method of treatment tending to induce it in either direction should, in my opinion, be sedulously avoided. This brings me to the question of the employment of the carbolic spray in abdominal work. I have myself entirely given up the spray since the end of 1888; and, so far as I know, its use has now been abandoned by the leading abdominal surgeons in this country, with the sole exception of Mr. Thornton, who, I believe, still employs it in peritoneal operations. Were it not for this latter fact I should not consider it necessary to further allude to this subject of the spray, but under the circumstances I deem it well to briefly note my own chief objections to its use. In the first place, we have no proof whatever that the carbolic spray can safeguard us against the introduction of septic mischief into the open abdominal cavity otherwise than by maintaining a form of constant antiseptic irrigation for moistening the exposed surface of the patient's abdominal wall, as well as the hands of the operator, his assistant and nurses. While fully admitting its usefulness in this respect, I am convinced that the object in view can equally well be attained by the exercise of ordinary care on the part of a Listerian operator in the way of sponging and frequent ablutions; and that he may thus secure all the advantages derivable from the use of carbolic acid without exposing his patient to the risks entailed by the chilling properties of the spray. These latter constitute my own chief objection to its employment. Anyone who has stood for an hour or more assisting with bared arms in the performance of an abdominal section under a steam spray can form for himself a tolerably accurate estimate of its powers in this direction; and thus in some measure conceive the extent of its depressing influence upon the vitality of the patient, a portion of whose abdominal wall is of necessity exposed to the cold moist blast. Such exposure during prolonged operations, especially in wintry weather, undoubtedly entails serious risk of death from shock in the case of feeble, elderly patients; while, short of this, it not infrequently interferes gravely with the progress of convalescence by originating troublesome chest complications. In addition, however, to the depressing influence of the steam spray upon the general vitality of the patient, one must further take into account its direct action upon the peritoneum itself during the removal of large solid tumours necessitating a lengthy abdominal incision, or in cases of ovarian or other cysts complicated by the presence of extensive adhesions. Under such circumstances I am convinced that prolonged exposure to the chilling and irritating influence of the carbolic spray—while necessarily increasing the general depression—undoubtedly further tends to temporarily impair the vitality of the serous membrane itself over areas of greater or less extent; and, by thus lessening its powers of absorption, to induce the abnormal condition above referred to as favouring the penetration of cocci and the consequent development of peritonitis. A still more definite, but commonly unrecognised, source of injury to the peritoneum, leading to more or less extensive impairment of its vital functions, arises from the performance of what was formerly known as the "toilette du péritoine"—a procedure commonly involving assiduous and prolonged sponging of the abdominal cavity in cases of extensively adherent or ruptured cysts.

In my early operating days I naturally followed in this

<sup>2</sup> Brit. Med. Jour., vol. 1, 1888, p. 624

regard the example set me by my two senior colleagues at the Samaritan Hospital, both of whom were then extremely careful in thus cleansing the peritoneal cavity at the conclusion of an abdominal operation. Such treatment, in complicated cases, was usually followed within forty-eight hours by a smart rise of temperature to 102° or over, frequently necessitating the use of an ice cap for its reduction. When I began in 1882 to assist Sir Spencer Wells, who then operated with full antiseptic precautions in every respect similar to those employed in the Samaritan Hospital, I soon became impressed by the fact that complicated cases of ovariotomy, where no attempt was made to sponge away the mixture of blood and other fluids remaining in the pelvic cavity at the conclusion of a troublesome operation, not unfrequently recovered with but very slight disturbance of either temperature or pulse, although no drainage-tube was used. Such results following treatment so opposed to the routine practice in the hospital at that time puzzled me somewhat, until I formed the conclusion that avoidance of unnecessary irritation of the serous membrane might have something to do with them; and, as time went on, my views in this direction were materially strengthened by watching the results obtained in cases where the abdomen was washed out with warm water instead of being cleansed by sponging. I have now myself employed this treatment of "flushing" with increasing frequency for over four years past, and am constantly more and more impressed by its value—as a ready and efficient means of cleansing the peritoneal cavity with the minimum infliction of damage to the delicate epithelial surface of the serous membrane—a fact which from my point of view constitutes one of its greatest advantages. As a firm believer in the importance of asepticism I need hardly add that I consider it advisable always to employ for this purpose water which has been previously sterilised by boiling, as the surest means of avoiding the introduction of possible mischief into the peritoneal cavity.

Passing on now to a brief consideration of the *third* of the three objects to be aimed at by the abdominal surgeon, I define it as the "promotion of the subsequent removal by natural or by artificial means of any fluids remaining in the pelvic cavity at the conclusion of the operation." By the term "natural means" I would imply the early re-establishment and maintenance of the renal and intestinal eliminatory functions which play so large a part in promoting the absorption and subsequent excretion of peritoneal effusions. Without dwelling on this subject I will here merely refer to what I believe to be the extreme inadvisability of the routine administration of opium after abdominal operations, owing to the restraining influence thereby exercised upon these functions; while further noting the value of repeated small doses of salines administered not with a view to relieving any tendency to obstructive bowel difficulty, but merely as promoting renal and intestinal excretion. By the artificial or mechanical means above mentioned I of course allude to drainage of the pelvic cavity as best effected by the ordinary glass tube whence the accumulated fluid is withdrawn at stated intervals. An objection formerly raised against this method of drainage was based on the statement that it was liable to be followed by a ventral hernia at the seat of insertion of the tube. Such a mishap has fortunately been extremely rare in my own experience, and I regard its occurrence as indicative of too prolonged retention of the tube. In my opinion all the good derivable from drainage of the peritoneal cavity proper is commonly attained within the first twenty-four to forty-eight hours after operation, and any further prolongation of the process is but rarely advisable. My own invariable rule is to remove the tube whenever the entire amount of fluid accumulated during the previous twelve hours is found not to exceed two to four drachms, and this quite irrespective of whether the serum then withdrawn be bloodstained or not.

In support of the views here expressed I will now very briefly summarise the results obtained in my practice from December, 1888, when I abandoned the use of the spray, to the end of July, 1892. During this period of about three years and a half the total of my abdominal operations amounted to 201; but in eighteen of these, chiefly cases of pelvic abscess, the serous cavity proper was not invaded,<sup>3</sup> and I shall consequently confine my remarks to the remaining 183

operations, all of which implicated the peritoneum. Of this number, forty-two were undertaken for disease either unconnected with the pelvic organs or, when so connected, of such a nature as not to admit of complete extirpation. Thirty-three of these patients recovered, and the remaining nine died from causes shown in the accompanying table.

TABLE I.—*Peritoneal Operations:*

No.	Nature of disease.	Cause of death.
1.	Double intra-peritoneal abscess (of septic origin).	Shock, within six hours.
2.	Cancer of both ovaries (partial operation).	Shock, within four hours.
3.	Advanced tubercular disease of peritoneum.	Exhaustion, on twelfth day, from persistent diarrhoea.
4.	General abdominal cancer.	Exhaustion, on eighth day.
5.	Pelvic cancer.	Exhaustion, on fourth day.
6.	Intra-peritoneal abscess (? of tubal origin).	Exhaustion, on seventh day.
7.	Retro-peritoneal sarcoma.	Exhaustion, on third day.
8.	Cholecystotomy.	Perforation of intestine, on twenty-eighth day.
9.	Hydatid disease of liver.	Cerebral disease, on eighth day (? hydatid).

The remaining 141 peritoneal operations were performed for disease originating in the uterus or its appendages in the following proportions and with the results here shown—viz., 137 recoveries and 4 deaths.

TABLE II.—*Peritoneal Operations.*

Eighty-four cases of ovarian tumour.	....	One death from pneumonia on thirteenth day.
Fifteen cases of chronic inflammatory disease of one or both uterine appendages.	....	One death from intestinal obstruction on eighth day.
Five cases of ruptured tubal pregnancy with intra-peritoneal hæmorrhage.	....	One death from exhaustion within five hours.
Thirty cases of supra-vaginal hysterectomy for fibro-myoma.	....	One death from shock.
Seven cases of removal of the uterine appendages for fibro-myoma.	....	No death.

This series of 141 operations performed on the lines indicated in my paper, with a mortality of under 3 per cent., may, I think, be taken as affording some evidence of the correctness of the views advocated with regard to the treatment of the peritoneum in abdominal work; and, in conclusion, I would here venture to express the hope that the record of my experience in this direction may tend to promote a fuller recognition of the enormous powers for good as for evil possessed by the serous membrane in relation to surgical procedures involving its cavity.

Manchester-square, W.

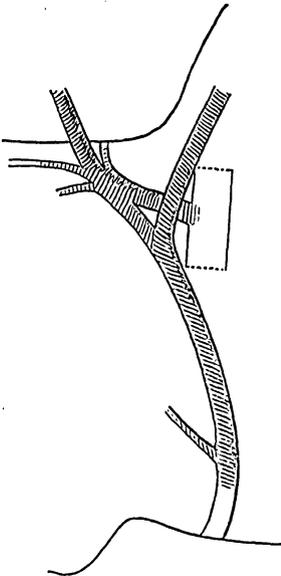
## ALVEOLAR ABSCESS; PYÆMIA; EXCISION OF THROMBOSED VEINS; DEATH.

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H. R.—, aged four years, was admitted into Guy's Hospital on Aug. 18th, 1892. He was suffering from a swelling over the left half of the lower jaw, which commenced with toothache about a week before. Five days previously an abscess burst into the mouth, and since that time the swelling had diffused itself more extensively. His temperature on admission was 105.4°. There was an alveolar abscess about a carious second molar tooth. This was removed and the abscess cavity scraped and thoroughly cleaned out under an anæsthetic. The boy became jaundiced and suffered from recurring rigors on the 19th, 20th, 21st and 22nd. On the 22nd I saw the child for the first time and decided to make an attempt to stay the progress of the condition by excising any thrombosed veins that might exist and by clearing out the inflamed bone and other tissues. At this period the patient was deeply jaundiced and the liver much enlarged; he had, however, no apparent renal complication, though there was strong presumptive evidence of patches of pulmonary mischief. The skin was turned back from the anterior triangle and sterno-mastoid when the external jugular vein was exposed, and was found to contain a purulent material to within half an inch of its lower end.

<sup>3</sup> The group of eighteen operations above referred to included seventeen recoveries and but one death, which resulted from exhaustion due to diffused pelvic suppuration of some two years standing previous to surgical interference.

There the clot was black, and below this point, at its junction with the subclavian, the external jugular vein was tied and divided. The walls of the vein, with the immediately adjacent tissues, were inflamed and thickened. The external jugular vein was then followed upwards into the parotid and forwards to its junction with the facial vein. The latter was dissected out and was found to be filled with a firm pale clot. The branches of the facial vein, with the exception of the distal portion of the submental, were filled with clot of the same character. The common facial vein was also thrombosed, the clot extending for a slight distance into the lumen of the internal jugular vein, which was exposed for a distance of half an inch above and below the point of entry of the common facial vein, and after it had been ligatured at these two points the intermediate portion was excised. Having removed all the thrombosed veins thoroughly on their proximal side their distal distribution was treated in as effectual a manner as possible, though it was obvious that this portion of the operation was not as perfect as the rest. The abscess cavity and bone were then cleaned thoroughly and plugged with iodoform. During the course of the operation many inflamed lymphatic glands were removed. The patient seemed better on the day following the operation. The jaundice disappeared almost if not entirely by Aug. 25th. The next day



This diagram illustrates the extent of the thrombosis and the several veins which were removed at the operation. The transverse striation represents the thrombosed area of vessel.

it was found that the wound in the neck, whose edges had apparently healed and were devoid of any redness, contained a quantity of yellowish pultaceous material. This was all carefully removed and the wound was thoroughly washed out and packed with iodoform and gauze. He had a gradual rise of temperature to 105.4° on the 23rd, but after that it remained at between 101° and 103° till his death. He had no rigor. The child gradually got worse and died at twelve o'clock on the night of the 26th. At the post-mortem examination it was found that the thrombosed veins had been removed very effectually as far as their proximal distribution was concerned, there being no evidence whatever of thrombosis. There were, however, a number of abscesses in the lungs and liver. These had without doubt been produced by septic emboli at a period antecedent to the operation, which was obviously performed too late. Though the result in this case was unsatisfactory as far as the life of the patient was concerned, it was, on the other hand, most satisfactory and instructive as showing that the method of excising septic thrombosed veins is as effectual in staying a pyæmic process originating in the lower jaw while it is as yet local and uncomplicated by secondary abscesses as it is a more definite and localised thrombosis of the lateral sinus due to disease of the middle ear.

St. Thomas's-street S.E

## A Mirror

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### WESTMINSTER HOSPITAL.

##### SUPRA-PUBIC CYSTOTOMY FOR CALCULUS.

(Under the care of Mr. R. DAVY.)

THE following account of a method of performing the supra-pubic operation for the removal of a stone from the bladder of the male has one or two points worthy of attention. The performance of the operation without the use of the rectal bag, and without previous distension of the bladder by injection, appears to have been rendered easy and safe by means of the sound described by Mr. Davy. There is no doubt that with the use of this sound the operation was done in less time than is usually required, and therefore was of less severity—a fact of great importance, especially in men of advanced age, for the introduction and filling of the rectal bag and the injection of fluid into the bladder cannot be hurriedly performed without considerable risk. In this case the condition of the urinary passage was such as to have rendered the manipulation of a lithotrite or its introduction difficult, and the danger of bruising the parts, with subsequent swelling and possibly retention, of serious moment. For the notes we are indebted to Mr. H. De Renzi, house surgeon, and Mr. Forsayeth, dresser.

J. R—, aged sixty-three, by occupation a carpenter, was admitted into the Westminster Hospital on Aug. 2nd, 1892, and discharged on Aug. 30th. Twenty years ago he spent six months in Derbyshire, but usually has lived in London. In March last he was knocked down by a tram-horse; the same evening he experienced pain in passing his urine, and a week afterwards he had hæmaturia, sometimes in clots, at other times intimately mixed with the urine. Forty years ago he had gonorrhœa, and since his fall he had suffered from a difficulty in micturition, necessitating the constant use of a catheter. Pain at the bladder and scalding around the anus have been increasing of late. On Aug. 6th, on sounding, a stone of medium size was detected. The abdominal wall was normal and the patient fairly nourished, there being no excess of fat in the subcutaneous tissue. The urine was strongly alkaline, sp. gr. 1015; half albumen was found, and blood, pus and mucus were present. On the 9th supra-pubic cystotomy was performed by Mr. R. Davy. Neither the bladder nor rectum was distended. A conical probe-pointed sound was used, with a groove on its concavity and a hole at its tip. A medium-sized stone was extracted, measuring two inches by an inch and a quarter, weighing seventy-five grains, and composed throughout of soft phosphatic material. The mucous membrane of the bladder was inflamed and sacculated, the No. 4 sound being sufficient to bring the bladder wall well forward after the incision of the abdominal parietes. A silver drainage-tube was passed into the bladder and left in. It appeared that the obstruction to the outflow of urine was due to thickening and hypertrophy of the prostate and spasm of the muscles of the urethra. On the 11th the patient passed urine naturally and the drainage-tube came away. On the 19th he was well, and on the 30th he was discharged cured.

*Remarks by Mr. DAVY.*—The supra-pubic operation, in my opinion, was the best suited for this man, and for these reasons: (1) Crushing was out of the question on account of the difficulty in manipulating or even passing instruments in the urethra of the patient; (2) the high operation, on anatomical grounds, wounds less important structures than those injured in median or lateral operations. In this case neither bladder nor rectum was artificially distended. I wished to operate on the bladder as I found it; as a rule, I have operated with the bladder partly full of water. There is neither difficulty nor danger in operating without distension if the surgeon bears in mind that the bladder is situated for this intent post-symphysially. I can recall more than

one case where the peritoneum has been injured, although fluid distension had been practised, and students not infrequently puncture the peritoneum on the dead body in performing supra-pubic cystotomy, unless the teacher points out this danger and its remedy with emphasis. Mr. George Pollock, who was present at the operation, has introduced a very pronounced curve at the end of the sound, which allows the tip to hook round the symphysis and elevate the bladder wall at the same time. I can testify to the facility given by his instrument in the performance of the operation, and it seems to be preferable to the sonde à dard advocated by Frère Jacques of Orleans. It is satisfactory to note that the urethral obstruction has benefited by the removal of spasm caused by the stone in the bladder. The patient passes his urine now in a normal stream.

### SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

COCYDYNIA; EXCISION OF COCCYX.

(Under the care of Mr. LUCY.)

THERE are many conditions for which it may be necessary to excise the coccyx, but we rarely meet with any of them in practice. The patients usually give a history of injury to the part, which on examination is found to have sustained fracture or displacement, or the injury may have led to a chronic inflammation of the bone or joint or to necrosis of the bone. The formation of a tumour or a congenital elongation of the bone may necessitate excision. There is also a group—of which the following is an example—in which after removal no abnormal change in the bone is found. It is difficult to diagnose these cases of coccydynia from hysterical or reflex cases. The condition is somewhat rare in men. Descriptions of the operation have been published in THE LANCET from time to time. We may instance cases under the care of Mr. Whitehead<sup>1</sup> and Mr. Odell,<sup>2</sup> and an interesting letter by Dr. Nott.<sup>3</sup>

J. M.—, aged sixty-three, single, cook, was admitted on Feb. 4th, 1892, complaining of great pain in the lower part of the back when sitting down, which had been present for over a year. A few years ago she slid off a table and hurt "the bottom of her spine" on a tiled floor. She had no pain on walking or on defecation. There was a small swelling the size of a marble to the right of the tip of the coccyx and presenting a small dimple on the surface. The coccyx was freely movable forwards at the sacro-coccygeal joint, the movement causing the patient intense pain. She also had a slight anal fissure and an intero-external hæmorrhoid. So, thinking that the neuralgic symptoms might be due to the latter, she was given chloroform on Feb. 12th, and the sphincter was stretched and the hæmorrhoid removed by crushing. She quickly got well from this operation, but the severe pain on sitting persisted; therefore, on Feb. 26th she was again anaesthetised. A longitudinal incision was made over the coccyx down to the bone, the periosteum was divided and separated by a raspator and the coccyx removed. At its tip there was a small dermoid cyst containing sebaceous material, which was dissected out. Hæmorrhage was pretty brisk from several small arteries in front of the coccyx. The wound healed by granulation. She got up on March 30th, the wound being quite sound, walked on April 9th, and left the hospital on April 26th, being able to sit comfortably without any pain at all. She was last seen on May 26th, three months after the operation, the wound was soundly healed, and she was back at her work, was quite free from pain on sitting down, and was putting on flesh.

<sup>1</sup> THE LANCET, vol. ii. 1880, p. 112. <sup>2</sup> THE LANCET, vol. i. 1887, p. 1088.

<sup>3</sup> THE LANCET, Nov. 5th, 1870, p. 654.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The next quarterly meeting will be held at the Royal College of Physicians, Edinburgh, on Thursday, the 10th inst., when a paper will be read by Dr. G. M. Robertson on the "Treatment of Acute Mania," and Dr. Turnbull will open a discussion on "Asylum Dietaries." The next examination for the Certificate in Psychological Medicine will be held in December and for the Nursing Examination in May.

## Medical Societies.

### CLINICAL SOCIETY OF LONDON.

*Macrocheilia treated by Electrolysis.—Subcutaneous Suture of Patella.—Transverse Fracture of Patella.—Raynaud's Disease.—Amputation of Arm for Lymphatic Œdema in cases of Breast Cancer.—Congenital Deficiency of a portion of Chest-wall.—Sinus in Loin connected with Posterior Mediastinal Abscess.—Sarcoma of Skin.—Complete Erasion of Ankle-joint.*

A "CLINICAL" meeting of this Society took place on Oct. 28th: the President, Sir Dyce Duckworth, in the chair.

Mr. ARBUTHNOT LANE showed a man, aged twenty-eight, who was employed at the General Post Office and who three years and a half ago struck his upper lip; this was followed by very great swelling, and two months later the lower lip also became swollen. The swelling was hard and brawny, and after a short time the cheeks became hypertrophied in the same way. Having refused to yield to other treatment, electrolysis was employed on several occasions, and the lips had returned to their normal state, except that the lower lip was still a little larger than it should be.

Mr. BARKER showed a man, aged twenty-five, a porter, on whom he had performed subcutaneous suture of the patella. The wire still remained round the bone, which was united by a strong fibrous band. He was on a splint for three weeks after the operation and left the hospital at the end of a month. It was done in March, 1891, the fracture being transverse and the wire for the suture being one-sixteenth of an inch thick. The patient had been doing very hard work since, and the movements were very free. Since then he had operated on a second case, and he had allowed him up without a splint at the end of a week, and he was able to walk freely in six weeks.

Mr. PAGE also showed a case of transverse fracture of the patella in a patient aged thirty-three, in which subcutaneous suture, according to Mr. Barker's method, was done on May 18th, 1892. The man was a coalheaver by trade, and the result was good, as he thought that the union was bony. He had since treated in a similar manner a case of compound fracture of the patella, which had also done well; but in both cases he had used silk and not wire.

Dr. F. LITTLE showed a girl employed at a florist's, who was the subject of Raynaud's disease. When aged nineteen both the hands and feet began to feel cold, but this was unaccompanied by pain. Ulceration then commenced around the nails of all the fingers except the little fingers, and since then shortening and clubbing of the terminal phalanges had occurred. The nails of the toes had not been affected. There was nothing in the family history to throw light on the case. The body temperature was normal but the surface temperature of the hands was 65° F. There had been no hæmaturia or hæmoglobinuria. The treatment consisted in the exhibition of nux vomica and steel, together with the local employment of galvanism.

Mr. BLAND SUTTON showed two cases of amputation of the arm for lymphatic œdema in cases of cancer of the breast. The first was a woman aged forty-three, who, two years and a half ago, had the right breast removed for cancer. Six months later some knots began to form in the skin of the scar, and later the whole of the neighbouring parts were invaded *en cuirasse*. The arm then became much swollen and œdematous, being three times its normal size, extremely heavy, and it had already induced a moderate degree of lateral curvature. The limb was removed at the shoulder-joint and the patient made a good recovery, being able to get about without pain. The second case was that of a patient aged sixty-four, who, four years ago, underwent the operation of removal of the right breast for scirrhus. Eighteen months ago recurrence occurred, and a large mass formed in the axilla. The arm presented a more marked degree of lymphatic œdema than did that of the last patient; she was obliged to carry the limb in a sling, and it was exceedingly painful. In this case he followed Mr. Treves's plan, dividing the clavicle and amputating the humerus and scapula. The limb, after removal and after much of the fluid had drained away, still weighed fourteen pounds. The wound healed in three weeks and the patient left the hospital much relieved.

Dr. ABERCROMBIE showed a child with a congenital defi-

ciency of a part of the anterior chest-wall. The infant was two months old; there was absence of the third and fourth costal cartilages on the left side and defect of the left second rib. The gap left was protected by nothing but skin; there was also some deformity of the fingers of the left hand. He likewise showed the chest-wall of a child who had been under his care ten years ago with a similar deformity.

Dr. SIDNEY PHILLIPS showed a museum preparation of a somewhat similar case, which, when alive, he had shown at the Society. There was a deficiency of the xiphoid cartilage, and the diaphragm failed to gain an attachment anteriorly, so that the heart's apex lay in the abdomen.

Mr. SPENCER showed a girl who had a sinus in the left loin connected with an abscess in the posterior mediastinum. The collection of pus in the loin formed painlessly, and he opened it and slit up the sinus, finding a narrow channel running in front of the twelfth rib. He cut through the neck of this rib and found that the sinus ran up beside the spine. The examination of it involved great care on account of the proximity of the pleura. The discharge was very profuse and there was a fear of amyloid disease. He contemplated the desirability of extending the search further up by cutting through the necks of the ribs.

Dr. BRISTOW made a communication on a case of sarcoma of the skin which resembled granuloma fungoides. He had unfortunately mislaid his notes, and therefore gave a *résumé* of the case from memory. The patient was aged about twenty-two and had been ill for several months before his admission into St. Thomas's Hospital. He was then emaciated and hectic, and half a square foot of his right axilla, chest-wall and neck were involved in the disease, which progressed rapidly. The skin was covered with projecting nodules which were raised from a quarter to half an inch above the cutaneous surface. They had an appearance very much like erythema nodosum and there were depressions from ulceration. A few of the nodules seemed to die away. On inspecting the ulcers a certain amount of new growth was seen upon their floors. It struck him as being more rapid and more ulcerative than granuloma fungoides. Some of those who saw it considered it to be a case of tuberculosis of the skin, though it was not like lupus. The patient died, and Mr. Shattock pronounced the growths to be sarcoma. But it was a curious point that the lungs were studded with minute tubercles and that the patient had hæmoptysis before his death.—Dr. HADDEN inquired if the lung-growths might not be miliary sarcoma.—Dr. RADCLIFFE CROCKER said that there were two varieties of granuloma fungoides; one in which chronic dermatitis was the first thing, and this was followed by the development of growths, the duration of the case being slow. In the second variety the tumours were formed first, and the case was more rapidly fatal. The French classified these cases under the head of lympho-sarcoma. A case such as those of the second class had been brought by Mr. Swinford Edwards before the Pathological Society.—Dr. PRINGLE inquired as to the method of the spread of the growth at its margin. Sarcoma, in contradistinction to granuloma, usually spread by nodules at the margin; these were at first subcutaneous and only to be discovered by palpation.—Dr. BRISTOW in reply said that the growths did spread by nodules at the margin: these were at first discrete and subcutaneous; some of them disappeared, while others enlarged and joined the main growth.

Mr. ARBUTHNOT LANE related two cases illustrating an operation of complete erosion of the ankle-joint, by which the articulation could be exposed most fully and every particle of its synovial membrane could be seen and removed if necessary. The operation was performed in this manner: A more or less horizontal incision was made from the anterior margin of the internal malleolus, outwards, across the front of the ankle-joint, backwards immediately below the external malleolus, and inwards above the heel to a point over the tendon of the flexor longus hallucis, everything being divided down to the bone. The only structures about the ankle-joint which were not cut through were the internal lateral ligament, the tendons of the tibialis posticus, flexor longus digitorum, and the flexor longus hallucis, the posterior tibial vessels, nerve and the superjacent connective tissue and skin. On adducting the foot any portion of the interior of the ankle-joint was fully exposed, and the narrow prolongation of synovial membrane which ran up between the tibia and fibula could be examined and dissected out by cutting through the inferior interosseous and the anterior inferior tibio-fibular ligaments. It was therefore apparent that the interior of no other joint in the body could be more fully

exposed and cleared of its synovial membrane than could this one by means of the operative procedure suggested. Should the disease have extended to the subastragaloid articulation it was necessary to divide all the structures covering in this joint superiorly and externally together, with the interosseous ligament connecting these bones, and in extensive disease of the astragalus this bone might be excised with advantage. Whether the cut surfaces of the several tendons were sutured together or not seemed to affect the subsequent utility of the foot little if at all. Some care was, however, required in putting the foot up in plaster bandages after the operation that the fibula did not drop back a little off its facet on the astragalus.—Mr. CLUTTON had performed this operation by another method. Seven years ago he did the first case with a good result, and since then he had done six others, only one of which had afterwards to be submitted to amputation. He made an incision on each side from below each malleolus anteriorly; through these cuts he introduced a sharp spoon and his finger and scraped out the joint; cartilage and bone were removed as well if necessary. He subsequently put the limb on a knee-rest and kept it up for one or two years. Mr. Lane's method was evidently good if there was a sequestrum to be removed from the astragalus. In his own cases there had been no trouble as regarded movement of the toes, nor had the bones become displaced.—Mr. GODLEE said that he made lateral incisions and chipped off the malleoli, and thus got a good view of the joint.—Mr. PAGE said that in order to do a thorough erosion it was necessary to get such a view that every part of the joint could be seen; yet he could not help thinking that the cut need not be so free as Mr. Lane had made it, the anterior incision alone from malleolus to malleolus being in his opinion sufficient.—Mr. SILCOCK said that two years ago a case was shown at that Society of erosion of the ankle-joint by an anterior incision, which relieved the patient of the disease and ended in perfect mobility of the joint. After anterior erosion he had seen sensation restored over the dorsum of the foot in a few days, even although the nerve had not been sutured.—Mr. GOULD thought that if the joint could have been satisfactorily dealt with without so extensive a division of tendons it would be better for the patient. He questioned Mr. Lane as to the precise results he had obtained in the cases he had related, more especially as to the mobility of the joint.—Mr. LANE, in reply, said that he had unfortunately lost all trace of the first case. When he last saw him the foot was a good one for walking on, though it was flat and he could not turn the toes up well; there was some mobility in the ankle-joint. The second case had a very good foot. As the child could not move the toes, he had since shortened the tendons. It should be remembered that the cases were so bad that a Syme's amputation was the only alternative, and as opposed to that the results were very good indeed.

## MEDICAL SOCIETY OF LONDON.

### *Intra-thoracic Auscultation:—Surgical Treatment of Cysts of the Vulvo-vaginal or Cowper's Glands.*

An ordinary meeting of this Society was held on Oct. 31st, the President, Mr. Hutchinson, in the chair.

Dr. B. W. RICHARDSON read a paper on Intra-thoracic Auscultation: a New Departure in Physical Diagnosis, which we publish in another column.—The PRESIDENT, after congratulating the author on the excellence of his communication, referred to the possibilities of diagnosis opened up by this new method.—Dr. ROUTH recalled a paper he had read some years ago before the British Medical Association on vaginal auscultation as an aid to the diagnosis of pregnancy &c.—Dr. RICHARDSON, in the course of some remarks in reply, demonstrated the effects of tubes constructed of rubber, metal and cane, his preference being at present for the former.

Mr. ALBAN DORAN read some notes on the Surgical Treatment of Cysts of the Vulvo-vaginal or Cowper's Glands. He began by reading notes of a case in his own practice. The patient was forty-eight years of age, and came to him for relief on account of an unusually large swelling of the left labium, which had existed for several months and caused great trouble whenever she walked or sat down. It fluctuated freely and could be felt extending far into the ischio-rectal fossa. He thought it advisable to remove the entire cyst, the portion in the ischio-rectal fossa being carefully dissected away. Four arteries were divided and required ligature.

The cavity left behind after removal of the cyst was washed out with hot water and packed with absorbent gauze. There was much oozing for five hours, then the wound was dressed again and drained. Within a few days healing was complete. Six months later there was no trace of any fistula. He believed that, as a rule, complete removal of these cysts was the most satisfactory practice. He discussed the question as to whether they arose from Cowper's duct, Cowper's gland, or both. In many cases they arose from the gland, as their deep position proved; but even then, as in his own case, they could be extirpated. Mr. DORAN briefly referred to other forms of labial cyst—"hydrocele," sebaceous cyst, cysts of the labium minus, which were often pedunculated, and the large cyst described by Höning, which extended up into the pelvis, but this variety was of vaginal not labial origin. Most of these forms of labial cyst were curable by partial operations. On the other hand, these proceedings were often unsatisfactory in cases of cyst of Cowper's gland. A sinus, as great a nuisance as the cyst itself, was not rarely left behind. Extirpation cured the disease altogether.—The PRESIDENT said he had not infrequently to deal with these cysts, though it was very exceptional to see them so large or with such a thick wall. The specimen shown was probably of very old standing, and the only treatment at all applicable was excision. In a certain number of the cases he had dealt with he had been content with cutting away a portion of the front of the cyst-wall and applying the actual cautery to the interior. All so treated healed quickly without a sinus. He had generally met with them in a state of inflammation in newly married women.—Mr. SHEILD emphasised the importance of thoroughly checking the hæmorrhage in these cases. Secondary hæmorrhage was especially apt to occur in connexion with operations on the scrotum and labium; the warmth and moisture of the parts, together with slight movement, seemed to favour this. He had treated these cysts by excising a portion of the wall and then applying pure chromic acid to the interior. The acid caused a rapid exfoliation of the cyst wall.—Dr. BRAIDWOOD asked if a microscopic examination had been made of the wall of the cyst.—Mr. DORAN, in reply, said that if it were justifiable to remove the larger cysts, the smaller should *a fortiori* be removed also, for the operation was then a simpler one. The question of sinus was the main point, and the object of the operator should be to obviate the possibility of a fistulous opening remaining after the operation. He had seen many cases in which partial excision had failed. Abscess of these glands he had found to be nearly always venereal in origin, or at any rate to be associated with coitus. It was to be remembered that natural dirt was not septic of itself, though it favoured the growth of cocci. The hæmorrhage was usually easy to control, because it could be kept well in sight. The walls of the cyst were composed of pure white fibrous tissue, with thick walled arterioles.

#### PATHOLOGICAL SOCIETY OF LONDON.

*Traumatic Epithelial Cyst of Hand.—Adenoma of Soft Palate.—Parasitic Cysts from Rabbit.—Acute Traumatic and Respiratory Emphysema of Lung.—Right-sided Ulcerative Endocarditis of Heart.—Atlo-axoid Disease.*

AN ordinary meeting of this Society was held on Nov. 1st, the President, Sir George Humphry, in the chair.

Mr. RAYMOND JOHNSON exhibited a Traumatic Epithelial Cyst removed from the hand of a boy aged ten years. The boy had fallen two years and a half previously, inflicting a small wound on the upper part of the thenar eminence of the left hand. A swelling had slowly formed beneath the scar. This was exposed by a short incision and found to be an oval cyst, pearly white in colour and three-eighths of an inch in diameter. It lay in the subcutaneous fat and was unconnected with the skin. Examined microscopically, there was found to be a complete absence of fibrous tissue from its wall. Externally there was an epithelial covering consisting of several layers of small cells, and within this were laminae of horny epidermis. The contents consisted of epithelial scales and granular débris; there was no cholesterin. It was peculiar that no fibrous wall had formed around it, and the name "epithelial cyst" seemed more applicable to it than "dermoid." The occurrence of dermoid cysts on the fingers in positions not explicable on developmental grounds had been long recognised, and there was sufficient evidence to indicate their

relation to antecedent injury. Reference was made to such cases recorded in the Pathological Transactions—a case under Mr. Poland in which a cyst developed on the finger in the position of an injury from a piece of sharp steel three years previously; a case under Mr. Bowlby in which frequent pricks with a sewing-needle seemed a likely cause; and, lastly, a case reported by Mr. Barker in which the cyst developed in a finger the end of which had been amputated for injury some years previously. Polailon (quoted by Mr. Bland Sutton in his Hunterian lectures) described dermoid cysts of the fingers. He mentioned that they occurred in soldiers and workmen, but gave no definite history of previous injury in the cases recorded. Mr. Sutton had also described specimens in sheep and oxen in which injury seemed a likely cause, more especially in the case of a cyst from the shoulder of an ox. It was easy to understand how a small mass of epithelial cells driven into the subcutaneous tissue would, in the course of their growth, develop into a cyst.—Mr. SUTTON said that in more than one case related the tumour consisted of a tucking in of the whole thickness of the skin. He had examined an implantation cyst from an ox which contained hair and one from a sheep which was filled with wool. Lately he had seen another variety in which the implanted structure had grown as a large wart, only that it was upside down and penetrated far into the deeper tissues. Sometimes, after a punctured wound of the cornea or after a cataract operation, the growth of such a cyst might be witnessed from an epithelial graft accidentally implanted on the iris.—Mr. BARKER said that in the case he had shown there was a very tough fibrous layer externally, then came a layer of ovoid cells and then the horny layers; the cyst was full of cholesterin crystals.—Mr. H. B. ROBINSON referred to a paper by Mr. Stabb in which he described two such cysts, one in the palm of the hand and one in the finger. He himself had removed one from the forehead. There was in that case no history of injury, but it was in structure like those described. The interior of the cyst contained cholesterin.

Mr. CHARLES A. MORTON of Clifton showed a Tumour removed by Mr. Harsant from the Soft Palate of a lady fifty-two years of age. It was noticed accidentally on examination of the throat. It was distinctly encapsuled and easily shelled out. The enucleated growth was round, the size of a walnut, not lobulated, but slightly irregular on the surface, and of homogeneous appearance. It grew, as most palate tumours did, on the left side. Microscopic examination showed it to consist of somewhat large cells, arranged in some areas in irregular branching columns, amongst fine, well-formed connective tissue. In one area there were well-formed gland acini in large numbers, and yet close by the same kind of cells that formed the gland tissue became oval and spindle in form like embryonic connective tissue. This Mr. Morton considered evidence of the embryonic origin of the tumour, and that very early in foetal development, and pointed to the analogy of the structure of the tumour to the complex nature of the ordinary parotid tumour, which was also probably of embryonic origin. He called the tumour "adenoma," simply to classify it with these complex palate tumours, which were all innocent growths, and had been very fully described under that name by Mr. Stephen Paget in St. Bartholomew's Hospital Reports. He wished to call attention to the similarity between the branching columns of cells in this tumour and those described by Mr. Shattock in Sir Wm. MacCormac's case recorded in vol. xxxvii. of the Transactions and Mr. Stephen Paget's in vol. xxxviii. Mr. Morton thought it was not a generally recognised fact that large innocent tumours might develop in the soft palate and at the same time project externally under the angle of the jaw. Out of the thirty-one cases of adenoma of the palate collected by Mr. Stephen Paget, not one projected externally, though two were so large as to be difficult of removal through the mouth. Mr. Dobson of Bristol had described in St. Thomas's Hospital Reports many years ago a fibro-adenoma which was so large that it could hardly be removed between the teeth. This growth (which occurred in a young woman aged twenty-two) developed in the soft palate, and also formed a swelling the size of a chestnut under the angle of the jaw, which, when the tumour was removed from the palate, was found to be part of it. The case had been published as "a case of surgical interest" and had therefore not been noticed by writers on tumours of the palate. Dr. King of Hull brought a similar case before the Medical Society of London in 1871.—Mr. STEPHEN PAGET referred to the complex structure of these growths. They occurred in people either between

fifteen and twenty or between forty and fifty. They grew slowly for years, were usually discovered by accident, and, like the tumours of the parotid, were much more common on the left side. They occasionally gave much trouble from hæmorrhage when they were removed. Not only the adenomatous but the sarcomatous growths of the soft palate could frequently be shelled out from their bed, but this as a rule could not be done when the patients were old or when the growth increased rapidly and in a downward direction.—Mr. SHATTOCK had frequently studied these tumours, but could not make out whether they should be classed with the glandular or the connective-tissue tumours. He thought that on the whole they belonged to the latter group, and many were to be described as "cylindromata," having cells of connective-tissue origin embedded in tissue of a hyaline structure; it was possible that some of them were instances of a mixture of glandular and connective-tissue neoplasms. Such a mixture occurred in common moles.

Mr. H. B. ROBINSON showed the hind-quarters of a tame rabbit. On the inner side of the right thigh and at the back of the left leg there were cysts. There was also a large one below the jaw, and two or three imbedded in the connective tissue of the back. They were of the size of oranges. The cysts had an external bladder, on opening which there were seen groups of bodies like bunches of grapes, containing calcareous granules. They turned out on examination to be scolices of a tenia inverted. The head showed two rows of hooklets, an outer smaller and an inner larger row. They were twenty to twenty-four in number and there were six suckers.—Mr. SHATTOCK said that an object so rare as a tapeworm with six suckers was worthy the attention of a committee, and on the motion of the President the specimen was referred to the Morbid Growths Committee.

Dr. F. C. TURNER showed two specimens of Emphysematous Lesions of the Lung. The first was obtained from a child who died, after being run over, from laceration of the liver, with hæmorrhage into the peritoneal cavity. It showed a fringe of emphysematous vesicles along the inferior border of the lower lobe, which was attributed to opening out of the angle between the chest wall and the diaphragm, by the lateral bulging of the chest compressed antero-posteriorly, and by the simultaneous thrusting down of the liver, crushed between the wheel and spinal column. The second specimen consisted of the lungs of an infant which died with tubercular disease of one kidney and ureter, showing extensive tracts of interstitial emphysema in the anterior parts of the lungs and some scattered emphysematous vesicles over the surface of the upper lobes, in some of which miliary tubercles were visible. The bronchial glands were caseous. The child was marasmic and had suffered from diarrhoea, but not from cough. The extent of the lesions was regarded as evidence of their having been produced by compression of the expanded lung in straining. Some observations were made as to the insufficiency of the expiratory theory to account for an extent of emphysematous lesion capable of greatly interfering with the functional capacity of the lungs, and as to the ultimate dependence of substantive emphysema with barrel-shaped chest on inspiratory expansion associated either with recurrent bronchitis or with some nutritive defect of the pulmonary tissue, diminishing its elasticity and resistance to expansion.

Mr. J. JACKSON CLARKE showed the Heart of a young woman aged twenty-three, who had been under the care of Dr. Broadbent in St. Mary's Hospital. She died of right-sided ulcerative endocarditis. There was an extremely loud bruit, which Dr. Broadbent described as the loudest he had ever heard. There was great stenosis, probably congenital, at the beginning of the infundibulum and consequent hypertrophy of the right auricle. About an inch above the narrowing, which admitted only the tip of the little finger, there were only slight indications of the pulmonary valves, which were all but destroyed by the ulcerative process. The pulmonary artery and its main branches presented extensive ulcerations. Large masses of clot plugged the larger branches of the pulmonary arteries and the lungs contained purulent infarcts. Masses of streptococci were present in the vegetations. Mr. Clarke referred to a similar case which had been under the care of Dr. Maguire.

Mr. CLARKE also showed a Section of the Cervical Vertebra of a girl aged nineteen, who died from atlo-axoid disease. When admitted into St. Mary's Hospital under Mr. Owen the patient was in the gravest possible condition. Mr. Owen found a retro-pharyngeal abscess and at once opened it behind the sterno-mastoid after fixing the head and neck. In spite

of complete drainage, fixation and rest in bed the patient did not improve. Finally Cheyne-Stokes breathing and coma ushered in the end. After death it was found that the abscess had opened spontaneously by a minute pore before it was drained surgically. The atlas was displaced more than half an inch forwards on the axis. The first and second cervical nerves were involved in inflammatory material. The atlas and axis were extensively affected with caries. It was ascertained that the patient had for ten years suffered from occipital pain, which latterly had become most intense.

The following card specimens were shown:—Mr. D'Arcy Power (for Mr. G. N. Stephens): (1) Specimen of Lepra Mutilans; (2) Calculus Encysted in a Child's Bladder.—Dr. E. C. Perry: Secondary Sarcoma of the Small Intestine.—Dr. Ormerod: Stenosis of Pulmonary Valves.—Recent Specimen—Dr. Voelcker: Primary Carcinoma of Pancreas; Thrombosis of left Common Iliac Vein; Embolism of Pulmonary Artery.

## Reviews and Notices of Books.

*A Treatise on Hygiene and Public Health.* Edited by THOMAS STEVENSON, M.D., and SHIRLEY F. MURPHY. Vol. I. London: J. & A. Churchill. 1892.

A COMPREHENSIVE work on hygiene and public health has for some time been much needed by those engaged in the study and practice of this subject. The additions which during recent years have been made to our knowledge of preventive medicine and of the conditions which affect health demand larger treatment than is possible in a handbook. The suggestion made by the late Professor de Chaumont that a treatise should be issued containing essays by various authors was therefore well worthy of adoption, for it is obvious that special knowledge is required for the discussion of each of the several subjects which come within the scope of such a work. In the treatise the first volume of which is before us this course has been followed, and we may congratulate the editors and publishers on their success in obtaining the coöperation of contributors so well qualified to share in its preparation.

A brief but carefully prepared paper on Air is contributed by Professor J. Lane Notter; and it is interesting to observe that the author is, unlike other noted authorities, disposed to assume a causal relation between the air of sewers and diphtheria. This subject is only just touched upon, and then a reference is made to certain investigations by the late Mr. Spear for the Local Government Board. The air of graveyards is credited with the production of cholera and even of scarlet fever; in India, Dr. Notter says, it is well known that cholera assumes a more severe and fatal type in stations where barracks are built in close proximity to the sites of old burial grounds. The evidence as to scarlet fever rests upon an account given four years ago of an outbreak of scarlet fever in the family of a Yorkshire rector whose garden included a part of a disused burial ground, in which had been buried thirty years before a number of persons who had died from this disease. The outbreak in the rector's family followed the disturbance of this ground. Such occurrences undoubtedly deserve careful investigation. They are necessarily rare and are certain, in the first instance, to be received with some incredulity, and the adoption of this theory by Dr. Notter will no doubt lead to closer inquiry into the question whether the air of graveyards can, under these exceptional circumstances, be productive of disease.

Dr. Notter's paper is followed by an admirable article on Warming and Ventilation by Mr. W. M. Shaw. This is perhaps one of the most valuable contributions to the work, for the author has in little more than a hundred pages given a clear and comprehensive account of this subject. After discussing the physical properties of air and devoting two sections to water in the air and dust and smoke, Mr. Shaw

considers in detail the principles of ventilation, dividing the process into general circulation and local circulation and discussing the effect of different characteristic conditions, finally applying these principles to special cases. A valuable account is given of the various ways of producing heat and the economy of production, and, later, of the method of carrying heat from one central furnace to rooms more or less distant from the furnace. The whole subject is treated in a thoroughly scientific manner and the argument is illustrated by numerous formulae.

Mr. Shaw's article on Ventilation is followed by papers on Meteorology and Climate; the former by Mr. G. H. Symons, F.R.S., and the latter by Dr. Theodore Williams. Mr. Symons' contribution is practically a concise account of meteorological conditions and instruments; while Dr. Williams discusses the influence of these conditions on health, and gives in brief form an excellent account of different climates which will be not less useful to the practitioner than to the health officer. Water is treated by one of the editors (Dr. Thomas Stevenson), who gives in some eighty pages a good summary of the subject. Considering the question of the self-purification of rivers, the author fully recognises the changes which are effected in running waters; but he writes cautiously as to the distance which is required to render fit for domestic purposes the water of a river which is excrementally polluted, and he states that "observation appears to show that a flow of twenty miles in a river is not sufficient to destroy the germs of typhoid fever." The section on Lead Pollution will be read with much interest. Dr. Stevenson states definitely that neither the silica theory nor the acid theory of the action of water on lead accounts for the whole facts known.

Dr. Copeman's article on Soil is a laborious piece of work, giving evidence of careful study of the vast amount of literature of this subject which is now available. The author has had full regard for bacteriological considerations in its treatment. Referring to the question of lead pollution, Dr. Copeman evidently attaches greater weight than Dr. Stevenson is disposed to do to the theory that the ability of some waters to dissolve lead is due to bacterial life, and he cites the memorandum by Mr. W. H. Power contained in the report of the medical officer of the Local Government Board for 1887. The paper will prove extremely useful to those who have not access to the works of foreign writers, especially of those of the Germans, by whom the question of soil has been especially studied.

Food has been treated by Dr. Sidney Martin in an article which contains a valuable account of dietaries and food-stuffs, and which will serve well as a trustworthy source of reference. This article is followed by a short paper on Meat Inspection, by Dr. E. W. Hope, who later in the book contributes an article on Slaughter-houses, both of which are evidently based upon much personal experience. Clothing is discussed by Dr. G. V. Poore in a practical article, in which account is given of the materials used for clothing as well as of the articles of clothing employed for different parts of the body. Physical Education is treated in considerable detail and with much common sense by Mr. Frederick Treves, who, after discussing the effects of exercise, deals in a practical manner with each of the more common sports. As a guide to the management of the exercise of children and young adults this article deserves the study of all. The article on Baths, by Dr. Hale White, includes an account of the different kinds of baths and their physiological action.

An admirable paper on the Dwelling is from the pens of Messrs. Gordon Smith and Keith Young. In this article are discussed the house usually occupied by a single family, houses occupied by more than one family, prisons, barracks, schools, general and special hospitals, including those for cases of infectious disease. This article gives excellent

advice as to the arrangement of public institutions and is freely illustrated with plans showing the different systems which have been adopted. It is followed by a paper on "Hospital Hygiene" by Mr. H. G. Howse, who in dealing with the management of such institutions shows the results which have been attained by antiseptic treatment.

The Disposal of Refuse is treated by Professor Corfield and Dr. Louis Parkes in a carefully written article which includes a full discussion of different methods of conservancy and of the treatment of sewage. Offensive and Noxious Businesses is from the pen of Dr. T. Whiteside Hime, who includes in his paper an account of the various trade processes causing effluvia, nuisance, or in connexion with which there may be chemical poisoning, together with the means which should be adopted for the prevention of nuisance or injury. It is impossible in the space at our disposal to discuss in detail the work of the several authors who have contributed to this volume, but we may briefly say that the publishers have been fortunate in securing editors of such acknowledged ability and standing, that the editors are to be congratulated on their choice of contributors, and that the work has been well done. If the next volume is compiled with the same care and completeness which characterise the first one, the want of a comprehensive book of reference on public health will have been admirably met. The work ought to have a wide circulation, not only in England, but wherever the English language is spoken; and it is likely to become an essential book of reference with all who undertake any duties which involve considerations of health.

*Swin, Swale and Swatchway; or Cruises down the Thames, the Medway and the Essex Rivers.* By H. LEWIS JONES, M.A.; assisted by C. B. LOCKWOOD. London: Waterlow and Sons, Limited. 1892.

THE estuaries of the Thames and Medway, with their infinite complexity of sands, channels, rivers, buoys and lights, afford to the fortunate few a health-resort of unrivalled interest and value. After a hard week's mental toil to run away from London and arrive in an hour or two at Port Victoria, Queenborough, Leigh or Southend, and to find there the trusty three-ton yacht which the holiday-maker and his partner have known so long and can manage so well, revivifies the most-jaded intellect. Running out of the small and secluded port where his ship has been lying, with simple but sufficient stores, he embarks on cruises which may be almost indefinitely varied, and any one of which may be completed in a day or two. Frequent hard work, occasional discomfort and even anxiety attend upon the enterprise; but these form a great part of the charm and are amply compensated by the placid sea and river views, the sunrises and sunsets, and the simple meals which go with them. This little book, smartly written and illustrated not only by photographs, but also by interesting antiquarian and historical comments, will be incomprehensible to the many, but keenly interesting to the few. With the latter class the minute accuracy of the topographical details, the sea-wisdom of the directions for guidance in all but unknown creeks and channels, are simply fascinating. That anyone who has tried small yacht-sailing in out-of-the-way corners and has learned its many charms, its freedom and its exceeding cheapness should prefer a "Saturday to Monday" at the seaside seems remarkable. Of course, small yacht sailing requires skill and much experience, and unless one at any rate of the partners possesses these qualifications a paid hand is essential. But those who wish to learn to sail should reserve the paid hand for emergencies and, subject to his criticism, should do all the work for themselves. Steering from the Thames into Hole Haven above Canvey Island after dark and anchoring not too

near the powder magazine or the steep mud-banks is a very good exercise, and in case of the worst there is an inn close by.

*The Physiology of the Invertebrata.* By A. B. GRIFFITHS, Ph.D., F.R.S. Edin. Pp. 477. London: L. Reeve and Co. 1892.

THE title of "Anatomy and Physiology of the Invertebrata" would be more appropriate than that which Dr. Griffiths has given to his treatise, for many paragraphs are as much anatomical as physiological. It is indeed questionable whether anyone is competent to write a book devoted exclusively to the physiology of the lower animals—so much is conjectural in regard to the functions of the various organs, so little is positively known. Even in the case of such a characteristic organ as the eye of insects Dr. Griffiths writes: "The sense of sight must be keen in the insecta, but their mode of vision is essentially different from that of the higher vertebrata," and he quotes, apparently with approval, Professor C. Lloyd Morgan, who remarks: "Remember their compound eyes, with mosaic vision, coarser by far than our natural vision, and their ocelli of problematical value and the complete absence of muscular adjustments in either the one or the other. Can we conceive that, with organs so different, anything like a similar perceptual world can be elaborated in the insect mind? I for one cannot." If this holds good of the eyes of insects, what can be said of many other organs whose functions are far more obscure? The method adopted by Dr. Griffiths is to devote successive chapters to the several functions. Thus the functions of digestion, absorption, the blood, circulation, respiration, secretion and excretion, nervous system, organs of special sense, movements and locomotion, and reproduction have each a separate chapter in which the special function is fairly discussed. The imperfection of our knowledge renders the account given under these heads, however, rather disjointed and fragmentary, and very soon tires the reader. It is, in fact, a book of reference. At the same time it must be admitted that Dr. Griffiths, besides giving the result of his work in many cases as an original investigator, has spared no pains to make himself thoroughly familiar with all recent researches. In the chapter on Respiration, for example, he gives a very full account of the colouring matters of the blood in the invertebrata, together with the relation of these pigments to the respiratory function. This account contains references to the observations of Mr. MacMunn, Professors Geddes, Lankester, Bunge and others, and there is much under this head that cannot be found in the ordinary text-books. The relations of many insects to carbon dioxide are remarkable. The author states that he found that some can resist the action of an atmosphere containing from 40 to 70 per cent. of carbon dioxide, which may perhaps account for their early appearance in the history of the earth, when the atmosphere was probably more highly charged with this gas than at the present time. Dr. Griffiths kept a stag beetle alive for six days in an atmosphere containing 60 per cent. of chlorine, which to the lungs of higher animals is a very poisonous and irritating gas. Mr. MacMunn's investigations on animal pigments obtain an amount of recognition that must be extremely satisfactory to him, for on casually opening the volume we were struck with the circumstance that Mr. MacMunn's name appears sometimes two or three times in eighteen pages successively—not that we at all undervalue that gentleman's researches, but in truth they constitute rather dry reading. A good description is given of the green glands of the decapod crustacea, the functions of which Dr. Griffiths' own researches have done so much to elucidate. The curious idea was at one time held that these glands were the auditory organs. The conclusion at which he has arrived is that they are urinary organs; the secretion containing uric acid and

traces of guanin. In connexion with this he gives an important table, also compiled from his own investigations, showing the different modes in which the kidney is represented in the several groups of the invertebrata.

Some errors occur in the account of the determination of the rapidity with which motor nervous excitation is transmitted in the lobster. The whole paragraph requires to be rewritten to render it intelligible. A few typographical errors also occur, as, for example (p. 306), "polyprite" for "polypite" and (p. 218) "cornynactis" for "corynactis"; p. 217, "sagarita" for "sagartia"; p. 67, "unis" for "unio"; p. 444, "Grundzünge" instead of "Grundzüge"; but, on the whole, the editing is well done. The treatise will prove useful to those who are students of comparative physiology and is the only one we possess in the English language.

The author states his indebtedness for some of the illustrations to his sister, Miss M. Griffiths, and they reflect credit on her skill.

## Analytical Records

FROM

### THE LANCET LABORATORY.

#### BRAVAIS WINE AND BRAVAIS ELIXIR.

(NOBLET AND CO., THE BRAVAIS WINE COMPANY, 5, AVENUE DE L'OPÉRA, PARIS.)

THE preparation of this wine was suggested by M. Bravais, the analytical chemist to whom we owe the original formula for the preparation of dialysed iron. It contains the tannates of cocaine, caffeine and theobromine, which embody the active principles respectively of the coca plant, the kola nut, and the interesting Brazilian shrub, *Paullinia sorbilis* or Brazilian cocoa. As affording an excellent vehicle for these principles a superior sherry (Pedro Zimenes) has been employed. The genuine character of the wine is made evident by the following results of an analysis which we have recently made. On evaporating the wine to dryness, and extracting with ether after the addition of sodium carbonate, the ether yields a crystalline residue, which produces numbness on the tip of the tongue, and which, with hydrochloric acid, forms characteristic crystals of cocaine hydrochlorate. If the residue, after extracting the cocaine, is then treated with chloroform, beautiful silky needles of caffeine, identical also with guaranine, are obtained. The presence of tannin is sufficiently indicated by the perchloride of iron test. In addition, to these results the following were obtained: Alcohol, by weight, 12.69 per cent.; by volume, 15.68 per cent.; residue, consisting of sugar and the active principles alluded to, 16.29 per cent.; mineral matter, 0.37 per cent. The wine resembles a dark sherry, is generous to the taste and doubtless possesses properties of distinct therapeutic value referable to the tonic and invigorating principles the presence of which our analysis has confirmed.

The composition of the elixir is founded on similar lines. It is practically a rich curaçoa containing caffeine and cocaine. The presence of tannin and cocaine, however, was not clearly indicated. Analysis furnished the following data: Sugar and extractives, 39.33 per cent.; mineral matter, .017 per cent.; alcohol, by weight, 32.69 per cent.; by volume, 39.25 per cent. On dilution with water the elixir becomes opaque owing to the separation of essential oils, but the opacity vanishes at once on the addition of ether. It is a pleasant liqueur, and its value is of course enhanced by virtue of the stimulating and restorative ingredients present.

#### EXTRA QUALITY ÉPERNAY.

(PERIGUEUX ET CIE., ÉPERNAY.)

An excellent sample of the 1889 vintage from the famous Épernay district. It is an agreeably dry wine, of fruity

character, yielding 3.53 per cent. extractives and 0.12 mineral salts. On distillation 100 volumes afford 12.77 volumes of alcohol, equal to 10.31 per cent. by weight, or in terms of proof spirit 22.38. The ash contained a distinct quantity of iron. The wine is evidently of sound quality and none the less satisfactory because it is entirely free from added preservatives and from metallic contamination.

#### SPECIAL GLEN URQUHART HIGHLAND WHISKY.

(HENRY URQUHART, LONDON.)

There is no doubt that whisky is all the more wholesome for being stored in wood for a few years. The reason that whisky mellows in wood and not in the slightest degree in bottle appears to depend upon the selective power of the wood to absorb and retain the higher alcohols of which amylic or fusel oil is a type. Glen Urquhart is described as an old blended spirit, and judging from the character and smoothness of its flavour it is properly so described. It contains only 0.11 per cent. extractives and merely a trace of mineral matter. The alcoholic strength is somewhat below the average, as may be seen from the following figures: Alcohol, by weight, 40.30 per cent.; by volume, 47.67 per cent., or 83.54 proof spirit. In terms of proof spirit, in fact, it is only eight degrees above the limit of strength fixed by the Excise.

#### TABLOIDS OF COMPRESSED ERGOTIN.—THE "ÉLITE" TOILET LANOLINE CREAM.

(BURROUGHS, WELLCOME & Co., SNOW-HILL BUILDINGS, E.C.)

The active principles of ergot are not definitely known, although an alkaloid which appears to be identical with Wenzel's ergotinine has been separated. Ecboiline has also been obtained by Wenzel, but a research by Dragendorff tends to show that both Wenzel's ergotinine and ecboiline are inactive. From ergot have also been obtained scleromucin, sclerotic acid and as inert principles a red colouring matter scleriodin and two crystalline substances, which are without physiological action. The above tabloids are sugar-coated and contain a glistening brown mass which, when extracted with alcohol and acidified with sulphuric acid, gives a brownish-red solution absorbing the green and a large section of the blue rays in the spectrum. This useful administrative form is calculated to give the drug additional value and probably more extended application. Each tabloid is stated to contain three grains of Bonjean's extract.

Lanoline cream is intended for toilet purposes, for which, in fact, no other unguent is better fitted. It is readily absorbed and has no tendency to become rancid, a property which seems to be concomitant with its refractory behaviour towards alkalies; it does not saponify readily. The "élite" cream is evidently worked up or emulsified with water delicately scented with rose extract: on heating, water is given off, accompanied by a fragrant smell, while perfectly pure and transparent lanoline oil remains.

#### MIST. BISMUTHI OXYCHLOR. C. PEPSINA.

(A. G. DRUCE, 3, MELVILLE-TERRACE, EDINBURGH.)

The main novelty in this preparation lies in the fact that the oxychloride of bismuth is used in its composition in preference to the subnitrate or other salts. This is in all probability a useful departure and doubtless adds to the remedial action of bismuth. The preparation also contains pepsin, the activity of which we have ascertained by experiment. The oxychloride occurs as a very fine powder in suspension in a syrupy fluid, which on examination proves to be glycerine. The salt separates, however, on prolonged standing, but a little shaking suffices to give a uniform mixture again. We do not know what the action of oxychloride of bismuth upon glycerine may be—if perchance there is any at all,—but we noticed a distinct pressure in the bottle, accompanied by slight effervescence, on withdrawing the cork.

#### SUPERFATTED BORIC ACID SOAP.

(R. SUMMER & Co., LIVERPOOL.)

This well-made soap is free from excess of moisture and alkali and contains a suitable proportion of boric acid. It is accordingly endowed with properties of some antiseptic value. The test for boric acid was satisfactory.

#### SANTAS CREAM.

(THE SANTAS CO., LTD., BETHNAL-GREEN, E.)

This preparation consists of an ointment strongly impregnated with a soluble variety of sanitas oil. It has a pleasing and persistent odour of sanitas and dissolves entirely in water forming a soapy solution. An oil separates from the solution on addition of acid, and the clear liquid on evaporation yields a sodium salt. The preparation may therefore be regarded as a soft sanitas soap possessing distinct antiseptic and oxidising powers, and therefore available for use with certain advantages for dressing burns and other wounds, or as a cleansing and effective mouthwash.

#### HOVIS BREAD AND BISCUITS.

(S. FITTON AND SON, FLOUR MILLS, MACCLESFIELD.)

Evidence is forthcoming almost every day that the old and faulty system of preparing bread hitherto exclusively adopted, which consisted in producing a perfectly white loaf at the expense of some of the most valuable constituents, will soon be entirely superseded by the more scientific method by which the maximum amount of nourishing material of the cereal both organic and inorganic is secured. Our examination of the samples enumerated above, which are skillfully prepared on the lines indicated, proved entirely satisfactory. Hovis bread is made from flour stated to contain 2 per cent. whole meal and 25 per cent. of germ flour. Germ flour itself contains no less than a third of its weight of nitrogenous matter, 2.57 per cent. phosphates, 15.62 per cent. fatty matters, 1.72 per cent. fibre, and a third of its weight of starch. Its composition signifies, in fact, a concentration of the nourishing elements of wheaten flour into a third of its bulk, to the exclusion of more than half of the starch. As affording a check on these figures, we have submitted the sample of bread to careful analysis and find that its composition may be thus represented: Moisture, 49.41 per cent.; mineral matter, 1.25 per cent. (containing an abundance of soluble phosphates); starchy matters and fat, 39.04; nitrogen, 1.63 per cent., equal to albuminoids, 10.30 per cent. According to this its food value, both as regards nitrogen and phosphates, is, broadly speaking, double that of bread made with ordinary wheaten flour. Under the microscope the structure presented is that of well-cooked bread of uniform texture containing a due proportion of fibre, which, it is important to add, consists of fine and not coarse particles. Not less satisfactory is its property of keeping moist, and therefore palatable, for several days. The biscuits are made of the same flour; they are attractive in appearance, crisp and of excellent flavour. It will be conceded that a system which produces impoverished food is to be deprecated, while a system which tends to secure rather the enrichment of food is strongly to be commended. The system under notice meets with our entire approval.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.—A meeting attended by many of the leading members of the medical profession of Derbyshire was held at the Royal Infirmary, Derby, on Oct. 21st, for the purpose of forming a division of this Society for Derbyshire and adjacent parts. Dr. Greaves of Derby, who occupied the chair, spoke in favour of forming such a division for Derby, and stated that from facts within his knowledge there was a necessity for combining for the purpose of protection against unjust attacks and other evils to which members of the medical profession were especially liable. It was eventually unanimously resolved to form a Derbyshire division, and the following officers were appointed:—President: Dr. C. Greaves. Vice-Presidents: Dr. Curgiven, Mr. T. Johnston (Belper) and Mr. Symes. Secretary: Dr. C. H. Taylor.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 5, 1892.

WE would direct the attention of our readers who are interested in the establishment of a Teaching University in London to the able and judicious article which we publish on page 1062. There can be no doubt, as Professor ERICHSEN so clearly shows, that the opportunities for clinical instruction that exist in this metropolis are unrivalled either in Europe or in the United States of America. But these opportunities are arranged without any regard to the requirements of the medical student. In many centres of medical instruction we find some such system as the following—viz., one large hospital which possesses an enormous number of beds and around which the scientific laboratories &c. are congregated, every aspect of medical teaching being thus focussed. In London we have a system which is the direct opposite. Eleven teaching hospitals have 4542 beds divided amongst them, whilst twenty-seven Poor-law infirmaries in the metropolitan area contain an aggregate of 13,825 beds. We need not refer to the general hospitals which have no schools attached to them, or to the special hospitals, or to the enormous mass of out-patients who are daily seen at the various London hospitals. We would only incidentally point out that during the last month more than 4000 patients were under treatment in the metropolitan area in the fever hospitals alone. The immense amount of material for clinical teaching afforded in the metropolis has never perhaps been so forcibly put forward as by Professor ERICHSEN, and we commend the consideration of it to the Royal Commission. The obvious deduction is that these opportunities should be fully utilised. It is notorious that at the present time this is not the case. A student at a London medical school in the course of his career there can, however diligent, learn no more than is placed before him by his teachers at that school. He is practically debarred from acquiring a knowledge of any other advances in science and new procedures in diagnosis and treatment which he might meet with elsewhere. We need not urge how important it is for future practitioners to be *au courant* with the progress of medical science and with its bearing on the treatment of disease in its multifarious forms. But in London, with its large number of medical students, one centralised institution for the teaching of the sciences ancillary to medicine would be most disadvantageous. There is ample room, and there would be a sufficient number of students for at least three or four fully equipped scientific schools and their necessary laboratories, and this would secure due competition among the teachers. For post-graduate clinical teaching the case is somewhat different, and all the material in the metropolis and the services of every individual teacher should be available in the case of each student of medicine. The practical question is—How can the medical student who obtains his education in this unrivalled centre gain the greatest advantage from these opportunities? To this query Professor ERICHSEN has

given a complete answer. Whilst *in statu pupillari* the student should follow the teaching of his professors and lecturers at the medical school to which he is attached. At this period of his career he will probably gain nothing by endeavouring to follow the teachings of any other lecturer, however distinguished, at another medical school. If he attempts to avail himself of the instruction of the various surgeons and physicians who may have attained a reputation through professional eminence or by reason of strong individuality as teachers at various schools, he will probably only waste his energies without having obtained any definite reward in the shape of exact knowledge. But if, after he has passed the examinations necessary for a diploma, he were able to attend for a year or two upon properly selected courses of special teachers he would learn much, and the knowledge thus acquired would be to him an immense boon in his later career. To secure these advantages Professor ERICHSEN has made a most important practical suggestion. Every hospital and medical school should, he suggests, be federated, and then, instead of the present system of scattered post-graduate courses, the various institutions in the metropolis would be available for post-graduate teaching. But this result can only be obtained by the federation of all the institutions under the guidance of a local university.

The University of London has entirely failed to bring together the medical resources of the metropolis for such a purpose. It has contented itself with a mere examination standard, and has done nothing towards collating the educational advantages which London possesses in the matter of the teaching of medicine, surgery and the collateral sciences, and we fail to see how, under any *régime* like the present, such advantages can be properly utilised. A purely examining board can do nothing towards the attainment of this most desirable end. It is very doubtful if any reconstitution of the University can enable it (whilst carrying out at the same time its special function as an examining board for the empire) to perform this duty, which ought to be one of the greatest functions of a local University for London. For these reasons, amongst others, we hope that the Royal Commission may see its way to recommend the formation of a local university, and such federation would then be one of the first matters to secure attention. Incidentally we would remark that in Professor ERICHSEN'S article one statement has been made under a mistaken impression. Two years of residence are stated to be a necessary requirement for all candidates for a full degree at the Scottish universities, as well as at the teaching universities of England. There is one exception to this—viz., that at the University of Durham an attendance for one year on the lectures and hospital practice at the Medical School at Newcastle-on-Tyne is all that is at present required for the medical degrees of the University of Durham.

THIRTY-TWO years' missionary work in the highlands of Ethiopia entitled its hero, Cardinal MASSAIA, to all the honours that attended his declining years and also to the beautiful monument just unveiled to his memory, with every accompaniment of admiration and respect, in the Capuchin Church at Frascati, on the Alban Hills. These outward

tributes are but a feeble expression of the gratitude owed to him by humanity. Alone and single-handed, half a century ago, he dared to penetrate into regions where European foot had seldom or never trod, and though his errand was the diffusion of the light of Christianity, his mode of carrying it out was as signally and fearlessly his own as the routes he opened up and the weapons he fashioned as well as found. GULIELMO MASSAIA was no common missionary, proceeding on well-worn lines and using traditional methods. He had a profound knowledge of his fellow man in every grade of civilisation, and in his dealings with him he brought that knowledge to bear through every possible channel. He taught the benighted Shoans and Gallas what was meant by civilisation, and proved to them that the shortest cut to it was Christianity. He took care of their bodies as the first step to enlightening their minds. He made a special study of the climatic and health conditions under which they lived and moved, and accurately observed the diseases which they generally inherited. When an epidemic prevailed he studied its origin, its course, its issue, the circumstances that encouraged or checked it and the remedies to which it yielded. He inspired respect among his savage congregations by his fearlessness and confidence amid shafts that "fly in darkness," and won them to his gospel teaching by the personality he typified and the example he gave. In the dominions of the Shoan King MENELIK he faced and subdued a formidable outbreak of small-pox, and he prevented its return by rigorous and systematic vaccination. Although without professional qualification he had yet acquired a knowledge of science, and this he used on every possible occasion with intelligence, energy and effect.

It is gratifying to see that the methods of MASSAIA are receiving increased attention on the part of those engaged in mission work, and that, irrespective of religious differences, the societies of the several Protestant churches are not averse to profit by the example of that of the parent from which they are detached. In one direction they might take yet other leaves from the Roman Catholic book. Before us lies a publication issued under the approval of the Vatican and circulated widely among the priesthood—among all those, in fact, who, abroad as well as at home, are brought into daily contact with their fellow man in all the occurrences and crises of domestic life. It is the "Medicina Pastoralis" of Dr. CAPELLMANN, a work which has reached nine editions in its German original, and three editions in the Latin dress it has assumed for those to whom German is an unknown tongue. It supplies, from the pen of a thoroughly qualified practitioner, the information which an intelligent ecclesiastic might be trusted to apply in the absence of the regular medical man. Cautiously compiled, it addresses itself to those who, as members of a liberal profession, have been taught "to know what knowledge of a subject means," and who will therefore use its advice and its prescriptions with the circumspection and under the safeguards which the half-educated sciolist or amateur so invariably despises. It is, in short, an illustration of what has long been an honourable tradition of the Church of Rome—that of maintaining a respectful and loyal attitude towards the profession of medicine, and at the same time supplying to those of its priesthood who are brought into relation, whether

as pastors or as missionaries, with flocks unfavourably circumstanced, a carefully arranged set of rules and prescriptions. Thus equipped it is not difficult to understand how, in past times, the Jesuit missionaries became active instruments in diffusing in unexplored countries their knowledge of diseases and of remedies. Hand in hand with their spiritual teaching they bore the light of medical knowledge into uncivilised regions, and repaid the profession, on whose armoury they drew, by bringing back to it descriptions of maladies and their treatment, of drugs and their efficacy, of poisons and their antidotes, which have laid scientific medicine under obligations to them for all time. The opportunities of the medical missionary are great, often unique, and it is to increase the effectiveness with which these may be utilised that we think the attention of the various societies might be directed.

That their work is in need of every adjunct to its efficacy is on all sides admitted, and competition between them cannot fail to have its usual wholesome results. Let it be realised in its full breadth and depth how essential it is that religious inculcation should go side by side with physical health or rehabilitation and the medical arm of missionary enterprise will be as jealously trained and equipped as the spiritual. Public opinion is rapidly ripening to a recognition of this interdependence of the two professions, and its material or moral support will be the more liberally and efficaciously bestowed as it sees that they work both at their full strength and both in harmony. The multiplication of such institutions for medico-missionary training as that which has so long and so successfully been in operation at Edinburgh will be a next step to the closer and more effective alliance of the two callings, and we shall every year be more and more spared the not very reassuring spectacle of relays of missionaries being sent out at great expense and with high expectation to benighted regions and not a medically qualified man among them to supplement and sustain their efforts. The other day, as a result of the "forward movement" taken fifteen months ago by the directors of the London Missionary Society, nearly forty missionaries were added to their foreign staff. Of these, twenty-six bade farewell on Wednesday, the 26th ult., to their friends in Exeter Hall before leaving for their posts, and nothing could have been more touching or more impressive than the ceremony. Well-wishers to the cause, however, must have missed among the nobly inspired band, male and female, the due proportion of those medically qualified; and though medicine was by no means unrepresented among them, still the addition of many more thus equipped would have inspired a better grounded anticipation of success. Quite apart from the spiritual interests of the communities among whom the missionary labours—all-essential as these interests are—the political interests also at stake are not to be overlooked. As Sir CHARLES AITCHISON recently showed, we are indebted to our hold on our great Indian dependency more to missionary effort than to any other cause, and a master-force in that effort has been the medical contribution. In newly acquired regions, indeed, where we have to encounter a competition unknown to us in India, the reinforcement of our influence and the consolidation of our control is to be effected by every means available. These are not the times nor are those the regions where we

can afford to underman our expeditionary enterprise or to leave its equipment defective at any point. The missionary work is one of the most powerful weapons at our command, and in that work the medical element is not the least efficacious. It will be our own fault if, recognising these facts, we allow ourselves to be outstripped by foreign competitors who derive from the church of their fathers a traditional skill in pressing every missionary qualification into their service, the medico-missionary included.

Young men in their conflict with temptation to sexual vice often suffer under the disadvantage of receiving but little help from those to whom they ought to look for it with confidence. Few parents have the knowledge and the wisdom to tell their sons the most important truths about the sexual passion just at the time when it is becoming developed in them, and the latter are therefore left an easy prey to their strange desires and to those "lewd fellows of the baser sort" who are always at hand to corrupt innocent youth. If it is true that to a very large extent parents are unmindful of one of their gravest responsibilities, it is no less true that the medical profession has often failed in its duty in connexion with this subject. Medical writers and medical men generally are too often silent on this matter, and, unfortunately, when the silence has been broken it has not always been with words of truth and soberness. We are constantly hearing and saying that "knowledge is power." Yet we find that little effort is made to impart the knowledge which would largely aid in preserving the virtue of the young, and the most pernicious teaching of those who, for the lowest of reasons, propagate error is left unnoticed. Knowledge alone will never make a people virtuous, but it is an invaluable aid to those who are striving to control their passions. Seeing on all sides the terrible physical, mental and social havoc wrought by sexual vice we feel that the medical profession should do its utmost to stem the evil, and, at any rate, should give utterance to the truth with no uncertain sound. What are the physiological facts that ought to be proclaimed by the medical profession? Mainly these. In the first place, that occasional involuntary emissions of semen during sleep, and often in association with libidinous dreams, are natural occurrences in unmarried continent men, and are neither the cause nor the consequence of disease. The emissions are most frequent between the ages of eighteen and twenty-five; they vary in frequency in different men, but are favoured by sedentary occupations and by lewd thoughts. The subjects of these emissions sometimes complain of various sensations of malaise, which they attribute to the depressing influence of these losses; but it is a striking fact that such symptoms are only met with in those who have an exaggerated or erroneous conception of the significance of the discharge, and that they quickly disappear when their real meaning and causation are understood. To regard such a physiological occurrence as a disease and name it "spermatorrhoea" is a very serious error.

The second fact we wish to insist upon is that sexual continence does not beget impotence, and that the all-prevailing cause of impotence is prolonged sexual excess. In support of the opposite conclusion appeal has been made to analogy. It has been pointed out that unused muscles and

bones waste, and therefore, it is urged, it must be true that continence will lead to impotence. Such argument is utterly fallacious, as are most arguments from analogy. Facts in abundance prove the contrary. Common as is sexual vice, continence is not unknown among us, and the truth of our statement is not difficult to verify. The real argument from analogy is drawn from the breast. This gland is generally inactive for many years after puberty, and yet, whenever the call for its activity arrives, it is more or less perfectly responded to. As a matter of fact impotence does not depend upon the testicle, but upon the spinal cord; the sexual act is a physiological nerve storm, and not simply an act of secretion. Loss of sexual potency is due to some fault in the nerves of the parts, or more commonly in the centre in the spinal cord, which presides over this function. It is often a solitary nervous phenomenon, and by itself is not of grave import.

The third physiological fact we ought to teach is that no function of the body is so influenced and controlled by the higher nerve centres as the sexual. It is excited by lewd imaginings, loose talk and sensuous scenes. It is set in motion by even accidental stimulus of any part of the nervous system affected by the sexual orgasm. Hence the difficulty of continence. On all sides are sights and sounds that may become the stimulus of sexual excitement. The other side of the picture is equally true. By the exercise of watchfulness and self-control the occasions of such excitement may be reduced to a minimum and the passion may be subdued. Medical men are sometimes asked to formulate rules of diet and exercise—hygienic rules—by which immorality is to be banished. The task is altogether impracticable. Vice is voluntary, and it is only by the exercise of a resolute self-will that virtue is maintained.

We cannot but believe that were these three very elementary but fundamental physiological truths properly presented and enforced upon young men very much misery would be avoided. Ignorance of them drives men into the clutches of ruthless charlatans, leaves them a prey to groundless fears, and often leads them into vicious habits from which they are unable to free themselves. To withhold such knowledge is in many cases to leave youths in ignorance of the one power by which they can successfully contend against the evil. We feel strongly the urgent importance of this matter, and hence we speak plainly and hope that others, as they have opportunity, will do their best to help young men in their struggle against vice.

SIR HENRY THOMPSON'S letter to *The Times* has again drawn attention to a question of vital interest to the medical profession and the community at large. More than one recent case has served to point to defects in our system of death certification and registration. The most notorious was that of MATILDA CLOVER, whom NEILL poisoned with strychnine. It will be remembered that CLOVER'S death was registered and her body buried in the usual way on the strength of a certificate given by a medical man who had previously to her last illness been her professional adviser. It has been remarked that the miscarriage of justice, if it may be so termed, was due not to any inherent defect in the existing system of registration, but to a violation of the

duty imposed upon medical men in the matter of signing death certificates. Probably, but not certainly, an inquest would have been held in CLOVER'S case had a certificate not been forthcoming. We say probably because only one of two other events might have happened—either the coroner, on a report made to him, might have deemed the reasons for holding an inquest insufficient, or, failing a medical or coroner's certificate, the registrar might have recorded the death and issued an order for burial.

Against the possibility of registration under such circumstances it is clear that the strictest provisions should be made, and obviously the decision in any doubtful case ought only to rest with some person or persons well qualified to discharge such an important duty. A misrepresentation wilfully or carelessly made by a medical man might of course be undetected; but cannot we hope for a greater safeguard than at present obtains—namely, the fact that false certification is a punishable offence? We think so. If the registration of deaths was committed to the care of some specially qualified person, such official might be supplied with formulæ for interrogation, the use of which would enable him to detect an attempt to deceive or correct an error from inadvertence or carelessness. No doubt this would entail considerable additional expenditure, but it is a question whether the present complicated system of "civilisation," especially in our large towns, is not at once a demand and a justification for creating a system to obviate some of its attendant evils. Of this much we are certain, that registration of death should be prohibited until an inquest, or at least a post-mortem examination, has been made in every case where there is the merest suspicion of foul play or absence of all direct evidence of the demise. The increasing popularity of cremation carries with it the necessity that every possible precaution should be taken against the destruction of evidence which might lead to the detection of crime in particular and act as a deterrent to its commission in general.

## Annotations.

"Ne quid nimis."

### CHOLERA AND DESTITUTE ALIENS.

WE are again face to face with an immigration of aliens which is associated with danger to public health. Certain shipping companies have renewed the traffic of destitute Russian Jews between Hamburg and the port of London, and certain individuals at the East-end are doing what they can to induce the aliens to settle down in London and are supplying the immigrants with addresses to which they can say that they are going. Over one hundred aliens from Hamburg have thus entered London within the past fortnight, and inquiry as to their whereabouts after they have landed has shown that, as regards a substantial proportion of them, the addresses given were incorrect. Our system of cholera prevention is based on the assumption that sanitary authorities shall be informed by the port authorities of the localities to which persons arriving, either in infected ships or from infected ports, are going, this being necessary in order that such persons may be kept for a short time under observation. It was because this principle broke down under our original Cholera Order that a new one was issued by the Local Government Board, giving

the port medical officer of health power to refuse to any person permission to leave the vessel unless that officer was satisfied as to the address given. It will be obvious, in view of the experience of the past few weeks, that the addresses now being provided for these aliens ought not to be regarded as satisfactory, and so long as such people come from infected ports it is earnestly to be hoped that port health officers will strictly fulfil the important duty which has been imposed on them. It is announced that Hamburg has for one or two days been free from cholera; but this does not mean that Hamburg is no longer an infected port. Indeed, the announcement comes together with a statement that a number of cases of cholera did not, after inquiry, turn out to be cholera of the severe sort that had hitherto prevailed. We do not know how far this statement was based on the result of bacteriological investigations, but we sincerely trust that the occurrence at the fag end of an epidemic of certain cholera attacks which are not bacteriologically on all fours with cases that were more typical during the height of the epidemic will not for one moment lead, on the part of our health authorities, to any relaxation in stringency as regards the interpretation of our Cholera Orders. Hamburg must for some time be a city which contains the cholera infection, and it must therefore be regarded as an infected place. And so long as this is the case people have no right to expect that they will be allowed to enter London with dummy addresses and then effectually to hide themselves from all further observation and control in the worst slums of our great city. We believe we are right in saying that Dr. Collingridge has, in view of what has transpired in this matter, determined on requiring a rigid compliance with the regulations, and we trust that no health officer of a port which is in communication with Hamburg or any other infected place will accept as satisfactory anything in the way of addresses unless the circumstances are such as really to "satisfy him." The time may not be distant when Hamburg must for public health purposes be, provisionally at least, regarded as no longer "a place infected with cholera." Then this immigration can no longer be prevented for the same reasons that have led to its discontinuance for several months past. But with this the health officer has no concern; he can only deal with the matter in so far as public health is concerned; and it will be for the State to decide whether, on other than health grounds, the growing immigration of destitute aliens into the metropolis ought to be controlled.

### THE LORDS' COMMITTEE UPON METROPOLITAN HOSPITALS.

THE long-expected report of the Special Committee of the House of Lords upon the hospitals of the metropolis has now been made public, and attention will be directed with no small amount of interest to the conclusions which it embodies. It may be said at once that it does not point to legislation on any large scale. The Lords have come to the conclusion, fully justified and even necessitated both by the facts of the case and the evidence submitted to them, that the administration of the hospitals of the metropolis is too large and intricate a matter, and too well managed upon the whole as matters stand, to be with any public advantage taken over by the Government. Moreover the public interest, which is their main support, would not be increased, but diminished, if the State or a Government Department were interposed between the charity of the public and its objects. The proposal with which the report concludes concerning the appointment of a central board with general powers of supervision points to legislation. This proposal has been already considered in the columns of THE LANCET, and space does not serve for a reopening of the discussion to-day. This, together with some other points of interest in

the report, will be treated of in detail later on. At the present moment we desire to draw the attention of our readers to the document itself and the digest of it which appears upon another page, as a preparatory step to the fuller discussion upon which we propose to enter at a later date.

#### INTERNATIONAL MEDICAL CONGRESS, 1893.

At the request of the President and general secretary Sir James Paget has undertaken the formation of an English committee to aid the executive of the Congress in such ways as may prove practicable. A preliminary meeting was held at 1, Harewood-place, on Friday, Oct. 28th, to which the following gentlemen were summoned: The Presidents of the Royal College of Physicians of London, of the Royal College of Surgeons of England, of the Medical and Chirurgical, Clinical, Pathological and Medical Societies, Sir Joseph Lister and Sir William MacCormac. Present—Sir J. Paget, in the chair; Sir Dyce Duckworth, Sir George Humphry, Mr. Hutchinson, Sir W. MacCormac and Mr. Makins, acting as secretary. It was decided to invite the presidents of public bodies and societies representing the various branches of medicine, together with representatives from the universities and provincial towns possessing medical schools, to form a committee. It was stated that Messrs. Cook would arrange for special transit of a party of not less than sixty members, could it be formed, and a letter was read from the general secretary, Professor Maragliano, to the effect that the French railway companies have agreed to give a reduction of 50 per cent. on all fares paid by members of the Congress travelling through France. The names of the members of the committee will be published shortly and a general meeting will be called. The committee will be glad later to give any information in its power to intending members of the Congress through its secretary. As already announced, the Congress will meet at the end of September, 1893.

#### AN UNSATISFACTORY CASE.

AN inquest was held on Oct. 4th by Mr. Hillman, coroner for East Sussex, touching the death of Jessie Nissen Shepherd, a widow, aged fifty years. The deceased had resided for some years at Hove. Mr. C. J. Smith, surgeon, identified the body. Mr. McNiece, of Carshalton, was her regular medical attendant. About twelve months since Mr. McNiece suspected aconite poisoning and broached the subject to his patient. During her fatal illness, which lasted three weeks, Mrs. Shepherd suffered from vomiting and other symptoms, which ended by death from convulsions. Again Mr. McNiece was suspicious that poison had been administered, and suggested to the certificated nurse on duty that it was arsenic. He directed her to search the house for poison. A bottle of white powder—afterwards proved to have been a cosmetic—was found. On grounds which, according to the finding of the coroner's jury, were insullicient Mr. McNiece went so far as to hint that a relative of the deceased might be the guilty person. Before Mrs. Shepherd died Mr. Smith and Dr. Ulthoff were consulted. These gentlemen came to the conclusion that the illness was due to Bright's disease and that the convulsions were of uræmic origin. Now, although Mr. McNiece had given utterance to his suspicions, he ultimately gave a certificate of death from uræmic poisoning. Very properly the relatives insisted on having a post-mortem examination, which was performed by Mr. Smith and Mr. H. H. Taylor. The left kidney was almost destroyed by obstructive dilatation. The right kidney was hypertrophied and pale on section, but the capsule was not adherent. There was an ovarian cyst containing three pints of purulent matter. The cyst had contracted and there were marked adhesions. There were no signs of irritant poisoning in the stomach or elsewhere. The powder before referred to,

as well as portions of the viscera, were forwarded to Dr. Stevenson, the official analyst, in the event of further inquiry appearing necessary. Dr. Ulthoff, Mr. Smith and Mr. Taylor were unanimously of opinion that the symptoms and death were due to natural causes. The jury endorsed this view, and to their verdict added a rider that Mr. McNiece was deserving of severe censure in giving a certificate if he did not honestly believe that what he wrote thereon was true. No one could blame Mr. McNiece for entertaining a suspicion of poisoning, even though based on an error of judgment. The symptoms of irritant poisoning are simulated by several diseases of natural origin, as the annals of forensic history abundantly prove. At the same time we cannot altogether hold him blameless for his subsequent conduct. So long as there remained a shadow of doubt in his mind he ought not to have given a death certificate, and the report of the inquest apparently shows that he had not entirely abandoned the theory of poisoning. But having given the certificate it was his bounden duty to have at once acknowledged that he had made a mistake and to have unreservedly withdrawn the aspersions he had cast on the members of the family mentioned at the inquest, who, under the circumstances, are entitled to much sympathy. We do not presume to say that the evidence was not sufficient to warrant the verdict and the rider, but it would have been still more weighty had the result of an analysis by Dr. Stevenson been forthcoming.

#### VENTILATION AT THE LAW COURTS.

THE ventilation of the Royal Courts of Justice affords a perennial subject of comment from the judicial bench and in the press, but if Mr. Justice Day is correctly reported to have said a few days since that "the pumping engine was out of order, and could only pump the stale air used a couple of days ago," it may be hoped that he was dealing with a very exceptional state of things. The perverse ingenuity which could design plant for the storing up and preservation of stale air strikes us as being a nuisance so uncommon that it need not be seriously complained of; but even so we have a keen sympathy with the unfortunate people who are condemned to spend the day in one of the Courts at the Strand whilst the ventilating machinery is out of order. Whatever may be thought of some explanations of the phenomena which under these conditions obtain currency, the phenomena themselves are distressing in the extreme and in no mean degree unwholesome.

#### DIPHTHERIA IN SCHOOLS.

WE are glad to see that the prevalence of diphtheria in the Yerbury-road Schools, Holloway, has been brought under the notice of the London School Board, and that the fact is receiving a searching investigation at the hands of the medical officer of health, Mr. Harris. No less than thirty deaths have occurred of children in this school since October last. This is a most serious state of matters and one which demands the most complete inquiry, not only into the sanitary condition of the school, but with regard to the houses from which the children come. The parish of Islington has a reputation for good health, and had, until lately at least, a good record as respects diphtheria. But no general healthiness will avail if diphtheria finds favourable local circumstances and plentiful gatherings of young children, who are its chief victims. The valuable statistical tables of infectious disease which we publish monthly show that such a neighbourhood as Hampstead, with a small general mortality, may have in some months a large proportion of diphtheritic cases. General Maberley did not seem to relish the suggestion that the schools were to blame, and argued that the epidemic was prevalent in London, that only rain-water pipes went under the schools, and that the sanitary inspectors had made no inquiry into the

health of the habitations of the children. Mr. Harris has traversed all these statements and on the face of them they are of that vague kind with which officials are apt to deceive themselves, and convey no definite information and no suggestion for remedial measures. The very point of the question, as we understand it, is that there is a special incidence of diphtheria in these schools, or in the children that frequent them, as compared with other children in the same neighbourhood, perhaps in the same families, and with children attending other schools in the same parish. This localisation of the disease is sometimes intense and significant and it is only by studying closely instances in point that our knowledge of the origin and mode of communication of this disease can be increased. The medical officer of health of Islington will have the gratitude of the public in his endeavours to get at the bottom of this outbreak, and the members of the School Board should do everything in their power to assist his endeavours.

#### MOLESCHOTT'S JUBILEE.

THIS eminent biologist and teacher, whose scientific and professorial activity is still unimpaired, though he completed his seventieth year on August 8th last, will celebrate his jubilee in Rome on December 16th. The committee organised *ad hoc* have wisely chosen this latter month for the ceremony, as many of Moleschott's old pupils and colleagues might hesitate to visit Rome, even to commemorate his jubilee, in the late summer. This premised, it is safe to predict, a highly interesting and, historically speaking, a profoundly suggestive symposium in the capital of Italy seven weeks hence. Not only has the personal history of Moleschott been a most eventful one, but the revolutions in science and speculation he has witnessed are among the most momentous of the century now closing. A native of Bois-le-Duc, he naturally went to the University of Utrecht for his education, which, in its preliminary stage, was solid enough for the weighty professional superstructure he proceeded to build upon it. Choosing medicine as his *métier*, he became a pupil of Mulder, the great pioneer of physiological chemistry, and it was in Mulder's house that he formed the acquaintance of another Dutch physician not less illustrious than himself, the ophthalmologist Donders. This was in 1844, when the discoveries of Schleiden and Schwann were but six years old, when organic morphology was beginning to be transformed, and when only in 1842 had appeared the great work of Henle which impressed on the revolution they had effected the character of a comprehensive and fruitful reformation. "Schwann and Henle," says Moleschott himself, "in examining the chemical nature of the tissues knew no means beyond acetic acid and water," and he recalls the sceptical look of Henle when in 1844 he told him that Mulder and Donders had determined on delivering their histological attack with potash and sulphuric acid. Engaged for a brief space in private practice, Moleschott continued his laboratory work under Mulder, till in 1847 he was called to Heidelberg, where till 1854 he acted as *privat-docent* in physiology in its widest and most penetrating acceptation. Then it was that his powers as an investigator and expositor, not only in his prelections, but in his "Physiologie der Nahrungsmittel," his "Physiologie des Stoffwechsels," and his "Lehre der Nahrungsmittel," drew the attention of the scientific world by their bold and trenchant criticism of orthodox chemistry and physiology. Liebig was the main object of his attack, and when he demonstrated many of the great man's positions to be quite untenable and even mischievous to science he incurred displeasure in high quarters, and received a very broad hint that persistence in his polemics would be followed by the withdrawal of his permission to teach in public. He then quietly withdrew

to Switzerland, not, however, before bequeathing to Germany a controversy which did not cease till Liebig's too despotic authority had been reduced to juster and sounder limits. In Zurich he more than maintained the high reputation he brought from Heidelberg, and it was while there in 1861 that, in compliance with an old-standing invitation from Cavour, he left for Turin to undertake the duties of the physiological chair. His success was speedily apparent, and in turning out such pupils as Mosso and Bizzozero he soon showed of what immense value was his influence in the subalpine school and how amply Cavour's sagacity was justified in forcing "this *novus homo*" on Piedmontese science. Shortly after Rome became the capital of United Italy Moleschott was called to the chair of Physiology in the Sapienza, and there again he has outlived the prejudices that always beset a foreigner and outsider even in the domain of science, till in the ever-widening circle of distinguished and devoted pupils he has now a phalanx of admirers and vindicators that render him proof against all local attack or Chauvinistic disparagement. Indeed, the promoters of the imminent celebration of his jubilee whose names occur in the list now before us are, many of them, not only Italians but Romans, who as colleagues or contemporaries or pupils have learned to appreciate his work and to honour the worker. No one, indeed, at all familiar with Italian medical teaching as it was twenty-five years ago can fail to understand the wholesome, the reinvigorating influence of this Teutonic importation into a Latin atmosphere. His thoroughness, his philosophic breadth of view, his conscientious exhaustion of detail before proceeding to generalisation—all these were lessons greatly wanted by the Italians, who were perpetuating the effete traditions of the early decades of the century. Nor was Moleschott wanting in those literary graces and accomplishments in which his predecessors, whether in Turin or Rome, preponderated. Like his friend and fellow-student Donders, an accomplished classical scholar and linguist, he endeared himself to the Italians by a proficiency in Dante and a power of quoting him opportunely and with an effect not often shared by the mighty Florentine's compatriots. Year by year his hold on young Italy has deepened and strengthened; he has won their admiration by his learning and expository power and their love by his devotion to the Italian cause and his sympathy with its healthy and steady evolution, while at the same time he has retained the esteem of his academical and professional colleagues by a geniality of disposition and a suavity of address not always associated with Teutonic antecedents. All these elements of popularity and influence combine to ensure for his approaching jubilee a success honourable alike to its promoters and to its hero, and we shall watch with no common interest the commemoration of a career which, begun in Utrecht, continued in Heidelberg and Zurich, transferred to Turin, and culminating in Rome, has, at every stage, been coincident with the advancement of biological research and with the strengthening of the bases of scientific medicine.

#### PHARMACOPŒIAL SYNONYMS.

THE arguments in favour of extending the list of pharmacopœial synonyms have frequently been brought under the notice of the General Medical Council by Professor Atfield, and much has been done in this direction towards ensuring uniformity in the composition of substances which are frequently sold under popular names. Uniformity of composition is indeed the only safeguard against serious misadventures. Nothing can be more dangerous than the sale of drugs by the same name, where the ingredients differ, especially if in one case the preparation has been "improved" by the entire omission of the principal active ingredient. Sick persons may take this compound in increasing doses with impunity and thus incur very serious risks if on any occasion

they are elsewhere supplied with a specimen which has not been "improved." Those responsible for changes in the Pharmacopœia are fully alive to these risks, but that their work has not yet been generally appreciated or even recognised is obvious from the recent proceedings at the North London Police-court. A herbalist was summoned under the Food and Drugs Act for "selling a substance called paregoric which was not of the nature and substance demanded by the purchaser." Possibly it was originally intended to prosecute for the unlicensed sale of a drug containing opium, but no opium was found in this substance, and the prosecution under the Food and Drugs Act should have held good, if it could have been proved that the legal composition of paregoric had been defined by the admission of this name in the Pharmacopœia as a synonym for *tinctura camphoræ composita*. The counsel who defended maintained that "there was no substance called paregoric in the British Pharmacopœia, either of 1885 or in the edition of 1889," and, in the absence of rebutting evidence, the case was dismissed. Professor Atfield, the annual reporter on the Pharmacopœia to the Medical Council, whose painstaking work has so often been favourably noted in the columns of THE LANCET, may well feel aggrieved that this evidence was not forthcoming, since, as he explains in a letter to *The Times*, paregoric was inserted in the third reprint of the British Pharmacopœia in November, 1888, and in the gratis list of corrections issued in the same month as well as in the fourth and fifth reprints. Special attention was drawn to this insertion in the prefatory notice to the reprint of 1888; hence the omission of evidence to this effect at the time the case was heard must remain a mystery.

#### PETITION TO THE MEDICAL COUNCIL *IN RE* MEDICAL AID ASSOCIATIONS.

WE are asked to say that the following petition has been prepared, at the instance of the Medical Defence Association, for presentation to the General Medical Council at its approaching meeting on Nov. 22nd. Any registered medical practitioner approving it and wishing to add his name is requested to address a card to Mr. Ernest Hugh Fitzpatrick, L.R.C.P. Edin. &c., 122, Moseley-road, Birmingham, with the authority to add the name (which should be given in full, with qualification and address) to the petition. The petition reads as follows:—"To the president and members of the General Council of Medical Education &c. This petition of us, the undersigned duly registered medical practitioners, sheweth—that the modern system of medical practice conducted by the ostensibly philanthropic institution designated 'Medical Aid Association,' and similar bodies, is degrading to the profession and injurious to the public. And your memorialists pray that your honourable Council will take this increasingly important question into your consideration, and take such steps as may appear necessary in order to bring about an amendment of the evil.

#### SERVANTS' ACCOMMODATION.

IT would be folly to think of obliterating entirely the distinctions of privilege which belong to the position of a master or a mistress, and certain social amenities may reasonably be allowed to the latter which are not equally accessible to their domestics. In making this admission, however, it must be remembered that it is true only with limitations. It applies to many matters of dispensable comfort. It does not apply to participation in the absolute necessities of life. It cannot be used as a sanction for indecent and unwholesome herding underground such as occurred in a case lately reported by Mr. Wynter Blyth, in which three domestic servants were literally stowed away overnight in mere cellars, under stairways—damp, sunless and unventilated. Such wretched

accommodation, it is to be hoped, does not often fall to the lot of young persons in service, and no one could, with any pretence of logic, dispute the justice of serving their employers with the vestry order issued in this instance. It is certain, notwithstanding, that in this very matter of house-room custom leaves much to be desired. The term "servants' accommodation" does not necessarily indicate a fixed measurement of even 600 cubic feet, the minimum compatible with healthy conditions, for each person. Ventilation and cleanliness are usually but little considered, though the blame for such neglect must be shared by the servants themselves. The resulting consequences upon health are matters of daily observation. It is therefore clearly to the advantage of householders to see to it that the domestic reforms called for in the circumstances are carried out. Failing such action on their part, there appears to be no alternative but the far greater inconvenience entailed by official interference.

#### ISOLATION ARRANGEMENTS AT PLYMOUTH.

A GOOD deal of discussion is going on at Plymouth with reference to the question of isolation hospital provision, the immediate cause of the discussion being the inability of the Town Council to isolate a case of scarlet fever when such isolation was first needed. The rights and wrongs of the individual case are unimportant compared with the fact that the Corporation of Plymouth have for so many years delayed the provision of adequate accommodation for the important town for which they are responsible, the delay having taken place under the shelter of various pleas, including the refusal of the Local Government Board to approve of a loan to carry out a scheme which, in their opinion, seems to have involved failure. At last this difficulty has been removed by the preparation of new plans which have been submitted for approval and which it is anticipated will meet with the necessary consent. It is much to be hoped that no needless delay will be allowed to arise on the part of either the central or the local authority, for the absence of adequate means for isolating cases of infectious fever in Plymouth has long been a reproach to that borough.

#### THE LESSONS OF THE ALPINE SEASON.

A SAD interest attaches to the statement, lately published in the daily press, that the whole number of fatal mountaineering accidents in Europe during the present year amounts to thirty-two. This total perhaps is not very great when we compare with it the number of those who have employed the past season in Alpine climbing or the risks which they must necessarily incur. When, however, we learn that the unfortunate persons who thus lost their lives were in twenty-six cases unattended by any guides whatever, the tribute thus exacted of healthy recreation must appear unduly large. Suspicions of rashness and incompetence will not be set aside. It is true that all climbers are not rash, nor all routes hazardous; but it can hardly be disputed, in the face of such facts as those above stated, that skilled instruction and assistance are still too little utilised. Without such aid there must be an inevitable tendency to misunderstand conditions of weather, season and ground, which are, especially to the tyro, matters of the gravest moment. The ambition to scale a great peak offers to such especially a dangerous attraction, and it is characteristic of the humility of experience that more mature men prefer to begin a season with one or two easy ascents. Physical capability is a question for individual and very careful consideration. Almost anyone may visit Switzerland, but it by no means follows that anyone may risk the effort and exposure of a day, or perhaps two days spent in ascending a peak. The calamity which overtook the late Professor Nettleship and his party affords a melancholy example of the uncer-

tainies attending even a comparatively ordinary effort in mountain climbing and the endurance which it may entail. Such considerations ought to teach the un wisdom of hasty action in matters of this kind, and, above all, the fact that self-reliance with inadequate knowledge is no better than foolhardiness.

#### MEETING OF THE GENERAL MEDICAL COUNCIL.

THE General Medical Council will meet on Tuesday, Nov. 22nd, at two o'clock. It is impossible not to see that the action and functions of the Council are becoming more and more matters of public interest. And many considerations lead to the conclusion that at the approaching meeting the Council will have to deal with difficult questions respecting not only the professional conduct of registered practitioners, but concerning the safety and welfare of the public. We may take an opportunity before the meeting of the Council of considering the form in which these questions are likely to arise, though in the absence of the programme of business we can only conjecture.

#### RAG IMPORTATION.

ALREADY the effect of the various rag orders which have been drawn up by the Government as precautionary measures against cholera is being felt in the heavy woollen district. It is reported that manufacturers have been obliged to withdraw from their patterns all goods made from foreign rags, and that for certain classes of goods particular rags (now prohibited) are exclusively required. A request has been made by northern Chambers of Commerce that the Local Government Board should permit the landing of properly disinfected or carbonised rags, and that the prohibition of rags from France, Holland, Belgium, and States of Germany, unconnected with Hamburg, should cease in November. These are far-reaching requests which will doubtless be duly considered by the Government. But no selfish local commercial interests should be allowed to intervene between the public duty of the Government and the general interests of the population of this country that would be likely to suffer from an importation of cholera.

#### SCARLET FEVER IN BOARD SCHOOL CHILDREN.

THE old story of a coach-and-four being driven through any Act of Parliament finds its latest illustration in the easy evasion by parents of the Notification Act and the efficacy of the simple plea of ignorance. Three parents have been summoned before the magistrate of the South-Western police-court for exposing their children while suffering from scarlet fever and also for neglecting to notify. None of the children had medical attendance, and the excuse of the parents was that they did not know their children were suffering from scarlet fever. Dr. Little, chairman of the sanitary committee of the local board, gave evidence, and said the symptoms were unmistakable. Cases multiplied in the neighbourhood and suspicion fell on the local Board school. The mistress of the school sent to the sanitary inspector, expressing her belief that one of the children in the school had scarlet fever. Both the inspector and Dr. Little went to the school and found there were no less than three cases in a state of active and obvious peeling. Two of the children had gone continuously to school, the third had been kept at home on account of "a sore-throat and cold." Dr. Little has kindly given us further particulars in a letter. The schools have been closed. Between thirty and forty cases have occurred, and hospital accommodation has had to be supplied. The cost to the ratepayers is estimated to be between £300 and £400. The magistrate (Mr. Denman) expressed an important opinion. Dr. Little had given evidence that he could not say that he believed that the Parents knew

their children had scarlet fever; but he thought they had shown great carelessness, as there must have been a rash and the desquamation was very noticeable. Mr. Denman said he would like to see an Act passed making parents responsible whether they had a guilty knowledge or not. This is what it must come to. The sense of responsibility in parents whose children are suffering from diseases so mischievous to others must be quickened. There is no excuse in these days for parents who neglect their duty in this respect when medical advice can be so easily procured.

#### THE FOUNDLING HOSPITAL.

THE secretary of this hospital reports that the outbreak of scarlet fever there has not been virulent, but proceeds to state that since last March 200 children have suffered from the disease. This seems a large number, and points strongly to the need of some isolation building. The secretary states, too, that the drainage was remodelled in 1886, and has been recently pronounced satisfactory by Dr. Sykes, the health officer of St. Pancras. The latter writes to *The Times* to correct this rosy view, and to state that he had reported that the grease trap required alteration, that all waste-pipes should be cut off from the drains and sinks removed from wards and dormitories. He had also strongly advised that an isolated infirmary and probationary ward should be constructed. We trust, with Dr. Sykes, that the committee of this excellent institution has seen fit to carry out the above suggestions, and that there will be no recurrence of scarlet fever, which has excited so much comment.

#### THE STOURPORT MEDICAL AID ASSOCIATION.

A CORRESPONDENT dating from Aston, writing to the *Birmingham Daily News*, says that in the Stourport Medical Aid Company there are, or have been, all the Dissenting ministers, one solicitor, four members of the local board, nine-tenths of the publicans, 50 per cent. of all the tradesmen (including large drapery houses), all the coal merchants, many owners of house property and a large number of farmers. The surgeon receives less than 1s. 11d. per member. He is said to be no better off with a membership of 3058 than when there was only a membership of 2000. It is lamentable that respectable and intelligent men should continue in associations so to "sweat" and to starve a liberal profession. We cannot pretend to see what advantage they gain by it or hope to gain. There is no compulsion in them so to act. They cannot maintain that there is any justice or adequacy in such terms. It is of course lamentable that medical men so poor either in spirit or purse should be found to take such appointments, to the ruin of their profession. But this does not acquit ministers of religion, publicans and thriving tradesmen.

#### THE POLLUTION OF THE AIRE.

IT is well known that the West Riding County Council have for some time past been desirous of putting an end to the disgraceful and well-nigh intolerable state of the river Aire, which is fouled to an almost incredible extent with sewage and trade refuse. With a view to this end a conference was organised at Leeds last week between the Sanitary Committee of the County Council and representatives of the sanitary and conservancy authorities in the basin of the Aire and its tributaries. There seemed to be a unanimity of opinion that the sewage pollutions ought to be forthwith dealt with, and that as regards trade refuse steps ought at once to be taken to ascertain how this may best be treated or disposed of so as to avoid pollution of the river. Notwithstanding the apparent concurrence of opinion, we almost fear that nothing very immediate is in prospect. Leeds and Bradford claim that since they are county boroughs they are not concerned with any

conclusions at which the County Council may arrive; trade interests have probably influenced the decision that the sewage difficulty should be first disposed of; and even the most successful of all means for delay—namely, a Royal Commission—has been suggested in a resolution. The alternative of a Conservancy Board with adequate powers seems to offer a far more reasonable chance of successful and fairly prompt action, and we trust that due consideration will be given to this alternative. Under any circumstances, the West Riding County Council deserve credit for the action they are taking, and it is to be hoped that they will receive local and imperial help in prosecuting the task they have undertaken.

#### BAD MEAT AT PRESTON.

It is alleged that this town has been used as a dépôt for diseased meat. This state of things too has, it is said, been allowed to grow up in spite of, and indeed with, the connivance of certain officials. It was stated that a considerable trade in distinctly bad meat had taken place in Preston, and one member of the Town Council connects the abnormally high death-rate of Preston with the above-mentioned fact.

#### REMOVAL OF TUMOUR FROM THE SPINAL CANAL.

LAST week, in King's College Hospital, Mr. Watson Cheyne removed from a patient a large myxomatous tumour, which was situated in the spinal canal at a portion corresponding with the lower part of the dorsal and the upper lumbar regions. The nature of the tumour and its exact position had been accurately diagnosed by Dr. Ferrier. The growth was encapsuled and was easily removed. Unfortunately, the patient died thirty-six hours after the operation.

#### DEATH FROM GODFREY'S CORDIAL.

THE Borough Coroner of Leeds lately held an inquest on a child six days old which had died from an administration of Godfrey's Cordial by its mother as it seemed to be in pain. Mr. Hawkyard, a surgeon, said he found it collapsed and blue. He said the preparation contained opium and was not fit to be administered to so young a child. Of course this is so. We do not blame the mother so much as the state of the law which permits the sale of such poisons by chemists.

#### SMALL-POX OCCURRENCES.

AMONGST the places in which small-pox is either prevalent or new attacks are occurring are Halifax and its vicinity, Stamford, Stockbridge, Warrington, where the outbreak is a serious one, Hipperholme, Wyke near Bradford, Melton, where it has appeared in the workhouse; Scarborough, Daventry, Higham-Ferrers and Leicester, where three cases have quite recently occurred.

#### NEW PRODUCTION OF BLEACHING POWDER.

THE researches of Mr. Ludwig Mond have again been rewarded with commercial success. Some two years ago the chemical world was startled by Mr. Mond's discovery of the remarkable and unexpected carbonyl series, and now it appears he has succeeded in recovering the chlorine from the alkali waste in the Solvay or ammonia-soda process. It will be remembered that in the manufacture of soda by this process common salt is treated with ammonium bicarbonate, sodium bicarbonate and ammonium chloride being formed by double decomposition. The bicarbonate of soda is either crystallised out as such or subjected to heat with conversion into normal carbonate. The by-product, ammonium chloride, to which this new discovery relates, was previously heated with lime to recover the ammonia, the calcium chloride being thrown away, but it would

seem now that the chlorine itself can be saved. The ammonium chloride is crystallised out, dried, volatilised and passed over oxide of magnesia, so disposed as to present a large surface; the chlorine goes to the magnesium, the oxygen of which forms water with the hydrogen of the chloride, and ammonia is carried forward in the free state. The reverse process is now instituted, but air is passed over the magnesium chloride, which is reconverted into oxide, and the chlorine is used for the production of bleaching powder. The process is said to be actually at work on the large scale, so that the questions of cost and fuel consumption have no doubt been satisfactorily solved.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Basle.*—Dr. A. Jacquet, Assistant in the Medical Clinic, has been recognised as *privat-docent* in Experimental Pathology and in Pharmacology.

*Brussels.*—Dr. Warnots has been appointed Professor of Operative Medicine in succession to Dr. Tirifahy, who has resigned.

*Cracow.*—Dr. Braun has been recognised as *privat-docent* in Midwifery and Gynaecology.

*Dorpat.*—Dr. A. S. Budilovich of Warsaw has been appointed Rector, in succession to Dr. Meikoff, whose health has obliged him to resign.

*Gratz.*—Dr. Zoth has been recognised as *privat-docent* in Physiology.

*Jena.*—Dr. Ludolf Krehl of Leipsic has been appointed Professor and Director of the Medical Policlinic. Dr. Wagenmann of Heidelberg has been offered an Extraordinary Professorship of Ophthalmology, with the charge of the eye clinic.

*Lausanne.*—Dr. Eugène de la Harpe has been recognised as *privat-docent* in Climatology and Balneology. Dr. Paul Demiéville has been appointed Extraordinary Professor in the Policlinic.

*Praque (German University).*—Dr. Edmund Münzer has been recognised as *privat-docent* in Special Pathology and Therapeutics.

*St. Petersburg (Military Medical Academy).*—The contest for the chair of Special Pathology and Therapeutics lately vacated by Professor Manassein, editor of the *Vrach*, has been unusually severe. The result is that the Professorial Conference has by a considerable majority selected Dr. Nilus Sokoloff.

THE Regius Professor of Medicine of Oxford University has given notice that the examination in Human Anatomy and Human Physiology at the first examination for the degree of Bachelor of Medicine will commence on Wednesday, Dec. 7th, at 10 A.M., in the University Museum. In consequence of a recent change of statute it is no longer necessary to forward any certificates or testamurs.

ON Thursday, Oct. 27th, at a special meeting of the Council of Epsom College, the following resolution was unanimously adopted: "That the report of the school committee (which we print on page 1067) on the dietary at the College be received, adopted and its recommendations carried into effect; and that copies be forwarded to the parents of all boys at the College and to the leading medical journals."

DR. DAVID CALDWELL M'VAIL of Glasgow has been appointed Crown representative for Scotland on the General Medical Council, in lieu of the late Sir G. H. B. MacLeod. Dr. M'Vail has already been a member of the Council as representative of the faculty of Physicians and Surgeons of Glasgow from June 7th, 1886, to April, 1888, when he was succeeded by Dr. Hector Cameron.

At the autumn general meeting of the Governors of St. Mungo's College held on Oct. 27th, the Professor of Systematic Surgery, Mr. David N. Knox, M.A., M.B., was appointed Professor of Clinical Surgery in room of Professor William Macewen, LL.D., who had resigned in consequence of his appointment as Professor of Surgery in Glasgow University; and Mr. Henry E. Clark, M.R.C.S., Professor of Anatomy and Dean of the Faculty of Medicine, was appointed Professor of Systematic Surgery, vice Professor Knox. Applications for the chair of Anatomy should be lodged with the Secretary on or before Dec. 1st next.

OWING to the death of Lord Sherbrooke a vacancy has occurred in the Senate of the University of London, and in accordance with precedent his place will be filled by a graduate in science or medicine. Dr. W. J. Collins, M.S., B.Sc., F.R.C.S., is a candidate, and probably other names will shortly be announced.

THE next meeting of the Odontological Society of Great Britain will take place on Nov. 7th, when Mr. Storer Bennett will read a paper on Some Mechanical Devices for the Retention of Artificial Dentures, and a communication will be given by Mr. F. Newland-Pedley on Inverted Lower Canine Tooth erupting below the Chin.

THE Royal Commission on Vaccination held another meeting on Wednesday last, Sir James Paget presiding. Dr. J. C. M'Vail was examined and gave evidence in favour of vaccination. The Commission then adjourned until Wednesday next.

THE Royal Medical Benevolent College has received a donation of £1000 from a friend who does not wish his name to be known.

PROFESSOR VIRCHOW has been appointed an honorary member of the Imperial Russian Natural Philosophy Society.

## HOSPITAL FEDERATION IN LONDON FOR CLINICAL PURPOSES.

By JOHN ERIC ERICHSEN, LL.D., F.R.S., F.R.C.S. &c.

In the Report of the Royal Commission on a Teaching University in and for London it is stated that the opportunities for clinical instruction that exist in the metropolis are "unrivalled." That this is so admits of no doubt, and that these unrivalled opportunities are not utilised to anything like their full extent is equally certain. No evidence was given before that Commission to show how these admittedly unrivalled opportunities could be utilised with more advantage to the student than they now are, and the report is silent on this most important point. I trust that I may therefore be excused for venturing to make some suggestions towards the attainment of so desirable an end. I have visited at various times most of the great medical schools in Europe and in the United States of America, and I can without hesitation affirm that the word "unrivalled," used in the Report of the Royal Commission as descriptive of the clinical opportunities presented by London, is the correct designation. No city in the civilised world offers such a wealth and so varied an abundance of clinical material as does London, both as regards general medical and surgical practice and particular forms of special disease, and yet so little are these unequalled opportunities utilised that English medical students annually resort in large numbers to the cliniques of Paris, Vienna and Berlin in order to obtain that professional knowledge to which access is denied them in this metropolis. They can there follow without restraint and at little or no cost the teaching of the most eminent physicians and surgeons and of the most able specialists of the day. They return skilled in

foreign methods of diagnosis and of treatment, but with little knowledge of those that are to be learnt in this great city, outside the walls of the particular hospital in which they have been educated; for to the vast and varied stores of clinical information that here lie within easy reach access is practically denied, and indeed of their very existence they may be ignorant. The student is obliged to go abroad for the purpose of obtaining advanced and special clinical instruction, not from any lack of material here, but in consequence of its inaccessibility and the absence of all proper organisation for its study and utilisation. In London he is absolutely restricted to the teaching of the physicians and surgeons of the one particular hospital to which, as a pupil, he has attached himself and for which he has paid his fees. The invaluable instruction to be gained from the vast practical experience and profound scientific attainments of such teachers as a Jenner or a Gull, a Paget or a Lister, or the skill to be acquired by being the daily witness of the consummate methods of a Liston, a Fergusson, or a Bowman, are denied him here unless he happens to have entered as a pupil to the hospital to which one or other of these masters of their science and art is at the time attached. To the practice of that one particular man he is admitted. From that of the others he is shut out, unless he possesses the means and has the inclination to pay a second or a third time the very considerable fee for "hospital attendance." This, indeed, is a student's question, and the matter should be considered from a student's point of view rather than from that of the teacher in the medical school or the governor of the hospital. The London student has a right to expect that he shall not be placed at a disadvantage by the refusal freely to open to him those vast stores of clinical observation and study that are to be found in such unequalled and profuse abundance in London, and thus to be compelled either to starve his craving for knowledge if he remains here or to satisfy it at the cost of going abroad. There is no other alternative. But may not this state of things, so injurious to the best interests of medical education, be corrected? Is it not possible to place London not only on a level with but far ahead of all other European capitals, as a great school of clinical medicine and surgery in the widest sense of clinical teaching as well as in its more special departments? I cannot doubt that with proper organisation of the enormous opportunities for clinical study that exist in London, and by rendering these accessible to the advanced student and young practitioner, the necessity for foreign study will no longer be felt, and that the cliniques of London will attract in their turn students not only from all parts of the United Kingdom, but from our colonies, the United States of America and even the Continent of Europe. Those who may wish for special opportunities of study and of instruction in every department of clinical medicine and surgery will come here, and the cliniques of London will be placed in that pre-eminent position which their physicians and surgeons have so long and so ably maintained. The value of a clinique is determined by three considerations. These are: first, the amount of clinical material; second, the character of the cases; and third, the ability of the teachers. Few, even amongst the members of the medical profession, are probably aware of the immense amount of clinical material that exists in London. The vast number of diseased and injured persons of the class that seeks cure and relief in our hospitals, infirmaries and medical charities of all kinds far exceeds that of any other city in the world. The population of the county of the city of London equals in numbers that of the whole of Scotland and exceeds greatly that of many continental Sovereign States. Engaged in every possible kind of industrial pursuit hazardous to life or limb, and injurious in many special ways to health, it would of necessity furnish an enormous amount of injury and disease. To this must be added a very large number of persons suffering from serious or special forms of disease who are constantly attracted to London from all parts of England, and even from the colonies, by the world-wide reputation of its hospitals, both general and special, and by that of individual members of their staffs.

There are eleven general hospitals in London of sufficient size to be recognised by the Royal Colleges as schools of clinical medicine and surgery. In these eleven clinical hospitals there is a total of 4542 beds.<sup>1</sup> The number of beds varies greatly, from 750 in the largest to 180 in the smallest of these hospitals. Besides these there are several smaller general hospitals, such as the Great Northern, the Metropolitan, the West

<sup>1</sup> This number is taken from the list published in the British Medical Journal for Sept. 3rd, 1892.

London and the North-Western Hospitals, which, although not recognised by the Examining and Licensing Corporations as schools of medicine, afford abundant opportunities for clinical study and the acquirement of practical experience. The amount of clinical work done at a hospital cannot be measured solely by the number of its beds. The out-patient departments which have now grown to enormous and almost overwhelming proportions in all the London hospitals furnish an abundant supply of interesting and instructive cases, more particularly of various special forms of medical and surgical disease which do not require to be treated in hospital—such as affections of the eye, the ear, the skin and the throat—for which special clinics are now established in all the larger general hospitals. In addition to these there are special departments in the general hospitals for the treatment of diseases of women and children, and to all a maternity charity is also attached. The Poor-law infirmaries in the metropolitan area are very numerous and contain a vast number of beds. I find on reference to Churchill's Medical Directory for 1892, the most reliable source of information on such a subject, that there are no less than twenty-seven such infirmaries, containing an aggregate of 13,285 beds, or an average of nearly 500 beds. These are, in fact, general hospitals, and contain an immense amount of clinical material that now goes to waste, but that admits of being most advantageously utilised. Of its great value I can give no better proof than that of the work done by Sir Henry Thompson, who, when surgeon to the St. Marylebone Infirmary at the commencement of his brilliant career, made there a series of researches on the Diseases of the Prostate of the most important character; whilst his predecessor, Mr. Benjamin Phillips, F.R.S., found in the wards of the same infirmary the material which served as the basis of his work on Scrofula. These infirmaries contain inexhaustible material for the study of the diseases of advanced life, of childhood and of many special forms of disease, such as those of the skin. In early professional life I was a frequent visitor to the wards of the St. Marylebone Infirmary, which was then officered by Dr. Mayo, President of the Royal College of Physicians, Dr. Glendinning and Mr. Benjamin Phillips, F.R.S., and learnt much in them of diseases that are not usually met with in general hospitals. The special hospitals of London are very numerous. They are of two kinds: those that have been established by the benevolent public to fill a gap and a recognised want in the other charitable institutions, and those that have been founded by and, to use an American expression, are "run" by special practitioners. For obvious reasons such institutions as the latter are not suited for educational purposes or as schools for clinical instruction. But the special hospitals that belong to the first category are numerous, large, well equipped and officered by physicians and surgeons of the highest eminence and of acknowledged ability in their respective special lines of practice.

It would be impossible here to mention all the special hospitals that exist in London and might be made available for clinical instruction. But a few of the most important may be specified. Thus the seven "fever" hospitals for the reception of acute zymotic diseases contain (1892) a total of 2571 beds, often greatly augmented in periods of the prevalence of epidemics, as of typhoid or scarlet fever.<sup>2</sup> The two largest hospitals for diseases of the chest—viz., the Brompton Hospital for Consumption and the City of London Hospital—contain respectively 321 and 164 beds. The Moorfields Ophthalmic Hospital contains 100 beds, but as the vast majority of cases of eye disease admit of being treated as out-patients, it is in its external clinique rather than in its in-patients that the measure of its utility as a clinical school is to be found. The Cancer Hospital contains 120 beds and the Lock Hospital 155. Both these institutions contain valuable material for clinical study. There are at least eight special hospitals for children, containing an aggregate of 621 beds. Of these eight hospitals, two—viz., the hospital in Great Ormond-street, with 175 beds, and the East London Hospital, with 102—would be available for purposes of clinical instruction. There are five hospitals for diseases peculiar to women, containing an aggregate of 241 beds, which are chiefly devoted to the reception of patients suffering from diseases requiring surgical treatment. In addition to these there are eight lying-in hospitals. The National

Hospital for the Paralysed and Epileptic, in Queen-square, contains 175 beds, and is now thoroughly equipped for clinical instruction. There is one special hospital which I believe to be peculiar to London—I mean the Poplar Hospital for Accidents, an institution rendered necessary by the hazardous work carried on in its neighbourhood. It contains 51 beds. There is thus in the general and special hospitals alone an aggregate of from 8000 to 9000 beds available for clinical purposes. The asylums for idiots, imbeciles and lunatics are very large. The five asylums for idiots and imbeciles contain an aggregate of 6750 beds. Bethlem and St. Luke's Hospitals contain a total of over 500 beds, and the five public lunatic asylums specially connected with the metropolis have an aggregate of 12,705 beds.

In addition to the vast amount of clinical material that exists in London in its various large general hospitals, its infirmaries, its more important special hospitals, its maternities and its asylums for the idiotic and insane, and which might all be made available for the purposes of study and of instruction, there is much more to be found in the smaller hospitals and in the dispensaries which abound in the metropolis. These institutions, though highly useful for the purposes of private study and observation, are neither officered nor equipped in a manner that would render them available as clinical schools. They have accordingly been left entirely out of present consideration. It is not only the amount of the material available for clinical instruction that has to be taken into consideration in estimating the value of a clinique; its character must also be taken into account, and in this respect London will be found to be as far beyond all rivals as in the mere number of its patients. By the character of the clinical material I mean the importance of the cases of which it is composed, either as regards severity or rarity, or as presenting typical forms of disease. The high reputation of the metropolitan hospitals and the acknowledged eminence of many members of their staffs have always attracted a large number of persons suffering from the more serious, special or incurable forms of medical and surgical disease to seek advice in the metropolis. This number has been largely increased of later years by the facility and cheapness of transit. Many provincial practitioners also prefer to send their more important cases for advice and operation to their old hospital and their old teachers in London, on whose judgment and skill they have reliance and with whose views they are acquainted. A considerable percentage of the in-patients in the London hospitals thus comes up to London for advice and operation. I find that at University College Hospital—with the details of which in this respect I am only acquainted—the proportion of the in-patients who come or are sent up from the provinces amounts as nearly as possible to 10 per cent. of the whole. But there is another potent factor in raising the standard of gravity in the in-patients of many at least of the London hospitals. It is their acknowledged insufficiency in point of accommodation for all of those who seek their aid. Hence a strict process of selection is adopted by the resident officers in the admission of patients, and only the most severe, urgent and important cases are admitted, all of those who can in any way be treated in the out-patient department and most of the chronic cases being referred to it.

Of the professional eminence and the special aptitude for teaching of the large body of distinguished physicians and surgeons connected with the London medical schools I need say nothing, as they are universally recognised and are beyond dispute. There is thus every element for the formation in London of the most important school of clinical medicine and surgery in the world. But to do this the material at hand must be organised and rendered accessible to the student. We will now consider how this can be done. The available clinical material that exists in London may be arranged in three groups of institutions—viz., the general hospitals, with medical schools attached, the larger and more important special hospitals, and the poor-law infirmaries and asylums. Of these, the eleven large general hospitals with their 4542 beds, their special departments and their maternities are by far the most important. They are the most important not only on account of the number of beds they contain and the character of the cases that fill those beds, but of the acknowledged eminence as practitioners and teachers of the great body of physicians and surgeons attached to them. Taken collectively and federated together, so that the instruction given in them should be opened to the advanced student, they would constitute a great clinical school of medicine and of surgery in all their branches that would be without an

<sup>2</sup> At the present time (October, 1892) these hospitals contain over 4000 cases of scarlet fever, diphtheria and typhoid fever.

equal in Europe. In this case union is strength. Taken collectively they are superior to all. But their weakness lies in their isolation, for, taken singly as separate and distinct clinical schools, many of them are inferior as regards number of beds, construction and equipment to some of the great provincial hospitals in this country, and none, not even the largest and most important, can claim superiority as clinical schools over those of the capitals and great cities of the continent of Europe or in the United States of America. The remedy is to be found in the abandonment of the system of isolation that at present exists, and which neutralises the immense and undoubtedly unrivalled opportunities for clinical study that are to be found in the great hospitals and other medical charities of London. For this should be substituted a system of federation for clinical purposes. For it is idle to speak of these opportunities as being "unrivalled" so long as the most important of them are cut up into as many distinct and separate fragments as there are hospital schools in the metropolis, and the remainder are scarcely, if at all, utilised; so that for all purposes of clinical instruction each hospital school is as completely separated from its neighbour as if it were at the Land's End or at John o' Groats house. Unless a system of federation for clinical purposes be substituted for that of isolation and the unrivalled opportunities that I have shown to exist be fully utilised so as to be brought collectively within reach of the advanced student and young practitioner, the medical school of London, great as it undoubtedly is, will never take that pre-eminent position which it is entitled to assume amongst the schools of Europe both by the acknowledged ability of its teachers or the immensity of its clinical opportunities. The system that at present exists in London is so well known as scarcely to require description. It is as follows:—The student "enters" to one particular hospital and continues a pupil of it till he has passed his examinations. He is limited to the practice of that hospital and to the clinical instruction of the medical staff connected with it. The fees that he has paid for these privileges are considerable, and he is shut out from attendance on the practice or the clinique of any other hospital unless he chooses to "enter" it and to pay another fee for clinical instruction. This, I need scarcely say, is very rarely if ever done. He continues through life, as a rule, attached to his own hospital, with the traditions of which he is imbued and with the practice of which alone he is acquainted. The choice of the hospital preferred by the pupil is usually determined by convenience of locality, or by some personal acquaintance with a member of the staff or some former student, rather than by any special regard to the merits of the particular hospital as a place of instruction, of which probably neither he nor his friends are competent judges. The evils arising from this condition of things are not felt in the earlier part of the student's career, but they become manifest later on. The five years' curriculum now required by the licensing corporations may be carried on anywhere, at any medical school in London or the provinces. Any medical school that is recognised by the Royal Colleges may be taken to be fairly equipped, and its teaching fully sufficient for carrying the pupil through his education up to a good minimum pass examination, such as that of the Conjoint Board or the M.B. of most British universities.

My remarks therefore do not apply to the pupil who is preparing for his examinations, but to the student in the subsequent and more important part of his career when qualifying for the M.D. degree or seeking to perfect his knowledge. Indeed, I consider it to be very important that the study leading up to the pass examinations should be carried on at one medical school only and under one set of teachers. The same subjects are taught in all the medical schools and cannot vary. But the method of teaching these subjects and the manner in which they are handled vary greatly, and this is true not only with regard to subjects that admit of much difference of opinion, but even of such as ordinary descriptive anatomy, which are little more than a mere collection of facts to be committed to memory. By going from one school to another the pupil would have to change his method, which would result in much confusion and loss of time. That faculty of sustained attention, also so important, but also so difficult of attainment by the young, would be likely to suffer. In any scheme of federation the larger and more important special hospitals—such as those I have already mentioned—should be included. Much valuable information is to be obtained in them in respect to the diagnosis and detail of treatment of the class of cases with which each hospital is specially con-

cerned. Much is to be learnt by the advanced student in the opportunity he would there have of observing and comparing large numbers of cases of allied diseases, and he would be able to do this under the most favourable circumstances, as many of the physicians and surgeons of the special hospitals are skilled and experienced teachers in the general medical schools. The twenty-seven Poor-law infirmaries offer—as has already been said—enormous and varied opportunities for clinical study. But their organisation and admission into any general scheme of medical education would be attended by some difficulties, owing to the nature of their government, and I would defer the consideration of this part of the subject to some other time, contenting myself for the present with merely pointing out the vast amount of clinical material stored up in these 13,285 beds, and in the vast opportunities for the study of mental diseases afforded by the great lunatic asylums in and around the metropolis. The establishment in London of a Teaching University to which the medical schools would be attached as constituent colleges would be a most favourable occasion for the federation (for clinical purpose) of the hospitals connected with those schools, and for the mutual interchange of students during the final two years preceding the examination for the M.D. degree, under certain restrictions to be agreed upon by the colleges and the Council of the University. The scheme that I would venture to suggest for the purpose of hospital clinical federation is briefly as follows: On the admission of a medical school as a constituent college of the new Teaching University it should become a member of the hospital federation. The admission of any given school as a constituent college would be voluntary, but a condition of such admission should be that it become federated, so far as advanced clinical hospital instruction is concerned, with the other constituent medical colleges. The federated hospitals should be open for the purposes of clinical instruction to all those students who intend to present themselves for examination for the M.D. degree of the new university, no student being admissible to such instruction until after having obtained a registrable qualification and only during the final period of two years of study; no student *in statu pupillari* being admissible to any other instruction than that which is given at his own particular hospital. Admission to the clinical instruction of the federated hospitals should be by ticket, to be issued by the university, for which no fee should be paid by London students beyond a small one, say of one guinea, to meet the expense of registration and to ensure the *bona fides* of the applicant. In the case of the provincial students who had not previously entered to the practice of any of the metropolitan hospitals an entrance fee should be paid to the university, the amount and disposal of which may from time to time be determined by the Council; or, by entering directly to the practice of one of the federated hospitals, he would be placed in the same position as a London student. In the case of the special hospitals that have become federated a small fee should be charged, such as is now paid for attendance on post-graduate classes, and as attendance on these hospitals is now recognised by the Royal Colleges as part of their five years' curriculum, no difficulty need be anticipated here. Special arrangements would require to be made with the metropolitan infirmaries and asylums for the admission of a limited number of students to their practice and residence in an official capacity in these institutions, and at the larger federated special hospitals might be held to count for a part at least of the final two years' clinical study. The requirement from the candidates for the M.D. degree of a residence in London and attendance for a period of two years at one or more of the colleges of the new Teaching University of London is in strict conformity with the rule of every other teaching university in Great Britain. The four Scottish universities all require residence as an essential preliminary to admission to examination for their degrees. So likewise do the four teaching universities of England. On what ground, therefore, can this be refused in the Teaching University for London? If the principle of residence be right for Edinburgh and Glasgow, Aberdeen and St. Andrews, for Oxford and Cambridge, Durham and Manchester, how can it be wrong for London? If not necessary for the London student, on what ground can its necessity be urged for those of other universities of a similar scope as that for London? The M.D. degree should not be given before the age of twenty-four, two years subsequently to the time at which the registrable qualification has been obtained. These two years should be devoted to the attainment of proficiency in clinical medicine in the

federated hospitals and to the practical subjects connected with it. Two years so spent would be undoubtedly the most important in the career of the student. When once he has emerged from his pupilage and has obtained his registrable qualification he may disembarrass his mind of a vast amount of detail with which it has been encumbered for the purposes of passing successfully the dreaded ordeal of the various examinations leading up to the attainment of his diploma, and he is then free to devote himself specially to clinical medicine and to such other scientific and practical work for which he may have special aptitude or natural inclination. The whole of the day cannot, and need not, be spent in clinical study and observation. Much time should be given to it, but much may also be reserved for practical study and work in the laboratories of physiology, pathology, bacteriology, hygiene and forensic medicine. These scientific departments of medicine should occupy his attention as well as clinical medicine, for in them should his examination for the M.D. be conducted, and to proficiency in them must he look for success as a scientific practitioner in future life. In the study of such subjects as those which are comprised in what are termed "post-graduate" courses the student will find the most useful and profitable employment during the final two years that should intervene between his ordinary "pass" and his ultimate M.D. examination. He will now have been emancipated from his own particular school—from that school of medicine in which he has received his education up to the period of his pass, and he will naturally seek for instruction in the higher and more scientific branches of his profession wherever the fame of the teachers is highest and the equipment of their laboratories the most complete. Should this be in his own school he will naturally remain there. Should superior attractions and opportunities present themselves elsewhere he will—if wise—not allow himself to be fettered by old ties and traditions, but get the best instruction from the best teachers and in the best equipped laboratories, wherever they are to be found. He will find that every clinical school presents some special distinctive feature or method of its own, differing perhaps widely from that to which he has heretofore been accustomed, but well deserving careful study and comparison. His horizon will be widened. He will learn no longer *jurare in verba magistri*, but to form juster conceptions in science and to take broader views in practice than he possibly could when confined to the narrowing influences of the teaching of one set of men and the traditions of one hospital only, and he will be led to form a clear and considerate judgment on men whose opinions, though differing from those of his own teachers, he may yet find not to be entirely erroneous or undeserving of consideration.

## THE THIRD REPORT OF THE LORDS' COMMITTEE UPON METROPOLITAN HOSPITALS.

The third and final report issued by the Lords' Committee upon Metropolitan Hospitals has now been made public and contains, in addition to a summary of the evidence submitted, the conclusions at which the Committee have arrived. These conclusions are conveniently distributed under a series of headings, and, although too voluminous for quotation unabbreviated, may be conveniently summarised as follows:—

### ENDOWED HOSPITALS.

In the case of the three endowed hospitals, the Committee are of opinion that the system of administration does not on some points compare favourably with that which exists at the other general hospitals. It throws too much power and responsibility into the hands of one individual, the treasurer; though at St. Thomas's Hospital a larger share in the administration is assigned to committees than at the other two. The Committee would suggest that in all these endowed hospitals the government should be carried on by a system of weekly boards and subcommittees.

### REMAINING GENERAL HOSPITALS AND SCHOOLS.

Their systems of management greatly resemble one another, and the evidence shows that they are generally well administered. The Committee note the enormous amount of work done by unpaid boards of managers and the care exercised, so far as the Committee are able to judge, in the appointment of their medical as well as other officers. The Committee desire to refer to the personal nursing dispute appearing in the evidence of the London Hospital. The authors of these charges were for some time nurses and probationers in this hospital, some of whom did not remain during the whole period of training, and of whom two at least stated grievances of their own which were not confirmed by the evidence; and the late chaplain, who for some

time before the termination of his connexion in that capacity with the hospital, had differences with the Committee both in these matters and also in regard to the performance of his own duties. The charges are on the whole, in the opinion of the Committee, not substantiated by the evidence. The evidence in regard to the injury to the health of the "sisters" appears inconclusive. The Committee consider that the difficulties would have been avoided had the Governing Board in charge of the hospital at that time not allowed their authority to fall into the hands of alarmed officers. In justice, however, to the London Hospital, the Committee wish to add that it is an admirable hospital, doing work in a part of London where it confers inestimable benefits upon a very large and very poor population. They therefore think it is deserving of the greatest measure of charitable support. The Committee recognise that it is advisable, under present circumstances, to maintain the individuality of these general hospitals, and they consider that the generous rivalry thus promoted tends to medical and administrative efficiency. The Committee suggest that the fact of not holding the diplomas of the Royal College of Physicians and Royal College of Surgeons of London should not exclude practitioners who have graduated elsewhere from becoming members of the staffs of the general hospitals in London.

### CONVALESCENT HOMES.

The Committee remark that the accommodation for convalescents in connexion with the large hospitals is insufficient, only two or three having convalescent homes attached to them; and that this want is met by the authorities of the hospitals subscribing, through the Samaritan Fund, to convalescent homes. Owing to the scarcity of accommodation the patients, although not thoroughly cured, are discharged if well enough to leave the hospital. In some cases these patients find their way to the Poor-law infirmaries; in other cases patients suffering from medical complaints have to be kept for long periods in a hospital, although they would recover more rapidly at a convalescent home in the country. Moreover, these patients have to be provided for in the hospital, to the exclusion of those who would be admitted were beds vacant. The Committee avail themselves of this opportunity to direct attention to this need, in the hope that more extensive convalescent accommodation may be provided by philanthropic effort.

### OUT-PATIENTS AND DISPENSARIES.

It is considered by the Committee that by the abolition of the out-patient departments medical education would be seriously interfered with, and, further, that on the whole it must be left to the authorities of the hospitals themselves to arrange the organisation of the out-patient department with the view of rapidly attending to the requirements of the public and of insuring as far as they can that the charities shall not be abused. The Committee are of opinion that the charities are not abused to any serious or appreciable extent, nor do they think that it was by any means proved that patients are carelessly treated, or treated by students instead of thoroughly qualified medical practitioners. On reviewing the evidence as to the different systems pursued by the different great general hospitals the Committee think that, on the whole, the system of limiting the number of out-patients per diem is the most convenient. The Committee consider that inquiries should be made wherever experienced officials think there is cause for suspicion, and that the patient should establish a *prima facie* case for charitable relief. Medical practitioners and the medical officers of free and other dispensaries should be encouraged as much as possible to take advantage of out-patient departments as centres for consultative purposes, and, from the evidence of many hospital witnesses and others, this is already done to a certain extent. In the case of dispensaries and practitioners the patient might be left in the hands of his medical adviser and not necessarily taken into the hospital.

### DISTRIBUTION OF HOSPITALS.

It was suggested that certain hospitals might be removed from places where they are not so much required to localities where the accommodation is deficient. The Committee cannot regard this suggestion as practical, but they would strongly advise that more hospital accommodation should be provided south of the Thames, and were it possible to find the site, and were philanthropic endeavours to be made for further accommodation for the sick in London, a large general hospital, say in the densely populated district of Camberwell, would no doubt be of extreme value.

### EDUCATION.

The Committee observe that a very useful field for medical instruction is at present closed to students—namely, the Poor-law infirmaries. It was the opinion of nearly every witness that these infirmaries could be usefully opened for clinical instruction. In this the Committee heartily concur. In addition to the large field for instruction which would thus be opened, they agree with the opinions expressed that the presence of students is to the practitioners stimulating, by reason of the observation and criticism which are brought to bear on diagnosis and treatment; and the evidence they have received shows that where a system of clinical classes of students is carried out under proper regulations the patients have no objection to students at their bedside.

### SPECIAL HOSPITALS.

Hospitals for certain diseases of patients—for example, for children—do not appear to the Committee to be open to the criticisms made on special hospitals. Lock hospitals form a separate subject for consideration. The Committee think that the nature of the disease and the character of the patients make it desirable that they should be treated in separate buildings, or, at all events, in separate wards from other patients. The Committee have had their attention particularly directed to the fact that patients in these hospitals are in the habit of quitting the hospital in a diseased state on such occasions as the Derby week, fairs &c., for the purpose of pursuing their avocation. The Committee recommend that provisions analogous to those which prevent a patient leaving a hospital when suffering under infectious diseases should be extended to certain venereal diseases. The Committee consider that the charge of abuse is substantiated in regard to some small special hospitals. This class of small special hospitals to which the Committee refer, of which examples appear in the evidence, the Committee do not consider of any real benefit either to the sick or to science. They appear to be carried on sometimes in inconvenient buildings or under insanitary conditions, and the Committee would deprecate the multiplication of such institutions.

In this connexion the Committee devote a paragraph to the Royal Hospital for Incurables at Putney, in which they recommend the introduction of reforms, including the appointment of a resident medical officer with general control in the absence of the committee, the appointment of a ladies' committee, the exclusive employment of hospital-trained nurses, the giving out of contracts to open tender, and a great increase of the general supervision by the committee of governors. The giving out of contracts by tender is a practice which they recommend for general adoption.

#### NURSING.

A certain amount of variety exists as to the hours of employment of nurses in the general hospitals in London. The Committee consider that eight hours' work, exclusive of the time for meals, is, as a rule, as much as should be required from nurses in these hospitals. In constructing future hospitals care should be taken that sufficient accommodation for nurses be provided to allow of the hours of nursing being reduced. They would suggest that every nurse in the large and busy hospitals in London should have at least two days off in the month, and that the period of holiday should not be less than three weeks; that not less than one full hour should be allowed for dinner; and while, on the whole, the food of the nurses appears to be good, yet, from the nature of the occupation of nurses, special care ought to be exercised that as well as being sufficient in quantity and in quality it should be served in an appetising manner. To bring about this end the Committee are strongly of opinion that at the nurses' dinner one of the head officials of the hospital should preside, and that the dinners should be frequently visited by members of the governing body. Nurses in the wards should not have their duties increased by doing menial work, such as scrubbing and cleaning grates and lavatories, or other services of a like nature. For that purpose, as is the case in most hospitals, the class of servant termed "ward-maids," or scrubbers, should be employed. While the Committee recognise that the matron must be greatly responsible for the appointment and dismissal and general conduct of the nurses, they are strongly of opinion that no absolute power ought to be given to any matron, but that the appointments and dismissals should be made by the chief executive authority of the hospital. It is to be observed that many hospitals send out nurses after a certain period of training at sums varying from one guinea to three guineas a week to private patients. That these nurses bring considerable addition to the funds of the hospital there can be no doubt. The Committee consider that this is a good practice, but that, to prevent the wards from being denuded of nurses in order to bring funds to the hospital, a separate staff should be employed for this purpose. They are of opinion that the minimum period after which a nurse can be advertised as thoroughly trained is three years; and, considering the large amount of money these nurses can earn for the hospital, the Committee think that a sliding scale commission on their earnings, mentioned as being in practice at one of the large general hospitals, would be a fair addition to their regular hospital wages. Nursing in the Poor-law infirmaries differs in various institutions. In some a large proportion of nurses are hospital trained; but the Committee regret to find that one-half of the matrons are not regularly trained nurses. The Committee are strongly of opinion that not only all matrons, but that all nurses in a Poor-law infirmary should be trained nurses; the Committee would recommend that no nursing whatever should be done in infirmaries by paupers. The Committee consider that the number of nurses should be increased throughout the infirmaries and that infirmaries should train their own nurses.

#### PROPOSED CENTRAL BOARD.

This proposal has been already made public, but as it reappears in this report we quote it textually for the sake of giving completeness to our extracts:—

#### PROPOSED CENTRAL BOARD.

Various proposals for a central board are set out on pages I to III of this report. The Committee do not incline absolutely to any one of these proposals. They are of opinion that, as there is no Government grant, the interference of a Government officer for inspection would be unwise, and they think such interference would tend to check the flow of voluntary contributions and to some extent to interfere with the responsibility of the unpaid boards of managers. The Committee do not think that such a central board should be given any statutory powers as regards the formal licensing of any hospital built or about to be built. They would recommend that the proposed central board should be granted a charter to entitle it to receive endowments, legacies, bequests and contributions for distribution to medical charities and to meet its own necessary expenses. The board might be organised in the following way:—The various hospitals and dispensaries of all kinds should be grouped. The smaller hospitals should be grouped according to the classes of disease which they treat. Each general hospital, with or without a school, might be considered to be equivalent to a group. Each group would send one or more delegates to be members of the central board. The heads of the great medical corporations—e.g., the Royal Colleges of Physicians and Surgeons, the Medical Council and the Society of Apothecaries—might become members of this central board. The free and part-pay dispensaries might send one member and the provident dispensaries also one member. The Hospital Saturday and Sunday Funds might each send one member. A table is attached suggesting details for the formation of such a board. The duties of this board might be of the following nature:—1. It should receive annual reports, statements of accounts and balance-sheets from all hospitals and dispensaries, together with a return of the total number of in-patients, out-patients and casualty patients. 2. It should require that all accounts be audited by competent chartered accountants. 3. It should arrange that all medical charities should be visited and reported on periodically. 4. It should report from time to time, as occasion required, all proposals for new hospitals. 5. It should publish an annual report the principal heads of which might be as follows:—(a) A complete statement as to the pecuniary position of each medical charity. (b) A statement by a competent authority as to the existing sanitary condition and ventilation of each hospital, and as to arrangements concerted with the Metropolitan Fire

Brigade. (c) An account of the number of beds in use, the number of beds unoccupied, and the reasons why they are unoccupied. The average daily number of occupied beds, details as to beds for which payment is made, and the number of resident medical staff, resident officers, nurses and servants. (d) A statement as to the method according to which each hospital deals with its out-patients and casualty patients, and the number of each. (e) Proposals for the removal of hospitals and dispensaries to places where further hospital or dispensary accommodation is required, and the proposals for the establishment of new hospitals, and all other matters of interest relating to the treatment of the sick poor. (f) The nursing at hospitals and the proceedings of nursing associations in the metropolis. 6. The proposed board should early turn its attention to the possibility of so organising medical charities as to secure their cooperation with one another and the cooperation of medical charity with general charity.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held at 36, Grosvenor-street, on Oct. 26th, 1892, Mr. George Pollock, President, in the chair. The meeting had been called to consider what resolutions should be proposed at the annual general meeting of the Fellows and Members on Nov. 3rd. The minutes of the last meeting having been read and confirmed, the hon. secretary reported that "the reply" drawn up at the last meeting had been revised and forwarded to the official of the College concerned therewith. It was agreed that this reply should be entered on the minutes. A letter was read from Mr. W. G. Dickinson, joint secretary of the Members' Association with Mr. Jabez Hogg, inquiring as to the action, if any, which the Association of Fellows intended to take at the general meeting of Fellows and Members on Nov. 3rd, and intimating a desire that the Members' Association should follow the lead of the Fellows' Association instead of taking independent action as heretofore. A long discussion ensued, and it was ultimately agreed to invite the support of the Members' Association to the following resolutions:—

1. "That this meeting of Fellows and Members desires to thank the Council of the College for acceding to their wishes in the matters (1) of separate meetings of Fellows and Members and (2) of the provision of a common room in the College."

2. "That this meeting of Fellows and Members wishes again to impress upon the Council that it is absolutely essential for the welfare of the College that the Fellows and Members should be consulted before any change is made in the constitution and external relations of the College, and before the College is committed to any extraordinary expenditure on buildings or otherwise."

The honorary secretary was directed to forward a copy of these resolutions to the honorary secretary of the Members Association. The meeting then adjourned.

## CHOLERA.

#### CURRENT NOTES, COMMENTS AND CRITICISM.

THE latest official statistics from Hamburg show that the recent epidemic of cholera there had resulted in 17,972 attacks and 7610 deaths. On Monday last it was announced for the first time for ten weeks that there had been no fresh case of cholera or death from that disease on the previous day. It is alleged that some of the cases previously reported had not on bacteriological investigation proved to be true cholera, and the authorities at Hamburg have decided to discontinue the daily publication of cases of choleric disease in future and limit it to such cases as are certified to be true cholera. The disease prevails to a slight extent in Holland, thirteen deaths from cholera being reported throughout that country last week. From Bruges we learn that a limited but sharp outbreak occurred in the commune of Coolkerke, West Flanders. There are a few fresh and fatal cases at Utrecht, Huissen, Ysselstein, Hendrik and Ambacht. At Budapest the disease continues, though not to any great extent, and a few cases, most of which terminated fatally, occurred at Tat in the county of Gran. The disease seems to have dis-

appeared at Vienna. Indeed, it is said that the cases which have occurred were only cholera nostras. The issue of daily bulletins from Vienna has been suspended, as no cholera now, at any rate, exists in that city. The authorities appear to have wisely made some preparations and arrangements in anticipation of any outbreak, and the Emperor Francis Joseph at the end of last week inspected the chief cholera barracks and expressed his satisfaction with that establishment, speaking at the same time in high terms of the services rendered by the Vienna medical students to that institution. The cholera returns for the month of October show that in Galicia 136 deaths were registered as due to the disease. In Bohemia one death only was recorded. An outbreak has occurred in Serbia, and the Bulgarian Government has established a military cordon along the Servo-Bulgarian frontier. Cholera does not appear to be prevalent in any part of Germany, and no bulletin was issued by the Berlin Sanitary Board on the 1st inst. At St. Petersburg the disease had not entirely disappeared, a few cases having occurred towards the end of last month. It is interesting to note that France has been modifying her views regarding a stringent quarantine system and considers that some of the measures imposed by Egypt and other countries are excessive and seriously injurious to the trade of Marseilles, the great French Mediterranean port. We are sincerely glad of this, for it is highly important that in all matters of public and international hygiene we should have the coöperation of a highly cultured, intelligent and scientific people like the French. The matters involved are those of public health and safety, and should be decided entirely on sanitary grounds and on the broad cosmopolitan principle of what is right and best for all, and separated from purely political considerations. No anxiety appears to exist on the Continent as to the epidemic prevalence or extension of cholera during the winter, although it is regarded as quite possible that the disease may not altogether die out. A certain amount of apprehension, however, very naturally exists as to the probable revitalisation and extension of cholera later on next year. Be this as it may, there are certain points and features connected with this epidemic that are both interesting and noteworthy. As regards the results of bacteriological examinations in most of these outbreaks of cholera, the earlier cases—those premonitory, as it were, to the outbreak—were alleged at the time to be only cholera nostras, in which unequivocal specimens of Koch's comma bacilli were either not present or only organisms of a closely allied morphological character were discovered; and towards the end of an outbreak of epidemic cholera, when the number of cases was rapidly tailing off, the same phenomena seem to have been observed. In the Paris epidemic, again, there was a circumscribed epidemic of the disease of apparently little or no infective intensity. It prevailed for a considerable time, showed little tendency—for some time at any rate—to spread, and yet, in point of fatality, was attended with a mortality quite equal to that of epidemic Asiatic cholera. That it was, in fact, true cholera seems undoubted, and is now universally admitted. But the French bacteriologists do not appear to have satisfied themselves that the organisms discovered during the whole course of the epidemic in the dejections of persons suffering from the disease were morphologically identical with those described by Koch after his investigations in Egypt and India; and some authorities in France have gone so far as to declare that the cholera which prevailed in the vicinity of Paris and the Seine had not been recently introduced, but was a product of the revitalised germs left by a previous epidemic which happened years before. It does not yet seem to have been definitely settled when the comma bacilli cease to be discoverable in the dejecta of a cholera patient. We seem now to have reached a stage in connexion with the relation of the comma bacillus to cholera in which it requires to be determined whether there are several comma-shaped organisms of closely allied morphological appearances developed in different diseases characterised by hyper-secretion of the intestine, and what is their relation to one another; and whether the predominant form is in any measure attributable or not to the nature of such secretion. The publication of the observations made by the bacteriologists of different countries where the disease has prevailed is awaited by all who are interested—and who are not?—in the scientific study of this disease.

As regards the port of London, we notice that on the 1st inst. the ship *Ossian* from Odessa was detained at Gravesend

and disinfected on account of having a case on board with suspicious symptoms of cholera. The patient was removed to the port sanitary hospital for treatment.

Whilst this cholera epidemic in Europe has been occupying our attention, it appears, according to advices from China, that an extensive outbreak of the disease had occurred in that country, notably at Cheng Ten, where the mortality has been something appalling. Up to Sept. 26th the number of deaths is alleged to have reached thirty or forty thousand.

## EPSOM COLLEGE.

WE have been asked to publish the following report of the School Committee of the Council of the College. It will be seen that, on the whole, the report is highly satisfactory:

The school committee have been carefully considering an exhaustive report from members of the school and finance committees, on the dietary supplied to the masters, pupils and servants of the College. A visit was recently paid without any notice being given to the College officials. The bread and butter are excellent. Good oatmeal porridge is supplied to the boys on alternate mornings. The tea is an excellent article supplied by a first-class London house. It is weighed—as is also the white sugar—and the milk measured when the tea is prepared for breakfast and tea. Unsweetened tea is supplied for those who prefer it. The diet table for fourteen consecutive days has been laid before us. The variety of the meat, and its mode of preparation, is satisfactory. The variety of vegetables is good, and the puddings daily supplied meet with our entire approval. The meat is boiled or roasted, of first-class quality, and stews or curries are given so that boys may have a choice of dishes not less than twice a week. The vegetables are good and well cooked, and comprise potatoes, cabbage, turnip-tops (carrots, turnips and onions in the stews), lettuces and beetroot. The puddings are given daily, and comprise raisin puddings, current dumplings, bread-and-butter puddings, rice pudding with jam, and suet-pudding with treacle or jam. Rhubarb is given in season, and cooked fruit as the markets permit. All these are carefully prepared and the masters partake of them at the same table as the boys at the mid-day meal. The provision of a first-class education with a good, wholesome, well-varied dietary strains the pecuniary resources of the College to the utmost. But the headmaster has advised the committee that a glass of milk in the early morning during the winter months would be of service. Your committee therefore recommend that half a pint of milk be supplied to each boy before he begins work. It is computed that this will cost about £30 per annum. In considering the question of supper no change for the present will be made. Beer has always been provided. It is good and wholesome. Luxuries we do not profess to give. The fees paid do not admit of it; and it is more than doubtful whether they are not harmful to growing lads. Delicate boys who need extra diet must pay for it, as in other schools. That the administration of the school in the past has been successful is proved—first, by the low rate of sickness, except when epidemic disease has been imported; secondly, by the reports of the examiners of the form work and by the successes of the boys who (going straight from the College) win distinctions at the universities, the hospitals and elsewhere, and enter the public services. This shows that the nerve forces of the boys are well nourished; and, lastly, but by no means least, the successes of the boys in the playing fields show beyond power of contradiction that their muscles are well nourished and well developed.

The authorities of the College are at all times willing to listen to any suggestions for the benefit of the pupils. It is hoped that parents will more frequently come and see how their sons are cared for. If this is impossible, written and signed communications will receive courteous attention in the future, as has always been the case in the past.

J. FAYRE, Chairman.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Derby Urban District.*—According to the census returns the Derby death-rates had to be considerably amended, but that for 1891 was not high—namely, 18.9 per 1000—compared with similar boroughs. The zymotic rate, which was 1.3 per 1000, was distinctly below the decennial average. Scarlet fever attacked 318 persons during the year, of whom 62 per cent. were removed to hospital, Derby having a new modern and attractive institution; and Mr. W. Iliffe speaks in high terms of the value of the building as a preventive against the spread of infection. In all, 398 cases of infectious disease were notified, and it is stated that no attempt at concealment took place, the system of notification having worked well. The infectious hospital was unable to meet all the demands made upon it, such is the result of the provision of a proper establishment. Evidently the erection of another pavilion is called for. Mr. Iliffe also recommends a building for convalescents. This involves a secondary question. If the 2000 cubic feet with

wall space &c. allotted to the beds at present are all occupied by acute cases, the results as regards recovery may turn out to be different from that which has hitherto been the case—a point deserving of consideration. The appendices to the report show that an efficient sanitary administration is efficiently maintained.

*Wolverhampton Urban District.*—Both measles and scarlet fever have been causes of anxiety in this borough, and a list is given in the annual report of cases where neglect, due to ignorance or intention, was the means of spreading the disease. A new pavilion at the hospital became necessary, and it was accordingly erected; and, as regards scarlet fever, Dr. Malet points out that in a number of instances the infection was apparently carried home by discharged patients, owing to the lack of proper means of bathing &c., before discharge. It is certain that such means can only be adequately provided by a separate building containing bath- and dressing-rooms, for if patients have to dress before discharge in the same building where infection exists it is impossible to say that they are incapable on discharge of conveying infection with them. But, whilst a discharge-room thus becomes necessary, we are convinced, as the result of considerable experience of which we have been made aware, that the essential cause of the apparent communication of scarlet fever by persons discharged as cured from scarlet-fever hospitals lies in the recrudescence of sore-throat in scarlet-fever patients and the absence of warning as to the results which are almost certain to ensue on such recrudescences. Wolverhampton had a death-rate of nearly 23 per 1000 during 1891.

*Dumfries County.*—Dr. Maxwell Ross, in presenting his first report on the sanitary condition of this county, sets out in considerable detail all those matters relating to topography, meteorology, population, dwelling accommodation, water supplies, streams, means of sewerage, industries &c. which are necessary to a proper apprehension of the conditions which have to be dealt with for public health purposes. The diseases which have prevailed in the constituent areas are discussed under separate headings, as are also the vital statistics. The report is, in short, a valuable work of reference with regard to all the circumstances affecting health, and with regard to mortality and other statistics up to current date, and will serve admirably as the introductory report to a series which we may hope will follow in succeeding years. With one point Dr. Ross deals separately in an appendix—namely, the subject of Hospital Accommodation, and it is quite evident that he attaches much importance to the necessity of providing means of isolation as a necessary supplement to compulsory notification of infectious diseases and as a necessary preliminary to disinfection of premises. He quotes much from the standard report on this subject issued by the English Local Government Board, and he sets out concisely the conditions under which the provision of means of isolation is likely to become a success on the one hand or a failure on the other. Dr. Ross apparently sees no reason for dealing with small-pox on such distinct lines as have appeared necessary to us; indeed he would evidently place his small-pox pavilion on the same site as that devoted to the ordinary infectious fevers. The explanation seems to lie in the fact that he apprehends the occurrence of but little small-pox; it is only thought likely to occur with comparative rarity and in small numbers. What the limit is as regards numbers in which there is danger of aerial diffusion of the infection we do not know; it probably varies much according to those unknown conditions which make one year favourable to the production of an epidemic and another unfavourable to it, that which is sometimes termed the epidemic influence. But until we understand what this involves, undue aggregations of small-pox cases should be avoided in proximity to dwellings or adjacent hospital buildings.

*Huddersfield Urban District.*—Dr. J. R. Kaye introduces into his annual report a "balloon view" of the borough, which gives an excellent indication of the topographical features of the district. Huddersfield had in 1890 the lowest zymotic rate of the twenty-eight large English towns, but last year it took a position nearly midway down the list; the general death-rate was also by no means low—namely, 22·9 per 1000; measles, influenza and whooping-cough being the chief factors in the increase of mortality. These three diseases are, so far as we can learn, only indirectly, if at all, affected by common insanitary conditions, and under these circumstances this increase is not one to cause anxiety. On the other hand, it must be a matter of gratification that the Birky Hospital continues to serve such excellent purposes. Thus no less than 325 cases of scarlet fever were under treat-

ment there during the year—namely, some 86 per cent. of the notified attacks. The hospital is in some respects by no means one of the best or most modern, and the result attained speaks well for its administration and for the growing public confidence in it. The influence of schools in spreading infectious diseases is described by Dr. Kaye, who lays down for the purposes of school teachers a few indications of the first symptoms of the diseases most commonly met with amongst scholars, so that they may be easily recognised in their earliest stages. Cellar dwellings seem to need considerable attention in Huddersfield, and the details given concerning them leave no doubt but that a number of them are, for obvious reasons, unfit for human habitation. Cowsheds, milkshops, bake-houses, slaughter-houses, common lodging-houses &c., all come in for comment as the result of the inspections to which they have been subjected. As regards slaughter-houses we should be glad to learn that in this and in all large towns none but public abattoirs were resorted to. But that day has hardly been reached by our sanitary authorities or by our legislators. Dr. Kaye's report, which is prepared not only for the immediate purposes of the current year, but as a permanent record intended to be of value for reference and other purposes, is an excellent type of what such a report should be. We are promised a further report on the survey of each of the districts into which the town is divided. This will carry with it a gradual house-to-house inspection, which must be regarded as one of the most useful of local sanitary measures—the one, in fact, on which intelligent measures of improvement can best be based.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5955 births and 3808 deaths were registered during the week ending Oct. 29th. The annual rate of mortality in these towns, which had been 17·3 and 18·0 per 1000 in the preceding two weeks, further rose to 19·5 last week. In London the rate was 18·5 per 1000, while it averaged 20·2 in the thirty-two provincial towns. The lowest rates in these towns were 12·3 in Croydon, 13·0 in Bolton, 13·3 in Sunderland, and 15·0 in Wolverhampton; the highest rates were 23·9 in Preston, 24·2 in Birkenhead, 25·2 in Hull, and 33·5 in Salford. The 3808 deaths included 406 which were referred to the principal zymotic diseases, against 389 and 387 in the preceding two weeks; of these, 96 resulted from measles, 82 from diphtheria, 78 from scarlet fever, 75 from diarrhoea, 37 from "fever" (principally enteric), 36 from whooping-cough, and 2 from small-pox. No fatal case of any of these diseases was recorded last week in Derby; in the other towns they caused the lowest death-rates in Blackburn, Sunderland, Burnley and Sheffield, and the highest rates in Oldham, Halifax, Brighton, Hull and Salford. The greatest mortality from measles occurred in West Ham, Oldham, Bradford, Hull, Brighton and Salford; from scarlet fever in Salford and Plymouth; from "fever" in Preston; and from diarrhoea in Wolverhampton, Oldham, Bolton, Hull and Gateshead. The mortality from whooping-cough showed no marked excess in any of the large towns. The 82 deaths from diphtheria included 56 in London, 4 in Halifax, and 3 in Birmingham. One fatal case of small-pox was registered in Halifax and one in Bradford, but not one in any other of the thirty-three large towns; 4 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 2 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 4012, against 3628, 3797 and 3936 on the preceding three Saturdays; 410 new cases were admitted during the week, against 503 and 484 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 267 in the preceding eight weeks, further rose last week to 296, but were 78 below the corrected average. The causes of 83, or 2·2 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Bolton, Preston, Sunderland, and in five other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Sheffield and Hull.

## HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18.0 and 19.0 per 1000 in the preceding two weeks, further rose to 20.3 during the week ending Oct. 29th, and exceeded by 0.8 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14.1 in Dundee and 14.5 in Paisley to 22.3 in Greenock and 22.5 in Glasgow. The 564 deaths in these towns included 43 which were referred to measles, 14 to scarlet fever, 12 to diphtheria, 10 to whooping-cough, 9 to diarrhoea, 2 to "fever," and not one to small-pox. In all, 80 deaths resulted from these principal zymotic diseases, against 75 and 87 in the preceding two weeks. These 80 deaths were equal to an annual rate of 3.2 per 1000, which exceeded by 1.2 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased from 12 to 39 in the preceding five weeks, further rose to 43 last week, of which 20 occurred in Edinburgh, 12 in Aberdeen, 6 in Glasgow and 5 in Leith. The deaths referred to scarlet fever, which had been 16 and 15 in the preceding two weeks, further declined to 14 last week, and included 10 in Glasgow and 3 in Edinburgh. The fatal cases of diphtheria, which had been 2 and 5 in the previous two weeks, further rose to 12 last week, of which 6 occurred in Glasgow and 4 in Edinburgh. The 10 deaths from whooping-cough corresponded with the number in the preceding week and included 7 in Glasgow. The 2 fatal cases of "fever" were fewer than those recorded in any recent week, and the deaths from diarrhoea also showed a decline. The deaths referred to diseases of the respiratory organs in these towns, which had been 82 and 97 in the preceding two weeks, further rose to 138 last week, but were 20 below the number in the corresponding week of last year. The causes of 55, or nearly 10 per cent., of the deaths in the eight towns last week were not certified.

## HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 20.7 and 19.4 per 1000 in the preceding two weeks, rose again to 25.8 during the week ending Oct. 29th. During the first four weeks of the current quarter the death-rate in the city averaged 21.5 per 1000, against 17.4 in London and 20.6 in Edinburgh. The 173 deaths in Dublin during the week under notice showed an increase of 43 upon the number in the preceding week, and included 6 which were referred to different forms of "fever," one to whooping-cough, one to diarrhoea, and not one either to small-pox, measles, scarlet fever or diphtheria. In all, 8 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.2 per 1000, the zymotic death-rate during the same period being 2.0 in London and 6.3 in Edinburgh. The fatal cases of "fever," which had been 4 and 2 in the preceding two weeks, rose to 6 last week, a higher number than has been recorded in any week since April last. The 173 deaths registered in Dublin last week included 28 of infants under one year of age and 39 of persons aged upwards of sixty years; the deaths of infants showed a further decline from those recorded in recent weeks, while those of elderly persons showed a further increase. Four inquest cases and 3 deaths from violence were registered; and 54, or nearly one-third, of the deaths occurred in public institutions. The causes of 13, or nearly 8 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

## MOVEMENTS OF MEDICAL STAFF.

HON. BRIGADE-SURGEON QUINLAN (retired pay) has been appointed to the Medical Charge at Galway. Surgeon-Major MacNeece and Surgeon-Captains Lendrum and Leishman have obtained leave on medical certificate from Bengal. Surgeon-Lieutenant-Colonel Quill has obtained sick leave from Bombay. Surgeon-Captain Moir has been transferred to Chatham for duty. Surgeon-Captain Shine has been transferred to Castlebar and Surgeon-Lieutenants Chambers and Lewis from Dover to Shornecliffe. Surgeon-Lieutenant Smythe has joined at Pirbright for duty with the Guards. Surgeon-Lieutenant Anderson has rejoined at Portsmouth.

## ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel George Wm. McNalty, M.D., F.R.C.S.I., has been placed on retired pay.

## INDIAN MEDICAL SERVICE.

The officers of the Medical Staff completing their tour of foreign service during the trooping season have sailed in the following troopships from Bombay:—*Crocodile*: Surgeon-Major W. L. Lane, Madras; Surgeon-Captain S. W. Hayman, Bombay; Surgeon-Captain M. L. Hearn, Madras.—*Scraps*: Surgeon-Lieutenant-Colonel W. F. Burnett, Bombay; Surgeon-Captain H. Carr, Bengal; Surgeon R. J. D. Hall, Bombay. *Euphrates*: Brigade-Surgeon-Lieutenant-Colonel G. J. Evatt, Bengal; Surgeon-Captain G. Cree, Bengal; Surgeon-Captain W. R. Crooke, Bengal.—Surgeon-Captain J. Crimmin, V.C., I.M.S., Civil Surgeon, Shikarpore, arrived at Bombay per s.s. *Malwa* on the 8th inst. Surgeon-Captain W. H. Bean, on arrival from England, will do duty in the Madras District, as will Surgeon-Lieutenant P. C. Gabbett; and Surgeon-Lieutenant J. L. Macrae, on arrival from England, will do duty in the Secunderabad District. Surgeon-Captain J. C. Addison, Medical Staff, on arrival from England, has been posted to Mhow District for general duty. Captain A. E. R. Tucker, 1st Battalion Cheshire Regiment, has been detailed for duty at the Regimental Depot in relief of Captain E. J. Lamb, who will complete his tour of such duty on March 1st, 1893. The following appointments have been made:—1st Bengal Cavalry: Surgeon-Captain G. T. Mould from the officiating to the Medical Charge of the regiment, with effect from August 4th, 1892. 20th Bengal Infantry: Surgeon-Major W. E. Griffiths from the medical charge of the 17th Bengal Cavalry, to the Medical Charge of the regiment. The above transfer is made solely in the interests of the public service. The appointment of Surgeon-Major W. E. Griffiths to the Medical Charge of the 19th Bengal Infantry has been cancelled. Brigade-Surgeon-Lieutenant-Colonel W. Grey and Surgeon-Captain S. T. Avelom, Indian Medical Service, have been permitted by Her Majesty's Secretary of State for India to return to duty. Surgeon-Captain T. D. C. Barry, F.R.S.E., F.C.S., F.I.C., Chemical Analyst to the Government, proceeded on special leave to Europe on the 6th ult. The services of Surgeon-Captain C. M. Moore, Indian Medical Service, are placed at the disposal of the Government of India in the Foreign Department. The temporary rank of Surgeon-Colonel has been conferred on Brigade-Surgeon-Lieutenant-Colonel S. B. Hunt, while officiating as Principal Medical Officer of the district in the Madras Command. Mr. Frank Bradley, Civil Surgeon, Lashio, has passed the Higher Standard Examination in Burmese, and is the first medical officer in the Burma Service to attain this literary linguistic distinction.

## NAVAL MEDICAL SERVICE.

Surgeon William Hayes has been placed on the Retired List. VOLUNTEER CORPS.

*Rifle*: 3rd Volunteer Battalion, the East Surrey Regiment: Surgeon-Captain J. E. Lane, M.D., has resigned his commission.

## RECOGNITION OF MERIT.

Lieutenant Geo. F. McMunn, R.A., the son of the principal medical officer of the Chelsea Royal Hospital, Dr. J. Alexander McMunn, has been appointed a Companion of the Distinguished Service Order in recognition of his services in connexion with the recent operations in the defence of Sadon.

## THE ISAZAI FIELD FORCE.

We recently called attention to the announcement that no field hospitals had been provided for this force on taking the field, but were in doubt as to the accuracy of the report, for it did not appear clear how the sick and wounded soldiers were to be treated without hospitals of some kind. We find from our contemporary, the *Indian Medical Gazette*, however, that, as a matter of fact, no field hospitals were provided for the force. Corps were supplied with full marching scale of establishment, ambulance transport, and camp equipment. As it happened, Sir William Lockhart's force advanced and captured an unoccupied post, and the force promptly returned to their quarters. Had the circumstances been different, and had the force been detained in the hills and actually engaged in any warfare, we confess that we do not understand how the sick and wounded would have been adequately accommodated and provided for.

A correspondent, writing from Camp Palosi to one of the Allahabad papers on Oct. 7th, regarding the occupation of Baio, while highly praising the work done by Surgeon-Colonel Harvey and the medical officers of the expedition, alludes to the insufficient number of medical officers provided for the work and to the late arrival of stores of various kinds, which he attributes to the economical desires of the authorities. He mentions the fact of an outbreak of cholera—

fortunately of a comparatively mild kind—having occurred (forty cases and fifteen deaths), and alludes to the difficulties that must have arisen had a big action taken place at Baio.

#### THE NEW RIFLE AND MEDICAL SERVICE REQUIREMENTS.

In the last number of the *Journal of the United Service Institution of India* Captain Cox discusses the subject of the probable changes that will be brought about in warfare by the introduction of the new magazine rifle. The main points in the superiority of the new weapon introduced into the British army are increased range, greater flatness of trajectory, increased penetration and greater rapidity of fire with an absence of recoil. The tactical effects that will follow the introduction of the new rifle do not concern us. The nature of the wounds and the number of the wounded are, however, matters of interest to the medical services. Captain Cox arrives at conclusions in these respects which do not materially differ from those of other authorities and writers on the subject—viz., that the number of casualties from comparatively slight wounds will be largely increased, calling for additional field hospitals and bearer columns to succour and provide for the increased number of wounded, and this will tend to diminish the mobility of an army. It is argued that, as far as field armies are concerned, wars will be decided more rapidly in future. The armies of all nations are supplied more or less with new arms of precision of some kind. As regards the French in Dahomey, we are still without any precise official details of their experience with the Lebel rifle.

#### THE LATE CYCLONE IN MAURITIUS.

We are glad to notice that the medical service is included in the general order published by the officer commanding the troops in the Mauritius notifying his Royal Highness the Commander-in-Chief's very great satisfaction at the admirable conduct of the force and the important services rendered by the garrison of Port Louis on the occasion of the late cyclone. It appears that a despatch from the Acting Governor of Mauritius to the Secretary of State for the Colonies had called attention to the subject. Among the names of many officers, non-commissioned officers and men who are honourably mentioned, those of the following medical officers occur: Brigade-Surgeon-Lieutenant-Colonel Maunsell, Surgeon-Captain McCulloch and Surgeon-Captain Luther, Medical Staff.

#### CHOLERA MORTALITY IN INDIA.

Our contemporary the *Indian Medical Record* for October last, quoting from a cholera table, shows a terrible record of deaths from that disease. In fourteen years, from 1877 to 1890, it declares that 1,000,826 persons have died in Bengal from cholera alone.

#### THE MILITARY FORCES OF EUROPE.

So large are the forces existing at present that Europe may well be styled an armed camp; but taking the figures recently published by the *Cologne Gazette* these forces will become enormous in the near future and altogether disproportionate to any medical service that can be organised, even if we make every allowance for very large additions from the volunteer services and civil medical element of the different nations concerned. According to the extended conscription at present in force the army in France on a peace footing numbers 519,000 men, and she will have in twenty-five years 4,053,000 trained men; in Russia the peace establishment, excluding the army in Asia, is 887,000, and in twenty-three years her army will be approaching 5,000,000. Germany now proposes to recruit for a two years' service and absorb every really able-bodied man, and in that way to raise her army in peace to 492,000 men, exclusive of officers, and it is estimated that she will have at her disposal between 4,000,000 and 5,000,000 of drilled men in twenty-five years' time. It is perfectly clear that only portions of such enormous forces can take the field at a time, for it would be impossible to feed them, to say nothing of providing them with the necessary medical and surgical aid. It can presumably only be intended to put a certain number of army corps in the field and follow them up by others during a campaign. It is a ghastly outlook at present, but twenty-five years is a long time, and the system under which these colossal armies are possible may have altogether broken up in the interval.

#### REGIMENTAL INSTITUTIONS.

Lord Roberts has been instrumental in starting in India a system of regimental institutions, after the nature of a club,

for the use of the soldiers of corps serving in that country, which, according to a correspondent in the *Army and Navy Gazette*, are said to work well in increasing the comfort and well-being of soldiers and in developing habits of sobriety and good order amongst them. The old system of dingy and uncomfortable barrack canteens is stated to be very inferior to that of the newer regimental institutions. Marked and progressive improvements have taken place of late years in all that concerns the social and sanitary conditions of the soldier in India.

## Correspondence.

"Audi alteram partem."

### "ANNUAL GENERAL MEETING OF FELLOWS AND MEMBERS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—In your annotation of Oct. 29th, under the above heading, you "strongly urge all Fellows and Members who have the good government of the College at heart to attend the meeting on the 3rd and support the resolutions which will then be submitted." It seems to me that not a few Fellows and Members who have the good government of the College at heart will absent themselves from the meeting on the 3rd for the following reasons: 1. Their presence at their own College can at present only carry with it the value of protest; this protestation has already been frequently expressed. 2. Their views on just reform can be promoted, for the time being, with great force and cogency, outside the College; and the drafting of suitable men into the Council in July has far more real significance than a full attendance at the annual meeting in November. 3. The calling together of Fellows and Members indiscriminately—men engaged in an arduous profession—to listen to, maybe to speak on, a bald annual report, yet utterly and absolutely unable to amend or alter it in any respect, is an insult to the Members and a greater stultification of the Fellows.

When, in due course of time, the Members of the College are fairly recognised and Fellows have an authoritative vote on the proceedings of Council, then will be the opportunity for both Fellows and Members to re-enter and prove that criticism need not imply a lack of goodwill nor independence of thought disloyalty to their College.

I am, Sirs, yours faithfully,

Welbeck-street, W., Oct. 31st, 1892.

RICHARD DAVY.

### PAYMENT TO MEDICAL OFFICERS OF WORKHOUSES.

To the Editors of THE LANCET.

SIRS,—I have just received intimation from the London County Council that they are prepared in future to sanction the payment of medical officers of workhouse infirmaries for giving evidence at the coroners' court and for making post-mortem examinations. This decision has been arrived at upon the opinion of Mr. Poland, Q.C., who has recently been consulted on the matter. It does not necessarily follow that other county councils will take the same view as that which is now adopted by the London County Council, as coroners generally have been guided hitherto by the case of *Don Bavaud v. Morrison*, which was heard before his honour Judge Lushington at the Croydon County Court in 1885, and decided adversely to the interests of infirmary medical officers. It is to be hoped that Mr. Poland's opinion will, however, guide coroners and county councils generally, so that they may come to the same decision as that arrived at by the London County Council. A full copy of Mr. Poland's opinion could doubtless be obtained if required on application to the chief officer, Public Control Department, 21, Whitehall-place, S.W.

I am, Sirs, yours truly,

St. Mary's-terrace, W., Nov. 1st, 1892.

G. DANFORD THOMAS,  
Coroner for London.

## "EXPERIMENTS ON ANIMALS."

To the Editors of THE LANCET.

SIRS,—Dr. Clarke, in his letter upon the above subject, agrees with Dr. Tyson in his appeal for facts in support of vivisection. I shall be glad if you will allow me a short space in your columns to mention some facts connected with operations performed on the stomach and intestines which may, I think, go far towards convincing the sceptical of the utility of experiments on animals in this department of surgery. In the year 1889 I conducted my first series of experiments based upon those described by Professor Senn. I again in 1891 carried out a second series. Details of these experiments have been described in the medical journals and at the medical societies, and the subject is fully treated in my work entitled "Surgical Diseases of the Stomach and Intestines." Until the year 1890 there had not been one successful case of pylorotomy for carcinoma reported in this country. The details of five cases had been published, all of which had been unsuccessful, the patients dying within eighteen hours of the operation. In 1890 Mr. Rawden reported a case of pylorotomy in which he had united the divided ends of the stomach and duodenum by means of decalcified bone-plate. This patient made a good recovery and returned to his work. In July, 1891, I performed the combined operation of pylorotomy and gastro-enterostomy on a woman for carcinoma of the pylorus. This patient is alive and well fifteen months after the operation. She has gained 56 lb. in weight and follows her usual employment. I can only find two recorded cases of gastro-enterostomy reported before the year 1890—one of these recovered and one died eleven days after the operation from exhaustion due to incessant vomiting. Since the publication of the results obtained by experiments on animals gastro-enterostomy has been performed a considerable number of times. I have before me the results of twenty-four cases, of which seventeen made good recoveries. Some of these patients have been operated upon for over two years and are still alive and able to enjoy life. Besides these, a large number of cases of intestinal anastomoses have been performed successfully for the cure of fæcal fistula, gangrene of the intestine due to constriction of the gut in strangulated hernia &c. I venture to assert that these good effects were the direct result of experiments performed on animals, a success which would not have been obtained if the operations and experiments had not been carried out. In other departments in surgery equally great advances have been made by experimental research; but of these I will leave others to speak.

I am, Sirs, yours faithfully,

FRED. BOWREMAN JESSETT.

Buckingham Palace Mansions, S.W., Oct. 30th, 1892.

To the Editors of THE LANCET.

SIRS,—The letter of Dr. W. F. Clarke in your last issue indicates the true source of much of the bitterness of the anti-vivisection controversy. The opponents of the practice of vivisection, as Dr. Clarke points out, are not met fairly. While its defenders declare that everything is done under anaesthetics—that if the animals feel any pain it is no worse than the prick of a needle; that every important discovery in medicine, surgery and pharmacology has been made in consequence of it; that its opponents are mere sentimentalists; and so forth—your dispassionate readers, like Dr. Clarke, cannot be surprised that we devote our whole energies to protest against such want of candour on the part of men who cannot use such arguments without some sense of degradation. Hermann of Zurich and Dr. Charles Richet own honestly that they work for science and science only, without bothering their heads about the progress of the healing art or the good of humanity. If English scientists would get rid of this cant some of those who now fight because of their English love of fair play would be able to acknowledge that the defenders of experiments on animals had the courage of their convictions and were not sailing under false colours. While we are treated as a pack of "shrinking sentimentalists" and mere lap-dog philanthropists we feel that we do not receive the justice our cause demands. Meet us fairly and it will be found that we are not quite the sort of people we are supposed to be by some of our opponents.

I am, Sirs, yours truly,

EDWARD BERDOE, L.R.C.P. Edin., M.R.C.S.

Victoria-park, N.E., Oct. 20th, 1892.

## HYPNOTISM DURING AN OPHTHALMIC EXAMINATION.

To the Editors of THE LANCET.

SIRS,—I shall be glad if you can find space to publish the following brief notes of a very remarkable case which has recently come under my notice, in which hypnotism was induced during an ophthalmic examination. I have searched all the literature which is at my command and can find no record of any similar occurrence, and shall be glad to learn from any of your readers if any similar cases have been recorded. A woman, aged thirty-six, was admitted on Oct. 22nd into the Northumberland, Durham and Newcastle Infirmary for Diseases of the Eye, under my care, suffering from optic atrophy. She is a very broken-down-looking woman, and, without giving her symptoms in unnecessary detail, I may say that I came to the conclusion that she was in an early stage of general paralysis. Her memory is defective. She does not speak well, clips words, and sometimes misuses them, and probably has some delusions. Her pupils are widely dilated, do not react to light, and in certain directions there is nystagmus. She has occasional bad headaches and her patellar reflexes are much exaggerated. Both discs are very white, and it is doubtful if she can see light. The day after she was admitted she was taken into the dark room for ophthalmoscopic examination. Whilst examining her I observed to the lady superintendent who was present that the patient seemed drowsy, and it occurred to me that she was becoming hypnotised. I left off the examination and making a few passes over her face with my hands I soon found she had passed into a condition of deep sleep. Continuing to make passes with one hand, with the other I raised her left arm at right angles to her body, and subsequently the left. They both remained rigidly in the same posture as that in which they were placed. It was now noticed that both eyes were not equally closed and that there was an evident ptosis in the left eye and partial paralysis of the left side of the face, the mouth being drawn to the right. I now shook the patient and called her loudly, when she gave a deep sigh and woke up. The ptosis and facial paralysis remained marked for a few moments and then disappeared, or at all events became so slight that I should never have noticed it had I not known it existed in a latent form. On asking the patient when she awoke what she had been doing she said that she had had a pleasant sleep and that a headache she had previously disappeared during the time. I suppose this patient, probably owing to cerebral disease, is specially susceptible to hypnotic influences, for I have found that I can always reproduce the same phenomena at pleasure, and have done so before several medical men; but the most interesting feature in the case is that during the hypnotic state certain symptoms should develop which are unnoticeable under ordinary circumstances. The hypnosis here, so to speak, enables the nervous system to cast in advance a shadow of symptoms which the real disease will almost certainly develop at a later period.

I hope some of your readers who are conversant with hypnotic phenomena will say if the same phenomena have been observed in other cases—that is, if patients have exhibited whilst in this condition symptoms of nervous or other derangements which have subsequently become realities, because if this is so hypnosis may occasionally become a valuable adjunct in diagnosis and prognosis. I may say this woman is quite uneducated—I should think has at all times had an intellectual development below the average, and has never heard of mesmerism or any of its methods. She thinks nothing of the phenomena, but tells the other patients that the doctor can put her to sleep.—I am, Sirs, yours faithfully,

C. S. JEAFFERSON, M.D. St. And., F.R.C.S. Edin.

Newcastle-on-Tyne, Oct. 30th, 1892.

## "ACUTE INFECTIOUS EPIPHYSITIS."

To the Editors of THE LANCET.

SIRS,—In the annotation on Drs. W. M. Coplin and D. Bevan's paper on the above subject in the *Philadelphia Medical News* of Aug. 13th you mention certain conclusions at which they have arrived and certain opinions with which they are in accord. Permit me to mention that in my paper in the *Guy's Hospital Reports*, 1890, on this disease I drew the following conclusions:—1. The disease is due to the irritation and suppuration occasioned by the entrance and

development of the staphylococcus pyogenes aureus, and that it is a specific disease and not merely traumatic periostitis which gives rise to death of the shaft. 2. The earliest symptoms appear in the juxta-epiphyseal regions and spread thence inwards to the medulla and outwards to the periosteum, assisted by the continuity of the latter with the epiphyseal cartilage. To prove this point I made a series of experiments on young rabbits, and in the article in question full details are given. 3. In cases of total death of the diaphysis the destructive process is most marked at the extremities, the bone here being found eroded and gangrenous; and further that there is such a loss that the dead shaft no longer fits accurately into the epiphyseal and periosteal cap. You also remark that amputation seems to be the only treatment. With this I cannot agree, as the conclusion I came to was that operators must not merely be content with incising the periosteum and letting out the pus, but should attack the disease immediately at its root by tunnelling the juxta-epiphyseal junction in addition, and so allow a sufficient exit for the products of the inflamed medulla.—I am, Sirs, yours faithfully,

A. H. TUBBY, M.S. Lond., F.R.C.S. Eng.  
Finsbury-circus, E.C., Nov. 1st, 1892.

### "ANALYSIS OF 10,000 CASES OF DISEASE AND DISTURBANCE OF THE EYES."

To the Editors of THE LANCET.

SIRS,—The two instructive instances of unsuspected foreign bodies in the eye related by Mr. Brudenell Carter in his most interesting and practical article in THE LANCET of Oct. 29th recall to my mind one which was perilously near bringing me to unmitigated grief. A nervous young man came to consult me about "something in his eye." I examined him carefully but could detect nothing save violent purulent inflammation of the conjunctiva, and I told him so. It transpired that he had already consulted two medical men in London (where he lives) and that they both considered he was suffering from gonorrhœal ophthalmia, a diagnosis in which I was disposed entirely to agree, especially as I found he had still a troublesome gleet. I prescribed a lotion of boric acid and alum—being antiseptic to the backbone—which he seemed to think "dear at the price." My patient was going away, in no very amiable mood, when he turned at the door and said, "I know there's something in it!" "Come back, then, and let me have one more look." I seated him again in a good light, and, with the aid of a powerful pair of glasses (alas, presbyopic!), I was fortunate to discover, by the merest chance, a round black point almost hidden by a loose fold of mucous membrane, which had doubtless concealed it during the previous examinations. With a pointed pair of forceps I had no difficulty in extracting a long, round, sharp, black thorn quite half an inch in length and as thick at one end as a silver probe, which had been embedded in the loose tissue at the external angle of the eye and quite clear of the globe. When pressed for an explanation of its presence he told me that some three weeks previously he had scrambled through a hedge and a twig had struck the eye, but did not hurt it. As he left the consulting-room he muttered irrefully, "What jolly fools doctors are!" Grateful!—Let me take this opportunity of adding my humble testimony to that of Mr. Brudenell Carter as to the efficacy of solution of nitrate of silver and the inefficacy of soothing antiseptic washes in the treatment of ophthalmia neonatorum. This was, of course, the universally received teaching in my young days, but the rising generation are nothing if not germicidal. Without at all undervaluing antiseptics it sometimes, I confess, occurs to me that the almighty microbe is getting just a trifle too rampant and requires a little judicious "sitting on."

I am, Sirs, yours truly,  
CHAS. EGBERTON FITZGERALD, M.D. St. And.  
Folkestone, Oct. 20th, 1892.

### CHLORIDE OF ETHYL: A WARNING.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of this week, under "New Inventions," Dr. Bengué's instrument for the administration of chloride of ethyl is spoken of in connexion with dental as well as other minor surgical operations. I write this note as a warning, as I believe the inhalation of the vapour is not

altogether free from danger. Having occasion to scarify a small patch of lupus erythematosus on the nose of a young lady, I thought it a favourable opportunity to try a chloride of ethyl tube. The spot was frozen well enough, but the patient turned pale, slightly livid and stopped breathing, looking very like a person under nitrous oxide gas. As I took away the ethyl at once she recovered in a few seconds, but I should certainly not use it again to any part of the face where it was possible that the vapour could be inhaled. Chloride of methyl applied by means of a tampon is far safer and easier, but care must be taken not to over-freeze the skin or a dermatitis may be set up.

I am, Sirs, yours faithfully,  
Harley-street, W., Nov. 1st, 1892. H. RADCLIFFE CROCKER.

### "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—In the elucidation of this subject a specific instance of the working of one of these institutions is worth more than a great deal of generalisation. Having been medical officer for five years, from its inception, to one of these associations, I am in a position to supply you and your readers with some particulars which may prove interesting. The Walsall Medical Aid Association was formed in 1885, and I was appointed its first surgeon at a salary of £180 a year, to be raised to £200 as soon as it was found to be a success. This was soon demonstrated, and in the course of twelve months or so the promise of a rise in my salary was fulfilled. By 1887 the Association had close on double the number of members it had at the beginning, and I thought I might now seek for a rise in salary. I may explain that, in addition to the fixed salary of £200 per annum, I had a house free, midwifery fees at 12s. 6d. each, with vaccination and teeth extraction. The midwifery cases did not quite average one a week. I was allowed one shilling a week from the committee, or paid that amount for the heating and lighting of the surgery, waiting- and consulting-rooms, while I had to pay the coal and gas account of the whole establishment—my house and the surgery &c. being in the same building. When, then, the members had increased so much as to be nearly double, I applied (1887) to the committee for a little relief, which would be tantamount to a small rise in salary—viz., for them to take over and pay from their own account and thus relieve me of the coal and gas account of the whole establishment. I was refused and told that they regarded my position as very superior and that I ought to be content. I was then not in a position, by any means, to defy them, so I was forced to work away for over two years more, till 1889, until the members increased to close on 4500, at the original fixed salary of £200, while all this time a handsome balance to the good was seen to be realised. Was I not, under these circumstances, entitled to a rise? What did they want with the surplus; and by whose exertions was it earned? Fancy a surgeon to this association, that began with 1800 members and now had increased to 4500 or thereabout, only having the same salary for attending to the latter number as he had for attending the former! What can this be called but "sweating"? Furthermore, when the dispenser, who was having £60 a year, asked for a rise with an increase in his work he was refused and a junior qualified surgeon obtained in his stead, at a salary of £100 out-door, who, however, only remained a few months, as he could not get an adequate increase to induce him to stay; and when he was first appointed it was said to me that the management expected that now I had assistance in visiting I should be able to save in cab hire what it took to pay the junior surgeon over the former dispenser. What was all this?—only an attempt to "sweat" the surgeons for the benefit of the estate of the association. The annual report of the year I left (1890) shows that for each member the surgeon was paid on an average 10½d., while each adult paid 3s. 6d. and each juvenile 2s. per annum. A quarter's contribution from each member went to pay the medical attendance, which is the primary object of these institutions, while the remaining three-quarters' contributions went for extraneous business, a large part of which, no doubt, was expected to be profit at the year's end out of the toil and labour and "sweat" of the unfortunate surgeon. Such has been the working of the Walsall Medical Aid Association from July 1st, 1885, until May 1st, 1890, while I was their medical officer. They had several changes after I left—two or three in the course of a

few months. This reduced their surplus funds, it appears, showing how much of the success—I should say 99 per cent. of it—is due to the medical officer, who is made also a profit accumulator for the institution. I presume this is only a type of many other of these combinations.

I am, Sirs, yours faithfully,  
D. RIORDAN, M.D. Q.U.I., M.R.C.S.,  
First Surgeon to Walsall Association.

Oct. 25th, 1892.

*To the Editors of THE LANCET*

SIRS,—I should like to say a few words in connexion with the above subject and the letters which appeared in your last issue. Your correspondent "Verax," though he appears to write with a strong bias, is certainly right in some of his points, though wrong in others. He is right in what he says of the wretched pay given to their assistants by the majority of medical men. In my opinion it is nothing less than scandalous that a fully qualified man should have to accept and work harder for it than a mechanic, the miserable pittance usually offered, with the risk of being discharged at any moment of caprice, after perhaps years of service and often worse treatment than any domestic. But this will never be remedied until it is made illegal to employ unqualified assistants at all. "General Practitioner" says a qualified man cannot and will not do the drudgery an unqualified man will. He can and will. His argument that a qualified man is not necessary for club patients because the majority have only fancied ailments will not hold water; for though it is weary work sifting the corn from the chaff the real illness is there, and it requires a man well conversant with disease, and often a good one, to recognise it among the mass of trivialities. It is very much the fault of medical practitioners generally that Medical Aid Associations are able to go on; for if they would keep only qualified assistants and pay and treat them well, the associations would find difficulty in securing officers or members. I am now neither an assistant nor do I keep one, nor am I a resident medical officer to an association; but I was an assistant for a short time, and, though I was fortunate in my principal, my experience of the discourtesy of very many men and the poor pay they offered when I was looking for an appointment thoroughly disgusted me with them, and I do not wonder at men preferring to work for an association. "Verax" is, however, wrong in defending the associations, in accepting as patients those who can afford a fair fee. He asks if there is a case on record of one medical man refusing to take a patient from another at a lower fee. Yes, certainly; myself and many of my medical friends do so constantly if the patient can afford what he paid his previous attendant. Many of us, unfortunately, do undersell; but it is an indefensible practice for a regular practitioner—still more so for an association whose sole *raison d'être* is as a charitable institution and not as a financial concern. As such they should be tabooed by the profession. As to the association returning pence to their members, it is very kind of them; but why not have added them to the officer's salary as a bonus? If the associations would confine themselves to those who can but afford the halfpenny or penny a week, I can see no reason against them, but when they accept patients in a better position, then they go out of their sphere and become piratical. Apologising for the length of this letter,

I am, Sirs, yours sincerely,  
FAIRPLAY.

Oct. 25th, 1892.

*To the Editors of THE LANCET.*

SIRS,—As medical officer to one of the best conducted medical associations I consider the statements made by "Verax" to be no defence whatever, and in fact quite outside the question. First, as to the position held by the medical officer. He is the *paid servant* of some person or persons not connected in any way with the medical profession. This is a most undignified and indefensible position. Now "Verax" states "the scanty allowance" he receives is more than he could make in private practice. Then, if this is correct, "Verax" is not, on the face of it, entitled to what he now receives or what he received when an assistant; for if he is not competent to maintain a private practice, he is not competent to hold the post of medical officer to one of these associations, for of necessity the work must be far greater than ordinary private practice, and I am in a position to prove it. Then, again, the assistant to a general practitioner is quite different from the position of a medical officer to an association. In the

case of the assistant he is under the control and guidance of the principal, and does actually assist a legally qualified surgeon; whereas the medical officer to an association is the actual principal, does the whole of the work, allows a trading company to absorb the profits, and in return receives very little more pay than he would receive as assistant to a surgeon. As to the midwifery fee, that should be an arrangement between principal and assistant, and bears no relation to the question of attending members of an association for a fee of 10s. 6d. and handing 3s. 6d. out of this sum to the association for the honour of attending the confinement. Then, again, when an assistant or locum tenens carries on a practice until it is sold it is quite outside the question, and, besides, is only temporary. I do not think any association would be actuated "by the thought that by dismissing a medical officer they would thereby throw him on the tender mercies of his fellows," when I can instance one association that has had thirteen medical officers in three years! It certainly is systematic robbery for an association to purchase property out of money earned by medical and surgical work. With every confidence I appeal to the General Medical Council to consider the interest and welfare not only of the medical profession but also of the public, who in "sweating" medical men will find the iniquitous system rebound on themselves.

I am, Sirs, yours faithfully,

Oct. 22nd, 1892.

L.R.C.P.LOND.

AMPUTATION FOR DIABETIC GANGRENE.

*To the Editors of THE LANCET.*

SIRS,—I have read with much interest the report of Mr. R. J. Godlee's paper on the above subject. In it he points out that the so-called diabetic gangrene is in most cases dependent upon one of two causes—i.e., atheroma of the vessels or peripheral neuritis. Whilst accepting this statement, I would at the same time venture to draw attention to a type of diabetic gangrene in which both these conditions—atheroma and peripheral neuritis—are present. The recognition of this class of case is, I believe, of considerable value, since we have here to deal with two important causative factors. Amputation in such cases would, I apprehend, be attended by much less beneficial results than in those in which the disease was due to one only of the two causes. I have met with this form of gangrene in three patients, all of whom died. The post-mortem examination in two revealed extensive atheroma of the posterior tibial vessels. The posterior tibial nerves were also found to be the seat of well marked neuritis. This lesion was likewise present, although to a lesser extent, in the sciatic nerve in one case. I believe that amputation would only have accelerated death in these patients.

I am, Sirs, yours truly,

T. DAVIES PRYOE,

Oct. 30th, 1892.

Hon. Surgeon, Nottingham General Infirmary.

"MR. BRAXTON HICKS ON UNQUALIFIED ASSISTANTS."

*To the Editors of THE LANCET.*

SIRS,—The remarks on the case of Robert Barnet in THE LANCET of Oct. 29th are not quite consistent with the facts, and you will doubtless in justice permit me to modify your statements. My surgery, a very short distance from my father's residence, is entirely under my supervision, the visiting and prescribing being done by myself—my assistant, who has passed his hospital curriculum and has had many years' experience, being employed in dispensing, attending midwifery and visiting only in my occasional unavoidable absence. In the particular matter in question the assistant responded to an urgent call, and I saw the patient immediately afterwards. It is entirely untrue that brandy was suggested or given by the assistant, but he ascertained that the relatives had previously to his arrival endeavoured to administer the stimulant to the unconscious man.

I am, Sirs, yours truly,

Upper Kennington-lane, S.E., Oct. 31st, 1892. ROBERT GRAHAM.

THE gold medal for the best essay presented at the University of Durham examinations during the year 1891-92 for the M.D. degree has been awarded to Dr. J. F. Johns, of the London Hospital.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

*The Medical Defence Union.*

A LOCAL branch of the Medical Defence Union has been formed here. The committee has been well selected, and the names of the gentlemen composing it will command the respect of all concerned. In past years many local practitioners have had to defend actions which ought never to have been brought against them and which probably never would have been had they at once placed their cases in competent hands and assumed a firm attitude. The local defence union deserves, as it will no doubt receive, very hearty support.

*American Doctors.*

For some time the local papers contained most extraordinary advertisements of American doctors, who were apparently carrying everything before them. After a while the advertisements ceased and one of these "doctors" appeared before the local stipendiary magistrate on a charge of obtaining money by false pretences. The case has been remanded and it is expected that another "doctor" will be charged next week. Any comment would therefore be improper, but it may be stated that the magistrate has expressed his intention to send the case to the Assizes and that he has refused bail.

Liverpool, Nov. 2nd.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

*Newcastle Hospital Sunday Fund.*

ON Sunday last the annual collection was made in the churches and chapels of the city for our medical charities. The day was exceptionally fine for the time of the year, so that no one was prevented from going to a place of worship owing to the weather. It is to be hoped, therefore, that there will be no falling off from the previous high record. It is the collections at the factories which give the most concern. These are to be made on the 14th inst., under rather unfavourable auspices. For instance, the long strikes in the spring, and also the fact that the men when they did return to work in most cases went in at reduced wages, must be remembered.

*Gift to Sheffield by Mr. B. Bainbridge.*

Mr. Emerson Bainbridge, well known in Sheffield in connexion with all philanthropic movements (and whose family in Newcastle is equally known in the same paths), has announced his intention of making a further munificent gift to the town of Sheffield. He proposes to purchase from the Corporation a plot of land near the municipal buildings and to erect thereon a building to serve the purposes of a children's refuge, where all waifs and strays of the town may be sure of shelter, warmth and food. He hopes the Society for the Prevention of Cruelty to Children will take over the building and so, while alleviating the present distress, provide for the future of the children.

*Rabies at Scarborough.*

It is reported that there is a rather serious outbreak of rabies at Scarborough. The muzzling order is in force and more than a score of dogs have been destroyed.

*The MacLagan Fund at Berwick.*

A largely attended meeting of subscribers to this fund was held on Monday night last at Berwick, under the presidency of the Mayor. It was agreed that the permanent public memorial to the late Philip Whiteside MacLagan, M.D., should take the form of a statue of Hygeia and drinking fountain, with medallion of the late doctor and suitable inscription, to be erected in the High-street, Berwick. The remainder of the money, about £600, is to be handed over to the daughters of the late Dr. MacLagan.

*Odds and Ends.*

An explosion of hydrogen gas took place last week at Penrith during a chemistry lecture in connexion with the course started by the Technical Education Committee. The explosion is described as being rather serious, injuring some of the pupils slightly, while the lecturer was so scorched and blinded that he will be unable to resume his duties for about

a week.—Mr. Bindloss of Kendal, at a late special meeting of the Corporation of that town, made an offer on behalf of himself and wife to build a new town-hall to be opened on the occasion of their silver wedding in 1894. The cost of the structure will be about £10,000. The present building was shown to be inadequate for the required accommodation for magistrates, police &c., and was of course open to sanitary objections. This generous offer of Mr. Bindloss was duly accepted by the town with thanks.—An unpleasant visitor arrived last week in Carlisle in the form of a tramp with small-pox. It was shown that his journey to the border city was (from Huddersfield, where small-pox existed) by Pateley-bridge, York and Newcastle. He also visited several places the names of which are not known.—Lady Mary Fitzwilliam has been holding a very successful bazaar in Doncaster in aid of ambulance work.—The Mayoress of Hartlepool distributed the certificates and medallions to the large class which had been instructed by Dr. B. Morison. In the report it was stated that 160 students had attended the first-aid ambulance class.—A handsome drinking fountain has been erected near the central station in this city in memory of Richard Grainger, the builder of modern Newcastle.

*The Railway Collision near Thirsk.*

In reference to the dreadful railway accident which happened this morning, it would appear that at least nine lives have been lost. A great number of persons who have been injured have reached their destinations and so are scattered about the country. Mr. Hartley, surgeon to the North-Eastern Railway at Thirsk, informs me that he has two passengers at the Thirsk Hospital suffering from great shock.

Dr. George M. Murray has commenced a post-graduate course at the College of Medicine, Newcastle, on Bacteriology.

*Northumberland and Durham Medical Society.*

At the October meeting of this Society several specimens and cases of more or less interest were brought under the attention of the members. Amongst them were the following:—Dr. Robertson showed a man aged sixty-seven, who for twenty years had some difficulty in swallowing. During six weeks before operation very little food could be taken, and most of it was speedily returned. Obstruction was discovered by use of the sound fourteen inches from the lips. Gastrostomy was performed in July. The patient has been fed only by artificial opening since, for no food would go down the normal route. The man is at work daily, and since the operation has gained a stone in weight. The fistula causes no trouble by leakage. Dr. Robertson also exhibited a case of mastoid disease, showing recent methods of operating.—Mr. Black brought forward a case of excision of wrists. The patient, a girl of ten, had been treated by rest for some months, but this failed to arrest the disease. A straight incision (dorsal) was made in the line of the extensor indicis. All the carpal bones, except the trapezium and pisiform, were removed; also the bases of the second and third metacarpal bones and the centre of the end of the radius with the diseased synovial membrane. The result of the operation was entirely satisfactory.—Dr. Drummond showed a case of multiple cerebro-spinal sclerosis. Two points made the case specially interesting—(1) the diagnosis could be made with certainty; (2) the lesion began in the brain, which was rare. The patient, aged thirty-one, somewhat suddenly after an indefinite illness developed slight left hemiplegia. Within a fortnight diplopia followed; later, difficulty in swallowing and slowing of speech. There were now present almost constant movements of head, nystagmus, tremor of hands, rigid lower extremities, with increased knee jerks and ankle-clonus. Dr. Drummond also showed a girl, aged fourteen, suffering from chronic chorea for five years. She has taken arsenic for four years and now shows marked pigmentation of the skin, of a peculiar yellow tint best marked at the root of the neck, round the breasts and about either axilla.—Mr. Rutherford Morison showed a man, aged seventy-seven, the whole of whose lower lip he had excised for epithelioma, and a soldier who was admitted into the infirmary with a compound depressed fracture of the right parietal bone without symptoms. Two hours after the accident he was trephined. A lock of hair was firmly wedged in between the fragments and could not have been dislodged without elevating them. The disc of bone was cut into small pieces with bone forceps, washed well in 1.40 carbolic lotion, and the opening was packed with tus delvis. The wound healed by first intention without drainage. Some disappointment was felt now, for there was a well-marked depression over the trephine hole

evidently from subsequent absorption of part of the new bone, though no portion of the opening is soft. The case was intended to show the advantage of trephining in all compound depressed fractures, for without this it would have been impossible to secure asepsis.—Mr. Rutherford Morison also showed a patient whose vermiform appendix he had removed for recurring attacks of perityphlitis. Three weeks ago the operation was performed, and on examination the appendix was seen to be ulcerated and perforated at one minute spot, where it had fortunately contracted adhesions to the parietal peritoneum on the outer side of the cæcum. The patient recovered in the most uneventful fashion.—Dr. Hume showed a patient who had been operated on for suppurating hydatid of the liver.—Dr. Robertson showed a urethroscope and recommended its use in all forms of urethritis for diagnosis and treatment.—Mr. Rutherford Morison exhibited two ovarian tumours removed from women of the respective ages of seventy-seven and seventy-four.—Dr. Drummond exhibited the liver of a patient admitted to the infirmary moribund with jaundice and acute peritonitis. The post-mortem examination showed both to be due to the presence of an immense hydatid which had ruptured into the peritoneum in the liver.—Mr. Page exhibited a number of gallstones removed by cholecystotomy, and Dr. Murphy a variety of specimens in connexion with the pathology of abdominal organs.

Newcastle-on-Tyne, Nov. 2nd.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

### *Edinburgh Improvement Scheme.*

THE Edinburgh Town Council, as local authority, have under consideration a provisional Act, to be known as the Edinburgh Improvement (Housing of the Working Classes Act) Scheme. This Act is specially intended to deal with "slum property." It includes provisions for dealing—(1) with unhealthy areas so as to make them efficient for sanitary purposes; (2) the widening of existing approaches to unhealthy areas or for opening out the same for purposes of ventilation and health; and (3) providing accommodation for persons of the working classes displaced in those areas.

### *Edinburgh University Court.*

At the meeting of this court last week the following gentlemen were recognised as teachers whose courses qualified for graduation:—Dr. J. S. McLaren, in Surgery; Dr. P. H. Maclaren, in conjunction with Dr. C. W. Macgillivray, in Clinical Surgery; Dr. James Hodsdon, in Surgery, in charge of teaching rooms; and Dr. R. F. C. Leith in Pathology.

### *Edinburgh Royal Medical Society.*

The following gentlemen have been elected presidents for the year of this Society:—A. N. S. Carmichael, M.B., C.M.; J. W. Crerar, M.B., C.M.; Line Boorn King, M.B., C.M.; and Harry Rainy, M.A., M.B., C.M.

### *Leith and Public Health Matters.*

There is at present in Leith not only an epidemic of measles and scarlet fever, but there has also been an outbreak of typhus fever. The result is that there has been a greater demand for hospital accommodation than the burgh possesses, and the authorities have had to erect temporary structures. The authorities have had under consideration a site for their infectious diseases hospital which seems to be acceptable. There are six acres of ground, and the price is said to be £600 per acre. A suspicious case of illness from a steamer from Hamburg has been admitted into the observation wards, but no definite opinion has been pronounced as to its nature. The local authorities are again engaging the attention of the Board of Supervision. It appears that the Sanitary Association of Scotland has written to the board complaining that the person appointed sanitary inspector to the burgh was not a member of their Association and that he had no practical knowledge of the work of such a post. The board has transmitted this letter to the local authority.

### *Health of Edinburgh.*

The mortality last week was 87, making the death-rate 17 per 1000. Diseases of the chest caused 20 deaths and zymotic diseases 30, of which 4 were due to diphtheria, 3 to scarlet fever and 21 to measles. The intimations for the week were: typhoid fever, 4; diphtheria, 4; scarlet fever, 75; and measles 380.

### *General Council of the University of Edinburgh.*

The statutory half-yearly meeting of this body was held last week, Sir William Muir being in the chair. There was only a small attendance. The business included the order by Her Majesty in Council continuing the powers of the Universities Commissioners until Jan. 1st, 1894, and the intimation that certain ordinances, including some dealing with the medical faculty, had been approved by Her Majesty in Council. The report by the Committee of Council on Ordinances, which was submitted, dealt in the first place with the remit from the April meeting to promote an address from the House of Commons for reconsideration of certain ordinances. It traced the steps which the committee had taken and the result of the deputation to London, and the causes which led to the motion for reconsideration being defeated in the Commons. The statement made by Sir Henry Roscoe in the course of the debate in the House, that it was the intention of the Commission to make such an arrangement that the professors would be entirely independent of the fees of their own classes, and that there would be a fee fund, with a minimum salary fixed for each professor, was regarded by the Committee as a change which might be far reaching in its effect. It was looked upon as the admission of a new principle which would remove one of the chief obstacles in the way of reforms which had already been urged by the Council. The other reports submitted to the meeting were of no medical interest beyond the fact that the medical curriculum is taken as the type on which other departments in the University ought to be modelled.

### *Health of Aberdeen.*

Last week 503 cases of zymotic diseases were reported to the medical officer of health, including 454 cases of measles, 36 of scarlet fever, 8 of erysipelas and 1 of typhoid fever. On the whole, there was an increase of 68 cases on the number for the previous week.

### *Aberdeen University: Assistant Professorships.*

The following appointments were announced at a meeting of the University Senatus last week:—Mr. George Dean, M.A., M.B., C.M., to be Assistant to the Professor of Pathology; Mr. Alexander MacGregor, M.D., to be Assistant to the Professor of Practice of Medicine; Mr. Robert Gordon MacKerron, M.A., M.B., C.M., to be assistant to the Professor of Midwifery; and Mr. J. Wemyss Grant, M.B., C.M., to be Second Demonstrator of Anatomy.

### *Aberdeen Medical Staff Corps.*

Last week the 7th (Aberdeen University) Company, Volunteer Medical Staff Corps, held a highly successful smoking concert, Surgeon-Captain MacGregor presiding. He reviewed the work of the year, and intimated that financially they had a good balance in their favour. The prizes for drill and best kept tents were then distributed.

### *Aberdeen: Death of Dr. John Urquhart.*

We regret to announce the death of Dr. Urquhart after a long illness of nearly three years' duration. Dr. Urquhart, who was sixty-six years old, after studying at Aberdeen and Edinburgh Universities, graduated M.D. Edin. and afterwards obtained the M.R.C.S. Eng. He practised for twenty-two years in Madras, where he was coroner and professor of medical jurisprudence, and where he acquired a large practice. Returning to Aberdeen in 1870 he soon became known as a leading practitioner, and for long has been affectionately regarded as one of the fathers of the profession. He took a keen interest in all benevolent and philanthropic work, and was many years a manager of the Royal Infirmary, of the Lunatic Asylum and of the Public Dispensary. In the affairs of the local medical societies he was deeply interested and held office on the management of several. His funeral was attended by practically the whole of the medical profession in Aberdeen and by most of the leading citizens.

### *Glasgow Obstetrical and Gynaecological Society.*

Officers for ensuing session:—Honorary President, Sir Spencer Wells, Bart.; President, Robert Pollok, M.B.; Senior Vice-President, G. A. Turner, M.D.; Junior Vice-President, Thomas Richmond, L.R.C.P. Edin.; Treasurer, Alex. Miller, L.R.C.P. Edin. &c.; Secretary, J. Nigel Stark, M.B.; Reporting Secretary, Robert Jardine, M.D.; Pathologist, A. Milroy, M.D. Council—Robert Kirk, M.D.; H. St. Clair Grey, M.D.; Malcolm Black, M.D.; E. H. L. Oliphant, M.D.; A. Richmond, M.B.; and D. N. Knox, M.D.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

*Increase of Lunacy in Ireland.*

FROM the last report of the Inspectors of Lunacy, it appears that the number of lunatics under care has increased from 249 per 100,000 of the population in 1880 to 355 per 100,000 in 1891. Such an increase is a matter of grave concern. The large number (3,415,400) of people who have emigrated during the past forty years—tending to remove the healthy and strong both in mind and body, thus leaving a large number of the weak and infirm as a burden on the public rates—must be considered as one of the chief factors of this large increase. Hence it may be assumed that the present number of the insane in Ireland properly belongs to a much larger population than that which now exists. But making full allowance for this cause, which tends to show an apparent increase of insanity, it must be concluded that the large increase of lunacy has been absolute as well as relative. The rapid increase of insanity with a diminished population, the inspectors remark, ought to engage the attention of all who take an interest in the social and material progress of Ireland, in order to ascertain how far such increase can be stayed by any means within the power of the State.

*Grievances of Dispensary Medical Officers.*

A meeting of the Irish Poor-law Medical Officers' Parliamentary Committee was held last week, when the following resolution was adopted unanimously: "The members of the Irish Poor-law Medical Officers' Parliamentary Committee express their sincere regret that the Right Hon. John Morley, Chief Secretary for Ireland, declined to receive the deputation from the conjoint associations which was appointed to wait on him with reference to the questions of superannuation and the other admitted grievances of the dispensary medical officers, and, whilst deprecating any intention to inconvenience the Government in its work of legislation in the coming session, yet hope that the Government will give every facility to have the Bills submitted to the judgment of the House of Commons when introduced by private members."

*Royal University of Ireland.*

On the 29th ult. degrees were conferred by the President of the Queen's College, Galway, in the absence of the Chancellor and Vice-Chancellor. Among those present was his Excellency Lord Houghton. The candidates who entered for the various examinations during the year numbered 2857, showing a decrease of 27 as compared with last year, while there were 201 degrees conferred. A conversazione of the graduates, undergraduates and guests was held the same evening in the University buildings. A concert, military band, experiments in biological science and lantern slides illustrating the Arran Islands added to the attractions of the evening.

*Health of Dublin: September Quarter.*

The births registered amounted to 2441 and the deaths to 2010, or 23 per 1000, being 0.5 below the average for the September quarter of the past ten years. Zymotic diseases caused 323 deaths, or 97 over the number for the corresponding quarter of last year. Deaths from measles fell to 59, while scarlet fever only caused 5 deaths, typhus fever 1, ill-defined fever 2, and typhoid fever 21.

*Schools of Surgery: Royal College of Surgeons.*

On Tuesday last the distribution of medals and prizes awarded during the past session took place. Mr. Hamilton, President of the College, said that the Council had done everything that careful inquiry and expenditure of time and money could do to make the schools of surgery perfect and a credit to the College, but without the coöperation of the students their efforts would have been futile. An attempt had been made to transfer from the professors in Dublin the teaching of medicine and surgery. He would leave the professors to stand on their own record, and he thought when they came to be weighed in the balance they would be found equal to those who would fain supplant them. The important question for everyone concerned, medical men and the public alike, was whether the movement he had referred to would be for the benefit of the hospitals themselves. He thought it would not. A fifth year had lately been added to medical study, and with all due deference to the General Medical Council he believed that it was a great mistake. He wished the Council had rather turned their attention to a

really weak link in the system—namely, preliminary education. He felt satisfied that the boy who had been thoroughly trained would grasp more of his medical studies in four years than he would under the present system in six years. But the boy must be trained, not crammed, and what was wanted was a good boarding school, where boys, on moderate terms, could have a training which would fit them for entering schools of surgery and medicine.

Mr. J. Kellock Barton, ex-President and Member of Council of the College of Surgeons, has resigned his seat as Councillor. Mr. F. T. Heuston will be a candidate, and the names of Mr. Swan and Mr. Humphrey Broomfield are also mentioned.

Nov. 1st.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Medical Treatment of Rectal Cancer.*

THE question of medical treatment of cancer of the rectum, in contradistinction to surgical procedure, is an interesting one, seeing that the latter is of so little promise in many cases and that a very short immunity only from recurrence is obtained after running the gauntlet of a severe surgical operation. For such cases, where the disease is advanced and the progress slow, M. Dujardin-Beaumetz has devised a plan of treatment of which he reports favourably and which he credits with being able to prolong the patient's life longer than could be hoped for after an operation, even when successful. With this end he has recourse to intestinal washings with antiseptic solutions, so as to arrest, or at least diminish, the progress of the malady by removing the pus and secretions frequently. A solution of naphthol—ten to twenty centigrammes per cent.—is what he advises. In addition to this he disinfects the intestinal canal by exhibiting salol or benzo-naphthol with bicarbonate of soda, in wafers by the mouth. Laxatives must also be given to prevent any accumulation in the colon, and M. Beaumetz is of opinion that a diet consisting largely of vegetables is also advisable. He has at present under observation three patients suffering from rectal cancer who for the last three years have been subjected to this method of treatment and who have even gained in flesh. He is satisfied that the method is superior to extirpation.

*Monopolies versus Therapeutics.*

France is the country *par excellence* of monopolies and commercial or industrial protection. Every visitor to *la ville Lumière* knows how these overshadow the common necessities and ordinary conveniences of life—such, for example, as in the matters of water, gas, lucifer matches, tobacco and cigars, omnibuses &c.—and the citizen of this enlightened republic of vaunted liberty, equality and fraternity is reduced to Hobson's choice. He must have what is provided for him by the powers that be or go without; the alternative provided by healthy competition is out of the question. It will scarcely be credited, however, that this system of monopoly and exclusiveness extends to the domain of therapeutic agents; and yet it is so. For instance, the market is flooded with an endless variety of French mineral waters—a few good, others bad, but the great majority indifferent. Foreign competition is discouraged by interested persons and influential companies, and vexatious obstacles and delays are thrown in the way of the introduction of any foreign mineral water—where, indeed, this latter is not altogether excluded. I have had an instance of this recently in my own practice. I ordered a patient suffering from gout a German mineral water which is being largely prescribed in such cases by my teachers, the physicians of the British school, but was unable to procure the water, as its sale was unauthorised in France! Where, however, foreign water is long and universally recognised to be unequalled by any French production of its kind, it is admitted, on sufferance, with attached conditions. Of course, successful springs have their French competitors and allies, the chemical composition of which may bring them into apparently close therapeutic relationship. But, as has been well pointed out by Sir Henry Thompson, a like chemical composition by no means implies a like therapeutic effect.

*Insanitary Kitchens in Paris.*

Foreigners who enjoy the occasional luxury of a dinner at a fashionable Paris restaurant little dream of the unhealthy, not

to say disgusting, surroundings of the myrmidons whose duty it is to prepare the appetising viands sent upstairs. A peep at the kitchen in too many celebrated establishments would assuredly have the effect of dispelling the appetite of even a burly Yorkshire farmer. That I do not exaggerate is abundantly proved by the report just made to the Conseil d'Hygiène de la Seine by M. Deschamps. This report is based on the investigations of Drs. Calendreau and Regcard, medical officers to the Société des Cuisiniers de Paris. Dr. Regcard says of these kitchens that they are, in fact, the foulest rooms in the house—airless, because the ventilators are kept closed in order to avoid odours in the dining-rooms and in neighbouring houses; often also deprived of any other than gas light. The water-closets are generally in direct communication with the kitchen, and, in many instances, access to them being forbidden during the busy hours of the day, the cooks are compelled to utilise preserved fruit and vegetable boxes as urinals. All the above details are sufficiently disgusting to the customer, but the report would be incomplete were no reference made to the disastrous effects of these insalubrious conditions on the health of the men who pass their lives in these dirty holes. Dr. Calendreau tells us that, in addition to infirmities such as varicose veins, varicocele and hernia, which are peculiar to the calling, cooks suffer from the following maladies: (1) Rheumatic pains from damp, absence of fresh air and light; (2) sore-throat and bronchitis, due to exposure to draughts and excessive heat, with consequent indulgence in iced beverages; (3) dyspepsia and alcoholism; and (4) pulmonary phthisis. The foregoing list explains the high mortality prevailing amongst this numerous class. The remedy proposed for this deplorable state of things is as follows: No restaurant kitchen to have dimensions less than, length, 3 metres; breadth, 2 metres 50 centimetres; height, 2 metres 80 centimetres; every kitchen to be independent for air and light of small courtyards; the kitchen to be separate from the scullery; the floor to be waterproof; the larder to be isolated; urinals and closets to be quite apart from the kitchens; the suppression of bedrooms in proximity with the kitchens. The Municipal Council has had the above reforms under consideration, and we shall, I trust, soon see them put into execution.

Paris, Nov. 2nd.

## VIENNA.

(FROM OUR OWN CORRESPONDENT.)

### *Cholera in Austria-Hungary.*

At the time when the first case of Asiatic cholera was admitted to the Hospital for Epidemic Diseases, two other suspected cases were brought there in which the presence of the comma bacillus could be proved. One of these died on Oct. 28th, and after a post-mortem examination the case was pronounced to be one of Asiatic cholera. The patient was a boatman who had arrived at Vienna, on the day of his admission to the hospital, from Hungary, on board a ship belonging to the Danube Regulation Company. The other case in which the comma bacillus was also found was that of a labourer who had worked on the Danube embankment, and who had been infected, as is supposed here, by carrying infected linen and rags which were unloaded here from Hungarian boats. He is now recovering. No other cases of real cholera have occurred in Vienna since these three cases have come under observation, though eight to ten suspected cases of intestinal diseases were sent daily to hospital by anxious physicians. This cholera-phobia among the physicians—which proved sometimes very serious to the patients from a social point of view, as their lodgings and shops were put under quarantine—is due to the fact that the younger generation of physicians have had no opportunity of seeing a case of cholera during their medical practice, and older physicians who have been in active practice during a cholera epidemic ought to have been appointed by Government to examine these suspected cases. The official return issued by the Upper Medical Council states that up to Oct. 28th 136 cases of cholera have occurred in Austria since the outbreak of the disease—130 of them in Galicia and Cracow and its environs. No official report on the statistics of the number of deaths from cholera in Hungary has appeared as yet, but the daily number of cases at Budapest and in the provinces may be estimated as between 30 and 40.

Vienna, Oct. 31st.

## NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

### *Cholera and Quarantine.*

THE recent public excitement over the appearance of cholera at quarantine has entirely subsided. There is now neither cholera at quarantine nor in the city. The experiences of many prominent citizens at quarantine are destined to have an important influence upon future legislation. Hitherto it has been very difficult to impress public men with the deficiencies of our quarantine system and obtain needed reforms. But now senators, clergymen, physicians, lawyers and newspaper men have been caught in our quarantine trap, and compelled to endure not only all the inconveniences, but all the hardships, and even perils, which our quarantine imposes upon the luckless traveller. Whatever may be the shortcomings of the health officer—and they are doubtless many,—there are glaring defects in our quarantine which it is to be hoped will now be remedied. Perhaps the most important defect is inadequate space for the purposes of a modern quarantine. The extreme accommodations of the establishment are for 750 persons, and yet there were upwards of 4000 people at one time demanding immediate removal from infected ships and isolation in proper quarters for their care. It was impossible to meet this emergency at once and hence the hardship of detention on board ship. The condition was the more alarming to cabin passengers inasmuch as they were ignorant of the fact that cholera prevailed among the steerage passengers until the ships were anchored in the bay, within sight of the city. Then they learned that they were on cholera-infected ships, and that they must remain from five to twenty days after the last case had appeared, as there was no possible method of accommodating them within the quarantine grounds. What added to the excitement was the constant occurrence of new cases among the steerage passengers and the danger that the infection would reach the cabin or first-class passengers, so impossible was it to cleanse and disinfect in the presence of crowds of passengers. Hundreds of men and women who had braved the perils of the sea found themselves within sight of home, helpless in the presence of an increasing and threatening pestilence. Public excitement became intense, meetings were held and committees appointed to rescue them. One citizen purchased a steamboat for \$30,000 and sent it to their relief. An appeal was made to the General Government to create a camp on Sandy Hook, to which the healthy passengers could be removed. The Government responded promptly, but it required time to erect and provision a camp. The Governor also came to the rescue and purchased Fire Island, a summer resort, and turned it over to the health officer. The Chamber of Commerce raised a relief fund of \$250,000. But all these measures were destined to fail to give prompt relief. The steamboat proved to be almost uninhabitable, as it was out of repair and unseaworthy. The passengers who were removed to it found their discomforts increased, and though they had escaped the risk of contracting cholera, they now incurred the dangers of fire and water. Those passengers who were conveyed to Fire Island were in still greater perils. They had a voyage of forty miles on the open sea in a small river craft unprovided with such common furniture as chairs, beds &c. During the passage, which was made at night, a storm arose which threatened the frail vessel with its 250 passengers. When it reached its destination the pilot could not find the channel to the bay, and the vessel had to return to the New York harbour in the teeth of the storm. Travellers report that they never experienced such hardships by sea or land. Old people and children suffered intensely, but happily no deaths occurred. On the following morning the vessel was ordered to return and the wretched passengers, sick and suffering and without food, had to endure the third perilous voyage over the rough sea. The close of this last trip witnessed a scene which might well have occurred on the coast of Africa. The vessel passed into Great South Bay with its human freight in the last stages of suffering for the want of food and from the incessant exposure to the hardships of the three voyages. As they approached the island they were met by men in boats, who not only refused to allow them to land, but even forbade them being supplied with food. Strong men earnestly appealed to these inhuman wretches to provide food for sick children and old people, but they not only refused, but one man waved a loaf of bread

upon a pole to tantalise the sufferers. Relief came only when, under the orders of the Governor, the military took possession of the island. The camp at Sandy Hook was finally completed and the steerage passengers were removed to it, thus relieving the steamships of their inhabitants. The difficulties of quarantine were complicated by an outbreak of measles among the children of the immigrants, which assumed large proportions. The cases of cholera, however, diminished rapidly and soon ceased to recur. At the close of the month the harbour was free from cholera.

October, 1892.

## THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

### MEETING OF FELLOWS AND MEMBERS.

THE annual meeting of the Fellows and Members of the Royal College of Surgeons of England was held on Thursday in the theatre of the College. There was a fair attendance.

Mr. THOMAS BRYANT, President of the College, occupied the chair. In the course of his opening remarks he said that this was the ninth consecutive annual meeting of the Fellows and Members of the College, and it would be gratifying if, when the meeting was over, they could all come to the conclusion that it had been of advantage to the Fellows and Members and to the credit of their great institution. The report which the Council had presented was a complete epitome of the work of the past collegiate year. It contained everything that could be of any interest to the Fellows and Members. The curriculum of study had been carefully and fully considered and the Fellows and Members of the College might look upon the scheme as complete and well considered. There was little to be said about the new university for London, for the question was now under the consideration of a Commission. At present the College had nothing to do with it; they had given evidence before the Commission and they were considering the evidence as it went on. He need hardly say that probably when the proper time came, they might sketch out some sort of scheme, which probably would be laid before the Fellows and Members. As to the further advantages conferred on Fellows, he would say that it had been gratifying to the Council to feel that their hands were comparatively free in the matter, and he hoped they would be able to hear on this occasion that the Fellows were fairly satisfied with what the Council had done. There was an amusing mistake in the report. It was stated that during the past year the Council had had under their consideration two cases of misconduct by "Members of the Council" in which they had inflicted the penalty of removal. There was something rather humorous in this, but of course it meant "the Members of the College." He thought the meeting would agree with the Council in seeking to purge the College of any men who had transgressed the law of the land. Whenever their attention was called to any act of any Member of this College which they considered prejudicial to the interests or derogatory to the honour of the College, or disgraceful to the profession, they wrote and asked whether such and such an advertisement or statement was true or not, and when necessary they assured the man that such conduct was against the declaration he made when he became a Member of the College. They had good reason to believe that in this way they had obtained most excellent results. As to the museum, he might say that the extraordinary expenditure in connexion with it had come to an end and they had paid the last cheque, and he thought they had got their money's worth. As to the library, he did not think they had anything to say in the way of fault-finding. It was certainly the most satisfactory library for working in anywhere in the world. The finances of the College were in a satisfactory condition and the Council contemplated the future without anxiety.

The Assistant Secretary intimated that notice of the following resolution had been given by Mr. Lawson Tait and Mr. Nelson Hardy—viz., "That this meeting of the College of Surgeons of England is of opinion that the report now presented is ineffective and incomplete, and this meeting is further of opinion that the ancient attitude of hostility on the part of the Council to the true interests of the body corporate of the College ought to terminate, and that the repeated resolutions passed at former meetings of this College should be carried into effect."

The President suggested to Mr. Lawson Tait that the

resolution should be divided in two. He might have been pleased perhaps if he had felt it fully expedient to say that this resolution should not be submitted to the meeting. He need hardly say that it had a sting of an offensive character in it which was not quite consistent with the good feeling with which he hoped they had all met. He would be glad if the proposer and seconder and their supporters saw their way to withdraw the resolution. (Cries of "No, no.") At any rate, the meeting had heard the resolution read, and he thought it would be wise to put to the meeting the question whether the resolution should be put. He would prefer the meeting to say that it should not be put.

Mr. Lawson Tait: You cannot do that until your hear the matter argued.

The President: The first part may be put. We do not recognise an "ancient attitude of hostility" on the part of the Council.

Mr. Lawson Tait: But we do, which is the whole thing.

The President, continuing, said the resolution quickly suggested that the Council of the College was not acting in the true interests of the body corporate. If that was an expression of opinion the Council would take it for what it was worth and let it go on. It was an extremely offensive resolution, and he was very sorry it should be before the meeting. He ruled that it be divided.

Mr. Lawson Tait said he knew of no meeting conducted in such an extraordinary fashion as this. He had never heard a chairman argue a resolution before the opener had spoken, and he had never heard of any business body in this world begin a meeting as this meeting had been begun.

The President invited Mr. Lawson Tait to address himself to the resolution.

Mr. Lawson Tait said he would do that in good time. For the present he would give reasons why the resolution should be considered as a whole and not divided. The resolution had been accepted by the secretary in the course of correspondence that had taken place on the subject. If it must be altered he considered that there had been a breach of bargain. He would submit, however, to the division of the resolution. He denied that there was anything offensive in it. Less offensive words than "ineffective and incomplete" could not be used. The report was incomplete for this among other reasons—that it gave no sufficient information with regard to the question of a new university for London. As to the curriculum of study, it did nothing for the student except to give him an additional year of study. While good enough so far as it went, it was manifestly the work of academic men who soared in the clouds above the wants of the medical profession of the day. Had there been on the Council Members of the College engaged in general practice the scheme of study would have been very different indeed. He begged to move: "That this meeting of the College of Surgeons of England is of opinion that the report now presented is ineffective and incomplete."

Mr. Nelson Hardy, seconding the resolution, said the report should not merely be presented, but should be open to correction and, if necessary, to rejection. From the statement of the President himself it would appear that at least one matter in the report required correction.

Mr. George Brown supported the resolution mainly on the ground that the report lacked the information about the university scheme to which he thought the Fellows and Members entitled.

Mr. Craven (Hull) said he did not take this gloomy view of the situation. He knew of no college better managed than this. No one could bring a word of complaint against the management. To this opinion he adhered, in spite of what others might say to the contrary.

Dr. Danford Thomas spoke in support of the resolution.

Mr. Square (Plymouth) moved as an amendment, "That this meeting respectfully begs that the report be referred back to the Council for reconsideration, to be brought up again at an adjourned meeting."

The President: I cannot put that. It is not in the power of this meeting.

Surgeon-Major Ince said he found himself in the midst of a body of fighting men, although he himself was not a fighting man. He begged to move, "That this meeting regards this report as satisfactory, and acknowledges the liberality of the Council."

This motion was ruled out of order.

Mr. Holmes said he did not intend voting on the resolution. He recognised in the report a very great deal which he thought would be for the benefit of the Fellows.

A show of hands was then taken, when 10 persons voted

for the resolution and 16 or 17 against it. The resolution was accordingly lost.

Mr. Lawson Tait then moved the second part of the resolution, namely: "And this meeting is further of opinion that the ancient attitude of hostility on the part of the Council to the true interests of the body corporate of the College ought to terminate, and that the repeated resolutions passed at former meetings of this College should be carried into effect."

Dr. Alderson seconded the resolution.

Mr. Joseph Smith said he wished to clear up a misapprehension about the costs in the recent litigation. The College had asked for its costs and it would get its costs. He and his friends expected nothing gracious from the College in this matter.

Surgeon-Major Ince urged Mr. Lawson Tait to withdraw the resolution, saying that he ought to be gentle and forbearing to the Council. Let them conclude the meeting in a peaceful and friendly manner.

The President before putting the resolution to the meeting said that he supposed it would be useless for him to assure Mr. Lawson Tait and his friends that if there ever was any "ancient hostility" on the part of the Council, there was none now. The Council were doing their very best for the body corporate.

The resolution was carried by twenty-five votes to ten.

Mr. Homes, on behalf of the Association of Fellows, moved: "That this meeting of Fellows and Members desires to thank the Council of the College for acceding to their wishes in the matters (a) of separate meetings of Fellows and Members, and (b) of the provision of a Common Room in the College."

Dr. Bradford Thomas seconded the motion and it was carried with only one dissident, namely, Mr. Lawson Tait.

Mr. F. Gant moved, also on behalf of the Association of Fellows: "That this meeting of Fellows and Members wishes again to impress upon the Council that it is absolutely essential for the welfare of the College that the Fellows and Members should be consulted before any change is made in the constitution and external relations of the College and before the College is committed to any extraordinary expenditure on buildings or otherwise."

The President explained that the Council had had this matter under their consideration on many occasions, and there was a kind of undertaking between them that in any important change in the constitution of the College they should consult the Fellows and Members.

Mr. Joseph Smith seconded the motion.

Mr. Lawson Tait asked for information about the undertaking of which the President spoke.

The President said that as long ago as Nov. 17th, 1885, the Council, after considering certain resolutions passed at a meeting of Fellows and Members, agreed, "That with the larger questions which more rarely arise, such as those which concern the constitution of the College, the course will be different. Upon those questions the Council will always be glad to have an opportunity, so far as practicable, of consulting the Fellows and Members."

Mr. Lawson Tait said he had seen no disposition on the part of the Council to take advantage of this resolution.

The President reminded him that there had been meetings in connexion with the expenditure upon the museums and the university question.

The resolution was carried by 22 votes to 2.

A vote of thanks having been accorded the President the meeting terminated.

**A FREE GIFT.**—Abington Abbey together with twenty acres of land has been offered to the Northampton Town Council for use as a people's park by Lord and Lady Wantage.

**A NEW MEDICAL SOCIETY.**—A new society has been started in Oxford for the discussion of subjects connected with medicine and surgery. The first meeting is to be held on Nov. 11th, when Sir James Paget will deliver an inaugural address. Sir Henry Acland has been chosen as the first President, the vice-Presidents being Professor Burdon-Sanderson and Mr. Alfred Winkfield, Dr. Collier acting as secretary and treasurer. The ordinary meetings of the Society will be held on the second Friday in each month.

## Medical News.

**ROYAL COLLEGES OF PHYSICIANS OF LONDON.**—The following gentlemen having conformed to the by-laws and regulations and passed the required examinations were at the quarterly meeting of the College admitted Licentiate:—

Alston, H., University College.  
Anderson, C. M., Edin. and Guy's.  
Atchley, E. G. C. F., Bristol.  
Atkinson, H. N. C., St. Barthol.  
Auty, C. H., St. Bartholomew's.  
Badham, R. C., Sydney & London.  
Bailey, Thos. Wm., Westminster.  
\*Baldwin, Henry Clifford, Leeds.  
Barnard, Harold Leslie, London.  
Beckite, James Clay, Glasgow.  
Bensusan A. D., St. Thomas's.  
Bernard, Claude, Bristol.  
Brabant, R. H. W. H., Guy's.  
Bradshaw-Isherwood, Percy A., St. Bartholomew's.  
Brasher, Chas. Wm. Jas., Bristol.  
Brisley, Chas. W. St. Thomas's.  
Bryant, Hugh Arnold, Guy's.  
Buck, Arthur H., St. Barthol.  
\*Bury, Reginald F., St. George's.  
Campbell, J. A. L., Westminster.  
Carter, Hugh Ronald, St. Mary's.  
Cartwright, Ernest H., Oxford and Guy's.  
Clarke, Hugh C. W., Manchester.  
Colmer Ptolemy A., London.  
Cook, Fredk. Ernest, Liverpool.  
Cooper, Dossabhoy N., Madras and St. Bartholomew's.  
Covey, W. J., University College.  
Cresswell, Frank P. S., Guy's.  
Crofts, George Harry, Liverpool.  
Crosland, Geo. Wm. K., Leeds.  
Dixon, Thomas, Birmingham and St. Mary's.  
Duka, Albert T., Camb. Univ. and St. George's.  
Dutton, Arthur S., St. Thomas's.  
Edwards G. M., Camb. & Middx.  
Killick, Harry Scott, St. George's.  
Evans, James Arnold, Liverpool.  
Fawcett, Rupert, St. Thomas's.  
Floury, Charles Marlay, Guy's.  
Floyd, Stephen George, Guy's.  
Foulkes, Thos. H. St. Barthol.  
Fraser Luckie, H. O'Naghton, St. Bartholomew's.  
Furnivall, P., St. Bartholomew's.  
Gains, John Edwin, Leeds.  
Gardner, Harold, Charing-cross.  
Gilbert, Charles William, London.  
Gillbard, Richard, Guy's.  
Goldsmith, Geo. H., St. George's.  
Goodwin, Edwd. K., King's Coll.  
\*Gover, Lawford D., St. Thomas's.  
Grace, Gerald, Bristol.  
Green, S. F. St. David's, St. Barthol.  
Gregar, Charles Granville, Guy's.  
Harding, H. W. L., St. Barthol.  
Hawkins, Edwd. J., St. Barthol.  
Hayes, Geo. C., King's Coll. and Melbourne.  
Henry, Edwin, St. Bartholomew's.  
Hepton, J. C., Manchester & Glasg.  
Heywood, Thomas, St. Mary's.  
Hicks, Thos. Wm., St. Thomas's.  
Hine, Alfred E., Charing-cross.  
Holtings, W. W., University Coll.  
Hollings, Edwin Thomas, Leeds.  
Hooper, G. H. J., Charing-cross.  
Huntley, Edgar, Guy's.  
Jago, Ashley Filsted, Guy's.  
Jeaffreson, G. C., University Coll.  
Johnson, Lawrence A., Leeds.  
Jones, Geo. David E., Middlesex.  
Jones, Geo. Reginald, Liverpool.  
Keels, David, University College.  
Kendall, N. F., St. Barthol.  
Kendrick, Horace H., London.  
Kingsford, B. H., St. Thomas's.  
Knightley, W. R., St. Barthol.  
\*Kobla, D. H., Bombay & Middx.  
Leumann, B. H. F., St. Barthol.  
Levy, Alfred G., University Coll.  
Lewis, Fredk. H., St. Barthol.  
Lister, Thomas David, Guy's.  
Lucas, William F., Middlesex.  
MacPhail, John A., McGill Coll., Montreal, and London.  
Mason, F. H., Durham & Birm.  
Maw, H. T., St. Bartholomew's.  
Meade-King, R. L., St. Barthol.  
Merewether, A. E., Durh. & Lond.  
Mitton, A. H., King's College.  
Nankivell, B. W., Middlesex.  
Newton, Isaac, Charing-cross.  
\*Newton, R. F. H., St. George's.  
\*O'Ferrall, E. F., Charing-cross.  
Palmer, C. S., St. Bartholomew's.  
Paterson, Hugh Gordon, Leeds.  
Paterson, H. John, St. Barthol.  
Parry, T. W., Camb. & St. George's.  
Perran, E. A., St. Barthol.  
Planck, Charles, St. Thomas's.  
Quennell, Arthur, St. Barthol.  
Kedpath, W. St. Thomas's.  
Roberts, H. Wm., St. George's.  
Roberts, Sydney John, Guy's.  
Robinson, Frederick A., Guy's.  
Robinson, Geo. Burton, London.  
Robinson, Waring, Middlesex.  
Romer, R. Leslie, St. George's.  
Roche, Ernest Morley, Guy's.  
Rubra, Henry H., Birmingham.  
Scott, Francis Gilbert, London.  
Shillito, Alfred A., St. Barthol.  
Smith, Reginald, Manchester.  
Smith, T. R. H., St. Barthol.  
Stanton, Jas. Wm. W., London.  
Stokes, Whitley, St. Thomas's.  
Thomas, J. Morgan M., Bristol.  
Thorne, Atwood, St. Mary's.  
Tootal, John H., St. Barthol.  
\*Turnor, Philip W., St. George's.  
Vince, Thomas S., Birmingham.  
\*Walker, E. G. A., St. Barthol.  
Walker, Hyde Edwards, London.  
Webb, Chelmondeley, St. George's.  
White, Herbert G., St. George's.  
White, William, Middlesex.  
Wilkes, Geo. A., Birmingham.  
Wilkinson, Sidney, Liverpool.  
Williams, E. M., St. Barthol.  
Williams, R. H., University Coll.  
Wilson, Norman O., St. Barthol.  
Woodcock, A. H., St. Thomas's.  
\*Worrall, Chas. Lloyd, Middlesex.

\* Candidates who have not presented themselves under the Regulations of the Examining Board.

**CAMBRIDGE UNIVERSITY.**—At a congregation held on the 27th ult. the following medical degrees were conferred:—

*Bachelors of Medicine and Bachelors of Surgery*—Augustus Moore Daniel, Trinity; Edward Balnes and Sidney Edward Barrett, Gonville and Caius.

**LITERARY INTELLIGENCE.**—A new weekly Russian medical journal has just appeared under the title of *Iuzhno-Russkaya Meditsinskaya Gazeta*, or South Russian Medical Gazette. It is published in Odessa and serves as the organ of the Odessa Medical Society. The first number contains an article by Prof. Mechnikoff on Present Tendencies in the Treatment of Infectious Diseases and one by Dr. Starkoff on International Precautions in Turkey and Egypt against the Entry of Cholera into Europe from India, together with abstracts from other journals, the Society's proceedings, and general medical news.

**MEDICAL MAGISTRATES.**—Mr. Henry Aldred, L.R.C.P. Irel., M.R.C.S., of Manchester, Dr. George Herbert Pollard of Southport, and Dr. Edward Sword Morley of Blackburn have been placed on the Commission of the Peace for the city of Manchester and the boroughs of Southport and Blackburn respectively.

**FOOTBALL CASUALTIES.**—A youth while playing a game at Dalby on the 22nd ult. fractured his femur. The following casualties occurred last week:—During a match at Badsley Moore-lane a member of the Rotherham Thursday team "broke his ankle." In a match between the Small Heath and Darwin teams a member of the former team sustained a fracture of the leg and was admitted to the Queen's Hospital. Whilst playing a game with Repton School one of the full backs of the Derby County Team fractured his clavicle. At Cambridge, in a match under Association rules, a player sustained a compound fracture of his left leg.

**ROYAL ACADEMY OF MEDICINE IN IRELAND.**—The following office-bearers have been elected for the ensuing year:—President: George H. Kidd. General secretary: William Thomson. Secretary for foreign correspondence: J. W. Moore. Medical Section—President: Walter G. Smith. Council: Wallace Beatty, J. Hawtrey Benson, M. A. Boyd, E. M'Dowel Cosgrave, J. Magee Finny, Richard A. Hayes, J. W. Moore, A. N. Montgomery, G. P. L. Nugent and H. C. Tweedy. Surgical Section—President: Edward Hamilton. Council: Kendal Franks, F. T. Heuston, John Lentaigne, Austin Meldon, Thomas Myles, Edward Stamer O'Grady, Sir W. Stokes, W. Thornley Stoker, R. L. Swan and W. I. Wheeler. Section of Obstetrics—President: A. J. Horne. Council: L. Atthill, Robert W. Flynn, R. H. Fleming, F. W. Kidd, J. L. Lane, S. R. Mason, T. More Madden, R. D. Purefoy, A. J. Smith and W. J. Smyly. Section of Pathology—President: C. J. Nixon. Council: A. W. W. Baker, A. H. Benson, H. Bewley, J. Magee Finny, Edmond J. MacWeeney, J. O'Carroll, R. G. Patteson, J. M. Purser, J. A. Scott and J. B. Story. Section of Anatomy and Physiology—President: H. J. Broomfield. Council: A. Birmingham, H. St. J. Brooks, D. J. Cunningham, E. L. Ledwich, H. C. Earl and Alec Fraser. Section of State Medicine—President: E. M'Dowel Cosgrave. Council: Thomas Donnelly, Edgar Flinn, Ninian Falkiner, T. W. Grimshaw, J. W. Moore and J. M. Redmond.

**REQUESTS AND DONATIONS TO HOSPITALS.**—The late Mr. William Baker of South Retford bequeathed £100 to the Retford Dispensary and Cottage Hospital.—Mr. Josiah G. Strachan, late of Farmhill Park, near Stroud, bequeathed £1000 to St. Mark's Hospital for Fistula, and £500 each to the British Hospital for Diseases of the Skin, the Cancer Hospital, Brompton, and the Central London Throat Hospital.—The workmen of Sir W. G. Armstrong, Mitchell and Co., at Elswick, have contributed £270 9s. 10d. to the local medical charities for the quarter ending September last, of which £192 14s. 10d. has been apportioned to the Royal Infirmary, Newcastle.—The Goldsmiths' Livery Company has made a grant of £250 to the Royal Sea-bathing Infirmary for Scrofula, Margate.—The workmen of Messrs. R. and W. Hawthorn, Leslie and Co., Newcastle, have contributed £60 5s. for the quarter ending September last to the Newcastle medical charities.—Mrs. H. Wood, late of Bingley, bequeathed £200 to the Bingley Cottage Hospital.—The late General Doria bequeathed £1000 to the Chelsea Hospital for Women.—The Mercers' Livery Company has voted 100 guineas to the Cancer Hospital (Free), Fulham-road, S.W.—The late Mr. Lawson Robinson of St. George's-street bequeathed £100 to the London Hospital and £50 each to the Tower Hamlets Dispensary, the East London Hospital for Children, the City of London Hospital for Diseases of the Chest, and the Royal Hospital for Incurables.—The honorary secretary to the Leeds Musical Festival Committee has sent a cheque for £1300 to the Leeds Infirmary.—The sum of £92 2s. 2d. has been handed to the treasurer of the Belgrave Hospital for Sick Children, being the proceeds of the united demonstration of the temperance, trade and other societies held in July last in aid of that institution.—The late Mr. Thomas Nelson, publisher, Edinburgh and London, bequeathed £5000 to the Edinburgh Royal Infirmary.—The late Mr. John McCormick bequeathed £500 to the Cripples' Home, Bray, £500 to the City of Dublin Hospital and £500 to the Adelaide Hospital, Dublin.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADDENBROOKE, E. H., M.R.C.S., has been appointed Medical Officer for the Wolverley Sanitary District of the Kidderminster Union.

BAINES, E., M.B., B.C. Cantab., has been appointed Second House Physician to the General Infirmary, Leeds.

BRITTON, THOMAS, M.D. St. And., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health to the Shelf Local Board.

CAMPBELL, JAMES, M.B. Glasg., L.R.C.S. Edin., has been appointed a Public Vaccinator, Clunes, Victoria, Australia.

CLARK, F. W., L.R.C.P. Lond., M.R.C.S., has been appointed, *pro tem.*, Assistant Medical Officer of Health for the Tyne Ports.

CRAYEN, ROB. M., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Westmoreland Combined Sanitary Districts.

CROSLAND, G. W. K., M.R.C.S., L.R.C.P., has been appointed Fourth House Surgeon to the General Infirmary, Leeds.

DUKE, A. F., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Second Sanitary District of the Cheltenham Union, vice Walters, deceased.

EKINS, A. E., has been appointed County Analyst for Hertfordshire.

ENGLISH, T. H., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Junior House Surgeon to the Poplar Hospital for Accidents, East India-road, E.

FIRTH, E., L.S.A., has been appointed Resident Obstetric Officer to the General Infirmary, Leeds.

FOSBROOKE, G. H., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Worcestershire Division of the Alcester Rural Sanitary Authority.

FRASER, D. A., M.D. Brux., M.R.C.S., has been reappointed Medical Officer of Health for the Borough of Totnes.

GORNALL, J. G., M.A., M.B. Cantab., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer of Health for the Borough of Warrington and Medical Superintendent of the Hope Hospital for Small-pox.

HAWORTH, JOHN, has been appointed Analyst for the Borough of Tiverton.

HILLIER, T. ERNEST, M.A., M.B. Cantab., M.R.C.S., L.S.A., has been appointed Medical Superintendent to the Infirmary and Medical Officer to the Workhouse of the Parish of Paddington, vice T. Savill, M.D. Lond., resigned.

HODSON, FREDK., M.R.C.S., has been appointed Medical Officer of Health for Hornsea-with-Hornsea, Burton Urban Sanitary District, of the Skirlaugh Union, vice Thompson.

HOGG, G. H., M.B., C.M. Edin., has been appointed Junior House Surgeon to the Clayton Hospital, Wakefield, vice Wait, resigned.

HUGHES, W. L., M.R.C.S., has been reappointed Medical Officer of Health to the Carmarthen Town Council.

JACKSON, JOS. J., L.R.C.P., L.M. Edin., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Rural Sanitary District of the Wakefield Union, vice Walker, resigned.

JEPHICOTT, R. W., L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Warwickshire Division of the Alcester Rural Sanitary Authority.

JOHNSON, WILLIAM, L.R.C.P., L.R.C.S. Edin., has been appointed Health Officer for the Avoca Shire, Victoria, Australia, vice McMahon.

JOHNSTON, T. L., L.R.C.P., L.R.C.S., L.F.P.S. Glasg. & L.M., has been appointed Second Assistant Medical Officer to the Berkshire County Asylum.

KEMMIS, H. M., L.R.C.P. Irel., M.R.C.S., has been appointed Medical Officer to the Union Workhouse, Bridgewater.

KEMPFER, W. H., M.D. St. And., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer of Health for Battersea.

MACKENZIE, JOHN CUMMING, M.B. &c., has been appointed Deputy Medical Superintendent to the Northumberland County Asylum, Morpeth.

MAY, WM. PAGE, M.D., B.Sc. Lond., M.R.C.S., M.R.C.P., has been appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Dr. Chaplin, promoted Assistant Physician.

MARSDEN, R. W., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Workhouse and Receiving Ward of the Township of Manchester, vice Robinson, resigned.

MAYO, A. C., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer at Ida Hospital.

MOORE, A. J., M.R.C.S., has been reappointed Medical Officer for the St. Lawrence Sanitary District of the Reading Union.

PORTER, CHAS., M.D., B.Ch., B.A. O. Royal Univ. Irel., D.P.H. Camb., M.R.C.S., has been appointed Medical Officer of Health, Physician to the Fever Hospital, and Police Surgeon for the County Borough of Stockport, vice Edwin Rayner, M.D. Lond., F.R.C.S., J.P., resigned.

ROBERTS, R. P., M.R.C.S., has been appointed Medical Officer for the No. 2 Carnarvonshire Sanitary District of the Bangor Union, vice Hughes, deceased.

ROLLASON, A., L.R.C.P. Lond., M.R.C.S., has been appointed Health Officer for the Eltham Shire, Northern and Southern Ridings, Victoria, Australia, vice James, deceased.

SCOTT, BERNARD, M.R.C.S., has been appointed Surgeon to the In-patients of the Royal Victoria Hospital, Bournemouth.

SCRATCHLEY, H. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Poole Union.

SNELL, S. H., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the Grays Thorough Urban Sanitary District of the Orsett Union, vice Stirling, resigned.

THEED, WM. C., M.R.C.S., has been appointed a Public Vaccinator, Allansford, Victoria, Australia.

TILLEY, HERBERT, M.D., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the London Throat Hospital.

WHITEHEAD, A. L., M.B. Lond., has been appointed Third House Surgeon to the General Infirmary, Leeds.  
 YOUNG, JAMES M., M.B., C.M. Aberd., has been appointed Ophthalmic Surgeon to the West Bromwich District Hospital.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

- BRIGHTON, HOVE AND PRESTON DISPENSARY.**—House Surgeon to the Western Branch. Salary £140 per annum (less board at 8s. per week) with furnished apartments, coals, gas and attendance. (Applications to the Assistant Secretary, Queen's-road, Brighton.)
- EAST LONDON HOSPITAL FOR CHILDREN,** Glamis-road, Shadwell, E.—House Physician. Board and lodging provided.
- GLAMORGAN COUNTY COUNCIL.**—County Medical Officer. Salary £750 per annum, of which £150 is intended to cover all travelling and office and laboratory expenses.
- HOSPITAL FOR SICK CHILDREN,** Great Ormond-street, W.C.—Ophthalmic Surgeon.
- HOSPITAL FOR SICK CHILDREN,** Great Ormond-street, W.C.—House Surgeon for six months. Salary £25, board and residence in the hospital.
- HOSPITAL FOR SICK CHILDREN,** Great Ormond-street, W.C.—Assistant Physician.
- METROPOLITAN ASYLUMS BOARD.**—Assistant Medical Officer for the North-Eastern Hospital, St. Ann's-road, Stamford-hill, N. Salary £15 per month, with board, lodging and washing. (Applications to the Clerk to the Board, Norfolk House, Norfolk-street, Strand, W.C.)
- METROPOLITAN HOSPITAL,** Kingsland-road, N.E.—Assistant Surgeon and Assistant Physician.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—Examiner in Anatomy for the Second Professional Examination.
- ROYAL INFIRMARY,** Edinburgh.—Superintendent. Salary £500 per annum, with free house, coal and gas.
- ST. MUNGO'S COLLEGE,** Glasgow.—Chair of Anatomy.
- THE CANCER HOSPITAL (Free),** Fulham-road, S.W.—House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.
- THE NEW LONDON COUNTY ASYLUM,** Claybury, Woodford, Essex.—Medical Superintendent. Salary £1000 per annum, with house, coals, lighting, milk and vegetables.
- THE GUARDIANS OF PADDINGTON.**—Assistant to the Medical Superintendent of the Infirmary and Assistant Medical Officer of the Work-house. Salary £100 per annum, rising £10 annually to £120, together with board, lodging and washing. (Applications to the Medical Superintendent at the Infirmary, 235, Harrow-road, N.W.)

## Births, Marriages and Deaths.

### BIRTHS.

- DINGLEY.**—On Oct. 28th, at 11, Upper Woburn-place, the wife of Allen Dingley, F.R.C.S., of a son.
- GRINDON.**—On Oct. 26th, at Olney, Bucks, the wife of F. J. Grindon, M.R.C.S., of a daughter.
- GODFREY.**—On Oct. 28th, at Bridlington Quay, Yorkshire, the wife of H. J. Clarendon Godfrey, of a daughter.
- HOWSE.**—On Oct. 26th, at Brook-street, Grosvenor-square, W., the wife of H. G. Howse, M.S., F.R.C.S., of a daughter.
- HUMPHREYS.**—On Oct. 25th, at Dyke-road, Brighton, the wife of J. H. Humphreys, M.D. Lond., of a son.
- SANDBERG.**—On Oct. 27th, at Liverpool Lodge, Brixton-hill, S.W., the wife of Arthur G. Sandberg, M.D., of a daughter.
- WALSIL.**—On Oct. 28th, at Naval-terrace, Shoerness, the wife of Dr. J. J. Walsh, R.N., H.M.S. *Bramble*, of a son.
- WHITE.**—On Oct. 27th, at 144, Sloane-street, S.W., the wife of C. Percival White, M.A., M.B., B.C., of a daughter.

### MARRIAGES.

- LAWSON—ROBERTS.**—On Oct. 26th, at the Parish Church, Tottenham, by the Very Rev. the Dean of Lincoln, assisted by the Rev. N. G. Lawson, M.A., brother of the bridegroom, Hugh Lawson, third son of William Norton Lawson, of 10, Dorset-square, to Sarah Alice, third daughter of the late David Roberts, of Cavendish House, Tottenham.
- MATHESON—DAWSON.**—On Saturday, the 29th ult., at St. George's, Charlotte-square, Edinburgh, by the Rev. Archibald Scott, D.D., Angus Matheson, M.D., North Berwick, to Helen Ramage, younger daughter of the late William Dawson, Esq., Distiller, Linlithgow.
- MORRICE—ELLEMENT.**—On Oct. 29th, at Wyke Regis Church, Dorset, George Gavin Morrice, M.A., M.D. Cantab., M.R.C.P., youngest son of the Rev. William David Morrice, to Alice Amella, youngest daughter of the late John Josiah Ellement.
- ORCHARD—SCOTT.**—On Oct. 29th, at the Baptist Chapel, Ashby-de-la-Zouch, by the Rev. C. Rushby, assisted by the Rev. T. A. Plant, B.A., Alfred Orchard, M.R.C.S. and L.R.C.P. Lond., son of Mr. George Orchard, to Sarah Emily (Sadie), eldest daughter of Mr. Richard Scott of the same town.
- SAWYER—CLEGG.**—On Oct. 27th, at St. Mary's Parish Church, Stockport, by the Rev. Canon Symonds, Ramon Alexander Sawyer, L.R.C.P., M.R.C.S., second son of the Hon. R. H. Sawyer, of Nassau, N.P., Bahamas, to Sarah Alice (Solace), eldest daughter of the late Edward Clegg, J.P., of Oldham and Brinnington Lodge, Stockport.

### DEATHS.

- BRADLEY.**—On Oct. 31st, at Park-terrace, Nottingham, Chas. Bradley, F.R.C.S., aged 61.
- GEORGE.**—On Oct. 27th, at Port Isaac, Cornwall, Katherine Wylie, the beloved wife of R. Julian George, M.B., C.M. Edin., aged 26 years.
- HARLE.**—On Oct. 31st, at St. George's-terrace, Lower Edmonton, Charles Ebenezer Harle, L.R.C.P. Ed., late of the Bank of England, in his 86th year.
- LOWE.**—On Oct. 30th, at Burton-on-Trent, George Lowe, J.P., F.R.C.S., aged 79.
- LOWNDS.**—On Oct. 31st, at Watlington, Kent, Thomas Mackford Lownds, M.D., Surgeon-Major, Retired, H.M.I.A., and late of Egham, Surrey, aged 64.
- ROBERTSON.**—On Oct. 31st, at Ajaccio, Corsica, Dr. John Chalmers Robertson, of Glenshee Lodge, Wandsworth-common, in the 33rd year of his age.
- SANDERS.**—On Oct. 30th, at Upper Fant-road, Maidstone, Godfrey Sanders, Surgeon, aged 76.
- SMYTH.**—At Magdalen-road, St. Leonards, William Dickson Smyth, M.D., Staff-Surgeon Royal Navy, aged 57.

### BOOKS ETC. RECEIVED.

- CHURCHILL, J. & A.,** New Burlington-street, London.  
 Eye-strain (commonly called Asthenopia). By Ernest Clarke, M.D., B.S. Lond. Illustrated. 1892. pp. 168.
- The Climate of Rome and the Roman Malaria. By Professor Tommasi-Crudeli. Translated by C. C. Dick. 1892. pp. 163.
- Commercial Organic Analysis. By A. H. Allen, F.I.C., F.C.S. Second Edition. Vol. III., Part II. 1892. pp. 584.
- HARRISON & SONS,** St. Martin's-lane, London.  
 The Collected Papers of Sir William Bowman, Bart., F.R.S. "Bowman Testimonial Fund." Edited by J. Burdon-Sanderson, M.D., F.R.S., and J. W. Hulke, F.R.S. Vols. I. and II. 1892.
- LEWIS, H. K.,** Gower-street, London.  
 Epidemic Influenza. A Study in Comparative Statistics. By F. A. Dixey, M.A., D.M. With Diagrams and Tables. 1892. pp. 29.
- A Handbook of the Diseases of the Eye and their Treatment. By H. T. Swanzy, A.M., M.B., F.R.C.S. Irel. Fourth Edition. Illustrated. 1892. pp. 630.
- Hygiene and Public Health. By Louis C. Parkes, M.D. Third Edition. Illustrated. 1892. pp. 523.
- Treatise on the Diseases of Women. By Alexander J. C. Skene, M.D. Second Edition. 1892. pp. 908.
- LIVINGSTONE, E. & S.,** Edinburgh.  
 Anatomy of the Brain and Spinal Cord. By J. R. Whitaker. Second Edition. 1892. pp. 173.
- The Rotatory Movements of the Human Vertebral Column and the so-called Musculi Rotatores. By Alfred W. Hughes, M.B. Edin., F.R.C.S. Eng. 1892. pp. 35.
- PENTLAND, YOUNG J.,** Edinburgh and London.  
 The Diseases of the Stomach. By Dr. C. A. Ewald. Translated from the Second German Edition by Morris Mauges, A.M., M.D. Illustrated. 1892. pp. 497.
- PHILIP, GEO., & SON,** London and Liverpool.  
 "The" Practical Guide to Algiers. By Geo. W. Harris. Third Edition. 1893. pp. 176. Price 3s. 6d.
- RUEFF ET CIE,** Paris.  
 Les Troubles de la Marche dans les Maladies Nerveuses. Par Paul Blocq.
- SCOTT, WALTER,** Warwick-lane, Paternoster-row, London.  
 Public Health Problems. By J. F. J. Sykes, B.Sc. (Public Health), M.B. Edin. Illustrated. 1892. pp. 370.
- SIMPKIN, MARSHALL & CO.,** London.  
 An Order to View. By Lotta Yalsudam. 1892. pp. 320.
- SWAN SONNENSCHN & CO.,** Paternoster-square, London.  
 Introduction to Physiological Psychology. By Dr. T. Ziehen. Illustrated. 1892. pp. 184.
- Text-book of Elementary Biology. By H. J. Campbell, M.D. Lond. Illustrated. 1893. pp. 234.
- WILLIAMS & NORGATE,** Henrietta-street, Covent-garden, London.  
 Specielle Chirurgie für Aerzte und Studierende. Von Prof. Dr. H. Fischer. 1892.
- Catalogue of Surgical Instruments and Appliances (sold by P. Harris & Co., Birmingham).—Is Katatonia a Special Form of Mental Disorder? and Cases of so-called Katatonia; by M. J. Nolan, L.R.C.P., L.R.C.S. Irel., M.P.C. (South Counties Press, Lewes, 1892).—Fever Nursing; by Mary Harris (The Record Press, London); price 1s.—Abstract of the Transactions of the Hunterian Society, Session 1891-92, with the Report of the Council, and the Annual Oration for 1892 (Ash & Co., London).—Archives of Surgery, October, 1892 (J. & A. Churchill, London).—Higiene de los Nervios; por Hugo-Marcus (Felix Lajouare, Buenos Aires, 1892).—Hydro-naphthol in the Prophylaxis and Treatment of Cholera: Report of Laboratory Experiments; by D. D. Stewart, M.D.; reprint from the Medical News, Oct., 1892 (Lea Brothers & Co., Philadelphia).—Transactions of the Obstetrical Society of London, Vol. XXXIV., for the year 1892; Part XI. for March, April, and May (published by the Society, Hanover-square, London).—On Reinfection in Phtisis; by A. Ransome, M.D. Cantab., F.R.S.; reprint (J. Heywood, Manchester and London).—Philosophical Transactions of the Royal Society of London, Vol. CLXXXIII. (Kegan Paul, Trench, Trübner & Co., London); price 5s. 6d.—The Veterinary Journal; edited by George Fleming, C.B., LL.D., F.R.C.V.S., November, 1892 (Baillière, Tindall & Cox, London); price 1s. 6d.—Etude sur le Climat de Pau, et du Sud-Ouest Français; par le Dr. E. Duboucau (Rdouard Privat, Toulouse).—Magazines for November: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 3rd, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Oct. 28	29.84	S.W.	50	57	65	59	41	.32	Cloudy
" 29	29.86	S.W.	58	56	79	60	56	.38	Cloudy
" 30	29.74	E.	49	47	63	56	48	.69	Cloudy
" 31	29.69	N.E.	48	47	..	48	47	1.24	Raining
Nov. 1	29.84	N.E.	45	43	66	50	43	.06	Overcast
" 2	29.86	N.E.	30	36	58	53	35	..	Foggy
" 3	29.65	S.W.	51	50	80	55	36	.12	Overcast

Medical Diary for the ensuing Week.

Monday, November 7.

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturday, at the same hour.  
**St. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M., and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2 P.M.; Thursday, 2 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPÆDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Royal London Ophthalmic Hospital: 1 P.M., Mr. W. Lang: Diseases of Cornea.—101, Gt. Russell-st.: 8 P.M., Dr. Galloway: Gastro-intestinal Tract.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. Louis C. Parkes: Dwelling Houses.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Dr. James W. Bond: Nasal Polypus.  
**MEDICAL SOCIETY OF LONDON.**—8.30 P.M. Mr. Bland Sutton: Tubal Moles and Tubal Abortion.—Mr. Marmaduke Shield: A second communication on Arterial Hemorrhage from Ulcerating Bubo of the Groin.

Tuesday, November 8.

**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**St. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**St. MARY'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**St. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Eczema, its Varieties.—Bethlem Hospital: 2 P.M., Dr. H. Corner: Puerperal and Lactational Insanity.—101, Gt. Russell-st., W.C.: 8 P.M., Dr. Herman: Painful Micturition in the Female.  
**ROYAL MEDICAL AND CHIRURGICAL SOCIETY.**—Mr. H. G. Howse: On the Advantages of an Amputation through the Thigh, either as a Preliminary Operation to or in some cases instead of Amputation through the Hip, where the Hip-joint is itself diseased and the Patient in very bad condition.—Mr. R. Lawford Knaggs: Two cases illustrating the Treatment of Advanced Hip-joint Disease by Mr. Howse's Method of Preliminary Amputation near the Knee (communicated by Mr. Howse).

Wednesday, November 9.

**NATIONAL ORTHOPÆDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**St. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday & Saturday, same hour.  
**St. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. Pollock: Some Varieties of Phthisis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Quarry Silcock: Glaucoma.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Mr. T. Mark Howell: Middle Ear Disease.  
**HUNTERIAN SOCIETY (London Institution).**—8.30 P.M. Dr. Patrick Manson: Cases of Beriberi (?).—Dr. G. E. Herman: "Champeller de Ribes" Bag for Inducing Labour.—Dr. Ettles (for Dr. Cotman) will show a Man with Superficial Ulceration of the Popliteal Space.—Mr. F. R. Humphreys: Notes of Two cases of Cheyne-Stokes Respiration, with recovery.—Dr. A. T. Davies: A case of Graves' Disease.—Dr. Hingston Fox: A case of Incomplete Graves' Disease, with Stellwag's and Von Graefe's Symptoms.—Dr. Arnold Chaplin: Two cases of Fibroid Disease of the Lungs.—Mr. J. Poland: Cured Congenital Cyst of Neck.—Dr. Thos. Marshall: Local Sweating of the Face. And other cases.

Thursday, November 10.

**St. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. D. B. Lees: Demonstration of Medical Cases in the Wards.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Tooth: The Diagnosis between Functional and Organic Disease of the Nervous System.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. E. Law: Demonstration of Cases.—Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Dr. Ord: Medical Cases in the Wards.  
**BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-sq.).**—8.30 P.M. Dr. Granville Bantock: Specimens of Molluscum Fibrosum, Fibroma of the Ovary, and Uterine Fibro-myoma.—Mr. G. Burford: Specimens of Extra-uterine Gestation and Large Ovarian Tumour.—Dr. Inglis Parsons: Total Absorption of a large Fibro-myoma of the Uterus by Apostoli's Treatment.  
**NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.**—Clinical Evening. Cases shown by Dr. Lewis Jones, Mr. Gordon Brodie, Dr. F. Spicer, Dr. Malcolm, Dr. Case and others.  
**OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.**—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. H. Word Dodd: A case of Aniridia.—Mr. Hartridge: (1) Rupture of the Chorioid; (2) Patient with Aniridia.—Dr. Berry: (1) Conjunctivitis set up by Flies; (2) Hyperplastic Sub-conjunctivitis; (3) Intra-ocular Therapeutics; (4) Intra-ocular Absorption of Iodoform. And other papers.  

Friday, November 11.  
**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. Symes Thompson: Catarrhal Phthisis.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Actinomycosis (Sections).  
**CLINICAL SOCIETY OF LONDON.**—Mr. Lawford Knaggs: The Conditions seen at an Operation for Ventral Hernia five years and a half after Laparotomy for Tubercular Peritonitis.—Dr. Handford: A case of Hyperplastic (Obliterating) Phlebitis affecting the Larger Veins.—Mr. Donald Day (introduced by Mr. Howard Marsh): Case of Nephrothotomy; large Calculus.—Dr. Walter Carr: A case of Double Empyema; Simultaneous Drainage of the Pleural Cavities; recovery.  

Saturday, November 12.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Alcoholic Insanity.

Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors." Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher." We cannot undertake to return MSS. not used.*

A MODERN SCIENTIFIC DISCUSSION.

"—Anims Cœlestibus Irra!"

*Miss Fanny (a gentle and most veracious child): "Yah, you cruel coward! you and your friends skinned a live frog!"*

*Master Victor (an industrious but very touchy little Boy): "You're a liar! The frog was dead, and you know it!"*

*Miss Fanny: "Boohoo! Whether it was dead or not, you've got no right to call names; 'cos I'm a girl, and can't punch your head."*

*Master Victor: "It's just because you're a girl that I can't punch yours! You should have thought of that before you called me a coward!"*

Punch.

*W. H. C.*—Assuming the correctness of our correspondent's statement that the appointment rests with the Home Secretary, the course he suggests would certainly be advisable, but we would advise him to make careful inquiry as to whether the appointment does not now rest with the County Council.

*Mr. Ralph Cann (Plymouth).*—The observations of our correspondent are not new. They have been made and described many years ago by Helmholtz, and he will find a very similar description of the phenomena in Jago's Entoptics (Churchill, 1863).

*Mr. C. J. Rawlings.*—An abstract of the address will be found in THE LANCET of Oct. 8th, 1892.

## "THE MEDICAL JOURNALS AND INFAMOUS CONDUCT."

The *Food, Drugs and Drink Journal*, while approving our protest against those who lend themselves to medical aid associations on undignified and ruinous terms, complains that we have no censure for men of eminence in the profession, who are always ready to give testimonials for "anybody's soap, cocoa, mustard," and every rubbishy, much-advertised article. We are not prepared to admit this charge. Let our contemporary give instances with details more carefully, and we shall not fail to say what we think. We are quite of opinion that there is too much readiness to write testimonials that greatly mislead the public, and that the evil needs strong treatment.

Mr. Edwin Hegan, M.B., B.Ch.—We do not know of any work on physiology which discusses the subject alluded to by our correspondent. But such a division might be made in several ways—as, topographically, into head, body and extremities; or, histologically, into nervous, vascular, glandular, osseous and muscular systems; or, embryologically, into tissues derived from epi-, meso- and hypoblast respectively; or, functionally, into organs of secretion, sensation, motion, support, digestion, reproduction, and the like.

D.P.H. Camb. will probably find all the information he requires in "Sewage Treatment, Purification and Utilisation," by J. W. Slater, published by Messrs. George Bell and Sons.

## CLERICAL INTERFERENCE WITH MEDICAL DUTIES.

To the Editors of THE LANCET.

SIRS,—Some two months ago I was called to a case of typhoid fever existing in ——. In the usual course I notified this disease to the medical officer of health of the district. The sanitary inspector called at the house, and amongst other directions instructed the inmates that they were not to send the only child (not the patient) to school, that none of the inhabitants of the house were to go to church, and gave a mass of other instructions, and finally left a certificate for me to fill up, to state when the patient had finished desquamating, so that disinfection could be properly carried out—all of which directions were of course very right and proper if it had been a case of scarlet fever and not typhoid fever, which it was notified in my certificate to be. I wrote to the medical officer of health pointing out this, and saying that I thought his sanitary officer must have made a mistake as to the nature of the disease. I received a courteous reply from him, agreeing with my letter to him, but not laying any blame on his officer, as was perhaps quite natural, and there I supposed the matter had ended. I am sorry to say I did not keep the medical officer's letter to me, but the above was the tenour of it. Judge, then, of my surprise when I received this morning the following letter (I may say that the case occurred in an adjoining parish and that I had never once seen the Rev. —, though I had heard his name before):—

[COPY.]

Oct. 28th, 1892.

"SIR,—I learn that you have been the medical attendant on a person named —, residing at — Farm, —, in the parish of —, during the latter part of last month; that you notified Dr. —, who in turn notified me (the italics are mine) on Sept. 19th last of the infectious character of the disease (typhoid fever) from which the said — was suffering; that you afterwards denied the fact of your having notified the medical officer of the district; and that you represented it to be impossible that I could have received a notification (the italics are mine), as none had been sent. Before any further action is taken in this matter I shall be glad to hear what you have to say.

"I am, yours truly,

—, Vicar of —.

"Dr. —."

[ANSWER.]

Oct. 20th, 1892.

"SIR,—As a matter of courtesy only do I take the least notice of your impertinent letter dated Oct. 28th, 1892. I deny your right in any way whatever to catechise me as to what I have done, or what I have not done in my medical capacity. I notified to the proper authority that a disease (scheduled under the Infectious Diseases Notification Act) existed at —, and therein fulfilled the duty required of me by the law; nor have I so far stultified myself as to deny what I had already recorded in writing and sent to the authority properly constituted for the reception of such intelligence. I decline to answer or in any way notice any further communication from you on this subject.

"I am, yours truly,

"The Rev. —, Vicar of —."

## "THE OWNERSHIP OF PRESCRIPTIONS."

To the Editors of THE LANCET.

SIRS,—Will you allow me (as a dispensing chemist) to point out to your correspondent, "H. S. F.," the fact that the druggist has no power to refuse to dispense any prescription presented to him if it is properly signed. I believe that every dispenser would prefer to dispense a fresh prescription than an old one repeatedly; the remedy rests entirely with the profession. The prescriber should write on the bottom of the prescription, "This prescription must not be dispensed after—," but this would have to be written in Latin, or the patient would probably tear it off as unimportant. It would then be an easy thing for the druggist to explain to the patient that the doctor did not intend any more of that medicine to be taken, and that he must go and consult him again.

I am, Sirs, yours faithfully,

Oct. 20th, 1892.

A. A. B.

## A NOTEWORTHY BEQUEST BY AN EDINBURGH DOCTOR.

AMONGST the legacies bequeathed by the late Dr. William Fullarton Cumming, Kinellan, Murrayfield, Edinburgh, is the following:—To the managers of the Royal Infirmary of Edinburgh, £600, but only on the condition of their undertaking to invest the same and apply the annual income thereof in the purchase of snuff and tobacco for the use of such poor patients, male and female, as may be admitted into the infirmary on account of fractures, dislocations, scalds, ulcers and other chronic maladies, and who have been addicted to the use of tobacco in any shape and are known to be in distress from the want of it; or the managers may use such part of the income as they may think right from time to time in the purchase of tea and sugar for the use of such of those patients as may prefer tea and sugar to snuff and tobacco. In a separate paper, in his own handwriting, Dr. Cumming says:—"In my youth I was a dresser in the Infirmary of Edinburgh, and often had occasion to witness, and always the desire to relieve, the distress arising from inability on the part of the poorer patients to provide themselves with a long-accustomed gratification; and having been for more than twenty years of my life a slave to the use of tobacco, I know how to feel for the suffering of those who, in addition to the irksomeness of pain and the tedium of confinement, have to endure the privation of what long habit had rendered in a great degree a necessary of life. To some the bequest will appear whimsical and eccentric. No votary of tobacco will be of this opinion. I have no wish to teach bad habits, but it is my desire that the bequest be strictly carried into effect."

*Inquirendus.*—It is useless applying to the Local Government Board for superannuation, unless the board of guardians have recommended it on the resignation of the medical officer. It is the best policy to sound the guardians privately upon the subject before resigning. The recommendation of the guardians is seldom refused by the Local Government Board. We trust in time to obtain compulsory superannuation for Poor-law medical officers of long standing.

Mr. John E. Allen.—We see no reasonable objection to the circular, if couched and distributed in a strictly private manner to *bona-fide* patients.

Mr. B. H. Thwaitc is thanked for his communication, but the subject of the paper and the analytical statistics therein have already been dealt with in our columns.

## "THE HISTORY OF QUACKS AND QUACKERY."

To the Editors of THE LANCET.

SIRS,—Your correspondent "A" will find, on turning to Defoe's "Journal of the Plague in London," in Nimmo's edition of Defoe's works, on pages 400 and 401, a very graphic description of *medical* quacks and their ways, given as none but Defoe could give. If "A" be not already aware of the fact, let me inform him that Defoe was born in 1691, and that he was but four years old when the Great Plague occurred. Moreover, the celebrated Dr. Mead was said to have been "taken in" by the work of Defoe, as the descriptions Defoe gives are so realistic that it is hard to believe he was not really present during the Plague and really heard the bellman's cries and saw the dead cast coming round. "A" will find quacks referred to in other parts of the work. *Apropos* of this subject, I find that Chambers's "Etymological Dictionary" states that the word "quack" is derived from the cry of the duck.

I am, Sirs, yours obediently,

LEONARD KIDD, L.R.C.P. Edin. &c.

George-street, W., Oct. 31st, 1892.

## A MÆDIEVAL REMNANT.

To the Editors of THE LANCET.

SIRS,—The following inscription, which is from a notice affixed to the portal of a doctor's residence at Trani, in Southern Italy, and may be found in Ross's "Land of Manfred," London, 1889, may interest your readers, and perhaps be of value to the scientists who compile the annual supplement to the British Pharmacopœia:—"Professor Ricca.—The said Professor Ricca will use for making his salvers live snakes and large serpents, wolves, bears, monkeys, marmots, weasels, and numerous other kinds of wild animals, alive and in good condition." ("Il medico Professore Ricca, per fare i suoi iunguenti, comperà serpenti e serpi grossi vive: lupi, orsi, scimie, marmotti, fa'ne e tante altre razze di animali selvaggi vivi e sani.")

I am, Sirs, yours faithfully,

London, Oct. 1892.

J. OFFORD, junior, M.S., B.A.

## "PECULIAR SYMPTOMS OF POISONING BY SANTONIN."

To the Editors of THE LANCET.

SIRS,—The case "M.R.C.S." reported in your last issue (p. 1081) does not apparently greatly differ from many of the cases noted in the Medical Digest, Section 307:4, or from the effects produced in one of my own children many years ago in Batavia, upon which occasion it was as much alarmed as "M.R.C.S."

I am, Sirs, yours obediently,

Boundary-road, N.W., Oct. 29th, 1892. RICHD. NEALE, M.D. Lond.



The Bradshaw Lecture

ON THE

SIGNS OF ACUTE PERITONEAL DISEASES.

Delivered before the Royal College of Physicians of London,

By SAMUEL GEE, M.D., F.R.C.P. LOND.,

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MR. PRESIDENT AND GENTLEMEN,—Peritonitis is a word strictly anatomical, and relates to an affection of structure only. The structure affected is known by its ancient Greek name—"peritoneum"; the corresponding English term, "the rim or rim of the belly," has gone out of use, or is remembered by being found in old books, such, for instance, as the writings of those learned anatomists, Robert Burton and Phineas Fletcher, contemporaries of Harvey. The peritoneal structure has functions, no doubt, but they are so unimportant or so obscure that, however much they be disordered or suspended, no signs peculiar to the consequent disease can be discerned. This is the reason why the ancients, whose nosology was founded almost wholly upon symptoms or disordered functions, knew nothing about peritonitis as a disease of the peritoneum—in other words, peritonitis was not recognised before morbid anatomy began to be studied; nay, not until morbid anatomy had been studied for many years. In Morgagni, and even in Matthew Baillie, there is little or nothing about peritonitis—indeed, nothing about it under that name. Nor could anything be more natural than this state of opinion. When the abdomen was laid open, in a fatal case of peritonitis, it was not the peritoneum, but the intestine, the stomach, the omentum, all highly inflamed, that caught the mind's eye of these early anatomists; nor did they inquire which portion of those viscera was inflamed first and foremost. Hence the nosologist, Sauvages, invented the terms "gastritis," "enteritis," "mesenteritis," "metritis," "cystitis," to signify the inflammation of the respective organs as manifested by changes in their outer peritoneal tunic; and, from 1750 to many years onward, these words were much used, and always in the sense indicated. Sauvages invented the term "peritonitis" also, but he meant thereby inflammation of that part alone of the peritoneum which lines the abdominal walls and covers no viscus. No wonder that the word, while this was its meaning, was very seldom employed; no wonder that Cullen, who in his "Nosology," gives a place to peritonitis, excludes it from his *first lines*, saying that the disease, when existing alone, is hardly to be recognised and does not require any special treatment. This state of morbid anatomy, this failure to recognise the unity of peritonitis, faithfully reflected the state of anatomy in general. The peritoneum was known as being the outer tunic of the stomach, intestines and other abdominal viscera, but of the peritoneum as a uniform continuous structure, as a single organ, so to speak, anatomists, before the time of Bichat, had little or no notion. The study of puerperal fever led the way to more modern opinions. That disease had been known for many centuries, but by its symptoms only; one of the best descriptions of it, written from this point of view, is to be found in the works of our distinguished Fellow, Thomas Willis. He, in all likelihood, never examined a case after death, and he therefore deemed the fever to consist wholly of an infection of the blood, not secondary to any local inflammation. It was not until the middle of the last century that it came to be known by many that the abdominal viscera, or rather, their peritoneal surfaces, are inflamed in most cases of puerperal fever; and from this time onward one form at least of universal peritonitis was well known; but not known by the name "peritonitis"—that term had been invented, but was never employed—a fact which is proved by a story which John Hunter used to tell in his lectures. He said: "A man whom I tapped at the hospital died the third day. I said he died of the puerperal fever. This was smiled at in the hospital, and some were pleasant in remarking on the curiosity of a man being delivered; but a few months afterwards, another having the same fate, I convinced them, by dissection, that he had died of suppuration of the peritoneum, which

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we must admit to happen in puerperal fever." A great change of opinion, and a conversion to the modern conception of the peritoneum, is marked by the publication of Bichat's treatise on membranes in 1800. Henceforth the peritoneum is deemed by all to be not many portions, but a single whole. Discoveries are seldom made at a bound; the sunrise is foretold by the daybreak; and there were those who, before Bichat, had perceived the unity of the peritoneum; I refer especially to James Douglas and Johann Gottlieb Walter. Bichat was more than an anatomist; he was a great morbid anatomist; he had attained to modern doctrine with respect to peritonitis also. But what his early death—a death too early—suffered Bichat not to write was written by his disciple Laennec, whose "Histoires d'Inflammations du Péritoine," published in 1803, were the first essay on peritonitis conceived in the modern spirit. Here I will bring my preliminary history of opinion to an end.

It is not my intention to speak of the morbid anatomy of peritonitis, nor of its causes, a topic which is becoming more and more one of microbes and morbid poisons, for peritonitis also has entered the great class of parasitic, zymotic and virulent diseases. The changes which peritonitis begets in the living body is my theme. I am not so vain as to suppose that I can say anything which will be new to such an audience as this; all that I can pretend to do is to recall to your memories the facts of your own experience and to arrange, criticise and endeavour to explain those facts. *Ament meminisse periti.*

*Local signs.*—The chief local signs of acute peritonitis are three—pain, meteorism and ileus,—and to these I will, in the first place, direct your attention. But before I proceed I may remark that, with regard to the symptoms, both local and universal, of acute peritonitis, it would be possible to take the term "peritonitis" in the sense of any affection of the peritoneum, which is all that the word signifies, strictly speaking. The termination "itis" is a feminine adjectival suffix which has nothing to do with implying inflammation; peritonitis means no more than peritoneal, disease being understood. The symptoms of sudden inflammation of the peritoneum, of sudden hæmorrhage into the peritoneum and of sudden perforation of the peritoneum are essentially the same. However, I have not the slightest intention of using the word in any but its customary sense, and peritonitis shall mean, as it always has meant, inflammation of the peritoneum.

*Pain.*—Broussais speaks of pain as being the only pathognomonic sign of peritonitis. I fear it would be nearer the truth to say that there is no pathognomonic sign at all. Yet, however vague and uncertain a sign of disease pain may be, it often is, at the onset of peritonitis, our only guide to the locality of the affection, although an untrustworthy guide. The earlier physicians called the pain of peritonitis, colic; nor is it always easy, even in the present day, to distinguish colic from peritonitis. The symptoms associated with the pain do not always help. In some cases of mere colic (or intestinal pain), say lead colic, the abdomen is very tender to the touch, and the pain is not relieved, but is even increased, by firm pressure. Moreover, colic is sometimes a febrile disease, and for proof of this assertion I may again refer to lead colic; the temperature of some persons suffering from that disease will rise considerably and remain for days above the rule of health. The colic of indigestion is sometimes indistinguishable from an attack of peritonitis, until the threatening symptoms pass away with a free action of the bowels. But the most puzzling disorder of this kind which I have met with is the abdominal pain which sometimes accompanies the menses in young women. Pain, having all the characters of colic, is common enough about the menstrual period and causes no difficulty. Menstruation is not seldom a febrile process, and when this is all, we know with what we have to do. But when abdominal pain and fever are associated, when they precede the appearance of the menses by two or three days, when the patient shivers once or twice, vomits, lies with her knees drawn up, and when her abdomen becomes swollen, how can we at first have any doubt that she is suffering from peritonitis? Yet no sooner do the menses occur than all these symptoms disappear, and then how can we any longer believe that her complaint has been peritonitis? Not only does colic simulate peritonitis, but the reverse also is sometimes true, that peritonitis at the onset cannot always be distinguished from colic. The diagnostic difficulty may be met with, for instance, in peritonitis due to sudden perforation of a hollow viscus, especially the stomach or duodenum. In such

cases it often happens that the temperature of the body does not rise; and for some hours at least the pain has all the characters of colic pain, and there are no other distinctive signs. Still it may be that in contrasting thus the pain of peritonitis with the pain of colic we are seeking for a distinction where there is no real difference. Indeed, it is highly probable that the earlier physicians were often right, and that much of the spontaneous and paroxysmal pain of peritonitis is due to colic—that is to say, to vermicular contractions of the intestines much more powerful than usual. Surgeons tell us that when they open the abdomen in order to remove an ovary the intestines are seen to be at first in very active movement; and that these movements may be painful is proved by what we sometimes observe in intestinal tympanites, when the peristaltic contractions of the bowels can be seen through the abdominal walls, each contraction being attended by an unnatural sensation or by actual pain. Moreover, surgeons say that they can handle, cut and scratch the stomach or intestines of a man who is quite sensible and not cause in him any sensation of pain; but we cannot go so far as to affirm that an inflamed peritoneum may not be extremely sensitive to painful impressions. As to tenderness upon pressure of the abdomen, is it not a mistake to suppose that it is pressure upon the peritoneum alone which brings forth the pain? The skin also is tender, and is sometimes tender to the gentlest touch. In bygone days I have attempted to shave the head of a patient suffering from acute meningitis and have been compelled to desist on account of exquisite tenderness of the scalp. No question of pressure upon the membranes of the brain can arise under such conditions. Indeed, tenderness of the skin is apt to follow great pain of any underlying part. I have already remarked that simple colic may be accompanied by great tenderness on pressure; and I commend the consideration of these facts to those who find a difficulty in believing that leeches or blisters applied to the skin can possibly affect a deeply-seated part with which the skin has no obvious connexion.

**Meteorism.**—Leaving the topic of pain, I now pass on to the other local signs of peritonitis—namely, meteorism and ileus. The pain is in great part intestinal; meteorism and ileus are wholly such. The pain is in great part due to intestinal spasm; meteorism and ileus are due to intestinal paralysis. The hollow viscera with muscular coats are the only viscera which are directly affected by the peritoneal inflammation, and this affection takes the form of spasm or paralysis. Patients with peritonitis are often unable to pass their urine, whether from paralysis of the bladder or from inability to start the reflex act may be open to question; the latter is probably the more usual cause. But about the intestinal paralysis there can be no doubt. It manifests itself in its earlier and slighter degrees by meteorism or acute flatulent distension of the bowels. I do not speak of that peritoneal meteorism which is due to the escape of air into the peritoneal cavity in consequence of rupture of some part of the alimentary canal, but of that intestinal meteorism only which is secondary to peritonitis. Intestinal paralysis is no longer a matter of inference. Abdominal section nowadays often gives surgeons the opportunity of seeing how intestines which, when first exposed, were in active movement afterwards become exhausted and lie limp and motionless. This intestinal paralysis is not continual or not universal, for in patients whose abdominal walls are thin vermicular movements of the intestines, either spontaneous or produced by handling the abdomen, can be seen sometimes in spite of very great meteorism. But this is an exception to the rule. Usually no intestinal movements can be seen, and probably none occur or else they are too weak to show themselves. So we may suppose that the flatulent distension is due partly to relaxation of the intestinal walls and partly to weak peristaltic movement insufficient to pass the flatus onwards, a condition closely resembling constipation. This torpid meteorism, I just remark in passing, may be attended by great and constant pain—a fact which seems to show that the pain of peritonitis is due not altogether to colic or painful intestinal contractions, but partly to the inflamed peritoneum itself. Another proof that the intestines are not so utterly paralysed as might at first seem likely, or that the large intestine at any rate escapes, is afforded by the fact that natural defecation or even diarrhoea will accompany acute peritonitis. This was so in the epidemic disease which bereaved our College of a Fellow whose name no doubt remains in the memory of many here present; I refer to Dr. Francis Anstie. You will allow me briefly to repeat the story, which may be known to all. Fifty-two girls in the Royal Patriotic

School at Wandsworth were attacked within one week by a disease characterised by two main symptoms—namely, by lipothymia, with coldness and lividity of the face and limbs, and by great pain in the abdomen, which was tender also to the lightest touch. Four children died, and dissection of the bodies revealed peritonitis. One fatal case suffered from diarrhoea with rice-water stools, and was examined by Dr. Anstie. He pricked his finger and died six days afterwards, poisoned as if by a snake-bite. A remarkably similar epidemic, which occurred in a charity school for girls at Edinburgh, called the Merchants' Hospital, is described by Abercrombie. Peritonitis by itself would probably always be attended by the constipation of paralysed intestine; and surgeons note great constipation in cases of peritonitis following abdominal section. When diarrhoea concurs modern doctrine would lead us to infer the coexistence of an infection of the intestinal mucous membrane, especially that of the colon.

**Ileus.**—A higher degree of intestinal paralysis is marked by the state called ileus, a word which has been sufficiently constant in its meaning from the earliest times. It denotes disorder of an intestinal function—namely, of the peristaltic function—and implies inability on the part of the intestine to propel its contents. The kind of ileus which concerns us here is that which is due to inflammation of the intestines, or enteritis. I have already remarked that the term "enteritis" originally meant an inflammation of the peritoneal coat of the bowels. It was Broussais who most unwarrantably perverted the meaning of the word, and who used it to signify an inflammation of the mucous membrane of the intestine—one out of many instances showing the degree to which corruption of our technical terms has been carried. They who continue to use the word "enteritis" in its original sense do no worse than follow the example of Pemberton, Abercrombie, Graves and Watson. For those who desire a name to express inflammation of the intestinal mucous membrane the terms "eso-enteritis," "muco-enteritis," "enteritis mucosa" have been invented. The sign of ileus is vomiting becoming fecal. The father of physic has well described the course of events, the matters vomited being first mucous, afterwards bilious, and lastly fecal. Until the vomit became fecal, or at least porraceous (meaning thereby an appearance like chopped grass or spinach), it is impossible to affirm the existence of ileus. The concurrence of constipation is no help, and indeed, on the other hand, fecal vomiting may be attended by the evacuation of small loose stools, resembling in colour and other respects the pale, uniform, pasty intestinal contents found in cases of mechanical obstruction. I need not stay to bring proof that stercooral vomit may be due to obstruction in the ileum; and thus the question, formerly so much debated, of possible reflux through the ileo-cæcal valve loses its interest. Nor need I discuss the mechanism of fecal vomiting, or say more than that there is no evidence of inverted peristaltic movement of the intestines. If enemata ever become emetic, as Sydenham says they do, it can only be by absorption into the circulating blood, just as vomit may smell of turpentine after the use of that drug in a clyster. So that pain and the signs of intestinal paralysis are the only local evidences of acute peritonitis. It were much to be wished that the disease afforded physical signs such as are usually present in chronic peritonitis. Purulent discharge from the navel in acute peritonitis (just as in the chronic disease) indicates a circumscribed peritoneal abscess; in acute peritonitis the abscess is mostly connected with disease of the appendix vermiformis. I do not know that a suppuration of the whole peritoneum ever points at the navel or elsewhere; a form of disease so virulent as this kills the patient before the collection of pus has time to point. We open these local abscesses freely, and with much success; but with regard to total peritoneal suppuration, I will adopt John Hunter's words without change: "How far in such cases it might appear desirable to make an opening into the abdomen and throw in warm water repeatedly to wash away the matter I will not undertake at present to determine."

**Fever.**—Let us now pass on to consider the remote or universal effects of peritonitis; and first of fever. There is no symptom more uncertain than this, the temperature being sometimes high, and reaching 105° or more, usually but moderately raised; whilst in other cases there may be no fever at all, so far at least as can be judged by a thermometer in the mouth or axilla. This apyrexia is a remarkable symptom when present, as it sometimes is, from first to last in peritonitis the most intense and fatal. We are tempted to speculate upon the cause of so strange a phenomenon.

Whether an ordinary febrile poison be not produced by the inflammation, or whether an extraordinary febrile poison be produced, at present we cannot do more than note the fact. *Apæxia* sometimes becomes *algidity*—an important sign of the *lipothymial* state to which I shall soon refer.

*Puridity*.—More certainly due to an infection of the blood are the *putrid* or *septicæmic* symptoms which sometimes happen. When we bear in mind what Bichat pointed out, that the peritoneal cavity is a lymphatic sac with a most extensive absorbing surface and an extraordinary power of absorption, the wonder is that these symptoms do not occur oftener. I will illustrate this form of disease by the case of one of our students at St. Bartholomew's Hospital. He was running along the street and got a heavy fall, which was the only discoverable cause for the acute peritonitis that occurred within forty-eight hours. Delirium and diarrhoea were associated with the abdominal pain and vomiting of the first few days. On the sixth day he complained chiefly of pain in his joints; his feet and one shoulder were swollen and excessively tender. The skin over the feet, wrists and ankles was red in patches. His urine was highly albuminous, but no blood-corpuses or casts were found in the sediment. The diarrhoea continued; he lay in a state of typhomania—that is, of delirium with consciousness much impaired. He had a greater tendency to chills and occasional shivering than is usually met with in cases of peritonitis; the temperature varied between 102° and 105°, until a few hours before death, which occurred on the eighth day. At the post-mortem examination nothing was found but peritonitis and its results; its cause was not found.

*Lipothymia*.—I will next speak of that marked failure of the vital functions (that is to say, of the circulation, respiration and body heat) which very often accompanies peritonitis. It is a matter for surprise and regret that we have no term in common use to express this set of symptoms. No English word being precise enough, I suggest that we resuscitate the Greek word "*lipothymia*," to denote *defectio animæ*, this failure of the vital constitution, whether it be attended or not by *lipopsychia*, *defectio animi*, or failure of the animal constitution marked by coma, delirium, or both. Sudden *lipothymia* is syncope or swooning; syncope due to injury is shock. *Lipothymia* is manifested by a small, weak and sometimes irregular pulse, by weakness of the heart sounds, by shallow breathing, by lividity with pallor (deathly paleness), and by *algidity* or failure of the body heat—at least so far as the skin is concerned; the inner heat, as measured in the rectum, may or may not fail to a proportionate degree. In peritonitis (apart from perforation) *lipothymia* sometimes marks the whole course of the disease (witness the Wands-worth epidemic, to which I referred a short time since); and when to lividity, coldness of skin and a weak small pulse are added diarrhoea, with watery stools and suppression of urine, the resemblance to cholera is great indeed. But more frequently *lipothymia* occurs only towards the end of life, and then it may assume, so far as the body heat is concerned, the form of *lipyria* (another ancient word which might be revived with advantage)—that is to say, while the skin, especially of the limbs, is quite cold, the temperature of the inward parts, as measured by a thermometer in the rectum, is much above the normal; it may be 105°—a very bad prognostic sign in all acute diseases, and a plain proof of the extreme weakness of the circulation. Another sign which sometimes attends this final *lipothymia*—this mortal agony or struggle with death—a sign which has attracted the notice of physicians from the earliest times—is the disappearance of pain and suffering whilst the patient remains perfectly conscious; yet all the symptoms of vital failure persist, and he only whose attention is fixed upon the local signs to the neglect of the prognostic condition of the whole patient can be surprised by what will seem to be a sudden and unexpected death. It were curious to inquire into the causes of this cessation of pain, whether it be due to cessation of cramp, whether an anodyne poison be produced in the course of the disease, whether the *lipothymia* arrests the nutrition of the nerve endings, or whether the sensorium for pain be similarly affected; but I will say no more than to remind you, Sir, that an honourable predecessor of yours in that honourable chair—Sir Henry Hallford—once read before the College an essay dealing with this very topic. Still more remarkable, although much less common, is the case of peritonitis attacking a healthy person, *lipothymia* supervening in the course of a few hours from the beginning, and any local signs of abdominal disease disappearing at the same time. The patient when first seen makes little or no complaint of the abdomen; it is not

swollen and can be pressed deeply without causing pain; but the skin is cold, the heart beats very frequently, no pulse can be felt at the wrist, the respirations are very frequent, and the secretion of urine is suppressed. The mind is affected little or much. The patient dies on the first or second day of illness. At the post-mortem examination acute peritonitis is found, but not necessarily perforation of the peritoneum or disease of any other abdominal structure.

*Facies*.—The last sign of acute peritonitis which I shall notice is that afforded by the look and expression of the face. These signs and such as those which constitute the prognostics so much trusted by the earlier physicians can be learnt in no other way than by a long familiarity with disease. If I allude to the countenance which still goes by the name of "*facies Hippocratica*," it is only to remark that Laennec has endeavoured to walk in the footsteps of his great predecessor and to depict an expression of face often seen in peritonitis and other severe abdominal diseases. This peculiar look, which he calls "*face grippée*," is due chiefly, if not wholly, to the features being drawn upwards, so that the forehead is more or less wrinkled, and the naso-labial furrows are drawn inwards and upwards towards the root of the nose and inner canthi of the eyes. I have compared Laennec's verbal picture with the living patient, and have found it to be true to nature—but not universally true, not present in every case of acute peritonitis. Indeed, I think that the *face grippée* denotes abdominal pain, and that it usually disappears with the pain, although the disease continues. But we must admit that the local suffering and signs of disease may be very small, and yet the onset of peritonitis be denoted by a profound change in the expression of the patient's features. Surgeons remark this change when an operation is followed by peritonitis; physicians, also, when a perforation occurs in the course of typhoid fever.

*Latent peritonitis*.—Now a few words concerning latent peritonitis. I have already spoken of peritonitis which is latent in respect of its local signs only; peritonitis in which universal signs of disease—those, namely, of alarming *lipothymia*—predominate to the exclusion of abdominal symptoms, the patient being killed in a day or two as if by the operation of a powerful venom. But peritonitis may be altogether latent, and manifested neither by local nor by universal symptoms—a form which is deuteropathic, intercurrent in the course of other serious disease, such as ascites, renal dropsy, empyema, pyæmia, or typhoid fever, the peritoneal inflammation being revealed by the post-mortem examination only. What surprise we may feel at this latency diminishes when we reflect that the signs of peritonitis have little or no relation to the peritoneum, but depend upon disorder of other viscera, adjacent or remote. Suppose the onset to be marked by vomiting, what is there distinctive in this? In what disease does vomiting not occur? Is not the stomach the great sympathiser with distress in any part of the body? Add some pain in the abdomen, and how does this help us? Possessing no direct physical signs of peritonitis, and being compelled to rely upon indirect disturbance of the functions of other viscera (for the peritoneum itself has no manifest functions), we cannot expect to discover the presence of peritonitis in cases such as these.

*Types*.—After analysing the symptoms of peritonitis I might endeavour to arrange them so as to form concrete pictures of patients suffering from that disease; but I will say no more than this, that according as one or other symptom prevails, so does the appearance of cases of peritonitis differ, and the differences are so great that we have to admit divers forms or types of the disease. We cannot manage with fewer types than three—namely, peritonitis characterised by pain, or by ileus, or by *lipothymia*; for peritonitis discovered only after death cannot be admitted to be a form of disease as looked at from my present point of view. A given case of peritonitis is by no means necessarily constant to one type throughout; for instance, painful peritonitis may pass into ileus, and, moreover, the local and universal symptoms may be variously mixed. But the only reason I have for referring to facts so obvious is to be assisted by these types in comparing the signs of acute peritonitis with the signs of other peritoneal affections, which I will now proceed to do.

*Chronic peritonitis*.—Peritonitis, which is essentially chronic in its course, sometimes sets in suddenly, and thus resembles at first the acute disease. This is often observed in the commonest kind of chronic peritonitis, the tuberculous, when, as I suppose, a sudden infection of the peritoneum takes place. The forms assumed by this acute onset of tuber-

culous peritonitis are the same as those I have just discussed. That most often met with begins with pain, vomiting and sometimes diarrhoea, and is followed in a few days by meteorism, which may become very great. Lipothymia in a high degree may attend the choleric symptoms. The least common type, which assumes the form of ileus, deserves especial notice on account of its close resemblance to mechanical obstruction of the bowels—a resemblance so close that abdominal section has been performed in such a case under the notion that the patient was suffering from a strangulated hernia.

*Hæmorrhage into the peritoneal sac* is another form of peritoneal disease in which we meet with these same types. The painful form is well illustrated by the case of "a woman, aged twenty-nine, who was brought to the hospital in a most alarming condition, although her illness had not lasted longer than a few hours. She had been suddenly attacked by great pain in the lower part of the abdomen, and the pain had steadily increased. She had the *facie grippée* and was deadly wan, her breathing was short and frequent, interrupted by hiccough, her pulse hurried and very weak, her abdomen distended and tender. She died within forty-eight hours from the beginning. At the post-mortem examination there were found in the peritoneal cavity nearly three pints of liquid blood which had come from one of the Fallopian tubes; no peritonitis." How peritoneal hæmorrhage may be attended by ileus is shown by the case of a man, aged twenty-two, who was admitted into St. Bartholomew's Hospital in an extreme state of shock following a fall off the tailboard of a van in motion. He complained of great pain at the pit of the stomach, and soon after the injury he began to vomit incessantly. On the second day the vomiting continued to be very frequent. He had a great desire to defæcate but passed nothing; his abdomen was very hard and tender; the urine was suppressed; his temperature was 99°6'. On the third day he was worse. Abdominal section was performed. The peritoneum was found to be full of dark liquid blood; nothing more was discovered. On the fourth day he died; the blood came from a rent liver.

*Perforation of the peritoneum.*—A much more common acute affection of the peritoneum is that which I mention in the last place—namely, perforation or rupture of the wall of a canal or cavity or hollow viscus, and escape of its irritant contents into the peritoneal sac. When we seek to classify cases of this kind we come upon the three or four types of which I have already so often spoken—the type characterised by pain, or by ileus, or by shock, and the latent type. But before depicting them let us ask whether peritoneal perforation yields any peculiar physical signs? None, unless peritoneal tympanites ensue; and this depends, of course, upon the perforated cavity, whether it contain air or not. In the case of peritoneal tympanites, physical examination usually affords more or less probability of the presence of air in the peritoneal sac, but seldom an absolute certainty. The distension of the abdomen is often very great, and greater in perforation of the intestine than of the stomach; when the distension is very great, the skin is tense and shining to a degree seldom seen in intestinal tympanites. Visible coils of intestine or vermicular movements are decisive evidence of intestinal tympanites. Absence of the liver dulness to percussion is a useful, but not altogether trustworthy, sign of peritoneal tympanites; for when the intestines are extremely distended with air they may come to lie between the liver and abdominal wall in front, and I have known this to happen even when the liver was enlarged to twice its natural size. On the other hand, adhesion of the liver's convex surface will obviously prevent the disappearance of its percussion dulness, even though the peritoneal cavity be full of air. The signs afforded by auscultation are less important, because they are common to all great accumulations of air within the abdomen, whether contained in the stomach or intestines, or free in the peritoneal cavity. The chief sign is the bell sound discovered by Laennec. In his "Auscultation Médiate" he says that by percussing lightly, and at the same time applying the stethoscope near by, we shall hear a silvery resonance—clearer, he thinks, in peritoneal than in intestinal tympanites. I cannot do more than just mention the other auscultatory signs of a large air-containing cavity, and which are sometimes present in peritoneal tympanites—namely, an amphoric quality in the respiratory sounds heard over the abdomen, metallic tinkle, and succession splash. A valuable sign is yielded sometimes by an escape of air into the cellular membrane of the abdominal walls; this fact, also, is alluded to by

Laennec ("a sort of dry crackling is felt upon pressure," he says), and is, taken together with the signs aforesaid, peculiar to peritoneal tympanites as contrasted with the intestinal; or the subcutaneous emphysema may be still more extensive. To conclude this topic of physical signs, I will remark that, although their presence is a great help to diagnosis, their absence proves nothing. Perforation of a part of the alimentary canal (for instance, the appendix vermiformis) may occur, may be followed by acutest peritonitis, and yet may be unaccompanied by peritoneal tympanites; nothing escapes from the rupture but offensive and poisonous pus.

With respect to the symptoms of peritoneal perforation, all cases may be referred to the four types so often spoken of—those characterised by pain, or by ileus, or by shock, and those not characterised at all, the disease being latent—latent, that is to say, so far as concerns the diagnosis. First of perforation characterised chiefly by pain. A lady had niled for some time from pain in the stomach and the side, but she seemed to be otherwise in good health. One day after dinner she complained several times of pain; she drank some succory water as a stomachic, and, putting the cup down with one hand, with the other she pressed her side, and said in a voice which betokened much suffering: "Ha! what a stitch in the side; what pain; I cannot bear it." Speaking these words she flushed, and a moment afterwards turned pale, with a wan lividity which astonished everybody. She kept crying out and begged to be carried away, for she could no longer hold up. Supported by the arms of others, she managed to walk, but with difficulty and bent double. Put to bed, she cried out more than ever that the pain at the pit of the stomach was past belief; she tossed from side to side. A physician was fetched, who pronounced her complaint to be colic and prescribed suitable remedies; but the pain continued; she said that her suffering was greater than could be conceived, and that she would die. All this occurred in less than half an hour. Whatever she swallowed made her retch; she brought up only a little mucus mixed with food. The efforts to vomit and the excessive pain threw her into a state of exhaustion which resembled repose; but she told the bystanders not to deceive themselves, that the pain was as great as ever, and that she had no strength left to cry out. She heard someone remark that she was easier, and she said; "That is so far from being true, that were I not a Christian I would kill myself, so great are my sufferings." It is wrong to wish evil to any," she added, "yet I would that somebody could feel for a moment what I feel, so as to know what my pain is like." Her pulse became imperceptible (*retiré*), her limbs cold. Her friends anxiously asked if nothing more could be done; they suggested a score of remedies, and, at last her physicians, in sheer desperation, made an attempt to bleed her, but the blood would not flow. They gave her some broth, for she had taken no food since dinner. She no sooner swallowed it than her sufferings (if not her pain) increased; she complained that her stomach was filling up. Death was painted on her face; the last struggle was short, and after two or three convulsive movements about her mouth she died nine hours from the beginning of her illness. Would you not suppose that I have set before you a living picture in words, taken from the pages of a modern Aretæus or of Sir Thomas Watson? or have you already recognised that I have been reading an account of the last hours of King Charles I.'s daughter, Henrietta, Duchess of Orleans—an account written by one of her ladies in waiting, Madame De La Fayette, 150 years before ulcer of the stomach was discovered, so we may say, by Cruveilhier? That the patient died from perforation of such an ulcer was proved by examination post mortem, although her physicians did not understand what they saw, and it was left for Littré to explain the real nature of her illness. I have always thought that reports of the kind just read, drawn up at the bedside by persons of keen intelligence, but with no medical knowledge, are of great value. Such reports are true to Nature, for the reporters have no preconceived notions of discolour and distort the appearances of things. Moreover, these observers see the sufferer and nothing else; but we physicians, on the other hand, in our eagerness to discover abstract signs of disease and to arrange them into that wholly artificial notion which we call the diagnosis, are apt to overlook the patient. The physicians of Madame said that she was suffering from colic, and that a wretched pulse and cold limbs such as hers were common in that disease. I likewise have stood by a patient writhing under the throes consequent upon perforation of the stomach or duodenum, and have asked myself whether there was anything either in the pain or its con-

comitants which might not occur in intestinal colic, and have been compelled to admit that there was nothing. This difficulty in diagnosis is not to be wondered at if the pain be, as is very likely, in great part due to cramp or painful spasm of the intestines and stomach and perhaps of the abdominal walls also. Yet our diagnosis may reach a high degree of probability under such conditions as these. The ruptured organ being more often either stomach or duodenum than any other; there may have been some forewarning symptoms of ulcer of one of those parts, the perforation occurring suddenly, so does the pain, and especially after a full meal or an effort or both. The very acid contents of the stomach poured into the peritoneal cavity are excessively irritant and the pain is violent in proportion, being far beyond the pain whereof the sufferer has had any experience or conception. The abdominal walls are contracted, tight, and hard, and often very tender. The pain will continue without remission to the end, or will cease altogether, or will only diminish—as I said when speaking of acute peritonitis. The associated symptoms may or may not assist the diagnosis. Vomiting—often present—is sometimes absent. Some have thought that it is absent in perforation of the stomach especially, but the exceptions to this rule, if it be a rule, are many and of both kinds—namely, rupture of the stomach attended by vomiting and rupture of a part not stomach, yet unattended by vomiting. Peritoneal tympanites will ensue if gas escape into the abdominal cavity; but gas does not always escape, even when some part of the alimentary canal is ruptured. Shock attends the rupture, and usually the lipothymia persists to the end. When perforation occurs in the course of a febrile disease defervescence is often a marked sign of shock. Suppression of the secretion of urine is common, and seems to be sufficiently explained by the vomiting and the lipothymia, and their necessary consequences—defective absorption and secretion.

The second kind of perforation—that characterised by ileus—is less common, and occurs especially in disease of the appendix vermiformis. The discharge of virulent offensive matter into the peritoneal sac seems to stun the intestines; they neither feel nor move. A woman aged twenty-two was admitted into St. Bartholomew's Hospital on March 8th. She had taken, on the 5th, jalap and castor-oil to relieve her habitual constipation. The bowels acted soon afterwards three times. Otherwise she was, so she and her friends averred, in perfect health and quite free from pain or indications of disease in the abdomen or elsewhere. Her menses, due on the 5th, did not appear. On the 6th vomiting began, and it continued at intervals up to the time of admission. The bowels had not acted. She was admitted on the evening of the 8th, and one of my surgical colleagues, who happened to be at the hospital at the time, came straight to my house and told me that a woman with obstruction of the bowels had just been sent in to be under my care, and he thought that the question of operation arose. We obtained the assistance of another surgeon and went to see her. We found a woman with no look of suffering, with a warm skin, a temperature of 99° 2' in the armpit, and with no symptoms of failure of the vital functions unless indicated by a pulse of 144, which was, however, by no means weak or small. The abdomen was fat and moderately distended, the muscles were tight, but there was no tenderness excepting about the right loin; the right iliac fossa was carefully examined, but nothing could be felt. Examinations *per vaginam*, *per anum*, and for hernia detected nothing wrong. An enema had brought away fæces. She vomited dark green liquid without smell. The urine was scanty; it contained a trace of albumen, was turbid with scaly epithelium and highly granular cylinders like renal tube casts, but there were no exudation corpuscles. The abdomen was opened; thin purulent liquid escaped, the small intestines were distended and purplish brown in colour. Examining the appendix vermiformis, we found a sloughy hole at its insertion into the cæcum, the rest of the appendix much dilated, its lining membrane ulcerated and granular throughout, the outer surface covered with lymph. She died two or three hours after the operation. Nowhere was there any anatomical obstruction of the bowels.

Between this form of disease and painful febrile peritonitis there are all possible varieties in respect of association of symptoms, the ileus being attended by more or less pain, tenderness, and fever. Peritoneal tympanites is often absent, any distension of the abdomen being due to acutest peritonitis, to intestinal tympanites, and inflammatory liquid effusion.

The third kind of perforation is characterised by shock. In some cases, particularly in rupture of the stomach or duodenum, the shock kills within a few hours, and may be justly compared to the effect of a blow upon the pit of the stomach, though why the shock of abdominal injury should be so especially profound I will not undertake to explain. In other cases the patient lives a day or two, yet never rallies. A man, forty years of age, who was under treatment for a chronic ulcer of the stomach, became suddenly, at eight o'clock one morning, pale, pulseless, and delirious (lipopsychia); he had evidently undergone a great shock. Throughout the day he continued to be delirious; consciousness never fully returned. Considerable reaction took place; his skin became hot, his pulse full and frequent; he retched a little, but did not vomit. The same night he became comatose, and so died at eight o'clock next morning. I regret being unable to say whether the urine was suppressed or not. On examining the body the ulcer was found to involve the pylorus and to have perforated on the duodenal side thereof. The contents of the stomach were in the peritoneal cavity, but there were no signs of peritonitis, neither excessive vascularity nor exudation of lymph. This kind of perforation closely resembles other abdominal diseases in which lipothymia predominates. You, Sir, have remarked how perforation of the duodenum will simulate Asiatic cholera in its algid stage; the physicians who attended the Duchess of Orleans came finally to the opinion that she died of cholera morbus; and Dr. Wm. Sedgwick has discussed this topic very fully with especial reference to the suppression of urine.

Lastly, the perforation may be latent; that is to say, unattended by any symptoms adequate to the diagnosis. Not that symptoms are utterly wanting; this is seldom the case; there are more or fewer of those so often mentioned—pain, vomiting, lipothymia and the rest—but they are rendered obscure by occurring in the course of a disease marked by no less serious disorders. The contrast between a person when in good health and when suffering from perforation of the peritoneum is great indeed; but when a patient has been exhausted by four or five weeks of severe typhoid fever, the occurrence of perforation may be a comparative trifle so far as symptoms are concerned; a little pain in the abdomen, a little vomiting, attracts no attention. Or there may be no pain, no tenderness, no vomiting; nothing but a sudden defervescence. Or, again, a change in the patient's look is sometimes the chief sign. During a state of typhomania, in particular, the gravest intercurrent lesions often happen unsuspected. But perforation, latent so far as symptoms are concerned, will sometimes yield one or more of the physical signs of peritoneal tympanites. For instance, in the later stage of typhoid fever, a rapid and great distension of the abdomen, such as to stretch the skin and make it shine and attended by disappearance of the liver dulness to percussion, is a tolerably trustworthy token of intestinal perforation, and is sometimes the only token. The liver dulness may disappear before the abdomen becomes distended.

*Incision for the purpose of diagnosis.*—To conclude by referring once more to puncture of the peritoneum as a means for ascertaining the presence of inflammatory effusion. A small incision would seem to be justified by conditions such as these: First, the patient is suffering from acute peritonitis, and the indications of poisonous infection of the blood are becoming more and more marked; or, next, there are reasons for believing that perforation of the peritoneum has occurred. In either case, unless we can bring relief, the patient must die. A small incision will not make him worse; nay, to drain the peritoneal cavity affords a chance of recovery; the only objection lies in the natural dislike to an operation, however small.

I wish I could believe that chloroform sleep did no harm, but I fear that this drug has a depressing effect upon persons suffering from acute peritonitis. However, suppose a small incision made, and we find that the peritoneum contains pus or air, beyond simple drainage two further courses lie open to us; we may follow John Hunter's suggestion, and wash the abdomen out with warm water, a proceeding more serious than simple drainage, or we may enlarge the incision and search for the cause of the peritonitis, a proceeding highly dangerous, for you will, I think, agree with me when I say that operations of this kind have seldom any other effect than to hasten the patient's end. A simple puncture, if it does not save the patient's life, will at least bring the satisfaction of knowing that the nature of the disease has not been misunderstood

## THE ETHICS OF OPIUM AND ALCOHOL.

THE ANTI-OPIUM CIRCULAR TO THE MEDICAL PROFESSION OF GREAT BRITAIN AND IRELAND.

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"The falsehood of extremes."—TENNYSON.

THE Anti-opium Circular was issued in 1891, and a copy of it was sent to me. After careful perusal it appeared to me to be so inaccurate, sensational, and undeserving of serious notice from a professional standpoint that I put it aside. I subsequently had to notice it, and denounced it as a most "mendacious production." I have, in consequence, been requested to state on what grounds I based my charge, and this I shall now proceed to do, another copy of the paper having been courteously sent to me by one of the signatories, together with a list of the signatures to the circular.

The document commences by stating that "two things are sought: one that the Government of India should cease to foster the cultivation and sale of such a drug as opium for mere purposes of revenue; the other that the drug should be dealt with throughout India by classing it among the poisons and having it sold as such." These recommendations were formulated in four propositions, on which the medical profession was requested to express an authoritative opinion. Each of these I shall consider separately, before I conclude my reply to the challenge.

The above conditions conclusively render it an Indian and medical question; hence I shall treat it strictly as such, all collateral conditions notwithstanding. Indian questions, particularly those which refer to the actions of its Government and their influence upon the vast populations ruled by it, necessitate personal knowledge and experience only to be acquired by residence in India. Yet I find, in examining the signatures to the paper, that three out of the four gentlemen who signed it acquired their knowledge and experience of the drug in China as medical missionaries, and one only was a direct representative of India. It is needless to say that India and China have nothing in common as to their governments, ethnology, manners and customs, and all the collateral conditions which enter into the lives of the vast populations inhabiting them. There is no comparison possible between conditions so absolutely different. The gentlemen from China having signed and put forth a statement based upon an entire lack of personal acquaintance on their parts with the question as respects India in its fiscal, physiological and social relations, their opinions are not, in my opinion, entitled to be treated as authoritative in the determination of the views they advocate. I have searched in vain through the list of signatures, printed as a declaration of opinion, for a single leading representative of the medical profession in India as a supporter of the views contained in the Circular. It was also, I think, an unfortunate omission not to intimate, in connexion with their signatures, the *locus standi* in the arraignment of the Government of India, of the medical missionaries of China.

The medical profession itself is not, I submit, a fit tribunal to pronounce judgment, even from a professional point of view, on the question as contained in the appeal submitted. Beyond singularly erroneous statements of the evil influences said to be caused in India by the manner of dealing with the opium provided for its subjects, there is not a particle of medical or physiological proof adduced in support of those statements, as I think I shall be able to show. When there is tacked on to the statement of one opium cultivator demoralising a whole village, "being as true of India as of China." I cannot consider it as authoritative until the name and position of a single village so circumstanced are produced. To test the assertion I submitted it to an officer of the opium department who has served in that department for twenty-one years, and who was at home on furlough. He is in charge of the Gya and Tetah district, which is 345 square miles in extent, has 31,000 acres under poppy cultivation, yielding 5000 maunds of opium, and employs a body of 130,000 cultivators. During the whole of his service he has not seen a single opium drunkard either at the time of weighing, or in the district, and asserts positively that crime connected with opium is unknown among them, and that the most orderly villages in the district are those occupied by the opium culti-

vators or in their vicinity. The cultivators themselves are mostly confined to three castes of Hindus who never touch opium; and none of the cultivators can sell any opium surreptitiously to the inhabitants of the villages, for they are too poor to purchase it. The alienation of any portion of the crop would, moreover, be at once detected when the outturn is weighed and paid for. The officer in question has authorised me to make use of his name if I think fit.

Another statement equally open to question is that "the Government of India having already reduced the extent of the cultivation of opium by 100,000 acres, which was done neither at the call of, nor with any remonstrance from its people, but solely in connexion with the fluctuations of its trade with China, there is no question of its power to put down the cultivation over the remaining 400,000 acres now occupied with the poppy, just as easily as it put it down over the 100,000 acres. It is simply a question of revenue." It is to be regretted that any officer who has served in India should so thoroughly misunderstand the real bearings of the question. The Government of India could no doubt, if it were sufficiently ill advised to do so, exercise an overpowering despotism over any social proceeding of its own subjects; but there has never existed in any history with which I am acquainted a more thoroughly conscientious ruling power in dealing with the wants and wishes of those subjects, and in respecting their religious beliefs, habits and customs. In its fiscal and financial proceedings it is guided by other considerations which it would be absurd to discuss upon such grounds as are contained in this polemic. The component parts of the Indian empire have so few interests in common, and the people are so absolutely unacquainted with all combined action for political purposes, as to render the mere mention of the matter a crucial test of the unwisdom of its suggestion.

Now, how far, in what sense, and for what purpose does the Government of India foster the cultivation of opium for the use of its own subjects? Certainly not for the mere purpose of revenue, but to restrict the use of opium as far as may be accomplished by charging the maximum price that can be obtained, without promoting smuggling or contraband in any form. This policy has never been departed from. In support of the anti-opium contention, a single sentence of the evidence of the late Sir Cecil Beadon before the Finance Committee of the House of Commons, has been separated from the general and lengthened examination to which he was subjected. In this manner an entirely erroneous impression is given of his views and of the action of the Government in the restriction of the sale of opium in India. When asked to state whether the use of that drug was injurious to the character of the cultivators, Sir Cecil Beadon said that it was not injurious. He also said that they were as fine and healthy a population as in any part of India; that he had been a great deal among the poppy cultivators of Behar, and considered them a very healthy race, and never saw any of them suffering from the use of opium. He also said that, as far as his knowledge went, opium was not as injurious as alcoholic stimulants. Sir Frederic Halliday, the first Lieutenant-Governor of Bengal, before the same committee of the House of Commons, concurred in the statements of Sir Cecil Beadon on the fiscal and social relations of the opium sold by the Government.

Another confident statement of the counterblast is, if possible, more mischievously inaccurate. It is that "as a result of the facilities afforded by the Government for the opening of opium shops and for the free purchase of opium by all and sundry, the habits of opium smoking and opium eating are very rapidly growing among our Indian fellow subjects, and it need hardly be added that the effects of such indulgence are both moral and physical debasement. Neither can it be denied," continues this erroneous appeal, "that the free sale of opium opens the door in India, as in China, to innumerable acts of suicide, and, still worse, to the widespread inoculation of children with the opium habit from the practice of the mothers using it to narcotise their children while they are at work." Not a single authentic figure or fact in support of the accuracy of any part of this statement has been produced; and, if it can, is it possible to show that whatever increase there may be is in greater proportionate extension than the marvellous increase of the population shown by the late census? Opium smoking is not an Indian vice, and is comparatively little resorted to. That there has been an increase of opium eaters is probable. What proof is there, then, that any widespread moral and physical degradation has been the

result in British India of the opium habit? If such proofs exist, I am unacquainted with them, and have failed to discover them. I have in a former paper shown that among more than 300,000 prisoners in Bengal there was no record of crime due to opium, and no disease attributable directly to the same cause. There was an equal absence of insanity.

Among the Chinese residents in Calcutta, some 600 in number, I never in the many years I lived amongst them saw an emaciated opium drunkard, and the same is true of the up-country colony of Calcutta, now, and probably then more than 1700 in number. The opium agent of Gya, to whom I have referred above, in his twenty-one years' experience has never seen one, among the many thousands of cultivators who came under his personal observation.

And now as to the physiological effects of opium consumption in India. In the scientific investigation of the matter made by Mr. Vincent Richards at Balasore, in the Province of Orissa, which contains approximately a population of 5,720,000 souls, he estimated that 1 in every 12 or 14 of the population uses the drug, and that the habit is increasing. Of the 613 opium eaters examined by him, the average age of commencement of the habit was twenty to twenty-six years for men, and twenty-four to thirty for women. Of this number 142 had practised it from ten to twenty years, 62 from twenty to thirty years, and 38 for more than thirty years. The majority took opium twice daily, from two to forty-six grains, the larger doses the exception, the average being from five to seven grains daily. The dose when large had been increased from the beginning; when small there was no increase at all. The causes of increase were disease, example, and a belief in its aphrodisiac powers. The diseases were chiefly malarious fevers, dysentery, diarrhoea, hæmoptysis, rheumatism and elephantiasis. A number began the practice in the famine year 1866, as it enabled them to exist on less food and mitigated their sufferings. Others used it to enable them to undergo fatigue and to take long journeys. Dr. Richards concluded that the excessive use of opium by the agricultural classes, who were the chief consumers, is very rare indeed in Orissa. Its moderate use may be, and is, indulged in for years without producing any very decided or appreciable effect, except in weakening the reproductive powers, the average number of children of opium eaters being 1.11 after eleven years of married life. This (the opium habit) compares favourably as regards crime and insanity with intoxicating drinks. The inhabitants of Balasore are a particularly law-abiding race, and the insane form only 0.0069 per cent. of the population." Brigade-Surgeon Dymock of Bombay (Western India) concurred in the above view regarding the moderate use of opium, and believed that excessive indulgence was confined to a comparatively small number of the wealthy classes. Sir Wm. Moore, a most competent and reliable observer, had similar experience after long residence in Rajputana. Another of the best authorities on the subject was of opinion that the spread of the habit was in part due to the prohibition among Mahomedans of the use of alcohol, and to some extent to the long religious fasts of Buddhists, Hindus and Mahomedans, in which it is used to allay hunger and to prevent exhaustion. I myself have known Mahomedan patients in my wards, almost *in extremis*, to refuse to take any medicine in which they were told there was alcohol.

Early in the present year a meeting of the Calcutta Medical Society was held, at which the effects of the habitual use of opium on the human constitution were discussed. At this meeting Surgeon-Lieutenant-Colonel Crombie narrated visits which he, with other medical officers and three non-professional gentlemen, had made to several opium dens in that city. The places seen were orderly and well conducted, the chief of them being as quiet as a prayer meeting. The opium eaters were healthy, strong, intelligent men with one or two exceptions; and some of them had been opium eaters for years without showing any signs of degradation and debasement from it. Indeed, they were noted as an unusually bright, intelligent lot, with "broad frames, bravery muscles and healthy, pliant skins." So long as a man had sufficient food, the general impression of the opium eaters was that the opium eating did not do him any harm. The users of opium scouted the idea of opium consumption being as harmful as alcoholic excess. "Look at us," they said; "you find us here, after two or three hours of opium smoking, sitting and talking quietly; if we had been drinking we should have been quarrelling and fighting"; and the gentlemen who visited them agreed with this opinion. Surgeon-Lieutenant.

Colonel Crombie smoked an opium pipe, prepared *à la Chinoise*, and it had no effect upon him. In one opium shop only was any sign of unhealthiness seen. In this, which was patronised by a lower order of customers, the opium smoked was a watery extract called Mandat. Of the smokers, two looked decidedly ill, emaciated and cachectic. One of them had smoked Mandat for twenty, and the other for fourteen years. One only showed signs of intoxication, and he was a regular visitor and always went away muddled. One man, of about fifty-four years of age, healthy looking and robust, said he had smoked Mandat for thirty-five years without any harm.

I have not seen the text of the discussion referred to, but if this deeply interesting report contains, as I believe it does, a fair sample of the opium saloons of Calcutta, how can it be reconciled with the contention of the counterblast? Dr. W. J. Simpson accompanied the writer on the last visit to the Mandat shop, and both the visitors were surprised at the readiness and intelligence of the opium smokers, in discussing the question of the evils of the habit. The servant of the shop said he had smoked Mandat for fourteen years, but gave it up six months before, and took to opium eating with benefit.

If the Government of India could see its way to order a general inquiry into the assertion of the widespread evils alleged by the anti-opium agitators to exist at present, un-mixed good would be the result, in whatever direction the careful collection of the facts pointed. The late Surgeon-General Edward Balfour of Madras wrote that he had seen many smokers of the extract of opium, and that he had purposely sat among them on prolonged occasions in an opium saloon at Madras, and that he had also seen in India numerous children and grown-up people under the influence of opium without any resulting evil.

The most crucial example of all is, however, the province of Assam, which has been regarded as a reproach to the Government in the matter under consideration. When made over to us by the treaty of Yandabu in 1826, the lower grades of its diminished population, from the cruelty and oppression of its Burmese masters, were in a deplorable physical state, which may in some measure account for the general abuse of opium that then prevailed. To the ill-fed, ill-clothed, half-starved dwellers in conditions of malarious exhalations of the most deadly character, opium would be a source of comfort and consolation which no other means could supply. When, therefore, in due time, the cultivation of the poppy was interdicted, the order was not vigorously carried out from motives of mistaken humanity and from an ill-founded belief that the disuse of opium could not be effected without serious risk to life. A preparation called "Kaneec," obtained from an indigenous poppy grown in their gardens, was quietly allowed, and I will give the history of it in the words of the distinguished writer who has kindly given me the information, which is as follows. "When the poppy head has arrived at the proper maturity, incisions are made in it, and a narrow bandage of fine soft cotton-rag is wrapped round the head. When the rag has absorbed all the juice of which it is capable it is unwound, dried, and put by for use. This is kaneec, and I believe I may say, with hardly any exaggeration, that every true-born Assamese man, woman and child consumed it, cutting off bits of the rag when they felt a call, and chewing them as sailors do tobacco. The baby got it to suck with its mother's milk, and so it came about that every child was reared on kaneec and grew up a kaneec eater. After I took charge of the Assam Agency I waged a fierce war against this illicit kaneec cultivation, and then when, as a consequence, the demand for the Government opium (which had previously been slack) increased, I increased its price by 'leaps and bounds.' When I left Assam infants were no longer fed on opium, its use by women had much gone out of fashion, and the adult male population could no longer indulge in it *ad libitum*, and had to do honest work to procure the means of indulgence. I need not deny that there was a large increase of opium revenue, but it was an increase measured by the moral and physical improvement of the people."

This graphic and truthful picture places in a very different light the principles under which the Government act to the interpretation of them given in the Anti-opium Circular. Maharaja Narendra Krishna, with whom I was personally acquainted when in India, says that many elderly and old Hindus take opium, and that not a few young men wean themselves from drinking habits by betaking themselves to it. When taken by the camel drivers in the sandy

deserts of Western Rajputana it enables the men to subsist on scanty food and to bear without injury the excessive cold of the desert winter nights, and the scorching rays of the sun. Opium acts in Rajputana as a preventive of malarious fever. The late eminent surgeon, Sir Benjamin Brodie, was of opinion "that the effect of opium when taken into the stomach was not to stimulate, but to soothe the nervous system. It might be otherwise in some instances, but these were rare exceptions to the general rule. The opium eater," he added, "was in a passive state, satisfied with his own dreamy condition while under the influence of the drug. He was useless, but not mischievous. It was quite otherwise with alcoholic liquors." Has an opium eater ever been found to have knocked out his wife's brains? Is that civilised proceeding altogether unknown to the alcoholic drunkard at home?

I cannot better conclude this brief *résumé* of the most reliable views upon the moderate use of opium than with the impartial summing up of one of the best authorities on the question. "So far as can be gathered from the conflicting statements published on the subject, opium smoking may be regarded much in the same light as the use of alcoholic stimulants. To the great majority of smokers who use it moderately it appears to act as a stimulant and to enable them to undergo great fatigue, and to go for a considerable time with little or no food. According to the reports given by authorities on the subject, when the smoker has plenty of work it appears to be no more injurious than smoking tobacco. When carried to excess it becomes an inveterate habit, but this happens chiefly in individuals of weak will power, who would just as easily become the victims of intoxicating drinks and who are practically moral imbeciles, often addicted also to other forms of depravity. The effect in bad cases is to cause loss of appetite, a leaden pallor of the skin and a degree of leanness so excessive as to make its victims appear like living skeletons. All inclination for exertion becomes gradually lost, business is neglected and certain ruin to the smoker results." How is it with the same class of alcoholic drunkards?

(To be concluded.)

## TUBAL MOLES AND TUBAL ABORTIONS.<sup>1</sup>

By J. BLAND SUTTON, F.R.C.S. ENG.,

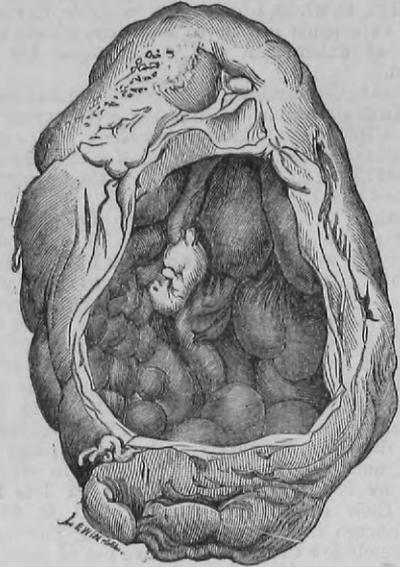
ASSISTANT SURGEON, MIDDLESEX HOSPITAL.

In a paper read before the Royal Medical and Chirurgical Society<sup>2</sup> I drew attention to the fact that the ovum in a case of tubal pregnancy is liable, like the ovum in uterine pregnancy, to become converted into a mole (apoplectic ovum). Since that date my observation has been abundantly confirmed in Germany, America and England; indeed, the condition is now so well recognised that it seems almost superfluous for me to again direct attention to it. However, I feel it necessary to do so on account of the many opportunities I have enjoyed of studying the tubal mole since the original paper was published; also it is necessary to correct a few misconceptions.

Tubal moles differ from uterine moles in several particulars—indeed the points of distinction are such as to enable us readily to tell one from the other. The uterine mole is more or less spherical; the amniotic cavity is of fair size and occupies the centre of the mole. The embryo may, or may not, be present. Sometimes it is represented merely by an ill-shaped mass pendulous at the end of the cord. Even when the embryo can be recognised it is very misshapen and the umbilical cord is often œdematous. (Fig. 1.) A tubal mole in its early stage is spherical, but, after attaining the dimensions of a walnut, becomes ovoid. (Fig. 2.) In the majority of cases the amniotic cavity occupies an excentric position; in consequence of this peculiarity the thin amnion is easily ruptured and permits the escape of the embryo. This explains the difficulty of finding the embryo in many cases where the mole has been discharged through a rent in the wall of the tube or aborted through an unclosed ostium, accompanied, as the rule is in these cases, with free hæmorrhage. The mole is easily found in the clot, but if the embryo has escaped from the amniotic cavity the chances are that it will not be

recognised. It must not be imagined that because the embryo has not been found it has been dissolved by the peritoneum. On one occasion I collected all the blood and clot which I removed during an operation five weeks after the rupture of a gravid tube and disintegrated it by a gentle stream of water. In the course of this manœuvre the embryo came to the surface, was promptly recognised and caught. As is the case with uterine moles, the embryo sometimes dies

FIG. 1.

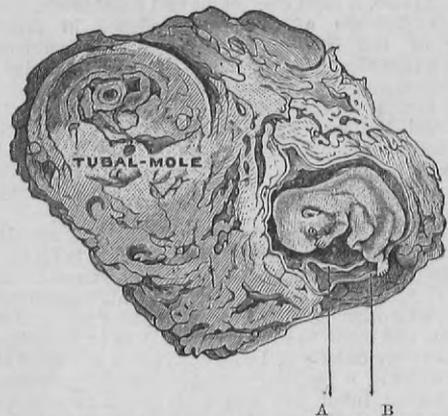


A Uterine Mole.

very early, and the amniotic sac contains nothing but a small quantity of fluid. When the mole on its escape from the tube is discharged between the layers of the broad ligament it becomes so compressed that the embryo is found flattened out like a succulent flower firmly squeezed between the leaves of a heavy book.

It will be necessary to offer a few remarks on the recognition of a tubal mole. When a mole is found with an embryo

FIG. 2.



A Tubal Mole. It shows the excentric position of the amniotic cavity. A, the amniotic cord. B, the amnion. This specimen is in the possession of Dr. W. Walter.

in the amniotic cavity there cannot be any room for dispute. The same holds good for moles with an amniotic cavity, though no embryo is present. In hard firm clots in which the amniotic cavity is not recognisable, sections from the supposed mole must be prepared and examined with a microscope for chorionic villi. The presence of chorionic villi are as indicative of a mole as of the presence of an embryo. These villi are such characteristic structures that they cannot be confounded with "half-organised blood," as some writers

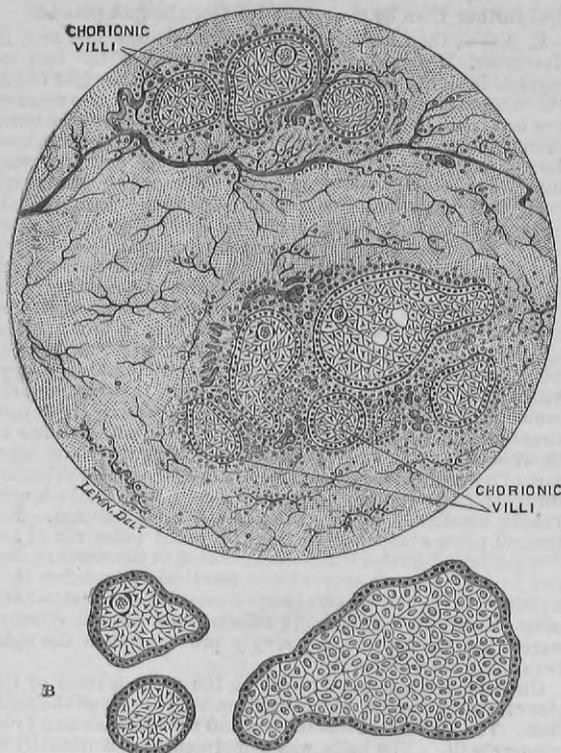
<sup>1</sup> Abstract of a paper read before the Medical Society of London, Nov. 7th, 1892. <sup>2</sup> Nov. 12th, 1889.

have suggested. The use of such an expression implies ignorance of even the elementary facts of histology. When seen in stained sections among bloodclot the villi are very striking objects, and in order to facilitate their recognition Fig. 3 has been prepared. They usually appear in sections as clusters of circular bodies; ten or more in fortunate sections may be counted together. More frequently they occur in groups of three or four and often a wide section of clot will be examined without finding more than two or three. Under a low power they present an external layer of epithelial-like cells, the central space being occupied by cells of irregular shapes. When examined under a high power the limiting layer is seen to be formed of a perfectly regular row of cubical epithelium; sometimes two rows of epithelium are present.

It is of great importance to appreciate clearly the characters of a tubal mole, for the presence of a mole is decisive proof of pregnancy. It must not be supposed that every bloodclot found in a Fallopian tube is a mole. That blood and bloodclots are occasionally found in the Fallopian tube unconnected with pregnancy is beyond all dispute. Anyone who has

remains open the ovum is in constant jeopardy of being extruded through it into the peritoneal cavity, especially when the ovum lies near or in the ampulla of the tube. When an impregnated ovum is thus extruded from the tube into the general peritoneal cavity it is invariably in the condition of a mole, and the accident is always accompanied by hæmorrhage. The extrusion of a mole in this way is indicated by the term "tubal abortion." Free hæmorrhage may occur from a gravid tube and the mole be still retained in consequence of its attachment to the wall of the tube. Under such conditions the bleeding may be repeated; this is known as "incomplete tubal abortion." Some of the most striking instances of recurrent hæmorrhages from gravid tubes occur when the ovum is too large to pass through the ostium. There is a variety of dilated tube which resembles a wine jar (amphora) without handles, and the ovum, though free to move about within the dilated portion of the tube, is as safely imprisoned as the wooden pea in a schoolboy's whistle.

FIG. 3.

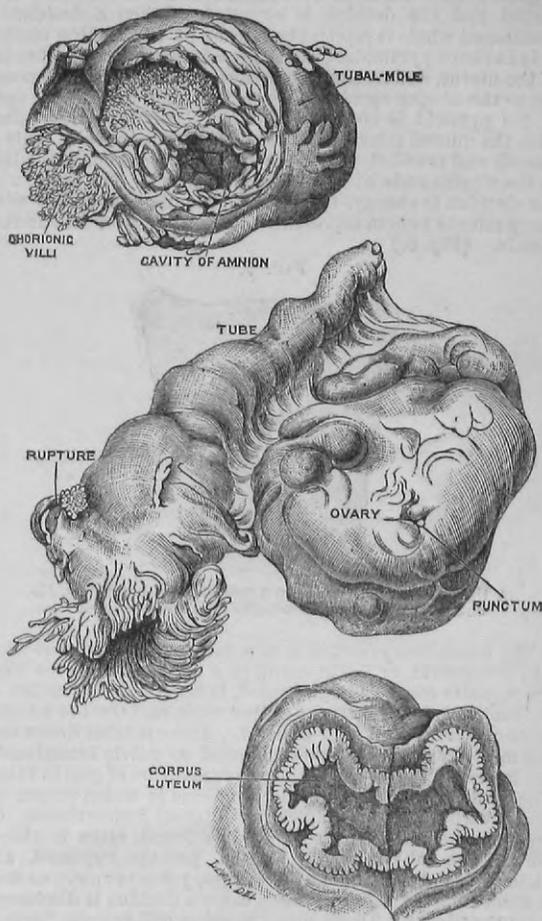


Chorionic Villi from a tubal mole (magnified) embedded in blood clot. A, Villi highly magnified.

taken even the smallest interest in the history of any branch of medicine must be aware that originally many conditions which we now know to be distinct were formerly grouped together under a comprehensive term. It was customary to apply the term "hæmato-salpinx" to accumulations of blood in the Fallopian tube independently of their origin. The discovery of the tubal mole has furnished a criterion for the differentiation of gravid tubes. Formerly the majority of Fallopian tubes containing bloodclot were classed as examples of hæmato-salpinx, and an examination of museum specimens demonstrates this absolutely. For the sake of accuracy in the future it will be necessary to reserve the term "hæmato-salpinx" for a non-gravid Fallopian tube distended with blood secondary to occlusion of the abdominal ostium.

The consideration of the occlusion of the abdominal ostium of the tube brings me to the question of tubal abortion. The retention of an impregnated ovum in the Fallopian tube leads to occlusion of the abdominal ostium, an event usually complete by the sixth but often delayed to the eighth week following impregnation. It is therefore a comparatively slow process. (When the ovum is lodged in the ampulla of the tube the ostium cannot close.) So long as the tubal ostium

FIG. 4.



A Fallopian Tube in which rupture occurred. The ovum escaped through the unclosed ostium, and at the time of the operation was lying among the fimbriae of the tube.

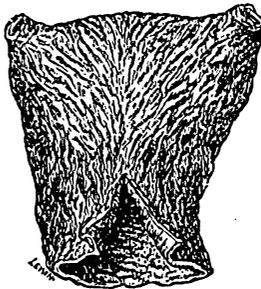
In some of these specimens the mole remains united by a portion of its circumference to the tubal mucous membrane.

A gravid tube may burst and the mole escape into the peritoneal cavity through the unclosed ostium. A specimen demonstrating this is represented in Fig. 4. I removed the parts from a woman twenty-nine years of age by abdominal section. At the time of the operation the mole was lying among the fringes of the tube and the ostium was widely dilated. On examining the tube a small rent was found in its walls capable of admitting the point of a pencil. At the time of the operation the mole was lying among the fimbriae of the tube and the ostium was widely dilated. The specimen is of value because it demonstrates that because an adventitious opening is found in the wall of a gravid tube, it by no means follows that the ovum escaped through it. (Fig. 4.) I was of opinion that the term "tubal abortion"

was introduced into literature by Keller; but this was an error, for G. Veit, in an interesting paper entitled "Behandlung der Extrauterine Schwangerschaft,"<sup>3</sup> distinctly refers to the extrusion of an impregnated ovum through the abdominal ostium without rupture of the tube, accompanied by hæmorrhage, under the term of "tubal abortion," and illustrates the condition by a sketch of a specimen. Like all who have observed this condition, he points out that the accident is a grave one for the patient. My own experience is that the hæmorrhage is more abundant in cases of tubal abortion than from rupture of the tube.

It will, perhaps, be useful to offer a few remarks on the decidua. When a Fallopian tube becomes gravid a decidua forms in the uterus, and this curious structure has a diagnostic value. This decidua is rarely retained until the completion of gestation and thrown off during the false labour. Usually it is discharged during the early period of pregnancy in small fragments, without producing pain, or else it is expelled *en masse* with symptoms of miscarriage. When a gravid tube ruptures or aborts, the uterus becomes disturbed and the decidua is expelled. When a decidua is discharged whole it represents a cast of the uterine cavity. It is in shape pyramidal; the base corresponds to the fundus of the uterus, and at each angle there is an orifice corresponding to the uterine opening of each Fallopian tube. The apex of the pyramid is occupied by a circular hole corresponding with the dilated internal orifice of the cervical canal. This is smooth and rounded, whilst the smaller orifices corresponding to the uterine ends of the tubes are ragged. The exterior of the decidua is shaggy, the interior smooth and dotted with many minute puncta representing the orifices of the uterine glands. (Fig. 5.)

FIG. 5.



A Uterine Decidua formed in a case of tubal pregnancy, discharged at the end of the eighteenth week of gestation.

The unnecessary formation of a decidua in the uterus when a tube is gravid, or in the cornu of a bicornuate uterus when the opposite cornu is impregnated, is a curious illustration of the traditional way Nature does her work, and teaches a lesson some of us may well take to heart. There is little doubt that the majority of cases formerly classed as pelvic hæmatoceles are in reality the result of rupture or abortion of gravid tubes. The cases in which doubts arise are those in which women are seized with symptoms indicating internal hæmorrhage. On opening the abdomen free blood is found, often in abundance. The tube is widely dilated, perhaps ruptured, and clots of blood hang about the fringes, yet no embryo or mole is detected. In some of these cases a decidua is discharged from the uterus. These doubtful cases will become fewer as operators become familiar with the tubal mole. The mole is so different from ordinary clot that there should be little difficulty in distinguishing it, except in cases in which it is very small.

The following is a summary of the views contained in this paper:—(1) The transformation of a tubal ovum into a mole or apoplectic ovum is beyond doubt; (2) the majority of specimens described as examples of hæmato-salpinx are gravid tubes; (3) rupture of a gravid tube and tubal abortion are the common causes of pelvic hæmatocele; (4) mesometric rupture of a gravid tube is a common cause of pelvic hæmatoma; (5) to affirm that bands of fibrin resemble chorionic villi indicates great want of histological knowledge; (6) every clot of blood found in a Fallopian tube is not a tubal mole.

Since the discovery of the tubal mole specimens of non-gravid Fallopian tubes are found to be so infrequent that in the last report of the museum of the Royal College of

Surgeons I notice an account of "an unequivocal example of hæmato-salpinx." This is a fair indication of the revolution which has taken place in our knowledge of the early stages of tubal pregnancy.

Queen Anne-street, W.

## A CASE OF

## LOCALISED GANGRENE OF THE LEG OCCURRING IN THE COURSE OF SCLERODERMA; AMPUTATION THROUGH THIGH; RECOVERY.

BY ALEX. G. R. FOULERTON, M.R.C.S., L.R.C.P. LOND.

THE following is the record of a somewhat unusual episode in the history of a case of general or diffused scleroderma which occurred in my practice at St. Bartholomew's Hospital at Chatham. With the clinical details of the case previously to the supervention of gangrene I do not now propose to deal further than by giving the briefest abstract possible.

E. A—, then aged twenty-two months, was first seen in November, 1888. About a month afterwards the first recognisable signs of scleroderma appeared in the right thigh. The whole surface of the body subsequently became more or less involved in the disease, which at last presented the usual characters of the fully developed stage of diffused scleroderma in children. I may here refer to the accompanying engravings, which were taken from photographs. They show fairly well an earlier and a later stage of the disease. Fig. 1, from a photograph taken in April, 1889, shows the right lower limb considerably enlarged; certain pigmentary changes are not, however, apparent. When the photograph of Fig. 2 was taken (April, 1890) the stage of gradual shrinking of the tissues had set in. In June, 1891, the condition of the right lower limb was as follows. The hip, knee, ankle and phalangeal joints were all strongly flexed and immovably fixed. The skin of the limb was everywhere tightly bound down to the underlying tissues; nowhere could it be pinched up or shifted laterally over the deeper structures. It was mottled here and there with patches of brownish pigment, and between these it was for the most part of a dead-white colour. The whole limb was considerably shrunken and very hard, feeling as cold wax to the touch. Tactile sensibility was apparently but little affected. The femoral pulse could be just felt, the pedal pulse not at all. The joints of the other limbs were affected in like manner, but in a less degree. It may also be mentioned in passing that whilst the skin and subcutaneous tissue and the joints of the other limbs were unilaterally affected the several changes were from the first more strongly pronounced in the right lower limb than elsewhere.

On July 1st I found that during the night a bulla of the size of a crown piece had formed on the dorsum of the right foot. The whole foot was tender, and the child seemed to be extremely ill. The bulla was punctured and a quantity of blood-stained serum escaped. The foot was washed with a weak solution of iodine, the bulla was sprinkled over with iodoform, and the leg was then enveloped in absorbent wool. Next morning it was found that an exactly similar bulla had formed over the internal condyle of the right femur. This was dealt with in the same way as before. The child's condition was worse, and stimulants were given freely. On July 4th she began to improve. Moist black sloughs occupied the sites of the two bullæ. The child's condition remained fairly satisfactory until July 18th, during which time the sloughs were kept practically odorless by due attention to cleanliness, but were not otherwise interfered with. On July 19th things changed for the worse again. The temperature, hitherto normal, rose to 100° F. in the evening. The pulse was very small and irritable. The child herself was restless and seemed in pain, moaning continually. On July 21st she was all but exhausted, and the case seemed to be well nigh hopeless. In the evening the two sloughs separated, leaving the tarsal bones and the inner aspect of the lower end of the femur quite bare, clean and white. The skin of the leg elsewhere was in exactly the same condition as it had been before the supervention of the gangrene, which had never evinced the slightest tendency to spread. There was a noticeable absence of any signs of inflammation in the neighbourhood whence the sloughs had

<sup>3</sup> Verhandlung der Deutsch Gesch. für Gyn., 1890, S. 171.

separated. The child had hitherto been treated as an out-patient, as the parents were very averse to her removal into hospital. However, I still felt justified in urging them to give her the last chance that an operation might afford, poor though that chance seemed to be. She was accordingly admitted on July 22nd, and I amputated the limb on the following morning. In amputating a circular incision down to the bone was made in the middle third of the thigh, the skin and muscles being divided at the same level. From the circular incision a longitudinal one was carried up on either side of the thigh. The anterior and posterior flaps thus formed were then raised from the femur by means of a director. These flaps were so rigid and hard that some difficulty was experienced in dividing the bone sufficiently high up; and it was only after somewhat forcible retraction of the flaps and tissues above them that the femur could be divided with bone forceps at the required level. The femoral and profunda arteries were then tied and an elastic tourniquet which had been lightly applied was removed. Both the vessels tied were of extremely small calibre and no other bleeding points were seen. The stump was then washed with weak iodine solution and some boracic acid powder was dusted over the raw surface. A narrow slip of gutta-percha tissue was placed in either angle of the wound to provide for

and better than she had been at any time during the previous two years. The tissues of the remaining portion of the right thigh were much softer than they had been before the operation. Portions of the skin elsewhere showed a similar improvement. In short, the scleroderma appeared to be undergoing involution. I saw the child again in December, 1891, and in January and February of the present year, and the improvement appeared to be sustained. After February I did not see her again until June, and was much disappointed to find that the improvement had been but temporary and that the disease was now progressive. Whether the operation, by producing some alteration in the general nutrition, or the treatment in hospital was responsible for this temporary improvement—or whether, on the other hand, it was purely accidental—I am quite unable to say. When last seen the stump surface was all that could be desired; but, owing to the extreme flexion of the hip-joint, the stump itself was drawn up against the abdomen.

In conclusion, one or two general points may be referred to. First, the occurrence of gangrene must be noted as a most uncommon complication of a disease itself sufficiently rare to be of interest on that account alone. Then, again, I regard the result of the amputation, through tissues but ill adapted to such a procedure, as having been extremely

FIG. 1.

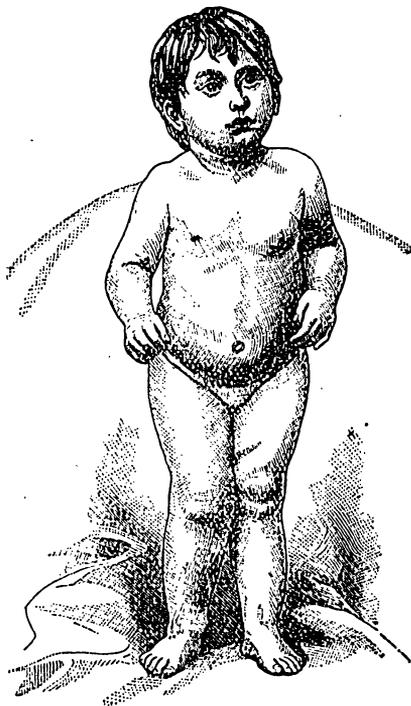


FIG. 2.



Drainage, the flaps were brought together by deep and superficial sutures, and the stump dressed with absorbent wool. The result of the operation was altogether satisfactory. The child's condition was markedly improved within an hour or two of the operation and her progress was continuous. The amputation was performed on July 23rd and for the next few days the temperature rose to about 100° F. in the evening, falling to the normal in the morning. On July 27th the stump was dressed for the first time. There was very little discharge, but the extreme edge of the anterior flap was just blackened for about a quarter of an inch. The drainage slips of gutta-percha tissue were removed and the stump was dressed as before. The next dressing was on July 30th, when two of the four deep sutures were removed. The stump was then dressed for the third time on Aug. 2nd and all the remaining sutures were removed. The small shred of blackened skin had separated, the flaps had firmly united, and the line of union had almost healed up. A day or two later I left Chatham and did not see the child again until Sept. 21st. She had then been discharged from the hospital for some time and a considerable improvement in her general condition was noted. She looked stronger

fortunate. A third point of interest is the condition of the parts removed. The cross section of the portion of the limb amputated on July 23rd showed that all the tissues of the part were affected. The skin was intimately connected with the subcutaneous tissue, which was very hard and considerably increased in thickness. The subcutaneous tissue could not be peeled off the fascia of the muscles without tearing away the surface of the degenerated muscle substance in places. The muscles had undergone complete degeneration and were of a greyish waxy appearance. The point which perhaps struck me most was the almost bloodless condition of the limb. As remarked previously, after the femoral and profunda arteries had been tied there was not a trace of oozing from the raw surface. The bones were much atrophied. I am unable to give any further details as to the morbid anatomy. The limb was put on one side for further examination in a preserving fluid, which unfortunately proved inadequate for its purpose, and consequently when the jar containing it was opened a week or two later the specimen was found to be in an advanced stage of decomposition, so that further examination was impossible. It is not proposed to discuss the pathology of scleroderma at any length

here. I would only suggest that to classify it with skin diseases, as is commonly done, is to take a somewhat narrow view of the subject. I must say that it seems to me to be highly probable that the localised form of scleroderma sometimes met with in adults is pathologically a different disease from the diffused scleroderma usually met with in young children. Clinically, at any rate, the difference is considerable. In the case under consideration the changes in arteries, muscle substance and bone are quite sufficiently explained by regarding them as secondary degenerations due to disuse. I would go a step further, and suggest that the skin changes may also be ranked as secondary. I would then regard scleroderma rather as a disease primarily affecting a widely spread and genetically allied group of tissues of mesoblastic origin, and including the subcutaneous areolar tissue, the fascia of muscles and the fibrous capsule of joints. This being assumed, the fixation of the joints with disuse of the limbs would be followed by atrophy of muscle and bone, and diminished vascular supply would result in the loss of function, and in its turn accentuate the degenerative changes already in progress. These degenerative changes with impaired vascularity culminated in gangrene in the case just related. Pigmentary and other changes in the skin may also be due to altered conditions of nutrition in the skin overlying a portion of the subcutaneous tissue already affected by the disease. To support, however, my contention as to the original site of the disease processes much more would have to be advanced than has been done here. This I shall endeavour to do in a future paper.

Brompton-road, S.W.

## WHY DO STRICTURES OF THE URETHRA RELAPSE ?

By C. MANSELL MOULLIN, F.R.C.S. ENG., M.D. OXON., &c.,  
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IT is notorious that in the vast majority of cases strictures of the urethra, if left to themselves after dilatation or division, recontract and in a little while become as narrow as they were before. It is not, perhaps, so well known that this is not an invariable rule. I have published several instances in which permanent recovery, proved by the duration of many years, followed external urethrotomy, and I have shown that the same result may occur after prolonged perineal drainage, while it is not uncommon to meet with cases in which, after internal urethrotomy, catheterism has been practised, at first diligently, then more or less carelessly, and at length has been neglected altogether for many years without there having been any perceptible degree of return. It seems, therefore, of some interest to consider what such cases have in common, and why methods of treatment apparently the most diverse succeed sometimes, when usually they are followed by so different a result. At first sight the particular kind of stricture does not appear to have anything to do with it. Those that were treated by external urethrotomy were of the severest type, dense and hard, with an enormous amount of peri-urethral infiltration; the others for the most part could not be felt from the outside, and had been noticed only recently, although from the history it was probable some contraction had been there for a much longer period. All of them, however, presented certain features in common. The stricture was in every case deep down in the urethra; it had followed gonorrhoea, sometimes one attack, more frequently several. There had been in all a long period of gleet discharge, and no patient had noticed any alteration in the size of the stream until some considerable time had elapsed. Strictures that agree in these respects may be urethral or peri-urethral—that is merely a question of time; the important feature is that in none of them is there any actual loss of substance; the mucous membrane lining the urethra has not been destroyed at any one spot; the constriction is not due to the contraction of a scar, but to the organisation and condensation of the inflammatory exudation that is poured out in and around the walls of the canal. This distinction is not taken into sufficient account in the system of classification ordinarily adopted for organic strictures of the urethra. They are described in terms expressive of their shape, the appearance they present in the bodies of those who have died from the complications they cause, the special symptoms that accompany them, or some other and often

entirely accidental circumstance in connexion with them; but their mode of origin, whether they have followed a syphilitic sore or extravasation of urine, or an attack of chronic inflammation, and the immediate cause of their formation, whether they have been preceded by ulceration and destruction of the mucous surface or not, are not connoted in any way. Yet this is the main distinction which marks them off at once into two great classes, one in which the whole thickness of the lining membrane of the urethra has been destroyed at some one spot, and the other in which it has not. In the ordinary form of gonorrhoeal stricture it has not; the contraction commences as an inflammatory effusion in the substance of the mucous and submucous layers, very often at the base of a little button of granulation. Unless the attack has been very severe, attended with hæmorrhage, or treated with unnecessary vigour, the lining membrane, although it may be condensed and hardened, is not destroyed; it can nearly always be dissected off, thinned it is true and discoloured, with its surface altered in texture and appearance, but still intact. There is no cicatrix in the ordinary sense of the term. On the other hand, syphilitic sores, nearly always leave a contracting scar, usually near the orifice; so does extravasation of urine, unless the opening in the urethra is a mere pinhole, and so may gonorrhoea if the mucous membrane is destroyed at any one spot by ulceration or torn by the passage of catheters or in the barbarous attempt at breaking down chordee. Cicatricial strictures of this kind are distinguished by the rapidity with which they form and the speed with which they recontract. I have known them well marked within a few weeks of the attack that originated them, and there can be little doubt that for them at least, no matter what treatment is adopted, regular catheterism at frequent intervals is always necessary.

With the others, those in which there has been no breach of surface of any size, the case is different, and close observation of a considerable number has convinced me that a certain proportion can be cured permanently by adopting suitable methods and maintaining the treatment for a sufficient length of time. The cause of their contracting originally is different. It is not now the presence of a scar due to a loss of surface, which nothing but transplantation can replace; it is merely the slight persistent irritation kept up by the passage of the urine over a tender part of the urethra. At first the progress of the stricture is exceedingly slow, the irritation is very slight, and the amount of lymph effused very small, scarcely making a perceptible difference in the calibre of the urethra even at the end of months; but as years pass by this fractional amount accumulates and grows harder, the obstruction becomes more marked, the straining and irritation that it causes more severe, and the amount that is poured out larger and larger until at length it forms a dense mass, filling the interstices not only of the mucous and submucous layers, but those of the corpus spongiosum and bulb as well, growing harder and more rigid with ever-increasing rapidity the longer it lasts; and it is for the same reason, and not because there is a scar, that these strictures relapse so often after treatment. The whole of the obstruction is not dispersed; some, ever so little it may be, is left, and sooner or later the same old vicious circle begins again, the obstruction causing irritation and the irritation making the obstruction worse. Unless the whole is removed and the lining membrane of the urethra restored to its natural flexibility there can be no permanent cure. How this is to be accomplished varies naturally with the kind of stricture; but whatever the treatment adopted, whether it is division or dilatation, it must always be borne in mind that this is only a preliminary. Dilatation may stretch and urethrotomy may divide the rigid lymph, but neither really does away with the obstruction. It is diminished so that there is no straining and much less irritation during micturition, but that is all. The stricture tissue is still there; complete removal can only be effected by the very slow process of fatty degeneration and absorption, and for this it is absolutely necessary that there should be a long period of perfect rest and freedom from all spasm and irritation. How far this can be secured by dilatation alone is very doubtful. It may succeed if the stricture is very recent and still confined to the walls of the urethra, but if there is already a large amount of peri-urethral infiltration it is almost useless, except as a temporary measure; and if the stricture is old and hard, whether it is confined to the mucous and submucous coats or not, it is scarcely any better, even though it is carried to the point of extreme distension. The lymph is

stretched, a great deal of it disappears and the muscular fibres that surround the urethra are paralysed for a time; but in a very little while after the catheter is withdrawn the contraction begins again. The tenderness and irritability are still there; the tone of the muscular fibre returns and as soon as the stream of urine begins to unfold and open out the walls of the canal the stimulus sets up a slight but sufficient degree of contraction. So long as the stricture is wide the obstruction this causes is scarcely perceptible: the hyperemia passes off almost at once, and there is so little exudation that the occasional passage of a catheter is sufficient to keep the channel dilated; but if the case is neglected, little by little the lymph collects until at length, when the contraction has passed a certain point, further progress is by leaps and bounds. For a long time I have practised internal urethrotomy after thorough dilatation, with the view of preventing muscular spasm and giving a long period of perfect rest for the removal of the last of the exudation; and although it is difficult to prove, I feel convinced that this method has met with a higher degree of success than either dilatation or internal urethrotomy by itself. Internal urethrotomy without previous dilatation succeeds sometimes, just as simple dilatation does in recent cases in which the stricture tissue is confined to the walls of the urethra, but not in those in which the exudation is old and hard, or very widely spread; absorption is too slow. The muscular fibres are divided so that there is no spasmodic contraction; but division, however thorough it is, does not restore the parts to their natural state. The expansion of the urethra when the urine passes down it is not smooth or even until the whole of the exudation has been absorbed; and this takes too long. Before the old and hardened lymph has had time to disappear completely the obstruction and irritation that it causes have led to a fresh deposit and the narrowing has commenced again. Unless the stricture is a recent one, and the exudation comparatively soft, dilatation is always necessary after internal urethrotomy—at any rate, for a time. Occasionally, if it is kept up diligently for some months and gradually left off, no recontraction takes place. External urethrotomy, on the other hand, practically fulfils all the required conditions, and to this it owes its success in some of the very worst cases. The whole of the urine escapes without tension or straining; muscular spasm is out of the question; however hard or widely spread the exudation, the whole of it must soften and melt away before the wound will close, and meanwhile the channel regains its natural size and the walls their flexibility. The rest that it gives is perfect, and certainly in some instances absorption is complete and the cure permanent, a fact that deserves more attention than it has hitherto received, for this method of treatment is rarely given an opportunity except in cases in which every other measure, including dilatation and internal urethrotomy, has been tried and has failed time after time.

Wimpole-street, W.

## TWO CASES OF DERMATITIS GANGRENOZA INFANTUM.

By CAMPBELL WILLIAMS, F.R.C.S. ENG. &c.

DERMATITIS GANGRENOZA INFANTUM (Crocker) was first described by Mr. Hutchinson under the name of "varicella gangrenosa." As it is one of the rarer diseases of childhood I venture to record the two following cases. They are to an extent interesting in that in neither case could one obtain history or evidence of vaccinia or varicella as an etiological factor. Nor were they, as far as could be seen, the subjects of rickets or congenital syphilis. In the case that recovered the child was unvaccinated, and had not suffered from chicken-pox or other febrile disorder. It was badly nourished. Five preceding children had died in infancy from "consumption of the bowels." As is well known, this vague term often means diarrhoea from improper feeding. The second case had likewise escaped the usual preceding ailments, but was the subject of miliary tuberculosis. Dr. Thomas Barlow first pointed out the frequent presence of tubercle in this disorder. In 1888 I made a necropsy upon a child that had died from gangrenous dermatitis, when Dr. Barlow drew my attention to the combination, which was also present in that case. From a pathological standpoint these cases may

be regarded as due to microbic infection. In a way they are analogous to acute necrosis if skin is substituted for bone.

CASE 1.—C. W—, aged two years, male. This child was admitted into University College Hospital under the care of Mr. Christopher Heath on Sept. 9th. Being in charge of the skin department in the absence of Dr. Radcliffe Crocker, I was asked to see the case. The child was the younger of two. The elder had died from a tumour in the abdomen, the nature of which could not be elicited. The mother had also had two miscarriages. No signs, present or past, of infectious disorders were obtainable. The mother asserted that the child never had chicken-pox and that he was vaccinated in the early months of life. He did not snuffle, nor was there any discoverable evidence pointing to congenital syphilis or rickets. The eruption was first noticed on Sept. 7th—i. e., two days before admission. It was described as having begun as pimples about the size of pinheads. These became vesicles and later became covered by black scabs. The patient had diarrhoea for fourteen days prior to Sept. 9th, and had vomited slightly during that period. On admission the child seemed moribund. There were signs of broncho-pneumonia at the left apex. The pulse was small and rapid, 120, whilst the temperature was 99° F. During the night it rose to 102°. This fell next day to 101°, at which point it remained until just before the child's death. This occurred twenty-seven hours after admission. During this time he had twelve stools, which were very offensive, but brown in colour. There were altogether twelve ulcers upon the child's body. There was one upon the scalp in the region of the lambdoid suture. Here the scab had not separated and was suggestive of varicellous origin of the disease; but there were no other traces about the head or face to support that theory. In the remaining lesions the slough had separated, leaving typical ulcers. They were roundish, sharp-edged and conical. The sides and bases were covered with a thin adherent brownish-black slough. An inflammatory areola of about one-twelfth of an inch in width was visible around each lesion. The ulcers varied in depth from three-quarters to a quarter of an inch. There was one upon the left buttock, about the size of a shilling; it extended down to the deep fascia. A group of four occupied the posterior aspect of the right thigh, another group of four upon the right calf and two small ones upon the flexor surface of the left thigh. The left calf was clear. None of the ulcers in these groups had coalesced. The skin between them was apparently healthy. The child was fed on milk and brandy. The ulcers were dusted with iodoform crystals and dressed with iodo-vaseline.

The post-mortem examination disclosed the presence of miliary tuberculosis. Both lungs were studded with tubercles, whilst the apex of the left was quite pneumonic. The apical portion of the left parietal pleura was adherent to the visceral, and there was a patch of tubercle upon it. Two bronchial glands had cascated. The liver, spleen and kidneys, together with the mesenteric glands, were all affected. The brain was not examined.

CASE 2.—J. N—, aged seven months, a poorly nourished male infant. A brother, aged nine years, was alive and healthy. The next five children had all died in infancy, marasmic. This boy, the youngest born, was said to have been strong at birth. For the last few months the infant had been put out to nurse during the day whilst the mother was at work. On Aug. 30th I first saw the child. He did not seem seriously ill. The temperature was 99·8° F. The child had not been vaccinated and was said not to have had chicken-pox or other exanthem. There were certainly no recent signs of congenital syphilis. The disease was stated to have started a week previously as pimples. These the mother ascribed to bug bites. The papules were noticed to rapidly enlarge and become covered with black scabs. When seen by me the child had an ulcer on the right buttock from which the scab had separated, leaving a circular, depressed ulcer of half an inch in diameter and about as much in depth. The wall was covered by black-brown slough. There was a similar one on the right flank and a third one upon the abdomen. Here ulceration was going on beneath a black crust. Lastly, there was one upon the upper lip; it was quite superficial, but there was destruction of tissue such as one does not observe in impetigo contagiosa. A gland in the right inguinal region suppurated and was opened on Sept. 2nd, and did well. The child was properly fed and given small doses of cod-liver oil. As the bowels were irregular minute doses of mercury with chalk were given every other night. The ulcers were first dressed with dilute ammoniated mercurial ointment. As they did

not show signs of improvement iodoform crystals and iodo-vaseline were substituted. They at once commenced to heal by granulation, and by Sept. 27th they were all cicatrised. My friend, Dr. W. Carr, kindly saw the case with me and concurred in the diagnosis.

The above cases go to confirm the view held that the sphaclodermatous condition is not necessarily secondary to varicella or vaccinia. I believe Mr. Hutchinson acknowledges this. That tuberculosis takes a very prominent position amongst the predisposing causes, the frequent localisation of the disease to the buttocks and thighs, where the skin is inflamed or sore from wet diapers &c., suggests that the process is primarily one of inoculation. The rarity of the disease and the frequency of all the predisposing causes seem in favour of a specific micro-organism as the direct excitant.

Welbeck-street, W.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### METROPOLITAN HOSPITAL.

ULCERATIVE ENDOCARDITIS; CEREBRAL HÆMORRHAGE;  
DEATH.

(Under the care of Dr. HOWARD H. TOOTH.)

THE difficulty which may be met with in making a correct diagnosis in some of the milder cases of ulcerative endocarditis is well illustrated by the account of this case. It is also interesting to the profession from the fact that the cause of death was cerebral hæmorrhage, this mode of termination being unusual. Our readers will recollect that Dr. Osler in his Gulstonian Lectures, which we published in THE LANCET,<sup>1</sup> divides the disease into three groups—the pyæmic, the cardiac and the cerebral; the third of these does not, however, refer to cases in which hæmorrhage into the brain is met with, but to those in which a meningitis has developed, often of a suppurative character. For the notes of this case we are indebted to Mr. C. P. Handson, house physician.

G. H—, aged twenty-two, was admitted into the Metropolitan Hospital on Sept. 15th, 1892. He was a painter by trade. In September, 1891, the patient felt pain in the left side of the abdomen, which he was told by a doctor was due to lead poisoning. This lasted more or less till Christmas, 1891, when pain in the "stomach" came on suddenly and "rheumatism" in the muscles of the leg. The tips of his fingers at that time became swollen, turning blue and red. He had been attending as an out-patient at this hospital since Feb. 16th, 1892. He did not think there had been much improvement, and he had lost three stone in weight since Christmas, 1891. He had suffered from rheumatic fever three years ago, from "rheumatism" three times since, and from influenza three years ago. He had also one "fit" last year; another a few weeks ago. The nature of these was doubtful.

On Sept. 16th the condition of the man was as follows: Extremely anæmic and emaciated; no blue line on the gums; tongue black (had been taking iron) and dry; fingers clubbed; pulse 68, soft; respiration not accelerated. Heart: Apex beat in the fifth space just inside the nipple line; dullness up to third rib. At the apex there was a loud systolic murmur heard also at the angle of the scapula. Over the pulmonary area there was an occasional systolic murmur; the second sound was accentuated there. Lungs: Great sinking in of supra-spinous fossæ behind; no dullness; no râles. Liver: Dullness up to sixth rib; not felt below the ribs. Spleen: Not felt; dullness not increased. Abdomen rather retracted and muscles held rigidly; nothing abnormal felt. Legs very wasted; wasting of the thenar eminences; no wrist or foot drop;

knee-jerks present, though slight; no impairment of sensation. Urine acid, sp. gr. 1012; a cloud of albumen; no blood.

Sept. 23rd.—Heart: Apex felt best in the fourth space one inch outside nipple line; distinct heaving impulse seen; systolic apex murmur louder. Has been gradually growing very drowsy; his mental condition is peculiar; he is continually whining, "I want to go home"; refuses food and will not wash himself, and acts generally like a refractory child.

24th.—Has been taking food properly since an attempted nasal feed.

30th.—General condition unaltered. Urine acid; sp. gr. 1018; thick cloud of albumen.

Oct. 2nd.—During the night he got out of bed, was put back again, and shortly became comatose, with Cheyne-Stokes breathing and dilated pupils. Death followed soon after. During his stay in the hospital the temperature was of a hectic type, ranging from 96·8° to 101° F. Usually there was a difference of two degrees between the morning and evening temperatures. He complained of thirst; the bowels were obstinately constipated; the respiration and pulse were never accelerated.

*Post-mortem examination.*—Brain: Both lateral ventricles were filled with a recent clot, which formed a complete cast of the right and anterior part of the left ventricle. In the right lateral ventricle there was a separate clot pushed to one side by the larger one, which appeared older than the rest, and was beginning to break down. There was also a blood clot round the medulla in the fourth ventricle and at the anterior surface of the pons and a small hæmorrhage over the superior frontal convolution of the right hemisphere. Lungs: Both bases congested and œdematous. Heart: Right side much dilated and thinned. Left side: Large vegetations all over the posterior wall of the left auricle. Nearly all the mitral valve was absent; what was left was much thickened (evidently of old standing) and covered with recent vegetations. Aortic valves healthy. One or two ulcers were present on the endocardium of the left ventricle. Weight eleven ounces and a half. Stomach and intestines normal. Liver rather enlarged with venous engorgement. Spleen much enlarged, reaching just across the middle line. Weight twenty-two ounces and a half. There were two triangular ischemic infarcts and one softer hæmorrhage. In the right kidney there were two infarcts; in the left three. The capsules peeled readily, and there were no signs of interstitial change.

*Remarks by Dr. TOOTH.*—The chief points of interest in the case are the following: 1. The difficulty of diagnosis. Chiefly owing to the history it was thought probable that he was suffering from acute anæmia after lead poisoning, although this did not explain the temperature. The question of ulcerative endocarditis was mooted, but no certain diagnosis was made. From the albuminous urine it was thought he had chronic nephritis. 2. There were no rigors or attacks of localised pain due to infarcts while in hospital. 3. His peculiar mental condition. In connexion with this it would be interesting to know the exact time the first hæmorrhage corresponding to the older clot took place. There was no paralysis or disturbance of sensation. 4. As regards the immediate cause of death by cerebral hæmorrhage, Dr. Bristowe<sup>2</sup> mentions one case under his care in which death resulted from effusion of blood into the substance of the brain, probably following an embolic aneurysm. 5. The clinical fact that, owing to various reasons—o.g., stomach resonance and rigid abdominal walls,—it is possible to fail to detect during life a spleen weighing twenty-two ounces and a half.

#### NORFOLK AND NORWICH HOSPITAL.

A CASE OF NEPHRECTOMY FOR CARCINOMA.<sup>1</sup>

(Under the care of Mr. CHAS. WILLIAMS.)

THE following is a description of a case of primary carcinoma of the kidney, and bears out the statement that primary carcinomatous tumours of that organ are usually of the encephaloid variety. The presence of the purulent collection in the upper part of the organ probably accounted for the pyrexia, and rendered the diagnosis from calculous

<sup>2</sup> Theory and Practice of Medicine, sixth edition, p. 674.

<sup>1</sup> An account of this case was read at the meeting of the Norwich Medico-Chirurgical Society, May 3rd, 1892.

<sup>1</sup> THE LANCET, vol. i 1885, p. 415 et seq.

kidney the more difficult. It is, however, always difficult to diagnose this form of tumour until the disease is far advanced, and, as the success of any operative treatment depends chiefly on the removal of the organ, it is advisable to publish these cases in some detail when they are met with, so that the earlier symptoms may be better known. The possibility of the coexistence of calculus and malignant growth of the kidney must not be overlooked, for "the liability to error is increased when gravel or small calculi are, as is not uncommon, present in the pelvis of the cancerous organ."<sup>2</sup>

C. T.—, aged fifty-eight, was admitted into the Norfolk and Norwich Hospital on the 1st of April, 1891, complaining of excruciating pain in the left lumbar region. She was the wife of a farm bailiff and was accustomed to hard work. Fifteen years ago she had a severe attack of sciatica of the left side; it lasted for several weeks, and had the effect of reducing her, from being a fine woman, to a mere skeleton. From this she never thoroughly recovered. Some nine years later symptoms of kidney trouble showed themselves, occasional pain being the most marked; still she was well able to attend to a large dairy and to maintain a fair state of health until twelve months ago, when she noticed that her urine was thick and sometimes stained with blood. A little later pain came on in the left loin and localised itself there and became very intense. Later still she was obliged to keep her bed and to take opium somewhat freely. Blood was now appearing in the urine in large and frequent quantity. The pain usually came on during micturition and lasted for some time afterwards. There was no definite history of renal colic.

On admission she was greatly emaciated, very pale and looked proportionately ill, her eyes being shrunken and her voice weak. In the left lumbar region there was a very distinct bulging outwards, which swelling was just as distinct in front, especially when she was placed on her back. This prominent substance—evidently an enlargement of the left kidney—was hard to the feel, very movable and extremely painful when touched, and so were the parts in which the cutaneous branches of the lumbar plexus ramified. She could usually pass the night without a desire to micturate, but when the feeling came on she was obliged to get rid of the urine as quickly as possible, however small the quantity might be. The urine was generally dark coloured and turbid, and sometimes for a few days was perfectly clear; when in this condition its specific gravity was 1020, and it contained neither pus, blood, nor albumen. There was no evidence of disease in any of the viscera except that connected with the diseased kidney. Her temperature rose every night for four weeks from 101°–102° and fell to about 99° in the morning. She had a brother older than herself who had for several years suffered pain in the situation of the left kidney and profuse hæmaturia at frequent periods; he had passed several small calculi. The severity of her pain, its constancy and localisation rendered it necessary to perform an exploratory operation, the more especially as the weight of opinion was in favour of calculus, and the patient herself desired that something should be done to mitigate her suffering.

The operation was performed on May 1st. An incision four or five inches in length was made along the left linea semilunaris; the thin omentum and collapsed bowels were pushed to the inner side and detained there by means of a flat sponge, the meso-colon pinched up and a small hole made in it and enlarged with the fingers. The kidney was now exposed to view; it looked healthy, but greatly enlarged. The hand was passed over the right kidney and ureter. Both were found to be of normal size and healthy. A needle was thrust into the substance of the kidney towards the pelvis; no stone could be detected. An incision was then made into the organ and enlarged with the fingers, but no calculus could be felt; the material did not feel like that of normal kidney, but was crisp, tore like hard carcinoma, which it unquestionably was. Nothing now remained but to remove the enlarged kidney; the pedicle was brought into view and two large branches of the renal veins exposed. A silk thread was passed around the whole—the kidney, artery, veins and ureter—which could not be separated from the rest. Another ligature was passed round the pedicle close to the kidney and the pedicle divided between. The organ was now removed from its bed. There had been very free venous hæmorrhage from the kidney. A large cavity was left; this was well irrigated with warm water and sponged out, a glass drainage-tube placed in the wound and the parts covered over with dressing. The kidney weighed thirteen ounces; its upper

third was apparently healthy, but the lower two-thirds had become converted into true carcinoma. The capsule over this portion was firmly adherent and thickened. The upper part of the ureter was enlarged to about the size of a small orange and contained from two to three ounces of thin, fetid pus. The pelvis seemed to be almost obliterated by the growth of the disease. At 9.30 p.m. the report was that she had had a good deal of pain in her left side, which the injection of one-sixth of a grain of morphia had relieved; she had been perspiring profusely. Her feet were warm; pulse 100. She was not restless. There was no abdominal pain. She had been taking some gruel and champagne. A teaspoonful only of blood-stained fluid was drawn through the glass tube.

The next day the account was that she had been fairly comfortable; the pain had been completely relieved by the morphia; there was no tympanites. A small amount of red-coloured serum was drawn from the tube. Pulse 100, of better volume. She took small quantities of food well. Urine had to be withdrawn and was clear. In the evening she was very comfortable. The temperature was 99°2', and there was no sign of peritonitis. Five ounces of urine were drawn off and about a drachm of fluid from the tube.

On the third day after the operation she was said to have passed a comfortable night, sleeping well and taking food. At about 4 a.m. she complained of abdominal and lumbar pain. This had been getting worse all day. The breathing was purely thoracic; there was no sickness, no hiccough. At 3 p.m. the pulse could scarcely be felt. The wound looked well; about half a teaspoonful of blood-stained fluid was withdrawn from the drainage-tube and eight ounces of urine were taken from the bladder. The abdominal pain increased in severity and she died the next day—the fourth from the date of operation.

At the post-mortem examination, made by Mr. Donald Day, the abdomen was slightly convex, there was no distension, the wound in the linea semilunaris was quite dry and the sutures firm; the wound opened easily; very little union had taken place. The abdomen contained about three pints of semi-purulent fluid, generally distributed over the cavity; a few recent adhesions were found. The glass drainage-tube passed directly through the lesser cavity of the peritoneum into the bed of the kidney. The wall of the cavity in which the kidney laid was lined with ragged black clots adherent to or in the meshes of the areolar tissue. No free clots or fluid blood were to be seen; the ligatures on the pedicle were firm and secure. No stone could be found in the ureter, which was of normal size. In front of the lumbar spine was a flattened, indurated lymphatic gland lying behind the vessels, nearly one inch in thickness and apparently a malignant infiltration. This was the only example of disease to be found.

*Remarks by Mr. WILLIAMS.*—This is the first nephrectomy that has been performed in the Norfolk and Norwich Hospital or in the city of Norwich. I have entered somewhat fully into the details of the case, especially in the description of the operation, inasmuch as the great question of the day is as to whether in these cases the surgeon should resort to the abdominal or the lumbar section. Dr. Gross, in an exhaustive paper on the subject, says that of 233 cases of extirpation of the kidney 129 recovered and 104, or 44·63 per cent., died. Of 111 by the lumbar incision, 70 survived and 41 died, the mortality being 36·93 per cent.; while of 120 by the abdominal incision, 59 recovered and 61, or 50·83 per cent., perished. He then observes: "It is thus to be perceived that the fatality of the abdominal operation is greater by 13·90 per cent. than that of the lumbar operation." If malignant growths be considered, of which he gives 49 cases, very much the same result obtains in each kind of operation. On the other hand, Mr. Knowsley Thornton, the most recent authority, up to 1889 had performed nephrectomy by the abdominal section in 25 cases: 20 recovered and 5 only died, a result 20 per cent. better than that generally given for all nephrectomies, including those by the lumbar section. Now Mr. Lucas claims a greater success by the lumbar. He has operated in six cases by the lumbar method and all the patients survived; but then this success was due to a judicious selection of the cases; not one was for malignant disease. Of the two kinds of operation I gave the preference to the abdominal, as being in every respect much the more suitable in this case. I had the same objections to the lumbar that Mr. Thornton has, and he gives seven. With such diverse opinions it is not surprising that nephrectomy should be looked upon with some degree of disfavour. No doubt the mortality has been increased by a selection of unfavourable cases or by delaying the operation too long. In

<sup>2</sup> Bristow: The Theory and Practice of Medicine.

my case the result would, in all probability, have terminated differently had the patient been operated on a year previously before her system became worn out by continuous pain, the more especially as the woman was free from disease in any of her organs, and only one lymphatic gland was found diseased. From what I have read of the details of the cases which have been published it appears to me that much of the want of success which has attended the operations performed up to the present time has arisen as a consequence of delay of the operation. As in tuberculosis, so in malignant neoplasms—a diagnosis made early and an operation promptly and efficiently performed are the elements of success. My friend Dr. Burton-Fanning sent me the following account of the examination he had made of some of the material: "The microscopical examination of the tumour shows it to be encephaloid cancer. The amount of stroma is rather unusually large, and it is arranged in a typical areolar fashion. The cells contained in its spaces consist of large and small round epithelial cells."

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

#### *Amputation through Thigh, preliminary to, or in place of, Amputation through Hip in advanced cases of Hip Disease.*

AN ordinary meeting of this Society was held on Nov. 8th, the President, Sir Andrew Clark, in the chair.

Mr. H. G. HOWSE read a paper on the Advantages of an Amputation through the Thigh, either as a preliminary operation to, or in some cases instead of, amputation through the hip, where the hip-joint was itself diseased and the patient in very bad condition. He took a case to illustrate the mode of treatment. In July, 1879, a boy aged fifteen had acute tuberculous osteitis of the left leg and the ankle-joint and early mischief in the left hip. He was very ill and emaciated, and had been going from bad to worse for three months. Amputation through the knee was performed on July 26th. Great improvement resulted, but suppuration in the hip necessitated excision of this joint rather later, from which he perfectly recovered. He left the hospital in June, 1880, and had remained quite well since. The position was advanced that much good might result in hip disease from amputation through the thigh: (1) by reduction of length of lever, having its fulcrum at the hip-joint, and so favouring rest; (2) by removal of a mass of tissue acting chiefly as blood-consuming and very little as blood-producing tissue, thereby probably favouring the production of blood of better quality and larger amount. Mechanical aids to rest were compared with nature's efforts by spasm of muscles fixing the joint. This spasm must be greater with a long than a short lever, and was probably an exhausting factor in the disease; much less would be required of the muscles controlling the hip-joint if the weight and length of the lever were lessened. In practice, after amputation above the knee, the immobility was so complete that no appliance was needed. If by this immobilisation the hip disease was not arrested excision might be successfully practised, as in the case in the text, the previous shortening making fixation easier; or amputation at the hip-joint might be required as in other cases, the patient's improved condition, resulting from the previous amputation and the slighter shock of the removal of a smaller mass of tissue, rendering this operation successful, though it would probably not have been so under the previous conditions. It was usual to explain the improved condition after amputation by the removal of diseased tissue with cessation of processes (pyæmia &c.) inconsistent with healthy nutrition; but the improvement after excision or arthrorectomy was not so marked, though the removal of disease should be as complete in the one case as in the other. The removal of so much healthy tissue, which used up instead of forming blood, was a more probable explanation. Alternative lines of treatment in the case the subject of the paper were reviewed:—1. When first seen, amputation at the hip would have resulted most probably fatally, or in a bad stump for an artificial leg. Excision was inadmissible with coexisting disease of the leg. 2. After amputation of the leg, amputation at the

hip would have left an inferior stump. The advantages to the patient were: (1) a stump more suitable for an artificial leg than any possible after hip amputation; (2) he was alive, which with other methods would have been improbable. This principle of treatment was applicable to a considerable variety of cases, as might be seen by examining the following list:—Cases: Group I.—1. Knee and hip disease on different sides; amputation of knee; great improvement in opposite hip; subsequent excision for relapse. Group II.—2. Amputation through the knee on the same side as hip disease; convalescence. 3. Amputation through the knee on the same side as hip disease; subsequent excision of hip; recovery (text). Group III.—4 and 5. Excision of hip, subsequently amputation through knee; convalescence. Group IV.—6. Excision of hip, subsequently amputation through knee and then through hip; recovery. 7. Phthisis and morbus coxæ; amputation through knee and subsequently at hip; recovery. 8. Old morbus coxæ; phthisis; lardaceous disease and rectal fistula; amputation through thigh; removal of rest of femur; improvement. Group V.—9, 10, and 11. Excision of hip and subsequent amputation through thigh in all; amputation at hip in two; all operative procedures carried out in safety; death in all from lardaceous or general tubercular disease.

Mr. LAWFORD KNAGGS then related two cases illustrating the treatment of Advanced Hip-joint Disease by Mr. Howse's method; of preliminary amputation near the knee. The method was indicated in cases of advanced hip disease when (1) excision had proved useless, or (2) when amputation at the hip would be too dangerous because of general feebleness or associated visceral disease. It offered a prospect of (a) retaining a portion of the limb, or (b) of saving a life that would be likely to be lost by other modes of treatment. Mr. Howse's method was to remove the limb by instalments. After amputation near the knee (first step) rapid improvement resulted, because (1) the amount of impoverished limb requiring nourishment was diminished; (2) there was greater freedom from pain from shortened leverage; and (3) as soon as the stump was healed patients were able to go out of doors on crutches. Finally, amputation of the shortened limb at the hip involved infinitely less risk in the improved condition than if carried out as a primary measure. The first case, a girl aged eight and a half, was the subject of advanced hip disease with much suppuration. The liver reached to the umbilicus. The urine contained one-fifth albumen, and amputation at the hip had been twice discontinued at consultations of the hospital staff as certain to prove fatal. After nine months as an in-patient, and when her condition was at its worst, amputation at the knee was performed on March 9th, 1888. This healed, and all her symptoms improved. The sinuses healed, and for three months the hip mischief was quiescent. It relapsed; Furneaux Jordan's amputation was done on Oct. 19th, and fragments of bone removed through an enlarged opening in the acetabulum. She left the hospital convalescent. In January, 1892, all sinuses had been healed for a year; the hip disease was quite well. The liver could no longer be felt. There was a trace of albumen, and her general condition and colour were very satisfactory. In the second case there had been progressive hip disease for two and a half years in a girl aged nine. Excision had been done eighteen months previously. Amputation at knee was performed on March 9th, 1888; great improvement resulted. In August, Furneaux Jordan's amputation was practised, and necrosed bone was removed through an enlarged opening in acetabulum. Sinuses resulted and albuminuria developed. Her condition in July, 1891, was otherwise satisfactory. Points of importance: (1) Freedom from pain after removal of leg; (2) the children, who had been bedridden a long time, were able soon to get out of doors and run about on crutches and make themselves useful; (3) the improvement in the hip disease; (4) the diminished severity of the hip amputation and the small size of the large vessels; (5) the opportunity for more complete exploration of the pelvis in consequence of diminished gravity of the amputation.

Mr. BARWELL said that the idea was new in surgery to perform a mutilating operation below the seat of a disease, leaving that disease *in situ*. Mr. Knaggs had mixed up two classes of cases. Those in which the procedure was a preliminary to the larger operation of amputation at the hip illustrated a point which had been much discussed by surgeons, but that was not the chief point of the paper, which was the question of the relief to the hip gained by amputation of the thigh. An analysis of the cases recorded

in both papers showed that there were five cases in which amputation had been performed as a preliminary operation in hip disease. One of these appeared to be convalescent without further operation, while in all the others some further procedure had to be adopted, and he did not think that this bore out Mr. Knaggs' statement as to the benefits derived from their method. Mr. Barwell held that amputation was not a proper remedy for checking the spasm of muscles controlling the hip; we should rather aim at perfection of apparatus for supporting the limb.

Mr. KEBTLEY said that seven years ago he published a paper having a superficial resemblance to those before them. His idea was that in a bad case of hip-joint disease the distal half and the proximate quarter of the limb should be taken away at an interval of about forty-eight hours. In considering the question of leverage, that applied externally should be estimated separately from that produced by the muscles themselves. He believed that the muscular spasm would continue to act just as unfavourably after the limb was amputated. He held that more shock was caused by an excision of the hip than by any amputation between the thigh and the hip, and he maintained that the proper order was first to excise and then, if necessary, to amputate. He concluded his remarks by criticising the alternative lines of treatment which Mr. Howse had appended to his paper.

Mr. R. W. PARKER said that he was in the habit of meeting with extremely bad cases of hip disease at the East London Children's Hospital among the poorest class of patients. It appeared to him that the patients were saddled with an extra difficulty if amputation were performed through the thigh and the hip and pelvic disease left untouched. The greatest difficulty in operating was the very excessive general oozing which occurred. After trying many methods he now adopted a modification of Furneaux Jordan's method—cutting down just above the knee, tying the artery and shelling out the femur. He then rapidly plugged the acetabulum, periosteal sheath and sinuses, and applied a bandage. Forty-eight or seventy-two hours later he opened up the limb again, took out the packing, removed all the disease that could be got at, freely irrigated, and then sewed up the stump, except at that part opposite the joint, which he left open for drainage. This gave him every advantage of Mr. Howse's method and much curtailed the hæmorrhage. The stump was far better than after the old operation, and a very useful lever was left for an artificial limb. In a case treated somewhat after this method by Mr. Shuter no new bone appeared to be formed; but in a case of his own a part of the femur had been reproduced, for, in treating a sinus later, he had cut down on the new bone. He had found that a hot-water mattress on the operating table materially warded off shock.

Mr. OWEN feared it was a dangerous doctrine to lay down that because a limb could not be kept at rest it should be cut off. He had found Thomas's splint and the stirrup and pulley both efficient to maintain rest of the limb. He referred to a case he had recently operated on of a boy in an advanced stage of hip disease, who was considered on consultation to be too ill to amputate at the hip-joint. He next day took the leg off above the knee and he intended later to make an incision along the side of the limb and shell out the femur.

Mr. DAVY so far coincided with Mr. Howse that if one could subdivide the procedure and make one huge operation into two lesser ones it would be better for the patient. His practice had been to excise first and amputate afterwards if necessary, and every case he had so treated had recovered. There were many ways better than amputation of securing rest to the limb. It was especially where pelvic necrosis existed that excision was to be recommended as a favourable and advantageous precursor to amputation at the hip, which might be afterwards required.

Mr. HOWSE, in reply, thought that many of the speakers had lost sight of the fact that these measures of treatment were not recommended for ordinary cases of hip-joint disease, but were only to be adopted in those extreme instances in which the only other alternative would be to leave the patient to die. His was precisely the class of case to which Mr. Parker had referred. He objected to the latter's method of operating that an enormous extent of periosteal sheath was left to increase the risk of sepsis, that the bleeding must be very great from such a wound, and that the shock was greater than that produced by amputation in the way he suggested. He objected to any one of the advantageous resulting conditions on which he had dwelt being discussed singly; they should all be taken together.

Mr. KNAGGS, in reply, called attention to the important fact that in the whole series there was no death as a result of the operation, and he felt sure that an equally happy result would not have occurred if all these bad cases had been submitted to primary amputation at the hip-joint.

## MEDICAL SOCIETY OF LONDON.

### *Tubal Moles and Tubal Abortion.*

AN ordinary meeting of this Society was held on Nov. 7th, the President, Mr. Hutchinson, in the chair.

Mr. BLAND SUTTON read a communication on Tubal Moles and Tubal Abortion, an abstract of which will be found in another part of our present issue. In illustration of his paper Mr. Sutton showed several pathological preparations and he made free use of the black board.

Dr. CULLINGWORTH referred to his now rather large experience of cases of tubal pregnancy. At a debate at the Medical and Chirurgical Society he had held that no man was justified in speaking of a case as one of ruptured tubal gestation unless some product of conception were found—embryo, amnion or villi. But he had since thought that in such a case as one of very early tubal abortion, where there were free bleeding and a large mass of blood in the peritoneum, one might fail to detect the very small products of conception. This was a case in which the history, the clinical and the pathological conditions favoured strongly a diagnosis of tubal gestation, although evidence of it might not be found. He asked if it were not possible for a Fallopian tube to become closed at its abdominal ostium upon clotted blood, the embryo and its immediate surroundings having escaped. If this could be so, it would introduce another element of difficulty into the differential diagnosis of hæmato-salpinx. He thought that it was at present impossible to limit the term "hæmato-salpinx" in the manner Mr. Sutton had suggested.

Dr. HORROCKS said that in cases where one could make out distinctly blood clot on the one hand and villi on the other the diagnosis was not difficult, but he held that cases were to be met with in which it would be impossible to distinguish one from the other, and he referred to one or two instances in support of this. Hæmato-salpinx, he thought, should be a general term, and it ought to include all cases in which blood was found in the Fallopian tube; it should be used, as pneumothorax was, independently of the cause of the condition, and he would include regurgitation of blood along the tube from the uterus, even if the tube were not distended by blood. He asked Mr. Sutton if he still maintained the same views as to the cause of the hæmorrhage, and he inquired if he regarded it as possible for the villi of the chorion to grow after the death of the embryo—his own opinion was that they did.

Dr. LEWERS wished to say a word or two as to the natural history of these cases of extra-uterine gestation. He believed that in many cases where the fœtus died at an early period complete recovery often took place without operation. Even when rupture had occurred, giving rise to pelvic hæmatocele, many of the cases did quite well under expectant treatment. He referred to a case of pelvic hæmatocele, due to rupture of an extra-uterine foetation, that had been under his care at the London Hospital some six years ago, and where he removed the fœtus through an incision into the posterior vaginal wall. This case did quite well, but he believed the patient would have recovered equally well without interference. At the same time he quite recognised that there was a class of cases requiring abdominal section, but it was often a difficult matter to distinguish between such cases and those that would do equally well without it. Evidence of the continued development of the gestation sac furnished a valuable indication.

Dr. HEXWOOD SMITH inquired of Mr. Sutton the exact source of the hæmorrhage when large in amount. He supposed that the blood was usually poured out before the ovum reached the end of the tube. Did the blood come from the ruptured attachment of the ovum or from the ruptured tube? He asked also as to the usual locality of adhesion of the ovum to the tube. He likewise desired to know in what cases one might expect tubal abortion and whether there was anything usually to account for it, such as an accident, a slip, a jerk, or the passing of hard faeces, dislodging the ovum.

Dr. ROUTII thought that all the cases of hæmato-salpinx, except a very few, were instances of tubal gestation. There

were always some of the preliminary symptoms of pregnancy and a decidua membrane was passed per vaginam, and the latter if found was conclusive of the nature of the case. He related a case of genuine hæmato-salpinx without gestation which occurred in a young girl. There was an imperforate os uteri, and after operation a large quantity of retained menstrual fluid of the usual character was evacuated. Three days later the patient died collapsed, and there was found hæmato-salpinx on both sides and one of the tubes had ruptured. These collections of blood in the tubes were quite shut off from the uterine cavity.

Dr. GRIFFITH confined himself to a criticism of small details. He said that Mr. Sutton formerly thought that the hæmorrhage which produced the mole produced the rupture. He (Dr. Griffith) asked him if he still held to this opinion. As to the mode of closure of the tube, a different explanation to that put forward by Mr. Sutton had recently been published in the *Edinburgh Medical Journal*, the longitudinal muscle fibres of the tube being held to be the effective agents in drawing the fimbriæ within the oviduct. Mr. Sutton had not referred to that variety of hæmato-salpinx caused by hæmorrhage from the mucous membrane of the tube itself. Dr. Griffith believed that regurgitation from the uterus was a very rare thing, the canal of communication between the uterus and the tube being very minute and of great length. Such regurgitation could only occur after very great distension of the uterus. He asked Mr. Sutton how he arrived at a positive diagnosis of the sixth or eighth week of pregnancy. Dr. Griffith held that the villi formed part of the fœtus, and it was extremely unlikely that they would grow after the death of the ovum. It was a remarkable thing that an extra-uterine foetation could go on to term, and that a proper blood-supply should be forthcoming in the absence of the maternal sinuses. He agreed that villi were not difficult to detect, but he had, as a rule, only observed one layer of short cubical epithelium upon them.

Dr. SUTTON, in reply, said that the main object of his paper was to give a careful account of these specimens so that others might be familiar with their external characteristics. After abortion or rupture of the tube the closure of the ostium would be deferred. He thought that the case related by Dr. Lewers was probably a hæmatoma produced by rupture of the gestation sac between the layers of the broad ligament. The dates of pregnancy he had given were approximate and were reckoned from the last period. He had examined a specimen of a well-formed mole in a tube without rupture and this had led him to modify his former belief on this subject. After the embryo died he felt sure there was no continued growth of the villi.

Mr. SHEILD showed a boy from whom, some time ago, he had removed the entire gracilis femoris muscle on account of a large pear-shaped tumour, which reached from the pelvis to the knee, and which he regarded as of congenital origin. A committee of the Pathological Society determined the growth to be a myxo-sarcoma. There was at present a small recurrence at the upper end of the thigh.

The PRESIDENT exhibited a series of interesting drawings, which he had borrowed, for the purpose of copying, from the museum of the Dublin College of Surgeons.

## PROVINCIAL MEDICAL SOCIETIES.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society was held on Nov. 1st, J. H. Bell, M.D., President, in the chair.—Dr. T. WHITESIDE HIME read a paper on his personal experiences of the cholera in Hamburg. The population of the affected area he computed as about 620,000, in which there were 18,000 attacks in six weeks and at the worst 1136 in one day. All arrangements, as, for instance, in regard to the disposal of the dead, were bound to break down under such pressure. On analysis the composition of the drinking water of Hamburg is found to be similar to, but about six times as concentrated as, the sewage effluent of Bradford or Leeds. The treatment by transfusion of a litre and a half of normal saline solution gave most astonishing results; and drugs, especially morphia, being more harmful than useful, calomel was given in minute doses, and hot tea and coffee as stimulants. Personally, if in cholera, Dr. Hime would like perfect rest, transfusion of a pint of normal saline extended over three-quarters of an hour, and then hot alcoholic drinks. There is no characteristic lesion found after death; the kidneys are dusky or livid, and the lungs generally collapsed

and full of infarcts. With regard to etiology, cholera will spare one place and attack another, which appears similar in regard to filth and unwholesomeness. It is found to avoid places on impervious granite or clay and to prevail on porous soils. The river has been lower in Hamburg this season than ever recorded. A prevailing epidemic of cholera is found to be true cholera by the presence of the comma bacillus; at first the cases are mild, later the disease increases in intensity. The water theory does not hold in the case of Hamburg, where the disease behaved as in a town with good water-supply, spreading from the poor and then to the rich.—After a short discussion by two or three of the members exhibits of a collection of pathological specimens from the Hamburg hospitals, and a number of histological preparations were made by Dr. Hime.

PLYMOUTH MEDICAL SOCIETY.—The opening meeting of the winter session 1892-93 was held under the presidency of Mr. Leah (Stonehouse) on Oct. 15th, in the Society's new library, Athenæum Chambers, and was devoted to the exhibition of cases and specimens.—Mr. PAUL SWAIN showed a woman aged twenty-two on whom he had operated five weeks before for the relief of Ankylosis of the Lower Jaw following scarlatinal arthritis. Tenotomy of the temporo-maxillary capsules had twice been performed in 1881, but with no permanent benefit. A triangle of bone was removed subperiosteally from each maxillary angle, an operation Mr. Swain believed to be the first on record of simultaneous removal on the two sides. The lower jaw had become arrested in development, the lower dental arch lying inside the upper, so that the teeth could not be separated. The mouth could now be opened one inch and a quarter and the patient masticated fairly.—Mr. LUCY showed a boy aged four on whom he had performed Macewen's radical cure for Inguinal Hernia eight months previously.—Mr. E. SQUARE exhibited a case of Double Facial Paralysis, probably syphilitic in origin.—Mr. BEAN brought forward a man aged sixty-two with Epithelioma of the Floor of the Mouth of six months' duration, with huge secondary growths in the upper cervical glands of the left side.—Mr. SWAIN showed a specimen of Fæcal Fistula which he had removed by Treves' operation, and reported that the result was very successful.—Mr. R. S. THOMAS showed the Bladder from a woman of fifty-two in which the trigone was the seat of a large epithelioma blocking the ureteral orifices, causing dilatation of ureters and renal pelvis, with subsequent suppression of urine, uræmic coma and death.—Mr. WOOLCOMBE exhibited (1) an Intestinal Collection of Cherry-stones and Straw removed by enterotomy; (2) a specimen of Meckel's Diverticulum having a free, rounded extremity.—Mr. BULTEEL showed an Ovarian Tumour recently removed successfully; and Mr. F. ROW handed round a photograph of a case of Ectopion Vesicæ.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of the Society was held on Oct. 27th, the President, Simeon Snell, F.R.C.S.Ed., in the chair.—Mr. SNELL introduced the following patients:—(1) A lad of nineteen, with extensive destruction of the face from Lupus. The right eye had been completely destroyed and the left was seriously implicated. (2) A child two and a half years of age, with a Chancre on the Left Upper Eyelid. (3) A baby with a small Nævus of the Orbit, and a young woman with a Nævus of the Plica Semilunaris of the Eyelid.—Mr. MAKEIG JONES (Wath) showed a married woman aged thirty-one with Exophthalmic Goitre who had consulted him four months ago for failing eyesight. He then found double optic neuritis and tremors of the right hand and arm. The right leg and the left arm were now affected by tremors, and there was paralysis of the right facial and right sixth nerve. Intense paroxysmal headache accompanied by vomiting was complained of.—Dr. GWYNNE showed a woman aged fifty-four suffering from Chronic Bright's Disease, who for a year and a half had well-marked albuminuric retinitis.—Mr. DALY JAMES showed the patient who was the subject of the paper on an "Unusual Case of Tuberculosis of the Skin" in the *Sheffield Medical Journal*. The disease had existed for nearly five years and had resisted very varied treatment, the diagnosis being doubtful. Since the publication of the case tubercle bacilli had been found in a nodule excised from below the knee.—Mr. DALY JAMES demonstrated his method of using Pick's zinc gelatine for threatened bedsores. The harder preparation was the one preferred. It could be removed by a hot sponge and replaced once in twenty-four hours.—Mr. MAKEIG JONES showed larvæ of a blow-fly which had been passed alive per anum by a patient. According to Dr. Beale larvæ of various blow-flies may pass

through the whole length of the alimentary canal in a living state.—Dr. BURGESS showed a suppurating hydatid cyst of the liver which had perforated the diaphragm, invaded the right lung and discharged its contents through a bronchus.—Mr. RICHARD FAVELL related a case of obstructed labour caused by fibroids of the uterus being engorged in the pelvic canal.

MIDLAND MEDICAL SOCIETY.—Mr. HASLAM, F.R.C.S., presided at the meeting of this Society on Oct. 19th.—Dr. G. H. MELSON showed a patient suffering from partial loss of urinary and rectal control, with increase of patellar and plantar reflexes, most marked on the right side where ankle clonus was also well developed. With this was paresis of the lower extremities leading to an equine character of gait, and the patient also exhibited the signs of general in-coordination. There was a well-marked history of syphilis ten years previously, and the present condition dated back altogether for eight years, many of the earlier sensory disturbances having cleared up almost completely.—Mr. HASLAM showed a large Sebaceous Horn that he had removed from the scalp of a woman aged fifty-six. It had been growing for six years, and measured along its curves eight inches and a-quarter, the greatest circumference was two inches and one-eighth, and the weight 480 grains.—Dr. MALINS showed:—1. A Fibroid Tumour occupying the body of the uterus removed by hysterectomy on Sept. 20th. 2. The Right Ovary and Fallopian Tube from a case of abdominal section. 3. A Unilocular Cyst of the Left Ovary. Patient aged forty-one, married, three children, youngest thirteen years.—Mr. HEATON showed an Aural Polypus, which he had removed by means of the galvano-cautery from a patient aged sixty, in whom it had been growing for eighteen years. The interest of the polypus lay in its size.—Dr. FOXWELL then read a paper on the Climatic Treatment of Pulmonary Phthisis.

MANCHESTER MEDICAL SOCIETY.—At the meeting of this Society, held on Nov. 2nd, when A. W. Stokes, M.R.C.S., presided, Mr. T. JONES gave the clinical history of three cases of Nephro-lithotomy, all terminating in recovery.—Mr. SOUTHAM mentioned two cases where Nephrotomy was performed for conditions attended by symptoms which closely resembled those of renal calculus, but in neither instance was a stone found. In one case the kidney was much contracted with an irregularly lobulated surface; in the other, where the symptoms developed shortly after an injury to the loin, it appeared to be in a healthy condition. In both cases the exploration of the kidney was followed by a complete subsidence of all the symptoms which were complained of previously to the operation.—Mr. WHITEHEAD gave particulars of three cases of Nephro-lithotomy. Two of them made rapid and complete recoveries; the third, some weeks after returning home convalescent, had a sudden attack of pain in the region of the kidney operated upon; an abscess developed and a sinus persisted many weeks, but eventually closed satisfactorily, and the patient had no further trouble.—Mr. G. A. WRIGHT made some remarks upon the surgical treatment of Hydro-nephrosis.—Dr. A. T. WILKINSON made some remarks on the bearing of Renal Disease upon the mortality of surgical operations. It appeared that in 26 per cent. only of the cases were the kidneys found healthy.

NORWICH MEDICO-CHIRURGICAL SOCIETY.—On Nov. 1st a large number of the members, having accepted the hospitality of the President (A. R. Manby, M.D.), were entertained at luncheon previously to the meeting to meet Sir Frederic Bateman and to congratulate him on the distinguished honour of knighthood so recently conferred upon him by Her Majesty the Queen.—The retrospective address was given by Dr. H. McCLURE.—Mr. CADGE read a communication from Sir Joseph Lister and ably advocated the claims of the proposed British Institute for Preventive Medicine.—Dr. BARNES (London) and other members of the Society took part in the discussion and it was decided to refer the matter to the Council for further consideration.—Dr. S. J. TAYLOR showed a boy suffering from Ectropion caused by a heloid growth of a scar following a burn of the face; and Mr. T. H. MONSE showed two specimens of Extra-uterine Fœtation removed by Abdominal Section.

PRIZE FOR A HUNGARIAN MEDICAL ESSAY.—The Budapest Medical Society offers a prize of a thousand gulden for the best work published next year in the Hungarian language on any subject connected with anatomy, physiology, histology, or experimental pathology.

## Reviews and Notices of Books.

*Diseases of the Eye: a Handbook of Ophthalmic Practice for Students and Practitioners.* By G. E. DE SCHWEINITZ, Professor of Diseases of the Eye in the Philadelphia Polyclinic. With 216 Illustrations and 2 Chromo-lithographic Plates. Pp. 641. Philadelphia: W. B. Saunders. 1892.

THIS work has been written by an accomplished surgeon who has had the advantage of the experience afforded by a large hospital, and has had the responsibility of the chapters on general optical principles and refraction taken from his hands by Dr. James Wallace, and of the section on Retinoscopy by Dr. Edward Jackson, the former of whom is the chief of the Eye Dispensary of the University Hospital, whilst the latter is the Professor of Ophthalmology in the Philadelphia Polyclinic. As a whole it corresponds to the works in this country of Berry, Juler and Swanzy. It is nicely got up, the print is good and the illustrations fair. Its chief defect is the absence of pathology. Even in the case of the diseases of the cornea, the pathological characters are very curtly dismissed. In passing we may just remark that Dr. De Schweinitz, in speaking of plastic operations on the cornea, is incorrect in stating (p. 278) that von Hippel is the originator of the proceeding of transplanting the cornea of the rabbit for the relief of dense central opacities. In reality, it was Himly to whom the merit is due, for as long ago as 1813 he proposed the operation, and it was practised by Heusinger in 1824, and shown by Thomé in 1834 to be feasible in animals.

The language is sometimes a little stilted, as when, in speaking of the pain in acute glaucoma, the author describes it as a "severe neuralgia of the trigeminal distribution," and in the next sentence remarks that in subacute attacks there is "a less marked similarly located pain"; a few pages further on he speaks of an operation as "entirely classical in its technique." He remarks that some difference of opinion exists in regard to whether the eye should be banded or not after iridectomy in glaucoma, and pronounces decidedly in favour of the application of a bandage, which he thinks should be applied for the first few days not only to the eye which has been operated upon, but also to the fellow eye, whilst the bandage that has been placed upon the affected organ should remain there until complete restoration of the anterior chamber has taken place by healing of the wound. He adds, it is a "wise precaution to instil eserine into the eye which has not been operated upon during the course of the treatment."

The subject of glaucoma is, however, carefully and fully given; the usual divisions of acute, subacute, chronic, secondary hemorrhagic, and complicated glaucoma are each described. The various theories of the etiology of the disease—as those of von Graefe, Donders, Knies and Weber, Priestley Smith, Laqueur and Brailey—are all briefly discussed and their value estimated. This is as it should be, for, with the exception of purulent ophthalmia, there is probably no single disease of the eye which it is more important that the general practitioner should be competent to diagnose and treat.

In considering the treatment of cataract Dr. De Schweinitz mentions, whilst he cautiously abstains from recommending, the artificial ripening of cataract. The account of the operation for extraction is well given, and as the details include iridectomy we suppose that the author prefers that method, though, as he observes, many operators in America as well as in this country are disposed to omit that proceeding unless special circumstances call for its execution. The subject of refraction generally and the account of astigmatism in particular, together with the mode of relieving it by glasses, are very well done, and the following may be taken as

an example :—“The combination of a convex spherical lens with a concave cylindrical lens has the following effect :— In the direction parallel to the axis of the cylinder the combination equals the full refraction of the spherical ; in the direction at right angles to the axis of the cylinder the refraction is equal to the difference between the two lenses. If the convex spherical is stronger than the concave cylinder the difference is still represented by a convex glass. For example, + 2 D spherical c - 1.50 D cylinder axis 180° = + 0.50 D spherical c + 1.50 D cylinder axis 90°, because + 2 D in the meridian of 180° is not diminished, but in the meridian of 90° it is reduced to + 0.50°. Now + 0.50 D spher. produces this amount of refraction at 90° and supplies + 0.50 D of the requisite + 2 D at 180°, leaving + 1.50 D to be supplemented by a cylindrical lens with its axis at 90°. In place of writing + 2 D spher. c - 1.50 D cyl. axis 180°, a more simple expression would be + 0.50 D spher. c + 1.50 D cylinder axis 90°”; and then the case when the concave cylindrical lens is stronger than the convex spherical is considered. The chapter on operations might with advantage be extended. The practitioner who had never seen the operation performed would hardly be able to undertake the operation of tenotomy from the instructions here given ; whilst in regard to readjustment Swanzy's method is alone intelligibly given ; Prince's and Schweigger's methods, though mentioned, are too briefly described to be of any service. In conclusion, we may observe that Dr. Schweinitz's treatise is very reliable, and may be consulted with advantage both by the general practitioner and the ophthalmic surgeon, whilst it will prove a very useful book to the student.

*Garden Design and Architects' Gardens.* Two Reviews Illustrated, to show, by Actual Examples from British Gardens, that Clipping and Aligning Trees to make them Harmonise with Architecture is Barbarous, Needless and Inartistic. By W. ROBINSON, F.L.S. London : John Murray.

In these days, when public parks and open spaces are felt to be necessities for dwellers in towns, Mr. Robinson's little book will possess an interest for many who frequent them and who may thus gain some insight into the mysteries of landscape gardening, from which they were formerly in a large measure debarred. Everyone cannot own country seats or extensive grounds, but anyone can admire and enjoy beautiful gardening in public places. Mr. Robinson speaks strongly of the “false” and “inartistic” treatment of trees, which are often clipped and shaped in various fashions without any valid reason. He also deplors the sacrifice of many lawns and stretches of turf which are cut up into geometrical shapes, leaving no room for a broad and comprehensive effect, or for the use of games or enjoyment. The book is full of beautiful illustrations taken from some of the most noted gardens in England and elsewhere. The author complains that the work of the landscape gardener is often more like that of an engineer than of a keen student and lover of nature. The book is clearly written, and should be readable even to those who know little about gardening as an art.

*Dictionary of National Biography.* Edited by SIDNEY LEE. Vol. XXXIX.—Lambe-Leigh. London : Smith, Elder and Co.

THE publishers of this elaborate work are to be congratulated on the promptness with which each succeeding volume is put before the public. We do not in this place attempt anything like criticism of the merits of this biography. This must be reserved until the completion of the work. Meanwhile it may be interesting to recall a few incidents in the lives of medical men whose names occur in the volume just issued.

Brown Langrish, M.D., F.R.S., who died in 1759, was an

author of some distinction. His writings included a work entitled “The Modern Theory and Practice of Physic,” and another on “Physical Experiments on Brutes”—experiments undertaken in order to devise “a safe and easy method of dissolving stone in the bladder.” The Croonian Lectures on Muscular Motion were delivered by him before the Royal Society in 1747.—Christopher Langton, M.D. Camb., who died in 1578, published a book with the quaint title, “A Very Briefe Treatise orderly declaring the Principal Partes of Physick—that is to say, thynges naturall, thynges not naturall, thynges agaynst nature.” Langton appears to have been a man of considerable intelligence, but somewhat deficient in moral stamina.—The name of Dr. Edwin Lankester, who was born in 1814 and died in 1874, comes next, and deserves a somewhat fuller notice than that given to either of the above. Originally intended for the career of an artificer, his taste led him subsequently to seek access to the medical profession, and as surgical assistant he entered the service of Mr. Staniland of Fareham. In that position, however, he did not long remain. He felt himself in the possession of abilities equal to a more distinguished rôle. Accordingly, having entered a medical course in the London University, he pursued with ardour the studies fitting him for his future work until he was enabled successfully to compete for the qualifications M.R.C.S., L.S.A. Repairing to Heidelberg, he obtained the M.D. degree, and afterwards settled in London, and supported himself by literary work, popular lectures and such practice as fell in his way. On the death of Mr. Wakley, M.P., Dr. Lankester was elected, after an exciting contest, to the Middlesex coronership, a post the functions connected with which his predecessor had done so much to exalt in public estimation, and into whose labours Dr. Lankester entered with enthusiasm. His contributions to science by both tongue and pen were of no mean order.—Several celebrities of distinction owning the name of Latham figure in this volume.—Dr. John Latham (1761–1843) studied medicine at St. Bartholomew's Hospital, and began practice in Manchester, but soon removed to Oxford, where he became physician to the Radcliffe Infirmary. Afterwards he came to London and was elected physician to the Middlesex Hospital. In 1795 he was appointed Physician Extraordinary to the Prince of Wales. He delivered the Gulstonian Lectures in 1793, the Croonian in 1795, and occupied the presidential chair from 1813 to 1819 inclusive. He was a voluminous writer.—Dr. Peter Mere Latham, son of the above, was quite as distinguished as his father, though his reputation as a physician does not seem to have attracted so large a *clientèle*. His clinical teaching was regarded as excellent, and his writings (especially his Lectures on Clinical Medicine, comprising diseases of the heart, which for long will remain a standard work) are not likely to pass into oblivion. He was appointed Physician Extraordinary to the Queen in 1837.—Robert Gordon Latham, M.D. (1812–1888) is chiefly known as an ethnologist and philologist, and as the editor of Johnson's Dictionary. He was formerly lecturer on *Materia Medica* at the Middlesex Hospital, but in 1849 he abandoned medicine in favour of his ethnological studies.—Of Dr. Thomas Lawrence, who occupied the position of President of the Royal College of Physicians in 1711–1783, there is not much to be said. He appears to have been noted chiefly for the writing of elegant Latin and as the author of the *Life of Harvey*, prefixed to the College edition of his *Opera Omnia*, for which Lawrence received £100.—Sir William Lawrence, F.R.S., the famous surgeon of St. Bartholomew's Hospital (1783–1867) demands a somewhat more detailed notice. His professional career commenced by Abernethy appointing him his demonstrator of anatomy. After his admission to the Royal College of Surgeons he became assistant surgeon to St. Bartholomew's Hospital, to the full surgery of which institution he was appointed in 1824, an office he held for forty-one years. His lectures, delivered at the College of

Surgeons, on Comparative Anatomy and Physiology roused at the time of their publication a good deal of odium, and Lord Eldon refused an injunction to protect the rights of the author on the ground that they contradicted the Scriptures. Those times have now happily passed away. Lawrence was described by his contemporaries as an admirable lecturer and clinical teacher. His commanding presence, great experience and sagacity made him venerated not in medical circles alone, but in society generally. A notice of his life would not be complete without a reference to his attack on the management of the College of Surgeons, an opposition which, however, says his biographer, was afterwards warded off by the Council electing him a member of their board.—Of John Leake, M.D. (1729–1792), little need be said, and that little seems to be not of a highly reputable kind. He described a new kind of forceps having three blades instead of two, but the device was not received with favour by the more experienced obstetricians. He published some works on diseases of women, but addressed his remarks in two instances, at least, not to physicians, but to women themselves.—Arthur Leared, M.D., born in Wexford in 1822, obtained his doctorate in Trinity College, and, having practised for a short time in the above-mentioned town went to India, where, however, his health did not permit him to remain. Dr. Leared diligently improved the opportunities afforded him by travel, and, being apt in the acquisition of foreign languages, managed to obtain very wide culture. His society was therefore much sought after by the learned and artistic. His writings were numerous, the most important of them being perhaps his treatise on “Imperfect Digestion” and on the “Sounds caused by the Circulation of the Blood.” He died in 1876.—Edwin Lee, M.D. Gött., entered the profession as an articulated pupil of the Royal College of Surgeons of England and became a member of the medical staff of St. George's Hospital in 1824. His chief strictly professional subject was lithotrity, for which he gained the Jacksonian prize. He resided much abroad, and was best known for his numerous handbooks of continental travel.—Another physician of the same name (Robert Lee, M.D.), an obstetrician of great eminence, must be mentioned. His life was embittered by the disregard paid by his contemporaries to his discoveries of the nerves of the uterus, the reality of which, as described by him, was disputed by other distinguished anatomists. A long list of papers and memoirs bearing on kindred subjects was published in THE LANCET of March 22nd, 1851. That Robert Lee was an able anatomist cannot be questioned, but whether all his conclusions and observations will survive the results of further research must await the verdict of posterity. His preparations and specimens are now lodged in the museum of Cambridge University.

*Glanders: How it Arises and Spreads &c.* By W. HUNTING, F.R.C.V.S. London: H. & W. Brown. 1892.

IN a sixpenny pamphlet Mr. Hunting attempts to deal in a popular manner with the subject of glanders, which has occupied a fair share of attention lately. There is, of course, nothing new in his statements or proposals so far as sanitary measures are concerned, neither is there anything to interest the pathologist in the few pages devoted to the consideration of the causes and symptoms of the malady. The author ascribes the prevalence of the disorder to ignorance on the part of horse owners, but surely his long experience must have taught him that in a large number of instances in which diseased horses were kept alive for days, weeks, and even months together, and even worked when there was small chance of detection, the owner was perfectly cognisant of its existence. In the large studs of horses which are infected in London the nature and symptoms of the disease are well known to the proprietors, and yet there is often

hesitation in reporting cases. It is proposed to give compensation for the slaughter of diseased horses in order to induce owners to notify its existence and obviate concealment. If its prevalence is due to ignorance, then compensation would not do much towards revealing it. Indeed, the author gives striking instances adverse to his statement, especially when treating of compensation. It is satisfactory to note that the writer does not believe in the curability of farcy, though we believe he has asserted elsewhere that a farcied horse could be permanently cured. Infection through the medium of the atmosphere he denies, because the glanders poison, he states, is not volatile; yet he admits that the lungs are always affected in developed cases. Some of the best authorities are of opinion that, under certain circumstances, glanders may be communicated through the atmosphere, as in hot, foul stables, and on the main and lower decks of ships when the temperature is high, as when the hatches are battened down. It would therefore not be wise to neglect this probable cause of spread under all circumstances. Mr. Hunting does not attach much importance to the danger usually ascribed to public drinking troughs, though he does not quite deny the possibility of infection sometimes occurring in this way. He says that “tramway, omnibus and cab horses suffer most from glanders, and yet the majority of these animals never approach a public trough. Small carters and carriers are the greatest patrons, and they hardly ever suffer from glanders amongst their horses.” It is true that tramway and omnibus horses do not drink at these troughs, but they do so at those of their own establishments; cabdrivers, however, largely avail themselves of the public troughs, and there is much evidence—that of the Brown Institute, for instance,—to show that the horses of small owners very often suffer from the disease.

With many of the author's statements we must disagree, so far as getting rid of the disorder is concerned. He remarks, for example, that he would expect the virus to lose its potency in a damp stable in a few days; and that he does not believe it will remain active, even in a dry form, for more than six weeks. We can call to mind a very serious outbreak among horses in the east of London, due to putting them into an old wooden, badly ventilated, and worse lighted stable which had been shut up for more than twelve months, and which had been disused during that time because many cab-horses had perished in it from glanders. Another serious mistake we consider the author makes is with regard to the floors of infected stables, which he believes to be the least worthy of notice. “The worse the flooring, the more moisture and decomposing matter we find on it and in it, and these conditions are themselves inimical to the preservation of glanders poison.” Such a statement will not, we feel confident, receive the countenance of anyone who has had to deal with the disease for any length of time, and we should be sorry to act upon it if we were called upon to stamp out an outbreak.

There are many other remarks to which exception could be taken, but we have said sufficient to show that some of the opinions expressed are not quite in harmony with those of others who have had experience of glanders. Indeed, had the pamphlet not been intended for the general public we should not have felt ourselves justified in giving it such a lengthy notice. But as the author is the veterinary inspector for Westminster and Chelsea any statements he may make might be accepted as indisputable and perfectly reliable, and in this way lead to serious mischief if they were not so. The author is also not quite up to date, though the *brochure* was recently issued—the preface is dated September of this year. Among other things there is no mention whatever of mallein as an aid to diagnosis, though that valuable substance was in use more than a year ago.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 12, 1892.

THERE is probably no better criterion of the state of medical science and of the medical profession of a country than is supplied in the proceedings and the discussions of its medical congresses. This is as true of a colony as of the mother country. We have lately had the opportunity of applying this test to our Australasian colonies, so far as such proceedings and discussions can be judged by newspaper reports. It is gratifying to be able to say that, judging from this test, the profession in our Australasian colonies will bear a favourable comparison with the profession at home. The third session of the Congress opened in Sydney on Monday, Sept. 26th, at 11 A.M., in the Great Hall of the University, and it must have been an imposing event. The Australasian colonies number, we suppose, about 4,500,000 subjects, without counting the aborigines. The roll of the Congress numbered 534 members, drawn almost entirely from the colonies themselves. This is no bad muster in itself for a population about equal to that of London. It is interesting to know the contribution to it of the several colonies: Sydney itself sent 208; New South Wales, outside Sydney, 111; Victoria, 131; South Australia, 39; Queensland, 32; New Zealand, 12; Tasmania, 11; and Samoa, 1. One more was supplied by New York. The Congress received full recognition of its importance by the presence of the Governor, the Earl of JENSEX, and the Premier, Sir GEORGE DIBBS, K.C.M.G. Both these distinguished men gave a hearty welcome to the Congress, and the Premier enumerated various measures in sanitary legislation which he had promoted and others which he had in contemplation, mentioning that Dr. McLAURIN, now in England, was authorised by him to gather all information in Europe that would help in a comprehensive Health Act. The Governor entertained the Congress at a garden party at the Government House, and nothing indeed was wanting in the way of hospitality, and excursions, scenery and weather, and general good humour to give dignity and effect to the Congress, which reflected the highest credit on all concerned. A little point was raised at an evening meeting as to the mode of electing the executive in such congresses. The mover of a resolution, in itself reasonable enough and supported in a temperate speech, did not succeed in carrying it. It is always wise in such arrangements to consult as much as possible the general feeling of the profession of the district which is to receive and entertain the Congress. But there are various ways of doing this, and it does not seem to have been left undone in the present instance, if done somewhat differently from the way suggested by Mr. TARRANT. Excepting this incident the proceedings were of a most satisfactory character. So much internal harmony and so much hospitality from the representatives of the State go far in themselves to justify the Congress and are a sufficient reason for such gatherings; but the justification is greatly strengthened in this instance by the nature of the proceedings. The address of the President—Dr. P. SYDNEY JONES—was in admirable

taste and spirit. It consisted of an exposition of the progress of medicine during the past forty years, the period covered by Dr. JONES'S own experience since he began the study of medicine at University College. It was meant to rebuke and remove that spirit of doubt and scepticism as to the progress of medicine which so many minds seemed to cultivate, and very ably did the President establish his contention that the progress of both medicine and surgery in this period had been simply marvellous. No part of the great subject was omitted—from anatomy to pathology, from the treatment of wounds to the latest improvement in pharmacy, from cases showing the cure of tuberculosis to the achievements of preventive medicine. In the various sections there was the same proof of progress in the interest taken in every branch of medical work. We publish elsewhere an abstract of the proceedings. In the Surgical Section cases were read which illustrated the most brilliant triumphs of careful operation guided by the latest helps of advanced physiology. One case of excision of the pylorus for scirrhus, extending two inches into the duodenum, was exhibited, in which the patient, after two years, was in perfect health. Tracheotomy in diphtheria was reported as successful in fifty of one set of 120 cases, and ten of another set of thirteen. In some of the sections only half the cases could be read. Important discussions were opened on the subject of anæsthetics.

We cannot pretend to even mention the many valuable contributions in all the Sections. From our abstract elsewhere our readers will see that the lights of medicine burn brightly in the Australasian colonies. We receive occasionally discouraging reports of professional methods and manners from these colonies, but we are reassured by the Congress and convinced that the high character and aims of the profession are well sustained in Australasia.

FROM the reformer's point of view the proceedings at the ninth annual general meeting of Fellows and Members of the Royal College of Surgeons of England, held on the 3rd inst., may be regarded with satisfaction and complacency. A few skirmishes enlivened speeches which were inordinately long, and dull withal at times, but there was no very serious antagonism between the militant Members present at the meeting and the authority of the President, who occupied the chair. Having given a fair and useful summary of the report which had been placed in the hands of the Fellows and Members, the President desired the assistant secretary to read the following resolution, of which notice had been given by Mr. LAWSON TAIT and Mr. NELSON HARDY: "That this meeting of the College of Surgeons of England is of opinion that the report now presented is ineffectual and incomplete, and this meeting is further of opinion that the ancient attitude of hostility on the part of the Council to the true interests of the body corporate of the College ought to terminate, and that the repeated resolutions passed at former meetings of the College should be carried into effect."

This resolution had already been before the President, and had received his sanction after it had been amended by Mr. LAWSON TAIT, at his request, by the excision of words referring the report back to the Council. The resolution was therefore strictly in order, and on several grounds it would have been better to allow Mr. TAIT to proceed and to hear

what he had to say before making any comment. The President, however, intervened between Mr. TAIT and the motion by suggesting that he should divide his motion, characterising it generally as offensive, and throwing out a hint to the meeting that it should not be put or even discussed, and, failing this resource, he proceeded to rule that the resolution *must* be divided. This ruling Mr. TAIT accepted under protest, saying "he knew of no meeting conducted in such an extraordinary fashion as this. He had never heard a chairman argue a resolution before the opener had spoken, and he had never heard of any business body in the world beginning a meeting as this meeting had begun. The resolution had been accepted in the course of correspondence, and if it was now to be amended he considered that there had been a breach of bargain." He then addressed himself to the first clause of the original resolution, that the report was ineffective and incomplete, referring to the exclusion of the Society of Apothecaries from all consideration in the scheme for the five years' curriculum, to what he considered to be defects in the scheme itself, to the want of consultation of the body corporate of the College in regard to the proposed new University for London, to the want of full information in regard to the extraordinary expenditure at the College and to some minor defects and omissions. In seconding the motion Mr. NELSON HARDY specified a misprint in the report which would go down to posterity and made an effective point out of the fact that throughout the whole of the report the words "Council" and "College" were used in such a way as to lead the reader very often to believe that the Council was the College, or, on the other hand, that the College was the Council. Both Mr. HARDY and Dr. DANFORD THOMAS dwelt on the ineffective and incomplete replies received from the Council in answer to the resolutions passed by the Fellows and Members for many years. Mr. GEORGE BROWN having supported the resolution and Mr. CRAVEN and Surgeon-Colonel INCE having spoken against it, Mr. HOLMES expressed a feeling prevalent at the meeting that, as the constitution of the College stood, the report was a very satisfactory one, and he regretted that the report which had been drawn up in a spirit very friendly to the Members and Fellows should be spoken of in terms which he could not help regarding as somewhat disparaging. The intervention of Mr. HOLMES, who was warmly cheered on rising, secured the defeat of the first part of the resolution, that the report was ineffective and incomplete; and we believe that if the President had not insisted on the resolution being divided the resolution as a whole would not have been carried, because those who disapproved of the first part of the resolution—the majority of the meeting—would have abstained from voting for a resolution weighted by a clause with which they could not concur. The moment, however, the incubus was removed the latter part of the resolution, moved by Mr. LAWSON TAIT and seconded by Dr. ALDERSON, regained its elasticity, and, notwithstanding the appeals of Surgeon-Colonel INCE and the President of the College, was carried by a large majority. We agree, however, so far with the President that this resolution might have been expressed in language less open to exception as apparently offensive: for whatever opposition the Council has offered to enfranchisement and representation of the Members of the College has been due at least to a con-

viction that measures of this kind would not be for the welfare of the College, which they have regarded too exclusively as a scientific body; and in this the Council have been supported strongly by the main body of the Fellows, who have regarded the pretensions of the Members with disapproval and apprehension. The Council must of necessity reflect the opinions of the constituency who elect it, and therefore it is that if justice is ever done to the Members it must come in the first instance not from the Council, but from the Fellows themselves. Many of the Fellows are already convinced of the expediency of making concessions to the Members of the College, and in proportion to the increase of privileges granted to the Fellows and to the open discussion of collegiate affairs at meetings of the Fellows summoned by the Council will be the growth of liberal opinion in their ranks. We are not sure that the Members of the College are fully convinced of this, for immediately after Mr. LAWSON TAIT'S motions had been disposed of there was a large exodus of Members from the general meeting before the resolutions promoted by the Association of Fellows came on for discussion. It is gratifying, however, to be able to record that both of these resolutions were almost unanimously passed. On the motion of Mr. HOLMES and Dr. DANFORD THOMAS the meeting thanked the Council of the College for acceding to their wishes in the matters (a) of separate meetings of Fellows and Members, and (b) of the provision of a common room in the College. Mr. HOLMES pointed out most appositely the great importance attached to separate meetings of the Fellows by those who had urged them on the Council, because they had strong opinions as to the undesirability of maintaining the present constitution of the College, and as to the desirability of some modifications of the Charter, and because the opinions of the Fellows generally both on these points and on the claims of the Members would be obtained in a manner more satisfactory than had been done by a paper which the Council had circulated some years since. Curiously enough, Mr. LAWSON TAIT was the only person who held up his hand against the motion. The last resolution, moved by Mr. GANT and seconded by Mr. JOSEPH SMITH, ran as follows: "That this meeting of Fellows and Members again wishes to impress upon the Council that it is absolutely essential for the welfare of the College that the Fellows and Members should be consulted before any change is made in the constitution and external relations of the College and before the College is committed to any extraordinary expenditure on buildings or otherwise."

It will be noted that there are three different things specified in the resolution as to which the expediency of consulting the Fellows and Members is insisted on: changes in the constitution which can only be effected by Charters and By-laws, the external relations of the College—such as those with the College of Physicians, Universities and the Apothecaries' Society—and extraordinary expenditure. The President appeared anxious to set aside the resolution on the ground that consultation in regard to larger questions had been admitted by the Council in an answer in 1885 to certain resolutions passed by the Fellows and Members. But such larger questions included some only of the points raised in the third resolution, and an admission of the principle by the Council in the form in which it is embodied is by no

means sufficient to bind the Council hereafter. Moreover Mr. LAWSON TAIT hit the nail on the head when he remarked that he had seen little disposition in the Council since that memorandum was issued in 1885 to take advantage of this resolution. Hence it is of the greatest moment to the cause of collegiate reform that the principles laid down in the third resolution should have been reaffirmed at a general meeting and have elicited from the President of the College a statement that the Council recognised the justice of the principles and intended to act upon them. We shall look with the greatest interest for the answers which the Council will give to the resolutions passed at the ninth annual general meeting of Fellows and Members, and by these answers the progress of the reform movement may in all probability be most accurately gauged.

THE second of a series of articles in *The Times*, dated Nov. 4th, on the subject of "English Ports and the Cholera," revives a question to which most people thought *The Times* had itself in previous articles, and notably in those of Aug. 27th, Sept. 3rd and 24th, given its death-blow—namely, that of maritime quarantine against cholera. The writer having dealt with defects in our ports, which are, we fear, but too abundant, goes on to refer to the reiterated demand for quarantine. He states that, to most of us, arguing about quarantine seems like flogging a dead horse; but having given it as his opinion that "it is not dead yet," he further declares that the demand for it "is not so foolish as it looks." He also points out that the request of certain authorities is that in the case of ships making short voyages of from thirty to fifty hours they should "be isolated for a couple of days so as to give cholera time to show and so prevent its introduction ashore." It is true that he adds that we have abandoned quarantine for good and that "no more need be said about it," but unfortunately the little he has said is to declare that for England the system is not so foolish as it looks, and the authority of *The Times* for such a statement is one that will certainly be utilised both at home and abroad in antagonism to the views which have been enunciated for some forty years past on the part of the British Government, and which have recently been renewed with a decision that leaves little to desire.

The suggestion which the special correspondent of *The Times* does not regard as foolish is that as respects ships from infected ports, and on which "no one is visibly ill," a detention of forty-eight hours should be added to a fifty hours' sea voyage, making four days in all between leaving the infected port and permission to land in an English port. Is this different in principle from the "five days' quarantine" which foreign nations imposed on our shipping when cholera was present in several of our ports a little more than a month ago and which *The Times* then declared to be "a crowning absurdity"? Cholera prevailed close to Boulogne a short time since; it may at any moment next year prevail in ports such as Boulogne, Calais and Dieppe. Does the writer of the recent article propose that notwithstanding the powerful arguments as to the absurdity of any such scheme which *The Times* advanced on Sept. 24th, the passenger traffic from these ports should be subjected to a forty-eight hours' detention—a proceeding under which,

as *The Times* has well put it, English harbours and rivers "would be choked with vessels containing ..... passengers for whom there would be no accommodation ....."? And if passengers merely sailing from such ports as have been named are to be subjected to this detention, what about those who come from "an infected place"—Paris, to wit—where cholera has been widely prevalent both in 1884 and in 1892? We are sure the system is quite "as foolish as it looks," and this mainly because it cannot be carried out.

But, insists the special correspondent, we ought also "to put ships from infected ports at short distances on the same footing as ships actually infected." Here, again, we are face to face with an interference with a traffic between France and England which at one time during the recent prevalence of cholera amounted to not far from a thousand passengers a day. It would be interesting to know what the Dover Town Council would have to say to this, and where in a gale of wind the unfortunate ships and their complement of passengers would be placed. Our merchants who import butter and fruit from Brittany and the neighbourhood would doubtless also wish to have something to say concerning this proposal, and they would, we expect, appeal to *The Times* itself as to the "cruelty to individuals," and as to the useless interference with the importation of "the fruit, the vegetables, the eggs, the butter, and so on," which that journal has so graphically described.

The theory of "local option" has acquired some prominence in recent years, and it might become a question whether those who do not regard quarantine detentions as foolish should be allowed to do as they like with their own ports, whilst an absolutely impossible and impracticable duty should not necessarily be cast on all other ports. This, we know, would not be at all pleasing to some such ports as Grimsby. They may wish to keep fish from the North German coast out of their port, but not at the risk of its being passed on to another port, and so finding its way into the disinfecting apparatus of English domestic life—namely, the cook's fish kettle—by a new route. Were it not for this view it might be practicable to let ports do as they wish in the matter, for they could then also decide what constitutes an "infected port"—a term which no English Government has as yet undertaken to define. But this point, too, has already been decided in a statesmanlike way by *The Times* when it was condemning resort to any such system. "It is obvious," says that journal, "that one and the same system must be applied to all British ports." This, too, is the view of the special correspondent, who is otherwise the mouthpiece of an opposite contention. He would impose the detention of vessels everywhere and not even allow a discretion to the medical officer of health. "You must do it" is the action which he proposes to be applicable as much to Dover as to Grimsby.

We cannot help thinking that these views of the special correspondent and of those port authorities who advocate quarantine detentions, whether of two, four, or seven days, are based on a failure to apprehend one essential point which underlies our English system of cholera prevention. It is very generally thought that those who support our system of "medical inspection" as opposed to quarantine detentions pretend that the system will absolutely suffice to keep cholera out of the country. This is the reverse of that which is con-

tended by those who are responsible for the inauguration and the future development of the system. On the contrary, they hold that whilst our port sanitary administration ought to be organised on a basis and scale sufficient to serve as a first line of defence, it is, after all, on the improved sanitary circumstances of England and Wales as a whole that we must rely to prevent the spread of imported cholera. The port districts are expected to do their best, and this best will under the English system be infinitely more efficacious than a system of quarantine detentions; but after they have done their best precisely the same is expected of the inland districts. This, too, has been the main strength of our English system of sanitary administration, for it has been largely due to the knowledge, in the face of previous epidemics of cholera, that such detentions as are suggested are impracticable under the circumstances of this country, and will hence not be attempted, that such large and remunerative disbursements have been made for the purposes of public health. We think it most helpful that the defects of our ports and inland districts should be exposed, but we trust that no encouragement will, in view of the actual facts which we have to face, be given to those who advocate quarantine detentions in connexion with the general traffic coming to our shores from the continent of Europe.

THE report of the Lords' Committee on Metropolitan Hospitals, of which we published a digest last week, had been anticipated some months since, and its main conclusions have already been commented on in the columns of THE LANCET. The present Blue-book is only an amended and enlarged form of that previously issued, setting forth the history of amendments and additions, together with some documents of interest, and containing an appendix which furnishes a mass of tables giving the statistics of all the hospitals of the metropolis. These tables must serve for a long time to come, as a reference for the principal facts concerning each hospital, Poor-law infirmary and sick asylum, dispensary, whether free or provident, and nursing institution in London. We need not detain our readers long with the principal conclusions of this inquiry. The voluntary system has been investigated carefully, and there is no doubt that it comes out of the inquiry creditably. The system is conducted economically and yet generously, and the members of the Committee pay a very just and much overdue tribute to the large amount of administrative service and ability which is placed at the disposal of the hospitals of this country. Men of high standing in society and in business give their time and money to these institutions as if they were paid for their services. We heartily endorse this praise. If there is one thing more clearly brought out than another in this investigation it is that, on the whole, the great general hospitals deserve all they receive from the public and, indeed, a great deal more. There are some few faults of administration, but these have been unduly censured and criticised, and the time has now come for more support, in order that the empty wards may be filled with beds for the sick poor and that the hearts of treasurers may be lightened of the load of debt. It is discreditable to think that, with the prospect

of a winter of fog and frost and short employment, so large a proportion of wards must remain untenanted for want of funds. The report appears, or reappears, opportunely at a time when good-hearted and well-to-do men are devising means for abating the miseries of their poorer neighbours. This report will convince them that in increasing their contributions to the great general hospitals of London they are making an investment of charity that will on a large scale avert "death and all the sad variety of pain," while it will go to perfect that art of healing on which their own cure and that of those who are nearest and dearest to them must sooner or later depend.

The Committee has gone fearlessly and fully into the complaints alleged against hospitals and other medical charities—whether complaints of insanitary condition, as in the case of St. Bartholomew's Hospital; of mode of government, as in that of the endowed hospitals generally, and the tendency to the concentration of a too autocratic power in one or two hands; or of the treatment of nurses, as in that of the London Hospital—and the result still is that they prove to be great institutions after all. In the last case the judgment of the Lords' Committee is that the charges against the hospital authorities were "unsubstantiated," and that the difficulties which did occur would have been obviated if the governing board had not allowed their authority to fall too much into the hands of the salaried officers. Nevertheless, the conclusion arrived at is that it is an admirable institution, which confers inestimable benefits on a very large and very poor population. If the profession is dissatisfied with any portion of the report it will be with that which deals with the out-patient department of the metropolitan hospitals, which has been defended chiefly on the grounds of its undoubted uses in medical education. Those who know the tendency of well-to-do persons to enter the open gate of the out-patient department will think that the evil deserved a more severe censure than has been expressed by the Lords' Committee, and that such disapproval might have been expressed without any serious detriment to the cause of medical education. But while not admitting any serious abuse of the out-patient department, the Committee makes suggestions for arrangements (to which we trust hospital authorities will give due attention) for restricting the number of out-patients per diem and for securing inquiry by experienced officials in all doubtful cases. Two valuable proposals are that encouragement should be given to medical practitioners and the officers of dispensaries to use the out-patient department for consultative purposes, and that in such cases the patients should be left under the care of their medical advisers. Not the least instructive part of this fuller edition of the third report is afforded by the Tables of Provident Dispensaries showing the scant rate of remuneration and the small success of these institutions. A better regulated out-patient department on the lines suggested in the report and a trustful system of coöperation between its officers and practitioners and provident institutions outside would tend much to remove the faults of the out-patient department as at present conducted in most hospitals.

The members of the Lords' Committee have evidently had an interesting discussion on the subject of the monopoly of English hospital appointments by the possessors of English

qualifications. They do not allude to the question whether similar monopolies in Scotland are enjoyed by the holders of Scotch qualifications. Lord SANDHURST carried a liberal resolution in favour of the abolition of all territorial restrictions of qualification for hospital appointments against the Earl of ARRAN, who charitably interposed with a proposal to leave things as they are "lest too many of the best of the Scotch and Irish medical men should be attracted to London who should rather be encouraged to stay in their own country." Unfortunately the protest did not succeed, and the unhappy countries of Scotland and Ireland, which have already suffered from their great men being attracted to England, will be in danger of still further calamity on this score!

The Committee expresses no opinion on the fact that by the Public Health (London) Act, 1891, "every inhabitant" suffering from any dangerous infectious disease will henceforth be entitled to free treatment in the hospitals of the Metropolitan Asylums Board. Nurses have their office magnified in this Report, which contains many suggestions for the improvement of their lot.

The recommendation in favour of a Central Board for supervising the hospitals of the metropolis, composed of representatives of all medical charities, and of other medical or charitable bodies, may be regarded as the chief outcome of the labours of the Committee. We have already commented on this proposal, and hope to revert to it at an early opportunity.

## Annotations.

"Ne quid nimis."

### SMALL-POX IN LEICESTER.

It is impossible to foresee the results of the present outbreak of small-pox in Leicester; the number of attacks is not as yet large, hurried demands are being made for vaccination and efforts at isolation are progressing. The disease is, however, spreading, and there are two points in connexion with the measures of prevention on which the town is relying which deserve notice. In the first place, we learn that one family has refused to submit to the Leicester quarantine process. There is no means of enforcing submission to it, and we always anticipated that the real danger to Leicester would lie in a breakdown of this sort. So long as the country was fairly free from small-pox the danger to this unprotected community was trivial, and the so-called Leicester system was never put to any real test. But once let the disease make a little headway, and then such refusals must become numerous, having regard to the miserable accommodation available for carrying it out. We understand that the Royal Commission on Vaccination are about to send Dr. Sidney Coupland, who recently conducted the inquiry for them in the Dewsbury district, to report to them on the present condition of affairs at Leicester. This is in itself a very desirable step. None the less we cannot help thinking that, much as some members of the Commission might deprecate it, the proper course would have been for a representative deputation of the Commission itself to have undertaken this duty. It would only have cost them a few hours to see what provision Leicester has made for its quarantining process, and if they had once gone over the old shed which has long served to safeguard Leicester

the vaunted appliances would have been estimated at their proper worth, and the Commission would have seen that the refusal of respectable people to submit to detention under the conditions that have been available was to be expected as soon as a few families of this class were attacked. The disease has, we are informed, also appeared in a populous lodging-house, but no means exist for "quarantining" all the inmates; and here, again, the system breaks down. The other point is of more serious importance. It is reported that small-pox has spread to some of the scarlet fever patients who are under "isolation" in the same hospital. It is a duty of the sanitary authority to isolate infectious diseases, but it is no true isolation to expose the patients, removed from their homes for the protection of the public, to the infection of an infinitely more horrible disease. So well is the danger of placing small-pox and other infectious diseases on the same site recognised that the practice has almost everywhere been abandoned, and it is well known that for many years past the Local Government Board have refused to sanction any such system. But Leicester people, or rather certain among the authorities of Leicester, have their own views of small-pox, and they appear to be deliberately bringing cases of that disease into the same institution and on to the same site as that which is devoted to the treatment of children unfortunate enough to have scarlet fever, and, as must also sometimes be the case, unfortunate enough to be the offspring of parents who, vaccinated themselves, have been taught to believe that there is no need to give their children the same protection. Leicester may again escape as other towns have done, but the day of reckoning will certainly come, and it may at any time be precipitated by the refusal to submit to an unauthorised detention in an old wooden shed or by deliberately ignoring the now well-known danger of bringing small-pox to the same institution as that within the precincts of which patients suffering from other ailments are detained, and to which they may even be removed against their wills.

### THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

AN Italian correspondent writes: "In the Aula Magna of the University of Rome has just been held a plenary sitting of the 'Comitato Centrale Organizzatore del XI. Congresso Medico-Internazionale,' at which progress was reported and several important steps were taken with a view to the greater success of the meeting and the convenience of its members. This had been preceded by a visit to the Policlinico on the part of the 'Comitato Esecutivo,' consisting of Drs. Baccelli, Durante, Murri, Golzi, Maragliano and others, who went over the completed halls of that magnificent structure, and, as a result of their visit, determined that the various Sections of the Congress shall hold their sittings in these halls next September. The non-completed portions of the Policlinico are being pushed forward with vigour, so as to have the entire edifice ready, if not for use, at least for the inspection and appreciation of the 'Congressisti.' At the banquet which followed the fifth Congress of Italian Medicine the toast of the evening was that of Professor Foà, who drank success to the International Congress of 1893. The Berlin Congress, he said, was especially memorable for Italians, as it was the beginning of a recognition by Europe of what Italy—so great in the remote past—had been achieving in the immediate present, and he expressed the hope, amid the approving cheers of his audience, that in 1893 the Italian wing of the profession would earn yet further recognition in the same honourable sense. It would, he added, be in some measure a crowning of the edifice of national unity if Rome were to become the scene of the 'Instauratio Magna'—of the grand rehabilitation of Italian medicine. In a former communication I spoke

of the apathy betrayed by some of the more provincial schools of Italy as to the importance of the Congress, apathy shown in a tardiness on the part of their *personnel* to signify their willingness to assist at its proceedings. That, I am happy to say, no longer exists; indeed, if any such unworthy feeling still lingers it cannot long survive the hearty sympathy with which King Humbert has thrown himself into the preparations for the Congress, at which, through Dr. Baccelli, he has announced his gracious pleasure to assist, and that he will open the sittings in person. All that now remains to be hoped for is a healthy season—temperate as to heat and exempt from that cholera visitation which the 'weather wise' in epidemiology anticipate."

#### FRIEDENHEIM: A HOME FOR THE DYING.

DEATH must always be accompanied by circumstances of sadness, but the conditions under which dissolution approaches are in some cases peculiarly distressing. In only a few hospitals is accommodation provided for patients for whom all hope of recovery has to be given up. Therefore the humane project started by Miss Davidson some seven years ago, which consisted in founding a Home for the Reception of the Dying, cannot but enlist the sympathy and aid of the benevolent. The Home, situated in the Upper Avenue-road, St. John's Wood, was opened on the 10th inst. by the Duchess of Teck, in company with Princess May and her brother, the Prince Adolphus. The history of the movement was recounted by Dr. Schofield, who has taken great interest in the enterprise, and who entered into some particulars in connexion with the working of the institution. It appears that the patients at the home die on an average in three months, but the care bestowed on them is rewarded in some instances by restoration to health. Except in the paying wards the beds are free, preference being given when a vacancy arises to the most distressing cases. The Home will accommodate forty inmates.

#### SIR JAMES CRICHTON BROWNE ON EDUCATION.

ON the Speech Day at the Reading Grammar School (on the 29th ult.) Lord Coleridge defended Archbishop Laud, who was educated at the school, against the criticisms of Lord Macaulay and enlarged on the advantages of a classical education on the old lines, while Sir James Crichton Browne expressed his interest in the school, as being one that is conducted on sound physiological principles. In the Reading Grammar School, he said, the dual nature of humanity is always held steadily in view; bodily vigour is not sacrificed to the attainment of more intellectual acuteness, and the cult of culture is not altogether subordinated to the worship of the great god Biceps. The head master, Mr. Barnard, has found out how to sail safely in the middle course, avoiding on the one hand the Scylla of bravny and stupid athleticism, and on the other the Charybdis of pale and sickly "punditism"—if such a word might be coined. Hence it has come about that the school is sharing meritoriously in the work that was ascribed at Oxford to the universities a few days ago, and is sending forth boys prepared to be not only men of thought but men of action. It is preparing boys for the universities, for the public services, for the professions, to become good and useful citizens, to make the best use of such faculties as they possess, and to draw from life the happiness that life never fails to yield to all those who have learnt how to live truly. It has long been admitted that one of the first conditions of success in life is to be, as Herbert Spencer has put it, a good animal; but we can now go further than that, and affirm that muscular exercise is essential as a stimulus to brain growth. We have reason to believe that there are tracts of the brain that do not grow properly if the muscles over which they preside are not duly and timeously exercised; and,

as these tracts have mental as well as motor functions, it may be that to curtail muscular activity is to stunt brain evolution and intellectual development. Sir James Crichton Browne insisted that those conducting education should be dominated by a lofty ideal of the schoolmaster's mission, but restrained by a just conception of its limitations. Education is the guidance of growth. We cannot in one generation expand the straitened forehead of the fool and convert it into a spacious dome of thought, unravel the intricately inwoven strands of the brain and knit them up afresh, or alter the whole constitution of the nervous system. What we can do is to train, shelter, foster, nourish, while we extirpate cankers and prune away gadding offshoots. He will be the most successful educator who comprehends alike the possibilities and impossibilities of his craft.

#### THE SPREAD OF SMALL-POX.

WE referred in our last issue to a number of towns where small-pox is now prevalent. The list has already become a much longer one. Small-pox exists to a more or less extent in Bradford, Brimington, Blackburn, Birkenhead, Burton-on-Trent, Carlisle, Chadderton, Daventry, Halifax, Higham-Ferrers, Hull, Leicester, Liverpool, Newport (Mon.); Nottingham, Otley, Rotherham, South Shields, St. Helens, Wakefield, Warrington, Wigan, Willesden, Mansfield and Newark. In some cases it is confined to single families; in others it is much more serious. In Warrington there have now been 243 cases, and 28 fresh cases occurred in the week ending Oct. 29th. The state of affairs in this town has suddenly become so serious that the Local Government Board have sent Mr. T. W. Thompson, one of their medical inspectors, to advise the authorities on the spot. At Otley twenty persons have already been attacked and a hurried attempt at hospital provision is being made. The case of Leicester we deal with separately. On the whole the outlook is highly unsatisfactory. The seasonal activity of small-pox is just commencing, and an amount of neglect as to vaccination prevails which is unparalleled in any of a long series of years before the appointment of the Royal Commission into the subject. The Commission has already been sitting ever since May, 1889, without having made any pronouncement except one, which tended still further to prevent the due administration of the Vaccination Acts, whether by the local or the central authorities concerned.

#### THE BEGINNING OF THE FOG SEASON.

THE meteorological conditions during the past week have been preëminently favourable for the production of fog. A gradual increase of pressure, a distinct lowering of temperature, a persistent envelope of heavy cloud, preceded by wet weather, have all conduced to the formation of those tiny particles of moisture which in a state of suspension in the air give rise to mist; mist in its turn attracts the various impurities existing in the atmosphere of smoky towns, and thus the more objectionable fog is formed. The dangers arising from fog are mostly confined to railway and vehicular traffic, although when it is of unusual density it may affect the safety of foot passengers as well. Precautionary measures have been taken this year at the London Docks, where chain fences have been erected on the quays and the edges of the platforms have been painted white. The character of the familiar reddish-brown fog of London is very distinct. Travellers from the suburbs must frequently notice the difference of smell between the fog, or rather mist, enveloping their homes and that which envelops the city. Suburban mist is characterised by a smell which recalls the odour of crude carbonic acid and is probably derived from the decomposition of autumnal leaves. But the moment the traveller arrives in town he observes at once that

the impression conveyed to the nose is exactly that experienced when a fire is first lighted. The smell of London fog is, in fact, that of wood burning. This naturally suggests that if the lighting of fires could be dispensed with much of the evil might be mitigated. Or if coal fires could be allowed to burn slowly overnight, so as to dispense with morning lighting, the nuisance might—to some extent, at any rate—be avoided. Although all are agreed that fogs and mist constitute a pest which must be got rid of, there remains one compensating advantage which has often been overlooked. It is reasonable to suppose that a fog effects a partial purification of the atmosphere. This is borne out by the fact that when a fog subsides the deposit contains the carbon, sulphur, organic bases and other injurious and irritating particles which formerly existed in a state of suspension in the atmosphere. Just as water is freed from objectionable suspended matter by the addition of an impalpable powder, or a mixture which gives rise to a fine precipitate, so probably is the air deprived of suspended impurities by the subsidence of the moisture particles in which the impurities become entangled. It is a matter of common observation that the air is remarkably clear after the subsidence of fog or mist. Wind or rain are, however, equally effective and much more agreeable agents in accomplishing this purification. If we cannot get rid of mists while we are beset with the peculiar conditions which characterise the climate of this country, we can at least make an attempt to prevent the emission of those particles into the air which convert that mist into the intolerable and irritating vapour ever known and remembered as London fog.

#### A LABOUR COLONY FOR EPILEPTICS.

HOSPITALS for the sick in mind and body, homes for the incurable, for the dying even, school prisons for the cure of moral errors, and many like ventures of humane zeal attest the earnestness and often also the wisdom of Christian charity. Both qualities are apparent in an undertaking which owes its origin to German enterprise, and which, as was announced in THE LANCET on Aug. 6th and Aug. 13th, has already found an extension in this country in the Home for Epileptics at Godalming, which was recently opened by the Duchess of Albany. This colony for epileptics was founded some twenty-seven years ago near Bielefeld in Westphalia, and was lately described in the *Contemporary Review*. Its germ, the labour home or Bethel, has during this period undergone very extensive developmental changes. Designed in the first instance for male adults, it opened its doors at a later stage to women and children also, with the natural result that lack of space soon rendered it necessary to open other similar establishments. A portion of the adjoining Teutoburgian forest was acquired at small cost. The cheap and willing labour supplied by the male inmates after a time reduced to a state of comparative cultivation what was formerly mere waste land, and a thriving village sprang up as the result of their exertions. Here by degrees an increasing number of stricken people of all ages have gathered and are now accommodated in cottage homesteads according to their relative ages, condition in life and the stage of their malady. Agriculture has from the first proved to be the most successful form of work in which the men of the colony have been engaged, and the fruits of their tillage are in wide request. Handicrafts are practised also, but these, owing to the cost of instruction and other causes, have not been found equally profitable. One great difficulty has been to secure suitable employment for the women. In the instruction of the children a greater degree of success has been attained, and it is noteworthy that none of those inhabiting the Bethel homes have lost their reason.

Steady work forms the main feature in the system pursued in the colony, and every care is taken by this means—by maintaining cheerful associations, by wholesome nutrition, and by avoiding causes of mental irritation—to guard and strengthen the nervous health of its inhabitants. As yet it is not self-supporting. This fact, however, does not disconcert the managing committee, whose aim is rather to make it first a philanthropic and then a commercial success. The chief difficulty connected with the working of such an experiment as this consists in the moral contagion almost inevitably associated with nervous disease. This does not seem to have proved itself an insuperable obstacle in the case before us, and we are thus encouraged to hope that the Westphalian system may on further trial be found worthy of more general adoption.

#### OPENING OF SCHOOL-BOARD PLAYGROUNDS.

IT was not to be expected that the recent action of the London School Board, in throwing open to the children of adjacent neighbourhoods a number of playgrounds under its management, should pass entirely without censure on the score of economy. We are not therefore surprised to learn that the expenditure thus incurred was disallowed by the officiating auditor. Happily for the children of the metropolis, however, this decision was not approved by the Local Government authorities, and there is a prospect that the access thus generously afforded by the Board to the means of recreation at its disposal will constitute a permanent source of pleasure and of health to those whom it was designed to benefit. We can only trust that it will be found convenient to extend still further the scope of this useful arrangement and to open with a like purpose those playgrounds which as yet remain closed to others than children attending the schools. We need not enter into details as to the obvious benefits thus conferred upon the health of city children. Their most prevalent malady—anæmia, with its associated weaknesses of constitution in which are sown and bred the germs of numerous and serious ailments—knows no remedies equal to fresh air and a sufficient dietary. Money may not be available for the latter, however plain it be; home is commonly but a name for crowded uncleanness. In such a case it is very desirable even to afford the opportunity for free action of limbs and lungs in an atmosphere which is at least the purest obtainable.

#### THE PHYSIOLOGY OF THE IRIS.

SOME years ago Dr. Brown-Séquard startled physiologists by stating that the iris responded to the direct action of light, and demonstrated the fact by dividing the eyes of eels and frogs into a posterior and an anterior half, and directing a ray of light upon the iris. The contraction of the sphincter pupillæ under these circumstances showed that at all events the act was not of a reflex nature through the retina, but it was possible that ganglionic cells might be distributed in the tissue of the iris, which might be sensitive to light and liberate motor impulses in obedience to that stimulus. Steinach has recently investigated the subject, and by a series of careful observations has arrived at the conclusion that the contraction of the iris when detached from the retina is due to the direct action of light upon its structure. In frogs kept for some time in a dark cool room, and especially in the brown grass frog (*rana temporaria*) and also in other amphibia and in many fishes, the phenomena may be easily demonstrated even in the isolated iris. He found that no effect was produced by illuminating the peripheral zone of the iris (ciliary region); but it was necessary that the light should fall on the pupillary margin, of which, if only a segment be acted upon, contraction occurs. The contraction still happened when the nervous apparatus of the iris was excluded by the

action of atropine. Steinach demonstrates that the contraction is not due to the influence of the chromatophores and entertains no doubt that it is really the muscular fibres of the sphincter that are acted on directly. He has made numerous examinations of these, and finds that in amphibia and fishes they are strongly pigmented. In eyes that have been exposed to the light they are short, thick, and not very well defined; whilst in animals that have been kept in the dark they are slender and sharply contoured. He regards the presence of pigment in these muscular fibres as the determining cause of their sensibility to light. The several rays of the spectrum are not all of equal power in causing contraction in the isolated iris. The red rays up to the line C are comparatively ineffective, but the power increases up to the line F, where it reaches its maximum, and from this point it gradually diminishes. In a comment upon this paper Langendorff remarks that other muscle cells besides those of the sphincter pupillæ possess pigment granules in their interior—as, for example, those of the tensor choroidæ in mammals.

#### MEDICAL MAYORS.

THE following members of the medical profession have been elected to the mayoralty for the ensuing year in the under-mentioned towns. We shall be glad to receive an intimation of any omission which may have occurred in the subjoined list:—Bacup, Alderman W. J. Clegg, M.D., M.R.C.P. Edin.; Brighton, Alderman Joseph Ewart, M.D. St. And., F.R.C.P. Lond.; Chipping Norton, George Wright Hutchison, M.D. Aberdeen, M.R.C.P. Edin.; Crewe, William Hodgson, L.F.P.S. Glas., L.K.Q.C.P. Irel.; Hastings, A. R. Croucher, M.D. St. And., M.R.C.S.; Louth, Palemon Best, M.B. Lond., M.R.C.S.; Lymington, W. R. Hill, M.D. Edin., M.R.C.S., J.P.; Montgomery, N.W., Fairless-Humphreys, M.R.C.S.; Ruthin, J. M. Hughes, M.B., M.S.; Saffron Walden, John Parkinson Atkinson, M.D. Glas., L.R.C.P. Lond., L.R.C.S. Edin.; St. Ives, Cornwall, J. M. Nicholls, L.R.C.P. Lond., M.R.C.S.

#### THE ACCIDENT TO A SCOTCH EXPRESS.

THE lamentable accident which happened to the Scotch express near Thirsk on the morning of Wednesday, the 2nd inst., has directed public attention once more to the subject of the overwork of railway servants and the risks not only to the men themselves, but also to the public, which such overwork involves. The matter is one to which we have on many occasions referred. The evidence furnished by Parliamentary reports, upon which our comments have chiefly been based, has been much stronger than that furnished by the facts of the present case, but, naturally enough, the public mind receives from a disaster like that which occurred at Thirsk an impression which could not be communicated by even the fullest and most significant statistics. The very frank statement made by the signalman will very properly do much to attract public sympathy to him in his most painful position. That sentiment will be quite independent of any question of apportioning blame that may have hereafter to be considered, and we are very far from wishing to anticipate the verdict of a qualified tribunal that will doubtless be called upon to consider the case. But one thing seems to be clear, even from the fragmentary statements already made public—namely, that whatever improvements it may be possible to introduce into the conditions of the employment of signalmen, a further protection for the travelling public must be sought in the general adoption of an efficient system of interlocking signals. The effects of overwork may arise, even where the limits of a man's regular employment are most carefully laid down, in consequence of accidents which break in upon the repose of his leisure time. Moreover, even when there is no overwork or

undue strain of any kind to cause special danger, there is the danger that is always present of a sudden attack of illness, which makes human agency a necessarily untrustworthy instrument with which to work. That a solitary man shut up in his signal-box should have the power by a mistake to bring on a catastrophe like the collision of two trains is of itself a standing and startling peril, and one which can be and should be dealt with at once. The singular immunity from serious accidents which we enjoy in the ordinary course of railway travelling has led the authorities and the public also to look with too great complacency upon the slow progress which the improvement of our system of railway working makes and the long interval by which the ordinary practice is separated from the best knowledge of the hour. It is to be hoped that among the lessons of the calamity which we are now deploring this one will not be lost to the public mind and conscience, and that those especially who are responsible for railway administration, whether in the way of the actual work or the official supervision, will bestir themselves to bring about a system under which the evil consequences of those mishaps that must happen under any imaginable system may be minimised and the public safety secured not only by the diligence and skill of those who control the mechanism of our railways, but by the foresight of those who design it and in designing have an eye not less to the possibilities of its breakdown than to its smooth working.

#### PARALYSIS FROM ARSENIC POISONING.

TWO cases of this nature recorded by Erlicki and Rybalkin are referred to in a recent number of the *Neurologisches Centralblatt*. The course of the affection was similar in the two cases. It commenced with irritability of the gastrointestinal tract, general weakness, paresis of the extremities with atrophy, contractures and changes in electrical irritability and sensory changes. In one case also there was some mental disturbance. One patient improved after two years; the other died of phthisis after the lapse of a year. There was found degeneration in the peripheral nerves, together with changes in the anterior grey horns, especially in the lumbar and cervical enlargements. The ganglion cells were reduced in number and those that remained were altered in shape and size, while the protoplasm was in part replaced by pigment. The processes of the nerve cells were deficient in part, and some of the cells contained vacuoles. The nerve fibres also in the anterior horns were reduced in number. Professors Erlicki and Rybalkin regard the alterations in the cells in such conditions as being due not so much to the direct action of the poison as to the mechanical alterations in the circulation and to physiological and chemical peculiarities in the blood.

#### THE PREVENTION OF CRUELTY TO CHILDREN.

THE National Society for the Prevention of Cruelty to Children is to be congratulated on the continued success of its efforts. According to its latest published report, the total number of cases investigated during the year 1891-92 was 8324. Of these, 7291 proved to be genuine, and of 1115 in which a prosecution was instituted, 1042 resulted in conviction and punishment. These facts bear out the truth of remarks for which we are indebted to the experience and candour of a well-known judge, who tells us that he cannot recall a case of prosecution by the Society which has not been justifiable, or more than one which has not been successful. Surely no stronger terms of commendation could better assure the Society's reputation for judicial fairness in the conduct of its work. Another proof to the same effect is found in the excellent understanding which exists between its agents and the police officials. We are pleased to learn from the report that wherever the law

has been applied with due firmness to the repression of cruelty this vice in its severer forms of savagery has undergone marked diminution. Notice is taken of the important fact that in a large proportion—this year 3809—of the cases investigated the children have been insured, and we congratulate the Society on its vigilance in promoting legislative activity both with respect to a form of providence which is open to abuse, and to the disposal of nurse-children. Finally, we trust that its agents will prosecute with due energy their inquiries as to a dangerous custom prevalent in some quarters—namely, that of drugging young children with laudanum. This familiar practice of Eastern motherhood cannot safely hold a place in English domestic life. The Society's income shows a satisfactory increase which we trust will be maintained during the current year, and for the employment of which, as we have shown, deserving objects can still be too easily found.

#### CEREBRAL ABSCESS.

IN a recent number of the *Berliner Klinische Wochenschrift* a brief abstract of a case by Zeller, read before a meeting of surgeons in Berlin, is given. The patient became ill in the middle of January with symptoms of influenza. A phlegmonous process followed in the right orbit. This was laid open and the pus evacuated. But soon after the patient began to suffer from pain in the head and vomiting. There was no cranial nerve paralysis, but both discs were injected, and on the left side blurring of the edge was present. On account of the absence of any progressive tendency in the symptoms and the localisation of the painful area to the right forehead close to the middle line the diagnosis of abscess was preferred to that of meningitis. Professor Sonnenburg operated, first of all laying open the old abscess cavity, but finding nothing except a small defect in the roof of the orbit. He then incised the right side of the forehead and trephined the frontal bone near the middle line on the right side. The dura mater did not pulsate, but, on probing, pus was found in the right frontal lobe anteriorly, and finally sixty cubic centimetres were evacuated. The pulsation returned at once and materially aided in the evacuation of the abscess cavity. The drainage-tube was gradually shortened and finally removed, and only a small granulating surface remained. All the symptoms had subsided, and in a later note it is added that the patient had been discharged from the hospital completely cured.

#### THE POSTMAN'S KNOCK.

IT is easy to see that a correspondent who expresses himself with some emphasis respecting the familiar postman's knock, notwithstanding that he veils his protest under a covering of quaint humour, has given utterance to a genuine sense of injury. His appeals to the busy, the studious, the nervous, the irritated and the sick are not wanting in a kind of pathos. Neither can it be said that they are without some rational foundation. What Londoner has not occasionally been startled by the sharp, loud and sudden double knock when it descends upon the entrance-door of our dwellings after dark and rings through the stillness of the hall or passage beyond? There are times, no doubt, when the sound is welcome. We are well, at leisure, our nerves unshaken, our expectations not unpleasant, and the well-known sound affects us neither much nor disagreeably. There are likewise other and opposite conditions. Weariness and illness have perhaps found a brief respite in slumber. Or it may happen that the mind is for the moment poised at a crisis of thought or strains in effort. At such a time we bless (not sincerely) the slightest trifle of distraction; how much more this loud and instant reverberation from the official outer world. The ancient preacher would no doubt have told us that there was a time to refrain from knocking, yet established rule knows only its

own noisy custom. Relief must be sought by personal exertion. A decided step in this direction would consist in the total abolition of door-knockers, and certainly a bell, whether of mechanical or electric origin, possesses in this connexion distinct advantages. Where no such reform is allowable, muffling provides a partial remedy almost too familiar for mention. Again, in the extreme case, such as sleepless irritability, where no avoidable sounds can be tolerated, householders might easily prohibit by a warning placard the use of either bell or knocker. The postal summons may be indispensable, but we see no reason why it should not be tempered by one or other such means as we have here noted.

#### "REMOVAL OF TUMOUR FROM THE SPINAL CANAL."

WITH regard to the case of spinal tumour referred to last week, we understand that Dr. Ferrier and Mr. Watson Cheyne are preparing full notes of the case for early publication in the columns of THE LANCET. The tumour was intra-dural, had been growing probably for eight years, was situated opposite the seventh to the tenth dorsal laminae, and was easily and quickly removed without any injury to the cord or nerves. The cause of the patient's death is by no means clear, the main symptom afterwards being irregularity in the heart's action, which began when the position of the patient was changed prior to the commencement of the operation.

#### LONDON BOARD SCHOOLS.

THE Lambeth Vestry has recently taken out a summons against the London School Board for having allowed the lavatories to be in a foul state so as to be dangerous to health. At the request of the School Board the magistrate granted an adjournment on the ground that the work ordered by the officer of health was being carried out. It cannot be denied that the fact that the Vestry have taken out a summons, and that the necessity of the work is not disputed, reflect on the management of the Board. With any reasonable supervision this would have been impossible. Seeing that parents are required by law to send their children to school, every care should be taken to ensure that these schools are free from dangers to health; it is obviously the duty of the Board not to wait for the compulsory action of the sanitary authorities, but to initiate at once any improvements that may be necessary. It would be interesting to know what machinery the Board has at its disposal for performing this very necessary duty, and we trust this question will be asked at an early meeting of the Board.

#### ARREST OF HÆMORRHAGE AFTER TOOTH EXTRACTION BY HOT WATER.

DR. JULIUS SCHEFF, jun., of Vienna, according to the current number of *Ash's Quarterly Circular*, recommends strongly the use of hot water for arresting hæmorrhage after tooth extraction. "We are accustomed," he writes, "to stop hæmorrhage by the method that has been used for generations—viz., by the direct application of cold water to the wound. Practitioners started with the idea that heat caused expansion of, and induced increased bleeding from, the vessels; but, on the other hand, cold caused contraction. In an ordinary case of extraction hæmorrhage from the arteria dentalis, or from the gums and periosteum, soon ceases; but it frequently happens, even when the patient does not suffer from hæmophilia, that there is difficulty in arresting the flow of blood." Dr. Scheff mentions three cases occurring in his practice in each of which there was a history of profuse hæmorrhage after extractions. "I allowed one patient," he says, "to take a great quantity of cold water, and yet there appeared not the slightest diminution in the bleeding. I then took a glass

syringe and continuously applied hot water in drops to the wound, from which the blood previously trickled without cessation. After a few seconds the bleeding diminished, a coagulum was formed, and the bleeding finally ceased. With the second patient I used hot water at once, and the flow of blood was arrested. In the third case the wound had been bleeding freely for a long time; I plugged the alveolus with iodoform gauze, and on removing the plug the wound bled afresh. I then employed hot water; the hæmorrhage ceased and did not recur." Dr. Scheff applies the hot water by means of a syringe, injecting it by drops into the socket of the tooth. "The arrest of hæmorrhage in surgical operations by the application of heat is a recognised resource, and it would therefore seem that this principle might with advantage be applied in cases of tooth extraction, especially as the mouth is able to bear a very high temperature without inconvenience. In fact, water so hot that it causes pain when the finger is inserted in it will in many cases be tolerated in the mouth.

#### VACCINATION AND SMALL-POX.

It is difficult for the majority of people living at the present time to appreciate the injury done by small-pox before vaccination was generally adopted, but the opposition shown to vaccination in certain localities threatens to make small-pox in our time as terrible a calamity to the community as it was in the early part of the century. Warrington is now visited by this disease, and on Saturday an inquest was held upon the body of a girl who had died from small-pox and who had had no medical attendance. The necessity for the jury to view the body led the coroner to arrange for this to be done at a safe distance, and when it was afterwards stated that one of the jurymen had entered the place where the body was laid out, the coroner said the particular jurymen would be excused from serving. Probably these precautions were necessary, but we may well contrast this possible risk with the safety with which revaccinated nurses in small-pox hospitals attend upon the sick. But it is not matter for surprise that ignorant persons should be led to possess exaggerated views of the risks of vaccination, and should fail to appreciate the nature of small-pox. We have before us an advertisement of a lecture given this week in the Public Hall, Rochdale. The lecture is announced by the Rochdale Anti-compulsory Vaccination Society. The advertisement contains the notice that the lecture will be illustrated with limelight views, and that "as some of the pictures are very painful, sensitive persons are requested not to attend." While all these efforts are being made to discredit vaccination, we would suggest to medical officers of health the necessity of seriously endeavouring to combat the prejudices of the many who have no opportunity of forming any correct idea of the dangers to which unvaccinated persons are exposed.

#### THE INVESTIGATION OF INDIAN DISEASES.

WE gather from the Indian newspapers that a conference will probably be held at Calcutta during the present cold weather with the view of settling where a bacteriological observatory is to be established in India. It is said that the bacteriological observations at Lahore and Poona have not been a success owing to the climatic conditions of those places. There is no reason, of course, why the work at these laboratories should be confined to any particular branch of pathology or hygiene, but it is time that India should apply all the latest methods of modern scientific research to the investigation of disease-causes. The diseases that prevail in India not only cause a great loss of life there every year, but as regards one of them at any rate—namely, cholera—India is regarded by many authorities as the birthplace and starting-point whence epidemics of that disease derive

their origin and spread to other and distant countries. It is consequently only right and proper that the imperial power which rules India should accept the responsibility of its position, and spare no pains to provide the means and all modern appliances for instituting a scientific inquiry into its exact nature, origin, causes and modes of spreading. There are other diseases also, enteric fever for example, into the exact nature and causes of which further information is urgently needed. But, as we have said, there are many subjects calling for further investigation in India, the study of which would not lack practical interest and application, and the Government of India could not fail to reap advantage from such investigations. We should like to see something like an institute of preventive medicine organised and established in India, with its bacteriological laboratories in connexion with a public health department distributed over India consisting of different local bodies at various stations, each one made up of a medical officer and an engineer officer of the public works department, specially trained to the work. The principal medical officer at any station might then refer to them on the occurrence of any local outbreak of disease, and they should at once proceed to undertake its investigation, with the aid of, and in connexion with, the Institute of Preventive Medicine, to which all matters requiring bacteriological or special methods of investigation should be referred for report. The Government possesses in Surgeon-Major D. D. Cunningham an officer well adapted to act as the directing head of such an institute, who should work in connexion with a staff of medical officers, a sanitary engineer officer and a chemical examiner attached to the institute. As regards the details of the scheme, however, these could be best settled in India.

#### "INFANTILE RESPIRATORY SPASM."

IN a paper recently read before the Edinburgh Medico-Chirurgical Society Dr. John Thomson gave a short account of five cases that had come under his observation in which this curious and interesting condition had existed. It is also known as congenital laryngeal stridor, or infantile laryngeal spasm, and Dr. Gee has described a similar, although somewhat different, condition under the term "respiratory croaking." Of Dr. Thomson's five cases, three were boys and two were girls, whereas in all previously recorded instances where the sex is mentioned it seems to have been confined to girls, and the condition is often said to occur only in female children. As regards family history and general health, there was nothing of very great significance, except that in four of the cases more or less indigestion was present. In none of the patients was rickets apparent when the children were first seen, but it appeared later in those longest observed. There was no sign of congenital syphilis in any of the cases, and intellectual development seemed perfectly good. The onset of the stridor was noticed in three instances immediately after birth, but in one infant it was not observed until a week, and in the other a fortnight, later. As regards the course of the malady, Dr. Thomson says that in severe cases the stridor goes on increasing in loudness during the first two or three months and then tends to subside spontaneously, and as improvement goes on the intervals become longer and the sound less loud, that accompanying inspiration, the crowing sound, disappearing first, while the croaking may still be present at times. After the stridor has ceased to be heard under ordinary conditions it may reappear if the child is specially excited or angry; when the stridor is present inspiration begins with a croaking noise and ends in a high-pitched crow. When the breathing is quiet the latter does not occur. Expiration is accompanied by a short croak when the stridor is loud, but at other times it is noiseless. As regards other symptoms, the indrawing of the chest wall and the episternal notch were well marked in four of the cases, but the

also nasi did not move with respiration, and there was a striking absence of distress or cyanosis. Variations in the intensity of the sounds were not uncommon, and there were occasional intermissions, even when the condition was most constant and severe. The sounds were notably intensified by mental perturbation, more so, apparently, when the child was excited and apprehensive than when actually crying. Sleep seems to have no constant effect on the condition, and it does not cease when the tongue is depressed, nor even when the nostrils are closed, and when the child is taking the breast there is still sufficient air entering the nostrils to cause loud stridor. The effect of the ailment on the general health is not great, and the most effective treatment apparently is by regulation of the diet and other general precautions. Dr. Thomson regards the condition as due to spasmodic muscular contraction, the cause of this being some central disturbance of function, and he considers it closely analogous in nature and etiology to ordinary speech stammering, both being the result of defect in the proper coördinating mechanism.

#### MYOPIA IN CANTON GENEVA.

DR. E. SULZER, *privat-docent* in ophthalmology in the University of Geneva, has memorialised the Minister of Public Instruction for permission to make systematic investigation into the proportion of the myopic youth, male and female, attending the schools in the canton, and having obtained the Minister's sanction has for some time been at work on the materials of an official report. This document, Dr. Sulzer announces, will have a twofold reference—one for the medical profession and another and more practical one for those engaged in teaching. As regards the prevalence of myopia in Switzerland, France and Germany, Dr. Sulzer has already instituted a statistical comparison, from which it would appear that this affection is far less common in the former of these countries than in either of the two latter. In Germany and France, indeed, but particularly in Germany, the subject has for years engaged the serious attention of the Government, while in Great Britain the malady, if not so pronounced, is at least common enough to justify official investigation such as that undertaken by Dr. Sulzer. "Over-pressure" may assume other forms besides those arising from brain fag; and myopia is one of them.

#### NURSES FOR CHOLERA.

WE observe with much satisfaction that active steps are being taken to prepare for a possible visitation of cholera next year. One of the greatest difficulties which will have to be met is to find a sufficient supply of competent nurses to take charge of the sick in any locality in which the disease may appear. The duty of making the necessary provision will be imposed on sanitary authorities, but we anticipate that it will be no easy task to meet the demands which will be made upon them. The forethought of Her Royal Highness Princess Christian in bringing together representatives of the Royal British Nurses' Association and the Society of Medical Officers of Health is therefore much to be commended. On Monday the late Lord Mayor, Sir David Evans, presided at the Mansion House over a meeting of this Association and the Council of the Society of Medical Officers of Health, at which Her Royal Highness was present. The meeting was well attended, among those present being Sir Joseph Fayrer, Sir Dyce Duckworth, Dr. Thorne Thorne, C.B., Dr. Bezly Thorne, Mr. Shirley Murphy (President of the Society), Dr. Heron, Dr. Armstrong and Dr. Sedgwick Saunders. Dr. Thorne Thorne explained the duties which would devolve upon sanitary authorities, and Dr. Bezly Thorne gave an account of the steps which it was proposed should be taken by the Nurses' Association. It was arranged that a roll of nurses should be at once opened which should con-

tain the names of all who were willing to serve, so that sanitary authorities should have immediately at their disposal a staff of trained women ready to undertake this important duty. We trust that this invitation will meet with a cordial response, and that many nurses will be willing to render this public service. The Lord Mayor undertook to communicate with the mayors and provosts of other towns, and every effort will be made by medical officers of health to make this movement known throughout all parts of the country. We sincerely wish it every success. The public has every reason to be grateful to her Royal Highness for this timely and valuable suggestion.

#### THE SEMMELWEIS INTERNATIONAL MEMORIAL.

THE Executive Committee appointed on the 24th ult. have issued an appeal to the medical profession in favour of the above object. The hon. secretary has written to us to express the cordial thanks of the members present for the support rendered by THE LANCET to the movement. We shall be glad to find, when the first list of subscriptions comes to be announced, that the appeal has been widely responded to. It may be observed that the maximum subscription to the fund has been limited to one guinea, which should be forwarded to the secretary, Dr. C. J. Cullingworth, as early as possible.

#### CONJUNCTIVITIS AT CARLISLE.

THE number of cases of a rather severe form of conjunctivitis which have appeared in Carlisle during the last fortnight has been the subject of comment amongst local medical practitioners. The inflammation has been accompanied with redness and heat of the skin of the eyelids, as well as swelling and deep injection of the mucous surfaces of the eye. There has been observed in some cases hæmorrhagic patches round the cornea. The eyes have not been attacked simultaneously, usually a day or two intervening. Pain in the forehead and temples has been severe. So far no grave mischief has been associated with the conjunctivitis and the cases have convalesced rapidly.

#### DIPHTHERIA AND THE METROPOLITAN ASYLUMS BOARD.

MR. LITTLE, in his last letter to *The Times*, makes a point of the occurrence of diphtheria amongst children convalescent from scarlet fever in the hospitals of the Board. The complication of scarlet fever by diphtheria certainly has occurred in the hospitals to an extent which has caused anxiety to the Managers and their able medical officers. But it is a complication not confined to cases in these hospitals, and we gather from the last report of the statistical committee of the Board that its occurrence has been of late less, rather than more, frequent. Thus in the Western Hospital fourteen cases of diphtheria occurred in scarlet fever cases in 1891, as against thirty-three cases in 1890. In the South-Western Hospital only one such case occurred. In the South-Eastern Hospital no mention is made in the report of the medical officer of such a complication. In the Northern Hospital eleven cases occurred last year. While this complication, graver and more fatal than any other of scarlet fever, must be severely watched and combated, it is only fair to admit that the two diseases have some subtle points in common and some subtle relation to each other which pathologists are only beginning to realise and to study. It frequently happens, according to Dr. Gayton of the North-Western Fever Hospital, "that a case certified as diphtheria and having the well-marked throat symptoms connected with the disease was found some days after admission to be desquamating. In other words, the case was one of scarlet fever plus diphtheria, a natural result ensuing—the infection of others in the ward." It seems very important first that all

such doubtful cases should be placed in a separate ward, as Dr. Gayton suggests, till their real nature is made clear, and, secondly, that minute inquiries should be made of the history of the patient *before admission*, and the result of such inquiries communicated to the local sanitary authority.

#### MICROBES IN WATER.

IN an experimental study upon the microbes of water with application to the sanitary hygiene of the town of Lyons Dr. Victor Despeignes (*Étude Expérimentale sur les Microbes des Eaux avec Applications à l'Hygiène Sanitaire de la Ville de Lyon*) goes very carefully into the whole question of primary infection of river water, of filtration and of secondary contamination. He records the results of a very large number of observations and experiments and comes to the following general conclusions: that the water distributed to the inhabitants of Lyons, although filtered under good conditions, possesses, when it arrives at the distributing taps, bacilli so numerous that they constitute an appreciable danger to the public health. The wells of Lyons, all excavated in extremely permeable soil, and therefore very easily contaminated under the influence of variations in the level of the ground water by the neighbourhood of sewers and privies, should be absolutely forbidden. Only in a very few cases can they provide water equal to that supplied from the Rhone, and being subject to numerous modes of infection they are sources of very great danger, as is evidenced by the epidemics which are so frequently attributed, and even traced, to their presence. The waters of the springs of Lyons are not absolutely pure; they become easily contaminated by means of "fissures" and "faults," and putting aside all question of quantity they cannot be looked upon as sufficiently sterile for the authorities to think of utilising them for drinking purposes. The paper is a good practical treatise and affords evidence of the valuable work that is being done in connexion with water-supplies.

#### EXTIRPATION OF THE LARYNX.

ON Oct. 19th Dr. M. Grossmann read a paper before the Vienna Medical Society on Death after Extirpation of the Larynx (*Wiener Medicinische Wochenschrift*, No. 43, 1892). He considered briefly the history of laryngology, dwelling especially on the researches of Galen, who showed that when the recurrent nerves were cut through on both sides the voice was lost. Experience had shown that cases in which the larynx had been totally or even partially extirpated often ran a peculiar but characteristic course, ending in death. From two to five days after the operation, although apparently the wound was healing well, a remarkable change was noticed in the pulse; generally the number of beats per minute fell from 80 to 40, or even 20, whilst in another class of cases the number rose to 160. Oedema of the lungs then set in, followed by "paralysis of the heart" and death. Professor Koch had maintained that after extirpation of the larynx these symptoms were due to the division of the depressor nerves, which ran an abnormal course, and thus the accelerators were unopposed; and one of his pupils had demonstrated that the superior cardiac branch of the sympathetic often arose from the superior laryngeal nerve. But Dr. Grossmann thought that the following arguments told against Dr. Koch's theory: (1) The depressor nerve is centripetal; (2) the vagi remain intact; (3) the symptoms in question often arise when the operation has only been one-sided; (4) there is always an interval of some time between the performance of the operation and the development of the symptoms. Dr. Grossmann considers that these serious symptoms are not caused merely by the division of the nerves, but by changes occurring during the healing of the wounds. In order to test these theories Dr. Grossmann performed a series of experiments upon animals.

He first ascertained that if the laryngeal nerves were simply divided very little change was noticed in the heart and circulation, but if the trunk of the superior laryngeal nerve was irritated two phenomena presented themselves—namely, rise of blood pressure and slowing of the pulse. As regards the condition of pressure in the left auricle and ventricle, irritation of the laryngeal nerve (carefully isolated) did not always cause a rise of pressure; very frequently the reverse condition ensued. Increased pressure in the left auricle caused congestion of the pulmonary circulation, and thus are explained the symptoms which Professor von Basch first drew attention to—oedema of the lungs and defective aeration of the blood: Phrenographic curves obtained by Dr. Grossmann in his experiments showed an increase in volume of the lungs even when both vagi were divided. In considering these experiments it must be remembered that an increase of blood pressure does not necessarily denote increase of work on the part of the heart; there may be other factors at work which paralyse the unfavourable influences acting on the heart, and this is probably the explanation of the fact that these symptoms do not always occur after extirpation of the larynx. From his researches, therefore, Dr. Grossmann deduces the conclusion already stated—namely, that the cardiac symptoms and ultimate failure are produced not by division of the laryngeal nerves, but by the irritation of the trunks of the nerves, produced by changes (not precisely determined) proceeding in the wound.

#### TRANSFUSION OF BLOOD IN POISONING BY COAL GAS.

ABOUT twenty years ago transfusion of blood was warmly recommended, especially in certain cases of anæmia and after inhalation of coal gas. The treatment then fell gradually into some disrepute, but is still occasionally recommended as offering a good chance of recovery. Of fifteen cases of inhalation of gas, collected by Landois in the year 1874, six terminated favourably, eight ended fatally, and one case remained doubtful after the transfusion. Some authors also recommend transfusion of a solution of common salt in place of blood, while others dispute the permanent effect of the salt and give the preference to transfusion of blood. Dr. Siegmund Löwenthal publishes in the *Medicinisches Centralblatt* a case from Professor Drasche's wards in the Imperial General Hospital at Vienna. A medical man, eighty years old, had inhaled coal gas during a whole night and was found the next morning in a state of coma, evidently due to poisoning by carbonic oxide. Attempts at resuscitation by artificial respiration and by applying galvanism to the phrenic nerve were unsuccessful, and the patient was then brought to the hospital. Here camphorated ether was first injected, and then a hypodermic injection of a solution of common salt was made into the abdominal and gluteal regions, but without any good result. Dr. Jahoda then ordered a transfusion of blood taken from the son of the patient, but no improvement was visible. Coma continued, and in two days the patient died. At the post-mortem examination cerebral atrophy was found, with softening centres in both lenticular nuclei and also on the anterior peduncle of the internal capsule. Numerous lobular and puriform centres of a pneumonic character were observed in the lungs, and the kidneys were atrophied. According to the cases published by Klebs, Simon, Ziemsson and Pölchen the appearance of the brain described by Dr. Löwenthal is characteristic of death from the inhalation of coal gas. The centres of softening in the large cerebral ganglia, chiefly observed in the middle and inner portions of the lenticular nucleus, are due to fatty degeneration of the afferent vessels and the consequent considerable contraction of their lumen. It is noteworthy that in the case related above the transfusion of blood did not meet with even temporary success. The pro-

able reason why all attempts at resuscitation failed was the patient's advanced age and the consequent want of elasticity in the bloodvessels. Dr. Löwenthal believes that the transfusion of blood in any case cannot have much effect in counteracting the poison of coal gas, as it does not change a sufficient quantity of the co-hæmoglobin into hæmoglobin itself, and the quantity of poison removed by the mechanical process is too small to be of much service. Transfusion of a solution of common salt is preferable, which, though increasing the quantity of liquids in the organism, also causes a considerable increase in the quantity of urine secreted. A necessary condition for a successful issue is a healthy state of the brain.

#### THE MEDICAL OFFICERSHIP OF THE GLASGOW POST-OFFICE.

WE understand that Dr. Dougan has been appointed to this post at a salary of £800 a year. The number of applicants for the appointment was very large, and included gentlemen from all parts of the United Kingdom. Dr. Dougan was lately medical officer of the Argyllshire District Asylum.

#### MEASUREMENT OF INTRA-TRACHEAL PRESSURE.

BY introducing a manometer tube into the trachea in patients who had had tracheotomy performed Dr. Aron has been able to note the intra-tracheal pressure under various circumstances. He found that inspiration is frequently divided into two portions, but that expiration is always continuous. In quiet breathing the manometer marked in inspiration from - 2.08 millimetres to - 6.65 millimetres of mercury; in expiration from + 1.23 millimetres to + 6.29 millimetres. In coughing the inspiration pressure was - 6 millimetres and the expiration pressure as much as + 46 millimetres.

#### THE REACTION OF NORMAL SWEAT.

HEUSS (*Monatsschrift für Prakt. Dermatologie*, Band xiv., Nos. 9, 10, 12) first cleansed the skin thoroughly with neutral fluids and then collected the sweat in a watch-glass and carefully tested it. He found the sweat of healthy men during rest to be normally acid; but when profuse perspiration occurred, as after the administration of pilocarpin or of boracic baths, it became neutral or even alkaline. The reaction of the sweat is to be distinguished from the acidity that a section of the skin presents in all parts of the body, which extends as far as the prickle cell layer, for even when the sweat is alkaline the skin may be acid. The normal acidity of the sweat is the product of the less acid or possibly even alkaline secretion of the sweat glands and of the acid and cutaneous fluid; and its increase of alkalinity when the secretion is strongly excited by pilocarpin or heat depends essentially on the relative proportion of the sweat to the cutaneous fluid.

#### THE ACTION OF STRYCHNINE ON LEUCOCYTES.

IN this epoch of what may be called the apotheosis of the leucocyte we turn from phagocytosis to be met by researches on the action of certain drugs upon the leucocyte or to special histological appearances of the leucocyte under certain well-defined conditions. Ehrlich has provided us with much material for speculation as regards the latter, whilst in a series of *brochures* on experimental researches upon the leucocytes, Dr. E. Maurel<sup>1</sup> has contributed most remarkable observations in respect of the former. Those who have made themselves acquainted with the earlier fasciculi in which he dealt specially with the action of heat and cold upon leucocytes, and

have read the fasciculus in which he treats of the action of strychnine, curara, cyanide of potassium and hydrocyanic acid, will turn with interest to a similar series of researches on the action of strychnine, atropine, pilocarpine and cocaine. As regards strychnine, he maintains that the quantity of this drug required to kill an animal is equal to that required to kill the whole of the leucocytes in the body; and that the sensibility of an animal to strychnine corresponds exactly to the sensibility of its leucocyte to the same poison, and he holds therefore that in poison by strychnine the death of the leucocyte plays a most important part in the death of the animal. He finds that the same holds good in the case of atropine, and that in the case of the rabbit, which has such a well-known immunity from the action of belladonna, this immunity appears to be associated with the resistance of the leucocyte of the animal. This is a most important observation, and one that has a special bearing on questions that are being so vigorously discussed at the present day. As regards cocaine, he concludes that it brings about death either by saturation of the blood or by embolism; in the first case the cocaine apparently acts directly on the leucocytes, and the manner in which it poisons the animal corresponds very closely to that in which the other poisons act. In this book there is very much of interest from the purely biological point of view, whilst to the toxicologist and therapist it will probably prove exceedingly suggestive even when it is not more directly helpful.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Budapest.*—Dr. E. Jendrassik has been appointed Extraordinary Professor of Pathology, and Dr. Böke Extraordinary Professor of Aural Surgery.

*Erlangen.*—Professor Pechmann has been appointed Professor of Pharmacy and Director of the Pharmaceutical Institute.

*Giessen.*—Dr. Peter Poppert has been appointed Extraordinary Professor of Surgery.

DR. JOHN CHARLES STEELE, the Medical Superintendent of Guy's Hospital, died in that institution on Sunday, at the age of seventy-one. He was the author of "Vital Statistics of Guy's Hospital from 1854 to 1861," an "Analysis of Patients treated at Guy's Hospital from 1861 to 1868," "Hospital Diaries," &c., and was Howard Medallist of the Statistical Society for 1876 for his "Essay on the Mortality of Hospitals Past and Present."

AT the quarterly meeting of the Medico-Psychological Association, to be held at Bethlem Hospital on the 17th inst., Dr. Walmsley will advert to some observations made at the annual meeting at York; the discussion on Dr. Savage's paper on "Influenza and the Neuroses" will be continued; and Dr. Mercier will read a paper on "Payment of Patients for their Work."

A MEETING of the British Medical Temperance Association will be held in the rooms of the Royal Medical and Surgical Society on the 15th inst., when a paper will be read by Dr. Norman Kerr on Stimulants in Workhouses and a discussion on Children and Alcohol will be opened by Dr. Heywood Smith.

THEIR Royal Highnesses the Prince and Princess of Wales, who will be accompanied by the Duke of York, will on Dec. 14th open the new wing of St. Mary's Hospital, Paddington, which has been erected and named in memory of the Duke of Clarence and Avondale.

MR. WILLIAM ST. CLAIR SYMMERS, M.B., C.M., has been appointed Pathologist to the Aberdeen General Hospital.

<sup>1</sup> Recherches Expérimentales sur les Leucocytes. Octave Doin, Paris, 1892.

THE annual dinner of the Bristol Medical School will take place at the Royal Hotel, College Green, on Wednesday, the 16th inst. Sir Andrew Clark will occupy the chair on the occasion of the formal opening of the new medical wing at University College.

THE Grocers' Scholarship Lecture on "The Physiology and Pathology of Blood Destruction" will be delivered by Dr. William Hunter in the theatre of the Examination Hall, Victoria Embankment, at 4 P.M. on Tuesday, the 22nd inst.

THE next half-yearly dinner of the Aberdeen University Club, London, will be held at the Holborn Restaurant on Wednesday, Nov. 16th, at 7.30 P.M., Professor Ferrier, M.D., LL.D., F.R.S., in the chair.

THE trustees of the "George Henry Lewes Studentship" have elected Mr. J. Sydney Edkins, M.A., M.B., Senior Demonstrator of Physiology in the Owens College, to that foundation.

THE Royal Portsmouth Hospital has just received from the Mayoress of that town the sum of £132 10s. 11d., the proceeds of an entertainment given by her in aid of the hospital.

THE medical officers and instructors of the Volunteer Ambulance School of Instruction will hold their annual dinner at Cannon-street Hotel at 7 P.M. on Saturday, Dec. 10th.

SIR JAMES PAGET delivered a short inaugural address at the Oxford Medical Society, which held its first meeting in the University Museum on the 11th inst.

THE Westminster Hospital students' dinner will take place at the Criterion on Tuesday, Nov. 15th. Mr. James Black, F.R.C.S., will occupy the chair.

## INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA.

THE third session of the Congress was opened in Sydney on Monday, Sept. 26th, at 11 A.M., in the great hall of the University. The roll comprised 534 ordinary members, twenty-six honorary members and forty-three student members. The principal office-bearers were: Dr. P. Sydney Jones, President; Dr. T. Chambers, Treasurer; Dr. Anderson Stuart and Dr. S. T. Knaggs, Joint General Secretaries. The opening meeting was crowded, and was attended by the Governor, the Premier, the Primate and large numbers of the principal citizens, for the interest taken by the general public in the conference had been most keen. The Governor (the Earl of Jersey) welcomed to Sydney "men of that great science to which all men some time or other turn with many feelings of hope, at other times with fear, and always with gratitude," and said: "When they put their fingers on the pulse of Sydney, they would find it respond with an even and healthy beat to every sentiment of kindness and hospitality." Professor Anderson Stuart then read the report of the executive committee, which gave a brief *résumé* of the steps which had been taken since the second session at Melbourne in 1889. The report was adopted on the motion of Drs. Verco of Adelaide and Bright of Hobart. The Premier (Sir George R. Dibbs, K. C. M. G.) then followed up the kindly welcome which had been given by the Governor, and said that it struck him that it was "a most pleasing circumstance that amidst all the turmoil and storm—socially, commercially and politically—so large a number of medical men should have left their avocations in every colony to meet in Congress for the discussion of so many questions affecting the welfare of humanity as are embraced in the programme." The President then

delivered his inaugural address, in which he dwelt on the advances which had been made in medical science and art during the last forty years, the period during which he had been connected with the profession. At the conclusion of these proceedings the Governor announced that the Government would undertake the publication of the proceedings of the Congress, an announcement which was received with cheers. The meeting was then adjourned till the evening. In the afternoon the Mayor and Mayoress held a reception in the Town Hall, which was tastefully decorated with palms, ferns and flowers, and looked very fine. The great organ was played at intervals, refreshments were served, and the afternoon passed very pleasantly. The evening meeting was held in the Great Hall of the University and was entirely devoted to the discussion of the manner in which the executive had been appointed, and some very plain speaking was indulged in. In order to bring the matter up it had been arranged that Mr. Tarrant should move for a committee to consider and report on a matter of procedure to regulate the preliminary steps for future meetings. Mr. Tarrant, in moving for the committee, made upon this occasion an exceedingly even and temperate address; but, unfortunately, those who followed him gave free expression to their feelings. It was, however, quite apparent that the discontented party had no sympathy from the meeting, and the executive and that side of the house thought it best, in the interests of peace, to make no reply of any sort. The speaking was therefore all upon and for one side; but the voting was very different, for on division the discontented party was hopelessly out-voted. No regular counting was done, but it seemed to the writers that the minority was about 36, while the majority was considerably over 200. When once this matter had been got over nothing further occurred to mar the harmony of the session, which continued from day to day without a hitch. The weather on five out of the six days was simply perfect, so that the numerous outdoor festivities and excursions were not interfered with except in one unimportant case. The meetings of the Sections and Subsections were held in the various theatres of the medical school, which, being all in one corridor, were peculiarly suited to the purpose, for they followed in numerical order—(1) Medicine, in the Harveian Theatre; (2) Surgery &c., in the Hunterian Theatre; (3) Midwifery &c., in the Hallerian Theatre; (4) Public Health &c., in the Cullenian Theatre; and (5) Anatomy and Physiology &c., in the Vesalian Theatre; the subsections of diseases of the eye, and of the ear, nose and throat, in the smaller rooms. The papers were plentiful, over 160, and upon the whole of good quality. The impression is that they were decidedly better than at the last meeting. The Section sat usually from ten till one.

A *résumé* of the proceedings of the Sections will be given later on. On Tuesday afternoon the Governor and the Countess of Jersey gave a garden party at Government House. There were from 700 to 800 present, and the weather being delightfully fine the visitors greatly enjoyed themselves. On Wednesday afternoon, at the invitation of the Government, the members and their friends were conveyed in their steamer down the harbour to the quarantine station. Excellent refreshments were provided and again the weather was delightful, so that all returned well pleased with the outing. In the evening the President entertained about 400 at dinner in the Town Hall, and, in responding to the toast of his health, the Governor took occasion to say a few words on the necessity of upholding law and order. It is not often that governors in these colonies are called upon to speak on such topics, but the circumstances of the hour in Australia made his words most timely, and they were received by the lay assemblage with enthusiasm, testified by applause. On Thursday his Excellency was present to hear the presidential address in the Public Health Section, and afterwards visited the Section of Surgery; the question of hydatids was under discussion. In the afternoon a large party visited the Leper Hospital, where many of the visitors saw leprosy for the first time. The various forms of this disease were demonstrated by Dr. Ashburton Thompson. There are about twenty cases detained here, including two females and seven males, natives of Australia, of European descent, besides eleven Chinese, one Japanese, one Kanaka. The arrangements at the Leper Hospital are very complete; two wardsmen attend the males, two nurses the females, and in every way—by comfortable quarters, on a charming site overlooking the ocean, cheerful furniture, liberal dietary and allowances of "medical comforts"—the lot of the leper is tempered. In the evening the

orchestral concert to which the members were invited proved a most enjoyable treat. On Friday afternoon there was a harbour party to view the gardens and grounds of Gladesville Hospital for the Insane, probably the finest flower garden in Australia. Here also the park, with its herds of emus, kangaroos and wallabys, was most interesting. As good luck would have it, the final heat of a great sculling race was witnessed from the steamships, which then proceeded to the Thomas Walker Convalescent Hospital, which is approaching completion as a memorial to the late Thomas Walker. In the evening a *conversazione*, which was given by the members of the Congress, was held in the great hall of the University. Elaborate preparations had been made and the gathering proved a great success. The great hall was used as a museum, concert hall and refreshment room. The grounds were illuminated, and the chemical, physical, engineering, biological and geological laboratories, as well as the medical school, library, Nicholson museum, and, in fact, all the University buildings, were thrown open and lectures and demonstrations given and experiments conducted. About 1400 persons attended. On Saturday the final meetings of the Congress were held in the Harveian theatre, and a great deal of business was done, which we shall report hereafter. At noon a harbour excursion was given by the Congress to May Fern Bay, where luncheon was served; afterwards the visitors proceeded by steamers to some of the more beautiful reaches of the harbour. In the evening Drs. Chambers, Knaggs and McCormick entertained over 200 members at dinner at the Australia Hotel. Good music was provided instead of speeches till midnight, when the company separated after singing "God save the Queen." With that we conclude a general account of the proceedings. A *résumé* of the work of the various Sections as supplied by the sectional secretaries follows.

#### SECTION OF ANATOMY, PHYSIOLOGY, PHARMACOLOGY AND PATHOLOGY.

The presidential address was delivered by Professor H. B. Allen, University of Melbourne. The address was devoted to a comprehensive survey of recent progress in the subjects comprised in the Section. In special reference to the progress of pathology, the President reviewed at some length the modern doctrines relating to immunity, furnishing a critical exposition of various divergent views and indicating the lines of possible further advance, both in the investigation of the problems involved and in the therapeutical application of the principles elucidated. In connexion with the subject of anatomy the following were brought forward:—

Observations on the Normal Position of the Vermiform Appendix, by Drs. G. E. Rennie and Cecil Purser. In the paper Drs. Rennie and Purser communicated the results of their observations upon 100 subjects, partly confirmatory of and partly at variance with the results of other recent observers.

On Recent Progress in Microscopic Construction, with Demonstration of Modern Microscopic Apparatus, by Dr. Gustav Lennhoff. The speaker dealt fully with the principles of the improvements in microscopical objectives, oculars and illuminating apparatus, as illustrated in the apochromatic lenses and compensating oculars and substage optical systems of Zeiss, together with the other mechanical accessories of the modern microscope.

On Two Cases of Congenital Malformation of the Heart, by Dr. John Morton, Demonstrator of Anatomy, University of Sydney. The first case was one of entire absence both of pulmonary artery and ductus arteriosus; while the second case exhibited entire absence of left ventricle and of aortic orifice, the proximal part of the aortic arch being present as an attenuated but pervious cord, constituting a common trunk for the coronary arteries.

On the Closure of the Central Canal of the Spinal Cord in the Fœtal Lamb, by Professor J. T. Wilson, University of Sydney. In this paper the author adduced certain observations in support of the theory of the mode of production of the lumen of the central canal maintained by Balfour for chick embryos, and subsequently criticised adversely by other writers.

Exhibition of a Skeleton of a Dwarf; forwarded by Professor Watson, University of Adelaide, accompanied by notes on the life history and chief features of the case.

Dr. Lockhart Gibson (Brisbane) read a paper on the Functions of the Thyroid Gland with observation on a case of Thyroid Grafting, in which he insisted that the proof against

the alleged blood-forming function of the thyroid is sufficient. The history of the patient was adequately demonstrated by a series of photographs, showing the gradual advance of myxœdema for the first four years of life, and the very marked and steady improvement following the grafting of the thyroid of a lamb, which grafting took place in the fifth year—i.e., two years ago. Dr. Gibson also gave an account of the subsequent history of the lamb used, from which he imagined he had removed the whole gland. This animal showed no signs of cachexia eight months after the operation. It was then killed, and it was found that a small piece of the lower end of one lobe had been left. This had hypertrophied and carried on the essential function of the thyroid; sections made from this portion remaining showed a remarkable scarcity of lymph follicular tissue, but were otherwise of normal appearance.

Dr. C. J. Martin read a paper on the Effect of Food on the Secretion of Bile in Man, in which he showed that in the case observed there was a very marked increase in the rate of secretion, commencing about two hours after the ingestion of food, reaching a maximum four hours after and then rapidly declining. "Curves of flow" taken by allowing the bile to flow into a cylinder on the surface of the fluid in which was a specially devised form of float, the movements of the latter being registered on a revolving smoked cylinder, were shown. From a number of these curves Dr. Martin had differentiated a mean "curve of speed of flow" from which he derived his conclusions. The paper also contained an analysis of human bile from a fistula and remarks concerning the composition of fistula bile.

The President (Professor Allen) and Dr. T. Cheery contributed a short paper on the general plan of teaching practical pathology in the University of Melbourne, the notable feature being a course of practical bacteriology, "consisting of two hours' work twice a week for five weeks," that every medical student must attend.

Dr. J. Lockhart Gibson read a paper on a case of Pernicious Anæmia in a man aged fifty-six, in which he described red cells of various sizes, shapes and structures, resembling and—the speaker implied—even homologous with cells already described by him in his account of the development of the blood-cells in the bone marrow of the dog. He therefore concluded that pernicious anæmia had to do with defective or perverted production rather than excessive destruction of red cells. He also observed that, at least in old age, there is a rapid destruction—solution, as it were—of the red cells in the blood after it has left the vessels. This secondary destruction of cells may be a source of fallacy.

Dr. G. E. Rennie contributed a paper on Healed Pulmonary Tuberculosis.

Dr. W. Camac Wilkinson, Secretary to the Section, gave a demonstration of the bacteriological tests for the diagnosis of Asiatic cholera in suspicious cases, and exhibited pure cultures of pathogenic and other organisms, including those of the fowl as well as of human tubercle, tetanus, glanders and favus.

Through Dr. Wilkinson Mr. C. J. Pound showed beautiful growths upon agar and gelatine of the actinomyces fungus obtained directly from cases of actinomycosis, a disease very common in cattle in Australia; and Veterinary Surgeon Park (Tasmania) showed excellent microscopic specimens of the mycelium and clubs of the actinomyces, sometimes in combination, sometimes one or other alone. In one case of Mr. Park's a packing-needle, swallowed and transfixing the wall of the stomach, had become the starting-point of an extensive actinomycotic growth—a case of great etiological interest.

#### SURGERY.

The Section of Surgery sat four days, under the presidency of Dr. W. Gardner of Melbourne.

On the first day Dr. A. Shewen (Sydney) opened a discussion on Anæsthetics. He believed that the statistics possessed on such a subject were of little value and that for the future they should endeavour to follow the example which England had set them and establish their own clinical history. This he did not think should be compiled by the anæsthetist, but by a bystander, for fear that the unavoidable mental preoccupation might interfere with the safety of the patient. In the case of the medical school it should be done by students. In regard to the question of ether *versus* chloroform, he thought that each possessed advantages which are wanting in the others. A discussion followed in which eighteen speakers took part.

Dr. Springthorpe (Melbourne) thought that a large per-

centage of fatal cases was due to maladministration and advocated for the lighter forms of operation the use of what he termed *cortical* anaesthesia. This statement met with opposition from various speakers, who thought that the patient should be under the full influence of the anaesthetic, and that *cortical* anaesthesia should be confined to certain cases of midwifery.

The President, in closing this discussion, recognised the importance of the personal equation of the anaesthetist. As an operating surgeon he felt that with certain individual anaesthetists his mind was at ease, whilst with others he felt in constant anxiety.

Dr. MacCormack exhibited a case of Rhinoplasty operated on by the Indian method of the frontal flap, with this important modification: that before bringing the flap down he had prepared a cutaneous lining from the inside of the nose by raising two small flaps of skin on each side of it.

Mr. Cleghorn (New Zealand) read a paper on the Treatment of Acute Purulent Synovitis by washing out with Peroxide of Hydrogen; also on the Treatment of Chronic Abscess by Baker's Method.

Dr. Syme (Melbourne) followed next with a paper on Ganglion. As a result of numerous dissections and pathological observations he had come to the conclusion that in cases of simple ganglion rupture or incision might suffice, but that in cases of compound ganglion free removal of the diseased sheath was the only treatment advisable.

Mr. Poulton gave his experiences of Two Cases of Ankylosis of the Lower Jaw treated successfully by excision of the condyle.

On the second day the President delivered his address, an eloquent and exhaustive review of Modern Surgery. This was followed by a paper of Mr. G. E. Twynam (Sydney) on an Operation for Treatment of Dislocation of the Acromio-Clavicular Joint, and by one of Dr. F. Bird (Melbourne) on the Radical Cure of Hernia by a New Method.

The meeting was closed by the exhibition of a woman operated on two years ago by Dr. MacCormack (Sydney) for Scirrhus of the Pylorus. This extended for two inches within the first part of the duodenum, and was excised by Dr. MacCormack according to the Billroth method. The patient has enjoyed good health ever since, and does not present any sign of recurrence of the disease.

The third day was devoted exclusively to Hydatids—a subject of particular interest to Australian surgeons and physicians. After reading many papers an important discussion took place between the advocates of treatment by aspiration in the case of simple abdominal hydatids and those who in all cases prefer the radical cure by incision.

Dr. Verco read a suggestive paper on the Treatment of Hydatids of the Brain. He proved that one-third of all cases of hydatids of the brain communicate with the lateral ventricles, and as a result a large percentage of the fatal cases is due to draining the cerebro-spinal fluid and leaving the ventricles dry. To obviate this, he suggested that in future, after emptying the cyst through a trephine hole and washing out as usual, no drainage-tube should be left, and that the flap should be closely stitched and thus the cavity left hermetically sealed.

Mr. Spencer (Bathurst) made known the fact that he had treated two cases of abdominal tumours due to the *Bothrioccephalus liguloides*, of which one died and the other recovered. This is the first time that the presence of such a parasite has been recognised in Australia.

On the fourth day Colonel-Surgeon Williams (Sydney), in a paper on Military surgery, dealt with the characters of wounds caused by the new magazine rifle bullets. Two new methods of subcutaneous wiring for fractured patella were explained—one by Mr. Fitzgerald (Melbourne) and the other by Mr. Twynam (Sydney).

The treatment of Talipes also excited an interesting discussion between the tenotomists represented by Dr. Milford (Sydney) and those who believe that in certain severe and intractable cases bones should be altered in shape either by drilling according to Mr. Fitzgerald's method or by simple osteotomy. The question of tracheotomy in diphtheria was introduced by Mr. Clubbe (Sydney), who in 120 tracheotomies performed at the Sydney Hospital for Sick Children obtained 51 recoveries, and by Dr. Crago (Sydney), who out of 19 operations had 10 recoveries. Dr. A. Jefferis Turner (Brisbane) advocated intubation of the larynx and gave an account of 19 cases treated by such a method with 7 recoveries. Dr. F. Bird (Melbourne) ended the meeting by reading a case of injury to the median nerve due to a gunshot

wound, in which a portion of the sciatic nerve of a cat was grafted, with restoration of function.

The papers read were only one-half of those entered in the Section of Surgery, there being other twenty-eight papers that, through want of time, had to be taken as read.

#### SECTION OF OBSTETRICS AND GYNÆCOLOGY.

The President, Dr. Balls Headley (Melbourne), delivered a philosophic address on the Evolution of Disease in Woman and the Influence exerted by Civilisation, pointing out how the conditions of modern life evolve diseases in women which cause sterility, and thus limit the population as certainly, although to a less degree, as polyandry and other expedients of savage nations. Dr. Headley, as a sequel to his address, read a paper on the Treatment of the Inflammatory Affections of the Uterus and Appendages, laying special stress on the necessity for closing lacerations of the perineum or cervix, especially of the latter in view of the frequency with which cancer attacks cervixes which have been lacerated, also for establishing thorough drainage in endometritis and stenosis of the cervix by dilating with Hegar's dilators and curetting. Dr. Headley's views met with general acceptance from the members present.

Dr. Camac Wilkinson (Sydney) read a paper on Some Questions affecting Obstetrical Practice, in which he deprecated frequent vaginal examinations during labour and also the frequent use of the forceps, while he strongly advocated the immense advantages of external palpation.

On this latter subject Dr. Dick (Sydney) also read an able paper.

Dr. Pinnock (Ballarat, Victoria) brought forward a New Method of Operating for Large Ventral Hernia, which consisted of splitting the sheaths of the recti muscles and bringing the muscular fibres together instead of the tendinous structures. In this operation the peritoneum is not opened. The results had been very good.

Mr. Cleghorn (New Zealand) read notes on a case of Ovarian Abscess producing symptoms simulating those of ectopic gestation.

Dr. Worrall (Sydney) showed Ectopic Fœtuses, successfully removed by abdominal section; one was removed during a superadded normal pregnancy. Three of the patients had since gone through subsequent pregnancies normally. He also read a note on Trendelenburg's position.

Dr. MacSwiney (Sydney) read notes on two instances of Protracted Gestation in the same patient. Her second pregnancy lasted 330 days from last menstruation, and in her third pregnancy labour was induced 298 days after. He considered inertia of the uterus to be the chief cause.

Dr. Thring (Sydney) brought forward four cases of Vaginal Hysterectomy for Cancer. All had recovered from the operation, but return had taken place within two years in two cases. He urged early removal.

Mr. Foreman (Sydney) showed a remarkable specimen of Fibro-cystic Disease of the Uterus involving the whole organ and having its lower portion extruded through the crevice. He had performed total extirpation of the whole uterus by abdominal section.

There were other valuable papers on Vesico-vaginal Fistula, by Dr. Fitzgerald (Melbourne); Dilatation and Curetting of the Uterus, by Dr. J. A. G. Hamilton (Adelaide); Pessaries, by Mr. Edgelow (Sydney); Surgical Treatment of Uterine Tumours, by Dr. Leichelmann.

#### PUBLIC HEALTH.

An introductory address was delivered by the President, Dr. Whittell (Adelaide), in the presence of his Excellency the Governor (the Earl of Jersey). Dr. Whittell's subject was a comparison of the health codes of various colonies with the practical results attained under them. In the course of a very interesting paper he showed that the means and results were incommensurate, and traced the defect to general apathy and pressure of local interests as regards the local authorities charged to execute the laws on the one hand, and, on the other, to lack of power vested in a central authority to step in and compel the local bodies to do their duties. The most important of the thirteen papers read in this Section was that by T. A. Coghlan, Esq., Government statistician, on a Life Table for New South Wales, which he has just deduced from the results of the census of 1891, and the mortality of the two years ending March 31st, 1892, the results being adjusted according to the system devised by Mr. W. S. B. Woolhouse. Mr. Coghlan showed that the expectation at birth was: males 49.6 years and females 52.9 years, and that it was highest at two years

of age, when the expectations were respectively 56.37 and 58.74 years. These figures are much higher than those given in Dr. Ogle's table for England—a result which, as Mr. Coghlan properly pointed out, is probably due to the more favourable conditions under which the inhabitants of a new and not yet overcrowded country are brought up.

Dr. David Hardie (Brisbane) contributed a remarkable paper, in which he compared the varying number of deaths from several diseases at different seasons of the year with the meteorological conditions observed at those seasons in each of eight districts into which he divided the whole colony for this purpose. A chart which must have taken many weeks to prepare showed in graphic form the remarkable coincidences which he desired to point out.

Dr. Bancroft (Brisbane) contributed a paper on the History of Leprosy in Queensland, from which it appeared that the earliest recorded and known case occurred in 1866 in a German who had long lived in Hawaii; and Dr. Bancroft, after searching hospital records, is convinced that several undiagnosed cases in Europeans occurred later than the year named.

Other papers of importance were a Note on Worm-nests occurring in the Cellular Tissue of the Brisket of Cattle, by Dr. Gibson (Windsor, N.S.W.); Registration of Stillbirths and Protection of Infant Life, by Dr. G. L. Mullins (Sydney); the Diseases of Samoa (among which leprosy does not appear, only one visitor, a Hawaiian, having ever suffered), by the Rev. Dr. S. H. Davies (Tutula), medical missionary; the Course and Cause of Influenza, by Dr. Carstairs (Geelong, Victoria); and remarks on Tubercular Phthisis, by Mr. G. L. Lawson (Gosford, N.S.W.). Other papers were contributed from New Zealand and Thursday Island; and all but one or two were of important practical interest. Lunacy was taken in this Section, one day being devoted to the subject.

Dr. Chisholm Ross, of the Asylum for Imbeciles at Newcastle, N.S.W., spoke of the statistics of insanity in relation to the census of 1891, and concluded that the proportion of cases to population was diminishing, and was specially small amongst the native born.

Drs. McCreery and Stele (Kew) and Dr. Rosenblum (Yarra Bend, Victoria) read papers on Juvenile Insanity, Hydrocephalic Idiocy and General Paralysis, in which latter Dr. Macandrew of Hokitika, N.Z., also joined.

The most interesting transaction in this department was a discussion on Criminal Responsibility of the Insane, which was introduced by Drs. Springthorpe and Mullens (Victoria).

Dr. F. Norton Manning, Inspector-General of the Insane, N.S.W., made an important contribution; and a committee was appointed to consider the form which a resolution on the subject, to be presented to the general Congress, should take.

The following resolution from Section 4 to the Congress was adopted at the general meeting: "That in view of the fact that the present recognised legal test for insanity is false in theory and unsatisfactory in practice, and that the legal authorities have expressed a desire to obtain an expression of medical opinion upon the subject, this Section submits for ratification by the General Congress the following resolutions:—1. That it is impossible to frame any one test for insanity in criminal cases which is capable of general application. 2. That for criminal cases it would be in accord with present medical opinion to define insanity as a disease of the brain affecting the intellect and also the emotions and the will, not immediately induced by the default of the individual, leaving the following questions for the jury:—(a) Had the accused at the time of committing the act such disease of the brain? (b) If so, did such disease prevent in relation to the alleged crime—(1) a knowledge of the nature and quality of the act he was doing—(2) a knowledge that the act he was doing was wrong (illegal)—(3) a free determination of his will?"

#### MEDICINE.

The work of this Section began on Tuesday, Sept. 27th. Dr. James Robertson, consulting physician to the Melbourne Hospital and formerly lecturer in medicine in the Melbourne University, took the chair as president of the Section, and delivered an interesting address dealing mainly with the administration of chloroform as an anæsthetic. He took occasion to criticise the result of the Hyderabad Chloroform Commission. He gave a summary of his own experience, extending over forty-five years, and pointed out the practical importance of observing the pulse as well as the respiration.

Dr. John Gibson (Windsor, N.S.W.) read a paper on a case of Progressive Muscular Atrophy with unusual Cord Lesions,

illustrated by sections of the cord shown by Dr. Quaife by means of a projecting microscope and electric light.

On the 28th Mr. James Ryan (Melbourne) contributed a paper on the Etiology, Prevention and Treatment of Phthisis, which evoked a lively discussion.

Dr. Jeffries Turner read a paper on Chronic Lead Poisoning among Children in Brisbane, contributed by the Hon. Staff and Resident Surgeon to the Hospital for Sick Children in that city. He dealt with numerous cases attributed largely to the "tin-foil wrapping of sweetmeats." A discussion ensued.

On Thursday, the 29th, the first business was a paper by Dr. Fleming (St. Arnaud, Victoria) on Two Cases of Emphysema in Children mistaken at their onset for cases of peritonitis. The cases were marked examples of absence of pleural symptoms during the early stages of the disease, and presence of violent abdominal symptoms, marked tympanites and extreme pain. A discussion followed.

Mr. Bickle (South Australia) read a paper on Diabetes, with a case of recovery from diabetic coma by the use of oxygen.

Dr. Molloy, medical superintendent of the Melbourne Hospital, contributed a paper entitled, "Is Beri-Beri endemic in Melbourne?" The cases were those of a number of Chinamen simultaneously attacked by the disease while working in the same workshop. The symptoms were those of peripheral neuritis plus œdema, beginning in the lower limbs and becoming more or less general. An interesting discussion took place, from which it appeared that somewhat similar cases were found among the Chinese in Sydney.

On Friday, the 30th, a discussion took place on the subject of the Treatment of Snake-poisoning by Strychnine. In the absence of Dr. Mueller, the author of this method in Australia, a paper by him on the subject was printed and circulated among members. Dr. Huxtable read a paper dealing statistically with the result obtained among cases so treated. An interesting discussion on the whole subject was interrupted on account of stress of other business.

Dr. Struthers contributed a paper on Some Points in Connection with Small-pox. The paper contained many original observations, especially on the characteristics of the various initial rashes. Owing to lack of time this paper did not receive the discussion which its merits deserved.

Dr. Fleetwood (Warmambool) read a paper on Chlorosis, of value as a record of personal experience in treatment.

Mr. Springthorpe (Melbourne) read a paper on Eighteen Months' Experience with Tuberculin, in which he recorded his extensive experience of this method of treatment in phthisis with considerable success. Owing to lack of time the following papers which had been contributed to this Section were taken as read:—

1. Spinal Irritation, by Dr. Jarvie Hood (Sydney).
2. A Form of Cerebral Disease characterised by Definite Symptoms, probably a Localised Basic Meningitis, by Dr. Jeffries Turner (Brisbane).
3. Hypnotic Suggestions and their Therapeutic Value, by Dr. Arthur (Sydney).
4. Treatment of Asthma, by Mr. Turner (Melbourne).
5. Rôtheln, by Dr. Patrick Blackall (Queanbeyan).
6. Notes on the Occurrence of *Ancylostomum Duodenale* in Queensland, by Drs. Lockhart Gibson and Jeffries Turner (Brisbane).
7. Pearl Diving from a Physician's Point of View, by Dr. Salter (Thursday Island).
8. Notes on a case of Syphilis of the Heart, by Dr. Finschi (Sydney).
9. The Treatment of Hepatic Colic by large Doses of Olive Oil, by Dr. Sydney Jones (Sydney).
10. A case of Chylous Ascites, by Dr. Lendon (Adelaide).
11. On the supposed relation between Human Diphtheria and an Outbreak of Disease which was very fatal among swine in Geelong last year, by Dr. Paynter-Sloggett (Melbourne).
12. Remarks on 750 cases of Skin Disease, by Dr. A. W. Finch Noyes (Melbourne).
13. Reclamation of Nailbed and Treatment of Hirsutes by Electrolysis, by Dr. Herman Laurence (Melbourne).
14. Movable Kidney, by Dr. Dunbar Hooper (Melbourne).
15. Sequel to a case of Cerebellar Tumour, with exhibition of specimen, by Dr. Maudsley (Melbourne).
16. The Electro-neurotome, a new method of applying electricity, by Dr. O'Neill (Sydney).
17. Disinfection of the Alimentary Canal, by Dr. Creed (Sydney).

MEDICAL MAGISTRATES.—Mr. Thomas Walker, M.R.C.S., Wakefield, Dr. John Roberts, Chester, and Mr. James Taylor, F.R.C.S., L.R.C.P. Lond., L.F.P.S. Glasg., also of Chester, have been placed on the Commission of the Peace for the West Riding of the County of York and the City of Chester respectively.

## CHOLERA.

## CURRENT NOTES, COMMENTS AND CRITICISM.

THE reports this week as regards cholera are satisfactory. The warm weather which prevailed a few days ago seems to have given rise to a slight recrudescence of the epidemic generally, but it was of a very temporary character. At Hamburg the disease has ceased, and we learn from Berlin that the Ministry of the Interior has issued a circular cancelling all the special regulations enacted with reference to passenger and goods traffic with Hamburg, as the gradual and almost complete disappearance of cholera in that city justifies the abandonment of restrictive measures. From the Hague we learn from the official cholera bulletin that there have been only 27 deaths from the disease throughout the country during the week ending the 7th inst. Of these, 5 occurred at Ysselsteyn, in the province of Utrecht, 3 in the town of Utrecht, 5 at Breda and 3 at Huissen, in Gelderland. Four cases of cholera are reported from Rotterdam as having occurred among the crew of a fishing boat that arrived at Maassluis on the 4th inst. The outbreak at Breda was attributed to the infection of the water-supply, but the evidence on which this conclusion was arrived at is not stated, and there is always a disposition to assign any cause that may for the moment be plausible or popular without any due investigation. There is no doubt as to the important part played by a foul and contaminated water-supply in cholera, but the facile process of labelling an outbreak with this as the cause is too tempting to be resisted. It saves time and trouble, and is often promptly done without any pretence to exact inquiry. The Sanitary Board of the river Scheldt have decided that arrivals at Antwerp from Dutch ports, including Amsterdam and Rotterdam, shall only undergo a medical inspection and twenty-four hours' observation. In the case of French vessels, however, the existing regulations remain in force. At Budapest the disease has decidedly diminished; for whereas the seizures were, at the time of our last week's report, from 20 to 30 daily, they have now decreased to 8 and 10 in the twenty-four hours; 9 cases of cholera and 3 deaths occurred on the 6th inst., on a farm in the village of Lizesany in Hungary. It is as to the origin and causes of a limited outbreak of this kind in a village that we require precise information, for the exact circumstances and conditions should be capable of being unravelled by investigation. At Monville, near Rouen, there were 4 cases of cholera on the 6th inst., of which 3 terminated fatally; at Liege 5 deaths from cholera have occurred up to the present, and 7 cases are still under treatment. Five fresh cases of cholera and three deaths were reported at Brussels on the 5th inst. from the suburb of Molenbeck. At St. Petersburg sporadic cases of cholera continue to appear; on the 5th there were 4 fresh cases, and on the following day (6th) 7 cases and 1 death occurred. The disease has not only greatly declined, but its severity is less; there are fewer fatal cases. Cholera is still prevailing in Persia, at Ispahan, and in the villages round Shiraz.

A brief but interesting account of the cholera epidemic in St. Petersburg is published in the *Medical Magazine* for the present month, from which we glean the following information. The disease was first officially notified as present in Astrakhan on June 18th and at Nijni Novgorod on July 11th. Moscow first appeared in the official list on July 24th and St. Petersburg on Aug. 1st. St. Petersburg is built partly on the banks of the river Neva and partly on a series of islands at its mouth. No part of the Russian capital lies more than a few feet above the sea level, and the level of the ground water in St. Petersburg varies greatly. The water-supply is derived from the Neva at a point within city limits, and is consequently liable to pollution. The sewage is distributed over the fields in the neighbourhood and is not openly discharged into the river. It appears that, as early as July 20th, a number of patients suffering from diarrhoea and vomiting, attended in some cases with cramps were admitted into hospital. Up to July 29th, however, no comma bacilli had been found in any of the cases examined. These were discovered in the dejecta of a patient who was attacked on the 24th and died on the 25th of July. On Aug. 1st there

were 21 cases and 13 deaths recorded in the official list; and from this date the number slowly increased, the highest number of new cases being 156 in the twenty-four hours ending at noon of August 17th.

Many objections have been urged from time to time against the acceptance of the comma bacillus as *the* cause of cholera, and it must be confessed that some of them have much force. It must be remembered that the medical profession and sanitarians, both here and on the Continent, have had experience of previous epidemics. As John Stuart Mill remarked, it often happens that as one portion of the truth rises another and older portion sets, and previously recorded observations and deductions are apt to be entirely lost sight of later on. We sincerely trust that efforts will be made at the present time, not only to reach the substratum of facts, but to bring them into harmony with the latest views by bacteriological and other investigations. *En passant* we may here refer to the proposal of the Government of the Hague to provide a special grant for the purpose of instituting scientific inquiries in this respect. Cholera exhibits many different manifestations: it is endemic, epidemic and sporadic. It is not at all an uncommon occurrence at certain seasons, in India, for example, for one case of cholera, and one only, to appear and prove fatal in a small community of persons living with all things in common; and there are numerous instances of isolated limited outbreaks of the disease which have arisen and terminated in a few days. If the comma bacillus be a specialised object and only to be differentiated from other bacilli of similar appearance by cultivation tests, it is confessedly difficult to understand how its presence originated these occurrences, and how it had such a limited range of action. The relation of cholera to season, place and soil also requires further elucidation. That there are several places which have hitherto escaped cholera, notwithstanding the extent and frequency of their communications, indicates that the spread of the disease is subordinated to some complex agencies which have not yet been demonstrated or thoroughly explained. Cholera spreads along rivers, and low-lying districts and neighbourhoods are its favourite habitats. While it has some etiological affinities with typhoid fever it has also others with malaria as regards its connexion with porous soils, heat and moisture, and the want of proper subsoil drainage with super-added soil contamination. The broad facts have a certain bearing on Pettenkofer's well-known ground water theory. We would here call attention to the instructive cholera and typhoid fever maps of Havre illustrating the text of our special correspondent's communication regarding cholera in France. The prejudicial effect of recent constructions which served as dams to check the natural flow of the subsoil water, where the subsoil was constantly contaminated by the *bétoires*, on districts of the town which were previously healthy, is strikingly set forth, and might be easily paralleled by similar examples in other countries. In tropical and semi-tropical countries, where similar constructions, or the erection of railway embankments, have checked the natural flow of the subsoil water and given rise to a waterlogged condition, the liability to malarious disease has vastly increased; and where animal and sewage filth has been superadded to the moisture, other diseases, such as typhoid fever and diphtheria, have manifested themselves. It may be regarded as a sanitary axiom that there is a close connexion between the prevalence of cholera in a population and the unwholesome and contaminated water-supply with which that population is provided; but because this is established it will not cover the whole ground, for cholera indubitably may and does attack persons whose drinking water is good. It is apparently the case that the use of impure water of any kind in times of cholera prevalence may excite and precipitate an attack of that disease. In some of these cases it is a matter of extreme difficulty, if not of impossibility, to explain how the water obtained its specific infection. Bacteriologists do not seem to have yet determined the exact stage of the disease at which comma bacilli can be discovered in the dejecta. All seem agreed that these cannot be found in the blood or organs and tissues of the body generally; and the statements of Dr. Koch and Dr. Klein are at variance as to the number of comma bacilli being in proportion to the virulence and rapidly fatal issue of the cholera attack, for the latter says that in these speedily fatal cases they are found in small quantities only if the post mortem examination be made very soon after death. Many of these points should be capable of being cleared up by researches at the present time.

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

## A VISIT TO HAVRE.—PART III.

THE CHOLERA CENTRES OF HAVRE.—TYPHOID FEVER AND SUBSOIL DRAINAGE.—SEWERS AS A CAUSE OF DISEASE.—CHOLERA AND TYPHOID MAPS.

AT the foot of the hills and cliffs, which are about 300 feet high and face the sea to the west and then run inland in an easterly direction, a low-lying stretch of flat ground has been formed, and here is built the town of Havre, on soil redeemed from the mouth of the Seine. The town stands at the point of the angle formed by the sea to the west and the Seine to the south. The upper crust of the elevated ground is composed of a thin stratum of yellow clay resting on red clays mixed with silicious pebbles. This disposition of the soil varies in depth from thirty to eighty feet, and below there is a calcareous and clayey mixture. There are no impediments to the natural drainage of the soil, which is easily effected. The lower levels are more mixed in character, in consequence of landslips, and here there are springs of water. The plain on which the town of Havre is built consists of banks of pebbles brought by the northerly currents of the Channel and deposited under the shelter of the cliff of St. Adresse. Here the pebbles were mixed with clay and earth brought down by the river Seine. Vegetation soon appeared, being watered by the springs that descended from the higher levels. This ground is therefore of very recent formation, is almost on the same level as the sea, and it is only necessary to dig for some four to six feet to find water. Indeed, when the sea walls were built the most important portion of the town developed itself on ground that is below the level of the high spring tides. Roughly speaking, if a straight line were drawn from the railway station, passing behind the Hôtel de Ville on to the sea beach, the whole of the crowded district to the south will be found to be below the level of the spring tides.

North of the harbour—the Avant Port, or Tidal Port—there are three districts, all three triangular in form, to which I would draw special attention (1, 2, 3 in Map II.). The first, to the east, is called the Quartier St. François. It is a sort of island, surrounded on its three sides by the docks, or "Bassins de la Barre, du Commerce et du Roi." About a third of the length of the streets in this district have sewers which fall into the port. The second and middle triangular district is named after the church of Notre Dame. It forms an acute triangle, with the port for its narrow base; the Rue de Paris and the Bassin du Roi constitute the other two sides. For the third district the point of the triangle commences at the entrance of the harbour; there is the Rue de Paris on one side, the new and handsome Boulevard François Premier on the other side, and we may take the Rue de la Maillerie as the base of the triangle. This is the Quartier St. Joseph. There are but few sewers in these quarters, the streets are very narrow, the houses high, the population dense and poor, and it was in these three districts that the cholera found the greatest number of victims. The other cholera centres were to the north-east of the town, where is situated the suburb of Granyville, and the south-east of the town in the Eure district (4 and 5 in Map II.). These are the five centres of the cholera epidemic.

Bearing these facts in mind, let us now examine the drainage of Havre. About this a great deal has been said, but little or nothing has been done. It was in 1884-85, during the last cholera epidemic, that the matter was most seriously discussed, and no fewer than five schemes, fully elaborated, were submitted to the municipality. It was then ascertained that the streets measured ninety-eight kilometres and the sewers only twenty-six kilometres in length. Thus, the streets of Havre for more than two-thirds of their extent were without sewers. The town engineer assures me that this condition of affairs has not been altered. There may be one or two kilometres more of sewers than there were eight years ago, but there is also an increase in the number and length of the streets. Nothing whatsoever has been done. Worse than this, the most expensive and the largest of the sewers that had been built did more harm than good. A large main sewer, which has a fall of only 0.001 per metre, was constructed along the Boulevard de

Strasbourg: a splendid thoroughfare running along the town from the sea inland—that is to say, running parallel with the hills, not with, but across, the incline. This sewer, placed athwart the natural drainage of the subsoil, checked the flow of the underground water currents. The result was marked and almost instantaneous. The district north of the Boulevard de Strasbourg consists for the most part of villas and houses inhabited by persons in easy circumstances, and was a remarkably healthy quarter. Typhoid fever especially, though widely prevalent in the lower parts of the town, was unknown in this most favoured neighbourhood. After the building of the sewer, to the consternation of the inhabitants, a number of cases of typhoid fever occurred north of the Boulevard de Strasbourg. No one, however, suspected the sewer; on the contrary, the cry arose for more sewers. Then a second main sewer was built further north, along the Rue Frédéric Bellanger, the Rue d'Étretat, Rue Fouache and the Rue St. Thiébault. This sewer, again, cut right across the line of natural drainage. The fall is from north to south; both these main drains run from east to west. Once more the same phenomenon produced itself; the district on the higher levels beyond this second main sewer in its turn became infected with typhoid fever—a disease which previously had been unknown to the inhabitants. Cases occurred in the mansions of the wealthiest inhabitants of Havre, built on the beautiful slope that rises up towards St. Adresse. M. Siegfried, the representative of Havre in the French Parliament, and for some time Mayor of Havre, was one of the victims. When at the last extremity his life was, however, saved by the transfusion of blood, an operation performed by Dr. Gibert. These sewers are shown in Maps II. and III., and it will be seen how numerous are the cesspits and the cases of typhoid fever north of these sewers, in districts where the fever was formerly unknown.

To fully understand the mischief that was done by building large sewers which in practice became walls serving as a dam to check the natural flow of the underground water-courses it must be explained that there are at Havre some 600 *bétoires*. The word *bétoire* is a provincial corruption of the French words *boit tout*. A *bétoire* is a sort of well or pit which "drinks all" that is thrown in. It is a cesspit with walls made as porous as possible, so that all the liquids thrown in immediately percolate the subsoil. In these leaking pits are drained all the slop and kitchen water. In the central and southern parts of the town the slop water drains into the gutters and the sewers; but in the higher and northern sections of the town—the very districts situated beyond the main sewers described—most of the houses have *bétoires*. Formerly the water that leaked out of these pits drained away into the lower town, and thence into the port and the sea. Now, this natural flow was stopped by the walls of the main sewers, and the quarters affected were soon invaded by typhoid fever.

Thus, districts which were exceptionally healthy have become less healthy, and districts formerly totally exempt from typhoid fever became susceptible to this disease when the walls of the new sewers checked the natural flow of the subsoil water. Though in these districts the subsoil was constantly contaminated by the *bétoires*, the fact that the ground was elevated and that there was a good fall ensured the prompt removal of this nuisance. On the other hand, south of the Boulevard de Strasbourg the ground is flat, there is no natural drainage for the subsoil, and there typhoid is endemic, diphtheria has prevailed extensively and the cholera has wrought havoc. Yet there are no *bétoires* south of the Boulevard de Strasbourg, except at Le Perroy, a particularly healthy district west of the Boulevard François Premier. *Bétoires*, however, are not necessary to the contamination of the subsoil. We have seen that but few streets have sewers. The slop water of the houses does not even drain into the gutters, but goes first into the back yards; and thence flows to the street gutter, but before reaching the street gutter a good deal of the water has sunk into the soil of the yards, and more sinks into the soil of the street, for the gutter may travel a long distance before it reaches the gutter of some other street where there may be a sewer. It is only necessary to visit these quarters to see the enormous quantity of liquid filth which form stagnant puddles and pools in the yards, passages, courts, alleys, and streets. In the poorer and dirtier quarters this slop water often contains fecal matter. The inhabitants employ vases instead of frequenting the closets, and empty these vases where only slop water should be thrown. The closets are generally so extremely filthy that it is not surprising if many persons seek to avoid them. In



MAP II. — TYPHOID FEVER.

Topographical Map, showing the position of the houses inhabited by persons who died from Typhoid Fever from the 1st of January, 1887, to the 31st of December, 1888. There were 499 deaths in 1887 and 283 in 1888, and also 24 deaths at the hospital of persons who gave no address



1. The Quartier St. François  
5. The Granville District

2. The Quartier Nôtre Dame.  
6. The Railway Station.

3. The Quartier St. Joseph.  
7. The Hôtel de Ville

4. The Eure District.  
8. The Perrey District.

MAP III. -- CESSPITS.

MAP OF THE BÉTOIRES, OR LEAKING CESSPITS OF HAVRE,

Showing that these leaking cesspits are situated for the most part on the higher ground to the north of the two main sewers. The cesspits will also be noted in the Eure District to the South-East and in the narrow Parrey District to the West, with its long sea front and tidal flushing of the subsoil.



all the poorer houses I have visited there were pail closets, with no ashes; nothing whatsoever to mitigate the nuisance. In other houses there are cesspools as in Paris and many large French towns, but some of the houses drain direct into the sewers.

At the Bureau d'Hygiène every case of cholera was marked on a large ordnance map by a pin. At my request and for the special benefit of the readers of THE LANCET a black spot was painted on the places inhabited by each person who had died from cholera. The map thus marked was photographed, and is now reproduced on p. 1125. In looking at this map no notice need be taken of the rows of spots to the north where the hospital stands. The deaths that took place at the hospital are recorded at the houses whence the patients were removed. The cholera map shows at a glance that the three triangular districts I have described have suffered the most. It also shows that the district to the east of the Hôtel de Ville, a central district, has been almost entirely exempt from cholera. (The Hôtel de Ville is marked 7 in Map II.) Here the streets are wide, they are better drained, and the Boulevard de Strasbourg slants in a somewhat more southerly direction, so that the main sewer built under this boulevard is not quite at right angles with the line of flow of the natural subsoil drainage. What is also very remarkable is the comparative immunity from cholera in the narrow and long Perrey district west of the Boulevard François Premier (marked 8 in Map II.). Nothing can be more wretched than this neighbourhood. The people who live here are just as poor as those who live in the poorest streets of the St. François or Notre Dame districts. Their houses are as badly built and have the extra defect of possessing numerous *bétoires*. All that can be said is that the houses are not so high or so crowded together. The death-rate here is nevertheless much below the average of the town. Few cases of diphtheria and of typhoid fever have occurred, and the cases of cholera are scarce when compared with what has happened in other places peopled by the same class of persons. Dr. Gibert has prepared a map on which he has marked the deaths during the great typhoid fever epidemic of 1887 and 1888 (see Map II.). There were then 697 deaths from typhoid fever. It will be seen that during the typhoid fever epidemic, as also during the cholera epidemic, this district of the Perrey was equally exempt. Dr. Gibert conjectures that such immunity is due to the fact that the subsoil at Perrey is flushed out twice a day by the tide. This narrow strip of ground protrudes into the sea, receiving the full force of the currents. On the other hand, if we take the three triangular districts to the north of the port, it is easy to see that they are not washed by any subterranean current. There is a tide in the port, but this is carefully walled round by quays.

If we compare the map of the typhoid fever epidemic with that of the cholera epidemic, we shall be at once struck with the similitude of both maps. They are so much alike that it is very difficult to distinguish the one from the other. Dr. Gibert has drawn other maps for other diseases, notably for diphtheria and for phthisis, and he finds that they also bear a startling likeness to the typhoid fever and cholera maps. It is the same streets and the same districts that suffer most from these very different diseases. What is the cause of this remarkable phenomena? In the poor, dirty, badly built district of Perrey the St. Laurent water is drunk, and there is little or no cholera or typhoid fever. In the St. Joseph, the St. François and the Notre Dame districts, where very poor people dwell, the St. Laurent water is used, and there is an appalling prevalence of typhoid fever and of cholera. At the barracks, where 1200 soldiers are garrisoned, and at the prison, with a population of 550 persons, the St. Laurent water is consumed and there is not a single case of cholera. At the huge block of buildings where 600 custom house officers live, and with their families constitute a population of about 3000 persons, the St. Laurent water is taken, and there have been but two doubtful cases of cholera. These buildings are near the better drained central district to the east of the Hôtel de Ville, where the St. Laurent water is drunk, and where the cholera and typhoid fever have done little or no harm. In almost all parts of the town the same water is consumed, yet the prevalence of cholera is very unevenly distributed. Nor does the cholera always spread in very poor, wretched old houses, otherwise the Perrey district would not have escaped. Two causes seem to exist which apply to the districts especially affected and not to the other parts of the town. The first is the want of proper subsoil drainage—in other words, a long-standing contamination of the subsoil unrelieved by natural

drainage. This cause may be taken to apply to the five chief cholera districts, the three triangular districts, the Granville district, to the north-east, where the cholera began, and to the Eure district in the south, where there are a great many *bétoires*. The second possible cause applies more particularly to the first three districts than to those of the Granville and Eure—it is the want of air in the streets; in other words, the height of the houses and the narrowness of the courts and streets. In this respect, if we look at the houses on the Grand Quai facing the harbour and the Boulevard de Strasbourg we find no deaths from cholera, or at least only one death on the Boulevard de Strasbourg. The death marked on the Grand Quai occurred in a back yard. In the broad Rue de Paris, the busiest street of the town, there was but one death. Where the streets are broad and well swept by the sea air there are few or no deaths from cholera. This is especially remarkable with regard to the Grand Quai and the Rue de Paris, the worst streets being behind the Grand Quai and by the side of the Rue de Paris. It would seem from this that there is relatively little danger in living in close proximity to cholera districts if the house inhabited has a plentiful supply of air and an open space in front. Even without these essentials to health the better drainage of the subsoil might produce the most beneficent results. Dr. Gibert especially insists on the fact that when a pure water-supply was brought to Frankfort typhoid fever still continued. It was only much later and after the town had been thoroughly drained that typhoid fever ceased. Perhaps, if Havre were properly drained and the contamination of the subsoil prevented, typhoid fever would disappear and cholera would not again be able to break out in an epidemic form.

Undoubtedly a complete system of drainage is an imperative necessity. The death-rate of Havre is the sure evidence of the bad sanitation of the town. The death-rate for the ten years 1880-89 was 30.9 per 1000 of the population; the birth-rate during the same period was 32.8 per 1000 of the population. In the northern (Canton Nord in maps), or wealthiest division of Havre, the birth-rate was 27.6 and the death-rate 27.9 per 1000. In the southern (Canton Sud in maps) district the birth-rate was 31.6 and the death-rate 32.1. In the eastern (Canton Est in maps) district the birth-rate was 39.8 and the death-rate 33.2. Thus, where there was the greatest poverty and the highest death-rate, the population increased the most, while in the healthiest and most wealthy division of the town the birth-rate was a little below the death-rate. In the northern division live the merchant princes; in the southern division labourers and sailors; in the eastern division artisans, workmen and Brittany navvies. But the most striking contrast will be found if death-rates of various streets are compared. For instance, the death-rate in the Rue François Premier is only 12.03 per 1000, whereas, not far off, in the Rue Marbonne, the death-rate reaches the alarming proportion of 57.2 per 1000. When such variation occurs, we may be sure that proper sanitary measures would, in a great measure, remedy the evil. In any case, it is now clear that the interference with the subsoil drainage has done great harm, and that where the underground waters stagnate there disease is most prevalent and there the cholera found its home and its readiest victims.

## THE ETHICS OF OPIUM.

*Deputation to Lord Kimberley.*

ON Thursday afternoon, at the India Office, a large deputation, representing the Society for the Suppression of the Opium Trade, the Women's Anti-Opium League, the Baptist Missionary Society and a number of other organisations, waited upon Lord Kimberley, the new Secretary of State for India.

Sir JOSEPH PEASE, M.P., introduced the deputation and in the course of his remarks spoke of the Indian Government being engaged in an immoral trade which ought to be put down speedily and with vigour.

Mr. J. G. ALEXANDER, Secretary of the Society for the Suppression of the Opium Trade, presented a memorial to his lordship which had been prepared on behalf of the Society. This memorial asserted that the emphatic condemnation of the opium trade pronounced by the Members of the late House of Commons was the result of a widespread feeling amongst the most thoughtful people of this country, and especially

amongst the Christian churches hostile to the continuance of the opium trade at present carried on by the Indian Government. The public conscience was shocked, not merely by the sad and shameful record of the wars by which the legalisation of this traffic was wrung from China, but by the continuing fact that the British nation raised revenue wherewith to provide for the cost of governing India by trading in an article which was prepared for vicious use, which brought misery to countless myriads in China and other Eastern lands, and the sale of which in this country was subject to restrictions based on its recognition by the entire medical profession as a dangerous poison. The Society had good reason to believe that the recently elected House of Commons contained at least as large a majority of members opposed to the continuance of the opium trade as the last, and that there was not the slightest possibility of the vote of two years ago being reversed. As to the Bengal opium monopoly, the Society would urge upon his lordship that the Indian Government should be instructed still further to reduce the area of poppy cultivation for the coming season, so as to limit the production of opium to that which medical use required, and at once stop the Government opium sales at Calcutta. As regards Malwa opium, the Society submitted that the same moral grounds which could alone justify the existing prohibition of poppy culture in by far the greater portion of British India required that Her Majesty's Government should prohibit the transit of opium from the Central States through British territory to the sea, except in the case of opium prepared for medical use. With reference to the Excise system, the Society simply asked that principles which had long been recognised in the legislation of the United Kingdom be applied for the protection of our fellow subjects in India. They would urge upon his lordship to request the Indian Government without delay to prepare and adopt such regulations under the Indian Opium and Excise Acts as might be found best suited to adapt to the requirements of British India the fundamental principles that the sale of poisonous drugs was to be restricted to medical and scientific use and that discretionary powers for such sale should be entrusted only to responsible and carefully selected persons who possessed adequate knowledge of the deleterious properties of these drugs who could readily be called to account for any improper use of the discretion conferred upon them, and whose remuneration in no degree depended on the amount of their sales. In conclusion, the Society asked that the Punjab system of licensing the cultivation of the poppy should be put an end to at once.

Dr. Swanson, representing China missions, Mr. Thomas Hanbury, who described himself as an old China merchant, Mr. David McLaren of Edinburgh, the Rev. George Pearcy, representing the Wesleyan Conference, and several other members of the deputation, addressed his lordship.

Lord KIMBERLEY, in reply, thanked the deputation for the expression of their views. It was, he said, very generally agreed that opium consumption was to a certain extent an evil. That was not denied even by those who did not share the views of the deputation. The Government of India had recognised that it was their duty to restrict and regulate the consumption of opium in a manner which they certainly would not restrict and regulate the consumption of a perfectly harmless drug. Starting from that proposition, a practical question had to be dealt with. As regards the importation into China, the declaration of Sir James Fergusson was conclusive upon one point, and that was the absence of any compulsion on our part on the Chinese Government to receive opium. The Chinese Government had made a treaty under which they were allowed, very properly, to raise the duty upon opium. He had no reason to doubt that they were still of the same mind as then, and that they were extremely glad of the revenue derived from the opium. It was universally agreed that there was a very large and increasing growth of opium in China itself, and he was told, too, that there was a great improvement in the preparation of the drug in that country. His information was to the effect that now the Chinese drug was much more acceptable than in former days to those who used it. As to the action of Her Majesty's Government, he could not do better than refer to some words on this subject used recently by Mr. Gladstone. In the course of a speech, with which doubtless they were familiar, Mr. Gladstone said he was prepared, subject to the obligations of good faith, to forward any measure within the bounds of reason for limiting the Government connexion with the opium revenue and bringing that connexion, if possible, to an end. That was a proposition which

would be to a great extent agreed on by the deputation. As to the practical question which came before them, they need have no doubt as to the reception the Treasury would give to any proposal for increasing the burden upon the ratepayers of this country. The reception would be far from favourable. In calculating the loss to India they must look not only at the loss to the Government, but also to the value of the opium as exported. He could not make himself responsible for the figures, but he was told that the value of the opium might be taken at no less than thirteen millions sterling. The loss of revenue had been estimated at £3,850,000. He did not think they could rely on that estimate for the future; because he believed recent years had been exceedingly unfavourable to the production and sale of opium, and there might be a considerable increase in the future. At the same time it was quite clear that there was a tendency on the part of the opium revenue to decline. He did not regret it because it rendered the problem before them less difficult. With regard to the actual exportation, he was bound to say, as the Minister responsible for Indian affairs in this country, that the Government did not see their way—at all events, at the present time—to dispense with this large revenue. The financial position of the Indian Government at the present time was one of difficulty. As to the internal consumption, the deputation must keep in mind that he had to take into consideration all the different opinions on this subject. He thought it right to say that the strong feelings which the deputation held with regard to the extreme injury done by the consumption of opium to the people of India were not shared by a very large number of persons. Many people wholly controverted the statements constantly made that opium was a simple poison, and that no one could consume it without injury, except for medicinal purposes. On the contrary, there were those, whose opinion deserved consideration, who said that opium might be consumed by portions of the Indian people not only without injury, but with considerable benefit. The Government were at a loss how to decide the matter. He considered that opium undoubtedly did a considerable amount of mischief. How far it ought to be restricted and how far it ought to be entirely abolished were the questions before them. The Government had already taken some measures in the way of restriction, and might, as time went on, be able to do more in that direction. He hoped the deputation and those who shared their views would not dismiss lightly what the Government of India had done. He wished to separate Burmah from India in considering this question. In Upper Burmah the consumption of opium, except by the Chinese, had been prohibited, and it was extremely natural that the deputation should look to a similar prohibition being extended to Lower Burmah. The question resolved itself into one of machinery. The Government of India saw very serious practical difficulties in the way of extending the prohibition to Lower Burmah, but they had the matter under their consideration at the present time, and he was quite sure they would take any measures which they thought practicable.

A member of the deputation expressed the opinion that the exception in the case of the Chinese spoilt the effect of the prohibition in Upper Burmah.

Lord KIMBERLEY said he did not agree with that view. He could not hold out any hope that the Chinese would be deprived of their opium. It would be quite sufficient, in the first instance, to deal with the Burmese people. The position of the Government was this. They were sensible of the advisability of as much as possible restricting the consumption of opium; they had taken measures in that direction and they were quite prepared to consider further measures. Some member of the deputation had spoken of the admirable results likely to follow our showing the example of stopping the sale of a drug so deleterious as opium. He did not think the example would be very powerful if people looked to the state of things in this country. He was not himself what would be called a temperance reformer, but he was sensible of the enormous mischief done by the over-consumption of alcohol, and he would ask the deputation to consider whether we could present any very brilliant example to the Indian people while we derived a very large part of our home revenue from the consumption of alcohol, which he should think did a greater amount of harm than the consumption of opium. The views put forward by the deputation would be carefully considered, and for his part he should be extremely glad if the Government could devise means of bringing the consumption of opium within narrow limits. He should like to add one word. He desired

to impress upon the deputation that there were other drugs than opium in India, and that if opium were entirely prohibited there would be a very largely increased consumption of these drugs, which were infinitely more deleterious.

The deputation thanked Lord Kimberley for receiving them and retired.

## THE BRAIN OF THE LATE MR. GEORGE GROTE, F.R.S.

### I

In the recent number of the *Journal of Anatomy and Physiology* there is a most interesting article by the late Professor John Marshall on the brain of Mr. Grote, the eminent historian and banker, one of the founders of University College and for many years the Vice-Chancellor of the University of London. Mr. Grote died in June, 1871, of renal disease, probably of some six months' duration. His weight had fluctuated between 161 and 164 lb., his height was 5 ft. 11½ in., and he was neither very stout nor very thin. His family history was somewhat peculiar, for his paternal grandfather was a pure German who had married an Englishwoman, whilst his maternal grandfather was an Englishman who had married a French lady, but whose ancestry, however, was also partially English; so that Mr. Grote's descent was more than one-half English, one-fourth German, and less than one-fourth French. Eight years before his death this remarkable man expressed a wish in writing that his brain should be carefully weighed and examined by a skilled anatomist and any peculiarities noted, especially as to whether the cerebellum was deficient as compared with the cerebrum. The late Professor Marshall duly examined Mr. Grote's cranium and brain and his report thereon is now published. It contains not only a mine of information on the details special to Mr. Grote, but it is especially valuable for its comments and observations on the general structure of the brain and its relations to some vexed questions in cerebral physiology which are introduced into the report. In the present article, however, we must limit ourselves to the general characters and special details of Mr. Grote's brain and skull, omitting for the present some of the wider generalisations which are raised in the report. The brain, on its removal from the skull, with its covering of arachnoid and pia mater, weighed 49½ oz. avoirdupois, which is three-quarters of an ounce heavier than the average weight of the European adult brain—if we take Welcker's standard of 49 oz.—and 1½ oz. heavier than the average English adult brain of 48½ oz., as calculated by Dr. Robert Boyd from 110 observations. But Dr. Boyd's tables show conclusively that whilst the maximum weight of the brain is usually attained between thirty and forty years of age, it decreases at first slowly, then more rapidly, as age progresses, so that between seventy and eighty years of age its average weight is only 45½ oz. This would show that Mr. Grote's brain was about 3oz. above the average weight at the age at which he died. The circumference of his hat on the inside was 23½ in., and that is 1½ in. above the average of English gentlemen. But *pace* Mr. Galton, owing to individual peculiarities in the shape of the skull, the amount of hair, and the mode in which the hat is worn there may be a very wide divergence between the size of the hat and the cranium. In Mr. Grote's case this difference was 1½ in. The weight of the brain to that of the body is probably very variable, but it is generally calculated at about an average ratio of 1 in 36 to 40, but in this instance it was as low as 1 in 50, and to explain this wide difference it is suggested that it was due to the effects of the renal disease from which he died. His brain and skull showed distinct marks of atrophic changes, but those due to age cannot be separated from those due to disease. Moreover, we possess no data showing how the weight of the brain is influenced by various forms of disease, nor, as Professor Marshall points out, do we know how it is affected by stature, for Parchappe's opinion that tall persons have not only absolutely but relatively larger brains than short ones is more than doubtful. The brain weight of fifteen eminent men collected by Dr. Thurnam, when corrected for age, varies from 66 oz. in Cuvier's case to 45½ oz. in Haussman's, and Grote's position would be between the tenth and eleventh on that list. But that list

comprises men of eminence from different countries, and we have another comparison which is far more interesting. The absolute weight of the brain of Thackeray was 58½ oz., of De Morgan 52½ oz., of Grote 49½ oz., of Babbage 49½ oz., and of Professor Grant 45½ oz. When corrected for age Grote comes below Babbage and is the fourth in this series of well-known Englishmen who have recently died. Like the brains of Dupuytren and Whewell, to which it closely approximates in weight, it cannot be said to be a very large brain. Compared with Cuvier, Abercrombie and Thackeray Grote's brain seems small, but Cuvier's brain was probably abnormal, and Abercrombie's (63 oz.) surpassed the maximum weight of 60½ oz., recorded in Dr. Boyd's tables, which give the weight of 700 adult sane male brains. The relation of the weight of the cerebrum to the cerebellum was investigated after the brain had been partly hardened in spirit and its membranes removed. In this state it weighed 39 oz.; the cerebrum being 34½, the cerebellum 4, the pons varoli with the medulla oblongata ½ oz. This gives a ratio of 8.5 to 1 in Mr. Grote's case, which is about the average proportion of 8 to 1. But here considerations of height must be regarded, if we would be safe against an evident source of fallacy. From some interesting calculations on sixty-seven persons, between 5 feet 10 inches and 6 feet, thus including stature as well as age, Professor Marshall concluded that the average proportion of cerebrum to cerebellum was 7.6 to 1 at this height, whilst in Mr. Grote's case it was 8.5 to 1. No doubt it would have been very satisfactory to Mr. Grote, as it will be to his numerous friends, to have learned with scientific accuracy that in his case in proportion to the cerebrum the cerebellum was deficient; although this relative deficiency was due to an absolute increase of the cerebrum, rather than to any important diminution in the cerebellum. The consideration of the bearing of other important questions suggested by the shape of his cranium and of the cerebrum, the asymmetry of certain lobes, their relative weight, and the proportions between the grey and white matter, must be deferred to another occasion.

## FATALITIES UNDER ANÆSTHETICS.

WE have received the following notes of a death under chloroform at University College Hospital from Dr. Dudley Buxton, the anæsthetist and instructor in anæsthetics to the school.

J. G.—, a master builder, aged fifty-nine, came up from Wales to be treated for epithelioma of the jaw, involving the inside of the cheek. He was admitted under the care of Mr. Christopher Heath, who decided to remove the jaw and the tissues involved in the growth. The patient was duly prepared for the operation, and came into the room adjoining the theatre used for anæsthetising patients. He was examined and found to be free from organic disease, except the malignant growth referred to above. Chloroform was administered from folded lint which was kept a little distance from the face, the patient being supine upon a high couch table. No unusual symptoms occurred, there was a short stage of excitement, and in about five minutes the respiration was regular and even and the conjunctival reflex abolished. At this stage the couch was wheeled by dressers into the theatre, the chloroformist giving his entire attention to the patient, who appeared to be in every way in a satisfactory condition. He was then transferred to the operating table, being lifted by the four corners of sacking on which he lay from the couch table on to the operating table. The chloroformist then noticed the respiration grow shallow and at once requested Mr. Heath to pull forward the tongue. The chloroform was removed and not again reapplied and artificial respiration carefully and thoroughly carried out. In compressing the chest from below after Howard's method it was noted that the heart's action was persistent. It was observed that although the head was fully extended and the tongue was drawn out of the mouth some stridor existed as though the air passage was mechanically obstructed. Laryngotomy was performed to ensure free air entry, but a vein being unfortunately wounded gave rise to considerable venous hæmorrhage. This was probably increased by the elevation of the trunk. A Hahn's tube was inserted into the laryngotomy wound in place of the ordinary tube and the clots and blood cleared from the

mouth, and the body of the patient was placed horizontal. The tube was sucked and some blood removed by this means. The hæmorrhage was restrained by this contrivance, and oxygen was administered through the tracheal opening. Throughout these measures artificial respiration was steadily kept up, and, so far as possible, care was taken to assist the occasional sighing breaths which the patient gave. The man never resumed regular respiration, and the heart stopped within a short time of the failure of respiration. A necropsy made on the following day showed a fairly healthy heart considering the patient's age. The myocardium was firm, the aortic valves showed some thickening and the arteries were healthy. The lungs showed old pleuritic adhesions and an old cicatrix in the right apex. The bronchi contained some fluid blood, and were stained; there were no clots and certainly not enough blood to have caused much obstruction. The other viscera and nervous system were to the naked eye free from disease.

*Remarks by Dr. DUDLEY BUXTON.*—This sad case is one remarkable rather for the negative than for the positive evidence it offers whereby to arrive at the cause of death. The chloroform was from the same bottle which had been used immediately before, without let or hindrance, for two similar cases. It was given by probably the safest plan, that used by Syme and Simpson, and the respiration was watched with the utmost vigilance from start to finish. Indeed, as the respiration and colour of the patient had been so satisfactory, no regard was had to the pulse until trouble came on, when an onlooker was requested to test it. There appeared no psychic fear or dread either of the anæsthetic or of the operation; the man quietly submitted; there was no struggling, imposing undue strain on the circulatory system. The lint was kept wet with chloroform throughout and no fresh supply had been added before the dangerous symptoms arose. There was no apparent impediment, no gasping breathing, as might have led to the intake of an overdose; indeed the quiet failure of inspiration was what might be regarded as "protective" if this view of the matter be taken. The danger of forcing on chloroform into the blood was borne in mind, and until it became evident that there would be no self-elimination efforts were made rather to assist than to compel respiration. A plain statement of the above facts will probably prove more useful than spinning conjectures as to the *modus operandi* of death. It will be noted that as the above case was one in which syncope did not take place the remedies appropriate for that condition were not employed.

## ADULTERATION AND THE WORK OF THE INLAND REVENUE.

THE report by the principal of the laboratory of Somerset House, which is embodied in the thirty-fifth report of Her Majesty's Commissioners of Inland Revenue for the year ending March 31st, has recently been issued. The total number of samples analysed for the Government during the year has amounted to 48,566, which is 130 more than in the previous year, while under the twenty-second section of the Sale of Food and Drugs Act only forty-five samples have been referred by the magistrates to the Somerset House chemists for analysis. The referred samples comprised butter, buttermilk, coffee, dandelion coffee, lard, linseed meal, milk, mustard, whisky, white pepper and rum. As is nearly always the case, the larger proportion of the samples consisted of milk. Of these, four were alleged to have been diluted with water and deprived of part of their fat, but only in one of the cases, however, could the referees support the charge, and that only in respect of abstraction of fat. In the case of twenty-five other samples they concurred in the conclusions of the local analyst in respect to twenty-one of them. The remaining four afforded no evidence of dilution, but the milk in each instance had undoubtedly been deprived of part of its fat, although this offence had not been charged.

It is noteworthy that the Somerset House authorities confirmed the analyses of the local analyst in twenty-one out of twenty-five cases of milk in which the charge was dilution with water. Doubtless the results of analysis of the four samples to which exception was taken were the same, but

probably the interpretation of these results led to a different conclusion respecting the quality of the milk. In order to determine whether a milk is pure or not it is obviously necessary to adopt a standard of quality from which all other samples may be judged. Unless this standard is agreed upon once for all, differences of opinion as to whether a milk has been diluted or not are bound to exist. But the difficulty lies in fixing a standard of quality for an article which, like milk, varies so widely in composition. If a high limit is adopted then, no doubt, in a few solitary instances milk vendors would be dealt with unfairly. If, on the contrary, the limit adopted be low, then probably the majority of milk dealers would be enabled to water to a certain extent the milk of average yield. According to a large number of analyses published in 1883 by the principal of the laboratory at Somerset House, Dr. Bell, the non-fatty solids of milk from individual cows vary from 8.0 to 11.27 per cent., and the fat from 1.92 to 6.87 per cent.; while in the case of dairy samples the non-fatty solids vary from 8.5 to 9.91 per cent. and the fat from 2.90 to 5.1 per cent. Occasionally a milk falls below even 8.5 per cent. in non-fatty matters and 1.9 in fat, which must still be regarded as genuine, the samples having been drawn in the presence of a responsible person. There is reason to believe, however, that when a standard as low as 8.5 is taken the milk vendor is treated very leniently—in the majority of instances probably too leniently; and it is useless for the public to expect to be provided with—inasmuch as the Act does not encourage the supply of—milk of really excellent and irreproachable quality. The same holds true in regard to fat. If the limit of genuine milk is to be 2 per cent., then obviously the dealer may with impunity skim down a milk containing 5 per cent. to the extent of 3 per cent. As things stand, in fact, the Act does not sufficiently protect the public, who according to its present reading may be provided with milk that is "genuine" compared with the low standard, but to which it is pretty certain water has been added, and from which cream has been abstracted. The report referred to, however, gives some hope of this matter being placed upon a more satisfactory basis. Dr. Bell has considered it desirable, inasmuch as the quality of milk is materially affected by the breed of cows and by the food they receive, to make a fresh investigation into the character of the milk now generally produced in order to ascertain whether any material changes have taken place, after an interval of ten years, in its composition which would affect the standards of quality hitherto relied on as a guide in dealing with samples suspected to have been tampered with. This investigation will be continued during the present year, so far as may be consistent with the current work of the department. That the Somerset House authorities have hitherto adopted a low limit, both as regards milk and butter, is quite obvious from a consideration of the cases appearing at the police-courts from time to time. The local analyst reports adulteration—it may be to a slight extent only—and the referees—although they should, of course, obtain the same analytical figures, everything else being the same—are, in many instances, unable to affirm that the sample is sophisticated. This frequently happens, and the competency of the local analyst is not unnaturally brought into question; but it must be admitted that in the case of milk the analysis of the local analyst is more likely to indicate correctly its character than is the analysis of the Somerset House authorities. The local analyst examines the milk before any important change in its composition has taken place, whereas the referees unavoidably examine the sample when it is several days old, and consequently when it has undergone considerable decomposition. With regard to the standard quality of milk there really seems no reason why it should not be subjected to the same regulation as spirits—i.e., never to be allowed to contain more than a certain and reasonable proportion of water. It should, so to speak, be kept up to strength. It must be remembered that milk is not only an essential article of diet, but is also one used largely for infants and invalids, to whom the abstraction of food elements is a serious matter. Apart from this, the quality of the water used by the dishonest tradesman to dilute the milk may not be above suspicion. It is for the owner to see that the cow is not ill fed, while if it is in an unhealthy condition the milk from it should not be sold at all. The rich milk of some cows could be mixed with the poor milk of others and so an average product obtained which would come well within the limits of a milk of really good quality.

Amongst the investigations carried out by the Somerset

House laboratory officials in other departments the result of an inquiry into the value of disinfectants for the Board of Trade calls for notice. The work of the committee appointed by the Board was undertaken to fix a standard of efficiency for disinfectants intended to be used on board passenger and merchant ships, and to revise the list of disinfectants in the medical scales of the Board of Trade. It was decided to adopt as standards a solution containing 80 per cent. carbolic acid and a powder containing 20 per cent. of the acid. Every disinfectant on the Board of Trade list was examined bacteriologically, in order to determine whether it was equal in value to the standard as an antiseptic and disinfectant. The experiments extended over several months, the result being that nearly every liquid disinfectant on the list was found to be inferior to an equal bulk of the carbolic acid solution, and in the case of powders to an equal weight of the carbolic acid powder. The method adopted is not explained, and the kind of organism experimented upon is not mentioned; but it must be admitted that the conclusions come to by the committee are not in agreement with the observations of previous investigators, such as Koch, Martens, Bucholtz and others.

Further on in the report a very satisfactory account is given of the home manufacture of tobacco. It is carried on with almost absolute freedom from adulteration, and the regulations as to restriction of water have been so satisfactorily observed during the year that it has only been necessary in two cases to take proceedings against manufacturers.

The evils attending the drinking of methylated spirit and the frauds thus committed against the revenue have received due attention. Within a limited area in the north of Ireland, it will be remembered, methylated spirit was being used as a beverage by some of the rural population, so the Revenue decided, at the suggestion of Dr. Bell, that while methylated spirit for general use in the arts and manufactures should be still allowed as hitherto, that portion sold by retail to the general public should contain a small addition of petroleum. This admixture renders the methylated spirit turbid when diluted, and also more offensive in character; and from the accounts from the district principally affected the retail sales since its introduction have largely fallen off, and there is every reason to believe that the practice of using such spirit for drinking purposes has been extensively abandoned, if not altogether stamped out.

### FELIXSTOWE SPA.

By H. MACNAUGHTON JONES, M.D., F.R.C.S.I. & ED., &c.

IT may interest readers of THE LANCET to know something of Felixstowe and its medicinal spa. Not that I assume that many who have sent patients to imbibe the invigorating and delightful air of the Suffolk coast and the breezes which blow over Felixstowe, Aldeburgh and Lowestoft have not themselves enjoyed the bracing effects of the sea air of these well-known watering-places, each of which has its own special attractions for different visitors; but there are several who have not had the opportunity of visiting these Suffolk health resorts, and for whom a few notes of one of them and its natural mineral spring may be of interest. Facing the German Ocean, between Harwich on the south and Bawdsey at the mouth of the Deben river on the north, Felixstowe beach occupies an amphitheatre which has at one point of the crescent Landguard Fort, commanding the entrance to Harwich, and at the other a picturesque villa perched just above the cliffs of red crag and London clay that bound this part of the coast and over which there is a delightful walk to Felixstowe ferry. In the distance to the south can be seen the long head of Walton-on-the-Naze, and from certain vantage-points in the neighbourhood can be obtained good views of Harwich harbour and shipping and the lighthouse of the quiet little bathing town of Dovercourt. The lights of the *Cork* and the *Sunk* flash right in front of the beach some three and twelve miles off respectively, and a pleasant hour can be spent on board the former lightship after an agreeable row of some three-quarters of an hour from Felixstowe. In 1105 a priory of black monks was founded and dedicated to St. Felix; here the renowned bishop had resided, and there are many evidences that Roman, Saxon and Norman settlers successively lived here, the latter conquerors leaving in the remains of Walton Castle, distributed in pond and ancient church, clear proofs of their military

resources. The temporary sojourn of the Empress of Germany at Felixstowe in 1891 brought this quiet watering-place into still greater prominence as a summer seaside resort; and the famous golf grounds and the well-known golfing club—the links of which are splendidly placed on the side of the Deben river, close to the sea, about two miles from the eastern side of the town—attract many visitors. The capital bathing beach and the safe sands render Felixstowe a typical place for children, and each year it is growing more in popular favour as a children's holiday resort. Some few years since Dr. J. E. Taylor wrote a report in connexion with a scheme for the construction of a waterworks for Felixstowe, and in the necessary examination of the well water he found that it contained many valuable mineral ingredients, and amongst these iron; and Dr. Frankland, who had specimens of the water submitted to him for report as to its suitability for domestic use, while proving that this was impossible, suggested that it might be usefully employed for medicinal purposes. As in other chalybeate springs, the iron exists in association with sulphur in the pyrites which occurs in the London clay at Felixstowe. Dr. Taylor then pointed out that there was a trace of phosphates in the water, and accounted for its presence through the coprolites or phosphatic nodules found at the base of the red crag at Felixstowe. It does not appear from Dr. Frankland's analysis (made in 1891) of the well water that he found any phosphates in it. Dr. Taylor, having tested personally and with others the medicinal properties of the spa, was induced to try its aeration by artificial means, hoping thus to get rid of the smell and unpleasant taste due to the decomposition of the pyrites which, as I have said, is found in the London clay of the soil. In this he has been most successful. The taste reminds one of the Wienbrunnen spring at Schwabach—sparkling and mildly chalybeate. I have spoken to several people of various ages who have taken the water as a chalybeate tonic, and on whom it has had a good effect. The recent analysis (1891) of Dr. Frankland is as follows.

“One thousand parts of the water yielded the following ingredients:—

	Parts.
Total solid residue dried at 130° C. ... ..	85.30
Lime as carbonate (CaCO <sub>3</sub> ) ... ..	11.76
Magnesia as carbonate (MgCO <sub>3</sub> ) ... ..	2.16
Total magnesia as carbonate (MgO) ... ..	5.78
Soda (ONa <sub>2</sub> ) ... ..	22.25
Potash (OK <sub>2</sub> ) ... ..	1.21
Chlorine ... ..	30.44
Sulphuric anhydride (SO <sub>3</sub> ) ... ..	3.40
Silica ... ..	1.51
Alumina and peroxide of iron (Al <sub>2</sub> O <sub>3</sub> & Fe <sub>2</sub> O <sub>3</sub> ) ... ..	0.11
Organic carbon ... ..	0.063
Organic nitrogen ... ..	0.019
Ammonia (NH <sub>3</sub> ) ... ..	0.070
Nitrogen as nitrates ... ..	0.0
Phosphoric acid ... ..	0.0

These constituents are probably combined in the water in the following manner:—

	Parts.
Carbonate of lime (CaCO <sub>3</sub> ) ... ..	21.00
Carbonate of magnesia (MgCO <sub>3</sub> ) ... ..	4.54
Sulphate of lime (CaSO <sub>4</sub> ) ... ..	4.01
Sulphate of magnesia (MgSO <sub>4</sub> ) ... ..	1.52
Chloride of magnesium (MgCl <sub>2</sub> ) ... ..	7.36
Chloride of sodium (NaCl) ... ..	39.60
Chloride of potassium (KCl) ... ..	1.92
Silicate of sodium (SiNa <sub>2</sub> O <sub>3</sub> ) ... ..	3.07
Alumina and peroxide of iron (Al <sub>2</sub> O <sub>3</sub> & Fe <sub>2</sub> O <sub>3</sub> ) ... ..	0.11

The aerated spa water was pleasant to the taste and well charged with carbonic acid.”

The constitution of such a water would justify the belief that it must prove of use in cases of atonic dyspepsia, and as a mild purgative from the sulphate and chloride of magnesia which it contains; both used internally and as a bath, such a spa should prove of efficacy in gouty rheumatism and muscular neuralgias. A spring which can yield an unlimited supply within a few yards of the beach of one of the most salubrious of our sea-coast resorts, in a neighbourhood with a singularly dry climate and a soil that quickly absorbs moisture, free of moist exhalations, and that by its situation is protected from the severity of the east winds, that are broken by the points of the crescent to which I have already referred, is well worth developing. The drinking water of Felixstowe is singularly pure, being drawn from an

artesian well which is sunk in the chalk. There are plenty of good apartments, charmingly situated villas, and an excellent hotel, which is beautifully situated and within a few hundred yards of the spa. There are pleasant drives in the vicinity, and within an hour and a half's driving distance is the magnificent mansion of Captain Pretymann, situated in one of the most beautiful parks in England; here the visitor may feast his eyes on some of the choicest specimens of Gainsborough, Caravacci, Vandyke, Koek-Koek, Stansfield, and the marvellous masterpiece of Murillo, the Pool of Bethesda (for which, it is said, £20,000 was offered by the Spanish Government and refused), as well as many other works of art, besides figures and busts by eminent sculptors, placed here by the late Colonel Tomline, who was the previous owner of Orwell Park. I may, in passing, mention that a most delightful excursion can be made from Ipswich to Felixstowe, or *vice versa*, on the Orwell river, or an invigorating and pleasant sail can be had up the Deben to Woodbridge. But my purpose is mainly to draw attention to the medicinal properties of the Felixstowe Spa as a matter well worth remembering by those who may not happen to know of it and who send patients to this pretty watering town on the Suffolk coast. Felixstowe is justly proud of its neat, well-kept and splendidly situated "Suffolk Convalescent Home." One thing only I would add in conclusion, that to render Felixstowe as attractive as its natural advantages claim for it, those in authority or the local magnates should see that its resources for recreation and public enjoyment are attended to, and that the value of its mineral spring is made more apparent by attention to what is called the "Spa House," but which might easily be converted into a neat kursaal, and thus the attention of visitors be drawn to what undoubtedly is a characteristic feature of this charming little town.

Harley-street, W.

## THE ANNUAL REPORT OF THE VETERINARY DEPARTMENT OF THE BOARD OF AGRICULTURE.

THE health and prosperity of the live stock of the United Kingdom is of so much importance to the community that the Annual Report of the Board of Agriculture, which deals more especially with some of the contagious diseases of the domestic animals, must always possess a considerable amount of interest for those whose function it is to attend to the sanitary condition and disorders of man. The report for 1891, which has only now, in the last quarter of 1892, been issued, and which has no information with regard to the health of animals in Ireland, is so far satisfactory in that it contains evidence of a diminution in the prevalence of the contagious pleuro-pneumonia of cattle, which has caused almost incalculable damage since its introduction half a century ago, and gives us reasonable grounds for looking forward to its extinction at no distant date. It is stated that during the year the attention of the Department was concentrated on the administration of the Pleuro-pneumonia Act of 1890 in all parts of the country where the disease was discovered. The endeavour to check the disease has not only been attended with heavy cost to the nation, as whole herds have been killed and farms and dairies cleared out, compensation for this destruction being made from the Treasury, but large tracts of country have been placed under severe restrictions in regard to the sale and movement of cattle. This has seriously hampered trade and inflicted grave loss and inconvenience on the owners of cattle. Of course it was to be expected that such drastic measures, which looked like "making a desert and calling it peace," would raise up considerable opposition, as they meant something like ruin to many of those concerned in their operation. But this opposition was little regarded, and it is satisfactory to learn that "the success which has attended the procedure furnishes the justification of the severity of the regulations which it was deemed expedient to enforce in certain scheduled districts while the rest of the country was left quite free from restrictions." From the returns of the cattle slaughtered by order of the Board it would appear that 72·3 per cent. of the diseased animals were cows or heifers, only 1·3 per cent. being bulls. This difference can be explained by the fact

that not only is there a great preponderance of cows over bulls, but that the former, as dairy cows, are exposed to influences favourable to the extension of contagious diseases. As the report has it, "pleuro-pneumonia cannot be caused by insanitary surroundings; but when disease has been introduced among a herd by the agency of a living diseased animal the close association of a number of cows in a badly ventilated shed must favour the spreading of the disorder. Besides which, it is at least probable that the artificial conditions under which cows are kept have led to the development of a predisposition which renders them specially susceptible to the malady. At any rate, there is good evidence that the popular idea of the shed cow being the chief source of danger is not without justification." There is reference to some experiments with the meat and milk of tuberculous cattle, but we cannot see that they add much, if anything, to the knowledge acquired long ago. For instance, one of the results arrived at is that thorough cooking is effectual in destroying the activity of tubercle virus, which, we fancy, no one ever doubted. In this connexion we have good authority for stating that in another three or four months' time the promised report on Tuberculosis by the Royal Commission will be forthcoming. The wholesale slaughter of cattle for contagious pleuro-pneumonia has revealed the extent to which the far more serious scourge of bovine tuberculosis prevails in Great Britain. Of the total cattle slaughtered because of being affected with pleuro-pneumonia or having been exposed to infection, 12·22 per cent. were found to be more or less tuberculous; of the cows and heifers in milk or in calf, 16·9 per cent. were tuberculous; of bulls, 1·53 per cent. were thus affected; of other cattle over one year old, 1·2 per cent. were also diseased, as were 1·2 per cent. under one year old. In Midlothian, of the cows slaughtered 22·5 per cent. were tuberculous, and of those in and around London, 15·53 per cent. were in the same state. Anthrax prevailed in fifty counties in Great Britain, the outbreaks amounting to 226, in which 471 animals were attacked, exclusive of horses; but as the Department believes that this dangerous disease cannot be eradicated by repressive measures, nothing is done in the way of introducing measures for the protection of animals on infected lands, such as Pasteurian inoculation, which has proved so satisfactory in France and some other countries. Swine fever, a very fatal and highly contagious and infectious disease of the porcine tribe, prevailed unchecked by the regulations now in force, as the application of these is left to the option of the local authorities, who, of course, are worse than useless in dealing with this class of maladies. Allusion is made to the losses among animals during transit by sea, from which it appears that in cargoes sent from the United States, Canada, and the Argentine Republic 5971 cattle and 2665 sheep perished at sea, 323 cattle and 107 sheep were landed dead, and 471 cattle and 113 sheep were so injured as to necessitate slaughter being resorted to at the port of landing.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6514 births and 3837 deaths were registered during the week ending Nov. 5th. The annual rate of mortality in these towns, which had increased from 17·3 to 19·5 per 1000 in the preceding three weeks, further rose to 19·6 last week. In London the rate was 18·2 per 1000, while it averaged 20·6 in the thirty-two provincial towns. The lowest rates in these towns were 11·3 in Swansea, 14·1 in Derby, 15·1 in Leicester and in Cardiff, and 15·5 in Halifax; the highest rates were 25·7 in Manchester, 26·0 in Blackburn, 26·8 in Wolverhampton, 26·9 in Bolton, and 30·3 in Salford. The 3837 deaths included 434 which were referred to the principal zymotic diseases, against 387 and 406 in the preceding two weeks; of these, 130 resulted from measles, 78 from diarrhoea, 75 from scarlet fever, 70 from diphtheria, 40 from whooping-cough, 40 from "fever" (principally enteric), and one from small-pox. No fatal case of any of these diseases occurred last week in Derby and in Burnley; in the other towns they caused the lowest death-rates in Halifax, Swansea and Newcastle-upon-Tyne, and the highest rates in West Ham, Croydon, Brighton, Hull, and Salford. The greatest mortality from measles occurred in Brighton, Cardiff, Oldham, West Ham, Hull and Salford; from scarlet fever in Preston and Plymouth; from "fever"

in Preston and Birkenhead; and from diarrhoea in Blackburn, Hull and Wolverhampton. The mortality from whooping-cough showed no marked excess in any of the large towns. The 70 deaths from diphtheria included 47 in London, 6 in Croydon and 3 in Brighton. A fatal case of small-pox was registered in Leeds, but not one in London or in any other of the thirty-three large towns; 4 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 4067, against 3797, 3936 and 4012 on the preceding three Saturdays; 462 new cases were admitted during the week, against 484 and 410 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 295 in the preceding nine weeks, further rose last week to 319, but were 74 below the corrected average. The causes of 79, or 2·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Leicester, Bolton, Sunderland, Newcastle-upon-Tyne, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Balckburn, and Gateshead.

#### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the largest Scotch towns, which had increased from 18·1 to 21·3 per 1000 in the preceding three weeks, further rose to 22·9 during the week ending Nov. 5th, and exceeded by 3·3 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·8 in Paisley and 17·4 in Dundee to 25·3 in Leith and 26·1 in Edinburgh and in Aberdeen. The 637 deaths in these towns included 69 which were referred to measles, 13 to scarlet fever, 10 to diphtheria, 6 to diarrhoea, 5 to whooping-cough, 5 to "fever," and not one to small-pox. In all, 108 deaths resulted from these principal zymotic diseases, against 87 and 80 in the preceding two weeks. These 108 deaths were equal to an annual rate of 3·9 per 1000, which exceeded by 1·7 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased from 12 to 43 in the preceding six weeks, further rose last week to 69, of which 34 occurred in Edinburgh, 17 in Aberdeen, and 1 in Leith. The deaths referred to scarlet fever, which had declined from 16 to 14 in the preceding three weeks, further fell to 13 last week, and included 9 in Glasgow and 2 in Leith. The 10 fatal cases of diphtheria were within 2 of 5 in the preceding week, and included 6 in Glasgow and 3 in Aberdeen. The deaths from whooping-cough, which had been 10 in each of the previous two weeks, declined to 5 last week, all of which occurred in Glasgow. The 5 fatal cases of "fever" exceeded the number recorded in any recent week, and included 3 in Leith and 2 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had increased from 80 to 138 in the preceding three weeks, further rose to 142 last week, but were 68 below the number in the corresponding week of last year. The causes of 78, or more than 12 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19·4 and 25·8 per 1000 in the preceding two weeks, further rose to 28·5 during the week ending Nov. 5th. During the first five weeks of the current quarter the death-rate in the city averaged 23·9 per 1000, against 17·6 in London and 21·7 in Edinburgh. The 191 deaths in Dublin during the week under notice included 10 which were referred to different forms of "fever," 3 to scarlet fever, and not one either to small-pox, measles, diphtheria, whooping-cough, or diarrhoea. In all, 13 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·9 per 1000, the zymotic death-rate during the same period being 2·0 in London and 7·3 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 6 in the preceding two weeks, further rose to 10 during the week under notice, a higher number than in any week since December last. The 3 fatal cases of scarlet fever exceeded those recorded in any week since February, 1889. The 191 deaths registered in Dublin last week included 35 of infants

under one year of age and 43 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded those recorded in any recent week. Four inquest cases and 4 deaths from violence were registered; and 64, or more than a third, of the deaths occurred in public institutions. The causes of 20, or more than 10 per cent., of the deaths in the city last week were not certified.

#### VITAL STATISTICS OF LONDON DURING OCTOBER, 1892.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality during the month of October in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases in the accompanying table was equal to 17·9 per 1000 of the population, estimated at 4,263,294 persons in the middle of this year. Owing to the continued epidemic prevalence of scarlet fever and of diphtheria in London this rate shows a slight further increase upon those recorded in the preceding eight months, which had continuously risen from 5·1 to 17·4 per 1000. Among the various sanitary districts the rates last month were considerably below the average in Kensington, Westminster, St. James Westminster, Marylebone, Strand, St. Olave Southwark, and Lewisham (excluding Penge); while they showed the largest excess in Hackney, Holborn, Shoreditch, Bethnal Green, Mile-end Old Town, and Poplar. The prevalence of small-pox in London showed an increase during October, 10 cases being notified during the month, against 3 in September; of these 10 cases 3 belonged to St. Pancras and 2 to Paddington sanitary districts. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained 6 small-pox patients at the end of October, against 8 at the end of each of the preceding two months; the weekly admissions averaged one only, against 2 in each of the previous two months. The prevalence of scarlet fever in London during October showed a slight further increase upon that recorded in recent months; this disease was proportionally most prevalent in Hackney, Holborn, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, and Bermondsey sanitary districts. The Metropolitan Asylum Hospitals contained 3843 scarlet fever patients at the end of October, against numbers increasing from 1142 to 3407 at the end of the preceding eight months; the weekly admissions averaged 429, against 335, 378, and 355 in the preceding three months. Diphtheria also showed slightly increased prevalence during the month under notice; this disease was proportionally most prevalent in Islington, Hackney, City of London, Bethnal Green, Poplar, St. Saviour Southwark, and Lewisham sanitary districts. There were 312 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of October, against numbers steadily increasing from 198 to 318 at the end of the preceding seven months; the weekly admissions averaged 57, against 56, 55 and 54 in the preceding three months. Enteric fever was proportionally most prevalent in Islington, Hackney, St. Giles, and Mile End Old Town sanitary districts. The Metropolitan Asylum Hospitals contained 124 enteric fever patients at the end of October, against numbers increasing from 47 to 113 at the end of the preceding five months; the weekly admissions averaged 15, against 14 and 20 in the preceding two months. Erysipelas showed the highest proportional prevalence during the month under notice in Holborn, Clerkenwell, St. Luke, Bethnal Green, Whitechapel, and St. George-in-the-East sanitary districts. Six cases of puerperal fever were notified during October in Islington and 4 in St. Pancras sanitary districts.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed among the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data that can be secured upon which to calculate reliable rates of mortality. During the four weeks ending on Saturday, Oct. 29th, the deaths of 5600 persons belonging to London were registered, equal to an annual rate of 17·1 per 1000, against 17·8, 16·9, and 15·7 in the preceding three months. The lowest death-rates during October in the various sanitary districts were 11·3 in Hampstead, 12·4 in Plumstead, 12·7 in Battersea, 12·9 in Lewisham (excluding Penge), 13·0 in Kensington, and 13·2 in Wandsworth; in the other

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—OCTOBER, 1892.  
(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1892.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths from all causes.	Deaths per 1000 living.	Deaths of infants under one year to 1000 births.		
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Meadles.	Scarlet fever.	Diphtheria.	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diphtheria.				Total.	Annual rate per 1000 persons living.
LONDON..	4,263,294	10	3723	928	1	270	10	33	866	3	5844	179	86	124	194	25	—	55	1	125	610	19	5600	171	137	
<i>West Districts.</i>																										
Paddington ..	119,199	2	87	15	—	4	—	1	10	—	119	13.0	—	—	—	—	—	—	—	—	—	—	1.3	141	15.4	143
Kensington ..	106,721	—	86	17	—	6	—	—	12	—	121	9.5	—	—	—	—	—	—	—	—	—	—	1.2	166	13.0	106
Hammersmith ..	100,642	—	72	31	—	5	—	—	13	—	121	15.7	—	—	—	—	—	—	—	—	—	—	1.5	106	13.7	94
Fulham ..	98,195	—	91	8	—	5	—	—	24	—	115	15.5	—	—	—	—	—	—	—	—	—	—	1.8	109	14.5	130
Chelsea ..	97,300	—	77	9	—	5	—	—	24	—	115	15.5	—	—	—	—	—	—	—	—	—	—	1.5	115	15.4	166
St. George Hanover-square ..	76,946	—	47	16	—	2	—	—	9	—	77	13.0	—	—	—	—	—	—	—	—	—	—	1.0	89	15.1	102
St. George Hanover-square ..	65,203	—	39	5	—	2	—	—	3	—	50	11.8	—	—	—	—	—	—	—	—	—	—	0.9	72	17.0	151
St. James Westminster ..	24,368	1	10	3	—	1	—	—	2	—	19	10.2	—	—	—	—	—	—	—	—	—	—	1.1	29	15.5	51
<i>North Districts.</i>																										
Marylebone ..	140,799	—	72	28	—	8	—	—	21	—	131	12.1	—	—	—	—	—	—	—	—	—	—	1.1	157	14.5	100
Hampstead ..	71,652	—	54	14	—	6	—	—	7	—	82	14.9	—	—	—	—	—	—	—	—	—	—	0.7	62	11.3	112
St. Pancras ..	234,207	3	178	49	—	19	—	—	65	—	305	17.0	—	—	—	—	—	—	—	—	—	—	1.6	306	17.0	162
Islington ..	324,451	1	294	101	—	25	—	—	8	—	474	26.2	—	—	—	—	—	—	—	—	—	—	2.1	395	16.0	140
Hackney ..	235,370	1	313	77	—	25	—	—	53	—	474	26.2	—	—	—	—	—	—	—	—	—	—	2.3	289	16.0	125
<i>Central Districts.</i>																										
St. Giles ..	39,071	—	37	5	—	6	—	—	9	—	57	19.0	—	—	—	—	—	—	—	—	—	—	1.0	62	20.7	119
St. Martin-in-the-Fields ..	14,204	—	9	4	—	1	—	—	—	—	14	12.8	—	—	—	—	—	—	—	—	—	—	0.5	33	30.3	143
Strand ..	24,256	—	15	4	—	1	—	—	—	—	20	10.7	—	—	—	—	—	—	—	—	—	—	0.5	42	22.6	222
Holborn ..	32,912	—	49	10	—	6	—	—	14	—	73	28.9	—	—	—	—	—	—	—	—	—	—	3.2	68	26.1	277
Clerkenwell ..	65,482	—	50	12	—	6	—	—	10	—	96	19.1	—	—	—	—	—	—	—	—	—	—	2.0	100	19.9	143
St. Luke ..	41,850	—	36	5	—	15	—	—	19	—	61	19.0	—	—	—	—	—	—	—	—	—	—	1.6	65	20.2	99
City of London ..	26,692	1	34	11	—	6	—	—	8	—	59	21.0	—	—	—	—	—	—	—	—	—	—	1.1	38	13.5	42
<i>East Districts.</i>																										
Shoreditch ..	123,683	—	142	24	—	14	—	—	37	—	220	23.2	—	—	—	—	—	—	—	—	—	—	2.2	182	19.2	147
Bethnal Green ..	129,408	—	140	76	—	8	—	—	61	—	279	23.1	—	—	—	—	—	—	—	—	—	—	3.0	202	20.3	162
Whitechapel ..	74,853	—	56	19	—	6	—	—	—	—	112	19.5	—	—	—	—	—	—	—	—	—	—	1.4	137	23.9	131
St. George-in-the-East ..	45,313	—	47	10	—	1	—	—	17	—	75	21.6	—	—	—	—	—	—	—	—	—	—	1.2	98	28.2	215
Limehouse ..	57,480	—	67	9	—	6	—	—	10	—	89	20.2	—	—	—	—	—	—	—	—	—	—	2.8	95	21.5	146
Mile End Old Town ..	107,811	—	146	16	—	15	—	—	35	—	215	26.0	—	—	—	—	—	—	—	—	—	—	2.8	171	20.7	166
Poplar ..	167,857	—	186	49	—	8	—	—	48	—	294	22.8	—	—	—	—	—	—	—	—	—	—	1.9	273	21.6	125
<i>South Districts.</i>																										
St. Saviour Southwark ..	26,973	—	21	10	—	—	—	—	8	—	39	18.8	—	—	—	—	—	—	—	—	—	—	3.4	48	23.2	250
St. George Southwark ..	59,846	1	35	10	—	3	—	—	15	—	64	13.9	—	—	—	—	—	—	—	—	—	—	3.0	122	26.6	178
Newington ..	116,649	—	115	21	—	5	—	—	35	—	176	19.7	—	—	—	—	—	—	—	—	—	—	1.8	154	17.2	127
St. Olave Southwark ..	12,787	—	6	1	—	—	—	—	2	—	9	9.2	—	—	—	—	—	—	—	—	—	—	2.0	28	28.5	167
Bermondsey ..	84,440	—	97	11	—	3	—	—	19	—	130	20.1	—	—	—	—	—	—	—	—	—	—	1.4	120	18.5	114
Rotherhithe ..	39,459	—	20	9	—	4	—	—	7	—	41	13.5	—	—	—	—	—	—	—	—	—	—	1.0	54	17.8	97
Lambeth ..	277,917	—	195	63	—	11	—	—	37	—	312	14.6	—	—	—	—	—	—	—	—	—	—	1.9	377	17.8	129
Battersea ..	156,313	—	189	22	—	8	—	—	18	—	249	20.8	—	—	—	—	—	—	—	—	—	—	1.1	152	12.7	104
Wandsworth ..	164,063	—	132	32	—	4	—	—	31	—	187	14.9	—	—	—	—	—	—	—	—	—	—	1.7	166	13.2	121
Barnes ..	241,465	—	129	35	—	15	—	—	45	—	310	16.7	—	—	—	—	—	—	—	—	—	—	2.0	322	17.4	170
Greenwich ..	169,734	—	125	26	—	11	—	—	31	—	199	16.3	—	—	—	—	—	—	—	—	—	—	2.2	227	17.4	160
Camberwell ..	169,734	—	27	34	—	3	—	—	10	—	73	12.7	—	—	—	—	—	—	—	—	—	—	2.1	74	12.9	131
Lewisham (excluding Penze) ..	74,673	—	34	4	—	2	—	—	10	—	42	13.2	—	—	—	—	—	—	—	—	—	—	3.1	61	19.2	134
Woolwich ..	41,376	—	34	4	—	1	—	—	10	—	109	15.5	—	—	—	—	—	—	—	—	—	—	1.3	87	12.4	100
Plumstead ..	91,704	—	71	24	—	1	—	—	10	—	109	15.5	—	—	—	—	—	—	—	—	—	—	1.3	87	12.4	100
Port of London ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

\* Including 47 cases notified as "meningococcus group."

sanitary districts the rates ranged upwards to 23·2 in St. Saviour Southwark, 23·9 in Whitechapel, 26·1 in Holborn, 26·6 in St. George Southwark, 28·2 in St. George-in-the-East, 28·5 in St. Olave Southwark, and 30·3 in St. Martin-in-the-Fields. During the four weeks of October 610 deaths were referred to the principal zymotic diseases in London; of these, 194 resulted from diphtheria, 125 from diarrhoea, 124 from scarlet fever, 86 from measles, 56 from different forms of "fever" (including 55 from enteric fever and 1 from an ill-defined fever), 25 from whooping-cough, and not one from small-pox. These 610 deaths were equal to an annual rate of 1·9 per 1000, against 3·9, 3·4, and 2·6 in the preceding three months. Among the various sanitary districts the lowest zymotic death-rates were recorded in Chelsea, Westminster, Hampstead, St. Giles, Strand, Rotherhithe, and Battersea; and the highest rates in St. Martin-in-the-Fields, Holborn, Bethnal Green, St. George-in-the-East, St. Saviour Southwark, St. George Southwark, and Woolwich. The 86 deaths referred to measles were 35 below the corrected average number in the corresponding month of the preceding ten years; among the various sanitary districts this disease showed the highest proportional fatality in St. George-in-the-East, Bethnal Green, St. George Southwark, and Camberwell. The 124 deaths from scarlet fever were 20 below the corrected average, notwithstanding its epidemic prevalence; this disease was proportionally most fatal in Hackney, St. Martin-in-the-Fields, Bethnal Green, St. George-in-the-East, and Lewisham. The 194 fatal cases of diphtheria were no less than 84 above the corrected average; this disease showed the highest proportional fatality in Hackney, St. Martin-in-the-Fields, Clerkenwell, St. George-in-the-East, Limehouse, Mile End Old Town, St. Saviour Southwark, Lewisham and Plumstead. The 20 deaths referred to whooping-cough were little more than one-fourth of the corrected average; this disease showed no marked fatality in any of the sanitary districts. The 56 deaths referred to different forms of "fever" were 29 below the corrected average; there was no marked excess of fever mortality in any of the sanitary districts during the month under notice. The 125 fatal cases of diarrhoea were 52 below the corrected average. In conclusion, it may be stated that the mortality in London during October from these principal zymotic diseases was as much as 18 per cent. below the average.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 137 per 1000 during October, and was slightly below the average; the lowest rates of infant mortality were recorded in Hammersmith, St. James Westminster, Marylebone, St. Luke, City of London, Rotherhithe, and Plumstead; the highest rates in Chelsea, Strand, Holborn, St. George-in-the-East, Mile End Old Town, St. Saviour Southwark, St. George Southwark, and Camberwell.

## THE SERVICES.

### MOVEMENTS OF MEDICAL STAFF.

**SURGEON-COLONEL P. BURKE SMITH** has been transferred from Woolwich to Netley, where he has assumed the duties of Principal Medical Officer in succession to Surgeon-Major-General Hinde, retired. The following officers have arrived home from India on completion of a tour of service:—Surgeon-Major Lane, Surgeon-Captains Hayman and Philson. Surgeon-Captain Lavie has come home on sick leave. Surgeon-Captain Cottell has embarked for Gibraltar on a tour of foreign service. Surgeon-Captain Robinson has been transferred to Fleetwood, Surgeon-Captain Macleod to Canterbury, and Surgeon-Captain Meek to Newry. Surgeon-Major Fox has been transferred from Ballincollig to Cork.

### ARMY MEDICAL STAFF.

Surgeon-Lieutenant W. J. Smyth, M.D., A.M.S., has been attached to the Grenadier Guards. Surgeon-Major-General George Langford Hinde, C.B., has been placed on retired pay. Surgeon-Lieutenant-Colonel William F. Burnett has been promoted to Brigade-Surgeon-Lieutenant-Colonel.

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant John Michael Harding Martin, M.D., F.R.C.S. Eng., 1st Volunteer Battalion, the East Lancashire Regiment, has been made a Surgeon-Lieutenant.

### INDIAN MEDICAL SERVICE.

The following appointments have been made:—Surgeon-

Lieutenant-Colonel F. Lyons, M.S., has been appointed a member of the Poona Standing Medical Board. Surgeon-Major A. Peterkin, Medical Staff, has been appointed to the Medical Charge of the Station Hospital, Indore. Brigade-Surgeon-Lieutenant-Colonel R. P. Ferguson has been appointed Administrative Medical Officer in the Bengal Command (Allahabad District). Surgeon-Captains A. F. Ferguson, M.B., K. H. Mistri, G. E. Fooks, and J. W. T. Anderson, F.R.C.S., having completed twelve years' service, to be Surgeon-Major from the date specified, subject to Her Majesty's approval. The following transfers have been made: Surgeon-Captain W. H. Bean, Army Medical Staff, has been posted for duty to the Madras District. The services of Surgeon-Captain A. V. Anderson, M.B., I.M.S., have been placed at the disposal of Government for employment in the Civil Department. Surgeon-Lieutenant P. C. Gabbett, Indian Medical Service, has been posted for duty to the Madras District, and Surgeon-Lieutenant J. L. Macrae, Indian Medical Service, to the Secunderabad District. Brigade-Surgeon-Lieutenant-Colonel W. Gray, I.M.S., arrived at Bombay on the 17th inst. from six months' leave in England. Surgeon-Major-General William Frederick de Fabeck, M.D., I.M.S., Surgeon-General with the Government of Madras, has been granted a good service pension.

### NAVAL MEDICAL SERVICE.

Appointments: Fleet Surgeon John Lyon, M.D., to the *Impregnable*. Staff Surgeons: Thomas E. H. Williams to the *Pelican* and George F. Wales to the *Beagle*. Surgeons: Robert Hickson to Bermuda Hospital; Octavius S. Fisher to the *Alacrity*; John Lowney to the *Itadpole*; Ernest E. P. Tindall to the *Plover*; E. C. Lomas, M.D., to the *Pigmy*; John Dowson to the *Pembroke*; Bowen S. Mends, R.M.A. Division, Portsmouth; Anthony Kidd to the *Caroline*; Ernest E. Bray to the *Mercury*; Edward G. Swan to the *Archer*; Frederick W. Parker to the *Cambridge*; and Ernest A. Shaw, B.A., M.B., to the *Hearty*.

### YEOMANRY CAVALRY.

Herts: William Carus Brendon Revill, Gent., has been promoted to Veterinary-Lieutenant.

### VOLUNTEERS.

1st Essex (Eastern Division Royal Artillery): Surgeon-Lieutenant F. W. D. McGachen has resigned his commission. Rifle: 4th Volunteer Battalion, the King's (Liverpool Regiment): Surgeon-Captain W. J. Fleetwood, M.D., has been promoted to Surgeon-Major.

### THE FRENCH IN DAHOMEY.

According to telegrams, the French losses from casualties in Colonel Dodd's column during the campaign amount to a total of 151, to which must be added, however, the number of those who died from illness on the march from Kotonou to Dakar. There seems to have been a good deal of sharp fighting, especially of late, the official details of which have not yet been promulgated. The *Figaro* publishes some intelligence received from private sources—which is probably of an exaggerated character—as to the very large amount of sickness that exists in the French force. The climate is described as most trying and the inefficiency from fever and sickness of various kinds is alleged to amount to one-fifth of the force. It may be interesting to recall our own military experiences on the Gold Coast. The climate is no doubt a bad one at all times, although it is much less unhealthy during the limited dry season. The wet seasons, of which there are two—from March to May and from August to October—are the most unhealthy. The dry months—from December to March—comprise the healthy season. Malarious fevers and dysentery are the more important diseases. Previously to the Ashanti campaign of 1873-74 the results of our military expeditions in that country were unfortunate, to say the least, if not calamitous as regards the health of the troops employed. A detachment of white soldiers of the Royal African Regiment serving at Cape Coast lost upwards of 90 per cent. of their strength in 1824. The expedition in 1864, designed to undertake the same operations that were subsequently carried out under Sir Garnet Wolseley, suffered from an appalling amount of sickness, and the Royal Marines, stationed on the Gold Coast just prior to the Ashanti expedition, lost eighteen men out of 104; whereas there were only eighty-one deaths from disease and wounds among the 2587 European officers and men composing the force that advanced to Coomassie. The difference in these results was no doubt attributable to the healthy dry season having been selected as the time for the

expedition and to the extreme care taken to provide for all its sanitary requirements.

#### WATER FAMINE IN TRINIDAD.

The water famine under which the population—amounting to some 40,000 persons—of Trinidad, the principal town at the port of Spain, were suffering in 1891 is alleged to be still present, nothing in the way of remedy having been yet attempted. The matter has been already discussed in the House of Commons, and the late Under-Secretary for the Colonies promised to look into it. It is said that a state of things exists which is simply incredible; that the majority of the householders are without sufficient water for drinking and cooking purposes, to say nothing of ablution and drainage requirements. At the same time it is declared that an almost inexhaustible supply could be obtained from the hills at the back of the town by the expenditure of a few thousand pounds; if so, we cannot exactly understand why the townspeople do not set about organising some practical engineering scheme for utilising this water-supply. With a population of 40,000 it would seem to be possible to carry out locally a public work of such an absolutely essential kind. Are the aid and sanction of the home Government necessary for the purpose? Time was when troops were stationed at Trinidad, but we believe that there are none quartered there at present.

#### SANITATION IN BENGAL.

An amended Bengal Municipal Bill has been drafted which is likely to prove a very useful measure in the powers it confers upon the Lieutenant-Governor and the municipalities and district boards to enforce sanitation and drainage and establish wholesome water-supplies. The *Pioneer* of the 20th ult. shortly describes the various clauses of the new Bill, and very prudently urges that as measures for sanitation and public works mean the outlay of money they require to be gradually introduced and carried out, otherwise the municipal and district authorities will be rescued from the Scylla of insanitation only to be landed in the Charybdis of bankruptcy. We are very glad, however, to notice that the people and local native authorities of the different districts in Bengal seem to be alive to the necessity of doing what they can towards carrying out sanitary improvements.

#### THE DEATH OF LIEUT. HUDDLESTON, R.E.

The inquest on this officer, whose death at Chatham was attributed to his having been poisoned by eating tinned sardines or caviare, has been adjourned. The Home Office has directed Dr. Stevenson of Guy's Hospital to analyse the contents of the stomach and the suspected sardines and caviare.

#### ASSISTANCE FOR CIVIL SURGEONS.

The heads of the Madras Medical Department have made strong representations to the government respecting the lack of surgeons available for civil duty, obliging them to place assistant-surgeons in charge of districts with the inspection of large institutions; and the superintendence of a considerable staff, while there is absolutely no reserve. The authorities recognise the gravity of the position and they ask for a report as to whether the services of local doctors might not be retained.

#### PERMANENT REST CAMP.

The *Madras Mail* is glad to learn that a permanent Rest Camp for British troops is likely to be formed before long at Madras. Great hardships were experienced by European details last year owing to there being no such camp. An excellent site for the camp, facing the sea and close to the Fort, has been selected.

We have to announce with regret the death of Staff-Surgeon William Dickson Smyth, M.D. R.N., (retired) who died in his 57th year at his residence at St. Leonards and of Surg.-Major T. M. Lownds, M.D. (retired, Bombay Army) who died at Wateringbury, Kent, aged 64.

**PRESENTATION.**—On Thursday, Oct. 13th, Mr. H. Lewis-Hughes, L.R.C.P. and S. Edin., lecturer to the St. John ambulance class, Dowlais, was presented, in recognition of his services as ambulance instructor during the summer months, with a Morton's ophthalmoscope, bearing the inscription: "Presented to Dr. H. Lewis-Hughes by the Railway and Police Ambulance Class, Dowlais, Oct. 13th, 1892."

## Correspondence.

"Audi alteram partem."

### "MEDICAL CERTIFICATES AND DEATH REGISTRATION."

To the Editors of THE LANCET.

SIRS,—With reference to your leading article in THE LANCET of Nov. 5th I would suggest that efforts should be made to obtain such an amendment of the Births and Deaths Registration Act of 1874 as shall bring it into harmony with the Coroners Act of 1887 and relieve medical practitioners from much worry, anxiety and responsibility. The profession must take some blame to itself for allowing Clause 20 of the first-named Act to pass as it did in its present form. It begins as follows: "Certificates of Cause of Death.—With respect to certificates of the cause of death the following provisions shall have effect." Then follows Section 1, which deals with the furnishing of printed forms of medical certificates to registered medical practitioners, and needs no alteration. Sections 2 and 3 require amendment; hence I give them *verbatim*: "2. In case of the death of any person who has been attended during his last illness by a registered medical practitioner that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death, and such person shall, upon giving information concerning the death or giving notice of the death, deliver that certificate to the registrar, and the cause of death as stated in that certificate shall be entered in the register, together with the name of the certifying medical practitioner. 3. Where an inquest is held on the body of any deceased person a medical certificate of the cause of death need not be given to the registrar, but the certificate of the finding of the jury furnished by the coroner shall be sufficient."

The clause concludes with a requisition for the delivery of the medical certificate to the registrar under a penalty of 40s. Now, these two sections presumably provide for all those cases in which there is no doubt as to the death being a perfectly natural one in all respects, and also for those cases in which there *must* be an inquest. But no notice is taken of the large intermediate class of deaths in which practitioners may have grave doubts as to whether they ought to certify or to refuse to do so. To adopt the first course might subject them to the pains and penalties of Clause 40, which enforces fine and imprisonment for a false certificate, while to refuse a certificate "without reasonable excuse" entails a penalty of 40s.; and even if in adopting the former course the certifying practitioner were relieved from a charge of giving a false certificate, he might still be subjected to great annoyance should an inquest be held and the coroner or jury blame him for giving a certificate at all. On the other hand, the refusal of one, even for the best reasons, subjects him to abuse from the relatives of the deceased; for the giving or refusing a certificate is no longer a matter of choice, but of duty and even compulsion.

The Coroners Act, 1887, Clause 3, defines the following as cases in which the coroner shall issue his warrant for summoning a jury and holding an inquest: "A violent or an unnatural death ..... a sudden death, of which the cause is unknown, or that such person has died in prison, or in such place or under such circumstances as to require an inquest in pursuance of any Act." It is clear that these must comprise many cases in which the deceased had been attended by a registered medical practitioner, who will most certainly be asked to give a certificate. The above Act assumes that the coroner is informed of all such deaths, but does not specify the informant. It seems to me that the first reform required is to amend Section 2 of Clause 30 of the Births and Deaths Registration Act by adding the words, "Should the death have been in all respects a perfectly natural one" between the words "shall" and "sign." The third section might be left as it is, since it will apply to those cases where an inquest is held as a matter of course, and in which a certificate is not asked for—cases of drowning, hanging, murder, manslaughter, accident &c., of which the coroner is informed by the police or other medical informants.

A fourth section should be added. I suggest the following in the hope that all readers of THE LANCET will carefully

peruse them and suggest such alterations and improvements as may occur to them:—"In the case of the death of any person who has been attended in his last illness by a registered medical practitioner, that practitioner shall, should the death have been an unnatural one, or a sudden death of which the cause is unknown, or from violence as a primary cause within twelve months of the death, or should the death have taken place in such place or under such circumstances as to require an inquest in pursuance of any Act, not sign or give a certificate of the cause of death, but shall at once send information of the death to the coroner of the district, either directly or through the coroner's officer or local constabulary." Or the following as an addendum to Section 2: "But no registered medical practitioner is justified in giving a certificate unless he was personally in attendance upon the deceased during the last illness; nor in any of the cases of death specified in Clause 3 of the Coroners Act, 1887. In any or every such case he shall at once inform the coroner of the district," &c., as above.

I am not without hopes that eventually medical practitioners may be remunerated for these certificates, and also that a medical officer analogous to the *médecin vérificateur* of the Continent may be appointed to verify each death, and in other ways to make our Death Registration more perfect. Meanwhile I feel sure that some such changes as I have suggested would tend to simplify the duties of medical practitioners with regard to certificates of death, relieving them from an amount of anxiety and responsibility which they ought not to be called upon to suffer.

I am, Sirs, yours faithfully,

Liverpool, Nov. 5th, 1892.

FRED. W. LOWNDES.

### "EXPERIMENTS UPON ANIMALS."

To the Editors of THE LANCET.

SIRS,—To question the loftiness of Mr. Berdoo's sentiments would be unkind and rude. It would be worse to cast doubt upon the sincerity of his conviction—a conviction opposed to what is held by nineteen out of twenty among physiological and clinical authorities—that experimentation on living animals is so much wanton cruelty, since it never has done and never can achieve anything for the advancement of knowledge which might not as certainly be achieved by other and unobjectionable means. Inspired by the elevated ideas his writings express, strengthened by fervid convictions and with full mastery of the facts, it seems a pity Mr. Berdoo has not chosen to speak for himself rather than yield himself up as the willing instrument of an anti-vivisection propaganda. Of that propaganda the votaries are in the main intelligent, albeit sentimental, individuals who through long contemplation of imaginary evils and atrocities have allowed themselves to become the victims of a fixed idea. Others are less intelligent and still more impressionable, who are willing to accept at second hand any facts, arguments and conclusions which harmonise with their ultra-humanitarian predispositions. This party during some twenty-five years has been engaged in systematic persistent public vilification of a body of high-minded men, of many of whom at least it may without cant be said that they must be included among the select minority in modern society who have throughout led noble lives, men of whose class Pasteur is perhaps the most striking example, men who by sheer force of intellect and hard work have risen to their eminent position, who in a sordid, money-grubbing age have rejected the wealth which their discoveries might have brought them, have given the fruits of their labours freely to the world and have devoted themselves with perfect single-mindedness of purpose to the one object—the pursuit of truth and promotion of scientific knowledge. When Mr. Berdoo complains that "his party does not receive the justice their cause demands," he strangely ignores such facts as these, and appears curiously oblivious of what has been thrust beneath his eyes within the last few weeks in the public press and notably in *The Times*—namely, the statements of injured individuals (physiologists and surgeons) who have brought forward ample proof that they have been most shamefully and foully libelled in the publications of the Society which Mr. Berdoo defends and supports.

I am, Sirs, yours truly,

Wimpole-street, W., Nov. 5th, 1892.

HENRY SEWILL.

To the Editors of THE LANCET.

SIRS,—There is a fallacy in the argument of Mr. Bowreman Jessett which I trust you will permit me to discuss. He

seems to assume that the use of decalcified plates, or some similar contrivance, is essential to the successful union of divided intestine, and concludes that because Senn and others (best of all, my old pupil, Dr. F. Byron Robinson) have made experiments on animals with these plates that the success of intestinal surgery is due to such experiments. No conclusion could be more fallacious.

Years before the experiments of Senn, Robinson or Jessett were ever heard of I had successfully applied the flap-splitting method to the union of intestine. I have used it in some two or three scores of cases, and have failed only once. Nothing could be simpler or more effectual than this method; nothing, in my opinion, could be clumsier than the plates, bobbins &c., which I have seen recommended by various authorities. Resection of the intestine does not differ in any one of the principles involved, nor very much in details. In whatever part of the intestinal canal it is practised "Pylorotomy" has nothing therefore to single it out as a case where experiments on animals are required more than in other parts of the intestine. But if Mr. Jessett wishes to claim for it such a character I will grant his premise at once, because it is one of the class of operations which I utterly condemn. I have never done it, and I never shall, for the disease is malignant nine hundred and ninety-nine times in a thousand, and inevitably returns. In the odd case where the disease is not malignant the operation of pyloric dilatation (Loreta) has been shown to be sufficient. We now know also that such operations as gastro-enterostomy lead to permanent and continuous faecal regurgitation, so that the whole scheme of such operations is gradually being dropped. This is the fate I predicted for them years ago, and if Mr. Bowreman Jessett claims for them an origin in experiments on animals, I gladly let him have it; they are worthy of such a fallacious origin. I know of no operation in intestinal surgery to which I would myself submit which I had not performed many times and many years before the dates given by Mr. Jessett.

I am, Sirs, yours faithfully,

Nov. 8th, 1892.

LAWSON TAIT.

To the Editors of THE LANCET.

SIRS,—Mr. Jessett and Dr. Clarke have mistaken the point of my letter, and it would almost appear from their remarks that I was siding with the anti-research agitators. My object in writing was that the public should have full opportunity of hearing our side of the question, and this can only be done by a more systematic method of educating the public upon the use and morality of animal experimentation than has existed in the past. I would suggest that the published works of the Society for the Advancement of Medicine by Research should be made more public and popular, that the Society should have in readiness one or more trained lecturers to combat the errors of the anti-vivisectionists, and that the pamphlets of the Victoria-street Society should undergo a critical examination; and this last seems now more than ever necessary. The educated people are almost wholly with us; but as almost everyone now has a vote—and one vote is equal to another in a Parliamentary sense—it is necessary to correct the false views of the ignorant, so that a catch vote adverse to scientific research may not be taken in the House of Commons; for, after all, it is with the Commons that the power for good or evil in this matter rests.

I am, Sirs, yours truly,

Folkestone, Nov. 7th, 1892.

W. J. TYSON, M.D. Durh. &c.

### "CHLORIDE OF ETHYL."

To the Editors of THE LANCET.

SIRS,—I am sure that all dental surgeons will be much obliged to Dr. Radcliffe Crocker for the warning he gives as regards the use of chloride of ethyl. I have used it pretty extensively for several months in extracting teeth, making incisions in the gums &c., but I have not observed any of the untoward symptoms which Dr. Crocker's patient exhibited. I use on an average about one-quarter to one-third of a small tube, and I think it advisable to break the neck of the tube as near its extremity as possible, in order to obtain a fine stream and a perfect and rapid evaporation. To effect the same purpose also the tube should be held a considerable distance from the spot to be frozen, say eight to twelve inches. Dr. Crocker's letter, I am sure, will have the effect of placing all users of this anæsthetic upon their guard.

I am, Sirs, yours faithfully,

Harley-street, Nov. 8th, 1892.

WM. RUSHTON.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

*Moss-side and Incorporation.*

THE old question of amalgamation between this district and Manchester has once more been revived by a recent application on behalf of the Moss-side Local Board for power to borrow some £50,000 for sewerage purposes, one result of this application being a protest on the part of influential ratepayers against this heavy expenditure, and a request that the local board should reopen negotiations for amalgamation with the city, in which event the whole of this outlay would be saved to the ratepayers. The usual inquiry by a Local Government Board inspector has been duly held, but that board have postponed the giving of their decision pending the result of a poll of the ratepayers, which the local board have been requested forthwith to obtain. Strangely enough the Moss-side authorities, although appealed to by a large number of the most important residents in the township, have flatly refused to submit the question to the judgment of the ratepayers. The township of Moss-side is to all intents and purposes a part of the community known as Manchester. The inhabitants of the township avail themselves freely of all our public institutions—the parks, museums, libraries, markets, abattoirs, school boards, hospitals, cemeteries, public baths &c., all of which are supported out of the city rates, but they object to contribute anything to the cost. The position of Moss-side in refusing to bear its due share of a public expenditure, the advantages of which, nevertheless, its inhabitants do not scruple to enjoy, is one which is wholly selfish and unworthy. Should the refusal of the Moss-side board to reopen the question of amalgamation be confirmed by the ratepayers, then the latter, in order to discharge their obligations in regard to the sewerage of their district, will have to submit to a wholly unnecessary expenditure, probably much exceeding the estimated £50,000. And even supposing the sewerage difficulty to have been surmounted by this heavy outlay, it is well known both in the city and in the township that amalgamation will only be postponed thereby, and that its ultimate accomplishment cannot long be delayed.

*Relief for the Sufferers from Cholera.*

On Saturday last an entertainment was given at the Prince's Theatre in this city in aid of the funds of the Association for the Relief of Sufferers by the Cholera Epidemic in Hamburg. The attendance was very large, and the programme of music which was selected by Mr. Wilz Hess was highly appreciated. As a result of the exertions of the relief committee, it is believed that a sum considerably exceeding £500 will shortly be forwarded to the sufferers.

*Fever Hospital Provision for Mid-Cheshire.*

At the last meeting of the Sale Local Board the medical officer of health reported an outbreak of infectious disease within his district. In several of the cases the patients were isolated at the Monsall Hospital, with the fortunate result of staying the spread of what might have been an extensive epidemic of scarlet fever. The medical officer, however, remarks upon the great distance of Monsall, some eight miles from Sale, as being a serious drawback to the extensive use of the hospital by the inhabitants of his district. The present would appear to be a convenient opportunity for reopening the question as to whether fever hospital accommodation for the whole of the rural districts of this county should not forthwith be provided. The Mid-Cheshire sanitary districts might usefully combine for this purpose and provide two or more small hospitals at suitable parts of the county, which would be available for such an emergency as that which has lately befallen the Sale Local Board.

*The Unemployed in Manchester.*

At a recent meeting of the Manchester Guardians it was reported that a considerable increase in the number of vagrants had recently taken place. Careful inquiry revealed the fact that these vagrants are not all of the "loafer" class who usually frequent our tramp wards, but that at the present time there are many artisans out of work. The men appear to be tramping from place to place in search of work, which just now seems to be scarce. The annually recurring and difficult problem of how best to deal with the unemployed who in the winter months present themselves for relief in such large numbers at the workhouse doors is this year still further

complicated by the circumstance that some 50,000 of the cotton workers of the district have "gone out on strike" rather than submit to a temporary 5 per cent. reduction in their wages, which reduction the Masters' Association declares to be inevitable. The outlook for the coming winter is indeed a gloomy one.

*Stretford and Artisans' Dwellings.*

The local board of Stretford have recently determined to put in operation the Housing of the Working Classes Act for the demolition of a block of insanitary property known as Diamond-court, which has long been regarded as an eyesore in the district. Something less than 200 persons will be displaced by this scheme, which involves the clearing of the land and the rehousing of about half the people on an adjoining site which is to be purchased from Sir Humphry de Trafford. The land in this neighbourhood is steadily becoming more valuable by reason of its proximity to the docks of the Manchester Ship Canal, and this board are of opinion that on this account the carrying out of their first scheme under the Housing of the Working Classes Act will add very little to the rates of the district.

*Clinical Society of Manchester.*

The annual meeting of the above Society was held on Tuesday, Nov. 1st, when the following officers were elected:—President: Dr. T. C. Raitton. Vice-presidents: Dr. James Holmes and Mr. C. F. H. Kitchen. Treasurer: Dr. C. H. Braddon. Librarian: Dr. J. F. Le Page. Committee: Mr. W. Bain, Dr. H. W. Boddy, Dr. E. Stanmore Bishop, Dr. S. Buckley, Dr. J. Brassej Brierley, Dr. K. M. Chisholm, Dr. J. C. Eames, Dr. J. Earle, Dr. A. Hirst, Mr. W. E. Husband, Dr. W. Milligan, Dr. C. G. L. Skinner, Dr. A. Wahltuch, Mr. R. W. Walsh, and Dr. J. B. Wilkinson. Auditors: Mr. E. Roberts and Mr. J. Paulin. Hon. Secs.: Dr. A. Hill Griffith and Dr. Herbert Lund.

Manchester, Nov. 8th.

## MIDLAND COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*Hospital Sunday, Birmingham.*

Sunday, Oct. 31st, was the appointed day for the collections. The amount contributed was £4715 1s., which this year goes to the General Hospital.

*The Tendencies of the Age.*

These tendencies may be gathered from the wording of a debate which took place at the Birmingham and Edgbaston debating society on the 2nd inst. It was announced as follows:—"That as the hospitals of the city, which exist for the benefit of the whole of the community, and especially for the benefit of the medical profession, are now so largely supported by the artisan classes they should be considered cooperative institutions rather than charities." This proposition was ably argued and strongly contested, with the result that it was lost by a large majority.

*Corporal Punishment in Birmingham Board Schools.*

This subject has lately given rise to considerable agitation among the teachers in the city schools, owing to one of the head masters having been fined for an assault. The certificated teachers of the Board schools complain that the regulations on this matter are a constant source of worry, greater than all the other scholastic difficulties put together. They have decided to memorialise the board, and to endeavour to get the subject discussed apart from prejudice and feeling.

*Drug Stores.*

There are, it was said at a meeting of the Midland Counties Chemists' Association, oil and colour stores where drugs are sold by unqualified men in direct contravention of the Pharmacy Act, prescriptions being dispensed and poisons sold in such a manner as to make the Act a delusion and the sale a snare to unsuspecting persons. No doubt this can be remedied by some vigilance on the part of the Pharmaceutical Society. Counter-prescribing also is an evil which affords abundant scope for being rectified; a few examples of punishment would go far to check the harm often done in this manner and would be a protection to the public.

*Hospital Dinner.*

At the General Hospital, Birmingham, on the 2nd inst., a dinner was given by his colleagues on the committee to Sir

John Jaffray, Bart., in recognition of the honour conferred upon him, and of his long association with the hospital. The proceedings were marked by enthusiasm, by interesting retrospects and hopeful promises for the future.

Nov. 9th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Deaf and Dumb in the North.*

At a meeting of the Committee of the Deaf and Dumb Institution in Newcastle for the Northern Counties it was decided to take steps to extend the building. This resolution was proposed by the chairman, Dr. Philipson, and was carried unanimously. The present building was erected upwards of twenty-five years ago, when the inmates numbered only sixty, and was constructed to accommodate ninety. The present number of pupils under instruction is 126, and upwards of twenty other cases are eligible for admission. It is estimated that the last census, not yet published, will show that in the four northern counties for which the institution was established the number of deaf and dumb children of school age is from 190 to 200. When the Education Bill (Deaf and Dumb) now pending becomes law and attendance becomes compulsory, accommodation will have to be provided for this number.

### *St. John Ambulance Association, South Shields Centre.*

The annual report of the St. John Ambulance Association, South Shields Centre, shows that the work of the Association is progressing. The number of candidates who received first-aid certificates and medallions was 274. Seventy-one railway employes have passed through the classes during the year.

### *The Thirsk Railway Accident.*

It is reported from Thirsk to-day that the driver of the Scottish express, Ewart, who is in a very critical state, has passed a bad night. Mr. Buchanan is said to be doing well. Head, the fireman, is also said to be doing well. Mr. Fred Page, surgeon to the Newcastle Infirmary, has been requested by the company to visit some of the injured.

### *Small-pox in Yorkshire.*

An outbreak of small-pox is reported as having occurred at Otley, not far from Leeds. Twenty persons are known to be affected. Prompt steps are being taken to stamp out the epidemic, and among other measures a temporary hospital is being erected and vaccination and revaccination are being adopted upon a large scale. It is hoped that the affection may be prevented from spreading into the large towns.

### *Typhoid Fever in Durham County.*

In the Chester-le-Street sanitary authority and other districts in the county of Durham there has been observed a growing increase of typhoid fever. Dr. Duncan of Chester-le-Street says that, as well as forty-eight notifications of scarlet fever during the month, twelve cases of typhoid fever have been notified. In one house there were three cases of typhoid fever; in the same house there was an outbreak of that disease last year.

### *Death from a Kick at Football.*

On Saturday last a boy named Harold M. Stevenson, eleven years of age, a pupil at the Society of Friends' school at Wigton, near Carlisle, died from the effects of a kick whilst playing football in the school ground on the previous Saturday. During the match there was a scuffle and the boy sustained injuries on the thigh, and his death resulted after much suffering.

### *The Dangers of Gas-heating for Baths.*

I have frequently recorded in these notes fatal accidents from gas escaping in bath-rooms. If the gas is imperfectly lighted or the fumes of the combustion are not allowed to escape there is certain to be peril in the bath-room. Last week two boys were found insensible from this cause in a bath-room at South Shields, and it was shown that had it not been for the promptness with which two police-constables acted in performing artificial respiration the boys would have died.

### *The Tramp Question.*

The master of the Knaresborough Union, Mr. G. Paul, has just read a paper on Vagrancy at a conference of the Poor-law unions of Yorkshire, in which he holds that three-fourths

of the tramps are irreclaimable, and he contends that it is a disgrace to society that hundreds of poor children should be left in the hands of merciless and remorseless men and women, to be dragged over miles of country, through suffering, sin and shame. Of the remaining fourth of the vagrants, Mr. Paul asserted that a large proportion were Army Reserve men or men who had been in the army, and unless something were done he was afraid that the ranks of the professed tramp would be recruited from this section. Of the remainder, he found that the tramp ward was a sanctuary to those fleeing from justice. To remedy this condition of things he suggested that something more ought to be attempted in the way of providing employment for discharged soldiers and sailors, and the honest casual might be provided with a "livret" stating the course of his journey, and thus passing him from one union to another without difficulty.

### *Poison in the Porridge.*

At Rotherham last week Mrs. Woods, Albert Woods (her son), and a lodger named Middleton, after partaking of oatmeal porridge, were seized with symptoms of poisoning. The two men died the next morning. Middleton was a rat-catcher, and the supposition is that some poison used by him had become accidentally mixed with the oatmeal used for the supper porridge.

### *Great Run of Salmon in the Solway.*

There was a great run of salmon in the Solway rivers last week. For some weeks previously the low condition of the rivers has caused salmon to gather at the mouths of the rivers on their way up to the spawning beds, but one day placed the rivers in excessive floods, and when they commenced to fall immense numbers of salmon ran up. During the course of one afternoon many hundreds of fish were seen going over the falls at Annan Bridge. Many of the salmon were judged to be over 36 lb. in weight. A whale, measuring 43 ft. in length, was last week towed into Aberdeen by the Grimsby smack, *Catherine*. The monster was caught off our Northumberland coast near the Farne Islands. The seal a few years ago was common enough about the Farnes and Holy Island, but I believe it has not been often seen of late. I suppose the steamer traffic on the coast has disturbed it from its habitat.

Newcastle-on-Tyne, Nov. 9th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

### *The Edinburgh Medical Societies.*

THE Medico-Chirurgical Society held the first meeting of its seventy-second session on Wednesday of last week. Dr. Joseph Bell continues in the presidential chair for the new session. Dr. Troup, the treasurer, having resigned, Dr. Mackenzie Johnstone was appointed to the post, and Mr. F. M. Caird, one of the secretaries, was succeeded by Mr. Hodsdon, and Dr. W. Russell was reappointed. Dr. W. Craig was reappointed editor of the Transactions. The meeting was held in the Royal College of Physicians, which had been kindly lent, as the Society has been unable to find a suitable place of meeting and it has no hall of its own. The first item of public business was a paper by Dr. William Russell on Some Practical Results of the Investigation of Cholera in Germany, with a demonstration of the comma bacillus and its appearances in plate and tube cultures. The paper referred to his experience in Berlin and Hamburg. It led to considerable and varied discussion, and on the motion of Dr. James Ritchie, seconded by Dr. Allan Jamieson, it was unanimously agreed that it be remitted to the Council to memorialise the Lord Provost and the Public Health Committee, with the view of having bacteriological laboratories established in connexion with each cholera hospital, supervised by a properly instructed medical man. The second item on the billet was a paper by Mr. A. G. Miller on Arthroctomy of the Knee-joint, giving the results of thirty-five cases. Owing to the late hour Mr. Miller, unfortunately, could only give an abstract of his paper, and there was no discussion on it, which is to be regretted, as the subject is such an important one. From the abstract, however, it appeared that Mr. Miller had obtained excellent results in thirty out of the thirty-five cases. The paper will be published in full.—At the first meeting of the Pathological Club Dr. Noël Paton was appointed secretary, in succession to Dr. A. Bruce.

*Typhus Fever in Leith.*

During the past week there have been 8 new cases of typhus fever in Leith, against 7 in the preceding week. The epidemic of measles and of scarlet fever continues.

*Health of Edinburgh.*

The mortality last week was 127, making the death-rate 25 per 1000. Diseases of the chest caused 46 deaths and zymotic diseases 37, of which 34 were due to measles. The intimations for the week comprised: typhoid fever, 4; diphtheria, 2; scarlet fever, 59; and measles, 368.

*Glasgow: Small-pox and Scarlet Fever.*

The most striking features of the last public health report are the unusual prevalence of small-pox and scarlet fever. A fortnight ago the presence of the former disease in the city in a mild form was recognised and medical practitioners were warned of its existence. As was expected, the disease has spread, and in the beginning of this week no fewer than twenty-four cases of small-pox were recognised. This is by far the largest number certified since the spring of 1884. All the cases are more or less modified by vaccination in infancy. The epidemic of scarlet fever shows no sign of abating; beginning in one of the southern districts in August last, it has since steadily spread. Four weeks ago 970 cases were reported, three weeks ago 1029 cases, two weeks ago 1103, a week ago 1194, and at the beginning of the present week 1235 cases. Of these, 875 are in hospital. In presence of this enormous increase of fever patients the sanitary authorities find themselves in a difficulty. The hospital accommodation is now strained to its utmost, and already some of the space reserved as a rule for small-pox has been occupied with scarlet fever cases. As there is every likelihood of small-pox as well as scarlet fever spreading still further, the sanitary authorities have approached the town council for "full powers to take such steps as in their judgment they may think necessary to meet the circumstances of the case." To the credit of the council, the gravity of the situation was recognised and the requisite powers were granted.

*Conversazione to Nurses &c. at Glasgow.*

The close of Sir John Muir's reign as Lord Provost of Glasgow has been marked by a kindly and graceful act of hospitality—a conversazione in the municipal buildings, to which were invited the directors, medical and surgical staff and the nurses of the various infirmaries and other similar institutions in and around Glasgow. A company of about 800 responded to the invitation. Short addresses by Sir John Muir, Professor Macewen and others, some excellent music and dancing, passed the time pleasantly till midnight. The nurses appeared in their ward dresses, a feature which lent unusual colour and interest to the assembly.

*Royal Infirmary, Glasgow.*

Professor Macewen's former place on the staff of the Royal Infirmary is now occupied by Dr. D. Newman, whose appointment has just been announced. Dr. Samson Gemmill's removal from the Royal to the Western Infirmary leaves a vacancy on the physicians' side of the staff which has not yet been filled up, though it is expected that Dr. Geo. J. Middleton will gain the coveted step.

Nov. 10th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*Royal College of Surgeons.*

AN election for a member of Council in the room of Mr. Barton, resigned, will be held on Monday, the 14th inst. In addition to the name of Professor Heuston, already mentioned, may now be added that of Dr. Cranny.

*Royal Academy of Medicine.*

The first meeting of the Academy for the present session took place on Friday evening, the 4th inst. The first paper in the Section of Pathology was a Case of Traumatic Malignancy, which was read by Mr. Graves, and which occurred in the practice of Dr. Wheeler. Three weeks after an injury received there was malignant sarcoma of bone

formed which necessitated amputation above the knee. Dr. Bennett, who presided, mentioned a case where malignant sarcoma occurred within three weeks without any injury having been received. Recurrence, he added, generally takes place in some internal organ.

*Richmond Hospital Dinner.*

The annual dinner of the medical staff was held at the Shelbourne Hotel on Saturday last. The toasts included the "Universities and Colleges of Ireland," "The Staff" and the health of the chairman, Mr. William Thomson.

*Dublin Hospital Sunday.*

The annual collections in aid of the Dublin hospitals will be held on Sunday next, the 13th inst. Last year the total receipts amounted to £3982 19s. 5d., being a decrease of £205 3s. 6d. as compared with the previous year; while the total amount collected since the foundation of the fund is £73,469 16s. The hospitals' football match will take place on Saturday next, when teams from the county Dublin and the united hospitals will have a friendly contest.

*Rotunda Lying-in Hospital.*

Sir George H. Porter, Bart., M.D., surgeon-in-ordinary to Her Majesty and senior surgeon to the Meath Hospital, has been appointed consulting surgeon to the Rotunda Hospital, in the room of the late Surgeon Colles.

*The Ulster Medical Society.*

The first annual meeting of the Ulster Medical Society for the present session was held on Wednesday, Nov. 2nd, when Dr. O'Neill, President, resigned the chair into the hands of the incoming President, Dr. Whitaker, medical officer of health for the city of Belfast, who delivered a very interesting address on sanitation and public health, for which he was accorded the hearty thanks of the Society on the motion of Mr. M'Connell, seconded by Professor Whitla. The Society then considered and passed the annual report and also a code of rules (with several alterations) in reference to medical ethics.

*The Winter Session at the Medical School, Belfast.*

The winter session of the Medical School began on Nov. 1st, when Dr. Nelson gave the introductory address at the Royal Hospital, before a very large audience of the students and the medical staff. He strongly advised the students to study at the bedside, and recommended accuracy in diagnosis as of the utmost moment. He showed, by a number of clinical cases, how, in ophthalmic practice, the symptoms might be very much alike to a careless observer in many different conditions, and he emphasised the fact that treatment could only be scientific and accurate when based on a sound diagnosis. The only change at the hospitals is the resignation of Dr. Burden, pathologist to the Royal Hospital. All his colleagues regret sincerely that, owing to serious illness, he has been obliged to retire. No successor has yet been appointed. At Queen's College, Belfast, Dr. Dill, Professor of Midwifery, has, through ill health, been unable for the present to meet the class. Dr. John W. Byers has been appointed as locum tenens and began lecturing on Tuesday.

*Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland.*

At the quarterly meeting held last week a letter was read from the hon. secretary, Dr. H. Burden, tendering his resignation owing to ill health. A resolution was passed accepting Dr. Burden's resignation and placing on record the sense that the members felt of the valuable services rendered by him to the Society during the past eight years, and sincerely regretting the serious illness with which he is afflicted, and tendering their sympathy to his family and himself. Dr. John McCaw was appointed as secretary until the annual meeting.

Among the passengers of the ill-fated *Roumania* was Miss Mary E. M'George, an Irish lady, belonging to the Zenana Mission.

Mr. F. Odevaine, F.R.C.S.I., has been elected ophthalmic surgeon to St. Vincent's Hospital, Dublin.

Cork Hospital Saturday collections have realised £349.

The death is reported of Francis Dancy, Hamilton, F.R.C.S., at Navan, on the 3rd inst. Mr. Hamilton was late surgeon to the County Meath Infirmary.

Nov. 9th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Hydrochloro-sulphate of Quinine.*

IN utilising the anti-malarial properties of quinine in fever districts economical considerations militate strongly in favour of the hypodermic method of administration. The soluble salts of quinine which are at our disposal for this purpose are: the acid sulphate (solubility 1 in 12 of water), the lactate (1 in 10), the acid hydrobromate and the hydrochlorate (each 1 in 6). To these salts must now be added yet another, the hydrochloro-sulphate, discovered by M. Grimaux (*Société de Biologie*, Oct. 29th). This double salt is said to be soluble in its own weight of water at the ordinary temperature, a great advantage for injecting purposes. In the crystals, which contain three molecules of water, the proportion of the alkaloid is 74.21 per cent. The density of the crystals allows of its administration in effectual doses in much smaller wafers than is the case with the light feathery sulphate. The therapeutic properties of this new addition to our anti-periodic drugs have been studied by M. Laborde, and he pronounces them to be fully equal to those of the ordinary sulphate, its effects being, however, more rapid.

*Cholera and Inoculation.*

Some remarkable facts relating to the prophylaxis and even cure of cholera by inoculation have lately been elucidated by Dr. Ketscher of St. Petersburg, whose researches, conducted in Paris in Professor Strauss' laboratory, formed the subject of a communication made to the *Société de Biologie* on the 29th ult. by M. Gamaleia. For the experiments leading up to the discovery the most intensely virulent cultures of cholera germs hailing from Massouah were employed, the subcutaneous intra-peritoneal and intra-venous methods being all had recourse to. In order to test the protective powers of the milk of inoculated goats it was injected into the peritoneal cavity of guinea-pigs. The injection of 5 cc. of the milk conferred complete immunity on guinea-pigs against a fatal dose of cholera culture of  $\frac{1}{2}$  cc. injected into the peritoneal cavity, while animals not injected invariably succumbed in from six to ten hours. In order to prove that the milk conferred resisting powers on the entire system of the guinea-pig, and did not merely destroy the virulent germs, it was injected into the peritoneal cavity while the dose of cholera poison was introduced into the muscles of the hind leg. The result was identical—the inoculated animals survived while the unprotected ones died. The precaution was taken of testing the presence of any protective properties in the milk of goats which had not been inoculated, and the absence of such properties was conclusively demonstrated.

*Professor Verneuil's Farewell Lecture.*

No Paris surgeon is probably better known abroad than Professor Verneuil. Many hundreds of our compatriots must have followed him through his wards at the Pitié and Hôtel Dieu Hospitals. His geniality has endeared him to generations of students, while his facility of expression and clearness of language have rendered his clinical lectures models of scientific eloquence. The rapid approach of the age limit prescribed by the regulations of the Paris faculty would in the ordinary course of things soon have compelled the retirement of this distinguished surgeon from the chair of clinical surgery, which he has so well filled for many years. He has anticipated that event by tendering his resignation, and on Saturday last he made his last bow as a lecturer to a crowded audience assembled under the presidency of the Dean, Professor Brouardel, in the large amphitheatre of the Faculty. Many of the retiring professor's colleagues were present, and the appearance of the veteran *confrancier* at 8.30 p.m. was the signal for loud and prolonged cheering, which was renewed again and again at the end of the lecture.

Nov. 9th.

LITERARY INTELLIGENCE.—*La Semaine Médicale*, which has for some little time been publishing a Spanish edition, announces that this venture has been so successful that arrangements are being made to publish an English edition. The first number will appear next month.—A new Belgian medical journal, *La Polémique de Namur*, has just appeared. It will be published monthly.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the Royal College of Surgeons, held on the 10th inst., Mr. Thomas Bryant, President, in the chair the minutes of the quarterly meeting of the Council of Oct. 13th were read and confirmed.

The minutes of the committee for general purposes were read and confirmed, and it was agreed that the following be the regulations of the common room for Fellows and Members:—1. The common room is open only to Fellows and Members of the College. 2. The common room is open on each week day from 11 A.M. to 5 P.M., except Saturday, when it is open from 11 A.M. to 1 P.M. It is closed during September, and at such other times as the Council may direct. 3. No formal meeting of any description may be held in the common room. 4. Fellows and Members writing letters at the College may not use the College as their address. N.B.—Fellows and Members are reminded that smoking is not permitted in any part of the College buildings. It was also decided that, as recommended by the committee, writing materials and such journals and newspapers as the committee may from time to time determine be provided for the common room. This room will be opened on Dec. 1st.

It was agreed to carry out alterations in the drainage of the College premises at an estimated cost of over £150. It was agreed, on the recommendation of the Conjoint Board, to recognise instruction in chemistry, physics, practical chemistry and elementary biology at the following institutions as fulfilling the requirements of the regulations for admission to Parts 1 and 3 of the First Examination—viz., University College, Bristol; the Public School of Science, Cheltenham; the School of Science and Art, Chester; the Merchant Venturers' School, Bristol.

The President reported the proceedings at the meeting of Fellows and Members on the 3rd inst., and stated that, in addition to sixteen members of the Council, there were present at the meeting twenty-seven Fellows and forty-three Members.

He also read the following motion, brought forward at the meeting and not carried, ten voting for and sixteen against the same—viz.: "That this meeting of the College of Surgeons of England is of opinion that the report now presented is ineffective and incomplete"; and the following resolutions carried at the meeting—viz.:

1. "That this meeting is of opinion that the ancient attitude of hostility on the part of the Council to the true interests of the body corporate of the College ought to terminate, and that the repeated resolutions passed at former meetings of this College should be carried into effect." Carried by twenty-five to ten. With regard to this resolution it was agreed that the mover and seconder be informed that the resolution has been laid before the Council.

2. "That this meeting of Fellows and Members be desired to thank the Council of the College for acceding to their wishes in the matters (a) of separate meetings of Fellows and Members and (b) of the provision of a common room in the College." Carried, with one dissentient. The mover and seconder to be informed that their resolution has been received by the Council with thanks.

3. "That this meeting of Fellows and Members wishes again to impress upon the Council that it is absolutely essential for the welfare of the College that the Fellows and Members should be consulted before any change is made in the constitution and external relations of the College, and before the College be committed to any extraordinary expenditure on buildings or otherwise." Carried by twenty-two to two. The mover and seconder to be informed that the resolution has been laid before the Council, and that they be referred to the following extract of minutes of the Council dated Nov. 17th, 1885:—"With the larger questions which more rarely arise, such as those which concern the constitution of the College, the case would be different. On these questions the Council will always be glad to have an opportunity, so far as practicable, of consulting the Fellows and Members."

The Council elected a committee on the arrangements for the jubilee of the Fellowship. The following were appointed: Messrs. Hulke, Willett and Harrison, with the President and Vice-presidents, and they were authorised to add to their

number Fellows not on the Council, to consult about the arrangements for the dinner.

Permission was granted to Mr. James Galloway to deliver the Morton lecture in the theatre of the laboratories on the Embankment. This lecture to be given on Feb. 2nd, 1893, at 4 P.M.

The President stated that the vacancy on the Court of Examiners which would be occasioned by the expiration of Mr. Heath's period of office on Dec. 8th next would be filled up at the ordinary meeting of the Council on that date.

## Medical News.

**UNIVERSITY OF EDINBURGH.**—The following candidates have received the degrees of Bachelor of Medicine and Master in Surgery:—

William Corsar Anderson, Scotland; Arthur Reginald Bankart, Wales; Frederick Morrison Black, Scotland; Nathaniel Troughton Bond, England; W. J. Walker Winfield Borthwick, Scotland; John W. Parker, Scotland; Albert Cameron, Scotland; Archibald Nathaniel Shirley Carmichael, Scotland; Jas. Ojaye, Coker, Africa; Jas. Cowie, Scotland; Victor Mackay Daly, India; Robert Huoh Drannan, Ireland; Alexander M'Beth Elliot, Scotland; John Robert Foster, England; David Fraser, Wales; Murray Gillespie, Scotland; Thomas Arthur Granger, Scotland; Percy Frere Grant, Scotland; Frederick Thresher Griffin, England; Josiah Field Hall, England; Arthur Ainslie Hudson, England; John Edmund Knox, England; Henry Latham, England; Andrew Thomson Law, Scotland; William Lawton, England; Arthur William Bligh Livesay, England; George Francis Longbotham, England; David William Knuyett Lyall, India; Alexander Minto M'Donald, Scotland; James McFarlane, Scotland; Angus Vallance M'Gregor, Scotland; Murdo Mackay (M.A.), Scotland; William Crawford Macknight, Australia; William M'Lean, Scotland; Thomas Muirhead Martin, Scotland; Charles Edmund Maude (B.A.), New Zealand; Rodon Tregarthen Michell, India; John Oswald Morrison, Scotland; Donald Geo. Macleod Munro, Scotland; Andrew Newall (B.A.), Scotland; Alan Anderson O'Hara, Australia; John Owen, Wales; Malcolm Parkinson, England; Horace James Pechell, England; John Donald Pollock, Scotland; Walter Midgley Robertshaw, England; Arthur Clement Staenberg, India; Cecil Edward Stephens, England; John Boll Thomson, New Zealand; Frederick Richd. Van Langenberg, Ceylon; Alban Ward, England; Alfred John Wheatley, England; Charles Webster Williams, Wales; Griffith Jones Williams, Wales; James Gordon Williamson, on India.

The following candidates were successful at the B.Sc. (Public Health) Examination:—

Robert Martin Beattie (M.B.), New Zealand; John David Williams (M.B.), Wales.

**ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.**—The following candidates have passed the Final Examination:—

W. H. Anderson, M. Brick, A. Callaghan, C. R. Chichester, J. Crumley, H. C. Falkner, G. A. Fleming, A. A. Hargrave, R. G. Hayden, M. C. Jordan, F. A. Madden, P. F. Monaghan, A. C. McCutcheon, W. H. Parr, C. M. Richards, Jas. Robinson, F. Warren, S. W. Wilson, T. F. Wyse.

*Passed Medicine Group.*—A. Banks, J. W. Burne, J. J. Callanan, T. C. Cummins, W. H. Langley, F. W. Perry, J. J. Rogers, A. H. White.

*Passed Surgery Group.*—A. Banks, T. C. Cummins, J. V. Griffin, W. H. Langley, E. C. Murphy, J. O'Brien, F. W. Perry, R. R. Smith, J. A. Smullan, W. A. Wills.

*Passed Midwifery Group.*—J. W. Burne, F. C. Bushman, C. E. Cowan, J. V. Griffin, C. A. Hagman, E. C. Murphy, H. J. McCormick, J. T. O'Brien, F. J. Rogers, and R. R. Smith.

The following candidates have passed the Preliminary Examination:—

W. E. Beamish, C. J. Buchanan, J. Campbell, B. J. Connellan, R. L. Davies, M. J. Dillon, D. J. Farrell, S. L. Glynn, D. P. Holland, P. J. Horkan, M. J. Hynes, J. W. Langstaff, J. J. O'Brien, E. E. Roberts, T. J. White, and R. N. Woodley.

*Physics only.*—C. W. Caldwell, F. C. Fowler, A. McMunn, P. M. Sidpworth, and F. Stoker.

**MATER MISERICORDIÆ HOSPITAL, DUBLIN.**—The following appointments have been made:—House Physician: J. O'Donnell. House Surgeon: J. Redington.

**THE GENERAL PRACTITIONERS' ALLIANCE.**—A meeting of the Council of this Society was held at the offices, 11, Adam-street, Strand, on Wednesday, Nov. 2nd. Dr. Hugh Woods reported that the committee appointed to consider the matter were of the unanimous opinion that it was desirable, before undertaking any financial business for the members, such as the collection of debts &c., to register the Alliance as a limited liability company. It was resolved to convene a special meeting of the Council to consider the report.

**SMALL-POX** is still maintaining its foothold in the West Riding of Yorkshire, although it seems to have left the districts in which it first appeared some eighteen months ago and to have spread to fresh fields. It has now, we regret to learn, broken out at Otley in Wharfedale.

**A PROFESSOR CHARGED WITH FORGING DIPLOMAS.**—At Bow-street, on Tuesday, Ludwig Ganting, professor of languages and music, was brought before Mr. Vaughan for extradition, charged on remand with having stolen the seals and forged the diplomas of the University of Berne. Mr. Crawshaw defended. Detective-sergeant Wegner stated that since the last remand he had searched the prisoner's effects and found three seals—one of the Berne University, one of the medical faculty and one of the philosophical faculty. He also found a press used for affixing seals. Among other things he found a number of diplomas. One of them bore seals which appeared to have been impressed by the moulds in the prisoner's possession. It was signed by Studer, rector, and by a professor. The witness added that he found a number of letters addressed to the prisoner from all parts of the country. It appeared from these that he had been in communication with medical gentlemen, and had offered to let them have diplomas for a consideration. Some of the letters were in German, but most of them were in English. Mr. Vaughan, who examined one of the diplomas and said it appeared to be genuine, remanded the prisoner.

**FOOTBALL CASUALTIES.**—In a match at Fir-grove, on the 29th ult., between the teams representing Farnham and New Town, Aldershot, one of the visiting forwards collided with an opposing half-back and seriously injured his arm.—On the same day, during a match between Dereham and Fakenham teams, the Dereham ground keeper fractured one of his legs just below the knee.—On Saturday, in a game with the Handsworth team, a player fractured his clavicle and was admitted to the district hospital, and a youth in a school match in Dartmouth Park collided with another player, fracturing his arm, and was also admitted to the district hospital.—On the same day, during a game between the Rudge United and Hinckley Trinity teams at Coventry, a forward of the home team fractured his clavicle.—On the 1st inst., during a match between the Farsley Tradesmen and the team of the Duke of Wellington's Regiment, now stationed at Bradford Moor, a player fractured one of his ribs.—On Monday, in a county match at Camborne, a Redruth player fractured his clavicle.—On Tuesday, during the progress of a match at Gosport between the Royal Marine Light Infantry and the Oxfordshire Light Infantry, a player "broke his ankle."

**THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED: SOUTH-WEST LONDON DIVISION.**—The first meeting of the members of the South-West London Division was held (by permission of Dr. Keen) at 211, King's-road, Chelsea, on Nov. 9th. Dr. Matthew Baines was elected to the chair. The chairman then called upon Dr. George Mead to explain the constitution and motives of the London and Counties Medical Protection Society, Limited. Dr. George Mead, having briefly sketched the history of the Society, its aims and administration, replied to various questions asked by the members present. It was then proposed by Dr. Keen, and seconded by Dr. McCaskie, that "The South-west London Division of the London and Counties Medical Protection Society, Limited, be hereby constituted." This was carried unanimously. The following officers of the division were then duly elected:—President: Matthew Baines, M.D. Lond., M.R.C.S., South Kensington. Vice-Presidents: Norman McCaskie, M.D., C.M., South Kensington; William Keen, M.D., M.R.C.S., Chelsea; C. H. Gage-Brown, M.D., M.R.C.S., Chelsea; E. Seton Pattison, L.R.C.P., M.R.C.S., Fulham. Members of Council: George Coates, M.A., M.D., M.R.C.S., and H. D. Waugh, M.D., B.Sc., M.R.C.S., South Kensington; J. Foster Palmer, L.R.C.P., M.R.C.S., Chelsea; H. Des Voux, M.D., M.R.C.S., Westminster; L. Vernon Jones, M.B., B.Ch., B.A.O., St. James's. Hon. Sec.: Alex. G. R. Foulerton, L.R.C.P., M.R.C.S., D.P.H. Camb., 122, Brompton-road, S.W. It was decided that the Council should have power to add to their number two vice-presidents and six additional members of Council. Votes of thanks to Drs. Matthew Baines, Mead and Keen having been passed unanimously and duly acknowledged, the meeting then terminated.

**ST. VINCENT'S HOSPITAL, DUBLIN.**—The following appointments have been made:—Resident Physician: James P. Marnell. Resident Surgeon: James F. Barrett.

**JERVIS-STREET HOSPITAL, DUBLIN.**—The following prizes have been awarded for the past session:—Senior: Gold Medal, G. Hamilton; Silver Medal, A. McCann. Intermediate: Silver Medal, H. Moffat. Junior: Silver Medal, E. Calligan.

**THE GRESHAM UNIVERSITY.**—The Rev. Dr. Wace and Professor Gault, representing King's College, and Professor Hudson Beere, as a representative of Civil Engineering, gave evidence on Wednesday last before the Gresham University Commission.

**UNIVERSITY OF CAMBRIDGE.**—The dates for the examinations for medical and surgical degrees for the present Michaelmas term are as follows:—First examination—Part I.: Dec. 6th, 7th, 8th and 9th; Part II.: Dec. 7th and 12th. Second examination—Part I.: Dec. 12th, 13th and 14th; Part II.: Dec. 6th, 7th, 8th, 9th, 10th and 12th.

At the monthly meeting of the Royal Institution of Great Britain on Monday last the special thanks of the members were returned to the Goldsmiths' Company for their generous grant of £1000 "for the continuation and development of the valuable original research which the Society is engaged in carrying on; and especially for the prosecution of investigations on the properties of matter at temperatures approaching that of the zero of absolute temperature."

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAMS, E. W., M.R.C.S., L.R.C.P., has been appointed House Accoucheur to King's College Hospital.

ADAMS, W. F., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital.

ARNISON, W. C., M.D. Durh., M.R.C.S., has been reappointed Honorary Surgeon to the Newcastle-on-Tyne Royal Infirmary.

BLACK, W. G., F.R.C.S. Edin., has been appointed Honorary Assistant Surgeon to the Royal Infirmary, Newcastle-on-Tyne, vice Dodd, resigned.

BOND, C. HUBERT, M.B., C.M. Edin., M.P.C., has been appointed Resident Clinical Assistant to the West Riding Asylum, Wakefield.

BOTHWELL, G. GRANVILLE, M.B., C.M. Aberd., has been appointed Assistant House Surgeon to the Royal Surrey County Hospital, Guildford, vice Walker, resigned.

CLARKE, J. JACKSON, M.B. Lond., F.R.C.S., has been appointed Assistant Surgeon to the North-west London Hospital, Kentish Town-road.

DENT, LOUIS W., L.R.C.P. Lond., M.R.C.S., has been appointed Deputy Medical Officer, Ewell.

DUFF, W. W., M.D., B.Ch. Irel., has been appointed Medical Officer for Aghalee, Lurgan Union, vice Scott, resigned.

FREELAND, REGINALD STILWELL, M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Resident Medical Officer to the Pay Wards, Guy's Hospital.

FOOT, E. G., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Fetworth Union, vice Rutherford, resigned.

HAYCOCK, H. E., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Thirteenth Sanitary District of the Basford Union.

HAYES, W. A., M.R.C.S., L.R.C.P. Lond., has been appointed Poor-law Medical Officer for the No. 2 Division of the Calne Union.

HIGGINS, O. E., M.A., M.B., M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Hastings and St. Leonards Provident Dispensary.

JACKSON, A. C., M.R.C.S., L.R.C.P. Edin., L.M. Lond., I.M. Edin., has been appointed Medical Officer to the Princess Christian Cottage Hospital at Sierra Leone.

JAER, H. I., L.R.C.S., L.R.C.P. has been appointed Ophthalmic Clinical Assistant to King's College Hospital.

LEGGATT, G. S., M.R.C.S., has been appointed Medical Officer for the Out-door Poor and the Workhouse of the Hoo Union.

MACKENZIE, JOHN CUMMING, M.B. &c., Deputy Medical Superintendent of the Northumberland County Asylum, Morpeth, has been appointed Medical Superintendent of the Northern Counties Asylum, Inverness, vice Aitken, deceased.

MARTIN, T. BERRELEY, L.R.C.P., L.R.C.S., L.S.A., has been appointed Medical Officer for the Bishop Wearmouth West District of the Sunderland Union, vice Burns, resigned.

MONAGHAN, T. JOS., L.R.C.P., L.R.C.S. Edin., D.P.H., has been appointed Medical Officer to the Accrington Town Council.

MORTON, EDWIN, M.D., C.M. Edin., has been reappointed Medical Officer of Health for Redditch.

OLDMAN, C. E., M.D. Camb., M.R.C.S., has been appointed Medical Officer of Health to the Godstone Rural Sanitary District.

PARTINGTON, WM., M.B., M.S. Glasg., has been appointed Medical Officer of Health for the Funstall Urban Sanitary District.

PERRY, S. HERBERT, M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital.

PHILLIPS, E. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the First Western Sanitary District of the Billesdon Union.

POCKLINGTON, E., M.R.C.S., has been reappointed Medical Officer of Health for Wimbledon.

PRICHARD, RICHD., M.D., M.S. Glasg., has been reappointed Medical Officer of Health for the Cardiff Rural Sanitary District.

PRITCHARD, E. L., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital.

SANDERSON, CHARLES, L.R.C.P. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for Hastings.

SANDFORD, H. V., L.R.C.P. Lond., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for the Rural Sanitary Districts of Bromyard, Hereford, Ledbury, Leominster, and Wesley Unions.

SHORTRIDGE, THOS. W., M.D. Brussels, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health to the Honiton Town Council.

SMITH, T. W., L.S.A., has been appointed Assistant House Accoucheur to King's College Hospital.

SMITH, WM. R., M.B. Lond., M.R.C.S., L.R.C.P., L.S.A., has been appointed House Physician to King's College Hospital.

STEARNS, F. C., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Cottage Hospital, Walsall.

WALKER, H. STANLEY, M.B., C.M. Edin., has been appointed House Surgeon to the Dover Hospital and Dispensary.

WARNER, T., M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to King's College Hospital.

WICKHAM, H. T., M.B., M.S. Edin., has been appointed Medical Officer for the No. 2 Sanitary District of the Newport Pagnell Union.

WILLIAMSON, A. S., M.B., M.S. Aberd., has been appointed Medical Officer of Health to the Sandal Local Board.

WILSON, A. C. I., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health to the Thurlstone Local Board.

WYNNE, W. A. S., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health to the Lowestoft Urban and Port Sanitary Authority.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement.*

CANCER HOSPITAL (Free), Fulham-road, S.W.—House Surgeon for six months. Salary at the rate of £50 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Board and residence, and allowance for washing provided. (Applications to the Secretary, 24, Finsbury-circus, E.C.)

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. Board and lodging provided.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer for one year. Salary £80 per annum, with board and lodging.

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistant in the Out-patient department.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the house.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Assistant Physician NORTHERN INFIRMARY, Inverness.—House Surgeon and Dispenser. Salary £70, with board &c.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner.

SHEFFIELD GENERAL INFIRMARY.—House Surgeon for three years. Salary £120 per year, with board, lodgings, and washing, with a prospective advance of £10 per year for the second and third years.

SHEFFIELD GENERAL INFIRMARY.—Assistant House Surgeon for three years. Salary £80 per annum, with board, lodging and washing.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant for six months. Board and lodging provided.

ST. MUNGO'S COLLEGE, Glasgow.—Chair of Anatomy.

STRAND DISTRICT OF THE COUNTY OF LONDON.—Medical Officer of Health for this District. Salary £400 a year.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician for six months. Board and lodging provided.  
 WEST LONDON HOSPITAL, Hammersmith-road, W.—House Surgeon for six months. Board and lodging provided.  
 WOLVERHAMPTON EYE INFIRMARY.—House Surgeon. Terms £60 per annum, with rooms, board and washing.

## Births, Marriages and Deaths.

### BIRTHS.

BIETT.—On Sept. 24th, at Melbourne, Australia, the wife of J. Talbot Brett, L.H.C.P.L., M.R.C.S.E., of a daughter.  
 GIMBLETT.—On Nov. 6th, at Pembury-road, Clapton, N.E., the wife of W. H. Gimblett, L.R.C.P., of a daughter.  
 HAERIES.—On Oct. 30th, at Grosvenor House, Aberystwith, the Dr. T. D. Harries, M.R.C.P. Lond., F.R.C.S., of a son.  
 NICHOLS.—On Oct. 5th, at Secunderabad, India, the wife of Surgeon-Captain F. P. Nichols, M.B. Cantab., Army Medical Staff, of a son.  
 SCOTT.—On Nov. 5th, at Fitzwilliam-square, Dublin, the wife of J. Harrison Scott, F.R.C.S.I., of a daughter.  
 SCOTT.—On Nov. 1st, at Circus, Bath, the wife of Richard J. H. Scott, F.R.C.S., of a son.  
 WADE.—On Nov. 2nd, at Motra-place, Southampton, the wife of A. B. Wade, Esq., M.B., of a daughter.  
 WOODCOCK.—On Nov. 5th, at Springfield Hall, Wigan, the residence of her father, Wm Trevor Wauklyn, the wife of the late R. Fraser Woodcock, L.R.C.P., M.R.C.S., of a daughter.

### MARRIAGES.

BENSON—GABRIEL.—On Oct. 25th at St. Augustine's Church, Kilburn, Henry P. D'Arcy Benson, M.B., Ch.M., eldest son of the late Dr. J. E. Benson, of Queensland, Australia, to Mary Louisa Gabriel, daughter of the late John Gabriel, of Calne, Wilts.  
 COLLYNS—ABDIE.—On Oct. 19th, at the parish church of Abbot's Leigh, Robert John Collyns, L.R.C.P. and M.R.C.S., of Dulverton, to Eleanor Maud, youngest daughter of the late Henry Abbot, Esq., of The Priory, Abbot's Leigh, Bristol.  
 COWLEY—FULLER.—On Nov. 8th, at the Parish Church, Sutton, Surrey, John Selwyn Cowley, M.R.C.S., of Upton-on-Severn, to Lillian Fuller Fuller, younger daughter of the late Charles Fuller, of Halifax.  
 DICKINSON—EVENS.—On Nov. 3rd, at Holy Trinity Church, Sloane-street, Thomas Vincent Dickinson, M.D. Lond., oldest son of Thomas Dickinson, Esq., of Sloane-street, to Beatrice Frances Ayscott, youngest daughter of Captain Evens, late Royal Fusiliers, of Auber House, Clapham.  
 GEMMEL—THOMSON.—On Nov. 3rd, at B Ilhven Church, Kelvinside, Glasgow, Dr. Burns Gemmel, Liverpool, to Margaret Alice, eldest daughter of the late Dr. William Cooper Thomson, Glasgow.  
 JONES—EVANS.—On Nov. 2nd, at the Parish Church, Dowlish, by the Rev. W. R. Thomas M.A. (Oxon.) Vicar of Abersychan, assisted by the Rev. L. M. Williams, Rector of Dowlish, Samuel Cromwell Jones, M.D., B.S. (Lond.), of Merthyr, to Elizabeth Gwentlian, eldest daughter of John Evans, Esq., Iscoed, Merthyr.  
 KITSON—BURNSIDE.—On Nov. 5th, at St. Mary's Church, Beaminster, Dorset, Francis Parsons Kitson, M.R.C.S. and L.R.C.P. Lond., youngest son of the late Edward B-lamy Kitson, Esq., of The Lodge, Beaminster, to Beatrice Maud, youngest daughter of the late Col. Henry Edwd. Hillman Burnside, C.B., of Beaminster, Dorset.  
 ROGERS—CHURCHILL.—On Nov. 7th, at Bombay, Surgeon-Captain Frederick Arthur Rogers, D.S.O., Bengal Medical Service, son of the late Moses Rogers, Deputy-Inspector-General of Hospitals, Madras, to Janet Felicia, third daughter of John Churchill, of Wimbledon, Surrey.

### DEATHS.

CHRISTIE.—Nov. 4th, fallen asleep in Jesus, at Ash House, Broadgreen, aged 80 years, Thomas William Christie, B.A. Camb., M.R.C.S. Eng., for the past forty years a faithful preacher of the "Faith of God's Elect." "Happy art thou, O Israel. Who is like unto thee, O people saved by the Lord." Funeral at St. James's Cemetery, Tuesday, at noon.  
 LEAK.—On Nov. 4th, at his residence, Lawn Cottage, Over, Cheshire, Alexander Plozzi Leak, M.D. Aberdeen, aged 77.  
 MILLER.—On Oct. 28th, at Glasgow, Hugh Miller, M.D., C.M. Glasg., late of Hamilton-square, Birkenhead.  
 PITTS.—On Nov. 9th, at Capt Hall, Springfield, Chelmsford, Robert Zachæus Pitts, M.R.C.S., aged 42.  
 STEELE.—On Nov. 6th, at Guy's Hospital, John Charles Steele, M.D., Medical Superintendent, aged 71.  
 THOMSON.—On Oct. 30th, at Round-hill crescent, Brighton, James Archer Thomson, M.B., M.S., in his 49th year.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 10th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia. in Vacuum.	Maxi. Temp. in Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 a.m.
Nov. 4	29.80	S.	53	52	83	59	47	.01	Overcast
" 5	29.81	S.W.	55	54	61	58	43	.11	Overcast
" 6	29.89	W.	51	50	62	55	48	.20	Raining
" 7	30.15	S.W.	49	39	68	51	38	.05	Foggy
" 8	30.31	S.W.	38	38	48	47	37	01	Foggy
" 9	30.23	S.E.	42	41	54	52	38	..	Overcast
" 10	30.17	S.E.	47	47	61	49	42	..	Foggy

## Medical Diary for the ensuing Week.

Monday, November 14.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.  
 ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations; daily at 10 A.M.  
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.  
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2.  
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.  
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.  
 LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. Marcus Gunn: Affections of the Crystalline Lens.—101, Gt. Russell-st.: 3 P.M., Dr. Galloway: Genito-urinary Tract.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. L. C. Parkes: Hospitals.  
 THROAT HOSPITAL (Golden-sq.)—5 P.M. Dr. R. Norris Wolfenden: Laryngeal Neuroses.  
 MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. The President: Specimen of Old Dislocation of Ankle.—Dr. Percy Kidd: Tubercular Ulceration of Pharynx successfully treated by Lactic Acid.—Mr. Goodall: (1) Left Inguinal Colotomy for Pelvic Tumour; (2) Left Inguinal Colotomy, with subsequent Removal of part of the Rectum with the Growth, in a Man aged seventy.—Dr. Hadden: Urticaria Pigmentosa.—Mr. Hurry Fenwick: "Calsson" Work in Bladder Surgery.—Mr. Lockwood: Radical Cure of Hernia.—Mr. Turner: Bony Tumour of Pelvis associated with Rheumatoid Arthritis of the Hip.—Dr. Abraham: (1) Leprosy improving under Treatment; (2) Two cases of Skin Disease.—Dr. Herschell: Pulsatile Tumour of the Neck.—Mr. Sheild: (1) Cystic Tumour of the Aortic; (2) Early case of Raynaud's Disease.

Tuesday, November 15

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
 ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
 LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Eczema, its Treatment.—Bethlem Hospital: 2 P.M., Dr. Theo. Hyslop: General Paralysis of the Insane.—101, Gt. Russell-st.: 3 P.M., Dr. Horman: Treatment of Bleeding Fibroids.  
 PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Special General Meeting to consider proposed alterations in By-laws. Ordinary Meeting. Dr. Sherrington: Colour Granules in Cells in Cholera &c.—Mr. J. Jackson Clarke: (1) Epithelioma of the Legs of a Hen; (2) Genito-urinary Organs of a pseudo-Hermaphrodite, with Capillary Urethra and symmetrically Sacculated Bladder.—Mr. C. F. Readles: Fibroma of the Male Breast. Card Specimen by Dr. E. C. Perry.

Wednesday, November 16

NATIONAL ORTHOPEDIC HOSPITAL.—Operations 10 A.M.  
 MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
 CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
 ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
 LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.  
 ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.  
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
 CHILDREN'S HOSPITAL, GREAT ORMUND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
 LONDON POST-GRADUATE COURSE.—Hospital for Consumption Brompton: 4 P.M., Dr. J. M. Bruce: Aneurysm of the Aorta.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. S. Mouton: Retinal Affections.  
 THROAT HOSPITAL (Golden-sq.)—5 P.M. Dr. Greville MacDonald: Laryngitis Acute and Chronic.  
 ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. F. Chapman: Feramifera of the Gault of Folkestone.—Mr. C. Haughton Gill: Fungoid Growths on Diatoms.—Mr. John Hood: Notops Ruber, a New Rotifer.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

Thursday, November 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.  
 LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Dr. M. Lubbock: Bronchitis in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Gowers: Cases in the Hospital.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Woakes: Some Nasal Neuroses.—Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Mr. Timothy Holmes: Surgical Cases in the Wards.  
 HARVEIAN SOCIETY.—8.30 P.M. Dr. Rayner Batten will exhibit and explain a new Clinical Pulse Manometer.—Mr. Buckston Browne: The Treatment of Impassable Stricture of the Urethra.—Dr. Charles Gross: Some Obscure Head Injuries.  
 NEUROLOGICAL SOCIETY OF LONDON (20, Hanover-sq.).—8.30 P.M. Dr. Head: The Distribution of Sensory Disturbances, with especial reference to the Pain of Visceral Disease.

Friday, November 18.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
 LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. M. Bruce: The Prognosis of Heart Disease.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Leprosy and Glanders (Sections).

Saturday, November 19.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.  
 LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. H. Corner: General Paralysis of the Insane.

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### MEDICAL AID ASSOCIATIONS.

WE have received a very large amount of additional correspondence on the subject of Medical Aid Associations, which by reason of the great pressure on our space this week we are reluctantly obliged to hold over for future consideration.

*Surgeon-Captain.*—We do not know any authority for the statement and we question if it be true.

*Dr. J. B. Ball.*—The paper will be inserted as soon as possible.

### "RELIGION v. CHARITY."

To the Editors of THE LANCET.

SIRS,—I think you are unjust to the Corporation of Dublin in your annotation headed as above. The corporation has not refused a grant to the Rotunda Hospital because there was not a majority of Roman Catholics on the board of the hospital, but because the authorities of the hospital systematically exclude Catholics from all the paid appointments and refuse adequate representation to Catholics on the board, though the vast majority of patients belong to that religion. It is also incorrect to say that the corporation gives grants to purely Catholic hospitals, like the Mater and St. Vincent's and refuses them to Protestant ones, such as the Adelaide. The latter is a purely sectarian institution, admitting no patients but Protestants. It is true the Mater and St. Vincent's are under Catholic management, but both admit freely patients of all denominations, and both from time to time have had Protestants on the staff and among the resident pupils. The Meath and City of Dublin Hospitals are as Protestant as the Mater and St. Vincent's are Catholic, and still receive grants from the Corporation. The injustice of this charge of bigotry against the Dublin Corporation will seem more evident when we remember the fact that it has just unanimously elected a Protestant to the office of Lord Mayor for the ensuing year, and that it pays considerably more than half its salaries to Protestant officers. If there is bigotry in the matter, it is certainly not on the side of the Corporation. Hoping you will insert this in justice to that much-maligned body,—I am, Sirs, yours truly,  
 November, 1892. L.M. ROTUNDA.

### NOTIFICATION OF SCARLET FEVER.

*F. Mallucis (Leicester)* asks:—

"Is it legal for the sanitary authority to decline to pay the fee for notification under the following circumstances?—B. sends a certificate that a child is suffering from scarlatina, and the patient is sent to the fever hospital and diagnosed by the medical officer of health as a case of measles and sent home. In a few days this patient is readmitted in a state of peeling, along with another child from the same house suffering from scarlet fever. B. was told that he would not receive a fee for the first certificate, but as a second case had happened he would be paid for the latter, which, he was informed, would come to the same thing, as only one certificate is required from the same house. You will see that if a second case had not occurred B. would not have received a fee at all. Is it not sufficient that the certificate should be to the best of his knowledge and belief?"

\*\* Notification in Leicester is not under the General Statute of 1849, and we have not the Leicester Corporation Act of 1870 before us; but if there be in that Act a limitation to the effect that second cases in the same house need not be notified it is obvious that the fee in this case is due for the first, not the second, case reported. But the instance goes to show that the advice given by the Local Government Board to the effect that fees should not be withheld on the ground of assumed faulty diagnosis, and only when distinct *mala fides* is in question, is the right one.—ED. L.

*Medical Witness.*—1. The operation ought not to have been performed. 2. The father could have sued. In the absence of the parents or guardians the surgeon assumes full responsibility. In their presence he cannot usurp it.

*M.D.*—St. Andrews or Durham, probably the former.

### A GROWING EVIL.

To the Editors of THE LANCET.

SIRS,—Among the various annoyances which beset the medical man that caused by impostors who mimic the science of medicine and surgery is by no means the least. Is it not preposterous that this country is the only one in Europe where any rogue may put up a brass plate and advertise to all the world that he sees patients between such-and-such hours daily, and that he alone has a sovereign remedy for every complaint under the sun? I do not advocate that the law should be carried to the extreme that we find it to be the case in France and Switzerland, but I am sure both the profession and the public would be the gainers if it were made an offence for anyone to receive money for medical advice whose name did not appear on the Medical Register.

Only the other day I was accosted by a man in Indian costume near Madame Tussaud's, who presented me with a flaming handbill announcing that X—, the great Indian doctor, was prepared to cure all kinds of diseases of the eye by means of marvellous Indian herbs. A little further on the same road, towards Euston Station, I noticed the "Ophthalmic Institution," presided over by a man named Pomies, who professes to cure every eye disease, from cataract to glaucoma, by means of "golden ointment" and "drops." Retracing my steps on the same road, I came to Bell-street, Edgware-road, and there I beheld one of my dispensary patients coming out of a public-house rejoicing in the name of "The Green Man." On venturing to ask her what benefit she expected to obtain from the gentleman in green, she informed me that she went there for medicine for her little boy. Further inquiry brought to light the strange fact that the former proprietor of the "alcohol dispensary" had left a sum of money in her will to be expended in eye lotions and drops to be given away to any person suffering from inflamed eye or defective sight, backed up, I suppose, by copious libations of beer and spirits, which were not included in the free bill of fare.

Now, Sirs, I ask you, Is it right that poor and ignorant women and children should be allowed to be ensnared into these pitfalls, so that their diseases, which in proper hands could be nipped in the bud, should be permitted to reach a stage beyond the skill of science? We cannot hope that the public should have discernment enough to see from *a priori* considerations why the professor in the Euston-road must only lead to disappointment by promising to clear a cataractous lens by means of eye lotions and electric currents. We cannot hope to convince the patrons of "The Green Man" that the gentleman behind the bar who dispenses alcohols of various strengths in media of many hues should not be the most suitable person in the world to treat an incipient glaucoma by means of drops and lotions; but what I do hold is that the public should be protected from such snares, especially that every square mile in London contains at least one free hospital or dispensary conducted on rational principles. Years ago the present Prime Minister declared that the object of all legislation was to make it easy for men to do right and difficult for them to do wrong, and surely it is only another way of stating Lord Beaconsfield's celebrated paraphrase of the preacher, "Sanitas sanitatis omnia sanitas," by saying the object of legislation is to make it easy for men to keep well and difficult for them to get ill. May I urge, Sirs, that the time is more than ripe when Parliament should interfere to protect our rights as well as the public from imposture?

I am, Sirs, yours truly,

G. LINDSAY JOHNSON, M.D., F.R.C.S.

Stratford place, W., Nov. 1st, 1892.

## RETROGRADE PHYSIOLOGY.

Dr. F. JEZEK of Berlin is a bold man. He claims to have proved that the great physiological tenet incontestably, as we have all thought, demonstrated by William Harvey is untrue. In a monograph which leaves little to be desired in the way of typography and paper he demolishes—to his own satisfaction—the doctrine of the circulation of the blood with the heart as its central motive power. The title of this revolutionary brochure is pithy and suggestive. It runs: "Umsturz der Harvey'schen Lehre vom Blutkreislaufe und Erklärung der Natürlichen Blutbörgung." (Leipsic: P. Hobbings, 1892.) Dr. Jezek's plan of campaign against the physiological stronghold opens with a refutation (?) of the statement that when large arteries are occluded the circulation is carried on by collateral channels. At any rate, in one dog in which he ligatured the brachial, femoral, and carotid arteries on both sides, and in another, the abdominal aorta, without more than temporary disturbance, he failed to find by injection and dissection, two months subsequently, any enlargement of collateral vessels. He next proceeds to examine the condition of the heart during life by means of direct palpation, and declares that he could detect no periodical change of volume (diastole and systole). Next he compares the blood pressure in heart and vessels with the pressure of the air in the lungs, and exhibits synchronic tracings to prove that the intra-vascular and intra-pulmonary pressure correspond with regularity, the periods of minimal and maximal pressure coinciding in each. He claims also by the same method to show that the ventricular pressure corresponds with the auricular, and both with the arterial and venous. Those results traverse in a singular manner those of most observers, although Dr. Jezek thinks that some are of the same opinion as himself. Of course he does not ignore the minor variations of intra-cardial pressure that occur between the respiratory waves and which, according to him, by no means correspond with the systole. Well may he claim, if his inference were only true, that such a conclusion is opposed to "Harvey's theory." Next he dismisses the notion that the heart acts like a pump by reference to the phenomena of double heart beat and of the pulsus bigeminus; and he maintains that the cardiac contractions are not due to stimulation of the ganglia alone, but to direct stimulation of muscle fibres, the contraction of which is not sufficient to exert any notable influence on the change of the heart's volume. He further cites malformations of the heart—such as single auricles, aorta springing from both ventricles, absence of pulmonary arteries—as evidence against the ordinary acceptance of the cardiac action. "What, then, does he substitute for this iconoclastic destruction of prevailing doctrine? Briefly put, his theory is that the condition of the lung during inspiration and expiration respectively causes an alternating diminution and increase of the calibre of the pulmonary vessels, so that the blood is pressed into the left side of the heart and the systemic arteries from the air-distended lung. Simultaneously there is a rise in pressure on the venous side, which causes the blood to flow into the lungs as they shrink during expiration. All this is so exactly contrary to known facts of the influence of respiration on the venous circulation that it is difficult to see how it can be seriously held, as it is by Dr. Jezek, who furnishes several diagrams, cleverly devised, to support his views of the main factor in the circulation being the changes in the form of the lungs. Nay, he discards the term "circulation" altogether, and considers that the blood simply flows backwards and forwards, according as it is drawn into or pressed out of the lungs. We are fain to rub our eyes and marvel whether we are not living in the days of Galen, at teaching so primitive, which he manages to fit into a theory of the pulse and of the impulse of the heart in a way that is even more singular. In his own words, he claims to have proved that the cause of the pulse wave does not depend on the action of the heart, but on the difference in pressure due to the periodical diminution and increase of the diameter of vessels; and that the heart which does not have the power ascribed to it is merely passively distended and relaxed by the changes in the tension of the blood column. He promises a further contribution on the subject with respect to digestion, but we frankly confess to a doubt whether anyone will take the trouble to refute his refutation of a well-established doctrine.

*Antiquarian.*—Our correspondent justly resents having it said that he "covers" an unqualified assistant in a dispensary connected with which handbills are issued. He attributes this erroneous statement to medical men. We hope he is wrong here. At any rate, we fully accept this disclaimer, and we do not see that he need make it in the newspapers. Let him trace the error to its source and demand its contradiction.

*L.*—The card should be enclosed. The information is of an essentially private and professional character.

## TREATMENT OF DIPHTHERIA.

*Dr. Emanuel May* writes advocating the early and thorough application by the brush to the affected parts of the throat in diphtheria of liq. hydrarg. perchloridi, or strong solution of argent nit. (3i to ʒi), or the tinct. ferri perchloridi. He has found that many object to such applications, preferring sprays of boracic acid or similar mild measures, which he much deprecates.

*M.R.C.S., J.R.C.P.*—Similar cases of acute orchitis following influenza are to be found in our columns—viz., Jan. 2nd, 1892 (p. 22), by Mr. J. W. Harris; Jan. 23rd, 1892 (p. 193), by Mr. J. E. Briscoe; Feb. 13th, 1892 (p. 359), by Dr. Gordon Kelly. In the report of the Berlin Society's Committee it is stated that there were records of twenty-five cases of epididymitis and orchitis given in 3185 returns.

*Mr. C. French Hensley* (Broadway).—Our correspondent thinks that such expressions as "infamous Vaccination Acts," "greatest fools," "filthy dogma" and "revolting quackery" are useful as arguments against compulsory vaccination. These terms are not dignified, reasonable or true. In other portions of his communication the language is hardly courteous.

*Lieut.-Colonel Donegan.*—We are acquainted with no institution in Great Britain or Ireland which admits male and female students to all the classes included in a medical curriculum.

*Enquiry* has not enclosed his card.

## A COMPLAINT.

To the Editors of THE LANCET.

SIRS,—I shall feel obliged by your finding space for the following—viz.: In March, 1889, Messrs. — and Co. sent instruments to Winton for display. I selected some and paid for them in full, five days later, taking note of the items on counterfoil of cheque. Some time afterwards applications for payment and threats of legal proceedings began to pour in, notwithstanding that I wrote on three occasions asking for items, saying I had paid, and requesting the annoyance might cease. Finally, this month, a summons to the London City Court was thrust into my hand in the street. I at once gave "notice of intention to defend," asked again for particulars, and was at last vouchsafed this: "'89, Apl. 24th. To goods [sic], 38s. 6d. '89, Apl. 20th. Cr. by returns [sic], 22s." (N.B.—My cheque and *their receipt* was for 31s. in March!); and ten days before the time fixed for hearing the action I received notice from Messrs. —'s solicitor that "all further proceedings in this action are wholly abandoned." Not a word of apology or regret from the firm for subjecting me to this most groundless and vexatious action!

I am, Sirs, yours faithfully,

W. MORTON HARMAN, B.A., M.D., F.R.C.S.I.  
Christchurch-road, Winchester, Oct. 31st, 1892.

## "EFFICIENT VACCINATION."

To the Editors of THE LANCET.

SIRS,—I can fully endorse the statements made by "Public Vaccinator" as to the inefficient manner in which the operation of vaccination is performed by a great majority of private practitioners. In my district the operation is not only inefficiently performed, but a certain practitioner and his assistant, after making themselves acquainted with the births that have taken place, are actually in the habit of vaccinating all children of the poorer classes gratis, apparently for the express purpose of preventing them being taken to the public vaccinator, where the operation is performed *secundum artem* and under Government supervision. Until some standard of efficiency is strictly demanded from all practitioners alike the beneficent discovery of Jenner is likely to fall more and more into disrepute.

I am, Sirs, yours faithfully,

October, 1892.

ANOTHER PUBLIC VACCINATOR.

## "THE HISTORY OF QUACKS AND QUACKERY."

To the Editors of THE LANCET.

SIRS,—Referring to the statement in "Chambers's Etymological Dictionary" (quoted by your correspondent, Dr. Leonard Kidd) that the word "quack" is derived from the cry of the duck, it is a curious fact that the Egyptian hieroglyphic for a doctor is a duck.

I am, Sirs, yours obediently,

Nov. 7th, 1892.

R. M.

## INTRA-THORACIC AUSCULTATION.

To the Editors of THE LANCET.

SIRS,—I think a reference to the "Medical Digest," Section 838: 3, will show that the method so graphically described by Dr. Richardson at page 1037 was somewhat similarly described by Bianchi in 1838 and Giorgeri in 1839. The concluding sentence of Giorgeri's paper runs thus: "He believed that endo-auscultation may prove of great service in the study of diseases of the stomach and œsophagus, and possibly of the circulatory system in the thorax."

I am, Sirs, yours truly,

Boundary-rd., N.W., Nov. 6th, 1892. RICHARD NEALE, M.D. Lond.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—

- A.—Messrs. Allen and Hanburys, London; Mr. W. Innes Addison, Glasgow; Alpha, London; Albion Soap Co.; Anxious; Antiquarian.
- B.—Dr. Robt. Boxall, London; Mr. Thos. Bernheim, London; Dr. Bond, London; Mr. Botwood, Ipswich; Mr. Bruerton, South Norwood; Messrs. Benson and Co., Wigan; Mr. Burke, Wolverhampton; Mr. Bush, Weymouth; Mr. Bontley, Whitehouse; Mr. Bellars, Leicester.
- C.—Prof. W. W. Cheyne, London; Dr. W. S. Colman, London; Dr. Harry Campbell, London; Mr. E. Clochnitts, Ingateston; Messrs. Crossley, Moir, and Co., London; Mr. Cornish, London; Carriage Insurance Co., London; Cortland Carriage Works, London
- D.—Dr. E. Davies, Wrexham; Mr. Ed. Duke, St. Leonards; Lieut.-Col J. H. Donegan, Conk; Mr. Duncan, Salop
- E.—Dr. George Elder, Nottingham; Ebor, London.
- F.—Mr. Fegan, Brandon; F.R.C.S.E.
- G.—Dr. Gee, London; Dr. Wm. Griffith, Denbigh; Mr. Griffiths, Bristol; Messrs. Gordon and Gotch, London.
- H.—Dr. Wm. Hunter, London; Dr. R. M. Horne, Slamanan; Mr. Harris, Southampton; Mr. Hodges, London; Mr. Hannaford, London; Mr. D. F. Hannigan, Dublin; Messrs. Humphreys, London; Mr. Heywood, Manchester; Mr. D. Henderson, Bilston; Hospital for Women, Soho-square.
- I.—Messrs. Isaacs and Co., London.
- J.—Mr. Johnson, Leicester; J. M., London; Justitia.
- K.—Mr. Kershaw, London; K., London.
- L.—Mr. F. W. Longmore, Woolstone; Mr. C. M. Leaky, Lincolnshire; Mr. Fred. Lowndes, Liverpool; Mr. R. H. Lucy, Plymouth; Messrs. Lloyd and Co., Leicester; Messrs. Leader and Sons, Sheffield; Mr. H. Lund, Manchester; L. M. Rotunda; Life Saving Society.
- M.—Mr. C. E. Macnamara, Dublin; Dr. F. J. Mouat; Dr. Sidney Martin, London; Dr. H. Mallins, Norfolk; Mr. Robt. Murray, Sidcup; Dr. J. Macnamara, Maida Vale; Mr. T. H. Morse, Norwich; Dr. McFall, Illinois, U.S.A.; Dr. Martin, Sunderland; Mr. Mackenzie, Surbiton; Dr. Miller, Aysgarth; Mr. Mills, Bristol; Medicus, London; A Medical Aid Surgeon; Maltine Co., Bloomsbury; M. B. H., London; Medical Defence Union.
- N.—Northern Infirmary, Inverness.
- O.—Mr. Oliver, Manchester; Mr. Ormsby, Runcorn.
- P.—Dr. Leslie Phillips, Birmingham; Dr. A. Young, Manchester; Messrs. Parkins and Gotto, London; Mr. Pentland, Edinburgh; Principal.
- R.—Dr. D. Riordan; Dr. Leonard Renfry, London; Dr. Russell, Edinburgh; Dr. J. J. Ridge, Enfield; Mr. J. Ryan, Colchester; Mr. Rodgers, London.
- S.—Dr. G. A. Sutherland, London; Mr. E. C. Smite; Dr. Heywood Smith, London; Mr. Graham Steell, Manchester; Dr. W. R. Smith, London; Dr. Sullivan, Dublin; Mr. Shepherd, London; Mr. H. Sewille, London; Mr. T. Smith, London; Messrs. Slinger and Son, York; Dr. Sanctuary, London; Mr. Surndells, Barking.
- T.—Dr. W. Tyson, Folkestone; Mr. Lawson Tait, Birmingham; Mr. F. Tieves, London.
- W.—Dr. A. G. Welsford, Cambs.; Dr. J. Woodhead, Worcester; Mr. R. Weaver, Holborn; Mr. Williams, Liverpool; Messrs. Walker and Co., Heckmondwike; Messrs. White, Druce, and Brown, London; Messrs. Wyleys, Coventry; West Bromwich District Hospital.
- Z.—Zygoma, London.

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- D.—Mr. Davenport, Bloomsbury; Rev. Mr. Dawson, Halifax; W. Downing, Eye; Messrs. Douglas and Foulis, Edinburgh; Delta, London.
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- G.—Mr. Gillard, Bradford; Mr. Gilroy, Ecclefechan; G., Bridport; Gordon, London.
- H.—Dr. Hargreaves, London; Mr. Hamilton, Leeds; Mr. Hulme, Leek; Mr. Hamilton, Fife; Mr. Hicks, London; Messrs. Harrison and Brass, Elgin; Hollinbrook House, Manchester; High Shot House, Twickenham.
- I.—Mr. Ingram, Jersey; Iatros, London.
- J.—Dr. J. Jones-Humphreys, North Wales; Messrs. Johnson and Johnson, London; J. T. B., Morecambe.
- K.—Mr. Kilman, Chatham; Mr. Keith, London; Mr. Kingsley, Cambridge.
- L.—Messrs. E. and S. Livingstone, Edinburgh; Messrs. Lee and Nightingale, Liverpool; Mr. Leak, Wilts; London, London; Liverpool Northern Hospital
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- N.—Mr. Norman, Teignmouth; Mr. Nicholson, Hereford.
- O.—Omega, London.
- P.—Dr. Pearson, Piccadilly; Mr. Price, Longton; Messrs. Pawson and Brailsford, Sheffield; Dr. Primrose, Darlington; Princeps, London; Physician, London.
- R.—Dr. Robinson, Durham; Mr. Renfry, Hyde-park; Messrs. Roe and Co., Salisbury; Messrs. Riddle and Co., London; Mr. Robinson, Durham; Messrs. Rumsey and Co., Twickenham; Mr. Rankin, Kilsyth.
- S.—Mr. Stacpoole, London; Canon Scott, Leeds; Messrs. Schwelzter and Co., London; Messrs. Savory and Moore, London; Miss Sprigg, London; Messrs. Somenfield and Co., London; Secretary, Derby Infirmary; St. Andrew's Hospital, Northampton.
- T.—Dr. Taylor, Nottingham; Mr. Thin, Edinburgh; Dr. Tonge-Smith, Kettering; Mrs. Tyto, Minchinhampton.
- U.—Mr. Ubsdell, South Devon; Union Assurance Society, London.
- V.—26, Victoria-road, Hackney Wick.
- W.—Dr. Wilson, Blantyre; Mr. C. Wilks, London; Mr. J. Ward, London; Dr. Welch, Nantwich; Dr. Wright, Derby; Messrs. Wall and Sons, Wigan; Dr. Williams, Dowlais; Worcester General Infirmary.

NEWSPAPERS.—Leicester Daily Post, Le Temps (Paris), Glasgow Herald, Sussex News, Leicester Mercury, Western Daily Mercury, Newcastle Chronicle, Bristol Mercury, Bombay Gazette, Cape Argus, Times of India, Dumfries Courier, Dundee Advertiser, Yorkshire Post, Pioneer Mail, Liverpool Daily Post, Law Journal, Leeds Mercury, Local Government Chronicle, City Press, Windsor and Eton Express, Surrey Advertiser, Scotsman, Sunday Times, Windsor and Eton Gazette, Hertfordshire Mercury, West Middlesex Standard, Reading Mercury, Weekly Free Press and Aberdeen Herald, Evening News (Plymouth), Insurance Record, Local Government Journal, Mining Journal, Birkenhead and Cheshire Advertiser, Milton News, Gu's Hospital Gazette, Indian Engineering, Dereham and Fakenham Times, Nursing Record, Publisher's Circular, Lynn News, Doncaster Chronicle, Eastern Morning News, Waterford Mirror, Middlesex Chronicle, &c., have been received.

LETTERS, EACH WITH ENCLOSURE, are also acknowledged from—

- A.—Mr. Anderson, Carmarthen; Mr. Allen, Kilburn; Anglo-Swiss Condensed Milk Co., London; African, London.
- B.—Mr. Breach, Newbury; Messrs. Beaman and Street, Haydock Lodge Retreat; Messrs. Bell and Co., Lancaster; Messrs. Baxter

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As an instructive commentary upon what has been already said above, the following paragraph, taken from "Braithwaite's Retrospect of Medicine" for January to June, 1892, is interesting:—

"KEPLER EXTRACT OF MALT.—During the past year the value of Kepler Extract of Malt has been more generally recognised and its use has greatly increased. It was found particularly valuable in the convalescent stages of influenza, and was often relished and digested when no other food could be retained. Many practitioners found it to be their sheet anchor, and would have been in despair but

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## An Address

ON THE

## RELATIONS OF MEDICAL MEN TO SOCIETY.

*Delivered at the Opening of the York Medical Society,  
Oct. 12th, 1892,*BY PROFESSOR CLIFFORD ALLBUTT,  
M.D. CANTAB., F.R.C.P., F.R.S. &c.

MR. PRESIDENT AND GENTLEMEN,—One who has passed middle life in a laborious calling may gradually become aware of a certain sense of satiety—a sense of weariness and detachment of interest, so that the work of life becomes tedious, and curiosity and adventure fail or follow after other things. Thus such an one becomes rather oppressed by the limits than inspired by the opportunities of his art, and, losing the faith and the buoyancy of earlier days, he tends to fall into a routine of thought and into a fixity of practice. Dissatisfied with himself for these things and fearing that his faculties are touched by the cold hand of time, he dreams of retirement, either for his own comfort or for conscience' sake. Again, a man of fifty years of age, if he be not a teacher, is losing touch with young men; his friends are old friends, his friends' children, away at school or university, are strangers to him; thus he is deprived of the rekindling which the young give to the elder. The very rashness, the impulsive and untutored fancy, the brave disregard of labour and danger and of the complexities of things, the superb indomitable confidence of young men counteract the rigidity and the worldly wisdom which fasten upon ageing men and tend to sterilise them. Their due fermentations slacken for lack of those microbes. Such was my experience when, owing to a rule which I venture to think an unwise one, I was removed from the active staff of my hospital at the age of forty-seven—an age when vigour is yet full and experience ripe. The relief of the first few weeks of my vacation soon palled; I began to miss the young faces which were wont to gather about me, the heaviness born of long toil settled down upon me, and I began to see in my work the dulness of a trade and the dangers of cupidity. Four years later I took the occasion of a change in the conditions of my calling which altered the sphere and the character of my work, and for nearly three years I enjoyed the holiday of a new vocation and a new studentship. When, after this complete and refreshing change, I was at the beginning of this year called back to the practice of medicine, and to this again in association with a great school, I felt, as it were, born again and endowed with a rare blessing—the blessing of entering upon my profession with the ardour of earlier years, but without their cares and their errors. Is it egotistical in me thus to speak of my own feelings and experience to-day when I find myself, by your generous invitation, here in York again—a centre of so much of my past practice, the home of so many of my friends and fellow workers? I trust not; I rely upon your forbearance and your sympathy. I come back this evening not only with energies renewed, but also with a larger knowledge—a knowledge extended in a department of medicine which is too often hidden away from the common observation, even of practising physicians. Of this experience I may have much to say as occasion serves, and something to say this evening.

Your courteous secretary, when he conveyed to me your welcome and honourable invitation, told me that my audience would not be exclusively medical, and he suggested to me that my address should deal with a subject of general interest to society. I replied, and it was agreed between us, that I could not do better than take this very suggestion for my discourse and consider the relations that exist, and should exist, between medical men and society at large; the place and function which we have in the body of the State. In respect of the existence of the State our function is a subordinate one. Whether in a rudimentary stage or in stages of fuller civilisation, the existence of the State depends upon men of war. These men, so far as we can foresee, must always be the most necessary of our members and will be the most honoured, for in times of danger they

must lead, and at all times we see that the art of war is the art of peace. Again, if society, thus preserved, is to have internal stability and cohesion it must be ruled by custom and public and private law; as the soldier makes for external peace, so must we try to regard the lawyer as the minister of internal peace. Until a society be secure without and within it can have no leisure to seek after the higher ends of life, nor to hearken to the voices which awaken the higher passions or lead to the deeper moods of contemplation. Society must then first exist and in the next place learn to what main ends it exists, before the bodily health of its members come into question. Indeed, as the higher purposes of life spread themselves before his imagination, a certain noble indifference to personal ease and longevity becomes the good citizen. We, then, who administer this sort of consolation must be content to take a somewhat lower place in a great nation, unless we can show a title to partake in a task higher than the mere conservation of bodily health, whether of individuals or of communities. We must not forget that the attainment of the most brilliant periods of illustrious nations has been quite compatible with indifference to the sewage question, and that great citizens have preferred glorious life to long life and self-devotion to eupepsia. Even in a state of society so steadfast as our own there is something not heroic in the mere health-hunter, in the man who wanders from doctor to doctor, and from land to land, not that he may do his duty the better, but that he may bear an ache the less. It is our business no doubt to minister to his demands; it is our duty to unfold the last roseleaf which lies awry under his loins, as it is our pains to pick out the last pea which lurks under the downy bed of the princess, for only by her discovery of the pea do we know her to be a real princess; yet there lie in our hearts the names of those, many, many of them our own brethren, who, sturdily thrusting down the knowledge that their weak bodies were playing them false, laboured on to the end.

We will not claim too high a place for our craft lest we be punished for our self-esteem; yet to the physician whose unseemly privilege it is to preserve a great leader or a great seer for the service of the State, or, in the life of the family, to restore the loved to the loving, and to bind again the bond which death would have dissolved, there is no light honour, no small blessing; nor is it a small thing, passing beyond personal service, to restore to health the tainted life of a community of men, to purify the wells of life or to arrest the march of a pestilence. But we bear a greater testimony than these. Is there not something more than the cure of disease, something more than purification, something even more than the defeat of a pestilence to which we bear witness? Amid the conflict of religious sects, amid the decay of creeds, even beyond righteousness itself, is there not arising a new idea of humanity—of ethics springing rather from mutual sympathy and tenderness than from moral codes or supernatural sanctions? Are not our eyes opening to see in this humanity, in the revelation of that higher life which is found by losing ourselves in others, the essence of the gospel of Christianity; and if we are true to the best work of our calling, are we not ministers of this new and fruitful hope? To regard the individual conscience is to regard a dark, an unstable, even a whimsical, standard; but to form from day to day higher and higher conceptions of human ideals and of human service is to set forth and to strengthen the ethics of the future, and to this work we also are called. We are concerned more or less directly in the solution of many social problems which may be solved this way or that, but the issues of which are of grave consequence to ourselves and to our children, and will bear good or evil as they come into accord with the higher or the lower impulses and tendencies of modern civilisation. For example, how are we to deal with our insane, our poor, or our criminal members; with diseased, maimed, or idiotic children? Is it reasonable, in order to secure the survival of the fittest, that lunatics should be suppressed, criminals hanged, idiots and cripples gently drowned and hopeless sufferers poisoned? I will not venture to deny that such customs may be essential to the existence of a tribe of Red Indians, and in them may even be compatible with certain lofty virtues, personal or tribal—nay, I will not deny that even infanticide may be practised and approved in certain states of certain societies, but we shall all agree that such customs are to be regarded as of provisional utility. In a rude society the preservation of bare existence must be the dominant claim; we, however, are set free for a more perfect service; what shall our course of action be? Take the case of a murderer arraigned before society for his deed; the soldier or the

lawyer has to regard the matter as one of the immediate safety of society; and under all circumstances the mind of either will be turned simply to the suppression of the malefactor. Carlyle, in one of the Latter Day Pamphlets, seriously proposed to deal with vagrants by flogging in the first instance, and in the next, if the first correction failed, by shooting them. Yet have not members of our profession in courts of law withstood not arguments only, but also derision, when in certain cases they set forth the phenomena of homicidal mania, of epileptic violence, of delusions leading to crime and so forth, and have nevertheless slowly but surely driven the lawyer to restrain his hands, possibly even to modify his opinions? And to what end? Who can say that persons subject to homicidal mania or epileptic fury are not better put to death, both for the safety of society and for their own peace? Fierce and predatory instincts are none the less dangerous for being ingrained; in so far, indeed, as they obey strange and incalculable motives are they not the more dangerous? So when a habitual criminal, a thief or a vagrant, is brought before the magistrate, has not the sociologist to look beyond the immediate duty of the court and to consider whether the aberrancy be not even an untimely virtue?—"l'humanité a commencé tout entière par le crime";—or, if otherwise, whether the fault be in the action, positive or negative, of the older and more fixed organs of brain or body which no ordinary outer motive can change; or, again, whether it be due to the action of those more recent and loosely organised parts of the nervous system for the state of which we are called responsible, and which, at any rate, are constantly under modification by outer motives—such, for instance, as rewards and punishments? Nor is the question of responsibility exhausted even by these considerations; for if crime or wickedness be not the result of fixed forms of growth in the individual, but rather of modifiable parts, we have still to ask whether the causes of the discord be not due to conditions of external life for which society, rather than the individual, is responsible. For in reason society may not punish evil doers of its own making.

Again, who, taking his seat, as I have often done, in the wards of an idiot asylum, and, watching the antics of these pitiful, grotesque and degraded creatures, has failed to ask himself to what end they are cherished or even kept alive? Would it not be better that many of them, at any rate, should be consigned to a lethal chamber? Perhaps more hardly still presses upon us the question of suicide. There is no doubt some unreality about the complaints of many sufferers from melancholia, an unreality often hard to measure; but there is as little doubt that the horror of life is grim and abiding enough in many of them. A thoughtful woman lately denounced to me somewhat bitterly the cruelty in a system which has condemned a near relative of her own to confinement for twenty years or more, merely because he desires to end a life which is a hideous torture to him, and thus compels him to bear the burden of it. And who is to say that the reply to her and to him is an easy one? Once more. Beside the bed of one suffering from incurable pain—from aneurysm be it or cancer—who has not asked himself to what purpose that woful life is tenaciously spun out by every art that physician and nurse can devise, despite perhaps the longings of the sufferer himself to be at rest?

These are some of the more grievous kinds of stress which try us, but I need scarcely point out that within these outer limits are a large number of cases which lie open to similar arguments and to similar doubts, and which involve practical difficulties which we are called upon to consider and even to resolve either on grounds of private expediency or of public policy. For instance, should persons who inherit disease of mind or body, or even a disposition to such disease, be permitted to marry? To what degree should children be subject to their parents, and what in them are the respective claims of discipline and education on the one hand and of gaiety and freedom on the other? What are the evils, to body, mind or affections, of gathering stray children together in institutions, and how are these evils to be avoided? Is the gain of any social fashion, system, party or creed which tends to steady us and to keep us together, greater than the harm done by it in the loss of individual liberty and sincerity? Such questions are almost endless, and, as churchmen lose hold or lose courage in these matters, they come more and more into our hands: thus we become more and more concerned not only with the growth of the lower body—of the bones and the blood with their affections and lusts; but also with the growth of the higher body—of the organs of the

mind and of the imagination. Common sense, good guide as it is in common affairs, takes no account of new ideas. The robust sagacity of statesmen and lawyers, which is bred of incessant converse with practical life, is perhaps the best instrument we can have for the ordinary courses of law and politics. But this mental habit—the mind of the clubs as we may call it—is too blunt and rigid to handle new ideas or even to perceive them. Men who find their scheme of life workable have no desire to transcend it. The man of the world, as I have said, may think of the epileptic homicide that, explain him as you may, so wild a beast is better put to death, both for our sakes and his own. Indeed, what gain can it be to him to be spared for lifelong detention in Broadmoor? Thus again, of criminals of fixed type, the sensible man thinks that were flogging more freely dealt out to brutal offenders we should have fewer brutal crimes, and that no such punishment can brutalise men who are brutes already. Here, however, we touch the region of new ideas, and here common sense is at a loss. For the question arises, not whether the homicide be the worse, or the criminal brutalised, but whether any such kind of treatment brutalises those who contemplate it, or arrests in them the growing sense of the sanctity of life; the question is not so much of its direct relation to the individual as of its recoil upon society. So long as the public find no offence in this kind of justice so long it may be excellent justice; but so soon as the public comes to perceive that it is rough justice it will tend to violate the higher sentiments, and grow mischievous less to the sufferer than to those consenting to his fate. In this view the individual is not forgotten, or his deserts, but, as has been well said, Ugolino awakens in the reader far more of pity for his cruel death than of loathing for the crimes which that death was insufficient to expiate. Not that the individual is more than the civic life—quite the contrary; it is that a broadening and deepening of the fund of pity is a condition of the higher forms of civic life. Common-sense used to declare that men whose hands are strong, but whose heads are thick, may well be the slaves of men of finer clay; yet the old world and the new have been rent by this high argument, and the issue has been decided against common sense, or against that which then was common sense. Henceforth all nations proclaim not only that life, as life, must be cherished, but that the opportunities of life shall be safeguarded also. Freedom shall mean not only the abolition of formal slavery, but also the removal of all hindrance to physical and moral development. This faith, this tender reverence for life and its opportunities, men of our profession have unselfishly and persistently preached and proved, hoping in due time, perhaps, to reach the moral elevation of the Bishop of Manchester.

Our appeal to those in authority, then, shall always be this: Will this dispensation tend to increase or to diminish the fund of pity? Men of the day, loyal public servants, men of uprightness and of clear and narrow vision, are hardly moved by new ideas; but new ideas, like mushrooms springing underground, are irresistible, and are apt to become destructive if resistance be continued. The duty of society towards suicides is more difficult to define. "Their temporal offence," in Blackstone's words, "is committed against the king, who hath an interest in the preservation of his subjects"; or, in the language I have used to-day, they cheapen life which it is our duty to consecrate to civic service only. Life shall not be expended for personal ends; or even for mere personal honour, which is apt to be fantastic; or for personal relief, which is desperation. Despair, however, may hold a man as a disease, and in this case shall we connive at suicide? In this matter connivance or even supineness is consent. On the other hand, if we are to dog every man who at any recent time has been heard to call for death, we shall do much wrong, and some wrong of this kind is done. The sacredness of life will not, I think, be diminished if on such a death we can show that precautions of reasonable amplitude had been taken. It is not for us, or for superintendents of asylums, to make suicide impossible at the cost of all who are dejected in spirit. We shall not thus increase the general fund of pity.

In the matter of "euthanasia" our course is clearer: the cases in which a sufferer, not sick of mind, calls instantly and persistently for relief by death are fewer than we are wont to suppose; whereas the cases in which that relief of his would bring solace to the bystanders are many. As Jeremy Taylor says, "A healthless body and a sad disease do seldom make a man weary of this world, but still he would fain find an excuse to live." Herein the broad rule

shall hold, that life shall be laid down only in civic service, and he shall bequeath to his children the noble example of his patience. That which I have spoken concerning the sanctity of life itself I have said also concerning its freedom. By freedom, however, I mean not mere licence, but opportunity: the man who is merely cast loose is not the most free, but he whose higher aims and special faculties have the most space and encouragement. There is a natural tendency in us—the original sin of our craft—to take too carnal a view of the body. At what cost, we cry, are these weakly children nurtured; to what end are these channels of disease—scrofula be it, cancer or neurosis—kept open? Shall we not favour the survival of the fittest?—who, then, are these weaklings to whom we give footing in our room? Now the survival of the fittest may or may not be the survival of the highest. The fittest of a backward or retrogressive society would not be the best of our own. We cannot tell which shall be the fittest till the form of the coming time is revealed. A society at one time may need bone and muscle, at another may dispense with some of its prize-fighters and need the qualities of the inner life. It is now far more to our people that the fund of pity should increase than that all weaklings should be eliminated. Tenderness, gratitude, love are more to us than two legs, two arms or two lungs; moreover, the higher gifts of the imagination may be found in the frailest or the humblest vessels. What would have been our loss had the parents of Keats or of the Lambs been forbidden to marry by the common order of medical men to forbid the unions which may produce such children? Nay, even Mr. Dick had a kind of wisdom which many reasonable men fail to attain. The highest works of man are no doubt the sanest; the most perfect is the most serene; in the strongest is strength most concealed; yet how much the poorer would the world have been without the noble melancholy, the lyrical vision, the weird romance, the Elian humour and sympathy, the passion or the fiery enthusiasm of many of those whose names the world will not willingly let die, but whose minds were darkened by the shadow of insanity. What are we, then, to do? Are we to drift and to let the weak and unstable increase as they may? Not so. In the first place, we must so watchfully govern the conditions of life that the weak shall be made strong and the crooked straight; and in the second place, as we advise under the special circumstances of each case, we shall modestly remember that there is more in philosophy than our doctrine, more in mutual affinities and spiritual impulses than we can analyse or direct. This is in the manner of the higher part which I have claimed for our profession in the time coming and now at hand.

In claiming for our profession a part higher than to minister to the grosser functions I have been bold, but my note is no bolder than that tonic of our brotherhood—the oath “which in its grandeur and simplicity, and in the deeply religious sentiment which dominates it, impresses something solemn and sacred, even sacerdotal,” upon the practice of our art.<sup>1</sup> If we are to hold these heights we must make ourselves free of the best ideas of the age in which we live. Physical science, essential as it is, cannot alone give us that tincture of humanity—that breadth of sympathy, that knowledge of affairs—which is to be gained by conversation with philosophy and history, with ethics and politics: that is to say, with the thoughts, the hopes and the ends of mankind. We are not too much apart from the common polemics of the hour; indeed, I think doctors and clergymen are alike too ready to swim in these breakers. This notwithstanding, we are under temptation to carry all questions into our own province rather than to carry forth our own special knowledge to mingle with the broad current of the larger world. Hence we are too often provincial in our notions and in our ways of handling things, as all bodies of men become when shut up within their own gates. Our danger is greater as our studies by their special intricacy are more isolating and extend themselves by vast, continual multiplication. Moreover, our practice does not bring us widely into touch with the public; it is mainly domestic, personal, reclusive, and tends to catch rather the tone of the laboratory or the boudoir than of the world. The barrister, who in his practice is in daily contact with public affairs, has thus a great advantage over us in these things, and he passes readily from the Bar to the Cabinet. With a smaller academic education his view of life nevertheless widens, he gains more sagacity in the councils of the

State and is more in touch with the ideas of the day. He is shoppier enough, no doubt, really more shoppier by far than we are, but luckily for him his shop is of common interest; ours is technical, dry and often repellent. Thus it is that we find ourselves, and complain that we find ourselves, outside the sphere of government, ineffective in national debates and without that degree of consideration which we regard as our due. May there be grounds, indeed, for further warning, lest a devotion too exclusive to the schools of physical science—large and sinewy as the study is—should in the long run withdraw us too much from other studies more directly humane, from our attachment to traditional standards of ethics and politics, and from conversation in the sphere of idealised passion which we call things spiritual? Is not Nature, when at her best, ever weaving fresh brain webs, ever vibrating to finer and more complex external harmonies, which, as they continually become condensed, organised and rationalised, are nevertheless, as they grow on, as continually transcending reason? Do we not feel that some quality is lacking in the perfectly regulated and indifferent man, or in the man to whom age and failing fires have granted too much wisdom—that quality which the artist first reveals and which the man of science essays afterwards to interpret? Putting aside personal culture, have we not, in our relations to society, to minister not only to bodily ills in the grosser sense, but therein also to the defections of that exquisite sublimate of the body—the mind and imagination? If, therefore, our precious stores of knowledge and practical skill are to flow more freely and be seen more abundantly among men, we must enlarge ourselves by a broader culture than that of the medical schools. To our universities—present and to come—we commit this trust.

Another cause of our isolation lies in the exclusively technical course of our education, from which the “humanities” are more and more excluded. Thus we are removed from discussion with laymen and begin to regard our knowledge as too peculiar for common use. From this centre we have been rudely shaken of late years by the discipline of the witness box, where no oracular utterances are tolerated. The lawyer has taught the doctor at least one wholesome lesson—namely, that whoso cannot clearly explain his own propositions to an intelligent hearer does not thoroughly understand the matter himself. Our patients also have discovered this, and pretend that no gravity of countenance and no airs of profundity will satisfy those who come to us, not for discipline, but for information and advice. The information they will carry away if they comprehend it; the advice they will listen to if it be reasonable. We sometimes forget, however, that judgment and decision remain not with us, but with them. Our great but silent profession will find in time a larger voice and the honour of men. Nevertheless I do not burn for this fruition. Earnestly as I desire to see our culture broader and more humane, it is not for the gain of temporal power or splendour, but for the fuller interpretation of the higher life of our citizens. More than once I have publicly said, and I now repeat, that titles and the honours of the market place are rather for others; our calling, as Dr. Daremberg says, “has something religious, something solemn and sacred,” which ill accords with controversy and domination.

Within the compass of our thoughts this evening there lies a subject which during the last few weeks has been so publicly discussed that to keep silent upon it might seem in me like deliberate evasion. The public discussion of physiological experiment upon animals was, however, so heated that the moment seems unfavourable for a calm judgment on the matter. No compassionate person can fail to have considered well whether, as things are, experiments upon living animals be cruel or tend to diminish what I have called the general fund of pity. We can none of us regret that the question has been raised—a compassionate people is bound to look closely at such problems; nor can we regret that the practice is fenced by such reasonable checks as may prevent abuse. Whether the present checks are reasonable and sufficiently elastic is not a matter of principle, and may now be passed over. We are born into a world which, in its travail, wades through pain, torture and death as it rises in distressful victory from plane to plane of life. It is impossible by any mediation of man to alter this scheme—these essential conditions,—but it is the duty of man to mitigate and to economise the effects of this dispensation and to inquire of himself continually whether by all means he is diminishing the sum of hurt and distress in living things. This test must be final, and no other ultimate

<sup>1</sup> Vide Daremberg: *(Œuvres Choiesies d'Hippocrate, pp. 2 and 3. Paris, 1856.*

test of our means can be admitted or even conceived. Ends, certain saws notwithstanding, are the only tests of the means. Abraham and Agamemnon tried alike, acted alike, and if in matter of fact erroneously, yet in matter of ethics rightly. To extend or maintain our own particular dominion almost daily we send out, not animals only, but men also, and these in droves, to mutilation and death, staying mostly at home ourselves; and we are right. Your soldiers are said to like it—so do cocks; the question is of the greatness of the end. A Right Reverend Bishop tells us that the quantities of animals which he has slaughtered and devoured are sacrificed for the quality of his voice, and who is to say that the end does not justify the means? Not we who enslave or slay many more for profit, recreation or caprice, and win honour for it. The reduction of the sum of suffering in living creatures is, however, a far higher end than any of these; and we have to inquire whether experiment upon living animals is a means to this end, and if so, whether it be applicable. The answer is that it is applicable, and is applied daily and hourly almost everywhere. All practice of medicine and surgery, whether upon men or animals, is to experiment on them. In the older and simpler ways of practice we have experimented long and often, and made pretty sure; but these carry us over little ground, and an infinite gradation of certainty lies between the administration of such a familiar, but by no means guileless, drug as iodide of potassium, and such an intrepid and magnanimous experiment as that of Dr. Hankin, who, after prolonged testing of antidotes by himself and others upon animals, swallowed the virus of cholera intensified twentyfold, thus showing his faith in the relative value of results gained upon lower animals, and his ardent and generous search after an antidote to this devastating pestilence. I have taken two extremes, and I repeat that in and between these extremes all practice of medicine—even the very withholding of an ordinary drug—is experiment, and often very dark experiment, upon living beings, mankind or other kind, and that all change of remedial means and procedures consists in experiments ever renewed. Experiments upon living beings, for the good of living beings high or low, must therefore have been continual, and they must still continue if medicine is to advance beyond incantation and the horn of the unicorn. But, it is keenly urged, experiments upon animals in the laboratory are and have hitherto been sterile. This appears to me to be a vain, if not a stupid, argument. Such may or may not be the case. Our discussion is not of the present value of results, which may be useless to-day and precious to-morrow, but of a method which may have periods of hidden germination and periods of fruitfulness. In so highly technical a discussion few persons can take a useful part. Physiologists, however, do not work in mere frowardness, or only to attain that habit of accuracy which leads to truth; it is admitted that invaluable results have been reached by scientific investigations in other fields which at first sight seemed idle, which for long seasons were profitless, and which were carried out in a spirit of disinterested love of truth; and physiology is a science of like nature to other positive sciences. “Nothing, madam,” Sir William Gull once said on this subject—“nothing is so mischievous as ignorance.” The vanity of the argument, however, lies in this that it misses the whole point of principle. The question of principle must be thus formulated: granting that experiment upon living animals has led or may hereafter lead to gains infinitely valuable in respect of the cure or prevention of disease, am I in pity bound to forbid these experiments under all circumstances? I may lay down my own life, but am I to fortify my heart and watch my fellow creatures die of cancers, consumptions, malignant fevers and the like, and deny them admitted methods of help? In such case do I not consent to their fate, and, if so, can I justify so awful an abstention? This is the question of principle; it is applicable to the sufferings and death of all animals, greater and meaner; beside this question the accidents of more or less temporary success in discovery are subordinate, and may be considered by themselves in a competent court. But how is the question of principle to be answered? We answer it in one way; is there any competent and serious person who can deliberately answer it in the other?

Many more subjects akin to those which I have touched arise in my memory, and have doubtless arisen in yours, which might well have been discussed before you in this address. Already, however, I have bestowed too much of my tediousness upon you; the hour and your patience bid me conclude. Permit me to hope, encouraged as I am by

your kind attention, that the reflections which I have made to-night upon a few subjects may prove sound enough and broad enough to be applied likewise to others. Many of my hearers may have held before me the opinions I have uttered, to a few more I may perchance have carried conviction, and I am grateful to err in such company. Those who differ from me may, I trust, have found some materials for fresh thought and no matter of offence in the words I have ventured to speak on the opening of this session of the York Medical Society. To that Society I offer a present adieu and an abiding store of goodwill.

## THE ETHICS OF OPIUM AND ALCOHOL.

THE ANTI-OPIUM CIRCULAR TO THE MEDICAL PROFESSION OF GREAT BRITAIN AND IRELAND.

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(Concluded from page 1093.)

I HAVE purposely in the preceding remarks excluded all reference to China for the reasons mentioned in my introductory observations, and because, in whatever light the commercial relations of India with China may be regarded, they have nothing to do directly with the treatment of its own subjects by the Government of India. It would still have to supply them with opium should the China trade be closed to them, of which the advent is not yet, although some intelligent Chinamen believe it to be approaching, from the action of the Chinese themselves. There is still one point connected with the Circular with which I have been dealing that I have not noticed—viz., that the free sale of opium in India tends to *immense acts of suicide*. The opium agent to whom I have more than once referred informed me that he never in any part of the country in which he has served heard of a single case of such self-sacrifice, and disbelieves in their existence. In my official tours of inspection, in which I visited every part of the Lower Provinces more than once, and had exceptional opportunities of acquiring information on matters connected with crime, I never heard of a single case. In Calcutta, with its population at the time I resided in it of more than half a million, I do not remember an inquest upon a case of the suicide of an opium-eater, and as most of these inquests were then held within the precincts of the Medical College, I should certainly have known of them, for when I was appointed Professor of Medical Jurisprudence I was kept informed by my friend the coroner, the late Mr. Piddington, of all crimes which came under his purview, for the illustration of that portion of my medico-legal lectures.

The latest information I have on the subject is in a recent work on Medical Jurisprudence in India, in which the number of fatal cases of poisoning by opium in five consecutive years—1885 to 1889 inclusive—is contained. They were—

In the Presidency of Madras ... ..	25 cases.
“ “ Bombay ... ..	81 “
“ “ Bengal ... ..	266 “

The Bengal cases apply to a population of nearly seventy-five millions of people, including 978,000 in Calcutta. If they were all suicides among opium consumers, which is most unlikely, such a drop in the ocean of humanity cannot be accepted as representing the “innumerable acts of suicides from opium” alleged in the Anti-opium Circular. A more convincing proof of the “falseness of extremes” it would be difficult to find anywhere.

The present Professor of Medical Jurisprudence in Calcutta, who is also police surgeon, in a publication of his medico-legal experience in that city between the years 1888 and 1890, mentions only one case of supposed poisoning by opium, and that a case of murder.

In the well-known work of Taylor on Poisons it is stated that in five years, 1863–7, there were 2097 deaths from poisoning in England and Wales, in 1270 of which the poisons causing death were ascertained; of these, 597 were from opium and its compounds. Such figures have never been attained among the millions of India, so far as I know. That many undiscovered cases may occur in that country is most probable; for even at home, in three-fifths of the deaths which

are ascertained to have been due to poisoning, the exact nature of the toxic agent is not discovered. But, as all the above statements can be verified, they dispose effectually of the myth of the innumerable suicidal deaths from opium in India.

Before considering the formulary of the Circular I must refer to the statement of Sir Charles Aitchison that "the question is not one of better or worse morality, but of the salvation of a whole people from a vice which we have introduced among them, and from a ruin which it is to a great extent in our power to retard, if not to prevent." With every respect for the opinion on State affairs of so distinguished a man as Sir Charles Aitchison, I am unable to accept either his premiss or his conclusions. A reference to the record of the mission of Mr. John Crawford to Burmah shows that a mission from China, which he met, after a conference smoked long pipes, which doubtless were opium pipes, as I am not aware that the Chinese smoked tobacco at that time, or at any time, in long pipes. The evidence of Mr. John Laird, a merchant who was imprisoned by the Burmese, stated that a considerable portion of the capital was occupied by a Chinese colony, some 3200 in number, and that among the articles imported by sea into Burmah was a "little opium." There was then and long before that time (1795) considerable intercourse between Burmah and China, and where Chinamen were, there was opium to be found. Sir Henry Yule, in his magnificent record of the mission to Ava in 1855, speaking of the import trade from China to Burmah, mentions spirits from rice for the consumption of the Chinese residents, tea, velvet, felt rugs, walnuts, chestnuts and *opium*, so he was assured. He adds, in a footnote, "Burney also mentions opium. It was sold in his time at one-fourth the price of Bengal opium, and was of very inferior quality. It was grown clandestinely at Talafec." How, then, we could have introduced a vice for the indulgence in which the material existed in the country long before we incurred any responsibility in the matter, and which was not a national habit of our own, I fail to understand. Surely it is far more reasonable to suppose that the credit or discredit is due to the Chinese, who do practise the habit, and carry it with them wherever they go. The use of opium in moderation is, I maintain, eminently and primarily a strictly moral and economic question, altogether irrespective of the collateral conditions attached to it. Whether the Burmese are more susceptible to the evil influences of smoking or eating opium than the Chinese or other nations, I know not. There are great differences in individuals in all such matters, and there may be exceptional differences in nations. I hope, therefore, that some light will be thrown upon this point by the inquiry which has recently been held in Burmah. But I am quite unable to accept the view of Sir Charles Aitchison on the matter. I have been a student of history all my life, and I have never read of any nation that has been ruined by its smaller curable vices. It happens that in the case of Aracan, inhabited by a race of strictly Burmese origin, which came into our possession at the same time as Assam, we have a living test of the question, which may be studied with advantage. I am informed by the officer most competent to express an authoritative opinion on the question, inasmuch as that province was under his able rule for some years, that the operation of the Bengal Abkaree regulations was extended to it immediately after its cession by the treaty of Yandabu. The result was, he said, decidedly beneficial, morally and physically, as I myself witnessed when I visited that province officially many years afterwards. It is singular that the smuggling of opium into Aracan from Upper Burmah also, long before its recent annexation, was extensively carried on. Most ingenious stratagems were resorted to for its concealment, and the opium smuggler was a well-known character. Where was this opium manufactured? It could not have been in India, where it was much too expensive to bear such transplantation. In 1851, on my return from Mauritius in a vessel carrying homeward-bound coolies, I fell in with a leading Chinese merchant of Calcutta, an old friend of mine. I asked him what took him to the island in the Indian Ocean, and he said to smuggle opium, of which he had succeeded in landing a fair venture. He told me confidentially how he had deceived the Customs authorities, and it exhibited considerable audacity and skill. He evidently considered us to be fools in the war of wits, and I do not think he was far wrong.

*Conclusions.*—Prior to examining the four specific questions submitted for the opinion of the medical profession at home, without in any way questioning the *bona fides* of the numerous signatories, I think I am justified in doubting and

denying the value of their assent, as I believe that the matter has not been fairly put before them. It is the work of a self-appointed tribunal whose means of personal acquaintance with most of the conditions alleged by them to exist were necessarily limited, and who have not supported their chief contentions by a single proof, as I do not hold bold asseverations to be entitled to be regarded as matters of fact, in the absence of even the shadow of evidence that is required to substantiate them. I do not regard the implicit adoption of the views of the Circular by sponsors from China as entitled to be considered at all in relation to questions of fact respecting a country and a people with which and with whom they are presumably personally unacquainted.

The *first proposition* is that "the habit of opium smoking and of opium eating are morally and physically debasing." This academic proposition is true only of the habits if carried to excess, and is indefensibly untrue of the moderate use of the drug, as the evidence which I have adduced appears to me to establish beyond the reach of doubt or denial by any reasonable or reasoning person. The opium broken-down drunkard is nearly unknown in India, so rare is his appearance. The moderate consumer is known to exist in thousands, possibly in much larger numbers, and amongst these are some of the finest races in India, mentally, morally and physically, as I know of my own personal knowledge, and as is more widely and generally known by the recorded evidence of thoroughly trustworthy authorities. It is idle to consider questions of such great importance in their scientific, social and political relations if the proofs of the facts necessary to enable a correct judgment of them to be formed are not given. Montaigne in his "Essay on Moderation" begins by saying that "if our touch is infected, we corrupt by our treatment things which are in themselves good and beautiful." So long as human nature is what it is, and the laws which regulate human actions are what they are, false, because misplaced, philanthropy, which is too often mere hypocrisy, causes damage, and destroys what it would be wiser to preserve and utilise under such restraints as can prevent their abuse. In the Circular it is paraded on Government authority that there are in British India 10,417 shops licensed for the sale of opium, and the incorrect inference is drawn that the Government by its excise regulations is forcing it upon the people by restrictions on the smallness instead of the largeness of its sale. It must be remembered that the above number of licences are for the supply of 287,223,431, or nearly 288,000,000 of people of many nationalities. Are the writers of the statement aware that the number of licences for the sale of intoxicating liquors at home in 1891 was as follows?—

Annual licences, England and Wales	...	184,743
" " Scotland	...	18,460
Licences to dealers or retailers of excisable liquors in Ireland	...	24,394

Do they venture to charge the British Government with any deliberate intention of degrading and debasing our population by forcing on them the enormous amount of agents far more destructive than opium, which are shown to be consumed at home? Instead of being astonished at the extravagance I am surprised at the moderation of the rulers of India in this matter. Of opium itself I could adduce an abundance of additional evidence of its comparative innocence as an intoxicant when compared with alcohol. The celebrated physician Sydenham regarded it as the greatest boon conferred by Providence upon humanity among agencies of relief, from the extent and variety of conditions in which it was useful and in which no other drug could replace it. The views of one of the most distinguished surgeons we have ever possessed—Sir Benjamin Brodie—I have already given. It would be easy to add to this list were it necessary.

The *second proposition* is that "the unrestricted sale of opium is immediately associated with many and grave dangers to the well-being of the people of India." My answer is that the sale of opium is, and has been for the last seventy years or more, very carefully restricted by the Abkaree regulations, and during this long period no public danger of any kind, grave or otherwise, has resulted that I either know or have heard of. This is another of those statements of which no proof has been afforded, for the population continues to increase with rapid strides, the prosperity of the country has increased in proportion, there is no general falling off in the morale and physique of the inhabitants of any part of India that I am personally acquainted with, and I have not found a single officer of experience acquired in other parts of our magnificent

empire who has seen anything of such a decline and fall. Even the opium dens of Calcutta, from a recent personal examination, appear to be models of propriety worthy of imitation by the gin palaces of this country, for I suppose no one has ever found one of these latter "as quiet and orderly as a prayer-meeting," such as Surgeon-Lieutenant-Colonel Crombie saw in Teretta bazaar, and which was also witnessed at the same time by a deputy-commissioner of police and by a European inspector. I passed that bazaar almost daily for thirteen years at all hours, and never saw an opium spectre emerge from it. I must therefore, until better informed, class this portentous prognosis of present and future perils among the fictions which abound in this Circular.

The *third proposition* is that "the drug opium ought in India, as it is in England, to be classed as a poison and be procurable from chemists only." Unfortunately for this recommendation opium in moderation is not a poison, and in its fiscal relations has much less business to be classed as a noxious agent than alcohol. It is treated, and rightly treated as respects its general use, in the same manner as alcoholic stimulants, by excise regulations and licences, which are far more stringent in India than at home. The proposition, then, is on all fours with a law, should any administration be idiotic enough to entertain or to pass it, that would require every glass of gin and whisky now obtained in a public-house, club, hotel or other licensed or unlicensed place at home, to be prescribed by a competent medical authority and purchasable only at a chemist's. But, still more unfortunately for this astounding want of acquaintance with the social condition of India, there is no class of chemists in existence in that country. I have visited every part of Lower Bengal, Assam and Aracan, and never heard of them among a population of some seventy millions of souls. When I was chemical examiner to the Government the wallet of every suspected professional poisoner arrested was sent to me for examination; and whilst I found in them datura, aconite and other vegetable poisons, as well as preparations of arsenic and corrosive sublimate, I never discovered a grain of opium that I can remember, as it is neither used as nor considered to be a poison by this class of natives. Has classing it as a poison in England and subjecting it to stringent conditions prevented its widespread use in the fen districts? Of it Dr. Ringer of University College says: "In this country the habit of opium eating is not so largely indulged in as among Asiatics, but it is practised here in some localities to a startling extent." In one of the classic reports of Sir John Simon is contained as serious an indictment against the abuse of opium in England as could ever have been written of its use and abuse in India. What chance, then, would dealing with it in the manner gravely proposed in this third count of the indictment, and applicable to millions of many nationalities widely differing from each other, have of success, were it even as practicable as it is impossible?

The *fourth proposition* is a corollary of its immediate predecessor, and is to the effect that "the Government of India should prohibit the growth of the poppy and sale of opium, except as required for medical purposes." This visionary suggestion might possibly be carried into effect in British India, but, were it so, would in that case at once stimulate an openly increased production in the native States not under our immediate control, and a surreptitious augmentation in our own territories. No agency that the Government could employ, at fabulous cost, could prevent such opium finding its way to those who were resolved to have it. Who would be able to determine its medical purposes, and what authority could exercise any control over its sale in that sense, by the (non-existent) chemists, who would have themselves to be created? Leaving China and the Chinese in their own country out of the discussion, which relates only to India, what example have we of any civilised people among whom the opium habit exists largely, as to the effects of its practically unrestricted use, on the moral and physical condition of the people? In 1880 the opium smokers in the United States of America were estimated at nearly a million, and they are probably more numerous now, as the habit was then said to be increasing. Has any general moral or physical degeneration among this great body been observed and recorded, such as to constitute a national calamity or disgrace? I have no means at the present moment of ascertaining the views of the medical profession in the great republic on the subject, but I observed no such effects when I visited America in 1861, and I heard nothing of it from any of the American professional men with whom I came in contact.

Of the Chinese out of China; I have come into contact with two communities—one in Calcutta, small; the other in Singapore, very large; and among neither of them did I hear of, or see, any examples of those presented in such dark colours by the anti-opium agitators. With those in Calcutta I had, as already said, an intimate acquaintance, and there was not one that I saw or heard of to whom the reproach of being an opium drunkard could be attached. They were a healthy, vigorous, quickwitted and excellent body of men, with no indication of moral or physical degeneracy. I visited Singapore nearly thirty years ago, when the Chinese colony was computed at 40,000, of whom 15,000 were known to be opium consumers. Both numbers, I have been recently told by an officer who dwelt long among them, have increased considerably since. With my friend, the late Sir Orfour Cavenagh, at that time Governor of the Straits Settlements, I visited the Chinese quarter, and from him I obtained much information regarding them, and saw and heard nothing to indicate anything in the least approaching to general moral, mental or physical degradation. Similar testimony respecting this community was given by Sir Frederic Halliday before the Committee of the House of Commons already referred to. According to the census just taken, Rangoon, with a population of 180,000, has a Chinese contingent of 8029, of whom 6155 are males. A gentleman who occupied for some time a leading position in the business portion of that community told me, within the last week, that he never met with a more intelligent, healthy and capable body of men than the Chinamen with whom he came in contact. Those who emigrate must then be either selected specimens of their race, or exercise more control over their actions and appetites than those they leave behind them. It is, I think, to be regretted that the anti-opiumists who paint the Chinaman in such dark colours in his own home have not, so far as I know, collected and published detailed statistics of the numbers, ages, occupations and proportion to the rest of the communities of which they form parts, of the victims of the opium habit carried to excess, should such figures be procurable. If collected with the rigorous exactness required in all statistical inquiries, these figures would carry more conviction than any unsupported statements can or ever will do.

And now, having considered the assertions and propositions contained in the Anti-opium Circular, I am in a position to ask whether those who are clamouring for the suppression of the general use of opium in India, have considered the alternatives which would inevitably follow the complete disappearance of that drug as a general stimulant? These would, in my opinion, be gunjah (already largely in use) and alcohol, because these are and must remain the cheapest substitutes, and those most within the reach of the labouring classes. The former is too well known as a prolific source of crime and insanity, and the action and effects of the latter would be very much the same as they are in Europe, as I know from having had a few alcoholic native drunkards in my wards, when I was a hospital physician. Where would be the advantage of substituting more mischievous for less harmful stimulants under any plea whatever, for opium has not yet been shown in India to occupy the post of preëminence in moral and physical deterioration, that alcohol certainly fills amongst ourselves? I can only apply to the craze on the subject the dictum of Ilorace:—

"Inveni sapiens nomen ferat, æquus iniqui  
Ultra quam satis est virtutem si petat ipsam."

What is really wanted for the settlement of the question—if it ever can be settled—is a more exact collection of well-considered and supported facts, and less exaggeration in their interpretation. Regarding these conditions what said the bard whose loss we are all now deploring?—

"Her open eyes desire the truth;  
The wisdom of a thousand years  
Is in them. May perpetual truth  
Keep dry their light from our tears,  
That her fair form may stand and shine,  
Make bright our days and light our dreams,  
Turning to scorn with lips divine  
The falsehood of extremes."

Athenæum Club.

PRESENTATION.—Dr. Guillemard, lately ordered to South Africa on account of his health, has been presented with a testimonial consisting of a purse of £175, and a parchment scroll upon which is engrossed an inscription testifying to the sincere regret of his friends and patients on the occasion of his leaving Southsea.

## INTUSSUSCEPTION AND ITS TREATMENT BY OPERATION: ILLUSTRATED BY TWO CASES.<sup>1</sup>

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THE treatment of this somewhat rare affection has always exercised the minds of practitioners, but of late years, owing to the enormous strides made in aseptic surgery, abdominal section has become a recognised form of treatment, and hence intussusception is now looked upon by advanced men as a purely surgical condition, quite as much so as strangulated hernia. The results of abdominal section so far have not been brilliant, owing chiefly to the delay with which the operation is undertaken; the conditions resulting from the prolonged invagination being such as to necessitate so formidable a procedure as resection of the bowel, an operation attended with much mortality, even when performed in non-gangrenous cases. Mr. Arthur Barker in 1888 collected 73 cases of intussusception which had been treated by abdominal section; 13 only of these cases recovered; in 34 the bowel was simply released and no further operative measures undertaken, yet only 12 recovered. In 133 cases recorded by Mr. F. Treves there was a mortality of 72 per cent.; when reduction was easy, in 30 per cent., and when difficult, in 91 per cent. The reasons for this great mortality are (1) the tender age of the patient and (2) the late performance of the operation. Operations on infants, in whom the affection is most commonly seen, are rarely successful, the patient usually dying of shock caused by the necessarily prolonged manipulation of the bowel which is needed to reduce the invagination. Now, what should first be done when we are confronted with a case of intussusception? Should other means than operation be first employed? Certainly, it would be well first to arrest the peristaltic action of the bowels by the administration of opium or even to give emetics. We should then try to force back the invaginated bowel (which can nearly always be felt through the anus) by means of air, hydrogen gas, or water injected per rectum, whilst the patient is under the influence of an anæsthetic. Probably air or gas is safer than water, being lighter and less liable to cause injury to the bowel. This method has been fairly successful, especially in children under one year. Should it fail, then immediate resort should be had to abdominal section. This should be in the median line, and when the tumour is come down upon, by careful manipulation we should try to pull out the invaginated bowel, not using too much force. Even if there be no adhesions great difficulty is often experienced in reducing the intussusception, owing chiefly to the resistance offered by the ileo-cæcal valve and the cæcum. This is seen in one of the cases narrated below. When the invagination has been reduced the bowel should be carefully examined for gangrenous spots and rents. The gangrenous areas should be excised and the rents sewed up. If we find the bowel gangrenous throughout, resection is our only resource. Resection is rarely successful owing to its tediousness and the shock caused by the operation on an already enfeebled individual. Senn advises lateral anastomosis in cases where the bowel is not gangrenous but cannot be reduced, or where the continuity of the bowel cannot be restored by circular suturing because of the difference in size of the two ends of the resected bowel, or owing to inflammatory softening. The plan adopted by myself in Case 2 seems to me to be preferable to lateral anastomosis in cases of irreducible and non-gangrenous intestine. Should the bowel, however, prove gangrenous Barker's operation may be proceeded with through the same incision. Some recommend that an artificial anus be established. The results of this procedure have been, however, almost uniformly unsuccessful. Mr. Arthur Barker<sup>2</sup> recommends an ingenious procedure, the feasibility of which is very attractive, and I have been waiting ever since reading his paper for a suitable case in which to put this method into practice. It is briefly as follows: "At the point at which the intussusciptens receives the intussusceptum the two portions of the bowel are at once

united by continuous circular sutures of fine silk, taking up the serous and muscular coats of each and carrying the sutures on to the mesentery. A longitudinal incision is then made for about two inches through all the coats of the intussusciptens in its free margin. This gives access to the sausage-like intussusceptum. The latter is then drawn through this incision and cut across at its upper end, or if too long to be drawn out is first cut across *in situ*. A few stout ligatures are, however, passed through all the walls of the stump as the mass is gradually cut off, and are tied tightly so as to keep the serous surfaces in contact and control all bleeding vessels. The stump is now cleansed, dried and dusted over with iodoform and allowed to drop back through the incision into the intussusciptens, and the longitudinal incision in the latter is closed by a continuous suture from end to end." Mr. Barker has operated in two cases, but both ended fatally, owing to the fact that the operation was undertaken too late. It appears to me that this operation has much to recommend it, being more rapid and safer than resection, and infinitely to be preferred to the formation of an artificial anus.

In the cases narrated below the conditions were not such as were suitable to the performance of Barker's operation, but I hope at some future time to test its efficacy. In my two cases one was successful, but the other, owing to the tender age of the patient and the prolonged manipulation necessary to reduce so large an invagination, succumbed.

CASE 1. *Intussusception in a child aged six; abdominal section; recovery.*—E. A.—, aged six, was seen by Dr. Finley on the afternoon of Feb. 13th, 1892. She complained of severe abdominal pain, which commenced about 8 A.M. and was attributed by the mother to over indulgence at a Sunday school feast attended the night before. The child had vomited several times during the day; next day a considerable amount of blood and mucus was passed per rectum. On Feb. 15th pain and vomiting continued; pulse rapid and small; temperature normal; tongue thickly coated. Now for the first time Dr. Finley discovered a small indistinct tumour below the ribs in the left side and outside the linea semilunaris. Recognising the case as one of intussusception and remedies proving of no avail I was called in to decide as to the expediency of operating. At 5 P.M. on Feb. 15th the child was put under ether, and a rectal examination immediately revealed a sausage-shaped tumour. No tumour could at this time be felt in the abdomen above. The tumour could be pushed back, but it almost immediately returned. Water was forced into the rectum in large quantities, and for a time the tumour disappeared from the rectum, but reappeared in the abdomen, and after a few minutes was again seen presenting at the anus. This procedure was repeated several times, when, not wishing to lose any more time, I advised removal to hospital and immediate abdominal section. This was done, the operation being performed about 8.30 P.M. The tumour could still be easily felt through the rectum, though it did not now pass the anus. The child having been placed under chloroform, a median incision was made below the umbilicus and the abdominal cavity opened; the finger was introduced and a tumour felt, which on slight traction of the bowel immediately disappeared. The abdomen was now most carefully examined to find if any other tumour existed, as I could hardly believe that the invagination could have been relieved with so little manipulation. On examining the bowels the descending colon was found to be deeply congested at one point, and near this a scybalous mass was felt in the bowel; it seemed like a foreign body, but could be easily moved on. The wound was closed with a few silk-worm-gut sutures and dressed with absorbent cotton. The child did perfectly well and had a natural stool within twenty-four hours. In ten days she was discharged from the hospital and has been in good health ever since. In this case the tumour was distinctly felt through the rectum before the abdominal incision was made, and immediately before entering the hospital the child had passed considerable quantities of bloody mucus, and had experienced much pain and vomited, yet the opening of the abdomen followed by the slightest manipulation of the intestine, was sufficient to reduce the invagination. It may be that the intussusception had already begun to be relieved before operation was undertaken and that the operation merely hastened the process. Still the fact remains that after several attempts at reduction by forcing water up the rectum the tumour still could be felt and seen at the anus, and that it did not disappear until the abdomen was opened.

CASE 2. *Intussusception in an infant aged seven months; operation; death.*—B. D.—, a strong healthy infant, aged

<sup>1</sup> A paper read before the Canadian Medical Association at Ottawa, Canada, Sept. 14th, 1892.

<sup>2</sup> THE LANCET, Jan. 6th, 1892.

seven months, began to suffer from severe pain, accompanied by vomiting and the discharge of bloody mucus per rectum, on May 6th, 1892. Dr. Elder was called in on Sunday, May 8th, and immediately recognised the case as one of intussusception, a dark-coloured tumour presenting at the anus. I was consulted about the case and advised immediate removal to hospital. At 6 P.M. on May 8th I first saw the patient. At that time she was suffering considerable pain and had extreme distension of the abdomen. Protruding from the anus was a dark-red sausage-shaped tumour, which, on examination, proved to be an intussusception. Abdominal section was immediately decided upon, as the employment of other methods of relief was thought to be useless owing to the condition of the patient and the length of time the affection had lasted. The child was placed under chloroform, and an incision three inches long was made in the median line, commencing at the umbilicus. On opening the peritoneal cavity the distended intestines immediately protruded. So great was the distension that it was useless to try to reach the seat of the intussusception without allowing the intestines to protrude. The greatly distended small intestines which extruded themselves were covered with hot towels. Now the tumour was easily found, and it filled the true pelvis. The tumour, on examination, proved to be a greatly distended rectum, into the upper end of which some small intestine was seen to pass. With the exception of the rectum, no large bowel was to be seen. I tried to release the bowel by moderate tension, which was gradually increased, but without effect, although there were no evidences of inflammatory adhesions present. Feeling that it would be useless to employ any more force, the large bowel (rectum) was incised longitudinally and the intussusceptum exposed. The incision gave exit to a large quantity of dark grumous bloody fluid. Efforts at reduction from within were now made, and, aided by an assistant's finger in the rectum, I managed to release some of the bowel. First came a portion of the lower end of the ileum; the cæcum and appendix came next like a cork out of a bottle, and the rest of the large intestines slowly unfolded themselves. A lump still remained, however, and it was found to be another intussusception, which was invaginated from below upwards. This was easily relieved, and all parts of the bowel were free. Many portions were much congested, but there were no evidences of inflammatory adhesions. The incision in the rectum was now rapidly closed with a continuous Lembert's suture of fine silk and the abdominal wound sewed with silkworm gut, a glass drainage-tube being inserted at its lower end. The patient suffered much from shock after the operation and only lived some three hours. In this case the large amount of the invaginated bowel, the great distension and the amount of manipulation necessary to relieve the invagination, taken together with the tender age of the patient, were quite sufficient to cause death. Although there were no inflammatory adhesions, still the difficulties of reduction were great and invagination could not have been relieved without incising the bowel. The obstruction to reduction was manifestly the bowel about the ileo-cæcal region. It seems to me that incision of the bowel and relief of the tension, with pushing of the invaginated bowel upwards, are better methods of treatment in non-gangrenous cases than either tubal anastomosis or the establishment of an artificial anus. If the bowel should prove gangrenous, then Mr. Barker's operation could be easily proceeded with.

Montreal, Canada.

## THYMOL AS AN ANTHELMINTIC REMEDY.

By PROSPERO SONSINO, M.D. PISA.

THE history of the greater number of new drugs proposed as remedies is generally as follows. A certain substance is suggested as a remedy against a particular disease. After some hesitation we find the new drug extolled by numerous observers in every quarter of the medical world—as yet, however, only as against one particular disease. After a time its use is generalised, as it were, and extended to other ailments, and we now find its virtues lauded in many cases and many diseases. By-and-bye a reaction sets in, drawbacks are discovered, it is no longer the general panacea, and it is only after a long time that the true therapeutical position of the

drug is at last defined, if it does not eventually fall into complete disuse and oblivion. It seems that thymol is now passing through the common ordeal: it was first used by Bozzolo<sup>1</sup> in 1880 against anchylostoma. After some hesitation its efficacy was confirmed by many practitioners, and it is now accepted as the best remedy in anchylostomiasis in such a manner that it has generally superseded the liquid extract of male fern, which was the only other remedy that for some time could compete with it; but the efficacy of thymol in anchylostomiasis was hardly well established when already it was tried in other ailments, and especially as a general anthelmintic remedy. At the present time, if we would trust the assertions of some hasty advocates, it is the best remedy against all the intestinal worms, tænia among the number, and also against lamatozoa, as *filaria sanguinis hominis nocturna*. I think great credit is due to Dr. Crombie<sup>2</sup> of Calcutta for having shown that about ten grammes per diem of thymol, given for three successive days, are not enough to cause the disappearance of the embryo *filaria* from the blood, contrary to what has been asserted by others who state that daily doses of some fraction of a gramme of this drug, taken for a certain number of days, are sufficient to cure radically filarial disease. We have seen more recently the inefficiency of thymol against *filariæ sanguinis hominis* confirmed by Dr. Manson.<sup>3</sup> Perhaps Dr. Crombie has been too hasty in believing that thymol, while impotent in the case of the *filariæ* of the blood, is nevertheless effective against intestinal worms, tæniæ included. I desire to bring forward in the columns of THE LANCET the result of my experience on this subject. Whilst I have had numerous brilliant successes with thymol in anchylostomiasis, so that in this disease I can testify that it acts often as a charm, I must confess that there are some cases, rare it is true, in which I really found difficulty in ridding the intestine of anchylostomes even with this remedy. I had recently in hospital a long-standing case of chronic disease, which was complicated with anchylostomiasis. The administration three times of a total daily dose of four grammes brought away in all thirty-one anchylostomes; but even after the third administration of the drug the stools contained anchylostoma eggs in as great abundance as previously to the commencement of the thymol treatment, and as they are found in the stools of patients from whom thymol expels some hundreds of anchylostomes, I could not explain in a reliable manner the cause of this non-success. I argued that it might be due to the circumstance of there being a certain number of worms hidden in the walls of the intestines and others under the folds of the valvulæ conniventes in such a manner that the thymol may have passed without exercising its toxic action upon the parasites, or it might have been that an extraordinary abundance of tenacious mucus enveloped the worms, and so preserved them from the action of the remedy. Unfortunately the patient, who one year before had been operated on for an abscess of the liver, and who had fallen into a state of marasmus from diarrhoea and vomiting, became worse, and, seeing his end approaching, preferred, in September last, to leave the hospital and go home to die. Consequently no post-mortem examination could be obtained whereby the number of anchylostomes could have been counted, and the reason for their non-expulsion by the thymol explained. Such rare cases as this of non-success must not detract from the merits of thymol as a remedy against anchylostomiasis. I wish, however, to insist that its efficiency in anchylostomiasis cannot in any way authorise us to proclaim it a universal anthelmintic, applicable to all intestinal worms, without positive proofs of its efficiency in the case of each individual species of parasite. I can assert that the only worms I have occasionally seen expelled along with the anchylostoma after the administration of thymol were *ascaris lumbricoides*, *oxyuris vermicularis*, and *trichocephalus dispar*. But whilst the expulsion of anchylostoma is the rule with thymol, this drug acts on the other worms mentioned only exceptionally, in the majority of instances failing entirely to cause their expulsion. Consequently in *ascaris lumbricoides* I cannot trust to thymol so much as I can to other ordinary remedies, such as santonin, for which I now prefer, on account of its insolubility, to substitute its product *santoniossima*, introduced by Coppola. As for *oxyuris vermicularis*, which, on account of the liability in the case of this parasite to self-

<sup>1</sup> Bozzolo: *Viridi di un Rimedio Nuovo* (Gazzetta degli Ospedali di Milano, 1882, No. 1).

<sup>2</sup> THE LANCET, Aug. 13th, 1892.

<sup>3</sup> THE LANCET, Oct. 7th, 1892.

infection, is of all the intestinal worms perhaps one of the most difficult to completely eradicate, I have not found that with thymol we can get rid of it more completely than we can with the other means at our disposal, especially when they are applied by enema. Respecting trichocephali the difficulty in procuring their expulsion with any remedy is well known. After my first trials, in which I found in some cases trichocephali in the stools following the administration of thymol, I entertained the hope that this drug might prove an efficacious remedy against this worm. As the ordinary seat of the worm is the cæcum, I suggested that its expulsion might be better assured by using thymol in enema. But if used in this way, as the thymol must be given in solution, I now fear that it could not be administered in doses sufficiently large to prove efficacious without proving hurtful to the organism of the host from absorption. Indeed, thymol introduced into the circulation is certainly a poison, even in small doses. If we risk giving it in such large doses as four, six, eight, and even ten grammes per diem, it is only because we administer it in powder, and can trust that, if absorbed at all, it will only be so in a very minute amount. The evidence of absorption having taken place is afforded by the patient being attacked with vertigo, and by his urine becoming brownish. These unpleasant symptoms are only met with in rare cases after the administration of such a dose as four grammes of thymol. From what I have said I think it will be seen that thymol will not prove so sure a remedy against the three nematodes named as it is against anchylostoma. As for tænia, I have never tried thymol against tænia solium or tænia mediocanellata, because I think that pelletterine properly administered is now the best remedy against the large tapeworms. I can say, however, that in cases of anchylostomiasis complicated with tænia nana I obtained with thymol the expulsion of the former, but not of the latter. The tænia were expelled only after recourse was had to the liquid extract of male fern and calomel. In a case of tænia nana in a child two years of age I succeeded the other day in bringing away more than 1000 specimens of this small cestode with only one gramme and a half of liquid extract of male fern combined with fifteen centigrammes of calomel.

I have never read of any well-ascertained instances of expulsion of the large tapeworms by thymol, and I should be grateful to Dr. Crombie or to any other practitioner for publishing such cases, with full particulars, if they are acquainted with such cases. Indeed, it seems to me that the results of Bozzolo's and Lutz's experience, though contributing perhaps to the wider adoption of thymol as a general anthelmintic, especially against tænia, are not so conclusive as to replace pelletterine by thymol. Bozzolo, in the work cited, speaks only of a case in which after the use of thymol he did not succeed in seeing the scolex with the strobila. He adds that the patient (a woman) after eight months had not passed any proglottides, and that she felt well. Lutz,<sup>4</sup> in his last work, says he has never seen the complete expulsion of a cestode by thymol; nay, in two cases of bothriocephalus he has ascertained that after some time the patients still suffered from the presence of the worm. Only in some cases of tænia had he noticed that after incomplete expulsion the worm no longer appeared. After all, Lutz only declares that thymol had proved for some patients the more agreeable remedy, but at the same time he put it in the second line, and after pelletterine and koussine. Giles,<sup>5</sup> who more recently has had the opportunity of trying thymol on a large scale against the anchylostoma in Assam, says that he had no occasion to try it against tænia; but that from what he gathers from others thymol would appear to be a far more efficient vermifuge in dealing with tænia than male fern or any of the other drugs more commonly used for that purpose. But among the latter he does not mention pelletterine. Having nowadays at our disposal pelletterine, I think it useless to have recourse to thymol, which certainly offers more drawbacks than pelletterine. Dr. Walker,<sup>6</sup> in Sandakan Hospital (British North Borneo) and Giles, in Assam, each obtained once the expulsion of a specimen of distomum crassum by thymol used against anchylostoma. Certainly these two observations (up to the present there are no facts telling against them) are in favour of the efficiency of thymol against the large Asiatic fluke. But we cannot forget that in a case cited by Cobbold the expulsion of

several specimens of this fluke followed the employment of a milk diet simply; and in other cases the same result has followed a milk diet unaided by any other treatment.

To conclude, I think it would be a therapeutical mistake to infer that a substance which is truly efficient against some given parasite must also prove successful as a general anthelmintic. Experience teaches us the contrary in the case of every drug having an action on some particular worm. As for thymol, I can assert as the result of my experience that it is an effective agent generally against anchylostoma, but very uncertain against the other three intestinal nematodes I have referred to, and entirely ineffective against tænia nana. As for the method of administering thymol, I think that the best plan is to give it in powder in wafers or cachets. I find that tabloids are not of any advantage, because so many have to be taken at a time if we wish to introduce the drug in doses of several grammes, and that the thymol being acrid, the direct contact with the mouth might prove hurtful.

Pisa.

### ON THE METHOD OF ESMARCH AND BIER FOR THE CONSERVATIVE TREATMENT OF TUBERCULOUS JOINTS.

By HERBERT W. PAGE, M.A. CANTAB.,  
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In September last I had the good fortune to make a visit to the hospital at Kiel in company with Professor Esmarch and his assistant, Dr. Bier, and was shown a series of cases illustrating a new method of treating local tuberculous affections which I wish to bring to the notice of English surgeons.

A short account of the plan from the pen of Dr. Bier had indeed already appeared in the supplement of No. 32 of the *Centralblatt für Chirurgie* of this year, which contains a report of the proceedings of the twenty-first Congress of German Surgeons held in June; but it escaped my notice, as doubtless it has escaped that of other surgeons in this country. The treatment advocated is, however, of so much interest and apparently of such value that I deem it right to record this notice of it now, even though I have myself had no sufficient opportunity of putting it into practice. The original paper of Dr. Bier is entitled "A New Method for the Conservative Treatment of Joint Tuberculosis," and in it he says that more than twenty cases had been treated by continuous passive hyperæmia (dauernder passiver Hyperämie). The old observation that passive congestion of the lungs (Stauungslunge) provided, or seemed to provide, immunity against tubercular infection had led to the suggestion that purposely induced congestion of a part might have a like effect. Accordingly the idea had been put into practice by the following simple procedure, much after the manner of Helferich, for the treatment of ununited fractures. If, for example, the part affected is an elbow-joint, the fingers, hand and arm are bandaged up to a point immediately below the articulation, while directly above it the arm is next encircled with an inch-wide elastic band sufficiently tight to impede but not arrest the circulation, and so presently induce a passive congestion and swelling of the intervening zone. It is necessary, he says, to protect the skin from direct pressure of the elastic band by a piece of lint or bandage beneath it, and the exact site of its application must be changed from day to day. In most of the cases where this plan had been carried out in Professor Esmarch's clinic marked and rapid improvement had set in, and in no instance had any harm ensued. Dr. Bier says that he had also induced active hyperæmia, but without good result. He does not state precisely how this was done.

This plan of treatment by passive congestion was that which I saw in the hospital at Kiel. To take a couple of instances which recur to my mind: there was a case of tuberculous synovitis of the elbow in a young woman. Under the method of bandaging described the whole joint area was of a reddish-purple, congested appearance. Painful and starting before the treatment had been begun, the joint was now free from pain, even though no attempt was being made to keep the part at rest. In fact, I was assured that splints were wholly unnecessary, and that the limb might be used as much as the circumstances of its imprisonment in bandages would allow. Although the method of treatment is somewhat painful for a day or two at first, the part is soon free from discomfort of

<sup>4</sup> Klinisches über Parasiten des Menschen &c.: *Centralblatt für Bakteriologie und Parasitenkunde*, 1888, Band iii.

<sup>5</sup> A report on Beri-beri. Shillong (Assam), 1890.

<sup>6</sup> Two cases of Beri-beri associated with *Distoma crassum* and *Anchylostomum duodenale* &c., by J. H. Walker, M.D.: *Brit. Med. Jour.*, Dec. 5th, 1891.

any kind; manipulation in this particular instance caused no pain, and the patient said the arm was very much better. Her complete recovery was expected. Not less striking was a case of tuberculous ulceration of skin due to inoculation. A young man had used milk to remove old tattoo marks. I did not learn the exact method he had adopted; but there seems to be a belief that milk can eradicate tattoo marks, by rubbing out the black with white. At any rate, in this patient the sites of the tattoos, three or four in number, immediately above the left wrist were now occupied by tuberculous lupoid ulcers, and I was informed that investigation had proved that the milk the man had used was taken from an infected cow. Suffice it to say that there were now sores of unquestionably tuberculous lupoid aspect, and one of them, of the size of a florin, had healed entirely under the method described and without any local application. This patient came to the hospital every morning to have his fingers and hand bandaged and the position of the encircling rubber band changed. Amongst other cases being treated in the same way were a tuberculous swelling of knee-joint and a tuberculous epididymitis, both of which I was assured were notably improving. The plan was said to be suitable for local tuberculous of the skin and for tuberculous affections of synovial membranes, but not for disease of cartilage or bone. For the treatment of many other cases it is obviously inapplicable.

I have thus described what I saw, and make no apology for a communication without experience of my own, feeling that anything new in the clinical work of a surgeon so illustrious as Professor Eschmarch of Kiel cannot fail to be of interest to many besides myself. This plan of treatment will at any rate give occasion for speculation and thought, and certainly for much scepticism also. When the treatment of tuberculous affections by the injection of Professor Koch's tuberculin was being tried, it was often remarked that in the local inflammatory reactions probably lay any good which followed. Mr. Hutchinson recurs to the subject in a short paper on the "Benefits accruing from Erysipelas," in the last number of his Archives,<sup>1</sup> where, after speaking of the benefits which accrue to lupus vulgaris from attacks of erysipelas as matters of frequent and general observation, he goes on to say: "The local effects of Koch's treatment, when good reaction was obtained, were not dissimilar from mild erysipelas, and it seems possible that their beneficial results may have been due simply to the febrile disturbance evoked." The plan of treatment here described, as seen at Kiel, brings about a local disturbance not altogether unlike the local disturbances induced by Professor Koch's inoculations—disturbances which seem to show that the quantitative and qualitative alterations in the blood and blood stream which we know by the name of inflammation may have an influence directly antagonistic to the growth and multiplication of micro-organisms. Comparatively harmless when circulating in the blood current, their opportunity comes when they have made their way out of it or are arrested in it, and the flushing of a part with blood in the inflammatory process may have its good effects not so much from flushing and washing alone as from the fact that living, fluid, healthy blood, is itself the best protective against the growth of living organisms foreign to their host. More blood is wanted for the purpose of protection than the natural rate and character of the circulation provide, and the artificial increase and delay of it in the neighbourhood where the organisms have made a lodgment by the method of Professor Eschmarch and Dr. Bier may bring just that amount of extra help which the tissues of the part require successfully to overcome the tubercle bacilli and put an end to the consequences which their presence entails.

My object, however, is not to speculate on the *rationale* of the plan, but to ask English surgeons to try it, that haply they may find in it, as at Kiel it is said has already been found, an effective means for dealing with local tuberculous disease.

<sup>1</sup> Vol. iv., No. 13, p. 70.

A MEETING of the British Medical Temperance Association was held on Tuesday at 20, Hanover-square, W., presided over by Dr. B. W. Richardson. Dr. Norman Kerr read a paper on some recent returns of the consumption of alcohol in workhouses. He stated that a decided decrease had taken place in the use of alcohol in workhouses as compared with former returns, and that the condition of the inmates as regards health, comfort and discipline had shown a corresponding improvement. He suggested that a leaflet should be prepared to instruct parents as to the injurious effects of supplying intoxicating drinks to children. Resolutions to the same effect were moved and carried.

## CHOLERA AND DISINFECTION IN ST. PETERSBURG.

By FRANK CLEWOW, M.D.

THE importance of thorough disinfection in the presence of cholera is so universally recognised that no apology is needed for the following notes on the methods advocated and employed in St. Petersburg during the present epidemic. In the large hospitals of this city, where as many as two or three hundred cholera patients have been under treatment at the same time in one institution alone, the question of disinfection has been one of the first importance, not diminished by the facts that all the liquid portion of the excreta passes directly into the drains, the drains open into the canals which intersect every part of the city, and the canals communicate directly with the river Neva. Various methods have been used for the disinfection of the dejecta, of wearing apparel, of bed linen, of the walls and floors of rooms or wards, of furniture, and finally of closets, dustbins and drains. In the following notes each of these objects is considered in the order named. The dejecta naturally claim the first place. The most usual method employed has been to add to them a solution of carbolic and sulphuric acids. This solution is prepared as follows: To three parts by weight of impure carbolic acid (50 per cent.) add one part of sulphuric acid; this must be done slowly, with sufficiently long intervals to prevent the development of heat, and with constant stirring. It is advisable to surround the vessel containing the mixture with ice or cold water. The mixture is allowed to stand for two or three days. When required for use it is diluted by adding 1½ lb. to 1¾ lb. (615 to 682 grammes) of the mixture to a vedro (21½ pints or 12·3 litres) of water, with energetic stirring. In this way is produced a from 5 to 6 per cent. sulpho-carbolic solution. The dejecta having been collected in wooden barrels, well tarred on the inner surface, an equal amount of the sulpho-carbolic solution is added and the mixture stirred. This has been found by experiments made by Dr. Levin at the Obuchovski Hospital to be efficient, attempts at cultivations from the dejecta thus treated having proved abortive. But as heat is considered the most absolutely certain method of sterilising fluids, the further process of boiling the dejecta has been adopted. The Alexander Hospital, founded in memory of Professor Botkin (the large city hospital for infectious diseases, devoted this summer entirely to cholera cases), enjoys the distinction of being probably the only hospital in existence possessing an apparatus for boiling all infectious dejecta. It is unnecessary to describe the apparatus fully here, as it is the intention of Dr. Richard Sisley to show drawings of it, with full explanations of its working, at an early meeting of the Society of Medical Officers of Health. It need only be stated that not only the dejecta, but also all fluids from the post-mortem room are in this apparatus submitted under pressure of a temperature exceeding 100° C. before being allowed to pass into the drains. Another means used for sterilising dejecta has been to add a 20 per cent. milk of lime, prepared as follows: To 20 parts by weight of lime, which should preferably be newly burnt, are added 80 parts of water in a wooden or earthenware vessel, slowly and with constant stirring. After this solution is added to the dejecta the mixture should be allowed to stand for three or four hours. A solution of chloride of lime may also be employed of a strength of from 2 to 4 per cent.

Wearing apparel is treated according to the material of which it is made. All linen garments (to which may be added sheets, towels &c.) are on removal from the patient rolled up in a sheet or put into a bag moistened with a 4 per cent. solution of chloride of lime and removed to the disinfectant. They are immediately placed in a hot solution of carbolic acid and soap and allowed to soak for one hour. This solution is prepared thus: Pure carbolic acid (100 per cent., if of less pure quality some of it remains undissolved, and may stain linen) is added to a solution of soap in water in the following proportions: To one vedro (21½ pints or 12·3 litres) of water, in which are dissolved 1½ lb. (615 grammes) of soap, are added 200 grammes of the acid. The solution should be clear and of a yellowish colour; it is used at a temperature of from 50° to 80° C.

<sup>1</sup> In the Russian Pharmacopœia one pound (fluid or solid) equals 12 oz. Throughout this paper the Russian pound alone is spoken of.

Woollen clothes, and indeed all articles that are not spoilt by moist heat, are disinfected by the action of steam at a temperature of 100° C. This question has received the most detailed consideration at the hands of Dr. Krupin, who is in charge of the large disinfecting camera at the above-mentioned Alexander Hospital. Here the chamber into which the steam is admitted is rectangular; at each end of the chamber is a door opening into separate rooms, the one for receiving infected articles, the other for removing them after disinfection. A thermometer is inserted in the centre of the articles with an automatic arrangement for ringing an electric bell as soon as the temperature at the point where the thermometer lies reaches 100° C. From the time that the bell rings the articles are left in the apparatus for from half an hour to one hour. From the designs of Dr. Krupin a firm of engineers in St. Petersburg has supplied a number of smaller disinfecting chambers of cylindrical form to many of the other hospitals of the city.

A simple and inexpensive method of improvising a steam disinfectant is described in a circular of the Medical Department of the Ministry of the Interior issued this year, but I have not seen one in use. It is described as follows: On the top of an ordinary kitchen or washing boiler is placed a simply made cask or barrel, which should closely fit by its lower edge to the upper edge of the boiler. In the bottom of the cask are pierced a large number of holes; in its lid, which should fit tightly, are two small holes, in one of which is fitted a cork transmitting a thermometer, the other being a very small one for the exit of steam. Inside the barrel are screwed hooks on which to hang the articles to be disinfected. The boiler being heated, steam enters the cask by the holes in the bottom, passes over the articles and escapes by the hole in the lid. The process is continued for an hour after the thermometer marks 100° C. Certain substances, such as leather and furs, are spoilt by steam, but objects made of wool, hair, down, feathers, linen, hemp, cotton, silk, cloth of all sorts, velvet or plush, such things as books if unbound, mattresses, blankets and carpets may all be disinfected in this way without injury. Objects which are injured by steam are submitted to the action of chlorine gas in a specially prepared chamber. The disinfection of wards which have been occupied by cholera patients is effected at the Alexander Hospital by thoroughly syringing the walls, ceiling and floor with a solution containing one part of corrosive sublimate and one part of chloride of sodium in 1000 of water, followed by thorough ventilation for some days. The use of a 10 per cent. milk of lime is also recommended for ceilings and walls; and for floors a 4 per cent. solution of chloride of lime or a hot solution of carbolic acid and soap, as described above. In papered rooms the paper must of course be removed before using the milk of lime to the walls. For pouring down closets, cesspools, dustbins, drains and sinks lime is chiefly used. The quantity requisite for disinfection is calculated thus: For every 100 persons in health not less than one pound of pure lime should be used—i.e., of a 20 per cent. milk of lime at least 5 lb., of a 10 per cent. at least 10 lb.; while for every 100 cholera patients ten times these quantities should be allowed. This calculation is based on the units of 1 lb. of excreta per day per head in health and of 10 lb. per head among cholera patients, and allows of one part of lime by weight to every hundred parts of dejecta.

Among the many excellent measures adopted by the St. Petersburg authorities none seems to have been more thoroughly useful than the institution of a corps of volunteer disinfectors. These men, 130 in number, were enrolled under the control of the municipal medical officers. Having first received a short course of lectures from Dr. Lipski, a prominent member of the Sanitary Commission,<sup>2</sup> and having been shown practical illustrations of the method of disinfection at the Alexander Hospital, the members of the corps were provided with detailed printed instructions as to their duties. These were principally to carry out disinfection of the rooms in the house to which they were sent, and to remove from the house to the disinfecting camera at the Alexander Hospital all clothes, bed linen, mattresses, pillows and any other movable objects that had been in contact with or soiled by the patient. The objects themselves were not

disinfected before removal, but the box, basket or sheet in which they were packed was ordered to be well moistened with either a 1 in 2000 sublimate solution or a 5 per cent. carbolic solution, from a pulverisator provided for each man. The floors and walls and all furniture were ordered to be washed with a 1 in 1000 sublimate solution, and finally with a 1 per cent. solution of soda. With the permission of the owners, any articles of small value were ordered to be burnt. It should be added that each member of the corps of disinfectors received a payment of 30 roubles (£3) per month.

Previously to the formation of the body of disinfectors measures had been taken to ensure a plentiful supply of disinfectants at a cheap rate. In June a circular of the Ministry of the Interior ordered all chemists, not only in St. Petersburg but throughout the empire, to lay in a stock of disinfectants, which they were permitted to sell only at fixed rates—the cost price without charge for dispensing (*cassa laborum*). Early in July the tax on disinfectants brought from abroad was removed by an order of the Minister of Finance.

I cannot conclude these notes without expressing my thanks to Dr. Krupin, Dr. Lipski and other St. Petersburg physicians who have kindly explained their views on disinfection or given me practical illustrations of the methods above described.

St. Petersburg.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### VOLVULUS OF SIGMOID FLEXURE WITHOUT SYMPTOMS.

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A MAN nearly seventy-two years of age, who had been an inmate of this asylum for two years and a half, but whose mind had been affected for thirty-two years, died somewhat suddenly under the following circumstances. He had attacks of excitement, with hallucinations of a suicidal tendency. Since admission here he had been in a more or less feeble state of health, with an aortic systolic bruit. He had been quiet for several months past, and was able to get about and do a little work. At 10 A.M. on Oct. 17th I was called to see him, as he complained of pain in the left hypochondriac region. This had only just come on; but beyond telling me of this pain he complained of nothing else, and there were no other symptoms. On examining the heart the sounds were irregular, and there was a murmur present; pulse fairly good. As his bowels had not been opened for three days, I ordered a dose of castor oil and had him put to bed. The bowels not acting, he had a simple enema a few hours later, which was only partly retained, but it brought away some fecal matter. Towards evening the abdomen became distended, and he died at 7.30 the same day. There had been no vomiting and comparatively little pain.

Post mortem the brain was such as is common in the insane, with thickening of the membrane and an excess of fluid. The heart presented hypertrophy of the left ventricle, with mitral stenosis; there was slight atheroma of the aorta above the semilunar valves; the pericardium contained about two ounces of clear serous fluid, with no adhesions. There was no other point to note beyond the condition of the intestines. On opening the abdomen there was at once seen a coil of large intestine, which was enormously distended and of a black colour. It completely hid from view all the other abdominal viscera, and had its fixed point at the brim of the pelvis on the left side, with its loop upwards. This was found to be the sigmoid flexure; it was twice twisted round itself at the fixed spot, and could be undone with ease. On removing this portion of the bowel it was found empty with the exception of a little blackish fluid, but the whole of the sigmoid flexure was of a black colour both externally and internally. The rectum and the lower part of the descending colon were empty; the rest of the intestine was slightly inflated. No stricture existed at the seat of the twist. The strangulation must have existed over twenty-four hours, and yet there was

<sup>2</sup> The Sanitary Commission has been in existence for some years in the Russian capital. It has entire control of all sanitary measures, and shares with the Hospital Commission the medical administration of the city. Special Commissions were formed on the approach of cholera to examine the sanitary condition of every building in the city and to investigate the nature of the first cases that occurred.

an entire absence of symptoms beyond some pain during the last ten hours. I mention this case as an instance of the difficulty in diagnosis so often associated with insanity.

Colney Hatch.

#### THE EFFECT OF ERGOT ON THE INVOLUTION OF THE UTERUS DURING THE LYING-IN PERIOD.

By G. ERNEST HERMAN, M.B. LOND., F.R.C.P. &c.,  
OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL &c.

In the Transactions of the Obstetrical Society of London, vol. xxx., for 1888, will be found a paper by Dr. C. Owen Fowler and myself, in which observations are detailed pointing to this general conclusion: "That the administration of an ergot mixture during the first fortnight of the lying-in period appreciably increases the rapidity with which the diminution in size of the uterus goes on." This conclusion was reached by comparing the average rate of involution (a) in a number of cases, taken without selection, in which ergot was given, with (b) the average rate of involution in an equivalent number of cases, also taken without selection, in which ergot was not given. In the *Annales de Gynécologie*, vol. xxix., for 1888, p. 175, is published an investigation by Dr. Emile Blanc of Lyons, conducted in a very similar way, but which led him to the conclusion that "ergotine administered during the first five or ten days of the lying-in period exerts no favourable influence on uterine involution." Dr. Blanc's research was quoted at the time in several English journals. These two investigations seem to contradict one another. I desire to point out that they do not; but that, on the contrary, they confirm one another and show the real value of ergot in the lying-in period. The reason that Dr. Blanc's conclusion differs from that of Dr. Fowler and myself is this, that he chose the cases in which to test the effect of ergot. He took only cases of "normal delivery at full term, excluding premature labours, cases with febrile disturbance, and all cases needing any intervention" (p. 177). These cases excluded are just those in which the causes known to hinder involution are present. Dr. Fowler and I took cases without any selection, and therefore among ours were included cases in which the causes of subinvolution were present. Dr. Blanc's research shows that in a normal lying-in the uterus completes its involution as well without ergot as with it. The paper by Dr. Fowler and myself shows the beneficial effect of ergot in counteracting the causes which retard involution. Dr. Blanc's paper contains nothing in opposition to this view; on the contrary, he expressly says: "Against secondary hæmorrhage the drug maintains its position. Its action is the more efficacious the nearer the delivery." The practical conclusion is, that while in a perfectly normal lying-in ergot is not required, yet when any cause of imperfect involution is present, or suspected to be present, ergot given throughout the lying-in period will counteract its influence, will promote involution, and should be given.

Harley-street, W.

#### TWO CASES OF XANTHELASMA OF THE HAIRY SCALP IN INFANTS.

By TOM ROBINSON, M.D. BRUX., L.R.C.P. LOND. &c.

CASE 1.—An infant sent to me by Dr. Currie on Oct. 26th. It is an only child fourteen months old. The father and mother are exempt from any skin disease, and are sound, healthy parents. The child was delivered by Dr. Currie with forceps, and the nurse (an unusually intelligent woman) says in the following morning she noticed a patch in the position of the present eruption, which looked as if it had been scratched by the blade of the forceps. This patch has never disappeared, and has become more obvious as time has elapsed. It varies a good deal in colour; sometimes it will "go a deep pink for some days, then it suddenly shades off and becomes paler." The child is a breast-fed infant, is plump and healthy looking, and has excellent health. On the right side of the skull, stretching from about the middle of the sagittal suture downwards and forwards, is a streak of raised tissue, with well-defined edges, slightly scaly on its surface, and with a few, very few, fine straggling

hairs scattered sparsely over the area. It feels like ordinary skin and becomes obviously paler when stretched.

CASE 2.—This child is four years old, and has a streak corresponding in colour and appearance to the one fully related, with the exception that the plaque is on the left side and runs almost parallel to the sagittal suture. In this instance the birth was a normal one and the child is perfectly healthy.

The two cases enumerated are, in my experience, unique in the occurrence of a well-marked xanthelasmic patch on the hairy part of the skull, and in being congenital. The malady, or the symptom which is seen on the eyelids, has received enlightenment from almost every dermatologist of this century. One other feature of the two cases was the distinct statement that the patches varied in colour. At this we cannot feel any amazement, because experience shows that the ordinary plaques of xanthelasma palpebrarum vary much in their colour, and it is well known that those who suffer from migraine often betray their condition by a dark stain below or around the orbit. Dr. Currie was quite prepared to accept the doctrine that, in his case, the wash-leather patch was caused by the blade of the forceps, and had I seen this instance only I should doubtless have accepted the same explanation, but my second case negatives this opinion.

Princes-street, W.

#### SEQUEL TO A CASE OF EXCISION OF THE ENTIRE GRACILIS FEMORIS MUSCLE FOR TUMOUR NEARLY FOUR YEARS AGO.

By A. MARMADUKE SHEILD, M.B. CAMB., F.R.C.S. ENG.

THE history of this case and a description of the specimen are recorded in the Pathological Society's Transactions for 1890. The operation was performed in August, 1889, on account of a large pear-shaped tumour on the inner aspect of the right thigh. This was found to involve the gracilis muscle, and the tumour was removed by cutting the tendinous insertions of the muscle at the pelvis and knee. There were two small nodules in the lower part of the rectus femoris, and also in the cellular tissue over the adductors. The tumour was thought to be a sarcoma, syphilis having been excluded by treatment. The Morbid Growths Committee of the Pathological Society decided, however, that the tumour was a myxo-fibroma. It was noteworthy that the boy had webbed toes, as showing a tendency to congenital peculiarities. I showed this patient to some of the Fellows of the Medical Society on Monday, Nov. 7th. The boy is in excellent health, having grown and thriven well. There is an increase in the ill-defined, fibrous-feeling mass over the adductors, but the nodules in the rectus have quite gone. The loss of the muscle makes no difference to his progression, and he is a good athlete. The sequel of interesting cases is frequently as important as their early relation. Excision of muscles for tumours has generally been followed by rapid recurrence. As nearly four years have elapsed the strong presumption is that this growth is non-malignant, and the case forms an important, perhaps almost unique, exception to the general results of excision of tumours of muscle.

Stratford-place, W.

ROYAL COLLEGE OF SURGEONS, ENGLAND.—In addition to the list of names which we published in our issue of Nov. 5th (p. 1079) of those gentlemen who had been admitted Licentiates of the Royal College of Physicians, the following have been admitted Members of the Royal College of Surgeons: W. E. Alldridge, L.S.A.; H. M. Holt, L.S.A.; S. Y. Howell, M.D., New York; A. Lockhart, M.B., Kingston, Canada; J. F. Rudall, M.B., Melbourne; A. E. Syme, L.S.A.; and S. E. A. Zichy-Woinarski, M.D., Melbourne.

MEDICAL MAGISTRATES.—Dr. Thomas Starkey Smith of Warrington; Dr. Richard Purnell of Wells, Somerset; Dr. Ptolemy Samuel Henry Colmer of Yeovil; Mr. Thomas Browne Anstie, M.R.C.S., of Devizes; Dr. Augustus Johnston of Ambleside; Dr. William Whitford of Liverpool; Mr. Joseph Kellett Smith, L.R.C.P. Edin., M.R.C.S., of Liverpool; and Dr. John Bligh of Liverpool have been added to the Commission of the Peace for the boroughs of Warrington, Wells, Yeovil, Devizes, Ambleside and the city of Liverpool respectively.

## A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### LONDON HOSPITAL.

A CASE OF CONTRACTED KNEE TREATED BY TENOTOMY BY THE OPEN METHOD.

(Under the care of Mr. FREDERICK TREVES.)

THE advantages of the operation which Mr. Treves performed in the following case are obvious and it does not appear that so good a result could have been obtained by any other method. Although many of our readers may not be inclined to agree with the operator in all he says as to the desirability of employing the open method in other deformities where the subcutaneous method is now employed, most surgeons of experience will probably call to mind instances of contraction of the knee similar to that recorded in which this operation might have been employed with much benefit. The contraction of fasciæ and cicatrices has often proved an insuperable obstacle to complete extension after division of the tendons. Helferich,<sup>1</sup> in a case of bony ankylosis of the knee, found after the removal of a wedge-shaped piece of bone that it was not possible to straighten the limb without an amount of force which appeared unjustifiable. He therefore turned the patient on his face, made two longitudinal incisions corresponding to the lateral margins of the popliteal space, and from these divided the fascia transversely, as well as the tendons of the biceps, semi-membranosus and semi-tendinosus. Gentle manipulations now sufficed to extend the knee. The result was very satisfactory.

A woman aged twenty-one was admitted into the London Hospital under the care of Mr. Treves on March 16th, 1892, with a contracted knee. She was delicate and a member of a phthisical family. The trouble was due to tuberculous disease of the joint, which commenced four years ago. The knee was kept for seven months in splints, and after these were removed the limb is stated to have been stiff and of little use. Eight months after the splints had been discontinued an abscess formed in the outer part of the popliteal space. This in due course made its way through the skin and discharged for a period of six months. Two years ago a tuberculous ulcer formed over the outer malleolus of the affected leg and had not healed; on admission it had a diameter of two inches. The patient had not been able to use the limb for about three years. The knee-joint was a little swollen and tender, but was free from heat; it was in the position of semi-flexion and was rigid. There was a faint indication of movement sufficient to indicate that the ankylosis was not bony. The ulcer was scraped and grafted and healed readily. The limb was suspended by means of two bands, one round the ankle and one round the thigh, and a moderate weight was placed upon the knee. Not the least improvement in position followed this measure. A back splint was then applied, and by the use of it further attempts were made to straighten the joint. These were quite without effect, and as an ulcer formed behind the ankle as the result of the pressure of the splint the instrument was abandoned. More than two months were devoted to attempts to straighten the limb by mechanical means, but without the least effect. On May 27th Mr. Treves divided all the contracted tendons and bands of fascia upon which the deformity depended. A rectangular flap of skin, which included the whole of the integument covering in the popliteal space, was dissected up. The contracted tissues were thus well exposed, and were divided with precision. The skin of the flap was marked by the scars of the old abscess. The tendons of the semi-membranosus and semi-tendinosus were divided, together with the ilio-tibial band of the fascia lata. The biceps was not severed. Much cicatricial tissue occupied the hollow of the ham. This appeared to be the principal cause of the contraction, and

was divided to a considerable depth. The limb was brought into the position of full extension without the application of any force. The flap was secured in place by sutures. An anterior metal splint was applied, and by means of this the limb was suspended. The wound healed by first intention and without any rise of temperature. A back splint was applied on June 2nd, and later on the limb was secured in plaster. The patient was discharged cured on July 9th. The limb was then straight. The joint admitted of a little movement, and the patient could walk—for the first time for nearly four years—without artificial aid of any kind.

*Remarks by Mr. TREVES.*—The early operations of tenotomy were all performed by the open method, by a free incision or the forming of a flap and the deliberate division of the exposed tendon or band. The introduction of the subcutaneous method was an improvement, inasmuch as it avoided the dangers of an open wound, which were at the time considerable. The introduction of aseptic surgery has rendered the precaution of a subcutaneous incision quite unnecessary; and as it is desirable that a knife should never be used in the dark and that a surgeon should know and see precisely what he is cutting, it would be well if the open method were once more to become the regular practice. In dealing with certain tendons, such as the tendo Achillis, I still carry out the subcutaneous incision, because the division can be perfectly made through a small puncture and an operation would need be no larger than mere efficiency requires. With regard to other tendons, such as the sterno-mastoid, I have returned to the older method of operating. The present case serves to illustrate the value of this method. A subcutaneous operation in this instance would have been dangerous, uncertain and most imperfect. After the prominent tendons—including the biceps—had been divided the remaining adhesions would have been "broken down." This violent measure involves a deeply placed lacerated wound and is apt to be followed by much inflammatory reaction and by subsequent stiffening of the joint. The cicatricial tissue left in the track of the abscess appeared to offer a greater resistance to the correction of the deformity than did the prominent and easily reached tendons.

### ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

A CASE OF FRACTURED HUMERUS WITH INJURY TO THE MUSCULO-SPIRAL NERVE.

(Under the care of Mr. F. PAGE.)

THE following is a short but interesting contribution to the series of injuries of the musculo-spiral nerve with fracture of the shaft of the humerus, which have required operation for the relief of resulting loss of function. The nerve was not apparently injured by the fractured ends, nor was it involved in the callus, as so frequently has been found on examination, but was covered and bound down by the periosteum and regained its functions when freed from it. The effects of the compression in this case were much the same as those met with when the trunk has been involved in callus, where, as Trélat<sup>1</sup> points out, motor and sensory changes are more common than those of nutrition. After the operation the nerve rapidly recovered its functions, more quickly than is usually found when callus has produced the compression; in such cases improvement is often delayed. For the notes of this case we are indebted to Mr. R. Sterling, house surgeon.

A miner aged thirty-eight was admitted under the care of Mr. F. Page on May 29th, 1892, complaining of inability to use his left arm. Four months previously while walking along a railway line he was knocked down by an engine and suffered a simple fracture of the arm. It was put up in splints and maintained in that position for five weeks, when it was found that his forearm and hand were practically useless. The seat of old fracture could be felt at the middle of the humerus. The upper end of the lower fragment projected to the outer side and behind about the position of the middle of the musculo-spiral groove. The muscles on the external aspect of the forearm were much atrophied. The patient was unable to extend his wrist, fingers or thumb, and sensation was less acute. The faradaic current was applied for a week, but without any effect. On June 14th a vertical incision was made about four inches and a half in length in front of and parallel

<sup>1</sup> Report of the Congress of German Surgeons: Arch. für Klin. Chir., Berlin, 1891. Sajous, vol. iii., G. 18. 1892.

to the external supra-condyloid ridge of the humerus. This was carried down to the bone over the seat of the fracture. The radial nerve, which was given off abnormally high, was first exposed. On following this upwards the main trunk of the musculo-spiral was discovered adhering firmly to the bone, covered by the periosteum but free from entanglement in the callus. The nerve was freed from its attachment, the divided muscles sutured and replaced beneath the nerve, which now took a new course in a muscular bed. The superficial structures were sutured and the wound dressed without drainage. A week after the operation the patient was able to extend his wrist, but could not move his fingers. On July 4th he left the hospital with power to move his fingers. He returned in about six weeks with his hand and forearm as strong as the other.

## Medical Societies.

### MEDICAL SOCIETY OF LONDON.

*Tuberculous Ulceration of Pharynx treated by Lactic Acid.—Left Inguinal Colotomy.—"Caisson" Work in Bladder Surgery.—Radical Cure of Hernia.—Pelvic Bony Tumour associated with Osteo-arthritis of Hip.—Leprösy improved under Treatment.—Fusiform Carotid Aneurysm.—Cystic Tumour of Auricle.—Ulceration of Ears.*

A CLINICAL EVENING of this Society was held on Nov. 14th, the President, Mr. Hutchinson, in the chair.

Dr. PERCY KIDD showed a case of severe Tuberculous Ulceration of the Pharynx, which had been successfully treated by lactic acid. The patient, a woman aged forty-one, at the present time showed a large cicatrix on the back of the pharynx; there were still a few small nodules at the side of the scar and at the back of the tongue. She presented signs of pulmonary tubercle at the beginning of the year, and later the throat trouble commenced. Before treatment was begun there was diffuse ulceration of the whole of the back of the pharynx, the surface being pale and grey, dotted with bright red points like tubercles and coated with a tenacious secretion. It was intensely painful, swallowing being almost impossible. The surface was thoroughly cocaineised and lactic acid was freely applied, first in a solution of 50 per cent. afterwards the pure acid being used. It was only after fourteen applications that evidence of healing was observed; then the pain soon ceased and the improvement rapidly advanced. The most favourable case for this treatment was an ulcer without thickening of the submucous tissue. If there were induration not broken down the surface should be touched with the cautery and the acid then rubbed in. Great patience and perseverance were necessary to produce good results. The ulcer had not been examined for bacilli, though they were found in the sputum. He had seen four cases cured by the lactic acid treatment, and he referred to one case of undoubted tuberculous ulceration in which a spontaneous cure took place.—The PRESIDENT related a case under his own care in which there was a large ulcer of the soft palate quite superficial, and the diagnosis lay between epithelial cancer and tubercle. It was treated by the liberal use of Paquelin's cautery on three occasions, and it healed. In another case of extensive ulceration a fatal result followed extension of the pulmonary trouble.

Mr. GOODSALL exhibited a clerk aged forty-seven on whom he operated in January last for Fissure of the Anus, and he then found a tumour growing from the sacrum and extending into the pelvis on the left side. At the end of October the abdomen began to show signs of distension, and on Nov. 10th a left inguinal colotomy was performed. Two days later the bowel was opened by a linear incision, and a month afterwards he left the hospital. He had since increased much in weight, and at the present time the characters of the tumour appeared to be unchanged.

Mr. GOODSALL likewise showed a French polisher aged seventy who had been the subject of Cancer of the Rectum. He had lost flesh for two years and had passed blood from the rectum for about three months, there being about six motions daily, accompanied by prolapse. The carcinomatous growth occupied the posterior three-fifths of the rectal wall. It began about one inch above the anus and extended upwards for three

inches, being freely movable. Left inguinal colotomy was performed on June 14th, and a longitudinal incision was made into the bowel two days later. On June 28th the lower end of the rectum was removed together with the growth, a small incision being made behind the anus, a pair of blunt-pointed scissors introduced to separate the rectum from the surrounding tissues, and section of the gut being performed by a wire écraseur. The patient left the hospital thirty-six days after the removal of the growth. The site of the anus was occupied by a scar and the man had since gained in weight.

Mr. HURRY FENWICK gave a description of what he called "Caisson" work in Bladder Surgery. To remove a small growth he made a limited anterior incision into the bladder and then sunk in an open cylinder somewhat like a Ferguson's speculum; this being pressed against the floor of the bladder over the growth, the water was sucked out, and he operated under the direct influence of a powerful electric light. For these sessile growths under the old method a large incision into the bladder was required, together with a big rectal bag. With the method he demonstrated it was not only possible to remove the growth, but also to apply the cautery with exactitude. He exhibited two patients from whom he had removed sessile villous growths by this method.—Mr. SWINFORD EDWARDS had found the method answer well in a case of vesicular carcinoma; it would also be useful for attacking tuberculous and other ulcerations of the bladder.

Mr. LOCKWOOD showed a man aged forty years who had Right and Left Inguinal Hernie, and also an Umbilical Hernia. He also suffered from genu valgum. These conditions indicated a general defect which would usually forbid operation. However, the hernie could not be retained by the largest and most powerful trusses, and the man could not follow his employment. The right inguinal hernia was the largest and contained the cæcum, vermiform appendix and some ileum. The operation exemplified that even such large ruptures as this could be successfully treated through a small skin incision along the length of the inguinal canal, and that the wound could be closed without drainage, and would heal under a single dressing. On the right side the opening in the abdomen was very large and direct, and therefore it took a much longer operation for its closure, and it would probably be less secure than the left side. Here the hernia was smaller and the conditions more favourable. A smaller wound was required, and it also got well under one dressing. Another point exemplified was the occurrence of orchitis when the conditions were unfavourable. The spermatic veins were adherent on the right side, and had to be stripped off, causing subsequent phlebitis, followed by some orchitis and acute hydrocele. On the left side there were no adhesions, and no ill results followed. The operations had both caused a great thickening of the abdominal wall in the hernial regions, where many silk sutures had been inserted; but, nevertheless, it would probably be wise to give the patient a light truss as his hernie were acquired and associated probably with prolapse of the mesentery and other organs.—Mr. SHEILD inquired as to the suture employed. He had had difficulty with buried sutures, small abscesses being sometimes formed with extrusion of the ligature knot.—Mr. S. EDWARDS advocated the high incision on account of the easier separation of the constituents of the cord that was then possible.—Mr. LOCKWOOD, in reply, said that he used properly prepared silk for his buried sutures.

Mr. G. R. TURNER showed a man aged thirty-eight who was admitted to the Seamen's Hospital in April last with Eversion and Shortening of the Right Limb. There was no history of an accident, and the joint moved freely and painlessly. It had been progressing slowly for six months. He had removed a bony swelling as big as a Tangerine orange in connexion with the ascending ramus of the ischium, and he found another bony tumour lying loose in the cellular tissue. The shortening of the limb had rapidly increased, accompanied by some difficulty of movement. The limb regained its proper length on application of extension, and the shortening therefore appeared to be due to absorption of the head of the bone. He regarded the case as one of Charcot's disease. There was loss of patellar reflex, the gait was unsteady, but there were no gastric symptoms and no numbness. There was no history of syphilis.—Mr. ALLINGHAM referred to a similar case of bony growth associated with hip-joint trouble in which the only symptom of tabes was the Argyll-Robertson pupil, but the patient later developed typical locomotor ataxy.—Mr. WALSHAM con-

sidered these bony growths unconnected with the joint not uncommon.

Dr. ABRAHAM re-exhibited a lad whom he had shown last year suffering from Leprosy, which had improved under treatment. The diagnosis had been confirmed on his arrival from Demerara, and since then there had been a marked retrogression in the manifestations of the disease. He had had chaulmoogra oil, plasters of chrysarobic acid had been applied locally, and at present he was taking cod-liver oil together with sixteen grains daily of gynocardate of magnesia.—The PRESIDENT referred to several cases under his care which he had treated on a simple plan with nux vomica, small doses of arsenic, together with a plentiful nutritious diet, and all had improved. He had very little faith in the drugs used, and believed the more important factors to be the climate and the diet. All the cases he believed to be absolutely non-contagious.—Dr. HERON said that those who believed the disease to be contagious had asserted that it always spread from those who had open sores, which had never been the case with the patient under discussion. He doubted if there was at present any evidence of medical treatment being of material value in the cure of leprosy.

Dr. HERSCHELL showed a woman aged seventy with a Pulsatile Tumour of the Neck, which she had noticed for three years. He believed it to be a fusiform dilatation of the carotid, and the only symptoms attributable to it were occasional fainting fits.—The PRESIDENT remarked that these cases were not uncommon and did not usually lead to mischief.

Mr. SHEILD showed a Cystic Tumour of the Auricle in a man aged forty-four, which had existed since 1864. He believed it to be of sebaceous origin.

Mr. SHEILD likewise showed a youth aged seventeen the subject of Ulceration at the Edges of the Ears, which had come on in the summer. There were no signs of Raynaud's disease.—The PRESIDENT said he had published a series of such cases, which he called "sun blain," and which were like "chilblain lupus." The ears were often so eroded that they looked as if they had been eaten away by rats.

## CLINICAL SOCIETY OF LONDON.

*Sequel to a Case of Tuberculous Peritonitis.—Hyperplastic Phlebitis.—Lumbar Nephrolithotomy.—Double Emphyema.*

AN ordinary meeting of this Society was held on Nov. 11th, the President, Sir Dyce Duckworth, being in the chair.

Mr. LAW FORD KNAGGS (Leeds) read a paper in which he described the appearances noted at an operation for Ventral Hernia five and a half years after laparotomy had been performed for tuberculous peritonitis. The case had been recorded in the Clinical Society's Transactions (vol. xxi.), and at the first operation the intestines, mesentery and parietal peritoneum were covered with myriads of pale pink, gelatinous-looking tubercles, as large as hemp seeds, thickly and universally distributed. The patient, who had grown into a strong and healthy young woman, reappeared in October, 1891, with an irreducible omental hernia at the site of the abdominal incision. This was successfully operated upon in November. The sac and contained omentum presented nothing unusual in appearance. The omentum that prolapsed through the hernial aperture during the operation was quite healthy. The parietal peritoneum inside the ring felt quite smooth to the finger, and a coil of small intestine, which could be well seen through the opening, was glossy and looked like perfectly healthy bowel. No signs of tubercle nor any evidence of the tuberculous condition that had existed five and a half years ago were detected. These observations, though necessarily slight and imperfect, were recorded because they threw some light upon what became of peritoneal tubercles when the patient got well.—Mr. HOWARD MARSH gave some details concerning a case in which laparotomy was performed for tuberculous disease of the peritonium. Ascites was present, and distended veins coursed over the surface. A few days after the operation the patient improved, and she was discharged cured in two months, the abdomen then being normal in appearance. He referred to the peculiar behaviour of peritoneal tubercles, and suggested that the subject was worthy of being specially discussed. In some cases the tuberculous nodules undoubtedly necrosed and disappeared.—Mr. BRUCE CLARKE referred to a case in which he had performed laparotomy for peritoneal tubercles, and the sac was irrigated, the result being complete recovery. Eighteen months later ovariectomy was per-

formed on the same patient, and no trace of tubercle could then be discovered. In another case, in which laparotomy was urgently indicated, it was declined and the patient recovered.—Mr. LANGTON remarked that it was by no means rare to find omentum protruding into a ventral hernia; he had met with an average of about four or five cases a year. It usually presented itself in the lower part of the incision. He referred to a case in which there was protrusion of omentum and intestine through a part of the wall not opposite to the line of suture.—Dr. GLOVER mentioned the case of a boy between eight and ten years of age who presented all the appearances and symptoms of peritoneal tubercles. Dr. Goodhart, in consultation, confirmed the diagnosis, and he discovered what were regarded as hard masses of tubercle by rectal examination. The lad got quite well, however, without operative interference.—Dr. GOODHART said that the peculiarity in the case under discussion was that the peritoneum recovered its perfectly normal appearance. The existence of spontaneous cure of tuberculous peritonitis was undoubted from a medical point of view. He related a case which he had examined post mortem for Dr. Habershon of a lady who some years before had been under the care of Dr. Stewart for tuberculous peritonitis. At the necropsy but little trace of tubercle could be found, but there were a few scattered caseating masses with numerous adhesions.—Dr. BARLOW remarked that the cases which seemed to do best were those in which a moderate amount of fluid was present. The cases with miliary deposit of tubercle in the peritoneum often recovered with or without operation. The cases not to be attacked surgically were those in which there were caseating masses in the omentum with dry peritonitis and extensive adhesions. Surgical treatment of these had been hitherto most unsuccessful.—Dr. HADDEN stated the result of a post-mortem examination in the case of a child whose abdomen had been opened two months previously and miliary tubercle observed to be present. No trace of this condition was found at the necropsy, and the glands were not enlarged or caseous.—The PRESIDENT remarked that in no part of the body did tuberculous lesions fare better than in the peritoneum, and he concurred in the opinion that those cases were the most favourable in which some ascites was present.—Mr. KNAGGS, in reply, said that bacilli had not been searched for. The object of his paper was to demonstrate the fact that disappearance of tuberculous deposit might occur and might leave the peritoneum normal in appearance.

Dr. HANDFORD described the case of a man aged thirty, with intermittent albuminuria, cardiac hypertrophy, high vascular tension, general dilatation of the superficial venules, obliterative endarteritis and phlebitis, the latter nearly occluding the saphena and other large veins. The patient was a spare dark man, showing signs of degeneration in his greyish hair and an arcus senilis in each eye. He suffered much from migraine. He had been failing for two years and lost a stone in weight. He denied having had gonorrhœa or syphilis, and there were no signs of the latter. He complained of pain in the left loin. The apex beat of the heart was heaving and the first sound was distinctly reduplicated. The radials were thickened and the tension was very high. Both internal saphena veins stood out very prominently and to the touch resembled tendons. There were no adhesions, and the veins could be rolled quite freely under the finger, but could not be flattened. In the horizontal position it was not possible to detect any flow of blood along the lower third of the main trunk on either side; but with the patient standing there appeared to be a slight movement of blood in them. A similar condition affected the external saphena veins, most of the branches of the internal saphenas, the radial, ulnar and cephalic veins. There was no history of preceding thrombosis or of œdema. Under the use of iodide of potassium and mercury the vascular tension fell to normal and the induration of the veins greatly diminished, but did not disappear, while the circulation through them became much more free. The albuminuria persisted in the intermittent form.—Dr. HADDEN mentioned the case of a man between fifty and sixty years of age who for years had been liable to recurrent attacks of inflammation, blocking the veins and arteries much as had happened in the case described by Dr. Handford. He referred to cases of obliterative arteritis reported by Mr. Gould and himself, in which there was no syphilis or renal trouble.—Dr. MORISON referred to a case in which there was a similar condition of the veins of the limbs, and in which, after suspected obliteration of the external iliac veins, a large surface collateral circulation developed. Removal of an elongated uvula for expectoration of blood was

followed by much trouble in stopping the bleeding; there was slight albuminuria and the temperature was abnormally low.—Dr. HANDFORD, in reply, said that the case was a typical example of arterio-capillary sclerosis which had extended to the larger vessels.

Mr. DAY read notes of a successful case of Lumbar Nephrolithotomy in a woman aged thirty-two, from whom a calculus weighing 1331 grains was removed. The history was that of about fifteen years' growth, with, in the later stages, pyonephrosis. The principal feature of the case was the division of the operation into two stages, in the first of which free vent was given to the pus and a large branch of the stone removed, and a fortnight afterwards the wound was extended and the kidney thoroughly cleared of stone. She made a good recovery and was in perfect health, but a sinus remained in the loin. Reference was made to several similar cases, though none of such a large size, with successful results.—Mr. HOWARD MARSH was in agreement with Mr. Day that it was best to remove the stone without removing the kidney, which might have been difficult through the lumbar incision.—Mr. DAY, in reply, said that recently, when removing a large kidney for tumour, he did so through a lumbar incision, continuing the latter forward to the linea semilunaris. The procedure was carried out without difficulty, and the patient did well.

Dr. WALTER CARR related a case of Double Empyema treated by drainage. The patient was a boy aged seven years and three-quarters, who was admitted to the Victoria Hospital for Children, Chelsea, on Jan. 1st, 1892, suffering from double empyema. The illness had commenced suddenly on Dec. 13th, 1891, with symptoms pointing to pneumonia. On admission the boy had urgent dyspnoea; respiration 72, very shallow; pulse 176, very small; temperature 102°. Dulness and distant bronchial breathing over the lower part of both lungs. Pus was found on both sides with the exploring syringe. Eight ounces and a half of pus was withdrawn from the right side by the aspirator, and as it would not escape readily from the left side, on the following morning a piece of the left eighth rib was excised by Mr. Naish, the house surgeon, under local anaesthesia induced by cocaine, and seven ounces of pus escaped. A large drainage-tube was inserted. The boy stood the operation well. After this the child's condition improved somewhat, but the temperature oscillated between 99° and 101°, the pulse and respiration both remained very high, and diarrhoea was troublesome. Four days after the first operation a portion of the right sixth rib was removed under cocaine as before, eight ounces of pus evacuated, and a large tube inserted; there was much more collapse than after the first operation. During the next three or four weeks the temperature was 98° and 103°, owing in part to the development of a double purulent otorrhoea, and partly also perhaps to the original pneumonia not having entirely subsided. However, the child slowly improved, the temperature became normal by the end of January, the diarrhoea ceased and the lungs expanded. The left tube was finally removed on March 10th, but for some weeks previously it had only drained a narrow sinus. The right lung took longer to expand, and the tube was only left out on April 5th. In March, during convalescence, the patient had a curious and unexplained attack of hæmoglobinuria, lasting about a week; the urine was very dark, gave the reaction for blood pigment, and showed a copious dark granular deposit, with about one-third albumen on boiling. Under the microscope a few red discs and granular casts were seen. No history was obtained of any similar previous attack, and there had been no exposure to chill. The boy was sent to Margate on April 13th, the left lung being completely expanded, and the right also, except a small portion at the base. The heart was not displaced. Eventually both lungs expanded completely, and the boy got perfectly well in every respect. Reference was made to other recorded cases, and especially to a paper on a similar case read by Dr. Sidney Coupland and Mr. Pearce Gould before the Society in December, 1890. The present case entirely confirmed the conclusions at which they had arrived, particularly as to the advisability and safety of treating these cases by free drainage, provided that if possible an interval of a few days were given between the operations on the two sides, in order to avoid the danger of excessive shock.—Mr. L. DUNN said that some years since he operated on a case of double empyema with seven days' interval with a successful result, and he referred to a similarly fortunate case in the practice of a friend.

## PATHOLOGICAL SOCIETY OF LONDON.

*Special General Meeting.—Epitheliomata on the Legs of a Fowl.—Genito-urinary Organs of a Pseudo-hermaphrodite.*

A SPECIAL GENERAL MEETING of this Society was held on Nov. 15th, Mr. H. T. Butlin, Vice-President, in the chair.—The meeting proceeded to the consideration of certain alterations in the laws of the Society proposed by the Council. After much discussion it was agreed that such members as resided within ten miles of Charing-cross should be considered as resident members, that every person elected a non-resident member should pay a life subscription of three guineas, and that the scale of composition fees for resident members should be readjusted.

Mr. J. JACKSON CLARKE showed the Feet of a Fowl with numerous ulcerated tumours of epithelial origin. The structure of the growths was difficult to make out on account of imperfect preservation, but it strengthened the suspicion awakened by the naked-eye appearances that the condition was allied to that described by Darier in man as general follicular psorospermosis.

Mr. J. JACKSON CLARKE showed for Mr. Herbert Page the Genito-urinary Organs of a female pseudo-hermaphrodite who died aged seven. There was a perforate penis, besides a blind recess at the normal site of the female urethra. The bladder had on each side a large sacculus into which the ureter opened. Mr. Clarke considered that the specimen showed that the greater part of the female urethra was formed from a part of the urogenital sinus which was not utilised in the formation of the male urethra.

The following card specimens were shown:—

Dr. E. C. PERRY: Colloid Carcinoma of Stomach.

Dr. H. D. ROLLESTON: (1) Epithelioma of Pharynx; secondary growths in bone. (2) Osteo-arthritis of Joint between First and Second Pieces of Sternum.

Recent Specimens:—

Dr. H. P. HAWKINS: Fat Necrosis from a case of Peritonitis.

Dr. A. F. VOELCKER: Malignant Tumour of Jejunum.

## OBSTETRICAL SOCIETY OF LONDON.

*Adjourned Discussion on Abdominal Section in Pelvic Peritonitis.*

THE adjourned discussion on Dr. Cullingworth's paper took place on the 2nd inst., Dr. J. Watt Black, President, in the chair.

Dr. GERVIS began by expressing the opinion that if the title of the paper were carefully considered the objections to it stated by some of the speakers at the last meeting would be much lessened, for operative measures were not proposed in all cases of pelvic peritonitis, but only in certain cases, and these would appear from the third of the series of propositions Dr. Cullingworth had drafted to be cases of recurrent peritonitis associated with "distinct swellings in the posterior quarter of the pelvis," and with this proposition he (Dr. Gervis) could not hesitate to agree. It was true that many of these cases were not fatal, but in many there was more than one element of risk, and in all there was much positive suffering and more or less permanent invalidism and disablement, for the relief of which ordinary medical measures were of little avail. On the general question of abdominal section in cases of hæmatocele, he thought it was rarely called for apart from the occurrence of suppuration. He was disposed to agree with Dr. Williams' remark with reference to operation in cases of salpingitis associated with tubercle. As to some of the occasional sequelæ of the operation, he thought that they were hardly of sufficient importance to outweigh the great gain attained by the procedure in question.

Mr. MAYO ROBSON (Leeds) preferred to discuss the subject of the paper as a general surgeon on general principles, feeling sure that it was seldom necessary to depart widely from such in treating these cases of localized peritonitis. If we have an abscess in the neighbourhood of the cæcum we do not hesitate to open and drain it, lest it burst into the general peritoneal cavity, and why should there be any argument as to the propriety of dealing with a pelvic abscess on similar principles? If a patient suffer from recurrent attacks of perityphlitis, so-called, and the disease depend on recur-

ring inflammation of the appendix vermiformis, we do not hesitate to remove the appendix. Some months ago he saw a young patient suffering from frequently recurring attacks of pain over the pylorus, associated with emaciation and not yielding to medical treatment; he diagnosed adhesions over the pylorus following gastric ulcer, opened the abdomen, separated the adhesions, and the patient is now robust and well. Why should it be thought unwise in recurrent pelvic peritonitis to separate adhesions as a rule far more extensive than in the case named? Where life is endangered surely no one can dispute that an operation which gives a good chance of cure and which need have a mortality of not more than 5 to 7 per cent. is unwise. He would prefer not to operate in cases of hæmatocele unless suppuration were indicated. He handed round a printed record of all his hospital and private cases (sixty-five in number), giving details as far as possible on Dr. Cullingworth's lines. There were two deaths referable to the operation (3 per cent.). He had several times opened and drained pelvic abscesses through the peritoneum, but he agreed with Dr. Cullingworth that such a procedure is not so satisfactory as removing the abscess sac, which is frequently a dilated tube. He disagreed with those speakers who argued that such abscesses were best treated from the vagina. He agreed with all Dr. Cullingworth's conclusions in the main, although probably differing in the details. He disagreed with those who argue that this class of cases very seldom ends fatally if left to nature, as he had known a number do so. Healthy organs were never removed, and if the disease was limited to one side the other appendage was not removed. He now never removed the ovaries for the cure of nervous symptoms.

Mr. KNOWSLEY THORNTON said he had studied Dr. Cullingworth's paper and tables carefully, with the result that he was deterred from sanctioning or performing these operations. First, there was the terrible mortality of 18 per cent., a mortality which could not in any way be justified by the mortality of the diseases themselves when left alone. There was the extraordinary fact that nearly half the cases were incomplete. Six had sinuses and four herniæ. The latter, in spite of what Dr. Gervis had said, were very real miseries, and often far greater sources of weakness and pain than the diseases which the operations were undertaken to cure. He had taken the trouble to go over his own case-books, and from that he had in the whole of his practice, extending over nearly twenty years, operated eighty-seven times in this class of case with six deaths (about 7 per cent.), and it must be remembered that all his early work was done in times far different from the present. In the whole series he had only three incomplete cases, and his mortality would have been only half what it was if he had not resolutely completed three other cases, recognising the fact that these operations, if only partial, would be far better for the patient's sake if they had never been attempted. He believed that if only urgent and proper cases were operated upon the mortality would never fall much below 6 per cent. Were the diseases for which the operations were undertaken as fatal even as this? He doubted it. He had never seen a fatal case himself. Dr. J. Williams had seen two. Surely this was not much for their united experience. Then, again, how few fatal cases were ever published? He would also greatly discount recurrent peritonitis; much was called local peritonitis which had no claim to be so named. He doubted the wisdom or justifiability of surgical interference in hæmatocele unless it had suppured, and he thought many collections of pus in the pelvis were much better opened per vaginam, where drainage was not against gravity. He criticised Dr. Cullingworth's concluding propositions, and asked on what grounds he said that salpingitis was a painless affection. The double or complete operation he was inclined to think more satisfactory in the long run in most cases. He did not wish to pose as the opponent of all operative interference in these cases. Some operations were, however, failures in point of cure; others, and the majority, were, however, very successful. He would not, however, like it to go forth from the Obstetrical Society that Dr. Cullingworth's propositions were commended by all.

Mr. JOHN W. TAYLOR (Birmingham) heartily agreed with the general tenour of every one of Dr. Cullingworth's propositions. Whether the classification of the cases on which they are founded was a wise one or not, he was glad to recognise that all the cases under discussion were unmistakably inflammatory, and all resulted in decided peritonitis. There was no question in this controversy of the removal of cirrhotic or cystic ovaries, and the discussion was at least

narrowed down to the question of removal when distinct peritonitic symptoms were or had been present; and on this question he was largely in agreement with Dr. Cullingworth. The only fault he had to find (if he might presume to say so) was that the propositions dealt with too wide a subject. In his own experience he found that gonorrhœal inflammatory diseases of the appendages is a special disease due to a specific contagion, possessing many features in common with the inflammatory affections of the appendages, but quite distinct from them in its course and results. Virginity by no means precludes the possibility of this disease. Not a few of the cases of purulent vulvitis and vaginitis met with in early childhood are found to be due to accidental infection; and such cases may result in typical gonorrhœal pyo-salpinx years afterwards, when the primary disease has been lost sight of. If the disease then be a distinct and special one, equally distinct and definite should be the rules governing its treatment. It is to this disease (because it is a contagious one and the uterus as a centre of contagion is always left behind) that the advice of complete removal of the appendages on both sides specially applies. If operation be required at all in this disease it needs to be thorough. All inflammatory affections of the appendages are not gonorrhœal. The naked eye characters may be almost identical. There may be extensive adhesions, abscess of ovary, or a limited purulent peritonitis around the appendages. Then he believed the nature of the case was, and its treatment should be, radically different. Here, if the inflammatory affection were limited to one side of the pelvis, there would be no need to remove the appendages of the opposite side. His own practice on diagnosing a case of acute or subacute tubal disease, unless there be special urgency, is to send the patient to bed for a fortnight or a month, giving bromides. If at the end of this time there be no improvement an operation is usually necessary. The circumstances of the patient are sometimes of first importance.

Dr. HEXWOOD SMITH said Mr. Thornton had referred to ventral hernia as of frequent occurrence and grave import, but such an accident did not often happen and was not to be weighed against the chronic invalidism and pain that the operation was intended to obviate; and as to calling it an operation of "expediency," it was in most cases an operation of necessity. He entirely agreed with Dr. Cullingworth's sixth proposition that "it is safer to attack cases of pelvic suppuration from above than from below." Some of those who had attended the Congress at Brussels had seen M. Segond do Pean's operation on a case of ovarian abscess. He first of all removed the uterus morcellement and then proceeded to puncture the abscess—a method they had considered wholly unjustifiable. M. Segond contended that the removal of the uterus caused the uterine appendages to dwindle; but they would require a large number of necropsies, after a long interval of time, before they would be in a position to prove such a statement. Then, again, with regard to Dr. Champneys' statement as to drainage per vaginam being more favourable owing to gravity, they must remember that when a woman was lying supine the drainage-tube was not wholly in a position downwards. Mr. Thornton had said that few patients died in these cases if left alone. He would like to know on what grounds Mr. Thornton made that most extraordinary statement.

Dr. GRIFFITH wished to draw attention to the frequency with which some speakers referred to "gonorrhœal" salpingitis, as if this were a cause easily ascertained, his experience being that it was neither easy nor common to obtain satisfactory evidence of the gonorrhœal origin of pelvic inflammations, and that these most frequently occurred after abortion, labour, and various methods of intra-uterine treatment, especially after the use of intra-uterine pessaries and tents, in all of which the probable cause was a septic one.

Mr. SKENE KEITH drew attention to the length of time which often elapsed before recovery was complete after these operations. Patients were frequently under the impression that after operation they would be well in a few weeks. If, however, they were made to understand that it might be months before their return to health would be perfect, they would be more willing to try in the first place what rest would do. At the end of six months comparatively few of these operation cases were quite well, while at the end of two years the results would be found to be very satisfactory.

Dr. CULLINGWORTH, in reply, said the object of the paper was to show that, underlying many cases of pelvic peritonitis, there was definite disease which could only be

properly dealt with by surgical means. The words "certain cases" in the title were intended to limit the discussion to those cases in which there was a definite swelling in one or both sides of the pelvis. It was in those only that he advocated and practised abdominal section. It was one of the surprises that a series of cases like this brought out, that the source of the inflammation in many cases of recurrent pelvic peritonitis is suppurative of an unsuspected ovarian cyst. Such cases have hitherto been diagnosed and classified under the vague heading of pelvic abscess. Amongst the fifty cases tabulated there were no fewer than nineteen in which new growths were present. Of course, as experience was gained one could often predict, with an approach to certainty, that in the midst of a given pelvic swelling, such and such a definite mass of disease would be found. He would refer any of the Fellows who were interested in this question to a series of six cases of abdominal section for peritonitis due to suppurative of previously unsuspected cysts of the ovary, which happened to be all under treatment at the same time, and which had been reported in THE LANCET for the first two weeks of the current year. There would be found in that series two remarkable cases in which the patient was suddenly seized with symptoms of acute pelvic peritonitis. It was determined to open the abdomen in order to avert, if possible, a fatal termination, which otherwise seemed inevitable. Neither of the patients knew anything of any tumour, yet on opening the abdomen each was found to have not one, but two, large suppurating ovarian cysts. In connexion with the question of mortality it should be stated that of the fifty patients fifteen were so ill at the time of operation that it was evident to all who saw them that a fatal issue was rapidly approaching. Of these fifteen four died; of the other five patients who died four were totally incapacitated for work of any kind, and the fifth, though able to do light work occasionally, was laid aside by an attack of pelvic inflammation every few days. It was not the case that his later and more successful operations were undertaken for less serious conditions, or were in any degree less complicated or less difficult than his earlier ones. Dr. Williams had referred to a paper by Schmalzfuss as containing the only reliable account with which he was acquainted of the proportion of cases in which pain persisted after these operations. He held in his hand a copy of Schmalzfuss's paper. The title of it was "Castration for Neuroses." The object of Hegar's operations there recorded had nothing in common with the object of the operations as described in the paper. When an operation was undertaken for the relief of pain, irrespective of any obvious lesion, the operator must be prepared for disappointment. On the other hand, where there was obvious disease extirpation of the source of inflammation invariably cured the patient, provided she survived the operation. The occurrence of a little subsequent pain does not constitute a failure. Dr. Williams had noted that two cases required a second operation. In both cases the fault lay not with the operation, but with the operator. The cases which Mr. Doran held up as the few examples on the list of really good surgery were just those of which he (Dr. Cullingworth) was not particularly proud. They were cases of simple evacuation and drainage of suppurating cavities where the source of suppurative was not removed. Mr. Doran expressed surprise that in Case 39, where there was a communication between the suppurating cyst and the rectum, separation and removal of the cyst were accomplished without the occurrence of a faecal fistula. If Mr. Doran would refer to Case 25 he would find the same good result followed a similarly bold procedure there, and he would also note, on referring to Case 48, that a communication with the vagina gave no further trouble after the removal of the adherent cyst. The necessity of invoking the aid of gravitation in order to obtain efficient drainage was a notion that had long since been exploded. Experience had abundantly proved that the force of intra-abdominal pressure was amply sufficient to drive all the fluid out of the abdomen as fast as it accumulated, if only a means of exit were provided. Then Dr. Champneys said that a number of these cases were ordinary cases of pelvic abscess. If by that he meant abscesses in the connective tissue he was mistaken; there was no such case in the list. If he meant pelvic suppurative, of whatever kind, of course it was open to Dr. Champneys to adopt the vague name of pelvic abscess if he preferred it. Most of Dr. Playfair's criticisms were based on a classified list of the various conditions found when the abdomen was opened. When Dr. Playfair came to read the full details he would be the

first to acknowledge that in almost every case there were good grounds for operating. He was glad to hear the remarks of Mr. Mayo Robson, for he had looked at the question from the point of view of a general surgeon, and had supported the contention of the paper as being in accord with ordinary surgical principles. Turning to the speech of Mr. J. W. Taylor, he was under the impression as he listened that he was telling the story of Case 14, so similar was that story to the one Mr. Taylor related.

The following specimens were shown:—Dr. Cullingworth, Pyo-salpinx; Dr. Aust Laurence, Ruptured Tubal Gestation; Dr. Leith Napier, Microscopic Double Oophorectomy; Dr. Galabin, Dermoid Cyst.

## OPHTHALMOLOGICAL SOCIETY.

*Conjunctivitis set up by Flies.—Hyperplastic Subconjunctivitis.—Intra-ocular Injection of Antiseptic Solutions.—Intra-ocular Absorption of Iodoform.*

An ordinary meeting of this Society was held on Nov. 10th, Mr. Henry Power, President, in the chair.

Dr. BERRY (Edinburgh) read brief notes of two cases of Conjunctivitis set up by Flies: 1. An old man in whom severe inflammation of the conjunctiva, accompanied by extensive corneal ulceration, came on within twenty-four hours of his having been stung in the eye by a fly which had apparently risen from a dunghill. In addition to the local disease, there was marked general prostration, and the patient continued feeble for months afterwards. The whole course of the case seemed to indicate that the poison carried by the fly had produced the local inflammation and also some general poisoning. 2. A man aged twenty, in whom acute swelling of the right eyelid and conjunctiva came on two days after a fly had got into his eye. The inflammation soon became unmistakably diphtherial and led to complete destruction of the cornea and very serious general symptoms. It is not certain that the diphtherial poison was introduced by the fly, yet the rapidity with which the symptoms followed the accident was thought to be at least suggestive.

Dr. BERRY described shortly a group of cases under the title of Hyperplastic Subconjunctivitis. In three cases there was to be felt a hard swelling occupying the tissues below the conjunctival fold of the lower lid. This was in some associated with the irritation and discomfort common to chronic conjunctivitis. It seemed probable, from clinical experience, that the subconjunctival infiltration originated at a time when the conjunctiva was inflamed, and, for some reason, was not altogether absorbed afterwards. But an independent hyperplasia might arise in this more or less organised deposit, causing it to swell to a greater or less extent, and to be accompanied by symptoms of irritation. In fact, in pronounced cases, the conjunctivitis was very slight, although there might be chemosis and swelling of the pre-auricular glands.

Dr. BERRY also gave an account of some of the facts elicited during experiments on Intra-ocular Injection of Antiseptic Solutions in Rabbits, undertaken by his assistant, Dr. Chassaud, with the object of ascertaining the effect of different solutions injected into the vitreous. In some cases, before injecting the antiseptic, the vitreous was inoculated with fresh septic pus. The only substance injected after the inoculation which seemed capable of preventing purulent hyalitis was chlorine water. At the same time this injection was much better tolerated by the retina and vitreous than any other strong antiseptic solution. In two cases of purulent hyalitis in men chlorine water injected into the vitreous led to immediate improvement, and the eyes were saved although sight had been lost before the treatment was adopted.

Dr. BERRY likewise recorded a case of Intra-ocular Absorption of Iodoform in which, after extraction of senile cataract, he had applied iodoform freely to the wound. On examining the eye next day the anterior chamber was found to be filled to the extent of apparently two-fifths of its capacity with iodoform and the rest of the aqueous to be turbid. At some parts caked portions of iodoform could be seen plastered as it were upon the iris. The iodoform was gradually absorbed without causing any great irritation. In a fortnight no trace of it could be seen, and the result of the operation was good.

Mr. CATGER mentioned a case seen by himself at Moorfields Hospital, which, he considered, was analogous to the cases described in Dr. Berry's first communication. The patient, a stableman, received a blow in the eye from a worm derived

from the intestine of a horse. Very marked chemosis of the conjunctiva followed, but gradually subsided. Mr. Caiger thought the condition might have been due to the introduction of some poisonous material contained in the excreta of the horse.—Mr. LAWFORD expressed the opinion that the condition described by Dr. Berry was recognised as hyperplastic conjunctivitis, and asked if he had met with it more frequently in old or young patients, or in connexion with any particular dyscrasia, and what plan of treatment he had found most suitable.—Dr. HILL GRIFFITH (Manchester) suggested trichloride of iodine as being a very suitable substance for intra-ocular injection. It readily broke up into chlorine and iodine and was said to be non-irritating.—Mr. HARTRIDGE stated that cases not infrequently occurred in which the injection of germicidal solutions into the eye was indicated. If it could be shown that such a measure might be safely adopted, many eyes which now had to be removed might be rescued.—Mr. DOYNE mentioned a case in which he had injected boric acid solution into the anterior chamber, washing out on two occasions complete casts of purulent matter. The eye gradually recovered.—Dr. BERRY, in reply, said that hyperplastic subconjunctivitis usually occurred in adults, and was very chronic. He had not found its course materially affected by treatment. Improvement in one case had followed the exhibition of salicin administered under the impression that the disease was of a rheumatic nature. With regard to intra-ocular injections, Dr. Berry thought it probable that a distinct advance in ocular therapeutics might be made. He believed that a comparison could scarcely be made between injections into the anterior chamber and into the vitreous. The anterior chamber he had himself frequently irrigated with solutions of perchloride of mercury, but with the usual opacity of the cornea as a consequence, though this was of less intensity in children than in adults.

The following card specimens were shown:—

Mr. STANFORD MORTON: Cyst of Iris.

Mr. JOHN GRIFFITH: Rupture of Sclera without marked Defect of Sight.

Mr. HARTRIDGE: (1) Multiple Ruptures of Choroid; (2) Case of Aniridia.

Mr. WORK DODD: Case of Aniridia.

## OTHER METROPOLITAN MEDICAL SOCIETIES.

HARVEIAN SOCIETY OF LONDON.—A meeting of this Society was held on Oct. 20th, Dr. W. B. Cheadle, President, in the chair.—Mr. J. JACKSON CLARKE showed specimens from the St. Mary's Hospital collection illustrating Purulent Peritonitis from menstrual ovarian hæmorrhage, from puerperal septic infection, and from perforation of the vermiform appendix. The latter specimen was interesting from a curious exaggeration of the normal sacculatation of the colon due to long-standing constipation. Mr. Clarke also showed specimens illustrating rupture in tubal pregnancy and remarked on the certainty with which chorionic villi could be recognised in sections and in teased clot.—Mr. LAWSON TAIT read a paper on Peritonitis. At the outset he stated that the time at his disposal would only allow of his dealing with traumatic peritonitis or that following upon operations on the abdominal cavity. With regard to the pathology of inflammation Mr. Lawson Tait confessed that he was "quite at sea." In peritonitis the germ theory was useless. The cause of death in peritonitis was the disturbance of the ebb and flow of the serum stream of the peritoneum and the disturbance of the function of the liver. As to treatment, the great thing to do was to prevent peritonitis; as a rule, one had no chance of curing it. Years ago he gave up the use of opium on the grounds that it masks the patient's condition and diminishes the vermicular action of the bowels. He had banished ice from the treatment of thirst consequent upon opening the abdomen; the best thing to use was warm water. Of late years he had even diminished the amount of fluid to the vanishing point. If sickness occurred on the third or fourth day all food, including water, was stopped for twelve hours. Should the patient be unable to pass flatus for twenty-four hours after the operation, the nurse must, on her own responsibility, proceed to administer a turpentine enema. If this did not succeed, a mild saline purgative was given.

Mr. ALBAN DORAN agreed with Mr. Tait in regard to the question of keeping the patient's stomach empty for some time after operation. On the other hand, nutrient enemata should be given, except in young or very robust patients. Mr. J. JACKSON CLARKE protested against the pathological opinions Mr. Tait had expressed. Mr. Tait had said that in several conditions he had tried for the first time new operative measures. Mr. MALCOLM said that Mr. Tait had suggested an ebb and flow in the peritoneal cavity connected with the excessive secretion of bile in peritonitis. Mr. Malcolm maintained that the symptoms described occur without the existence of any peritonitis at all. He drew attention to the fact that a traumatic inflammation reaches its culminating point in about three days. Mr. Malcolm argued that it is an obstruction or a paralysis of the bowels that causes the distension and other symptoms, and that any peritonitis found after death was secondary to this complication. Dr. HEYWOOD SMITH said the profession owed a debt of gratitude to Mr. Lawson Tait for having done so much to promote the administration of purgatives in the preliminary stage of peritonitis. Dr. BOXALL would speak to one only of the many debatable points raised in Mr. Tait's interesting paper. His experience at the General Lying-in Hospital as regards scarlet fever was strictly analogous to that of Mr. Tait in operation cases. For the last thirteen years the service of the hospital had been conducted upon Listerian principles.

HUNTERIAN SOCIETY.—A meeting was held on Wednesday, Nov. 9th (clinical evening), Mr. R. G. Tatham, Vice-President, in the chair.—Dr. G. E. HERMAN showed Champelier de Ribes' Bag for Dilating the Cervix Uteri, lately invented for this purpose.—Mr. J. S. E. COTMAN brought forward a man aged about thirty-five, who had a carbuncle behind his left knee last year, and after this healed ulceration commenced and gradually spread, healing in the centre, with scolloped undermined edges. Mr. R. G. TATHAM and Mr. J. POLAND considered it syphilitic in nature.—Dr. T. MARSHALL showed a man of about forty-five years of age who had been troubled by perspiration on the right side of his face on excitement for about nine years since a severe attack of typhoid fever. Dr. HINGSTON FOX referred to cases of sweating of limited portions of the face in children of an unstable nervous disposition—e.g., of one side of the nose, and parts of one cheek and brow. He had shown a case of hyperidrosis of a limited area on one forearm in a hysterical girl. Mr. COTMAN had exhibited last year a case of sweating of one half of the face following parotid suppuration, in which he thought there had been some blending of the nerve fibres of the chorda tympani and auriculo-temporal nerves.—Dr. A. T. DAVIES exhibited a case of Graves' Disease in a woman aged forty-three years; the symptoms—palpitation, proptosis, goitre, tremor—were all well marked, and the interest lay in its long duration, twenty-three years. Mr. DENTON CARDEW had observed deaths from diabetes and from the exhausting diarrhoea which occurred in some severe cases. When cured, the thickening of the thyroid and the eye conditions were generally permanent. The pulse rate became much exaggerated on excitement.—Dr. GLOVER LYON showed a woman aged about thirty-five years, with extensive persistent hyperæmia and hypertrophy of the left shoulder and almost entire upper extremity. The skin was red, the colour disappearing on pressure, the bones and muscles enlarged (patient was not "left-handed," though this upper extremity was the stronger). The surface was warmer than on the other side, but often felt more chilly to the patient. The condition was congenital.—At a meeting on Oct. 26th, Mr. F. Gordon Brown, President, in the chair, a discussion on Phtthisis in Relation to Life Assurance was introduced by a paper by Dr. GLOVER LYON, based on an inquiry by himself and Mr. Manly, the actuary of the Mutual Life Office, into the mortality experience of that office. The statistics obtained were explained in some detail and compared with the returns of mortality from phtthisis by the Registrar-General, but it was admitted that the figures were not large enough to base conclusions upon. Dr. J. E. POLLOCK referred to the Brompton Hospital statistics, indicating that 38 per cent. of phtthisical patients showed the taint of heredity. Parental heredity was the great element, but it went back also to grandparents. Two things modified heredity, age and physical condition, and this was the more important element. We declined a man of delicate build, shallow-chested, shabby and flabby tissued and taking no exercise. Dr. SYMES THOMPSON believed that in cases of well-defined lung disease we could make a more

certain prognosis than in small manifestations of imperfect health. Statistics of his own office had shown that minor defects, such as leanness, stoutness, plethora and corpulence, were bad in their results. Dr. W. SEDGWICK SAUNDERS said his idea of the duty of a medical examiner was to select good lives, and not to attempt to pass all lives. He quite agreed as to the preponderating importance of personal physique.

THE ISLINGTON MEDICAL SOCIETY.—At a recent meeting of this Society Mr. C. B. LOCKWOOD read a paper on the Radical Cure of Hernia, with a selection of suitable cases and the results of the operation. He said no operation ought to be called a radical cure unless it enabled the patient to dispense with a truss. By open methods of operating and asepsis this could now be done in suitable cases. Asepsis was attained by scrupulous care in the preparation of the patient and of the materials used in the operation, and also by simple and correct operating. The operations for the cure of inguinal and femoral hernia were described. It was most important to avoid interference with the scrotum, and after obliteration of the sac, the inguinal canal in one case, and the femoral canal in the other, were secured with a series of buried silk sutures. These were deeply introduced with powerful blunt-pointed needles. The operation for the cure of femoral hernia was particularly favourable, and, as there was no spermatic cord to embarrass the operator, it was easier to accomplish than that for the cure of inguinal hernia. The operation of radical cure was called for after kelotomy; it prevented immediate recurrence of the hernia, subsequent relapse of the hernia, protrusion of the sac, sloughing of the sac, and suppuration in the sac. It was also expedient in irreducible hernia of small dimensions, especially in cases of femoral epiplocele; in cases in which a truss was inefficient in schoolboys, and lastly in those who were candidates for the army, navy, or other services. For the obtaining of good results a proper selection of cases was imperative. The extremes of life were unfavourable. Amongst unfavourable conditions were those in which the hernia had been neglected, leading to the formation of huge hernial apertures. Finally, the recognition of the fact that in many cases of acquired hernia the local condition was only part of the disease was of the highest importance. There is a class of cases in which the tissues are generally deteriorated, with prolapse of the mesentery, of the colons, transverse mesocolon and kidneys. The usual routine of an operation was described. The dressing was removed on the eighth or tenth day, the patient remained recumbent three weeks, took carriage exercise for another three, and did not ride or violently exert himself until three months after the operation.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A meeting of this Society was held on November 4th, Mr. F. Swinford Edwards, F.R.C.S., in the chair.—Mr. R. F. BENHAM showed a large Ovarian Cyst to which the vermiform appendix was adherent. In operating hæmorrhage from the appendix was so severe as to necessitate its ligation and removal.—Dr. CROMBIE exhibited the Heart from a case of Ulcerative Endocarditis, of which he read the notes. The patient was a young man and an athlete and the symptoms came on after a sprint. The temperature was never high, neither was pericardial friction audible at any time.—Dr. THUDICHUM read a paper on Gall-stones, their Origin, Nature and Treatment of the Diseases to which they give rise. The author referred to his previous researches by which he had proved that gall-stones were originally caused by a catarrh of the mucous epithelium and glands of the bile ducts. This led to the formation of casts of the ducts, and around them, after they had been shed, the gall-stone matter was deposited. During the catarrh bacteria entered the ducts from the duodenum and caused decomposition of the bile. Foreign bodies were rarely the cause of gall-stones. The difference between human bile and that derived from animals was next referred to. The statement that the bile contained lecithin was directly disproved. He next showed that the products of decomposition of ox bile and of human bile corresponded with the ingredients of their relative gall-stones. A rational medical treatment of gall-stones could only be based upon a right appreciation of the functions of the liver and bile. The steps of the operation of cholecystotomy were described, as also the method of crushing the calculi in the bladder or ducts; and where this was impossible, it was recommended to cut them out, closing the ducts by suture. In the treatment of colic he advocated the use of morphia

subcutaneously, of large quantities of very dilute lemonade, and of chloroform anaesthesia when collapse threatened. The paper was illustrated by drawings and specimens and was followed by a discussion.—Dr. HENRY SUTHERLAND read a paper on the Prevention of Suicide in the Insane, a full report of which will appear in our columns. In the discussion which followed, in which the President, Dr. Alexander, Mr. Atkinson and Mr. Lloyd took part, the treatment in private of cases on the borderland of insanity, where there was a suicidal tendency, was dealt with. In his reply, Dr. Sutherland advocated the most careful and ample supervision, and where it was feasible (in non-certifiable cases) their admission as voluntary patients into asylums.

## Reviews and Notices of Books.

*Elements of Human Physiology.* By ERNEST H. STARLING, M.D.Lond., Joint Lecturer on Physiology at Guy's Hospital. Pages 464 with 94 woodcuts. London: J. & A. Churchill. 1892.

IN a work of this kind it is not so much the fulness and completeness of the exposition given that have to be considered, but rather the clearness with which the facts are presented to the student and the judgment with which those facts are selected. It is manifest that it is impossible to compress into the compass of less than 500 small pages the whole of the facts that are given in such a work, for example, as that of Landois, but, fortunately, it is only the principles which are of real importance and which the student should really be required to know. In these respects we think Dr. Starling has done his work well, and that the student who has mastered his book in his first or second year will have acquired enough information to enable him to take up with advantage one of the larger treatises. A long and well-written section is devoted to the vascular mechanism, in which the cause and the mode of estimating blood pressure are given together with the changes occurring in the heart at each contraction. The author remarks correctly that, in the normal condition when the pericardium is intact, the apex remains almost stationary during contraction; but he goes on to say "that this is owing to the fact that the pericardium is fixed externally, and the apex could not rise without causing a vacuum between it and the pericardium." Is not the stationary position of the apex due to the combination of the rising of the apex consequent upon contraction of the muscular fibres of the ventricles being compensated by the recoil of the whole heart consequent upon the elasticity of the great vessels which react to the sudden pressure exerted by the issuing blood?

The facts relating to the nervous system seem to us remarkably well written—as, for example, the section on the Inhibitory and Accelerator Nerves of the Heart, and that on the Vaso-motor Nerves—difficult points to give well. We notice, however, that an important diagram, Fig. 49, has no explanation of the lettering, either at the foot or in the text, and though an advanced student may recognise its meaning it would be entirely beyond the understanding of the beginner for whose instruction the work is designed.

Throughout the work Dr. Starling omits all reference to histology, which indeed it is impossible to enter upon in a work of this size with the least advantage to the student; nor is it desirable when there are already two such excellent manuals in the field as those of Klein and Schüfer. Reproduction is dismissed in less than a dozen pages. In a short appendix a description is supplied of some of the instruments more commonly used in physiological research. Finally there is a good index. The work as a whole fulfils its intended purpose, and can be safely used by the student as a reliable guide.

*A Short Manual of Inorganic Chemistry.* By A. DUPRÉ, Ph.D., F.R.S., F.C.S., &c., and H. WILSON HAKE, Ph.D., F.C.S., F.I.C. Second Edition, Revised. London: Charles Griffin and Co. (Limited). 1892.

THE first edition of this work was favourably noticed in THE LANCET some few years back, and we are pleased to see that our opinion of its merits has been confirmed by the fact of a demand having since arisen for the issue of a second edition. We heartily agree with the line of treatment which the authors have adopted. They believe—and they have had considerable teaching experience—that general principles should precede what may be termed “descriptive chemistry.” In other words, the student should be presented with the axioms of chemistry before he is brought to consider the practical portion of the science. He thus gains a sound acquaintance with theory, a knowledge of which may be acquired without any previous knowledge of chemistry whatever, which enables him to carry on his practical work more systematically and intelligently and with greater profit than before. The book is written in a clear and easy style, the facts are well arranged, and the few blemishes which we had occasion to point out in a previous notice have been effaced. In the article on Carbonic Oxide we should like to have seen some reference to the peculiar and interesting action of the gas upon nickel and iron recently described by Mond and others. All other facts, however, are in accordance with modern requirements; as examples, the preparation of fluorine and phosphorus trioxide may be cited. A feature of the work is the introduction of a short paragraph here and there to describe the physiological action of the more important elements and compounds. We know of no better text-book on the subject of inorganic chemistry than the one before us, and our hope is that the authors may at some future time be prompted to write a second volume in similar style, dealing with the organic section of the science, so that the whole range of the subject may be brought within the compass of one text-book—a want that is still felt by medical students and others.

*Napheys' Modern Therapeutics.* Vol. I. General Medicine and Diseases of Children. Ninth Edition, Revised and Enlarged. By ALLEN J. SMITH, M.D., and J. AUBREY DAVIS, M.D. London: Baillière, Tindall and Cox. 1892.

NAPHEYS' Therapeutics is a work of established reputation, which will be increased by the present handsome volume. The aim of the work was indicated in an earlier edition very clearly; it was intended to acquaint the reader with the exact treatment of each disease by living clinical teachers and careful practitioners of several countries. This information, as the book has grown, has been drawn from various sources: the periodical literature has been consulted, notes of clinical lectures have been referred to, and sometimes inquiries have been addressed to eminent physicians as to their most successful methods of treating various diseases, and their replies have been incorporated. Such a work needs constant revision. Space has to be found for much that is new by the removal of certain statements that have become antiquated, and hence considerable care must be expended in the process of pruning and lopping. The editors have—wisely, we think—returned to the plan of having only two volumes in place of four, reserving the first (which is before us) for General Medicine and Diseases of Children, while the second will comprise General Surgical Therapeutics and Gynecology. In the section upon General Medicine the physiological systems form the basis of arrangement, a separate chapter being devoted to Toxic Diseases. Very rarely a few brief clinical features are mentioned when they have an important bearing upon the etiology and treatment; as a rule, the excerpts comprise only an account of the treatment adopted and the method of its employment, each author being

given full credit and responsibility for his statements, and each subject being presented from many, even conflicting, points of view. The advantage of this is obvious. The work is one which may be consulted frequently and from which many valuable and suggestive hints may be obtained. For the busy practitioner the frequent introduction of formulæ will be found attractive, but, as the writers are culled from all parts, it may be well to bear in mind that many prescriptions are of American origin. Congratulations are due to the editors for the industry which has left but few recent statements of importance unnoticed, and to the publishers for the very attractive and serviceable way in which the volume has been produced.

*Temperament, Disease and Health.* By FRENCH ENSOR CHADWICK, Commander, U.S.N. New York and London: G. P. Putnam's Sons. 1892.

IN a little volume of eighty-five pages of rather large type, with an amplitude of margin that would delight Mr. Ruskin, Commander Chadwick essays the solution of the difficult and obscure problems arising out of the bearing of temperament and diathesis upon health and disease. He aims especially at putting forward two ideas—(1) that there is associated with temperament a specific rate of change (tissue change is apparently meant); (2) that the failure to keep up that rate—or, in other words, a failure of elimination to keep pace with accession of material—is the primal cause of organic disease. This may be true regarding such diseases as Bright's disease or rheumatism, but what has defective elimination to do with, say, bronchitis or meningitis, or tuberculosis or cancer? Vague generalisations are the greatest of snares. The author inclines to the view attributed to Dr. Paul Gibier, that there are three temperaments—viz., the alkaline, the acid and the neutral. Capacity for going a long time without food and of sleeping at will is, we are informed, “always associated with gray eyes or gray eyes shot with brown.” We do not know what are Commander Chadwick's scientific or medical qualifications for dealing with some of the most difficult questions to which the human mind can address itself, but, with all respect, we feel it difficult to take his book seriously. *No sutor*—; the proverb if old is generally applicable.

#### OUR LIBRARY TABLE.

*The Art of Feeding the Invalid.* A Series of Chapters on the Nature of certain Prevalent Diseases and Maladies, together with carefully selected Recipes for the Preparation of Food for Invalids. By a MEDICAL PRACTITIONER and a LADY PROFESSOR OF COOKERY. London: The Scientific Press, Limited. 1892.—Every practitioner is aware of the essential importance of a suitable and carefully selected dietary in certain cases of disease and of its importance in most of them, as well as of the difficulty of the task of adjusting the diet, in point of variety particularly, from day to day to the fastidious tastes and requirements of invalids in all cases. Miss Nightingale was quite right when she said that a number of sick people are annually starved in the midst of plenty from want of attention to the ways which alone make it possible for them to take food. There is no doubt, too, that patients in private houses fare worse in this respect than patients in hospitals on account of the greater knowledge and experience as well as supervision which are exercised in the latter—in cases of serious disease especially. This book deals with certain prevalent diseases in different chapters, lays down general statements as to their several natures and the principles to be followed in providing a daily diet, and refers to a series of recipes, so that a patient can be provided throughout his illness and convalescence with a system of diet suited to his condition. It points out “what to eat, drink and avoid,” a main object of the authors being to secure for the invalid

as great a variety of well-prepared food as possible. Its design is consequently excellent, and we think it has been successfully carried out, containing, as the work does, information not hitherto published in such a form. It is scarcely necessary to remark on the usefulness of information of this kind to matrons of institutions, sisters and nurses and heads of households, and to all concerned with the care of sick and delicate people.

*Golden Rules of Surgical Practice for the Use of Dressers.* By E. HURBY FENWICK, F.R.C.S. Eng., Surgeon to and Lecturer on Clinical Surgery at the London Hospital &c. Third Edition. Bristol: John Wright and Co. London: Simpkin, Marshall and Co. 1892.—The usefulness of this little book, originally designed for hospital dressers, is not likely to be confined to them. It is sound, short and serviceable; and these merits seem to have been recognised, for this is the third edition of "Golden Rules." It is a good shilling's worth.

*Elementary Physiography, being a Description of the Laws and Wonders of Nature.* By RICHARD A. GREGORY, Honours Medalist in Physiography, author of "Physical and Astronomical Geography" &c., Fellow of the Royal Astronomical Society &c. London: Joseph Hughes and Co. 1892.—We have been much pleased with this book, which is largely illustrated, many of the illustrations being original. The information is well put together and lucidly rendered, and we have no hesitation in recommending it as a very good one of its kind.

*Dental Anatomy and Physiology.* By JAMES F. RYMER, M.R.C.S., L.D.S. Eng. London: C. Ash and Sons. 1892.—This little work belongs to that numerous class of note-books designed for students preparing for examinations, and whatever their real value there must be a demand for them, as so many, as in this case, reach a second edition. It is practically a digest of Tomes' Manual in Dental Anatomy and very little matter from other sources is added. It would doubtless have been of greater use had it been fuller, and this defect the author himself has probably felt since he has interleaved it so that the student may add his own notes. We think it a mistake to have omitted a description of the development of the jaws, which would have added only a few pages to this small note-book.

"*The Best Thing to do*": *First Aid in Simple Ailments and Accidents.* By C. T. S. THOMPSON. London: Record Press.—This little work, which will no doubt prove of some service to tourists and travellers, is by no means intended to supersede medical advice when available. The first part comprises eight chapters of valuable information as to the best health resorts both at home and abroad, with suggestions to those about to undertake a sea voyage. The second part is devoted to the treatment of accidents, and gives a fairly selected list of simple remedies useful in emergencies. The last chapter consists of a register of British medical practitioners resident abroad, followed by some blank pages for memoranda.

## THE PÆDIATRIC CONGRESS IN NAPLES.

So important in Italy is the hygiene of childhood that it has almost risen to the rank of a State question, to be ventilated at every possible season until the Legislature makes it a feature in its internal programme. The largely attended gathering recently held at Naples is indeed but a rehearsal of a yet more influential one, to meet under the Sezione Pediatrica in the great International Congress of September, 1893. In no country in Europe is there a louder call for reform in the treatment of infancy than in Italy. The poverty of the inhabitants in such provinces as Calabria has encouraged a traffic in their children—well called by the *Opinione* a "white

slavery"—in which parents sell their offspring to itinerant organ-grinders for service as "performing children" in the streets of Vienna, Berlin, Paris, London and New York. Nor is the lot of those other children whose less attractive looks or inferior precocity saves them from such a career a much more happy one. Neglect, even abandonment, at best a meagre upbringing and a premature enforcement of hard work are the portion of so many of the boys and girls of pauperised Italy, that the results, conspicuous in heavy mortality, and, among the survivors, in vice, disease and even crime, have compelled the more philanthropic of the people to interpose for the protection of the rising generation. The public press has warmly taken the matter up, and the *Tribuna*—an advanced Liberal organ of the widest circulation throughout the peninsula—has for some time organised a crusade on behalf of its little compatriots. At the Naples Congress the first paper on the *agenda* was thus entitled, "Sulla Istituzione Urgente in Italia di una Grande Società Protettrice della prima Infanzia," and the names of its conjoint authors—Professor Blasi of Rome and Professor V. Massini of Genova—attest the importance the subject has assumed even in seats of learning. In their preamble, Professor Blasi and Massini say: "Our laws as they stand to-day, our administrative machinery, our institutions afford small guarantee for the health and life of millions of children requiring tutelage and upbringing. For us who boast of our civilisation, what remains but to organise private relief, embodying all the active philanthropy of the country? Should the coöperation of every social class and calling be secured for this end, and, moreover, should the official authorities lend their support, the practical effects would be as salutary as they are loudly called for. .... We are not dealing with pædiatry only; ours is a cause profoundly humanitarian, which the whole community is interested in promoting." The paper which followed and which will shortly appear in a permanent form, gave statistics of the most eloquent character on behalf of Italian children. In France, in Belgium and in England, out of a million of the very young, 280,000 die before their tenth year; while, in Italy, the corresponding deaths reach the terrible figure of 420,000, of whom a vast proportion might have been saved by ordinary surveillance and care. The solicitude shown by France and England for their poorer children evoked the warm praise of Professors Blasi and Massini. A series of practical suggestions followed, many of them inspired by British initiative, and requiring no further notice on our part than the observation that they seem judiciously fitted to meet the Italian problem where legal difficulties and Church jealousies intervene to hamper so much that is indicated for the surveillance and development of youth. An animated discussion ensued, in reply to which Professor Blasi vindicated his positions at length, and, by the unanimous vote of the Congress, carried the subjoined propositions: (1) To promote and popularise the principles and practice of infant hygiene; (2) to safeguard hired nursing by the domiciliation of the nurses and the superintendence of the weaned when at a distance from their own families; (3) to encourage, diffuse and improve the infantile sanitary institutes; (4) to watch and—on occasion—to assist with well-timed relief cases of infants threatened by extreme poverty in the matter of health and life; (5) to prevent such maltreatment of children as may endanger their health. These provisions will be embodied in a statute afterwards to be discussed, and—when approved—to be brought before the Government with a view to legislation. The subsequent proceedings of the Congress were of an interest much less dramatic than that of the foregoing paper, but still well worth the notice of the profession and included an able memoir by Professor De Bonis on the "Relations between Scrofula and Tuberculosis in the Diseases of Children; a vindication of "Creasote in Infantile Tuberculosis," by Dr. Guida, in which he drew largely on his clinical experience; a paper on "Hereditary Syphilis in Children," by Dr. Antonio Carini of Palermo, which elicited much divergence of opinion; and a memoir by Professor Fasano on "Scarlatinal Diphtheritis." These, with a full report of the discussions they evoked, will appear in the official "Transactions," a volume which must have considerable attractions for the profession at large.

THE Westminster Hospital Students' Dinner took place at the Criterion on Tuesday. Mr. James Black, F.R.C.S., occupied the chair. The dinner was followed by a concert.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 19, 1892.

THE work of the Medical Council is theoretically divided into two parts or kinds—the one having reference to questions of medical education and the other to questions of medical conduct. By a division equally theoretical the summer session has been assigned chiefly to the first set of questions and the autumn meeting to the consideration of the second. It has never been found possible in practice to restrict the attention of the Council at one sitting to one set of questions. At the last meeting in May the time of the Council was occupied mainly with questions of professional conduct. One question—and almost only one—bearing on medical education was discussed or, rather, raised—viz., the Preliminary Examination of the Apothecaries' Society. The Apothecaries' Society is almost the only one of the medical licensing bodies which continues to hold its own preliminary examination. The other licensing bodies have agreed to leave such examinations to the educational bodies of the country as the College of Preceptors, the universities or colleges, or, as in Scotland, to the Educational Institute of Scotland or the Scotch Education Department. But the Society is loth to abandon its preliminary examination, which, indeed, is rather popular. Popularity is perhaps not the best test of an examination. Be this as it may, the Society examines between 700 and 800 candidates a year. This, of course, is many more than the number of those who proceed to its professional examinations. According to the last minutes of the Medical Council it examined in 1891 780 candidates, of whom 631 were successful. This is a large proportion of success. The Council has been made sensitive on this subject by a reminder from the War Office that candidates for army and navy appointments are often found to be defective in general education, and by an intimation that such defects will be treated as a ground of rejection. It has not yet been shown what particular examinations, if any, are responsible for admitting into the profession those who are so defective. Meantime the Medical Council adheres to its principle that the medical examining bodies should divest themselves of all responsibility for examinations in preliminary education. It may be expected that this question between the Society and the Council will be warmly debated. It is not pretended that the Council can deprive the Society of its preliminary examination, but it can withhold its recommendation of the examination. It is certainly desirable that the preliminary education of those who propose to enter the profession should be tested more severely than ever if the profession is to hold its own, and if unfit persons are to be excluded. This subject may be expected to again occupy the attention of the Council. As to the question of medical education proper, the most important subject which is likely to engage the attention of the Council is that of the new regulations with regard to the fifth year in the medical curriculum. It is not certain that the material for a judgment in the shape of the regulations of the various bodies will be before the Council at the approaching meeting; but the subject cannot

be long postponed, and is one of immense importance. The addition of a fifth year to the period of education is essentially the act of the Medical Council, and on this body devolves the responsibility of seeing that it is well used. But whatever may be the pressure of educational questions at the meeting, it is evident that the Council will have many serious matters to deal with of an ethical or professional character. It is only necessary to watch the newspapers and their reports of inquests and trials to see that questions affecting the propriety of medical conduct are being constantly referred to the Medical Council, and that unless some way can be devised of dealing primarily with such instances by the bodies from whom the inculcated practitioners hold their diplomas, more and more of the valuable time of the Council must be occupied in dealing with them. This very question, however, of the primary responsibility of the individual bodies for the good behaviour of those whom they authorise to practise is itself likely to arise in the Council. Our readers may remember that at the last meeting of the Council Sir JOHN SIMON spoke very strongly on this subject, and on the last day of the session wished to propose a motion asserting the duty of the bodies to deal with their own members, leaving to the Council only the duty of removing from the Register names representing qualifications withdrawn by the bodies which had given them. He was not allowed to do so by the Council at the last moment of the session. It is to be hoped that nothing will prevent Sir JOHN SIMON from bringing forward his motion at the meeting to be held next week. The matter is urgent, and no member of the Council can speak on it with more authority and weight than Sir JOHN SIMON, who knows, perhaps, more of the Medical Acts and of that which was in the minds of their framers than any other member of the Council, past or present. But apart from all such abstract questions it is obvious that some very difficult and grave matters will come before the Council, which it will have to dispose of with more than usual care, and it will have to consider whether its present rules and action are sufficient to check growing evils, and, we may add, growing scandals. A new question will also be brought prominently under its notice, as the readers of THE LANCET will have seen—viz., the right of medical men to enter into contracts with associations of non-medical persons for supplying medical services on low terms, the profits arising accruing mainly to the association, and taking the shape of dividends or investments. It is not for us to anticipate the discussion of this question or the judgment of the Council on it. We have said enough to show that the proceedings of the Council will be of exceptional interest to the profession and the public.

A DISCUSSION on the value of abdominal section in certain cases of pelvic peritonitis has occupied the attention of the Obstetrical Society of London at its last two meetings. No subject could be found better deserving the Society's careful consideration, for not only do cases in which there is pelvic peritonitis form a large proportion of gynecological cases as a whole, but a large number of them come, in the first instance at least, under the care of the general practitioner. The question considered in Dr. CULLINGWORTH'S paper, on which the discussion arose, was as to whether abdominal section is or is not frequently called for in this

group of cases. Much difference of opinion was shown on this point in the course of the discussion, some taking the view that abdominal section is rarely required in these cases, while others, and among them Dr. CULLINGWORTH himself, supported the opposite opinion. We think the different opinions expressed may perhaps not be quite so irreconcilable as they at first sight appear to be. Some of the diversity may probably be accounted for by want of a more precise definition as to the kind of cases for which abdominal section was recommended. The title of the paper defined these as "Certain Cases of Pelvic Peritonitis." Now, while pelvic peritonitis, as in many typical cases following labour, may be *the* disease present, it may also exist as a secondary and relatively unimportant factor in various conditions; for example, it is a common complication in cases of extra-uterine pregnancy, ovarian tumours, dilated Fallopian tubes, fibroid tumours of the uterus, cancer of the uterus, and pelvic cellulitis. All agree as to the propriety of abdominal section in cases of ovarian tumour; and probably, on the other hand, in the case of fibroid tumours of the uterus, Dr. CULLINGWORTH would himself agree that the operation is rarely necessary. Yet in both instances there is often pelvic peritonitis present as a complication, and in that sense they would be included under the comprehensive title "Certain Cases of Pelvic Peritonitis." We may probably, however, assume that the opinions expressed for and against abdominal section refer more particularly to the question of operation for what is known as "chronic inflammation of the uterine appendages." By this we understand a condition of things where the fimbriated end of the Fallopian tube is closed by adhesive peritonitis, the tube being usually thickened and often dilated to a various extent, and containing either clear fluid, pus, or blood, thus constituting a hydro-, pyo-, or hæmato-salpinx, as the case may be. There are usually more or less extensive adhesions between the dilated tube, the ovary, the uterus and the adjacent parts. Tubes so dilated may form tumours the size of a hen's egg, or often very much larger. The experience of those who have frequently to open the abdomen, and observations in the post-mortem room at some of our general hospitals, go to prove that the condition of the Fallopian tubes just described is a far from uncommon one. In endeavouring to come to some practical conclusion as to the propriety of abdominal section where this condition exists, we think it will be most useful to keep as closely as possible to facts, which we may frankly say appear to us to be at present too meagre to justify the adoption of any general rule comparable to that long since arrived at with regard to the treatment of cases of ovarian tumour. The facts in our possession, then, may be stated as follows: 1. Dilatation of the Fallopian tubes to a greater or less extent is a by no means rare condition. 2. Many of the patients in whom this condition exists suffer from some of the following symptoms: pain in the lower abdomen; backache; disturbances of the menstrual function, the catamenia being excessive, scanty, or attended by severe pain; dyspareunia; feverish attacks. 3. In a certain proportion of these cases the symptoms disappear and the disease passes into a state of quiescence under palliative treatment. 4. In a certain number of cases, after temporary improvement, the symptoms recur and the patients become

chronic invalids. 5. The presence of a pyo-salpinx is a distinct danger to life, but we cannot at present diagnose between a hydro-salpinx and a pyo-salpinx with any certainty. A distinct history of gonorrhœa and the occurrence of feverish attacks would be to some extent in favour of pyo-salpinx. 6. While a certain number of cases are permanently relieved by removal of the diseased organs, it is well known that some are not relieved by the operation, and that some are even worse than beforehand. 7. It has been clearly established that there are some cases where anything at all approaching a complete removal of the diseased organs is utterly impossible; since, even in the post-mortem room, in some cases, it is a matter of the utmost difficulty to dissect out the dilated tubes in an anatomically complete condition without serious injury to vital organs, so intimate is the fusion of the diseased tubes with adjacent parts. 8. In the majority of cases it is possible to remove the diseased organs completely, though the operation is not rarely attended by considerable difficulty.

We think the points we have recapitulated suffice to show, at all events, that the subject is one of great difficulty and complexity, and that the time has not yet come when it is possible to formulate any general rule for the management of these cases. Each case must be judged on its own merits when the question of operation is under consideration. Careful examination under anæsthesia is of great value in giving precision to our knowledge of the exact physical condition of the pelvic organs, and so enabling us the better to judge if the diseased parts can probably be removed completely, and also to some extent of the severity, or otherwise, of the procedures necessary for the purpose. The fullest information should be given to the patient as to the probable outlook in the special circumstances of her particular case; not forgetting that while the mortality of dilated Fallopian tubes is very small, that of the operation for their removal is not insignificant, and that the more extensive the disease, the greater is the risk.

At the present season, when the question of winter quarters is engaging the attention of many practitioners and patients, a brief survey of the subject may prove of interest and value to our readers. The classes of persons who go abroad for the winter may be enumerated as follows: Those who simply wish to avoid the cold, damp and depressing influences of the British climate from November to April; sufferers from anæmia, debility, overwork, impaired convalescence from acute disease, or surgical operations; gouty and rheumatic and renal cases; neurotic cases, including both functional and organic nervous disease; pulmonary cases, including sufferers from phthisis, bronchitis, asthma, unresolved pneumonia and chronic pleurisy. The above list might be easily enlarged, but it includes the principal classes of invalids who may be expected to benefit by a well-planned residence abroad. The needs of the different classes necessarily vary within wide limits and will be considered in the course of our observations. In the present article we shall confine ourselves to a short survey of the climatic and meteorological features of the chief sanatoria available for those who have decided to winter abroad. Before proceeding further, however, we must not ignore the fact

that within the limits of the British islands there are many winter resorts of great value in certain cases. Hastings, Ventnor, Bournemouth, Torquay, Falmouth, Ilfracombe, Queenstown and Glengariff—to name a few out of many—possess considerable merits as winter sanatoria. They have a fair degree of warmth and mildness, picturesque scenery, excellent accommodation, and are accessible. But the moment any exact comparison between these English and Irish resorts and such foreign resorts as Mentone, Madeira, Algiers, or Cairo is instituted the radical differences between the two classes of resort become apparent. Thus at the British resorts in general the invalid must expect that during winter rain will fall on at least half the total number of days, and that on a very large proportion of these days out-door exercise will be hazardous or impossible; whereas in the Riviera the rainy days average only about five or six per month in winter, while in Egypt the rainfall is only nominal and many parts are absolutely rainless. Equally striking is the contrast if we take the average number of days of cloudless sunshine—so important to many invalids—at the different resorts. Without pretending to precision regarding a question in which precision is not attainable, we may safely say that for every day of cloudless sunshine available for the invalid during winter in the British islands there are five or six days at some of the most favoured Mediterranean resorts, and nine or ten in Egypt. Again, as regards the average relative humidity of the atmosphere, there is a great contrast between the 85 to 90 per cent. of British resorts and the 70 to 73 per cent. of Mentone, or the 58 per cent. of Cairo. Without going into further details we may say that, while the resorts upon the southern and south-western shores of England and Ireland possess great advantages, which should never be forgotten, they fall far below the favourite foreign resorts in such points as amount of sunshine, proportion of fine days, and facilities for out-door exercise.

Among foreign resorts there is a wide choice. The Western Riviera, including such resorts as Hyères, Cannes, Nice, Mentone, Monaco, Bordighera and San Remo, has a dry, bright and stimulating climate, with a very high proportion of sunshine and fine days, a remarkable configuration of coast, affording much protection from the north, charming scenery and ample accommodation. Its chief drawback is its windiness, the mistral or north-west wind being especially troublesome. The differences between sun and shade temperatures are considerable, sudden changes are common, and inflammatory affections of the lungs and pleura are somewhat frequent. At the same time, this region has undoubtedly one of the most enjoyable climates in Europe. It is a region in which the prudent patient, who observes times and precautions and medical regulations, will reap the maximum of advantage, and in which carelessness, ignorance and folly are most sure of speedy punishment. The Eastern Riviera, including such resorts as Nervi, Rapallo and Spezia, has a moister and more sedative climate than the Western Riviera, its northern screen of mountains is less perfect, and it possesses fewer attractions, natural and artificial. But it suits some patients for whom Cannes, Nice and San Remo are too stimulating.

Pau, Arcachon and Biarritz form a triad of adjacent resorts which may be considered together. Compared with the

Riviera, they possess a somewhat mild and moist climate, with a fair average of warmth and of sunshiny days, and are well adapted to cases where a moderately sedative influence is desired. Biarritz, by virtue of its position and exposure to winds from the Atlantic, is the least sedative of the three. These resorts are much inferior to those of the Riviera as regards the protection afforded by mountains in their vicinity.

Malaga possesses one of the best climates in Europe. The rainy days are said to number only 40 in the year, compared with 60 at Nice, 80 at Mentone, 88 at Madeira, 119 at Pau and 155 at Torquay. While the climatic advantages of Malaga are great, we may well pause before sending patients, especially pulmonary cases, to a large, busy and not too clean Spanish city. Malaga has the further drawback that it possesses very few natural attractions. Nevertheless, its remarkably fine climate must not be forgotten in any survey of European sanatoria.

Morocco and Algeria afford several notable resorts, such as Mogador, Tangier and Algiers. They possess a much larger proportion of warm days and a greater immunity from cold winds than any of the resorts on the northern shore of the Mediterranean. Still, owing to the frequency of sea breezes and the vicinity of high mountains, their climates are moister than might have been anticipated. Thus the annual rainfall at Algiers is thirty-six inches, considerably more than the average of England, and of this four-fifths or five-sixths fall during the winter season. The interior of Algeria affords several resorts on the verge of the Great Desert—such as Biskra—where the climatic conditions rival the warmth and sunshine of Egypt.

The land of the Nile possesses one of the most wonderful climates in the world. Here alone are found associated perpetual sunshine and practical rainlessness with verdure and fertility. The rainfall of Egypt varies from eight inches annually at Alexandria and one inch and a quarter at Cairo to *nil* at Luxor, where it is facetiously said to rain once in every 4000 years. With such a rainfall the number of dull and cloudy days is necessarily very small—almost perpetual sunshine may be said to prevail and a high degree of atmospheric dryness is attained. The drawbacks to such a climate as that of Egypt are the great contrast between the day and the night temperatures, owing to the intense energy of radiation, the glare of the sunlight and the plague of dust. The Egyptian climate is enjoyed to the fullest advantage during a well-planned voyage by dahabiyah up the Nile.

The high Alpine sanatoria—such as Davos, Wiesen, St. Moritz, Arosa and Maloja—present a winter climate sharply contrasting with those previously enumerated. In these latter the prevailing conditions are almost uninterrupted frost, a high average of sunshine and fine days, a high degree of the rarefaction of the air, great dryness of the atmosphere (the relative humidity being sometimes as low as 40 at Davos), a great contrast between sun, heat and shade temperature (a maximum in the sun of 150° or upwards being often associated with a temperature far below freezing point in the shade) and (at Davos) a remarkable freedom from winds and consequent stillness of the atmosphere. These meteorological conditions constitute a highly tonic and stimulating climate.

Madaira is the type of the warm, moist, equable and hence sedative climate. The latitude ensures a high degree

of winter warmth; the constant prevalence of moisture-laden sea breezes causes much atmospheric humidity. The rainfall is moderate and the average of fine days high, and there is practical immunity from fog and dust. The most notable feature of the Madeira climate is the remarkable equability of temperature, both as regards diurnal changes and seasonal range. Extremes of heat and cold are alike unknown, and the difference between in-door and out-door temperature and between that of day and night is only slightly appreciable.

We might easily extend our survey to more distant winter quarters. The South African highlands possess a dry, stimulating climate of great value in many cases, but the country is comparatively undeveloped and the comforts of life few. Australia and New Zealand present a great variety of climates, many of them possessing a high degree of salubrity. The climate of the former is in the main hot, dry and stimulating, but great differences necessarily exist. The most favoured parts for the purposes of the invalid are perhaps the highlands of New South Wales and Queensland. The climate of New Zealand is moister and cooler than that of Australia, and approximates in character to that of the more favoured parts of the British islands.

America presents many excellent winter sanatoria, such as Colorado, California and Florida. The first of these belongs to the class of dry inland climates of considerable elevation, the second to the class of dry marine climates, and the third to the class of moist marine climates.

We need hardly remind our readers that a climate is tonic and stimulating largely in proportion to its dryness, whether associated with heat or cold, and that the sedative character of a climate depends upon warmth, moisture and equability. Places possessing cold, moist climates present no advantages to the invalid, and hence are practically excluded from the list of useful sanatoria.

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## Annotations.

"No quid nimis."

### COUNTY COUNCILS AND THE REPORTS OF THEIR MEDICAL OFFICERS.

It was expected that the appointments of health officers to county councils would have some good effect on local boards, who had been somewhat negligent in sanitary matters. As yet not much has been done, the medical officers simply making a report on their analyses of the reports of the medical officers of health within their county, and also making recommendations as to the means which ought to be taken to prevent the pollution of rivers. Public bodies move slowly, so that we may yet hope that county councils will exercise a wise and wholesome influence over rural districts and their district councils (local boards) in the future. Recently the Ince Local Board have been exercised concerning a report of the medical officer to the County Council of Lancashire, which tells of their insanitary state and shortcomings. The clerk was instructed to frame a reply. Why not the medical officer of health? The chairman of the board, who is also a county alderman, is reported to have "interviewed" Mr. Sergeant before attending the board meeting. He said: "He thought it his duty before coming to that meeting to go to Preston to see the medical officer of health. He went prepared to champion the board; but how did the medical

officer reply? By producing the reports from their own medical officer that made statements bearing out his own report. He gave all credit to their medical officer for expressing himself on the importance of the matter for the first time. In one of his own reports the backyard premises in the district were described as in a filthy condition, and the letter drafted by the clerk proposed to put the matter right by denying it." Now if the county medical officer is to be taken to task for pointing out the insanitary spots in his area, what about the medical officer of health for the district; is he to be muzzled? In this very district, and read at the same meeting of the board, was the medical officer's report for the month, showing that there had been 39 cases of infectious disease—viz., scarlet fever, 13; typhoid fever, 11; diphtheria, 5; membranous croup, 2; erysipelas, 5; continued fever, 1; and puerperal fever, 2. Surely it was the intention of the Legislature, when the Local Government Act was passed which enabled county councils to appoint health officers, to aid the local medical officers of health to abolish these plague spots. \_\_\_\_\_

### THE PERILS OF ELECTRIC LIGHTING.

THE introduction of electric lighting is, thanks to the solicitude of the Legislature and the skill enlisted in the service of the Board of Trade, an industry which, its magnitude considered, has been attended hitherto with singularly little loss of life and personal injury. The inquest held on Monday last by Mr. Drew upon the body of a workman employed by the House-to-House Electric Lighting Company, who had met his death by incautiously "short-circuiting" a lighting current, disclosed no new and unsuspected danger and gave no occasion for regret except for the human frailty which led a young man to in ur needless risk by neglecting the most elementary precautions in the conduct of his work. It would seem that in this case the paradox is true that if the electric lighting current were less dangerous than it is people would handle it with greater circumspection than they do. A Ruhmkorff coil deals a smart blow if inconsiderately touched, and nobody does touch it inconsiderately, although it always, when in action, presents numerous surfaces which are highly charged with electricity. But a lighting main is apt to kill, and is therefore insulated with the greatest and most effective care. Hence accidents are rare, so rare that they cease to make an impression, and a heedless workman manipulates the mains with bare hands as if they were harmless as kittens. A pair of india-rubber gloves would make him quite safe, as he perfectly well knows, but he prefers to take the small and inconspicuous risk, and to have his hands unshackled for his work. It is matter for rejoicing that his confidence is not often misplaced, but when it is the consequences are lamentable, for a 2000-volt current is a foe that strikes in silence but seldom strikes in vain. \_\_\_\_\_

### OFFENCES AGAINST THE APOTHECARIES ACT.

THE judgment recently delivered, after deliberation by the Court of Queen's Bench, in the action of "The Society of Apothecaries v. Jones," has resulted in a definition of the nature of an offence under that Act which is not very easily derived from the words of the statute itself. It is there provided that if any person shall *act or practise* as an apothecary without due registration he shall "*for every such offence*" incur the prescribed penalty. The judges have held that the offence here spoken of is not the individual act, but a continuous course of conduct, so that although, as in the present case, three several acts may be proved against the offender, these are held to constitute only one offence. This decision supported a judgment to the same effect by the county court judge before whom the action was originally tried, and we observe that counsel for the Society

applied for leave—which, however, was refused—to carry the appeal farther. That the Society should be dissatisfied with an adverse ruling upon such a very difficult point of construction is natural enough, and if the question were entirely now we should think them very well advised in prosecuting the appeal with a view to obtaining the most authoritative decision which can be had. But, in truth, the question is not so new as it appears to have been thought to be both by the parties to the cause and the judges who decided it. The self-same question arose in the year 1824—that is to say, within ten years of the passing of the Act, when the Apothecaries' Society proceeded against a defendant named Bentley (or Warburton; there is some confusion in the report as to the defendant's name) to recover several penalties under this same section in respect of several acts alleged as so many separate offences. It was then held, as in the present case, that only one penalty had been incurred, and this must therefore be taken to have been the judicially settled construction of the section for a period of nearly seventy years. This case appears, as we have said, to have escaped the notice of all parties concerned in the more recent decision, and it is therefore the more noteworthy that the court should have, unwittingly as it were, followed and confirmed at the present date its earlier decision. The coincidence affords strong presumption that the decision is sound in law, and in any case we do not doubt that when once attention has been drawn to this old and seemingly forgotten judgment the Society of Apothecaries will be well content to acquiesce in an exposition of the law which has for so long a period enjoyed unchallenged currency.

#### THE REMOVAL OF HUMAN REMAINS FROM THE VAULTS OF A CITY CHURCH.

ALLUSION has already been made in former numbers of THE LANCET to the proposed removal of the bodies from the vaults of St. Mary Woolnoth, Lombard-street, to some extramural burial-ground. A Consistory Court was held by Dr. Tristram on the 4th inst. at St. Paul's Cathedral at which certain final details were settled, while some further additional interesting historical facts were disclosed. It would appear from these that the church was partly burnt in the Great Fire of 1666, and was not rebuilt as it now stands till 1719. Between 1830 and 1832 there had been 139 adults and 23 children's bodies buried, which must all have been deposited in the vaults of the church. This was the time of year most convenient for removing the remains, and Mr. Arnold Statham, the counsel representing the parishes, expressed a hope that the church might be reopened before Christmas. Including the number of interments above mentioned, those of 1681 adults and 422 children had taken place between the years 1700 and 1832, in which latter year the vaults were closed. In consequence of the effluvia from the vaults permeating the church nearly every official of the church (as the rector, the Rev. J. M. S. Brooke, stated) had for years died either directly or indirectly from the effects of the unbearable smell in the church. Dr. Sedgwick Saunders, medical officer of health for the City of London, had reported that the state of the church was unwholesome, and it was closed on Christmas Eve last. The rector added that he had often, while conducting divine service, heard coffins fall one upon the other in the vaults! Many were lead coffins and fell ten or twelve feet! It also appeared that in 1886 the inhabitants contributed between £600 and £700 with the object of hermetically sealing the vaults, and that this, which was the second attempt to effect the same object, was abortive. A sum of £1200 had also been spent in flooring the church above the vaults under the superintendence of the surveyors to the Charity Commissioners, who had contributed the money. Complaint was now made of the hardship of spending an additional sum

of £900, the sum calculated as necessary for the ground alone which would be required in the cemetery to which the remains must be conveyed. Although we sympathise with the parishioners who have been so heavily taxed for the errors of their ancestors, we must, in justice to the cemetery authorities, point out that the ground under their control was acquired and laid out for the remains of a generation subsequent to those in St. Mary's Woolnoth. Some of these, formally interred here, were removed probably in 1830, when part of the churchyard was taken for the formation of King William-street. The remains were those of 300 bodies, which were removed to St. Michael's, Crooked-lane, 568 more which were reinterred in the vaults now to be emptied, and 112 in the "cloisters," the position of which no one now knew. The estimate for the whole work required by the Order in Council was £1955, which would cover the re-interments. In granting the faculty for carrying out the work the Chancellor expressed a hope that the parish might be relieved from at least some of the expense. In conclusion it may be remarked that the attempts to seal up these vaults hermetically, though attempted and repeated at different times, not only failed, but, according to the evidence of Mr. Phillips, the vestry clerk, "had only made matters worse." The ventilating shafts in the walls of the church had been stopped up, and the architects said that they could not be re-opened without danger. This conveys a warning to all in charge of those other City churches the vaults of which contain human remains, and brings into strong contrast the advantages to all concerned of burial in the earth and in perishable coffins.

#### A REVISED PHARMACOPEIA.

AT the inaugural evening meeting in Edinburgh of the Pharmaceutical Society of Great Britain, Professor Charteris, who gave the address, set himself an easy task in selecting for his subject "Suggestions for a Revised Pharmacopœia." He first gave a slight sketch of the history and objects of a Pharmacopœia, and he rendered this portion of his address very entertaining by quoting numerous extracts from a book published in 1691 by "William Salmon, professor of physick at the Blue Balcony, by the Ditch Side, nigh Holborn Bridge," and he noted the curious fact that the diseases all told amounted to fifty-five, while the remedies for these were not less than 4362. Very little reverence for the wisdom and knowledge of our forefathers was shown in the selection of passages for quotation, which, however, served sufficiently well to indicate the gradual progress made in pharmacy during the next hundred years. The evolution of the London, the Edinburgh, and the Dublin Pharmacopœias, and the replacement of these by the British Pharmacopœia, received due notice, and it was announced that it was an open secret that another edition of the last-named would be issued within the next two years. Coming then to the suggestions offered for discussion it was found that these comprised a very lengthy list of suggested deletions—too lengthy, indeed, to be dealt with here in detail. Many of the articles mentioned were classed as "relics of old times," "household remedies," and "rarely used." It is curious to find in this list some substances, such as nitrate of copper, which have only recently been admitted, and others which held an uncertain tenure of office, passing in and out of the Pharmacopœia for no very obvious reasons. On the whole it must be admitted that nearly all in the long list might be deprived of official recognition without crippling our resources, and to the immense relief and joy of the medical student of the future. Coming next to suggested additions Professor Charteris was extremely modest, only a dozen or so being indicated, and some of these were old friends, notably the green iodide of mercury, which disappeared, under protest, from the Pharmacopœia of 1885. Some of the others named were sug-

gested as candidates for admission at that date, hence it is interesting to find their claims once more pressed. The chief amendments proposed were the introduction of an official preparation of hard and soft paraffin, which might be termed paraffinum medium (not a particularly happy name), the alteration of the melting points of carbolic acid and salicylic acid (the latter obviously being intended to ensure greater purity), the raising of the official dose of extractum filiois liquidum, and an alteration in the composition of the unfortunate injectio morphinæ hypodermica, which has so often been assailed. While cordially agreeing with the desire of Professor Charteris that our pharmacopœia should be rendered "less bulky but far more reliable," it is difficult to understand his concluding hope that "it would become, as in former years, the standard authority of scientific accuracy and the pioneer of progress." It would be most curious to learn what pharmacopœia of "former years" received and deserved such unqualified approval.

#### OVERCROWDING ON BOARD TRAINING SHIPS.

IT would be a matter for general regret if by any fault of administration the good service done for education by means of training ships were seriously interfered with. That such is the case there is nevertheless good reason to believe. It is reported at all events that overcrowding prevails on board these vessels to a marked extent. Lord Spencer, we are pleased to learn, has been duly apprised of this fact, and is taking steps to meet the difficulty arising therefrom. His remedy, which consists in drafting the boys as rapidly as possible out of the harbour ships, is no doubt well considered. The only needful proviso is that this work be carried out with sufficient energy. In view of the great pressure occasioned by want of accommodation, however, it appears likely that some increase in the number of available training ships will also be called for. The unusually high death-rate lately reported on board these vessels is in itself a suggestive circumstance, especially when taken in connexion with the fact of overcrowding and the ordinary prevalence of infectious disorders in early life. In such a case it were true economy rather to exceed than to fall short in providing air space, for nothing is more costly than illness.

#### THE WORKING OF THE FOOD AND DRUGS ACT.

DESPITE the fact that the proportion of adulterated samples during the year 1891 is rather more than 12 per cent. of those examined, and that this result is admitted to be a slight retrogression from the favourable returns of the three previous years, many of the authorities to whom the practical working of the Act is entrusted, and to whom therefore the public look for protection against fraud, have exhibited an unexplained torpidity in the matter. The very existence of the Act, indeed, was absolutely ignored in one metropolitan district (St. Martin's-in-the-fields), in four administrative counties (Hereford, West Suffolk, Montgomery and Radnor), and in twenty-seven boroughs, including many of considerable population, such as Great Yarmouth, West Bromwich, Bury, Tynemouth, Devonport, Southport, and Rotherham, not a single sample having been examined during the whole year in these districts. We have repeatedly urged that the Act runs considerable chance of being reduced to a dead letter simply on account of the lethargy of the local authorities. Surely it cannot be supposed, seeing that 12 per cent. of the total number of samples analysed were adulterated, that St. Martin's-in-the-fields and the other populous districts above enumerated are entirely free from the art and practice of falsification. Only a year ago we had occasion to purchase various samples in one of the very districts mentioned, and the results of our examination gave very little support to the notion that adulteration was a thing of the past.<sup>1</sup> In view of these facts we

insisted that the local authorities should be roused to a stronger sense of their duty, which should consist in the exercise of powers conferred upon them, and in keeping the machinery constantly moving by which the public ought to be protected from fraud, and it may even be, from dangers to health. The recent report of the Local Government Board, from which we derive our information, gives evidence of the efficient manner, as if by contrast, in which public analysts are doing their work, for it is believed that the progress of analytical science has more than kept pace with that of fraudulent sophistication. Farther on the Bluebook contains some interesting remarks (which we emphatically endorse) on the adulteration of milk: "The proportion of added water is often considerable, but it must be remembered that an addition of even 10 per cent., which is probably less than the average, enables the dishonest milkman to keep ten cows instead of eleven." Again, we read: "There is considerable difference in the practice of analysts as regards their reports. One pronounces as adulterated all milk to which he believes water has been added, however small the proportion, while another only condemns samples in which the dilution has been so great that the case may be taken safely into court." We fully discussed in an article in last week's issue of THE LANCET the desirability of fixing a definite standard which should be adopted by every analyst. At present the Act fixes no such standard, and the analyst is bound to adopt a standard of his own based on his own experience and judgment. There are many other items of interest in the report, a digest of which appears on page 1190 of our present issue, but the main facts relating to the Food and Drugs Act are clearly of especial and grave concern to the community. Now that the Local Government Board have expressed surprise "that the local authorities in many cases are content to leave the inhabitants without that protection against fraud by the sale of adulterated food, which the exercise of the statutory powers conferred on the authority would be likely to ensure," we may surely hope the matter will at once be represented to our legislators so that strong pressure may be brought to bear upon the authorities who are concerned.

#### THE BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

WE learn from a full report given in the *Oldham Standard* that at a meeting of the Oldham Medical Society, held on Nov. 11th, the claims of the British Institute of Preventive Medicine received very favourable consideration at the hands of the members of that Society. The Mayor of Oldham (Alderman Noton) was present, and Dr. Corns was in the chair. For some time past the committee entrusted with the promotion of this Institute have been gathering subscriptions, maturing their plans, and preparing their work in London, but it has been left to the Oldham Medical Society to open the campaign in the provinces. The objects aimed at by those responsible for the direction of affairs in connexion with the Institute were set forth by the chairman, Dr. Ruffer, the secretary of the Institute, Dr. Niven, Medical Officer of Health for the Borough of Oldham (who moved the resolution that the medical men of Oldham heartily approve of the establishment of this Institute of Preventive Medicine, and intend to use all means in their power to further its success, and, speaking to his resolution, maintained that it was certainly not creditable to a country like this that, although so many contributions had been so recently made to preventive medicine both by France and Germany, we had contributed so little to this great advance); Mr. Fawcitt of Oldham, Dr. Dreschfeld of Manchester, the Mayor, and Mr. Platt of Oldham, all of whom spoke strongly in favour of the scheme, and asked for the moral support of the medical men of Oldham, which would mean material assistance from many of their patients and

<sup>1</sup> Vide THE LANCET, Aug. 1st, 1891.

friends. There can be no doubt that in this matter Oldham has set an example which, with very great advantage, might be followed by many other of our large and populous centres in the provinces. With the amount of money that is asked for (£60,000) it will not be possible to do everything, but a good building may be raised, and for the performance of work within certain well-defined limits a complete apparatus and staff may be gathered together, with the aid of which much valuable work may be done; and these may be so organised that at any future time, when the enormous advantages to the profession and public have been properly appreciated, additions may be made. Nearly £50 was at once promised by the medical practitioners who were present, and there can be little doubt that other subscriptions will follow in due course. The profession in Oldham will in future be able to point to the fact that its members were the first to take up this matter outside London, but it still remains open to the medical societies of other towns to be able to say that they immediately followed so worthy an example.

#### THE POSTMAN'S KNOCK.

IN THE LANCET of last week we discussed the inconvenience arising in the case of sick persons and others from the frequently startling summons which announces the arrival of the daily post. We referred likewise to various palliatives which might be employed to combat this form of assault upon the nervous system. We did not, however, forget that the true cause of disturbance, the postman himself, continued to flourish in spite of the remedies proposed. Some, perhaps, would have us advise in his case, or at all events as regards his office, the radical treatment of extirpation. We confess that we cannot see our way to counsel a proceeding so formidable. The operation required would be much too great a one to be undertaken without full consultation with many other persons equally interested with ourselves. The widespread paralysis of our ordinary means of communication which it entails moreover would not in our opinion be justified by any sensible relief which might follow the operation. Speaking candidly, therefore, we can see no prospect for those who fear the postal summons but such means of palliation as have already been suggested.

#### THE RETIREMENT OF DR. BRIDGES.

DR. BRIDGES bade farewell to the Metropolitan Asylums Board at their last meeting, and received a warm compliment from Sir Edwin Galsworthy for the tact and ability which he had displayed in his official relations with the Board, the chairman's remarks having the cordial assent of all the members present. Very few people understand precisely where the responsibilities of the Local Government Board begin and end as regards the Metropolitan Asylums Board. Dr. Bridges' position, as representing Whitehall in connexion with the doings of the Asylums Managers, must have been a difficult one. His action has always been marked by courtesy and by a desire to support them, and the Asylums Board may well regret that he now relinquishes his official post. In his farewell address Dr. Bridges especially reviewed the history of the Board's system of small-pox isolation. This is typical of the difficulties attaching to Dr. Bridges' post. He has been understood always to have supported the Asylums Board against the view of an aerial diffusion of the infection from their hospitals, but the public view was strong in the other direction, and the small-pox patients had to be removed far away from London, under a new system which Dr. Bridges declares to have elicited the admiration of the civilised world. He frankly admits that errors may have arisen during the building up of the work of the greatest isolation authority the world has ever possessed. Errors must occur in such a work, but if they are remedied when pointed out by experi-

ence none can well complain. We heartily wish Dr. Bridges much of that cultured enjoyment in his retirement for which he is so well fitted, and as regards the Metropolitan Asylums Board we trust that the Government may find an equally intellectual, skilled and courteous medical inspector to take his place.

#### THE SPREAD OF SMALL-POX.

SMALL-POX continues to spread. Glasgow has some twenty-four cases; and amongst other newly infected places are Burton, Tibshelf in the Mansfield rural district, Melton, where the disease has got into the workhouse, Hipperholme, Lightcliffe, Lymm, Rushden and Enderby, near Leicester, where a case occurred in a common lodging house. At Otley considerable alarm prevails and vaccination is proceeding rapidly. A temporary hospital is also in course of erection. Isolated attacks have also been heard of from other localities. At Warrington there are signs that the epidemic has reached its maximum. Leicester has been visited by Dr. Sidney Coupland on behalf of the Royal Commission on Vaccination. The results of his enquiry are, of course, not known; but they may be taken to include an account of the failure of the much vaunted quarantine system on almost the first occasion when that scheme has been put to any semblance of a real test.

#### IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE autumnal general meeting of this Association took place at 11, Chandos-street, on Nov. 2nd, Director-General Dick, C.B., R.N. (the President), in the chair. The following resolution was passed: "That this meeting regards with satisfaction the recommendation of the Select Committee of the House of Lords to the effect that the governing bodies of the metropolitan hospitals should consider the advisability of opening their honorary staff appointments to other diplomates than those to whom they are at present restricted." On the motion of Dr. Gilbert-Smith it was decided to approach the medical staffs of the various hospitals and to urge upon them to withdraw the invidious restriction by which in many cases the diplomates of the Irish and the Scotch colleges are deprived of equal privileges with their English brethren in this respect. At the dinner which took place the same evening the chair was occupied by the President, Director-General Dick. The Association guest was Admiral Sir R. Vesey Hamilton, K.C.B., and about forty members and guests attended. A letter expressing his regret at not being able to be present was read from Sir Walter Foster, M.P., the first President of the Association.

#### ACCIDENTS DUE TO COVERED VANS.

A DANGER which appears to be almost inevitably associated with the use of covered vans has on more than one occasion received attention in the press. It has been once more illustrated by an accident which occurred a few days ago in Battersea Park-road and which cost a child his life. In this instance the driver in turning his horse did not notice a little boy standing near, and the latter was consequently knocked down and run over. Several persons present gave evidence exonerating the driver from all blame in the matter, the unfortunate occurrence being almost a natural consequence of the child's position at the time. We have nothing to say against the verdict given at the subsequent inquest, which agreed with their testimony. In a sense it certainly was satisfactory, though by no means reassuring. It did not quite satisfy the presiding coroner, however, and his objection to vans from which the carmen could barely see in front of them will be generally appreciated. This leads us to consider how best such accidents may be prevented. Parents can hardly be expected to keep young

children entirely off the streets, nor for that matter are children alone liable to be run over in this way. The van-cover is the real cause of offence. It cannot, we fear, be altogether dispensed with, but surely some arrangement is possible which, by rendering it more open at the sides, would allow the driver a view of at least part of the front wheels of his vehicle, and thus tend to obviate the dangers which must accompany his present ignorance of surrounding conditions.

#### THE HEALTH OF THE PRINCE OF WALES.

IN reference to the rumours concerning the health of His Royal Highness the Prince of Wales, we are informed on trustworthy authority that there is no foundation for them. We understand from our enquiries that His Royal Highness is in the enjoyment of his usual health.

#### ENTERIC FEVER IN LIVERPOOL.

CONSIDERABLE alarm is being felt in Liverpool on account of a large number of attacks of enteric fever amongst business people having their daily occupation in some of the central parts of the city. It is said that in the case of members of one cricket club no less than fifteen Liverpool men of business are down with the disease, and the cause is believed to be the highly insanitary condition of many of the older business premises.

#### PROMPT ATTENDANCE AT HOSPITALS.

A CORRESPONDENT of an evening contemporary complains of delay in a case of serious injury to the foot admitted to one of the general hospitals. Three hours, it is alleged, were allowed to elapse before telegraphing to the surgeon for the day. He was not at home, and two hours more are stated to have elapsed before a surgeon could be procured. A little management would easily prevent such a complaint, if, indeed, it be founded on fact, and clearly strict rules should be made and enforced to secure a prompt attendance of the surgeon for the day, and, failing him, of a substitute, who should be named.

#### MIDWIVES AND CERTIFICATES OF DEATHS.

THE Derby Borough Coroner had a case before him in which a midwife is said to have attended a child five days old with convulsions and congestion of the lungs, and to have discouraged the parents from sending for a medical man till the last moment, when one was sent for, but only to find the child dead. One witness stated that in the event of the child dying the midwife said, "even if it does it will be all right—I can bury it." This was denied by the midwife, who however admitted that something had been said about the case of stillborn children requiring a certificate. The coroner said a lot of that sort of thing had been going on lately in the town and he was determined to have it thoroughly gone into. The determination is a right one and comes none too soon. The coroner adjourned the inquest until November 24th.

#### INFRINGEMENT OF THE PHARMACY ACT.

THE county court judge of St. Helen's, when he recently imposed a penalty of £5 and costs upon a child of fourteen years of age who was proved to have infringed the Pharmacy Act by selling a bottle of oxalic acid, gave effect in the only way that was open to him to the provisions of that statute; but the case is one that brings to light a serious flaw in the Act of Parliament. The child had been left in charge of a chemist's shop during the absence of the chemist and his qualified assistant. A customer called and bought a bottle of the poison at this particular time, with which he shortly afterwards committed suicide. The child appears to

have acted with great intelligence, the customer was asked for his name and warned that the acid was a poison. An adult assistant could not have prevented what subsequently happened. Still there can be no question about the impropriety of permitting children to act in matters of this kind and we should make no complaint if the penal consequences of such a dangerous irregularity had been visited upon the person in authority whose business it was to know the law and his duty to see that in his own establishment it was carried out. It is probable that the child although precocious could not pay the penalty, and we hope that it would in the end fall upon the person morally responsible for the infringement of the Act. That this child should be in the circumstances the person legally responsible is a striking and very unpleasant illustration of the fact that our English law does sometimes deal out very random justice.

#### PREVALENCE OF SCARLET FEVER.

SCARLET FEVER seems just now to be displaying its autumnal increase in various parts of the country in such a manner as to excite some public attention. We hear of schools being closed by sanitary authorities at the instance of their respective officers of health, as at Bedlington and Wirsborth. Scarlet fever is also reported to be prevailing in the Wandsworth workhouse and at Calverley, near Leeds. Between 2000 and 3000 cases a week are being notified throughout the country, of which the metropolis contributes more than a third. The chief other contributory places are Plymouth, Leicester, Liverpool, West Ham and Bradford.

#### "THE TIMES" AND QUARANTINE.

THE special correspondent of *The Times*, whose second article on English Ports and Cholera we discussed last week in reference to quarantine, now states that he is "entirely opposed to" that system. We are glad to have elicited an opinion so definite and so difficult to gather from the article itself. But since he is thus in entire agreement with us as to the opposition to quarantine we hardly understand the purport of his remark as to those "who differ" from him, a remark which might at first sight appear to apply to THE LANCET. On the important point of putting ships from infected ports at short distances on the same footing as ships actually infected, we shall be quite prepared to abide by the results of any attempt to apply such a practice to those of our south-eastern and southern ports which are in daily, rapid and incessant communication with ports of France, Belgium and Holland, for the purposes of an almost uninterrupted stream of passenger and goods traffic. But for the sake of the ports alone, we trust the experiment may never be made.

#### THE CORONERSHIP FOR THE WREXHAM DIVISION OF DENBIGH.

WE regret to have to announce the election of a legal coroner for the Wrexham Division of Denbigh instead of Dr. Edward Davies of Wrexham, who has been acting as deputy coroner for some months past both before and after the death of the late coroner, Mr. Thelwall. He, although a solicitor, was magnanimous enough to appoint Dr. Davies as his deputy, knowing well that he himself could not hold the office of coroner much longer and that Dr. Davies would be a candidate for the vacant office. One of the chief reasons for the election of Dr. Davies's opponent would appear to be that he had a more thorough knowledge of the Welsh language; but, as we understand that the majority of jurors and witnesses understand English and interpreters are rarely required, we fail to see how this can be urged as any reason, seeing that Dr. Davies must have had, by his long residence and extensive practice, a sufficient knowledge of Welsh to enable him to fulfil the

duties of coroner as well as he has done those of deputy coroner. Moreover, it is distinctly undesirable that a coroner should himself act in the double capacity of coroner and interpreter. A coroner makes a declaration to do his duties as coroner, not as interpreter, the latter being sworn to interpret between him and the witnesses. Dr. Davies may be congratulated on having made a good fight and on having been supported by the most influential of the County Councillors.

#### THE LONDON CAB HORSE.

A CONFERENCE is to be held at St. James's Hall on Monday next with the object of improving the condition of the London cab horse in respect of stabling and housing. Medical practitioners have frequent occasion to make use of the services of that willing slave the cab horse, and may be glad to assist so praiseworthy an undertaking.

#### MEDICAL REGISTRATION.

WE would urge on our readers the importance of taking careful note of the intimation issued, according to annual custom, by the Medical Registrar, which will be found in our advertisement columns this week. Inattention to the requirement to forward to any of the respective branch registrars a change of address, or to answer at once any letter of inquiry that may be sent in respect thereof, will subject a registered practitioner to the loss and inconvenience attending the removal of his name from the Medical Register.

#### DIPHTHERIA AND BOARD SCHOOLS.

WE understand there is still some difference of opinion between the Vestry of Islington and the School Board as to the prevalence of diphtheria in the Yerbury Schools and the causes of such prevalence. It is not unlikely that this difference may have to be discussed in a court of law. It would have been much more satisfactory if the medical officers of the respective authorities could have come to some mutual agreement with regard to measures for placing the schools above suspicion, which at present is certainly not their case, even if they be not the *fons et origo* of the diphtheria of the pupils.

#### HAIR SPLITTING.

It is universally admitted that "hair splitting," in its metaphorical sense, is a waste of time and pains, but it may not be altogether superfluous to discuss briefly the causes and treatment, so far as is known, of the actual splitting of the hair, of the scalp and face. It is simply one of several signs which may be exhibited by hair whose nutrition is damaged by either local or general causes. Healthy hair has a gloss upon it due to its lubricating gland, a definite "set," and a remarkable elasticity, so that, if bent at ever so acute an angle, it straightens itself at once when relieved from pressure. But let any interference with its nutrition occur, whether from general constitutional conditions such as syphilis, diabetes, phthisis, fevers &c., or from local causes injuring the hair papilla, as may be seen in alopecia areata, or from the invasion of an organism, as in ringworm, or if the function of the sebaceous gland is interfered with, as in seborrhœa and many inflammatory diseases of the scalp—then some or all of the qualities which we unconsciously value in our hair are lost. It no longer preserves its natural direction or "set" and becomes difficult to keep in order, the hair shaft is dry and lustreless, becomes finer and splits and breaks in ways which vary with the individual as well as from the cause being various. In some people, the hair becomes so dry and brittle that it breaks with the ordinary manipulations of the toilet, a condition known as "fragilitas crinium"; in others the shaft is a little tougher and a green-stick fracture results, the hair not breaking quite across, but the component fibres splitting away, and an appearance

is produced which has been compared to two besoms stuck together and is technically known as "trichorrhæxis nodosa." Far more common than this splitting of the shaft, whether at its surface or in its substance, is "end splitting," in which the hair divides at its extremity into three or four segments, which extend from about a quarter of an inch to an inch down the shaft. This often occurs in very long hair, as in that of women on the head or in men with long, untrimmed beards, and is then explained by the hair being insufficiently nourished owing to its great distance from the roots. This at most only accounts for a moderate proportion of cases, and clipping is the obvious cure. In many cases, however, the cause is situated at the root end, where there may be folliculitis, or some one of the causes, local or general, of which examples have been given. In some persons whose hair is by no means long, especially as regards the hairy portion of the face, the splitting may extend completely down to the root and sometimes apparently starts from there, so that unless closely examined it would appear as if several hairs came from one root. Careful investigation into the cause of the defective nutrition is obviously necessary before rational treatment can be prescribed. This is sometimes easy, as when the patient has recently passed through a severe illness, trouble or anxiety, or has some discernible local affection of the skin; or it may be very difficult, such comparatively scantily nourished structures as the hair and nails even at their best, being often more subtle detectors of some departure from health than our coarser physical methods of investigation can possibly be. Still other corroborative indications of defective health may be discoverable either in the patient or his surroundings, and while these must be met according to circumstances, some help from local treatment may be afforded in many cases. Frequent clipping for long hair has been already alluded to, but does not afford much encouragement when the hair is already short. Nor can good be anticipated from the hair-dresser's usual recommendation of "singeing" after cutting, "to seal up the tubes," as he usually phrases it, thus displaying not only his ignorance of the solid structure of the hair, but also of the physical law which, even if it were a tube, would not allow fluid to escape from it. Such local remedies are calculated to be of service as will increase the blood-supply to the skin, and therefore to the insufficiently nourished papilla, shaving being one such means. We need not, however, now discuss details, but would merely point out the *rationale* of these conditions of hair-splitting and the principles of the treatment which are required to obviate them.

#### EXECUTION OF NEILL, THE SOUTH LONDON MURDERER.

THE execution of the poisoner Neill on the morning of Tuesday last brought with it an almost demonstrable feeling of relief to the mind of the community. His disposition appears early to have manifested a strongly criminal bias, which his after career bore out with a hideous and diabolical completeness in action. The whole history is too familiar to newspaper readers to warrant repetition in our pages. The sentence of death was passed upon him by Mr. Justice Hawkins after trial at the Central Criminal Court. In response to representations made by his solicitors to the effect that evidence tending to prove the culprit's insanity was on its way from America, a respite was granted for a week. It would appear, however, that sufficiently strong evidence to warrant any alteration in the original sentence was not forthcoming. The responsibility thrown upon the Home Secretary in this matter by the provisions of the Criminal Lunatics Act of 1884 is assuredly no light one. We are confident that the public are satisfied with Mr. Asquith's ultimate decision that there were no real grounds for interfering with the death penalty in Neill's case. There

are, no doubt, psychological points and difficulties in the case which only Neill himself could explain or give data upon which an explanation could be based. But, on the far-reaching platform where sanity stretches away into insanity, and in the analysis of human conduct in individual cases, the institutes of law and the institutes of medicine, where they are thus closely brought into relation, cannot afford and cannot dare to be too curious as to the enigmas of psychology in circumstances where the obligations of social life and the personal safety of the members of the community are under consideration.

#### MEASLES AND SCHOOL CLOSURE.

MEASLES is rife just now in many parts of the country, as at Motherwell in Scotland and Tipton in Staffordshire. The absentees from school at the former place number 27 per cent. of the scholars, at the latter about 50 per cent. In face of this, the question of closing the schools at Dalziel has been adjourned for a week by the Motherwell authorities; whilst at Tipton nothing has been done beyond characterising the report of the school attendance officer as "exaggerated." School authorities seem to be still slow to learn that it is the wisest plan to allow their schools to be closed in the early beginnings of an epidemic, before widespread prevalence has rendered their tardy acquiescence in closure a futile and nugatory step.

#### BACTERIOLOGY OF TROPICAL FEVERS.

A PAPER treating on the above subject by Dr. Domingos Freire appears in the *Gazette Médicale de Paris* of Oct. 15th. He states that clinicians have long since established the main differences between the symptoms of the so-called bilious fever and of yellow fever. The object of the paper is to show that bacteriology supports the theory which has been arrived at clinically, and that the causal agent of bilious fever is quite different from that of yellow fever. Observations were made on the blood, bile, urine &c. of living patients and on the viscera after death. Cultivations were prepared on gelatine and agar-agar. Colonies were observed to form within twenty-four hours. They first appeared as a whitish streak along the course of the needle. Large gaseous bullæ then formed on the surface of the nutrient medium. The colonies were scattered in small white patches all over the surface of the agar-agar. Successful cultures were obtained from all the organs, the urine, blood taken from the heart one hour after death, and also from the arm of a patient who had been dead for six days. Similar observations made on yellow fever gave very different results. Colonies developed in the form of a nail, the head of which was on the surface of the cultivating medium, whilst the point penetrated its substance. Gaseous bullæ never formed along the track of the needle. The part forming the head of the nail was perfectly white and was never seen surrounded by smaller colonies. Microscopic examination also revealed radical differences in the microbes of the two diseases. In the case of bilious fever a bacillus was found measuring about nine micro-millimetres in length and three in width. The bacillus was immobile, but was frequently accompanied by numerous mobile spores; it stained well with methyl violet. Each bacillus was divided into segments of different lengths; the segmentation was very rapid. Spores were found at the termination of each segment. In yellow fever, on the other hand, the microbe was a micrococcus and not a bacillus; it was circular in shape, highly refracting, and stained readily with fuchsine and methyl blue. When inoculated into animals in a virulent condition all the symptoms of yellow fever were produced. Inoculation of the bacillus of bilious fever produced in guinea-pigs a fever remittent in type. Post-mortem examinations made on the animals experimented on showed a considerable enlarge-

ment of the spleen, and the gall-bladder was distended with bile. In the stomach a large quantity of dark-green bile was found. The kidneys and lungs were hyperæmic, the heart was arrested in diastole and the auricles were full of dark blood. Blood taken from the heart of the animal and placed on agar-agar produced characteristic colonies. Four tubes inoculated with the bile gave positive results in three cases, the colonies and bacilli presenting the appearances already described. Microscopical examination of sections of the liver and kidney also showed the micro-organisms. In conclusion, Dr. Freire maintains that the bilious fever of hot countries and yellow fever, although closely resembling each other, are perfectly distinct diseases, and that this may be demonstrated both by the clinical features and by their bacteriological characters.

#### DIPHTHERIA PREVALENCE.

IT is reported that diphtheria is prevalent in the Lizard district of Cornwall, where it is ascribed to milk and connected with the consumption by cows of sewage-polluted material. This raises an interesting etiological question which should be followed up. In the meantime some 400 cases of diphtheria are being reported each week throughout England and Wales. London contributes about one-half of them; whilst Oxford, Birmingham and Cardiff are other places in which the disease has shown itself to be abnormally prevalent.

#### ABERDEEN UNIVERSITY CLUB DINNER.

THE biennial dinner of this London club was held on Wednesday evening at the Holborn Restaurant, under the presidency of Dr. Ferrier, F.R.S., who was supported by a large muster of the members. The guests included Sir James Sivewright, K.C.M.G., a distinguished alumnus of the University; Surgeon-General Cunningham, Dr. Lauder Brunton, and others well known in official and social circles. A pleasant evening was passed and a hearty response was given to the toast of the evening, which was proposed in an excellent speech by the chairman, who referred to the approaching completion of the fourth century since the foundation of King's College, Aberdeen, and to the great extension of the University buildings that is now attracting the attention as well as the money of all who are interested in the welfare of the "Granite City." Several Scotch songs were sung with excellent effect during the evening by Mr. Sinclair Dunn.

#### THE INTERNAL ADMINISTRATION OF OZONE IN THE TREATMENT OF PHTHISIS.

DR. HENRY S. NORRIS, in the *New York Medical Journal*, calls attention to the use of ozone in cases of pulmonary phthisis. The preparation of ozone he has used with successful results is called "aquozone," which is a 2½ volume per cent. solution of ozone in water, the stability of which is maintained by the presence of a certain amount of hypophosphites. The remedy was always given in the same way—viz., twelve ounces of aquozone daily in four doses, one before each meal, and the fourth at bedtime, and an ounce and a half of ozonised oil, being half an ounce after each meal. The cases in which it has proved most successful have been in persons under thirty-five years of age with catarrhal phthisis, or where the disease has not passed far into the second stage, has not been too active, and has been limited to a single lobe, or, if in both lungs, has been confined to comparatively small areas. In every case where these conditions existed the improvement has been immediate and progressive. In seven of the fifteen cases reported marked improvement took place: increase in weight, diminution and even cessation of cough and expectoration, termination of night sweats, and, finally, notable and favourable modifications of the physical signs, amounting in two cases to their entire disappearance. Of this last group all

had catarrhal phthisis. In one instance there was consolidation of a part of the upper lobe of each lung; in one case there was a cavity, and in the rest the disease was limited to one lobe. Dr. Norris remarks that if the plan outlined in his series of experiments could be carried still further—if in addition to less crowding and better food for our patients we could keep them in an atmosphere containing a certain and constant amount of ozone (the quantity to be determined by experiment),—might we not hope for better results than are now attained in ordinary hospital practice?

#### INFLUENZA AT GREENWICH.

INFLUENZA is said to be prevailing at Greenwich, and the health officer has reported that already one death has occurred from the disease.

#### ARTIFICIAL DENTURES.

THE opening meeting of the winter session of the Odontological Society, held last week, was devoted to a paper by Mr. Storer Bennett on "Some Methods of Attaching Artificial Dentures," in which he described and illustrated some most ingenious contrivances. It often happens where clasps have to be resorted to that the inclination of the natural teeth is such that the space between them which it is desired to fill up is larger at the gum surface than that on a level with the articulating surface, either from the teeth having fallen towards each other from want of support or from a natural constricted shape of their necks. In both cases where an ordinary denture is fitted with gold clasps there remains on each side of the mineral teeth a space shaped like a bisected isosceles triangle, which is a potent food trap, and, moreover, the natural teeth, by the methods generally in vogue, have to be attached high up near the cutting edges, being both conspicuous and insecure. Gold clasps have but a small degree of elasticity and are in such cases incapable of being made to grasp, when *in situ*, the most constricted part of the teeth. Mr. Storer Bennett, amongst others, has made numerous experiments with various metals which do not corrode in the mouth—for instance, steel springs nickel-plated, diverse combinations of steel and nickel, and aluminium alloys—but without satisfactory results. This led him to experiment with hinged clasps, the subject of the paper. These clasps are of two forms—first, self-adjusting, consisting of a spiral spring of 12-carat gold, contained in a tube closed at one end by a small nut and impinging at the other end of the tube upon the short end of a lever, which is the clasp itself. The other is a spring clasp known to jewellers as a brooch-joint, which requires shutting by means of the finger. Objections were raised at the meeting on the score of complexity, difficulty of cleansing, and the mechanical irritation of the tongue from the prominence of the joint; but most of these seem capable of being overcome, and the use of this method in certain cases should be of great value. Mr. Storer Bennett also showed an artificial tooth (an incisor) with a brooch-joint clasping it firmly in place, which, as the president remarked, was the first time he had heard of a hinged tooth in man.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Freiburg (Baden).*—Professor Ziegler is resigning his post as Extraordinary Professor of Zoology in the Philosophical Faculty for a Professorship of the same subject in the Karlsruhe Technological College.

*Marburg.*—Dr. Arthur Barth has been recognised as *privat-docent* in Surgery.

*St. Petersburg (Military Medical Academy).*—The second Professorship of Operative Surgery and Topographical Anatomy has been filled up by the appointment of Dr. A. I.

Jakobson, Consulting Surgeon to the Duchess of Edinburgh's Hospital.

*Vienna.*—During Professor Kahler's illness Dr. Kraus is taking charge of his medical clinic. Professor Ludwig has been made a life member of the Austrian Upper House.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Jacob Bischoff, Professor of Midwifery and Gynecology in the University of Basle. Previously to his appointment in 1868 as Extraordinary Professor the instruction in gynecology was limited to lectures. By his exertions, however, a department of the Bürger hospital containing twenty-two beds was given into his charge for a gynecological clinic, and from this small beginning a large and important department has grown.—Dr. de Beauclair of Diez.—Dr. Grimmel of Idstein.—Dr. d'Orsonnens, Professor of Midwifery in the Laval University, or Succursale, Montreal.

THE restrictions imposed on marine traffic by the Italian Government, and embodied in the ordinances of Aug. 31st and Oct. 14th, have just been abrogated. Those that remain in force are limited to medical visitations and to disinfections of soiled articles of wearing apparel belonging to arrivals from the French, Belgian and Dutch ports; as also from the German North Sea ports, including Hamburg; from the Russian ports of the Baltic, and the Austro-Hungarian ports. The visitations and disinfections in question are to be practised in the first Italian port at which these arrivals touch.

THE annual dinner of the staff and past and present students of the Dental Hospital of London will be held on Saturday, Dec. 3rd, at the Café Royal, Regent-street, under the presidency of Sir Richard Quain, Bart., M.D., F.R.S., LL.D. Gentlemen either now or formerly connected with the hospital or medical school who may, through inadvertence, not have received special notice, and who desire to be present, are requested to communicate with the Dean at the Dental Hospital, 40, Leicester-square.

WE believe that the testimonial to be presented to Professor James Moleschott of the Roman University on the celebration of his jubilee on Dec. 16th next will take the form of a bust in bronze, to be placed among the Patres Conscripti of medical science, whose sculptured presence still animates the young aspirants to professional honours in the halls of the Sapienza.

THE Alvarenga Prize for 1892 has been awarded to Dr. R. H. L. Bibb, of Saltillo, Mexico, for his essay entitled "Observations on the Nature of Leprosy." The next award will be made on July 14th, 1893. These prizes, of \$180, are awarded by the College of Physicians of Philadelphia for the best unpublished essay upon any subject in medicine.

MR. H. G. HOWSE, M.B., M.S., F.R.C.S., Lecturer on Surgery at Guy's Hospital, and Mr. A. W. Bennett, B.Sc., F.L.S., Lecturer on Botany at St. Thomas's Hospital, are announced as candidates for the vacancy on the Senate of the University of London. Both gentlemen are old-standing members of the Annual Committee.

THE Metropolitan Police Surgeons' Association will hold their annual dinner at the Criterion, Piccadilly, on Thursday, Nov. 24th, at 7 P.M. Mr. A. O. MacKellar, F.R.C.S., chief surgeon, will preside.

THE Public Health and Housing Committee of the London County Council have recommended the appointment of Dr. Charles Wheeler Forrest Young, at a salary of £500, rising to £600, a year, as an additional assistant medical officer of health.

THE application for a Royal Charter made on behalf of the Royal British Nurses' Association will be considered on Monday by a committee of the Privy Council. The counsel for the applicants are Sir Horace Davey, Q.C., and Mr. Muir Mackenzie, Q.C.

H.R.H. PRINCESS CHRISTIAN has accepted the presidency of the Norwood Centre of the St. John Ambulance Association.

## ON CHOLERA, WITH REFERENCE TO THE RECENT EPIDEMIC AT HAMBURG.

BY PRIVY COUNCILLOR VON PETTENKOFER.<sup>1</sup>

THE outbreak of cholera in Hamburg in August naturally excited all Germany. The alarm—which the explosive occurrence of the disease in the chief commercial city of Germany, hitherto regarded as the type of a rational drainage system—spread throughout Europe and beyond it, and was not less than that of sixty years ago, when cholera first advanced into Russia from Asia. It is excusable that in 1892, as in 1831, physicians and governing bodies thought first of all how to prevent the further progress of the destroying angel—how to localise it at Hamburg.

The rigid regulations in force throughout Germany to ensure this limitation may be compared with the military cordons and other measures of detention and isolation in vogue sixty years ago. They are based on the belief that cholera is simply an infectious or contagious disease, passing from the sick and their excreta to the healthy; and that the virus can only be taken with the food, and especially in water. This is now deemed to be absolutely proved since Professor R. Koch made his interesting and scientifically valuable discovery that the evacuations of cholera invariably contain the comma bacillus. The question is now limited to determining how this bacillus acts, how it may be destroyed and how its diffusion may be prevented. The strife against the bacillus is by most now deemed to be the only real prophylaxis, to the ignoring of the great mass of epidemiological facts which are entirely opposed to the mere contagionist view of cholera. Many confine themselves to the behaviour of comma bacilli in test-tube or plate and do not trouble themselves at all about the behaviour of cholera in its epidemic extension. Many years ago I said that the etiology of cholera appeared to me as an equation with three unknown quantities— $x$ ,  $y$ , and  $z$ . Let  $x$  be a specific germ disseminated by human intercourse;  $y$  something which depends on place or time, the "local disposition"; and  $z$  the individual disposition met with in all infectious diseases, both the directly infectious, as syphilis and small-pox, and others, as typhoid fever and malaria. The contagionists have eliminated the  $y$ , finding a sufficient explanation in Koch's discovery of the  $x$ , and seeing in individual tendency or absence of immunity the factor  $z$ ; so that if  $z$  be granted, cholera must occur should people introduce the bacilli into the mouth by unwashed hands, or take them into the stomach with water and food. The view is simple and easy, sufficient for him who only concerns himself with individual cases; but it does not satisfy the epidemiologist; for the latter knows that there are not only cholera-immune people, but also cholera-immune places, and that even in places where cholera has prevailed there are seasons when it will not spread, although introduced. This is what I mean by the  $y$ . It is not so easy to define as is the  $x$ , and so far one can only say that it is related to the quality and dampness of soil; but it is going too far to assert, as

some do, that Koch's comma bacillus is an unimportant, if constant, concomitant.

Man alone of all living creatures is susceptible to the cholera virus, and therefore experiments on animals with comma bacilli can determine nothing. The effects on the guinea-pig—previously prepared by the administration of soda solution—of an injection of a culture of bacilli, followed by one of laudanum, or the results of the intra-peritoneal injection of fresh cultures, are of no manifest importance as against the fact, confirmed a thousand times, that epidemics of cholera are never accompanied by epizootics. Now and then it has been noted that cholera has coincided with undue fatality amongst cats or poultry, but the association has been purely accidental. Guinea-pigs did not suffer during the late outbreak at Hamburg. Similar experiments on animals with non-pathogenic fungi—e.g., the bacterium coli commune—are fatal, and the bacteria multiply in the body just like the comma bacilli. So that the only indisputable experiments on infection with comma bacilli are those made on man. The invariable presence of comma bacilli in cholera stools proves that the fungus has something to do with cholera, but it is still a question whether it alone causes the disease and solely generates the virus. According to my localistic notions it cannot do this in places which are permanently immune from cholera, nor in places which, if occasionally susceptible, are yet at that time not disposed for cholera.

Now as Munich, in the year of grace 1892, in spite of much travel of persons from Hamburg and Paris, and in spite of its October Fair, remained free from cholera, I did not scruple to experiment on myself with the comma bacillus. Of it I had received from Hamburg, through my colleague, Dr. Gaffky, a pure agar culture, and from this my junior colleagues, Drs. Pfeiffer and Eisenlohr, prepared a sufficient quantity of broth culture to be taken by the mouth. As Gruber found that fresh cultures acted on guinea-pigs more powerfully than cultures several days old, I employed a broth culture which had been in the incubator barely twenty-four hours. One cubic centimetre of this was found to contain innumerable bacilli, after being diluted a thousandfold, so that I could take at one dose milliards of bacilli, very many more than one could possibly introduce by unwashed hands. Since Koch states that comma bacilli are destroyed by the acid of the gastric juice I was careful to take them on an empty stomach—viz., two hours and a quarter after my "frühstück"—when, according to my friend the physiologist, Carl von Voit, there would not be more than 100 cubic centimetres of gastric juice, with 0.2 per cent. of hydrochloric acid in the stomach. To neutralise this free acid the broth culture of bacilli (1 cubic centimetre) was taken in 100 cubic centimetres of water, containing 1 gramme of bicarbonate of soda. The vessel was afterwards rinsed with 50 cubic centimetres of water, so as to ensure my taking all the bacilli. I drank this cholera mixture in the presence of witnesses on Oct. 7th, it tasting like very pure water. Some were anxious about me, and begged that I would allow them to sacrifice themselves for their old teacher, but I wished to act on the old medical principle, *stat experimentum in corpore vili*. I was right in regarding myself as a *corpus vile*. I am seventy-four years old, have had glycosuria for years, have not a single tooth in my head, and only use my artificial teeth when I have to make a speech, not needing them for mastication; and I also feel other burdens of advancing age. Even if I had deceived myself and the experiment had endangered my life, I should face death calmly, for it would not be as a thoughtless or cowardly suicide. I should die in the cause of science, like a soldier on the field of honour. Health and life, as I have often said, are very great earthly gifts, but not the highest. He who wishes to rank higher than the brute must be ready to sacrifice even life and health for great ideals. However, to me the matter did not seem quite so tragic, for I was firmly convinced my  $x$  could not kill without my  $y$ .

[Professor von Pettenkofer then gives a detailed account of his condition, *de die in diem*, as to temperature, pulse, sleep, food, intestinal symptoms &c. On the 9th he began to have diarrhoea, and did not feel very well, having some abdominal discomfort; the diarrhoea increased on the 10th and continued up to the 14th. He took no medicine to control the diarrhoea, although advised to do so, lest it should become chronic.]

The motions were examined bacteriologically by Drs. Pfeiffer and Eisenlohr to trace the fate of the comma bacilli. The first loose motion contained a large quantity, and the subsequent watery stools contained pure cultures of the bacilli. On

<sup>1</sup> Abstract of a paper contributed by Prof. von Pettenkofer to the *Münchener Medicinische Wochenschrift*, Nov. 15th, 1892.

Oct. 14th there were only a few isolated bacilli, and by the 16th these had disappeared. Bacteriologists generally admit that comma bacilli do not excite cholera by invading the body from the bowel, but that, remaining in the intestine, they give rise to the virus, which is absorbed, and then causes choleraic symptoms. Virchow more than twenty years ago pointed out the resemblance of cholera to acute arsenical poisoning. How great must have been the amount of poison formed by the many milliardi of comma bacilli during their eight days' sojourn in my intestine. But I did not suffer at all from poisoning, was quite well, retained my appetite, had no trace of nausea, no fall of temperature, no albumen in the urine &c., and went about my daily avocations, so that I could not but conclude that, although comma bacilli may cause diarrhoea, they cannot cause cholera, either European or Asiatic. Possibly in Hamburg my experiment might have ended fatally, because there, on Oct. 7th, in addition to the Asiatic  $\alpha$  there was plenty of the Hamburg  $\gamma$  present, and it might have been that a much smaller dose would have excited severe cholera.

[When this experiment had terminated another was made in the person of Professor Emmerich, conducted on the same lines, except that he took a more restricted diet. A similar record is given of the daily condition in this case, the experiment commencing on Oct. 17th. Early next morning there was one fluid motion, and in the course of the day diarrhoea set in, so that on the 19th to 20th there were as many as fifteen to twenty colourless, watery evacuations, and an enema containing tincture of thebaica was administered and on the 20th one of tannic acid and opium. The motions became natural in the course of the 21st. Comma bacilli were found in the stools from Oct. 18th to the 28th, the motions on the 19th being almost pure cultures. On the 24th Professor Emmerich returned to his usual diet. Throughout his general condition was undisturbed, appetite retained, no pain in abdomen and only some weakness from the diarrhoea. Apart from the diarrhoea he had some hoarseness of voice and dryness of pharynx.]

These two experiments on man show that the comma bacillus does not generate the virus of Asiatic cholera, thus confirming Bouchard's results of the different effects of injections into animals of pure cultures and of the excreta (stools and urine) from cholera patients. Choleraic symptoms were not induced by the former, but only by the latter. Bouchard's experiments also show that the special cholera poison is only formed in the human organism. Perhaps one should concede that Emmerich and I did have a mild attack of cholera, as Koch and his numerous supporters would say, but I cannot admit the correctness of their view of the sufficiency of  $\alpha$  and  $\beta$  to cause an epidemic, to the exclusion of  $\gamma$ , no more than I can agree to the regulations enforced in Germany, Austro-Hungary and Italy, based on the discovery of the comma bacillus. Yet Dr. Baur and Dr. von Ziemssen, who have had large experience of cholera, affirm that the symptoms we exhibited were not those of which they had experience in cholera epidemics. According to the contagionist practice, on the discovery of comma bacilli in my evacuations, I ought to have been ruthlessly confined in the isolation barracks of Munich and my dwelling thoroughly disinfected. It seems a pity that this did not take place, for if it had, the contagionists would have been able to have loudly proclaimed that they had saved Munich from cholera, since Emmerich and I, by our stools, which were discharged without disinfection into the closets and drains, might otherwise have certainly infected the town. Joking apart, I too would become a contagionist, so comforting and so sparing of all further trouble is the view, if it could only be explained to me why so many places into which cholera has repeatedly entered have never had an epidemic. Lyons, which stands on the direct line of traffic between Paris and Marseilles, two infected foci, is a striking instance. Koch's explanation of this from the practice of washing linen on ships in the fast flowing Rhone and Saone can hardly apply, since a like practice obtains at Zurich and Stuttgart, which do not enjoy such an immunity. The contagionists neither attack nor dispute the epidemiological facts which I have published on this head; they only ignore them, for they harmonise so little with contagionist theory.

Since 1831 Hamburg has been visited by cholera fifteen times and Berlin twelve times (Table I.) The traffic by land and water between the two cities is extremely intimate, giving every chance for the transference of comma bacilli.

TABLE I.—CHOLERA IN BERLIN.

Year.	Commenced.	Terminated.	Population.	Deaths.	Per 1000.
1831	Aug. 30	Jan. 20, 1832	220,843	1423	6.2
1832	June 17	Mar. 14, 1833	234,171	412	1.8
1837	Aug. 11	Dec. 6	265,394	2338	8.8
1848	July 27	" 9	400,657	1695	3.9
1849	May 30	" 11	401,802	3552	8.8
1850	Aug. 6	Nov. 24	405,707	711	1.8
1852	Sept. 4	Dec. 31	413,617	165	0.4
1853	Aug. 7	Nov. 30	415,425	940	2.3
1854	—	—	—	—	—
1855	July 26	Nov. 26	419,241	1985	3.3
1856	—	—	—	—	—
1857	—	—	—	—	—
1859	—	—	—	—	—
1860	June 14	Nov. 17	658,251	5457	8.3
1871	Aug. 14	" 3	828,311	65	0.07
1873	July 21	" 7	918,841	740	0.8

CHOLERA IN HAMBURG.

Year.	Commenced.	Terminated.	Population.	Deaths.	Per 1000.
1831	Oct. 31	Jan. 10, 1832	145,363	476	3.2
1832	Feb. 2	Dec. 17	146,365	1460	10.2
1837	—	—	—	—	—
1848	Sept. 1	Dec. 31	167,201	1674	10.0
1849	June 14	Nov. 22	168,061	563	3.3
1850	July 26	Jan. 11, 1851	171,013	400	2.3
1852	—	—	—	—	—
1853	June 23	Oct. 20	182,584	244	1.3
1854	" 14	Nov. 14	284,274	281	1.6
1855	" 30	Oct. 22	185,041	175	0.9
1856	" 13	Nov. 14	167,896	67	0.3
1857	" 9	" 27	191,910	463	2.4
1859	" 9	Oct. 5	199,747	1169	5.6
1866	" 30	" 22	214,174	1003	5.1
1871	Aug. 1	Sept. 24	325,332	141	0.4
1873	June 14	Nov. 8	348,127	1001	2.9

The lack of correspondence as to time, severity of the outbreaks in the two places, is notable, especially in the years 1831, 1837, 1848, and 1849. Again, since 1831 neither of these towns has had a winter epidemic, whereas in Munich two out of the three outbreaks during the same period have been in the winter—viz., 1836-7, 1873-4. The seasonal variations in cholera are well shown in the statistics compiled by Brauser from all cases occurring in the kingdom of Prussia from 1848 to 1859, the numbers being grouped in semi-monthly periods. He found that the minimum of cases and deaths fell in the first half of April, the totals being for these twelve years seventy-one and fifty respectively; whilst in the first half of September they mounted to 57,395 cases and 31,048 deaths. Taking the half-monthly minimum of deaths as unity, the rise and fall in the incidence of the disease, as gathered from these statistics, may be thus given (Table II.):—

TABLE II.

Date.	Relative mortality.	Date.	Relative mortality.
April 1-15	1.0	October 1-15	380.2
" 16-30	1.2	" 16-31	316.1
May 1-15	2.2	November 1-15	227.2
" 16-31	6.7	" 16-30	125.3
June 1-15	30.2	December 1-15	84.9
" 16-30	43.9	" 16-31	60.1
July 1-15	61.0	January 1-15	23.5
" 16-31	108.6	" 16-31	17.8
August 1-15	233.4	February 1-15	10.2
" 16-31	430.2	" 16-28	6.6
September 1-15	620.9	March 1-15	3.3
" 16-30	510.2	" 16-31	1.1

How is it possible to account for this enormous rise from 1 to 620, according to season, by the properties of the comma bacillus? Why does the bacillus act so powerfully in Hamburg and Berlin at one epidemic and so feebly at another? There must be a seasonal influence: What is it?

Some think it is due to temperature, but although in Hamburg and Berlin epidemics generally begin in June and end in November, less often in October or December, yet there have been severe winter epidemics in Moscow, St. Petersburg, Munich and elsewhere. In Calcutta, where it is endemic, the minimum of cholera is in August or September, the maximum from January to April, mostly April, and the mean temperature in Calcutta in April is 30° C., of August 28° C.—i.e., is nearly equal. But if the comma

baocilli simply pass from man to man season should have no influence, for the temperature of the intestine is constant at 37.5° C.—a tropical climate. There is, however, at Calcutta another climatic factor—viz., the rainfall—which in April has a mean of 60 millimetres, and in August of 365 millimetres, the annual average being 1600 millimetres unequally distributed throughout the year. The rains begin in May and end at the end of September or October, the remaining months passing, perhaps, without a drop of rain. Now the monthly mortality of cholera forms a curve exactly inverse to that formed by the rainfall. Rain can hardly affect bacteria, especially comma bacilli, which flourish in moisture and are destroyed by dryness. In Prussia the same correspondence between rainfall and cholera holds, and perhaps the cause of the winter outbreaks at Munich may similarly be explained. The 1873 epidemic in Munich bears this out. It began suddenly in August and as rapidly declined, so that very few cases occurred during October, although at this time there was much movement of the population (changing houses, opening of schools &c.). At the commencement of November it broke out again, and by Dec. 4th it had reached a height of fifty-six cases daily, whereas in the whole of October there were only twenty-one cases reported. Inexplicable on the bacillary contagionist view, it can be readily explained from the localist standpoint. The germ  $\alpha$  was present in Munich long before the first case occurred. It is an epidemiological fact that cholera in certain places in India and beyond India may remain quiescent for months and then break out again, whilst even longer periods of quiescence must be admitted for the outbreaks in Hamburg, Berlin and Munich. In the summer of 1868, at Bellinghausen, in Essen, and elsewhere in the Prussian Rhine provinces, and in Westphalia, there were cholera epidemics, but nowhere else in Europe; and unless its autochthonous origin be accepted these outbreaks must be referred to the residues of the epidemic of 1866, which had been dormant in Essen. The great epidemic in Egypt in 1883 did not affect the Mediterranean ports that year. France saw in this the efficacy of quarantine, but in 1884 it broke out in that country. So in July and August, 1873, the local outbreak in Munich occurred after a very dry July, and was checked by an exceptionally wet August, but reappeared in the winter during another abnormally dry season. It is remarkable that Augsburg, which suffered so severely in 1854, and into which, in 1873, cases were introduced from Munich, no epidemic occurred in that year. This was not due to disinfection—it was before the discovery of the comma bacillus—but more likely to the excessive rains with which Augsburg was visited in 1873. There is no doubt that like atmospheric conditions played a part in the epidemic at Hamburg this year. The summer had been exceptionally dry and hot; the heat in August was almost unbearable, being about 5° above the average, whilst the rainfall in July, August and September was considerably below the mean:—

	1892.	Mean rainfall.
July ... ..	21 mm.	97 mm.
August... ..	53 ..	77 ..
September ... ..	46 ..	64 ..
	120 mm.	238 mm.

Naturally also the level of the subsoil water was lowered. The temperature, of the Elbe, which is taken in mid-stream every morning, rose in August to 22° C. Yet similar conditions of weather prevailed in other parts of North Germany, which were also susceptible to cholera, but where it has not yet become epidemic, and where probably epidemics will break out shortly. As regards the rainfall, only those places can be compared where observations have been continuous; for, as at Munich and Augsburg, neighbouring districts where the average rainfall is the same may differ very widely in particular years and seasons. The cholera germ from Russia has been more widely disseminated this year in France than in Germany, and that it only found a favourable soil in Hamburg must be due to a special reason. Hamburg for years has been making a special hygienic experiment on the largest scale, for it thinks that it can be cleansed by using an extremely impure water. The Hamburg waterworks distribute unfiltered Elbe water throughout the town and suburbs. In the mains are found dense layers of fungi of vegetable and animal origin; here and there a tap is plugged by the head of an eel. For drinking purposes the water may be filtered at home, or, if this does not suffice, thirst may be quenched by wine, beer, seltzer &c. For all domestic uses, for cleansing rooms and dwellings, courts and streets, the unfiltered Elbe

water is alone used, and then, owing to the excellent drainage into the Elbe, part of the refuse of the city must actually flow back into the water mains, thus rendering nugatory the sanitary aim of the drainage system. Above the reservoir the Elbe furnishes a purified water; but it becomes so contaminated on passing through Hamburg that within this area it cannot undergo self-purification. To be serviceable for consumption or domestic use its water should be further purified, as by filtration through sand, as is done at Altona, a few kilometres below Hamburg. At Cuxhaven the Elbe again becomes free from Hamburg impurities. It is plain also that the same degree of contamination may act differently on different soils, and all epidemics of cholera in Hamburg have shown essential differences between quarters situated upon marshy land and upon high ground. Reincke has shown that since the introduction of a drainage system into Hamburg the frequency of typhoid fever has diminished, except for some variations in abnormally dry seasons. Epidemics of typhoid fever have this in common with cholera; but that Hamburg, in spite of its excellent drainage, may still be a fruitful soil for typhoid fever is shown by the epidemics of that disease of 1885 to 1887, whilst this year, associated with cholera, there has been a notable increase in typhoid fever. We are more fortunate in Munich, for formerly, with very good drinking water, but high level of subsoil water, we often had more than twenty deaths annually from typhoid fever among 10,000 inhabitants. However, since 1881, with subsoil water at a very low level, the deaths have not exceeded one. The once notorious typhoid soil of Munich has been gradually purified by sanitation, and we regard with some confidence any fresh visitation of cholera. In Hamburg itself a system of sand filtration was commenced until the cholera intervened, but the new waterworks are expected to be completed in the autumn of 1893. These works on a gigantic scale are under the direction of Engineer-in-Chief A. Meyer and will cost many millions of marks, but not so much as Hamburg has lost by the cholera of 1892.

The part played by water in this epidemic has been variously explained. The "drinking-water theorists" think that comma bacilli from Russian Jews found their way from the Elbe to the reservoirs and were thus distributed throughout the town—a most plausible and comfortable explanation for the laity and the profession. Still experience does not always fit in with this theory, for outbreaks quite as "explosive" have occurred without the drinking water being at fault. I leave it undetermined whether in 1892 the Hamburg water operated directly as drinking water or indirectly as foul usable water. It is strange that in spite of the most careful search they should have had the misfortune not to find any comma bacilli in the Elbe water or in the water from the Hamburg mains. This is said to prove nothing, since other bacteria may be present which fluidify nutrient gelatine. Yet Koch found his bacilli in a Calcutta tank, and Fraenkel in the water of the Rhine, where lay a boat containing a case of cholera. The water of the Indian ponds is not only drunk, but used for bathing and washing. The comma bacilli escaping from the human intestine into river or pool must be overcome by other bacteria and disappear very rapidly. I am not asserting that the comma bacillus has no etiological importance, but I believe it impossible for it to be the  $\alpha$  which can excite and develop cholera epidemics apart from the  $\gamma$ . And if we have found a specific micro-organism in an infectious disease, we ought to hope that some means may be found thereby to combat the disease. Tuberculosis is a striking example. The discovery of the tubercle bacillus in the sputa of phthisical patients was scientifically as interesting and important as that of the comma bacillus in choleraic evacuations. But since the discovery of the tubercle bacillus, which is older than that of the comma bacillus, neither more nor fewer people have died from phthisis than formerly.

The present protective measures against cholera rest entirely on purely theoretical contagionist bases. We have become very one-sided, thinking that cholera must be met by prevailing theories and not that theory should follow after cholera. It is deemed most important to seize the comma bacillus from the first case occurring in a place, and when its presence is proved, to isolate the patient, disinfect his excreta and his dwelling, and then one thinks that the place, be it village or town, is protected from cholera. If in Hamburg the first case had been isolated and disinfected, the epidemic, so they think, could not have broken out. Until a case comes to official knowledge it is in contact with others and the evacuations are not disinfected; and, when

reported it must be determined bacteriologically whether it is a case of Asiatic cholera or one of cholera nostras. Then the source of infection must be traced, and often the disease breaks out in many parts simultaneously, as it did in Hamburg, adding to the difficulty of the task. Nothing but absolute stoppage of all traffic could avail, and that would be a greater misfortune than the cholera. The spread of the cholera germ is not to be prevented, either in India or outside it, by isolation, disinfection, cordons, quarantines &c. Just as, in spite of custom houses, goods are still smuggled over the frontier, so the bacteria and viruses will be smuggled through all our barriers. Still, improved sanitation may do much to prevent the smuggled germs gaining a foothold. In the sixties, when Prussia, Belgium, Holland and France had most severe epidemics, Great Britain was only moderately invaded, and since 1866, in spite of its colossal traffic with the motherland of cholera, and the introduction of numerous cases from other lands, England has not had a single local epidemic, neither during the cholera time on the Continent from 1871 to 1874, nor during 1884 to 1887. Even this year cholera has not invaded England from Hamburg, Russia and France, although England (London) was the only land which fearlessly trafficked with ships coming from infected ports.

If one cannot act against the introduction of the germ  $x$ , one must seek to act in the directions of  $y$  and  $z$ , and strive to make places or people immune. Every epidemic shows that many do not possess the  $z$ , the individual disposition, and that they are immune. Some are protected by their own serum perhaps, and it may be possible to ward off cholera, like variola, by protective inoculation. The contagium of variola was not mastered by isolation and disinfection until vaccination proved successful. Cholera is not contagious like variola, but depends on local conditions, and susceptible places may be rendered immune, like Fort William in Calcutta. There have been in other places as severe epidemics as this in Hamburg, but where all these measures of isolation &c. were not in vogue, and where the disease arose and subsided as quickly as it did at Hamburg.

[Professor von Pettenkofer here contrasts the epidemic at Munich of 1854 with the Hamburg outbreak. He goes on to contend that neither military cordons, as in Russia, nor quarantines, nor the forbidding of fairs &c., have any influence, and fears that next year, if there is not much rain, it may spread over Germany.]

The contagionists say that when cholera breaks out in a place the rules demanded by their theory should be enforced. I am convinced that this is a mistake. I know of cases where nothing of this sort has been done and the epidemic has been remarkably mild, much milder than where the contagionist practice has been carried into effect.

[In proof of this Professor von Pettenkofer cites at some detail the outbreak of cholera in Bavaria in 1836, and shows that the authorities acted on the anti-contagionist plan, only transferring those cases to hospital which could not be cared for at home, and not interfering with public meetings and feasts. At that time Munich was in an insanitary state, yet the epidemic was the mildest of the three it has experienced. There was no dread of cholera in those days which he remembers in his youth. Nothing was known of bacteria, and cholera was attributed not to comma bacilli but to the genus epidemicus. Traffic in and out of Munich was not deranged.]

He concludes by expressing the hope that the recent appearance of cholera in Europe will lead to a restriction of regulations based on merely theoretical grounds, so greatly hampering free intercourse and even contrary to humanity, without any practical effect, and that the money expended on them will be devoted to attainable sanitary aims. Reflecting how many millions must have been thus sacrificed to theory in a single town like Hamburg, it is inconceivable, he says, "how opposition can be made to the new military Bill before the Reichstag, which is based on much sounder grounds than the contagionist rules against cholera. I live and die in the conviction that our army will subdue enemies who would invade us from the east or the west, but not that our capture of bacilli, our cholera barracks, isolations, disinfections, prohibitions of entry and transit, or our quarantines can prevent the invasion and the dissemination of cholera."

VACCINATION GRANT.—Mr. James A. Bright, M.R.C.S., has been awarded, for the eighth time, the extra vaccination grant as public vaccinator for the Glastonbury district of the Wells Union.

## CHOLERA.

### CURRENT NOTES, COMMENTS AND CRITICISM.

THE exceptionally warm and moist or, as it is commonly termed, "muggy" weather which has recently prevailed has probably not been without its effect on this disease, and the number of cases has, perhaps, been somewhat increased by it. Although there are instances on record of the continued prevalence of cholera in winter, the disease usually "dies down," as it is sometimes expressed, during the cold weather, and it is very rare for an epidemic of cholera to manifest itself or extend with any epidemic strength in the winter season. According to the official accounts the disease has died out in Paris, but several fresh attacks have occurred in the north of France. The *Temps* reports nine new cases and two deaths at Etaples, one at Courteville and two fatal cases at Calais. Five fresh cases have been reported from Arras, one from Boulogne and one from Bargnes. Five cases are reported from Avion. One case of choleraic disease was admitted to the hospital at Lyons which town, with the exception of a slight epidemic in 1854, has hitherto escaped cholera. From the Hague we learn that since the outbreak of the epidemic in Holland 225 persons have died of it. The number of deaths from the disease last week was 22, most of which occurred in the province of South Holland. Sporadic cases of cholera continue to occur, however, at Breda, Utrecht, Terheyden, Leeuwarden, Woerden, and Steenberg, as well as at several places in the vicinity of Woerden. It has altogether disappeared as an epidemic in Hamburg, notwithstanding that an occasional case of choleraic diarrhoea is reported from time to time. The Imperial Office of Health at Berlin has declared Hamburg, Altona and Stettin free of cholera, and the ships from those ports are no longer subject to sanitary inspection. At Budapest there have been altogether 1018 attacks and 440 deaths from the commencement of the outbreak; and the disease still lingers in the city giving rise to some fresh cases—from eight to twelve—daily. The last reports, however, indicated great improvement, as there were only two fresh cases and two deaths in twenty-four hours. Almost all the schools at Budapest have been re-opened. It is stated that cholera is spreading in the western, and especially in the southern counties of Hungary. A severe outbreak took place recently in the village of Aradacz, where fifty-seven deaths are reported to have occurred in a population of 1500. The latest news from St. Petersburg is not altogether satisfactory. The exceptionally mild weather has apparently given rise to a recrudescence of the disease. There were 12 cases and 5 deaths on Nov. 14th. The majority of the cases are from the north side of the Neva, where the water-supply is stated to be bad. Local conditions usually exercise a powerful influence, and this seems to have been the case in the following instance: One of the latest attacks is that of the English manager of a large cotton mill, where, it is stated by *The Times*, the first authenticated case of cholera at St. Petersburg took place. It is alleged that many cases of influenza have also occurred lately at St. Petersburg. Russia's contribution to the cholera death-roll seems to have been a terrible one, amounting altogether to over 220,000 victims. The famine-stricken districts of the Caucasus have suffered most. In Astrachan there were 7873 deaths; in Veronseh, 9468; in Vintka, 4440; in Samara, 14,962; in Saratoff, 18,992; in Tamboff, 8039; in the district of the Don, 17,751; and in the Caucasus, 63,268. This epidemic of cholera followed in the wake of famine and an epidemic of typhus fever, which is said to have proved even more fatal than the cholera. Confronted with these terrible scourges, and in dire need of sanitary improvements in every town and district of the country, it certainly strikes one with amazement that Russia still seems bent on spending large sums of money in the pursuit of military ambition and a war policy. It does not appear that our latest and more extended study and observation of cholera during the present epidemic is likely to end in any precise scientific unanimity regarding its causes and methods of extension. There seems to be great divergence of opinion in these respects at the

present moment, Professor M. Peter, of the Necker Hospital, Paris, for example, having set forth his views in a clinical lecture on "Indian Cholera, or Cholera Nostras," with reference to the late outbreak at Nanterre and other occurrences at Paris, in a vigorous spirit of unbelief in the current orthodox doctrines. We would call attention to the extremely interesting article "On Cholera, with reference to the Recent Epidemic at Hamburg," by Privy Councillor von Pettenkofer. Apart altogether from the scientific value of the paper, it is impossible to withhold our admiration for the calm courage exhibited by Professor von Pettenkofer and Professor Emmerich in undertaking experiments of the nature described. Professor von Pettenkofer considers that the contagion theory has not been confirmed by the Hamburg epidemic. When cholera breaks out epidemically there is always local predisposition. Individual predisposition without favourable local circumstances will not, in his opinion, produce a cholera epidemic. He places no reliance on the results of the inoculation experiments on animals, and thinks that man is the only animal on whom any experimental results can be relied upon. With the view of testing the inadequacy of individual predisposition to account for an attack of cholera he, together with Professor Emmerich, swallowed considerable quantities of cholera bacilli without any more serious consequences than diarrhoea, which might, of course, be induced by any septic agent. Bacteriological examination of the excreta proved, at any rate, that the experiment was thorough, so far as the individual experimenters were concerned. It has been done before and with similar negative results. We may incidentally refer here to the "Report on the Sanitary Measures in India in 1890-91," just published, for some information regarding the Hurdwar fair and the comma bacillus, which may prove interesting in this connexion. It will be remembered that we had previously called attention to the fact that samples of water taken at the Hurdwar bathing place in 1891 were found to contain quantities of the comma bacillus. It was calculated that the fair was attended by about 700,000 persons, who crowded to the sacred ghat to bathe and take the holy water into their mouths. The appearance of the comma bacilli in the water was accounted for by the presence of cases of choleraic disease at the fair, who either by themselves or by infected articles of clothing introduced the bacilli into the sacred pool. Had an outbreak of cholera occurred subsequently among the pilgrims the positive evidence would naturally have been regarded as something more than a coincidence, and the presence of the bacilli would have been considered its cause; but no such outbreak took place among the crowds of pilgrims returning from the fair. Of course there is no evidence to prove that the bacilli discovered in the samples of water were absolutely identical with Koch's comma bacilli. We have already alluded to Professor Peter's clinical lecture at the Necker Hospital, Paris. It gives a very interesting description of the events that happened at Nanterre, and compares them with some cases at Breteuil in 1884. The lecture is published in the *International Medical Magazine* for October. He boldly strikes at the very root of the specific nature of the cholera-cause, as it were, for he holds that cholera nostras and Indian cholera present the same symptoms, the same termination, the same contagion and the same epidemic manifestations, so that they are, for all practical purposes, one and the same malady. The object of the lecture is to show how a series of morbid troubles can increase and become an epidemic. Diarrhoea first develops, which becomes more and more severe, and finally cholera is produced. This attempt, however, to cut the knot of a pathological difficulty is not likely to be regarded as a successful or satisfactory procedure from a scientific point of view.

*Appropos* of the disappearance of cholera from Hamburg, a statement to the effect that German toys were manufactured at Hamburg and sent to the London market brought a shoal of letters to a contemporary from persons interested in that trade contradicting the statement that such toys were manufactured in Hamburg; the fear of cholera infection being conveyed to our children in Noah's arks is consequently illusory. With the aid of a lively imagination applying a spur to the fear of possible infection through any and all sorts of channels, it is impossible to impose limits to people's alarmed credulity. But the Japanese authorities were credited a few years ago with going further in the direction of precautionary measures than anybody else, for it was alleged that on hearing that two Japanese sailors had died of cholera and had been thrown overboard, they immediately prohibited fishing along the coast!

## THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### A VISIT TO CAEN.

*Sanitary Measures against the Havre Steamers.—Dogs and Cholera.—The Legality of Porous Cesspits.—Gutters as Sewers.—A Town for Tourists.*

FROM Havre small steamers generally sail twice a day for Caen. Other steamers go to Honfleur and to Trouville. The mouth of the Seine is so wide that these places cannot be reached by train, without travelling inland as far as Rouen. During the height of the epidemic, the ports on the opposite banks of the Seine took alarm and sought to impose all manner of measures against the steamers that brought passengers from Havre. This was the more absurd as these measures could not be enforced against the passengers who came by train. At best they could only lessen the danger by reducing the number of passengers; but as the cholera had already been brought over before any precaution whatsoever was adopted, the suppression of the steamship-service could not in any way be justified. The Minister of the Interior, however, had to intervene so as to make the local authorities understand that, whatever might be done with regard to persons coming from foreign countries, the freedom to travel within the country itself could not be interfered with. Thus the steamers resumed their service, but measures were nevertheless taken against the passengers.

I crossed over from Havre on Oct. 25th. Three days previously there had been another death at Havre which was attributed to cholera. It occurred under very curious circumstances. The victim was a lady related to one of the professors in the town. She was devotedly attached to a dog, which had been suddenly seized with violent vomiting, diarrhoea and cramps. The animal died very rapidly, and the carcase was in such a condition that it was not judged prudent to bury it in the garden. It was given to the scavengers and placed on board the boat which takes sludge out to sea every day. Shortly after the lady, who had nursed the dog throughout, was seized with the same symptoms and died at the end of three days' illness. This case has excited great interest in medical circles at Havre, and regret is expressed that the dog's symptoms were not more carefully observed. Of course the owners of the dog were taken altogether by surprise, and suspecting no danger had taken no precautions.

After some two hours' sea journey the Havre boat reached the mouth of the river Orne, which passes through the town of Caen, but instead of steaming up the river, we hoisted the yellow quarantine flag and made for the jetties situated a little distance further along the coasts, and built at the entrance of the maritime canal, by which ships of larger tonnage reach the town of Caen. Here we were boarded by a medical officer under the armed protection of custom-house soldiers. This gentleman went all over the ship, looked at all the passengers, and then gave us permission to pull down the yellow flag and proceed to Caen. We now returned to the river Orne, and an hour's pleasant journey up the narrow stream, winding through a picturesque country, brought us to the landing-stage at the historical and antique capital of the Department of the Calvados. Here again an official came on board flanked by guards, who would not allow anyone to land until they had given in full their names and addresses. On landing the passengers were conveyed under military escort to an office, where those who did not intend staying at Caen, but were proceeding to some other town, had sanitary passports given to them. The passport was identical with the one given at the frontiers. The bearer has to report himself within twenty-four hours to the authorities of the town where he may be going. Any neglect entails imprisonment of from three to fifteen days. Excepting that our luggage was not examined and the soiled linen seized, the same precautions were taken at Caen against passengers coming from Havre as are taken at the frontiers against passengers coming from Russia, Hamburg and other infected places.

That considerable alarm should be felt at Caen when it was known that travellers were coming from towns where cholera prevailed is only natural if we take into account the utter want of sanitation which characterises this place. Some idea of the neglect which prevails in matters relating to public health may be gathered from the fact that the muni-

opality has not even taken the trouble to draw up vital statistics. At the *Etat Civil*—which corresponds to our registry office, with this important addition, that the registration comprises not only births, deaths and marriages, but the far more complicated records relating to the compulsory military service—there were but four clerks. As a result, no one knew what was the death-rate of Caen; no one knew even what was the average number of deaths at Caen. I was therefore obliged to trespass on the time of these four clerks, and one by one the death registers of the last ten years were pulled down from their dusty shelves, straps and tape undone, and the total number of deaths for each year ascertained. The number of deaths occurring per annum from 1882 to 1891 were as follows: 1253, 1278, 1205, 1344, 1382, 1272, 1357, 1200, 1433, 1470. This is equal to an annual average for the ten years of 1319.5. The population in the first census taken during that period was 43,800, and in the census taken quite recently 46,417. The high death-rate for the last two years is attributed to the influenza epidemic. The number of deaths in the town, I was especially asked to note, was greatly increased by the numerous charitable endowments for which Caen is celebrated. There are the lunatic asylum and the hospital and other institutions, where some 300 persons died in the course of the year, the majority of whom were not inhabitants of Caen. Also there were some seventy stillborn infants counted among the deaths of each year. But these arguments apply to almost all large towns, and are not taken into consideration; therefore, and calculating according to the last census, there is an average death-rate for the ten years of a fraction over 28 per 1000. But, if we estimate the population for the ten years at the average of the last and the previous census, then the death-rate exceeds 29 per 1000; and, finally, if some 200 deaths be deducted on the ground that, though occurring within the town, they properly belong to districts outside the town, we should still find a death-rate of 24 to 25 per 1000, which, for a town of less than 50,000 inhabitants, may be considered very high. The average death-rate for the fifty-one towns in France of more than 50,000 inhabitants is 25.61 per 1000, and no one pretends that this is satisfactory.

Probably the death-rate of Caen would be higher still but for the one great redeeming fact that the town possesses a good water-supply. From the Moulines, a hill some seventeen miles distant, 8000 cubic metres of pure spring water are brought to the town in a closed aqueduct; this water comes from an altitude of 120 metres. The town of Caen is only six metres above the level of the sea; the water is therefore delivered under pressure. The water has been recently analysed in Paris and found to be pure, but it is exceptionally hard. This is so serious a grievance with wine and spirit dealers, that one enterprising tradesman has started a water-distillery. The town water soon thickens, and spoils the appearance of the wines and spirits with which it is mixed. Now, however, the trade is provided with pure distilled water, which can be consumed without danger to the public.

Though there is a good water-supply, Caen is in the same position as many other towns: the municipality cannot compel the inhabitants to drink only the town water; but everything is done to encourage the consumption of this pure supply. There are no less than 260 public fountains in this small town. Thus the inhabitants, without having to go any distance, are able to obtain pure water gratuitously. There are, besides, 780 subscribers who have private supplies of the town water within their own dwellings. I was assured that most persons preferred drinking the town water; but it was admitted that there were wells and cisterns, and that some persons drunk either the rain-water collected in their cisterns or the water from their private wells. This is the more deplorable as the drainage of the town is most defective. The municipal authorities profess to believe that the cesspools are water-tight, but such profession is only a matter of form; they know well enough that many cesspools leak. Even if the cesspools were water-tight, the authorities admit that there are *bétoires* in the town. As I have already explained, a *bétoire* is a well or deep hole dug in porous soil, into which houses drain their slops, and all the liquids filter away in the subsoil. It appears that the authorities cannot legally suppress a *bétoire*. The question has been tested by the municipality. An influential resident at Caen was prosecuted because he would not close his *bétoire*. The magistrate held that the law could not interfere with the landowner, who was at liberty to dig as many *bétoires* as he chose. It was only when such *bétoires* caused a nuisance dangerous to public health that the

law could enforce the suppression of the nuisance, but not of the *bétoire*. Thus the town lost the case, but nevertheless it has succeeded of late in abolishing a considerable number of *bétoires*, only this was achieved in a roundabout manner. A nuisance had to be proved, and in order that the nuisance should not be renewed the landlords of their own accord suppressed the *bétoires* giving rise to the nuisance. But *bétoires* are still tolerated in those houses that are below the level of the street. The system of slop drainage is to drain all slop water into the street gutter; but when the backyard and entrance passage of a house are below the level of the street, *bétoires* are still tolerated, and all the slops allowed to percolate into the subsoil. The closets in some houses drain into cesspools, more or less watertight; other houses have a rude sort of pail system. Scavengers, with more or less irregularity, come and remove these pails, and the contents are converted into manure. But there are some houses which simply have no closets at all. Needless to say that these contribute largely to the foulness of the streets, the gutters, and the sewers into which these gutters flow.

Caen, it will be perceived, is drained on the old French principle that the sewers should only receive rain and slop water. Perhaps this accounts for the very unsatisfactory position of the main sewer outfalls. One portion of the sewage is discharged into the dock which communicates with the maritime canal, the remainder into the River Orne, before it reaches the town. This portion of the sewage flows back through the town on its way to the sea. By the opening of the dock gates a flush is occasionally created; but though this may be of some service, it is quite evident that the sewers ought not to have their outfall in so small a sewer as the Orne.

In spite of all these organic defects, which show that mischief is more likely to arise from within than to come from without, an official poster has been affixed to the walls of the town, headed "Sanitary Measures." It consists of a lengthy decree issued by the Mayor and approved by the Prefect of Police. The decree forbids the admission into the town of all rags, secondhand clothes, bedding, leather, woollens and animal fragments, unless accompanied by a special permission, which must be given only by the Mayor, and after such articles have been disinfected. Even if the articles come from a non-contaminated district or country they are to be examined and disinfected if judged necessary. Another clause forbids the throwing into the streets of all dejecta; these must be thrown only into the cesspools or the closet pails. Considering that there are some houses that have neither cesspools nor pails, it is difficult to see how this clause of the decree can be strictly observed. I am a witness, on the contrary, that even in some of the best and most frequented streets of Caen dejecta are thrown into the gutter, and this in broad daylight. Another clause forbids the throwing of slop water in the passages, courts, on the pavement—in fact, anywhere except in the gutter. But gutters are small, slop pails are large, and we all know how the scullery maid delights to send the contents splashing forth. This, then, was another sanitary measure more easy to decree than to enforce. The decree goes on to say that the inhabitants should maintain the greatest cleanliness, should sweep and wash out their courts and alleys at least twice a day, as also the gutter passing in front of their houses. Finally, the authorities place gratuitously at the disposal of the public the disinfecting stove, undertake to disinfect any room or apartment, and to give disinfectants to anyone who may require the same. In the hotels there is another decree posted ordering hotel-keepers to report all travellers coming from infected towns, to watch them, and to report at once if they manifest any suspicious symptoms of illness.

In view of these regulations and decrees it was strange to observe slop water on all sides, even in the best streets of Caen. At times, in the lower levels, this slop water forms small stagnant pools. Thus there is constant saturation of the subsoil and evaporation. It did not appear that the decree mentioned above had been strictly enforced. At the end of the Boulevard St. Pierre especially foul odours are noticeable. At this point there are some atrocious latrines, and by their side washerwomen, who wash linen in what appears to be a main sewer. The water issues from under the street and sees the light only for a few yards previously to falling into the dock beyond. If this is allowed in the very centre of the town and on a broad boulevard, what must happen in the back courts and alleys? Yet as Caen is an attractive town for tourists it would be well worth

while to improve its sanitary condition; if not for the sake of the inhabitants, then for the sake of the increased income the tourist would bring. Caen is rich in historical and archaeological treasures. Here lie buried William the Conqueror and his wife Mathilda, each in a church they themselves had built, and which are amongst the most perfect specimens of Norman architecture still extant. There are many other buildings, churches, private houses &c. dating from the eleventh to the fifteenth century. Most persons who make tours in Normandy and Brittany would find it convenient to visit the town of Caen. This centre of ancient Norman civilisation is well worth being considered as the crowning object of such a tour. But if the local authorities desire to attract a larger number of American and English visitors they must look to the drainage of the town, and effect very material improvements. This also will be found to be the best protective measure against the possible advent of cholera.

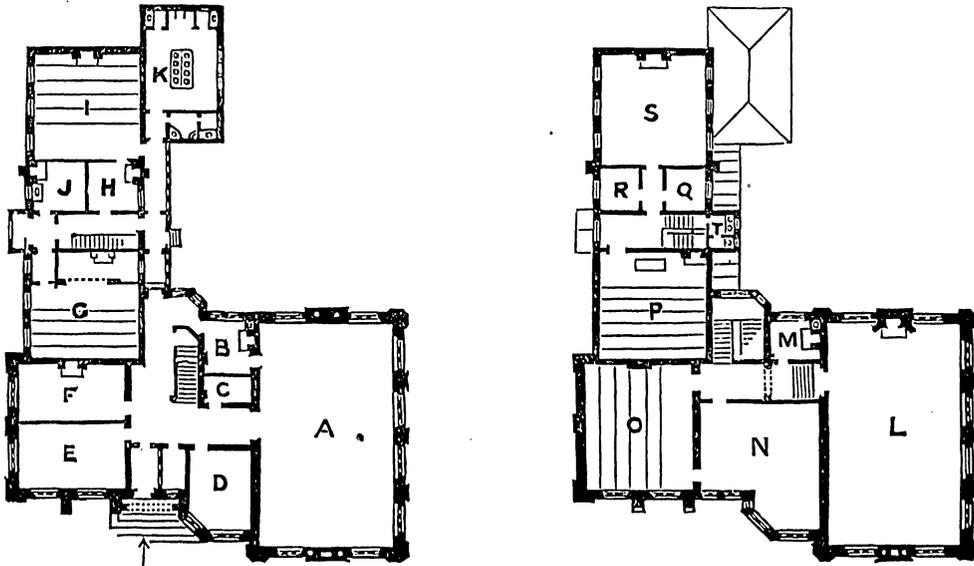
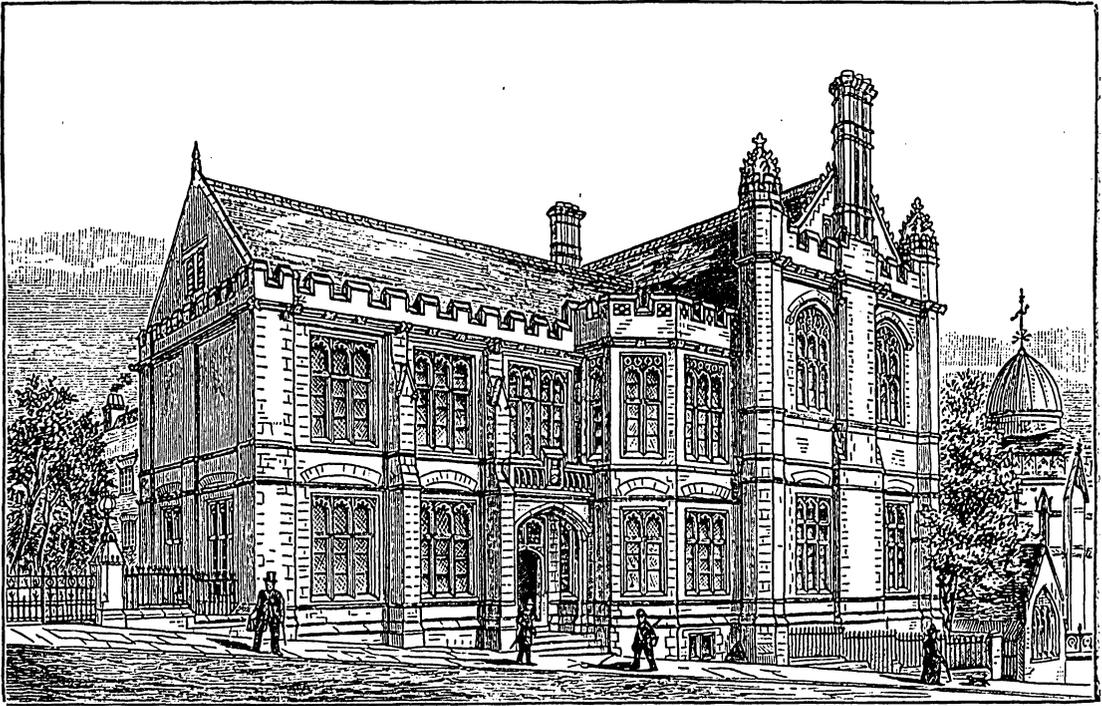
## THE BRISTOL MEDICAL SCHOOL.

WEDNESDAY was an important occasion with the Faculty of the Medical School at Bristol. In the early afternoon there was the formal opening of the medical wing of the Bristol University College, built to replace the old medical school at Bristol, which, by the brilliancy of its former students, has made for itself such a distinguished name in the country. The old buildings have long been felt inadequate and are insufficiently dignified for the home of an important and increasing body like the Bristol Medical School. A large sum of money having been raised by subscriptions the council found it possible last year to commence the building of an adequate structure such as would not only cover the needs of the School, but offer a permanent home for the large reference library now being formed by the Medico-Chirurgical Society. The new building, as part of the future grand front of the Bristol University College, has been the subject of careful architectural treatment, the designs being on lines thoroughly English and in keeping with the style prevailing in early Tudor days. The medical and the engineering wings will cost something like £10,000. The feature of the day's proceedings was the presence of the President of the Royal College of Physicians, Sir Andrew Clark, who cordially accepted the invitation of the Dean of the Faculty, Dr. E. Markham Skerritt, to formally open the spacious and excellently fitted wing.

The Chairman having adverted to the importance of the occasion, Mr. Albert Fay, chairman of the Council of the College, explained the present position of the College and the medical school, and why a new building was needed.

Sir Andrew Clark, on rising to declare the building open, said the occasion which had brought them together was regarded, and justly, as one of supreme importance to the ancient city of Bristol, and all joined in the expression of the hope that the movement about to be crowned that day might contribute to the life and work of the next generation. To those accustomed to look only upon the surface of things, this language would appear exaggerated; but to those who penetrated deeper it would not seem strong enough. They had met to inaugurate the reopening of the Medical School of Bristol, begun by the doctors, carried on by the people, incorporated by the College, and now crowned, or about to be crowned, as its medical faculty; they celebrated its second birth and prayed that its second life might be a life of strength, of usefulness and of honour. The existence of a medical school in Bristol was of more importance to the people than to the medical profession; and the participants in the reorganisation of the medical school of the people, the College, and the municipality revived the high and true ideal of the civic life which regarded it as a family life. Of the agents actively at work in evolving the prosperity of a great city such as Bristol the two chief were the moral agent and the health agent; the moral agent, the true and only source of all abiding good, the neglected remedy of social evils and labour disaffection and unreason; and the health agent, the physical framework which penetrated and influenced all that was in man and all that issued from his thoughts. The conditions necessary to the health of the community were not only numerous but complex and constantly varying. Advancing civilisation brought increasing complexities into the conditions of human life, and if human

life was to be continued in all its fulness and fruition they must acquire not merely a knowledge of those conditions, but also the power of fulfilling, controlling and readjusting them to the varying life and service of mankind. From time to time the problems of existence in fresh conditions must be reconsidered, and renewed endeavours must be made to discover and set forth the most favouring conditions for birth and growth, for education and development, for work and play, for the maintenance of health and resistance to disease, for adjustment to environment and the evolution of fresh capacities and functions for the prolongation of life and the further physical, mental and moral development of the race. The investigation of all such subjects, and the proper methods of dealing with them, came within the domain of medicine. In a medical school they had a centre of medical and general knowledge, and collected together within it a body of highly-educated men who were striving to find out the widest and most fruitful applications to the practical business of life. The City of Bristol could not have a great medical school in the midst of it without deriving many advantages from its operations and collateral influences; it would bring to the city the latest and best knowledge in practical medicine and surgery and in the department of public health. Bristol was happy in having a medical school which had a justly high reputation, which had produced many distinguished men, which had at various times made substantial additions to their knowledge, and which had done admirable work in the cure of disease, and in the improvement of surgical processes. And now the old school being no longer equal to the educational requirements of the time, they were about to enter into possession. In design and construction, arrangement and fittings, the new school was worthy the highest praise, and might be said to be second to no other provincial school. But it had one defect, which was so serious that, unless it was repaired, the school could neither adequately discharge its functions nor take rank with any leading medical college. The school had no State licence for experimental research, and, as far as he could learn, it had no intention to apply for one. He knew—no one knew better—that many estimable and exemplary people, moved by the tenderest feelings and actuated by the highest motives, refused, on the ground that experimental research was both unnecessary and cruel, not only to sanction such a method of inquiry, but to hold any relations with institutions in which it was sanctioned. He had the profoundest sympathy with such persons. He honoured their feelings and respected their motives, but, firmly convinced that they had been prejudiced and misinformed, he strongly dissented from a judgment founded on inaccurate statements and erroneous considerations. The law of vicarious sacrifice was a law of the physical, mental, moral and spiritual life, and no living sentient being could escape from its operation. It was folly now to argue the question whether experimental research had contributed to the advancement of theoretical and practical knowledge, for it was certain that no substantial advance had been made in physiological knowledge without the assistance of this method of research. By experimental research surgeons had been enabled to arrest or cure disease, and Koch discovered in the presence and action of the tubercular bacillus the true cause of tuberculous or consumptive disease. This discovery had not only thrown a flood of light upon the natural history of consumption, but had enabled them to discover its presence when otherwise unsuspected, and to bring about a successful revolution in the treatment of surgical tuberculosis. By experimental research they had discovered the condition for using with efficiency and safety almost all the stronger and most useful drugs, and by experiments upon animals they had discovered the nature and relations of infectious diseases, and had learned how in some measure to prevent the development and to control the spread of fevers, cholera and anthrax. If experiment were to be suppressed, and if consistently the use of knowledge acquired in this manner were to be rejected, then it was certain that the art of preventing and of curing the diseases of beast and man would decay, and that physical and mental degeneration would follow. The medical school, having been built, fitted and finished, the question arose, How was that costly building to be maintained in efficient working order? Some people would reply that the building was a doctor's business; why do not the doctors maintain it? But in answer to this he would say that the school was more for the advantage of the public than of the profession, and he held that the public was bound in honour to pay for what was consecrated to its service;



GROUND PLAN. SCALE 10 0 10 20 30 40 50 OF FEET. FIRST FLOOR PLAN.

- |                      |                           |                        |                         |
|----------------------|---------------------------|------------------------|-------------------------|
| A. Museum.           | B. Laboratory.            | C. Cloak room.         | D. Medical tutor's room |
| E. Faculty room.     | F. Students' room.        | G. Lecture room.       | H. Ante-room.           |
| I. Lecture room.     | J. Ante-room.             | K. Latrines.           | L. Library.             |
| M. Lecturer's room.  | N. Physiology laboratory. | O. Physiology theatre. | P. Anatomy theatre.     |
| Q. Prosector's room. | R. Prosector's room.      | S. Dissecting room.    | T. Lavatory and w.c.    |

and in the second place, the doctors, speaking quite frankly, were much too poor to be called upon in a business of that kind to add to the list of their gratuitous services, and even to pay for services which they rendered to others. Men would ask why the medical school should not be self-supporting. Well, he doubted if any provincial medical school was ever, from a strictly business point of view, self-supporting. The Bristol Medical School could not be made self-supporting, and he should suspect its efficiency and dignity if it were so. They had not only a good medical school, but, with the exception of one defect, which he hoped would be soon made good, there were moral interests which would not be ignored. If they believed, as he did, that the moral idea preceded and determined all true and abiding prosperity, they would regard the maintenance of that school as one of the paramount duties of their citizenship.

Mr. Lewis Fry proposed a vote of thanks to Sir Andrew Clark for coming amongst them to open the school and for his able address. He was very grateful to him for the enlarged view which he had put before them of the functions of municipal government. With regard to Sir Andrew Clark's opinion on a certain subject, whether they agreed with him or not they must be thankful to him for the courage he displayed in candidly expressing his views on that difficult question.

Dr. E. Markham Skerritt, Dean of the Faculty of the Medical School, seconded the vote of thanks.

The banquet was held at the Royal Hotel, Bristol. Sir Andrew Clark presided, and he was supported, not only by a representative gathering of the Faculty, but by many leading citizens.

The whole of the arrangements connected with the dinner were entrusted to and well carried out by the following committee:—Dr. E. Markham Skerritt, Dr. Shingleton Smith, Prof. Lloyd Morgan, Mr. Munro Smith and Mr. Paul Bush.

## MUNICIPAL HONOURS AND MEDICAL MEN.

LAST year we expressed our gratification at the number of medical men upon whom had been conferred by their fellow citizens the high and distinguished position of mayor, and it is once again our pleasing duty to welcome those who have been called to this honoured office. Within the Dome at Brighton, on the evening of Nov. 9th, nearly three hundred guests assembled to honour Dr. Joseph Ewart, J.P., F.R.C.P., by a banquet. Dr. Ewart—who, as Sir Joseph Fayrer said in proposing the toast of "The Mayor," is eminently fitted for the office by his "high personal character, great scientific attainments and firm methods of conducting business"—has been elected for the second time to fulfil the duties of mayor to the borough of Brighton. Dr. Ewart, who is a native of Cumberland, took his M.D. degree at St. Andrews University in 1853. In the service of the East India Company he spent a considerable portion of his life, and was in medical charge of the Meywar Bheel Corps at Kherwarra during the time of the Indian Mutiny. After receiving high distinctions from the Government, owing to falling health he returned to England. Dr. Ewart has ever taken an active part in local affairs. His first election to the town council of Brighton was in November, 1884. He was elected a member of the watch and sanitary committee and the lighting committee. Brighton is to be congratulated in possessing for its Mayor a man of such tact and energy as Dr. Ewart—Dr. A. R. CROUCHER, who has been chosen by the borough of Hastings to act in the capacity of Mayor, took the degree of M.D. at St. Andrews University in 1858, and is also M.R.C.S. Eng. and L.S.A. After practising for two or three years in London he went to St. Leonards, on account of ill-health, where he has since resided. In 1874 he was elected alderman for Hastings, and in that capacity was the means of the sanitary committee of the town being formed. He acted as chairman of this committee till the year 1880, and by his advice the Hastings sanatorium was built. Great interest has been taken by him in the water-supply to the borough, and it was mainly owing to his influence that the new waterworks at Filsham were brought forward. He has been fourteen years vice-president of the Sanitary Aid Association, and has been on the Commission of the Peace since 1885. Dr. Croucher is the first Mayor of Hastings who has been elected from outside the

council.—The Mayoral chair of Bacup has been occupied on two previous occasions by Alderman W. J. CLEGG, M.D.—namely, in 1884–5 and 1885–6. A native of the town which has honoured him with this distinction, after receiving some slight instruction from his father he went to Paris, where he studied for some time previously to entering the University of Edinburgh, where he obtained the degree of M.D. and was first gold medallist.—GEORGE WRIGHT HUTCHINSON, M.D., who has been elected Mayor of Chipping Norton, is an ex-moderator (1878) of the General Assembly of the Church of Scotland and a J.P. for his county. Born Jan. 16th, 1848, he was privately educated, till two years before entering the University of Aberdeen, as an art student. Those two years were spent at the Grammar School, Aberdeen. Dr. Hutchinson entered the University of Aberdeen in October, 1863, and in May, 1865, commenced his medical studies, which were continued there till April, 1869, when he graduated Bachelor of Medicine and Master in Surgery (at Aberdeen) with academical distinction in April, 1869. In May, 1869, he succeeded Professor Mackendrick of Glasgow as resident and acting surgeon to Belford Hospital, Fort William, Inverness-shire. Here he remained for three years and a half. In January, 1873, he went to Chipping Norton, where he has since remained. Till June of this year he has always declined municipal life, but in that month he was returned at a by-election by an overwhelming majority.—Lymington has again chosen for its representative in the civic chair a descendant of one of the oldest Cornish families, Dr. W. ROBINSON HILL, who was born at Stonehouse, near Plymouth. He studied medicine in the University of Edinburgh, and was twice President of the Royal Medical Society. At the Royal Infirmary he acted as house surgeon under Dr. Gillespie. After occupying the position for one year of resident physician to the Brompton Hospital for Consumption, he went to the Berlin University and afterwards to the Paris hospitals.—REGINALD W. LATIMER GREEN, L.R.C.P. and L.R.C.S. Edin., who was last year elected by the burgesses of Stratford-on-Avon to the mayoralty, has again been chosen by them to occupy the civic chair. After being educated at Queen's College, Belfast, and Edinburgh, he commenced practice at Stratford-on-Avon in May, 1880, where three years after he was elected surgeon to Stratford-on-Avon Hospital and surgeon to the Provident Medical Institution.—The Mayor of Louth, PALEMON BEST, M.B. Lond., J.P. &c., was educated at Bath and Swansea, matriculating at University College, London, in 1858. Entering the College in the same year, he received his qualification in 1861. After taking his degree of M.B. in 1864 he went to Louth, and has for a quarter of a century taken a most active part in the welfare of the Louth municipality. St. Ives has chosen for its Mayor JOHN MICHAEL NICHOLLS, L.R.C.P. Lond., M.R.C.S., who studied at St. Bartholomew's Hospital and then went to Yeovil. Three years ago he was elected to the council and has recently been re-elected. Until his election to the civic chair he acted as chairman of the sanitary committee, and to his energy are due many of the sanitary improvements of the town.—J. M. HUGHES, M.B., M.S., who has been called to the office of Mayor for the town of Ruthin, was educated at Edinburgh University and graduated as M.B., C.M. in 1886. Although he has only resided in the district for six years, he has been twice returned at the head of the poll. Dr. Hughes is medical officer of health for the Ruthin Union Rural District.—N. W. FAIRLESS-HUMPHREYS, M.R.C.S., L.S.A., has for the fourth time been elected Mayor of Montgomery.—Crews has chosen for its representative in the civic chair WILLIAM HODSON, L.F.P.S. Glas., L.R.C.P. Irel., and Alderman J. P. ATKINSON, M.D., L.R.C.P., has accepted the Mayoralty of Saffron Walden.

## ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD.

ACCORDING to the twenty-first annual report of the Local Government Board the number of medical officers of health a moiety of whose salaries was repaid out of the county funds in 1891 was 1291, the corresponding number of inspectors of nuisances being 1236, whilst the total number of sanitary districts in England and Wales was 1586. The ratio of in-door paupers to every thousand inhabitants in the

provinces varied last year from 7.6 in Sussex to 3.7 in the West Riding of Yorkshire, and 3.3 in South Wales; the corresponding ratio as regards out-door paupers varying from 39.2 in Norfolk to 11.7 in Lancashire. In London the percentages were 14.5 as regards in-door and 11.3 as regards out-door paupers. Amongst the diseases received into the hospitals of the Metropolitan Asylums Board were 5262 cases of scarlet fever, 1313 of diphtheria, 755 of enteric fever and 64 of small-pox. Apart from improvement schemes, loans to the amount of nearly three millions sterling were sanctioned for sanitary purposes in urban districts and for £175,862 in rural districts; the loans for improvement of dwelling accommodation reaching nearly £118,000, besides other loans for over £65,000. These amounts are quite irrespective of large sums that can be raised under powers granted by special Acts of Parliament. Amongst defaulting authorities we find that Newbury, having had six months in which to perform its duty as regards sewerage, has since submitted a scheme for that work. The local board of Staines and the rural sanitary district of Staines have been dealt with in a similar way, and it yet remains to be seen what the result will be as regards both of them. Borstal, near Rochester, and Wetherby, in Yorkshire, have also had six months given to them in which to decide on a method of sewerage. In three cases the Board also gave their consent to proceedings being taken against manufacturers under the Rivers Pollution Prevention Act, 1876. According to the report of Mr. Brydone, the canal boats inspector, it is evident that the condition of the canal boat population is undergoing continuous and steady improvement, the former indecent herding of men, women and children is almost unknown, and the general sanitary state of the boats has much improved.

Under the Sale of Foods and Drugs Acts 29,028 analyses were made, this number exhibiting an increase of about 1600 on the previous year, the analyses amounting to one for every 580 persons in the metropolis and 1 for every 1140 in the provinces. But none at all were made in the parish of St. Martin's-in-the-Fields, none in four administrative counties and none in twenty-seven boroughs; indeed it is surprising that in so many populous and important districts the inhabitants choose, by the election of representatives opposed to the performance of their duty in this respect, to be left altogether without any protection against fraud in the sale of adulterated foods. Then, again, the average penalty was only £1 11s. 3d., and it must be obvious that this cannot be deterrent in the case of so remunerative a fraud as that of adulteration. In no less than 1242 cases the fines were of £1 or under. The largest number of samples examined consisted of milk. These were 12,151 in number, and in 13.4 per cent. adulteration had taken place. This exhibits a slight increase on the 12.8 per cent. of last year; but if we take the last three quinquennial periods milk adulteration has been found to diminish from 21.1 to 16.7, and again to 13.2 per cent. of the samples in the respective periods. Butter was found to be adulterated in 15.5, coffee in 17.0, spirits in 19.1, and drugs in 16.4 per cent. of the samples examined. Altogether rather more than 12 per cent. of the total articles of all sorts examined were found to be adulterated. Unfortunately, the practice of adulteration has become a fine art, new methods spring up as the grosser ones are detected, and it behoves public analysts to keep themselves versed in the new devices that are practised. In London the amount of milk adulteration reaches the highest standard, but there are especially gross cases in some provincial towns. Thus in Sheffield the amount of water added in one case amounted to 48 per cent., and the writer of this part of the official report pithily indicates the meaning of such an adulteration by pointing out that an addition of even 10 per cent. of water, which is probably less than the average, enables a dishonest milkman to keep ten cows instead of eleven.

In 1881 the percentage of births not finally accounted for in London as to vaccination was 5.7, since then it has gradually increased until it amounted in 1889 to 11.6, the rates varying from 25.1 in St. Giles's to 2.8 in Whitechapel, the two extremes involving districts in both of which many of the poorer inhabitants of the metropolis reside. The demands on the calf-lymph station are increasing. Last year 7687 children were vaccinated there, besides 350 persons who came for revaccination. The towns and districts now having compulsory notification of infectious diseases contain a population of 12,491,933, and Leeds remains the only really large borough which has not adopted the system. There are, however, other boroughs of over 25,000 which are in the same

condition—namely, Aberdare, Crewe, Doncaster, Dudley, Gateshead, Lincoln, Luton, Tipton, Walton-on-the-Hill, West Derby, Wednesbury and Ystradyfodwg. Nearly all these places are known to have grave sanitary faults. A separate report on the past year will, as usual, be prepared by the medical officer to the Board.

## THE MANCHESTER LIFE TABLE.

THE Manchester Corporation and their medical officer of health, Dr. Tatham, have, by the construction and publication of the Manchester Life Table, not only thrown a searching light upon the health condition of New Manchester, but have conferred a distinct boon upon all who are interested in the vital statistics of large towns.

It is as nearly as possible fifty years since Dr. William Farr, in the Registrar-General's seventh annual report, published an outline life table for Manchester, which showed that the expectation of life at birth in the Manchester of that day was only twenty-four years, and was sixteen years less than the mean expectation of life at birth in England and Wales. Since that time, although Manchester has, like the rest of England and Wales, experienced a considerable reduction in its death-rate, its excess of mortality has continued to attract much local and public notice. Many attempts have been made in recent years to discredit the value of a death-rate as a test of sanitary condition. These attempts have been mainly based upon an imperfect knowledge of the nature and extent of the disturbing elements of age and sex distribution and of the true import of varying birth-rates. Dr. Farr clearly pointed out years ago within what comparatively small limits the crude death-rate of a population might be absolutely trusted as a health meter, and how, by the construction of a life table, nearly all disturbing elements might be eliminated. When Dr. Tatham a year or two since was appointed medical officer of health for Manchester he appears very wisely to have determined that so soon as the new census supplied him with the necessary data concerning the number, sex and age of the population, he would construct a life table for the city. This resolution was probably strengthened by the persistent assertion that the high death-rates of the city were not due to insanitary condition, but to fallacious statistics.

Dr. Tatham's Life Table just issued is based upon the population of the three unions or registration districts of Manchester, Chorlton and Prestwich enumerated at the censuses in 1881 and 1891 and upon the 135,582 deaths registered within this area in the ten years 1881-90. As the population of this area increased from 528,307 in 1881 to 594,502 in 1891, it follows that the life table is based upon the recorded mortality during more than five million years of life, a basis sufficiently large to yield thoroughly trustworthy results. It is pointed out by Dr. Tatham that this area is somewhat larger than that of the city of Manchester, as extended by the Act of 1890, but may be taken as representing the enlarged city with sufficient approximation. The Manchester Life Table therefore gives the life history of a complete generation of 100,000 persons exposed at each successive age to the varying rates of mortality that prevailed within the above-mentioned area during the ten years 1881-90. It is scarcely necessary to point out that the results of this Life Table are far less unfavourable than they would have been if it had been based upon the statistics of the far smaller, more central, and more densely populated area of the city previous to the large extension of 1890. Still more unfavourable would the table have been if it had been constructed, as was Dr. Farr's table, referred to above, from the mortality experience of Old Manchester, or the Manchester registration district. Of New or Greater Manchester the table gives an accurate and incontestable measure of health and a sound standard for testing its sanitary progress during the new decennium which commenced with 1891.

Dr. Tatham, in his preface, acknowledges the assistance he has received in the mathematical part of the work from Mr. A. C. Waters of the Registrar-General's Department, and it is impossible to speak too highly of its method and of the arrangement of its tables. We should have liked to see included in the tables the rates of mortality per 1000 at successive ages and age periods, but the means are given for supplying this additional information. The full and careful

description of the principles and methods adopted in the construction of the Life Table will be found very valuable by medical officers of health of other large towns who are disposed to follow the excellent example set them by Dr. Tatham by constructing life tables for the populations under their charge.

We must now, however, proceed to notice a few of the more salient points in connexion with the health of Manchester which have been brought to light by this Life Table. The most important results of a life table may be said to be crystallised in the mean duration of life (or expectation of life at birth) which it shows. The Manchester Life Table shows that, based on the mortality experienced in Manchester during the ten years 1881-90, the mean duration of life of the Manchester population is 36.6 years, or 34.7 years for males and 38.4 for females. Compared with Dr. Farr's English Life Table (1838-54), the mean duration of life of persons of both sexes in Manchester is too short by 4.3 years; whereas, compared with Dr. Ogle's more recent table (1871-80), life in Manchester is shortened by 6.4 years. Male life in Manchester is shorter by 5.2 and 6.6 years respectively than the English means shown by the 1838-54 and 1871-80 tables; the defect of life among Manchester females, compared with the same tables, is 3.4 and 6.2 years respectively. It is scarcely necessary to point out that when the completion and publication of the census tables make it possible to construct a new English Life Table for the ten years 1881-90, the mean duration of life in England will be found to have considerably increased, and therefore the loss of lifetime in Manchester is undoubtedly understated by the figures given above. On the other hand, it should be noted that Manchester, as one of the very largest English towns, might not unreasonably claim comparison of its mortality statistics with those of other large towns rather than with those of the whole of England and Wales. It is, however, so far as we are aware, a fact that the Life Table now under notice is the first that has been constructed in recent times for any large English town.

Returning to the results of Dr. Tatham's table, it is interesting to note that the recorded mean annual death-rate in the area taken to represent New Manchester during the ten years 1881-90 was 24.2 per 1000, whereas in the hypothetical stationary life-table population the rate is shown to be 27.4 per 1000. This difference is entirely due to the abnormal age distribution of the real Manchester population, which contains an excessive proportion of persons at the ages when mortality is low, due partly to the excess of births over deaths and partly to the immigration of young adults. Of 100 born in Manchester only 21 live to the age of 65, whereas according to the general English table 31 out of 100 born survive to this age. Dr. Tatham calls attention to a feature of his life table, which points conclusively to the favourable effect of the rural immigration into towns upon the mortality at certain ages. Of 100 born in England and Wales 74 survive to complete their fifth year, while the survivors to this age in Manchester are but 70 out of 100; during the age period, 5-15, the probability of surviving is, however, almost as great in Manchester as in England and Wales generally; and in the next period, 15-25, the probability of survival is distinctly greater by the Manchester table than by the general English table. Dr. Tatham points out that these facts appear to "lend some colour to the suggestion that the effect of the greater mortality among young children is to weed out the more feeble, so that those who reach maturity shall be selected lives," but he proceeds to show that as, at all subsequent ages, the excess of mortality in Manchester reappears with increasing intensity, it seems impossible to doubt that the low Manchester death-rate between the ages of ten and twenty-five is due to the large immigration of selected lives at these ages. It is, moreover, obvious that the mortality at these ages recorded in towns understates the real mortality, since town immigrants frequently return to their rural homes in case of serious illness or disablement. If the Manchester table can be taken as typical in its general features of what the life-table statistics for other large English towns would be, which there seems no reason to doubt, then the heaviest life-tax in urban populations is in early childhood and between forty-five and sixty-five years of age, when the stress of urban residence seems to have most fatal effect.

Space will permit us to refer to only one more of the many practically useful deductions which Dr. Tatham draws from his Life Table. The ordinary life table shows how many of a certain number born survive to each year of age, and also the expectation of life at each age. This in-

formation, however, as Dr. Tatham points out, gives no indication of the relative working capacity of different populations. In other words, we want as evidence of true sanitary condition further information to enable us to estimate the proportion of a living population that is endowed with health and working capacity. It may be safely assumed that in Manchester, beyond the loss of lifetime due to the high death-rate, there is a further loss of working capacity among the survivors due to a higher sickness rate than that which prevails generally in England and Wales. Dr. Tatham points out how the Manchester Life Table may be said to show the lower vitality of the living population of Manchester compared with that of the whole country. According to the English Life Table the expectation of life among males at the age of 65 years is 10.8 years, whereas in Manchester it is necessary to go back to the age of 58½ years to find an expectation of life equal to 10.8 years. Further, the probability of a male in England and Wales aged sixty-five years living a year is 0.95,409; while in Manchester 0.95409 is slightly above the probability of a male aged fifty-seven living a year. Dr. Tatham seems, therefore, justified in asserting, on the strength of his table, that the vitality of males aged between fifty-seven and fifty-eight and a half in Manchester does not exceed that of males aged sixty-five years in England and Wales.

These are some of the more important deductions that may be made from this Manchester Life Table, which derives much of its interest from the fact of its being the first modern life table for a large English town. We venture to hope that the medical officers of some of the other large towns will follow Dr. Tatham's example, since the possibility of a comparison between two or three urban life tables would throw valuable light upon one or two of the most interesting features of the Manchester table, and would add considerably to our knowledge of the true import of the vitality and mortality statistics of our large towns.

## THE PRISON REPORTS.

THE reports annually made to the Home Department by the Prison Commissioners and the Directors of Convict Prisons are usually worthy of serious attention and on the present occasion derive even more than their ordinary interest from the circumstance that the course of recent discussion has led the compilers to address themselves specially to the inferences which are to be drawn from the statistics which they present. Some doubt has by recent writers been thrown upon the view, which we are all very willing to accept, that the great diminution of the prison population which has been so marked a feature of the reports of recent years is attributable to a lessening of crime. It has been argued that changes in our way of dealing with criminals rather than a change in the amount or character of crime afford the explanation of what is, on the face of it, a most beneficial change in our social condition. The view of Sir Edmund Du Cane and his colleagues does not bear out this pessimist contention. On the contrary, these authorities consider that the long-continued tendency towards a diminution of numbers which the prison population is manifesting in a very remarkable degree at the present time is indicative of an amelioration in manners rather than in laws. They attribute it mainly to the successful operation of remedial agencies by which the novice in crime is reclaimed from evil courses, and prevented from developing into the habitual criminal. It is, from our point of view, eminently satisfactory to receive such a testimony to the success of remedial treatment, and to have its value brought home to the public mind in this way. Popular ideas as to the ends of criminal justice are apt to be very confused, and in the past especially a just indignation at the iniquity of crime has been too much the animating temper of the Legislature in its dealings with the criminal. Of late more enlightened views have begun to prevail, and crime has been considered in its character as a social problem no less than in that of a public peril. The passion which inspires a lynching mob has given way to a more reflective temper, and it has been found that there are ways more excellent of dealing with a criminal than it is given to a mob to discover. No doubt there exists at the present time a large number of cases which can only be classed as morally incurable, but that is in no small degree the vice of imperfect methods. The remedial treat-

ment of criminals is a subject far, as yet, from having been worked out, and it should occasion no surprise if in this, as in other matters, we have to pick our way by slow and devious steps to a full understanding of the subject. That progress is likely to be of this character we have very specific warning in these pages from a prison chaplain whose observations are quoted in the Commissioners' report and who remarks that "there is an overlapping of labour in rescue effort which is acting very perniciously to the work generally and to the interest of the fallen woman individually. With such contentions for her case and with such notice as she is at present receiving, she is beginning to look upon herself not as a penitent, but as a person of a certain value for philanthropic advertisement." Errors so palpable as this will no doubt be soon corrected. The important point to be gained is that the problem of suppressing crime should be identified with that of reclaiming the criminal, and that mere sentiment, whether of indignation at the crime or compassion for the criminal, should come to be regarded as irrelevant in this connexion—as irrelevant as in the discussion of figures or of facts. How much may be learnt by mere observation carefully and systematically carried out is suggested, and to some extent illustrated, by the brief but significant remark which the Commissioners make that "Idleness is the offence which most commonly leads to punishment while in prison, as it is probably the cause of most of the offenders being there at all." Another inquiry of no less importance which is suggested and to some small extent perhaps advanced by the present report is that into the obscure and intricate relation between drink and crime. Many people are convinced that the relation is a simple one—that, namely, of cause and effect; but this has never yet been proved. Drunkenness and crime go hand in hand, but the very interesting diagrams which this report contains of the growth and prevalence of these two forms of vice over a series of years cannot fail to suggest to those who study them that the true relation between drink and crime is at the present time a matter to be investigated rather than to be explained.

## THE FIFTH CONGRESS OF ITALIAN MEDICINE.

UNLIKE its predecessors, this gathering had a special significance, that of being in some measure a rehearsal of the great International Congress which will meet in Rome on Sept. 24th, 1893. Dr. Baccelli opened the proceedings in the Aula Magna of the Roman University, and his short address was to the following effect:—

"Next year, as you all know, Rome will be the seat of the Eleventh International Congress of Medicine and Surgery. This fact obliges us more than ever to close up the ranks and to perfect the discipline of our medical forces, in order that the sittings of that Congress may issue honourably and be of good omen for the Italian name. The question which dominates every other is of a clinico-hygienic character—the study, to wit, of infectious maladies and the best means of combating them. Of many of these diseases the nosographic work is almost complete, of several the nosogenic work is well advanced, while there is wanting to all the 'posology' of infections or the determination and action of the toxic substances which are bred in human organisms by the action of pathogenic micro-organisms or by the reaction of the elements that compose the tissues. Arduous is the undertaking beyond all precedent. But here also the inductions of the clinical ward precede the studies of the laboratory and yield us a measure of moral certainty, while the irrefragable proof, which is always that by experimentation, will be furnished us if we sedulously labour in observance of the rubric of the ancient academy of research—"testing and re-testing." The clinique and the laboratory ought to march hand in hand with perfect harmony. The one represents the treasury of the experience of centuries, the other the conquests of to-day. It is only error which we ought to combat, but we have no right to demolish or to substitute at will for the sake of novelty. We must know profoundly the history, the circumstances and the arduous progress of the medical idea. We must be just with all, and above all we must be logical. Conceding the honours of the day to the study of infectious diseases, we must not lose sight of the scientific and professional (*artistica*) ground already gained. Nay, we must

perfect it with time and ever maintain burning the sacred fire of research. Not every Italian study, honourably known to history and to fame, is adequately appreciated by our brethren beyond the Alps and beyond the seas. It is our duty to diffuse the knowledge of such and to redemocratise it, if credited to another, by opportune vindication. Let us never lose sight of the fact that if science can give us great and ardently longed-for satisfactions, practice is what, in the social order, diffuses the prestige of our service. Between a true remedy and a conquest of science, suffering humanity will give the palm to the former. The solitary satisfaction of the soul belongs to pure mathematics; we can always keep ourselves mindful of the fact that 'nisi utile est quod facimus, stulta est gloria' (unless our work be useful, the glory of it is foolish). Gentlemen, an illustrious clinician, a noble intellect, endowed with varied and profound culture, Cesare Federici, is no more. To him be the honour and the regrets which are his due. But the most fervid and sincere prayers are invoked for our Arnaldo Cantani, that his lofty intellect and profound goodness of heart may soon be restored to him, and through him to us, so that he may live to be one of the strenuous champions in these encounters of the Italian professional arena. There is one in Italy who is always foremost wherever a disaster or a joy saddens or exhilarates the heart of the nation. This one has authorised me to announce to you that 'he will inaugurate in person the International Congress.' To him be, therefore, our gratitude. Let a new emblem of scientific and professional greatness be the name of Humbert."

The discourse, delivered with characteristic *brío*, was loudly applauded, after which the Congress settled down to the agenda paper. Professor Forlanini read his "Velazione" on *Xerotherapy*, which occupied the rest of the forenoon; and in the afternoon Dr. Baccelli commented on some peculiarities of the blood and urine of malarious subjects, followed by an elaborate memoir of Professor Maragliano of Genoa entitled "Sull' Azione Alterante del Siero del Sangue Patologico sulle Emazie" (*alvariai*). The subsequent sittings of the Congress included papers and discussions, such as those of Professor Lombroso on the Character of Born Delinquents or Moral Maniacs and on their Analogies with Epileptics; of Professor Rummo on Paraplegia Spastica Congenitalis; of Professor Riva on Rheumatic Infection; and of well-known clinicians and consultants such as Ferletti, Cavallero, Castellino, Sansoni, Masini, Borgherini, Caffarelli, Giuffrè, Lipari, Spallieci and others. The proceedings terminated with a banquet, at which Dr. Baccelli took the chair; while the scientific outcome of the Congress will be found officially embodied in the "Atti," as revised by the authors of the several papers and by the critics who followed.

Rome, Nov. 1st.

## BOLINGBROKE HOUSE.

ON the 11th inst., at St. Mark's Vestry Hall, Battersea Rise, a meeting was held for the purpose of calling public attention to the financial difficulties of the above institution, and to make better known the objects of the hospital. Bolingbroke House will afford "a home in sickness for those who need the advantages of hospital treatment and nursing and are able to pay wholly or partially for the same." Lord Battersea, who presided, said he was surprised that the hospital was so little known. There were many people who could not afford to have operations performed at their own homes and who did not care to be the recipients of hospital charity, willing to pay the sum of two or three guineas per week if they only knew of the existence of such an institution as Bolingbroke House. This was practically the first hospital to adopt the system of "paying patients," which had been adopted by many other institutions; but Bolingbroke House supplied luxuries and comforts which could not be obtained elsewhere. He hoped that the public would freely subscribe to the good work that was being done, and that the work would not be stopped for the want of a few pounds.

Sir Henry Peek, Bart., proposed the following resolution, which was seconded by Mr. Oram, who emphasised the fact that the institution was in reality not a hospital, but a "home": "That the work which has been done at Bolingbroke House in the past twelve years, during which time 1200 patients have been received in addition to much assistance given in emergency cases, has been a great public

benefit, especially to this neighbourhood, and shows the urgent necessity for the maintenance and development of the hospital."

The Hon. Conrad Dillon, in submitting a resolution to the effect that, "although those patients who have paid only a proportion of their cost have contributed according to their means, the receipts have fallen short of the expenditure and prevented the hospital from being self-supporting, and therefore it is expedient that a sum of at least £2000 should be raised forthwith to prevent its being closed," spoke of the energetic labours of Canon Erskine Clarke, who had founded the hospital and who had for the past twelve years supplied the funds. He said that the finances were now in such a state that if the hospital were to cease its work to-morrow they would be exactly solvent.

Both resolutions being carried, Mr. T. Bryant, President of the Royal College of Surgeons, testified to the excellence of the hospital arrangements. In all nearly 200 large operations had been performed with very little mortality, and this he attributed to the airy wards, good nursing and good food.

The meeting having recorded its appreciation of the services of the committee of management and the staff in carrying on the institution, a vote of thanks to Lord Battersea terminated the proceedings.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6375 births and 3817 deaths were registered during the week ending Nov. 12th. The annual rate of mortality in these towns, which had increased from 17.3 to 19.6 per 1000 in the preceding four weeks, declined to 19.5 last week. In London the death-rate was 18.8 per 1000, while it averaged 20.1 in the thirty-two provincial towns. The lowest rates in these towns were 13.0 in Leicester, 13.1 in Wolverhampton, 15.2 in Norwich, and 16.1 in Derby; the highest rates were 25.1 in Bolton, 26.7 in Hull, 28.0 in Salford, and 29.6 in Preston. The 3817 deaths included 434 which were referred to the principal zymotic diseases, against 407 and 434 in the preceding two weeks; of these, 139 resulted from measles, 81 from diphtheria, 74 from scarlet fever, 55 from whooping-cough, 46 from diarrhoea, 34 from "fever" (principally enteric), and five from small-pox. These diseases caused the lowest death-rates last week in Derby, Halifax and Norwich, and the highest rates in Plymouth, Hull, Croydon, Preston and Salford. The greatest mortality from measles occurred in West Ham, Oldham, Brighton, Croydon, Portsmouth, Hull and Salford; from scarlet fever in Croydon, Cardiff, Plymouth, Salford and Preston; from whooping-cough in Croydon, Salford and Preston; from "fever" in Portsmouth, Birkenhead and Wolverhampton; and from diarrhoea in Preston, Leicester and Oldham. The 81 deaths from diphtheria included 51 in London, 4 in Sheffield, 3 in Cardiff, 3 in Manchester and 3 in Leeds. Three fatal cases of small-pox were registered in Sheffield, one in Halifax and one in Huddersfield, but not one in London or in any other of the thirty-three large towns; 3 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 2 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 4063, against 3936, 4012 and 4067 on the preceding three Saturdays; 403 new cases were admitted during the week, against 410 and 462 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 267, 296 and 319 in the preceding three weeks, further rose last week to 357, but were 39 below the corrected average. The causes of 75, or 2.0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Bolton, Preston, Newcastle-upon-Tyne, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Leicester, Liverpool and Sheffield.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the largest Scotch towns, which had increased from 19.0 to 22.9 per 1000 in the

preceding three weeks, declined again to 20.6 during the week ending Nov. 12th, but exceeded by 1.1 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14.5 in Paisley and 14.9 in Greenock to 22.4 in Glasgow and 26.0 in Leith. The 574 deaths in these towns included 61 which were referred to measles, 19 to scarlet fever, 9 to whooping-cough, 9 to "fever," 6 to diarrhoea, 5 to diphtheria, and one to small-pox. In all, 110 deaths resulted from these principal zymotic diseases, against 80 and 108 in the preceding two weeks. These 110 deaths were equal to an annual rate of 4.0 per 1000, which exceeded by 1.8 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased in the preceding seven weeks from 12 to 69, declined last week to 61, of which 23 occurred in Edinburgh, 19 in Aberdeen, 11 in Leith, and 7 in Glasgow. The deaths referred to scarlet fever, which had been 14 and 13 in the preceding two weeks, rose again last week to 19, and included 14 in Glasgow, 3 in Edinburgh, and 2 in Leith. The 9 fatal cases of whooping-cough exceeded by 4 the number in the preceding week, and included 8 in Glasgow. The deaths referred to different forms of "fever" which had been 2 and 5 in the previous two weeks, further rose to 9 last week, of which 6 occurred in Glasgow. The 5 fatal cases of diphtheria showed a marked further decline from those recorded in recent weeks, and included 2 in Edinburgh and 2 in Glasgow. The death from small-pox was registered in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 138 and 142 in the preceding two weeks, were again 142 last week, and were 120 below the number in the corresponding period of last year. The causes of 63, or nearly 11 per cent., of the deaths in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 19.4 to 28.5 per 1000 in the preceding three weeks, declined again to 23.9 during the week ending Nov. 12th. During the first six weeks of the current quarter the death-rate in the city averaged 23.1 per 1000, against 17.8 in London and 21.6 in Edinburgh. The 160 deaths in Dublin during the week under notice included 5 which were referred to different forms of "fever," 2 to measles, 2 to diarrhoea, and not one either to small-pox, scarlet fever, diphtheria or whooping-cough. In all, 9 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.3 per 1000, the zymotic death-rate during the same period being 1.8 in London and 5.7 in Edinburgh. The deaths referred to different forms of "fever," which had increased from 2 to 10 in the preceding three weeks, declined again to 5 during the week under notice. The 2 fatal cases of measles exceeded the number recorded in any recent week. The 160 deaths registered in Dublin last week included 25 of infants under one year of age and 45 of persons aged upwards of sixty years; the deaths of infants showed a marked decline, while those of elderly persons showed a further increase upon those recorded in recent weeks. Six inquest cases and 4 deaths from violence were registered; and 41, or rather more than a fourth of the deaths, occurred in public institutions. The causes of 19, or nearly 12 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

### MOVEMENTS OF MEDICAL STAFF.

SURGEON-COLONEL JAMESON has re-embarked for Egypt on return from sick leave of absence. Brigade-Surgeon-Lieutenant-Colonel Comerford has arrived in Bermuda and assumed the duties of Senior Medical Officer. Brigade-Surgeon-Lieutenant-Colonel Scott has embarked for India on a tour of foreign service, and Brigade-Surgeon-Lieutenant-Colonel Barrett, whose promotion was recently gazetted, has arrived home in the *Tamar* on completion of a tour. Surgeon-Captains Lynden Bell and Gubbin have arrived at Bermuda for duty, and Surgeon-Captain Reilly has obtained leave from there. The following officers have embarked for India in the *Crocodile*:—Surgeon-Captains Tate, Watson, Mummy, Brogden, Birch and Kelly. Surgeon-Captain Carr has arrived home in the *Serapis*. Surgeon-Captain Risk has

been posted to Aldershot, and Surgeon-Major Drury has obtained sick leave from that station. Surgeon-Captain Barton has rejoined at Holme. The death of Surgeon-Captain Waller has been reported from Bengal.

#### ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel John Ross Murray, M.D., F.R.C.S. Edin., has been placed on retired pay.

#### ARMY VETERINARY SCHOOL.

Veterinary-Captain Scaward Longhurst, Army Veterinary Department, has been appointed Professor, vice Veterinary-Captain Fred Smith, whose period of service in that appointment is about to expire.

#### INDIAN MEDICAL SERVICE.

The following appointments have been made:—Surgeon-Captain A. H. Nott, Officiating Second Resident Surgeon of the Presidency General Hospital, to act as Civil Surgeon of Birbhum. Surgeon-Captain B. D. Basu, I.M.S., has been transferred from general duty, Scinde District, to general duty, Bombay, Deesa, and Aden Districts. Brigade-Surgeon-Lieutenant-Colonel R. P. Ferguson, A.M.S., having been appointed an Army Medical Officer in the Bengal Command, has been directed to proceed to Allahabad in order to take over the administrative medical charge of that district. Surgeon-Major B. Doyle has been posted to Ferozepore. Mr. H. A. Hall and Surgeon-Lieutenant-Colonel S. M. Salaman, M.D., have respectively delivered over and received charge of the Yerrowda Central Gaol. Surgeon-Captain A. V. Anderson, M.B., has been appointed to act as Deputy Sanitary Commissioner for the Western Registration District. The following promotions are made subject to Her Majesty's approval:—To be Surgeon-Lieutenant-Colonel from Oct. 1st, 1892: Surgeon-Major A. N. Rogers-Harrison, M. P. L. Beech, and H. P. Esmonde-White. To be Surgeon-Majors from Oct. 2nd, 1892: Surgeon-Captain J. L. Van Geysel, H. N. V. Harington, G. M. F. McKee, J. A. F. Burton, and F. J. Doyle.

#### NAVAL MEDICAL SERVICE.

The following appointments have been made:—Fleet Surgeon J. Lyon, M.D., to the *Impregnable*. Staff Surgeons: T. E. H. Williams to the *Pelican* and G. F. Watts to the *Beagle*. Surgeons: William R. M. Young to the *Wildfire*, for Sheerness Dockyard; R. Hickson to the Bermuda Hospital; O. S. Fisher to the *Alaric*; J. Lowney to the *Redpole*; E. E. P. Tindall to the *Plover*; E. C. Lomas, M.B., to the *Pigmy*; J. Dawson to the *Pembroke*; B. S. Mends, to the Portsmouth Division, R.M.A.; A. Kidd to the *Caroline*; E. E. Bray to the *Mercury*; E. J. Swan to the *Archer*; F. W. Parker to the *Cambridge*; and E. A. Shaw, B.A., M.B., to the *Hearty*.

#### VOLUNTEER CORPS.

*Artillery*: 2nd Hampshire (Southern Division Royal Artillery): Surgeon-Captain B. J. Guillemard, M.D., has resigned his commission. The Volunteer Officers' decoration has been conferred upon the following:—Surgeon-Lieutenant-Colonel Thomas Henry Moxon, 1st Norfolk Artillery; Brigade-Surgeon-Lieutenant-Colonel Stephen Moulton Hopson, 3rd Volunteer Battalion, the Norfolk Regiment; Brigade-Surgeon-Lieutenant-Colonel Geo. Sampson Elliston, 1st Volunteer Battalion, the Suffolk Regiment; Surgeon and Honorary Surgeon-Major John William Harper, retired, 2nd Volunteer Battalion, the Suffolk Regiment; Surgeon-Major Daniel Bailey Balding, 1st (Hertfordshire) Volunteer Battalion, the Bedfordshire Regiment; Surgeon-Major (ranking as Lieutenant-Colonel) Alfred T. Brett, M.D., retired, 2nd (Hertfordshire) Volunteer Battalion, the Bedfordshire Regiment; Honorary Assistant Surgeon William Gimson, M.D., retired, 3rd Volunteer Battalion, the Bedfordshire Regiment; Surgeon and Honorary Surgeon-Major Theophilus Wm. Trend, M.D., retired, 2nd Volunteer Battalion, the Hampshire Regiment; Brigade-Surgeon-Lieutenant-Colonel Henry Robert Smith and Surgeon and Honorary Surgeon-Major John Robert Kealy, M.D., retired, 3rd Volunteer Battalion, the Hampshire Regiment; Brigade-Surgeon-Lieutenant-Colonel Fredk. Fawson, Lee, M.B., 1st Wiltshire Rifle Volunteer Corps.—*Rifle*: 2nd (Westmorland) Volunteer Battalion, the Border Regiment: Surgeon-Lieutenant R. W. Leeming has resigned his commission.—4th Volunteer Battalion, the King's (Liverpool Regiment): Surgeon-Captain W. J. Fleetwood, M.D., has been appointed Surgeon-Major.

#### EXAMINATION.

A medical examination has been ordered by the War Office of candidates for the Royal Military College, Sandhurst, to

be held at the Offices, King-street, Westminster, on the 28th and 29th inst.

#### SICKNESS IN THE ROYAL WELSH FUSILIERS.

According to the Indian papers the Peshawur Valley has been very unhealthy this year. The Royal Welsh Fusiliers have lost many men during the hot weather and rains, and have a large number of sick in hospital with fever. The regiment is stated to be under orders for Nowshera. The whole valley is well known as a malarious locality, and the form of fever which occurs there has certain features which have given rise to the name of "Peshawur fever"; and it is alleged that the unusually heavy rains which occurred a few months ago gave rise to a considerable increase of that disease. Removal from the locality and complete change of climate is recognised as the only remedy where it is at all intractable and does not yield to treatment.

The usual "Report on the Sanitary Measures in India in 1890—91," for presentation to both Houses of Parliament has just been issued. It contains chapters on the health of the European and native, with which we have already dealt, on the health of prisoners in gaols and on that of the general population, together with chapters on medical institutions, including medical schools and lunatic asylums, and on sanitary works. Appended to the report are abstracts of reports by the Sanitary Commissioners in India, and memoranda by the Army Sanitary Commission in England. We hope soon to deal more fully with this blue-book.

## Correspondence.

"Audi alteram partem."

### THE BRADSHAW LECTURE.

To the Editors of THE LANCET.

SIRS,—Dr. Gee in his recent Bradshaw Lecture, which is published in the current number of THE LANCET, told us among other things that he had sometimes found the scalp in tuberculous meningitis too tender to bear shaving and commended this observation, among others, to the consideration of "those who find a difficulty in believing that leeches or blisters applied to the skin can possibly affect a deeply seated part with which the skin has no obvious connexion." I do not know whether Dr. Gee meant his admonition for me, or only whether the consciousness of coming within its scope made me suppose so; but when something is commended to my consideration by a person in a place of authority, and one whom I respect so much as Dr. Gee, it behoves me to give my respectful consideration to it. As it is not easy to say what is possible I will be content with what is probable, and I will deal in especial with the subject of meningitis, to which he has given prominence. The case stands thus, if I may try to expand Dr. Gee's statement of it without misrepresentation. The scalp may become tender in meningitis, though there is no obvious connexion between the seat of the tenderness and the seat of the disease; therefore I am to consider whether irritation of a neighbouring but unconnected surface may not act beneficially upon a subjacent region of inflammation. Now I deny the major and dissent from the conclusion which is implied. If the scalp become tender under meningitis I presume it is because the roots of the fifth nerve, which lie at the base of the brain, are irritated by the inflammatory products or the inflammatory condition there present, whereby the branches of the same nerve which go to the scalp are made hyperæsthetic. This appears to be simple enough, but I do not see how it bears upon counter-irritation or local bloodletting. Does it afford any ground to suppose that irritation of the scalp will influence the course of meningitis? At most it displays a sensory consent between the roots and the branches of the same nerve, a condition of which we have many other examples. If, by appealing to the branches of the fifth nerve, we could influence its roots, does it follow that we should thereby lessen the inflammation around them which is the cause of the irritation, not its consequence? As well might we hope to benefit a case of renal stone by applying remedies to the tender or painful testicle.

Thus stands the case when we have an obvious and intimate nervous connexion between the surface and the position of the inflammation below; but when I try to follow further the line of thought which Dr. Gee indicates, and to follow it in the direction of the tradition of counter-irritation, there I find myself lost in mystery. Because a deep inflammation affects painfully a nearly connected surface, does it follow that irritation of a surface will affect beneficially a remotely connected deep inflammation? Here, I confess, I fail to see my way. Is there some remedial sympathy between surfaces and organs dependent on propinquity rather than anatomy, which travels across country rather than by recognised routes? Some such fancy has guided the practice of generations, and even still has its influence. Shall we continue to blister the wall of the chest as exactly over a vomica or a mass of hepatisation as our diagnosis permits or the nape of the neck for any cerebral affection, even though it permits of no diagnosis? Such things have been done. I do not know whether Dr. Gee would carry his argument to these practical issues. He does not say so; for the sake of his patients I hope not. But he has commended to my consideration facts which appear to lead him in this direction, and I cannot do less than consider them.

I am, Sirs, yours truly,  
W. HOWSHIP DICKINSON.

Chesterfield-street, W., Nov. 14th, 1892.

### SMALL-POX IN LEICESTER.

To the Editors of THE LANCET.

SIRS,—Your impressive note of warning in THE LANCET of last week may possibly have some effect on the minds of those who are responsible for the present state of things at Leicester. Will you allow me to accentuate your remarks by stating facts within my own experience which may be worth recording?

In 1882 the same thing happened at Nottingham as that which has just taken place at Leicester. At that time a group of wooden sheds or huts was all that Nottingham possessed for the hospital isolation of scarlet fever and small-pox, both of which diseases prevailed concurrently, and both of which were required to be notified in accordance with the provisions of a local Act of Parliament. A patient in one of the scarlet-fever huts caught small-pox. Some were of opinion that infection took place across the open space which separated the huts; by others it was considered more likely to have been the consequence of a forbidden communication between the inmates of the scarlet-fever and small-pox huts. The mode of infection, however, was not the essential point, the fact of real importance being that a person who had been removed from home to the huts in order to prevent the spread of scarlet fever had been attacked with small-pox, owing to the proximity of the disease, whilst under the care of the municipal authority. After such an experience, I could not, as medical officer of health, allow any case of scarlet fever to be treated at the huts without personally satisfying myself that, by vaccination or revaccination (according to age and other circumstances), I had effectually guarded against the recurrence of so serious an accident. The town council of Nottingham set to work soon after to improve their defences against epidemics, and they now have one of the best isolation hospitals in England. It is surprising that Leicester should be so far behindhand in 1892.

I would take this opportunity of calling attention to other sources of danger for which the authorities of Leicester ought to be fully prepared. In a community where the proportion of the unvaccinated is increasing year by year, and where notification and isolation are mainly relied on for protection against small-pox, there must always be the danger of "unrecognised cases." A person passing through the disease in a slight, modified form, and able to go about as usual, may start an epidemic. An illustration of this has occurred within my own observation. Then there are the "doubtful cases" and those of "mistaken diagnosis," which should be provided for in anticipation. In the establishment of isolation hospitals, I have of late years urged very strongly the need for a sufficient number of detached "observation wards." I am afraid that Leicester is very badly equipped in this as in other essential respects.

I am, Sirs, yours obediently,  
EDWARD SEATON, M.D. Lond.

Clapham Common, S.W., Nov. 10th, 1892.

### "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—It has been said, Why may not the public coöperate and secure medical advice at coöperative prices? I cannot for a moment admit that the practice of medicine lends itself to this so-called coöperative method, for I believe the more deliberate the attempt to identify the science and art of medicine with a trade or business the more disastrous will be the result to the public. The profession and an ordinary trade, to which modern attempts are being made to reduce it, are as different in essentials and in the handling they require as are such diverse subjects as scientific discovery and galvanised iron bucket making. The identification will destroy the essential principles of our profession—it will destroy the incentive to excel. What, it may be asked, is the use of all our sanitary legislation and efforts to prolong life and reduce sickness if side by side we allow to grow up a system opposed to the essentials of good medical practice—a system which abolishes all incentive to good practice in our practitioners, who are daily fighting with disease and death—a system which all admit cannot but tend to produce perfunctory work, which, in medicine of all things, is synonymous with bad work? Does anyone doubt that these are the real results of a system of fixed wage-paid medical service? Is it necessary to particularise when speaking to an audience of medical men?

But let us examine a little more closely what our questioner means by "coöperative," and let us not confuse coöperation with combination. "Coöperation" is derived from *co* and *operari*, and thus signifies conjoint labour, not a mere combination or conspiracy to secure a certain end. In its general spirit it may be described as a theory of labour, and in its general aim as an industrial force. The only indispensable labourer in a Medical Aid Association is the doctor; it is his capital, in the form of skill, and his labour which alone create the wealth. Those who do not labour or contribute to the earning have no right to share the result of another's industry, and to call such a sharing coöperation is a contradiction in terms. Coöperation seeks to make and to retain wealth by taking into partnership those who, by their labour, create it. In Medical Aid Associations there are no such labourers other than the doctor. If it be said that the committee work, it may be properly replied, It is true they hold totally unnecessary meetings, but that is not productive labour. If those retain who do not earn, the scheme ceases to have any claim to be called coöperative, but it may fairly be classed as a combination to defraud. If it be said that the goodwill is supplied by the members and that this represents the capital of the business, it may properly be replied that this exploiting of medical skill and labour for profit by lay capital is one of the fundamental abuses of the system, a reform of which is demanded. A coöperative store is a coöperation of small capitalists to employ their own capital and to run their own business, which differs from the practice of medicine inasmuch as to do so does not require a licence. By so using their own capital they save the middleman's profit, and do not make their profit by underpaying their servants for the amount of work done. The saving is effected by interest on capital employed and not by taking part of the earnings of their workers. If Medical Aid Associations do anything they create the middleman; they certainly do not abolish him.

What is the economic position of a medical man? The labour of the doctor is indirectly productive by preserving or restoring the health and consequent power of work of the productive workers. Now, there can only be coöperation in this sphere of usefulness by a combination of medical labourers working together so that all may share in the result of their industry in proportion to the amount contributed. There can be no coöperation proper between one medical man and a large number of laymen; although it is manifest there can be a combination on the part of a number of laymen to transfer to their own pockets what is fairly and justly earned by and belongs to the medical worker. To regard such a combination as coöperation is, however, altogether fallacious. A well-known author on coöperation says: "Coöperation touches no man's fortune; it seeks no plunder; it causes no disturbance in society; it subverts no order; it has its hand in no man's pocket. It seeks its ends by means which leave every other person an equal chance of the same good." Let us see how this fits Medical Aid Associations. Now, in these businesses a profit may be

made in either of two ways: (1) the direct trade profit on the conduct of the business, or (2) the indirect, but not the less real, "saving" profit accruing to the individual members. This indirect profit is to be estimated by the money saved in fees as the result of the combination. For example, a man who is perfectly well able to pay and who does not deny his ability to pay the ordinary and fair charges of his medical adviser joins a Medical Aid Association. For an annual payment of 3s. 6d. he receives what formerly cost him £10. He is pecuniarily benefited to the extent of £9 16s. 6d. a year. But is this a defensible proceeding? Is this an allowable combination? Are the medical men to be condemned for protesting against what is, having regard to the foregoing considerations, clearly a robbery, even though effected under the cloak of a combination or association miscalled coöperative? A builder and contractor recently said: "What I formerly paid my doctor for one visit now pays my medical bill for a whole year." This kind of robbery is going on to a perfectly incredible extent at the present time. It is not denied that it is so; on the contrary, it is admitted, and it is openly claimed that the proceeding is legitimate. Let us imagine for a moment a parallel in the "Law." There are 100 wealthy men, each of whom pays to his respective solicitor charges for conveyancing and other professional work amounting to £100 a year. They combine, or, if the word is preferred, coöperate. They engage a solicitor as their wage-paid controlled servant and pay him a salary of £300 a year. Each of the hundred wealthy men contributes £3. What is the result of this pretty combination? The laymen save in the aggregate £9700. In other words, they have transferred to their own pockets £9700 which properly belongs to the legal profession. The profession is poorer by so much; while those who could well afford to pay, and for whom that amount of work has been done, have by their illicit and indefensible combination become so much the richer. The solicitor has been underpaid, having regard to the amount and value of the work done. Shall we call this coöperation? No; it is an illicit combination to indirectly enjoy the pecuniary benefits of a licence not possessed; for, as I have previously shown, the privilege of making a pecuniary profit out of the practice of law or medicine belongs exclusively to the licence, and without the licence the privilege does not exist. What would the Incorporated Law Society say to all this? That authority would say exactly what, I have no doubt, the General Medical Council will say to the analogous position in medicine: "This cannot be."

Here once more let me tell the tale of Stourport, for it well demonstrates this illicit combination to rob the doctors of their legitimate remuneration. The population of Stourport is 3504. The total number of members of the Medical Aid Association is 3177. That the scheme has but little of the friendly societies' element in it, of which we have heard so much, is shown by the fact that the club members number 591, while the public members amount to 2526. In other words, after providing for the medical wants of the members of the friendly societies, 2526 persons have combined to transfer to their own pockets (by saving) what fairly and honestly belongs to the medical profession. And who are these 2526 persons? In the Association there are or have been all the Dissenting ministers, one solicitor, four members of the local board, nine-tenths of the publicans and hotel-keepers, 50 per cent. of the tradesmen (including several large drapery houses), two jewellers, several butchers (some of these have their villa residences outside the town), all the coal merchants, many owners of house property, a large proportion of the farmers (many of them farm hundreds of acres—one as much as 1000 acres), and several estate owners.

In the Kidderminster Medical Aid Association there are 2272 club members and 2367 public members; in the Luton Friendly Societies' Medical Institute the club members contribute £322, while the public members' contributions yielded £512. These three examples—Stourport, Kidderminster and Luton—demonstrate a great abuse constituted by the departure from the original intention of Medical Aid Associations. They have developed from amalgamated clubs to immense private practices, the profits of which, either directly or indirectly, pass into the pockets of the unlicensed laity instead of into the pockets of the licensed practitioners who earn them.

I am, Sirs, yours truly,

LESLIE PHILLIPS,

Birmingham, Nov. 5th, 1892.

Hon. Sec., Medical Defence Union.

To the Editors of THE LANCET.

SIRS,—I am an old "Association" surgeon, but until reading the letter of "Verax" was unaware that any Utopia such as he seems to be dreaming of existed among the so-called "Medical Aid Societies." My experience, as likewise that of the many still under "the thrall of the committee" who write to the medical and lay journals, reduces the remarks of "Verax" to absurdity. The work in a "flourishing business" such as ours was is prodigious and altogether out of proportion to the salary—indeed, beyond the conception of the hardest-worked general practitioner. He is a lucky "Association" doctor who, in the stress of winter work or epidemic—influenza, to wit—has not to dip deeply into his meagre salary for "extra" cab hire; for, Sirs, we are dealing with patients far more exacting than those who pay a reasonable fee for attendance. When sent for, tired though we be both mentally and physically, we must go without murmur or be reported for negligence, and in due course "hustled" by the committee, who, generally speaking, have less knowledge of the feelings of a gentleman than we have of the canals in Mars. There is an old saying—and, like most of them, it is true—that "a man has either made or missed his mark at forty." In this category must be included those individuals of "mature years" who accept salaries of £50 or £70 per annum (in-door). When such as these apply there is a "screw loose." Short comment only is needed upon the remarks as to a "locum" holding a death vacancy for a time &c., as likewise those referring to "medical aids" taking patients from other practitioners—they stultify themselves. Reference is made by "Verax" to an association where a question arose as to an increase in salary of the medical officer after five years' service. Now, Sirs, from your leading article of the 15th inst., this can clearly apply to one town only, and having in view the pathetic platitudes of "Verax" as to his "injured feelings," caused by the said article, would it not have been more seemly and courteous had he made himself master of the facts (an easy matter, by the way) and surmised less as to the "market value" (save the mark!) of the services of the medical officer so directly indicated, whose susceptibilities may be as keen and feelings as "nice" as his own? The whole tone of "Verax's" letter makes one pause and think, Is it not a peripatetic pandering to a committee with which he is a trifle "off colour"? If so, I would advise him to be as I used to be with that under which I worked—

Oct. 25th, 1892.

"AUT CÆSAR, AUT NULLUS."

To the Editors of THE LANCET.

SIRS,—I would like to ask "Verax" if he considers the following description of how the midwifery department of the company's business is managed is conducive to professional dignity, or tends to elevate the public morals:— "The members' wives can secure the services of the Company's medical officer on payment of 10s. 6d. to the secretary." I presume that as the medical officer is not in any way consulted, the secretary obtains particulars on various delicate points. If it is found that the company's business in this department is at all slack, one of the committee is instructed to canvass the district, and invite the ladies to engage the services of their able medical officer, who being a married man with a large family, has considerable experience in this particular department. What I have detailed actually takes place.

I am, Sirs, yours truly,

L. R. C. P. Lond.

Nov. 7th, 1892.

"AMPUTATION FOR DIABETIC GANGRENE."

To the Editors of THE LANCET.

SIRS,—In your issue of Nov. 5th Mr. T. Davies Pryce refers to my paper on the above subject, read before the Royal Medical and Chirurgical Society on Oct. 25th, and draws attention to the fact that both atheroma of vessels and peripheral neuritis may be present in a case of diabetic gangrene, and may, apparently, both have something to do with its causation. I have no doubt that he is correct, and, indeed, endeavoured to bring out this point in my paper, but unfortunately omitted to do so in the abstract sent to the journals. I do not think that the presence of both these conditions need necessarily

be looked upon as an absolute contraindication to amputation, but rather that, whilst the presence of arterial degeneration makes the case much less promising, that of peripheral neuritis has not much to say to the matter. Gangrene starting from a perforating ulcer is a much more dangerous affection if the vessels be sclerosed than if they be healthy, but senile gangrene in a diabetic is not a more serious affection in a man with peripheral neuritis than in one without it.

I am, Sirs, yours faithfully,

RICKMAN J. GODLEE, F.R.C.S. Eng.

Wimpole-street, W., Nov. 11th, 1892.

### THE CLIFTON LUNACY CASE: MASON v. MARSHALL AND SHAW.

To the Editors of THE LANCET.

SIRS,—Upwards of four years ago you were kind enough to open your columns for a subscription-list towards defraying the expenses of Dr. Shaw and myself in defending the lunacy certificate action brought against us by Miss Mason. The result of the trial, your readers may remember, was a verdict with costs in our favour. At the time there appeared to be no probability of our obtaining costs; recently, however, they have been recovered, with the result that we have now a balance in our favour. My own legal expenses came to £304 13s. 6d., the taxed costs now recovered to £221 19s 7d., thereby reducing my legal expenses to £83 13s. 11d. From the treasurer (Dr. E. Long Fox) of the fund contributed by the medical profession I received £155 2s. 9d., which places a balance of £71 8s. 10d. at my disposal. I have been anxiously considering how best to apply this surplus amount in a way likely to prove most in accordance with the feelings and wishes of the donors to the fund, and, after consultation with Dr. Fox as their official representative and with other friends, I have decided to send a contribution of £100 to the Library of the Bristol Medical School. I trust that this will meet with the approval of those of my professional brethren who showed me so much sympathy, and gave such practical assistance at a time of great anxiety. The recollection of this sympathy and kindness remains gratefully and indelibly fixed in my memory, while the worries and vexations attendant on the trial are forgotten. Thanking you, Sirs, for your support,

I remain, Sirs, your obedient servant,  
Clifton, Nov. 14th, 1892. HENRY MARSHALL, M.D. Edin.

To the Editors of THE LANCET.

SIRS,—As a codicil to the letter from Dr. H. Marshall, will you allow me to add that, having also recovered my taxed costs from the plaintiff in the action brought against us, I have now received from all sources a surplus beyond my original expenses. With exceeding pleasure I have made a donation of £100 to the library of the new Bristol Medical School, and the small balance still remaining I am spending upon my wards in the Bristol Royal Infirmary. Deeply and increasingly grateful for the sympathy shown us at the time, it would not be honourable to profit by the generosity of our professional brethren, and I gladly, therefore, contribute to the equipment of an institution which at this moment is an appropriate object of pecuniary support.

I am, Sirs, yours faithfully,  
Bristol, Nov. 16th, 1892. J. E. SHAW.

### "THE RADICAL CURE OF FEMORAL HERNIA."

To the Editors of THE LANCET.

SIRS,—I have read with much interest Mr. Watson Cheyne's paper on the Radical Cure of Hernia published in THE LANCET of Nov. 5th. Since the autumn of 1888 I have performed the operation for the radical cure of femoral hernia as described by Mr. Watson Cheyne, with the exception that I have not thought it necessary to dissect up the whole thickness of the pectineus muscle, contenting myself with the pectineus fascia and a portion of the underlying muscle, the amount depending on the thickness and strength of the fascial covering. I was led to adopt this method for the same reasons which influenced Mr. Watson

Cheyne, and I have now operated on four patients. Three of them did perfectly well and did not require a truss or pad after the operation. My fourth case (October, 1892) was one of strangulation of five days' duration. The gut was very congested, but not gangrenous. I took only a thin layer of muscle, and perhaps fortunately so, since the wound, which had healed by first intention under one dressing, broke down again about the tenth day and a small fecal fistula was formed. The operation is sound in principle, presents no difficulties in performance and gives an excellent result.

I am, Sirs, yours faithfully,  
Harley-street, Nov. 10th, 1892. C. STONHAM, F.R.C.S. Eng.

### FOREIGN BODIES IN THE BLADDER AND INDIAN SUPERSTITIONS.

To the Editors of THE LANCET.

SIRS,—Surgeon-Major D. Davidson, civil surgeon of Satara, a short time ago, in communicating an unusual case of vesical calculus to THE LANCET, stated that the nucleus was formed of a small doubled-up twig, and added that he could not clearly ascertain how or why the foreign body had been introduced into the bladder. A few days ago I had a man under my care whose case may throw some light upon the subject. I removed a stone, weighing upwards of two ounces, from the bladder of the patient, a Jogi, in which the concretion had formed round a small piece of "amar-bel" (a species of viscum), a parasitic plant, with fine, smooth stems, which infests certain trees, and is, as its name, "the deathless creeper," would perhaps seem to indicate, regarded as being possessed of special virtues. The Jogi, or Yogi, is one who attempts to attain union with the Supreme Being by means of abstract contemplation. My patient explained that he was accustomed to cleanse his urethra with a piece of the "amar-bel" stem in order that he might fit it for the last passage of his soul out of the body in a state of purity, so as to avoid the necessity of another—or at least of a lower—birth, and that two years ago it had slipped back into the bladder. It is thought by Hindu Yog philosophers that the soul leaves the body by one or more of ten outlets (*dash-dvár*), of which the eyes, ears, and fontanelles are pure, and the nostrils, mouth, anus, and urethra are impure. Sometimes, if there be a discharge from any of the impure passages at the time of death, the soul may take its exit by them and thus become defiled and takes a lower birth, hence the Jogi tries during life to minimise the evil by cleansing every road as much as possible. The modes of effecting this are described in various works, and some are remarkably curious. I am informed by a very enlightened Rajput noble that warriors do not take opium before going into action in order to acquire a little spurious courage, as some have supposed, but to induce constipation, so that, if fatally wounded, the sphincters may not be relaxed, and thus the soul may pass away by an upper exit. It is true that Krishna said to Arjuna in the Bhagavat Gita that one who was killed in battle would go to heaven, but it is as well to make sure of a safe journey for the soul a Hindu thinks. In judicial death by hanging there is of course the prospect of the soul having to leave the body by an objectionable channel, but in addition there is the certainty that the prisoner does not die on the earth and so his spirit becomes a pisach, a chut or demon. This explains what always seems to the spectator the unfeeling action of the friends of a Hindu when he is on his deathbed at which time they always place him on the ground in order that he may expire there.

I am, Sirs, yours faithfully,  
T. H. HENDLEY, Surg.-Lt.-Col., C.I.E.,  
Jeyapore, India, Oct. 25th, 1892. Residency Surgeon.

### "THE ETHICS OF OPIUM AND ALCOHOL."

To the Editors of THE LANCET.

SIRS,—Let me give, without comment and very briefly, with reference to the discussion on the opium habit generally and of Dr. Mouat's extenuation of the practice in particular, at p. 1090 of THE LANCET of Nov. 12th, some experience of mine and of other medical officers during the China campaign of 1860 of the force engaged in which Probyn's and Fane's irregular cavalry formed a part. These splendid native horsemen were habitual indulgers in that narcotic, and as no provision had been made by the commissariat in

China for its issue as an ordinary ration the men were rendered quite incapable of military or any other duty, even of cleaning their horses, by its suppression. No opium being at hand, commissariat "indents" were made to the Medical Department for a provisional supply in quantities that were so excessive as very soon went far to exhaust the store. As soon as the opium ration was served out the temporary disability immediately disappeared. It is to be presumed that the consumption of the drug by these native troopers was comparatively moderate. They certainly were what Dr. Mouat terms as a class exceptionally bright and intelligent, "with broad frames, brawny muscled, pliant skins," and in every way unusually active and efficient soldiers. Yet their collapse on the cessation of the stimulant seems clearly to prove that, under the most favourable circumstances, the opium habit is injurious in a high degree to the nervous system and ought to be discouraged, in spite of fiscal and all other considerations, by any truly scientific code of preventive State medicine.

I am, Sirs, yours obediently,  
R. LEWINS, M.D. Heidelb.,  
Surgeon-Lieutenant-Colonel (Retired).

Nov. 14th, 1892.

## DIPHThERIA AND SEWER GAS.

To the Editors of THE LANCET.

SIRS,—Your reviewer of the recent "Treatise on Hygiene and Public Health" calls attention to a point of great importance, especially at the present time, when diphtheria is more prevalent in London than ever before. Is there a causal relation between sewer gas and diphtheria? As your reviewer says, some noted authorities say no. On the other hand, many say yes, besides Professor Notter; among them Drs. Thorne Thorne, Thursfield, Sykes, and Mr. M. Adams (see "Epidemics, Plagues, and Fevers"). I have been recently led to suspect manhole ventilators as a cause of diphtheria in this parish; and it has occurred to me whether the increase of diphtheria in London in recent years may not be partly accounted for by the increased ventilation of sewers—i.e., ventilation which allows the escape of sewer gas in improper places, without being sufficient to render it innocuous. It would be interesting if any who have studied this question would give their experience, and I should be much obliged for reference to any literature on the subject.

I am, Sirs, yours truly,  
SIDNEY DAVIES, M.D. Oxon., D.P.H. Camb.,  
Nov. 16th, 1892. M.O.H., Plumstead.

## "ARREST OF HÆMORRHAGE AFTER TOOTH EXTRACTION BY HOT WATER."

To the Editors of THE LANCET.

SIRS,—Your annotation on the above subject leads me to think that the following illustrative case may be of interest to your readers. In April, 1891, while acting as "locum tenens" at Freshford, I extracted a tooth from a young woman. There was some bleeding at the time, but it had ceased before she went away. It soon recurred, however, and during the next three days she lost, at intervals, a large quantity of blood. The cavity was plugged several times by Dr. Flemming and by myself. Each time we succeeded in stopping the hæmorrhage, but it always recurred whenever the patient removed the plug, so that we were frequently being sent for. Finally, I decided to try syringing with hot water. I used water as hot as I could bear to put my hand into. Immediately on the first impact of the hot water the bleeding ceased. I desisted at once, but the oozing soon recommenced. I then syringed continuously for some four or five minutes. The hæmorrhage ceased, the gum became pale and eventually completely blanched. There was never any recurrence after this. The patient complained of no pain, no sloughing followed, nor were there unpleasant after-results of any kind.—I am, Sirs, yours faithfully,

H. WILLOUGHBY GARDNER, M.D. Lond.  
Shrewsbury, Nov. 15th, 1892.

## "ELECTROPATHIC ADVERTISING."

To the Editors of THE LANCET.

SIRS,—I beg to inform you that I have commenced an action for libel against the newspapers to whose article you refer in your annotation on "Electro-pathic Advertising" in

your issue of Sept. 24th, and I shall also hold you responsible. I request you to insert this letter in your next issue.

I am, Sirs, your obedient servant,

HERBERT TIBBITS, M.D., F.R.C.P. Edin., &c.  
Welbeck-street, W., Nov. 14th, 1892.

## CHOLERA AND THE GERM THEORY: A CRUCIAL TEST.

To the Editors of THE LANCET.

SIRS,—We have been recently informed that the Imperial Cholera Commission in Germany (a country which supplies us with such numerous therapeutic surprises) states that "wine—claret or hock—was found to kill the bacilli [of cholera] in a few minutes." Hitherto, when it was pointed out that in no single instance had the germ theory borne fruit in the treatment of disease, the excuse was pleaded that such agencies as destroyed the bacilli had an inimical effect on the system, and could not therefore be administered as remedies. Now here, according to this Imperial Commission, we have a totally different case. If cholera be due, as in Scotland we have been recently assured by Dr. Grainger Stewart, and as we are constantly being assured through all the medical journals at home and abroad, to the comma bacillus, and if claret or hock kills the comma bacillus in a few minutes, then claret and hock ought surely to cure cholera; here there can be no excuse that these beverages act as poisons to the system. Tea also, according to the same authority, killed the bacilli in one hour. If the Imperial Commission be right, and if the bacillary theory of disease be well founded, I submit that the cure of cholera should now be *un fait accompli*. If it be nonsense, as I believe it to be, then here we have another instance of the inanity of the whole thing. If, again, cholera be due to the presence of the comma bacillus in the bowels, why use tannin injections as recommended by Alexinsky of Jarsolaol (whoever he may be) and Professor Cantani of Naples, or why use astringents by the mouth? Would not purgatives to expel the bacillus be indicated? What with Dr. Brown-Séguard's "organic injection," injections of the juice of the thyroid gland, and of the serum of dogs and horses, truly the "science" of therapeutics may be said to be in a bad way.—I am, Sirs, your faithfully,

Glasgow, Nov. 11th, 1892. D. CAMPBELL BLACK, M.D. Glas.

## "AN ACCIDENT UNDER CHLOROFORM."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of the 1st inst. I find a note on "An Accident under Chloroform" by Surgeon-Lieutenant-Colonel Lawrie. I think this is the first accident of the kind ever recorded as having taken place in Surgeon-Lieutenant-Colonel Lawrie's practice of some scores of thousands of cases of chloroform administration. It is strange that it should have occurred after so much experiment, and so much assertion that if chloroform were only always administered everywhere according to the Hyderabad method its use would always be absolutely safe. If, however, such an accident can occur when the drug is administered under Surgeon-Lieutenant-Colonel Lawrie's personal supervision, and by one of his own students, it is clear either that the supposed safety of the drug has been exaggerated or that there are other reasons for its undoubted safety as administered in India compared with the conditions which obtain in England and in temperate and cold countries generally. Here in Madras, we have never had a death from chloroform, but we have had occasionally an "accident" similar to that described by Surgeon-Lieutenant-Colonel Lawrie, and in which a fatal issue has been averted by artificial respiration. My experience, as also that of Surgeon-Lieutenant-Colonel Lawrie, is very limited in regard to the administration of anaesthetics at home; and so I speak under correction when I say that if there is anything more puzzling than the safety of chloroform in India as compared with England, it is the extreme readiness with which apparently asphyxiated patients respond to artificial respiration here as compared with England.

I am convinced that our pure freely circulating air (for all operations are practically done in the open air); the dilute form in which the chloroform is necessarily administered owing to the high temperature of the atmosphere; the constitutional peculiarities of our patients, the result of dif-

ference in food, clothing, and temperate habits—I say I am convinced that these different conditions have a great deal more to do in rendering chloroform anaesthesia safe here than any particular difference in the methods we adopt. In regard to the matter of temperance alone, every surgeon in India knows how differently intemperate patients act under chloroform from the usual temperate individuals he has to deal with. We readily notice the difference here because the intemperate are as yet few and far between. Again, our patients never “funk” chloroform as Europeans constantly do. Surgeon-Lieutenant-Colonel Lawrie, in a late paper of his, has stated that till Hyderabad methods were introduced the patients used to bolt the moment they saw the chloroform bottle. English readers must take this statement as referring to Hyderabad alone. I venture to say there is not another surgeon in India who has had a like experience. Our patients as a rule simply cry out for chloroform for the most trifling operations. I have been watching this closely for the past ten years, and it has always been the same. So the fact is they do not fear it; the air is pure and warm; they are temperate, rarely muscular to the European degree, rarely bilious from over-feeding with loaded bowels, and always practically naked—everything in fact as favourable as can be for the ready reception and equally ready elimination of a volatile drug like chloroform. Surgeon-Lieutenant-Colonel Lawrie seems to approve of holding down a struggling patient. I think this approval is ill-advised. If the patient struggles and his movements are forcibly and completely restrained he closes his glottis that he may the better resist opposition, and elimination of the chloroform in his blood is thereby effectually arrested. Our custom here is to allow a patient's arms to swing about freely and to restrain only partially all other movements. He is simply prevented from removing the chloroform cap from his face, an attempt he is sure to make when becoming unconscious. I have come to regard this point as of some importance.

I am, Sirs, faithfully yours,

Oct. 22nd, 1892.

SOUTH INDIA.

### “FELIXSTOWE SPA.”

To the Editors of THE LANCET.

SIRS,—In the current issue of THE LANCET Dr. Jones gives a glowing account of the charms, and especially of the sanitary perfection, of Felixstowe. Oddly enough, however, he does not mention its system of sewerage. Is this because he hesitates to speak evil of the absent?

I am, Sirs, yours faithfully,

Nov. 14th, 1892.

GOLFER.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *Sad Boating Fatality on the Tyne; a Medical Student Drowned.*

ON Saturday evening last a sad boating fatality took place on the Tyne, whereby a student at the Medical College and a resident dresser at the infirmary lost his life. The facts are shortly as follow: Mr. Benjamin May and companions hired a four-oared outrigger to have a little exercise on the river, and all went well until about six o'clock, when the evening getting very dark the boat collided with a Blaydon steamer and all the rowers were upset into the river. They contrived to swim to the bank with the exception of Mr. May, who was missed, and although his companions made desperate efforts to reach him his body was not found until the following day, when it was recovered and taken to the infirmary, where it lies until interment to-day. Mr. May, who was in his twenty-first year and had nearly completed his curriculum, was distinguished as a student and carried off many prizes during his course. His remains were followed by professors, lecturers, and infirmary officials, and by nearly everyone of his sorrowful fellow-students, by whom he was held in the highest esteem.

### *Proposed Temporary Hospital for Cholera on Newcastle Town Moor.*

The sanitary and other committees concerned in the erection of a cholera hospital on the Town Moor have under their consideration a proposal to lay down concrete foundations and to put in the necessary sewers so that in case of a visitation of cholera emergency temporary hospitals could be promptly erected on the enclosed sites of about one and a half acres.

### *Dr. Maclaren of Carlisle on Alpine Climbing.*

Dr. Maclaren of Carlisle, who has been in the habit of visiting Switzerland for some years past and has therefore some experience of the pleasures and dangers associated with Alpine climbing, gave an attractive and most interesting lecture on the subject last week in the Viaduct Hall, Carlisle. He thought if all people who were still young would pay two or three visits to Switzerland they would be well repaid in health, and the general interest in nature which would be aroused. Young men, he said, used to cricket and football might commence to climb at once. Three or four could join together with one guide (a guide, though not always necessary, was advisable, and well repaid expense).

### *Tobacco and Snuff for Workhouse Inmates.*

The Lanchester board of guardians, in reference to the circular of the Local Government Board authorising an allowance of tobacco and snuff to non-able-bodied paupers, have represented to the Local Government Board that it might withdraw the term “non-able-bodied paupers,” and leave it to the discretion of the master to recommend these luxuries under certain circumstances to working inmates. Old men and women smokers were to be allowed two ounces per week.

### *Miscellaneous Items.*

The Gateshead guardians have resolved in consequence of the congested state of the County Lunatic Asylum to appoint a committee to consider the necessity and advantage of establishing an asylum on the guardians' land for the reception of the lunatics of the union. From this and other indications apparent in the same direction it appears to me that the day for huge lunatic asylums is over; at all events, that they have now reached their limit in the north.—Last week an interesting presentation took place at the Central Hall, Spennymoor, of a purse of gold and a medal suitably engraved with an illuminated address to Police-constable R. Boal, who discovered the fire at the North-Eastern Hotel and gallantly saved the lives of the inmates.—A Local Government inquiry has been held at Eston, near Middlesbrough, to sanction the purchase of land for a sanatorium for the district, to which there was no opposition.—Mr. Veitch of Middlesbrough has presented to the museum of that town a stone axe head which had been dredged in the River Tees. It is said to be a very fine relic of the stone age.—One of the events of the week has been the reopening of the Newcastle Art Gallery with a brilliant conversation, which was attended by the mayor and corporation and our principal citizens. The Newcastle Art Gallery is something unique, for under the same roof it includes the magnificent picture galleries, a concert hall and various club-rooms, besides separate rooms large enough for the meetings of our various scientific societies. There has been a great need for this in Newcastle, as we have nothing in the way of a medical institute.—In my last notes I mentioned that the seal had been driven from its haunts on the Northumbrian coast by the steamboat traffic. I have been sorry to hear, however, that on Saturday last a boat proceeded to the Seal Rock (one of the Farne Islands) in search of a female seal and her cub which were seen on the rock. They escaped. Not so a fine bull seal, which the fishermen shot. It is said to weigh forty-five stone, and the skin measures eight feet by five feet.

Newcastle-on-Tyne, Nov. 16th.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

### *Royal College of Surgeons.*

AN election for a Member of Council in the room of Mr. J. Kellock Barton, resigned, was held on Monday, when Dr. F. T. Heuston, Professor of Anatomy in the Medical Schools of the College, was elected by a large majority.

### *Graduates' Memorial Building: Trinity College.*

A sum of £6500 has already been received for the Graduates' Memorial of the Tercentenary of the University of Dublin, and it is confidently expected that before the year terminates an additional £500 will be added to the amount. The governing authorities of the University have consented to give a suitable site for the proposed building, and the matter will soon engage their consideration.

### *Dublin Hospital Sunday.*

The nineteenth annual collection in aid of the Dublin

hospitals took place last Sunday, and, so far as can be ascertained, it is believed that the returns will prove satisfactory. The hospitals aided by the fund receive annually upwards of 11,000 patients, attend 4500 lying-in women at their own homes, treat as extern patients more than 15,000 accidents, and relieve many thousands at their dispensaries. They contain about 1200 beds, many of which, however, cannot be utilised for want of funds. The work done by these hospitals costs some £43,000 yearly, of which about 10 per cent. is supplied by the Hospital Sunday Fund.

#### *Richmond Lunatic Asylum.*

Last year there were about 300 inmates of this establishment over the estimated accommodation, and the hygienic condition, the inspectors of asylums assert, remains unsatisfactory, as shown by the frequent occurrence of dysentery and other forms of zymotic disease. The governors have at last decided to obtain an estate in the neighbourhood of Dublin, and there erect a second asylum for the district. There is little doubt that, before long, it will be found more convenient for the counties of Dublin, Louth, and Wicklow to separate from the city of Dublin, as the patients belonging to the metropolis are increasing with such rapidity as to render it likely that a separate institution will be found essential for their treatment, but in the meantime the scheme adopted by the governors has the advantage of presenting the fewest difficulties. Not alone is the Richmond Lunatic Asylum overcrowded, but the workhouses situated in Dublin contain a large number of persons of unsound mind for whose care and accommodation more suitable surroundings are required. Considering the number of the insane in this district who require asylum care, a second institution affording equal accommodation to the existing Richmond Asylum will be required.

#### *Cork South Infirmary: Lady Students.*

At the monthly meeting of the trustees of the South Infirmary, Cork, held on the 11th inst., a motion by Colonel Donegan to rescind a resolution passed by the trustees at a previous meeting, permitting lady students to attend clinical instruction in the hospital. After considerable discussion the motion was lost by 14 votes to 5.

#### *Cork Hospital Saturday.*

Cork has done better than in 1891 by about £100. The street collections and private donations amounted to nearly £800, which is encouraging.

#### *National Registration of Plumbers.*

The general meeting of the members of this association was held recently. Professor Anthony Roche, in seconding one of the motions, said that he considered their Association one of the greatest possible importance from a sanitary point of view. Dr. McWeeney and Sir Charles Cameron also spoke. The latter said the association was not a trades-union, but was for the purpose of protecting the public on the score of health, for the public ought to be protected against incompetent persons calling themselves plumbers who were not able to discharge the duties which they undertook. The law said that no one could officiate as a medical man unless his name was on the Medical Register, and he could not be put on the Register unless he could produce evidence as to his competency. This was all they required with this Registration Association.

#### *Royal Hospital for Incurables.*

At a meeting of the governors held last Monday, Mr. Wm. Russell, L.R.C.S.I., was elected Resident Medical Officer. Mr. Russell was recently resident medical officer of Monkstown Hospital.

The following have been placed on the Commission of the Peace:—Wm. Kerr, M.D., for Armagh; Richard Harold, M.R.C.S. &c., Castleisland, for Kerry; and James Kilbride, L.R.C.P.I., M.R.C.S. &c., Athy, for Kildare.

Nov. 15th, 1892.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *Electricity and Diagnosis in Gynecology.*

At a recent meeting of the Société Française d'Electrothérapie M. Apostoli, whose name is so largely associated with the use of electricity in gynecological practice, read a paper on some New Points in the Uses of Electricity in Diagnosis in Gynecology. Electricity, he held, was not only

of undoubted benefit in uterine therapeutics, but it was also a great aid in gynecological diagnosis.

#### *Alcoholism in Switzerland.*

According to the official returns for the year 1891, out of a total of 6885 deaths of persons over twenty years of age in the fifteen most populous towns of Switzerland, 425 were due to alcoholism—in other terms, 6 per cent. Of these 425 deaths owing to this sad cause 366 were men and 59 women. Of 366 individuals who succumbed to this vice 188 belonged to the working-class category and 178 to the superior, or educated, classes, which proves—when the relative proportion of these two classes in the social scale is taken into consideration—that alcoholism is more frequent in cultivated society. It is worthy of note that the fifteen centres which are included in this statistical computation form only the sixth part of the total population: so that if the figures 425 be multiplied by 6 it is found that the number of deaths due to alcoholic vice in 1891 in the Helvetic Confederation amounts to the respectable, or rather disreputable, figure of 2550. Let those who will, then, take comfort in the poor consolation that the United Kingdom is not the only part of the world afflicted with what has been not inapily termed the "English disease."

#### *Hygiene in Schools.*

The science of hygiene bids fair to become popularised in France. The strides that this branch of preventive medicine has made in this country within the last few years are indeed considerable when the conditions existing under what may be termed the not very distant pre-hygienic epoch are considered. M. Strauss, a municipal councillor, proposes to create a municipal chair of School Hygiene destined to give instruction in this subject to the teachers in the municipal schools. The future municipal professor of hygiene will be elected, after a public competition, from the medical inspectors of schools of the city of Paris.

Paris, Nov. 16th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *Dr. S. Guttman on the Recent Cholera Epidemic.*

At a meeting of the Society for Internal Medicine, on the 7th inst., Dr. S. Guttman spoke on the course taken by the last cholera epidemic. He said that the pestilence had taken its usual course from its home at the mouths of the Ganges and the Brahmapootra westwards to Russia. As usual, before spreading to Europe, it had raged with more than wonted fury in the basin of the Ganges. How it had got to Paris, however, had not yet been cleared up, but one must remember that the journey from Bombay to Paris took only about eighteen days. In Paris the outbreak of cholera had long been kept secret. In spite of the unambiguous results of microscopic examination, Professor Peter had maintained only the other day that the Paris epidemic was not Asiatic cholera. On the pretence that it was cholera nostras, all precautions had been neglected at first in Paris. The suburbs on the Seine below Paris had suffered most, the river there containing all the filth that the big city poured into it. A correspondence which he (Dr. Guttman) had had with the sanitary authorities of Antwerp proved that the cholera cases which occurred in that city were directly traceable to Paris and its environs. This being so, he thought it quite certain that Hamburg got the contagion from Antwerp, Paris, or Marseilles. The Hamburg epidemic had taught with terrible emphasis what an important part drinking-water may play in spreading cholera. The importance of other hygienic conditions had also been shown by the circumstance that, in direct contrast with what had happened in France, severe as the Hamburg epidemic had been, new cholera foci had nowhere been formed in Germany, a fact which had also struck French medical men. Dr. Guttman threw some light on the history of the dispute between the localists and contagionists, and concluded by describing how the knowledge of cholera had been deepened and extended by Koch's discovery of the germ of the disease.

#### *Treatment of Fractures of the Leg.*

At a meeting of the Society of the Charité Doctors on the 10th instant, Dr. Korsch of the 12th Grenadiers, assistant in Professor Bardeleben's ward in the Charité, delivered a lecture on the treatment of fractures of the legs by so-called ambulatory bandages. The method is not new. It was invented by a trussmaker at Göppingen named

Hessing, who furnishes patients in whom a false joint has formed at the place of fracture with an apparatus which enables them to walk about without inconvenience. The making of this apparatus, however, demands a several weeks' stay at Göggingen, and it is so dear that only rich people can buy it. Dr. Korsch has now proved that one can enable patients with fractures of the tibia or fibula, or of the ankle, to walk about by the much simpler means of a plaster-of-paris bandage. He has extended the application of the method to cases in which not only the bones, but also the soft parts covering them, are injured, and to fractures of the femur. In the latter cases he supplements the bandage by a splint, which can be improvised by any locksmith out of telegraph-wire and hoop-iron, or, if the latter cannot be got, sheet-metal.

#### Miscellaneous News.

Professor Hirsch of Berlin has finished his "History of the Medical Sciences," at which he has been working for years.

The work of the Imperial Office of Health has grown to such dimensions that its present premises have become too small for it, and a new building is to be erected.

Herr Schloski, director of the street-cleaning department in Berlin, and Dr. Weil, who were sent by the magistrates of this city to London to study the burning of house-refuse there, have now reported, and the magistrates have resolved to instruct the building department to draw up a plan of a destructor and an estimate of its cost.

The death-rate of Hamburg and its environs for the week which ended on Oct. 29th was only 17.7.

The friends of Hermann von Helmholtz have collected and published the speeches which were delivered at the celebration of his seventieth birthday.

Berlin, Nov. 15th.

## Obituary.

EDWARD COCK, J.P., F.R.C.S.

(CONSULTING SURGEON TO GUY'S HOSPITAL).

ON Aug. 1st, at the great age of eighty-seven, this eminent and popular surgeon died at Kingston-on-Thames, where he had resided for thirty-two years. He had given up hospital work for twenty-one years, but he might have been seen up to the last six or seven years coming up to his house in Dean-street, St. Thomas-street, S.E., daily for private consultations. His professional opinion was much valued by a large circle of friends, and his personal qualifications endeared him to all who came under their influence. "Teddy Cock's" last tale was always popular with Guy's men, and his cheery voice had a friendly ring in it which was acceptable. Edward Cock was born at Tottenham, where his parents resided. His family was related to the Clines. Sir Astley Cooper, who married Mr. Cock's aunt (his father's sister), in the early part of his career was a frequent visitor and inmate of his grandfather's and father's house (frequent mention of this will be found in the Life of Sir Astley Cooper, by Mr. Bransby Cooper). At the age of sixteen Mr. Cock was bound apprentice to Sir Astley Cooper and commenced his anatomical studies at St. Thomas's Hospital, where, as the two Borough hospitals were then united, the surgical and anatomical department of the school was carried on. The warmest feelings of mutual esteem and friendship always existed between the illustrious master and his pupil, and only ceased with the death of the former in 1841. A few years witnessed the separation of the two hospitals and the establishment of a new and distinct school at Guy's. There events naturally drew Mr. Cock to the place which was to be considered his home and *alma mater*, and where his illustrious uncle still continued to fill the post of surgeon. Mr. Cock took an active part in the arrangements for the new school and worked hard at the formation of an anatomical museum. When the school opened in 1826, although still an apprentice, he undertook the duties of Demonstrator of Anatomy. From that time, during the succeeding twenty years, he continued to teach anatomy in connexion with Mr. Bransby Cooper, and subsequently with Mr. Hilton, and only resigned his appointment into younger hands when the duties of hospital surgeon and his increasing private practice, added to the wear and tear of lecturing, began to undermine his health. On his relinquishment of the anatomical chair the former pupils of the hospital who had studied anatomy under his tuition availed themselves of the opportunity to present him with a handsome piece of plate. Mr.

Cock became a member of the College of Surgeons in the year 1828, and an Honorary Fellow amongst the first batch created in 1843. He was elected a member of the Council of the College in 1856, a member of the Court of Examiners in 1867, and President of the College in 1869. In 1838, he was appointed assistant surgeon to Guy's Hospital; but for some years previously the engagements of Mr. Aston Key and the absence of Mr. Morgan, who lived out of town, had thrown upon him the active duties of hospital practice and afforded him frequent opportunity of performing many of the operations of surgery.

In the year 1847, on the decease of Mr. Morgan, he became full surgeon; the subsequent death of Mr. Aston Key in 1849 placed him in the position of second surgeon; the death of Mr. Bransby Cooper a year or two later made him senior surgeon, and for twenty-two years he served the hospital in this capacity. He then retired from active work at the hospital and became its consulting surgeon—a position he retained till his death. Mr. Cock held the office of President of the Hunterian Society, was perpetual honorary president of the Pupils' Medical Society at Guy's, and always felt and evinced a zealous attachment and devotedness to the institution where he was educated. He was rigidly exact in his attendance to his hospital practice, and seldom if ever suffered private engagements or other interests to interfere with his public duties. He was a clear and fluent lecturer and his clinical lectures were always well attended.

As an operating surgeon Mr. Cock's experience was very extensive and, upon the whole, successful. In operations for harelip and in other cases where it is necessary with accuracy and precision to bring together and adjust two cut edges or surfaces he had a method of his own; this he accomplished by the uninterrupted suture, sewing the two edges together along their entire length with a fine needle and ligature. Mr. Cock, in his early days, was the author of several reviews, chiefly of French and German works in the British and foreign and other journals. While Demonstrator of Anatomy he published a work entitled "Dissection of the Vessels, Nerves of the Head, Neck and Chest," in which the different parts were described as they were successively brought into view under the scalpel of the dissector. The work was somewhat imperfect as only embracing a portion of the human frame, but Mr. Cock's "Head and Neck" was a model of clearness and precision and was deservedly popular. In the Royal Medical and Chirurgical Transactions several years back will be found his account of congenital malformations of the internal ear from dissections of patients who died in the Asylum for the Deaf and Dumb. From time to time he gave to the medical world short memoirs on different subjects whenever he considered that his experience entitled him to do so. These will be found dispersed in the Guy's Hospital Reports and the *Medical Gazette*. Amongst these are a series of cases of laryngotomy and tracheotomy, with remarks on the operation, and on the use of the trocar and cannula in its performance. Mr. Cock was one of the first, if not the first, to perform the operation of œsophagotomy. The Medical and Chirurgical Transactions for 1851 contains a curious and unique case of varix of the posterior tibial vein, the apparent result of a wound of the popliteal artery and vein eleven years previously, for which the femoral artery had been tied. The limb was amputated by Mr. Cock under circumstances described in the paper. During the session of the Royal Medical and Chirurgical Society for 1851-52 a paper by Mr. Cock was read and was published in the volume for 1852. It was entitled "Remarks on the surgical operations usually adopted in cases of retention of urine, together with an abstract of cases in which the bladder was punctured through the rectum, either for relieving distension or facilitating the cure of impermeable stricture." Forty cases of stricture of the bladder were enumerated, in the majority of which the operation was performed by Mr. Cock. The remainder occurred in the practice of his colleagues and came under his immediate observation. Considerably more than half of these cases occurred previously to the year 1850, and their precise dates are accurately stated in the published memoir. Mr. Cock did not, as has been stated, recommend puncturing the bladder in all cases of difficult stricture, but thought that in some few instances it might be found a better alternative for the patient than a tedious course of damaging catheterism.

The above, although but a brief outline of the career of a surgeon who formed a connecting link with the Clines, the Coopers and the Keys and the united schools in the Borough will doubtless prove of interest to our readers.

## Medical News.

**ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—The following gentlemen passed the First Professional Examination for the diploma of Fellow at a meeting of the Board of Examiners on the 14th inst. :—

*Anatomy and Physiology.*—Thomas Wilson, M.R.C.S., of University College and Mason's College, Birmingham; Edward Tenison Collins, M.R.C.S., Cambridge and Edinburgh Universities and Mason's College, Birmingham; John H. Crawford, of Edinburgh University Extra-Mural School; Percy R. Cooper, of Owens College and Royal Infirmary, Manchester; John W. Haines and Evelyn G. B. Adams, of St. Bartholomew's Hospital. (Ten candidates were referred back to their professional studies for six months.)

Passed on the 15th inst. :—

Herbert E. Counsell, M.R.C.S., and Charles Pollard, M.R.C.S., of Guy's Hospital; Charles E. Baker, M.R.C.S., of Cambridge and St. Bartholomew's Hospital; George O. Rigby, of Melbourne University and University College, Liverpool; Cuthbert H. J. Lockyer, of Charing-cross Hospital; Francis C. Bottomley, of Cambridge University and St. George's Hospital. (Nine candidates were referred back to their professional studies for six months.)

Passed on the 16th inst. :—

Douglas Crawford, of Berlin and Edinburgh Universities and University College; and Robert W. Michell, of Cambridge University and St. Bartholomew's Hospital. (Ten candidates were referred back to their professional studies for six months.) Of the forty-three candidates who presented themselves for this examination fourteen passed and twenty-nine were referred.

The following are the arrangements for the Final Examination for the diploma of Fellow, for which thirty-four candidates have entered their names :—Monday, 21st inst., 1.30 to 5.30 P.M., Written Examination; Tuesday, 22nd, 2.15 to about 5.30, Clinical Examination, *visà voce* and Written; Wednesday, 23rd, 1.30 to about 5, Operations; Thursday, 24th, 2 to 3.45, Surgical Anatomy; Friday, 25th, 5 to 8.30, Pathology. The examinations on Monday, Tuesday, Wednesday and Thursday will be held at the Examination Hall, Victoria Embankment. On Friday the Examination will be held at the Royal College of Surgeons. Candidates will be required to attend on each of the above dates.

**FOOTBALL CASUALTIES.**—The following casualties occurred on Saturday, the 12th inst. In a match at Felixstowe, between teams representing Landguard Fort, Felixstowe, and the Orwell Works, Ipswich, one of the latter team, aged twenty-four, sustained injuries to the abdomen, from which he died, in the Ipswich Hospital, on the following night. During a match between Warrington and Mossley a Warrington half-back fractured his clavicle. In the course of a match at Keighley, between Keighley and Haworth, a three-quarter-back of the former team broke two of his ribs. Whilst playing a match at Cowdenbeath, between teams representing the Cowdenbeath and Dunfermline clubs, one of the Cowdenbeath half-backs fractured his right leg.

**THE JONSON MEMORIAL FUND.**—At a meeting of the committee of the Jonson Memorial Fund, held at Sir James Paget's house on Nov. 3rd, the bust of the late Mr. G. C. Jonson was exhibited, and was much admired, the likeness being thought an especially good one. It was unanimously resolved : "That the bust of the late Dr. G. C. Jonson be sent to the next exhibition of the Royal Academy, in accordance with the wish of Mr. T. Brock, R.A., the sculptor, and afterwards be placed in the school-room of Epsom College." By the kind permission of Mr. Brock the bust will be on view to subscribers any day—Saturday and Sunday excepted—at his studio, 30, Osnaburgh-street, Regent's-park, before being sent to the Royal Academy.

**LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.**—A meeting was held at Park House, Croydon, on the 14th ult. (Dr. Duncan in the chair), to establish a branch of the above Society for Croydon and the neighbouring places. Dr. Mead, of Newmarket and London, explained the constitution and objects of the Society, and answered several questions on points of detail. The meeting unanimously resolved to form a division for Croydon and the surrounding places. Dr. Duncan was elected president; and Drs. Philpot, Richardson, Rosser, Parsons-Smith and Thompson, vice-presidents. A council was formed consisting of Drs. Beard, Cooper, Drew, Ormerod, Vincent, Wayte and Webster, and Dr. Whishaw was elected honorary secretary.

**ANDERSON'S COLLEGE MEDICO - CHIRURGICAL SOCIETY, GLASGOW.**—The second meeting of this Society was held on Saturday, the 12th inst., in the college buildings, when Professor A. M. Buchanan, M.A., M.D., delivered his inaugural address as honorary president. The subject was, "Medical Science, its Uncertainties, and how to Overcome Them." There was a large audience, who listened to his scientific oration with great interest. In treating of his subject he urged the importance of close attention to facts and their proper association and correct generalisation, at the close of the address receiving quite an ovation from those present. The meeting terminated with a vote of thanks and cheers for the honorary president.

**METROPOLITAN ASYLUMS BOARD.**—The number of patients in the several fever hospitals of the Metropolitan Asylums Board at midnight on Nov. 15th was as follows :—Eastern Hospital, 391 scarlet fever, 95 diphtheria and 47 enteric fever; North-Eastern Hospital, 458 scarlet fever; North-Western Hospital, 397 scarlet fever, 79 diphtheria and 21 enteric fever; Western Hospital, 301 scarlet fever, 36 diphtheria, 1 typhus fever and 14 enteric fever; South-Western Hospital, 305 scarlet fever, 54 diphtheria and 23 enteric fever; South-Eastern Hospital, 388 scarlet fever, 14 diphtheria and 16 enteric fever; Northern Hospital, 929 scarlet fever and 14 diphtheria; Gore Farm Hospital, 812 scarlet fever. At the South-Eastern Hospital there were 3 cases and in the hospital ship *Atlas* 8 cases of small-pox.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

- BAILEY, S. H., M.D., M.B., C.M., L.S.A., has been appointed Medical Officer to No. 5 District of Nottingham Union, vice E. C. Buckoll, resigned.
- BARTON, WM. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Wyeside Sanitary District of the Weobley Union.
- BURTON, R. G., M.D., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Rural Sanitary District of the Brentford Union.
- CHAPMAN, CHARLES W., M.R.C.P., has been appointed a Physician to the National Hospital for Diseases of the Heart and Paralysis.
- COOKE, WILLIAM H., M.R.C.S., L.R.C.P., L.S.A., has been appointed Senior House Physician to St. George's Hospital.
- DALBY, A. W., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Froce Rural and Urban Sanitary Districts.
- DARRELL, H. W., M.D. Toronto, C.M., L.R.C.P. Lond., has been appointed Medical Officer for the Third Sanitary District of the Blofield Union.
- DUMMERE, H. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Bromley Union.
- HEATON, GEO., M.B., B.Ch. Oxon., F.R.C.S., has been appointed Visiting Surgeon to the Children's Hospital, Birmingham, vice Hunt, resigned.
- MASON, WM., L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the St. Austell Rural and Urban Sanitary District.
- MATHIESON, GEORGE M.B., C.M. Glas., has been appointed Junior Resident Medical Officer to the County Asylum, Stafford.
- MCCACHEN, F. W. D., L.F.P. & S. Glas., L.M., L.S.A., D.P.H. Lond., has been appointed Medical Officer for the Rugby District of the Rugby Union, Medical Officer to the Union House, and Public Vaccinator to the Town of Rugby, vice Angove, resigned.
- MACDONNELL, LUCIUS G. A., B.A., M.B., B.Ch. and B.A.O. Univ. Dub., has been appointed Surgeon to Aramac Hospital, Central Queensland, vice H. J. Hewer, M.B., resigned.
- MCKELVIE, R., M.D., L.R.C.S. Edin., has been appointed Medical Officer for the Workhouse and the Second Sanitary District of the Blofield Union.
- MILLS, JOHN, M.B., B.S. Irel., has been appointed House Surgeon to the National Eye and Ear Infirmary, Molesworth-street, Dublin, vice C. Sullivan.
- MOORE, W. HODGSON, M.R.C.S., has been appointed Honorary Surgeon to the Kidderminster Infirmary and Children's Hospital.
- MORTLOCK, AMBROSE W., M.B., M.S. Edin., has been appointed Medical Officer for the Second Sanitary Division of the Greystoke District of the Penrith Union.
- NEWMAN, D., M.D., C.M., F.F.P.S. Glas., has been appointed Surgeon to the Royal Infirmary, Glasgow, vice Macewen, resigned.
- ROMER, LESLIE R., M.R.C.S., L.R.C.P., L.S.A., has been appointed House Physician to St. George's Hospital.
- STROVER, H. C., L.S.A. Lond., L.A.H. Dub., has been appointed Medical Officer of the Sandy Sanitary District of the Biggleswade Union.
- TAYLOR, DANIEL M., M.A., M.B., M.C. Glas., has been appointed Deputy Coroner for the North Riding of Yorkshire.
- TOWNSLEY, J., M.B., C.M. Edin., has been appointed Medical Officer to the Ardley Local Board.
- YOUNG, CHARLES W. F., M.D. Lond., M.R.C.S., D.P.H. Camb., has been appointed Assistant Medical Officer to the London County Council.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST**, Victoria-park, E.—House Physician for six months. Board and residence, and allowance for washing provided. (Applications to the Secretary, 24, Finsbury-circus, E.C.)
- DEVON AND EXETER HOSPITAL**, Exeter.—Assistant House Surgeon. Salary £40 per annum, with board and lodging, not including alcoholic liquors and aerated waters.
- GENERAL HOSPITAL FOR SICK CHILDREN**, Pendlebury, Manchester.—Junior Resident Medical Officer for one year. Salary £80 per annum, with board and lodging.
- GENERAL HOSPITAL**, Nottingham.—Assistant House Surgeon for six months. Board, lodging and washing provided in the hospital.
- LIVERPOOL NORTHERN HOSPITAL**.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the house.
- NOBLE'S ISLE OF MAN AND GENERAL HOSPITAL AND DISPENSARY**, Douglas, Isle of Man.—Resident House Surgeon; unmarried. Salary £100 per year, with apartments, gas, coal and laundry free.
- NORTH-EASTERN HOSPITAL FOR CHILDREN**, Hackney-road, N.E.—Junior House Surgeon for six months. Salary at the rate of £00 per annum.
- NORTHERN INFIRMARY**, Inverness.—House Surgeon and Dispenser. Salary £70, with board &c.
- PARISH OF BIRMINGHAM WORKHOUSE INFIRMARY**.—Resident Assistant Surgical Officer for the Workhouse Infirmary. Salary £100 per annum, with furnished apartments, rations (which do not include alcoholic liquors), coals, gas, washing and attendance.
- QUEEN CHARLOTTE'S LYING-IN HOSPITAL**, Marylebone-road, N.W.—Resident Medical Officer for four months. Salary at the rate of £00 per annum, with board and residence.
- ST. LUKE'S HOSPITAL**, London, E.C.—Clinical Assistant for six months. Board and lodging provided.
- THE GLASGOW POLICE COMMISSIONERS**.—Physician Superintendent of their hospital, Belvidere. Salary £400 per annum, with house, accommodation, board and attendance. (Applications to the Clerk to the Commissioners, City Chambers, Glasgow.)
- THE NEW LONDON COUNTY ASYLUM**, Claybury, Woodford, Essex.—Medical Superintendent. Salary £1000 per annum, with house, coals, lighting, milk and vegetables. (Applications to Mr. Partridge, London Asylums Committee Office, 21, Whitehall-place, London, S.W.)
- THE LONDON THROAT HOSPITAL**, 204, Great Portland-street, and 72, Bolsover-street, W.—Pathologist.
- VICTORIA HOSPITAL**, Burnley.—Honorary Ophthalmic and Aural Surgeon.
- WESTERN GENERAL DISPENSARY**, Marylebone-road, N.W.—Junior House Surgeon. Salary £50 per annum, with board and apartments.
- WEST LONDON HOSPITAL**, Hammersmith-road, W.—House Physician for six months. Board and lodging provided.
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- WESTMINSTER GENERAL DISPENSARY**, 9, Gerrard-street, Soho.—Resident Medical Officer for one year.
- WOLVERHAMPTON EYE INFIRMARY**.—House Surgeon. Terms £00 per annum, with rooms, board and washing.

## Births, Marriages and Deaths.

### BIRTHS.

- FOULERTON**.—On Nov. 12th, at Brompton-road, S.W., the wife of Alex. G. Foulerton, M.R.C.S., D.P.H. Camb., of a daughter.
- HARRIS**.—On Oct. 30th, at Grosvenor House, Aberystwith, the wife of T. D. Harris, M.R.C.P. Lond., F.R.C.S., of a son.
- HARRIS**.—On Nov. 15th, at Tregorha, Twickenham, the wife of Percy Traer Harris, M.E.C.S., L.D.S. Eng., L.S.A. Lond., of Harley-street, W., of a son.
- HARRISON**.—On Nov. 14th, at Beverley-road, Hull, the wife of Edward Harrison, M.A., M.B. Cantab., F.R.C.S., of a daughter.

### MARRIAGES.

- RICE—HANNAY**.—On Nov. 15th, at All Saints' Church, Leamington Spa, by the Rev. C. H. Rice, B.D. (Rector of Chean and Rural Dean), assisted by the Rev. W. C. Furneaux, M.A. (Vicar of Leamington), and the Rev. A. Nicholson, LL.D., Bernard Rice, M.D. Lond., of 5, Clarence-terrace, Leamington, son of the late Bernard Rice, M.B. Lond., of Stratford-on-Avon, to Lilian Hyde (Zelly), third daughter of W. Hannay, Esq., of Leamington Spa.
- ROBERTS—WEARE**.—On Nov. 15th, at St. Mary's, West Kensington, Dr. Roberts, of Close-gate, Salisbury, to Fanny, widow of Arthur Weare, of Belvidere-villa, Upper Norwood.

### DEATHS.

- BROADWAY**.—On Nov. 3rd, at 61, Kennington-park-road, Sigismund Alexander Wain, Edward Broadway, M.R.C.S. Eng., L.R.C.P. Lond., only son of the late James Broadway, of Cairo, Egypt, aged 28.
- CRESSWELL**.—On Nov. 9th, at Grove Lodge, Winchmore-hill, N., John Cresswell, M.R.C.S., L.S.A. Lond., aged 74.
- MORRIS**.—On Nov. 18th, at Eaton-place, Brighton, John Morris, M.E.C.S., aged 44.
- WILTSHIRE**.—On Nov. 2nd, at Winkleigh, Tunbridge Wells, Thomas Wiltshire, Surgeon, aged fifty-six.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.

## Medical Diary for the ensuing Week.

### Monday, November 21.

- KING'S COLLEGE HOSPITAL**.—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.
- ST. BARTHOLOMEW'S HOSPITAL**.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
- ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS**.—Operations, daily at 10 A.M.
- ROYAL WESTMINSTER OPHTHALMIC HOSPITAL**.—Operations, 1.30 P.M.; and each day at the same hour.
- CHIEFSEA HOSPITAL FOR WOMEN**.—Operations, 2 P.M.; Thursday, 2.
- HOSPITAL FOR WOMEN, SOHO-SQUARE**.—Operations, 2 P.M.; and on Thursday at the same hour.
- METROPOLITAN FREE HOSPITAL**.—Operations, 2 P.M.
- ROYAL ORTHOPÆDIC HOSPITAL**.—Operations, 2 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL**.—Operations, 2 P.M., and each day in the week at the same hour.
- UNIVERSITY COLLEGE HOSPITAL**.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
- LONDON POST-GRADUATE COURSE**.—Royal London Ophthalmic Hospital: 1 P.M., Mr. W. Lang: Diseases of Iris,—101, Gt. Russell-st.: 8 P.M., Dr. Galloway: Nervous System.—Parke Museum (Margaret-st., W.): 4 P.M., Dr. Louis. C. Parkes: Communicable Diseases.
- CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road)**.—5 P.M. Mr. Lennox Browne: Rhinitis, Acute, Purulent, Croupous, Hypertrophic, Hyperæsthetic (Hay Fever and Hay Asthma), Atrophic; Deformities and Deviations of the Nasal Septum.
- THROAT HOSPITAL (Golden-sq.)**.—5 P.M. Mr. F. G. Harvey: Internal Ear Deafness.
- MEDICAL SOCIETY OF LONDON**.—8.30 P.M. Dr. W. B. Hadden: Syphilis and Nervous Disease in Children.

### Tuesday, November 22.

- GUY'S HOSPITAL**.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
- ST. THOMAS'S HOSPITAL**.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
- ST. MARY'S HOSPITAL**.—Operations, 2 P.M.
- CANCER HOSPITAL, BROMPTON**.—Operations, 2 P.M.; Saturday, 2 P.M.
- WESTMINSTER HOSPITAL**.—Operations, 2 P.M.
- WEST LONDON HOSPITAL**.—Operations, 2.30 P.M.
- ST. MARY'S HOSPITAL**.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
- LONDON POST-GRADUATE COURSE**.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Pityriasis Rubra and General Dermatitis.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Insanity with Syphilis.—101, Gt. Russell-st.: 8 P.M., Dr. Dakin: Preservation of Perineum.
- ROYAL MEDICAL AND CHIRURGICAL SOCIETY**.—Mr. J. W. Hulke: A case of Hepatic Abscess which burst into the Peritoneal Sac treated by Incision and Flushing; recovery.—Mr. Edmund Owen: The Radical Treatment of Severe Talipes Equino-varus in Children.
- HARVEIAN SOCIETY**.—7.30 P.M. Dinner at the Café Royal.

### Wednesday, November 23.

- NATIONAL ORTHOPÆDIC HOSPITAL**.—Operations, 10 A.M.
- MIDDLESEX HOSPITAL**.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
- CHARING-CROSS HOSPITAL**.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
- ST. THOMAS'S HOSPITAL**.—Operations, 1.30 P.M.; Saturday, same hour.
- LONDON HOSPITAL**.—Operations, 2 P.M.; Thursday and Saturday, same hour.
- ST. PETER'S HOSPITAL, COVENT-GARDEN**.—Operations, 2 P.M.
- SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN**.—Operations, 2.30 P.M.
- GREAT NORTHERN CENTRAL HOSPITAL**.—Operations, 2 P.M.
- UNIVERSITY COLLEGE HOSPITAL**.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
- ROYAL KNEE HOSPITAL**.—Operations, 2 P.M., and on Saturday.
- CHILDREN'S HOSPITAL, GREAT ORMOND-STREET**.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
- LONDON POST-GRADUATE COURSE**.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Y. Biss: Pulmonary Emphysema.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. S. Morton: Ocular Paralysis.—THROAT HOSPITAL (Golden-sq.)—5 P.M. Mr. T. Mark Hovell: Middle Ear Disease.
- HUNTERIAN SOCIETY (London Institution)**.—8.30 P.M. Dr. S. Mackenzie: Urticaria.—Dr. G. Newton Pitt: The Value of Venesection in the Treatment of Thoracic Aneurysm.

### Thursday, November 24.

- ST. GEORGE'S HOSPITAL**.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
- UNIVERSITY COLLEGE HOSPITAL**.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
- LONDON POST-GRADUATE COURSE**.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Dr. Colman: Pathological Demonstration on Tuberculosis.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. Victor Horsley: Surgical Treatment of Nervous Diseases. London Throat Hospital, Great Portland-st.: 8 P.M., Mr. W. R. H. Stewart: The Causation of Diseases of the Ear.—Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Mr. John Hopkins: Cases in the Wards.
- CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road)**.—Dr. Dundas Grant: The Examination of the Organs of Hearing.
- BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-sq.)**.—8.30 P.M. Specimens by Mr. H. Reeves. Dr. Inglis Parsons: Total Absorption of a large Fibromyoma of the Uterus by Apostoll's Treatment.—Dr. F. C. Batcher: Cystic Formations of the Broad Ligament, Diagnosis and Treatment.

Friday, November 25.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Bromp-  
ton: 4 P.M., Dr. C. Y. Biss: Hemoptysis.—Bacteriological Laboratory,  
King's College: 11 A.M. to 1 P.M., Professor Crookshank: Erysipelas  
and Suppuration (Streptococci).

CLINICAL SOCIETY OF LONDON.—Living Specimens at 8 P.M.:—Dr. Hadden:  
Two cases of Rhythmical Rocking Movements in Children.—Mr. Storer-  
Bennett: A case of extensive Fracture of the Upper Jaw.—Dr. F. R.  
Walters: A case of Pernicious Anæmia.—Dr. Pitt and Mr. Lane:  
A case of Cranial Cyst. Papers at 9 P.M.:—Mr. Hulke: A case of  
Pancreatic Cyst; exploratory laparotomy; enucleation impracticable;  
death from shock.—Dr. Roper and Mr. W. A. Lane: A case of Ex-  
cision of a Cancerous Stricture of the Small Intestine from a case of  
Complete Obstruction of seventeen days' duration.—Dr. James  
Calvert: A case of Subacute Œdema of Lung occurring above a  
Diminishing Pleural Effusion.

Saturday, November 26.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin De-  
partment, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr.  
Theo. Hyslop: Insanity, with Organic Brain Disease.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, Nov. 17th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Dir- ec- tion of Wind.	Dry Bulb.	Wet Bulb.	Solar Radi- ation in Vacuo	Maxi- mum Temp. Shade.	Mfn. Temp.	Rain- fall.	Remarks at 8.30 A.M.
Nov. 11	30.15	S.W.	46	45	..	52	43	..	Foggy
" 12	30.02	S.W.	49.	48	..	54	40	.05	Raining
" 13	29.90	S.E.	54	53	81	57	48	.04	Bright
" 14	29.83	S.W.	53	52	84	61	51	.03	Cloudy
" 15	29.71	S.W.	56	55	..	57	53	.02	Raining
" 16	29.75	N.E.	55	54	..	56	52	.70	Raining
" 17	30.02	N.E.	48	40	55	48	45	.70	Cloudy

## Notes, Short Comments &amp; Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

## AN UNUSUAL CASE.

A. CORRESPONDENT writes:—"Can any of your readers throw any light upon the following case:—A young lady, aged twenty-three years, up to and about last Christmas was a pale, anæmic-looking girl, breathless upon the least exertion. A series of headaches led to an examination of urine, when it was found that it contained albumen (2 per 1000 Esbach) casts and fat cells. Iron was administered (four grains three times a day), and great improvement in health and appearance ensued. Colour has come to the cheeks and activity and energy have succeeded listlessness and breathlessness. But the amount of albumen has doubled in the time; in fact, it would seem that things improve in direct ratio to the increase of albumen. The heart is only slightly hypertrophied. Diet (milk, fish, starch &c.) is only sparing, yet weight increases."

Dr. John Housley.—We doubt very much whether any such book exists. The means adopted to procure a water-supply for a given village depend but little on the amount of population compared with the topographical, geological and other like conditions involved. Each case, as a rule, must be decided on its own merits, and these are best estimated by an expert water engineer.

Mr. A. T. Brand.—The book has not yet been brought under our notice

## A RECKLESS MEDICAL COMPETITION.

THE Reporter of Ashton-under-Lyne of Nov. 12th contains the following paragraph (the names which are given we have deleted):—

"The spirit of keen competition seems to have at last permeated the medical profession in Dukinfield. A week or two ago Dr. — and Dr. — opened dispensaries in different parts of the town at a charge of one penny a week per member. Now we hear that Dr. — and Dr. — have entered into competition, and commenced dispensaries (in one case next to an establishment run by Drs. — and —) at the small fee of a halfpenny per week membership."

We say little on such a state of matters until we have given the parties concerned an opportunity of explaining their participation in a system which seems disastrous.

Septic must have been aware that there are people so deluded as to believe anything that is improbable and absurd. We know nothing of "electropoise."

M.R.C.S. Eng. is thanked for his communication. He will understand that though we do not publish it, we appreciate it.

## A FORM OF DANDRIF.

To the Editors of THE LANCET.

SIRS,—I have a middle-aged lady under treatment who is suffering from a most troublesome form of dandrif, accompanied by considerable loss of hair, which has existed for years, and as she states she caught it from her husband through wearing his garden hat occasionally, it is probably parasitic. Would any of your readers kindly suggest a form of treatment? Bichloride of mercury has been used as an application both in the form of solution and of pomade (four grains to the ounce).

I am, Sirs, yours faithfully,

Nov. 14th, 1892.

LUX.

P.S.—The husband has derived much benefit from the application of pomade made with lanoline and bichloride of mercury of the strength named, but not until he had lost a great deal of his hair, and even now he cannot get rid of the dandrif.

## FRIENDLY SOCIETIES ABUSED BY THE WELL-TO-DO.

A CORRESPONDENT asks what can be done to prevent tradespeople and others in receipt of good incomes becoming members of provident medical associations "simply for the sake of being medically attended for 6s. per annum." He is surgeon to a "lodge," and has on his list a solicitor's managing clerk (an admitted solicitor), the principal draper, ironmonger, stonemason, a master carpenter, an artist, proprietor of hotel, ditto of several inns, who can all well afford to pay. He says if he declined to attend them the lodge could easily get a fresh surgeon from amongst his neighbours, and he would also lose attendance on their families. He justly observes that what is wanted in the profession is "coöperation."

General Practitioner.—We shall not forget the grievance indicated by our correspondent; but one thing at a time is often the best policy.

Mr. L. Miller.—We do not think our correspondent could do better than refer to the leading article in THE LANCET of Nov. 5th.

## MEDICAL AID ASSOCIATIONS.

Investigator, though objecting to all "sweating," agrees rather with "Verax" than with Dr. Phillips. He thinks the truest words spoken are those by "Fairplay." "It is very much the fault of medical practitioners generally that Medical Aid Associations are able to go on, for if they would keep only qualified assistants and pay and treat them well, the Associations would find difficulty in securing officers or members." He advises a conference of the medical and other officers, and thinks that in this way better terms would be secured. The demand on our space prevents the insertion of this and many other letters.

Surgeon-Major.—We are not aware of any Army Medical Report having been recently published. That for 1890 was reviewed in THE LANCET of July 30th, Aug. 6th and Aug. 18th, 1892.

Mr. Vernon Mossman (Manchester).—We shall be obliged if our correspondent (whose card has been mislaid) will forward us his address.

## SYMPHYSEOTOMY.

At a recent meeting of the Philadelphia County Medical Society Dr. Barton C. Hirst reported a case of symphyseotomy performed on a young woman in the University Maternity Hospital. The operation was successful as regards the mother, and a live infant was readily delivered. It is believed (says the New York Medical Record) that this is the first instance in which this operation, as a substitute for the Cæsarean section, has been attempted in the United States.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—

- A.—Mr. Innis Addison, Glasgow; Mrs. A. Amphlett, London; A. E., London; A. M. S., Malta.
- B.—Dr. E. Blake, London; Dr. D. Black, Glasgow; Mr. William Berry, Wigton; Dr. A. T. Brand, Yorks; Mr. C. Van Biema, Manchester; Mr. Breeze, London; Mr. J. A. Bright, Glastonbury; Mr. Browne, Douglas; Mr. T. B. Browne, London; Mr. Bouchier, Brighton; Messrs. Browning and Co., London; Mr. Bowe, Highbury; Dr. Bentley, Whitehouse.
- C.—Dr. Collier, Oxford; Dr. J. M. Clarke, Clifton; Dr. J. Cagney, London; Messrs. Calvert and Co., Manchester; Dr. Coghlan, Aldershot; Mr. J. G. Constantine, London; Messrs. Cock, Russell and Co., London; Mr. Chapman, Belfast; Messrs. Christy and Co., London; Mr. Clark, West Brighton; Staff-Surgeon Glipps, China; Dr. Crialre, Paris; Mr. Clark, Wolverhampton; Madame Caplin, London; Mr. Connell, co. Tipperary; Colony.
- D.—Mr. J. R. Diggle, London; Dr. Delcroix, Dieppe; Mr. De Rudolf, London; Dr. Davis, Port Talbot; Mr. Denning, Salop; Dr. Dale, Bishop's Telford; Devon and Exeter Hospital; *Daily Gazette*, Birmingham.
- F.—Prof. T. R. Fraser, Edinburgh; Messrs. Fannin and Co., Dublin; Mr. Fox, Manchester; Fidelis, London; F.R.C.S.I.
- G.—Dr. R. J. Godlee, London; Dr. H. W. Gairdner, Shrewsbury; Mr. J. H. Goodwin, London; Messrs. Griffin and Co., London.
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  - N.—Nemo, London.
  - O.—Mr. Edmund Owen, London.
  - P.—Mr. J. Purves, Yorks; Mr. Page, London; Mr. Pentland, Edinburgh; Messrs. Potter and Clarke, London; Pauline, London.
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  - T.—Dr. W. Bezley Thorne, London; Dr. Tibbits, London.
  - U.—Dr. Unna, Hamburg.
  - V.—Victoria Hospital, Burnley.
  - W.—Dr. S. W. Wheaton, London; Dr. Wachter, Wildbad; Dr. R. Williams, Preston; Mr. Williams, Brockley; Messrs. White, Druce and Co., London; Mr. Wooldridge, Stourbridge.
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- D.—Mr. Dawson, Halifax; Mr. Davis, London; Mr. Davies, Cwm Carn; Mr. Davids, London; Deltoid, London; Debility, London; Dundee Convalescent Home; Dr., Caldico.
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  - O.—Mr. Offord, London.
  - P.—Dr. Phillips, Birmingham; Mr. Price, Longton; Portlock, Highbury; Pax, London.
  - R.—Mr. Rickard, Newcastle-on-Tyne; Mr. Rainsbury, Mansfield; Messrs. Rees and Latham, West Bromwich; Messrs. Rowntree, York; Mr. Ritchie, Manchester; Mr. Robinson, Durham; Rankin, Kilsyth; Royal Medical Benevolent College, London; Royal United Hospital, Bath; Rusticus, London.
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  - T.—Mr. Thin, London; Mr. Tyte, Minchinhampton; Mr. Trumper, Harrogate; Mr. Toy, Chipping Norton; Mr. Thomas, Bourne-mouth; Mr. Taylor, Ruthin.
  - V.—Viator, London.
  - W.—Mr. Wilcox, Yarmouth; Mrs. Willis, Torquay; Messrs. Wilson and Blessey, London; Mr. Walsh, co. Tipperary; Messrs. Whitehead Bros., London; Messrs. Whitworth and Stuart, Manchester; Messrs. Wright, Sidecup; Mr. Williamson, Liverpool; Mr. Walsh, Clogheen; Dr. Whitehill, Bury; Mrs. Wyrrill, Bradford.
  - X.—X. Y. Z., London.
  - Z.—Z., Upper Norwood.

NEWSPAPERS.—*Oswestry Advertiser, Sala's Journal, Liverpool Journal of Commerce, Leeds Mercury, Yorkshire Post, Magazine Journal, Bristol Mercury, City Press, Liverpool Daily Post, Glasgow Herald, Waterford Chronicle, Melbourne Age, Scottish Leader, Eastern Morning News, Bradford Observer, Times of India, Le Temps (Paris), Madras Weekly Mail, Scotsman, Birmingham Post, Pioneer Mail, Newcastle Journal, Sussex News, Mining Journal, Weekly Free Press and Aberdeen Herald, Reading Mercury, Law Journal, West Middlesex Standard, Local Government Chronicle, Windsor and Eton Gazette, Hertfordshire Mercury, Dumfries and Galloway Standard, Surrey Advertiser, Fulham Chronicle, Builder, Windsor and Eton Express, Sunday Times, Louth Times, Oldham Standard, Architect, The News, Sanitary Record, Le Courrier de la Presse (Paris), Bath Gazette, Insurance Record, Local Government Journal, The Referee, Western Chronicle, West Middlesex Advertiser, Temperance Chronicle, Court Circular, Baccup Times, Clifton Chronicle, Rugby Advertiser, Catholic Times, Citizen, Oxfordshire News, West Lonsaon Observer, &c.*, have been received.

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Introductory Lecture

MATERIA MEDICA.

Delivered in the University of Edinburgh,

By T. R. FRASER, M.D., F.R.S., F.R.C.P. EDIN.,  
PROFESSOR OF MATERIA MEDICA IN THE UNIVERSITY.

GENTLEMEN,—As we to-day commence a new session, which is contemporaneous with the introduction into our University of several important changes in medical education and graduation, it may be useful if I make some remarks on these changes, especially as this is the first opportunity that has presented itself for my doing so. Briefly stated, the most important changes introduced by the Medical Ordinance, which became law on the 5th of August of this year, are as follows:—1. Certain modifications in the preliminary examination in general education, tending generally to the simplification of this examination, but requiring that the entire examination shall be passed at one and the same time, before medical studies have been commenced. 2. Extension of the minimum course of study for the lower degrees to five years, with a few modifications in the educational and examination arrangements and requirements, the most important of the latter being the addition of mental diseases, ophthalmology, fevers and diseases of children to the curriculum. 3. The substitution of the title "Bachelor of Surgery" for "Master in Surgery," thereby rendering the two lower degrees similar in title; these becoming, therefore, Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.), and being only conferable together and at the same time. 4. The increase in the educational requirements for the degree of Doctor of Medicine and the introduction of an examination for that degree in Clinical Medicine, including some of its special departments. 5. The creation of a higher degree in Surgery, with requirements similar to those for the higher degree in Medicine, to which the title "Master of Surgery (Ch.M.," is to be applied. These changes, gentlemen, are not, however, likely to affect any of you. No doubt the new ordinance provides that every student who began his medical studies before the date when it came into operation shall be entitled to graduate under the system in force before or after that date, according as he shall comply with the regulations of the old or of the new ordinance. As nearly all of you have already entered upon at least your third year of study, it cannot be expected—and indeed the proceeding would be one of more than doubtful wisdom—that you would put yourselves in the position of beginners, and again undergo elementary studies and preliminary and first professional examinations. For you, therefore, the modifications in the curriculum, the institution of a new title for the lower surgical degree, the elevation of the requirements for the degree of Doctor of Medicine and the creation of a new higher surgical qualification are not matters of personal interest.

Indeed, the only provision contained in the new ordinance to which I need draw your attention, as being likely to concern any of you, is set forth as follows: "Subject to regulations to be made from time to time by the University Court, the University may also confer diplomas in special branches of medical and surgical practice on graduates of the University in medicine and surgery." It is undoubtedly the case that specialisation in medical and surgical practice has now become so frequent, and its advantages have been admitted so generally by the medical profession and by the public, that the time has come when the University should assume a definite position towards it. For by doing so it may succeed in limiting the assumption by unqualified persons of claims to special knowledge, in giving a just and adequate recognition to knowledge that has been actually acquired, and in advancing the study of special branches of medical and surgical practice, which require a more extended study than can be obtained in the curriculum for the several degrees in medicine and surgery. These objects might be gained in three ways: by instituting a degree for each special branch; by giving options, embracing the special branches, in the examination for degrees;

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or by conferring diplomas upon candidates who qualify themselves by definite courses of study, and who afterwards pass satisfactory examinations in the special branches. The first method is obviously objectionable, in so far as it would multiply degrees to an extent that would be detrimental to all degrees. The second method would fail in adequately recognising the special knowledge, and would introduce the anomaly of a degree qualifying for practice implying under one and the same title different acquirements in different holders of the degree. These objections do not apply to the third method, as it would not increase the number of degrees or necessitate the existence of degrees implying different acquirements on the part of different holders, while it would adequately recognise the special branch by a special certificate or diploma, for which the course of study could be pursued without interfering with, because subsequent to, the course for a degree. The medical faculty has already expressed the opinion that the following among other subjects might thus be recognised and fostered: ophthalmology, mental diseases, laryngology with aural and nasal surgery, medical jurisprudence, midwifery and gynaecology. Whatever special branch is adopted, the graduate would be required to devote some time, not less than one year, to such further special studies as would entitle him to a certificate in that branch. For the certificate in Ophthalmology, for example, his further studies would require to embrace optics, the anatomy, physiology and pathology of the visual apparatus and systematic and clinical study of eye diseases; for the diploma in Mental Disease, mental philosophy, the laws relating to mental diseases, and the systematic and clinical study of the subject; for the diploma in Medical Jurisprudence, criminal law, morbid anatomy (including practice in post-mortem examinations), toxicology and insanity. The possession of a certificate would, therefore, imply that knowledge had been acquired entitling the possessor to claim special qualifications for the practice of some selected branch of medicine or surgery. The training would become a means for fostering advanced studies in the University, and for forming, with the advanced studies already existing in connexion with theses and about to be instituted in connexion with the higher degrees in medicine and surgery, an Honours School in which higher studies, appropriate for an academic institution, would be conducted.

As I have referred to University Honours, I would express the opinion that it is not advisable to develop further the system of conferring honours on students for mere class or examination distinction, founded upon the work required for obtaining degrees. There is already a danger of diverting the student into too early specialisation, which, while it may lead to great devotion to several of the subjects required for those degrees, also leads to partial neglect of others; a danger which would become increased if special examinations beyond the standard of requirements for degrees were instituted. Such distinctions are not those which a University should place in the first rank. They are, after all, but little removed from schoolboy prizes or the ambitions of a cramming institution. The Honours School rather should be constituted by studies and work performed after the elementary training required for the lower degrees has been completed. Then only can higher studies and researches qualifying for honours worthy of a university be engaged in without interference with the acquirement of that fundamental knowledge which is absolutely necessary for every practitioner of medicine and surgery.

A scheme giving practical effect to this section of the ordinance will, I trust, by-and-by be issued. It will then be open to every graduate in medicine who adopts some special branch of professional work to obtain a high university honour, combined with a guarantee of special qualification to engage in that work. To other provisions in the ordinance I shall afterwards refer; but before doing so I propose to make a few remarks on the subject we are about to commence the study of in this class-room.

Medicine, as a practical Art, may truly be said to consist of only two branches—the knowledge of Diseases and the knowledge of their Cure. This knowledge has a wide foundation. It rests on the sciences of botany, zoology, chemistry and physics; of anatomy and physiology, and of pathology, medical, surgical and obstetrical. Notwithstanding the elevation thus reached, if we regard it merely as a practical art, that art to which you intend to dedicate your lives, then I say that medicine consists of only two branches of learning, one devoted to the knowledge of diseases, the other to the knowledge of remedies. The former teaches how to recognise

diseases, to trace their causes and effects, to anticipate their results; the latter how to recognise and administer remedies, how to ascertain their actions, how to apply these actions to the cure of diseases. Accordingly, in ancient times, when medicine had not yet reached the dignity of a scientific profession, but was an art only, it actually did consist of nothing else than these two departments, called the "Practice of Physic" and the "Materia Medica." Anatomy was all but unknown; chemistry was unborn; physiology was confined to a few crude conjectures about living functions, none of them more resembling the doctrines of the present day than the notion of the Greeks, that the blood swayed backwards and forwards in the veins "like the tide of Eurypus between Attica and Eubœa"; pathology, like chemistry, had no existence even in name; and as for the sciences of zoology and botany, the little known of them was merely some elementary facts comprised in one department of materia medica—that of the natural history of medicinal substances.

The first of the now extant writers on diseases, and the first author on remedies, represented in their works the whole range of the medical knowledge of two thousand years ago; and for many years afterwards their successors did little else than reproduce and variously dress up the observations and doctrines of the famous physicians of Cos and Anazarba. By-and-bye the cultivators of materia medica freed themselves from the trammels of the Greek school. To this result much was contributed by the discoveries of the alchemists and their immediate successors. More attention came to be paid to the physiological action of remedies, to those actions which occur in a state of health as contrasted with a state of disease. At the same time advantage was taken of the advancements that were being made in natural science, especially in chemistry and botany, to improve the description and definition of the articles of the materia medica. The scope of the subject, however, was not altered or its boundaries narrowed. In this University the first professor of the subject, Dr. Alston, in his teaching between the years 1738 and 1760, methodically discussed the natural history of medicines, and their action in health and in disease, with the diseases in which they are used. His successors, Dr. John Hope, Dr. Francis Home, Dr. James Home, Dr. Andrew Duncan and Sir Robert Christison, assigned the same latitude to the subject as it had received under the first occupant of the chair, but also added to it diet in its applications to disease and the therapeutic effects of electricity, galvanism and mineral waters. Indeed, the only curtailment that occurred during these eleven decades of the existence of the chair was when Dr. Cullen, in the session 1761-2, delivered a course of lectures on materia medica, in the interval between the death of Dr. Alston and the assumption of duty by his successor, Dr. Hope. It is not without interest to note that Dr. Cullen almost entirely restricted his teaching to general and special therapeutics, and made only brief and meagre reference to the physical properties of remedies.

I need scarcely tell you, therefore, that from the earliest times Materia Medica has signified the knowledge of healing materials and remedies—the knowledge of all means and circumstances directly or indirectly useful towards the cure of diseases. In the words of my immediate predecessor, Sir Robert Christison, "a complete course of materia medica should treat of: (1) medicines, properly so-called; (2) imponderable remedies or qualities of matter, such as heat, cold, electricity and galvanism; (3) diet, or food and drink, as medicinal agents." Among these several departments the one which, from its special importance and great extent, must engross the largest share of attention is that of medicines properly so-called. Consideration must be given to their chemical, physical and botanical characters, as well as to their physiological properties and effects and uses in disease. While in former times the state of advancement of the various sciences upon which the description and appreciation of the characters and properties of medicines are dependent gave a prominence to the chemical, physical and botanical characters, the present state of science no longer renders it necessary to maintain this ascendancy.

Pathology, after a long and no doubt unavoidably restricted attention to the gross lesions produced by disease, to the modifications of structure caused by abnormal action, or to what may be termed pathological anatomy, has now advanced far into the much more valuable investigation of the changes in normal action leading to or causing these gross changes or producing the conditions which constitute disease. Many important facts have been established in this branch of

pathology, which is now recognised as pathological physiology. The symptoms of several diseases, for example, have been shown to depend on perverted actions of definite portions of the nervous system, on chemical changes in constituents of the body, or on the introduction of hurtful substances, which have themselves been isolated and identified. Physiology has in each of these, and in many other advancements of pathology, acted as an indispensable pioneer, establishing by investigation the normal action and the normal composition of the structures of the body. The problems placed before the physician in each case of disease to which he is required to apply remedies are now, therefore, in many instances more definite and even more simple than they formerly were. Intelligent limitations have taken the place of superstitious or uninformed exaggeration of the curative power of medicines; and it has become apparent that, in order to treat the abnormal conditions with success, knowledge must be possessed of not only the pathological conditions, but also of the exact changes in structure or in composition which the remedial substances are capable of producing. A relatively new department, that of pharmacology, has accordingly been added to materia medica. It constitutes the foundation of therapeutics, or the application of remedies to disease; and as this application constitutes our main work as physicians or practitioners of medicine, the department of pharmacognosy (which deals with the physical characters of remedies) and that of pharmacy (which deals with the forms in which they are administered) must in a sense occupy subordinate positions. Let me add, however, that this subordination is only a relative one. Having regard to the ultimate object of medical study, a knowledge of the physical, sensible and chemical properties of medicinal substances and of pharmacy is of great practical value. Without it much of the advantage to be gained from the study of pharmacology and therapeutics will be rendered unavailable and useless; for the actual administration of remedies is necessarily based on knowledge of the former as well as of the latter.

The subject of materia medica, in so far as it is limited to medicines ordinarily so-called, includes all of these departments; but while the study of the chemical and other physical characters of medicines and of pharmacy should be engaged in at an early part of the curriculum, the study of pharmacology and therapeutics is impossible until a knowledge of physiology and pathology has already been acquired. This subdivision of the subject into two great groups, the physical and the biological, and the placing of the instruction in the former at an earlier period than that of the latter, would prove of much advantage to the student. He would find it a more easy matter to acquire a knowledge of physical and chemical characteristics and of pharmacological processes soon after he had studied botany and chemistry, and while the facts he had acquired of these subjects were yet vividly present in his recollection, rather than many months after the examinations in botany and chemistry had been passed. He would also be in a position to derive more benefit from, and to pursue with greater interest, his studies in systematic and clinical surgery, as he would possess some real knowledge of the remedies constantly being brought under his notice, whose names even he might otherwise never before have heard. The advantages would prove equally great if the departments of pharmacology and therapeutics were placed in a later part of the curriculum. As I have already pointed out, the former is founded upon physiology and the latter upon pathology, and as the separation of their consideration is highly inexpedient—if, indeed, it be not impossible—they cannot intelligently be studied until both physiology and pathology have been mastered. At a later part of the curriculum, further, some knowledge would have been acquired of the diseases which are treated by medicinal substances, and accordingly there would be avoided the perplexities and embarrassments which, in the entire absence of this knowledge, constantly arise from unavoidable references to diseases.

I have referred to the inseparable union that exists between pharmacology and therapeutics, and perhaps some expansion of this statement may be required in addressing an audience for the most part composed of those who now, for the first time, are invited to consider the meaning of these terms. As the object of pharmacological study and investigation is to obtain such knowledge as will enable us, by means of the physiological (or pharmacological) action of remedies, to restore to a standard of normal health the deviations from that standard produced by disease or pathological processes, it would be

highly inconvenient, and would increase greatly the difficulties of accomplishing this object, if the study and teaching of the action of remedies were dissociated from their application. The inconveniences of this dissociation become at once apparent when we realise that it would compel us, as students of materia medica, to ignore such remedial effects as that of salicin in rheumatic fever, of arsenic in chorea, of chrysophanic acid in psoriasis, of ipecacuanha in dysentery, or of iodide of potassium in aneurysm; and to ignore also if not actually the doses of remedies, at any rate the variations in doses necessary to produce different effects in disease and necessary for different diseases. It is, however, impossible to effect this dissociation, for our knowledge of the action of remedies is not only derived from their effects in normal states of the body, but also from their effects in diseased or pathological states, or, in other words, from their therapeutic effects. No description, for example, would be complete of the action of acetanilide, exalgine, phenacetine or phenazone which omitted their analgesic or pain-subduing effects; but this is a purely therapeutic action, not due to any narcotic or anæsthetic pharmacological action, and pain is a manifestation of diseased or pathological processes. No description would be complete of the action of digitalis, squill or strophanthus from which the diuretic action of these substances was omitted; but this action is manifested only in disease, and its demonstration rests upon clinical experience alone. No description would be complete of the action of quinine which did not include its action in reducing abnormally high temperature; but this action is displayed only in fever, and as fever is a pathological condition, the antipyretic action of quinine is necessarily a therapeutical one. No description would be complete of the action of iron which did not include its effects on essential constituents of the blood; but as these effects are produced only in anæmia, and as anæmia is a pathological condition, this, the fundamental action of iron, becomes a therapeutical one.

Influenced by such considerations as I have now brought before you, the Faculty of Medicine and the University Court adopted the recommendations that an examination on pharmacy and on the chemical, botanical and physical characters of medicinal substances should be taken either along with the examination on the subjects of anatomy and physiology, or at any earlier period of examination subsequently to the first professional examination; and that the examination on pharmacology and therapeutics should be taken at the end of the fourth winter of the new five years' curriculum, and after the examination on anatomy, physiology and pathology had been passed. These recommendations are in harmony with the expressed opinions of my predecessor in this chair (Sir Robert Christison), of the General Medical Council, of the Scottish Universities' Commission of 1876, and of the great majority of the teachers of materia medica in Great Britain, and they are supported by the arrangements now existing in the schemes of examination of English universities and of the Conjoint Boards of the Royal Colleges of England and of Scotland. They have been represented to the present Scottish Universities Commission in the form of two proposals: (1) To allow an examination on pharmacy and on the botanical and physical properties of medicinal substances, to be taken as soon after the first professional examination as the candidate desires; and (2) so to arrange the examination in pharmacology and therapeutics as to ensure that the candidate has obtained a sufficient knowledge of physiology before he studies the modifications of physiological conditions produced by medicinal substances, and a sufficient knowledge of pathological processes before the means for restoring them to a normal condition by medicines is required to be considered.

Although the essential parts of these proposals were apparently received with approval by the Commission, for they were reproduced, with at least one bewildering exception, in the first issued medical ordinances, I regret to say that in the final ordinances the Commission has departed from this position, and has, instead, adopted an extraordinary, and in some respects an unintelligible one. The Commission has ordained that the most unnecessary burden should continue to be imposed upon candidates of either maintaining at an examination standard—for two years after the examinations in chemistry and botany have been passed and when studies of totally different kind are occupying his attention—a knowledge of such of the details of these sciences as is required for even the most elementary study of pharmacy and of the

distinguishing physical characters of medicinal substances, or of again laboriously acquiring this knowledge. The Commission has also ordained that candidates shall not be examined in pathology until after they have passed an examination on the therapeutic applications of medicines, which implies that in the opinion of the Commission the modifications of function or of composition by which abnormal or diseased processes and conditions are to be restored to a normal condition by medicinal agencies are to be studied before any knowledge has been obtained of the abnormal or pathological processes themselves.

In order, apparently, that there should be no ambiguity in regard to this extraordinary conception of the relationship between therapeutics and pathology, a most significant word has been introduced into the new ordinance. In the previous ordinance, that under which your studies are being conducted, our subject is termed "materia medica" only. Lest any doubt, however, should exist that materia medica includes therapeutics—although, as I have explained, the history and the very nature of the subject leave no room for doubt—the Commission in the new ordinance has actually changed the designation to that of materia medica and therapeutics. There will, therefore, be no escape from the irrational position of the candidate being examined on the treatment of disease by medicinal agents before knowledge has been acquired of the diseases to be treated, and consequently of the teaching and study of this treatment preceding the possession of this knowledge. This dilemma will occur not only with medicines proper, but also with such therapeutic agencies as electricity, galvanism, foods, mineral waters and climate, for they obviously can be considered here only as means for treating disease. In former years not only did the simultaneous study of pathology and materia medica and the earlier acquaintance with disease, necessitated by a four years' curriculum, greatly lessen the dilemma with regard to medicines proper, but it was largely avoided in the case of the above therapeutic agencies, by postponing their consideration to as late a period of the session as possible, when considerable progress had already been made by the student in his pathological studies. In the future this will be impossible, and the acquirement of knowledge of the therapeutic uses of remedies will then become a mere unintelligent exercise of memory.

You are, gentlemen, to be congratulated that, in so far as your studies in this room are concerned, the new ordinance of the Commission does not apply to you. While I, for my part, look forward with some anxiety to the time when it may be necessary for me thus "to make bricks without straw," I do not forget that any scheme involving new conditions is produced under difficulties, that the statement of defects, even when uncompromising, is often the surest means for effecting their removal, and that the interests of science and of education are those which will ultimately prevail in our University.

## Lectures

ON THE

## PHYSIOLOGY AND PATHOLOGY OF BLOOD DESTRUCTION.

*Delivered in the Examination Hall, Victoria Embankment, on Nov. 22nd, 1892,*

By WILLIAM HUNTER, M.D. EDIN.,  
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### LECTURE I. — INTRODUCTION.

GENTLEMEN,—The subject to which I propose to direct your attention in this lecture is a comparatively new one. Blood destruction (*hæmolysis*) has hitherto received too little attention at the hands of both physiologists and pathologists. In this respect the physiologists have been most in fault. Blood formation (*hæmogenesis*) appears to have monopolised their attention to the almost entire exclusion of the process which the necessity for a renewed formation of blood implies—namely, a previous destruction of blood; so much so that

while the literature on the former is voluminous (the organs concerned in this process have even been dignified with a special name, "hæmopoietic") the references to the latter as a normal physiological process are of the scantiest. I am not, indeed, aware of a single paper dealing in any systematic way with the latter. This circumstance renders somewhat more difficult my present task, which is to embody within the compass of this lecture the results of investigations relative to it, which I have now carried on for several years. In the Arris and Gale Lectures before the Royal College of Surgeons in 1889, and in an investigation into the "Pathology of Pernicious Anæmia," published by me in 1888, I had occasion to touch briefly on the subject. I was unable, however, at that time to give it the full consideration I deemed commensurate with its importance. This blank I now propose to fill up so far as I can; and although I am only too well aware how many points have still been left untouched by my observations, I hope that the present contribution to it may serve at least to point out in what directions information is still required; while at the same time it may afford a fresh point of departure for future workers.

#### DEFINITION OF BLOOD DESTRUCTION.

I have spoken of blood destruction as a definite process carried on in health, presumably by certain agencies, in certain situations and under certain conditions, just as blood formation is. That the blood is subject to changes both in its corpuscles and its plasma, necessitating from time to time their renewal, we have every reason, from analogy with the case of other tissues, to believe; and the first question which may naturally arise in your mind is, Why dignify by a special name a process in the blood which in the case of other tissues we are content to let pass without special notice? We do not feel called on to speak of a muscle destruction or a glandular destruction to describe the retrogressive changes which necessarily accompany the activity of these tissues. Why, then, speak of a blood destruction? In answer to this question I ask in return, Why speak of blood formation any more than we speak of a muscle or a gland formation? The reason in both cases is, I think, obvious—namely, first, that the mystery which still shrouds the origin and fate of the blood of itself naturally excites interest and inquiry; and, secondly, the activity of the other tissues is so bound up with the condition of the blood that it is a matter of paramount importance alike to physiologist and pathologist to learn everything they can regarding its life history, its mode of origin, the changes that occur in it and even its manner of death. The slightest deviation from the normal at any period of its life history may carry with it results out of all proportion to the apparent magnitude of the change itself. It will be one of the objects of this lecture to show how true this statement is as regards those series of changes by which the blood in health is affected more or less injuriously, and how an increase in these changes may be, and in certain cases are, responsible for some of the most severe forms of anæmia and blood disease.

#### EVIDENCES OF BLOOD DESTRUCTION DERIVED FROM A STUDY OF PIGMENTS.

Premising that such will be the result of our inquiry, I now ask your attention to the evidence we possess that a destruction of blood is a normal physiological occurrence. The evidence we possess on this point is unfortunately scanty and vague. It necessarily varies according as it is the plasma or the corpuscles that we have special regard to. Here let me say at once that when I speak of the blood I mean not simply an albuminous fluid in which are suspended certain corpuscles, but of a highly organised tissue—a tissue to which I would assuredly and without hesitation apply the term "living" did I not fear to be asked to define what life is. This view of the blood as a tissue is no mere opinion to be accepted or rejected according to the individual standpoint from which its study is approached. It is in my view a cardinal point in the consideration of the physiology and pathology of the blood. The relation of the various parts of the blood—plasma, white corpuscles and red corpuscles—to each other and to certain cells from which they derive their origin are, if anatomically less close, nevertheless physiologically no less intimate than that of the cells and matrix of any other tissue. On this point I would fain, did time permit, dwell. It must suffice now to state that the highly organised nature of the blood of which I speak is evident, in my opinion, not only in the white

corpuscles, but in an equal, if not even greater, degree in the plasma and in the red corpuscles. They are mutually dependent upon each other. No change occurs in the one without being attended by change of some kind in the other. No study of the behaviour of the blood under different circumstances can therefore be complete which does not have regard to this important mutual interdependence of its various elements. These remarks in the nature of a digression are necessary. If in the course of this study I appear to dwell too exclusively on the behaviour of one element of the blood to the apparent neglect of others, I should like you to understand that I do so for some particular reason. If, for example, as will be the case, I speak more of the red corpuscles than of the white, it will not be that I consider the changes in them to be more important than those in the white, but solely that the changes in the blood of which I speak are more easily studied in their case than in the case of the white corpuscles or of the plasma. If I speak much of pigment as an evidence of blood destruction, and study minutely its characters, distribution, mode of formation and ultimate fate, it is not on account of the importance of pigment as such, or of the lesser importance of other products, derived, let us say, from the breaking up of the white corpuscles. On the contrary, most of the changes I describe I shall have to refer back to the action of the white corpuscles or their congeners. My sole reason for dwelling so much on the red corpuscles will be that the points I desired to elucidate I found could best be elucidated by a study of the changes observed in them and in their chief constituent—hæmoglobin.

As I have stated, the evidences of the existence of any special process of hæmolysis in health naturally differs according as we have regard to the plasma, the white corpuscles or the red. In the case of the plasma and the white corpuscles such evidence as we possess, although not unimportant, is comparatively slight. I shall consider it later on, and for the reasons just stated I pass at once to the red corpuscles. Their chief constituent—hæmoglobin—is not disposed of in the same easy way, leaving little or no trace behind, as are the albuminous constituents of the plasma or the white corpuscles. Very early in the scale of animal organisation there appears an organ—the liver—one of whose functions it is to excrete from the body various pigment derivatives of effete hæmoglobin. Important evidence as to the occurrence of a destruction of blood as a normal process is derived from a study of these pigments, either excreted in the form of biliary and urinary pigments or stored up as blood pigment.

#### A. BILE PIGMENT.

As regards the bile pigments the evidence is of two kinds—that pointing to hæmoglobin as their source and that pointing to the liver as the seat of their formation. It will, I think, conduce to clearness if, avoiding detail, I state concisely what the purport of that evidence is. With reference, then, to the derivation of the bile pigments from hæmoglobin, there is, in the first place, the fact, now fully established in my opinion (Virchow, Jaffé, Langhans, Hoppe-Seyler, Cordua and Quincke), that the crystalline pigment—hæmatoidin—so frequently found in old blood extravasations is chemically identical with bilirubin, the chief pigment of the bile; and, secondly, the further fact that some of the pigments which give rise to the characteristic discolourations of bruises are indistinguishable in character and reactions from bilirubin and biliverdin (Langhans, Cordua and Quincke). 1. Under certain conditions therefore, such as those above referred to, the hæmoglobin of the blood undergoes changes leading to the formation of pigments closely resembling, if not identical with, the chief pigments of the bile.

The genetic relationship between hæmoglobin and the bile pigments becomes still more clear when we consider the close connexion now proved to exist (Hermann, Nothnagel, Kühne, Tarchanoff, Stadelmann and Afanassiev) between an increased destruction of hæmoglobin on the one hand and an increased formation of bile pigments on the other. The facts observed in this connexion are of this kind: that when hæmoglobin is injected into or set free in the blood, it is followed by an increased excretion of bile pigments. So immediate and close is this relation that an attempt has even been made (Stadelmann)—hitherto, it is true, with but partial success—to prove that it is quantitative as well as qualitative; that the increase in the excretion of bile pigments is proportional to the quantity of hæmoglobin set free. 2. Hæmoglobin is thus an important source of the bile pigments daily excreted in health.

To what extent this is evidence of a daily hæmolytic process we shall afterwards consider.

### B. BLOOD PIGMENT.

The bile pigments are by no means the only pigment derivatives of hæmoglobin. In addition to the various pigments and chromogens of the urine, some of which are without doubt derived from the bile pigments, while others may, as I think, derive their origin more directly from hæmoglobin, there is another variety whose origin from the blood is so obvious that it has received the name, *par excellence*, of blood pigment. This is the pigment so frequently met with around old extravasations, and as such its characters and the appearance it presents have long been familiar to everyone. It differs from the pigments we have hitherto been considering in two respects—first, that it is usually found in an amorphous or granular form; and secondly, that it retains all the iron of the original hæmoglobin molecule.

The first circumstance enables it to be recognised by means of the microscope, while the second also conduces to its easy recognition and detection, since by suitable micro-chemical methods the iron it contains can be made to give characteristic colour reactions. For the iron present is not organically bound up, as it is in the original hæmoglobin (in which case it is unaffected by such micro-chemical reagents), but it is free, in the form either of its ferrous or ferric salts, or of both, and most probably as an albuminate. In this form it gives all the reactions of free iron, is blackened by sulphide of ammonium, gives the Prussian-blue reaction with ferrocyanide of potassium and dilute hydrochloric acid &c. You will, I trust, have occasion presently to appreciate how greatly the use of such micro-chemical methods facilitates the detection of pigment where otherwise its presence might have escaped notice. Although, as I have stated, the origin of such blood pigment from hæmoglobin is so obvious as to be beyond all dispute, I would not have you believe that the interest connected with it or its genesis is thereby exhausted. On the contrary, around the apparently simple question of the mode of origin of blood pigment from hæmoglobin there raged nearly half a century ago a sharp controversy, taken part in by three of the most distinguished pathologists of the century—i.e., Henle, Virchow and Kölliker. It is not my intention here or now to rake up the ashes of past controversial fires; but in the discharge of my task I cannot but refer to certain points still in dispute regarding this subject of the formation of blood pigment. The consideration of these points I shall take up as they arise in the course of the present study.

*Scope of the Investigation.*—Blood pigment wherever found denotes a death of red corpuscles. The first point in estimating its significance is to ascertain in what situations it is normally to be found, under what conditions, and, so far as is possible, in what amount. Considering in how many situations, and apparently under what diverse conditions, blood pigment may be found such an inquiry may seem a very wide one. In reality, however, when we eliminate all those conditions in which the pigment is obviously derived from extravasated blood, we find that the scope of the inquiry is not so extensive as it at first sight appears. Extensive it no doubt still is; for any conclusion as to its significance, apart from extravasation, must be based upon a comparative study carried out on a large number of animals belonging to widely different classes. At least, so it appeared to me. My observations have therefore been made on animals representative of the different groups of the vertebrata—on rabbits and guinea-pigs, on dogs and cats, on ducks and pigeons, and on frogs, as representing the classes of herbivora, carnivora, birds and cold-blooded animals respectively. It is in my judgment well that the basis of observation was in this way extended; for I found that conclusions drawn from a study of the mammalia alone had to be materially modified in the light of later observations made on birds and amphibians. In no single instance, however, was the information thus gained more definite in its character, or wider in its extent, than was afforded me by a somewhat minute study of the character and distribution of the pigment found in man under different conditions of health and disease. To the results of these observations I will now direct your attention, illustrating the different points by means of photographs and sections thrown on the screen.

*Pigment derived from Extravasated Blood.*—I show you, first of all, sections from three organs—gland, liver and spleen. In each of them, as you will see, there is pigment

present; the gland, indeed, is almost packed full with it, the Prussian-blue reaction being extremely well developed. In the other two the pigment is much less abundant, but I ask your attention to its situation. The liver is markedly cirrhotic, and you see here and there, amidst the thick bands of fibrous tissue, narrow lines of pigment. Its distribution is quite irregular; it has, in particular, no relation to the liver cells. The lines correspond to lymphatics amidst the fibrous tissue. The spleen also shows thickening of its trabeculae and increase of fibrous tissue, especially around some of its larger vessels. Here and there amidst this fibrous tissue you will likewise see small clumps of pigment in form of lines corresponding, as in the former case, to the seat of lymphatics. Lastly, I show you a section of a liver chronically congested (nutmeg liver). In the central zone of the lobule the liver cells are seen to be more or less atrophied and to contain yellow particles of pigment. Unlike, however, the pigment just described, these particles give no Prussian-blue reaction when tested. If they contain iron at all it is not in free form, but is still to some extent bound up. In all these cases the pigment has been derived from extravasated blood. In the case of the gland this is obvious; in the case of the liver and spleen it is no less obvious, and what I ask you to note is that in both cases the pigment is not in relation to the active cells of the organ—the liver cells and the splenic pulp respectively,—but lies amidst fibrous tissue. In the nutmeg liver in which the pigment is in relation to the liver cells I ask you to note, first, that it is the cells of the central zone that contain the pigment, and, secondly, that this pigment does not give the characteristic reactions of free iron. My object in showing you these sections is by way of clearing the ground. In the course of this study I shall have much to say regarding the presence of pigment in the liver and spleen and the significance to be attached to it. I wish you to understand, then, at the outset that in all my further remarks it is not the pigment of extravasation or chronic congestion that I refer to, but to pigment arising independently altogether of either of these conditions, and distinguishable from the latter either by its situation or its character, or by both.

*Situations in which Blood Pigment is found.*—The three organs in which, according to my observations, blood pigment is to be found, independently of extravasation or congestion, are the liver, spleen and red bone marrow; occasionally also the kidney.

### LIVER.

Within the liver blood pigment is found in two situations—namely, the capillaries and the liver cells. Since both its character and the conditions under which it is met with differ in the two cases, it is necessary to consider these two situations separately.

*A. Birds: Within the Capillaries.*—I show you first of all sections of liver from the healthy pigeon. You will note that here and there, distributed apparently quite irregularly throughout the liver tissue, are masses of pigment, some of them of considerable size, all of them giving the characteristic reactions of free iron. The relation of this pigment to the capillaries or cells of the liver cannot in the case of the larger groups be easily made out, since they are frequently surrounded by groups of proliferating connective-tissue cells. The dark golden-brown granules and globules of which these conglomerate masses are made up appear, indeed, at first sight to have no definite relation either to the lobules, to the liver cells or to the capillaries of the liver. In their appearance they call to mind at once the large conglomerate heaps of pigment found so numerously in the livers of frogs—a section of which I now show you by way of contrast. In respect, indeed, of their irregularity in form, size and distribution, these masses might at first glance readily be taken for pigment formed from small local extravasations of blood, the resemblance to such being increased by the small-celled growth amidst which they lie. More careful examination, however, with a view to ascertaining their precise source, reveals that while the smaller heaps lie irregularly within the lobule amidst the liver cells, the larger ones lie in relation to the portal vessels, the small-cell growth amidst which they lie being derived from a proliferation of the connective-tissue cells of the sheath of these vessels. Further, even where no pigment heaps are to be found, you will note that throughout the capillaries of the liver particles of pigment in all respects similar to the individual particles of the larger groups are to be seen lying enclosed within cells of leucocyte nature. The shape of these particles is characteristic. The larger of them are

oval, resembling both in size and shape the original red corpuscles, from which without doubt they take their origin. The long diameter of some of these particles is greater than the breadth of the capillary in which they lie; and here and there at the bifurcation of a capillary such a particle has become arrested. Other particles carried up by cells become arrested behind the point of obstruction; and so by arrest of more and more particles, the larger conglomerate heaps are formed. This accounts for the irregularity in the distribution of these masses, their exact site being determined solely, and so to speak accidentally, by the arrest of the first pigment particle.

Such, then, according to my observations, is the mode of origin of the large heaps of pigment found in the liver of birds in health. The volume and shape of the red corpuscle when converted into pigment determine thus to some extent, according to the above view, the arrest of the particles in the capillaries of the liver. The frequency with which similar accumulations of pigment are found in the liver of animals possessing larger corpuscles than birds should therefore be *a fortiori* greater; and such is the case. Nowhere are such masses of pigment more common than in the liver of frogs. The red corpuscle of the frog has a volume, according to Kölliker, of 9.2 as compared with 1.7 in the pigeon.<sup>1</sup>

In mammals the average diameter is from 0.007 to 0.008 mm. In birds it varies from 0.015 to 0.018 mm., the transverse diameter being a little less than the mean longitudinal diameter, while in batrachians their long diameter varies from 0.015 to 0.058 mm. With such large corpuscles and correspondingly large particles of pigment it is not surprising that, as is the case, the liver of birds and frogs is so constantly the seat of large accumulations of pigment.

*In Mammals.*—In mammals the presence of pigment in this situation is altogether of less frequent occurrence. In young mammals it is, according to my experience, the exception to find it even in the smallest amount. This statement applies more particularly to the rabbit, dog and cat, and also to man. Even when present it is never in such amount as I have shown you in the pigeon; nor does it ever lead to the formation of similar heaps of pigment. In the section I now show you, from the liver of an aged dog, you will see a few pigment particles here and there distributed within the capillaries. The pigment is not free, but lies within leucocytes, occasionally also a few particles being seen within the endothelial cells lining the capillaries. The size of the granules varies much, the largest of them approaching that of a red corpuscle. In many cases part of the pigment appears to be diffused throughout the protoplasm of the cell. As I have stated, pigment in this situation is not unfrequently absent altogether. The younger the animal the less likely is any to be found, and conversely, the older the animal the more abundant is it likely to be. According to my observations age is the factor most important in determining both the presence and the amount of pigment to be found in the liver capillaries of mammals. A gradual increase in its amount does not therefore necessarily imply disease. When met with in old animals it may have a purely physiological significance, one altogether different from that usually ascribed to it. According to Quincke, an increase in the amount of pigment in the capillaries of the liver is an indication of an increased destruction of red corpuscles. I will presently show you that, on the contrary, such an increase, when associated with old age, as it so frequently is, is a sign of lessened destruction. I would not have you suppose, however, that pigment in this situation has always such a purely physiological significance. It may also under certain circumstances have an undoubted pathological significance, pointing to an increased destruction of blood. The diseases in which I find this most strikingly and typically exemplified are pernicious anæmia and malaria. It was a study of the former disease that first led me to investigate the whole subject of blood destruction. You will note from the sections now shown how exceedingly abundant the blood pigment is and how striking the iron reaction can be developed in it. By far the greater part of it lies within the liver cells; but what I wish you now to note is that some of it also lies enclosed in leucocytes within the capillaries. The proportion of pigment in liver cells and capillaries respectively varies very much, I find, in different cases. In some little or none is to be found in the capillaries, notwithstanding that it is abundant in the liver cells. In others, again, it is abundant

in both situations; while, lastly, in a third group, of which my cases furnish me with one example, characteristic pigment granules are present in the capillaries, while the liver cells are almost free. In all cases the pigment lies within cells either leucocytes or cells of kindred nature; occasionally also particles may be found within the endothelial cells lining the capillaries.

Turning now from such changes induced by disease, I show you sections from the liver of rabbits and pigeons, in which a large increase of pigment within the capillaries has been induced experimentally by the injection of toluylendiamine into the circulation. In the case of the pigeon (Experiment 72) you will observe a notable increase in the pigment cells within the capillaries. In the case of the rabbit (Experiment 89) a similar increase is seen, most marked in the capillaries at the periphery of the lobule. The conclusions, then, I would have you carry with you from this portion of our study are as follows:—  
1. One of the situations in which blood pigment may normally (i.e., apart from extravasation or congestion) be found is the capillaries of the liver. 2. The amount present varies much in different animals and under different conditions. While in birds and animals lower in the vertebrate scale its presence, sometimes in large amount, is the rule, in mammals, on the other hand, it is, without being precisely exceptional, nevertheless far from common. 3. The pigment is in health distinguished by the large and varying size of its individual particles, as may be best seen in birds and in the liver of malarial disease. 4. The chief factors influencing its presence in this situation and its amount in health are: (a) the size and shape of the animal's red corpuscles, determining as this does to some extent, first, the mode of death, and, secondly, the size and shape of the largest of the pigment particles. The larger the animal's corpuscles the more likely is pigment to be found. It is hence more common in birds than in mammals. (b) The age of the animal. The amount of pigment tends to increase with age. In young mammals its presence is the exception. (c) Abstention from food and want of exercise. By feeding an animal sparingly, especially if at the same time it be shut up, the amount of pigment in this situation tends, I find, to increase. Thus my observations show that in the livers of pigeons kept shut up for several months it will, other things being equal, be greater than in birds not so confined. It is in this way that the influence of the second factor—age—is to be explained. 5. A considerable increase may take place under pathological conditions as the result of disease, or be induced experimentally by the action of certain agents that destroy the blood. Such an increase is, however, not constant, even in the same animal. Within the liver cells: The capillaries are not the only situation where pigment is to be found within the liver. The liver cells also frequently contain pigment—sometimes, indeed, in far greater abundance.

*In Birds.*—I show you now sections from the liver of the duck and the pigeon. You will note that in addition to the larger particles of pigment present in the capillaries pigment granules of an altogether finer character are seen lying within the liver cells. It is even more abundant in the case of the duck than the pigeon. I ask you particularly to note the size of these granules as compared with those lying within the capillaries. While the latter are large and of varying size, the larger of them having a diameter of as much as 10–15  $\mu$ m., the granules within the liver cells are uniformly small, having a diameter not exceeding 1–2  $\mu$ m. Both varieties give a well-marked reaction of iron. I ask you, moreover, to note that there is apparently no strictly defined relation, as regards amount, between the pigment in the two situations. In some parts pigment is to be seen in the liver cells and in the adjacent capillaries; in others it is abundant in the capillaries and absent or only sparingly present within the liver cells; and lastly—and this is best seen in the duck's liver—it may be abundant in the liver cells, while little or none is to be found in the capillaries.

In mammals the presence of pigment within the liver cells is altogether less common and less marked—at least in health. It is in the form of fine granules, occupying for the most part the cells of the portal zone of the lobule. So small in quantity is it in the rabbit, for example, that the liver tissue gives but a slight reaction when tested with sulphide of ammonium for the presence of iron, instead of the very definite reaction which we have seen in the case of the pigeon and the duck. At least, this is the case unless, as Drs. Brunton and Delphine have

<sup>1</sup> Dictionnaire Encyclopédique des Sciences Médicales, tome vi., Act. Sang., pp. 445–446.

shown, the animal be in full digestion at the time. The same applies to the liver of the dog, the cat and of man. Here, in passing, I may note that throughout my observations I have always attached great importance to the examination of the fresh tissue. The best micro-chemical reagent for revealing the presence of free iron, or iron containing pigment in fresh tissues, is, according to my observations, sulphide of ammonium. A piece of fresh liver tissue placed in sulphide of ammonium takes on a colour varying from light greenish-yellow to coal black, according to the amount of free iron it may contain. If a piece of this tissue be teased out in sulphide of ammonium and examined at once microscopically, the pigment will be seen as coal black spherical granules, or as a diffuse greenish stain, according as it is in the form of granules or diffused in more soluble form amidst the protoplasm of the cell. For the fresh tissue sulphide of ammonium appears to me to be a far more delicate and reliable reagent than, for example, ferrocyanide of potassium and hydrochloric acid (Prussian-blue test). The reaction, if any, is developed at once, and without any injury to the cell protoplasm, whereas with the Prussian-blue test the degree of colour always depends to some extent on the length of time the tissue is allowed to be in contact with the reagent. Hence if, as sometimes happened, the two reagents gave results apparently not in agreement with each other—if, for example, the tissue after hardening gave little or no reaction of iron, whereas in the fresh condition it gave a considerable reaction—it was on the former and not on the latter that I relied most.

This difference in the behaviour of tissues before and after hardening is by no means uncommon. It is most common when the pigment is diffused throughout the cell, and it is due, in my opinion, to the circumstance that in the process of hardening the soluble pigment has diffused out. For this reason the best hardening agent is alcohol, Müller's fluid and other similar preserving agents are to be avoided. Tested in this way, the liver of young healthy mammals gives evidence of containing very little blood pigment. According to Drs. Brunton and Delépine<sup>2</sup> this amount is considerably increased during digestion. If then, as I think is the case, the presence of pigment within the liver cells in health is in mammals by no means a striking feature, the case is very different in certain forms of disease.

*In Disease.*—I show you sections from the liver in cases of pernicious anaemia. You note how very abundant is the pigment; how striking is the iron reaction it gives; and how characteristic is its distribution within the lobule. It lies within the liver cells, but not uniformly distributed amongst all the cells of the lobule. It is most abundant in the cells at the periphery of the lobule, while little or none is to be found in the cells of the inner third of the lobule. These latter are for the most part fatty, and are quite free from pigment. The pigment is in the form of granules, fairly uniform in size, although larger than those we saw in the liver cells in pigeons. It appears to occupy the axis of the rows of liver cells; but on careful examination with high powers it is in some cases seen to occupy a very definite relation to the bile capillaries. It lies close to the edge of the cell, as if in process of being excreted into the bile capillary. In no disease, as I have elsewhere shown,<sup>3</sup> does the amount of pigment found in the liver ever exceed—it rarely ever approaches—that present in pernicious anaemia. A large increase of pigment within the liver cells can, I find, be experimentally brought about by injection of certain substances into the blood. Such an increase I show you in the case of three animals, rabbit (Experiment 42), dog (Experiment 64), and of a pigeon (Experiment 72), induced by the action of tolylendiamine. You will note how exceedingly abundant the pigment is, and how the appearance of the liver contrasts in this respect with that of the liver of the normal animal.

The conclusions, then, to be drawn from this portion of our study are as follows:—1. That another situation in which pigment may be found within the liver apart from extravasation or congestion is the liver cell. 2. The frequency with which it is met here in health, and its amount, differ in birds and mammals respectively. In birds it is usually present, sometimes in large amount. In mammals, on the other hand, while rarely ever absent, it is, according to my observation, not present in any great quantity. 3. The pigment presents certain peculiarities, more especially in respect of the small

uniform size of its granules, which distinguish it broadly from that met with in health in the capillaries of the liver. 4. The conditions under which it arises also differ from those already seen in the case of the latter in the capillaries. (a) The small uniform character of the granules is as striking in birds, where the red corpuscles are large and oval, as in mammals, where they are small and round. (b) It is not increased in old animals. It is, on the contrary, more likely to be found in young animals than in old. (c) Abstention from food and exercise tends rather to diminish its amount. Thus my observations prove that it is not increased by withholding food from animals, or during inanition in man. Drs. Brunton and Delépine's observations show that it is increased during digestion in animals (rabbits). In all these respects therefore the conditions favouring the deposit of pigment in the capillaries and liver cells respectively are essentially different. 5. The only respect indeed in which they are the same is that in both cases I find an increase may take place as the result of disease, or may be induced experimentally by agents acting injuriously on the blood. Even here, however, there is a difference, for the increase which may occur under such circumstances within the liver cells is far greater than anything ever observed in the capillaries. This is true at least of disease.

(To be continued.)

## THE BLOODVESSELS OF THE THYROID GLAND IN GOITRE.

By R. M. HORNE, M.B., C.M. EDIN.

THIS communication is a short account of some work carried on during the present year in the Pathological Institute of the University of Strassburg, under the direction of Professor v. Recklinghausen, to whom I desire to express here my grateful thanks for his uniformly kind assistance and encouragement. Histologists have long pointed out the great richness of the blood-supply to the thyroid gland, and have demonstrated the existence of a comparatively thick media in the walls of its arteries. The morbid histology of the blood vascular system of this gland has been but little worked at,<sup>1</sup> Gutknecht alone of all the inquirers into the pathology of this organ having devoted much attention to it. Working on goitrous thyroids extirpated by Kocher of Berne, he claims to have demonstrated widespread hyaline changes in the walls of the bloodvessels, and also the presence of masses of colloid material in the lumina, both of those with degenerated walls and of those with still normal walls. These colloid masses he derives from the red blood-corpuscles of the circulating blood, in which a complicated series of changes leading to the formation of colloid is described. One is led to infer that these changes are induced by some influence exerted by the diseased thyroid. In the course of this research twenty-eight thyroids have already been examined. These, with one exception, were obtained post mortem. They include seven foetal thyroids removed from foetuses varying in development from between the third and fourth to between the seventh and eighth months; two from new-born children who had died at birth, one being premature about the eighth month, the other a full-time child; one from a child who had died a few days after birth, suffering from bronchitis and icterus neonatorum. The remaining eighteen were derived from individuals varying in age from six months to sixty-eight years, whose deaths had been induced by a variety of causes, comprising, for instance, such widely separated diseases as diphtheria, labyrinthitis purulenta and meningitis, tuberculous affections, asphyxia from drowning &c.

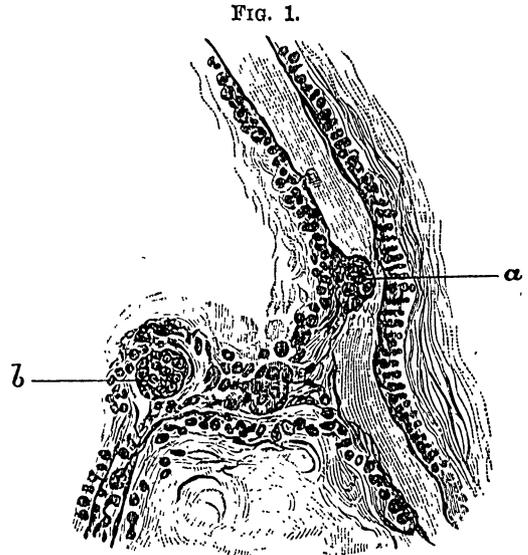
The glands were, with one exception, fixed in Müller's fluid and subsequently hardened in alcohol. The exceptional gland was treated with alcohol only. From these hardened specimens pieces were taken of a size convenient for embedding in celloidin or for cutting with the freezing microtome, which was, however, only occasionally used. Each piece, so far as practicable, was cut so as to contain more normal, preformed thyroid tissue along with

<sup>2</sup> Proceedings of the Royal Society, 1891.  
<sup>3</sup> THE LANCET, Sept. 22nd and 20th, 1888.

<sup>1</sup> Die Histologie der Struma: Virchow's Archiv, Band xcix., 1885.

one or more of the smaller adenomatous nodules. In cases where the nodules were too large to admit of this being done the piece was taken from the remains of the original tissue. In specimens not possessing nodules it is unimportant from what part the piece be taken. The pieces were generally obtained from the periphery of the gland with a portion of the capsule attached, and were cut at varying angles to the long axis of the lobe. The method adopted in the examination of these pieces, with the exception of the few earlier ones, was as follows. The piece was stained *en masse* in alum carmine, and, the excess of colouring matter having been carefully washed away in water, was subsequently hardened in absolute alcohol and then impregnated with celloidin in the usual manner. By this means the confusion so apt to arise between colloid material and celloidin is entirely avoided, as the latter, in contrast to the former, remains quite uncoloured and transparent. Each piece thus treated was cut in series. Serial sections were found to be necessary for the purpose of distinguishing definitely arteries from veins, veins from lymphatics and veins and lymphatics from distended follicles. The recognition of these various structures, often difficult and sometimes impossible from the examination of single sections, is readily accomplished if the structure under examination can be traced through a sufficiently large series of sections. The most important changes found in the course of this investigation are those developed in the arteries. These may best be described by a more detailed reference to one particular case in which they were very pronounced. The gland was removed post mortem from a young man aged nineteen. The section revealed the cause of death to be labyrinthitis purulenta with meningitis. Both lobes of the thyroid were small, and on longitudinal section were seen to be studded with numerous adenomatous nodules of various sizes, and distinctly encapsuled. Some were as large as a cherry, some were scarcely visible to the naked eye, and microscopic examination revealed others not seen macroscopically. Four pieces were taken for examination; three of these were cut in series after being embedded in celloidin; the other was also embedded in celloidin, but not cut in series. One piece only was stained *en masse* before being embedded and cut. Under the microscope the lobules of the gland are well defined and separated from each other by septa of normal fibrous tissue. Many of the gland follicles are composed of a solid group of cells without colloid; some contain a small quantity of colloid with a lining of low cubical cells, others are slightly distended from accumulation of colloid, which has led to a slight flattening of the lining cells. In addition to this—the original and more normal thyroid tissue—are seen circumscribed nodular areas of various sizes, which strike one at once from the depth to which they have taken up the alum carmine. They stand out in strong contrast to the less deeply coloured thyroid lobules. They have pushed aside the thyroid follicles in their growth, from which the older ones, at any rate, are separated by a capsule of fibrous tissue often containing many elastic fibres. The tissue composing the nodules is thyroid in its nature and represents the tissue of that gland in its various stages of development, from the branched, elongated, solid groups of cells through the stage in which the cells are arranged in round solid groups to the appearance of ordinary follicles containing colloid. In the older nodules the follicles become much distended and rupture of the walls between adjacent follicle is frequent, the cells, however, still retaining their cubical shape. The cells which build up these various structures in the nodule are much more deeply coloured than the cells of the normal thyroid follicles, and it is to these of course that the deep colour of the nodule as a whole is due. There are many other small, deeply stained areas to be seen which with low powers might in many cases be regarded as nodules in their youngest stage, but which with higher powers are found to be altered arteries. The alteration which these arteries have undergone consists of a well-marked proliferation of their endothelium in localised areas, so as to form solid buds of cells projecting into the lumina of the vessels in which it occurs. Such a condition has not previously been described in the arteries of the thyroid, or, so far as I am aware, in the arteries of any other organ. A typical example of this bud-like proliferation is seen in Fig. 1 (a), in which an artery is shown in longitudinal section. The three coats of the artery are easily traced throughout its whole course. The media is particularly well marked, consisting of several layers of muscle cells in transverse section, and here and there on the intima flat endothelial

cells are to be seen. At one point of the intima (a) there is a very evident projection into the lumen of the vessel. This is composed of a group of small, round or slightly polygonal, closely-packed cells, which stain well with alum carmine. The muscular coat passes entirely outside of this projection and is almost unaffected by it; perhaps slightly deflected to one side. The group of cells lies without doubt quite internal to the media in the intima itself, and can only have been developed by proliferation of the endothelial cells at that point. The innermost layer of cells—i.e., those towards the lumen—still retain their elongated, flattened endothelial character, but are larger and more distinct than normal, and form a continuous



covering over the projecting bud. The effect of this projection is evidently to considerably narrow the lumen of the vessel at the point where it is situated. In this section the lumen is reduced to a very narrow channel. The circulation has not been brought to a standstill thereby, as the vessel behind and beyond the bud is still filled with normal red blood-corpuscles. In a branch given off by this artery several such buds are found just at its commencement, although, owing to the obliquity of the section, their relation to the various coats of the vessel is not so satisfactorily shown. One bud (b) is seen lying free in the lumen, circular in shape and consisting of

FIG. 2.

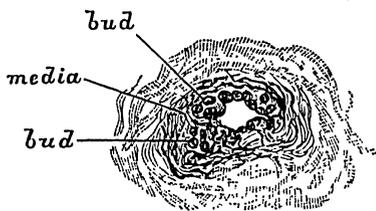


small round or polygonal cells surrounded by a layer of more endothelial-like cells.

In Fig. 2 another artery is shown in longitudinal section in which the bud-like proliferation of the endothelium is well displayed. This artery is remarkable for the number of buds present in the short length of vessel depicted. The buds themselves in their structure and position resemble that of Fig. 1. At several points also a commencing proliferation of endothelium is visible, which has not yet developed into a well-defined projection. The diminution in the size of the lumen is very evident. Transverse and oblique sections of

arteries with similar bud-like endothelial proliferations are naturally to be met with much more frequently than such beautiful longitudinal sections already figured, but are none the less characteristic. Two transverse sections are shown in Figs. 3 and 4. In the first of these the resolution of the wall into its three components is easily made, and there are seen to project from the intima two small rounded groups of cells resembling the buds already seen. In Fig. 4 the media is not so readily distinguished, but by following the vessel through a few sections all doubt of its arterial nature is removed. There are present in this section two projecting masses of cells: one is large and consists of cells similar in size and shape to those of the buds seen in longitudinal section, the innermost also partaking more of the nature of true endothelium, although in part of the margin they are more rounded than elongated. The other bud is much smaller, contains fewer cells, and is probably a younger stage of development. The endothelium lining the rest of

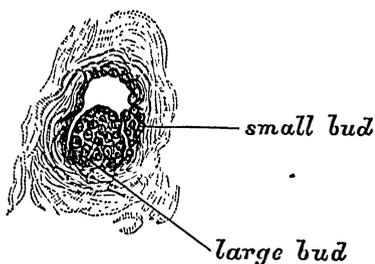
FIG. 3.



the lumen is well developed and almost resembles a low cubical epithelium. The lumen, although blocked to some extent by these buds, is in neither case completely closed, but still admits the passage of blood, normal red blood-corpuscles being present in both sections. Transverse sections of arteries displaying a more complete occlusion of the lumen than is here represented are readily found. What part is played by collapse of the walls of the vessel in this diminution in the size of the lumen it is difficult to determine. It would seem, however, to be small, for in most cases if the buds be supposed to have been removed there would remain a lumen large in proportion to the size of the vessel in which they are situated.

Perfect occlusion of arteries has not been satisfactorily demonstrated in this gland, but in one other it is frequently met with. In this specimen the lumen is filled with a mass of cells which cannot be resolved into bud-like pro-

FIG. 4.



jections. The cells resemble in size and shape those of the gland follicles, but stain somewhat more deeply. As it is often impossible to determine the presence of muscle cells in the wall of these occluded vessels, it becomes a matter of great difficulty to differentiate them from normal thyroid follicles. The difference in the depth of colour leads one to suspect their nature, but this can only be finally determined by tracing through a series of sections their connexion with the still functional arterial system.

While the proliferation of endothelium is generally directed inwards towards the lumen in the form of rounded buds, it is not always so. The groups of cells may cause little or no projection of the intima, but may develop outwards at the expense of the muscular coat, which is then only with difficulty, and sometimes not at all, to be followed at this point. Or again, as seen in some of the transverse or oblique sections of the smaller intra-lobular arteries, the proliferation is more general

and forms several irregular layers of deeply coloured cells surrounding the whole circumference of the lumen. The size of the buds varies much within certain limits. A size often met with is seen in Fig. 4. Larger buds than these are occasionally found, and buds of all sizes between these and a slight elevation consisting of two or three cells occur. It is probable that the enlargement of single endothelial cells indicates the commencement of the process. In connexion with their significance and ultimate fate it is of importance to learn if the buds become detached from the wall of the artery from which they have sprung, to be carried along in the blood stream. Attention has therefore been directed to discovering any indication of such a narrowing of the base as would be expected to occur as the natural preliminary to a detachment of the bud in its entirety. No evidence of this has been observed. On the contrary, the buds, rounded or conical, possess a base as great, or almost as great, as any other diameter parallel to the base. Attempts have also been made by tracing in either direction transverse sections of buds (such, for instance, as *b* in Fig. 1) lying free, in transverse sections of arteries, to determine if they were free throughout. The presumption of course is that these are merely sections of the projecting ends of buds which have their base of attachment at a lower level than the plane of section. My observations confirm this view. It is therefore concluded that detachment of the buds in their entirety does not occur. It is possible, however, that individual cells are thrown off into the blood stream. Cells larger in size and more regular in shape than normal white blood-corpuscles have occasionally been seen lying free in the lumen of an artery, and may possibly have come from one or more of these buds. This is a point demanding further investigation.

One can scarcely avoid being struck by the resemblance between many of these buds and young gland follicles. The interesting question, then, naturally presents itself: Does colloid ever occur in the interior of a bud? Sections of arteries have been found in this thyroid having buds which contain in their interior colloid not to be distinguished from the colloid in the true gland follicles. From each of three other thyroids also a section of an artery having a bud with colloid in its interior has been obtained. The occurrence of such buds though rare is positive. It would seem therefore that they possess, in common with true thyroid follicles, the power of secreting or of producing colloid material.

It remains for me to decide the frequency of the occurrence of these proliferative changes—(1) in the arteries of this particular gland; (2) in the other glands examined; and (3) finally to determine whether this condition is confined to the arterial system. It has already been stated that four pieces were taken from this gland for microscopical examination. In all of the sections made from these, numbering over two hundred, arteries presenting the condition described were to be found with the utmost facility. It is not an over-statement to say that the majority of the arteries in many of the sections were so affected. The condition is evidently a widespread one. But while this is so, it has also to be remarked that the larger arteries are almost or altogether free from any such proliferative changes. It is in the smaller arteries, whether extra-lobular in the inter-lobular septa, or intra-lobular in the inter-follicular septa, that the condition is most frequently seen. It also occurs in some of the arteries in several of the nodules. The buds may develop at any part in the course of a vessel in which they are liable to occur, but are as a rule most frequent at the points where branches are given off, or in the branches themselves at their origin. In all of the eighteen more fully developed glands the same proliferative changes in the endothelial lining of the arteries have been observed to a greater or less extent, arteries so altered being generally found without much difficulty. Of these eighteen glands, eleven presented one or more adenomatous nodules in one or other lobe. The remaining seven, although not containing nodules, were more or less enlarged, the enlargement in all probability being either due to an accumulation of colloid in the follicles—shown in five of the seven and especially well-marked in one case of extreme enlargement—or to an increase in the number of follicles themselves. Of these, one was removed from a girl two years and a half old, who had died of catarrhal pneumonia. The enlargement was only slight. Sections of arteries having bud-like proliferation of their endothelium have been distinctly demonstrated, but occur rarely. The other belonged to a six months' old child. The gland was enlarged in both lobes. On microscopic examination the alteration in the arteries is frequent and pronounced.

No colloid is present in the follicles of either of these two glands. One thyroid was obtained from a woman aged fifty-eight, in whom a slight exophthalmos was present. The cause of death was pneumonia. Both lobes of the gland were enlarged, the right much more than the left. The large size of the right lobe was seen on section to be due to several large colloid degenerated nodules—one of them cystic—which had reduced the original tissue to a minimum. In the left lobe several smaller nodules were also observed. In most of the sections made from the more normal part of the right lobe, as well as in those made from the left lobe, many arteries with bud-like proliferation of their endothelium were present. In the three thyroids obtained from new-born children the same changes were found, in varying degree. In that of the premature child, and in that of the icterus neonatorum case, it was only after the examination of numerous sections that distinct evidence of endothelial proliferation in the arteries was gained; in the other case, however, arteries so altered were present in the greater number of sections made. This gland was slightly enlarged. It was difficult to decide whether enlargement was present in the other two. Careful section of all three did not display any nodules.

Of the seven fetal glands examined, arteries having buds have been satisfactorily demonstrated in four, doubtfully in one, and not at all in the remaining two. In none of the four glands in which such arteries are found does the condition occur with the frequency associated with most of the other glands examined. One of these, removed from an anencephalic foetus, was decidedly enlarged in both lobes, no nodules were observed macroscopically or microscopically, and no colloid in the follicles. A large number of sections were made from this specimen, but in only a few were altered arteries found. As to the distribution of this proliferative change, great pains have been taken to determine whether it is confined to the arterial system. Without going into details it will be sufficient to state that no evidence of its occurrence in the endothelial lining of the veins has been obtained. My observations on the capillaries do not as yet admit of any definite conclusions.

It is not my intention to enter into a discussion of the bearing which these observations may be supposed to have on our views of the physiology and pathology of the thyroid. A more extended investigation of the various points here cursorily dealt with is necessary before any general conclusions can be based upon them. I am at present carrying on this research in the laboratory of the Royal College of Physicians, Edinburgh.

Slamanan, Scotland.

## A REPORT OF TWENTY-TWO CASES OF INTUBATION OF THE LARYNX.

By JAMES B. BALL, M.D., M.R.C.P. LOND.,

ASSISTANT PHYSICIAN, AND PHYSICIAN TO THE THROAT DEPARTMENT, WEST LONDON HOSPITAL.

Of the twenty-two cases of intubation of the larynx here reported sixteen occurred under the care of some of my colleagues at the West London Hospital, and the remaining six were cases in private practice to which I was called by the medical men who were in attendance. The majority of the hospital cases I was enabled to follow throughout, owing to the courtesy of my colleagues, to whom I am also indebted for permission to publish the cases. All the patients were children, and they ranged in age from thirteen months to eight years. Of the twenty-two cases ten recovered. Intubation was performed in every case for symptoms of acute laryngeal stenosis which threatened the life of the child, and as the alternative of tracheotomy. In two cases the laryngeal trouble arose from traumatic causes—in one from swallowing very hot tea, in the other from swallowing carbolic acid. The rest were cases of laryngitis, simple or membranous (diphtheritic); it was not always possible to determine which. In five cases the disease was secondary to measles. Four of these died. In seven cases tracheotomy was performed after intubation had been tried, principally because the tube seemed to be clogged with membrane or secretions. All of these died.

In the cases which recovered the tube was left in the larynx for periods varying from three to thirteen days, the average period for the ten cases being eight days. The thread was

allowed to remain *in situ* in four cases, and in one of these it is noted that the child dragged the tube out by its means. In the rest of the cases the thread was removed immediately after the introduction of the tube. In all my own cases I removed the thread at once, and I have no doubt it is the best plan. In two cases (Cases 13 and 15) an ulcer was found post mortem on the anterior wall of the trachea, at a point corresponding to the position of the lower end of the tube. It is only right to mention that the tubes used in these cases were not constructed in accordance with O'Dwyer's later patterns. Case 16 is an instance of "death on the table," a rare occurrence with intubation. I have no intention here to make any remarks on the value of intubation or on the relative merits of intubation and tracheotomy. I will merely say that in two of my own cases (Cases 17 and 21), both of which recurred, tracheotomy had been previously recommended as the only chance of saving the child's life, and had been declined by the parents owing to the slender hope which was offered even if the operation were performed. In both of these cases they gladly consented to the mild and bloodless operation of intubation, although I only held out an equally slender hope of recovery. In this way I am sure that some lives may be saved by intubation which would otherwise not be saved, and, moreover, the operation is not so likely to be deferred until the child is *in extremis*, as tracheotomy too often is.

The following is a brief epitome of the notes taken. The sixteen cases first in order are hospital ones.

CASE 1.—Boy aged two years. Admitted to hospital on July 26th, 1889, under the care of Mr. Weiss, for a scalded throat, caused by drinking almost boiling tea. Marked signs of laryngeal obstruction. Intubation was performed on the evening of the 26th; immediate relief. Fed by enemata only. Tube removed on the 29th. No return of dyspnoea. Recovered.

CASE 2.—Boy aged four years. Admitted to hospital on July 27th, 1889, under the care of Dr. Drewitt, with a history of having swallowed about a teaspoonful of carbolic acid. Some hours after admission marked signs of laryngeal obstruction supervened. Intubation was performed. The laryngeal symptoms were relieved, but the breathing became very rapid and the child more and more cyanosed. Died on the following day. At the post-mortem examination there were found ulceration of the pharynx, slight gastritis and broncho-pneumonia.

CASE 3.—Boy aged four years. Admitted to hospital on Oct. 16th, 1889, under the care of Dr. Drewitt. Had been ill a week. Diphtheritic membrane was present on tonsils. There was considerable laryngeal dyspnoea. The urine contained albumen. Intubated on the evening of admission. On Oct. 17th the tube was coughed up, together with a long membranous cast from the trachea. Dyspnoea soon returned and the tube was reintroduced. On Oct. 19th marked signs of broncho-pneumonia appeared, the temperature rising to 102° or 103° on this and subsequent days. The tube was removed on Oct. 20th, but had to be replaced. On Oct. 23rd the tube was coughed up, and as the breathing continued easy it was not again replaced. The lungs gradually cleared and the child recovered.

CASE 4.—Girl aged two and a half years. Admitted to hospital on Aug. 25th, 1890, under the care of Dr. Drewitt, with symptoms of bronchitis and laryngitis, which had existed for two or three days. Intubation was performed soon after admission, with immediate relief of the laryngeal dyspnoea. The tube remained *in situ* until Sept. 1st, when it was removed and was not further needed. The bronchitis gradually cleared up. Recovered. Two months later this child was readmitted with similar symptoms, was intubated and recovered.

CASE 5.—Boy aged one year and ten months. Admitted to hospital on Oct. 19th, 1890, under the care of Dr. Hood, with marked laryngeal dyspnoea. The child was much cyanosed on admission. No membrane visible in the pharynx. Intubated immediately, with complete relief. The tube was coughed up in the night and was immediately replaced by a larger size. During the following days the tube was removed twice, but had to be replaced on account of the dyspnoea. On Oct. 31st the tube was finally removed. On Oct. 30th signs of broncho-pneumonia set in, which ran a course of ten or eleven days. Recovered.

CASE 6.—Girl aged four and a half years. Admitted to hospital on Oct. 21st, 1890, under the care of Dr. Hood. She had suffered from symptoms of laryngitis for two days. On admission she was cyanosed, and had marked recession of lower ribs on inspiration. No membrane in the pharynx. Urine contained a trace of albumen. Intubated at once with

complete relief. The tube was removed on the 23rd, and again on the 26th, but had to be replaced. On the 31st the tube was finally removed. Recovered.

CASE 7.—Boy aged four years and eleven months. Admitted to hospital on Oct. 28th, 1890, under the care of Dr. Herringham. The child had measles a week previously, and a croupy cough and stridulous breathing for three days. There was much swelling of the glands of the neck and diphtheritic membrane on the tonsils. Intubated immediately, and was relieved for a time. On the morning of the 29th the child pulled the tube out by means of the thread, which had been left *in situ*. It was replaced immediately. The breathing, however, became worse. Tracheotomy was performed, but the child died in the course of the day.

CASE 8.—Girl aged two years and three months. Admitted to hospital on Oct. 31st, 1890, under the care of Dr. Drewitt. She had measles a week previously. Breathing was bad for three days. Marked signs of laryngeal obstruction. Intubated soon after admission. Was relieved for a time, but much mucus collected in the throat, which the child did not seem able to clear away by coughing. Crepitation in both bases. Temperature rose to 104°. Tracheotomy was performed, with temporary relief. The child died next day.

CASE 9.—Boy aged three years and two months. Admitted to hospital on Nov. 11th, 1890, under the care of Dr. Hood. The child had measles ten days previously. Croupy cough and gradually increasing dyspnoea for three days. On admission there were signs of severe laryngeal obstruction. No membrane was seen in the pharynx. Urine contained albumen. Intubation was performed at once. Continued easy until Nov. 14th, when broncho-pneumonia developed. The breathing became more difficult. Tracheotomy was performed on Nov. 15th. The child died on the 17th.

CASE 10.—Boy aged four years. Admitted to hospital on Nov. 12th, 1890, under the care of Dr. Hood. The child had difficulty of breathing for three days. On admission he was cyanosed, and had signs of marked laryngeal obstruction. No membrane was seen in the pharynx. He was intubated immediately, and seemed much relieved for a time. On Nov. 13th the breathing had become more laboured. Tracheotomy was performed, but without apparent relief. Died on Nov. 14th.

CASE 11.—Boy aged three years. Admitted to hospital on Jan. 24th, 1891, under the care of Dr. Herringham. The child was perfectly well until the previous evening, when difficulty of breathing set in rather suddenly. On admission there was stridulous breathing. There was no membrane in the pharynx, and no albumen in the urine. On the evening of admission the dyspnoea had increased so much that intubation was performed. The child continued comfortable after this. The tube was removed on several subsequent days, but had to be replaced on account of return of the dyspnoea. On Feb. 6th the tube was finally removed. Recovered.

CASE 12.—Girl aged two and a half years. Admitted to hospital on Jan. 25th, 1891, under the care of Dr. Herringham. The child had not seemed well for a week. There had been difficulty of breathing for two days. Diphtheritic membrane was present on the tonsils. The urine contained albumen. The dyspnoea gradually increased and intubation was performed on the evening of admission. Relief was obtained for a time, but on the following day the tube seemed much clogged. It was removed, washed and replaced, but soon seemed clogged again. On the morning of the 27th tracheotomy was performed. The patient was relieved for a time, but she died the same evening.

CASE 13.—A girl aged thirteen months. Admitted to hospital on March 15th, 1891, under the care of Dr. Herringham. She had suffered from a croupy cough and noisy breathing for two days. On admission there was marked laryngeal obstruction and some lividity. There was no membrane to be seen. Intubation was performed soon after admission. The tube was coughed up on this and the following day, but had to be reintroduced owing to dyspnoea. During the two following days signs of broncho-pneumonia developed, and the child died on the night of the 18th. At the post-mortem examination no membrane was found anywhere. On the anterior surface of the trachea, corresponding with the position of the lower end of the tube, was a small round ulcer. There was another superficial ulcer on the anterior wall of the larynx, at the level of the cricoid cartilage.

CASE 14.—A boy aged two years and eleven months. Admitted to hospital on Feb. 24th, 1892, under the care of Dr. Herringham. He had suffered from difficulty of breathing for

a few days previously. On admission there were marked laryngeal obstruction and lividity. Intubated immediately. The patient died on Feb. 25th. On post-mortem examination membrane was found to be present in the larynx, trachea and bronchi.

CASE 15.—Boy aged one year and five months. Admitted to hospital on Feb. 26th, 1892, under the care of Dr. Hood. The child was suffering from severe laryngeal dyspnoea. Patches of diphtheritic membrane were visible in the pharynx. He was intubated immediately. The tube was coughed up after two hours and replaced at once; it was also coughed up again next day and on the day following. On the latter occasion it was replaced by a larger tube. On the evening of the 28th the dyspnoea increased. Several pieces of membrane were coughed up, but the tube seemed to be more or less blocked. Tracheotomy was performed, when the breathing became easier for a time. The child died on Feb. 29th. On post-mortem examination membrane was found in the larynx, trachea and bronchi. On the anterior surface of the trachea, opposite the position of the lower end of the intubation tube, was a small, round, superficial ulcer.

CASE 16.—Boy aged one year and five months. Admitted to hospital on Feb. 1st, 1892, under the care of Dr. Herringham, for chronic diarrhoea. On March 5th measles developed. On the 10th a croupy cough and some laryngeal obstruction were present. There was no membrane in the pharynx. On the 11th the dyspnoea had increased very much and intubation was performed by the house surgeon in charge. The tube was only introduced after a somewhat prolonged attempt, and the child had by this time ceased to breathe. The tube was at once drawn out by means of the string. Artificial respiration was resorted to and subsequently tracheotomy, but the child did not breathe again. On post-mortem examination no membrane was found in the larynx, trachea or elsewhere.

The remaining six cases came under my own care in private practice.

CASE 17.—Boy aged two years and three months. I was asked to see the case by Dr. Denton of Brixton on Feb. 26th, 1890. The child had a croupy cough for five days, and some laryngeal stridor for three days. No membrane was visible in the pharynx. The symptoms of laryngeal obstruction did not seem sufficiently urgent at my first visit to interfere, I was summoned on the morning of the 27th, when the laryngeal dyspnoea was very urgent. I performed intubation, and immediate relief followed. The tube was removed on March 3rd, but the dyspnoea returned in about an hour and I had to replace the tube. An attempt was made to dispense with the tube on March 5th, 7th and 10th, but on each occasion it had to be replaced. It was finally removed on March 12th. The child recovered.

CASE 18.—Boy aged thirteen months. I was asked to see the case by Dr. Starkie of Sussex-street on March 26th, 1891. The child had been suffering from whooping-cough for a month. Croupy symptoms had existed for two days. He was somewhat cyanosed and presented marked signs of laryngeal obstruction. I performed intubation and immediate relief followed. On March 27th the temperature rose to 104° and signs of broncho-pneumonia appeared. The pneumonia became extensively developed throughout both lungs during the following two days, and the child died on April 1st. The tube was not disturbed after its insertion, and the child breathed freely through it up till the time of death.

CASE 19.—Boy aged five years. I was called to see the case by Dr. Starkie on Nov. 16th, 1891. The boy had been suffering from broncho-pneumonia, from which he had recovered about a week. He had hoarseness and croupy cough for three days and some laryngeal stridor since the previous day. When I saw him there was very marked laryngeal obstruction. There was no membrane to be seen in the pharynx. The urine contained albumen. I performed intubation and the dyspnoea was immediately and completely relieved. On Nov. 19th I removed the tube and it did not require to be again inserted. Recovered.

CASE 20.—Girl aged eight years. I was asked to see the case by Mr. Reinhardt of Batterssea on Feb. 13th, 1892. She had suffered from croupy cough and laryngeal dyspnoea for three days. There were diphtheritic membrane on the tonsils, much infiltration of the lymphatic glands of the neck and the urine contained albumen. There were signs of severe laryngeal obstruction and the child was considerably cyanosed. I performed intubation, and the breathing was completely relieved and continued so until the following day, when the child died rather suddenly after a fit of coughing.

CASE 21.—Boy aged six years. I was asked to see the case

by Mr. Sequeira and Mr. Jones of Leman-street on April 22nd, 1892. The boy had just recovered from measles and had croupy symptoms for four days. A fatal case of diphtheria had occurred in the house in which the child lived five weeks previously. There was no membrane to be seen in the pharynx. The urine contained albumen. The signs of laryngeal obstruction were very marked. There were fine râles at both bases. Temperature 103°. I performed intubation, with immediate relief of the laryngeal symptoms. During the following days extreme broncho-pneumonia developed, but the laryngeal breathing continued easy. The tube was removed on April 28th, and did not need to be replaced. The pneumonia ran a severe and prolonged course, but the child ultimately recovered.

CASE 22.—Boy aged one year and eleven months. I was asked to see the case by Dr. Shaw-Mackenzie on July 23rd, 1892. The child had suffered from croupy cough and gradually increasing laryngeal dyspnoea for three days. There was no membrane in the pharynx and no albumen in the urine. The signs of laryngeal obstruction were very urgent. Intubation was performed, with immediate relief. The tube was removed on July 28th, but the dyspnoea became so severe after a couple of hours that it had to be replaced. It was finally removed on July 30th and the child recovered.

Wimpole-street, W.

### "ABDOMINAL SECTION IN CERTAIN CASES OF PELVIC PERITONITIS."

By G. ERNEST HERMAN, M.B., F.R.C.P. LOND.,  
OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL ETC.

IT was my intention to take part in the discussion at the Obstetrical Society on Dr. Cullingworth's paper under the above title, but I was obliged to leave before the end of the meeting. The paper was a most valuable contribution to our clinical knowledge of inflammation of the uterine appendages. Its value lay in the features—first, that it was a plain record of every case, without selection; secondly, the cases occurred in a public hospital under the eyes of keen critics, so that Dr. Cullingworth was guarded against deceiving himself either as to the gravity of the symptoms before operation or the reality of the relief afterwards; thirdly, in relating the results, survival from the operation was not taken as cure, and there were no such phrases as "cure," "the happiest results" &c., but the patients were watched as long as possible, and the patient's actual state was given. I know of no publication in this country of so large a number of cases observed and reported in this accurate and complete way.

Some of the criticisms of the paper were inconsistent. It was urged that the mortality from pelvic peritonitis and from inflammation of the tubes was much smaller than Dr. Cullingworth's operative mortality; and at the same time the title was found fault with, because in so many of the cases there were tumours or abscesses. The latter fact made the former criticism not apply. Then Schmalfuss's valuable paper was quoted as bearing on the subject, but his operations were performed for "castration for neuroses," and in Dr. Cullingworth's paper there was not a single case in which the operation was done for a neurosis. This is important, because it explains the high death-rate as compared with the statistics of some other operators. In operations for the removal of the uterine appendages there is an inverse relationship between the death-rate from the operation and the proportion of cures. An operator who removes a great number of almost healthy tubes and ovaries for pain and other nervous symptoms will have a low death-rate from the operation, but a great number of failures to cure; whereas one who, like Dr. Cullingworth, only operates on cases believed to have serious organic disease will have a higher death-rate from the operation, but a large proportion of permanent cures. With regard to the question of cure, a discussion in Paris is reported in the *Annales de Gynécologie* for 1891, in which seven French surgeons brought forward lists of cases in which they had followed up the after-histories of the patients. Added together these comprised 288 cases, with 230 permanent cures, or 82 per cent. of cures and 18 per cent. of failures. Without complete details I cannot say that these cases were strictly comparable to Dr. Cullingworth's, but they are probably more comparable than those of Schmalfuss.

This paper was not brought forward that we might admire Dr. Cullingworth's diagnostic and operative skill, but to influence practice. The propositions laid down at the end are the important part of it. I can from my own experience confirm Dr. Cullingworth's statement that in suppurated ovarian cysts the temperature is often normal. I exhibited to the Obstetrical Society a specimen which supported Proposition 14. I doubt the correctness of Proposition 11; for I think the most common cause of pelvic peritonitis in the virgin is catarrh of the genital passage extending along the tube to the peritoneum. Such cases generally end in complete and permanent recovery, so that this view of their pathology is not verified; but cases admitting of this interpretation are, in my experience, far more frequent than tuberculous disease. Proposition 3 is the one which, if accepted, will have the largest influence on practice; and here I regret that I cannot follow Dr. Cullingworth. I do not think that the sooner surgical treatment is carried out the better; for I am sure that many (not all) cases in which there are distinct swellings in the posterior quarters of the pelvis, and there have been recurrent attacks of pelvic peritonitis, will get practically well if they are given sufficient rest in bed, combined with other proper treatment. In illustration I may refer to Case 31, in which the result was most satisfactory; but the patient had been in hospital only two days when the operation was done, and the conditions found were such as tend to recovery when the patient is under favourable conditions. In Cases 22 and 23, operated on seven and fifteen days after admission respectively, had the operation been postponed for a few weeks the apparent necessity for it would have disappeared. Dr. Cullingworth would no doubt in reply point to cases in which life was lost from the postponement of the operation, and I admit that the teaching of those who do not agree with him may lead to errors in this direction. But, looking at the proposition as framed by himself, I think that the unnecessary operations which would be done if it were generally acted on would lead to loss of life and suffering to patients greater than would come from the practice of never operating for inflammatory disease until medical treatment had been given a prolonged trial. I can therefore only adopt Dr. Cullingworth's third proposition with the alteration that surgical relief is sometimes called for, but should not be undertaken till medical treatment has been fully tried. Proposition 6 I think too sweeping. No general assertion like that can be applied to every case. Suppurating cysts out of reach by the vagina are better dealt with by the abdominal method. Mr. Doran reminded us of the recent innovation introduced by French surgeons—viz., the removal of the uterus per vaginam for pelvic suppuration. I think that removal of the uterus in such cases is an unnecessary mutilation; but the preceding preliminary to this, the "*débridement vaginal*"—that is, the division of the vagina round the cervix uteri, securing its vessels and freeing it, and then breaking open purulent collections in the broad ligament with the fingers—I think an improvement, which may sometimes obviate the necessity for abdominal section.

In conclusion, I think Dr. Cullingworth's practice will become that of the future. Just as physicians in the early days of ovariectomy, when nearly half the patients died from it, advised postponement as long as possible, but now advocate its performance as early as possible, so I have no doubt that as diagnosis becomes more accurate the cases proper for operation will become capable of better definition, and early operation will be the rule. At present the diagnosis of the cause of pelvic peritonitis is so obscure that I think if early abdominal section were the general practice in all cases of pelvic peritonitis, the mortality from the operation would be greater than that from the disease.

Harley-street, W.

1 Transactions of the Obstetrical Society, vol. xxxiii., p. 453.

HYÈRES SANATORIUM.—This institution, which has been closed for some time, has been reopened with improved arrangements and considerably increased accommodation. The sanatorium, which is intended principally for the children of the poor of Lyons who are suffering from scrofula, contains 100 beds, and in order that the children may have sea-water baths throughout the year funds have been provided for heating the water during the winter months. The children will be brought from Lyons in a specially constructed saloon carriage.

## A Mirror

OR

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

*Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### GREAT NORTHERN CENTRAL HOSPITAL.

COLLAPSE AFTER OVIOTOMY; TRANSFUSION; RECOVERY.

(Under the care of Dr. LEONARD REMFRY.)

THE following short account of a rare complication during the after-treatment of a case of ovariectomy is important, and there are two points to which we would draw attention. The first of these is the complication itself, and it is very probable that Dr. Remfry's idea is the correct one—namely, that the gradually developing collapse was due to a hæmorrhage. The symptoms were similar to those developed in two cases of concealed intra-peritoneal hæmorrhage from slipping of the ligature of the ovarian pedicle which were under our observation, in which the wound was opened and ligatures reapplied. In both the pedicles appeared to be quite secure at the completion of the operation. Both of them ended fatally, but it is possible that had the method and advantages of saline infusion been known and practised, a different result might have been obtained. Dr. Remfry's case illustrates the value of warm saline infusion, for it is difficult to do otherwise than describe the rapid improvement which followed its employment, to its influence on the system at large. It has been suggested that the effect of a saline infusion is more marked when a condition of collapse is due to loss of blood than when it is unattended with hæmorrhage, or the loss of blood is not a considerable factor in the case. Although our knowledge is daily increasing we still require the record of recent observations as to the result of this treatment in cases of excessive shock with tendency to a fatal collapse. A debate at one of the societies would do much to help us if the members would contribute their facts and not give opinions only.

A married woman aged twenty-eight was admitted to the Great Northern Hospital on Oct. 12th, 1892, for operation. On examination per abdomen there was a large, rounded, fluctuating tumour rising to within three inches of the ensiform cartilage, rather more prominent on the right side. In the right hypochondrium some solid masses were detected. Dulness was present over the tumour generally, comparative resonance in both flanks and distinct resonance above. Fluctuation was very marked from any part of the swelling to the anterior vaginal fornix. The uterus was behind and to the right.

Dr. Remfry performed ovariectomy, assisted by Mr. Raymond Johnson. The operation was a very simple one. There were no adhesions. The tumour, which contained a dark grumous fluid, was for the most part unilocular, but contained a few secondary cysts. The pedicle was broad and contained some unusually prominent vessels. These were first of all tied separately and then the rest of the pedicle secured in the usual way, including the first ligature. The stump was returned perfectly dry. The patient took the chloroform well and the whole operation did not occupy more than forty minutes.

All went well till 8.30 p.m.—i.e., five hours after the operation,—when the patient began to vomit and retch repeatedly and became very restless. The temperature was slightly subnormal; pulse 120. She gradually grew paler and more restless, complaining continually of pain in the left iliac fossa. At 10 p.m. the pulse was 140 and hardly to be detected at the wrist. Ether and brandy were subcutaneously injected and a little champagne given by the mouth. The collapse continued with cold extremities and perspiration. A nutrient enema containing brandy and opium was given. Later on Dr. Remfry was sent for, and on arrival at 2 A.M. found the patient in much the same condition. She was apparently moribund, with extreme pallor, cold extremities, and cold sweat. Temperature 97.8°; pulse extremely feeble and fluttering in right radial, not to be felt at all in the left.

Respiration relatively good, never becoming markedly shallow or sighing in character, and about 30 per minute. Examination per vaginam found Douglas's pouch apparently empty. Any reopening of the abdomen was of course out of the question on account of the extreme collapse. It was decided to try transfusion as the last chance. The apparatus was of the simplest, consisting as it did of a glass cannula, some indiarubber tubing, and an ordinary brass ward syringe. The fluid was ordinary salt and water (one drachm and a half to the pint) at a temperature of 110°. The right median basilic vein was opened in the usual way, and the cannula tied in. Altogether about two pints and a half were injected with numerous short intervals during the refilling of the syringe, and one long one of several minutes. After about half a pint had been used there was a distinct improvement, for the left radial pulse could be distinguished, though quite uncountable. Before the operation was completed the lips showed a faint pink colour and the extremities began to be warm, the patient voluntarily expressing herself as feeling better. The pulse was now countable, 170.

Very gradual improvement continued. At 5 A.M. there was a slight rigor, the temperature rising to 100.8°. A hot brandy and beef-tea enema was given, and as the patient was very thirsty she was allowed to sip hot water occasionally. At 8 A.M. the temperature was 99.6°, the pulse 180, stronger; the extremities were warm and the mucous membranes not anæmic. An enema containing forty grains of quinine was given, and ordinary nutrient enemata were ordered every four hours. After this the patient had some good sleep, and at 10.30 A.M. the temperature was normal and the pulse 137. During the day all went well, and in the evening the temperature was normal and the pulse 105. Some champagne and milk and soda by the mouth were retained. After an excellent night's rest the patient next morning was in good spirits, complained of no pain in the abdomen, had a normal temperature, and a good pulse of 100. Eleven days after the operation she was practically well; the abdominal wound was well healed, and there were no abnormal symptoms of any kind.

*Remarks by Dr. REMFRY.*—The case is a highly interesting one—first, because of the extreme collapse so gradually developed; and, secondly, because of the equally gradually developed recovery and the efficacy of the transfusion. What was the cause of the collapse? It is impossible to speak with certainty. Was it hæmorrhage or was it one of those obscure disturbances of sympathetic origin? Against the theory of hæmorrhage it is impossible to bring forward any one decisive argument. The following details, however, should not be lost sight of, as collectively they are important: (1) the special care with which the pedicle was tied and its bloodless appearance before the abdomen was finally closed; (2) the steady improvement under transfusion, without the occurrence of any further, even temporary, collapse; (3) the absence of the least resistance in Douglas's pouch; (4) the almost normal respiration throughout. I may say that, beyond passing a sponge into the pelvis and feeling the left ovary with two fingers, there was no manipulation inside the abdomen. My thanks are due to my house physician, Dr. Mason, for his great assistance in the treatment adopted and also for his accurate notes of the case.

#### LANCASHIRE COUNTY ASYLUM, RAINHILL.

A CASE OF FATAL COMA OF UNEXPLAINED ORIGIN.

(Under the care of Dr. W. F. MENZIES, Senior  
Assistant Medical Officer.)

THE following case was one of ordinary lactational melancholia ending fatally by convulsions and coma. Somewhat similar instances occur now and then, and are too often, we fear, passed over as unrecognised uræmia or general paralysis. The more we know about toxæmias the more do we incline to the belief that they may be the cause not only of the acute and delirious types of functional brain disorders, but also of the slower melancholic and stuporous. The former have, in fact, been long assigned to this origin. The recital of such cases may in the future throw some light upon the pathology of coma. In the series of sixty-four deaths from coma, out of 1000 investigated by Dr. Wynn Westcott, as coroner, in a London district, the cause for it was described as due either to excess of serum in the brain or effusion of blood; in a few cases congestion of the brain was alone detected at the post-mortem examination.

A married woman aged thirty-four was admitted into Rainhill Asylum on Dec. 3rd, 1891. She was emotional, excitable and hot-tempered as a girl, but always abstemious and of steady, regular habits. She had had no fevers, rheumatism, dropsy or fits; no infantile convulsions. The patient had been married eleven years; her five children were all alive and healthy, their ages ranging from ten years to twenty months. She had had no miscarriage. The husband said he had syphilis five years before marriage, but had been thoroughly treated. His doctor told him the cure was complete, and he might marry with impunity. He showed no traces of the disease. For two years he had been out of work, and nine months ago the landlord sold the furniture for rent. This seemed to have preyed upon his wife's mind so much that, after growing gradually more depressed for four months, she showed signs of suicidal propensity, and was removed to the workhouse hospital. Up to this date she had been nursing her youngest child. Afterwards she improved in health and was allowed to go home, but five weeks before admission she was found by the police wandering aimlessly about the streets at night. She then complained of great headache and dimness of vision, saying she felt as if her "brain was being twisted round," and was in terror of harming her children if left alone with them.

On admission the patient was a well-nourished woman, but flabby and toneless, with muddy, greasy skin and dark complexion. Pupils 5.5 mm., equal, of regular outline and normal reaction. Tongue clean, moist, steady on protrusion. Forehead drawn up into deep horizontal furrows. No facial tremors. She complained of an unpleasant taste in her mouth; other special senses normal. No impairment of general sensory or motor nerves; optic discs and retinae normal. Heart not hypertrophied; other thoracic and abdominal organs normal. Urine: 1770 cc. in twenty-four hours; sp. gr. 1016, reaction faintly acid; no trace of albumen, bile, blood or sugar. Urea: 28.34 grammes. The mental condition was one of semi-stupor, with a good deal of general depression; recent memory much impaired; attention deficient; could be roused easily to answer ordinary questions rationally; when left alone sat motionless, with hands folded and eyes cast down; was not resistive; she said that she felt as if there were "race horses rushing round" inside her head. The patient's condition remained unchanged for nine days. Temperature normal; the stupor deepened, and habits became wet and dirty; was always thirsty, and would if permitted drink a large bedroom ewerful of water at one draught. Sixteen days after admission she was seized with a convulsion, which commenced with a cry, and at once involved the left face and hand; the head and eyes deviated to the left; the pupils were equal, 6.5 mm., and inactive to light; when the fit passed off slight general rigidity remained. Next day another convulsion occurred, this time general; throughout the day slight twitchings were visible, and the mental state was coma of the usual type; the pupils remained equal, 7.5 mm.; the right reacted slightly, the left was inactive; retinal veins engorged and tortuous; some urine drawn by catheter was normal; from this time there was gradual failure of respiration, the lungs becoming cedematous; peptones were administered through the nose-tube, as she was unable to swallow. She died five days after the first convulsion.

*Post-mortem examination.*—The notes need only a brief summary, as they throw little light upon the case. Except for slight pallor and increase of subarachnoid fluid the brain appeared normal. There was no thickening of membranes, which stripped with normal difficulty; no opacity; no pink patches of congestion over surface of cortex; depth, colour and striation of the grey matter were normal. Ependyma of ventricles normal. No disease of larger arteries. No softening anywhere. Pons, medulla and cerebellum normal. Fresh sections of frontal, parietal, central and occipital cortex revealed some excess of pigment and granular degeneration of the deeper layers. There were patches of broncho-pneumonia scattered about the cedematous lungs. The kidneys were healthy, no loss of depth in cortex, no adhesion of capsule. All other organs normal.

**SALE OF PUTRID FOOD.**—On the 17th inst. the secretary of the London and Provincial Coöperative Supply (Limited), Edgware-road, was summoned before Mr. Hannay, at the instigation of the Marylebone Vestry, for exposing rabbits for sale which the presiding magistrate described as being absolutely green. Evidence being given showing that the sellers were cognisant of the condition of the food, the defendant was fined £20 and costs.

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

*Hepatic Abscess bursting into Peritoneum treated by Incision and Flushing.—Radical Treatment of Severe Talipes Equinovarus in Children.*

An ordinary meeting of this Society was held on Nov. 22nd, the President, Sir Andrew Clark, in the chair.

Mr. HULKE gave the details of a case of Hepatic Abscess which burst into the Peritoneal Sac and which was treated by Incision and Flushing. The patient was a man aged thirty-five, who was under the care of Dr. J. L. Paul and himself. He presented a large liver abscess which three months previously had emptied through the lung and had burst later into the peritoneal sac—an accident marked by extreme collapse. On the second day after this event the peritoneal sac was opened, a very large quantity of pus evacuated, and the sac flushed out. After this the patient's desperate condition rapidly improved and he recovered, so that for several months he was able to resume his occupation. His recovery was, however, still incomplete, an abscess having again collected and been opened in July last. The case was offered to the notice of the Royal Medical and Chirurgical Society as an encouragement to the practice of promptly opening the peritoneal sac and flushing it out under like circumstances of the escape into it of the contents of an abscess.—Dr. GEORGE HARLEY said that this was the first case recorded, so far as he knew, of recovery after flushing the peritoneal sac for removal of pus due to rupture of a liver abscess. It was rare for such abscesses to burst into the peritoneum. Though usually deeply seated they worked outwards towards the liver convexity and burst there, refilling again and again, and usually rupturing into the pleura. He thought it would be better for the patient if they ruptured into the intestine, and probably many did burst in this direction, but they escaped recognition. He referred to a case of hepatic abscess of eleven years' duration which had burst six times—five times through the lung and once through the intestine. If they refilled, this occurred rapidly, giving rise to acute symptoms. Opening these abscesses, washing them out and draining them were no guarantees against refilling.—Mr. GODFREY said that a great extent of dulness upwards did not of necessity mean that the pus was in the pleura, and he referred to a case in which a hydatid of the liver was accompanied by dulness as high as the third rib, and it was treated as an empyema. In another case in which he made an incision through the lower ribs he found on introducing his finger that the abscess was subphrenic. If patients with these subphrenic abscesses lay on the left side the dulness was usually less than when standing up; it did not simply shift as in empyema. Rupture into the peritoneum was one of the rarest accidents to happen to these abscesses.—Mr. BARKER asked what was the temperature of the fluid used in washing out the abdomen. He had often noticed that flushing of the peritoneum was followed by an improvement in the patient's condition, but after a time, if the flushing was continued, this was succeeded by depression. He himself commonly used water at a temperature of about 108° F. Latterly he had used simply boiled, sterilised water, and he thought the results were better than when water mixed with germicides was used, as the latter imported a new element into the case. One advantage of the hot fluid was that it rapidly checked oozing. The two last cases in which he had employed flushing were those of children of tender age; in one two pints of pus and in one one pint were evacuated; they were not tubercular cases.—The PRESIDENT adverted to one case of abscess of the liver which had come under his notice in the London Hospital four years ago. There was a history of dysentery six months previously, after which the patient had never been well. On admission the signs were indefinite: there were loss of flesh and colour, a temperature of 100° F., a rather rapid pulse and morning sweats. The liver was rather smaller than normal and there was no point of tenderness over it or at the shoulder. Later a little friction developed at the lower part of the back. With a long and moderately small trocar inserted from the side he withdrew about twelve ounces of pus and the patient got better. Six weeks later he was again ill with rigors and sweats, elevation of temperature, rapid pulse and discomfort over the liver, which was not

enlarged. A surgeon who saw the case used a short trocar inserted from the front, and he found no pus. The patient died and a small abscess was found in the thick part of the right lobe of the liver.—Mr. HULKE, in reply, said that in the case related in the paper the pus had already burst through the pleura. He used the water so hot that he could just bear his hand in it. Though distilled water was good, some endosmosis of water into the surface cells of the peritoneum might occur, and a neutral saline solution was, perhaps, better for this reason.

Mr. EDMUND OWEN then read a paper on the Radical Treatment of severe Talipes Equino-varus in Children. He said that the orthodox treatment of severe club-foot by subcutaneous division of the tibial tendons and of the plantar fascia, and subsequently of the tendon of Achilles, left much to be desired. The tendon of Achilles should, in all cases of congenital talipes, be the first to be divided. In not a few cases of slight equino-varus its subcutaneous section sufficed in the way of actual operation, and in severe cases the amount of the inversion of the sole could be correctly estimated only after its section. Though subcutaneous surgery in general had doubtless played a useful part, it was at the present day more or less of an anachronism. It had been entirely superseded in the operative treatment of reducible inguinal hernia, and greatly to the advantage of ruptured persons; but subcutaneous operations were still generally performed for the cure of congenital club-foot. Operating thus, comparatively in anatomical darkness, the surgeon could not know for certain what structures he was dividing, nor could he be sure of severing certain important bands, deeply placed in the sole perhaps, which chiefly prevented his obtaining the perfect and easy rectification of the foot. Moreover, in a severe case of congenital club-foot, the skin itself offered a most serious impediment to a correction of the deformity. The operation recommended in this paper for adoption in severe cases of club-foot was that introduced by Dr. A. M. Phelps of New York. It consisted in dividing every resisting structure which was encountered in a free vertical incision passing from the dorsum of the foot into the depths of the sole over the head of the astragalus, the tendon of Achilles having been first cut. The improved position of the foot was thus obtained by lengthening the inner border of the foot rather than by shortening the external border, as was usually accomplished in tarsectomy. It consisted in inserting a broad wedge of space into the astragaloscaphoid joint. This space was duly filled up with granulation tissue, which was eventually converted into a strong and trustworthy cicatricial band between the anterior and posterior segments of the foot. The treatment of the foot subsequently to the operation was simple and satisfactory, and relapse was far less likely to occur than after the old method of operating. Mr. Owen had for several years been carrying out this open method of treatment, and in a considerable number of severe cases of congenital talipes he expressed himself as highly pleased with it. Further, Dr. Phelps wrote to him to the effect that he (Dr. Phelps) had now carried it out in 200 cases with no fatal result, and with but a very small proportion of relapses.—Mr. ADAMS regarded the advocacy of the open method as a retrograde step. He himself still held to the method by subcutaneous puncture, which excluded the air and kept the wound free from after-inflammation. He thought there should be no difficulty in finding and dividing the various tendons and ligaments. He preferred to divide the Achilles tendon last.—Mr. BRODHURST agreed in the main with Mr. Adams, and said that after operating by the subcutaneous method he had never seen a relapse. He held that the skin did not interfere with the reduction of the deformity, and said he had never seen a case in which the bones were so deformed as to interfere with reduction.—Mr. HULKE pointed out that the subcutaneous method was a strictly antiseptic one, and therefore Mr. Adams' views were not so opposed to Mr. Owen's as might at first sight appear. Every surgeon in hospital practice must have seen cases of inveterate deformity in patients of a certain age in which some operation of the kind advocated on the bony framework of the foot was absolutely necessary to fit the parts for functional use. Hueter of Greifswald had proposed division of the neck of the astragalus, and Macewen and others had advocated operations on the bones. So long as these extreme instances of deformity were to be met with, so long must some method more radical than division of the tendons be adopted for treatment of them.—Mr. OWEN, in reply, said that of course this operation had

not been proposed for ordinary cases of club-foot, but only for those in which subcutaneous surgery left so much to be desired. He maintained that the use of plaster was infinitely superior to Scarpa's shoe, and that bony deformity was common in cases of severe talipes equino-varus—a statement easily verified by the study of museum specimens.

## MEDICAL SOCIETY OF LONDON.

### *Syphilis and Nervous Disease in Children.*

An ordinary meeting of this Society was held on Nov. 21st, Mr. Goodsall, Vice-President, in the chair.

Dr. W. B. HADDEN read a paper on the Bearings of Syphilis in respect of the Production of Nervous Diseases in Children. After alluding to the observations of Dr. Barlow and Dr. Judson Bury, "that nearly every variety of nervous affection of acquired syphilis has its parallel among congenital examples," as in part true, he passed on to consider the question whether syphilis was an important agent in the etiology of such infantile disorders as hemiplegia, posterior basal meningitis and sclerosis of the convolutions. In the absence of post-mortem proof, clinical evidence, however strong, must be received with reserve. He referred to Osler's work on the cerebral palsies of young children, and remarked that only one case out of 120 was ascribed to congenital syphilis, whereas Abercrombie mentioned four, if not six, out of a series of fifty.<sup>1</sup> Sachs and Petersen found two such cases out of a series of eighty-three. He reviewed other statistics of the same kind, and pointed out that the balance of opinion was in favour of syphilis being an important and a frequent cause. There were not many observations bearing on the condition of the vessels in congenital syphilis, but he thought arterial disease was probably less uncommon than was generally supposed. He pointed out that the majority of cases of hemiplegia in young children arose without any apparent cause; that syphilis was known to predispose to arterial changes in adults and occasionally also in children, and he insisted that a syphilitic history should be most carefully sought for. His own experience in this respect was based on the notes of forty cases, mostly at the Hospital for Sick Children, Great Ormond-street. Though he had no pathological experience to offer, his cases possessed a special value on account of their having been observed in very early life. He divided his cases into (1) those with an acute onset and (2) those without a definite onset. Many of the latter were probably congenital and dependent on mechanical conditions during pregnancy or delivery favouring intra-cranial hæmorrhage; others were probably associated with sclerosis of the convolutions. Many of the acute cases followed so closely on certain specific diseases—measles, diphtheria &c.—that a causal connexion might be reasonably assumed. In most, however, there was no apparent cause, the hemiplegia supervening on convulsions in children in apparent health. The commonest cause being thrombosis or hæmorrhage, the question resolved itself into the inquiry as to the causation of arterial degeneration. Up to three years of age embolism was rare, but after that it became comparatively frequent. In the cases of hemiplegia under consideration embolism might be practically excluded. With reference to syphilis he said that in twenty-five cases of hemiplegia having an acute onset no inquiry was made in three, there was no evidence in nine, in five there was a bare suspicion, in six there was a stronger history, and in two the presence of syphilis was undoubted. In discussing his cases he commented on the fact that in more than one the symptoms had supervened in children presumably syphilitic during a course of mercury, a fact which might be adduced as an argument against the specific origin of the lesions. He concluded by suggesting the following points for discussion:—1. Was there fair clinical evidence that infantile hemiplegia was often syphilitic? 2. Was arterial degeneration common in children, and what share had syphilis in its causation? 3. What share had syphilis in the causation of non-congenital idiocy? 4. Did syphilis act as a factor in the production of sclerosis of the convolutions in chronic meningitis? 5. Was mercury a constant and infallible therapeutic test in infantile syphilis? Dr. ALTHAUS, after referring to the value of the triad of symptoms—the notched teeth, keratitis and median otitis—in the diagnosis of congenital syphilis, made some

<sup>1</sup> Brit. Med. Jour., June 18th, 1887.

required on the differentiation of this variety from the acquired disease in children. Although the hemiplegia might occur in children in apparent good health, a prolonged watching would rarely fail to be rewarded with the discovery of signs of syphilis. He agreed that mercury alone was often disappointing, but combined with iodide of potassium it gave exceedingly satisfactory results in these cases.

Mr. SHEILD remarked that the deafness in children was usually not due to otitis media, but a large majority of them had complete nerve deafness caused by an effusion into the tissues of the labyrinth and auditory nerve.

Dr. LEES said that, looking to the difficulty of proving the presence of syphilis, that affection might act more largely as a cause than could be actually demonstrated; yet, notwithstanding this, he did not believe that it was to a great extent provocative of infantile hemiplegia or of posterior basal meningitis; the latter might coexist with syphilis without being actually due to it, and he related a case in which he believed that this relation existed between the two. The fact that many of these cases did better on mercury and iodide of potassium than on any other combination of drugs did not prove that they were necessarily due to syphilis. He related two cases of gummata on the cranial nerves in children, one being in a little boy and the other in a girl aged thirteen. He referred to a third case in a boy aged eight, who had a paralytic affection of the lower limbs, and who at first was thought to have spinal caries, but the case ultimately turned out to be one of syphilitic cerebral fibrosis.

Dr. BARLOW said that he could recall about six cases of hemiplegia in congenital syphilis, in two of which necropsies were made. In one, a girl aged nine, who had been under observation for five years, there were all the signs of inherited syphilis; she had a convulsion, followed later by the development of hemiplegia, first on one side and then on the other, and she later passed into a state of hebetude. There was found extensive and typical syphilitic disease of all the arteries of the circle of Willis, with marked sclerosis of both hemispheres. He said that the rule was to get generalisation of the disease all over the nervous system—first convulsions, local or general, then hemiplegia, perhaps spasm on one side and palsy on the other, then choroiditis, interstitial keratitis, and finally idiocy. Such was the typical course of cerebro-spinal syphilis. The prognosis was always bad, though the symptoms might be relieved by iodide of potassium and mercury. The true basis of observation was morbid anatomy, and it should be remembered that every kind of lesion found in acquired syphilis was found also in the congenital affection, though the distribution was different.

Dr. WALTER CARR said he had made necropsies in six cases of posterior basal meningitis and in none of them was there evidence of congenital syphilis. He considered that the remarkable definiteness of the clinical symptoms and of the pathological lesions of that disease pointed to some definite but at present unknown etiology.

Dr. WHEATON thought that some of Dr. Hadden's cases might be instances of insular sclerosis, either syphilitic or not. He remarked on the prevalence of gummata in children, which were not generally recognised. He thought that one of the commonest lesions in children was an osteitis or necrosis of the bones of the skull. In some cases of hemiplegia with Jacksonian convulsions tubercle was found in the substance of the brain.

Dr. HADDEN, in a brief reply, admitted the necessity of further post-mortem evidence, and said that his experience of the presence of gummata was very limited.

## Reviews and Notices of Books.

*Vegetable Parasitical Diseases of the Skin.* By Dr. D. C. DANIELSSEN. London: Sampson Low, Marston and Co. Bergen: C. Floor. 1892.

THIS is an atlas in large folio consisting of nine plates and seven woodcuts of the vegetable parasitical diseases of the skin, the text of which is written in Norwegian and English in parallel columns. Although complete in itself as far as the limited subject of which it treats is concerned, it really forms the fourth and fifth parts of the atlas of diseases of the skin

commenced, by the author in conjunction with the late W. Boeck, many years ago; accordingly, the first plate of the present fasciculus is numbered Plate XIV. The plates of the previous parts represented Norwegian scabies of the palm and sole, psoriasis of the back, herpes ophthalmicus, of tertiary syphilis (five plates) and anaesthetic leprosy (five plates), and the text was in Norwegian and French. The present instalment, which we hope will not be the last, is welcome evidence that Dr. Danielssen's interest in the subject of diseases of the skin is unabated.

The plates in the present fasciculus comprise favus of the body with tinea tonsurans; favus of the limbs; favus of the scalp, with artificially inoculated favus of the arm in a herpetic form; tinea, or, as the author calls it, herpes tonsurans of the head and artificially inoculated tinea on the forearm; sycosis; pityriasis versicolor; very extensive tinea circinata of the whole trunk in complicated patterns, which he considers to be the same as the herpes tonsurans maculosus of Hebra. This latter is now generally acknowledged to be the pityriasis rosea of Gibert, while this plate apparently represents a true tinea circinata in concentric circles and of wide extent. The next is a plate of eczema impetiginosum traced to the staphylococcus pyogenes aureus and albus; and, finally, there is a plate comprising the microscopic appearances of the organisms previously treated of. The plates themselves, which have been executed at Bergen, are very fine specimens of chromo-lithography, and show well the advances that have been made in that process, since the first fasciculi were printed by the same firm some thirty years ago.

The explanatory letterpress is comprised in eighty pages, and is no mere perfunctory explanation of the plates, but contains a large amount of original matter recording experiments in inoculation of the various organisms. Among other results of Dr. Danielssen's observations, those on favus inoculation (which primarily produced vesicles, the characteristic favus crusts appearing later) are specially worth quoting, as he comes to the conclusion that they point to there being only one kind of favus fungus, in opposition to the cultivation experiments and deductions of Quincke, Elsenberg, Frank, Unna and others which he quotes. The text, indeed, is very interesting and well worth reading, though, like the bibliophile with the *édition de luxe* depicted by Du Maurier, owing to the enormous size of the pages, it is somewhat difficult to decide how to hold it for perusal. It is, however, well worth the extra trouble, and we can heartily congratulate both author and publisher on this handsome contribution to the knowledge of vegetable parasitical diseases.

*Disease in Children.* By JAMES CARMICHAEL, M.D., F.R.C.P. Edin. Edinburgh and London: Young J. Pentland. 1892.

THIS is the latest addition to the series of Pentland's "Students' Manuals." It will be observed that Dr. Carmichael prefers to call his work "*Disease in Children*" rather than "*Diseases of Children*," since he holds that, "with few exceptions, and those mainly of a congenital nature (malformations), we are dealing with the same diseases as in adult life, modified as they are by the conditions of growth and development going on in the child. It is not strictly correct to talk of diseases of children as we would of women, who suffer from ailments peculiarly their own. Disease in children must be studied on the same lines and by the same methods as disease in adults." This seems to us a just and necessary distinction. The chief difficulty in the way of a writer of a manual on the subject lies in the reception and rejection of material. He feels justified in assuming that the reader already possesses a fair acquaintance with some of the ordinary works on practice of medicine, and aims rather at emphasising those clinical features and therapeutic

problems which present themselves in the case of children. Hence many works on the subject touch very lightly on pathology, are incomplete regarding clinical details and can only be profitably studied by the student when he has been well grounded in the theory and practice of medicine. We have examined Dr. Carmichael's volume with care, and, as a work which, as he says, is "limited in extent and of a purely clinical character," we regard it as a very satisfactory performance. It would be difficult within the compass of rather less than 600 pages to give a more comprehensive, and yet succinct and practical, survey of the subject than that afforded by the author. The arrangement of the work is good, the information is accurate and well up to date, and the style is forcible and lucid. The diseases to which children are specially prone, such as pertussis, rickets, catarrhal pneumonia, rheumatism, chorea, pseudo-hyper-trophic paralysis &c.; receive adequate attention. The subject of treatment is considered very fully and the advice given is practical and judicious. No doubt, in a department such as this, where so many questions remain *sub judice*, exception might be taken to some of the author's recommendations. Thus, to take only one example, Dr. Carmichael seems to put considerable faith in diuretics for the cure of ascites—a sufficiently common but nevertheless probably erroneous view. He also recommends purgatives for this condition, whereas there is a growing opinion among the best authorities that they are usually injurious. We wonder what evidence Dr. Carmichael has for his assertion that "the so-called idiopathic ascites is common in children." We question this assertion very seriously. Still, we repeat, the author's views on treatment are in general sound and valuable. The writer is felicitous in some of his brief and pithy statements of knotty problems. It would be difficult to convey better in a single sentence what is known regarding the pathology of rheumatism than the following:—"The rheumatic diathesis "indicates a liability under certain predisposing causes—such as exposure to cold and damp, associated with disorder of secondary digestion—to the evolution of definite morbid processes in the blood and sero-fibrous tissues which is termed rheumatism, the intimate pathology of which is still *sub judice*." The chapters on Nervous Diseases are full and comprehensive and include a good account of Friedreich's ataxia. The author devotes an appendix to the questions of food and medicines in general, and the modes of preparation of special articles of diet for the sick and the idiosyncrasies of children with regard to drugs are fully considered. The clear printing, freedom from printer's errors, good paper and tasteful binding of this volume are very creditable to the publisher.

#### OUR LIBRARY TABLE.

*Guy's Hospital Reports, 1891.* Edited by N. DAVIES-COLLEBY, M.A., M.C., and W. HALE WHITE, M.D. Vol. XLVIII., being Vol. XXXIII. of the third series.—The first impulse of the member of the profession into whose hands this volume comes will be to search for the statistical report of the hospital. They will be anxious to know what cases, and in what number and variety, have been under treatment in the various departments of the hospital, and with what result. The feeling of disappointment at finding absolutely no "report" which can be called a *report* of the hospital will not be quite compensated for by the papers on various subjects by members of the staff, lecturers &c., however excellent, or by the list of specimens added to the pathological museum during the previous year, which is included in the volume. The contents of the volume include a paper by Dr. Hale White, on the Treatment of Chlorosis by Hydrochloric Acid, in which he comes to the conclusion that it will not cause more improvement than would be produced by rest

in bed with good food. Dr. H. J. Campbell writes on some of the interesting pathological conditions met with in animals from the post-mortem room of the Zoological Gardens. He has also an interesting contribution on the Localisation of Phthisis to the Apex of the Lung, and accounts for the fact of its commencing so frequently in that situation by its being extra-thoracic, and therefore placed under unfavourable surroundings as compared with other parts of the organ. Dr. Silk contributes a paper on the True Lines of Advance in Anesthetics. Dr. Beaven Rake, whose researches on the subject are well known, writes on some points in the Morbid Anatomy of Leprosy, as exemplified in the post-mortem examination of 109 cases under his care at the Leper Hospital, Trinidad. Dr. R. A. Bird gives his theory of the Origin and Spread of Variola. Dr. Frederick Taylor writes on Malignant Endocarditis, with cases; he also describes a case of Actinomycosis of the Liver and Lungs. Drs. Perry and Shaw give the results of their examination of fifty cases of Malignant Disease of the Stomach, with a short history of the cases and description of the specimens. The position occupied by the growths is illustrated in each instance by a diagram. Dr. Shaw also gives the list of preparations added to the museum during the year 1891, many of which are rare. The papers dealing with surgical subjects are few in number. Mr. Brailey contributes from the ophthalmic department a case of Pemphigus affecting the Conjunctiva; Mr. N. Davies-Colley a case of Ileo-colic Implantation followed by Resection of Portions of the Large and Small Intestine, for the Cure of Artificial Anus due to Gangrene after Strangulated Hernia. There is also a contribution by Messrs. Tubby and Manning from the physiological department, on the Properties of Pure Human Succus Entericus, with a few notes on Absorption by the Bowel and Intra-abdominal Pressure, based on the results of examination of Mr. Davies-Colley's patient. Mr. A. Parkin describes seven cases of Intra-spinal Hæmorrhage, in all of which the hæmorrhage was situated in the cervical region and was the consequence of injury. Papers are also included on the Volumetric Determination of Uric Acid in Urine, by Mr. F. Gowland Hopkins, and on a Form of Blood-pressure Manometer, by Dr. Starling and Mr. W. M. Bayliss.

*The Asclepiad.* Third Quarter, 1892. Vol. IX., No. 35.—The first paper in this interesting periodical, issued by Dr. B. W. Richardson, is the third of a series of lectures delivered twenty-two years ago on the Cause and Prevention of Death from Chloroform. This lecture deals with the modes of death and the measures of prevention of fatalities under the anæsthetic. Dr. Richardson says that death may take place in one of four ways—viz., (1) by apnoæal syncope, (2) by epileptiform syncope, (3) by cardiac paralysis, and (4) by shock. His practical hints are sound and sensible, and it may be noted that he commends the administration of alcohol prior to the administration of chloroform, if only for its moral effect upon the patient. He adds to the lecture a commentary written this year upon a few points of importance, in which he expresses a preference for Junker's inhaler. This valuable paper is followed by the text of a "maiden speech in the French tongue," delivered by him on June 6th, 1892, at a banquet given by the Société Française d'Hygiène to the Sanitary Inspectors' Association. Amongst the "Opuscula Practica" in this number are some wise remarks on the golden rule of "do unto others" in the treatment of disease. The memoir of Sir Thomas Browne, the author of the "Religio Medici," is as interesting as any of the series which add such a charm to the *Asclepiad*, especially valuable as it is in the critical analysis of the famous book. A contribution to the subject of Vital Cohesion and a discussion of the Opium Question are amongst the remaining important articles of the number.

# THE LANCET.

LONDON: SATURDAY, NOVEMBER 26, 1892.

EVEN a hasty glance at our report of the proceedings of the General Medical Council will show that its attention has been occupied by a variety of subjects of more or less interest to the profession and the public. The address of the President is generally a good guide to the main subjects of interest to be discussed in the course of the session. It was so in the case of Sir RICHARD QUAIN'S address on this occasion. Perhaps the subject to which he devoted most attention in his remarks was that of the illiberal legislation of foreign countries, notably that of France and Switzerland, in prohibiting the practice of medicine by foreigners, including Englishmen, in these countries, even when such practice is confined to cases of patients of their own nationality. It is sad to think that these restrictions, especially in Switzerland, are kept up mainly at the instance of the medical profession. Apart from this professional feeling, it is understood that the Federal Government would be willing to conclude with England an arrangement of reciprocity.

Sir RICHARD QUAIN spoke with feeling on this subject, and indicated that, in view of such jealous and narrow laws, English physicians should reconsider their practice of sending patients to great distances and inaccessible places, where most of all they may need the "special care of their best friends, English physicians," and where it is hard indeed if they cannot at least have medical attendants of their own nationality. We cannot believe that the republics of France and Switzerland will always display such want of liberality to the English profession, which has done so much to make the sanitary reputation of French and Swiss health resorts. After Sir RICHARD QUAIN'S address the Council proceeded with the details of its business. In connexion with the table showing the results of competition for commissions in the Medical Staff of the Army, the Director-General had informed the Registrar, in accordance with a request of the Medical Council, of four instances in which candidates were found to be deficient in the matter of correct spelling. The Council hopes, by tracing such defects to the bodies responsible for the preliminary education of such students, to stimulate these bodies to more care in the future. It transpired that the bodies responsible in these four cases were in one instance the Royal University of Ireland, in one the College of Preceptors, and in two the Royal College of Surgeons in Ireland. Sir JOHN BANKS and Professor MACNAMARA, with commendable promptitude, expressed their regret that their respective bodies had been at fault and their determination to bring the facts under the notice of these institutions.

Perhaps the most novel subject which has arisen so far in the course of business is the consideration of various documents in regard to Medical Aid Associations, and especially in respect of the nature and tendency of the relations of the medical officers of such associations to the members and to the general purposes of the associations. Our readers are by this time very familiar with the contention of Dr. LESLIE

PHILLIPS that such associations are practically companies for carrying on medical practice, in which all the work falls on the medical officer and most of the profit accrues to the association; and that neither the interest of the public nor the dignity of the profession is served by medical men who accept the appointments. A huge petition signed by over 1000 practitioners showed that Dr. PHILLIPS is not alone in his contention, which, however, is flatly contradicted by the managers of the associations, who have made counter-statements to the Council. The Council exercised an admirable judgment in refusing to accept hastily any representations on the subject. They have appointed the following members as a committee—viz., Dr. GLOVER (chairman), Mr. WHEELHOUSE, Mr. TEALE, Dr. LEECH, Dr. BRUCE, and Dr. MACALISTER. The whole subject is to be referred to them. They are authorised to take evidence and, after fully sifting the matter, to report at the next session of the Council. The Council was liberal enough even to sanction in a negative sort of way the expenditure of £100 for shorthand writing and other unavoidable expenses, but added, with characteristic caution with regard to expenditure for any but its own immediate and routine purposes, that no more was to be incurred without the previous sanction of the Finance Committee. Sir WALTER FOSTER and Dr. GLOVER argued that the funds provided by the profession could not be better spent than in investigating a subject deeply affecting its interests and its honour, but they did not succeed in getting a larger grant. Doubtless, however, if there be any prospect of bringing about improved relations between the profession and the industrial classes in such a vital matter as their medical attendance on honourable terms, the Council or its Finance Committee will not hesitate to show its sympathy by some small increase of the sum. It is creditable to both sides that they seem anxious, without any question of payment, to give all the information in their power to the Council.

The Council did still more work on Tuesday. It resolved to apply the doctrine of the offence of "covering" to those on the Dental Register, as it has long done to those on the Medical Register. It is pretty clear that there is much need for this step and that much dental business is done by unqualified assistants, to the injury of the public and of honest dental practitioners. An important question was raised in the form of an amendment on the Standing Orders, recommended by the Executive Committee, and of which we shall probably hear more. The Council, as is well known, often restores names which, for sufficient reasons, it has seen fit to erase from the Registers. It has transpired lately that in some instances the bodies, from which the qualifications of the practitioners whose names have been so erased were derived, have absolutely withdrawn the qualifications, and that by their laws or charters they are unable to restore them without a fresh examination. This does not apply to all the bodies.

It might so happen that, in the case of a practitioner who originally possessed but one qualification which had been absolutely withdrawn by the body granting it, the Medical Council might order his name to be restored while he was entirely without the only qualification on the strength of which he was originally registered. This is a very awkward state of matters. The change in the Standing Orders will

tend to prevent haste in the action of the bodies; but some way should be found for harmonising such action with the action of the Medical Council, otherwise a practitioner, whose offence would be sufficiently met by his temporary removal, may be finally removed from the profession.

On Wednesday the Council had several painful cases to deal with under the disciplinary clauses of the Acts, particulars of which will be seen in our reports. We do not care to rejudge such cases, or to call in question the discretion of the Council; but we venture to say that none will accuse it of too much severity in any of the instances.

“SERIOUSLY, the safe side for the lay world to take is that which is against the vivisector. We shall not be absurd enough to say that no knowledge of value can be gained by such experiments.” These words, used by one who is writing against “vivisection,” appear to express also the sentiments of some of those outside the lay world who nevertheless wish to make for themselves friends therein. The anti-vivisection controversy has now passed beyond the initial stage, and the views that men hold and the parts they play have been made abundantly manifest in their various expositions and exhortations. This lay agitation has been carried on mainly in the columns of *The Times*, where have been set forth, in language the meaning of which could not possibly be misunderstood by the most obtuse of intellects, the arguments for and against experiments on animals. In the first instance, those who advocate experiments on animals were supposed to be on their defence, but as the discussion advanced it soon became evident that the “anti-vivisectionists” had put themselves in a false position through following the lead of those who were either remarkably careless or deplorably ignorant.

The position taken up by some of the “anti-vivisectionists” is that under no circumstances is experimentation on animals justifiable; but we venture to think that this position is not now generally accepted as being tenable. It is daily becoming more and more evident that the question to be determined is—how much good has been done, and how much information has been obtained, by experiments on living animals. Of course, even “anti-vivisectionists” disagree on this matter, but to Mr. LAWSON TAIT’s credit must be placed the fact that he has accepted this as being the real point at issue. He maintains that no great advance in medicine or surgery has been made which could not have been gained by clinical observation. It is quite conceivable that there may be a grain of truth in this statement, but let anyone attempt to calculate the enormous loss of life and the fearful amount of suffering that would necessarily have been involved in this slower process of gaining knowledge, and then let him put the question to himself whether it is not better that the lives of a number of the lower animals should be sacrificed, with the suffering in their case reduced to a minimum, than that a holocaust of human sufferers should be rendered necessary.

In this matter we ought to have advanced beyond the stage of mere recrimination, and even those who have spoken most strongly in favour of the total prohibition of experiments on animals are now in a sufficiently calm state of mind to go into it thoroughly and with as little bias as possible. The questions to be discussed are: 1. Are experiments on animals justified by the results obtained? 2. Are such

experiments carried on under proper restrictions and by qualified and humane investigators in this country? To both these questions we can answer unhesitatingly in the affirmative. If, however, Mr. TAIT’s utterances are left unanswered the public might be allowed to remain under the misapprehension that those who advocate experiments on animals have put themselves beyond the pale of ordinary argument, and that it is a matter of supererogation at this period to affirm that experiments on animals are of the slightest use. In a letter to *The Times*, in answer to an article that appeared in the columns of that journal, Mr. TAIT, for example, sets forth several definite propositions to show that experiments upon animals are useless in enabling us to determine how the human organism will react. He, however, is extremely unfortunate in his examples. If no advances had been made as regards our knowledge of the circulation of the blood between the time of GALEN and that of CÆSALPINUS or SERVETUS, and if HARVEY by employing experimentation was able to set this question at rest, even allowing that he was not the discoverer of the circulation of the blood, and since he could not argue it out as Mr. TAIT would have done on the material offered by GALEN, was it not well that the period between that in which HARVEY carried on his experiments and obtained his results, and that when it could have been reasoned out by Mr. TAIT, should have been utilised in the study of more advanced problems of disease in connexion with the circulatory apparatus? Then, too, as regards the improvements made by JOHN HUNTER in the ligation of arteries in cases of aneurysm, most authorities will feel inclined to accept JOHN HUNTER’s statement, or rather the statement of Sir EVERARD HOME, his brother-in-law, as to the process of reasoning by which he was led to his method of treatment, in preference to any interpretation of his methods and arguments offered at this time of day by any critics, however able. In this matter it appears to us that JOHN HUNTER’s latter-day apologist has not been perfectly ingenuous, for Dr. HAYCRAFT has on more than one occasion supplied him in open meeting with chapter and verse (of which he has since made but scant use) from the works of JOHN HUNTER, proving that that writer was guided to his successful results through experiments on animals. The paragraph quoted by Dr. HAYCRAFT runs as follows: “The results of these experiments confirmed Mr. HUNTER in his opinion that the artery, in cases of aneurysm, is in a diseased state, and *led* [the italics are ours] him to believe that the disease often extends along the artery for some way from the sac, and that the cause of failure in the common operation arises from tying a diseased artery which is incapable of union in the time necessary for the separating of the ligation.” Could anything be more definite or more convincing?

The references to VON GRÄFFE’s work Mr. TAIT should never have made, as he confesses to his own comparative ignorance of diseases of the eye, whilst few people would have regarded him as one likely to accept a negative as evidence against a positive. Again, all who have heard Professor MACLEWEN, or who have followed the accounts of his wonderfully successful operations on the brain, will know how deeply that surgeon feels himself indebted to the researches of those experimentalists who have worked at the

subject of localisation of function in the brain, and to Sir JOSEPH LISTER for his experimental work on anti-septics. The mind and skill of Professor MACBURN might have been engaged in working out some such problems in their earlier stages had not so much of the ground been already cleared, so that his work of saving life and alleviating suffering could be directly entered on. Mr. GODLEE and Professor HORSLEY went a step further, and brain surgery to-day has become a recognised branch of the surgeon's work—a recognition it could not have obtained for years to come, and perhaps not for all time, had not experimentation on animals been resorted to. In Mr. TAIT'S own department of surgery we make bold to say that he now obtains results which could never have been compassed had not M. PASTEUR and Sir JOSEPH LISTER published their experimental researches; for, although Mr. TAIT criticises the details and methods of the antiseptic treatment, he, by his own showing and treatment, accepts the general principles worked out by these two great pioneers, and his patients recover and are not attacked by septicæmia or puerperal fever. We have now a knowledge of the conditions—by no means a perfect knowledge—under which these diseases are developed, and of the special conditions under which the etiological factors in these diseases can retain their vitality outside the body, under which they can invade the body and under which they are enabled to remain alive in the body; and whatever Mr. TAIT may think he daily avails himself of this knowledge. Anyone reading the dismal accounts of the outbreaks of hospital gangrene and of septic diseases generally recorded by Sir JAMES SIMPSON and others of the last generation of surgeons, or even of the older members of the present generation, and bearing in mind the tone of utter helplessness and hopelessness that runs through such accounts, cannot but be struck by the wonderful improvement in the statistics that are now at our disposal. Could Sir JAMES SIMPSON only come back amongst us what arguments would he not be able to adduce to help to convince us that we should look upon it as a duty to have recourse to any experiments on animals that could proffer promise of help to obtain results so different from those that surgeons in his time had to be content with.

As regards tuberculosis, it has been urged that because tuberculin has failed to give markedly satisfactory results when used in cases of tuberculosis, therefore KOCH'S experiments and investigation into the subject of tuberculosis have been of no value as regards the treatment of that disease. Could a greater mistake be made? The whole history of preventive medicine goes to show that not until the direct exciting cause of a disease had been found could any effective steps be taken to deal with the disease itself. Whatever KOCH has or has not done, he has obtained abundant evidence as to the part played by the tubercle bacillus in the etiology of tuberculosis. We have still much to learn about the saprophytic life history of this bacillus before we can attack it from every point, but we do not hesitate to say that there are already thousands of persons free from tuberculosis who would had they been born ten years earlier inevitably have been suffering from this disease. The increased precautions taken to disinfect the sputum of tuberculous patients and to avoid the use of milk from tuberculous animals may account for many of these thousands

whilst better ventilation and better general hygienic conditions, the necessity for which was emphasised by the fact that the tubercle bacillus requires favourable conditions for its development, may be held responsible for the others. The causes of disease can only be completely studied by having recourse to experiments on animals. The main part of the work must necessarily, from the nature of the medical practitioner's occupation, be done by careful observation at the bedside, as his main duty is to relieve suffering at the time he is called in; but we maintain that, although it is the duty of every man to go carefully, reverently, and hopefully to work with an open mind to learn all he can from clinical observation, he must be prepared to have recourse to experiments in order that he may be able to fill in wide gaps or to make fresh excursions from the points already won.

Mr. TAIT is a keen, we might almost say an obstinate, controversialist but an able surgeon, and we hope ere long we may hear that he has re-read his evidence and has been convinced that there is some good in "vivisection." As regards the second question, even Mr. BERDOE acknowledges that English physiology is honourably distinguished from Continental physiology, in that experiments made in English laboratories are comparatively moderate and within bounds. Even with some added qualification there breathes a reasonableness in this statement that gives promise of better things to come. Every experiment must be reported to the Home Secretary in a most detailed fashion, and these reports are published annually. Every licensed place is most carefully inspected at irregular intervals, and the animals experimented upon, if kept alive after the effects of the anæsthetic have passed off, are subjected to most careful examination to ascertain whether there is any discomfort or pain. English physiologists are Englishmen, and they help to form a public opinion that has decided in favour of experiments on animals, but against all unnecessary cruelty.

At the request of the Surbiton Improvement Commissioners the Surrey County Council deputed their medical officer of health, Dr. SEATON, to make inquiries into the health and sanitary condition of Surbiton. On Oct. 24th last Dr. SEATON submitted to the council the opinions he has arrived at as a result of his examination. It will be remembered that we appointed a Sanitary Commission to investigate the same subject, and that the report of this Commission was published in THE LANCET of July 16th of the present year. The system of intermittent pumping practised at the outfall sewage works, as a result of which it had been asserted that the air of Surbiton was at times offensive in the morning, was mentioned in our report, although our Commissioner was unable to confirm this statement during his visits. Dr. SEATON considers the present plan objectionable, chiefly because it allows sewage to stagnate for several hours in the sewers, and strongly recommends the substitution of continuous pumping at the works. He was, however, unable to detect any nuisance traceable to the present method, and was also able to satisfy himself that "the air in the sewer was travelling in the direction that might be expected, and with about the same gentle movement as in the daytime." The extremely well kept condition of the roads is also highly

commended. With the state of household sanitation Dr. SEATON'S report does not deal; but the county medical officer of health "certainly would advise the commissioners to make better arrangements for receiving and attending to any complaints that may be made about houses by medical men and householders, and to provide for the systematic inspection and registration of any lodging-houses, boarding-houses, schools" &c. Our report drew attention to several instances of insanitary houses erected since the passing of the Surbiton model by-laws in 1880, and noted the prevalence of cases of diphtheria (from the report of the medical officer of health) in numbers larger than those of any of the other acute specific diseases. This fact is also touched upon by Dr. SEATON, but not followed out further. Attention is directed to the report of THE LANCET "Special Commission on Sanitation in relation to the Law and Practice of House-letting," which appeared in our issue of August 20th last, and the importance of the matters discussed in this document is impressed upon leaseholders. In our report on the drainage of Surbiton it was pointed out that the offices of borough surveyor and inspector of nuisances were filled by the same person, a condition of affairs which Dr. SEATON thinks most undesirable, at the same time bearing testimony to the good work that has been done during the time that this arrangement has been followed. In conclusion Dr. SEATON remarks that, having given much attention to the system of voluntary registration or certification of houses, as practised at Eastbourne, he would be ready to report further upon the matter if desired by the Surbiton Commissioners. We note that the Surbiton sanitary authority will probably soon deal with some of the most important recommendations in Dr. SEATON'S report—e.g., the continuous pumping of sewage, the separation or not of the offices of borough surveyor and sanitary inspector, and the creation of the office of an expert sanitary official whose services shall be free to any resident in the district for the purposes of advice regarding household drainage and superintending alterations in drainage.

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## Annotations.

"No quid nmls."

### THE DIFFUSION OF SMALL-POX.

THE diffusion of small-pox continues, although the extent of the several outbreaks is in most places not wide. In Warrington a third small-pox hospital is to be provided. It is to be hoped that it will not be near dwellings, for the two hospitals now in use have, it is to be feared, increased rather than decreased the extent of the epidemic by aerial diffusion of the infection. Since the visit of Mr. T. W. Thompson, medical inspector under the Local Government Board, a fresh impetus has been given to revaccination, and up to last week it was stated that out of some 400 attacks in Warrington no person revaccinated before having actually received the infection of small-pox had contracted the disease. Leicester, to which we refer elsewhere, has, we hope, got the disease for the moment under control; but cases of small-pox have occurred, both at Coventry and at Thame, in persons taking the infection at Leicester. In Leeds

there is risk of a serious spread of the disease, and Dr. Cameron again urges the need of notification, for small-pox remains unknown to the authorities and is confused with chicken-pox. At Liverpool forty-one cases were under isolation last week. At Otley a temporary small-pox hospital is being hurriedly provided. At Chesterfield fifteen cases are under treatment in hospital, and the disease is stated to be on the increase. A number of attacks have occurred amongst navvies engaged in different works in several parts of the kingdom, and it is evident that a careful watch should be exercised over this class of labourers, and that every effort should be made to induce them to submit to revaccination. The main difficulty of this lies in the fact that they do not like to run the risk which is involved by reason of the nature of their work and its attendant physical exertion. Moss-side has small-pox due to labourers on the Manchester Ship Canal. Manchester itself has provided special pavilions at Monsall in order to check the disease. Cases are also heard of from other localities, such as Stamford, Featherstone, Bramley, Bradford, Oldham, Sheffield, Wakefield, Huddersfield, Halifax, Chadderton, Blackburn and Newport (Mon.).

### AN OBSTRUCTIVE ADVERTISEMENT.

THOSE who are acquainted with London thoroughfares and the numberless impedimenta which beset them will not be surprised that a protest has been raised against the addition of one other obstacle to the tide of traffic. The presence of an omnibus used for advertising purposes only constitutes in the circumstances much too large a bid for public favour. Did it in any more practical way minister to public convenience objection might perhaps be silenced. Thus far it serves no other or higher purpose than that of a drifting handbill of the most massive and obstructive character. It comes as a mere lounge or street performer among the working craft of the streets. We need hardly wonder therefore if, with all its emblazonry of decoration, it is consigned to some quiet by-street, and assuredly we shall not regret to see it stranded outside the swift and swollen stream of public business.

### THE THIRSK DISASTER.

THE inquest held by the coroner for the North Riding of Yorkshire upon the victims of the accident on the North-Eastern Railway has resulted in a curious verdict, in which the jury award blame upon principles which it is not easy to understand and grounds which do not at all appear in the report of the evidence taken before them. The directors of the company are censured in strong terms for a mishap which does not seem to have been in any way due to defective system or inefficient management, but to the failure of a signalman on the one hand and of an engine-driver on the other to perform the routine duties assigned to them—failures for which no sufficient excuse, and no excuse that is even forceful, can be put forward—failures, moreover, which are both duly recorded and denounced in the very comprehensive verdict of the jury. It is impossible not to feel that this verdict would have been very different if the erring signalman had not, in all that has happened since his unfortunate lapse, behaved in a most worthy manner. That strong sympathy should be felt with such a man in such a position is both natural and right, and we for our part would gladly confess that there is no occasion to grow angry with a man who has manifested such a just appreciation of his position and whose fault, however serious its consequences, seems to have been in itself a very venial one. But when a proper desire to show mercy in one direction leads to unjust criticism in another it is necessary even for sympathisers in the sentiment to protest against its extravagance and abuse. There is much to be said in favour of an eight

hours' night for signalmen, but it is both unfair and foolish to single out the directors of a particular railway and hold them up to opprobrium as "the persons really-responsible" for a lamentable mishap merely because, in common with many other railway authorities, they have sanctioned the employment of their signalmen for longer periods of time. We trust that a more discriminating temper will prevail in the public discussion of the lessons of the Thirsk accident, for it would be regrettable indeed if, from whatever the cause, the discussion were to degenerate into a bandying of random accusations and indignant rebuttals to which heedless charges made in such circumstances inevitably tend.

#### THE IRISH LOCAL GOVERNMENT BOARD AND CHOLERA PROSPECTS.

CIRCULARS have been issued by the Local Government Board of Ireland, entitled "Precautions against Cholera," in which all sanitary authorities are urged to utilise the present winter and spring in removing from their midst those conditions which are known to be identified with the diffusion of cholera. Vigilance as to water-supplies, sewers and drains and the like receives a prominent place in the circulars. The housing of the poorer classes is next dealt with, and then come a series of precautions which it is necessary to adopt in the case of persons already suffering from cholera, and also with a view to its prevention among the population generally. Appended to the document dealing with the latter subjects is a memorandum drawn up by the Royal College of Physicians of Ireland, containing a few practical hints for the healthy and some simple remedies for the sick. A second memorandum traces the course of cholera and refers to its prospects during 1893; it also deals with the demands that have been made as to the imposition of quarantine restrictions. The experience of England is referred to in this connexion, and the Irish public are finally told that it would be useless to place reliance upon any system of quarantine, or even to trust wholly to medical inspection of vessels entering ports. Under these circumstances the Board again urge both the sanitary authorities and the public to make their preparations in advance, so that they may not find themselves at an unexpected moment face to face with cholera spreading through insanitary conditions, and this without any ready means of defence against it. The circulars are signed by the secretariat of the Board, but it is evident that the excellent and well-timed advice which they embody emanates, in the main, from Sir F. MacCabe, the medical adviser to the Board.

#### SAD DEATH OF A SURGEON AT PECKHAM.

ON the 15th inst. Mr. G. P. Wyatt, coroner for the southern division of London, held an inquiry at the George and Dragon, Peckham, respecting the death of James Andrew Murray, aged thirty-two years, a surgeon, lately residing at 49, St. Mary's-road, Peckham, who had been found dead under circumstances of a very painful nature. Mrs. Albina Murray of Cork, Ireland, identified the body as being that of her son, who was a widower. The circumstances of this sad case are as melancholy as they well could be. From the evidence it is to be gathered that Mr. Murray's mind was to some extent unhinged owing to pecuniary and domestic troubles and excessive drinking; and that, in the opinion of those who knew him, he was a source of danger to himself at least, if not to others. It was not surprising therefore that steps were taken by someone to have his mental condition professionally inquired into. The cumbrous process of the law as to the certification of insanity in individuals was made evident at this stage, in so far as there had to be a sworn affidavit and information laid before the magistrate, who thereupon ordered a medical examination. The position and action

of the relieving officer at this point became so anomalous that they called for a strong and unfavourable expression of opinion on the part of the coroner, with whom we fully concur. It is entirely wrong that it should be possible for a member of the community who has committed no overt act to be removed from his home as a lunatic by a minor lay official before any medical examination as to his mental condition has been made. A case of this sort does incalculable harm to the working of the Lunacy Acts, and accentuates the uneasiness of the public mind on the subject. No time ought to be lost in looking after a person whose mental condition renders him a source of danger to himself or to others; but the responsibility of action ought to be thrown as speedily as possible upon the shoulders of the medical authorities.

#### THE PURIFICATION OF THE THAMES.

IT is stated that steps are being taken to apply to Parliament in the coming session for an Act which shall make illegal the discharge of any sewage, purified or unpurified, into the Thames between Egham and the intakes of the London water companies. There is little doubt that sewage-contaminated water is frequently drawn from the river by the water companies, but the method of filtration, simple though it be, would appear to free it to a large extent from its objectionable organic impurities. But does mere sand filtration effect the removal of organisms? If, for example, the dejecta of a cholera patient were thrown into the river just above an intake, it is hardly conceivable that the ordinary process of filtration would render such contaminated water perfectly safe to drink. Evidence is very much wanted to clear up this point. Meanwhile the advisability of taking the course it is proposed to take will hardly be disputed, and, further, it is only reasonable to expect that the water companies should bear indirectly part of the cost of the outlay necessarily involved.

#### LEICESTER ISOLATION ARRANGEMENTS.

THE question of the provision of a new hospital for infectious diseases at Leicester is at a standstill, and we cannot but think that the refusal of the Town Council to come to any decisive conclusion is in part due to the fact that the chairman of the Sanitary Committee practically ignored, if he did not oppose, the protest of the Leicester Medical Society, who formally objected to the aggregation of small-pox cases on the site proposed, a site on which it is intended to receive other infectious fevers. Already small-pox has spread to other wards; indeed, Mr. Bremner's account to the Council of the diseases contracted by different patients in the existing hospital is such as to make us wonder how the place can be regarded as an "isolation" hospital at all. One thing is certain, and that is that the present hospital and its "quarantine" arrangements are utterly inadequate, and have failed in their professed purpose. It was admitted at the council meeting to be an ugly makeshift, a disgrace to the town, and to afford no proper means for the so-called quarantine system. This is what we always contended. But it is no reason why Leicester should remain idle. We admit that the question of site is all important, and this especially if small-pox is considered; and there is perhaps one advantage in the postponement of the question for the moment, for the delay will prevent any new attempt to deal with small-pox in the immediate future in such a way as to prevent the provision of such accommodation for the infectious fevers generally as a town like Leicester ought to possess. The existing site is already becoming surrounded by houses, building operations are likely to increase in its neighbourhood; and if it be a fact, as alleged by some members of the Council, that other and better sites are available, such alternative sites ought to be fairly considered

before a final decision is arrived at. In the meantime Leicester appears to be more free from small-pox than it was; but even its hospital seems to be associated with the mischief of spreading the disease, for one of the persons employed in the laundry, who under local teaching very naturally refused to be revaccinated, has died of small-pox. It is, however, astonishing to find that a town identified with the quarantining of persons exposed to infection—a system which, as one speaker put it, forms an "object lesson" to the country—should allow its small-pox hospital laundrymaids "to sleep in the town." If any one thing more than another shows the need for a new hospital, and for reform in the method of dealing with infection in Leicester, it is this disgraceful state of affairs. Hence we would suggest that no undue delay should occur in settling the vexed question of site for the new hospital.

#### THE OPENING OF THE NEW BRISTOL MEDICAL SCHOOL.

THE report we published last week of this function was, through an inadvertence on the part of the reporter, less complete than it should have been. In this way we undesignedly appeared to do an injustice to Dr. Swayne, whose services formed a prominent feature of the opening ceremony, and whose munificent donation should also have been mentioned. Before the principal part of the proceedings had commenced Dr. Swayne read an interesting address, in which the history of the school was traced, together with particulars of the professional career of his predecessors so far as their connexion with the Bristol school was concerned. Unfortunately, the name of Dr. Swayne was also accidentally omitted from the list of gentlemen to whom was entrusted the task of carrying out the whole of the arrangements connected with the dinner. We regret that this mistake should have occurred.

#### MUTILATION OF THE TEETH AMONGST SAVAGES.

DR. MAGITOT of Paris has published an interesting account of the mutilation of the teeth practised by various savage tribes. One variety, which is chiefly met with on the coasts of Africa and the west coast of New Guinea, consists of the breaking of a portion of the incisor by means of a knife and a piece of wood, and is performed between the ages of twenty and twenty-five. The custom of extracting the two central incisors is found in both hemispheres. According to Zerate it has been practised in Peru from time immemorial, where it is inflicted on conquered tribes as a sign of slavery. In Africa it has been observed on the Congo, among the Hottentots and the Batoxas. The mutilation by filing has for its exclusive centre the Malayan Archipelago, whence it has spread to the adjoining islands. It is a religious act, which is celebrated with great festivities at the age of puberty, but this only by the Mohammedans. The degree and character of this filing vary with the habits of the family or caste. The operation is performed by an expert, the *Tukang panggur* (filer), by means of a chisel, three bricks, two files, a small saw and a pair of cutting nippers, the instruments being rubbed with arsenic and lemon-juice before being used. It is the fashion amongst some tribes on the Senegal River to extract the upper temporary incisors in girls when quite young and to manipulate the chin, so that it is drawn forward and the lower incisors are made to protrude so as to overlap the upper lip, thus producing an artificial prognathism. In Indo-China and Japan a girl on her marriage paints her teeth with a black varnish. However, as this operation requires time and money, it is only practised by the wealthy class. Livingstone reported that among the Kafirs a child whose upper teeth erupted before the lower ones was regarded as a monster and killed. On the Upper Nile the negroes have their upper incisors extracted, in order to avoid being sold as

slaves, because of the loss of value brought about by this mutilation. Among the Esquimaux, as described by the Abbé Peritat, in some regions there exists a custom of transversely cutting off the upper incisors, the object of this being, according to local tradition, to prevent the human chin looking like that of a dog. \_\_\_\_\_

#### THE ITALIAN ELECTIONS.

THE representation of the profession in the Italian Legislature remains almost exactly as it was before the electoral struggle, which has unseated so many old deputies and reinforced Signor Giolitti's Government with so many untried men. We note with gratification that Dr. Guido Baccelli retains his seat for one of the divisions of Rome with an overwhelming majority, and that his presence in the Chamber may still be counted on in the interests of public hygiene and medical education. A severe contest in the third electoral collegio (constituency) of Milan has resulted in the defeat of the advanced Liberal candidate, Dr. Malachia de Cristoforis, a medical consultant and sanitary reformer of the most enlightened and thorough-going stamp, whose well-inspired and outspoken advocacy of improved hygienic regulations for Milan, particularly for the minimising of zymotic disease, has been felt for good by every sojourner, migratory or resident, in that great *entrepôt* of foreign travel. More than once, when commenting on the small-pox and typhoid outbreaks that have emptied the Milanese hotels and driven the tourist public to select alternative and less convenient routes, we have had to acknowledge our indebtedness for facts and suggestions to Dr. De Cristoforis. We hope his exclusion from the Italian Legislature is only temporary. The Senate, on the other hand, has had its deliberative and debating resources distinctly reinforced by the elevation of more than one medical practitioner or investigator to its membership—the most conspicuous of these being the illustrious pathologist and sanitary reformer, Dr. Tommasi-Crudeli, whose researches and conclusions on malaria mark an epoch in our knowledge of the etiology and prophylaxis of that disease.

#### THE OUTBREAK OF CHOLERA AT LUCKNOW.

WHEN cholera extends in an epidemic form over a large district of country, or when an outbreak occurs in a large and densely populated city, it is often extremely difficult, if not impossible, to trace its progress and the causes and methods of its spread; but it is different when the outbreak is on an extremely small scale and circumscribed within very narrow limits of space and time. The conditions and all the circumstances attending it must then be well known, or should be capable of being accurately traced. A cholera outbreak of this kind has recently occurred at Lucknow among the officers of the Royal Artillery of that garrison, which seems to have been of a very sudden and unexpected character. It appears that a captain of the Royal Horse Artillery and the mess-sergeant were attacked on the morning of Oct. 19th, and that both died in a few hours. A subaltern of the 2nd Field Battery developed choleraic symptoms on the evening of the same day, and he was nursed during the night by another officer, who was attacked by cholera on the following morning and died on the same day. Two other subalterns were then attacked, but in their cases the attack was not fatal, nor was it fatal in the case of the officer of the 2nd Field Battery. We infer from the reports that all probably belonged to the same mess, and the question comes, how did the cholera-cause get into the mess house on Oct. 19th, and what were the exact local conditions of the mess at the time? No mention is made of any other attacks in the cantonments, or of the prevalence of the disease among the native population at Lucknow at the time. A special inquiry has been ordered into all the circumstances attending this outbreak,

which resulted in three deaths from cholera on Oct. 19th and 20th—viz., two officers, Captains Grierson and Head, and the artillery mess-sergeant. October is late in the season, we imagine, for the prevalence of cholera at Lucknow. It is the occurrence of sporadic cases out of due season, as it were, and sudden and unexpected outbreaks of this kind, the rest of the garrison remaining healthy, at stations far removed from the endemic area, that are so difficult to fit in with any of the existing theories of the disease. Some authorities in India regard such occurrences as the earliest indications of an epidemic which is to follow much later on—in the hot and rainy seasons of the following year, for example. The inquiry will no doubt be of a searching and exhaustive character.

#### STREET REPAIRS AND STREET OBSTRUCTION.

A REAL grievance has been exposed by a correspondent who recently noticed at some length the interruption of traffic in the Strand, which for several years has been practically unceasing, in consequence of repeated alterations in the roadway. Shopkeepers complain loudly of the loss of custom thus inflicted on them, and travellers of the delay in their journeys. We must also allow that the ever-giving ratepayer has no less ground for protest when we remember with what cold zeal, what multiplication of labouring effort, and consequent expense, the ordinary British workman surrenders the muscular equivalent of his wages. Of course no one would think of interfering with needful public works of improvement, or even of crippling the deserving efforts of private enterprise; all that we would ask for is that the disturbance referred to be justified by commensurate advantages and approved by some higher than any local authority, that due notice be given of intended alterations, that the matter be so arranged that the course of general business in the district shall not be injuriously diverted, and, finally, that the work be carried through with vigour and despatch. Such annoyance as that we have here briefly described is not limited to one street or one city. It is in greater or less degree the chronic pest of many chief thoroughfares. The particular means to be used for its cure must naturally vary with diverse local conditions. Its main excuse, however, must ever depend upon its necessity, and its temporary acceptance, even as a matter of submission, upon its compatibility with common interests.

#### THE FATAL "RUN" AT RUGBY.

THE distressing circumstances attending the recent death of a boy at Rugby School while taking part in a "run" are familiar to most of our readers. Notwithstanding that no actual blame for his death can be attributed to any one associated with the poor lad, it is impossible to overcome a certain feeling of uneasiness in connexion with the sad occurrence. No recognised precaution seems to have been omitted. Medical examination on two occasions had failed to reveal any sign of constitutional weakness. The boy himself had made no complaint of being ill. He had run several times before as far as he would have run on this occasion, and with apparent ease. Published details of the post-mortem examination are unfortunately very meagre, but the evidence thus obtained went to prove merely that death was due to syncope from over-exertion. It is worthy of note that the run, though not longer than four miles was open to boys of all ages. This is a circumstance of more than trivial meaning. The pace, not the distance, in such a case constitutes the real difficulty, for, as everyone knows who has run in a paper-chase, the "hares" who lead it are chosen for their swiftness. A young boy, if ambitious to run well, as this boy was, does not use much care in regulating his own exertion. It is very doubtful that even if he felt unequal to the task he would care to acknowledge his unfitness. He would usually be only too

ready to accept his present conditions, and to run when required to do so. Clearly, then, these must be regulated for him. To a large extent they are so regulated. No boy may run if declared physically unfit. Doubtful cases are submitted to the medical officer of the school. Little more may seem to be needful, but that little should not, in view of the recent accident, be disregarded. We would suggest that the positive test of a preliminary physical examination be required to qualify for these runs, and, further, that as a rule boys of a similar age be selected to compete together. The full advantage sought in this form of exercise, and rightly if it be well administered, would thus be obtained with a minimum of risk to those engaged in it, and the temptation to perilous and fruitless excess would be avoided.

#### THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5 P.M. on Wednesday, Nov. 9th, at the residence of Mr. George Pollock, President of the Association. There was a very full attendance of members of the committee. The meeting had been called for the purpose of considering a reply to the last letter of the committee received from an official of the College, with reference to the points at issue between himself and the committee of the Association. A long discussion ensued with regard to the action to be taken, and, after various resolutions and modes of procedure had been suggested, it was ultimately agreed to appoint a subcommittee to draft a report in the form of a reply. It was agreed that the subcommittee should meet on the 14th and submit its report to the adjourned meeting of the committee to be held on the 16th, at 5.30 P.M. The committee then adjourned and met again at Mr. Pollock's residence on the date agreed upon. The reply drafted by the subcommittee was presented, considered clause by clause, amended and passed. The honorary secretary (Mr. H. Percy Dunn) was instructed to have the letter type-written, to sign it and despatch it in due course. He also laid upon the table the letter forwarded to Mr. Holmes by the secretary of the College in acknowledgment with thanks of the first resolution brought forward on behalf of the Association at the annual general meeting held at the College on Nov. 3rd. The honorary secretary was instructed to call a meeting of the committee immediately on the receipt of an answer from the official of the College referred to above. This concluded the business of the meeting and the committee adjourned.

#### PERIODATES IN CHOLERA.

THE full and circumstantial account of trials of the periodates in the treatment of cholera cases at Hamburg which appeared in *The Times* of Nov. 18th cannot fail to have attracted attention, but we do not think that the publication was happily chosen. We may say at once that a letter embodying these statements was sent to us, with a request for its insertion in *THE LANCET*, but we adhered to our rule to admit to our columns only subjects of treatment which come from duly qualified medical men. Details such as are given in the statement are hardly those which should be placed before the public eye at any time, much less when they deal with a new method the success of which can only be fully gauged after a thorough investigation by experts. The lamentable results upon the public mind of a similar publication a few years back of a new remedy for tuberculous diseases can hardly be forgotten, for the false hopes raised by it must be vivid in the memories of many people. Then, too, in the case of this recently vaunted remedy, it must be borne in mind that towards the close of an epidemic of cholera the type of the disease generally grows milder, and recoveries are in larger proportion under any plan of treat-

ment. The statements made as to several of the patients being rescued from a moribund state by the administration of periodates—the action of which can only depend on the readiness with which they give up free iodine—cannot obviously be criticised until they are properly endorsed by the responsible medical officers in charge of these patients. Without in the least objecting to the trial of any remedies that are likely to be of service in the treatment of this severe malady we must yet deprecate the drawing of too hasty conclusions, and, above all, of the presentation of facts as to the trial of such measures, except before a medical tribunal and with duly accredited medical authority. We prefer therefore to suspend judgment until the latter course is taken.

#### NOTIFICATION AT LEITH.

It is startling to learn that in North and South Leith from Nov. 7th to Nov. 9th eighty-eight new cases of measles and twelve of scarlet fever occurred in one practice there, and that none of these cases were notified to the sanitary authority. We are not aware if measles is a notifiable disease at Leith, and there is still some general doubt as to the usefulness of its notification. But with regard to scarlet fever the case is different, and we cannot help thinking that the Leith authorities should take immediate cognisance of the alleged omission to notify the above-mentioned cases. Even with regard to measles, the health authority should know something about it, in order to take proper measures with regard to the closing of schools and exclusion of scholars.

#### THE ASYLUMS BOARD HOSPITALS.

THE hospitals of the Board continue to be abnormally full of fever cases. The number of patients in them on Nov. 12th showed an increase of sixty-four over those remaining at the end of the previous fortnight. The greatest number of admissions was at the Eastern Hospital (206) and the South-Eastern Hospital (202). Already there are more than 4000 cases isolated in the hospitals, including the two large convalescent institutions at Winchmore-hill and Gore Farm. In view of the energetic efforts which the Board is making to cope with the extra work it is hard to criticise closely the fact that a few cases here and there fail to get removed to hospitals.

#### TAKING THE OATH.

WE rejoice to see that the more cleanly mode of oath administration so often advocated in these columns has passed from the stage of discussion to that of practical application. We may remind our readers that Clause 5 of the Oaths Act, 1888, was framed on lines suggested by annotations which appeared in THE LANCET shortly before the passing of that Act. It was suggested that those who preferred to swear with uplifted hand instead of kissing the book should be permitted to do so. This more cleanly mode of adjuration has always been practised in Scotland and in the Channel Islands, but in no other part of the United Kingdom. Dr. Gordon Hogg, the newly elected coroner for the Western Division of Middlesex, has not only explained to jurors and witnesses that they can claim to be sworn with uplifted hand, but has strongly urged it as the more solemn method and as being free from any risk of infection, a by no means remote probability, seeing that *inter alia* jurors and witnesses must sometimes come from infected houses. Apart from this there is the objection which must always attend the handling and kissing of a book in indiscriminate use. Unless some movement is made by the presiding officials of courts of law this excellent clause of the Oaths Act must remain a dead letter. It ought to be extensively printed and posted on the walls of all courts, so that every juror, witness and person likely to be called upon to take an oath may be aware of the privilege which the Act

confers. It may be taken for granted that very few would prefer to be sworn "on the book" if they were made aware that they have a choice in the matter. Dr. Gordon Hogg deserves the thanks of the profession and of the public for so courageously taking the matter in hand, and it is to be hoped that his example will be rapidly and generally followed by other coroners, magistrates and judges.

#### SMALL-POX CASES IN ISLINGTON.

MR. HARRIS, medical officer of health for Islington, with commendable promptitude on Monday last intimated to the medical practitioners of the parish the fact that in the last five days he had received notifications of twelve cases of small-pox within his district. We are glad to learn that up to the time of our going to press there are no further notifications. To be forewarned is to be forarmed. The public seem to be under some impression that this disease has changed its character. The profession is under no such delusion. Perhaps boards of guardians and other sanitary authorities will begin to wonder whether they have been doing their full duty in regard to the promotion of public vaccination.

#### INFECTIOUS DISEASE IN THE BOLTON RURAL DISTRICT.

IT is reported that no less than fifty-three cases of infectious disease were notified in the Bolton rural sanitary district during last October. Most of these were cases of scarlet fever and enteric fever, and occurred chiefly at Tong. The authority's hospital at Rumworth is said to be full, and it is stated that cases have had to go to the workhouse hospital. It is gratifying to know that the health officer has emphasised the necessity of further hospital accommodation being provided. This is all the more necessary inasmuch as small-pox is announced to have appeared in the town of Bolton, and a case of that disease has been already isolated in the borough fever hospital. Having regard to the definite appearance of small-pox in Yorkshire and Lancashire towns, particularly in Warrington, it is extremely important that all sanitary authorities in this part of England should be provided with means of isolating any cases that may arise. But it is equally important that these should be so placed and constructed as not to defeat the object of their existence by themselves becoming foci of small-pox infection.

#### TYPHUS FEVER IN DUNDEE.

A SMART epidemic of typhus fever is reported from Dundee. Already more than twenty cases of the disease are isolated in hospital there. Pending more precise inquiries, it is stated that the disease has originated from a quantity of rags belonging to hawkers, which were deposited (how is not stated) in a certain house. In the meantime every effort is being made to limit and localise the outbreak. With this view the health officer has very properly suggested the institution of a sort of "quarantine house," where all those who have been in contact with any patients suffering from typhus fever should be detained for a time. We shall look for further particulars of this Dundee outbreak at an early date, and should like to know if, as was the case at Wigan, the Irish quarter was the one principally affected.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Algiers.*—Dr. Brault has been appointed Lecturer on Surgery and Midwifery.

*Ghent.*—Dr. E. W. Eeman has been promoted to the ordinary professorship of Special Pathology and Therapeutics of Internal Diseases and of Laryngology, Otology and Rhinology.

*Lille*.—Dr. Bayrac of Lyons has been appointed to the post of Chief of the Department of Practical Chemistry.

*Montpellier*.—Dr. Ville has been appointed to the Professorship of Medical Chemistry.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Isidor Henriette, Professor of the Diseases of Children; Dr. Antonio Garcia Cabrera, Professor of Anatomy in the University of Granada; Dr. Paoli, General Councillor of Salice, Corsica; Dr. Pietro Pellizzari, Professor of Dermatology and Syphilography in the Florence School of Medicine; and Dr. Emilio Fasola, *privat-docent* in Midwifery in Florence.

THE Glasgow Police Commissioners have given an intimation that cases of small-pox have appeared in every district of the city. In the hope that a further spread of the disease may be checked, the commissioners urge upon the citizens the importance of protecting themselves and their dependents from the scourge by promptly securing the revaccination of every person above ten years of age. Arrangements have been made for free vaccination in the case of those who are unable to pay for the performance of the operation. The course adopted by the Glasgow Commissioners in respect of the prevalence of small-pox in the United Kingdom seems to have been followed at Warrington by the gratifying result of effectually checking the progress of the malady. A fortnight ago as many as seventy-one new cases of the disease were reported in one week; last week there were only twenty-nine fresh attacks announced, and it is expected that this week a still further diminution in the new cases will be noted.

THE question of reform in the management and the registration of common lodging-houses has engaged the attention of the London County Council. The subject is of great importance, and one worthy of the prompt interference of the Legislature. It is satisfactory to find that as the result of an interview with the Home Secretary a deputation from the County Council received an assurance from the hon. gentleman of his complete sympathy with the object of the deputation, and of his desire to promote it by considering whether the control of lodging-houses could be carried out by the exercise of the Ministerial power of transfer under Section 10 of the Local Government Act, or would have to be effected by Act of Parliament.

AT a meeting of the Metropolitan Branch of the Incorporated Society of Medical Officers of Health, held on Nov. 17th, it was resolved, on the motion of Drs. T. Orme Dudfield and J. S. Bristowe, "that in the opinion of this meeting of metropolitan medical officers of health the permanent hospital accommodation of London for infectious diseases is insufficient and in the interests of the public health should be increased forthwith, and that copies of the above resolution be forwarded to the Metropolitan Asylums Board, the Local Government Board and the London County Council."

A MEETING of the Council of the Metropolitan Hospital Sunday Fund will be held at the Mansion House to-day (Friday), at three o'clock. The business of the meeting is to determine the report of the Council for the year 1892 and to order its publication; to revise the list of the Council for 1893; to order the convening of the next annual general meeting of constituents; and to consider what day of 1893 shall be recommended to the constituents for next Hospital Sunday.

SIR JAMES CRICHTON BROWNE, M.D., F.R.S., will this (Friday) evening preside at a dinner of the staff and past and present students of the National Dental Hospital and College and their friends. The festival will be held at the Royal Venetian Chamber of the Holborn Restaurant at 6.30 P.M.

THE Royal Commission on Vaccination assembled on the 23rd inst., Sir James Paget being in the chair. Dr. John McVail attended and gave evidence in favour of compulsory vaccination, quoting statistics to show the value of the operation as a preventive of small-pox. We understand that an interim report will shortly be submitted to Parliament.

THE second Grocers' Scholarship Lecture on the Physiology and Pathology of Blood Destruction will be delivered by Dr. William Hunter at the Examination Hall, Victoria Embankment, on Tuesday, the 29th inst., at 4 P.M.

THE Bradshaw Lecture will be delivered by Mr. Christopher Heath at the Royal College of Surgeons on Thursday next, Dec. 1st, at 4 P.M. The subject of the lecture will be Diseases of the Nose.

THE death is announced of Mr. Henry Whiting, M.R.C.S., L.S.A., of Haslemere. The deceased practitioner was for a number of years a medical adviser of the late Lord Tennyson.

THE Royal Microscopical Society will hold a conversazione in the Banqueting Saloon, St. James's Hall, on Wednesday, Nov. 30th, at 8 P.M.

THE death is announced of Dr. Axel Iverson, professor of surgery at the Communal Hospital, Copenhagen, on the 22nd inst.

BRIGADE-SURGEON HAMILTON, M.D., will read, on Dec. 5th, at the Medical Society of London, a paper on the Nature of Cholera.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE winter sitting of the General Medical Council commenced on Monday, Sir Richard Quain, President, in the chair.

Mr. W. C. J. Miller, Registrar, presented the official notification of the appointment of David Caldwell McVail, M.B., as Crown nominee for Scotland, in room of the late Sir George H. B. Macleod.

Dr. P. Heron Watson formally introduced Dr. McVail to the President and the Council.

#### *The President's Address.*

THE PRESIDENT then addressed the Council. He said: On this occasion, being the fifty-third session of the Council, we miss the presence of our esteemed colleague, the late Sir George Macleod. We miss his dignified presence, we shall miss his words, not too often spoken, but always wise, always expressed in a kind and conciliatory spirit, always helpful in the discharge of our duties. I am confident that there is no one of those whom I now address, and who has had the privilege of sitting as the colleague of Sir George Macleod, but will deeply lament his loss to us as well as to his many friends. His place will now be occupied by Dr. David Caldwell McVail, who is not quite a stranger to the Council, for he has been already our colleague from June, 1886, to April, 1888. I have every reason to anticipate that, following the example of his distinguished predecessor, Dr. McVail will be found a useful and acceptable member of our body. I do not propose to occupy valuable time by lengthened observations of my own. I am anxious, as

no doubt you are all likewise, that we should proceed at once to the discharge of the important duties assigned to us by law. Let me say that we must never forget what these duties are. They are, in the first instance, the promotion and advancement of medical education, so as to ensure for the public competent and well-qualified practitioners; and, in the second place, to take care that the Medical Register is not stained by retaining on its pages the names of those whose conduct is such as to render them unworthy to remain members of the medical profession. These, with the preparation of the national Pharmacopœia, are our duties. I mention them thus specially because demands are constantly made upon the Council to undertake other duties, which are not in accordance with those assigned to us by law, and with which we can have no relation. With reference to the several occurrences which we have to note since the last meeting of the Council, I have to mention that, in accordance with the resolution passed on May 25th last, I caused a statement to be prepared by the solicitor to the Council, with reference to the conditions under which foreign medical practitioners are allowed to practise in this country, with a view to procuring, if possible, a reciprocity of privileges for English practitioners desirous of practising amongst their own people abroad. This statement was submitted to the Lord President of the Council, who communicated it to the Foreign Secretary, with a request that it should be forwarded to the several foreign Governments. It will be seen in the programme that attention was specially given to the subject by the English ambassadors in France, in Italy and in Switzerland. The result seems to indicate that though there will be greater restrictions than hitherto on the practice of English medical men in France, still these restrictions may not prove very oppressive. In the kingdom of Italy it may be said that there is no restriction on English practitioners. With regard to Switzerland, the English representative at Berne writes to Lord Rosebery as follows:—"Although I shall lose no opportunity of urging on the Federal Government the justice of granting to British medical men in Switzerland the same privileges that Swiss practitioners enjoy in Great Britain, I cannot hold out to your lordship much hope of my being able to obtain a relaxation of the present rule, which renders it incumbent on British medical men who are desirous of practising in this country to obtain the Federal diploma by passing the regular medical examination. However well disposed the Federal Government may be to act in a liberal spirit and to conclude an arrangement of reciprocity, the Swiss Medical Board, which has a decisive voice in such matters, remains firm in its opposition to any idea of reciprocity arrangements with foreign countries." Thus English practitioners, to whom is especially due the recognition of the health resorts in Switzerland, are debarred by the action of their medical colleagues in that country from attending on patients whom they send to those almost inaccessible mountain regions, from which, in case of difficulty or danger, escape is nearly impossible, and where most of all they would need the special care of their best friends—their English physicians. It would really be well that we should bear these facts in mind in reference to Switzerland, and consider whether we should not send our patients to other lands, where they can obtain all essential climatic advantages, still enjoying the privilege of being attended by medical men of their own country; or might we not recommend voyages by sea, for which great facilities are now offered, and which in many instances possess advantages over those Swiss mountain valleys where the climate is often unsuitable and even hurtful in certain forms of disease? Nay, may we not frequently regard some of our own winter resorts with more favour? In accordance with instructions given to our solicitor for the purpose of obtaining information on the subject, Mr. Farrer has communicated with the authorities at the Home Office and the Metropolitan Police. Both have informed him that they will direct the reports of convictions for felony or misdemeanour of medical and dental practitioners to be communicated to the Council. A form of return, as requested, has been prepared and placed at the Home Office and at Scotland Yard. Several of these returns have been already sent in; some of them, however, relate to non-registered and non-qualified practitioners. In this incident there is, however, an advantage, inasmuch as the authorities will have an opportunity of discovering the false statements of individuals who assume the rank of qualified medical practitioners to which they have no claim. The visitation and inspection of examinations have been made in the case of the Irish universities and the Scottish corporations. The reports on

these visitations have been forwarded to the several medical authorities concerned, and their comments thereon, together with the reports, will be placed in the hands of the Committee on Education when received. Arrangements are in progress for the visitation next year of the medical corporations in Ireland and some of the English universities, and several of these visitations will be completed before the meeting of the Council in May next. In accordance with the resolution of the Council on the subject of "covering" by dentists, which was referred to the solicitor with a request that, after communicating with the Dental Association, he should report to the executive committee at the present meeting, the solicitor has presented a report to the effect that it seems to him as much a duty of the Council to protect the public in the matter of dentistry as in medical practice. He advises the Council to issue a warning to dentists, through the medium of the British Dental Association, who are willing to undertake the duty, similar to that conveyed by means of a minute of the Council to medical practitioners before taking more decided action in regard to the offenders. I cannot conclude these few observations without remarking that year by year the duties devolving on the Council become more and more definite, more and more important and lead to more decided practical results. I can well understand that in the early and difficult days of the existence of our Council the duties were unfamiliar to many of its distinguished members, and that they found considerable difficulty in formulating and surmounting some of them. Then, too, it was thought and expected from the outside that much more could be accomplished by the Council than it had authority for doing. It is now recognised—and it is my hope that it will be more and more recognised every year—that the Council is doing all in its power to secure the higher education of the profession and to elevate and maintain its character in all that is essential in connexion with the welfare of the public within the lines marked down for us by Parliament. I can recognise that this Council, which I can better understand in my present position, composed as it is of the representatives from the great teaching and licensing authorities of the country, of representatives of the Crown and of representatives elected by the profession at large, should be, and is, a body well constituted to perform these important duties. In some other countries these duties devolve on Government officials; happily here they are placed in our own hands, and I am confident that we shall not fail to prove worthy of the trust thus reposed in us.

On the motion of Sir JOHN SIMON, seconded by Sir WALTER FORSTER, M. P., a vote of thanks was passed to the President for his address.

#### *Business Committee.*

Mr. Wheelhouse (chairman), Sir William Turner and Mr. Bryant were appointed the business committee, to continue in office for one year from the present date.

#### *The Arrangement of the Programme.*

Sir JOHN SIMON, raising a point of order, said that when he received the provisional programme he observed on it, as a remnant from last session, a notice of motion to be proposed by himself and seconded by Sir Dyce Duckworth, relating to proceedings taken in this Council. But when he got the programme that day he saw the notice of motion was absent, and he received at the same time a note from the Registrar stating "that certain documents and resolutions, proposed to be laid before the Council, are withdrawn on the advice of the solicitor, because they referred to a cause now pending in the courts of law." That was a resolution of the Executive Committee. Might he ask what these documents were? He was not aware that they referred to a case pending in the courts of law in regard to any proceedings in this Council, and in the interest of members he expressed his dissent from the view that the Executive Committee was at liberty in this offhand manner to suppress that notice of motion. Again, on turning to the minutes of the Executive Committee, he found no notice taken of the resolution.

The PRESIDENT said the resolution in question was come to on the previous day, and to his mind it was impossible for them to act otherwise. They could not separate Sir John Simon's resolution from other documents which followed, and if it were printed and discussed all must be discussed.

Sir WILLIAM TURNER said the Executive Committee considered the matter with great care. The solicitor spoke without the slightest hesitation and put it as strongly as this—that if this question were discussed by the Medical Council he felt it would be tantamount to a contempt of court.

The committee felt that they could not fly in the face of the very decided opinion given by their solicitor.

After some further discussion it was resolved to record the resolution in question on the minutes of the Executive Committee, and the subject dropped.

#### *Examinations for the Army Medical Staff.*

A table was received showing the results of the competition for commissions in the medical staff of the army in August last. It appeared from the document that the total number who presented themselves was 43. Of these, 20 passed for vacancies, 10 qualified, but were unsuccessful; 13 were rejected, 13 were deficient in medicine and 9 in chemistry and drugs. The Director-General of the Army Medical Department informed the Registrar that four candidates were deficient in spelling.

The REGISTRAR, in response to a request for the information, said that one of the four candidates passed the matriculation examination of the Royal University of Ireland, one the examination of the College of Preceptors in London, and two the preliminary examination of the Royal College of Surgeons in Ireland.

Sir W. FOSTER, M.P., moved that these bodies have a letter sent to them by the Registrar calling attention to the fact.

Mr. MAONAMARA seconded the motion. He considered it one of the most important duties they had to see that the preliminary examinations were kept up to the mark. He regretted very much that two of these gentlemen passed the preliminary examination of the College he represented, and he would be only too pleased to have an intimation from the Council conveyed to them in an authoritative manner. The College of Preceptors—a body which had been tried to be thrust down their throats there on several occasions—had also fallen short in its preliminary examinations. But it must not be thought there had been an all-round failure on the part of the candidates. It was in spelling, and he knew one of the most distinguished members of the English bar who, when he wrote a letter, was obliged to have a dictionary beside him to prevent mistakes in spelling.

Sir J. BANKS said the preliminary examination of the Royal University of Ireland was second to none, and he could not understand how one of these four men passed it, and he regretted it extremely.

The motion was agreed to.

Dr. HERON WATSON moved that the thanks of the Council be given to the Director-General of the Army Medical Department for his kindness in sending this return, and also in giving the information about the spelling.

Dr. BRUCE seconded the motion, which was agreed to.

#### *Medical Aid Associations.*

The next business was to receive communications from the Medical Defence Union and the Gloucester Friendly Societies' Medical Association in regard to medical aid associations. Both were long documents. That of the Medical Defence Union, written by Dr. Leslie Phillips, the secretary, was accompanied by some printed official reports of several medical aid associations in various parts of the country, which, he said, would sufficiently substantiate what he presented in the way of argument, and would reveal the condition of servitude to which the system carried out by medical aid associations had reduced many honourable members of the profession, who only sought the opportunity to escape from the thralldom into which they had drifted or been driven by stress of circumstances. The condition of affairs was alike derogatory to the honour of the profession and injurious to the best interests of the public. A medical aid association was a business generally formed by the amalgamation of the existing medical clubs in any particular town. Having once amalgamated into a medical aid association they throw open their doors directly or indirectly to any and every comer. But brief consideration, declared Dr. Phillips, was needful to see that the system of these associations was a sweating one. The skill, industry and labour of medical men were made use of to accumulate wealth for what was no more nor less than a trading company. The medical man was reduced to a condition of servitude; he was paid a miserable pittance; the greater proportion of his earnings was taken by the proprietors, not only to pay fees but to accumulate assets; the right to freely practise his profession was denied him, or only allowed on consideration that his earnings were divided between himself and his masters. Many, if not most, of these aids did not confine their sphere of operations to these *bonâ-fide* members of the amalgamated clubs, but practically carried on private and general practice among all comers, not so much for the

benefit of the medical officer as for their own emolument. They were, in other words, large unqualified corporations, carrying on medical practice under cover of one or two medical officers, to the destruction of the interests of the resident practitioners of the town. Another way of viewing the same thing was that the surgeon actually paid a tax upon his industry. Many of the associations were good enough to permit their medical officer to attend midwifery cases, but, in consideration of their kindness, they required that a part of the fee should be paid into the exchequer of the association for the benefit of its general funds. Each year the formation of medical aid associations was increasing more and more, and a definite disclosure of policy on the part of the Medical Council would serve not only to bring about a better understanding between the existing associations and their medical officers, but would prevent the extension of what all fair-minded men, both professional and lay, must regard as an iniquitous system. It appeared to him that it was not essential for any public inquiry to be made in this matter. Recent events and investigations had convinced him that a potent remedy would be a clear and unambiguous note of warning addressed by the Council to the medical profession, and especially to those associated with these medical aids. He suggested that a practical solution of this grave question, even if the Council did not see its way to declare it infamous in a professional respect for a medical man to engage himself to exclusively practise for and on behalf of a medical aid association, foregoing the right to privately practise his profession, or submitting to division of profits resulting therefrom, would be for the Council to declare it to be conduct infamous in a professional respect for any medical man to hold the office of medical officer to a medical aid association save and except under the same rules and usages as ordinary club appointments were held by the resident medical men in any particular town. The communication from the Gloucestershire Friendly Societies' Medical Association denied the charges contained in the letter from the Medical Defence Union, and defended the methods adopted by these associations, which, it was explained, owed their origin to a desire to remedy the abuses which accompanied the old club system, and which, it was declared, an impartial inquiry would show to be free from the evils alleged against them.

Mr. WHEELHOUSE moved: "That the General Council approach the consideration of the question of medical aid associations, and the evils said to be attendant upon them, by referring the whole subject to a committee authorised to take evidence, and after fully sifting the matter to report at the next session of the Council, the committee to consist of the following six members: Dr. Glover (chairman), Mr. Wheelhouse, Mr. Teale, Dr. Macalister, Dr. Leech and Dr. Bruce." He asked that this method of dealing with a very large question be adopted by the Council, because he felt that if they were to come to an immediate decision on a question of so much moment—a question which had agitated the profession throughout the country—they might very likely be guilty of hasty legislation on the subject. By means of a committee all parties would have their views fully presented and considered before the Council was asked to come to any decision on the matter. He asked for the purpose that the committee should be authorised to sift the matter really to the bottom, and be empowered to take evidence if necessary and to receive information from whatever quarter it might seem desirable.

Sir W. FOSTER, M.P., seconded the motion.

Dr. HAUGHTON said he felt extremely thankful that the name of no Irishman appeared on this proposed committee. There were five Englishmen and one Scotchman, and he hoped Dr. Bruce was pleased with the company he was in. This was a testimony which was gratifying to his (Dr. Haughton's) innermost heart of hearts as an Irishman that this disgraceful process of sweating medical practitioners did not exist on the other side of St. George's Channel. He felt so strongly upon this matter that he was prepared to vote that this practice was infamous in a professional point of view, and he hoped that the result of the committee would be to ask him for his vote in that direction.

Sir JOHN SIMON thought that the question of whether the public suffered by this practice ought to be considered; and if they found that injury was inflicted on the public by it, clearly it was within the province of the Council to deal with it. As regards the other questions, however, he was of opinion that they were questions for the British Medical Association and other medical associations to deal with.

Dr. GLOVER thought the Council would be entirely right in taking the course proposed of first examining the facts of the case. He wished to know whether the committee would be entitled to ask the assistance of the solicitor of the Council, as that seemed to be a very important matter.

The PRESIDENT: Certainly.

Sir W. TURNER asked if it was to be understood that the expression in the motion "authorised to take evidence" was intended to give authority to the committee to call persons before it.

Dr. GLOVER: I should distinctly be in favour of examining in person.

Sir W. TURNER observed that, though this might seem a very simple matter on the surface, there was something very important below. There was the question of expense. If they were to take evidence it must be presented to the Council in such a way that the members might sift it before coming to an ultimate decision. Was the evidence to be taken down in shorthand and then extended, and if so, who was to pay the cost? If the motion were to be read as Dr. Glover obviously read it, he hardly thought the question of the cost had been sufficiently considered. If they were to have evidence in this way the Council, he presumed, must bear the cost.

Dr. GLOVER had no hesitation in saying that this was an expense that the Council should willingly and cheerfully accept. He could not imagine a more useful purpose to which to apply some of their surplus than in providing a complete account of the evidence before the committee. But he did not anticipate that it would be necessary to examine many witnesses.

Sir W. FOSTER, M.P., regretted very much that the question should have been approached from an economic point of view with regard to the funds of the Council. They had before them a very grave complaint made on behalf of the general body of the profession, from whom the funds of the Council came. They complained, first of all, that this system was demoralising; and, secondly, that it was more or less injurious to public health, by bringing about a defective method of the practice of the profession. Those were two very grave accusations and they stretched over so wide a field that if they were to take notice of the matter at all it should not be in any spirit of haste or carping economy, but they must be prepared to go into the whole subject deliberately and sift it to the very bottom in order to arrive at a wise conclusion that would not be easily upset. If it were necessary that the inquiry should cost £1000, he thought they could not spend the money better than for the benefit of those who found it. He hoped therefore there would be no more objection to the proposal on financial grounds.

Sir JOHN SIMON had great doubts about the desirability of the committee at all, but if they were to have an inquiry and the committee found it necessary to incur expense, it should be a limited expense under the direction of the Executive Committee.

Dr. HERON WATSON pointed out that in addition to the cost of reporting the evidence there would be the expense of bringing witnesses to London. He asked whether the members of the committee were to be paid their expenses while sitting. Was the expense, whether £1000 or £2000, to be paid by the General Council or by the English Branch Council? It seemed to him that this was a question confined wholly to England. In Scotland, happily, they knew nothing of it, nor did they in Ireland, and he did not see why the Irish and the Scotch branches of the Council should be charged with any of the expense.

Dr. GLOVER said it happened that the English public and the profession in England were the sufferers, but they should have to know more than they did now before they could say that Scotch practitioners were entirely free from blame in this matter. He hoped the Council would not prejudice any aspect of the question and would insist on the power of the committee to take evidence. If it had not that power it should not be appointed. He had no reason to suppose that medical witnesses would be unwilling to come even at their own charges, and he believed the representatives of the friendly societies would be willing also.

Dr. HERON WATSON asked whether the members of the committee would be paid.

Dr. GLOVER: I do not wish to be paid.

Dr. HERON WATSON said he should like to hear that from every member of the committee.

Sir W. TURNER said there must be a limit to the expense.

Mr. MACNAMARA could not see the necessity for any great or searching inquiry. It was the principle, which had to be

considered, and he thought they had discussed the matter sufficiently to enable them to come to a decision. They would not be in a better position to enter on the question when the committee reported.

Mr. WHEELHOUSE said the authority to take evidence was desired for the purpose of supplementing written evidence, if the committee should think it necessary to verify statements in such documents by means of cross-examination. He never entertained any desire to be paid for his services on the committee, and he believed that was the feeling of all his colleagues.

After some further discussion,

Sir DYCE DUCKWORTH moved and Sir W. TURNER seconded the following rider: "But that the committee do not incur expenditure beyond £100, without the previous sanction of the Finance Committee."

Sir W. FOSTER, M.P., did not think that was treating the committee with any great confidence. However, as he was not a member of the committee, he did not care to resent it, and, if Mr. Wheelhouse agreed to the addition, he made no objection.

Sir W. TURNER said it was not a question of confidence in the committee, it was purely a business matter.

The proposal of Sir Dyce Duckworth having been accepted by Mr. Wheelhouse, the motion as amended was then agreed to.

#### *Midwifery Diplomas.*

The next business was a memorial from Dr. R. R. Rentoul with regard to the action of those registered medical practitioners who have formed schools of midwifery and examining bodies granting diplomas for the practice of midwifery, and praying that the Council would consider the making of a rule restraining such action on the part of these practitioners as being contrary to the Medical Acts.

Mr. WHEELHOUSE explained that Dr. Rentoul had presented two documents, one with the memorial and the other containing a large amount of evidence which had been brought together by Dr. Rentoul with regard to the memorial. He hoped the Council would take the memorial into consideration, because the question with which it dealt was one which was agitating the profession very profoundly indeed. He had letters before him from members of the profession entreating him, as one of the direct representatives, to use his best endeavours to have the matter considered by the Council. It was considered that the certificates given by those persons who undertook to examine women in midwifery questions were practically diplomas. They stated upon the face of them that the holders had been examined and that they were found competent to attend midwifery cases. They were used as diplomas all over the kingdom, and it was in order that the rights of the medical men on the one hand and those of the public on the other should be considered that Dr. Rentoul was agitating in the matter. He (Dr. Rentoul) said that the law demanded that those who practised midwifery should also have been educated and examined in medicine and surgery, and that unless they had been so educated and examined they could not be said to be competent to practise any one of the three branches. Indeed, he went so far as to say that if certain bodies were to be allowed to give certificates that persons were competent to practise midwifery, might not other combinations of medical men give certificates that they had examined persons in surgery and medicine, and certify that those persons were fit and competent to practise those branches? Dr. Rentoul appealed to the Council to put a stop to a practice on the supposition that it was detrimental to the profession and the public that those persons should be authorised to practise only one branch out of three which the law said they should be instructed in, but he forgot that the duty of the Council was only to see that such persons were not entered upon the Medical Register. If the Council were guilty of permitting any one of those persons to enter the Medical Register, then there would be cause for complaint. In the meantime, however, Dr. Rentoul entreated the Council to consider the question of the propriety of any body such as the London Obstetrical Society issuing certificates in the form of diplomas stating that it had examined and certified certain women as fit to practise midwifery. If the certificate could be so altered as to show that the women had been educated and examined and were certified to be capable obstetric nurses then he (Mr. Wheelhouse) thought the whole question would subside at once. He moved that the memorial be printed in the minutes of the Council.

Dr. ATHILL seconded the motion.

Sir WILLIAM TURNER pointed out what he regarded as a

fundamental error in Dr. Rentoul's case. The certificates in question had no legal value; they were simply an expression of opinion on the part of one or more individuals.

After some further discussion, the motion was agreed to.

#### *Application for Restoration.*

Mr. DAVID HYMAN DYTE petitioned for restoration to the Medical Register, from which he was removed in May of the present year. The Executive Committee recommended the Council to grant the petition; but after considering the matter in private for some time the Council decided not to do so.

#### *The University of Bombay.*

The Executive Committee reported that an Order in Council applying Part II. of the Medical Act (1886) to India having been received from the Privy Council Office, they had considered an application from the University of Bombay requesting the recognition of the degrees in Medicine and Surgery of that University and their registration in the Colonial Register, under Section 13 of the Medical Act (1886), and on Nov. 21st, 1892, passed the following resolution, viz.: "(1) That this application be acceded to so far as appertains to graduates of the University of Bombay who commenced the study of Medicine prior to Jan. 1st, 1892, but that the Executive Committee would call the attention of the University of Bombay to the recent regulations of the General Medical Council, which require that candidates who commence the study of Medicine after the above date should be engaged in professional study for five years; (2) that the recognition of these degrees of the University of Bombay be reported to the General Council."

Dr. HAUGHTON protested against the recognition of these degrees.

Mr. BRUDENELL CARTER asked the registrar whether in this matter the Executive Committee had not done something which was well within their powers.

Mr. MILLER replied that certainly this was the case. By resolution of the Council the Executive Committee were empowered to take the necessary steps for carrying into effect the clauses of the Medical Act of 1886 relating to the registration of the diplomas of colonial and foreign practitioners, and were instructed to report their proceedings to the Council from time to time.

Dr. HAUGHTON: Then all I have to say is that this Council has entrusted to the Executive Committee a task which they are incompetent to discharge.

#### *Covering by Dentists.*

The next business was a report by Mr. F. W. FARRER, the solicitor of the Council, with reference to the statement submitted to the Executive Committee by the British Dental Association. Mr. Farrer explained in this report that the statement of the Association mentioned fourteen cases of covering by dentists of such a character as would, if proved against a medical practitioner, involve the removal of his name from the Register. It seemed to him to be as much the duty of the Council to protect the public in the matter of dentistry as in that of medical practice. The Executive Committee would, however, recollect with what care the Council proceeded in the case of medical practitioners, what years of warning it gave them, how it promulgated a minute upon the subject and took the utmost pains to convey the minute to every medical practitioner, and how several cases were tried and practitioners warned before any name was taken off the Medical Register for the offence of covering. He would advise the Council to issue a similar warning to dentists, and to cause such warning to be conveyed to every dentist on the register through the British Dental Association, who had expressed their readiness to undertake the task. Looking to the position of a very large number of dentists and to the mode in which they had been in the habit of practising, he thought that covering in their case should be dealt with even more cautiously, if possible, than it was dealt with in the case of practitioners on the General Medical Register.

Sir W. FOSTER moved that the solicitor be directed to prepare a draft warning to registered dentists against the employment of unqualified assistants analogous to that given to registered medical practitioners on April 21st, 1888, and that the draft warning be submitted to the Council. The duty of the Council, he said, was to give all the help they could to the dental profession in putting down what was an illegal and undesirable practice.

Dr. GLOVER, in seconding the motion, said he was very glad that the Council had come to see the propriety of

extending the same principle as to covering to the dental profession as they had extended to the medical practitioner.

The motion was agreed to, and it was arranged that the draft warning should be submitted to the Council before the close of the present meeting.

#### *Proposed Amendment of the Standing Orders.*

A long discussion took place with reference to an amendment of the Standing Orders proposed by Dr. BATTY TURK. The amendment was framed with a view to meet a difficulty which arose some time ago in Edinburgh in connexion with the withdrawal of a qualification. The discussion resulted in a reference of the whole question to the Executive Committee for consideration and report during the present meeting.

The Council then adjourned.

WEDNESDAY, NOV. 23RD.

The Council resumed, Sir Richard Quain, M.D., President, in the chair.

#### *Medical Aid Associations.*

A communication in regard to Medical Aid Associations from the Wolverhampton Friendly Societies' Medical Association, calling in question the statements made by the Medical Defence Union and submitting a copy of their balance-sheet, and a memorial from Mr. W. R. Barclay, M.B., C.M. Aberd., in regard to the action of the Medical Aid Associations in Northampton, were referred to the special committee appointed on the previous day to inquire into and report on the subject.

#### *Dublin University Medical Examiners.*

Dr. HAUGHTON moved: "That, inasmuch as the reply of the medical examiners of the University of Dublin to the report of the visitor and inspector of the Medical Council (May-June, 1892) is already in the hands of the Registrar, it shall be considered at the present session of the Council." He was there, he said, to support a very important principle—a principle which had been recently violated by the friends of Sir Walter Foster, who was to second the motion—by first condemning a party and proceeding afterwards to inquire into the case. The principle was much older than Mr. Morley or his master, Mr. Gladstone, because it went back to the time of Rhadamanthus—an authority which even this Medical Council could not refuse to accept and acknowledge. Was this Council prepared to adopt the highly judicial authority of Rhadamanthus and say that, the University of Dublin medical examiners having been put on their trial, their reply was not to be considered? There was a principle of fairplay involved in the matter, and it was but fair and right that the report and the reply to it should be considered now and not postponed until some of them, including himself, were lying in their happy graves.

Sir W. FOSTER, M.P., seconded.

Dr. HERON WATSON doubted whether the Council was at present in a position to do what Dr. Haughton asked.

Mr. MACNAMARA supported the motion.

The debate was adjourned in order to proceed with the penal cases.

#### *The Case of Dr. W. Maunsell Collins.*

The next business was the consideration of the case of William Maunsell Collins (registered as M.D., Mast. Surg., 1866, Q. Univ. Irel.), who had been summoned to answer a charge of having been convicted of a felony. Dr. Collins appeared along with his counsel and solicitor respectively, Mr. C. F. Gill and Mr. Arthur Newton.

Mr. FARRER, solicitor of the Council, explained that on June 27th last, at the Central Criminal Court, Dr. Collins was convicted of forging a promissory note for £1500, and on the 25th of the following month he was ordered to enter into his own recognisances in the sum of £200 to appear and hear judgment when called upon.

Mr. GILL said that Dr. Collins submitted himself to the judgment of the Council as to whether they should think it right, in the discharge of their duty, to erase his name from the Medical Register. The Act of Parliament, he might remind the Council, made it entirely a matter of discretion whether they did so or not. There were many instances where this kind of discretion had to be exercised by other bodies. There were cases where persons who had earned pensions in the army or navy were charged with criminal offences and convicted of them, and it was a matter of discretion for the Treasury authorities whether the pensions should be forfeited. Council then proceeded to detail the circumstances in which Dr. Collins committed the offence,

and in conclusion appealed to the Council not to judge him more harshly than the Court before which he had appeared. After conferring in private the Council determined to direct the Registrar to remove the name of Dr. Collins from the Medical Register.

*The Council and the Registrar-General.*

Mr. FARRER informed the Council that other cases of complaint than those which appeared on the paper had been put before the President during the past six months, but inasmuch as they mainly turned upon certificates of death and irregularities in giving them, it was thought by the Executive Committee of the Council that such cases were properly the business of the Registrar-General, whose office it was to protect his Acts; and by the direction of the President he (Mr. Farrer) had prepared a draft letter, which would be considered hereafter by the President, to point out that if the Registration Acts were not complete, the Council would gladly join the Registrar-General in any representation to the Home Office to make them satisfactory.

Sir WILLIAM TURNER explained that the Scottish Branch Council had had sent to them two letters from the Registrar-General for Scotland upon this matter. The Branch Council would meet to-morrow, and they must reply to the Registrar-General for Scotland, and it would be a great convenience to them if Mr. Farrer could give them some idea of the form of the letter which he proposed to address to the Registrar-General for England, because they might be able to utilise it in their answer to the Registrar-General for Scotland.

Mr. FARRER agreed to produce the draft letter.

The PRESIDENT said there could not be any subject of more importance than this, because the Registrar-General rather wanted to avoid doing his duty. Well, he did not do his duty in prosecuting certain people who had subjected themselves to penal consequences.

Mr. FARRER said the Council must not say that the Registrar-General did not do his duty because he did not see his way to take proceedings in cases where they might think he should. The Registrar-General did his duty to the best of his ability, but he (Mr. Farrer) did not want the Council to do the duty which properly fell upon the Registrar-General.

*The Case of Mr. Stephen Francis Smith.*

The Council then proceeded to consider the case of Mr. Stephen Francis Smith (registered as L.S.A. Lond., 1884), who was summoned to appear on a charge of having been convicted of giving a false certificate of death and also on a charge of covering an unqualified medical practitioner. Mr. Shultess Young, barrister, appeared for Mr. Smith, and Dr. Bateman for the Medical Defence Union.

Mr. FARRER stated that Mr. Smith was convicted at the North London Police-court for having in July last, at Seven Sisters-road, made a false certificate concerning the death of Caroline Coxford and fined £10 and costs. Information and evidence had been also laid before the Council by which the defendant was charged with having been guilty of infamous conduct in a professional respect, particulars of which alleged conduct were as follows:—"That he had habitually acted as cover to an unqualified medical practitioner named C. A. Smith, permitting and enabling him to practise as if he were duly qualified, and signing medical certificates in cases attended by the said C. A. Smith and not attended by him."

Mr. YOUNG, on behalf of Mr. Smith, elected to have both parts of the charge gone into together.

Dr. BATEMAN then called attention to the evidence which had been given at the police-court when Mr. Smith was convicted of making a false certificate of death, with the object of establishing the second part of the charge. The points he wished to bring most before the Council were—first, that the defendant lived in Woodford, Essex, and that the unqualified practitioner lived in Seven Sisters-road—a distance of some miles—and that the house in that road was taken and rated in the name of C. A. Smith, the unqualified practitioner. The only defence which could possibly be urged in Mr. Smith's favour was that he happened to be out on this occasion to an urgent midwifery case. The evidence of the Coxfords clearly proved that they had never heard of S. F. Smith nor seen him at their house before their mother's death, and that they had no idea that C. A. Smith, who attended them as the assistant of a deceased uncle of the defendant, was not a qualified man and would not be able to give them a certificate of death.

Mr. YOUNG called the defendant, who stated that he had practised in Seven Sisters-road and the neighbourhood since June, 1889, when he started in practice afresh. A year and a half later he became assistant to his father, whose surgery was at Stratford. He had days and hours of consultation at Seven Sisters-road. His unqualified assistant there was about fifty years of age, and had been assistant for about ten years previously to another medical man there. He was called in by the Coxfords on July 25th, and on the following day, finding the patient very ill, he telegraphed to witness at Stratford, where he had been called to a midwifery case. He telegraphed to his assistant to call in Mr. Herring, a local practitioner, and went himself to Coxford's as soon as he could get away from the midwifery case. When he arrived the woman had been dead twenty minutes. He was paid his bill by the friends of the deceased, and he paid Mr. Herring his fee. From what he heard he was quite satisfied as to the cause of death, and no doubt had been thrown upon the cause of death as stated. His assistant was not with him now.

In reply to Dr. Bateman, Mr. SMITH said the person whom his assistant was with ten years before he took the practice was his (witness's) uncle, who died in 1889.

Mr. W. ROBERT SMITH, a Member of the College of Physicians and Surgeons (Canada) and L.S.A. London, father of the defendant, and Mr. HERRING were examined in corroboration of defendant's statement. The latter stated that he had never been called in before by Mr. Smith. He should have been inclined to sign the certificate in this case.

Dr. BATEMAN: Do I understand you to say you would sign a certificate of the death of a patient whom you had only seen in an unconscious condition, being taken there by an unqualified practitioner?

Mr. HERRING: Yes.

In reply to questions by the members of the Council, Mr. SMITH said the unqualified assistant's name never in any way appeared on the house nor on the accounts sent out. The name of the unqualified assistant appeared in the local directory as that of a medical man, but it was unknown to them both; and the information must have been given by the servant to a man who came round in connexion with the directory. He (Mr. S. Smith) rented a few rooms at the house in Seven Sisters-road for the practice, but the rest of the house was occupied by C. A. Smith, who was a married man and was rated for the premises. There was no partnership between them. The assistant received a salary of £150 a year, and the total receipts were about £400. He (Mr. Smith) was still registered as at Woodford, Essex, his father's house.

Mr. MUIR MACKENZIE: Have you any explanation to offer of your signing a certificate of the death of a patient whom you had not seen?

Mr. SMITH: I saw the deceased late at night, and the friends asked for a certificate to be sent on that night. I went home and signed it. I considered when I signed it that as the patient was a patient in my practice I was the proper person to sign it.

Mr. YOUNG then addressed the Council on behalf of his client, who he contended had not been guilty of such serious misconduct as would induce them to remove his name from the Register. His act was no doubt one of reprehensible carelessness, but not an act of infamous conduct demanding the censure of the Council, still less the removal of his name from the roll. With regard to the employment of unqualified assistants, he saw them advertised for every week in THE LANCET, and if it was an illegal thing to employ them he hoped the medical profession would very soon be made aware of the fact by an authoritative statement from the Council. Meanwhile it would be most unfair and unkind if this man was to be made the first victim of this new idea which had come over the medical world.

Replying to Sir John Simon, Mr. YOUNG said it was certainly not conceded that C. A. Smith, the unqualified assistant, was habitually treating patients without the supervision of Mr. Smith.

The Council deliberated in private, and when the public were readmitted,

The PRESIDENT informed Mr. Smith that the Council had decided not to remove his name from the register, but at the same time they cautioned him to be more careful in his relationship to assistants in future, and particularly in regard to giving death certificates.

The Council then adjourned.

THURSDAY, NOV. 24TH.

The Council resumed their meeting, Sir Richard Quain taking the chair.

*The Case of Mr. Stephen Francois Smith.*

The PRESIDENT said there had been some complaint that he had not censured Mr. Smith. He wished to explain that he had no authority under the law to censure. That question had been raised before. The Council might remove a man's name from the Register, and it might caution him, but it could not censure him.

*The Dublin University Examinations.*

The Council resumed consideration of the motion proposed by Dr. Haughton and seconded by Sir Walter Foster, to the following effect—viz.: "That, inasmuch as the reply of the medical examiners of the University of Dublin to the report of the visitor and inspector of the Medical Council (May-June, 1892) is already in the hands of the Registrar, it shall be considered at the present session of the Council."

Mr. MACNAMARA said he was strongly of opinion that the report with reference to the University of Dublin should be taken into consideration. He would be met at once with the objection that it had not gone to the Examination Committee, but he could not for the life of him say what light the committee could throw upon the question. The report of the visitor and inspector was in the hands of the Council, and so also were the answers of the examiners. It was proposed to postpone the matter, and from experience he judged that to mean until the Greek Kalends. He had the honour of being a visitor, and he had with him the report made on that occasion (1886) by the visitors upon a certain university. He would like to ask the chairman of the business committee what action had been taken by the Council upon the report. It had been shelved. He could not willingly submit to the censure that had been made in the report on the examinations of the University of Dublin. He would not allow that censure to go to the medical world without one word of reply or one expression of opinion of this Council on the merits of the case. They were always very fond in Ireland of speaking of the sense of justice that actuated the English mind, and what he asked for now was fair play.

Sir WILLIAM TURNER said the Council was not in a position to discuss this matter. He would like to put it to Dr. Haughton whether the Council should discuss the report of the inspector and visitor without having before it the answer of the University of Dublin.

Dr. HAUGHTON said the answer was in the Registrar's pocket.

Sir WILLIAM TURNER said his point was that the answer was not in the hands of the Council.

Dr. HAUGHTON promised the Council that it would find the answer very interesting.

Sir WILLIAM TURNER said he had no doubt upon that point, but neither the Council nor the Examination Committee had seen the report. It was a mistake on the part of Mr. Macnamara to speak of the report in question going out to the medical world. The report was a confidential document.

Sir WALTER FOSTER said he had seldom heard a more extraordinary argument than that advanced by Sir William Turner. It was an argument that would be worthy of an official grown grey in the Circumlocution Office. His position was that the Council must not discuss a matter of public interest because, forsooth! the Council had not taken the trouble to look at a document in its possession. It was the fault of the Council if it were not acquainted with the document. He protested against this method of meeting a grave resolution like the one before the Council. He wanted the reports of the inspector and visitor considered by the Council from time to time as they were delivered. If they were to have anything like effective criticism of the reports, they must consider them in detail and not *en masse*. His wish was to have the reports considered *seriatim*, a method of treatment which would be effective and save much valuable time. He hoped that if the Council did not accept the resolution in the exact form proposed it would, at all events, resolve that at the next session this report should be considered, together with any other reports that the inspector had already made.

Sir DYCE DUCKWORTH, as Chairman of the Examination Committee, objected to these reports being constantly in the boiling pot.

Dr. BATTY TUKE moved as an amendment, "That in the opinion of the Council it is inexpedient to take into consideration the reports of the inspector and visitors of examinations until the visitation of the final examination is completed." If each report were considered separately it would lead to great waste of time, for the old battles would be fought over and over again.

Dr. HERON WATSON seconded the amendment, saying that in his opinion it would be wrong on the part of the Council to discuss this particular report until it had the matter fully before it, and especially until it had the report of the Examination Committee.

Dr. ATTHILL thought the amendment raised a question altogether apart from that of the motion.

Sir WILLIAM TURNER proposed as an amendment, "That in the opinion of the Council it is inexpedient to take into consideration the reports of the inspector and visitors of examinations until the report of the Examination Committee on these inspections has been received." He must repudiate the reflection upon his public conduct made by Sir Walter Foster. He would not submit to it without a protest. He wished to ask the Council why an examination committee had been appointed, why the Council had solemnly some years ago appointed an examination committee and an education committee? They were appointed to receive the reports, and, after having carefully considered them and analysed them, to present to the Council what might be described as a fair judgment upon the reports and the answers given by the bodies inspected. It would be entirely out of place for this Council to take up the report upon the University of Dublin or any other examining body, even if the answer were before it, which it was not in this instance, when the Examination Committee had not seen and analysed the report.

Sir WALTER FOSTER said that Sir W. Turner had confused the remarks he made. They were a criticism of his arguments, not of him personally, and he had not drawn the distinction which he thought he might have drawn in the interest of the courtesies of debate.

Mr. BRUDENELL CARTER thought that it would be practically abolishing the Examination Committee if the Council proceeded to discuss this matter without their report.

Sir DYCE DUCKWORTH said that his idea as Chairman of the Examination Committee was that they should not consider the reports piecemeal, but wait until they were all in.

Mr. TEALE moved as a further amendment, "That so many of the reports of the inspector and visitors as shall be in the hands of the Council, with the answers of the bodies affected before the May meeting, along with the reports of the Examination Committee thereupon, be then considered by the Council."

Dr. GLOVER seconded this amendment.

Dr. BATTY TUKE amended his amendment to the following form—viz.: "After the reports of the Examination Committee on the reports of the inspector and visitors of examinations and the answers of the authorities inspected or visited have been laid before the Council, the Examination Committee is requested to report on the inspections from time to time as they are sent in."

Dr. HAUGHTON wound up the discussion with a short reply.

Dr. Batty Tuke's amendment was lost by three votes, while Mr. Teale's was carried.

On Mr. Teale's amendment being put as a substantive motion,

Sir JOHN SIMON expressed doubt as to whether the Council should adopt it without reference to the Examination Committee.

Sir DYCE DUCKWORTH said he would be prepared to bring forward a motion on the subject on the following day.

Dr. MACALISTER, seconded by Mr. BRUDENELL CARTER, moved, "That the reports of the visitor and inspectors of the final examinations, together with any remarks made by the examining bodies thereupon, be referred as they come in to the Examination Committee, and that the committee be requested to report to the Council at the May session on such of the final examinations as have been visited or inspected prior to the end of March, 1893."

Mr. TEALE said he would be happy to accept this motion in place of his own.

The Council took the same view and adopted Dr. Macalister's motion.

*Direct Representatives.*

Sir W. FOSTER moved: "That in the opinion of this Council the number of direct representatives on the General

Medical Council should be increased, in order to give the registered practitioners resident in England and Wales a representation on the Council in proportion to their numbers, as compared with the representation given to the practitioners resident in Scotland and in Ireland." At the outset he asked the Registrar whether he had received from the medical profession or any other bodies interested in this Council any representation in favour of an increase in the direct representatives.

Mr. MILLER said he had received none since the motion was made last year.

Sir W. FOSTER was sorry to hear that, and thought he might attribute it to the attitude of the Council towards his motion when it was rejected last year, and not to any diminution on the part of the profession in the earnestness of their desire to have an increased voice upon the body which governed the affairs of the profession. Since he last moved the motion there had been an election of direct representatives, in which there were certain incidents which he thought were unsatisfactory, and which pointed to a certain amount of apathy on the part of the profession with reference to their representation on the Council. Compared with the previous election there was a grievous falling off in the active interest taken in the election; and that, he thought, was not a healthy state of things. In 1886 74.1 returned their voting papers, whereas in 1891 only 68.3 made the return, and in neither case was the poll as heavy in this educated profession as it would be in any manufacturing or rural constituency for a representative in Parliament. He did not think that was creditable to the profession. Others might draw the inference from this that the medical profession was perfectly satisfied with the present direct representatives, and did not take the trouble to vote for those it had. That, however, was a reflection on the profession which he did not wish to cast. But he did not think it satisfactory that in 1886 25 per cent. of the papers in England and Wales were not returned, and in 1891, 38 per cent. In Ireland 41.5 per cent. were returned, and in Scotland there was no contest. He hoped when future opportunities occurred that the profession would take a much more vivid interest in electing its direct representatives. He had altered the form of his resolution from that of last year, limiting it to England. He placed his argument to-day on the numerical basis, and that basis was the disproportion of the representation of England and Wales as compared with Ireland and Scotland. Taking the Medical Directory he found there were 19,319 practitioners in England and Wales. There were three direct representatives—Dr. Glover, Mr. Wheelhouse and himself—and that gave one representative to every 6528 registered practitioners. On the other hand, he found that Dr. Kidd came there representing 2445 practitioners, and that 2850 practitioners in Scotland had as much power there as 6528 practitioners of England and Wales. He did not say that Scotland or Ireland had too much power; he wanted England to have more power in the Council in proportion to the greater number of practitioners resident in this division of the United Kingdom. If the same proportion were observed in regard to England as to Scotland and Ireland, England would have some eight direct representatives having regard to the Irish representation and seven having regard to that of Scotland. The Act of 1886 empowered them to carry this claim into effect, and if the Council were to make a representation to the Privy Council he had no doubt the latter body would give its sanction to additional representation. If that were not done, the position became difficult. The profession, if they were in earnest about the matter, could raise the question in many ways. They could raise it in the House of Commons and by approaching the Privy Council directly. The Medical Council was now asked to assist to remedy an injustice, and he thought it would be wise, expedient and, on all grounds, morally right and righteous if the Council would recognise the disparity and take steps to remedy it. If they did not, they put themselves in the position of refusing an appeal to their sense of justice.

Mr. WHEELHOUSE seconded the motion.

Mr. TEBALD: Does Sir Walter Foster propose also that there should be an increase in the Crown representatives to represent the public?

Sir W. FOSTER: I have no objection—I am not a Crown member.

Dr. GLOVER said that as this discussion had arisen, and as Sir W. Foster had spoken with very sweet reasonableness on the matter, he begged to support it. The great argument had

been well stated by him—namely, the great disproportion between the direct representation of England and that of Scotland and Ireland. He (Dr. Glover) called on the members of the Council, and that strong sense of justice which they possessed to consider this disproportion and the desirability of remedying it. There was another reason why he thought this proposal was a reasonable one. No observant member of the Council could fail to see that every successive meeting of this Council brought before it a number of questions very deeply affecting medical practice and medical practitioners in this country, especially, he might say, general practitioners. Considering both these reasons, it would be a mere act of justice on the part of the Council to sanction the very modest proposal of Sir W. Foster and so terminate this discussion, which would be a recurring one if not settled, and which would be raised in other quarters.

Sir JOHN SIMON said that not having the honour of being a direct representative, he did not know what the exigencies of that position might be, but if it involved the bringing before this Council of a motion of this character, he did not envy the occupant. He could hardly believe from his experience of the sagacity of Sir W. Foster that he was not quite conscious of the utter fallacy of his argument. His argument rested altogether on a numerical hypothesis. What reason was there to suppose that a numerical hypothesis was contemplated in the constitution of this Council?

Sir W. FOSTER said he explained a third member for England under the Act of 1886 on the ground of the number of practitioners living in that country.

Sir J. SIMON believed that never in the annals of Parliament was a Bill passed under less creditable circumstances than the Medical Act of 1886, and he believed if Sir W. Foster had asked for more he would have got it. He (Sir John Simon) absolutely denied that the numerical principle was recognised in the constitution of this Council. They had suffered disadvantage from their present numbers, and no one could pretend to say that it would be for the advantage of the transaction of their business that their membership should be increased beyond thirty. He could hardly suppose that Sir W. Foster could seriously propose to secure his object by getting rid of Dr. Kidd and Dr. Bruce. The proposal seemed to him quite unreasonable, and he repeated the remonstrance he made last year—that the time of the Council should be taken up with the consideration of the question.

Dr. PETTIGREW did not think that Sir W. Foster had made out any case, and maintained that the numerical idea was utterly absurd.

Dr. WILKS submitted that the numerical basis was entirely wrong, and moved the previous question.

Sir W. FOSTER: That deprives me of my right of reply.

Dr. GLOVER appealed to Dr. Wilks to give way.

Sir W. FOSTER also appealed to Dr. Wilks, who, however, did not give way.

In accordance with the standing order the Council at once voted, when it was decided by 16 to 8 to pass to the next order. At the request of Sir W. Foster the names of the members were taken.

#### *The Punishment of Defaulters.*

Mr. BRYANT had the following notice of motion on the paper:—"That no person who has been removed from the Medical Register by the Council under one of the penal clauses of the Medical Act of 1858, Secs. 28-29, should be restored under two years." He said he had been induced to place it on the minutes because he had felt in common with many members the inconvenience of constant attempts on the part of those who had been removed from the Register to be restored to it after the lapse of only a few months. It seemed to him it was very desirable that they should allow the profession to understand that they looked very seriously upon offences of that kind, and did not mean to trifle with them at all; and that they should for the future let every man feel that there was no possibility of success in appealing to the kind feeling of the Council to be restored before a certain period of time elapsed. It seemed to him, if they were serious in this matter, that two years was not too long a period. He was told by their solicitor that it would not be wise for them to put such a resolution upon their records; but if not, surely there could be no possible objection to their giving some kind of instruction to the Registrar, so that when anyone applied at the office to know whether there was any prospect of his being restored, the Registrar might be empowered to say that not

until the lapse of two years would it be expedient for him to make the attempt. He moved, instead of the motion on the paper, "That it be an instruction to the Registrar that no application on the part of a person who has been removed from the Medical Register by the Council under one of the penal clauses of the Medical Act of 1858, Clauses 28 and 29, be entertained under two years."

The PRESIDENT said the solicitor told him yesterday that the proposal on the paper was one virtually passing sentence before they tried a man. He said there were many different degrees of offence, and he did not think they could pass any such resolution.

Dr. MOORE did not think they should pass such a resolution.

Sir W. FOSTER appealed to Mr. Bryant to withdraw the motion, not, however, because he considered it in any way too severe, but because the Council showed on some occasions, he was sorry to say, a weakness in dealing with these offenders. If Mr. Bryant had said one year he thought it would be eminently judicious, but he thought two years too long.

Dr. BRUCE suggested as an amendment that the limit of the suspension should be until the name had ceased to appear in at least one issue of the Medical Register.

After a brief discussion, in which the general feeling seemed to be against both proposal and amendment,

Mr. BRYANT withdrew his resolution and the subject dropped.

#### *The Restoration of Diplomas.*

Dr. GLOVER moved: "That Mr. Muir Mackenzie's opinion be taken on the following question—viz.: Have the bodies the right to withhold the qualifications of a registered practitioner whose diplomas have been withdrawn from them only on the action of the Medical Council and in cases where the Council has ordered the restoration of the name to the Register? If they have—Has the Council the power to restore the name of a practitioner all of whose qualifications have been withdrawn?"

Mr. TBALE seconded the motion.

Sir WILLIAM TURNER thought it beyond the power of Mr. Muir Mackenzie to answer the second question.

Mr. BRUDENELL CARTER said, with regard to the Society of Apothecaries, that it certainly had the power to withdraw its licence from a licentiate, but it had no power of reinstatement.

Mr. BRYANT explained that the College of Surgeons had this power.

Dr. ATTHILL said the first question, in his opinion, was impracticable. He did not think Mr. Muir Mackenzie would undertake such a task or that the licensing corporations would cooperate with him in what would after all be an inquisitorial inquiry. He moved the omission of the first question.

Dr. HERON WATSON pointed out that the Scotch corporations were not likely to accept the opinion of an English barrister on a matter of this kind.

Dr. GLOVER asked leave to withdraw the first question.

The Council agreed to this.

After some discussion the second question was accepted by the Council in the following form—viz.: "In the event of the name of any practitioner being expunged from the Medical Register by direction of the Council, and of his qualifications being afterwards withdrawn by the examining bodies which granted them, has the Council any power to restore the name to the Register, and if so, under what description as regards qualification?"

#### *The Midwifery Question.*

Sir WILLIAM TURNER moved: "That the Registrar be requested to inform Dr. Rentoul that the certificates referred to in his memorial are neither licences nor diplomas within the meaning of the Medical Acts, and possess no legal value. The Council would also point out that, whilst the certificate granted to women might express that the holder had been trained as a practical midwife, it yet gives no legal qualification to practise." He could not help thinking that Dr. Rentoul failed to appreciate the true position of these certificates. As a matter of fact, they were mere expressions of opinion by certain persons who had taught midwives and examined them. They had no legal value whatsoever.

Mr. WHEELHOUSE seconded the motion. No matter what the wording of the certificates might be, there was a strong feeling among many members of the profession that these people believed themselves to be in the possession of a diploma which enabled them to practise midwifery.

After further discussion, the first part of the motion was agreed to.

The second part was afterwards adopted in the following form—namely: "That the President be requested by the General Medical Council to point out to the institutions and persons who grant such certificates that the certificates should be expressed in such a form as not to lead to the impression that it is a legal qualification to practise midwifery."

#### *"Covering" by Dentists.*

The Council next proceeded to deal with the following draft warning to registered dentists against the employment of unqualified assistants, prepared by the solicitor:—

"Any registered dentist practising for gain who knowingly and willfully deposes a person not registered or qualified to be registered under the Dentists Act, of professionally treating on his behalf in any matter requiring professional discretion or skill any person requiring operations in dentistry of a surgical character, will be liable to be treated as having been guilty of infamous or disgraceful conduct in a professional respect, and to have his name erased from the Dentists' Register."

Sir W. FOSTER moved that the draft warning, which he presumed was in the best legal form, be adopted.

Mr. WHEELHOUSE seconded and the motion was agreed to.

Dr. GLOVER wished to know how this warning was to be put into the hands of the dental profession. They were constantly met in the case of medical offenders by the plea of ignorance. He suggested that a copy of the warning be sent to every person on the Dental Register from this Council.

Sir W. FOSTER said this came before the Executive Committee in consequence of action by the Dental Association, who offered to circulate any warning of this kind among their members. He objected to that course as unworthy of the Council. He did not think they should rely on any private body doing that kind of work for them. He was informed that the method adopted when the warning was issued to the medical profession was to publish the warning in the minutes and advertise it in the medical journals. But they were constantly met by the plea on the part of accused parties that they were not aware of an offence until they were accused. He moved that this warning be issued from the office of the Council to every gentleman whose name appeared on the Dental Register.

Dr. GLOVER seconded the motion. It would not cost much, and then there would be no excuse for ignorance.

Sir W. TURNER thought the dentists would have not the least reason to complain if the course adopted in regard to the medical profession were followed in their case.

The REGISTRAR pointed out that the Dental Association undertook to forward any warning adopted by the Council to the persons on their Register whom it more immediately concerned.

The Council, by 16 votes to 4, adopted Sir W. Foster's motion.

The PRESIDENT: It has been carried that this is to be done from the office here. I confess I think that it is a very great mistake.

The Council adjourned.

## Pharmacology and Therapeutics.

### CARDIO-VASCULAR ACTION OF THEOBROMINE AND CAFFEINE.

Dr. COHNSTEIN, who has been working in Professor von Schröder's laboratory at Heidelberg on the effects of theobromine, caffeine and other similar substances on arterial pressure, confirms the views of Wagner, von Schröder and Binz as to the power of caffeine, or trimethylxanthin as it is chemically named, to raise the blood pressure, this being due to stimulation of the vaso-motor centre. At the same time it exerts a direct influence on the heart, as may be inferred from the alteration observed in the pulse, not merely as to its frequency but as to its hardness and the length of the pulse wave. Theobromine was recommended by von Schröder and Gram as a valuable diuretic, but the clinical observations of Hoffmann, Geisler and others caused this to be disputed, as it was believed by some that the undoubted hydragogue effect of theobromine was the result of direct renal irritation. Others, however, referred the diuresis to the effect on the heart and vessels. Dr. Cohnstein, whose experiments were carried out on dogs and rabbits, is

inclined to conclude that the diuretic effect of the drug is to be traced to a direct stimulation of the kidneys and to consider the improvement in the blood pressure, and therefore of the pulse, as secondary effects resulting from the improvement in the circulation which naturally follows the disappearance of œdema. Other xanthin compounds were studied, but the only one which can be said to have at present any practical interest is œthoxycaffeine, which has been recommended by Dujardin-Beaumez and others in migraine.

#### A NEW REMEDY FOR GONORRHOEA.

Dr. Alejandro Infante, a military medical officer, communicates to the *Revista Médica de Chile* an account of several cases of gonorrhœa and gleet which had proved rebellious to ordinary methods of treatment, but had been rapidly cured by the internal use of the fluid extract of a plant, the *Aplopappus llaeta*, which, like many other species which yield resins, belongs to the division *tubulifera* or *cynarocephala* of the order *Compositæ*. A fluid extract was prepared and this was made into a mixture with water in the proportion of from 2 to 5 per cent. In the chronic cases two or three tablespoonfuls were ordered daily. In a very acute case, where the urethra was almost impervious, a tablespoonful of a 1 per cent. mixture was ordered, at first every hour, and subsequently in less frequent doses of a stronger mixture.

#### TREATMENT OF LUPUS.

Encouraged by the accounts of satisfactory results obtained by Lannelongue, Augagneur, Dubois,<sup>1</sup> and other French surgeons in tuberculous diseases of bone by means of injections of sulphate of zinc, Dr. J. J. Fedoroff of the Borntskovski District Hospital has employed the same treatment for lupus with excellent results. He publishes two cases in the *Vraoh*, No. 27, in both of which the disease was of long standing. His plan was before injecting to shut off the affected locality from the general circulation by compress bandages, and to induce local anæsthesia with cocaine. A 10 per cent. solution of sulphate of zinc was used, about eight minims being introduced at each puncture. From two to four punctures were made around each ulcer, the point of the needle being directed under the base. About the third day the circumference became red and swollen; the next day necrosed tissue appeared on the base of the sore, which came away three or four days later, revealing a healthy granulating surface, and in from a fortnight to three weeks cicatrization was completed. In the cases thus treated there were several sores, and these were not all treated at the same time, it being considered inadvisable to make more than ten punctures at one sitting. None of the ulcers required any renewal of the treatment. If cocaine was not employed a severe burning pain was produced by the injections. With cocaine this was very much lessened. The after treatment consisted simply in a glycerine dressing. There was never any rise of temperature.

#### PROPHYLAXIS AND TREATMENT OF YELLOW FEVER.

Dr. Carlos Finlay of Havana, having in view the experimental researches of several European observers on the possibility of rendering animals insusceptible to the infection of diphtheria and tetanus by means of injections of the blood serum of animals which are naturally insusceptible to these diseases or which have been artificially made so, has proposed to apply a somewhat similar treatment to human beings in order to render them insusceptible to yellow fever, and even to act as a therapeutic measure in cases where this disease has already made its appearance. Of course it must be remembered that yellow fever presents many points of divergence from most other endemic and epidemic diseases. No definite bacteriological cause has been made out, and if there be a microbe it exists in some part of the body not yet determined, and there produces toxins which, being absorbed by the body, set up the disturbance which is characterised by the peculiar symptoms of yellow fever. Again, natives of localities where the disease is endemic enjoy immunity, also those who have resided in such localities for many years, but this immunity is destroyed by a prolonged absence, so that it is probable that whatever it is that confers immunity must be repeatedly introduced into the system. Dr. Finlay suggests that blood serum from acclimatised, that is to say, from insusceptible, persons might be expected to confer immunity if injected in a minute quantity into the system of persons newly arrived in countries where yellow fever prevails, and that probably a much larger quantity might act as a remedy in cases where the attack had already commenced. There

are, of course, in Cuba plenty of insusceptible persons, but it would not be easy to find any who would allow a sufficient quantity of blood to be drawn for the purpose. He therefore proposes to make use of the serum obtained by means of blisters, which is almost identical with that obtained from the blood. He has been able to put this method in practice in only a single case, but in this the results were encouraging; and as the procedure, if carried out with due antiseptic precautions, is perfectly harmless, there is no reason, he thinks, why it should not be given a fair trial. In the case alluded to Dr. Finlay, fearing on the second day that the attack would prove to be one of yellow fever, blistered his own forearm and obtained a few cubic centimetres of serum, which he preserved in sealed tubes. On the fifth day, the symptoms becoming pronounced, he injected half a cubic centimetre of the serum under the patient's shoulder. A very few hours later the nausea and the restlessness passed off and did not return; the temperature, too, sank, though this may have been due to doses of antipyrin. The albuminuria did not cease until the twelfth day, and the icteric tint was present up to the fifteenth; but the patient made a good recovery, the improvement certainly dating from a few hours after the injection of serum. It should be added that there was no soreness or induration at the seat of the puncture. Dr. Finlay's paper, which was read before the Havana Academy of Sciences on Aug. 14th, is published in the *Revista de Ciencias Médicas* of Aug. 20th.

#### THIOL v. ICHTHYOL IN GYNÆCOLOGY.

Dr. Stanislaus Kurtz, writing in the *Kronika Lekarsha*, gives several reasons founded on his own experience for preferring thiol to ichthyol in gynecological practice. The great reason probably why ichthyol has not become better known in this country as a valuable remedy in many skin and gynecological cases is its very disagreeable smell, which it is difficult to cover satisfactorily. Thiol, on the other hand, is odourless. Ichthyol, again, sometimes produces a smarting sensation when introduced into the vagina, from which disagreeable property thiol is free, and indeed it has a tendency to allay pain. Lastly, thiol stains are much more easily removed from linen than are those due to ichthyol. As to the therapeutic uses of thiol Dr. Kurtz has employed it both in hospital and private practice in endometritis after abortion, endocervicitis with erosions and in parametritis. He reports his experience in nineteen cases, in every one of which the results were satisfactory. He used a solution of from 10 to 20 per cent. for applying to the cervical canal either with a probe or by means of tampons impregnated with the solution. Effusions and solid exudations were rapidly resolved by means of thiol tampons in the vagina and these also allayed the pain complained of in the lumbar and pubic regions. In very long standing cases of pelvic exudations Gottschalk of Berlin has very successfully employed thiol tampons simultaneously with inunction of the same substance over the lower part of the abdomen; he also sometimes employs it internally.

#### TRIONAL AS A HYPNOTIC.

According to Dr. Böttiger of Halle trional is a particularly efficient and safe hypnotic. He has employed it in more than seventy cases of a mental and nervous character, and it very rarely produced giddiness, lassitude or any other disagreeable symptoms. Its action was generally manifested in about a quarter of an hour, fifteen grains being often, and thirty grains invariably, sufficient to induce sleep. Where the excitement was but slight the trional succeeded very well in quieting the patient and in inducing sleep, and even in cases of severe mental excitement several doses of fifteen grains each during the day acted so well as a sedative that hyoscine could be dispensed with. The only cases in which trional failed were those in which there was very severe neuralgia or where the mental and motor excitement was extreme, or in alcoholic patients. The drug was given at times by enemata, in the same doses as by the mouth, with equally satisfactory results.

#### MYRRHOLIN.

Dr. Kahn of Würzburg employs a solution of myrrh in an equal quantity of oil, under the name of "myrrholin," together with creosote, in laryngeal and pulmonary phthisis, finding that the myrrholin enables patients to bear the creosote far better than when the latter is given alone. He is not, however, as yet able to say whether the myrrholin exerts any direct action on the disease. He prescribes a mixture of 30 centigrammes of creosote with 20 centigrammes of myrrholin for a dose, to be taken in capsules. A cerate of

<sup>1</sup> Le Mercredi Médical, 18 Mai, 1892

myrrh has also proved very useful in eczema of the nostrils and in atrophic rhinitis, both simple and fetid. Pledgets of cotton wool impregnated with the cerate are passed into the nostril and allowed to remain ten or fifteen minutes.

## ROYAL BRITISH NURSES' ASSOCIATION.

### THE PETITION FOR A CHARTER.

THE Committee of the Privy Council appointed to consider the petition for a charter of incorporation made on behalf of the Royal British Nurses' Association met on Monday at the offices of the Privy Council in Downing-street. The Committee consists of the Marquis of Ripon, Lord Oxenbridge, Lord Hobhouse and Lord Hannen. Sir Horace Davey, Q.C., Mr. Muir Mackenzie, Q.C., and the Hon. W. H. Cross appeared for the petitioners, and Sir Richard Webster and Mr. L. S. Bristowe for the respondents, who are the governing bodies of training schools and hospitals in various parts of the country as well as the Council of the Nightingale Fund.

Sir Horace Davey, stating the case for the petitioners, explained that the Association was a purely charitable organisation. It did not seek profit, nor did it seek any compulsory powers. It was founded five years ago, its great object being to establish a register of nurses founded on the certificates of competency given by the training schools and hospitals. In no sense whatever did it seek to enter into competition with any of these institutions or to control their action. Its great aim was to save the public from being imposed upon by incompetent or inefficient nurses. By inefficient he meant, not only inefficient in skill, but inefficient in point of character. The Association did not pretend to train nurses. It did not pretend to do more than inquire into the competence and character of the persons applying for registration, and to state on the register the result of the inquiry. The registration was, of course, purely voluntary. There was no statutory provision that no one should have the right to call herself a nurse unless her name appeared on the register. The second object of the Association was to afford facilities for nurses exercising thrift and making provision for old age and for those accidents to which nurses were peculiarly exposed. The third object was to afford as much as could be facilities for rest and what might be called recreation. The nurse's life was exposed to great peril of sickness, and periods of rest and recreation were essential, and it was thought that this Association might supply a convalescent home for those who required it. Another object of the Association was to promote meetings, lectures and the like. Since its inauguration five years ago the Association had received a much larger measure of support than even its most sanguine friends expected. His information was to the effect that there were about 2700 nurses upon the register, published yearly by the Association. The importance of this figure would be appreciated when he informed their lordships that there were, according to estimate made, not by his clients, but by others, about 5000 trained nurses in the United Kingdom and about 15,000 women engaged in nursing. Their lordships had also to bear in mind that the Association had had the opposition of some of the principal hospitals and training schools, who had, from their point of view, done all they could to prevent their pupils and nurses entering on the register of the Association. In the circumstances of the case, he thought the Association had good reason to congratulate itself on the large number of nurses on its register. A great deal of the opposition to the Association had proceeded from a misunderstanding of the facts of the case, and he wished to make it clear to their lordships that the Association in no sense undertook to train nurses, but left that work entirely to the useful institutions now carrying it on. The Association desired to act, not in opposition to these institutions, but as supplemental and ancillary to them. It wanted to tell the world what persons held certificates and qualifications from them, leaving the world to judge of their value. One reason for desiring incorporation was the difficulty in obtaining funds. The petitioners had reason to believe that there were charities which would devote funds to such a work as the Association carried on if the latter were incorporated. If the work of the Association were admitted to be useful, then he contended it would be more advantageously and efficiently carried on if the Associa-

tion had the status of an incorporated body rather than that of a voluntary institution which might be dissolved at any moment. The petition, he might say, enjoyed the support of something like 1100 medical men, 1000 nurses and the matrons of hospitals all over the world. The opposition to it proceeded mainly from training schools and hospitals which derived a large part of their income from the out-nurses in their employment. The Association only admitted to its register the names of women who had gone through three years' training, while most of the training schools and hospitals which opposed the petition required a much shorter period of training.

Lord Hobhouse pointed out that there was nothing in the Charter about a three years' course of training.

Sir Horace Davey said that the period of training would be defined in the by-laws of the Association.

Lord Hobhouse.—And of course the by-laws may be altered by the Association.

Sir Horace Davey.—Certainly.

Lord Oxenbridge.—Is the register to be gone through year by year and purged? A good character might in course of time disappear.

Sir Horace Davey replied that this was a matter of some difficulty. All the Association could do was to say that at the time of registration the person registered was capable and reliable. The guarantee of the Association was solely with regard to the period of the training; it had no reference to the character of the training.

Sir Richard Webster then presented the case of the respondents. Before dealing with what he said it may be convenient to state here the reasons drawn up by his clients and presented to their lordships. They were to the following effect:—1. That a general register is not adapted to the calling of nurses for the sick, and that any possible register of nurses would be misleading to the public and detrimental to the interests of nursing. 2. That the proposed register of nurses is in no way analogous to the existing register of medical men, and that the arguments in support of the latter do not apply to the former. 3. That a register of nurses could not be effectually carried on except under statutory powers. 4. That any attempt to maintain such a register under the authority of a Charter would lead to mischievous results. 5. That the grant of a Charter would enable the Royal British Nurses' Association to acquire a real, if indirect, power of controlling the education of the whole nursing profession. 6. That the Royal British Nurses' Association is not a sufficiently representative body, and that it has not secured sufficient support or achieved sufficient success to enable it to be entrusted with such powers. 7. That it has not the means of discharging the duties and responsibilities which the Charter would impose upon it. 8. That the establishment at the present time of any register of nurses would be premature and injurious. 9. That a general register of nurses is unnecessary. That the other objects for which the incorporation is sought can be accomplished without the grant of a Royal Charter.

Sir Richard Webster submitted that if any such powers as those contemplated in the Charter were granted they must be surrounded and safeguarded by provisions analogous to those found in the Medical, Pharmacy, and other Acts. He could not help thinking that there was a good deal of misapprehension about the whole business. It arose from a little forgetfulness of some first principles. This Association could get itself incorporated at once if it simply chose to use the word "limited." It was not a fact that a corporation must carry on trade simply because it used this word. The question for their lordships was whether, the Board of Trade not having thought fit to allow the Association to be incorporated with the omission of the word, the Association should be entitled to incorporation by Royal Charter. He contended that this could not be regarded as a purely optional system of registration. If the Association received this Royal Charter its register would come to be considered by the public as a series of certificates. Every person whose name appeared on the register would be regarded as a person in every way fit and qualified to be upon the register of duly trained and qualified nurses; thus it would become compulsory for a nurse to get admission to the register.

Lord Oxenbridge.—You mean that, in your opinion, if a nurse wants business she must get upon this register?

Sir Richard Webster replied in the affirmative. He contended that the register set forth in the proposed Charter would not lead the public in any way to the source of information from which they could best obtain convenient and

accurate particulars as to what were the qualifications of the nurse.

When the Committee adjourned Sir Richard Webster had not concluded his speech. The Committee will meet again on Monday next.

## CHOLERA.

### CURRENT NOTES, COMMENTS AND CRITICISM.

THERE is no need to say much this week in the way of comment in our chronological record of the progress of epidemic cholera. There have been manifestations of the disease at numerous places widely separated from one another, showing that the cholera cause is extensively distributed, and probably ready to develop itself afresh hereafter on the occurrence of conditions favourable to its manifestations. The disease seems to have obtained a firmer footing in Russia than in other countries. The cholera returns for the past week indicate that the epidemic still prevails there to a serious extent. The reports from St. Petersburg show that in the eighteen districts principally affected there were altogether 3313 cases and 769 deaths, of which the highest figures are from Podolia, Kieff, Bessarabia and Kherson. Apart from these districts, the disease still lingers in fourteen other provinces, where the weekly mortality varies from 10 to 20, while the number of cases is sometimes as high as 50. In St. Petersburg itself the returns for the week were 58 cases and 19 deaths; at Moscow there were 45 cases and 33 deaths; at Warsaw 170 cases and 71 deaths; and at Gitomir 52 cases and 27 deaths. According to a report in *The Times* the Medical Department of the Ministry at St. Petersburg had determined on summoning a council of medical men who had acquired a practical experience of the disease during the present epidemic in that city towards the end of December, with the view of considering the question of the best means of preventing or limiting its spread during the ensuing spring and summer.

Cholera still prevails at Budapest, where there were as many as 10 fresh cases and 5 deaths on the 20th inst.; but these numbers declined to 6 cases and 1 death according to the report of the 22nd from that city. From the Hague we learn that there have been sporadic cases at Utrecht, Breda, Rotterdam and several other places. Last week there were 14 deaths from cholera in the entire country, and there have been 242 since the beginning of the epidemic. There have been several cases of cholera in Brussels, at Bruges and other places. From France we learn that an outbreak occurred at a home for destitute poor at Ville Vaude, in the Seine-et-Marne, where 5 cases occurred. At Dunkirk 6 cases of cholera and 4 deaths were reported at the beginning of the week. *The Temps* publishes a despatch from Lorient to the effect that for the past three weeks choleraic diarrhoea had prevailed there, upwards of 100 cases having occurred, of which about 30 had proved fatal. The disease is specially rife in the suburbs, principally at Kerentrech. The deaths have chiefly occurred among poor, aged or enfeebled people. There have been some cases also in the neighbouring country; at the village of Loomiquelle there were 20 fresh cases on Tuesday last and 4 deaths.

## INTERNATIONAL MEDICAL CONGRESS, ROME, 1893.

THE following is a list of the English committee formed to further the success of the above Congress:—

Sir James Paget, Bart.  
Sir Andrew Clark, Bart.  
Mr. Thomas Bryant.  
Sir Dyce Duckworth.  
Mr. Hutchinson.  
Sir George Humphry.  
Sir W. MacCormac.  
Sir Henry Acland, Bart.  
Professor Clifford Allbutt.  
Sir R. Quain, Bart.  
Mr. J. N. Dick, C.B.  
Sir W. A. Mackinnon, K.C.B.  
Sir J. Fayer, K.C.S.I.  
Dr. Charles Taylor.  
Dr. G. H. Phillipson.

Sir Joseph Lister, Bart.  
Dr. Withers Moore.  
Sir W. Turner.  
Professor Michael Foster.  
Dr. J. Watt Black.  
Mr. H. Power.  
Mr. Shirley Murphy.  
Mr. Gordon Brown.  
Dr. Cheadle.  
Dr. Saundby.  
Dr. Dreschfeld.  
Mr. Mitchell Banks.  
Mr. T. P. Teale.  
Mr. W. F. Favell.  
Dr. E. Long Fox.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6057 births and 3632 deaths were registered during the week ending Nov. 19th. The annual rate of mortality in these towns, which had been 19.6 and 19.5 per 1000 in the preceding two weeks, further declined to 18.6 last week. In London the rate of mortality was 18.4 per 1000, while it averaged 18.7 in the thirty-two provincial towns. The lowest rates in these towns were 12.4 in Halifax, 13.1 in Wolverhampton, 13.3 in Croydon, and 14.1 in Derby; the highest rates were 22.4 in Brighton, 22.5 in Preston, 23.6 in Burnley, 25.1 in Bolton, and 25.7 in Salford. The 3632 deaths included 392 which were referred to the principal zymotic diseases, against 434 in each of the preceding two weeks; of these, 137 resulted from measles, 61 from scarlet fever, 53 from diarrhoea, 51 from whooping-cough, 47 from diphtheria, 39 from "fever" (principally enteric), and 4 from small-pox. No fatal case of any of these diseases occurred last week in Norwich; in the other towns they caused the lowest death-rates in Derby, Wolverhampton, Burnley, and Liverpool, and the highest rates in Croydon, Hull, Brighton and Salford. The greatest mortality from measles occurred in Cardiff, Nottingham, West Ham, Oldham, Hull, Croydon, Brighton and Salford; from scarlet fever in Swansea, Newcastle-on-Tyne and Plymouth; from whooping-cough in Salford and Swansea; from "fever" in Preston, Halifax and Sunderland; and from diarrhoea in Plymouth, Gateshead and Blackburn. The 47 deaths from diphtheria included 29 in London, 3 in Birmingham, 2 in West Ham and 2 in Brighton. Two fatal cases of small-pox were registered in Leeds, one in Sheffield, and one in Leicester, but not one in London or in any other of the thirty-three large towns; 15 cases of this disease were under treatment in the Metropolitan Asylum Hospitals (of which 12 had been admitted during the week) and 2 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 4045, against 4067 and 4063 on the preceding two Saturdays; 404 new cases were admitted during the week, against 462 and 403 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 319 and 357 in the preceding two weeks, declined to 340 last week, and were 80 below the corrected average. The causes of 76, or 2.1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Nottingham, Sunderland, Newcastle-upon-Tyne, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Blackburn, Preston and Sheffield.

### HEALTH OF SCOTCH TOWNS.

THE annual rate of mortality in the eight Scotch towns, which had been 22.9 and 20.6 per 1000 in the preceding two weeks, rose again to 21.5 during the week ending Nov. 19th, and exceeded by 2.9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17.2 in Dundee and 18.2 in Greenock to 24.1 in Perth and 37.2 in Leith. The 598 deaths in these towns included 65 which were referred to measles, 24 to scarlet fever, 11 to diarrhoea, 11 to "fever," 7 to whooping-cough, 6 to diphtheria, and 3 to small-pox. In all, 127 deaths resulted from these principal zymotic diseases, against 109 and 110 in the preceding two weeks. These 127 deaths were equal to an annual rate of 4.6 per 1000, which exceeded by 2.3 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 69 and 61 in the preceding two weeks, rose again to 65 last week, of which 22 occurred in Edinburgh, 16 in Glasgow, 15 in Leith, and 11 in Aberdeen. The deaths referred to scarlet fever, which had been 13 and 19 in the preceding two weeks, further rose to 24 last week, and included 14 in Glasgow, 4 in Edinburgh, and 4 in Leith. The 11 fatal cases of diarrhoea exceeded those recorded in any recent week, and included 6 in Dundee. The deaths referred to different forms of "fever," which had increased from 2 to 9 in the preceding three weeks, further rose to 11 last week, of which 7 occurred in Glasgow and 2 in Dundee. The fatal cases of diphtheria, which had declined from 12 to 5 in the previous

three weeks, were 6 last week, and included 3 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 142 in each of the preceding two weeks, were 137 last week, and were 177 below the number in the corresponding week of last year, when an epidemic of influenza prevailed. The causes of 57, or nearly 10 per cent., of the deaths in the eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28.5 and 23.9 per 1000 in the preceding two weeks, was again 23.9 during the week ending Nov. 19th. During the first seven weeks of the current quarter the death-rate in the city averaged 23.2 per 1000, against 17.9 in London and 21.6 in Edinburgh. The 160 deaths in Dublin during the week under notice included 5 which were referred to diarrhoea, 2 to "fever," one to measles, one to whooping-cough, and not one either to small-pox, scarlet fever, or diphtheria. In all, 9 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.3 per 1000, the zymotic death-rate during the same period being 1.7 in London and 5.3 in Edinburgh. The 5 fatal cases of diarrhoea exceeded the number recorded in any recent week. The deaths referred to different forms of "fever," which had been 10 and 5 in the preceding two weeks, further declined to 2 last week. The 160 deaths registered in Dublin last week included 27 of infants under one year of age and 46 of persons aged upwards of sixty years; the deaths, both of infants and of elderly persons, slightly exceeded the numbers recorded in the preceding week. Three inquest cases and 3 deaths from violence were registered; and 54, or more than a third of the deaths, occurred in public institutions. The causes of 19, or nearly 12 per cent., of the deaths in the city last week were not certified.

### THE SERVICES.

The following gentlemen who competed at the examination held on the 7th inst. and following days, at the Examination Hall, Victoria-embankment, for appointment as Surgeon in the Royal Navy have been successful:—

	Marks.		Marks.
Archdale, Henry S. . .	2841	Bunton, C. L. W., M.B.	2446
Clayton, F. H. A., M.B.	2813	Lumley, Fredk. D. . .	2306
Tyffe, Reginald Jas. . .	2052	Meagher, Edwd. Thos.	2302
Lord, Percy, M.B. . .	2577	Tomlinson, Henry E.	2220
Dalton, Fredk. J. A. . .	2515	Bell, Arthur Sydney G.	2318
May, Percival M. . .	2408	Gilpin, Bernard Bevil	2133

#### MOVEMENTS OF MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Burnett has been posted to Fermoy. Surgeon-Major Smythe has been transferred from the South-Eastern District to Cork, and Surgeon-Major Core from Gravesend to Aldershot. Surgeon-Captain Bond has arrived at St. Lucia and Surgeon-Captain Rawnsley has been transferred thence to Jamaica. Surgeon-Captain Scott has arrived from India on sick leave. Surgeon-Major Drury and Surgeon-Captain Risk have been posted to Aldershot. Surgeon-Captain Harris has been transferred from Devonport to Pembroke Dock and Surgeon-Captain Cocks from the South-Eastern District to Colchester. Surgeon-Colonels Wade and Rudd have been ordered home from India in anticipation of promotion.

The annual examination of Surgeon-Captains for promotion has been fixed for Feb. 6th, 1893.

#### ARMY MEDICAL STAFF.

The following promotions are announced:—Surgeon-Colonel Philip B. Smith, M.D., to Surgeon-Major-General; Brigade-Surgeon-Lieutenant-Colonel Alexander F. Churchill, M.B., to Surgeon-Colonel, vice P. B. Smith, M.D.; Surgeon-Lieutenant-Colonel James Williamson, M.B., F.R.C.S.I., to Brigade-Surgeon-Lieutenant-Colonel, vice A. F. Churchill, M.B.; Surgeon-Lieutenant-Colonel William H. Steele, M.D., F.R.C.S.I., to Brigade-Surgeon-Lieutenant-Colonel, vice J. R. Murray, M.D., F.R.C.S. Edin., retired; Brigade-Surgeon-Lieutenant-Colonel John Ross Murray, M.D., F.R.C.S. Edin., has been placed on retired pay.

#### INDIAN MEDICAL SERVICE.

Surgeon-Lieutenant F. E. Swinton has been brought on the strength of the Bombay Medical Establishment. Surgeon-Captain T. D. C. Barry and Surgeon-Captain L. F. Child

have respectively delivered over and received charge of the duty of Professor of Chemistry in the Elphinstone College. Surgeon-Captain J. T. W. Leslie, M.B., Bengal Establishment, Officiating Chemical Examiner and Professor of Chemistry, Medical College, Calcutta, has been appointed to officiate as Secretary to the Surgeon-General and Sanitary Commissioner with the Government of India until further orders. Surgeon-Major G. S. A. Ranking, M.D., Bengal Establishment, Officiating Secretary to the Board of Examiners, Calcutta, has been appointed to officiate as Chemical Examiner and Professor of Chemistry, Medical College, Calcutta. Surgeon-Major E. L. Maunsell, A.M.S., has been transferred from general duty Poona District, to general duty Scinde District. The following promotions have been approved by Her Majesty:—Bengal Medical Establishment: Brigade-Surgeon-Lieutenant-Colonels: Alfred Swaine Lethbridge, M.D. (dated April 9th, 1892; Arthur Stephen (dated April 16th, 1892); John Henry Newman, M.D. (dated June 1st, 1892.)—Madras Medical Establishment: Surgeon-Lieutenant-Colonel Fredk. Henry Blinkinsop to be Brigade-Surgeon-Lieutenant-Colonel (dated May 23rd, 1892.)—Bombay Medical Establishment: Brigade-Surgeon-Lieutenant-Colonel David Erskine Hughes, M.D. to be Surgeon-Colonel (dated Sept. 15th, 1892); Surgeon-Lieutenant-Colonel Joseph Forbes Keith, M.D., to be Brigade-Surgeon-Lieutenant-Colonel (dated Sept. 15th, 1892). The Queen has also approved of the retirement from the Service of the undermentioned Officers:—Colonel John Barnes Sparks, Indian Staff Corps (dated May 17th, 1892); Surgeon-Colonel John Charles Morice, Bengal Medical Establishment (dated Oct. 24th, 1892).

#### NAVAL MEDICAL SERVICE.

The under-mentioned Staff Surgeons have been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet:—Henry Thompson Cox (dated Nov. 12th, 1892); Richard Gavin Brown, M.B. (dated Nov. 13th, 1892.) The following appointments have been made:—Surgeons: Joseph R. Macdonnell, M.D., additional to the *President*; Arthur S. Nance, to the *Alacrity*; and Jeremiah Sugrue, M.D., to the *Shannon*.

#### VOLUNTEER CORPS.

*Rifle*: The following appointments have been made:—7th Middlesex (London Scottish), Surgeon-Captain J. A. Watson (Honorary Surgeon-Major), from the Volunteer Medical Staff Corps—London Companies Surgeon-Captain; 1st Volunteer Battalion, the Lancashire Fusiliers, Robert Mitchell, M.D., Surgeon-Lieutenant; 3rd Lanarkshire, Surgeon-Major John Dunlop, M.D., Surgeon-Lieutenant-Colonel.

The Volunteer Officers' Decoration has been conferred upon the following officers:—*North British District—Artillery*: 1st Aberdeenshire Artillery Volunteers, Surgeon-Lieutenant-Colonel James Rodger, M.D.; 1st Argyll and Bute Artillery Volunteers, Surgeon-Lieutenant-Colonel William Hunter; 1st Ayrshire and Galloway Artillery Volunteers, Surgeon-Lieutenant-Colonel Robert Blane Erskine, M.D.; 1st Caithness Artillery Volunteers, Surgeon-Lieutenant-Colonel George Banks, M.D.; Surgeon-Major (ranking as Lieutenant-Colonel) T. H. Rutherford, M.D., retired; Surgeon and Honorary Surgeon-Major George Burn, M.D., retired; the Highland Artillery Volunteers, Surgeon-Lieutenant-Colonel Alexander Sclanders, M.D.; 1st Lanarkshire Artillery Volunteers, Surgeon-Major James Simpson Cumming, M.D.; 1st Midlothian Artillery Volunteers, Surgeon-Major (ranking as Lieutenant-Colonel) James Carmichael, M.D., retired; 1st Orkney Artillery Volunteers, Surgeon-Lieutenant-Colonel Wm. Aitchison Wilson, M.D., Surgeon-Lieutenant-Colonel John William Taylor, M.D.—*Mounted Rifles*: Late 1st Roxburgh (Border) Mounted Rifles, Brigade-Surgeon-Lieutenant-Colonel Patrick Kynoch, retired.—*Rifle*: The Queen's Rifle Volunteer Brigade, the Royal Scots (Lothian Regiment), Brigade-Surgeon-Lieutenant-Colonel Sir Douglas MacLagan, Knt., M.D., Surgeon-Lieutenant-Colonel Patrick H. Watson, Surgeon-Major (ranking as Lieutenant-Colonel) Alexander Gordon Miller, retired, Surgeon and Honorary Surgeon-Major Robert James Blair Cunynghame, M.D., retired; 5th Volunteer Battalion, the Royal Scots (Lothian Regiment), Surgeon and Honorary Surgeon-Major John Henderson, M.D., retired; 6th Volunteer Battalion, the Royal Scots (Lothian Regiment), Surgeon-Major Alexander Ballantyne, M.D.; 7th Volunteer Battalion, the Royal Scots (Lothian Regiment), Surgeon-Captain John Liddle Crombie, M.D.; 8th Volunteer Battalion, the Royal Scots (Lothian Regiment), Surgeon-Lieutenant-Colonel Andrew Gilmour; 1st Volunteer Battalion, the Royal Scots Fusiliers, Surgeon-

Lieutenant-Colonel James McAlister; Surgeon-Major (ranking as Lieutenant-Colonel) Archibald Blair, retired; 2nd Volunteer Battalion, the Royal Scots Fusiliers, Surgeon-Major Robert Girvan; Galloway Rifle Volunteer Corps, Surgeon-Lieutenant-Colonel Walter Lorraine, M.D.; 3rd (Dumfries) Volunteer Battalion, the King's Own Scottish Borderers, Surgeon and Honorary Surgeon-Major William Johnstone Carlyle, M.D., retired; 2nd Volunteer Battalion the Cameronians (Scottish Rifles), Surgeon-Lieutenant-Colonel Bruce Goff, M.D., Surgeon-Major (ranking as Lieutenant-Colonel) James London, M.D., retired, Brigade-Surgeon-Lieutenant-Colonel, James, Dunlop, M.D., Surgeon-Lieutenant-Colonel J. Dunlop, M.D.; 2nd (Angus) Volunteer Battalion, the Black Watch (Royal Highlanders), Brigade-Surgeon-Lieutenant-Colonel John Mackie, jun., M.D., Surgeon-Lieutenant-Colonel Wm. Fettes Murray, M.D., Surgeon-Lieutenant-Colonel Jas. Keith Anderson, M.D., Surgeon-Lieutenant-Colonel G. Paton Alexander, Surgeon-Major (ranking as Lieutenant-Colonel) S. Lawrence, M.D., retired; 3rd Volunteer Battalion the Highland Light Infantry, Surgeon-Lieutenant-Colonel John Ewan Brodie, M.D.; 9th Lanarkshire Rifle Volunteer Corps, Surgeon-Lieutenant-Colonel John Lindsay; 5th (Glasgow) Highland Volunteer Battalion the Highland Light Infantry, Surgeon-Major (ranking as Lieutenant-Colonel) Thomas Drysdale Buchanan, M.D., retired; 1st (Ross Highland) Volunteer Battalion Seaforth Highlanders (Rossshire Buffs) (Duke of Albany's), Surgeon-Lieutenant-Colonel Alexander Robertson Mackenzie, M.D.; 1st Volunteer Battalion the Gordon Highlanders, Brigade-Surgeon-Lieutenant-Colonel Angus Fraser, M.D.; 2nd Volunteer Battalion the Gordon Highlanders, Surgeon-Captain William Mortimer; 5th (Deeside Highland) Volunteer Battalion the Gordon Highlanders, Surgeon-Lieutenant-Colonel W. R. Duguid; 1st (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), Surgeon and Surgeon-Major W. Johnston Marshall, M.D., retired; Surgeon-Major Michael Benny, M.D., Surgeon and Honorary Surgeon-Major William Johnstone, M.D., retired; 5th Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders), Surgeon and Honorary Surgeon-Major John Reid, retired; 1st Dumbartonshire Rifle Volunteer Corps, Surgeon-Lieutenant-Colonel Peter France Robertson, M.D.

#### THE LATE ISAZAI EXPEDITION.

We gather from the *Pioneer Mail* of the 27th ult. that the troops engaged in the late expedition suffered much in health from the great diurnal changes of temperature at the head of the Indus valley. There was a good deal of what popularly goes by the name of "sun fever" among the men of the force, and it is said that some 700 or 800 soldiers are still suffering from mild attacks of continued fever since their return to cantonments.

#### THE FRENCH EXPEDITION IN DAHOMEY.

Since the date of the late sharp engagement, the intelligence of which was received just as we were going to press last week, no accounts of further operations on the part of General Dodds' force have apparently reached the French Government. The troops have now been upwards of two months in the country and, in addition to the injuries resulting from some severe fighting, there has, of course, been much inevitable sickness from malarious fevers and dysentery attributable to the unhealthy climate. As far as can be gathered from the reports that have reached this country the organisation and management of the expedition, military and medical, have so far been very creditable to the French, and General Dodds is recognised as an excellent administrator as well as a good soldier. The account of the unhealthy and debilitated appearance which the 200 invalid soldiers presented on their disembarkation in Marseilles will remind many of the aspect and condition of the men of the Royal Marines on their return from the Gold Coast during the earlier period of the Ashanti War. From the latest information it appears that the fall of the capital has taken place and it is hoped that peace will be concluded by the French upon such terms as will secure in the future a more humane and better state of things in Dahomey.

#### THE EXAMINATION OF CANDIDATES FOR THE ARMY MEDICAL STAFF.

We would call attention to the fact that an examination of candidates for twelve commissions in the Army Medical Staff will be held at the University of London, Burlington-gardens, on Feb. 6th next and following days. Application for admis-

sion to the examination should be made in writing to the Director-General of the Army Medical Department, War Office, London.

#### THE EXAMINATION FOR ADMISSION INTO THE ROYAL MILITARY COLLEGE, SANDHURST.

The parents of candidates for Sandhurst, as well as the candidates themselves, will do well to remember that there are some new regulations in connexion with the medical examination which will come into force on the present occasion. The examination, as we announced last week, will take place on the 28th and 29th instant.

#### FEVER EPIDEMIC IN GUZERAT.

An epidemic of malarial fever attended with great mortality has broken out in the Guzerat district. Intelligence has been received in Bombay from Patan, Radhanpore, Masani, Visnagar, and various other small towns and villages in Guzerat, of the great prevalence of malarial fever. The people are generally in great destitution, and without any medical or nursing aid. The sickness and mortality are stated to be something appalling. In Patan alone forty or fifty persons are dying daily, and it is much the same at other places. The epidemic is the result of a water-logged soil following heavy rains and overflowing rivers. The inhabitants of Guzerat resident in Bombay have held a meeting and raised subscriptions in aid of the sufferers from the epidemic.

#### THE LATE LIEUTENANT HUDDLESTONE, R.E.

At the adjourned inquest on the 21st inst., Dr. Stevenson, analyst to the Home Office, gave evidence to the effect that he agreed with the opinion previously expressed by the local medical men that the death of this officer was attributable to poisoning from decomposition of animal matter contained in tinned sardines. Dr. Stevenson had fed various animals with some of the fish, and inoculated others with matters obtained from the contents of the stomach and from the sardines, with a fatal result to several of the animals experimented on; but he was not able to state exactly what kind of decomposition it was that had caused the fatal poisoning. The decomposition was not likely to have resulted from anything in the solder of the sardine box. The cause of the decomposition of animal matter could not gain access if the boxes were properly tinned and manufactured. The goods supplied to the officers' mess are believed to have been obtained from the Army and Navy Stores, and there does not appear to have been anything about the sardines to have excited attention. The flesh of certain kinds of apparently healthy fish even, especially in the tropical seas, have been known to produce poisonous symptoms, such as gastro-intestinal irritation and severe ataxic nervous symptoms, attended with marked depression. In the case in question, however, the poisonous principle, of the nature of a ptomaine probably, was no doubt the product of some form of decomposition. The jury returned a verdict of "Death by misadventure, caused by eating decomposed sardines."

#### HONOURABLE MENTION OF MEDICAL OFFICERS.

In the official correspondence of the Lushai field operations we are glad to notice the name of Surgeon-Captain J. F. Evans, M.B., 18th Bengal Cavalry. This officer was reported as having shown unremitting care of the sick of all ranks, and as having, by his medical zeal and energy, maintained the health of the corps whilst serving in a notoriously unhealthy part of the world. Surgeon-Captain Evans's services in these respects have been acknowledged by the Government of India and Lord Roberts. Surgeon-Captain Williams and Surgeon-Captain Green, M.S., are names which are also honourably mentioned in despatches relating to operations recently carried out in the Chin Hills and on the north-east frontier of Burmah. Their services have been likewise recognised by the Government of India and the Commander-in-Chief, Lord Roberts.

**EAST LONDON HOSPITAL FOR CHILDREN.**—At the half-yearly Court of Governors of this charity a favourable report was given of the progress of the institution. Its finances had been materially increased, and the new out-patients' room had been completed and is now occupied. To defray the cost of this addition, however, some £2000 is still needed. The formation of a convalescent home is in contemplation, and towards this object a donation of £1000 has already been received.

## Correspondence.

"Audi alteram partem."

## "EXPERIMENTS ON ANIMALS."

To the Editors of THE LANCET

SIRS,—Mr. Lawson Tait asserts that nothing could be more fallacious than to assume that the recent success in intestinal surgery is due to experiments on animals. In support of this assertion he says he has successfully applied the flap-splitting method for the union of the divided intestine for years before the experiments of Senn, Robinson and myself were ever heard of. So successful has his plan been that he has only had one failure in some two or three scores of cases. Upon this assertion it seems strange that his old pupil, Dr. F. Byrom Robinson, should not have adopted Mr. Lawson Tait's method instead of suggesting the use of raw hide and segmented rubber plates. Stranger still that, with such marvellously good results following Mr. Lawson Tait's operation, surgeons at Liverpool, Leeds and London should have introduced the use of decalcified bone tubes and bobbins. Since the time Travers wrote his treatise on "An Enquiry into the Processes of Nature in repairing Injuries of the Intestine," in 1812, until the present day, surgeons have been endeavouring to devise some method of uniting the divided ends of the intestines, and I still maintain that it was not until Senn published the results of his experiences, the direct outcome of experiments on animals, on intestinal anastomoses that any real progress was made or any safe plan of operating on the intestine suggested; and yet now Mr. Lawson Tait tells us that for years before these experiments were heard of he had been in the habit of uniting the divided ends of the intestines by a method than which nothing could be "simpler or more effectual." He scoffs at the clumsy plates, bobbins, &c. This being so, I would ask Mr. Tait why he has not published his plan of operating before? Why has he not shown his cases and demonstrated his method of operating at some one of the medical societies? By doing so, what an amount of time, trouble and vexation he would have saved us poor surgeons who have for years been endeavouring to devise some means of reducing the frightful mortality that has hitherto existed after resection of the intestine—viz., 50 per cent. If he had only done this, should we not all have rushed to the banner of the man who showed such results as Mr. Tait has attained—only one failure in some two or three scores of cases? He does not mention a death, only one failure. If only Mr. Tait had taught us this method, this simple and effectual flap-splitting method, how many lives might have been saved? What a number of poor animals in whom Mr. Tait takes such an interest would have been spared? It is not, however, now too late, and I trust that Mr. Lawson Tait will at an early date see his way to describe fully his method of operating. It would be interesting if Mr. Lawson Tait would tell us in what class of cases he has adopted his operation. Were the resections of the intestine performed for injury to the intestines due to direct violence, or to gangrene of the intestine following strangulation of a loop of gut, or to what causes? Mr. Lawson Tait further says that we now know that the operation of gastro-enterostomy leads to permanent continuous fecal regurgitations, so that the whole scheme of such operations is gradually being dropped. Mr. Lawson Tait may be interested to hear that such is not my experience; neither do I intend to drop the operation, which I am sure is of great benefit, and in many cases life has been considerably prolonged and rendered comfortable.

Mr. Lawson Tait concludes his letter by saying he knows of no operation in intestinal surgery to which he would himself submit other than the operation as performed at present by himself. It behoves Mr. Tait, then, to at once impart to the profession his method of operating, as I can find no mention of it in any of the surgical literature at my disposal, and it would be hard upon Mr. Tait if such a calamity should befall him as to necessitate an operation on his intestines and nobody knew how to perform his special flap-splitting operation.—I am, Sirs, yours faithfully.

FRED. BOWREMAN JESSETT, F.R.C.S. Eng.

Buckingham Palace Mansions, S.W., Oct. 13th, 1892.

To the Editors of THE LANCET.

SIRS,—I am sorry to find Dr. Tyson has also made the fatal mistake of under-estimating the strength of his adversaries. I did not do him the injustice of crediting him with any leaning towards the enemy, but his letter gave me the impression that he had rightly judged the true cause of the strength of the agitation against us. Dr. Tyson cannot be aware that the three greatest writers of our time—Browning, Tennyson and Ruskin, with many names of lesser eminence—have declared themselves strongly opposed to the practice of vivisection, or he would hardly say we have the educated classes almost wholly with us. The medical profession has taken upon itself to justify physiological research by the results obtained. The pure scientists look upon vivisection as a legitimate means of research independent of the results obtained, and theirs is the only ground we can safely take. If the means is not legitimate the end can never make it so; if it is legitimate it needs no justification. I maintain that we have put ourselves in a false position in assuming to shield our brethren from the attacks of an unenlightened public. In this false position lies the strength of our adversaries. A distinguished living F.R.S., himself a physician and a physiologist, speaking to me some ten or twelve years ago of a more distinguished pupil whose leaning was towards pure science, said, "I advised him to take up medicine as a back door to science. Pure science does not pay in this country." I have always thought this to be a prostitution of medicine. Physiological research is as distinct from the practice of medicine as is astronomy from navigation, and any attempt to combine the two will endanger our position in the eyes of the public.

I am, Sirs, yours truly,

WM. F. CLARKE, M.D., B.S. Lond.

Fulham, Nov. 14th, 1892.

## "ABDOMINAL SECTION IN PELVIC PERITONITIS."

To the Editors of THE LANCET.

SIRS,—In your excellent abstract of the adjourned discussion at the Obstetrical Society a misstatement made by one of the speakers is duly reported, but without the correction which immediately followed it.

Mr. Knowsley Thornton called attention to the "extraordinary fact that nearly half" my "operations were incomplete." The context showed that what he meant by "incomplete" was that I had failed to complete the operation that I had intended to perform. I pointed out to Mr. Thornton at the meeting, and I shall be glad if you will allow me to point out to him once more, that when in the summary of my paper I spoke of a certain number of my operations having been "complete" and a certain number "partial" I meant by the word "partial" cases where the disease, and therefore also the operation for its removal were limited to one side. The phrase had no reference to unfinished operations, of which I had happily none to record.

Mr. Thornton also misunderstood that part of my paper which referred to the question of hematocele; and on this subject too I at once, in order to save unnecessary discussion, pointed out where he was in error. I should have dealt with his other criticisms in due course at the close of the discussion, but as Mr. Thornton did not wait to hear my reply I did not feel called upon to make any further reference to his remarks beyond answering a question.

May I also be permitted to correct an error in your report of my reply? On page 1166, column 1, line 22 from top, the words "current year" should be "current half-year," the cases referred to having been published in THE LANCET for July 2nd and 9th, 1892. I am, Sirs, yours faithfully,

Brook-st., W., Nov. 10th, 1892. CHAS. J. CULLINGWORTH.

To the Editors of THE LANCET.

SIRS,—In the discussion at the Obstetrical Society of London on Dr. Cullingworth's paper on Abdominal Section in Certain Cases of Pelvic Peritonitis, several speakers expressed the opinion that inflammatory diseases of the uterine appendages are very rarely the cause of death. Thus Dr. John Williams thought that Dr. Cullingworth's mortality of 18 per cent. was several hundred times greater than that of the disease, and Mr. Knowsley Thornton had never seen a fatal result from perimetritis. The same point is made prominent in your leading article on the discussion, and it is obviously

of the first importance in estimating the advisability of the operation. I had not intended taking part in the discussion, not being a partisan of either side in the controversy. But I should have been tempted to offer a small contribution to the evidence on this subject had I not been prevented from being present at the time. Some years ago, in order to estimate the importance of diseases of the Fallopian tubes, I went through the post-mortem records of Guy's Hospital for the three years 1884-86. I chose those years because at that time the special attention of the pathologists had already been directed to diseases of the tubes, but not many operations for these conditions were yet performed at Guy's Hospital. There were 302 necropsies of women above the age of puberty. Among these were 26 cases, or 8.6 per cent., of inflammatory matting about the uterine appendages, not including any case of tumour or tubercle. There were twelve cases of distended tubes, but only two of pyo-salpinx, and no case of rupture of a distended tube into the peritoneum. Notwithstanding this, there were seven cases, including the two cases of pyo-salpinx, in which the lesion of the tubes appeared to be the primary origin of the fatal disease. No operation had been performed in any of these; and, for the most part, they were not sent down from the gynecological ward, but had been in a medical or surgical ward for peritonitis, abscess or apparent tumour, or for some obscure abdominal disease. The mortality therefore amounts to 26.8 per cent., as compared with the number of cases of chronic adhesions, and 2.3 per cent. as compared with the total number of necropsies. The number of cases is too small to establish a general average of mortality, but I submit that this is positive evidence, as far as it goes, that inflammation of the tubes is not to be despised as a cause of mortality, and that such evidence is of more value than the general impression of a speaker that he has seen many cases of perimetritis and has rarely seen a fatal result follow. Other direct evidence to the same effect from the records of other hospitals has been published. Thus Dr. Kingston Fowler found within three years in the post-mortem room of the Middlesex Hospital fifteen cases of distended tubes, in eight of which the disease of the tubes had been indirectly the cause of death. Dr. Lewers, in 100 necropsies at the London Hospital, found seventeen cases of distension of the tube, in two of which the pelvic condition was the cause of death. In these three groups of cases the mortality of tubal inflammation, compared with the total number of necropsies, appears to be similar, although in Dr. Lewers' cases the relative proportion of tube distension is much greater.

It must be admitted that the cause of death is rarely or never perimetritis alone, but rather general peritonitis, burrowing abscess, or, occasionally, septicæmia or apparent tumour simulating ovarian tumour. In one of the cases of pyo-salpinx referred to above, as found in the post-mortem room of Guy's Hospital, the condition appeared at first sight to be one of double suppurating ovarian tumour. In two cases since that time I have found pyo-salpinx to simulate suppurating ovarian tumour, the patients being evidently in a dying condition from septicæmia. In one of these one tube contained 36 ounces, the other 24 ounces, of fœtid pus. In the other the left tube contained more than 30 ounces of pus and had separated the layers of the broad ligament, burrowing under the sigmoid flexure, its muscular wall hypertrophied to more than half an inch in thickness. The right Fallopian tube was also converted into a pyo-salpinx, but retained its usual anatomical relations. Both these cases ended fatally after operation and go to swell my mortality from operations for diseased tubes. But I think that they furnish an argument, not against such operations, but rather in favour of their being performed before it is too late. If these patients had undergone operation while the pyo-salpinx contained only an ounce or two of pus, and before they had fallen into a septic condition, they would, in all probability, have recovered without serious disturbance. Evidently it is the sequelæ of perimetritis rather than the primary perimetritis which are liable to prove fatal. Thus I have met with one case in which the immediate cause of death was pyo-nephrosis and degeneration of both kidneys caused by pelvic pressure.

I am, Sirs, yours faithfully,

Whmpole-street, Nov. 22nd, 1892. ALFRED L. GALABIN.

## DEATH FROM IRRITATION OF ASCARIDES.

To the Editors of THE LANCET.

SIRS,—Mr. Hillyer, in THE LANCET of Oct. 1st, expresses the opinion that death from the irritation of ascarides is extremely rare. This may be the case at home, but in this

colony round worms not infrequently prove fatal without revealing at the necropsy clear evidence of the way in which death has been produced. On looking through my notes of medico-legal necropsies in cases of sudden death during six years, I find the following record as regards round worms:—In five cases the post-mortem examination showed either no lesions or only such as could be attributed to the presence of worms in the intestine. In two cases round worms were found associated with other conditions, once with malarial fever, and once with pregnancy and dilated heart. In one case death was due to asphyxia caused by a round worm impacted above the epiglottis.<sup>1</sup> The first five cases are those which concern the present inquiry. In one of these a volvulus was discovered in the ascending colon.<sup>2</sup> In another, cerebral effusion was found. This has been mentioned by Eichberg<sup>3</sup> as a result of intestinal worms. In the other three cases, one of which has also been recorded,<sup>4</sup> there was nothing beyond the presence of the round worms to account for death. Besides these cases I have seen four others in which the evidence of death from round worms seemed so clear that I did not consider necropsies necessary. If, then, this is the result of observation in one part of the colony during a limited period, it may fairly be argued that death from this cause is by no means uncommon out here. I understand that a similar frequent mortality obtains in the neighbouring colony of British Guiana. In my experience the cases usually terminate too rapidly for the supervention of congestion or inflammation of the intestine such as is described by Eichberg and others, and I have always regarded the cerebral symptoms as mainly reflex. It is of course conceivable that violent and prolonged convulsions may in some cases produce such conditions as cerebral effusion or volvulus. I am, Sirs, yours truly,

Trinidad, Oct. 31st, 1892.

BEAVEN RAKE.

## CHYLURIA.

To the Editors of THE LANCET.

SIRS,—Dr. Manson's want of success in the treatment of chyluria is no doubt disappointing, though he need not be discouraged in the face of the results of two cases recorded by me in THE LANCET of February 14th, 1891, which are the first examples of chyluria depending on filariæ in the blood I have ever seen permanently cured. The after history of these cases is as follows:—The second patient is at present well, and has had no return of chyluria or of filariæ in the blood. The first patient has also had no return either of the filariæ or of chyluria. But it is an interesting fact that he is now in an advanced stage of tuberculous leprosy, which commenced six months after he had recovered and the thymol treatment was stopped. Possibly there is a connexion between the two diseases. It must be borne in mind, however, that leprosy is endemic in Hyderabad. Dr. Manson's mechanical theory of chyluria is, I believe, hardly tenable. Are we to understand that filariæ possess an affinity for, or the power of selecting, a particular spot in the thoracic duct and there setting up inflammation and a stricture, and that this is the only damage to the system caused by their presence in the blood? To me the invasion and disorganisation of the blood by filariæ are more than sufficient to account for all the phenomena of chyluria described in such an interesting manner by Dr. Manson. Thymol cannot of course cure stricture of the thoracic duct, but it appears to kill the filariæ; and it is never illogical to remove the cause of a disease. In my cases filariæ in the blood were, as far as we could judge, the sole cause of the chyluria. As the filariæ died off under treatment with thymol the chyluria disappeared and has not recurred. A similar result has since been obtained by Dr. Hehir.

I am, Sirs, your obedient servant,

Hyderabad, Deccan, Oct. 30th, 1892.

EDWARD LAWRIE.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Small-pox: Meeting of the Medical Officers of Health Society.

THE epidemic of small-pox cannot yet be said to be abating in the towns of Lancashire and Yorkshire, where its presence has been noted for some weeks past. In Warrington espe-

<sup>1</sup> Brit. Med. Jour., June 11th, 1887, p. 1274.

<sup>2</sup> Ibid., March 24th, 1893, p. 842.

<sup>3</sup> Ibid., Oct. 31st, 1885, p. 842.

<sup>4</sup> Ibid., Jan. 9th, 1890, p. 60.

cially the disease appears to have obtained a firm foothold ; vaccination and revaccination have evidently been neglected for some years past, and so it happens that, the disease having once made headway in the town, abundant pabulum for its wholesale dissemination is at hand in the large proportion of either unvaccinated or imperfectly vaccinated persons. The hospital is stated to be full, and as further accommodation in time to meet the present emergency seems not to be forthcoming, large numbers of the patients have to be treated at their own homes. Under these circumstances it is not surprising that the epidemic still continues to spread. It is reported that within the last fortnight more than a hundred new cases of small-pox have occurred in Warrington. On the 18th inst. an important discussion took place in this city at the monthly meeting of the North-Western Health Officers' Society, on the present prevalence of small-pox. Mr. Vacher, the late able medical officer of health for Birkenhead, who introduced the subject, gave it as his opinion that revaccination and vaccination, as well as notification and isolation, were far more commonly neglected in these parts than was consistent with the public weal. The fact that the Royal Commission on Vaccination had hitherto failed to present their complete report tended, he thought, to convey the erroneous impression to the lay mind that the protection conferred by vaccination was uncertain, and that the whole question, from a medical point of view, was still *sub judice*.

#### *Urmston and Local Government.*

Last week the Parliamentary Committee of the Lancashire County Council had before them the petition of the inhabitants of Urmston for an order of the Council constituting that township an urban sanitary authority. The district of Urmston is mainly a rural one, with a population of about 4000 at the last census and a rateable value of not more than £21,000. The people of Urmston believe that the administration of the district would be greatly improved under a local board, although they adduce no evidence to prove that this would be so ; they appear to have been greatly exercised by the fact that the ratepayers of Urmston have only one representative on the existing authority, and attribute to the negligence of that authority the necessity which has recently arisen for the expenditure by the township of a sum of £3000 for the provision of a cemetery. After a patient hearing, the chairman—who, by the way, is a barrister of experience—announced that the committee could not recommend to the County Council the granting of the petition ; in the first place, because the petitioners had failed to show that they had been otherwise than equitably governed by the existing authority ; and secondly, because there was every likelihood that district councils would shortly be established, and the committee were unwilling to increase the difficulty of the Government in dealing with the whole subject of district councils by establishing a new sanitary authority for a small district like Urmston.

#### *The Health of Manchester.*

According to the last issued return the health of Manchester has been favourable during the three months ending with September last. The gross death-rate did not amount to quite 20 per 1000, a rate which has seldom been achieved in Manchester for so long a period as three months together. The coolness of the autumn has kept in check infantile diarrhoea, which in ordinary years accounts for a considerable fatality in Manchester. Of zymotic diseases, scarlet fever has shown the usual autumnal rise during the quarter, but the disease has not been nearly so prevalent here as in the metropolis. Small-pox has been reported to be present in thirteen instances, the patients having been imported from one or other of the neighbouring towns where the disease has lately been prevalent.

#### *Eccles and Incorporation.*

The local board district of Eccles has recently received a charter of incorporation, and will for the future be governed by a mayor and corporation. Last week the newly elected council met for the first time in the Eccles Town Hall amidst a considerable flourishing of trumpets. The first mayor is a local gentleman who appears to have won his laurels as a member of the local board, and who, if one may judge from the newspaper version of his speech on this occasion, is determined that the new corporation shall not hide its light under a bushel. The first formal business at the meeting was to declare the old local board dissolved. After this the clerk of the board was duly inducted into the office of town clerk, and the various other officers

were appointed. The new corporation will have plenty of work before them for some years to come. The district of Eccles is really a suburb of Manchester, and most of the residents there have their places of business in the city. The health of Eccles, according to the reports of the late local board, has not always been what it might be, and the corporation will do wisely in seeking out and removing any causes of ill health which may exist in this important and rapidly increasing town. The building by-laws of Eccles, like those of many other local boards, might be improved with advantage ; and if the corporation could be induced to replace them entirely by the admirable model code of the Local Government Board, as has been done in Manchester, everybody except the jerry builders would be the gainers. With regard to the question of hospital provision for infectious diseases, the new borough is most fortunately circumstanced ; for instead of being obliged to incur the serious expense of erecting and supporting a separate hospital of their own, they have one on their very boundaries in the splendid new sanatorium recently erected at Ladywell by the Salford Corporation. This institution, as it is one of the most recent, is likewise one of the very best fever hospitals in England ; it contains about 200 beds and abundant space for extension in the event of an epidemic of extraordinary proportions. The disinfecting arrangements at the hospital are of such excellent design and on such an ample scale that the Eccles Corporation will do wisely in endeavouring to arrange with Salford for the isolation of patients and the disinfection of bedding &c. at the Ladywell sanatorium.

Manchester, Nov. 22nd.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

#### *The New Mayor and the Hospitals.*

MR. R. D. HOLT, the newly elected mayor of this city, following the example of his predecessors, paid a visit to the Infirmary for Children on the 13th inst., the first Sunday after his election, and on the following Sunday attended morning service at St. Barnabas Church. Here a sermon was preached by the Rev. Canon Acheson of Chester, and a collection was made for the funds of the Royal Southern Hospital, which amounted to £84. The mayor, with some of the aldermen, city councillors, and members of the congregation, then went to the hospital, which is within a short distance of the church. They were met by members of the committee and medical staff and visited some of the wards.

#### *Small-pox and Vaccination.*

The proximity of Warrington, where small-pox has for weeks past been epidemic, to this city led to fears that the disease might spread here, there being much traffic between the two places. Some few cases of small-pox have occurred here in lodging-houses, but they have been promptly diagnosed and removed to hospital. At the present time the epidemic is said to be subsiding in Warrington. The disease has appeared in St. Helens, and some trouble was experienced in inducing one patient to submit to removal to hospital. Liverpool has its full share of anti-vaccinationists, who have disseminated much mischievous literature among the poor and uneducated. It is also much to be lamented that many vaccinations are performed by the surgeons to cheap dispensaries and that so many practitioners content themselves with two or even one vesicle, to please the children's mothers. It has been calculated that there are in Liverpool at any given time 40,000 unvaccinated persons, including infants under three months. It is therefore most desirable that both vaccination and revaccination should be efficiently performed. A certain proportion of persons are revaccinated, but it is very much smaller than it should be.

#### *The Head Constable's Annual Report.*

The annual report of Captain Nott Bower, the head constable, which has been recently published, deals with the crime of the city and the state of the police establishment for the year ending Sept. 29th, 1892. It is a document which affords many valuable details of interest to medical readers. Among these are the statements that 359 members of the force received rewards for skill in rendering aid to sick and injured persons upon being commended by the surgeons of the various hospitals, while five constables received medals, two silver clasps, and two certificates from the Humane Society for saving life from fire or

drowning. One constable received an illuminated address from the Society for the Protection of Life from Fire, and two constables received—the one a bronze medal and certificate, and the other a certificate, from the Grand Priory of the Order of the Hospital of St. John of Jerusalem in England for gallantry in stopping runaway horses, the presentation in the two latter cases being made by H.R.H. the Prince of Wales. The certificate of the St. John Ambulance Association of qualification to render first aid in cases of sickness or accident is now held by 570 members of the force.

#### *The Police and the Social Evil.*

During the last two years proceedings have been taken against the keepers of all houses which can be proved to be brothels. A total of 727 persons were thus dealt with in the last year, and it is a proof of the terrible persistence of this evil and of the reluctance of the keepers of these houses to betake themselves to some other calling that 131 of these persons had been previously convicted once, 40 twice, 15 thrice and 2 four times. The results of the proceedings were that 76 were imprisoned, 461 were fined, 57 bound over to appear if called upon, 1 committed for trial, 54 absconded, 48 cases dismissed and 23 summonses were withdrawn. While it is satisfactory to state that some of the streets, formerly almost wholly tenanted by this class of persons, have been cleared of them and are more respectably tenanted, it is also to be observed that the evil shows signs of being scattered rather than extinguished. Captain Bower observes that of 19 cases in which summonses were issued against owners or agents of property, in 4 only have convictions followed. This he attributes to the practical impossibility of obtaining such evidence as will prove "knowledge," Section 3, Subsection 3, of the Criminal Law Amendment Act thus proving of little or no avail.

#### *A Year's Inquests.*

During the same year inquests were held upon 957 bodies, and 706 other deaths were reported to the coroner by the police and others, thus making a total of 1663 cases investigated by the coroner during the year. In the 706 cases only informal inquiry was made. Among the inquests were 51 cases of suicide, 338 of accidental death, 161 of infants "suffocated while in bed with their parents," "found drowned" 25, "executed" 1, "died from excessive drinking" 164, "natural causes" 119.

Nov. 22nd.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

#### *Newcastle Hospital Sunday Fund.*

THE success of the Newcastle Hospital Sunday Fund this year is shown by the hon. treasurer's third list, just published, which amounts to a little over £3000 and is an increase of about £100 over the same lists for last year. This cannot but be considered satisfactory by all who take an interest in this valuable fund.

#### *North of England Microscopical Society.*

At the last meeting of the North of England Microscopical Society, held in the Natural History Society's museum in Newcastle, Mr. John Brown gave a most interesting and instructive lecture on various microscopical objects with demonstrations, in the course of which he mentioned the names of many connected with Newcastle and district, such as the Hancocks, Bradys, Alders, Athleys and others who had advanced the study of the microscope and natural history pursuits. He also alluded to the veteran Dr. Embleton, who was the first, about sixty years ago, to bring a microscope of any power to Newcastle.

#### *Trial for Murder at Carlisle.*

At the Carlisle Assizes last week George Bruce was tried for the murder of his wife at Whitehaven in August last. Bruce was a miner, and while digging in his garden his wife went to help him. He struck her on the head with the spade, fracturing her skull and killing her on the spot. Prisoner admitted his guilt, but the medical evidence of Drs. Campbell and Harris showed that he was subject to monomania and delusions, Dr. Harris having in the April before the murder recommended restraint. The judge, in summing up, alluded to the medical evidence and to Dr. Harris's recommendation in April, which was not carried out, and said that anyone who knew the difficulties which medical men had to contend

with would not feel surprised that the prisoner was not locked up then. Actions were frequently brought against doctors, and they knew that no one was so clever as men or women who had been out of their mind. The prisoner was found guilty and ordered to be kept in confinement during Her Majesty's pleasure.

#### *Death of Mr. Charles Arnison, J.P.*

The news of the death last week of Mr. Charles Arnison, surgeon, of Stanhope was received at Newcastle with much regret, where he was well known and highly respected. Mr. Arnison was in his eighty-fourth year and first qualified so far back as 1834. He belonged to a well-known medical family and was a son of Dr. Christopher Arnison of Allendale and Alston, whom he succeeded; but on the death of his brother, Mr. George Arnison, in 1866, he removed to Stanhope, where he practised until a few years ago, when he retired; but he continued to take an interest in local matters, and was a liberal supporter of schools, local benevolent societies, and indeed all charitable organisations in Weardale. For several years he has sat as a magistrate on the Stanhope and Wolsingham benches. He has left a widow and one daughter. The funeral took place on Saturday last, and was largely attended by the Dalesmen and by many members of the profession.

#### *Excise Prosecution of a Medical Man.*

At Norton, near Malton, last Saturday, a case of some importance to the profession was decided at the sessions there. The medical officer of health for the district was prosecuted at the instance of the Excise for keeping a male servant without a licence. He had engaged a lad to look after his pony, but it was contended that he was not liable for tax, as the lad did not sleep on the premises, and also did other work for which he was paid. The Excise officer contended it was a test case, but the bench dismissed the case and ordered costs against the Excise, including fee for defendant's solicitor.

#### *Ambulance Work in South Shields.*

At South Shields, at an ambulance demonstration last week, Surgeon-Major Hutton made presentations to the two policemen who succeeded in restoring to consciousness two boys who were nearly suffocated by gas in a bath room under circumstances mentioned in one of my previous letters.

#### *The Darlington Public Vaccinator and the Royal Commission.*

At a recent meeting of the Darlington Board of Guardians the Public Vaccinator raised the question of the suspension of the Vaccination Act pending the report of the Royal Commission on the Act. He pointed out that this affected his position, as in two successive weeks he had only to vaccinate two persons in the first and one in the last week, and that the successful vaccinations, which were formerly 83 per cent., had fallen to 55 per cent. If vaccinations were not enforced he must ask for an increase of remuneration to compensate for loss. It was stated that at the next meeting a resolution would be moved rescinding the suspension of prosecutions.

A death through lead poisoning took place on Saturday last at the Newcastle Royal Infirmary. The patient was a female, aged seventeen, who had worked at the lead works on the Tyne. She had a fit three days before she died and never regained consciousness.

The Denton Holme Nursing Association, Carlisle, has received the generous gift of £70 a year for ten years to provide an efficient nurse for a poor district in the city of Carlisle.

Newcastle-on-Tyne, Nov. 23rd.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

#### *The Edinburgh University Court.*

At the meeting of this Court last week it was resolved that the fees for the professional examination for the degrees of M.B. and Ch.B. under the new Ordinance of Medicine should be apportioned as follows:—The fee for the first division of the examination to be £6 6s., and that candidates who only appear for two subjects shall pay £3 3s., and an additional £3 3s. when they appear for the other two subjects. The fee for the second division to be £6 6s., and candidates who defer to appear for *Materia Medica* and *Therapeutics* shall pay £4 4s. for the first stage of the examination and £2 2s. for the

second. The fee for the final division is also £6 6s., and candidates who fail to pass either in the whole or in one or more of the subjects in any division of this examination shall pay £1 ls. for each subject in which they have failed before they can be readmitted to examination in that subject.

*The Jubilee Institute of Nurses.*

A supplementary sale of work in connexion with this institute was held in the Nurses' Home, Edinburgh, last week. Lady Helen Munro Ferguson, in opening it, said that the idea of nursing the sick poor in their own homes was one of the great movements of the present time. It completed the great hospital system of the day, and it would be difficult to over-estimate the benefit the Institute had already been to the sick poor.

*Royal Physical Society, Edinburgh.*

The first meeting of this Society was held last week, when Dr. Symington, lecturer on anatomy in the School of Medicine and one of the Vice-presidents of the Society, delivered his valedictory address, taking for his subject the "Cerebral Convulsions of the Primates." He traced the history of our knowledge from the earlier anatomists to the present day, and pointed out the great practical advantages which had followed upon a more intimate knowledge of the surface markings of the brain, and then of the physiology of some of its parts. The lecture was illustrated with drawings and copies of Professor Cunningham's casts of the brains of several of the Primates.

*Health Statistics.*

For last week the returns of notified cases of zymotic diseases were: Measles, 457; scarlet fever, 26; diphtheria, 5; whooping-cough, 3; erysipelas, 9; being a total of 500 cases, a decrease of 59 as compared with the previous week.

*Health of Aberdeen.*

During October there were 213 deaths in the city of Aberdeen, a death-rate of 19.73 per 1000. In September the rate was 16.36, while last October it was 19.25. The mean age at death was 27.1 years. There was a great increase of the mortality among young children, due to the epidemic of measles—1515 cases of measles were reported during the month, as against 307 in September and 63 in August. The mortality, however, only amounted to 2.1 per cent. of the reported cases, which is less than half the usual mortality. The cases of scarlet fever still continue to increase in number, 222 having been reported in October as against 121 in September. Diphtheria was also more prevalent.

*Aberdeen Medico-Chirurgical Society.*

The annual general meeting of this Society was held on Thursday, the 17th inst., when the following were elected office-bearers for the year:—President, Dr. Angus Fraser; vice-president, Professor Stevenson; secretary, Dr. George Edmond; recording secretary, Dr. G. P. Ferdinands; treasurer, Dr. John Gordon; librarian, Dr. G. Rose. Council—Professors Cash and Finlay, Drs. Dalgarno, Rodger and Garden.

*First Meeting.*

At the first meeting of this Society for the winter a presidential address was delivered by Dr. R. J. Garden on "Medical Charities: their Functions and Correlations." Dr. Garden, after mentioning the importance of the subject, referred in detail to the working of the various medical charities in Aberdeen and advocated some changes in their management.

Nov. 16th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*Dublin University Biological Association.*

THE opening meeting of the Association will be held on the 24th inst. The President, Dr. Beatty, will deliver an address upon "Functions of the Glands of the Skin." The meeting will be addressed by Dr. Walter Smith, President of the Royal College of Physicians, and Dr. Purser.

*Graduates' Union: Royal University.*

A meeting of the graduates was held last week to discuss a project for the formation of a graduates' union. Mr. Purcell, in moving that the time had arrived for the founding of a Royal University Union, said that such unions were the rule in all residential universities, and their necessity was much greater in the case of a university such as the Royal, where

there were not many opportunities for graduates to meet to take an interest in their University, and to exert a useful influence on its future. The motion was passed, also a resolution to the effect that a provisional committee of graduates be formed to inquire into the prospects of forming a graduates' union.

*Health of Dublin for October.*

As compared with the previous month, there was a considerable decrease in the mortality caused by infectious diseases. The zymotic death-rate, which was 3.77 per 1000 in September, fell to 1.5 in October. There was a slight increase in the fatal cases of scarlet fever; but a great decrease in the mortality ascribed to diarrhoea, probably due to the lowering of temperature, which was 4.2° below the average. As to the general death-rate, it was 1.42 below the average of the corresponding month for the previous ten years.

*Alleged Insanitary Condition of the Hibernian Military School, Phoenix Park.*

It has been stated that the drainage arrangements of this institution, which accommodates some 500 inmates, are in a deplorable condition and that an outbreak of typhoid fever has taken place. As regards the disposal of sewage, the process used is one in which the sewage is mixed with carbolic acid and lime and distributed over an adjoining field. Some of the boys are said to have suffered from a mild form of "gastric" fever, most probably typhoid, and Sir C. Cameron inspected the place on Saturday last and will shortly report on the matter. It must be mentioned that the health of the boys has usually been good and the death-rate exceptionally low.

*Cholera Huts on Kingstown Pier.*

At a recent meeting of the Kingstown Commissioners a communication was received from the Board of Public Works withdrawing their objections to the site on the West Pier for cholera huts, in the event of an outbreak of the epidemic next autumn, upon the following conditions: "(a) That the arrangement is to be a purely temporary one, and to last for one year as a maximum. (b) That the responsibility and risk of erecting a cholera hospital in a place regarded as so unsuitable by the Board rest entirely with the urban sanitary authority. (c) That permission is conditional on the Town Commissioners at once proceeding to exercise their compulsory powers for the acquisition of a site for an isolated hospital, as recommended by the Medical Superintendent Officer of Health, for treatment of infectious diseases, so as to avoid the necessity of having recourse, after the threatened emergency has passed, to the objectionable scheme now contemplated." It appears that the time has passed for this year during which the statutory notices for obtaining land by compulsion should be published; but the Commissioners have promised to do all in their power between this and November next to obtain a site before resorting to compulsion.

*The Ulster Medical Society: Annual Dinner.*

The annual dinner of the Ulster Medical Society was held in Belfast on Nov. 17th, when there was a very large number of members present. The President, Dr. Whittaker, medical officer of health for the city, occupied the chair, and amongst the guests were the Lord Mayor (Sir Daniel Dixon), the President of Queen's College (Dr. Hamilton), Dr. Walton Browne (President of the North of Ireland Branch of the British Medical Association), Surgeon-Colonel Preston, Brigade-Surgeon Howard, Surgeon-Major Bigger, Fleet-Surgeon Wheeler and Professor S. Dill, M.A. After the usual loyal toasts of "The Queen" and "The Prince and Princess of Wales" had been given, the President proposed "The Lord-Lieutenant and Prosperity to Ireland," which was responded to by Professor Whittle, M.D. Dr. M'Keown proposed "The City of Belfast," to which the Lord Mayor replied. "The Queen's College and the Belfast Medical School" was given by Brigade-Surgeon M'Farland, and President Hamilton, D.D., and Mr. John Fagan responded. "The British Medical Association and the North of Ireland Branch" was proposed by Dr. Dempsey and responded to by Dr. Walton Browne and Dr. Byers. Dr. Lindsay gave "Our Guests," and Surgeon-Colonel Preston and Professor S. Dill, M.A., replied. "The Ulster Medical Society" was proposed by President Hamilton, D.D., and Dr. Whittaker (President) and Dr. M'Gaw (secretary) replied. Through the kindness of Dr. M'Gaw, Dr. Mackenzie, Dr. Lindsay, Brigade-Surgeon Howard, Dr. M'Kisack, Dr. Leslie and Dr. Lewers, an admirable programme of music was provided. The dinner, which was one of the largest medical *réunions* ever held in Belfast, was

a decided success, and this was in great measure due to the exertions of the popular secretary of the Society, Dr. M'Gaw.

#### Belfast Royal Hospital.

The annual meeting of the supporters of this charity was held on Monday last, and from the report presented by Dr. Whitla, honorary secretary of the medical staff, I learn that 2455 intern cases were treated during the year ending Aug. 31st, 1892, the largest number ever treated in any year of the hospital's existence. Of these, 998 were medical and 1457 surgical cases. The mortality, excluding the moribund cases in the medical wards, was 5.8 per cent., and 2.7 per cent. in the surgical wards, giving an average mortality of 3.9. In the extern department 20,293 cases were treated during the year. Of these, 5001 were medical and 15,292 surgical. There was an average daily attendance of 180. During the winter session 171 students received clinical instruction, and during the summer 106. A very satisfactory financial statement was presented. The year commenced with a debt of £2203 15s. 6d. The expenditure for the year was £8789 9s. 7d., and the receipts from all sources £15,207 18s. 5d. The receipts, therefore, exceed the debt and expenditure by £4214 13s. 4d., and of this sum £3800 has been invested, leaving a balance of £414 13s. 4d. in the hands of the treasurer. This most satisfactory result is due to some large bequests and to the Centenary Bazaar, which realised £3588 11s. 2d. The receipts from the working men show an increase of £93 7s. 3d. The Chairman of the Board of Management (Mr. W. H. Dixon) said, at the meeting, that it was an open secret in Belfast that the Hospital Committee were endeavouring to acquire the premises of the Belfast Charitable Society for the site of a new hospital. On the previous Saturday the committee of the Charitable Society had come to the conclusion as to the terms on which they would sell to the Hospital Committee, and when it was shown that the people of Belfast were prepared to avail themselves of what was undoubtedly the best site for a hospital in the city, without any detriment to the Charitable Society, the matter would, doubtless, be concluded.

Mr. Charles Lloyd Cowell, L.R.C.S.I., has been elected house surgeon to Monkstown Hospital for six months from Dec. 1st. Nov. 22nd.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

### Medical Students v. Town Councillors.

THE Prefect of the Seine and the rest of the venerable City Fathers, sitting in solemn conclave at the Hôtel de Ville on Saturday last, were considerably astonished by the sudden appearance within that stately edifice, at 5 P.M., of an excited crowd of 300 students of the Faculty of Medicine, crying at the top of their voices "Conspuez Strauss!" "Conspuez Peyron!" the gentlemen named being respectively a well-known municipal councillor and the director of the Assistance Publique. Neither M. Strauss nor M. Peyron putting in an appearance, the young people betook them to the Faculty of Medicine, where, in conformity with their request, they were, to the number of 400 or 500, admitted into the large amphitheatre. Two lamps were lit, and Professor Brouardel, the Dean, appeared, and strongly recommended them to keep cool and to refrain from violence, promising to do his utmost to give them satisfaction in the matter in dispute. The assembly then quietly dispersed. What was the cause of the disturbance? It appears that one day recently M. Strauss, with his colleagues of the fifth commission, which exercises supervision over the Paris hospitals, was paying his usual visit to the wards of the Hôpital St. Antoine. In one of the wards, which was only partly filled with patients, they came upon three *externes* in the empty part of the room. Each wore his hat, and one was smoking a cigarette. As they took no notice of the members of the Commission the hospital superintendent, who accompanied them, informed the students of the quality of the visitors. The hats and the cigarette still remaining *in situ*, M. Strauss reproved the young gentlemen, with the result that two of them uncovered, while the third, M. Salmon, continued to smoke and to wear his hat. Result: decree of expulsion issued by M. Peyron against M. Salmon. Common cause was then made with the expelled one by the whole body of students, and it was determined to prevent the holding of the usual competitive examinations for the *externat* and the *internat* unless M. Salmon was restored to his duties. When the students invaded the Hôtel de Ville they had already

successfully obstructed the proceedings at the examination for the *externat*. On Monday last the same tactics were pursued at the examination for the *internat*, which, accordingly, was not held, the examiners retiring. Pouring out of the examination room in the Avenue Victoria into the neighbouring Place de l'Hôtel de Ville they were chased by a squad of police as far as the Place St. Michel, whence they repaired to the Faculty, where they were again addressed by the Dean, who, by the way, is extremely popular. Notwithstanding the announcement that the examinations are postponed until further notice, the manifestations recommenced again yesterday morning at the Assistance Publique and before the Hôtel de Ville, and at the Faculty, where M. Weiss's lecture on Physics had to be abandoned. Meanwhile M. Salmon, on expressing his regret for his conduct, has had his punishment reduced to suspension until Jan. 1st; but this does not satisfy the body of students, who are resolved to support their comrade *à outrance* and also to agitate against municipal interference in the wards of hospitals. They maintain that they are not bound to take any notice of persons other than their chiefs who may visit their wards. As to smoking in the wards, that is a practice that is tolerated, and both patients and *personnel* smoke with impunity out of working hours. I myself have repeatedly seen professors smoke cigarettes at the end of the morning visit. It is also a subject of complaint that the *externes* of all hospitals except remote ones, such as St. Louis, Tenon, Lariboisière, &c., are not paid for their services. Professor Brouardel received on Monday a deputation of *internes* and *externes* of the St. Antoine Hospital. It was understood that a report formulating the demands of the students should be presented to the Dean. At a monster meeting of 1800 students held yesterday at the École Pratique of the Faculty, a petition embodying the following demands was approved: (1) recall of M. Salmon; (2) establishment of a special jurisdiction for the solution of any disputes that may arise amongst the medical *personnel* of the hospitals. Another meeting is fixed for Thursday, in order to determine the advisability of a general strike of *internes* and *externes*.

### Passing of the New Law Regulating the Practice of Medicine.

Some time ago I acquainted the readers of THE LANCET with the principal provisions of the above law. At to-day's sitting the Senate finally adopted it, and it will forthwith come into operation. The only clause not adopted is that dealing with the prohibition of the simultaneous exercise of the profession of medicine and the art of pharmacy. That question will for convenience be dealt with when the new Pharmacy Act is discussed.

Paris, Nov. 23rd.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

### Professor Pettenkofer's Experiment.

IN his lecture at the University on the 17th inst. Professor Virchow spoke as follows: "It has repeatedly happened that diseases have been erroneously ascribed to micro-organisms. This was the case with the fermentation fungus, for example, till its harmlessness was demonstrated by experiments on animals. As to the importance of local circumstances emphasised by Pettenkofer, it has been by no means ignored; but local disposition is not the only important thing. From the circumstance that one part of the earth is covered by a pine forest, another by a fir forest, one may indeed infer a special disposition of these parts for the vegetation in question; but these trees flourish in other places too; the main thing is that the bearers of life—germs, seeds and spores—get there. And so it is with cholera and cholera bacilli. These latter are the main thing, and they find in some organisms the conditions most favourable to the engendering of cholera, whereas they pass others by uninjured. The bacilli, therefore, are really the cause of the disease, but they alone do not produce it. They are not the disease itself; on the contrary, the disease consists in the reactions produced by them under favourable circumstances." In an interesting criticism of Professor Pettenkofer's views, addressed to the *Vassische Zeitung* of Berlin, an anonymous medical writer quotes Professor Koch's opinion that more than 50 per cent. of mankind are naturally immune against cholera.

### "Natural Photography."

At last week's meeting of the Berlin Medical Society Dr. Lassar showed life-size photographs of heads. Hitherto

it has been technically impossible to photograph the human face in its natural dimensions. Only the indirect enlargement of objects by means of lenses was practicable. This difficulty has now been got over by Eugen Haak of Stuttgart, who has invented a new way of using the magnesium light. He uses a "lightning cartridge," which gives a very powerful light, extinguishable by means of an electric fuse in the tenth part of a second. This so-called "natural photography" produces impressions of extraordinary accuracy, but requires great skill and practice, and is still very expensive. As yet it is practised by only one photographer in Berlin. Dr. Lassar proved the accuracy of the photographs shown by him by exhibiting the patients from whom they had been taken. Some of the morbid changes were even more recognisable in the photographs than in the patients themselves.

*The Prussian Medical Calendar for 1893.*

The *Prussian Medical Calendar* for 1893, published by Hirschwald of Berlin, with the sanction of the Minister of Ecclesiastical, Educational, and Medical Affairs, does not differ in outward appearance from those of former years. The first part, which contains not only the calendar, but also excellent notices regarding medical apparatus and prescriptions and a diagnostic manual, is by Medical Counsellor Wernich. The second part consists of the official orders that have been issued this year with reference to medical affairs and a list of all the medical men practising their profession in Germany.

Berlin, Nov. 22nd.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

*Cholera in Austria-Hungary.*

A BOATMAN who had arrived on a Danube steamer on Nov. 2nd from Raab (Hungary) and who had not left his vessel during his six days' stay, died from cholera sicca on Nov. 8th, without showing any symptoms of sickness even the day before his death; since that date no other case of cholera has occurred in Vienna, and the cholera hospital was closed last week. The total number of cholera cases recorded was four, of which number three died and one recovered, but in two of the cases the clinical symptoms and intestinal pathology differed from those of ordinary cholera Asiatica and the diagnosis of the cases was based merely on the presence of the comma bacillus. In Galicia the cholera has disappeared in the district of Cracow, and the restrictions on the traffic in this province have now been removed. Official statistics show that 865 cases of cholera have been notified to the municipality during the month of October, but 185 cases of these were proved not to have been cholera. The mortality among the remaining 680 cases of real cholera Asiatica was 57 per cent. At the commencement of the epidemic the mortality was extremely high—over 80 per cent. A favourite remedy in some of the hospitals was the internal administration of chloroform, which proved of benefit in some cases in the vomiting. Mustard baths and the internal use of an extract of onions and of allylsulphide were also tried without any significant effect.

*The Microbes of the Danube Water.*

In the Hygienic Institute of the Vienna University the water of the Vienna Danube Canal was examined bacteriologically by Dr. Heider, Professor Gruber's assistant, some weeks ago. He found two species of vibrio-like bacilli, similar in their microscopical appearance to the comma bacillus. One of these bacilli exhibited the same reaction in its cultures as the comma bacillus. The vibrio of Dr. Heider showed clearly, if cultivated in 1 per cent. peptone-water, the cholera-red test acting by reducing litmus-bouillon within twelve hours, and producing a brown pellicle on potatoes, thus rendering it indistinguishable from the growths of the comma bacillus. During the first twenty-four hours the gelatine plates inoculated with Heider's vibrio resembled those inoculated with Koch's comma bacillus. Later on there was a difference to be observed between the vibrio cultures and those of the comma bacillus, the former being darker and the culture mass being more equally distributed throughout the liquefied gelatine. Test-tube cultures of Heider's vibrio differed only in the quicker growth and the more equable and more pronounced opacity in the appearance produced by the comma bacillus.

Vienna, Nov. 20th.

Obituary.

GEORGE ROSS, A.M., M.D.

DR. ROSS, Vice-Dean Faculty of Medicine, McGill University, Montreal, and Professor of Practice of Medicine, died on Nov. 8th, 1892, aged forty-seven. He was well known as a consultant throughout the whole Dominion of Canada, and as a clinical teacher his reputation was unequalled. He was a most acute diagnostician, and his method of teaching was somewhat like that of the late Dr. Murchison. He had been President of the Canadian Medical Association and of the Montreal Medico-Chirurgical Society. Although possessed of excellent literary ability and editor of the *Montreal Medical Journal*, he was not a prolific writer, his contributions consisting chiefly of papers read before the various societies. His article on Aneurysm, written for the "Reference Handbook of the Medical Sciences," has attracted much attention in America. Dr. Ross was a clear and forcible speaker and a very popular lecturer. He will be much missed, and his University will have difficulty in replacing him. No less than three Professors of Medicine have died within the last three years—viz., Drs. Howard, McDonnell and Ross.

ROBERT ZACCHEUS PITTS, M.R.C.S., L.S.A.

By the premature death from typhoid fever on the 9th inst. of Mr. R. Z. Pitts Chelmsford has lost one of its ablest practitioners—one whose character and genial manners had endeared him to every class of the community. Born at Hingham, Norfolk, in 1850, Mr. Pitts received his medical education at the Middlesex Hospital, where he was a most successful student, and in which he held, in 1872-3, the offices of house surgeon and house physician. On leaving London he was appointed house surgeon to the West Herts Infirmary, Hemel Hempstead, a post held by him for about five years, and in this place he made many life-long friends. In June, 1879, Mr. Pitts went to Chelmsford, succeeding to the practice of Dr. Orpen of that town. In spite of his ever-youthful appearance, Robert Pitts made his way in practice with remarkable rapidity. He possessed in an eminent degree all those qualities which are essential to success. Thus, in the first place, he had a great love for his profession; and, in the next, he was never idle. Skilful and full of resource, and notably self-reliant, he was always sympathetic and good-natured, earning the affection of his patients and disarming all rivals. A great lover of natural history and of English literature, Mr. Pitts had for some years occupied his leisure in the study of ornithology, and in collecting specimens and books bearing on the subject. Still, he never had much leisure—for he died in harness—and may have naturally looked forward to a less busy time when he could have devoted more attention to extra-professional pursuits. During his fatal illness he was attended by his partner, Mr. Holland, and by his friend and former fellow-student, Dr. Sidney Coupland, of the Middlesex Hospital. The feeling in Chelmsford at his death found eloquent expression in the sermon preached at Holy Trinity Church by the rector, the Rev. A. Cyril Pearson, in the tributes in the local press, and, above all, in the large and representative gathering at the funeral on the 12th inst. He leaves a widow and five children to mourn their loss, but his family and friends have the consolation that his life, comparatively brief as it was, was spent in the service of his fellows, that it was marked by sterling rectitude, and was, moreover, full of the happiness which comes of the consciousness of work well done.

FRANK GILPIN, M.R.C.S., L.S.A.

AT the early age of twenty-seven and after barely two years' experience of the duties and responsibilities of a professional career Mr. Frank Gilpin, medical officer of health for Stratford-on-Avon and district, died on the 16th inst. from typhoid fever. Mr. Gilpin, who was unmarried, was a former student of the Middlesex Hospital, where he was a general favourite and where his excellence in the cricket and football fields is doubtless known to many outside his own school. He was appointed to the post of medical officer of health at the end of 1890 and soon showed his fitness for the duties pertaining thereto. It has been pointed out that it was owing to his exertions that a fever hospital has been erected at Loxley and that what threatened to be a severe epidemic was averted. During his illness, which was probably contracted in the discharge of his duties, he was attended by Messrs. Nason and Norbury,

as well as by his brother, Mr. R. H. Gilpin of Evesham, and also by Dr. Cayley of the Middlesex Hospital. It is seldom that we have the mournful task of recording the abrupt termination of a career just after it had opened with so much promise.

G. W. RHODES, M.R.C.S., L.S.A.

THE death is announced of an old Huddersfield practitioner—Mr. George W. Rhodes—at his residence, Queen-street South, on the 22nd inst. He was an honorary surgeon of the Huddersfield Infirmary and had been president of the Huddersfield Paxton Society. In all local improvements he took a great interest, especially in educational matters. The deceased gentleman was in his sixty-ninth year.

THOMAS WILTSHIRE, L.R.C.P. EDIN., L.F.P.S. GLAS., &c.

WE announce with regret the death of Mr. Wiltshire of Tunbridge Wells, aged fifty-six. About twenty-eight years ago he succeeded to the practice of Mr. Tinsley, a leading and respected surgeon at Sheffield. By dint of hard work and devotion to his profession he succeeded in retaining one of the largest practices in the north of England until about five years ago, when he retired. He never tried for any medical appointments, nor did he interfere with public affairs. He was simply devoted to his profession as a surgeon. He was well liked by the members of his profession, and was beloved by his patients and friends. During the winter of 1890-91 he suffered severely from an attack of influenza, from which he never completely recovered.

HENRY MOON, M.R.C.S., L.D.S.

WE have to record the death of Mr. Henry Moon, late dental surgeon to Guy's Hospital, at the age of forty-seven. He was born at Tottenham, Middlesex, and was the son of Mr. William Moon, a gentleman in large general practice there. He was for a time educated at Bruce Castle, but, being of delicate constitution, he had private tutors at home, but afterwards went to Germany. On his return he entered at Guy's Hospital, but after he had passed it was considered unwise for him to undertake the rough work of general practice, and he devoted himself to dentistry. In a few years he became Vice-President of the Odontological Society, Examiner in Dental Surgery at the Royal College of Surgeons, England, and dental surgeon to the Dental Hospital, London, and on the retirement of Mr. Salter he was appointed dental surgeon to Guy's Hospital and lecturer on dental surgery. He wrote the article on Dental Surgery in "Bryant's Surgery," besides many papers in the Odontological Reports and in the Journal of the British Dental Association. About four years ago his health began to fail, and after much urging he went to New Zealand, where he improved for a time, when family affairs brought him again to England; but his health again gave way, and he died on Nov. 14th. Of gentle, kindly manner, most conscientious, generous, and thoroughly reliable, it was no wonder to his friends that he succeeded in private practice as rapidly as he did in his public position.

## Medical News.

UNIVERSITY OF LONDON.—The following candidates have passed the recent M.B. Examination:—

*First Division*—Christopher Addison, Arthur Seal Blackwell, B.Sc., Wm. Black Jones, H. T. Parker, Walter Ley Pethybridge, B.Sc., and C. E. Wheeler, B.Sc., of St. Bartholomew's Hospital; Louis B. Aldrich-Blake and Mary Ellen Rye, of the London School of Medicine and Royal Free Hospital; Hamilton Ashley Ballance, Arthur Douglas Heath, John Jones, Cecil Benjamin T. Muirgrave, Martin Randall, B.A., Edmond Wallace Selby, Hugh Roubilliac Smith, Chas. George Spencer, Geo. Arbour Stephens, B.Sc., and Frank W. Wesley, of University College; Chesman Barker, of the Sheffield Medical Institution and St. Bartholomew's Hospital; Wm. Bligh, Francis Jordan Coleman, Arthur Mantell Dady, C. Caldwell Elliot, Stephen G. Floyd, Edwd. T. E. Hamilton, B.Sc., C. Satchell Fantin, Arthur John Sharp, and T. Robinson Taylor, B.Sc., of Guy's Hosp.; Chas. Richd. Box, B.Sc., W. P. Purvis, B.Sc., and Seymour Graves Toller, of St. Thomas's Hospital; Albert Edward Brindley and Richard Hamilton, of Owens College and Manch. Royal Infirmary; Thomas Grigor Brodie, Henry Stephen Sandifer, and Arthur Whitfield, of King's College; John Evans, of the Univ. Colleges of Liverpool and London; Jessie Elwitt Hatch, of the London School of Medicine for Women; Vincent Warren Low and Leonard Rogers, of St. Mary's Hospital; J. Saint Johnston, Sidney Herbert Perry and Thos. Major Tibbets, of Queen's College, Birmingham; Wm.

James Procter, of the London Hospital and University College; Frank Allan Roberts, of Yorkshire College; Clement Michael Rogerson, of Yorkshire College and General Infirmary, Leeds. *Second Division*.—Herbert Stanley Ballance and Howard Distin, of King's College; Robert Henry Cole, of St. Mary's Hospital; Henry Wilkes Gibson, of Middlesex Hospital; Charles Joseph Harrison, of University College; Thos. David Lister, of Guy's Hospital; John Williamson Pugh, of London Hospital; Herbert Ramsden, of Owens College; Henry Eugene Tacey, of St. Bartholomew's Hospital; Stephen Longmore B. Wilks, of Yorkshire College.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the subjects indicated:—

*Surgery*.—C. K. Batchellor, Queen's College, Birmingham; W. E. Barker, Owens College, Manchester; S. A. Clarke, Middlesex Hospital; H. E. Cooper, St. Thomas's Hospital; H. S. Elliott and N. Elrington, St. George's Hospital; V. P. Fote, Charing-cross Hospital; W. E. Gibbs, Durham; F. G. Hargrave, London Hospital; C. S. Lewis, St. George's Hospital; O. H. A. Maggs, Charing-cross Hospital; A. Marshall, St. Thomas's Hospital; G. H. Nowell, Cambridge University and Westminster Hospital; M. Richards, London Hospital; E. Smallwood, Liverpool.

*Medicine, Forensic Medicine and Midwifery*.—A. Baldwin, Edinburgh; H. A. Beetham and F. G. Dorey, Yorkshire College, Leeds; E. Herd, Cambridge University and Manchester; Jeaffreson, University College; E. G. G. Little, St. George's Hospital; G. Martyn, King's College; G. H. Nowell, Cambridge University and Westminster Hospital; A. B. S. Stewart, Yorkshire College, Leeds; A. T. Todd-White, Guy's Hospital; G. W. Wickham and S. Wimbush, St. Bartholomew's Hospital.

*Medicine and Forensic Medicine*.—B. E. Church, St. Bartholomew's Hospital.

*Forensic Medicine and Midwifery*.—H. W. Joyce, King's College; H. E. Mortis, Charing-cross Hospital.

*Forensic Medicine*.—F. A. P. Arnold, London Hospital; A. H. Hardcastle, Yorkshire College, Leeds; W. E. S. Jones, Guy's Hospital.

*Midwifery*.—J. E. Bailey, University College; W. Handcock, Yorkshire College, Leeds; J. J. Powell, Cambridge University and St. Thomas's Hospital; A. L. Roper, Cambridge University and Guy's Hospital; J. D. Willis, Owens College, Manchester.

To Messrs. Arnold, Baldwin, Baldwin, Batchellor, Dorey, Elliott, Elrington, Foote, Handcock, Hargrave, Jeaffreson, Lewis, Maggs, Mortis, Nowell, Powell, Richards, Wickham, Willis and Wimbush was granted the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery.

UNIVERSITY OF GLASGOW.—The following gentlemen have passed the Examinations mentioned below:—

*Doctor of Medicine*.—Henry Leslie Graham Leask, M.B., C.M. Scotland; John Rowat, M.B., C.M., Scotland; John Cockburn Syson, M.B., C.M., Scotland.

*Doctor of Medicine (Old Regulations)*.—Daniel M'Neill, L.F.P.S.G., Scotland.

*Bachelors of Medicine and Masters in Surgery*.—James William Moon Buick, England; Robinson Buddock Coyle, Ireland; Adam Guthrie Burrell, William Cassels, Farquhar Gracie, Campbell Hight, Alexander Kelso, William Anderson Kirkwood, William M'Call, Archibald Robertson, M.A., James Andrew Robertson, Alexander Marshall Roy, John Barr Stevens, and Charles Stewart, Scotland; George Nelson Turner, South Seas.

ROYAL COLLEGE OF SURGEONS IN IRELAND: DENTAL EXAMINATION.—The following gentlemen having passed the necessary examination have been admitted Licentiates in Dental Surgery of the College:—

Mr. Ernest Catt (Scarborough) and Mr. Louis Benjamin Eskill (Bath).

MEDICAL DEFENCE UNION (LIMITED).—At a meeting of the Local Committee for London held at the offices of the British Medical Association, 429, Strand, on Tuesday, Nov. 3th, 1892, Dr. Danford Thomas in the chair, the following resolution was proposed by Dr. Fancourt Barnes, seconded by Dr. Masters and carried *nem. con.*: "That in the opinion of this committee the best interests of the Medical Defence Union would be served if the office of president of the Union was held from time to time by a metropolitan member." Dr. S. Sunderland and the secretaries of the Union did not vote. The honorary secretary, Dr. Campbell Pope, was instructed to forward the resolution to the central council.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Corporation of London has granted donations of 100 guineas each to the City Dispensary, to the Royal Sea-bathing Infirmary for Scrofula, Margate, and to the Royal Hospital for Diseases of the Chest, City-road; and 50 guineas each to the Royal Ear Hospital, Soho, and the Gordon Hospital for Fistula, Vauxhall Bridge-road.—Under the will of the late Mr. George E. B. Lousada of Hyde Park-terrace, legacies of £50 each are left to the Hospital for Sick Children, Great Ormond-street, St. Mary's Hospital, University College Hospital, and the Jews' Hospital, Norwood.—The late Mr. William Hodgson of Haxby, near York, bequeathed £1000 to the York County Hospital and £500 to the York County Asylum.—The treasurer of the Royal Portsmouth Hospital has received £250 from "a prominent man of business in the town."—The trustees of the Walsall Cottage Hospital have received £53 from an anonymous donor.

**HOSPITAL SUNDAY FUND.**—The Lord Mayor has received a sum of £100 for the Hospital Sunday Fund as a donation from the late Miss Anderdon.

**PRESENTATION.**—Dr. Charles Kinsman Rawes of Weston-super-Mare has been presented by the members of the Provident Dispensary in that town with a handsome marble clock in appreciation of professional services rendered to them.

**SURGICAL AID SOCIETY.**—The first meeting of the Brighton and Hove Branch of this Society was held on the 21st inst., in the banqueting room of the Royal Pavilion. The Mayor of Brighton (Dr. Ewart) presided and explained the objects contemplated by the formation of the branch as well as the work of the parent society.

**WILTS COUNTY ASYLUM.**—The Wilts County Council has decided to purchase upwards of thirty-three acres of land adjoining the County Asylum for providing additional airing ground for the patients and for sewerage purposes. Application will be made to the Local Government Board for sanction to borrow the necessary sum for the proposed outlay.

**FOOTBALL CASUALTIES.**—During a match, on the 12th inst., at Sandhurst village a player sustained a compound fracture of the leg and also severely injured his foot. He was admitted to the hospital at the Royal Military College.—On the 16th inst., in a match between King's School; Chester, and Grove Park School, Wrexham, a player of the former school fractured his left leg.

**MEDICAL MAGISTRATES.**—Dr. John Brown of Burnley, Dr. Joseph Ewart and Mr. Bernard Roth of Brighton, Drs. George H. Russell and S. Woodcock of Manchester, and Dr. Arthur Garnons Lawrence of Chepstow have been added to the Commission of the Peace for the boroughs of Burnley and Brighton, the city of Manchester, and the county of Monmouth respectively.

**GREAT NORTHERN CENTRAL HOSPITAL.**—It is intended to hold a festival dinner early in next spring in aid of the funds for the completion of the buildings, and H.R.H. the Duke of York has consented to preside on the occasion. The cost of the extensions, with furniture and fittings, will be at least £27,000, towards which sum only £8000 have been promised or received.

**DOMESTIC HYGIENE.**—A series of eight lectures on various subjects connected with domestic hygiene are being undertaken by the Halesowen and District Technical Instruction Committee, and will no doubt be useful in promoting public interest in matters connected with the health and happiness of home life. The lectures will deal with such points as the management of infants, the means of recognising poisons, what articles of diet should be chosen and what avoided, and so forth. The lecturers are Dr. T. B. Young, and Mr. H. C. Darby, and the series of discourses will extend from Nov. 16th to Dec. 8th.

**THE LONDON HORSE.**—At St. James's Hall, on Monday last, a meeting was held for the purpose of considering what means could be taken to improve the condition of the London horse and furthering the unity and wellbeing of all who in any way were connected with horses. Suggestions were made with reference to the establishment of convalescent homes for horses and to the improvement of their food. The question as to whether horse owners and men should be placed under the authority of the County Council was also discussed. A committee has been formed, and the meetings will be continued during the next few months.

## BOOKS ETC. RECEIVED.

- BENTLEY, RICHARD, & SON, London.**  
Egypt To-day: The First to the Third Khedive. By W. Fraser Rae. 1892. pp. 381.
- BOYLE, ROBT., & SON, London and Glasgow.**  
A Sanitary Crusade through the East and Australia. Reprinted from the "Building News," Sept., 1892. pp. 44.
- BEMROSE & SONS, Limited, Old Bailey, London, and Derby.**  
The Official Report of the Church Congress, held at Folkestone, Oct., 1892. Edited by the Rev. C. Dunkley. 1892. pp. 645.
- CHURCHILL, J. & A., New Burlington-street, London.**  
A Short Manual of Orthopaedy. By H. Bigg, F.R.C.S. Edin. Part I. Deformities and Deficiencies of the Head and Neck. 1892. pp. 78.

- DAVIS, F. A., Co., Philadelphia and London.**  
Tuberculosis of Bones and Joints. By N. Senn, M.D., Ph.D., Chicago. 1892. pp. 504.
- HIRSCHWALD, AUGUST, Berlin.**  
Das Gesetz der Transformation der Knochen. Von Dr. J. Wolff. 1892. pp. 152.
- KEGAN PAUL, TRENCH, TRÜBNER & Co., Charing-cross-road, London.**  
Man and the Glacial Period. By G. Fredk. Wright, D.D., LL.D., F.G.S.A. With an Appendix on Tertiary Man, by Professor H. W. Haynes. Illustrated. 1892. pp. 385. Price 6s.
- LEWIS, H. K., Gower-street, London.**  
Text-book of Ophthalmology. By Dr. E. Fuchs. Translated from the Second German Edition, by A. Duane, M.D. Illustrated. 1892. pp. 788.  
Notes on the Clinical Examination of the Blood and Excreta. By S. Coupland, M.D., F.R.C.P. Third Edition. 1892. pp. 68. Price 1s. 6d.
- LONGMANS, GREEN & Co., London.**  
The Diseases of Children, Medical and Surgical. By H. Ashby, M.D. Lond., L.R.C.P., and G. A. Wright, M.B. Oxon., F.R.C.S. Eng. Second Edition. 1892. pp. 757. Price 24s.
- LIPPINCOTT, J. B., Comp., London and Philadelphia.**  
Diseases of the Kidneys and Bladder. A Text-book for Students of Medicine. By W. F. McNutt, M.D., M.R.C.S., L.R.C.P. Edin. 1893. pp. 242.  
Mother and Child. Part I.: Mother. By E. P. Davis, A.M., M.D. Part II.: Child. By John M. Keating, M.D., LL.D. 1893. pp. 472.
- MASSON, G., 120, Boulevard Saint-Germain, Paris.**  
Manuel Technique de Massage. Par le Dr. J. Brousses. Avec Figures dans le Texte. pp. 181.
- OFFICE OF THE CHEMIST AND DRUGGIST, Cannon-street, London.**  
The Pharmacy and Poison Laws of the United Kingdom. With a Brief Account of the Pharmacy Laws in force in Australasia, Canada, and Cape Colony. pp. 220. Price 2s. 6d.
- OLIVER & BOYD, Edinburgh.**  
The Transactions of the Edinburgh Obstetrical Society, Vol. XVII. Session 1891—92. pp. 297.
- PUTNAM'S, G. P., SONS, New York and London.**  
The Diagnosis of Diseases of the Nervous System. By C. A. Herter, M.D. 1892. pp. 628.
- SAXON & Co., Bouverie-street, London.**  
Sultan to Sultan. Adventures among the Masai and other Tribes of East Africa. By M. French-Sheldon. 1892. pp. 435.
- STOCK, ELLIOT, Paternoster-row, London.**  
The Dawn of the English Reformation; its Friends and Foes. By H. Worsley, M.A. Cheaper Edition. 1892. pp. 380.
- SWAN SONNENSCHNEIN & Co., London and New York.**  
Text-book of the Embryology of Man and Mammals. By Dr. O. Hertwig. Translated from the Third German Edition by E. L. Mark, Ph.D. With Figures and Plates. 1892. pp. 670.
- THE NEW SYDENHAM SOCIETY, London.**  
A Treatise on Gynecology, Clinical and Operative. By S. Pozzi, M.D. Vol. I. 1892. pp. 426.  
The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. By H. Power, M.B., and L. W. Sedgwick, M.D. Part XIX. Nec—Olf. 1892.
- UNWIN, T. FISHER, Paternoster-square, London.**  
The Nationalisation of Health. By Havelock Ellis. 1892. pp. 245. Price 3s. 6d.

*Easy Lessons on Alcohol and its Effects on Body and Mind; by W. Taylor; illustrated; Part I. (Church of England Temperance Society, 4, Sanctuary, Westminster); price 6d.—Umsturz der Harvey'schen Lehre vom Blutkreislaufe und Erklärung der Natürlichen Blutbewegung; von Dr. F. Jezek (Peter Hobbing, Leipzig).—The Practitioner, November, 1892 (Macmillan & Co., London); price 1s. 6d.—Our Sick, and How to take Care of Them; by Florence Stacpoole, 1892 (Cassell and Co., London); price 1s.—On the alleged Connexion of Vaccination with Leprosy; by Phineas S. Abraham, M.A., M.D., B.Sc., F.R.C.S., Irel. (Reprint) (Eyre & Spottiswoode, London, 1892).—Gordon and Gotch's Australasian Newspaper Directory; third edition, 1892 (Gordon & Gotch, General Commission Agents, St. Bride-street, London).—The Professional Pocket Book, or Daily and Hourly Engagement Diary, for 1893 (Rudall, Carte & Co., Berners-street, London, W.).—Sections-Technik; von Rudolf Virchow; 4 Auflage; 1893 (August Hirschwald, Berlin).—Advice to Women on the care of the Health before, during, and after Confinement; by Florence Stacpoole (Cassell & Co., London, 1892); price 1s.*

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

- ATKEY, P. J., L.R.C.P., M.R.C.S.,** has been reappointed House Surgeon to St. Thomas's Hospital.
- ATKINSON, J., M.B., C.M. Edin.,** has been appointed Assistant Resident Medical Officer to the North-West London Hospital.
- BANKS, A., L.R.C.P., M.R.C.S.,** has been reappointed House Surgeon to St. Thomas's Hospital.
- BURDEN, H., L.R.C.P., M.R.C.S.,** has been reappointed House Surgeon to St. Thomas's Hospital.
- BURY, R. F., M.R.C.S., L.R.C.P.,** has been appointed House Surgeon to St. George's Hospital.

CHARLTON, F. J., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Wimborne Union.

COOPER, H. J., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

DALZELL, A., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

DONALD, JAS., M.R.C.S., has been reappointed Medical Officer Health for Ham.

DORMAN, M. R. P., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

ELLIS, R. K., M.B., B.Ch. Oxon., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

FISHER, J., B.A., M.B., B.C. Cantab., has been reappointed Senior Ophthalmic House Surgeon to St. Thomas's Hospital.

FISHER, J. H., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

FREDERICK, H. J., L.S.A., has been reappointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

GARROD, A. E., M.A., M.D., has been appointed an Assistant Physician to the Hospital for Sick Children, Great Ormond-street.

GUNN, DONALD, F.R.C.S., has been appointed Ophthalmic Surgeon to the Hospital for Sick Children, Great Ormond-street.

HAINWORTH, E. M., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

HALL, ALFRED, M.R.C.S., has been reappointed Medical Officer for the Butters and Grindon Sanitary District of the Loek Union.

HAMPER, C. NORMAN, M.B., C.M. Edin., has been appointed Resident Medical Officer to the North-West London Hospital, vice Chas. D. Sutherland.

HARDWICKE, E. W., M.B., B.C. Camb., has been appointed Medical Officer for the No. 2 Sanitary District of the Stourbridge Union.

HICKS, T. W., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

HOPKINS, G. HERBERT, L.R.C.P. Lond., M.R.C.S., has been appointed Senior Surgeon to the Swansea General Hospital, vice Thomas, resigned.

HUGHES, E. LUCAS, M.R.C.S., L.R.C.P. Lond., has been appointed Physician's and Surgeon's Assistant to the Out-patients at University College Hospital.

ISAACS, E. P., L.R.C.P., M.R.C.S., has been appointed Junior Ophthalmic House Surgeon to St. Thomas's Hospital.

JAFFE, C. S., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

KNOWLES, E., M.D., C.M. Aberd., has been appointed Public Vaccinator for the Birkenhead District of the Birkenhead Union.

NEVILLE, THOMAS, M.D., M.Ch. Irel., has been appointed Divisional Surgeon to the Police attached to the Gerald-road Police-station in the B. Division, S. W.

PRICE, A. E., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

PROSSER, FRANK, M.B., C.M. Glasg., has been appointed Medical Officer of Health for the Rainford Urban Sanitary District of the Prescott Union, vice Muedock, resigned.

PURVIS, W. P., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

RICHARDSON, R. T., M.R.C.S., has been appointed Medical Officer for the North Bradley and Southwick Sanitary District of the Westbury Union, vice Wise, resigned.

SINCLAIR, WM., M.B., C.M. Aberd., has been appointed Assistant Surgeon to the Royal Infirmary, Aberdeen.

STURGE, MARY D., M.B. Lond., has been appointed Assistant Resident Medical Officer at the Fever Hospital, Stamford-hill.

THOMAS, E. C., M.B., C.M. Edin., has been appointed Medical Officer for the Lanbyther Sanitary District of the Lampeter Union, vice Griffiths.

THOMSON, A. D. R., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for Inveresk.

WAINWRIGHT, W. L., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

WALLACE, C. S., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

WATKINS-PITCHFORD, W., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

WELLS, E. N. K., M.B., C.M. Edin., has been appointed Medical Officer for the No. 3 Sanitary District of the Romsey Union.

WEST, J. T., M.B., C.M. Aberd., has been appointed Non-Resident House Physician and Surgeon to the Hospital for Sick Children, Aberdeen.

WILLIAMSON, J. HENRY, M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Clinical Hospital for Diseases of Women and Children, Manchester, vice Cooke, resigned.

WOODCOCK, A. H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index.)

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

BOOLE BOROUGH HOSPITAL.—Assistant House Surgeon and Dispenser. Salary £40 per annum, with board, lodging, and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Board and residence, and allowance for washing provided. (Applications to the Secretary, 24, Finsbury-circus, E.C.)

FARRINGTON GENERAL DISPENSARY, Bartlett's-buildings, Holborn-circus, E.C.—Resident Medical Officer. Salary £100 per annum, with apartments and attendance.

FISHERTON ASYLUM.—Clinical Assistant for six months. Board, lodging and washing provided. Apply to Dr. Finch, Fisherton Asylum, Salisbury.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer for one year. Salary £80 per annum, with board and lodging.

HUDDERSFIELD INFIRMARY.—Senior House Surgeon. Salary £80 per annum, advancing £10 a year to £100, with board, lodging and washing.

LONDON COUNTY COUNCIL, MAYFORD INDUSTRIAL SCHOOL, WOKING; SURREY.—Visiting Medical Officer. Payment will be by fees, and further particulars obtained from Mr. Rldpath, the superintendent of the school. Applications to the Clerk of the Council, Spring-gardens, W.C.

NOBLE'S ISLE OF MAN AND GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man—Resident House Surgeon; unmarried. Salary £100 per year, with apartments, gas, coal and laundry free.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—Junior House Surgeon for six months. Salary at the rate of £80 per annum.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM—Assistant Medical Officer in the asylum, unmarried. Salary £120 per annum, increasing £10 a year up to £160, with furnished apartments, board and lodging.

OWEN'S COLLEGE, Manchester.—Junior Demonstratorship in Physiology and Histology. Annual salary, £100.

PARISH OF PADDINGTON.—Medical Officer for the South District. Salary £75 per annum, exclusive of such extra medical fees as are allowed in certain cases.

PAROCHIAL BOARD OF EDINBURGH.—Resident Medical Officer for the Poor-house, Craiglockhart. Salary £80, with board and lodging.

SAMARITAN HOSPITAL FOR DISEASES OF WOMEN, Lisburn-road, Belfast. Two Honorary Attending Physicians, who shall be specialists.

MIDDLESEX HOSPITAL, W.—Clinical Assistant to the out-patients' department for Diseases of the Skin, for five months.

## Births, Marriages and Deaths.

### BIRTHS.

FAWCETT.—On Nov. 18th, at Marmora House, Honor Oak, the wife of W. Herbert Fawcett, M.D., of a daughter.

FLECHNER.—On Nov. 10th, at Harley-street, W., the wife of H. Morley Fletcher, M.A., M.B., of a daughter.

HENDLEY.—On Nov. 16th, at Peshawar, India, the wife of Surgeon-Captain Harold Hendley, I.M.S., Civil Surgeon, Peshawar, of a daughter, stillborn.

ROBINSON.—On Nov. 21st, at Lupus-street, St. George's-square, the wife of Surgeon-Major G. Somerville Robinson, Scots Guards, of a son.

SYMES.—On Nov. 21st, at Claremont House, Saltran-crescent, Maida-hill, the wife of William Legge Symes, M.R.C.S., of a daughter.

TWEEDY.—On Nov. 17th, at 100, Harley-street, W., the wife of John Tweedy, of a daughter.

WAKERFIELD.—On Nov. 14th, at The Beacon, Guildford, the wife of Horace Wakerfield, M.R.C.S.E., L.R.C.P., of a daughter.

### MARRIAGES.

BULLIED—FAIRLES.—On Nov. 23rd, at St. James's, Spanish-place, by the Rev. Canon Barry, Edgar George Bullied, L.R.C.P. &c., of 10, Southwick-street, Hyde-park, only son of L.R.C.P. Bullied, M.R.C.S. &c., of 65, Edgware-road, Hyde-park, to Mary Kent Fairles, youngest daughter of the late William Watson Fairles, Esq., of Field House, South Shields. New Zealand papers please copy.

FRANKER—BULL.—On Nov. 17th, at St. Marks, Southampton, by the Rev. K. L. Franklin, M.A., Vicar, Herbert P. Franker, M.B. Edin., M.R.C.S. Eng., younger son of Peter Dowding Franker, Esq., of Stoke Bishop, near Bristol, to Florence J., eldest daughter of William Bull, Esq., of Glenville, Banister-park, Southampton.

ROBERTSON—DOXFORD.—On Nov. 10th, at Christchurch, Sunderland, by the Rev. Canon Scott-Moncrieff, Andrew Robertson, M.A., M.B., and C.M., son of the late Rev. Gilbert Robertson, M.A., of Newcastle-on-Tyne, to Margaret Emily, eldest daughter of Alfred Doxford, Esq., Thornhill-gardens, Sunderland. No cards.

WHITAKER—GARNEYS.—On Nov. 10th, at St. Mary's Church, Bungay, by the Rev. T. K. Weatherhead, Vicar, George Herbert Whitaker, M.R.C.S. Eng., L.S.A., of Avona House, Bungay, third son of Joseph Whitaker, F.S.A., of White Lodge, Enfield, Middlesex, to Gertrude, third daughter of the late Thomas Garneys, M.R.C.S., L.S.A., of Trinity-street House, Bungay.

### DEATHS.

ARNISON.—On Nov. 17th, at Stanhope, suddenly, Charles Annison, J.P., Physician and Surgeon, aged 83.

BARRETT.—On Nov. 17th, at King's Lynn, Joseph William Barrett, M.R.C.S., aged 51.

COOKE.—On Nov. 21st, at Fitzroy-square, London, Robert Cooke, Surgeon, of Newport, Mon.

DICKINSON.—On Nov. 20th, at his residence, Christian-street, Workington, Cumberland, William Lindow Dickinson, L.R.C.P. Lond., M.R.C.S.

GILPIN.—On Nov. 16th, at his residence, Wood-street, Stratford-on-Avon, Frank Gilpin, M.R.C.S., aged 27.

MOON.—On Nov. 15th, Henry Moon, M.R.C.S., of Egham, formerly Dental Surgeon to Guy's Hospital, London, aged 49.

RHODES.—On Nov. 22nd, at 1, Queen-street South, Huddersfield, aged 69, George Winter Rhodes, M.R.C.S., L.S.A.

WHITING.—On Nov. 21st, at Haslemere, Surrey, suddenly, Henry Whiting, M.R.C.S., L.S.A., aged 63.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.

# Medical Diary for the ensuing Week.

## Monday, November 28.

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.  
**ST. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations, daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M.; and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2 P.M.; Thursday, 2.  
**HOSPITAL FOR WOMEN, SOHO-SQUARE.**—Operations, 2 P.M.; and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPÆDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2.  
**LONDON POST-GRADUATE COURSE.**—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. Stanford Morton: Ocular Injuries.—101, Gt. Russell-st.: 8 P.M., Dr. Galloway: Cardio-vascular System.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. Louis C. Parkes: Foods and Dietaries.  
**CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).**—5 P.M. Mr. Lennox Browne: Rhinitis, Acute, Purulent, Croupous, Hypertrophic, Hyperæsthetic (Hay Fever and Hay Asthma), Atrophic; Deformities and Deviations of the Nasal Septum.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Dr. James W. Bond: Non-malignant Laryngeal Growths.  
**MEDICAL SOCIETY OF LONDON.**—8.30 P.M. Dr. W. Collier (Oxford): Athletic Exercises as a Cause of Disease of the Heart and Aorta.—Mr. Herbert Allingham: Hæmorrhoids—the Importance of recognising the Varieties as determining the Selection of Treatment.

## Tuesday, November 29.

**GUY'S HOSPITAL.**—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**ST. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**ST. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Skin Department, 1.45; Saturday, 9.15.  
**ST. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Pemphigus and Allied Diseases.—Bethlem Hospital: 2 P.M., Dr. H. Corner: Moral Insanity.—101, Gt. Russell-street: 8 P.M., Dr. Amand Routh: Post-partum Hæmorrhage.  
**LONDON SKIN HOSPITAL (40, Fitzroy-sq., W.).**—8 P.M. Mr. James Startin: The Surgical Treatment of Acne, Lupus, and Rodent Ulcers.

## Wednesday, November 30.

**NATIONAL ORTHOPÆDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**ST. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday and Saturday, same hour.  
**ST. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M. Dental Department, 9.30. Eye Department, 2.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Y. Biss: Demonstration of Cases of Special Interest. Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Quarry Silcock: Progressive Myopia.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Dr. R. Norris Wolfenden: Cancer of Larynx.

## Thursday, December 1.

**ST. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Sick Children, Great Ormond-street: 4 P.M., Mr. F. W. Wagstaffe: Pathological Demonstration on Diseases of Bone.—National Hospital for the Paralyzed and Epileptic: 2 P.M., Dr. Taylor: Pathological Specimens.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. George Stoker: Impaired Movements of the Vocal Chords.—Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Mr. John Hopkins: Cases in the Wards.  
**CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).**—Dr. Dundas Grant: The Examination of the Organs of Hearing.  
**HARVEIAN SOCIETY.**—8.30 P.M. Mr. Field: The Pathology and Treatment of Suppurative Diseases of the Ear. (First Harveian Lecture.)

## Friday, December 2.

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Eye Department, 2.  
**LONDON POST-GRADUATE COURSE.**—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Y. Biss: Demonstration of Cases of Special Interest. Bacteriological Laboratory, King's College, 11 A.M. to 1 P.M., Prof. Crookshank: Typhoid Fever, Diphtheria, Rabies and Tetanus (Sections and Cultivations).  
**LONDON SKIN HOSPITAL (40, Fitzroy-sq., W.).**—3 P.M. Dr. Sanctuary: Eczema, its Etiology, Morbid Anatomy and Varieties.  
**WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary).**—8 P.M. Clinical Evening.

## Saturday, December 3.

**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.  
**LONDON POST-GRADUATE COURSE.**—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Lunacy Law.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 24th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Nov. 18	29.96	S.W.	42	41	48	44	41	..	Overcast
" 19	29.72	S.E.	42	42	65	50	38	..	Foggy
" 20	29.93	N.W.	40	44	60	47	42	.10	Overcast
" 21	30.31	N.E.	43	43	49	47	36	..	Foggy
" 22	30.36	S.E.	45	44	..	47	38	..	Overcast
" 23	30.31	E.	45	44	..	47	42	..	Overcast
" 24	30.20	S.W.	41	40	..	42	40	.08	Overcast

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editors." Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

### EXPERIMENTS ON LIVING ANIMALS.

WE understand that the address delivered by Dr. Wilks on this subject before the Church Congress has been published in pamphlet form, price 3d., and may be obtained from the publisher, Mr. Kolckmann, 2, Langham-place, W.

Mr. S. B. G. McKinney (Nunhead).—What does our correspondent mean when he asks for a scientific division of the body? No reply can be given to such a wide question. An anatomist would reply to it in one form, a physiologist in another, an histologist in a third—all with equal precision.

### "A CURIOUS INCIDENT."

To the Editors of THE LANCET.

SIRS,—Your issue of Oct. 16th, 1892, having only just reached me, I hasten to furnish the information asked for by Mr. J. Elliot Square under the above heading at page 922. I presume he is referring to the case of Lord A—, who was under the care of my old friend, Dr. Mint. I regret to say he ultimately died in great agony after a protracted illness of one month, during the course of which he got rid of one shilling, two sixpences, a threepenny-bit and three bright pennies, none of which were known to have been swallowed. The half-crown was never recovered, as the friends would not hear of a post-mortem examination—a matter for regret, as there is no knowing how many more coins might not have come to light in this extraordinary and unique case of what was most probably a coin-swallowing mania.

I am, Sirs, yours truly,

India, Nov. 4th, 1892.

A. STEWART.

## TOMMY'S DOCTOR.

(With apologies to Rudyard Kipling, whose experience has doubtless taught him that if it is impossible to make a soldier out of a doctor, it is very unlikely that one could ever become a poet.)

I went up for a service club, and thought I rather queer  
That the fighting (?) members plainly said, "We want no doctors  
here."

The beardless subs within the bar they giggled like to die;  
I thought of other times and scenes, and to myself said I:  
"It's Doctor this and Doctor that, and 'Doctor go away';  
But you sometimes sing a different tune when we're serving far  
away—

When we're serving far away, my boys, all serving far away,  
It's quite a different story when we're serving far away."

I went on active service, and came home with a V.C.  
They gave all other officers rank, but they had none for me;  
They called me a "non-combatant," "camp-follower," a "thing";  
But when we were out fighting, the doctor was a king.  
For it's Doctor this and Doctor that, and "Doctor wait outside";  
But it's Doctor "anything you want" when the trooper's on the  
tide—

When the trooper's on the tide, my boys, the troopship's on the tide,  
But it's Doctor anything you want when the transport's on the tide.

Now, though at home you jeer and scoff at soldier doctor men,  
The army knows what we have done for officers and men;  
And it would be more manly to own it to our face,  
That you know the army doctor your cloth does not disgrace.  
For it's Doctor this and Doctor that, and you treat him like a  
brute;

But it's "saviour of his comrades" when the guns begin to shoot.  
It's Doctor here and Doctor there, and "Doctor, bind my wound,"  
Though the doctor like a soldier is dying on the ground

INKERMAN.

Dr. Whitton.—We cannot go into the matter referred to, which has been the subject of a judicial decision.

## WARNING TO PRINCIPALS.

To the Editors of THE LANCET.

SIRS,—Some time ago I advertised in THE LANCET for an unqualified assistant, and selected one with excellent references, particularly as to sobriety. He turned out anything but satisfactory—in short, drank heavily. On enquiry I discovered his referee was his brother-in-law. After leaving me, and before his departure to a good post in the North of England, he was on a drunken "bout," visiting the lowest inns in the place. Lately I had to advertise again for an assistant, and amongst the selected was one who stated he had good references. I wrote for the names of his employers, and, on applying to the only one he gave me, I received by telegram a satisfactory reply. Meanwhile, not being satisfied with one testimonial, I requested him to furnish me with the address of a former principal with whom I might communicate. I then received from him a letter of recommendation purporting to be a copy of one given to him. I enclosed this copy to the doctor supposed to have written the original, and asked if it were a true copy. His reply was that it must be a forgery, as he had never given such a testimonial, and had anything but a high opinion of the assistant in question. I now believe the telegram sent in the first instance to have been also fictitious.

I am, Sirs, yours faithfully,

November, 1892.

PRINCIPAL.

## "A FORM OF DANDRIF."'

To the Editors of THE LANCET.

SIRS,—"Lux" might find the following method of treatment useful in his obstinate case of dandriff. Let the patient twice daily wash well into the roots of the hair a lotion composed of from two to five grains of perchloride of mercury in a saturated alcoholic solution of boracic acid. When this has been dried let her rub in an ointment of sulphur and carbolic acid—say twenty grains of the first and half a drachm of the other to the ounce, using lanoline or lard, or a mixture of both, as an excipient. For cleansing purposes she might use superfatted potash soap. The case is probably one of seborrhœa or seborrhœic eczema of the scalp, and it may possibly have been communicated in the way suggested. The treatment I have indicated I find pretty successful here. I should be glad to hear how "Lux's" case gets on.

I am, Sirs, yours faithfully,

Glasgow, Nov. 22nd, 1892.

DAVID COUPER.

To the Editors of THE LANCET.

SIRS—Replying to the inquiry of "Lux," I beg to be allowed to say that I have had good results in obstinate scurf of the scalp by washing the head in warm water containing about three drachms each of sod. bic. and liq. picis carb. to the quart, and afterwards applying ichtbyol ointment. Tar soap might be a useful addition.

I am, Sirs, yours truly,

Nov. 23rd, 1892.

E. CURTIN.

To the Editors of THE LANCET.

SIRS,—In reply to "Lux," I would suggest his trying a weak sulphur ointment. I have used it of the strength of two drachms to the ounce of vaseline in a most obstinate case of dandriff with complete success.

I am, Sirs, yours faithfully,

Herne Bay, Nov. 23rd, 1892.

E. C. FENOULNET.

## "HISTORY OF QUACKS AND QUACKERY."

Dr. J. Harold Bailey (Birkenhead) writes:—"Your correspondent might consult 'Sir Thomas Browne's Works, including his Life and Correspondence' (London: William Pickering, 1886), vol. i., page 244:—

'Sir Thomas Browne to his son Edward.

May 28th, 1670.

..... I sawe a woman of 80 yeares, while the cataract was couched in both eyes, and shee had a dimme sight for a yeare after, till shee dyed; it was done by Vanderlas. The ignorance of chirurgeons, as to chirurgeall operations, creates so many mountebank and stage quacksalvers. Heere (Norwich, J. H. B.) hath been a mountebank these 2 months, who cutts for wrye necks, coucheth cataracts, cures hare lipps &c., wherin no chirurgeon of this place being versed, hee hath had a great deal of employment to the shame of our chirurgeons.—Your loving father,

THOMAS BROWNE.

'These for Dr. Edward Browne, in Salisbury Court, next the Golden Balls, London.'

In 'The Starling,' a novel by the Rev. Normal Macleod, there is an account of the doings of a quack in a country district of Scotland."

Mr. O. B. Shelswell.—The institution referred to is probably the National Society for the Employment of Epileptics. It is situated at Godalming, and its hon. secretary is Miss Burdon-Sanderson, Branksome, Greenhill-road, N.W.

Mr. H. S. Reynolds.—The reply to the question depends on the nature of the actual contract, but we think it would be unreasonable to refuse our correspondent a perusal of the books.

## "OFFICIAL" OR "OFFICINAL"?

To the Editors of THE LANCET.

SIRS,—The terms "official" and "officinal" are frequently used as synonymous by authors of works on materia medica and kindred subjects. The examiners for the triple qualification at Edinburgh fall into the same error; so it may be as well to point out that there is a wide difference between the words. "Official" (*officium*—an office) means issued or sanctioned by authority; "officinal" (*officina*—a shop) means kept in a shop. Blue pill is official; liver pills are officinal.

I am, Sirs, yours faithfully,

Mount-place, E., Nov. 19th, 1892.

ARTHUR H. DOBSON.

## EMPLOYMENT OF COCAINE.

To the Editors of THE LANCET.

SIRS,—Can any of your readers who have used cocaine in minor surgery give me a hint as to the dose and best method of application in a case of fissure of the anus? I should also like to know if it is dangerous to use in the case of purulent ophthalmia of infants or in conjunctivitis of children to allay spasm in the use of astringent lotions.

I am, Sirs, yours truly,

Nov 22nd, 1892.

YOUNG PRACTITIONER.

## CHLOROFORM INHALATION IN PHTHISIS PULMONALIS.

To the Editors of THE LANCET.

SIRS,—I am anxious to know if any of your numerous readers have observed beneficial effects follow the inhalation of chloroform for operations in phtisical cases.

I am, Sirs, yours faithfully,

St. Leonards-on-Sea, Nov. 18th, 1892.

SAMUEL LEE, M.D.

ERRATUM.—In our article on "Municipal Honours and Medical Men" (page 1180) an error occurs in connexion with the name of Mr. George-Wright Hutchinson, who should have been described as M.B. & C.M. Aber. (not M.D.); whilst the clerical office spoken of as having been formerly held by him was not held by him, but by his father.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &amp;c., have been received from—

A.—Dr. F. P. Atkinson, Surbiton; Mr. J. Anderson, Ancoats; Mr. Archer, Alnwick; Mr. H. F. Aveling, London; Messrs. Allen and Hanburys, London; Messrs. R. Anderson and Co., London; A., London; Africanus; Alpha, Lee; Anderson's Medical College, Glasgow; Alpha.

B.—Dr. Robt. Boxall, London; Mr. B. Brown, Huddersfield; Mr. A. E. Barrett, London; Mr. J. Beard, Edinburgh; Mr. Breeze, London; Mr. J. H. Bailey, Birkenhead; Mr. Burgess, Manchester; Mr. W. Botwood, Ipswich; Mr. Peyton T. B. Beale, London; Messrs. Burroughs, Wellcome and Co., London.

C.—Dr. C. J. Cullingworth, London; Dr. Duncan S. Caddy, Earl's Court; Dr. Arthur H. Cheate, Vienna; Dr. Chas. H. Cattle, Nottingham; Mr. T. P. Cowen, London; Mr. T. Clark, London; Mr. J. B. Crozier, London; Mr. E. S. Cockell, West Hartlepool; Mr. Clark, Wolverhampton; Messrs. Cassell and Co., London; Messrs. Cleave and Son, Devon; Celsus, London.



Lectures  
ON THE  
PHYSIOLOGY AND PATHOLOGY OF  
BLOOD DESTRUCTION.

Delivered in the Examination Hall, Victoria Embankment,  
on Nov. 22nd, 1892,

By WILLIAM HUNTER, M.D. EDIN.,  
M.R.C.P. LOND. &c.,

ASSISTANT PHYSICIAN TO THE LONDON FEVER HOSPITAL; LATE  
SANITARY RESEARCH SCHOLAR, GROCERS' COMPANY.

LECTURE I.—(Concluded.)

THE SPLEEN.

THE spleen organ in which blood pigment (independently of extravasation or congestion) is to be found is the spleen.

*In Health.*—I show now sections from the spleen of normal rabbits, and I ask you to note how very little pigment is present. Scarcely a trace of the iron reaction can be developed in them. This is the case with the spleens of young healthy mammals generally. The amount of pigment they contain is, according to my observations, exceedingly small. In birds, as you will see from the sections I now show you from the pigeon and duck, it is present in much larger amount. As age advances it tends to increase. The spleen in dogs, rabbits, guinea-pigs, either aged or kept long in confinement, I have usually found to contain a considerable, sometimes a large, amount of pigment. The pigment lies in the pulp of the spleen, and is contained within its cells. It is present in various forms, partly as large granules, partly as smaller granules, and partly diffused, apparently in soluble form, throughout the substance of the cell. The large splenic cells are its chief seat; in certain cases they may be seen packed full with it.

*In Disease.*—Few organs of the body—not even the liver—present, it might be supposed, such favourable conditions for accumulation of pigment as the spleen; and it might naturally be thought that disease would furnish many examples where the amount would be greatly increased. Such is not the case, however, so far as my observations go—and I have examined the spleen in almost every kind of disease in this special relation. On the contrary, apart from old age or prolonged inanition, and not even excluding them, I know of hardly any condition—an exception being malaria—in which any accumulation of pigment at all comparable with that I have shown you, for example, in the case of the liver in pernicious anæmia, is ever to be found in the spleen. Such an increase, however, may be induced experimentally. (Experiments 1 to 16.) I show you now sections of spleens after transfusion of blood in rabbits, and ask you to note the very great abundance of pigment present—so much so that the whole appearance of the pulp in which it lies is transformed. Although seldom so great or striking as that induced by transfusion, a large increase in the pigment of the spleen may also, I find, be induced by other experimental means. I show you now sections from the spleens of the dog (Experiment 63) and rabbit (Experiment 75), in which you will note a very great increase of pigment induced by injection of toluyldiamine and pyrogallie acid respectively. The pigment in both cases is altogether more diffuse and less particulate in its form than that seen after transfusion. In the fresh tissue the pigment was seen (Experiment 63) to be diffused amidst the protoplasm of the cell, or to be in exceedingly minute granules of perfectly spherical form. Larger granules or globules were very few in number. The same was the case in Experiment 75—most of the pigment was in diffuse form. After transfusion, on the other hand, a very large proportion of the pigment is in the form of large clumps and conglomerate heaps, as may well be seen in the sections I now show you.

1. The amount of blood pigment to be found in the spleen in health varies, within very wide limits, even in animals of the same class. It is usually more abundant in birds than in mammals. 2. Age more than any other factor influences its amount. It is most abundant in the spleens of aged animals.

No. 3614.

3. The variations that occur in disease are less striking and less marked than is the case in the liver.

RED BONE MARROW.

A third seat in which a certain amount of pigment is usually found in health is the red bone marrow. The pigment is in the form of minute granules lying within the marrow cells. Its chemical characters are indefinite. In health it frequently fails to give any reaction of free iron when tested. The fresh marrow gives scarcely any reaction with sulphide of ammonium—at most a light greenish stain.

The conditions that favour the presence of pigment in this situation are, I find, much the same as in the case of the spleen. It is increased in old age; in old animals, especially in dogs, I have sometimes found it present in very considerable quantity. Such increase is always associated with an increase in the pigment of the spleen. The relation between the marrow and the spleen in this connexion is much closer than between the liver and spleen.

KIDNEY.

The liver, spleen, and red bone marrow are the three situations in which, as I have said, blood pigment may be found in varying quantity in conditions of health and disease, independently altogether of extravasation or congestion. There is one other organ, however, in which, according to my observations, such pigment may also be found; not, however, in health, but only in disease, and that only rarely. That organ is the kidney. I do not here refer to the presence of hæmoglobin or hæmoglobin casts such as we naturally find in the kidney—for example, in paroxysmal hæmoglobinuria. I refer to blood pigment proper, partly granular, partly diffuse form, occupying a definite situation—namely, the cells of the convoluted tubules. I show you now a section of kidney from a case of disease in which you will note the peculiar characters and situation of this pigment, also its great abundance. The granules are uniformly small in size and resemble in character those present in the liver cells in the same disease—namely, pernicious anæmia. The further characters of this pigment and the conditions under which it is met I have fully described in my paper "On the Excretion of Blood Pigment in Pernicious Anæmia."<sup>1</sup>

BLOOD PIGMENT AS AN EVIDENCE OF HÆMOLYSIS.

What interpretation are we to put upon the facts just recorded? I have dwelt at some little length on the subject, noting particularly in the case of the liver the results of my observations with regard to the precise situation of the pigment, the differences in its microscopic characters under different circumstances, and the conditions under which it appears in one or other situation. I have done so purposely, for it was by a study of these various points I was led to certain conclusions of some importance regarding the significance to be attached to blood pigment as an indication of a destruction of blood.

It has been usual to hold that the presence of blood pigment (always of course apart from extravasation or congestion) in such organs as the liver or spleen is not only an indication of some previous destruction of blood, but also that its amount indicates the extent of that destruction. Other things being equal, the larger the amount, so it has been held, the greater necessarily the previous destruction. Such was the view I held at the outset of my investigation. One result of the foregoing study was to make clear to me, as I shall now endeavour to make clear to you, that this is very far indeed from being the case. On the contrary, the significance attachable, in my opinion, to blood pigment as an index of hæmolytic varies very much under different circumstances. Its presence may denote not a larger, but, on the contrary, a lessened destruction; while conversely its absence is not only compatible with, but may indeed point to an increased destruction. If our consideration were limited to the case of mammals in health it might almost be said that the amount of blood destruction is frequently inversely proportional to the amount of blood pigment present in such an organ, for example, as the spleen. What significance it has indeed depends far less on its amount than on its character and situation, affording as these latter do important and reliable indications as to the nature of the preceding changes in the blood. Consideration of mere amount alone, apart from its character and situation, may lead to entirely erroneous conclusions regarding the extent of these destructive changes.

<sup>1</sup> Practitioner, 1888.

## ACTIVE AND PASSIVE DESTRUCTION OF RED CORPUSCLES.

From a study, then, of the character and distribution of blood pigment under different circumstances of health and disease I have been led to distinguish sharply two different processes in the blood, each of which may lead to a formation of blood pigment, and each marked by different changes in the red corpuscles.

The first of these is marked by a gradual decay of the red corpuscles. Retaining their form and their hæmoglobin to the last, they are ultimately taken up bodily by the active cells of the spleen or leucocytes of the blood and are stored up within the spleen or in the capillaries of the liver. Within these cells their hæmoglobin becomes transformed into blood pigment, and the pigment so formed is characterised generally by the varying size of its granules and by the largeness of at least some of them, corresponding in size, as they may do, to that of the original red corpuscle. It is this process that leads to the formation of the larger particles and clumps of pigment I have shown you in the capillaries of the liver in frogs, birds, and mammals; and also in the spleen of old mammals and after transfusion. The particular point to be noted about this process is that the whole of the hæmoglobin of the corpuscle is converted into blood pigment and that the pigment so formed is never found within the liver cell. The conditions favourable to such a mode of death of the red corpuscle are for the most part negative. They are such as old age, abstinence from food, want of exercise—such, in fact, as necessarily imply a relative inactivity of the cells of the body, and therefore presumably a relative absence of any great changes in the other constituents of the blood—namely, the plasma and leucocytes. This change in the corpuscle implies an absence of any influences in the plasma of the blood likely to affect the red corpuscles injuriously. The rôle of the plasma and leucocytes in bringing it about is a purely passive one, and hence this mode of death of the red corpuscle may, as I have suggested, conveniently be described as a passive destruction of red corpuscles viewed in relation to the rôle taken in it by the blood as a whole, or *chronic* viewed in relation to its slowness.

The second process is marked by a different series of phenomena. The first of these is a liberation of the hæmoglobin of the corpuscle. It is set free into the plasma and may, as in the other case, likewise be taken up by cells of spleen or leucocytes of blood. If so, it is also converted into blood pigment; but this pigment can, as I have shown you, be distinguished broadly by certain features from that arising from passive destruction—viz., by the smaller and more uniform size of its individual granules. The usual fate of the hæmoglobin thus set free into the plasma is not, however, to be thus taken up by ordinary cells, but to be carried to the liver and to undergo within the liver cells a series of changes differing in detail and in results from those that take place in ordinary cells. The chief result is a formation of bile pigments, not of blood pigment. A formation of blood pigment does not necessarily, in my opinion, attend the breaking up of hæmoglobin by the liver cell in mammals. It is in this respect that this process *qua* the formation of blood pigment differs most materially from that of passive destruction. In the latter the whole of the hæmoglobin is thus transformed; in this process, on the other hand, none of it may be thus converted. This manner of disposal of hæmoglobin is not, as I have said, necessarily attended by a formation of blood pigment. If, however, it does occur, as it undoubtedly does both in health (birds and mammals) and still more markedly in disease (pernicious anaemia, action of poisons), only a part of the hæmoglobin molecule is converted into blood pigment, and the pigment so arising is distinguished by the features already described—namely, the small and uniform size of its granules. It is only pigment so formed that is found within the liver cell.

Such a liberation of hæmoglobin from the red corpuscles implies obviously certain conditions of plasma unfavourable to their preservation—in health, e.g., digestion, and in disease the action of poisons. The important point to recognise is that the liberation of hæmoglobin from the red corpuscle implies as surely the existence of changes in the plasma unfavourable to the red corpuscle as the gradual decay of the red corpuscle implies the reverse. The rôle of the plasma (and by implication also the leucocytes and other cells which control the constitution of the plasma) is thus as active as in the latter case it was passive, and hence, as I have suggested, this form of the destruction of the red corpuscle may conveniently be described as an *active* destruction of red

corpuscles viewed in relation to the rôle of the blood as a whole, or *acute* viewed in relation to its rapidity.

The foregoing expresses, then, the views I have formed regarding the two ways in which blood pigment arises. We are thus led to recognise that two diametrically opposed processes in the blood may lead to its formation, one of them the result of inactivity on the part of, the plasma and leucocytes of the blood (passive destruction), the other as definitely marking the activity of these elements (active destruction). Since the object of our study is to ascertain what it is that affects the blood as a whole, and not any one particular element of it, it will, I think, be clear that the process which brings about what I have termed "active" destruction of the red corpuscles is the only one that is rightly entitled to be spoken of as hæmolysis, since it alone affects the blood as a whole. For, as I have shown, the process termed "passive" is unattended by change in the blood generally—marks, indeed, the absence of such change. It is the changes connected, then, with active destruction of red corpuscles that especially deserve our consideration. It will be now clear to you what a varying significance amount of blood pigment, apart from its character and situation, may have as an indication of hæmolysis; for it is passive destruction of red corpuscles that leads to the conversion of the whole of the hæmoglobin into blood-pigment and its storage up in the body in this permanent form; while active destruction, on the other hand, by causing its liberation into the plasma, favours its disposal and its removal from the body in ways—namely, by action of the liver cells—that are not necessarily attended by any formation of blood pigment at all.

The conclusion, then, is that hæmolysis may be unattended by the formation of any blood pigment, and hence it follows that the absence of such pigment in health in young mammals is quite compatible, as I will now show, with the occurrence of a very considerable daily hæmolysis.

Having thus made clear to you that the evidence to be derived from a study (1) of bile pigment and (2) of blood pigment both alike point to a certain destruction of hæmoglobin, and presumably therefore of blood, as an event of no uncommon occurrence, the question arises: What is the frequency or extent of this destruction in health?

Hitherto our knowledge on this point has amounted to this—that there is a close genetic relationship between certain pigments daily excreted from the body in the urine and bile and hæmoglobin; that blood pigment obviously derived from the blood is occasionally found in certain organs of the body; that the amount of this pigment varies very much under conditions as yet unknown; that when present it obviously points to a greater destruction of blood than when it is absent; that as its presence is not constant, even in the same animal, no conclusion can be drawn from it as to the frequency or constancy of a process of blood destruction; therefore that, on the whole, there is no reason to conclude that any destruction of blood takes place except under exceptional circumstances, such as malaria and paroxysmal hæmoglobinuria.

## BILE PIGMENT AS AN EVIDENCE OF HÆMOLYSIS.

The evidence we have so far had before us differs in the case of bile pigment and blood pigment respectively. The close genetic relationship between the bile pigment and hæmoglobin and the daily formation of bile pigments afford presumptive evidence of a daily destruction of at least a certain quantity of hæmoglobin. This by no means points, however, to a daily destruction of blood; for, as we have seen, a certain amount of hæmoglobin may become effete (in the process of passive destruction of red corpuscles) without either the plasma or leucocytes participating—that is to say, without the occurrence of any destructive change in the blood as a whole. If, then, the formation of bile pigments can be subserved by passive destruction of blood-corpuscles—if the hæmoglobin thus rendered effete is sufficient to give rise to all the bile pigment daily excreted—it is clear that bile pigment as an indication of blood destruction loses much, if not all, its value. It then only remains an evidence of a certain slow destruction of red corpuscles. It thus becomes a matter of importance to ascertain by which of the two processes—an active or a passive destruction of red corpuscles—the formation of bile pigment is subserved.

As I pointed out earlier in this lecture, a large weight of evidence—more particularly that adduced by Minowski and Naunyn—points not only to hæmoglobin as the source of the bile pigments, but also to the liver as the

seat of this conversion. That being the case, the question now before us resolves itself into one as to the relative importance of the pigment cells within the capillaries and the liver cells themselves as seats of formation of bile pigment. For, as I have shown you, the former are *exclusively* the seats of the blood pigment derived from a passive destruction of red corpuscles, none, according to my observations, ever being found within the liver cells; while the latter, on the other hand, are, although not the exclusive, nevertheless the *chief* seat of transformation of the hæmoglobin derived from an active destruction of red corpuscles.

NECESSITY OF DISTINGUISHING BETWEEN CHANGES TAKING PLACE IN THE CAPILLARIES OF THE LIVER AND THOSE THAT TAKE PLACE WITHIN THE LIVER CELLS.

It may appear at first sight a matter of indifference where precisely within the liver this transformation of hæmoglobin into bile pigment takes place, whether within the capillaries, through the agency of leucocytes or kindred cells, or in the liver cells themselves. I cannot so regard it. On the contrary, nothing in this relation has impressed itself more on my mind than the necessity of distinguishing sharply, so far as that is possible, between processes carried on in the liver cells and others that take place within the capillaries, through the agency of the large mass of leucocytes contained within them. Let me in illustration show you sections of liver (Experiments 33 and 34) from two of my experiments, in which a large quantity of ultramarine blue in suspension was injected directly into the circulation of rabbits duly anaesthetised. You will see how abundant the pigment is in the liver—more abundant, indeed, than in any other organ, with the single exception of the lungs. Even during the injection the liver could be seen, on being exposed, to become markedly blue. On examination most of the pigment was found within leucocytes; not a single particle could be found within the liver cells. The arrest of this pigment and its accumulation within the liver was therefore due entirely to the activity of leucocytes and kindred cells, endothelial and otherwise, and not in any way to the action of the liver cells. We are not justified in speaking of such a function of the liver as on a parallel with other functions—for example, the glycolytic, more properly so termed. The two are not even comparable with one another in importance. The one is carried out exclusively by cells of leucocyte and endothelial nature, the other by the liver cells proper, and the only circumstance common to both is that they are carried out within one organ. So with this conversion of hæmoglobin into bile pigment. If it can be effected equally well by leucocyte or liver cell—if, indeed, as Quincke and Minkowski and Naunyn would seem to maintain from the importance they attach to the pigment cells within the capillaries, these cells play the chief *role* in the formation of bile pigment—then the formation of bile pigment would cease to be exclusively a hepatic function. There would be no reason why it might not be carried out in other organs of the body equally rich in such cells—for example, the spleen.

When, now, passing from these more general considerations, we come to the facts themselves, we find as follows: First of all, it cannot, I think, be doubted that ordinary cells of leucocyte and connective-tissue nature do possess a certain power of forming pigments apparently identical with those of the bile from hæmoglobin. The observations, amongst others, of Langhans, Cordua and Quincke are, I think, conclusive on this point. Langhans clearly showed that the pigments causing the well-known colours of bruises—subcutaneous extravasations—are of the same nature as those of the bile. Even more clearly if possible has this been demonstrated by Minkowski and Naunyn. They have shown that a green pigment, giving the reactions of biliverdin, may be found in the pigment cells within the liver capillaries in the goose. They found, moreover, that the increased formation of bile pigments, which they induced by exposing these animals to the fumes of arseniuretted hydrogen, went hand in hand with the appearance of large numbers of these cells in this situation. Sometimes only a single particle amidst the blood pigment within these cells gave the green reaction of biliverdin; at other times the whole cell substance appeared green. Their conclusion, then, that these pigment cells take a part, if, indeed, not the major part, in the formation of bile pigments from effete hæmoglobin would thus appear to be amply justified under the circumstances. Such a view as to the mode and seat of formation of bile pigment would coincide in all points

with the well-known observations (1880) of Quincke regarding the ultimate fate of the red corpuscles. According to Quincke, the normal fate of red corpuscles after a life duration extending for a period of from two to three weeks is to be taken up by the white cells of the blood and deposited in the capillaries of the liver, spleen and bone marrow. Within these cells their hæmoglobin is transformed into various products of an albuminate nature, partly coloured, partly colourless, and these are afterwards used up in forming new red corpuscles, or are got rid of by being excreted through the liver cells. Presumably during these changes, although as to this Quincke says nothing, the bile pigments are also formed. (It will be noted in passing that the fate of red corpuscles, as described by Quincke, corresponds with only one of the processes I have described as taking place in the blood, and that the less important—viz., passive destruction.)

Now, while admitting that the formation of bile pigment from hæmoglobin through the agency of leucocytes or connective-tissue cells is possible; while admitting, further, that the conclusions drawn by Minkowski and Naunyn from their observations appear amply justified, I nevertheless cannot admit that such a method of formation of bile pigment is even a common one, still less the usual one in health, and for the following among other reasons:

First of all, it appears to me that mistake is likely to arise if attention be directed too exclusively to one group of animals, and if the results thus obtained are applied directly, without correction, to animals of another group. This mistake has, I venture to think, been made, in some degree at least, both by Naunyn and Minkowski and by Quincke, the former having based their conclusions too exclusively on their observations on the goose, the latter on his observations on the dog; for in both these animals the presence of a certain number of pigment cells in the capillaries of the liver is, as we have seen, the rule. On the other hand, my observations on the rabbit, cat, guinea-pig, pig, and in man show that the presence of such cells is the exception; and this is, so far as my observations go, invariably the case in all young mammals, including even the dog. Individual differences exist in different animals in this respect, dependent mainly, as I believe, upon individual differences in the power of resistance of the red corpuscles—a power which admittedly varies in different animals. Be the explanation what it may, the fact remains that in the rabbit, for example—and most of my observations have been made on this animal—I have time after time examined the liver without finding a single pigment cell in its capillaries. To find them, indeed, has been the rare exception. Nevertheless, the excretion of bile pigment in the rabbit—as, indeed, in all herbivora—is, to say the least, fairly abundant. The daily excretion of bile is greater in the herbivora than in the carnivora. According to Bidder and Schmidt, in the cat and dog it is approximately 14 cc. and 19 cc. per kilo of weight respectively; in the rabbit and guinea-pig it is 136 cc. and 175 cc. per kilo respectively. With such an abundant excretion of bile, containing a considerable percentage of bile pigments, one might reasonably expect to find pigment cells in the capillaries of the liver if these are the source of the bile pigments. Still more might this be expected when it is borne in mind how permanent such blood pigment is, lasting, as it frequently does, for weeks, months and even years. Yet none are present. I am compelled therefore to conclude either that the mode of formation of bile pigments may vary in different animals—sometimes being effected through the agency of leucocytes, sometimes through the agency of the liver cells; or that its formation by the former, when it does occur, is altogether unimportant and insignificant, and the constant seat of this process is within the liver cell itself. The first conclusion seems to me altogether untenable, if only on general grounds. It appears to me altogether improbable that a function so characteristic of the liver as that of the formation of bile pigments should, after all, be discharged, not by the special glandular structure—the liver cell,—but by ordinary cells of leucocyte and endothelial nature lying adjacent to the liver cell. Moreover, on such a view it is difficult to understand why bile pigment is not formed by the cells of the spleen, seeing that sometimes they are even more abundantly supplied with blood pigment than the leucocytes within the liver. Even Minkowski and Naunyn, however, have failed to find any trace of biliverdin in the pigment cells of the spleen.

So much, then, for the evidence pointing away from ordinary

pigment cells, even when situated in the capillaries of the liver as the ordinary seats of formation of bile pigment, and pointing away in a corresponding degree from passive destruction of red corpuscles as the source of the hæmoglobin thus transformed. I have now to draw your attention to evidence pointing to the liver cells as the seat of this transformation, and to an active destruction of red corpuscles as a necessary precursor of this process, and that, too, not only in mammals, but also in birds. I have shown you that nothing more clearly indicates such an active destruction of red corpuscles than the presence of minute granules of blood pigment in the liver cells, more especially in those of the portal zone of the hepatic lobule. I have shown you, moreover, that, although not constant, such pigment is very frequently found in the liver cell, more especially in birds; to a much less extent in mammals.

It now remains for me to show, from my experiments, that an increased formation of bile pigments is more frequently associated with an increased deposit of blood pigment within the liver cells than it is with an increase of pigment cells within the capillaries. Further, that such an increased formation is frequently attended solely by an increase of blood pigment in the former situation, not a particle of pigment or a single pigment cell being discoverable within the capillaries. And lastly, that a large increase in the pigment cells within the capillaries can take place without any increased formation of bile pigments (Experiment 89). To illustrate the first two points I now show you a section from Experiments 42 and 43. Two healthy rabbits received at intervals doses of toluylendiamine as follows, the injections being made subcutaneously:

*Experiment 42.*

Sept. 19th ...	0.18	gramme per kilo.	of weight =	0.5	gramme.
"   20th ...	0.13	"   "   "	"   "   "	= 0.35	"
"   26th ...	0.18	"   "   "	"   "   "	= 0.5	"
"   29th ...	0.36	"   "   "	"   "   "	= 1.0	"

When killed, on Oct. 13th, it had lost 3 oz. in weight.

*Experiment 43.*

Sept. 15th ...	0.18	gramme per kilo.	of weight =	0.5	gramme.
"   19th ...	0.15	"   "   "	"   "   "	= 0.4	"

When killed, on Sept. 20th, it had lost 6 oz. in weight.

In both cases, especially in Experiment 42; you will note the great abundance of fine pigment within the liver cells, all of it giving the reaction of free iron. So small are the individual particles, indeed, that it is only with higher powers (300 or more) that their great number and their precise situation within the liver cells can be properly made out. In both cases, moreover, no less striking than its abundance in the liver cells is the absence of pigment cells from the capillaries. The bearing of these observations will be at once obvious when I state that, as will presently be seen, toluylendiamine causes an increased formation of bile pigments and distinct destruction of blood—viz., an acute destruction of red corpuscles. That the blood pigment within the liver cells owed its origin to the destruction of free hæmoglobin within these cells there can, as we have seen, be no doubt; and the conclusion may, I think, be permitted that it was likewise within the liver cells that the bile pigments so largely excreted were also formed. Evidence of a similar kind pointing to the same deduction was afforded by experiments on pigeons and observations on man. From these observations I infer that it is within the liver cells, and not in the capillaries, that hæmoglobin is transformed into bile pigment. The hæmoglobin thus transformed must have escaped from the red corpuscles before passing into the liver cell. In short, the source of the bile pigment is free hæmoglobin.

It will thus be seen that, although I do not absolutely deny to pigment cells of leucocyte and connective-tissue nature, such as we occasionally find in the capillaries of the liver, the power under certain circumstances of forming pigments similar to the bile pigments from hæmoglobin, I am undoubt'edly of opinion, for the reasons above stated, that such a mode of origin of the bile pigments is altogether secondary in importance to their derivation from the liver cells. For not only are such pigment cells frequently entirely absent from the tissues of animals in which an undoubted, it may be even a largely increased, formation of bile pigments is taking place, but also, what is even more significant, a largely increased formation is frequently marked by an increase of the blood pigment in a situation where it can only, in my opinion, be derived from free hæmoglobin—namely, within the liver cell. Such an escape of hæmoglobin

from the red corpuscle into the plasma of the blood being, as we have seen, the chief feature of an *acute* as distinguished from a *passive* destruction of red corpuscles, the answer which my observations supply to the question with which we started is that: (1) the formation of bile pigments by the liver is subserved by an active destruction of red corpuscles and not a passive one; (2) a certain destruction of blood is therefore a phenomenon of daily occurrence.

ABSTRACT OF A

Clinical Lecture

ON A

CASE IN WHICH SUCCESSIVE ANEURYSMS WERE TREATED BY LIGATURE OF FOUR LARGE ARTERIES.

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GENTLEMEN,—The subject of our clinical lecture to-day is a case you are well acquainted with, the patient having been in the hospital three times and having undergone the ligation of no less than four of the main arteries for the treatment of aneurysms. He was first admitted on March 9th, 1888, suffering from a popliteal aneurysm with a large sac, which was rapidly increasing. He was thirty years of age, and by occupation a police constable; previously he had been a soldier in Egypt and also a professional runner, his best time being one hundred yards in ten seconds and a quarter. He had had venereal disease, but there was no certain history of syphilis. The aneurysm was of the right popliteal artery, and was attributed to slipping off the kerb, when he felt "something give way." This was one month previous to admission. The superficial femoral artery was tied with a silk ligature. All pulsation at once ceased in the aneurysm, and the patient made a satisfactory recovery. He was readmitted a year later, suffering from an aneurysm of the other popliteal artery. There was no history of injury. On this occasion treatment by digital compression was tried for thirty-one hours, but no improvement resulted, and on Aug. 23rd the left superficial femoral was ligatured with silk. Pulsation in the aneurysm at once ceased, and the patient recovered. In February, 1892—that is to say, four years after his first admission—our patient was admitted for the third time; on this occasion he was suffering from a pulsating swelling, clearly an aneurysm, behind and above the manubrium sterni. In the previous November he had fallen from and under his horse. For this aneurysm the right common carotid and the third part of the right subclavian were simultaneously ligatured; this was on Feb. 22nd, 1892. The carotid was tied with silk and the subclavian was tied in two places and divided between. These operations seemed for a time to arrest the progress of the aneurysm, which subsequently gradually increased, and finally ruptured through the skin, the patient dying of hæmorrhage on May 19th, 1892. A minute examination of the ligatured vessels and aneurysms was made by Messrs. Ballance and Edmunds, but instead of reading their report it will, I think, be more instructive for us to go through the case again, discussing the various points that arise in the light of what we now know. The patient, then, was admitted suffering from popliteal aneurysm, which was treated by the operation first practised by John Hunter at St. George's Hospital in December, 1785. Before this, popliteal aneurysms were treated, if treated at all, either by amputation or by laying the aneurysm open, turning out the clot and ligating the two ends of the artery; this latter operation was almost invariably fatal. With a view to reduce this mortality Hunter devised his great operation; as you know, he tied the femoral in Hunter's canal, and this alone sufficed to cure the aneurysm. He had himself lost an apparently favourable case of popliteal aneurysm treated by the old operation from hæmorrhage, and he contrasted this with the freedom from hæmorrhage after amputation. "Why not then," he asks, "tie the artery where it can be safely tied in amputation and save the limb"? This he did, and the procedure has constituted one of the greatest

advances in surgery that it has ever fallen to the lot of one man to make. Hunter himself saved four out of the five cases on which he operated, and other surgeons were equally successful. French surgeons have claimed that Hunter's operation was merely a revival of that performed by Anel eighty years previously. Anel had been called on to treat a monk suffering from an aneurysm of the brachial artery accidentally caused by venesection; Anel tied the brachial immediately above the aneurysm, which was thus cured.

Now, the differences between Anel's and Hunter's operations are: First, that Anel's was on the arm and Hunter's on the leg; this is a great difference—for instance, the blood-supply of the arm after ligation of its main artery is much better than that of the leg; gangrene is very rare in the arm. A second difference is that Anel tied immediately above the aneurysm, whereas Hunter tied at some distance from it. From a pathological point of view Anel's may be the better procedure, but it is far easier for the surgeon to tie the superficial femoral artery than to seek the popliteal in the ham, in close proximity to a large pulsating tumour, a procedure which Anel, be it understood, neither practised nor recommended. It has sometimes been stated that the cause of the failure of the old operation was that the artery was diseased near the aneurysm. This, however, Hunter himself pointed out was not the case, and you will see the same in the specimens on the table. Another reason for the success of Hunter's operation has been given—namely, that by it a small current of blood is allowed to trickle through the aneurysm after the ligation of the artery, thus causing the deposit of laminated clot. You will remember that in neither of these popliteal aneurysms after the ligation was there the slightest pulsation; this is nearly always the case in popliteal aneurysms. Pulsation in them immediately after ligation is either due to a double superficial femoral, as in Bell's case, or to the artery being imperfectly occluded. Later recurrent pulsation may happen from excess of the collateral circulation, and this may be so extensive as to prevent the cure of the aneurysm. Failure from this cause is happily very rare; the treatment is rest, and if this fails religation nearer the aneurysm.

As to laminated clot, when it is found in a popliteal aneurysm after ligation it has been formed before ligation, and is not due to any trickling of blood through the aneurysm after ligation. On ligation the cavity of the aneurysm and the popliteal artery become filled with clot, which later is converted into fibrous tissue, the whole aneurysm being represented, as you see in the specimens before you, by a shrunken mass of fibrous tissue. The ligature which I used was silk boiled in a perchloride of mercury solution. Innumerable substances have been recommended for this purpose, but silk has this great merit—that it can be readily and certainly made aseptic by boiling, a treatment which catgut and other animal ligatures will not stand. Ever since arteries have been ligated surgeons have had to consider how tightly the ligature should be drawn; whether, in other words, the two inner coats should be ruptured or not. Paré, who reintroduced the ligature, endeavoured not to injure the vessel, and Hunter took the same view; but in the early part of the present century Jones in his classical work on hæmorrhage gave the result of numerous experiments, from which he concluded that the coats should be ruptured. It must be remembered, however, that in these days of antiseptics and absorbable ligatures the problem is widely different from what it was in Jones's time, when the ligature had to work its way through the vessel and be discharged externally. Jones's experiments, too, as he points out, were incomplete. He made no experiments without rupture of the coats; these Scarpa made a few years later, and he arrived at the opposite conclusion. So the controversy has gone on, the latest contribution to it having come from our hospital. For myself, I think it has now been conclusively proved, both by experiments on animals and experience in man, that the coats should *not* be ruptured; in arteries of any size it is unnecessary, in the case of the largest arteries it is to invoke the gravest risk of hæmorrhage. In trying not to rupture the coats one has to be careful not to fail to occlude the vessel. It is clear that with a reef knot the ends must be slackened for an appreciable time in order to make the second hitch, and this gives an opportunity for the pressure of the blood to redistend the loop of the ligature. Tying the second hitch tightly will not tighten the loop. To obviate this the so-called surgeon's knot has been devised and it was this knot that I used for the femoral that was first tied. This knot does not answer this purpose—indeed, some say it is inferior to a reef

knot. Another way of meeting this difficulty has been devised by Messrs. Ballance and Edmunds. The aneurysm needle draws a double ligature under the artery and if the loop is divided two ligatures lie side by side. Both these are to be used. The first hitch of a reef knot is tied on each separately, then the two ends on one side are taken in one hand and the two ends on the other in the other hand, the loops being drawn sufficiently tight to occlude the artery; the knot is then completed as a reef knot by treating the two ends in each hand as single threads. This is called a "stay knot." It has been objected that it is a somewhat bulky knot. I did not find it so with silk; but if you prefer it you can complete each reef knot separately, the principle being that the friction in the two single hitches first made and between the two loops offers so much resistance to distension by the pressure of the blood that ample time is allowed to complete the knot; a further advantage is that with two loops there is a great range between the force which is just sufficient to occlude and that which just stops short of rupturing the coats, thus there is little fear of injuring the vessel. The stay knot, I may say from experience, is not at all complicated—indeed, if the knot is completed as two separate reefs, it is simplicity itself. I used the stay knot for the left femoral and the common carotid—with what result we will now see.

We will commence with the report on the right femoral which had been tied with the surgeon's knot four years before death. For about three-quarters of an inch at the seat of ligature the lumen is occluded, with the exception that a very fine bristle can be made to enter it. This tiny winding channel is crossed by several perforated diaphragms, the coats are uninjured, but apparently were not quite brought into contact by the ligature and the vessel is practically impervious; above and below the seat of ligature the vessel is patent, but is much diminished in size. No trace of the ligature could be seen. Below the vessel was patent down to the aneurysm, where the popliteal artery and aneurysm were together converted into a small mass of connective tissue. The left femoral had been tied with a stay knot three years before. The vessel was blocked at the seat of ligature by fibrous tissue (organised clot) for about half an inch; in this were minute holes, along which a bristle would not travel, owing to the openings not corresponding in what may be called the successive diaphragms. The coats could easily be followed and had not been injured by the ligature, but appear not to have been brought quite into contact, the closure being completed by a clot which subsequently became converted into fibrous tissue. The vessel was patent above and below the seat of ligature; no trace of the ligatures was seen. The condition of the artery below and of the aneurysm was the same as on the right side. The right common carotid: at the seat of ligature for three-quarters of an inch the coats are uninjured, in contact and adherent. The whole length of the vessel above and below this was filled with clot; the ligatures were encapsuled in connective tissue. In all three cases the whole seat of ligature was enveloped in a small fusiform mass of connective tissue. The ligatures on the femorals fully answered their purpose, and that on the common carotid seems to have been ideal.

With respect to the subclavian artery, you will remember that as the aneurysm needle was being passed the vessel gave way, and I had to treat it as a wounded artery—namely, by applying a ligature above and below and dividing the vessel between them; the ends, you will see, are separated by half an inch and lie in a mass of fibrous tissue. On the proximal side there is no clot whatever, although the inner coat has been ruptured and is recurved, and though the nearest branch above is one inch and a quarter distant from the seat of ligature. On the distal side there is a clot extending to the first branch—that is, for half an inch. The silk ligatures have ulcerated through the vessel and lie in minute inflammatory cavities just large enough to hold them at the side of the vessel. On the patient's third and last admission to the hospital there was an obvious aneurysm behind the manubrium sterni. It must not be inferred that an aneurysm in this position is of the innominate artery, for aneurysms frequently spring from the front of the arch and pass up in front of the innominate. This, in fact, was what was eventually found to be the case in this patient. The aneurysm was a sacculated one, communicating by an opening the size of a shilling with the arch of the aorta, just in front of the origin of the innominate, which was perfectly normal. There are several specimens in our museum of these aneurysms; in one, the aneurysm arises, as in our present case, from the

norta alone; in a second, by an opening common to it and the innominate artery; in a third, the opening of the aneurysm is from the innominate, but only from just within its mouth. It is not possible from the position, then, of the aneurysm to determine whether it is innominate or aortic. With respect to other symptoms, the most important is the comparison of the two radial pulses; if the right is decidedly weaker the innominate is probably involved. The various pressure symptoms may be caused by aneurysm of either artery.

With respect to the treatment by distal ligature, it is to be remarked that if the aneurysm is purely aortic the operation can only offer temporary relief, though several cases are now on record in which much good appears to have been done. In the case of purely innominate aneurysms a cure probably would be obtained if a method could be found of preventing the passage of any blood along the innominate artery; but this is not effected by the ligature of the carotid and the third part of the subclavian. In the present case the innominate and the whole length of the subclavian as far as the seat of ligature were patent, so that a large amount of blood continued to flow through the innominate after the operation. Clearly the ligature of the carotid reduces considerably the amount of blood flowing through the innominate, but the good effect of tying the third part of the subclavian is not so clear, since the collateral circulation for the arm and brain is supplied partly by the branches of the first and second parts of the subclavian. On this account some surgeons have recommended that the vertebral should also be tied, but the operation for these cases, if it were only feasible, would be the ligation of the first part of the subclavian; this operation up to the present time has always been followed by fatal hæmorrhage, but it is encouraging to remember that Smyth of New Orleans has ligatured a larger artery—namely, the innominate—with success; we may therefore be permitted to hope that with the progress of surgery the operation may yet be successful.

## THE MASTOID ANTRUM IN CHILDREN.

By ARTHUR H. CHEATLE, F.R.C.S. ENG.,

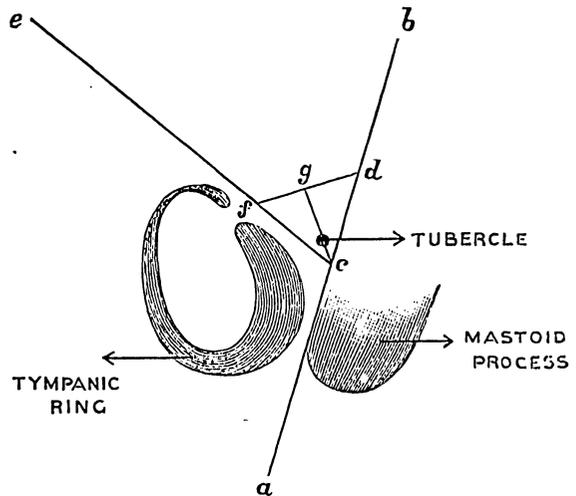
LATE HOUSE SURGEON AND HOUSE ACCOUCHEUR, KING'S COLLEGE HOSPITAL; AND JUNIOR RESIDENT MEDICAL OFFICER AND REGISTRAR, EVELINA HOSPITAL FOR SICK CHILDREN.

MR. ARBUTHNOT LANE has drawn attention to the great importance of the mastoid antrum in connexion with the functions and diseases of the middle ear. After reading his papers I examined the cavities of a number of children whose ages ranged from one to twelve years, and found that they presented very uniform appearances and relations in each case, and admitted of the following description:—The mastoid antrum is a cone-shaped cavity with rounded angles, situated in the most external portion of the petrous bone, the base being turned towards the middle fossa of the skull, the apex running downwards, backwards and outwards, abutting on the base of the mastoid process, opening at its upper and anterior aspect into the recess immediately above the incus; a line drawn from the centre of the base to the apex, forming about an angle of 45° with the direction of the mastoid process, measuring from a quarter to three-eighths of an inch from base to apex, the same in diameter at the base, gradually narrowing to the apex; lined with mucous membrane continuous with that lining the rest of the tympanic cavity and containing a viscid fluid. As regards its development, it is the cavity enclosed by the junction of the projecting lips of the mastoid sulcus, which join posteriorly with the lamellæ of the horizontal portion of the squamous division, the upper lip with the posterior part of the internal lamella, the lower with the posterior part of the outer, the inner surface of the outer lamella being cellular, where it forms the outer wall of the antrum.

For the purpose of describing its relations to surrounding parts it presents for examination a base or roof, an apex, an opening, and external, antero-internal and postero-internal walls. The roof forms a portion of the floor of the middle fossa of the skull, and corresponds to a surface of bone on the superior surface of the petrous bone from one-fourth to three-eighths of an inch in diameter, slightly external to the eminence formed by the superior semicircular canal, irregularly circular or triangular in outline, and formed by the upper lip of the mastoid sulcus overlapping the internal lamella of the horizontal portion of the squama, the petro-

squamous fissure often being evident, after stripping off the dura mater, which sends a process into it, and occasionally a fine bristle may be passed through it into the cavity. The roof is generally thin, often cellular under the upper layer of compact bone; to remove it, commencing from behind, is the easiest way of demonstrating the cavity, the lining mucous membrane often remaining intact. The apex abuts on the base of the mastoid process, sometimes pointing straight into the groove for the lateral sinus—the intervening portion of bone being smooth, extremely thin and translucent,—at other times pointing more towards the mastoid mass, being either smooth or cellular and never having any communication with that process. The antero-internal wall formed by the mastoid sulcus is generally reticulated, and is in relation at its upper and posterior aspect with the semicircular canals (the superior on a slightly higher level), being separated by a layer of dense bone which increases in thickness from the front backwards and measuring about one-eighth of an inch behind. In front of the canals and on a lower plane is the facial nerve in its canal, also separated by a layer of dense bone from one-sixteenth to one-eighth of an inch in thickness; the wall soon slopes away from these structures, narrowing to the apex. A gap is left at the upper and anterior angle, forming the opening of the cavity.

Voltoni describes a canal occasionally leading from the fossa subarcuata, or the depression below the superior semicircular canal, into the mastoid cells. I have a specimen in which the canal opens into the antrum on the antero-internal wall. The postero-internal wall forms a portion of the posterior fossa of the skull, corresponding to a roughly triangular surface on the posterior surface of the petrous



bone, external to the semicircular canals, the base upwards; it is often smooth, thin and translucent, sometimes cellular towards the cavity. The relation of the groove for the lateral sinus varies considerably, sometimes the groove covering a considerable portion of its outer and lower aspects, at other times only its lower aspect, or not coming into relation with it at all, but skirting external to and below it. Between the roof and the postero-internal wall the superior border of the petrous bone projects into the cranial cavity, along which runs the superior petrosal sinus, enclosed in the tentorium cerebelli. The external wall is roughly triangular in shape and always lined at its superior and anterior aspects with a layer of intercommunicating cells, all of which open eventually into the main cavity; it is formed by the posterior part of the outer lamella of the horizontal portion of the squama, joining with the lower lip of the mastoid sulcus, evidences of the fissura mastoideo-squamosa often being visible. This wall corresponds on the external surface with a depression felt behind the attachment of the auricle at its upper part, above the mastoid process. A small tubercle may often be felt close to the attachment of the auricle, separated from the mastoid process by a slight groove; if a hole be drilled straight in at this tubercle it will open into the antrum, as a rule just above the apex. A rough method of marking out this wall on the exterior is to draw a line along the anterior edge of the mastoid process, parallel to the main direction of that process (see diagram, a, b). In this

line take a point, *a*, at the base of the process, and from it measure upwards a quarter of an inch to *d*; from the same point, *a*, draw a line, *ae*, forwards and upwards, forming about an angle of 70° with the line *ab*; from *a* measure along it a quarter of an inch to *f*; on joining *f* and *d* a triangle will be marked out corresponding fairly well with the surface of bone covering in the cavity. Again, if a line, *og*, be drawn through the centre of the line *fd* to *o*, it will closely correspond to the junction of the antero-internal and postero-internal walls; it will be seen that this external wall forms a wedge-shaped piece of the posterior meatus at *f*. The thickness of the wall varies both as regards its inner cellular and its outer compact linings; sometimes the wall is translucent owing to the outer layer being thin, at other times this outer layer measures from one-sixteenth to one-eighth of an inch in thickness and is of extreme density, but both layers seem to increase with the age of the child. The opening corresponding to the gap in the antero-internal wall is situated at the upper anterior aspect of the cavity; the margin of the gap, together with the roof and external wall, form a triangular space with the base upwards, the sides of the triangle being about equal, each measuring about one-eighth of an inch. At the apex is lodged the tip of the horizontal process of the incus, the orifice of the canal for the chorda tympani being immediately internal to or below this. Running parallel to the internal boundary and about one-eighth of an inch from it is the facial nerve in its canal. A probe might possibly be passed into the opening through the meatus after removal of the membrane and ossicles; I have never tried this, but with a suitably bent probe it might be managed. So that, as Mr. Lane points out, the cavity must be regarded as a part of the middle ear, serving to secrete and store up the viscid fluid which lubricates the tympanic cavity and its contents; it is also evidently in the most advantageous position for such a purpose, and movements of the head no doubt help in the evacuation of its contents. With such functions and connexions it ought to be described, both developmentally and anatomically, as part of the petrous bone and not of the mastoid, especially as the division of the petro-mastoid is purely an imaginary one. The name also is misleading. A more correct and descriptive one would be "tympanic receptaculum."

Vienna.

## INVESTIGATIONS INTO THE ETIOLOGY OF MEDITERRANEAN FEVERS.

By SURGEON-CAPTAIN LOUIS HUGHES, A.M.D., MALTA.

MUCH has been written about a tedious form of fever prevalent along the coasts of the Mediterranean which, though quite distinct from enteric fever on the one hand or intermittent (malarial) fever or ague on the other, yet often occurs side by side with these diseases, and has so close a relationship with them as to be frequently called by the unscientific hybrid term "typho-malaria." Whether or not it is identical with cases of so-called typho-malaria occurring in India,<sup>1</sup> America,<sup>2</sup> China,<sup>3</sup> South Africa<sup>4</sup> &c., I cannot at present say, but it is very evident that the same fever exists at many points along the Mediterranean, where it is known as "Malta fever," "Rock or Gibraltar fever," "Neapolitan fever" &c., and for want of a better name I shall here call it "Mediterranean fever." It is said to bear a very close resemblance to some chronic forms of remittent fever met with in India. This present abstract from a detailed report lately rendered to the War Office is the result of eighteen months' work in Malta, where no endemic malaria (ague) exists, and where, both in the wards and in the laboratory, I have had the opportunity of treating and seeing some hundreds of cases of this fever, and I bring it forward hoping thereby to establish the etiology of this fever on a firmer basis.

1. That there is a fever present in the Mediterranean having such distinct and constant features both clinically and pathologically as enables it to be identified from other diseases has been well worked out by Marston,<sup>5</sup> Veale,<sup>6</sup> Bruce,<sup>7</sup>

Moffat<sup>8</sup> and many others,<sup>9</sup> and without entering into details I will mention a few of its leading characteristics. Clinically it has a peculiarly irregular temperature curve, consisting of intermittent waves of pyrexia of a distinctly remittent type, each wave lasting from one to three weeks, with generally an apyrexial interval of two or three days. In rarer cases the remissions may become so marked as to give it an almost intermittent character, but distinguishable clearly from the paroxysms of ague. This pyrexial condition is usually very chronic, lasting even six months or more, and is not markedly affected by quinine or arsenic. It is usually accompanied by obstinate constipation, progressive anæmia and debility, and is followed, in a large number of cases, by very chronic neuralgic and rheumatic complications, from which the patient may not recover for perhaps two years. The death-rate is very low; but as the average stay in hospital is from seventy to ninety days, the expense incurred by the State for invaliding and non-effective pay, both in the army and navy, since our occupation of the Mediterranean has reached an enormous sum. During last year, after eliminating all cases of febricula and enteric fever as far as possible, in Malta alone it was reckoned that the loss to the State on account of this fever was equal to the value of the services of the whole non-commissioned garrison (7697 men) for over three days. The fever is both endemic and epidemic in character. Pathologically the spleen is at first much enlarged, but about the fifth or sixth week it becomes harder, and occasionally shrinks to even less than its normal size. The alimentary tract is subject to irregular patches of congestion, but this has no relation to Peyer's patches, which are not affected. The mesenteric glands are enlarged, but less so than is the case in enteric fever. There is no so-called malarial pigmentation (Klebs and Crueldi).

2. A micro-organism distinguishable from others by its appearance and mode of growth has been found in those parts of the body where from clinical symptoms and post-mortem appearances one would expect to find it, and it is, I hold, present in every case. I have now been successful in obtaining from the spleens of five men who undoubtedly died of Mediterranean fever (duration varying from nine days to five months) a special micro-organism similar in every respect to that discovered by Surgeon-Captain Bruce, A.M.D.,<sup>10</sup> in eight cases, and by Surgeon Gipps, R.N.,<sup>11</sup> in two cases, making in all fifteen cases. This micro-organism I have in each of my cases carried through six generations of pure cultivations. In two cases I was able to demonstrate microscopically its presence in fresh splenic substance. The only case in which it was not found was accounted for by the use of excessively alkaline agar, as I have since proved by control experiments with pure cultures from other cases.

3. I have met with no other micro-organism present under similar circumstances, nor do I know of any other disease in which this micro-organism is present, though test experiments have been made in various fatal cases from other causes. In all fatal cases of enteric fever I have so far found an organism present in the spleen corresponding in appearance and manner of growth with that described by Eberth and Gaffky.

4. Pure cultivations of this micro-organism have been introduced, twice by Bruce<sup>12</sup> and twice by myself, into the muscles of the forearm of healthy monkeys that have previously been under observation for periods of between two and four months. A colony was mixed with sterilised bouillon and the strictest precautions taken. No local changes occurred at the seat of inoculation. In each case the temperature began to rise in about thirty-six hours, and followed the acute course of severe attacks of this fever. The former two monkeys died and my own two were killed during the third week of the fever, having temperatures between 106° and 107° F. In each case pure cultivations of a similar organism were obtained from the spleen and liver, and in my own cases from the blood, of these monkeys. Five minutes after death the liver and spleen appeared large and congested, and there were irregular patches of intestinal congestion. Peyer's patches were normal, as were also the mesenteric glands. The micro-organism was carried through six generations of pure cultures. Again, pure cultures obtained from the spleen and blood of one of my monkeys were injected into the forearms of two other monkeys, pre-

<sup>1</sup> Marston: Army Medical Department Report 18.

<sup>2</sup> American Army Circular, No. 6, p 190, 1805. American Journal Med. Science, 1881.

<sup>3</sup> Durand-Fadel.

<sup>4</sup> Army Medical Department Blue-book, 1878.

<sup>5</sup> *Ibid.*, 1801.

<sup>6</sup> *Ibid.*, 1870.

<sup>7</sup> Brit. Med. Jour., May 5th, 1880.

<sup>8</sup> Army Medical Department Blue book, 1880.

<sup>9</sup> THE LANCET, June 18th and Aug. 18th, 1892.

<sup>10</sup> Practitioner, September, 1897, and April, 1898.

<sup>11</sup> Transactions of the Epidemiological Society of London, vol. ix., p. 76

<sup>12</sup> Army Medical Department Blue-book, 1890.

viously under observation for from four to nine weeks respectively and having during that time steady temperatures, never over 100° F., their normal temperature being about 99° F. In about thirty-six hours the temperature rose, and though there were no pathological signs at the seat of inoculation, yet these two monkeys suffered from fever for two and a half to three months respectively. They lost weight, and in spite of the weather being warm suffered at times, apparently from rheumatism of the arms and legs, but eventually recovered. Their temperatures were taken carefully three times a day, and showed in a most remarkable manner the typical intermittent waves of remittent pyrexia, and there can be no doubt that they were suffering from true Mediterranean fever.

5. This micro-organism, which I believe to be the proximate cause of Mediterranean fever, grows best in nutrient material the alkalinity of which is slightly less than that of human blood, and at a temperature of from 37° to 39° C. On the sloping surface of a 1½ per cent. peptone agar, at a temperature of 37° C., its colonies become visible to the naked eye in from 120 to 125 hours after primary inoculation from the human spleen. They first appear as minute, transparent, colourless drops on the surface of the agar. In about thirty-six hours they become of a transparent amber colour, and, increasing very slowly in size, become opaque in from four to five days from their first appearance. At this time they somewhat resemble split pearls lying on the agar surface. Under a low power with transmitted light the colonies appear of an orange colour, quite round, and with a definite but granular margin. If kept on moist agar they increase in size, but remain circular in shape, and gradually coalesce. In the course of three months they turn to a bright buff or even orange colour, and increase in thickness by heaping up at the centre of the colony, but never attain a great diameter. No liquefaction occurs. Though they cease to grow at the end of two months the colonies retain their vitality at a suitable temperature for over three months. They cease to grow at 18.5° C. and die if kept long at a moist temperature below 15.5° C., but live a long time in a dry state. They will not grow as primary growths on agar having an alkalinity in excess of the blood, but if cultivated in successive media of increasing alkalinity they may be educated to grow in very alkaline media. In this case, however, they are longer in appearing, and grow more slowly and in a very diffuse manner over the surface of the agar, showing at the same time many abortive attempts at colonisation. These diffuse growths, however, if transferred to agar having a suitable alkalinity, again revert to their original characteristic form of growth. They grow also in gelatine and bouillon. In the former it grows very slowly at 22° C. without liquefying. In the latter it gives rise to a general and increasing opaqueness, commencing on the fifth or sixth day and afterwards forming a white precipitate consisting of these cocci, but without forming a surface pellicle. Microscopically in the hanging drop they appear as very minute cocci, 0.008-0.3 mm. (Bruce), ovoid or nearly round in shape, in rapid molecular motion, and at times to be seen in chains composed of two or more. They stain readily with gentian or methyl-violet and fuchsin, but lose their stain rapidly if treated with alcohol. Mounted in balsam they appear as minute cocci, here and there arranged in short chains. They can be observed in fresh splenic substance after death and in the blood during life of man suffering from this fever.

6. From accessible data collected from statistics and records of the last seventy years, from investigations during a recent localised epidemic, from the distribution, and more especially from a comparison of the dates of admission of cases of this fever with the amount of rainfall, it would appear that its presence in Malta and Gibraltar is connected with human excrement, as is said to be the case with enteric fever. The above facts have also drawn me to believe that the poison of this fever, when infecting the human body, is aerial in nature, and arises from faecal and organic matter in porous soils when these are undergoing a process of drying, somewhat after the manner in which the miasm of malaria (ague) is said to be given off from suitable sources, and that in most cases it enters the human frame by way of the air passages. I have no evidence in favour of infected food or drink having any causal connexion with this fever. Its occurrence as an epidemic will be found, I believe, to be preventable. What is now needed is a suitable name and place among fevers in the published standard works, that it may no longer be described as abortive and modified enteric fever or ague, nor be classed as climatic variations of these two specific diseases. Its etiology is of great importance to England, as the Medi-

terranean, besides being a great winter resort and a half-way house in which to acclimatise regiments proceeding to England, has also a permanent force of over 24,000 English soldiers and sailors, who are all more or less exposed to the effects of this fever, both in garrison towns and at the various foreign ports which our squadron visits.

## COMPOUND FRACTURE OF THE INFERIOR MAXILLA TREATED BY WIRE SUTURE.

By T. S. CARTER, L.D.S.R.C.S.ENG.,  
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THE obstacles which have to be overcome in order to maintain fractured portions of the inferior maxilla *in situ* are so numerous that I desire to record the method which I have adopted in several cases with equally good results. The great advantages over other methods are the perfect rigidity of fractured portions, neatness, cleanliness, absence of a bulky splint and an earlier use of the maxilla for masticating purposes.

A powerful wherryman aged nineteen was admitted into the Leeds General Infirmary on May 11th, suffering from compound fracture of the lower jaw &c. A gutta-percha splint and a four-tailed bandage were applied, but without effect, and on May 19th I was asked to see the case. I found the lower maxilla fractured transversely across the ramus on the patient's left side, also perpendicularly between the two fangs of the first molar on the same side, and likewise perpendicularly through the socket of the second bicuspid on the patient's right. The front portion was much displaced, being deeply depressed and exposing the second fang of the molar in its full length. The front portion was also considerably overlapping the posterior part, carrying the median line of the maxilla considerably over to the patient's left side. I took impressions in wax of both maxilla. On May 20th the patient was anaesthetised, and with a dental engine and a specially made bayonet-shaped drill I made a hole through the jaw between the first and second molars on the patient's left side, holding an oral spoon on the inner side to guard the drill from piercing the root of the tongue. I next passed a stout silver wire through the drilled hole and bored a second hole between the fang of the canine and the first bicuspid, and, having brought the wire through from the inside, twisted the ends together and tightened them with pliers, I bent the tail down flat, so as to be out of the way. The chief difficulty in these cases is to return the wire after having passed it through the first drill hole. The method I adopt is as follows:—While drilling the hole I hold, or get a dresser to hold, an oral spoon on the inner side as a tongue guard. Having pushed the wire through into the bowl of the spoon, the latter curls it from the tongue and one can then seize it with a pair of forceps. I then bend a long loop on it and, having passed a fine wire through the second drill hole, attach it to the loop and draw it through. The oral spoon is a great help by safeguarding the tongue, turning the wire, and preventing the finger from being lacerated in feeling for the wire—an important factor in cases of a specific character. In addition to the suture I applied a Hammond's splint, which fixed the fractured portion on the patient's right, and finally a well-ventilated gutta-percha splint.

On May 26th the parts were in a most satisfactory condition. There was no discharge and the patient was free from pain. On June 2nd the portions wired together were in perfect position, but the back teeth met before the front ones, probably owing to the fracture through the ramus. A broad cotton bandage (double thickness) was applied, the frontal portion being tightened in order to raise the body of the jaw. On the 11th the teeth were well opposed to each other. The patient was free from pain, and all looked healthy. He was made an out-patient. On July 7th the bandage and Hammond's splint and wire suture were removed. All was found firm and in good position. To avoid future trouble from the stumps on the patient's left side I removed them.

In a case which I attended some time ago there was the same happy result. The inferior maxilla was divided in the median line to facilitate the removal of cancer from the floor of the mouth. There was difficulty in obtaining union in the ordinary way, but the application of a strong wire suture, applied as described, answered most efficiently, and there was rapid union.

Leeds.

THE  
PREVENTION OF SUICIDE IN THE INSANE.<sup>1</sup>

By H. SUTHERLAND, M.D. OXON., M.R.C.P. LOND.,  
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THE following remarks on the prevention of suicide in the insane are of a practical character, and may, I hope, be found useful to those who are engaged in the treatment of the insane, whether such treatment be carried on in an asylum or in the house of a physician. In the first place I shall refer to a few statistics as briefly as possible. The population of England, according to the last report of the Registrar-General, was 29,001,018, of whom 13,152 committed suicide. The number of lunatics in England and Wales was 87,848 at the same date, of whom only 12 committed suicide. Roughly speaking, 1 in 14,000 sane people and 1 in 7000 insane people—that is to say, twice as many insane as sane—commit suicide. It is impossible to say how many of the population at large have suicidal propensities, but if we turn to the tables of the Commissioners in Lunacy we find that not less than one-third of the patients admitted are entered in the case books as suffering from this tendency. In the year 1888 the number of patients admitted amounted in all to 14,000, and of these not less 4000 odd had suicidal propensities. When we compare the number of patients who have suicidal tendencies with the actual number who commit suicide, it must be confessed that we owe a heavy debt of gratitude to those by whose skill and obedience this calamity is reduced to so small a proportion. Out of 4217 patients with suicidal tendency, only 19—that is, only one case out of 222—succeeded in committing the act, the remaining 221 having been prevented from accomplishing the fatal deed by the care and vigilance of the attendants. It is the relatives of the insane who are responsible for the majority of suicides. They delay the admission of patients until some awful tragedy occurs; they interfere unnecessarily with the treatment, and they endeavour to remove patients from care before they have properly recovered. My first private case was that of a man who had been looking down the barrel of a loaded revolver and refusing food for several days. The patient was only fit for an asylum. My advice that he should be sent there was not followed, and he died soon after from starvation and the neglect of his family. Foolish relatives will often introduce penknives, scissors and other dangerous articles into an asylum secretly, which are immediately taken away from the patients if the attendants know their work. It is only by careful and constant supervision that the number of suicides may be reduced to a minimum. A good superintendent will be particularly careful to instruct his staff to lock up all medicines, never to allow patients to handle them and never to serve out more than the exact dose indicated by the label on the bottle. These rules should also be applied to lotions, disinfectants, poisonous plasters (such as belladonna), and more especially to pills, which the attendant must see the patient swallow, or he may hoard up a poisonous quantity and take them all together. Attendants should also exercise every precaution with regard to keys and razors, and any loss of these should be at once reported. Keys must be worn on the person, displayed as little as possible and attached to the attendant's wrist at night should he sleep in the same room as his patient. Knives and forks are only to be used in the presence of an attendant, and are to be carefully counted before and after meals and always kept locked up at other times. Fireirons, and even brooms, are to be secured in the cupboard, and all broken glass and crockery must be immediately removed. All outsiders, such as charwomen, tradespeople, workmen and gardeners, must receive special instructions not to leave dangerous tools and implements about. Suicides from eating arsenical putty and rat poison—taken, for instance, from the coat pocket of a careless attendant—have been more than once recorded. A curious suicide occurred in a public asylum, in which a woman died of peritonitis induced by her having swallowed a quantity of needles and pins. A large proportion of suicides are due to hanging. All objects therefore such as nails, wires, ropes, sash lines, boll pulls, tapes and string must be

removed from the reach of the patients. No parcel should ever be sent into the wards till the string has been removed and the contents examined. I have known even a piece of slate pencil or an old spoon to be used for the purpose of strangulation. By attaching a brace or a handkerchief to one of these, pushing the pencil through the keyhole of a door, pulling it taut and then making a noose, a gallows can be arranged quite as effective as any of the public executioner's more complicated arrangements for a drop. Patients will swallow almost anything. On post-mortem examination I have more than once found a piece of towel with the asylum mark on it in the intestines of a patient. One gentleman under my care swallowed his sleeve-links, which, however, passed through the digestive tract without doing any harm; and I have once seen a patient chew up and swallow an indiarubber utensil, but she recovered ultimately.

In most public asylums many of the inmates are employed at work at the trades they practised before admission. Such patients require constant watching and daily examination. Should they return to their old delusions or to hearing voices, perhaps commanding them to commit suicide or homicide, they must be at once sent back to the dangerous wards of the asylum. In the bookbinders', shoemakers' and tailors' shops patients are entrusted with large sharp knives and heavy hammers, which would prove formidable weapons in the hands of a maniac. The games of the patients should also be appropriate to their mental condition. I have known a male suicidal patient swallow a small billiard ball, which, sticking in his larynx, choked him before assistance could be procured. No suicidal patient should be sent out in the fields with a working party. A patient cut his throat with a hay knife who had attempted suicide only fourteen days previously. No suicidal patient should ever be allowed to go out walking outside the grounds of the asylum. Patients have been known to escape from their attendant and jump over a railway bridge or into a river, or to throw themselves under a passing train. The site for a new asylum should therefore be chosen as far as possible from all such dangers; no ponds should be allowed in the grounds and all water-butts should be securely covered. The internal arrangements also of an asylum are of the utmost importance with regard to this tendency. All doors should open outwards. Windows should be protected by steel bars, which, if painted a light cane colour, have no unpleasant prison-like appearance. The waterclosets must have neither locks nor bolts, but should close with a spring ball which is let into the door. A very common method is for the patient to make an attempt by setting fire to her clothing. It is, therefore, obvious that lucifer matches and all other inflammable materials should be carefully concealed from the insane. All fireplaces in suicidal wards must be protected by properly constructed guards. The taps for turning on gas must be shut up in cupboards, of which only the attendants have the keys, and care should be taken that all rooms in which these patients are lodged should be lighted, both by day and by night, by windows and gas-jets which are quite out of the reach of the inmates. Patients should also be carefully watched at meals. Sometimes they will refuse to take food, or not take enough, or will conceal their food in their stockings, or place it under the stair carpets, or bolt their food ravenously in a dangerous manner. One curious case is reported in which a lunatic endeavoured to commit suicide by plunging his head into a tureen of boiling soup. Attempts at suicide have also been made without the use of any appliance, as by strangling with the hands or thrusting the fingers down the throat.

All single rooms should be constantly inspected if a patient is placed in them. A woman under my care butted at the door of a padded room with her head, raising a large swelling over the frontal region, under the delusion that she was shut up in the cabin of a ship which was sinking, and that the only way to escape drowning was by trying to force the door open with her head. Many suicides take place at night; therefore in any large institution there should always be a night watch on duty, who is to make his round of the wards at regular hours and register the time of his visits to the different stations on the tell-tale clock. The ingenuity of some patients in preparing suicidal or homicidal weapons is worthy of a better cause. Dr. Fritchard Davies has given me a collection of these dangerous instruments, taken from patients at the Broadmoor Criminal Asylum. Amongst these were found a piece of crinoline steel let into a piece of firewood and bound round with string; a quantity of stones tied up in a piece of sacking, and many other curious mis-

<sup>1</sup> A paper read at the West London Medico-Chirurgical Society on Friday, Nov. 4th, 1892.

cellanea. Mr. Lutwidge, the Commissioner in Lunacy, was murdered by a patient with a large nail, sharpened to a point, and thus made into a dagger, the handle of which was composed of pieces of old carpet. Dr. Orange of Broadmoor received a violent blow on the head from a lunatic, who used for his murderous purpose a large stone tied up in a stocking. But, as I before remarked, the relatives are more frequently to blame than are the doctors or the attendants. I was consulted some years ago about a woman who was a victim to melancholia; she was a patient at the St. George's Dispensary, and had marked suicidal tendencies. I suggested that she should be removed to an asylum, as I was most anxious to prevent an accident occurring in the house in which she resided. My advice was not followed, and the next thing I heard was that she had thrown herself from a window, alighted on her head, fractured her skull, and died. A grave omission on the part of the petitioner often occurs when he neglects to put in the statement that the patient is suicidal, if he is so. The deduction from this point is that, if there is any doubt about the matter, all patients should be considered suicidal on admission until the contrary is known. Another frequent cause of suicide is found where the relatives insist on removing the patient from the asylum before he is considered recovered by the authorities. A man was placed under my care suffering from simple melancholia without delusions. The first two doctors refused to certify. The second two found him insane and signed certificates. The patient was strongly suicidal. After a few days' residence in Blacklands Asylum the relatives called and pronounced him recovered, and in spite of all I could say removed him from our care and took him home. That night at supper he cut his throat with a large carving knife and destroyed his life in the presence of his family. Fortunately for myself I had discharged the patient "unimproved," so I just escaped having the suicide entered on my books, which would have happened if I had allowed him to go out on leave of absence, in which case the patient is still attached to the asylum and can be readmitted on the old certificates.

Richmond-terrace, S.W.

## SOME PRACTICAL RESULTS OF THE INVESTIGATION OF CHOLERA IN GERMANY.<sup>1</sup>

BY WILLIAM RUSSELL, M.D., F.R.C.P. EDIN.,  
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BEFORE the occurrence of the epidemic of Asiatic cholera in Western Europe during the past summer and autumn the importance of the discovery of its probable pathogenic factor can hardly be said to have been actively appreciated or valued. If the discoverer were correct it was only one more stone added to the temple of knowledge; but the discovery was applicable to conditions too remote—too Oriental, in fact—to command homage from the practical Anglo-Saxon. Even before this, however, Koch's discovery of the comma bacillus and the accuracy of his contention that it was the pathogenic organism of Asiatic cholera were accepted by many bacteriologists and pathologists and by some physicians. Still that acceptance might be regarded more as a laboratory belief than a practical faith; and Koch's comma bacillus commanded no special attention in the culture tubes in the laboratory.

In this paper I shall confine myself mainly to the experience of cholera in Berlin, as it was studied there in the Moabit Hospital and in the barracks attached to the Institut für Infektionskrankheiten, which is under the directorship of Professor Koch.

I may mention first a fatal case of cholera nostras recorded by Dr. Guttman,<sup>2</sup> the first fatal case he had, and which occurred in July, before Asiatic cholera was known to exist in Germany. The case is recorded in detail, and its clinical picture closely resembles Asiatic cholera; it was regarded as

a severe case of cholera nostras, as it was a solitary one; the stools were examined and no comma bacilli found. At the necropsy the entire small and large intestine showed the mucous membrane to be in a state of inflammatory redness and swelling. The solitary follicles and Peyer's patches, however, were mostly free, although some were a little swollen. This comparative freedom of the glands from the inflammatory process he regards as anatomical evidence that the case was not Asiatic cholera, with the proviso, however, that when cholera patients die in the stage of cholera-typhoid death may be so long delayed that the inflammatory swelling of the mucous membrane and the follicles may have considerably subsided. The degree and extent to which the colon shared in the inflammatory process is also against the case having been Asiatic cholera. He lays much stress upon the enlargement of the follicles, especially in the lower part of the ileum, in Asiatic cholera, as a fact which he noted in the epidemic of 1866, and which was confirmed by the necropsies of the more recent cases.

I shall now refer to some of the statistics of the Moabit Hospital from Aug. 24th.<sup>3</sup> There were admitted thirty cases of Asiatic cholera, of which fifteen died—two cases were brought in dead and were shown by necropsy and bacteriological investigation to belong to this group; fifty-four cases of cholera nostras, none of which died; 153 cases of diarrhoea, of which one died, and eighty-eight cases sent in to be under observation, of which none died. As regards diagnosis, Dr. Guttman says the severe cases are easy of recognition, although the severe case of cholera nostras already referred to and a case of antipyrin poisoning which he had markedly resembled severe Asiatic cholera. With regard to the mild cases his experience was the reverse of this, and amongst the thirty cases there were five such. Some of these had a very suggestive history. Persons taken into hospital and placed in the observation wards because they had been in contact with cholera patients had after admission slight diarrhoea, and the stools, examined bacteriologically, showed the presence of comma bacilli. The prevalence of diarrhoea during and often preceding the appearance of an epidemic of Asiatic cholera is well enough known, and both in this country and elsewhere many of the cases occurring at such a time are spoken of as choleraic diarrhoea. Now, while it may have been shrewdly suspected that some of this class of case when accompanying an epidemic of Asiatic cholera were really mild cases of that disease, or, at all events, were the result of the reception of the cholera poison under conditions referable to the quality of the poison or the resisting power of the individual, still, this was only a "pious opinion," for no proof was possible. Further, it has been noted that many cases of cholera nostras have a more severe onset than mild cases of undoubted Asiatic cholera, and may be mistaken for it. From this, which is the clinical standpoint, there was no escape. Clinical medicine could go no further. Its impotence was manifest. At the Moabit Hospital, with abundant material, a capable staff, and great enthusiasm in the work, they had concluded that the bacteriological investigation of the stools separated and differentiated the cases. Out of some hundreds of cases of cholera nostras and diarrhoea they had examined fifty-one, and in not one of these was the comma bacillus found, or Finkler-Prior's bacillus. The bearing of this practical conclusion from the work of this hospital alone, the work being done as it was, is of the greatest importance and value, as it seems to me. Additional observations from many places may be added to it, and mayhap contradictory evidence may be forthcoming, but the results of investigation at this one spot, under the conditions referred to, can hardly be other than the illustration of a fact broadly applicable. If this be the case, the identification of mild cases of Asiatic cholera becomes of the greatest moment. In illustration of this I may refer to the facts of a case admitted into the cholera wards at Koch's Institute a day or two before I left Berlin, and which have since been published by Dr. Kossel. The case turned out to be one of Asiatic cholera, yet for some days before admission the patient, a man, suffered from diarrhoea, and had deposited his excrement in the water-courses, in quiet nooks in the Thier-Garten, and at whatever spot was most convenient when the calls of nature became imperative.

If we now look at the results from Koch's Institute, there were fifty-two cases of suspected cholera admitted into the barracks there; two were cases of Asiatic cholera. The

<sup>1</sup> A paper read at the Medico-Chirurgical Society of Edinburgh on Nov. 2nd, 1892.

<sup>2</sup> Berliner Klinische Wochenschrift, 1892, No. 41.

<sup>3</sup> Deutch. Med. Wochenschr., 1892, No. 41.

clinical experience here was the same as at the Moabit—namely, that severe cases of cholera nostras were clinically identical with mild cases of Asiatic cholera, and that they could only be separated by bacteriological investigation. An important part of the work done in this laboratory was the examination of intestinal discharges and of soiled clothing sent from other places. According to Dr. Kossel's published figures,<sup>4</sup> forty-two such were examined, and of these nineteen gave the comma bacillus by culture. Faecal matter and clothing were often received after having been treated with antiseptics, which of course prevented their thorough examination. I have seen there the most perfect cover-glass preparations of comma bacilli taken from the faecal soiled clothing sent to the laboratory.

With reference to the investigation of the intestinal discharges I may say a word. The presence of comma bacilli may be demonstrated by cover-glass preparations made from the discharges, but this is not accepted as sufficient; plate cultures are made, and on these the characteristic colonies of Koch's comma bacillus are distinguishable under a low power in about twenty-four hours or even less, and, if further proof is required, stab-cultures can be made from the colonies and the changes effected in the nutrient gelatine followed. (These were demonstrated to the Society.) The length of time during which the comma bacillus was present in the discharges was followed in a small number of cases in the Moabit Hospital, with results varying from five to ten days. At Koch's Institute the number of Asiatic cases was too small to base any conclusion upon, but when I was there every motion passed by the Asiatic cases was examined by plate cultures.

With reference to Hamburg, which I also visited, the impression I got was that there had been too many patients to attend to for the staff to spare much time for bacteriological investigation; still, there they told me they had always found the comma bacillus. The experience gained and the observations made in Hamburg will, I trust, be published. One of the assistants at the Eppendorf Hospital had made five hundred necropsies on cholera cases by the time I was there, and such a series of cases could not fail to add to our knowledge even as regards naked-eye appearances.

A word or two may be said with reference to treatment. At the Moabit they tried salol and creolin and vamin injections with no satisfactory result. Calomel was used both in Berlin and in Hamburg, but I am not in a position to speak of the results. What impressed me most at the Moabit, in the old general hospital at Hamburg, and in the new one at Eppendorf was the reliance the staff had on saline injections, and the confidence with which they spoke of them and the absence of risk which attended the operations. At the Moabit Hospital Dr. Guttman believed strongly in the subcutaneous introduction of the saline fluid, in Koch's they believed in its intravenous introduction, and in Hamburg I think they had used both methods. The apparatus used was an exceedingly simple one, but great care was taken to have everything properly sterilised. It is needless for me, to dwell upon the practical significance of the acceptance of Koch's comma bacillus as the cause of Asiatic cholera—it has made the disease a more tangible and comprehensible entity; it has shown how water, food, and clothing are infected and become the vehicles for spreading the disease; and in doing so has shown how it is possible to check and to arrest it, and, best of all, to prevent it. With Europe threatened by such a plague we place a higher value on this portion of Koch's work, and we place it amongst the great discoveries.

Edinburgh.

<sup>4</sup> *Ibid.*

**PREVENTION OF CHOLERA.**—At the Thames Police court this week a captain in the employ of the General Steam Navigation Company was summoned at the instance of Dr. Collingridge, medical officer to the Port of London, for wilfully neglecting to carry out certain of the cholera regulations provided by the Public Health Acts. Dr. Herbert Williams gave evidence in support of the charge. Mr. Gill represented the defendant and said the company were very anxious in every way to carry out the Order in Council, but thought an attempt was being made to saddle their captains with responsibilities they were not bound to undertake, and therefore the time had come to offer resistance. The magistrate said the case was not free from difficulties; yet, having allowed the passengers to land, the captain had taken full responsibility for the consequence, and would be fined £25 and costs.

## Clinical Notes :

### MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

#### NOTES ON "NORMAL INTERMITTENT UTERINE CONTRACTIONS OF PREGNANCY."

By J. D. WINDLE, L.R.C.P.I., L.M. DUB., M.R.C.S.

DR. PLAYFAIR, in his work on Midwifery,<sup>1</sup> quoting Dr. Braxton Hicks's paper in the Obstetrical Transactions,<sup>2</sup> states that "intermittent contractions of the uterus are constant and normal concomitants of pregnancy, continuing during the whole period of utero gestation. The contractions occur every five or ten minutes, sometimes oftener, but rarely at longer intervals. If the hand be kept steadily on the uterus its alternate hardening and relaxation can be appreciated with the greatest ease."

The following case illustrates the fact that these contractions are not, as is usually the case, always painless; indeed, in some instances that have come under my notice the contractions have been such as would lead one to infer that premature labour was about to take place. The first case of this kind I have noticed occurred about three years ago, when I was consulted by a woman in the seventh month of pregnancy for what she described as "cramp in the stomach," and from which she had suffered more or less for some time. Suspecting premature labour was about to occur I visited her at her home, when on palpating the abdomen I found the uterus contracted, and from this I concluded that labour had commenced. The pains continued for about two months, more or less modified by treatment up to the time of actual labour at full term. I may mention that my patient was in good health and that her previous pregnancies had been normal. Remembering the fact of the occurrence of painless intermitting contractions, I concluded that the case was a modified form of the normal state of things—viz., painful instead of painless contractions. Before the termination of pregnancy I had many opportunities of verifying the opinion I had formed. In this and subsequent cases, so far as I could make out, the contractions had no effect on the os or cervix, but the membranes became somewhat, but not markedly, tense. Since then I have noticed many similar cases, but in only one where the painful character of the contractions continued for any considerable period. In this case, also a multipara, they occurred regularly from Jan. 27th, 1892, to Feb. 15th, during which time I visited her every day. Delivery took place on March 2nd. It is a very common experience to meet with cases of threatened abortion and early miscarriages where pains constitute the only symptom, but which subside after a time without anything being expelled from the uterus, and for labour to take place at the full term of utero-gestation. I believe that many of these cases are examples of the painful instead of the normal painless intermitting contractions of pregnancy. If such be the case we have an explanation of the fact that it is rare for abortion or miscarriage to occur when pain is the only symptom.

<sup>1</sup> Southall, Middlesex.

#### A CASE OF DOUBLE INTUSSUSCEPTION.

By DUNCAN J. CADDY, M.B.

A FEMALE infant aged five months had a very severe fall on Friday, Nov. 21st, 1892. A few hours afterwards she began screaming loudly and appeared to be suffering great pain. The parents administered a powder and afterwards a dose of castor oil, with the result that the infant vomited freely, but nothing was passed per rectum. Next day the child still appeared to be in pain, but took a little milk, and the parents again administered an aperient powder. This caused more vomiting, but still no action of the bowels. On Sunday the child became cold and appeared very ill. On Monday at 8 A.M. the child, after much straining, passed a little bloody mucus per rectum and I was sent for. On arrival I found the child in a state of

collapse, the skin was bathed in a cold sweat and the eyes sunken. The abdomen was tympanic, the pulse 200, the temperature 103.5° F., and the infant was vomiting stercoraceous matter. Examination per rectum revealed nothing. Upon palpating the abdomen, however, a short, thick, sausage-shaped tumour could be distinguished over the cæcum. It was clearly a case of intussusception, and the child died four hours later. The post-mortem examination revealed an ileo-cæcal intussusception about four inches in length, which had again become invaginated in the bowel further on, thus forming five complete layers. It is only for me to add that the child was well nourished and otherwise healthy, and that, the symptoms setting in almost immediately after the fall, it would appear as though this must have had some direct influence in causing the double intussusception; but I leave this for the consideration of others more experienced than myself.

Earl's Court-gardens, S.W.

#### HÆMATOMA AURIS.

By E. ROUSE ROUSE, M.R.C.S., L.R.C.P. LOND. &c.,  
ASSISTANT MEDICAL OFFICER, COLNEY HATCH ASYLUM.

HAVING collected a few notes on hæmatoma auris or insane ear, I should be glad of their publication in THE LANCET, in the hope that they may be of some interest to medical men, especially those connected with lunacy. I will first take into consideration the class of case in which the insane ear is most common. I think that cases of acute mania and general paralytics in the maniacal stage produce most examples of this class; those of chronic mania with recurrent attacks are also at times sufferers. As to which ear is oftenest affected my own observations differ from most observers, in the fact that the right ear has been most often diseased. If this is really the case, the theory that the flow of blood from the heart to the left side is more direct, and that there are fewer ramifications of the branches of the carotid arteries on the left side, will not hold good, as it is, I believe, generally known that the arteries on the right side anastomose much more freely. The cause of the swelling of the ear or ears is often very difficult to elicit, but I have little doubt that violence of some kind is the usual cause, and this need only be a slight rub or knock to produce the swelling. As an element in prognosis it is very valuable, as no doubt cases in which it occurs generally, but not always, end fatally; this is especially the case in double insane ear. I have also noticed that a fatal termination is much more rapid in these than in other cases. The treatment by blistering is no doubt very valuable in many patients, but I have seen several upon whom it has had little effect either in decreasing the swelling or preventing the after disfigurement. Again, is the disease so uncommon in sane people as is generally believed? My own experience teaches me that it is not, as amongst athletes, especially football players of the Rugby game and boxing men, it is fairly common. I know eight cases in which it occurred; in one the patient had the remains of double insane ear. This also, I think, will assist to prove that violence in some form is the most common cause, as undoubtedly in athletes the swellings can be traced to a blow or rub of some sort. I have not been able in some to discover the degeneration of the arteries which has been stated to so frequently occur, but no doubt this is very often seen, and the rupture of these degenerated vessels is the immediate cause of the swelling. In conclusion I may say that patients of the upper classes are more prone to the disease than the lower classes, at least we generally see many more cases in private asylums than county asylums; but the cause of this is difficult to understand, and perhaps many with more experience than myself will doubt this last assertion.

Colney-hatch, N.

#### METHOD OF FIXING PATIENTS FOR OPERATIONS UNDER ANÆSTHESIA IN THE SITTING POSTURE.

By DUNDAS GRANT, M.A., M.D., F.R.C.S. ENG.

FOR many of the shorter operations on the mouth, throat, nose and ear it is very desirable to have the patient in the position in relation to light, attitude &c., in which examinations are habitually made. At the same time the sitting posture has many inconveniences for the administra-

tion of anæsthetics, and chloroform is practically inadmissible. Ether, however, as Dr. Silk has said, may be given with comparative security, and nitrous oxide without any anxiety whatever. Several years ago I demonstrated at the Central London Throat and Ear Hospital the possibility of removal of tonsils or adenoids, or even both, during the administration of nitrous oxide, and my colleagues were not slow in adopting a practice which in that institution has now become a matter of daily routine. Hitherto one great difficulty has been the tendency of the patient to slip off the chair at the moment when the anæsthesia becomes complete, and to have recovered consciousness by the time he is "collected" and propped up again. To prevent this accident the following simple method of fixation is recommended. A short jack-towel with the seam unstitched is placed round the back of the patient's neck like a priest's stole, with the ends hanging down in front. Each of these ends has firmly attached to it about two feet of soft, thick cord or thin rope. He is then seated on a chair which has a very narrow, high back, on the posterior surface of which, and at about the height of the patient's head, there is a stout upright hook. The middle of the jack-towel is raised off the patient's neck, lifted over the back of the chair and laid on the hook. The two ends are then brought backwards under the armpits and round the back of the chair. The ropes are then crossed over the hook and tied in a bow. The patient is thus simply, securely and "unalarmlingly" fixed so that he cannot slip down. A band may be placed round the forehead to keep the head fixed, but this is most effectively and pleasantly done by the hands of some one standing behind. At the same time the patient can be instantly released by the simple pulling of the ends of the ropes forming the bow.

Upper Wimpole-street, W.

#### SUDDEN DEATH, WITH NECROPSY, SHOWING RUPTURE IN THE INTERNAL ILIAC ARTERY.

By J. A. EWAN, M.B. EDIN.

THIS case is interesting not only in itself, but also because it well illustrates the importance of holding a post-mortem examination in every case of sudden death before granting a certificate.

A man aged fifty-three was a patient in the Dorset County Asylum for twenty-two days, and previously for two months in the County Hospital. On admission into the asylum his case was at once diagnosed as one of general paralysis, with absolute dementia, tottering gait &c. For some days there was no change in his condition, but on the eighth day he had a series of epileptiform convulsions, which continued until the following morning. After these convulsions ceased he was in a very helpless state, but they did not return until the evening of the twenty-first day, when they again commenced and continued until three o'clock in the morning of the twenty-second day. At a quarter to four his breathing suddenly became stertorous and a quarter of an hour afterwards he was dead. Post mortem were found in the head, as was expected, the usual changes that occur in general paralysis—thickened and adherent membranes, cerebral degeneration &c. and atheromatous arteries. The thoracic and abdominal organs were fairly healthy, but on turning aside the small intestines a large mass of clotted blood was discovered lying in front of the psoas muscle. This clot was carefully removed, and on further examination there was found a rupture of the internal iliac artery close to where it gives off its ilio-lumbar branch. This, then, and not any cerebral lesion, was the immediate cause of death.

Dorset County Asylum.

**METROPOLITAN ASYLUMS BOARD.**—The number of patients in the various hospitals of the Metropolitan Asylums Board at midnight on Nov. 29th was as follows:—Eastern Hospital, 363 scarlet fever, 61 diphtheria and 39 enteric fever; North-Eastern Hospital, 554 scarlet fever; North-Western Hospital, 314 scarlet fever, 82 diphtheria and 23 enteric fever; Western Hospital, 291 scarlet fever, 31 diphtheria, 1 typhus fever and 16 enteric fever; South-Western Hospital, 285 scarlet fever, 59 diphtheria and 24 enteric fever; South-Eastern Hospital, 366 scarlet fever, 19 diphtheria and 16 enteric fever; Northern Hospital, 856 scarlet fever and 12 diphtheria; Gore Farm Hospital, 786 scarlet fever. On the hospital ship *Atlas* there were 16 cases of small-pox.

## A Mirror OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ROYAL FREE HOSPITAL.

##### A CASE OF CHRONIC PYÆMIA; RECOVERY.

(Under the care of Mr. BOYCE BARROW.)

THROUGHOUT the course of the disease from which this patient suffered there was an absence of the more characteristic symptoms: there was no marked sweating, there were no rigors, gastro-intestinal symptoms were absent, and the temperature was at no period of his long stay in hospital remarkable for its irregularity or unusual height. Yet the abscesses in the chest and neck were without doubt pyæmic; this was shown by their number, the rapidity of their appearance, and the slight local disturbance. The point of interest in the case is whether they were secondary to the disease in the thigh, or whether (this being also pyæmic) they were in any way connected with the thrombosis resulting from the typhoid fever. The abscesses appeared over the sternum ten weeks before any pain was felt in the right thigh, and the fact that the œdema and pain reappeared in the left leg very shortly after the abscesses would suggest that the thrombus may have commenced to extend or break down. The chief point against any causal connexion between the thrombosis and the pyæmia is the great interval which elapsed (more than eighteen months) between the convalescence from the thrombosis and the commencement of the pyæmia. For the notes of the case we are indebted to Mr. Wilmott H. Evans, B.Sc., surgical registrar.

A wheelwright aged twenty-five was admitted into the Royal Free Hospital on April 27th, 1892. In June, 1890, he was in the hospital under Dr. Sainsbury for typhoid fever, during the course of which the left popliteal and the lower part of the femoral vein became thrombosed, causing pain in the calf and œdema of the leg. Since then he has been quite well until about six weeks before admission (March 10th), when he noticed two small, rounded swellings, one over the upper border of the sternum, a little to the right of the middle line, and the other immediately above the left clavicle at the outer border of the sterno-mastoid. These both increased in size, especially the one over the sternum, and a fortnight later the larger swelling was incised and a quantity of thin, yellow matter escaped. About the same time his left foot began to swell, especially after walking, but the swelling disappeared to a great extent when he lay down. Ten days before admission a third swelling appeared over the left side of the upper part of the sternum, and on the morning of the day on which he entered the hospital a fourth swelling, smaller than the others, appeared in the posterior triangle of the right side. From none of the swellings has he suffered any pain or inconvenience.

On admission the patient was found to be a strong, healthy-looking man. Nothing abnormal could be discovered in the thoracic or abdominal organs. Over the upper border of the sternum was a sinus from which sanious pus was oozing. A probe was passed backwards for nearly an inch, but no bare bone could be felt. Over the upper piece of the sternum, a little to the left, was a rounded swelling about an inch in diameter. The skin over it remained unaltered in appearance. Somewhat doubtful fluctuation could be obtained. A similar smaller swelling was found at the lower part of the posterior triangle of both sides. The left leg below the knee was somewhat swollen and slightly painful, and the hard cord caused by the thrombosed popliteal vein could still be felt. The superficial veins of the thigh were dilated. The family history was unimportant, and up to the attack of typhoid fever in 1890 the patient had always had good health. After admission he continued in the same condition, except that the sinus continued to discharge and the swelling increased in size. The temperature varied from 98° to 102° F.

On May 5th the swelling to the left of the sternum was aspirated and about a drachm of pus removed. On May 7th

the patient was anaesthetised, and Mr. Barrow made an incision over the swelling in the front of the sternum and evacuated thin pus; the cavity was found to extend backwards between the second and third ribs, but no bare bone was to be felt; the cavity was scraped out with a Volkmann's spoon. The swelling in the left posterior triangle was treated similarly, and the sinus remaining from the former incision was also scraped. The three cavities were then filled with gauze soaked in an emulsion of iodoform and glycerine, and a dressing of carbolic gauze was applied. The cavities were syringed out daily with solution of perchloride of mercury and filled with iodoform and glycerine gauze. After the operation the temperature somewhat improved, but still occasionally went up to 101°. By May 26th he had so much improved—the discharge from the sinuses being very little and the left leg less swollen—that he was allowed to get up. He had slight stiffness over the right thigh. By June 10th the two smaller cavities had healed up and only a little pus still escaped from the sinus to the left of the sternum. The small swelling in the right posterior triangle had steadily increased in size and another swelling had appeared superficially to the right sterno-mastoid.

June 23rd.—The stiffness in the right thigh, mentioned on May 26th, has steadily increased, and he feels an aching there on walking, so he has been kept in bed. On examination a swelling was found, beginning a little above the level of the great trochanter and extending downwards for five inches; fluctuation can be obtained over it, but there is no redness. The sinus to the left of the sternum has almost healed.

25th.—The patient being under an anaesthetic, an incision four inches long was made over the swelling on the thigh and about three ounces of creamy pus escaped. On introducing the finger a hole one-third of an inch in diameter was felt in the bone just below the anterior superior iliac crest; a small sequestrum was removed and the softened bone around it was scraped with a Volkmann's spoon and a gouge. The whole abscess cavity was well scraped and dressed with a paste of iodoform, boracic acid and glycerine, and plugged with iodoform glycerine gauze. The wound was dressed daily in a similar manner and diminished in depth.

July 18th.—The wound on the thigh has partly healed, but still has some discharge; the sinus over the sternum is almost healed, but a little pus escapes; the swellings on the right side of the neck are slowly enlarging, and fluctuation can be obtained in each of them.

Aug. 10th.—The swellings on the right side of the neck were still increasing in size, so under an anaesthetic they were both incised, the pus evacuated and the cavities scraped; the sinus over the sternum was also scraped, and they were all plugged with iodoform and glycerine gauze. The wounds in the neck and on the thigh slowly diminished in depth, and by Sept. 27th they were quite healed, and on Oct. 1st the patient was discharged well.

#### ROYAL PORTSMOUTH HOSPITAL.

##### A CASE OF HYDATIDS OF THE LIVER; RECOVERY.

(Under the care of Dr. JAMES WATSON.)

THE following case of multiple hydatids of the liver shows the advantage of paracentesis as a means both of diagnosis and cure when suppuration has not occurred in the cyst. It is evident from the description of the case that some of the cysts disappeared after the withdrawal of a quantity of fluid, and there is a general feeling in the profession that this method should be tried before incision is attempted. "Incision should be made use of when tapping fails, where scolices instead of fluid form the greater part of the contents of the cyst, where suppuration is present or imminent, and where chest complications are set up by the hydatid, showing perhaps a risk of perforation."<sup>1</sup> Although this disease is more frequently met with at a late period of life, its occurrence in children is not very rare, and it has been met with at three and a half and four years of age. The following report is drawn up from notes made by Mr. T. H. Bishop, house surgeon.

A poor, delicate female child aged twelve was admitted to hospital on Aug. 23rd, 1891, suffering from abdominal enlargement, with occasional attacks of griping pain and constipation. On examination the liver was found to occupy

<sup>1</sup> Jackson: The Operations of Surgery, THE LANCET, vol. ii. 1881, p. 747.

the whole of the right hypochondrium, as well as the greater part of the left hypochondriac and epigastric regions. The measurements were as follows: On the right side it extended from the lower border of the fourth rib to half an inch below the level of the umbilicus, while on the left side it almost reached the level of the umbilicus. Fluctuation could be detected in the left lobe. The stomach resonance was absent. The urine was normal, and the heart and lungs were free from disease. On Sept. 2nd Dr. Watson requested Dr. Ward Cousins to make an exploratory puncture into the liver slightly above and to the left of the umbilicus. Two ounces of deeply bile-stained fluid were drawn off. This was found on examination to contain pus cells and a considerable amount of bile salts. Two days later ten ounces of similar fluid were withdrawn from the same spot. Next day the right lobe was aspirated by Dr. Cousins and two ounces of clear, limpid fluid withdrawn. This fluid had a specific gravity of 1007, was free from albumen and rich in chloride of sodium. No hooklets could be detected in it. From another puncture in the right lobe another two ounces of clear fluid were withdrawn. On Oct. 7th, the left lobe being distinctly larger than on admission, Dr. Cousins was requested to operate. He made an incision exposing the liver three inches in length in the epigastric region and to the left of the median line. The liver was stitched to the parietes and a trocar inserted. About a pint of bile-stained pus was withdrawn and a similar fluid continued to discharge for many days after. In November, however, the opening having almost closed and ceased to discharge, and the child's temperature having risen considerably, Dr. Cousins was asked to reopen the wound. This was done on Nov. 14th. The chloroform administered made the child very sick, and fortunately the efforts of retching had the effect of protruding the cyst wall through the opening, each effort bringing it further out. Assisted by gentle traction, the cyst wall was in this way completely evacuated. From this date the child improved rapidly, although healthy pus was withdrawn from the wound for some weeks, the last evacuation being made on Feb. 20th, when about four ounces of healthy pus were drawn off with a trocar. On April 10th the child was discharged, looking and feeling quite well and healthy. The liver was still somewhat large, though considerably smaller than on admission.

*Remarks by Dr. WATSON.*—There can be no doubt this case was one of hydatids, for although no hooklets were found in the fluid, we know that they are frequently absent from such tumours, and it has been generally accepted, as was pointed out by Fagge, that a tumour which is "distinctly cystic and embedded in the substance of the liver can be nothing but a hydatid." Again, there were, besides the suppurating cyst, the two others filled with clear non-albuminous fluid, rich in chloride of sodium, which is also distinctive of hydatids. The result was a satisfactory one, although it was attained after a somewhat prolonged treatment. If I had a similar case again I would avoid the frequent tapings practised in this instance, and, in the event of finding a cyst filled with pus, should recommend that hepato-tomy be at once performed, and, where the cyst was filled with clear fluid, rely upon aspiration.

## Medical Societies.

### MEDICAL SOCIETY OF LONDON.

#### *Athletic Exercises as a Cause of Disease of the Heart and Aorta—Selection of Methods of Treatment in Haemorrhoids.*

AN ordinary meeting of this Society was held on Nov. 28th, Mr. Hutchinson, President, in the chair.

Dr. COLLIER, of Oxford, read a paper on Athletic Exercises as a Cause of Diseases of the Heart and Arteries. He desired to direct attention to the growing tendency on the part of young Englishmen to indulge in certain athletic exercises to an extent likely to prove harmful. He referred to the connexion between oft repeated muscular effort and diseases of the heart, pointed out by Dr. Peacock, as observed in Cornish miners. In these men the symptoms began to develop at about the age of forty with slight dyspnoea and palpitation gradually increasing in severity. The pathological changes observed were dilatation and hypertrophy of the ventricles, with, in a certain proportion, incompetence of the aortic valves. He also

referred to the researches of Dr. Clifford Allbutt contained in the St. George's Hospital Reports for 1870, in respect of the same causes operating in the forges, docks, and engine ring works of Leeds. The lesions developed soon in the badly fed; the aortic lesions being the most pronounced. Dilatation of the aorta increased the work of the heart by rendering necessary the propulsion of a larger quantity of blood, and the distension increased until incompetence resulted. Other observations on the production of "irritable heart" in soldiers had appeared in the *American Journal of Medical Sciences*, by Dr. Da Costa, of Philadelphia. This condition under forced marches frequently renders the men unfit for service. The same sequence of events had often been observed in animals, such as racehorses, greyhounds and foxhounds. The evidence, then, was conclusive as to the effect of frequently repeated muscular exertion in the production of heart disease. Dr. Morgan's researches on the after history of the oarsmen in the Oxford and Cambridge boat-races between the years 1829 and 1869 comprised 251 out of 255 still living, and he came to the conclusion that the majority were rather benefited than otherwise by their exertions. It must, however, be borne in mind that these researches bore upon picked and carefully trained men. Dr. Collier admitted that the medical men of university cities were not likely to see much of the evil effects of such sports, inasmuch as they usually developed later in life. Boating, moreover, appeared to entail less risk than either running or cycling, and he insisted upon the fact that it was in the frequent repetition of severe muscular effort that the danger lay. The practice of riding against time is considered to be particularly pernicious, in support of which he quoted a number of instances of resulting circulatory lesions. He had had opportunities of observing symptoms pointing to dilatation of the right ventricle in rowing, running and football adepts, but such symptoms occurred exclusively among badly-developed, narrow-chested, weakly men. The physiologically dilated and hypertrophied hearts of trained athletes underwent certain changes in the direction of atrophy of the muscular substance, which later on rendered the persons unable to cope with sudden extra strains.—Dr. SANSON remarked that no symptoms of circulatory disturbance could be observed in many athletes, who nevertheless showed evidence of hypertrophy of the left ventricle. In coming to a conclusion whether this hypertrophy was to be regarded as physiological or pathological, the muscular development of the subject must be taken into consideration; when a large muscular system was associated with a large heart he was disposed to regard the condition as normal. He had, however, examined athletes who showed signs of dilatation of the right heart, while in others there was evidence of disturbance of cardiac innervation. He had seen a number of cases of tachycardia which were to be directly attributed to over-strain from racing on cycles against time. The condition might last for years, and structural disease of the heart had supervened. Under certain circumstances the delicate cardiac endothelium might develop a distinct endocarditis as the result of over-strain. Staff-Surgeon Preston, R.N., had pointed out the striking diminution in cases of disease of the heart and great vessels since the introduction of steam which had enabled the men to dispense with much of the heavy manipulation of sails and climbing of masts formerly necessary. During the ten years ending 1884 the ratio per 1000 of organic and functional diseases of the heart had fallen from 7.94 to 5.3; while the invalid ratio had been reduced from 3.9 to 2.9 per 1000. This was unaccompanied by a corresponding improvement in the land marines, thus showing that the reduction in the navy was due to labour-saving appliances. Syphilitic subjects were always the first to give way under exertion, and he believed that a man who had had syphilis ought to abstain from athletics altogether.—Brigade-Surgeon HAMILTON said that aneurysm had become rarer among soldiers of late years, but since the introduction of quick manœuvres the "irritable heart" had become far more common; it had also been produced in the cavalry by riding without stirrups. He regarded a man with secondary syphilis as practically incapacitated from service. Functional disorganisation of the heart was also materially contributed to by the abuse of tobacco and alcohol.—The PRESIDENT did not take such a gloomy view as to the results of syphilis. For treatment he much preferred small doses of mercury, which was much superior to prolonged administration of iodide of potassium, which undoubtedly had a most depressing effect on the muscular system.—Dr. COLLIER, in reply, said that the undergraduates of Oxford

did not often expose themselves to the risk of contracting syphilis. He agreed that when athletic exercises were abandoned the retrograde changes that took place in the heart were liable to render that organ unable to cope with sudden strain.

Mr. HERBERT ALINGHAM read a paper on Hæmorrhoids, and insisted on the importance of recognising their varieties as determining the selection of treatment. He classed them as external, internal and intero-external. Internal hæmorrhoids he further divided into venous, arterial and capillary. He described the appropriate treatment in each variety, and expressed his preference for the method of surgical treatment by incision.—The PRESIDENT said that his experience confirmed his preference for Salmon's operation. He always thoroughly dilated the sphincter and so as to obviate pain after operation.—Mr. SWINFORD EDWARDS did not believe that medicinal treatment benefited external piles: he was in the habit of removing them if they caused annoyance. The most important thing was, not the nature, but the amount of discomfort which the piles caused. If time were an object the crushing operation was the best, as the patient could be up and about in a week. He had treated about 120 cases by injecting them with a five or ten per cent. solution of carbolic acid in glycerine. Excellent results followed in cases in which the piles were reducible and could be kept up.—Mr. BIDWELL advocated the operation introduced by Mr. Whitehead.—Mr. SHEILD referred to the importance of transfixing the pile when it was being ligatured so as to prevent slipping of the ligature when the pile was removed.—The PRESIDENT added that he never found it necessary to cut off the pile after applying the ligature.—Mr. KEBLEY opposed Whitehead's operation as being an expense of time to the surgeon and of blood to the patient, without any compensating advantage.

### CLINICAL SOCIETY OF LONDON.

*Rhythmical Rocking Movements in Children.*—*Extensive Fracture of Superior Maxilla.*—*Pernicious Anæmia.*—*Cranial Cyst.*—*Movable Body in Elbow-joint.*—*Congenital Angulation of Forearm.*—*Extensive Unilateral Nævus.*—*Pancreatic Cyst.*—*Excision of Cancerous Stricture of Small Intestine.*

A "CLINICAL" meeting of this Society was held on Nov. 25th, the President, Sir Dyce Duckworth, in the chair.

Dr. HADDEN exhibited two cases of Rhythmical Rocking Movements in Children. One was an intelligent little girl aged three years and nine months, who had swaying movements of the trunk and lower limbs when standing or walking. They were not present on lying down. The movements dated from the age of one year, when the child was observed to move the body from side to side when the piano was played, apparently keeping time. She had a good ear for music. The second was the case of an intelligent female child aged one year and nine months, who had rhythmical movements of alternate flexion and extension of the lower part of the spine, with flexion and extension at the hips and knee-joints. The movements had been observed for five months, and no cause for them could be ascertained. They were only observed when the child was sitting down.

Mr. STORER BENNETT exhibited a youth aged nineteen, who was admitted into the Middlesex Hospital in July last, under the care of Mr. Henry Morris, with an injury to his face caused by the explosion of a portable fire-engine. There was an extensive fracture of the right superior maxilla, which was partly detached and displaced in a direction downwards and inwards. He contrived a vulcanite splint which reduced the dislocation, and the movements of the lower jaw in biting had gradually driven the teeth of the upper jaw into their proper place.

Dr. F. R. WALTERS showed a man aged fifty, a smith, who worked with "delta metal," who was suffering from Pernicious Anæmia. The metal, a mixture of zinc, copper and iron, was believed not to contain lead. The patient had suffered from malaria in Mexico in 1889. He now had extreme weakness and pallor, with shortness of breath, puffiness of face, and swelling of legs and vomiting. There was a blue line on the gums, but no colic or dropped wrist, no enlargement of spleen or lymphatic glands, and no pain. There were some retinal hæmorrhages and a diminution in the number of red corpuscles, though the white corpuscles were not altered in number. The red discs, in addition, showed

evidence of degeneration. He had been treated since the beginning of October with Fowler's solution in doses of from six to twelve minims, but with only very slight improvement.

Dr. NEWTON FITT and Mr. ARBUTHNOT LANE showed a man aged forty-two with a Cyst in the Right Parietal Region which had been noticed for a year. It had ruptured and was found to lead through the bone by an aperture about two inches in diameter. Before the fluid was evacuated from it pulsation was transmitted from the brain. There was a history of an accident some years before, and it was suggested that the injury had led to hæmorrhage between the dura mater and the bone, which had been followed by erosion of the latter. It was proposed that the cyst should be drained and occluded and bone grafts planted in the aperture. The contents of the cyst were like ordinary serum.

Mr. L. A. DUNN showed a boy aged seven who had a Piece of Loose Bone in his Elbow-joint. He fell down and injured the elbow three years previously. The part separated seemed to be the capitellum of the humerus, which had become loosely attached to the head of the radius.

Dr. FLETCHER LITTLE showed a man aged fifty-four, a greengrocer by trade, with a Congenital Defect of the Right Forearm, which had undergone intra-uterine amputation at the wrist. The sternum was also malformed, being grooved at its centre, diminished in length, and the gladiolus pressed backwards. The pectoralis major on the right side was imperfectly developed.

Dr. LITTLE also showed a girl aged eleven who was born with a very extensive Nævus of the whole of the right side of the body. The right arm and leg were longer than the left and the surface temperature of the right side was higher.

Mr. HULKE read a paper on a case of Pancreatic Cyst treated by exploratory laparotomy with a fatal result. An abdominal tumour was known to have existed since girlhood—so long, indeed, that the patient, a lady aged forty-seven, could not remember the time when first it was noticed. In December, 1878, when she entered the Middlesex Hospital, the tumour filled the central region of the abdomen from the top of the ensiform cartilage to the pubes. It seemed to be very fixed. Fluctuation could not be elicited. Latterly the patient, who had long been an invalid, had become greatly reduced by attacks of severe abdominal pain, with obstinate vomiting and constipation. At a consultation of the staff the preponderant opinion inclined to the idea of the tumour being ovarian, and an exploratory laparotomy was decided on. This was done. The tumour was found to be wholly retro-peritoneal in position. Its upper border was overlaid by the pancreas, which was firmly adherent to it, and below this by a large artery and vein (splenic?); also sagittally, its front was covered by vessels (superior mesenteric?); whilst its lower border was transversely overlapped by a piece of small intestine bound to it by an extension of the peritoneum covering the front of the tumour. An attempt to enucleate the tumour had to be abandoned in consequence of the firmness of its posterior adhesions over the aorta and vena cava. The swelling was tapped; much brown, glairy fluid was evacuated, and the opening in the cyst was secured to the tegumental lips of the abdominal wound. Death followed a few hours later from shock. A necropsy was forbidden by the friends, but the anatomical relations ascertained by the exploratory operation did not, Mr. Hulke submitted, allow of any doubt of the pancreatic origin of the tumour.—Dr. SHARKEY referred to a case recently operated on by Mr. Clutton. The woman was thirty-five years of age and there had been a history of a tumour on the left side for sixteen or twenty years. Two years ago Dr. Cullingworth explored it with a needle and some albuminous fluid was withdrawn. The tumour soon afterwards nearly disappeared. Three weeks ago she was admitted into St. George's Hospital, suffering some discomfort and pain, and a tumour was found in the left hypochondrium of remarkable mobility in all directions. On opening the abdomen it was found to be behind the great omentum and to be connected with the pancreas at the splenic end. It was enucleated and found to contain a yellow fluid of sp. gr. 1024, solid with albumen on heating, turbid, and iridescent from presence of cholesterin.—Mr. CLUTTON said that the tumour shot out of the wound quite easily, dragging with it the tail of the pancreas. Mr. Hulke's case reminded him of a recent paper by Mr. Jordan Lloyd, in which reference was made to instances of inflammation of the lesser cavity of the peritoneum, a kind of cyst being formed, of which the pancreas constituted part of the wall. When he was enucleating the cyst the pancreas bled very freely, and he had to introduce a glass tube for

drainage. There was persistent vomiting afterwards, which was immediately relieved on the tube being shifted. At the present time there was a large quantity of clear discharge, which was evidently pancreatic fluid.—Mr. GOULD inquired if there was any history of injury. He had operated on two cases. In one a permanent fistula resulted, and malignant growth afterwards developed round this, which proved fatal. In the other case the cyst was fixed and could not be brought to the surface. With a finger in the cyst, he therefore cut down behind, below the twelfth rib, and drained it posteriorly; the fistula rapidly closed up.—Dr. NEWTON PITT mentioned a case which he had published with Mr. Jacobson in the Transactions of the Royal Medical and Chirurgical Society; since that time the cyst had refilled. He considered it best to drain posteriorly, especially if there were likely to be permanent fistula.—Mr. HULKE, in reply, said that the cyst was near the head of the pancreas in his case, and there was no trace of peritonitis. There was an instance recorded of a pancreas so movable that it formed part of an intussusception, and the same writer mentioned two cases of enucleation of cyst which proved rapidly fatal. In the instance he recorded the swelling began in childhood, but there was no history of injury. The urine was free from sugar.

Dr. ROPER and Mr. W. A. LANE gave details of a case of Excision of a Cancerous Stricture of the Small Intestine from a case of complete obstruction of seventeen days' duration. The patient, a lady aged fifty-four, had been under Dr. Roper's care for many years, suffering from habitual constipation, for the relief of which it was necessary to render her motions quite fluid. In March, 1891, she had an attack of obstruction which yielded to acute treatment by enemata and purgatives; and after this she had several attacks which were successfully treated in a similar manner. Dr. Roper observed that during the last year her abdomen had gradually increased in size, though she lost flesh steadily; also that the small intestines were obviously distended and hypertrophied, while at no time had he been able to find any distension of the large intestine, which was capable of holding a large fluid enema. He had never been able to find any hard mass in the abdomen. He came to the conclusion that the patient was suffering from a malignant stricture of the lower part of the small intestine, and had discussed with her the advisability of having something done; but to this she would not consent. On March 7th she was seized with obstruction, which did not yield to the treatment which had been successful on previous occasions. Although Dr. Roper urged on the patient and her friends the necessity of an operation, they would not consent till it became obvious that she could not survive many hours unless she were relieved. Mr. Lane then saw her, at Dr. Roper's request, on March 25th, seventeen days after the onset of the obstruction. They felt that, in the face of the frequent vomiting of fluid fecal material and of the very prostrated condition of the patient, an anæsthetic was inadmissible. A small opening was made in the middle line, when a tight annular growth was found just above the left sacro-iliac synchondrosis. As the mesentery was much shortened and puckered, it could not be pulled into the median incision. Another incision was made directly over it, and with the greatest difficulty it was drawn between the edges of the wound, where it was fixed by means of a steel rod covered with rubber transfixing its mesentery. A Keith's tube was tied into the bowel above the stricture, through which the intestinal contents escaped freely. The very enfeebled condition of the patient rendered any such operation as the removal of the growth and the establishment of intestinal continuity quite impossible. A few days afterwards the growth was excised and the proximal and distal portions of the gut were carefully united by sutures. Most of this suturing yielded, under the pressure exerted by the contents of the bowel, within a few days. When the patient had gained strength and flesh the question of establishing intestinal continuity and closing the abdominal wound was discussed with her, but she refused to consent to any operation which entailed any risk, being very comfortable as she was—in fact, more comfortable than she had been for many years, since she had regained her natural appetite and was no longer troubled with her bowels. The growth was situated in the ileum, a few inches above the ileo-cæcal valve. It only allowed of the passage of a director, and then with some difficulty. The points of interest in the case were the accuracy of the diagnosis, the fact that with such a minute channel through the growth the patient was able

to drag on a more or less miserable existence for a considerable time, the long history of partial obstruction extending over many years, the duration of the interval that elapsed between the onset of the final attack of complete obstruction and the operation, and the comparative rarity of malignant disease of this part of the intestine.—Mr. HULKE said that in cases in which it was impossible to administer an anæsthetic on account of fecal vomiting he had seen great benefit follow emptying the stomach with a syphon and washing it out with a weak solution of boric acid; after this the anæsthetic could be given without risk.—Mr. LANE said he had not found so much benefit follow this manoeuvre; fluid from the intestines rapidly reaccumulated in the stomach, and would flow freely away from an œsophageal tube left in during the operation.—Mr. SYMONDS referred to a case under the care of Dr. Goodhart on which he operated and found a tumour of the small intestine as large as two fists, which he then regarded as malignant. As the whole of the mesentery was thickened and infiltrated with growth he could not excise it, and therefore opened the small intestine above the tumour. Two years had since elapsed; there was a small fistula in the groin and the tumour had disappeared. The subsequent progress of the case showed that it could not have been malignant.—Dr. HADDEN, referring to the case related by Dr. Roper and Mr. Lane, remarked that it was very unusual for obstruction of so many years' standing to be due to a malignant growth.—Dr. ROPER, in reply, said that the vomiting was so severe that it prevented an anæsthetic being given. He thought the case related by Mr. Symonds was an instance of tubercle.

## PROVINCIAL MEDICAL SOCIETIES.

LEICESTER MEDICAL SOCIETY.—At the first meeting of the session the PRESIDENT (Mr. C. F. Bryan, M.R.C.S., L.R.C.P.) took as the subject of his address Arsenic as a Prophylactic. Arsenic, he said, when given internally has a tonic influence on the nervous system and stimulates the heart, as is observed in the arsenic eaters of Styria, who are able, after becoming accustomed to it, to consume large quantities, and they also teach their children to eat arsenic from an early age. This is done with the view of "improving their wind," and so enabling them to ascend the high mountains which abound there without any difficulty. These arsenic eaters assert that it prevents illness. It had been stated that those who are taking arsenic are unsusceptible to vaccination and to the incidence of small-pox. He also drew attention to the remarkable power of arsenic to arrest scarlet fever, and cited an instance in which more than twenty children of a workhouse school were struck down with disease. The president gave particulars of several cases of infectious disease from his private practice, in which he had administered this drug as a prophylactic, evidently with success. The cases included scarlet fever, diphtheria and influenza. He concluded—"I feel sure also that there is a grand field for observation of the use of arsenic in surgical cases, and I have no doubt in my own mind that if surgeons would only prepare their patients for a few days previously to a severe operation with small doses of arsenic the results would be even far better than they are now. I may add that, if given in the liquid state, I generally use something of this kind, which is pleasant to take and is liked by children: Liq. arsenicalis, twenty-four minims; syrup. aurantii, half an ounce; aqua to three ounces; two teaspoonfuls to be taken three times a day after meals, and after the first week twice a day. Now, gentlemen, I have pursued this treatment for the last ten years whenever it was practicable, and I most strongly recommend you to give it a fair trial, feeling sure that you will be able to substantiate what I have laid down—viz., that in arsenic we have—shall I say?—a perfect prophylactic in most infectious diseases."

MANCHESTER PATHOLOGICAL SOCIETY.—A meeting of this Society was held at Owens College on Wednesday, Nov. 9th, Dr. J. S. Bury, President, in the chair.—Mr. W. COATS showed a young woman aged twenty-three the subject of Melanotic Sarcomatous Growths.—Dr. NATHAN RAW exhibited specimens, with drawings, of a Lung the seat of Extensive Pulmonary Fibrosis, occurring in a syphilitic subject.—Mr. SOUTHAM showed a complete Cast of the Bladder, from a case of Exfoliating Cystitis, passed per urethram by a female. For some weeks previously she had suffered from a severe attack of cystitis, apparently due to the irritation

caused by wearing a pessary. After the expulsion of the cast or false membrane the symptoms gradually subsided and the patient made a complete recovery.—Dr. REYNOLDS exhibited a large Aneurysm involving the whole Thoracic Aorta, measuring nine inches long and six inches wide. It contained clot weighing 3lb. Death was due to rupture into the trachea.—The following card specimens were shown : Dr. ASHBY : Cultivations of Streptococci from Blood of a case of Malignant Endocarditis. Dr. HARRIS : (1) Lympho-sarcoma of Mediastinal Glands, infiltrating Lung ; (2) Extensive Endarteritis in a Syphilitic Subject ; (3) Aortic Atheroma producing Partial Obliteration of Innominate and Left Carotid Arteries ; (4) Old Hydatid Cysts of Liver. Dr. KELYNACK : (1) Chronic Perforative Appendicitis ; (2) Lympho-sarcomatous Tumours in Mesentery of Vermiform Appendix. Dr. LEA : Trachea and Bronchial Diphtheritic Casts. Dr. WILLIAMSON : Microscopic Sections of Nerves showing extensive Peripheral Neuritis from a case of Alcoholic Paralysis.—A meeting was held on Nov. 16th, Mr. F. W. Jordan, Vice-president, in the chair.—Dr. MILLIGAN made some observations upon the operation of Excision of the Auditory Ossicles in cases of Chronic Suppurative Middle-ear Disease. The operation was performed for two reasons : (1) To rid the middle ear of any existing focus of disease and to secure thorough drainage ; and (2) to improve the condition of the hearing power. The anatomy of the middle ear was briefly sketched. The *modus operandi* of the operation was then described. In order to illuminate the field of operation, which is always very small, the light may be taken from an electric forehead lamp or from a limelight apparatus. A case was shown in which the operation had been performed with marked relief to the patient. The patient, a girl aged seventeen, had suffered from a severe attack of measles at the age of seven. At that time the left ear began to discharge and had continued discharging for ten years. Attacks of severe earache were frequent. Tinnitus was constant and attacks of vertigo common. The hearing power upon examination measured only  $\frac{1}{10}$  of the normal, and whispered conversation was inaudible on the affected side. The membrana tympani was found perforated in the anterior portion of Shrapnell's membrane and also in the posterior segment of the membrana vibrans. Granulation tissue protruded through both perforations, and a spot of caries was demonstrated on the head of the malleus. For five months careful local treatment was adopted. The granulations were removed and local applications made to the diseased areas. The suppuration, although diminished, was by no means entirely checked. The patient was accordingly put under chloroform and the remnants of the membrane and the carious malleus removed. Suppuration was arrested almost immediately afterwards. The hearing power increased from  $\frac{1}{10}$  to  $\frac{1}{5}$  of the normal. Whispered conversation could be heard at five feet from the ear. All pain and tinnitus had ceased. In addition there was almost complete formation of a new membrane two months after the date of operation.—Mr. F. W. JORDAN described a case of Intestinal Concretion of peculiar character. An independent gentleman, stout, and leading a sedentary life, had a severe attack of peritonitis, localised in the vicinity of the hepatic flexure of the colon, in the spring of 1890. In the summer of 1891 he had an attack of herpes zoster, one of the patches of which ultimately formed a large carbuncle on the back. While this was in progress it was discovered on August 14th that his abdomen was greatly enlarged owing to the existence of a tumour. When sketched on the patient's abdomen it presented the appearance of a large tumour with a narrow part or neck. The right hypochondrium was dull on deep percussion, which was thought to be due to a deep-seated portion of the tumour. There was dulness all over the tumour, which was close to the abdominal parietes. It felt quite solid and moved with respiration ; its surface was smooth and in shape nearly globular, though not quite, for it was inclined to be square at the lower part. The acute symptoms soon passed away and by the beginning of September the tumour had become smaller. It took cold and had sciatica in a mild form. For this he visited Bath and while there, in the middle of October, was seized with acute abdominal pain which lasted some hours ; he had jaundice for a few days. He remained well, complaining for a time of the sciatica and occasionally of gastro-hepatic derangements and constipation. On March 29th of the present year he was ill with general malaise, disordered liver, scanty dark-coloured urine loaded with pink urates ; and with one of his evacuations he passed a large concretion. At the present time his liver is still enlarged,

but not to the same extent as before. The concretion weighed six drachms, it was one inch and three-quarters long by one inch and a quarter broad ; it was cylindrical in shape and irregular, as if it had been subject to pressure while in a soft state and pointed at one end ; the other end was blunt and evidently broken off from another piece and has a conchoidal fracture. On section the concretion was seen to be made up of a large gall stone, having a thin coating of brown substance (cholesterin stained brown). The structure was such as to make it evident that this gall stone had been in close proximity with another one, end to end, and that the two had become fused together by further deposition of biliary matter. With regard to the tumour, the general shape of it, the history of the case, the probabilities, the absence of jaundice, and the continual presence of bile in the stools pointed to a distended gall bladder.—Dr. MORITZ showed two patients, twin sisters, twenty years old, who were both affected with Papillomata of the Larynx. The parents, as well as the other six brothers and sisters of the patients, were healthy. The theory which had been advanced that papillomata of the larynx might be caused by the inhalation of amniotic fluid mixed with gonorrhoeal discharges during birth found in these cases no support, as the mother gives no history of fluor albus and the patients had no ophthalmia neonatorum. One of the patients began to suffer from hoarseness when two years old ; in her case the larynx was found almost filled up with papillomata, and, though the voice was not completely aphonic, she suffered from considerable dyspnoea. The papillomata sprang from the right vocal cord, the right ventricle and ventricular band. The other patient commenced to suffer from hoarseness when eighteen years old ; she was completely aphonic, and also in her case the right vocal cord was affected, presenting several papillomatous excrescences on its upper surface and along its free margin. Dr. Moritz showed the growths which he had removed by means of a forceps of his own design, for which he claimed several advantages, with the result that the patients now had fully recovered their voices, though in one of the patients, who had not been seen for two months, a small papilloma had recurred.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At the meeting on the 16th inst. (Mr. R. C. Chicken, President, in the chair) Dr. BELL TAYLOR read a paper entitled "Vivisection : Is it justifiable ?" He said that any advance which we might hope to make in the direction of civilisation, any step towards the amelioration of the evils of existing conditions, would be mainly by way of the recognition of rights, not only of men, but also of those poor relations whom we call animals. The exigencies of our nature compel us, no doubt, to kill certain animals for food, and also in self defence, but nothing could justify deliberate cold-blooded and prolonged torture of any of them.—Dr. WM. RANSOM pointed out that the successful treatment of disease depended on knowledge of function and structure. Physiology had been advanced by experiment on animals—e.g., our knowledge of the circulation, respiration and the functions of the nervous system. By the same means the pathology of nervous diseases, the rationale of cardiac murmurs, the nature of inflammation, of myxœdema and of many infective diseases had been elucidated. Improved pathological knowledge had been an indirect gain to treatment.—Mr. HATHERLY said that while not advocating the total suppression of vivisection, or agreeing with all Dr. Taylor had said, he still considered Pasteur's treatment for hydrophobia had been an utter failure.—Dr. WATSON said Dr. Taylor's facts and arguments were the same which were served up at every anti-vivisection discussion, wherever occurring. He corrected Dr. Taylor's allegation that there was nothing to prevent an investigator repeating experiments which had been performed before.—Dr. CATTLE said Professor Horsley's experiments on monkeys had succeeded in proving the relation of the thyroid to myxœdema and settled many moot points in the space of a few months.—Dr. RANSOM proposed, and Dr. CATTLE seconded, a vote of thanks to Dr. Taylor for bringing the subject before the Society.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.—At the meeting held on Nov. 10th (Dr. T. Oliver, President, in the chair) Dr. ROBERTSON brought before the members a man in whom he had drained the Antrum of Highmore on each side, on account of old-standing disease ; also a patient on whom a similar operation had been performed with a good result on account of œzœna.—Mr. PAGE showed (1) A man successfully treated for Ununited Fracture of Femur by sawing off ends of bone and putting up without

suturing the bone; (2) a man treated for United Fracture of Humerus by silver wire suture; (3) a lad of fifteen whose Kidney had been Removed for Hydro-nephrosis; (4) a woman whose Kidney had been Removed for Pyo-nephrosis of two years' duration—nephrotomy was first performed, and as soon as the patient's health was somewhat improved the kidney was removed; (5) a woman with very large Umbilical Hernia on whom a "radical cure" had been performed; (6) a man with Malignant Disease of Stomach where gastro-enterostomy had been performed—the patient had improved considerably; (7) a patient from whose jaw a large Bony Tumour had been removed; (8) two patients on whom Helsted's operation for radical cure of large Inguinal Hernia had been done with very good results.—Dr. GEORGE MURRAY showed a woman with a complicated form of Spasmodic Torticollis; she had suffered from chorea on more than one occasion.—The PRESIDENT showed a man who nine years ago received a Compound Depressed Fracture of the Skull. Latterly he suffered from left-sided epileptiform fits, followed by unconsciousness and then mania. He had been treated with large doses of bromide of potassium and had had no return of his attacks for some time. The President also showed a boy aged fourteen, with general venous distension and oedema. He regarded it as due to a cardiac lesion, with enlargement of mediastinal glands.—Dr. HUME showed a patient whose kidney he had removed. The kidney was extensively disorganised and contained many calculi. Dr. Hume also showed a man who was admitted, suffering from advanced epithelioma of the tongue. Through a long incision on each side the lingual arteries were ligatured and the submaxillary and their accompanying lymphatic glands removed. The result obtained was highly satisfactory.—Mr. WILLIAMSON showed a boy who, two years ago, suffered from suppurative osteo-mycelitis of the tibia. An incision was then made from one epiphysis to the other, the bone sawn across and removed. The leg was now as strong and useful as the other.—Dr. D. DRUMMOND showed a woman aged fifty, suffering from pseudo-bulbar paralysis.—Dr. LIMONT showed a girl aged fourteen, suffering from extensive favus of the scalp of eight years' duration.

PLYMOUTH MEDICAL SOCIETY.—A fortnightly meeting was held on Nov. 9th in the Society's library, Mr. Leah (President) in the chair.—Dr. L. FOX exhibited his case of Myxœdema, the notes of which were published in THE LANCET. The woman now walks briskly, syllabic speech has given way to quick utterance and the peculiar facies and hands are little marked. She continues to take extract of thyroid gland once a fortnight.—Mr. A. C. RENDLE showed a specimen of Sarcoma (?) in the Lower End of the Femur of a man aged twenty-seven.—Mr. LUCY showed (1) a Kidney, the seat of "primary cancer" removed from a child aged two years; and (2) a kidney with well-marked cloacæ, leading through the thinned cortex into ragged tuberculous abscesses of the medulla, removed post mortem from a man aged thirty-seven.—Mr. THOMAS exhibited for Mr. Swain (1) a piece of encrusted gum-elastic catheter removed suprapubically from an old man; and (2) a cast of a case of Dislocation upwards and forwards either (most probably) of the scaphoid or the trapezium and trapezoid, a luxation hitherto not mentioned in surgical classics.—The annual meeting took place on Nov. 16th, Mr. Leah (Stonehouse), the retiring President, taking the chair. The following office-bearers were elected:—President: Thos. Leah, M.R.C.S., Stonehouse. Honorary Treasurer: J. Elliot Square, F.R.C.S. Honorary Librarian: C. E. Russel Rendle, M.R.C.S. Honorary Secretary: R. H. Lucy, F.R.C.S. Library Committee: The President, Honorary Treasurer, Librarian and Secretary *ex-officio*, and Messrs. Rendle and Woolcombe. New members: Messrs. J. H. S. May, G. F. Aldous and R. S. Thomas, Plymouth; R. B. Mole, Callington; and J. H. Gough, Horrbridge. It was decided to admit members residing beyond five miles from Plymouth on payment of the annual subscription only. Twenty-three members and the following guests—Fleet-Surgeon Ellis, R.N., Surgeon-Captain F. B. Mathias, A.M.S., and Mr. Elliott—subsequently dined together. The Society has acquired a library and a reading-room of its own in Athenæum Chambers, George-street, in which, during the winter, fortnightly meetings will be held, alternately "clinical" and for the reading of papers, with discussions.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At the meeting on Nov. 10th Mr. Snell, the President, exhibited his new ophthalmoscope, after which a discussion took place on Anæsthetics. Dr. PORTER and Dr. CLEAVER read papers on the subject. Referring to the administration of

other, Dr. Porter deprecated giving this anæsthetic too rapidly, as likely to favour excitement and struggling. In using Clover's inhaler he always allowed from four to six minutes for the induction of complete anæsthesia. He dwelt particularly on the maintenance of perfect quiet in the room as the best safeguard against excitement. When once the stage of voluntary resistance was passed the sooner complete muscular relaxation was attained the better. Dr. Porter then went into the question of the relative mortality from chloroform and ether, quoting statistics, and submitted that the mortality from chloroform was increasing. The conclusions of the Hyderabad Commission, and the experiments of Drs. Gaskell and Shore, and of Dr. McWilliam, were specially referred to in connexion with the action of chloroform and ether. Finally, some reasons were given for thinking that circumstances might have contributed to render chloroform less safe in the aggregate than it was forty years ago. Dr. CLEAVER then read a paper on the Advantages of Chloroform as an Anæsthetic, in which he stated that after twenty-eight years' experience, during which he must have given chloroform many thousands of times, he had only come across one death. Dr. Cleaver never attended to anything outside the respiration and left the pulse entirely alone. Chloroform was potent for good if properly handled; more powerful for evil if misused. In the discussion which followed Mr. W. F. FAVELL strongly urged the necessity of systematic practical instruction in giving anæsthetics. Mr. GARRARD (Rotherham) had used anæsthetics largely for twenty years both in hospital and private practice. He thought that the Medical Council should demand evidence of efficiency in giving anæsthetics. Dr. SINCLAIR WHITE and Mr. FRANK HARRISON continued the discussion. Mr. COOMBE expressed a general preference for ether to chloroform. He attended to the state of the pupil as well as to the respiration during chloroform anæsthesia. Dr. Keeling and Mr. Snell joined in the discussion. Mr. CHICKEN, President of the Medico-Chirurgical Society of Nottingham, expressed the great pleasure and profit he had derived from the papers and the discussions. Personally, and in the absence of special conditions, he preferred to operate on a patient under chloroform rather than ether. There was less hæmorrhage and less vascular excitement, and the patient always seemed so much quieter. He asked the advocates of chloroform, before condemning ether, to be sure that their sample was thoroughly good. On the motion of Dr. ARTHUR HALL, which was seconded by Dr. MARTIN, the discussion was adjourned till next meeting.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At the meeting held on Nov. 23rd (Dr. Pollok, President, being in the chair) Dr. MURDOCH CAMERON showed a Dermoid Ovarian Cyst, several small Fibroids and a Uterus with a mass of small fibroids in its walls, all removed from an unmarried woman, aged forty-eight years.—Dr. ROBERT JARDINE read notes of 1028 Confinement Cases, being the report of two years' work at a branch of the Glasgow Maternity Hospital; 932 were confined at full term, 65 prematurely and 31 aborted. There were 13 cases of twins. The operative cases were—forceps, 63; version, 10; craniotomy, 1; induction of premature labour, 1. Full notes were given of the 5 fatal cases. There were 7 cases of accidental hæmorrhage and 1 of marginal placenta prævia treated successfully. There were 6 cases of post-partum hæmorrhage and 2 of eclampsia. He induced premature labour at seven and a half months; in 1 case with a conjugate of 3" and in another of 2½" he did craniotomy. The placenta was adherent 16 times; syphilis he believed to be the most frequent cause.—The PRESIDENT said he never gave ergot to assist labour, but frequently used it just as the head was on the perineum. In severe hæmorrhage he never gave it, as he considered it had a very depressing action upon the muscular fibre and might extinguish the efforts of a flickering heart.—Dr. S. SLOAN congratulated Dr. Jardine on the low mortality, considering the nature of the work. He preferred aseptic to antiseptic midwifery.—Dr. M. CAMERON said it was rare to find the perineum tear from the anus. He believed the long, straight forceps was very apt to plough up the perineum. The best treatment in septic cases was proper and frequent douching of the uterus with perchloride. Abortions and hæmorrhages, he believed, were very frequently due to syphilis. He always interfered early in all cases of hæmorrhage.—Dr. RICHMOND said the small number of placenta prævia cases and craniotomies agreed with his experience of twenty-five years' work. He had only had some two or three cases of puerperal fever, and he took no elaborate precautions and used no antiseptics.—Dr. JARDINE, in replying, said that he was not aware of there having been any more than five deaths

## Reviews and Notices of Books.

*The Artificial Feeding and Food Disorders of Infants.* By W. B. CHEADLE, M.A., M.D., F.R.C.P. Second Edition, Revised and Enlarged. London: Smith, Elder and Co. 1892.

WE are glad to see a second edition of Dr. Cheadle's work. It fills a niche in medical literature, and fills it well. The present edition "has been revised throughout and some new matter added to the text, more particularly with regard to the sterilisation of milk, the relation of eruptions of the skin to diet and other points of practical interest." Dr. Cheadle sums up the essential conditions to be observed in the diet of infants as follows: (1) The food must contain the different elements in the proportions which obtain in human milk; (2) it must possess the anti-scorbutic element; (3) the total quantity in twenty-four hours must be such as to represent the nutritive value of from one to three pints of human milk, according to age; (4) it must not be purely vegetable, but must contain a large proportion of animal matter; (5) it must be in a form suited to the physiological condition of the digestive function in infancy; (6) it must be fresh and sound, free from all taint of sourness or decomposition. In view of the discrepancies existing between the standard analyses of human milk the author has thought it well to have the subject thoroughly investigated anew. Accordingly, Dr. Luff has made careful analyses of twelve different samples of human milk. "Every element has been estimated directly by the latest and most exact method. In no case has the amount of an ingredient been estimated by mere difference, as has been the general practice in previous analyses." The proportions found are as follows: Proteid, 2.35 per cent.; fat, 2.41; lactine, 6.39; lime, 0.019; phosphoric anhydride, 0.026; other constituents of ash, 0.295; water, 88.51. These proportions differ materially from those of Payen and Gorup-Besanez. Dr. Cheadle deals very fully with the difficulties encountered by the infant in the digestion of cow's milk, and gives various suggestions for overcoming them. He finds the various kinds of milk, as regards the easy digestibility of the curd, to rank as follows: (1) Peptonised milk, (2) cow's milk with barley water, (3) cow's milk with lime water, (4) cow's milk with bicarbonate of soda, (5) condensed milk, (6) boiled cow's milk undiluted, (7) fresh cow's milk undiluted. The various artificial foods are fully considered and their several advantages and defects carefully pointed out. He discards veal-tea altogether as a diet, has no high opinion of beef-tea, but recommends raw meat-juice strongly. The various diet-diseases of children are dealt with in detail. The style of the writing is good and the arrangement of the type conducive to easy reading. We feel sure this volume will prove of much practical value to all practitioners who are largely engaged in dealing with children's diseases.

*Chemical Lecture Experiments.* By G. S. NEWTH, F.I.C. London: Longmans, Green and Co. 1892.

THIS work is a useful *repertoire* of experiments for the lecture table, of which no account has been introduced upon the authority of a verbal or printed description; but each experiment has been the subject of the author's personal investigation, and the whole of the woodcuts used for illustration with the exception of three have been made from original drawings. The book contains no less than 632 experiments, all admirably described and of the kind which are calculated not only to excite the student's interest but to clearly point out to him the lessons which they are intended to convey. The scope of the work is limited to inorganic chemistry, but excellent

chapters are to be found at the end of the book on experiments on dissociation phenomena and the liquefaction of gases, followed by instructions on the use of the lantern for purposes of illustration. The appendix contains valuable data, like the absorption equivalents of various bodies for certain gases, the critical temperature of gases, the temperatures of dissociation and so on. Experiment No. 326 is as interesting as it is simple, and we quote it as a type of the rest. It is devised to show the influence of suspended matter upon the formation of fog. A large flask is exhausted of its air by means of the air pump and air is allowed to re-enter through a glass-tube containing a plug of cotton-wool. When the flask has thus been filled with air comparatively free from particles one or two strokes of the pump are made, and the cooling effect of the sudden expansion of the air within the flask will result in the deposition of moisture in the form of a fine rain. If now unfiltered air be allowed to replace that removed by the pump and the experiment be once more performed, a dense fog will immediately make its appearance, which will continue for some time. If a trace of coal-smoke or fumes from burning sulphur be substituted, it will be seen that the fog then produced will be much more permanent than the former. Mr. Newth's book undoubtedly fills a gap, for a really trustworthy record of experiments for lecture demonstration and other purposes has long been required. It will be especially valuable to the student of chemistry, whilst to the lecture assistant such a book is simply a *sine quâ non*.

*Roaring in Horses: its Pathology and Treatment.* By P. J. CADIOT. Translated from the French by T. W. DOLLAR. London: Swan Sonnenschein. 1892.

THE title of this little work does not harmonise with its contents, which only deal with the surgical treatment of unilateral paralysis of the horse's larynx. This somewhat common morbid condition in the equine species is generally confined to the left side of the larynx, and the "roaring" is due to the falling forward and downward of the arytenoid cartilage on that side, thus narrowing the aperture for admission of air into the tube during inspiration—hence the "roaring" heard when the horse is moving at a fast pace. The displacement of the cartilage depends upon atrophy of its special muscle—a dilator of the larynx—which is brought about by some interference with the left recurrent nerve, the origin and position of which expose it to damage in more ways than one.

To remedy the roaring, extirpation of the arytenoid cartilage has been successfully practised, and it is to the operation itself that Professor Cadiot chiefly devotes his attention. The French veterinarians are very expert and bold operators, their boldness being mainly due, it is to be presumed, to their being excellent anatomists; and the author describes in a very methodical manner the different stages in the *manuel opératoire*, illustrating them by well-designed figures and giving full directions for the after-treatment. It is very probable that in the course of time this mode of relieving distressed horses and thereby rendering them useful will become popular, though the operation needs much skill and dexterity. Nevertheless, under chloroform the horse remains perfectly tranquil; and as accidents arising from the employment of anaesthetics on horses are exceedingly rare, there is no reason why the operation should not be resorted to—in at least severe cases.

*Recueil de Mémoires, Notes et Observations sur l'Idiotie.* Par Dr. BOURNEVILLE. Paris: Aux bureaux du Progrès Médical. 1891.

THE high authority attaching to the name of Dr. Bourneville in connexion with the subject of idiocy points to him as one peculiarly qualified to carry out the idea which this volume

embodies. This idea is to present the various views which have been held by different men as regards the nature of idiocy and also as regards the educability of idiots, so that it is really of the form of an encyclopædia on the subject. It may be thought that a better method would have been to present shortly and succinctly the views of the different authors who are allowed to speak for themselves—sometimes at considerable length, it must be confessed—but those who are particularly interested in the subject will be glad to have in such a volume as this easy and convenient access to authoritative statements by those who are entitled to speak with the authority which experience and research bestow. The editor has written an interesting preface, and we doubt not the work will be interesting to many, but chiefly to alienists.

#### LIBRARY TABLE.

*Medical Microscopy: a Guide to the Use of the Microscope in Medical Practice.* By FRANK J. WETHERED, M.D. Lond. With Illustrations. Pp. 412. London: H. K. Lewis. 1892.—This work is a very complete manual, containing all that a student need learn of the various modes of preparing and mounting sections and of examining the fresh tissues and fluids of the body. Dr. Wethered has been for some time past a teacher in the medical school of the Middlesex Hospital, and has therefore experience of the wants of students and of the best method of supplying them with the information they require. The first chapter is devoted to the microscope, which he rightly counsels should be simple in construction and should be solid, and be supplied with good adjustments and an immovable stage. A brief account is given of Abbé's chromatic condenser and camera lucida, and of various microtomes. The next chapter is devoted to the processes of hardening and decalcifying and of embedding in paraffin and celluloidin. Then follows an account of the different methods of staining, and the reader who requires the newest and best methods will not be disappointed, for in successive paragraphs Dr. Wethered gives the hæmatoxylin and eosin, the carmine and picric acid, the lithium, carmine, alum, ammonium and borax carmine, safranin, Bismarck brown, or vesuvin and litmus methods and the plan of treble staining. The sixth chapter is devoted to selective stains, amongst which he gives silver nitrate, gold chloride, osmic acid and methylene blue, and, in addition, Löffler's, Kühne's, Gram's, Weigert's, Neelsen-Ziehl's and Gibbes' various methods. The processes for clearing and mounting are also given. The latter part of the work is devoted to the study under the microscope of the various animal tissues, organs and fluids, both normal and pathological, including therefore the blood, urine, feces, sputum and other discharges. The three final chapters are devoted to the consideration of the cutaneous parasites, of food and water, and of bacteriological methods. The illustrations are both numerous and good. It is a very good volume of an excellent series.

*Arrested Pulmonary Tuberculosis.* By JAMES KINGSTON FOWLER, M.A., M.D. Cantab., F.R.C.P. London: J. & A. Churchill. 1892.—Within small compass and with exemplary directness and force Dr. Kingston Fowler adduces irrefragible arguments for the view that a large number of cases of tubercle of the lung undergo spontaneous arrest, and that in consequence to speak of phthisis and its stages leads only to confusion and error. He would discard the term "phthisis" altogether, and would group the cases of tubercle of the lung under the four heads of (1) pulmonary tuberculosis, which includes all the ordinary cases commonly spoken of as "chronic phthisis"; (2) miliary tuberculosis; (3) caseous tuberculosis; and (4) fibroid tuberculosis. There is much to be said in favour of this classification, which harmonises better with modern conceptions of the etiology and progress

of phthisis, than the older and more vague nomenclature. But knowing the tenacity with which medical terms are held—even long after they have become obsolete—we fear it will be futile to look for a thorough change in this particular. Dr. Fowler next proceeds to analyse cases in which after death "obsolete lesions" evidently of tuberculous origin were met with. He has collected them from the post-mortem records of the Middlesex Hospital, and a large proportion of the examinations were made by himself. These cases are arranged in four series as follows:—

1. Cases in which death was due to a non-tuberculous disease ..	177
2. Cases in which death was due to acute tuberculosis .. .. .	19
3. Cases in which death was due to pulmonary (non-tuberculous) disease .. .. .	6
4. Cases headed "phthisis" or "chronic phthisis" in the reports which showed clear evidence of a period of arrest .. .. .	17

The frequency of arrest is then deduced, and the processes whereby it is attained are described as (a) encapsulation by the formation of an inflammatory zone; (b) elimination, leaving a cavity with thickened walls, and (c) fibroid conversion of tubercle. The general inferences to be gathered from this admirable study are that tuberculous disease of the lungs is extremely common, that it is often arrested and plays no part in the after history of the case, and that the measures to encourage this beneficial change are those which improve the general health, or, in other words, fortify the powers of resistance to disease.

*Influenza; its Pathology, Symptoms, Complications &c.* By JULIUS ALTHAUS, M.D., M.R.C.P. Second Edition. London: Longmans and Co. 1892.—We owe the author of this really valuable contribution to medical literature an apology for so long delaying to notice his work, which is an extension of the *brochure* he published early in the year. Dr. Althaus seems convinced that influenza is a bacillary disease, and refers its phenomena in the main to the action of the toxine upon the nervous system. He is also a pronounced "contagionist." He has collated a large and interesting series of clinical facts which have been recorded in the recent pandemic; and doubtless when a third edition of the book is called for Dr. Althaus will be able to add still more to this part of his subject, and to embody in the work a notice of the collective investigations carried on by the Berlin Medical Society. The style in which the book is penned is clear and vigorous, and we have no doubt that it will occupy a foremost place amongst the monographs evoked by the recent visitation.

*Archives des Sciences Biologiques.* Publiées par l'Institut Impérial de Médecine Expérimentale à St. Pétersbourg. Tome I., No. 3. 1892.—This number of the Archives contains an article by Dr. Blachstein, entitled "Contribution à la Biologie du Bacille Typhique." Working with recent cultures of bacteria isolated from organs of patients who had died from typhoid fever at the height of the disease, and with organisms taken from the fresh typhoid stools he has tried to determine whether the typhoid bacillus has any normal *habitat* outside patients affected with the disease and to find a good method for the bacteriological examination of drinking water. As a result of his investigations he maintains that neither the one nor the other presents insurmountable difficulties, but he finds (1) that the production of large or small quantities of carbonic acid in the typhoid fermentation has no importance as far as a diagnosis of the typhoid bacillus grown upon solutions of glucose is concerned; (2) that the formation of levi-rotary paralactic acid is a very important characteristic, especially in the case of those typhoid bacilli which have the faculty of determining energetic fermentation—these, of course, are the most important; (3) that typhoid bacteria isolated from a dead body are attenuated; (4) that as yet we have no satisfactory evidence as to the phylogenetic relationship between typhoid bacilli and those bacteria normally found in the intestine.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 3, 1892.

THE Medical Council is at least entitled to the credit of a short meeting. Notwithstanding the number of delicate and difficult questions it had to deal with, it sat only four days—that is, from Tuesday to Friday inclusive. This was partly due no doubt to the fact that many of these questions were postponed rather than settled, but even so there was a spirit of despatch in the Council which is to be commended. It is certainly true that short meetings are not always for the good of the public or the profession. But, on the whole, it must be allowed that, with several questions on the programme of the late meeting, the best thing to do, for one reason or another, was to postpone them. This was the case with reference to the reports of the Visitors and Inspectors of certain examinations. Dr. HAUGHTON, for example, was eager to be at the assailants of the Final Examinations in Dublin University. But the Council had not seen the answer of the body criticised, and neither on the report nor on the reply to it had the Examination Committee had time to comment. It is obviously desirable that these reports should be discussed while they are fresh in the memory of the visitors, and there is an advantage in taking them in groups rather than altogether. Accordingly a motion was passed which will require the Council to deal at their meeting in May with all the reports that are received by the end of March. So with the important question of the propriety of the licensing bodies dealing *primarily* with cases of misdemeanour or unprofessional conduct in their members before the matter came under the notice of the Council. This is an abstract question. But it did not arise in that form before the Council. It arose in connexion with an actual case now before the law courts. It was obviously proper to leave the abstract question over till the case of appeal has been settled. Another matter under discussion was the action of the Medical Council in respect of continuing its recognition of the preliminary examination of the Apothecaries' Society. The Education Committee was prepared to put pressure on the Apothecaries' Company to leave to other bodies the examination in preliminary subjects which it now holds, and in which it examines about 800 candidates a year, only a small proportion of whom take its licence. But the Medical Council as a whole, has always dealt tenderly with the Society of Apothecaries. Influential members, such as Sir JOHN SIMON and Sir RICHARD QUAIN, have saved it from the fate which outrageous fortune might have brought on it if it had been left to the tender mercies of other medical authorities in London. The Council, therefore, resolved still to temporise in recognising the examination, which serves as a portal to the profession, not only to those who take the licence of the Apothecaries' Society, but also to large numbers of those who proceed to the examinations of the English Conjoint Board, which is obviously unsatisfactory. When there is such a universal conviction that the best thing for the profession and

the public is to hold high the standard of the preliminary examinations, it cannot be defended that the Apothecaries' Society should hold this great key. Even if its examination is not so lax as the high proportion of "passes" and the general run on the examination suggest, it is not reasonable to ask that other bodies should accept its standard. The real culprits who are guilty of letting into the profession, those whose general education is grossly defective have yet to be detected. And there is evidence enough that other bodies, of whom more might be expected, are not without blame, but it is clearly desirable as a preliminary measure that the work should be thrown on bodies which have public sanction and responsibility in educational questions.

Sir WALTER FOSTER'S proposal that the Council should support the demand for an increase in the direct representation of England and Wales was rejected. It is to be regretted that this proposal, after a few short speeches on the subject, was shelved by the previous question. Whatever the objections of the majority of the Council to this step—some of which are not unreasonable, especially the argument that it would add to a Council already too large—it is one for which much has to be said, and was indeed well said by Sir WALTER FOSTER. It is scarcely courteous to extinguish such a debate by the use of the standing order which allows no further debate, and not even the reply of the mover of the resolution. Any animus against direct representation should not be shown, however much it may be felt.

The action of the Council in penal cases will be differently judged. There can be no doubt that the narrow but severe single weapon in the hands of the Council—that of erasure—and the uncertain and in some cases irrevocable action of the medical authorities exercised subsequently to that of the Council make the use of it extremely responsible. This is a point which the critics of the Council do not always take into consideration in charging the Council with undue levity. The whole subject will need further attention if the licensing authorities and the Medical Council are to act harmoniously and effectively. The intimation that the doctrine of "covering" will be applied to dentists who carry on business through the means of unqualified assistants will, it is to be hoped, have a salutary effect. The discussion on Dr. RENTOUL'S memorial on the subject of the certification of midwives by unauthorised societies will serve to elucidate a difficult and complicated subject. On the whole, the meeting was one of interest, and brings the Council more than ever face to face with the body and life of the profession from which it derives its existence and its importance.

A REPORT compiled by Dr. ASTLEY GRESSWELL, health officer of the Colony of Victoria, on small-pox introduced into Australia by the Royal Mail ss. *Oroya*, has especial interest at the present moment, for it indicates in a forcible manner just that which may be expected from reliance on a system of quarantine against small-pox even in the case of a country which is free from the infection and remote from other countries where the disease exists; it also sets out the compulsory measures which it is necessary to resort to where the quarantine system fails; and it shows how hopeless it is to attempt to deal with small-pox without recourse to vaccination.

The malady was first detected in the case of a man twenty-eight years of age, who was found to be ill in the Victoria Coffee Palace in Melbourne, and by the time he was ascertained to have small-pox the passengers were already scattered about in Victoria and neighbouring Australasian colonies. Great precautions are taken against the introduction of small-pox into Australia, a rigid quarantine is maintained against it, and Dr. GRESSWELL tells us that prior to the arrival of the *Oroya* there had been no case on the continent for several years.

The quarantine system failed in this instance under the very circumstances in which it may always be expected to fail—namely, by reason of an unrecognised case of small-pox in a person who, approaching adult life, had been once vaccinated in infancy. The patient was taken ill about fourteen days after leaving England; others having associated with her on board contracted the disease, and it was one of these latter who was detected with small-pox in Melbourne. Thus it happens that "in this instance the mechanism for preventing introduction of small-pox into Australia altogether failed." Instant measures had then to be taken to supplement the system that had failed, and the story is interesting in its details. Four constables were rapidly procured, two were placed in front and two in the rear of the coffee palace, and no egress was allowed except on the condition of submission to vaccination, which was carried on until midnight, when about sixty persons had undergone the operation. The police cordon was, however, maintained. The next morning the process was continued, and it was only on its completion that the cordon was removed. But by this time the whereabouts of the first patient had been discovered, only, however, after people living elsewhere had been in more or less direct contact with her. Strict instructions were once more issued "that no one, under any circumstances, was to leave the house." The police station was again requisitioned for a series of cordons round the implicated or suspected houses, and with the aid thus procured vaccination, with measures of disinfection, was once more resorted to; but even this did not check the mischief that had been already wrought by the one unrecognised attack of small-pox. As late as June 24th another person sickened, another police cordon was arranged, and much the same process was gone through, the actual patients being in each case removed to the quarantine hospital as soon as was practicable. The disease also extended to other colonies—notably to New South Wales, where four persons arriving by the *Oroya* and three of the residents were attacked.

We are thus provided with an example of that which may be anticipated wherever, under the plea of the liberty of the subject, no law as to compulsory vaccination is tolerated, or wherever any such existing law is repealed. We are told by a correspondent, Dr. CHARLES BAGB, of Kington, Victoria, that compulsory vaccination has been the law of the land in Victoria for nearly forty years; but notwithstanding this he states that "quarantine is much relied on," and he cites an instance to show that inhabitants flee from houses where small-pox appears from "fear of quarantine." We hardly understand the relation in which the one form of compulsion stands to the other; we are only desirous of applying the lesson to ourselves; and so far as the police measures under which vaccination is enforced are concerned, we are forcibly

reminded of the evidence given before the Royal Commission on Vaccination as to the state of affairs which goes on in the United States of America, to the laws of which so many of our own people look as their beau ideal of personal liberty. So long as there is no small-pox to be feared the inhabitants may do much as they like; the moment a dread of the disease appears vaccination is enforced under pleas and by measures which would never be tolerated in England. It becomes simply a case of "There is no compulsion, but you must." In the one country one method of enforcement is adopted, in the other the compulsion is carried out under the authority of the police. Thus, under the influence of panic and by resort to exceptional methods, an attempt is made to imitate the system of compulsory revaccination which in Germany is carried out in a rational and statesmanlike manner.

In a small way illegal measures of control have, under somewhat similar circumstances, already been resorted to in this country in places where vaccination is neglected; and it is this sort of thing in an intensified form that we shall have to look forward to if our Legislature should ever give heed to the demands of those who are fascinated by the contentions of people who talk loudly of the success of their quarantine when an odd family has to be dealt with, but who maintain a significant silence as to its failure when circumstances occur which in some slight way put the system to the test.

No one can fail to admire Dr. GRESSWELL'S activity and determination in the face of the danger he had to meet. We certainly shall not stop to ask how far the interferences with liberty to which the people were subjected were legal or the reverse; but we would carefully remember his warnings. The circumstances were favourable to the success of the measures which were resorted to; but he tells us that had exceptional promptitude not been practicable, the consequences would almost certainly have been that small-pox would have "extended rapidly," and so "the question of the endemicity of the disease in Victoria, and by reason in Australia, would again have become prominent." In fact, he admits that a similar success is not likely to be repeated; hence he urges his one prominent lesson, that the prevention of small-pox can be brought about "simply and solely by vaccination and revaccination." The experience in connexion with the *Oroya* comes to his aid in enforcing this vital part of his story. No person who had been successfully revaccinated contracted small-pox, notwithstanding exposure to infection. Of the children on board the vessel only one—a girl of five years old—had small-pox, and she "had not been vaccinated." Here we have one more proof of the value of a recent successful vaccination. Infancy and childhood are protected by the primary operation performed in the first few months of life, and adults are protected by submitting to a repetition of the protective process.

We deal elsewhere with Professor FRASER'S remarks on the propriety of separating the study of the subject of materia medica proper from that of therapeutics, and on the respective place in the medical curriculum which these subjects should hold. Our present concern is rather with the question raised in the earlier half of the introductory address with which he favoured his class and which we published last week. This constitutes a veritable novelty, for which,

in the first instance, the Scottish Universities' Commission must be held responsible, but which seems to have the entire approval of Professor FRASER himself. The novelty has reference to the recognition by the Universities of Scotland of the tendency to specialism in the medical profession, and of the demand for it by the public, by the institution of a system for conferring degrees, or rather diplomas, in certain special branches of practice, a system foreshadowed in the ordinances in the following words: "Subject to regulations to be made from time to time by the University Court, the University may also confer diplomas in special branches of medical and surgical practice on graduates of the University in medicine and surgery." Hitherto when a student has shown special knowledge in the course of his University career, his University has recognised his merit by giving him a medal or other mark of distinction, and, later on, in the broad competition of life he has generally developed the special powers that were in him and justified the judgment of his teachers. Now the Universities propose to punish merit and to profit by it rather than to reward it; to subject their distinguished students at the end of the curriculum, and "*after the elementary training for the lower degrees*" (the italics are ours) "has been completed," to fresh studies lasting a year longer than the recently prescribed five years, and to one or more special examinations.

We regret that we cannot agree with the argument by which, as our readers will see, Professor FRASER justifies this new venture in University action. He himself says that to institute a "degree" for each special branch would be objectionable, because it would multiply degrees to an extent that would be detrimental to all degrees. But surely it is as objectionable to multiply diplomas as it is to multiply degrees, and for the same reason. The increase of specialism is rather an evil to be repressed than an advantage to be encouraged and fostered by Universities. It is not quite justifiable to say that the merits of specialism have been so admitted by the profession that the time has come for the Universities to stamp it with a series of special hall-marks. The profession has the greatest possible doubt about the advantages of any specialism save that which is the outcome of a man's own life and practice, and as such is recognised by his peers and his fellow-practitioners. A man who develops a gift for dealing with abdominal tumours or calculi of the bladder or kidney, or for treating diseases of the eye, must be reckoned with, and will always have accorded to him by his professional brethren the respect which he deserves, and of which they are the best if not the only judges. It is one thing to give a degree in one or other of the great branches of medicine and quite another to profess to send out raw young graduates ticketed with a label conveying a fictitious idea of their familiarity with highly technical branches of the medical art. Where is such a system to stop? Professor FRASER indicates that the medical faculty of his University has already expressed itself in favour of the creation of five special diplomas, respectively in ophthalmology, mental disease, laryngology with aural and nasal surgery, medical jurisprudence, and midwifery and gynaecology. This is a suggestive extension of the diploma-making business. If the ear and the nose are to be the subject of special diplomas, why not the liver,

the heart, the stomach, the rectum, and "the big toe"? It is certain that these organs or parts have as many claims to special attention and that most of them play as important a part in the economy of the body as those which have been selected for diploma-making by the Faculty of the University of Edinburgh. The terms "hepatologist," "cardiologist" and "renalist" might take a few months to be "understood of the people," but in the meantime the very strangeness of the titles would have its effect, and then the public would begin to think that there was something in it, and that these gentlemen with the new names ought to be consulted. Seriously we consider this to be a very questionable step on the part of the great University of Edinburgh. It would have done infinitely better service to itself and other Universities if it had resolved on strengthening the reputation of its present degrees and accentuating the difference between a degree and a diploma. Professor FRASER actually fastens by implication a kind of reproach on present degrees in comparison with these new inventions. They are to be the "lower degrees" for which only "elementary training is required"; the honours are to attach to the new diplomas! We venture to think that graduates of Edinburgh will not feel grateful to Professor FRASER for thus belittling the degrees which, as Select Committees and Royal Commissions have been assured, implied a higher training than that for ordinary qualifications. Universities can no longer stand on fine distinctions between degrees and diplomas, or on the multiplication of letters they can contrive to append to a graduate's name. If their *raison d'être* is to be maintained it must be by the higher standard required for their degrees, not by the creation of a distinction between "lower degrees" and superior (!) new-fangled titles, which will mislead the public and offend the profession. The proposals for new diplomas are as unfair to the graduates as they are unworthy of the University. The number of examinations is even now a serious evil; and it is proposed to add another torture to those already existing, and to turn out young men with "special qualifications for the practice of some selected branch of medicine or surgery," of which in the nature of things they have had a minimum of experience. The Scottish Universities have already as many students as they can cater for. Among them there are many men of whom they are specially proud and confident. Let them impose not a new examination on them, but some new reward. Above all let them look to the standard of their degrees in medicine and surgery that they be not "lower degrees," but true academic honours as distinguished from ordinary qualifications. If degrees are not this they are not what they pretend to be. And this leads us to the remark that the matter has a significant bearing on the grievance under which London medical students suffer. They are not able to obtain on reasonable conditions in London an M.D. degree, whilst Scottish universities propose to add to that coveted qualification the further attraction of a system of special diplomas. We commend the subject to the notice of the Royal Commission on the proposed Gresham University.

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NORTH-EASTERN HOSPITAL FOR CHILDREN,  
Hackney-road, N.E.—The Lord Mayor will preside at the Festival Dinner to be held at the Holborn Restaurant on May 9th next in aid of the funds of this hospital.

## Annotations.

"No quid nmls."

### THE PREVALENCE OF SMALL-POX.

SMALL-POX continues somewhat slowly to extend the area of its distribution. In Warrington, where the fresh attacks numbered 76 in the week ending Nov. 12th, the new cases were only 32 in the week ending Nov. 19th, and a further decline seems to be taking place. The inhabitants are hurriedly seeking revaccination, at a rate and on a scale that can hardly be kept pace with. Lancashire has several centres of infection, Manchester, Liverpool, St. Helens, Wigan, Salford, Oldham and Chadderton being amongst them. At Salford preparations are in contemplation to meet a possible extension of the disease into the borough. Leeds remains seriously affected. The existing hospital accommodation is occupied, and cases are under treatment in their own homes. Other Yorkshire towns, such as Halifax, Rotherham, Barnsley and Bradford, have also had fresh cases reported. In London a batch of ten cases has occurred in Islington, and one case was reported from Hackney. In Leicester a distinct abatement has taken place; only two cases were reported in the week ending Nov. 19th. Other fresh outbreaks or isolated attacks of the disease are heard of from Castle Bytham, near Bourne, and Dronfield.

### THE FEEDING OF SCHOOL CHILDREN.

THERE can be no question that a child which from want of food is on the verge of starvation has neither mental appetite nor digestive power sufficient to deal with the material so freely and fully afforded by our national system of education. It is equally certain that many poor children who are now compelled to attend school are found to be, through no fault of theirs, in this destitute condition. We are thus brought face to face with an important social problem. Who is to feed these children? Social democrats at once answer the State, while others with as little hesitation throw back the burden of responsibility upon the defaulting or impoverished parents. We can hardly go wrong if we seek the true solution in a middle course. It would certainly be much more foolish than humane to indulge, and even to encourage, the culpable neglect of a careless parent by introducing any loose and general measure for allowing free meals at the cost of more active and provident members of the community, rich or poor. At the same time no one can stand by while children are being virtually crushed between the nether millstone of parental neglect and the pressure of grinding poverty. Compulsion if applied must not, it is clear, be limited to education. Working through parochial authorities it must wherever needful be made to energise the limp inaction of any who thus heedlessly desert their offspring, and it does operate in this way. In cases of excusable indigence the same power becomes a source of supply under our present system of parish relief, which, nevertheless, can hardly be expected to work without hindrance or omission, and thus it happens that a certain proportion of young school children are found to be simply starving under the eyes of their instructors. The school then becomes part of a machinery available for the detection of such want as lies within the province of parochial inquiry and amendment. Yet the actual work of amendment is to it no proper object of concern, and we fail to see how School Boards can be expected to undertake the duty of catering for bodily as well as mental sustenance. Any effort of this kind associated with the work of teaching should naturally therefore be accomplished by external agency—by the parish officials preferably—acting either upon or for the

parent, or failing these, by voluntary charitable organisations. We may take it as a circumstance creditable on the whole to our character for self-help that many of the latter bodies introduced by the "penny dinner" movement of 1885, and now united by a central committee, have been and are doing excellent work in the interest of poor children. Conducted upon a principle which requires wherever possible a trifling payment, but still admits the justice of providing for every necessitous case, we do not think that the system thus organised could be improved upon by any more general and probably less discriminating application of State relief. Its past efficiency in the cause of the indigent, its concern for these alone, and the obvious need of such provision as it affords are its unfailing guarantees of character and its titles to continued success.

### MUSIC AS A REMEDY.

THE connexion between music and medicine was discussed by Dr. J. G. Blackman at a recent meeting of the Portsmouth Literary and Scientific Society. The subject is one of interest both from a social and professional standpoint. In this instance it was regarded by the lecturer mainly in its medical aspect and was treated on similar lines to those with which readers of THE LANCET are familiar. The physiological foundation of musical therapeutics was examined and described as consisting in the power exercised by harmony over the vaso-motor function. Most will acquiesce in this view, which is also corroborated by the experiments of Riegel on the blood pressure and heart action during the performance of music. It follows naturally that the ailments most likely to be benefited by this means are those in which nervous disorder plays a leading part. A number of cases illustrating this point were quoted at the meeting referred to, and we should probably include among these one in which reduction of temperature followed the administration of "a dose" of melody. The violin takes high rank as a vehicle of the soothing property, and the other instruments best adapted to the treatment of disease by musical sounds were, in the lecturer's opinion, the harp and the pianette (not the piano), with which a few well-chosen voices might be advantageously combined. Dr. Blackman does not consider it feasible as yet to apply the musical method as above described in private practice, though he looks forward to its employment in hospital work, a hall being established in London where the services of musicians trained for this particular branch of their art might be obtained. While willing to admit the salutary effect of good music in many cases of nervous disease, we confess that an arrangement so elaborate does not seem to us to be called for by the exigencies of illness or justified by the importance of its probable effect. In any case of serious mental or bodily disorder the mild suasion of sweet airs must hold an altogether secondary place in the plan of treatment, and such as could usually be well filled with far less elaborate preparation.

### COUNTY SANITARY ADMINISTRATION.

THE Bucks County Council had under consideration last week the question of the appointment of a sanitary committee. The subject was brought before the Council by Mr. W. F. Verney, who cited the excellent work done by some other County Councils, particularly Worcestershire, where Captain Sir Douglas Galton was chairman of the Sanitary Committee and Mr. Fosbroke medical officer of health. He also read a letter from Miss Florence Nightingale, who had written: "We hail the County Council as being or becoming one of the strongest engines in our favour, at once fathering and obeying the great impulse for national health against national and local disease." Mr. Verney was warmly supported by Mr. S. Osborn, F.R.C.S., who, speaking as a medical man, dwelt on the valuable work such a committee would be able

to do. He stated that in his own locality he had several times tested the water-supply of the poor people's cottages, and found it nothing better than diluted sewage. He combated the argument that such a committee would not have sufficient work, and said that if they did their duty thoroughly and efficiently they would find ample employment to justify their existence. One or two members of the Council objected, the argument being used that it would create friction with the sanitary authorities within the county. Eventually the debate was adjourned until the next meeting. We trust that this motion will be adopted. If a committee were appointed to consider the circumstances affecting the health of the several communities in the county, it would find ample material with which to deal, and certainly no fear of creating friction with the authorities ought to deter the Council from calling attention to any circumstance requiring the intervention of the proper authority. The effect of a committee in stimulating a more efficient sanitary administration would at once become obvious if it were made acquainted with the success attending the efforts of County Councils like those of the West Riding of Yorkshire, Staffordshire and Worcestershire. The Council might well remember that every sanitary authority contains some members who would be in sympathy with its proceedings, and they would be able to give a great impetus to any attempts made to secure improvement in the sanitary condition of the county.

#### DEATH AFTER VACCINATION.

ON Nov. 26th an adjourned inquest was held at the Town Hall, Chelsea, touching the death of a child aged one year and ten months, who had died after vaccination had been performed, about three weeks previously. The lymph employed was obtained from the calf, and another child was vaccinated with the contents of the same tube. The latter infant did perfectly well, so it is only fair to assume that the unfortunate issue in the case of the deceased was due either to purely personal conditions of health, or to some extraneous cause other than vaccine lymph. Dr. Luff watched the case for the Vaccination Commission. Mr. Corrie Grant, barrister, represented the friends of the deceased. It appears that vaccination had been postponed more than once on account of the weakness of the child. The clinical history of the fatal illness is briefly as follows: During the first week nothing unusual happened, for at the end of that period the medical man who vaccinated the child examined the arm and signed the case as "successful." Some days afterwards the wound inflamed and the two vaccination areas became confluent. Eventually convulsions supervened and the child became jaundiced and died from coma. Mr. Pepper, who made the post-mortem examination, deposed that the body was well nourished. The tissues were deeply jaundiced. Externally there were no signs of injury or disease except the jaundice aforesaid and an ulcer on the left arm. The latter was deeply excavated, was one inch and three-quarters by one inch in diameter and showed that the vaccination sores had run together. There were no granulations in the floor of the ulcer. The axillary lymphatic glands were much enlarged and congested, but suppuration had not taken place. The joints were healthy. Internally the organs were healthy except for recent acute changes, evidently due to absorption from the ulcer. The kidneys showed cloudy swelling. The spleen was greatly enlarged and softer than natural. There was hypostatic congestion of the bases of both lungs with commencing consolidation. The brain, heart, stomach and intestines were healthy to all appearance. No signs of tuberculosis presented themselves. Mr. Pepper gave it as his opinion that death was due to exhaustion from tissue change consequent on septic absorption from the ulcer on the arm. He considered the vaccination was not directly the cause, but that indirectly it

was a factor, since it was the method by which the sore was produced in the first instance, and, moreover, the temporary disturbance of health due to vaccinia would somewhat enfeeble temporarily the child's strength. He came to the conclusion, however, that had the vaccination sores been kept clean and free from implantation of septic virus from without the issue of the vaccination would have been normal. Cross-examined by Mr. Corrie Grant, he said that from his observation it was not difficult to obtain calf's lymph free from blood, and that even if there was a slight admixture of blood and lymph it would not necessarily render the latter unfit for vaccination purposes. It was not the mere presence of blood that was harmful, but blood in a state of decomposition or infection with pathogenic germs. It was elicited during the inquiry that nothing but dry linen had been applied to the ulcer on the arm and that one of the child's attendants was suffering from ulcerated cancer of the breast. The jury found that the death was due to blood poisoning following vaccination, but how the blood poisoning was caused was not proved. They added a rider to the verdict blaming the mother and grandmother of the child for not paying more attention to the sore on the arm and for not calling in a medical man when the health of the deceased showed signs of failing. In our opinion the death was, so to speak, an accident, and we think that if strict antiseptic principles had been practised it might have been avoided. The negligence of the relatives of the child was clearly due to ignorance and not to wilful negligence.

#### TREATMENT OF OPHTHALMIA AMONGST THE CHILDREN OF THE POOR.

WE have had on several occasions to comment on outbreaks of ophthalmia at various metropolitan schools. The serious results of admitting even a single child suffering from ophthalmia to free intercourse with healthy children was shown in the case of the *Goliath* training ship at Grays, and when many are affected it is very difficult to know what to do with them. It is impossible to confine them for many weeks consecutively to the infirmary, and yet the managers of the school naturally hesitate to incur the expense of a special medical attendant and a staff of nurses, and the still greater expense of building sheds or other accommodation for what appears to them to be a comparatively trifling ailment and one likely to prove only temporary. It is only by slow degrees that the conviction is forced upon them that such a course is necessary, and by that time a very considerable number of the children have become affected. A large building is then at last constructed, a medical officer and nurses are appointed, and when treatment has been continued for a year or more the disease is practically abolished. Then comes the question—What is to be done with the building when there are no patients to occupy it? The medical officer and the nurses can indeed be dismissed, but the building must be kept up in some fashion. This difficulty has presented itself to the managers of the Central London School District, and we think that they have returned a sensible answer to the proposal of the Local Government Board that the vacant accommodation at the ophthalmic school should be made available for the reception of children from other unions and parishes upon terms which would enable the managers to ensure adequate accommodation for cases within their own district if increased need should arise. The report contains the following recommendations: "It is evident that in appropriating a building designed for 400 children to a total population of 111 only (and which it is to be hoped will be a steadily diminishing number) there must be a serious loss of space accommodation, to say nothing of the expensive staff necessarily kept up even for the reduced numbers; but having regard to the difficulty already experienced of exercising a complete supervision over the ophthalmic department, and to

the probability that the amount to be reasonably charged to other unions for children sent by them would not afford any sufficient recoupment towards the very large expense of keeping the same up as a permanent isolation school, we feel unable to recommend the managers to acquiesce in any such arrangement. At the same time it is much to be regretted that a building which seems well adapted for the treatment of ophthalmia cannot be made available to relieve other unions and parishes of their ophthalmic cases; and seeing that there is every facility for making the isolation school establishment distinct altogether from the Central London District School with separate approaches, we recommend that the Local Government Board be informed that, whilst not seeing their way to adopting the suggestions of receiving children suffering from ophthalmia from other establishments, the managers would be prepared to entertain a proposal for disposing on equitable terms of the ophthalmic building, with a sufficient portion of land for the purposes of an institution for ophthalmic cases under separate management and authority, to which institution the guardians of the unions now comprising the Central London School District might send their children suffering from ophthalmia in common with children so suffering from other unions and parishes in the metropolis."

#### NOTIFICATION PROCEEDINGS AT BRADFORD.

THE editor of the *Bradford Daily Telegraph* publishes the following announcement in his issue of Nov. 23rd:—"I have been requested on behalf of the Sanitary Committee to warn the local doctors of the possible consequences which may follow from a neglect of the duty which the law lays upon them. The authorities will not permit the regulations to be treated as a dead letter, and are determined to prosecute the first doctor to whom they can bring home a charge. In the meantime, in the view of the great increase in scarlet fever, their inspectors have received instructions to make inquiries in all parts of the borough with the object of bringing to light cases independently of the medical reports, and collecting evidence for possible prosecutions." We sincerely trust that the editor is labouring under some error, both as regards the delegation to him by the Sanitary Committee of the Town Council of any such instructions and also as regards the intentions and measures which that committee have in prospect. We can hardly conceive of anything much more insulting to the medical profession of the borough in question.

#### MEDICAL OFFICERS OF HEALTH IN CORNWALL.

IT is not without hesitation that we comment somewhat critically upon the attitude of the chairman of the Cornwall County Council towards the medical officers of health within the county, our hesitation being due to the obvious desire of the chairman to get all the information he possibly can with a view to effecting improvements in the state of public health within the county. Mr. Trevail tells the officers that all reports should be in pica type, to save the medical officer of health the trouble of writing five copies—a requirement which we never heard of before. The truth seems to be that the Council want three copies instead of the one they are entitled to. Then, again, Mr. Trevail has compiled a series of questions covering four closely printed sides of foolscap as to which he wants answers. Here, again, he goes entirely beyond anything he has a right to ask, and any medical officer of health who supplies all the details set out, even down to the price paid for notifications, will have a somewhat serious task to perform. Mr. Trevail admits that many of the officers are ill-paid even for the duties they have already to perform, but he holds out the bait to them that, "be the pay as low as it may," the readiest way to get it remedied is to show that the officer has in nowise neglected his duty.

What duty is here referred to we do not quite gather, for the work Mr. Trevail wishes to impose upon them is not amongst their duties. We have much sympathy with Mr. Trevail, and we do not know whose influence it is that has kept the county from appointing a county medical officer of health. But it seems to us that all this is an effort to make up for such an officer by getting the local officers to supply gratuitous information to the chairman, who hitherto has taken upon himself work which the statutory appointment of health officer would have rendered unnecessary. In view of Mr. Trevail's reference to inadequate payment for skilled services, all notion of economy in the failure of the Council to make such an appointment may, perhaps, be set aside.

#### CHOLERA PRECAUTIONS IN THE CITY.

WE find that Dr. Sedgwick Saunders is making preparations for the possible recurrence of cholera next year. He has three proposals under consideration for cholera hospital provision. Two relate to land hospitals, one site being an unoccupied area on the Thames Embankment, the other one in Golden-lane. The third proposal has to do with a floating hospital somewhere between London Bridge and Waterloo Bridge, and to this Dr. Saunders evidently inclines. Subject to the consent of the Conservancy Board and other interested bodies and to the provision of facilities for a landing stage or wharf, this latter scheme seems to be the one which will present fewest difficulties.

#### THE PROGRESS OF SURGERY.

IN opening the Section of Surgery in the Royal Academy of Medicine in Ireland Mr. Edward Hamilton delivered an address on the Progress of Surgery. The most noticeable points in the address were a vindication of the study of anatomy, which, he said, there was a tendency to neglect, on the ground not only of its uses to the surgeon, but as a means of training to the mind. The progress of surgery rested now securely, he thought, on three points—anaesthesia, antisepticism and experimental research. In the matter of anaesthetics his conviction is decidedly in favour of ether for adults and chloroform for children. That his hearers should not be exalted above measure by the great progress of surgery, he reminded them of remaining opprobria, in the fact that cancer and tubercle were still incurable, and that little progress had been made in the cure of syphilis since Hunter said: "if there is such a thing as a specific at all, mercurial is a specific for the venereal disease." He guarded his hearers against two abuses of it—the old terrible overdosage and the present fault of using it timidly and leaving it off as soon as it is about to produce good results. He emphasised the value of "hygienic treatment, good air, good food, early hours, temperance in all things, the Turkish bath, and the blood-making property of cod-liver oil."

#### THE MEALS OF LADY CLERKS.

IT will be generally allowed that the position of young ladies engaged in business in the City of London is not usually one of superfluous ease. The strain of occupation is fairly continuous and prolonged. Its intermissions are brief, not always regular, and limited as a rule to meal times. There need be little wonder, therefore, if those most nearly interested in this matter should feel aggrieved when even in such intervals they cannot obtain that reasonable degree of privacy which is at least desirable if it is not quite essential to comfortable refreshment. In cases where meals are supplied upon the business premises there need be no difficulty. The administration resembles more or less closely that pursued in a large family and the need of separate accommodation is felt but little, if at all. Many public restaurants, again, have been wisely organised so as to provide a distinct room or rooms and attendance in the case

of either sex. A further step in the same direction has recently been suggested—namely, the establishment of a thoroughly respectable house of this class for the use of women only. The necessity of maintaining a reduced dining tariff, however, interposes a difficulty, since it is very questionable whether the ordinary custom of such houses would suffice to make them pay. The suggestion is doubtless worth a trial. For our own part, we cannot forget that much has been done, and more may still be done, by utilising present arrangements to attain the end in view. There is no evident reason why in this, as in other departments of public service, the plan of providing under the same management separate accommodation for men and women should not accomplish all that is expected of a system of distinct establishments. It would, moreover, be much less costly and more certain of financial success than the latter method. The solution of this part of the great food problem is in any case an important matter, for certainly no British workman stands in greater need of timely and wholesome nutrition than do many of these lady toilers.

#### THE LOSS OF THE "BOKHARA."

"LAST seen" and "not heard of again" have now become familiar terms by which we mark in memory the unknown ending of the voyage of many a vessel. Such a phrase, but for the brief record of a very few survivors, has also closed for ever the day's log of more than one strong ship which has left our shores of late but will never again carry freight. The story of the loss of the *Bokhara* has been graphically told by Dr. Lowson. His narrative of almost hopeless conflict and disaster is probably far from unique in the annals of the sea. The like experience has been known by many living seamen. This fact, however, cannot diminish its interest or its instructive reality. Happily we do not in this case hear anything of unseaworthiness or of unskilful management. The unfortunate vessel appears to have been simply overwhelmed by the long-enduring force of a cyclic storm of extraordinary severity. It is well, however, to gather from such a calamity the lessons which it teaches. Not the least of these is that which forbids us ever to despair; and it is, at all events, consoling to register as the one bright spot in all this gloomy history the absence of anything like selfish panic among those who went down with the fated steamer. The composed and manly attitude observed by most of the ship's company and passengers, and not least by the ship's surgeon, in circumstances of the severest trial, is worthy of high commendation.

#### ACCIDENTAL POISONING WITH STRYCHNINE BY AN UNQUALIFIED ASSISTANT.

THE *South Wales Echo* of Nov. 19th contains the report of an inquest on Mary Ann Mellin, of Mountain Ash, who had come by her death from an overdose of strychnia, given in mistake for ten grains of croton chloral for toothache. A post-mortem examination revealed no disease, and Mr. Morgan, county analyst of Swansea, besides detecting traces of strychnia in other organs, found seven-tenths of a grain in the stomach. The unfortunate mistake was made by Mr. Owen Jones, the unqualified assistant of Mr. E. P. Evans. He had been in this position for about five years, and according to Mr. Evans was generally engaged at a branch surgery. We fear this system is very common in South Wales, and is too much recognised by coroners. Mr. Jones had no explanation to give of the mistake save that he did not glance at the label on the bottle, and that he was very seldom in that surgery. Mr. Evans supplemented this information by stating that Mr. Jones had had a fall from a horse about a fortnight ago and had complained of pains in the head. The coroner summed up, and dwelt particularly upon the question of any negligence amounting to culpability or not, and the jury, after consult-

ing in private, found a verdict as follows: "Death from poisoning by strychnine, dispensed in mistake for croton chloral by Mr. Owen Jones. We find that the manner in which the poison was dispensed was negligent and deserving of censure, but we are of opinion that the negligence did not amount to criminality."

#### VACCINATION SUSPENDED AT COVENTRY.

COVENTRY has determined to follow the example of other unions as regards vaccination, and the decision is maintained in the face of some imminent risk of small-pox. Dr. Lynes, the public vaccinator for the town district, has addressed a letter to the guardians stating that during the twelve months which have elapsed since they passed a resolution deciding not to enforce the provisions of the Vaccination Acts only twenty-eight children have been presented at his public station, whereas in the twelve months preceding that decision the corresponding number was 577. The newspaper publishing the proceedings of the guardians simply states that no action was taken on the letter. Apparently nothing can now be done but to await the result of the widespread neglect which is being maintained in many parts of the country.

#### INSANITARY AREAS IN LONDON.

THE improvement of three insanitary areas in St. Pancras, which had been represented by the medical officer of health of the district, Dr. Sykes, has been the subject of correspondence between the London County Council and the St. Pancras Vestry, the latter body not unnaturally desiring the Council to effect the improvements at the cost of London as a whole, while the Council, on the other hand, proposed to undertake this duty in respect of one insanitary area and to leave the other two to the vestry to deal with. Application was made to the Home Secretary for arbitration soon after the representations were made, and an inquiry was opened. It was then found that some doubt existed as to the size of one of the areas, and the inquiry was adjourned with a view to further negotiations between the two bodies interested. The vestry, not being satisfied with the proposals of the Council to which we have just referred, has now asked the Home Secretary to reopen the inquiry. It is stated by a contemporary that the death-rates in these areas last year were 44, 52, and 61 per 1000, as against 20.6 in the parish generally.

#### POISONS IN THE GARDEN.

A CONTEMPORARY has lately noted the number of poisonous plants and weeds existing in an ordinary garden, and gives the grave warning that "care should be taken that they are not munched or sucked by children." Without a doubt the poisons are there, and will produce bad results if consumed. But happily very many of them are characterised by an unpleasant taste, which diminishes the temptation to tamper with the harmful plant. All the care in the world, however, is probably inadequate when it is a question of dealing with the experimental tendencies of a young child. General warnings of the probable discomforts may to a certain extent check its curiosity, but then these warnings should embrace all plants, and not be confined to sundry special instances, thus leaving the child to infer that, with these exceptions, it is safe to eat the other members of the vegetable kingdom. It would certainly be safer to indicate the few plants which may serve for field feasts than to attempt to impress upon a child the somewhat lengthy list of those to be avoided. In the country, however, and among the children of the poor, all rules and regulations are apt to be set at naught, and it is to be feared that each child learns wisdom, as its elders have done, by bitter experience. The results of one experiment with a sufficiently nauseous plant are usually enough to convince a child of the

unwisdom of personal experimentation and to teach a lesson far more permanent than any ever taught by an anxious parent. Without recommending this mode of instruction, which is not devoid of risk, it is, nevertheless, that by which a respect for the medicinal and toxic effects of plants is most generally acquired.

#### EXCLUSION OF MEDICAL MEN FROM MONTE CARLO.

OUR contemporaries comment on the exclusion of medical men and their wives from the casino of Monte Carlo. We cannot profess to regret this, and only wish that the authorities would extend their refusal to all other respectable people. It is to the credit of the members of the English profession practising in the principality that they approve of this exclusion. They are right in regarding it rather as a compliment and an advantage to the profession than otherwise—a compliment because it implies that their presence might have a deterrent effect on gambling by patients who are under medical discipline; an advantage as removing them from a place of temptation and excitement where a professional man has no business to risk his hardly earned and modest gains.

#### BACTERIOLOGY AT KING'S COLLEGE.

It is now six years since bacteriology has been regularly taught at King's College, and a special report has recently been presented to the council showing the work that has been done in the laboratory during that period. The laboratory was established to provide accommodation for practical instruction and for giving systematic courses of lectures, as well as for granting facilities for original research. Medical men in practice, medical officers of health, analysts, medical and veterinary officers of the services have so readily availed themselves of its advantages that 419 have already made use of it either for instruction or research. A few of these have previously been connected with the College; a great number have been qualified medical men from the United States; others have come from New South Wales, Queensland, Tasmania, China, India, Ceylon, Chili, the Cape of Good Hope and Trinidad; whilst many have been medical officers on leave from foreign service, showing how extensive a demand existed for such a laboratory and such teaching. About forty workers have entered under Professor Crookshank's superintendence during the present winter session, and an evening-class course is in full operation under the direction of the demonstrator, Mr. Hewlett. Numerous researches have been made on actinomycosis, tuberculosis and other diseases attributed to micro-organisms, and a list of these is included in the report.

#### MATERIA MEDICA IN SCOTLAND.

PROFESSOR FRASER, in his very thoughtful and well-considered introductory lecture which was published in our last issue, drew attention to the anomalies introduced by the changes in the Medical Ordinance which became law on Aug. 5th of this year. These changes were referred to in our columns at the time, but the difficulties are emphasised by Professor Fraser with copious illustrations. Briefly they refer to the position in the curriculum which the subjects of therapeutics and pathology should occupy. Professor Fraser traverses the well-worn ground of the relations between pharmacology and physiology and between therapeutics and pathology, and he indicates the practical impossibility of giving a satisfactory account of the actions of many drugs without frequent reference to pathological conditions. According to the report of the Scottish Universities Commission candidates shall not be examined in pathology until after they have passed an examination on the therapeutic applications of medicines, hence the teachers of materia

medica will, to use Professor Fraser's expressive phrase, find it necessary "to make bricks without straw." Pharmacology and therapeutics to be satisfactorily taught must go hand in hand, but they should equally find their place in the curriculum when from the previous education of the student in physiology and pathology they may be properly appreciated. So far as teaching is concerned this fact has been recognised by the Conjoint Board of the Royal Colleges of Physicians and Surgeons, although, for the purposes of examination, pharmacology and therapeutics are to be divorced, and an attempt at reparation of the evil is made by a new and arbitrary definition of pharmacology. Still the subjects will be taught at the same time, and the outlook is not, therefore, so gloomy as in Scotland, where, although they are linked together, the student is apparently encouraged to attempt the study with wholly inadequate previous knowledge. The new regulations seem so disastrous that it is to be hoped they will shortly undergo revision.

#### TYPHUS FEVER AT DUNDEE.

THE outbreak of typhus fever at Dundee appears to be still spreading. Twenty-eight cases of that disease are now isolated in hospital. As an index of the insanitary conditions surrounding those attacked, it may be mentioned that a certain family attacked by the disease consisted of eleven persons living in a one-roomed dwelling. The negotiations for a "reception house" have unfortunately fallen through, but it has been arranged that those who have been in contact with the sick shall be kept under strict medical supervision. The School Board has decided that there is at present no need to close certain schools in the town, but exclusion of scholars from infected homes is being rigorously carried out. With these and other sanitary precautions, such as careful and early disinfection of houses and clothes, it is hoped that the epidemic may be held in check.

#### HYDRO-THERAPEUTICS IN ITALY.

AN ever-growing place in the resources of therapeutics is asserted by mineral waters, especially when taken amid the natural surroundings and under the climatic conditions of the locality whence they spring. Italy is peculiarly rich in such waters, the virtues and uses of which her inhabitants seem to have better appreciated and more effectively recognised in ancient than in modern times. While her clinical medicine has fairly well kept pace with the advance of science and practice, while every appliance for the study of disease and for the cure and comfort of the patient has with tolerable completeness been adopted in her hospitals, she is still far behind her less favoured contemporaries in the development and utilisation of her superabundant mineral waters. She still has the mortification of seeing the tide of invalid travel going past, or even across, her frontiers *en route* to health resorts inferior in most natural conditions to many of her own, the attractions to the former being their undoubtedly better organisation and equipment from a medical point of view and their immeasurable superiority in hotel accommodation, cuisine, attendance and general comfort. This source of revenue, so highly appreciated and effectively utilised by Switzerland, Austria, Hungary, Germany and France, Italy has at last begun to recognise; and, at her wits' end to improve her finances without further recourse to taxation, she is bethinking herself of the mine of wealth placed within her reach if only she will take the trouble to tap it. Of late years, accordingly, there have been held periodical meetings of the profession at or near the great mineral water resorts, with a view to the better organisation of these and the diffusion of their merits over a more extended area, while the Government has come to the aid of the more enterprising of them—Montecatini, for example—

by annual subventions and official superintendence and control. This week the Associazione Medica Italiana d'Idrologia—for such is the central association called—holds its annual sittings in the Palazzo Vecchio in Florence, and a glance at the agenda paper will give some notion of the place hydrology now holds in Italian therapeutics, and, by implication, of the richness of the country in the waters which such treatment calls into play. Dr. G. S. Vinai, for example, will read a paper on the Influence of Hydro-therapeutic Operations on Muscular Fatigue; Professor M. Bossi will discourse on Gynæcology and the Therapeutics of Marine Hydrology; Dr. F. Canova will draw the attention of the meeting to the excellent results he has had from Hydro-therapeutics in *Tabes Dorsalis*; Dr. E. Morra's special contribution will be on the Alpine Colony for Poor Children at Camandona (Piedmont), in which climatic goes hand in hand with therapeutic treatment; Signor Chiari will take up the theme of Artificial Mineral Waters, and Dr. Vinai will supplement his first paper by two others on the Study of the Cerebral Circulation consequent on the Douche, and the New Bath of Artificial Carbonic Acid as practised in the Hydro-therapeutic Establishment at Andorno (Piedmont). Much that is novel and practical is to be expected from the reading and discussion of these papers, as the names of their authors, well known for previous good work in the same field, will at once signify. They will indicate, we hope, a fresh stage reached in the appreciation, public and professional, of Italy's long-languishing, but now actively resuscitated, interest in her mineral-water resources, possessing, as these do, more than one special advantage, prophylactic as well as therapeutic. At the close of the sittings it was intimated that the Association would hold next year in Rome an International Hydrological Exposition, at which, in separate sections, would be exhibited specimens of all the natural mineral waters of Italy, apart from the artificial waters of the country, which were also to be on view. If, as is likely, this Exposition form part of the larger "Esposizione" under the auspices of the International Medical Congress to be held at the same time and place, it will bring Italy's resources in this branch of therapeutics more fully before the world than they have yet had an opportunity of effecting.

#### POISONING BY PTOMAINES.

MR. E. WOODGATE, deputy coroner, held an adjourned inquest at Old Brompton touching the death of Lieutenant William Huddleston, R.E., who died at Chatham Barracks on Oct. 24th. As we mentioned last week the officer died somewhat suddenly after partaking of sardines. Dr. Stevenson of Guy's Hospital, who made an analysis of the remaining contents of the tin and also of the stomach and other organs of the deceased, deposed that in his opinion death was due to an animal alkaloidal poison. His examination showed that the poison was contained in some but not in all of the sardines; for whilst a mouse which was fed on one of the fish soon died, a second fed on another was not harmed. From the vomit a substance was extracted which, when injected, killed a rat. From two sardines he obtained only  $\frac{1}{16}$  grain by alkaloidal processes, but this sufficed to kill a rat. The tin which contained the sardines was bright and clean; moreover, it is clear that the symptoms, both in their degree and nature, differed from those of metallic poisoning. Dr. Stevenson could detect no known mineral or vegetable poison. There was, then, suggestive evidence that the death was not due to either of these poisons, and positive evidence that the bodies of some of the sardines contained a substance endowed with lethal properties. The most remarkable fact in the case is that such a small quantity of the poison was quickly destructive to the life of the rat into which it was injected. Dr. Stevenson believed that the decomposition took place before the tinning and that only

certain of the fish were affected. Three hypotheses present themselves as possible explanations of the poisonous properties of the fish:—1. The production of a toxic agent by metabolic changes of a vital or physiological nature—a kind of secretion, as it were, by the living fish. This is extremely improbable, for otherwise cases of poisoning would be more common than they are, and before now sardines would have fallen into disrepute and, to a great extent, into disuse. 2. A fermentative process in the dead fish, by means of which an animal alkaloid was evolved from the decomposition. This of course would be of a peculiar nature, and not a mere putrefaction with evolution of stinking gases. It may be here noted that, whilst Dr. Stevenson detected an odour in the tin somewhat different from what is ordinarily present, he admitted that had the sardines been put on his breakfast table he would have partaken of them. The theory in question would seem to us to be the only tenable one, and to exclude the third—viz., that shortly before capture the fish had ingested some poisonous body. The subject of ptomaine poisoning is extremely intricate, and as yet we have but glimpses of the exact number, nature and properties of the toxic bodies. Further research, we trust, will reveal what is now hidden, and so guide us to preventive and curative treatment. We have to acknowledge Dr. Stevenson's courtesy in giving us valuable information.

#### METROPOLITAN POLICE SURGEONS' ASSOCIATION.

THE fifth annual meeting of the members of this Association, under the presidency of the chief surgeon, Mr. A. O. MacKellar, F.R.C.S., was held on Thursday, Nov. 24th, followed by a dinner at the Criterion, Piccadilly. Between sixty and seventy were present, and as guests were Sir John Bridge, representing the metropolitan police magistrates; Mr. A. C. Bruce, Assistant Commissioner, representing the Commissioners of Police; Dr. Danford Thomas and Mr. Braxton Hicks, representing the coroners of the metropolis; Mr. Holmes, formerly chief surgeon; Canon Boger and many others. At the meeting the annual report was submitted and the Association was shown to be in a satisfactory condition in regard to addition of new members. Many points that had been before the Council during the year, of great importance both in the interests of divisional surgeons and the public, were recapitulated, and the treasurer's report showed the society to be in a sound financial position. The honorary secretaries announced that nearly all the divisional surgeons of the metropolitan police were now members of the Association. The members of council for the ensuing year were elected. Mr. Phillips was elected a vice-president, with the understanding that he would assent to continue the duties he had heretofore filled as treasurer, and Dr. Yarrow and Mr. Spurgin were re-elected honorary secretaries. At the dinner, after the usual loyal toasts, the President, Mr. MacKellar, in alluding to the toast of the evening—viz., "The Association"—happily compared it to a new-born infant who, having gone through all the stages of birth—dentition, vaccination and all attendant ills of childhood—was now fairly launched on its legs as a full-grown child able to take care of itself, and obedient and loyal, moreover, to its parents, its foster parents and its nurse, and giving promise of a vigorous manhood and a useful life. In responding to the toast of "The Commissioners of Police and Assistant Commissioners," Mr. Bruce alluded to the great pleasure it gave him to be present at so representative a meeting of a body of gentlemen so essential to the well-being of the police and the public as the divisional surgeons of the metropolis, than whom he felt assured a more loyal body never existed, and he assured those present that the Commissioner was always pleased to take into consideration any points of importance emanating from them

and was desirous to work hand in hand with them in all matters pertaining to the good of the police service. Sir John Bridge responded for "The Visitors," and gave a humorous illustration of the want of gratitude he found on the part of those coming under his jurisdiction; while, in returning thanks for the toast of "The Coroners," Dr. Danford Thomas said that, without disparagement to the medico-legal acquirements of other medical men, he was always pleased to find a divisional surgeon present as a witness, as he then felt assured he would have good and reliable evidence. Mr. Braxton Hicks also alluded to his sympathy with medical men from his own position as a son of one of the profession. The musical arrangements were under the direction of Mr. Herbert Schartau, who, with his part singers, enlivened the evening with an admirable selection of music, and a most enjoyable evening was spent.

#### THE TRURO INFECTIOUS HOSPITAL.

THE guardians of the Truro Union are very angry because the Local Government Board refuse to sanction the lease of an old parish workhouse to the city authority, as an infectious hospital, for a term of fourteen years. We believe that during the term in which that building has already been so used part of the premises have been too dilapidated to serve as a hospital, and that the buildings about on a public thoroughfare. We trust that, however the intending lessors may look at the matter from a financial point of view, the sanitary authority will see that the day has come when isolation, to be effective, must be carried out in a proper building, properly situated and sufficiently attractive to ensure the co-operation of the medical profession and of the public.

#### DIPHTHERIA AT CARDIFF.

No less than twenty-six cases of diphtheria were notified at Cardiff during the third quarter of the year, of which ten were fatal. This is equivalent to a mortality rate which, though considerably above that of the five previous corresponding quarters, is only slightly above the rate in the thirty-three large towns and much below that of the metropolis.

#### TRAUMATIC HERNIA OF THE LUNG.

TRAUMATIC HERNIA of the lung is a very rare accident, and experience in its treatment falls to the lot of very few practitioners and is very slowly acquired. Every case, therefore, is worthy of record and careful consideration. Dr. E. Massart of Honfleur has recently recorded an instance of this injury. It occurred in a robust, healthy man, thirty-eight years of age, as the result of a stab-wound in the seventh left intercostal space, a little behind the anterior axillary line. The protruding lung formed a swelling in the wound the size of half a hen's egg; it was smooth, of a rosy colour, irreducible, crepitating under the finger, and not altered in size by the movements of respiration. The wound was fourteen hours old when Dr. Massart saw it, and fragments of dirty cloth were adherent to the wound and the lung. The patient complained of severe pain in the part, and his respiration was short, rapid and embarrassed. An attempt to reduce the hernia having failed, its base was transfixed with a needle carrying a double strand of catgut, with which it was tied in two pieces. The projecting mass was then cut away and the stump reduced into the pleura. The external wound was then closed. Rigid antiseptic treatment was carried out. The result was very satisfactory. The man made an excellent recovery without either pleurisy or pneumonia, and the only complication was slight superficial suppuration in the wound. Dr. Massart justifies his line of treatment on the ground of the great danger of returning an infected lung into the pleura. The case is of great interest as showing the tolerance of the lung of surgical interference, and

has a bearing upon the possibility of excising portions of lung for tumour. It is also worthy of note that there was no collapse of lung or pneumothorax after the operation. Those who are accustomed to operate upon the pleura will not be surprised at this, for they have learnt that the general opinion on the danger of opening the pleural cavity is much exaggerated.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Budapest.*—The Professorial Senate of the Medical Faculty has elected Dr. Ludwig Markusovszky an honorary member.

*Coimbra.*—Dr. Augusto Antonio da Rocha has been appointed Professor of Forensic Medicine and Hygiene.

*St. Petersburg (Military Medico-Chirurgical Academy).*—Dr. N. Sokoloff has been appointed to the chair of Special Pathology and Therapeutics; Dr. Bogoluboff has been recognised as *privat-docent* in Medicine.

*Saragossa.*—Dr. Luis del Rio y Lara of Cadiz has been appointed to the chair of Histology and Pathological Anatomy.

*Vienna.*—A new clinic for Hydro-therapeutics has been established under the direction of Professor Winternitz.

#### DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Fernando Augusto de Andrade Pimentel de Mello, Professor of Forensic Medicine, Public Hygiene and Sanitation in the University of Coimbra.—Dr. Johann Belky, Professor of Forensic Medicine in the University of Clausenburg, at the age of forty-one.—Dr. Karl Friedinger, formerly director of the Lower Austrian Lying-in Hospital and Foundling Hospital, at the age of seventy-two.

As will be seen from the report which we publish on another page, the application of the Royal British Nurses' Association for a charter of incorporation was again considered by the Special Committee of the Privy Council on Monday last, when, at the conclusion of the arguments, their lordships reserved judgment. At present, therefore, it is too early to judge of the success of the application, and any comments that we may have to offer upon this latest phase of the long discussion will be more timely later on, when we are in a position to record the judgment at which the Privy Council has arrived.

THE next meeting of the Odontological Society of Great Britain will be held at Leicester-square, on Monday, Dec. 5th, at 8 P.M., when a paper will be read by Dr. Sims Woodhead on "Inflammation in Bone"; and casual communications, by Mr. Ackery, on a case of "Complete Loss of the Teeth from Dental Caries in a lad aged sixteen years," and by Mr. A. W. Barrett, on "Adhesion between Roots of two upper Molar Teeth, and extraction of both simultaneously," will be given.

WE understand that it has been decided that the Sir George Buchanan Presentation Fund shall be devoted to the founding of a gold medal to be given biennially or triennially for distinguished services rendered to sanitary science; that the Royal Society will be requested to award the medal Sir George Buchanan will be asked to define the conditions under which the medal will be given.

ON Tuesday, Nov. 22nd, Dr. W. J. Smyly, Master of the Rotunda, performed the operation of symphysectomy, the first of the kind, we believe, in the United Kingdom. At the time of going to press mother and child were doing well.

MR. WILLIAM CARMICHAEL McINTOSH, M.D., F.R.S., Professor of Civil and Natural History in the University of St. Andrews, has been appointed a member of the Fishery Board for Scotland.

WE understand that Dr. T. D. Savill has gone to Warrington at the request of the Royal Commission on Vaccination to investigate the epidemic of small-pox in that town.

HER ROYAL HIGHNESS PRINCESS MARY OF TECK has consented to become "patroness" of the Central London Ophthalmic Hospital, Gray's Inn-road, W.C.

## THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

FRIDAY, NOV. 25TH.

THE Council resumed their sitting, Sir Richard Quain, President, in the chair.

### *False Death Certificates.*

Dr. MAC ALISTER, seconded by Dr. LEBECH, moved, "That the solicitor to the Council be requested to communicate to the registrar-generals of the three divisions of the United Kingdom the Council's opinion that it is of the greatest public importance that they should take proceedings under the Registration Acts in all cases in which it comes to their knowledge that a medical practitioner has given a false certificate of death."

Dr. GLOVER asked whether the President or registrar had received, since the last meeting of the Council, any notices from coroners of cases in which false certificates of death have been given by registered practitioners, and if so, how many, and what was the explanation of such notices not being submitted to the consideration of the Council.

Mr. FARRER, solicitor to the Council, replied that there had been three cases since the last meeting in which irregularities were complained of. Two of these cases had been brought to the notice of the Registrar-General. In regard to one of them he had told him (Mr. Farrer) that the irregularities did not amount to a false certificate, and as to the other it was still under his consideration. The third case, it was believed, would be explained by the person accused. But in none of these cases had there been, to the best of his recollection, any complaint by the coroner. He might add here that the Registrar-General had peculiar powers of ascertaining what were false certificates by going to a court of law—powers that the Council were without.

Dr. MAC ALISTER explained that with a conviction under the Registration Acts before them it would be easy for the Council to take proceedings against the practitioner.

The PRESIDENT expressed his approval of the motion, which, he thought, would not be without effect upon the Registrar-General.

The motion was then agreed to.

### *The Council and the Society of Apothecaries of London.*

Dr. BATTY TUKER opened the discussion on the report of the Education Committee with regard to the position of the examination in Arts of the Society of Apothecaries of London. He expressed his regret at the absence of the chairman of the committee, Dr. Leishman, and his hope, which he believed to be well founded, that the Council would find him in his accustomed place at the spring meeting. No one who had studied the minutes of the Council would have failed to notice that from the earliest years of its existence it had taken great interest in the matter of preliminary education. They would find scattered throughout volumes of minutes recommendations all tending to improve the preliminary examinations of medical students. Their attention was drawn to the subject very strongly by their late President. For many years the Council had been liable to pressure from within, but at last it came to pressure from without, for on Nov. 28th, 1890, a communication was forwarded by the Secretary of State for War to the registrar of the Council, intimating that he had had before him a report

from the Director-General of the Medical Staff of the manifest deficiency in orthography prevalent amongst the young medical officers of the army, and to inquire whether, under those circumstances, the Council might not insist upon a more efficient preliminary examination of the student before he entered a medical career. This communication was referred to the Education Committee, and one of their recommendations was to the following effect:—"That the examinations enumerated in Group II. of the list of preliminary examinations at present recognised by the Council be omitted from the list, except those conducted by the College of Preceptors, by the Educational Institute of Scotland, by the Scotch Education Department for leaving certificate and by the Intermediate Education Board of Ireland." The examinations referred to under Group II. were that of the Apothecaries' Society of London, examination in Arts; that of the Royal Colleges of Physicians and Surgeons of Edinburgh, preliminary (combined) examination in general education; that of the Faculty of Physicians and Surgeons of Glasgow, preliminary examination in general education; and that of the Royal Colleges of Physicians and Surgeons in Ireland, preliminary examination." The gist of the recommendation was that no professional licensing body should conduct the preliminary examinations. On June 1st, 1891, the Council in committee adopted the following resolution, "That it be recommended to the bodies in Group II. enumerated in the note to Clause 4 of the Education Committee's report to discontinue the holding of their preliminary examinations in Arts." When the question was reopened on May 24th, 1892, the following resolution was come to—namely, "That the case submitted by the Society of Apothecaries of London to counsel, and the opinion given thereon, together with the case submitted by the President to Mr. Muir Mackenzie, and his opinion as printed on pp. 36 to 40 of the minutes of the present session of the Council, be referred to the Education Committee for consideration and report." What he had said explained the circumstances in which the reference was made to the Education Committee. As to the opinions he did not think it was necessary to go into them. The case submitted by the Society to Messrs. Rigby and Leveson was intended to test the validity of a recommendation of the Education Committee to the effect, "That, in the event of any of the examinations in Group II. of the Council's lists of preliminary examinations in general education being continued after Jan. 1st, 1892, they should not be accepted by the Council as valid preliminary examinations, except in relation to the professional examinations of the particular bodies which conduct them; and that they be indicated in the Council's list of recognised examinations." In the judgment of the committee the opinion was sound so far as it bore on the recommendation. Under existing circumstances the Council could not limit the privileges accruing to the student who passed a recognised preliminary examination. Such power of limitation could be exercised only by individual bodies. The committee openly and freely admitted that it was an error to advise the Council to adopt measures which it was not entitled to carry out. Had the statement and opinion stopped short at this point the duty of the Education Committee would have been fulfilled by the above expressions of opinion, but study of the documents made it impossible to refuse two inferences: (1) That the Society of Apothecaries takes its stand on the opinion of counsel, and that it proposes to act on what it is advised are its legal rights in respect of the conducting of a preliminary examination in Arts; and (2) that the Society challenges the power of the Council to insist on the maintenance of the Students' Register. He had some hope that the Council might receive from the representative of the Society some intimation that those inferences were false inferences; but apparently no such intimation could be given. The committee pointed out in their report that should the Society persist in conducting a preliminary examination it would do so in direct opposition to a recommendation of the Council. The Council based the recommendation that the examinations of certain bodies in Group II. should be omitted on the general and often expressed desire that the standard of general education should be raised; on the evidence supplied by public departments that some measure in that direction was urgently called for, and on the admirable spirit which had invariably actuated the various bodies to accept recommendations tending to the general good of the medical profession. Most of the corporations had anticipated the recommendation in question or acceded to it as soon as it was placed before them. The

Society of Apothecaries stood alone in raising legal objections to the adoption of a salutary regulation. He fully admitted that the Royal College of Surgeons of Ireland held it inexpedient to give up their preliminary examination at present, but their document was so mildly worded that there could be no doubt that in a very short time, or as soon as possible, they would relinquish the examination. He awaited with very considerable interest the statement of the representative of the Society of Apothecaries with regard to the reasons for adhering to this examination. For his own part he had not been able to form a theory as to what it was likely to be. The case presented to Messrs. Rigby and Leveson by the Society stated that, "It may be assumed that the standard and quality of the examination held by the Society have not been called in question by the Medical Council." The Council, said the committee in their report, had not called in question the standard and quality of the preliminary examinations of any of the bodies directly; but by its formal recommendations that certain of the bodies should discontinue such examinations, the Council must be held to have reflected inferentially on standard and quality. It was forced on the committee to submit that the following figures supplied ground for criticism as regarded the only body formally resisting the recommendations. They were taken from the table showing results of preliminary examinations for the last five years, and contrasted the results of the examinations of the Apothecaries' Society and those of the College of Preceptors :-

Year.	APOTHECARIES' SOCIETY OF LONDON.			COLLEGE OF PRECEPTORS.		
	No. examined.	No. passed.	No. not passed.	No. examined.	No. passed.	No. not passed.
1887	755	588	167	1352	508	844
1888	736	570	166	1339	482	857
1889	652	524	128	1281	464	817
1890	692	471	221	1350	388	962
1891	781	631	150	1452	496	956
	3016	2784	232	6774	2338	4436

These figures showed a percentage of rejections at the Apothecaries' Hall of 23 and at the College of Preceptors of 66.5. If the widest field of comparison were taken and the results of the preliminary examinations conducted by all the bodies in Great Britain and Ireland, as scheduled in the minutes, were analysed, the percentage of rejections in 1890 was found to be upwards of 37 and in 1891 nearly 40. The Committee submitted these figures without comment. The conclusion of the Committee was that the Council should maintain the attitude it had all along assumed as regards the Students' Register. They further deemed it advisable that the Council should, in order to ensure that registration was fully carried out, instruct the registrar and branch registrars for Scotland and Ireland to ascertain whether the names of all applicants for registration in the Medical Register had appeared in the Students' Register, and, in the event of any name not having so appeared, to intimate the fact to the Council, together with the name of the body from which the qualification had been obtained. If in the carrying out of this direction it was shown that the registration of students was systematically neglected, the Council would be in a position to consider what further means should be adopted to secure efficient registration. He would now read the recommendations prepared by the committee. They were as follows: (1) That the Council address to the Society of Apothecaries of London a further expression of opinion that the discontinuance of the Society's examination in Arts would be for the public good. (2) That, in the event of the Society of Apothecaries of London not being prepared to intimate to the Council that its examination in Arts is to be discontinued at the end of the present year, the Council attach to that examination in the Council's list a note stating that "the Council has recommended and recommends that this examination be discontinued." (3) That the Council instruct the registrar, and the branch registrars for Scotland and Ireland, to ascertain whether the names of all applicants for registration in the Medical Register have appeared in the Medical Students' Register; and, in the event of any name not having so appeared, to intimate the fact to the Council, together with the name of the body from which the qualification had been obtained. (4) That a copy of these recommendations, with the report of the Education Committee on which they are founded, be sent to each licensing body.

The Council decided to discuss the recommendations separately.

Dr. BATTY TUKE, seconded by Mr. WHEELHOUSE, moved the adoption of the first recommendation.

Mr. MACNAMARA referred to the state of things in Ireland in regard to preliminary examinations.

The PRESIDENT reminded him that the recommendations before the Council only dealt with the Apothecaries' Society of London.

Mr. MACNAMARA: I thought it only right that Mr. Carter should know that he is not the only black sheep, and the reason why.

Mr. BRUDENELL CARTER said it would perhaps be right that he should endeavour to bleach himself as soon as might be. He rose under circumstances of peculiar difficulty, because in the first place the report of the committee did not come into his hands until yesterday morning, and the interval which had elapsed had not been sufficient to allow him to have any communication with the authorities of the Society of Apothecaries or to ascertain what their feelings might be upon the subject matter of the report. The observations he proposed to make must not, therefore, be taken as those of the Society, but simply as the expression of his own personal opinion. The second difficulty under which he laboured was that, being a member at once of this Council and of the Society of Apothecaries, jealous of the honour and careful of the interests of both, he should greatly deplore if any injudicious word of his were to do anything that might promote or otherwise than retard or prevent the possibility of a collision between two bodies, both of which he held in the highest and most unflinching respect. But those difficulties were diminished as far as his own perception of them went by the circumstance that he had never before engaged in any dispute in which the merits of the question were so absolutely and entirely upon one side and the demerits upon the other. In his humble opinion, in this controversy justice, legality and expediency were alike mustered on the side of the contention of the Society of Apothecaries, and on the side of the Education Committee nothing. He could hardly understand what the Education Committee had to do with this particular matter. He could hardly understand how they contrived to escape from the scope and limits of their proper duties, and to get into this particular galley, in which they were found pulling so hard an oar. The result of the reference to the Education Committee was the brilliant suggestion that the orthography of young medical men would be improved if the preliminary examinations in Arts were conducted no longer by the medical corporations but by the College of Preceptors, a remedy which certainly was not infallible, because in the present session, among four gentlemen who had been reported to the Council as having failed in orthography, one had been passed by the College of Preceptors. It seemed to him a monstrous proposition that a body which was fit to be entrusted with the control and direction of the qualifying examinations for entrance into the medical profession was not fit to be entrusted with the control and direction of preliminary examinations. If that suggestion came to the Council from any external source he was sure they would unite in repudiating it in the most vigorous possible manner. Upon a former occasion Dr. Heron Watson quoted some previous resolution of the Council to the effect that such a change would be likely to be beneficial. Such a resolution did not modify his opinion. He had abandoned the practice of ancestor worship, and the mere fact that at some remote period a majority of this Council or of a former Council, he knew not how constituted or in what circumstances, passed a resolution which appeared to him to be extremely foolish did not in the least modify the opinion which he held upon the present question. He could not see that the Society of Apothecaries would be justified in waiving their examination even on the plea that it might be conducted by a wholly undistinguished body like the College of Preceptors. When this resolution was passed originally by the Council there were two classes of corporations to whom it might be said to have referred. There were those who had a number of candidates, which was not sufficient to make the examination a matter of the smallest importance to them, and there were those who had a considerable number of candidates and to whom the examination might be of importance. The former class were quite ready to relinquish a troublesome and unprofitable task. Some of them even anticipated the recommendation of the Council and had beforehand ceased to do what they did not care to continue doing. But the Society of Apothecaries stood in a

totally different position. Its examination in Arts had been conducted upon its present lines for more than thirty years. It was resorted to annually by increasing numbers of students, both within and without the ranks of those who intended to join the medical profession, and it was a source of definite remuneration to the Society. In those circumstances the rulers of the Society were not free to act precisely according to their own inclinations. They occupied a fiduciary position. They were bound in honour and duty to protect the privileges of the Society, and to hand down intact to those who came after them all the rights which they had received from their predecessors. With regard to the fitness of the Society to direct and control such an examination as this, it was perhaps sufficient for him to say that among its rulers was Professor Henry Morley, and he thought if they were to place Professor Henry Morley in one scale and the College of Preceptors, Fellows, Members, Licentiates, and the whole of the examining apparatus in the other, the College of Preceptors would kick the beam. In this condition of things the Society determined to ascertain their rights, and for that purpose took counsel's opinion. As to the inferences drawn by the committee, they appeared to him to be absolutely unfounded. The Society had expressed no intention of any kind. It had raised no legal objections, it had merely inquired whether it was possible to raise them. Then the committee spoke about inferential reflection. Surely it was the business of the Council not to endorse inferential reflection. A door must be open or shut. An examination must be sufficient or insufficient. If it was insufficient it was the duty of the Council to make proper representations to the body conducting it, and if those representations failed in their purpose to approach the Privy Council. The figures that were referred to in the report were absolutely worthless. They all knew that a high rate of rejections in an examination was no test whatever of its value. Then they came to the last recommendation, of which he could only say that it positively bristled with libellous suggestions and defamatory innuendoes. He could not tell what course the Society might be disposed to take. He knew quite well what course he should be prepared to take if he were one of their rulers, and he felt sure that without legal advice the Council would act most unwisely if they in any way endorsed the sentences which they had before them. He begged to move, "That Section A (the portion relating to the Society of Apothecaries) of the report and recommendations of the Education Committee be referred to the Examination Committee for consideration, with an instruction to confer with the legal advisers of the Council before sending in their report."

Mr. COLLINS formally seconded this amendment.

Dr. MACALISTER protested very strongly against the amendment. The whole subject of preliminary education had been carried through all its steps by the Education Committee, and to refer this matter to another committee could only result in the resignation of the Education Committee. The object of the Council in this connexion was to raise the standard of preliminary education. Although they got a new stimulus from the strong letter of the Secretary of State for War, that was by no means the beginning of the affair—that only showed they wanted hurrying up. When they had a list of seventy or eighty examinations, all supposed to qualify students for entrance into the profession, and when they were told that these examinations did not keep out the unqualified, the only possible course that could present itself to any committee charged to look into the matter was to arrange them into a comparative order of difficulty or searchingness, and to cut off those at the bottom of the list. The Education Committee had proceeded upon that plan. He said deliberately that of all the examinations that students passed in England, that of the Society of Apothecaries was the one which offered the least and the weakest guarantee of efficiency in the matter of preliminary education. It was notorious that this was the easiest examination, and that students who were plucked again and again in other examinations came up to the Society of Apothecaries and returned with registration certificates, which of course defeated the object of those who wished to see them attain the highest standard of education.

Dr. ATTHILL said he was in a difficulty, for while he held strongly that the medical corporations would be far better if they were free from the charge of these examinations, he was not able to say that on behalf of those who sent him to the Council. He felt very unwilling to vote for the amendment, because he was told it would be looked upon as a censure upon the committee.

Mr. BRUDENELL CARTER said he had not the slightest intention of throwing a slur upon the Education Committee. He merely thought the Examination Committee was the proper committee to deal with the question of examinations. He would be happy to make the reference to the Education Committee.

Sir JOHN SIMON thought Mr. Brudenell Carter had pushed the necessity for legal advice too far. In point of fact, the policy advocated by the Education Committee had been before the Council time after time. The original intention was that men entering the profession should have the school education of gentlemen, and when the Council took up the matter they at once said the way to ensure that was that the people who looked after the general education of the country should certify the students. The bodies generally had accepted the view that the Council did not want a special examination adapted to medical students, but the general standard of good school education in the country, and had retired from the position of being special examiners. It was only local considerations that prevented the bodies in Ireland from adopting this course in the meantime. He had often stood on the side of the Society of Apothecaries, but on this occasion he thought they were wrong. They would be wrong if the examination related only to their own licentiates, but he confessed for himself that if that were all, he should not be very strict in watching whether they complied with the rules of the Council. When, however, it came to the Society pretending to meet the world at large and to be an examining body in Arts, they must surely draw the line, and he saw no alternative but to support in substance the view taken by the Education Committee.

The PRESIDENT said that if the recommendations of the committee were carried, there was no doubt they would lead to another lawsuit that would be as long and expensive as that in which the Council were already engaged. He was sure of this, that the Society of Apothecaries would not give up their privileges unless they were compelled. In these circumstances he would be glad indeed if counsel's opinion were obtained before the vote was taken.

Dr. HAUGHTON thought Mr. Brudenell Carter had thrown away his case by attacking a body about which he knew nothing—namely, the College of Preceptors. This body was as much respected among schoolmasters as the Council was among medical men.

Sir DYCE DUCKWORTH said he could not agree with the President. They were not there to be frightened by the terrors of the law or by lawyers. They were there to do their duty.

Mr. BRUDENELL CARTER again disclaimed having any authority in this matter to speak for the examination of apothecaries.

On a vote being taken the amendment was lost.

Sir W. TURNER suggested that the recommendation in its present form was too wide. All the Council had to do with was the examination of the Society so far as it appertained to the entrance examination to the medical profession.

Dr. MACALISTER explained that the title given to the examination by the Society was the "Preliminary Examination in Arts for medical students."

It was agreed to incorporate this title in the recommendation, which, thus amended, was put to the Council and adopted.

Dr. BATTY TUBE then moved the second recommendation of the committee.

Sir W. TURNER thought the Council should wait to see the result of the first recommendation before going further. They should not put themselves into a violently antagonistic position with regard to the Society of Apothecaries. He hoped when the Society received the additional suggestion from the Council relative to the discontinuance of this examination that they would carefully consider it while reserving their legal position. There were times when important public bodies had got other things to consider than mere legal position. There was, as it were, a certain general sentiment that had to be taken into consideration by all public bodies, and there could be no doubt that the general sentiment of this Council was that those preliminary examinations in Arts should be conducted by bodies whose business it was to conduct examinations in Arts. He felt strongly that they ought not to take up a militant attitude to the Society. Let them go to the Society as friends, giving them friendly advice and suggestion, not brandishing a tomahawk.

Dr. BATTY TUBE could not agree with Sir William Turner.

It was not the Council but the Society of Apothecaries who was brandishing the tomahawk.

Sir W. FORSTER said he would vote against the motion in the hope of getting something stronger and better done at another meeting of the Council.

Dr. McVAIL expressed the view that it would be time enough to settle this matter when they knew what the Society had determined to do.

Dr. HERON WATSON said the recommendation was nothing but a covert threat, and urged the Education Committee to withdraw it—meantime at all events.

Sir JOHN SIMON said there was nothing to prevent the Council omitting the name of the Apothecaries' Society from the list of bodies they recognised. He was not at this moment prepared to recommend that course. It was their last resort. They could not go on recommending for ever.

Sir W. TURNER moved, "That the Council defer the consideration of Recommendations 2, 3 and 4 until the May meeting, so as to give time to the Society of Apothecaries to reply to Recommendation 1."

Dr. LEECH seconded this amendment.

Mr. BRUDENELL CARTER said he had no doubt that in May next he should be able to speak here with the authority of the Society. As to the proposed omission from the list of examinations, his own feeling would very strongly be that the only way in which it would be open to the Council to do that would be in the way prescribed by the Medical Act—namely, by representing to the Privy Council that the examination was inadequate.

The amendment of Sir William Turner, applied only to recommendation No. 2, was put to the Council and agreed to.

Dr. BATTY TURK then moved the third recommendation of the Education Committee. The committee, he said, were anxious to ascertain how far this registration was obligatory or not. As a preliminary measure they wanted to see whether registration was carried out by the bodies as a whole, and, having obtained information, they should be able to act.

Dr. BRUCE seconded the motion.

Dr. MAC ALISTER said that at Cambridge, although every student, he believed, was registered, the University did not require registration as a preliminary to admission to the professional examination. A larger number of students were, he believed, registered from Cambridge than any other school in England; but there was no duty laid on their registrar to see that they were registered. It seemed to him to be an office matter, and not one for the bodies, in the first instance, merely to see that the time which had elapsed from the appearance of the student on the Students' Register to the time of the diploma should be five years at least.

Sir W. TURNER said the argument of Dr. Mac Alister seemed to him rather to point to this—that the University of Cambridge wished to impose upon the registrars of the Medical Council duties which it should discharge itself. He would suggest to the University of Cambridge a very simple mode of discharging its duty—namely, that it should not admit to the professional examination any student who was not on the register. That was carried out in the University of Edinburgh; no student was allowed to appear for the professional examination unless he produced his registration certificate which he had got from the registrar in London or Dublin, or in Edinburgh. It seemed to him that the duty of seeing that students had been on the Register during the period that the Medical Council required was a duty primarily to be discharged by the medical authorities. He thought that was the proper way to look at it. He confessed that when he read the recommendation the thought occurred to him, how many additional clerks would be required in the registrar's office? Because, if they were to inquire into the diploma which was presented for registration at this office in London or the equivalent offices elsewhere, there must be a considerable amount of time spent in going through all the volumes of the Students' Register, to which Professor MacAlister referred. There were many students who went on the Register before the five years, and that search would not require to be made if the medical authorities themselves demanded the production of the medical students' registration certificate before they admitted them to the professional examination.

Dr. BATTY TURK stated that it would be found in the records that it was distinctly intimated by the Medical Council to the licensing bodies that the Council had no authority over these bodies as to the registration of students.

Sir W. TURNER said the licensing bodies should see that the student had been on the Register a certain length of time.

Mr. MACNAMARA said that with them in Dublin the first thing was to see that the student had paid his fee, the next was the registration certificate, and then they went through all the other certificates which might be required to entitle him to present himself for examination. The duty was discharged entirely by a committee of the joint boards.

The recommendation was adopted by 16 votes to 9, and the fourth recommendation was withdrawn.

#### Reports by Committees.

On the motion of Dr. BRUCE, seconded by Mr. BRUDENELL CARTER, it was decided without discussion that "each committee shall once a year, at least, make a report on the subject referred to them by the Council."

#### Application for Registration.

The next business was the consideration of the application for registration in the Medical Register, referred to the General Council by direction of the English Branch Council, from Mr. Freeland John Freeland, L.S.A. Lond. 1884, M.R.C.S. Eng. 1885, L.R.C.P. Lond. 1886, who has resided in Antigua since obtaining his qualifications.

The REGISTRAR stated that the English Branch Council, whose function it was to do so, had investigated the statements made by Mr. Freeland and had found them to be correct, and now recommended the General Council to direct the registration of Mr. Freeland.

The recommendation was agreed to.

#### Fee for Antedating.

Sir DYCE DUCKWORTH moved the following recommendation of the Students' Registration Committee, "That with regard to all future applications that may be made for the antedating of the commencement of professional study by medical or dental students, no such application should be granted except subject to the condition of the payment of a fee of half a crown to the Branch Council through which the application may be received." There was, he stated, very little to be said on this point. Antedating gave rise to a good deal of trouble, especially in the office, and it was thought the payment of a small fee would prove useful in several ways. In the first place, when it became known that there was a small fee attached to it, it would make people a little more punctilious and careful. The amount of correspondence and work required in the office was so much more in these cases than others that it was thought desirable to charge a very small fee in each case. That commended itself to all the members of the committee and he thought the Council would see the force of it.

Dr. BRUCE seconded the motion.

Sir W. TURNER: That is a sort of fine, if I understand it.

The PRESIDENT: Yes.

The recommendation was agreed to.

Dr. MOORE moved the following recommendation from the same committee on the same subject, "That, with a view to terminate the undesirable practice of antedating, the attention of the authorities of all the medical schools in the United Kingdom be called to the extreme importance of not allowing students to commence a professional course of study before they have passed their preliminary examination—the subjects of which, according to the regulations of the Council, must be all taken at one and the same time—and of seeing that their registration is then immediately effected." If the registration of students was desirable, he observed, it was quite clear that it should be carried out as systematically as possible.

Sir DYCE DUCKWORTH seconded the motion, which was agreed to.

This concluded the business of the session and the Council then rose.

THE NEW EYE HOSPITAL, SOUTHWARK.—This institution, which is to be opened on the 15th inst. by the Duke of York, marks a special feature in hospital construction. It is, probably, the only hospital in the kingdom which is absolutely fire proof. The floors are made of iron and concrete, and the whole of the fittings are of teakwood, which is said to be non-inflammable. Ample provision is made in the event of an outbreak of fire. The building is entirely warmed by hot water and lighted by electricity. There is not in the building a single angle or projecting ledge which could harbour dust or injure a blind or semi-blind patient.

## REPORT ON THE SANITARY MEASURES IN INDIA IN 1890-91.

THIS report, which has just been published, is one which is compiled for presentation to both Houses of Parliament, and it deals with the vital statistics and medical history of India as a whole and with the causes and progress of epidemic and other important kinds of sickness that have prevailed during the year, together with the sanitary measures that have been introduced. It is, in reality, a condensation of all the annual reports furnished by the sanitary and medical officials to the Indian Government, to which is added, as an appendix, the various memoranda drawn up by the Army Sanitary Commission in this country for the information of the India Office. The whole forms a Blue-book of 226 pages of the most analytical and condensed kind of composition, and forms an excellent sample of what is termed in official life "precis writing," which, it need scarcely be said, is not a form of light literature. These reports, nevertheless, contain a large amount of varied information, some of which is of an original, and much of it of an interesting and instructive character.

We considered some months ago the report of the Sanitary Commissioner with the Government of India, and especially those portions of it which dealt with the European army in that country, consequently there is no need to dwell upon that subject now. We may remark, however, that the loss to the whole army by invaliding in 1889 was equal to 25·29 per 1000, and that the proportion of invalids to strength was least in Madras and highest in Bombay. Of the total number invalided 35 per cent. were discharged as unfit for further service. In the European army as a whole 78 per cent. of the total strength had seen less than five years' service. As regards the native army the mortality from pneumonia was more than four times as great as that of the European soldiers. On the other hand, the death-rate from enteric fever was only 0·7 per 1000 among the native troops, as compared with 4·91 among European troops and 0·09 among prisoners in gaols. Dr. Gregg, the sanitary commissioner for Bengal, speaking of the great prevalence of malarious fevers among the native population, remarks that the more personal knowledge he gains of Bengal the more does he feel convinced that the want of free drainage is one of the principal causes of the excessive unhealthiness of the province. Most people would be disposed to concur with him in this opinion. Theoretically it is easy enough to indicate the remedy, but its application practically would be a very difficult matter owing to the enormous expense that would be involved by the introduction of any adequate system of drainage.

Turning to the appendix, which contains the memoranda furnished by the Army Sanitary Commission, we come to some comments and remarks which are of more than ordinary interest at the present time, when the presence of cholera in Europe is exciting so much attention. That disease was but little prevalent among the troops in India in 1890. Of the 58 cases of European soldiers treated, these were spread over eighteen stations and over nine months of the year. Except at Lucknow, where there were 18 cases, the attacks at any one place were few and in many instances confined to one or two cases. The same remarks apply to the history of the disease among the native troops. The localisation of cholera is well illustrated by the proportion of buildings attacked out of the total number occupied. For British troops this proportion was 15 per cent., for native troops 3·18 per cent. and for gaols 24·6 per cent. The results of moving into camp continued to be very satisfactory. The effect of season on the prevalence of the disease, and the synchronous rise and fall in the number of attacks and fatality, as if in obedience to some general influence operating in common, in outbreaks at different places, often widely separated from one another, were also well-marked phenomena.

The Army Sanitary Commission makes some important remarks of a practical kind as the result of their critical analyses of different reports, and to some of these we may now advert. As regards the striking difference between a non-epidemic and an epidemic year, let us take by way of illustration an interesting and graphic diagram of the monthly rise and fall of cholera in the Punjab during each of the twenty-four years from 1867 to 1890. In 1866 only 12 deaths were registered throughout the whole province. In 1867 the number was 43,146. No figures could enforce more

clearly the contrast between a year when cholera was practically almost absent and one in which it was epidemic. Similar though not such marked, contrasts may be observed between other years. It is commonly most severe in the province in the months of July, August and September; but, as so often happens, its prevalence in these later months of the year is heralded by isolated attacks much earlier—in April, for example.

As regards the relation of cholera to railways, the Sanitary Commissioner for the Punjab states that many railways have now been opened in the province, affording rapid means of communication between distant places, and the disease is doubtless rapidly distributed by that means. The Army Sanitary Commission, on the other hand, oppose this view, because they do not consider it to be borne out by the facts. They say that they have examined the report "in order, if possible, to find any facts tending to show that the epidemic of 1890 in the Punjab was affected by the railways, but we can discover no facts of this kind. On the contrary, the whole history of the epidemic would seem to prove that the railways had no influence whatever in this respect. In order to see this clearly, it is only necessary to look at the cholera map. Beginning with the south-east, we have cholera beginning in the Delhi district on April 25th. The next important place on the line going north-west is Umballa, and here it did not appear till June 2nd. Next Ludhiana, June 21st, or south to Goorgaon on May 12th. All these places are within not many hours' distance by rail from one another. Many other examples might be cited; but we need only add, generally, that there is no instance of rapid spread such as requires the introduction of the railways to explain. In connexion with the railways, indeed, the most remarkable fact is the exemption of large areas through which trains from affected districts were daily coming. This is to be seen in the large tracts traversed by the line from Lahore to Peshawar in the north-west and from Lahore to Mooltan in the south-west. Both these tracts of country suffered very slightly; in many of the districts comprised in them there was no cholera at all. On the other hand, districts removed from railways suffered to a considerable extent. If it could be shown that the railways are the great disseminators of disease they would certainly be far from an unmixed blessing to the people; but there is no evidence of the kind. The problem to be solved is, whether the improved means of communication have rendered epidemics of cholera in India more rapid and widespread than they used to be, and the facts, so far as we are acquainted with them, entirely negative any such supposition."

As regards the question of importation and land quarantine, the Army Sanitary Commission say in another place that unless the whole commerce and social life of a province is to be brought to a standstill, it is not possible to control the movement of the people from one village to another or from one district to another. Any attempt of the kind would involve an army of police with an enormous expenditure; it would be regarded by the people as a grievous interference of an oppressive nature with their trade, occupations and social intercourse. Whatever scientific interest may attach to the theory of importation as the cause of cholera, this question, especially in a country like India, is, in the opinion of the Army Sanitary Commission, altogether outside the pale of practical sanitary action. They hold apparently that the only reliable means of dealing with cholera and other diseases is to improve the sanitary conditions under which people live, one of the most important of which is the water-supply, for there is no safety, they remark, against virulent epidemics where there is an unprotected water-supply. As to the liability of pilgrims to be attacked by cholera, this is a well-known fact that has been frequently insisted upon, but the evidence regarding the dissemination of the disease by them is still considered very imperfect; and the Army Sanitary Commission lay down different points that require to be carefully investigated and set forth before such evidence can be deemed of a sufficiently complete and satisfactory character. They urge that in India, and more especially in Bengal proper, where hundreds of cases of cholera are constantly occurring over a vast area, it is impossible to prevent persons—be they pilgrims or not—passing from one village in which there are one or more cases of cholera to another which is free from the disease. The only practical measures for the prevention of cholera are sanitary improvements—improvements in drainage, water-supply, dwellings and the other requisites of health.

## CHOLERA.

### CURRENT NOTES, COMMENTS AND CRITICISM.

THE appearance of cold weather on the Continent—for in this country it has been remarkably mild up to the present time—has had a markedly repressing effect on the epidemic, which may be said to have almost disappeared, although it still lingers in various places. Last week sixteen deaths occurred from cholera in Holland, and since then three fatal cases are reported from Gastel, in North Brabant, and one fatal case at Weesp, in North Holland. At Budapest the fresh cases now average two or three, with one death, daily. There have been several fresh cases of cholera, with two or three deaths at Dunkirk and in the surrounding villages. The *Débats* publishes a telegram from Cherbourg of Nov. 29th announcing the presence of the disease at that place and some of the neighbouring villages, and of two fatal cases at Gonnevill.

Professors von Pettenkofer and Emmerich's experiments have of course afforded materials for comment and discussion. In the case of Professor Emmerich it is understood that after his experiment of swallowing the comma bacilli he purposely indulged in some errors of diet—that is to say, he partook of a variety of things at supper which were calculated to disagree with most people. It is perhaps noteworthy that some diarrhoea followed the experimental swallowing of the bacilli in both cases, and still more noteworthy that bacteriological examination of the dejecta showed that a very large increase in the number of these bacilli had taken place. But the negative phenomena that followed the experiments, although they have a certain value, do not of course prove that because cholera did not result in these experimenters it would not do so in other and more susceptible persons. All estimates, however, which have been put forward as to the number of persons who may be regarded as cholera proof are purely conjectural and of no scientific value. Outside Germany the doctrine that the comma bacillus is the cause of cholera is not by any means universally received. Its presence is still regarded by many authorities as a concomitant feature in the morbid process and the index of a condition brought about by physico-chemical changes in the tissues rather than as the cause of that condition. We do not yet know sufficient about the life history of the comma bacillus, its morphological varieties and their pathogenic and other relations to one another, the exact time at which these micro-organisms manifest themselves in cholera, and the part which diseased tissues and fluids play in providing the necessary soil and nidus for their development and breeding, or the nature of the changes which these vitalised agents bring about and the virus which their presence is assumed to produce, to warrant us in dogmatising, as if our knowledge were of an assured and demonstrable kind. We are still sadly in need of more light being thrown on these and other matters before we can turn them to any practical account, and we must await the publication of the observations which have been made by various continental observers during the present epidemic before we are in a position to say what advances have been made in our knowledge of the etiology and pathology of cholera.

### THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

#### A VISIT TO TROUVILLE.

*Tardy and Exaggerated Precautions.—Effects of Fear.—Coercive Measures against Well Water.—Houses without Drains.—Rival Drainage Schemes.*

TROUVILLE is probably the most fashionable watering-place in the north of France. It has been regarded as the summer boulevard of Paris and is certainly the rendezvous of the gayest, the most fashionable and extravagant sections of Parisian society, yet Trouville is but a very small town, possessing barely 7000 regular inhabitants. It is situated at the mouth of a small river called the Tonques and not long ago was little better than a mere fishing village. There is,

however, an unequalled beach of soft sand, and gentle slopes facing the sea offer excellent sites for the erection of villas and mansions. Hero beautiful dwellings have been constructed, together with a luxurious casino. To the north-west of the beach is the English Channel, and to the north-east, across the broad estuary of the Seine, can be seen the town of Havre. Steamers ply backwards and forwards from Havre two and three times a day and the inhabitants of Havre often come over to Trouville for a sea bath and a few hours' recreation. Though these casual visitors add to the wealth and gaiety of the town in normal seasons, they were far from welcome when the cholera was raging at Havre. When the Trouville and Deauville races are run as many, it is said, as 10,000 persons have been brought over by the Havre boats in one day. The greater part return to Havre the same evening.

On Aug. 13th, 14th and 15th last a great international concourse of firemen gathered at Havre. Dr. Gibert, as medical officer for epidemics, protested and urged that this fête should be postponed, for there had been deaths from cholera at Havre ever since July 15th. This advice was not followed, and among other visitors the Fire Brigade of Trouville went over to Havre. On their return eight of the company were seized with violent diarrhoea and cramps. Fortunately all the firemen recovered and as cholera was not yet suspected no particular precautions were taken. It would be interesting to know whether any of the English firemen who went over in considerable numbers to Havre for these fêtes suffered in a like manner on their return to England. Also, it is most important to investigate the character of the violent diarrhoea often contracted by persons who are in towns where cholera prevails. Is such diarrhoea a sort of abortive cholera capable of producing true cholera by contagion among other more susceptible subjects? If so, some of these firemen who simultaneously fell ill after spending a few days at Havre may have brought the germs of cholera to Trouville. But others were ill besides the firemen, and so far back as the previous month of April some of the numerous visitors coming from Paris might have brought cholera to Trouville. I have already related that at Havre the first case of cholera occurred on July 5th and the patient was a woman who had just arrived from Paris. As Trouville is essentially a Parisian resort, a very large proportion of its summer visitors came from the infected capital. For several weeks after cholera had broken out at Havre visitors in thousands came over to Trouville from that town, while the Trouville Fire Brigade and many others went over to Havre. As a result there were not only suspicious cases of illness, but four deaths from cholera at Trouville; and close by, on the other side of the narrow river at Deauville, seven deaths from the same cause. In a word, Trouville was exposed to cholera infection without let or hindrance for four clear months. Will it be credited that, after having passed through this danger scathless, it then occurred to the authorities that it was necessary to take precautions? This inconsistency may, however, be explained on financial grounds. Towards the end of August there were some 4000 visitors still remaining at Havre. This represented receipts for the trade of the town of about £2000 per day. By this time the prevalence of cholera at Havre had become notorious. People believed more readily in the Havre cholera than they did in the Parisian cholera. No one suggested that intercourse with Paris should be stopped, even though Paris had infected Havre, but the visitors at Trouville threatened to go away if the steamships plying between Havre and Trouville were not immediately stopped. Under these circumstances the municipality gave orders that no vessel from Havre should be admitted into the port of Trouville. Of course the goods usually sent from Havre reached Trouville just the same, though, as they were sent by rail, they came by a circuitous route. So also with regard to passengers; only there was this important difference, that passengers landing from the boat obviously came from Havre and could, in consequence, be watched. On the other hand, travellers by train need not book through, and there was nothing to prove they came from Havre any more than from any other part of the country. In spite of these facts the steamboat traffic was interrupted for ten days, nor would it have been re-established at the end of this time but for the active intervention of the Minister of the Interior. When the communications were thus re-established extraordinary precautions were imposed. To pacify the alarm of the inhabitants a disinfecting stove was sent to Trouville by the Minister of the Interior. This feeling of alarm was

graphically illustrated by the experience of one of the local chemists. Before the steambot service with Havre was suppressed he sold about fifteen preparations of bismuth per day, but as soon as the boats ceased running he only sold two or three such anti-diarrhoea mixtures in the course of a day. An amusing anecdote is told of the chemist at the neighbouring small bathing station of Villerville. The season was at its height, everyone in excellent health, when, on a certain day, the walls of the little town were covered by official posters bearing the signature of the prefect of the department, and describing what precautions and sanitary measures should be adopted to prevent the advent of cholera. On the very next day the local chemist had to make up forty-five prescriptions for colic. Yet, as none of these cases developed into cholera, it is clear that they were simply the result of the alarm caused by the official poster. So to pacify such fears minute precautions were taken when the steambot service was re-established. Every passenger had to submit his luggage to very careful examination. All soiled linen was seized and disinfected in the stove lent by the Minister of the Interior. Then all persons who came from Havre were watched for five days. The hotel keepers were supplied with disinfectants and elaborate explanations were given, so that they might know what to do while waiting for the arrival of the doctor. When cases of diarrhoea occurred everything that was at all likely to be soiled was at once burnt. It is thought that these precautions saved the town of Trouville; but as they were taken so late it seems to me more likely that the town was not in a condition favourable to the spread of cholera. This does not, however, imply that Trouville can boast of good sanitation. No such assertion can be made, though certainly the death-rate is not so high as that of Caen. The deaths from 1882 to 1891 were annually 143, 155, 138, 155, 175, 151, 153, 175, 159, 172. This gives an annual average for the ten years of 157.6 deaths. The population of Trouville is now estimated at 6700; the previous census gave the number as 6308; so that the average may be taken as 6500 for the ten years, or a death-rate slightly exceeding 24 per 1000 per annum. But considering that there are sometimes as many as 30,000 visitors at Trouville, in the statistics of the town budget the average population is put down at 10,000. This figure is reached by the calculation that if twelve different visitors each remain one month at Trouville, this counts as one person for one year. If such a system of counting is to be admitted, then the death-rate would only be equal to 15.7 per 1000, and certainly the death-rate of so luxurious and wealthy a place as Trouville ought not to exceed the latter figure. But however these statistics may be twisted about, there is good reason to believe that the death-rate could be considerably reduced, and this simply because the sanitary condition of the town is far from satisfactory.

Fortunately the municipal authorities at Trouville are thoroughly awake to the importance of good sanitation. They have already submitted to the Government a general scheme of drainage and, pending its realisation, have adopted some useful measures. It must also at once be stated that Trouville has a water-supply, not of its own, but farmed out to a private company. The water comes from a distance of seven and a half miles, and is brought to the town in conduits that are made partly of iron and partly of cement; these works were terminated in 1878, but I believe some portions of the canal require repair. The water is stated to be pure but hard, and is sold by the company to the inhabitants of the town at the rate of 5*z.* per cubic metre in winter and 10*z.* in summer. Formerly there were wells, and when a purer supply of water was brought to the town many people still continued drinking the well water. But some time ago a celebrated actress died of typhoid fever which, it was said, she had contracted at Trouville. This supplied the pretext for a violent campaign, started in several newspapers, against Trouville. These denunciations have done a great deal of good, and have achieved more for the education of the people and authorities at Trouville in sanitary matters than any number of learned lectures or scientific demonstrations. First and foremost the mayor caused all public fountains which derived their water from wells to be closed. Then he convoked all the hotel- and lodging-house keepers and explained to them how disastrous it would be for the town if another case of typhoid fever occurred among the visitors. To avoid such a calamity they must cease drinking water from private wells and subscribe to the water company's supply. On the proprietors of cafés the authorities were able to bring to bear

more direct pressure. Those who refused to subscribe to the town water-supply were specially watched by the police and, at the very first and most trivial infraction of the licensing laws, were at once prosecuted. They soon found it paid better to subscribe to the town water-supply. This shows how defective are the sanitary laws of France. There should be no necessity to resort to indirect coercion to prevent the use of sewage-contaminated well water in cafés. It is true that fifteen years ago a municipal decree was issued declaring that all cesspools in Trouville should be rendered watertight. The water of the neighbouring wells ought not, therefore, to be contaminated; but we all know how illusory are such decrees.

In a project for the drainage of Trouville, presented by the mayor, M. Durand-Conyère, and adopted by the Municipal Council on April 4th of this year, it is stated that there are 150 houses in the town with watertight cesspools and 650 houses with cesspools that are not watertight. Further, there are 650 houses which have *tinettes* or pails and no less than 320 houses that have no closets whatsoever. Where the cesspool is really watertight the inhabitants use as little water as possible, so that they may avoid the expense of frequently emptying the cesspool and ensure a high percentage of fertilising ingredients in its contents. Under these circumstances it cannot be expected that soil pipes should be trapped, for that requires too much water. It is estimated that the emptying of cesspools costs 8*s.* per head per annum. The police insist that all new houses shall have watertight cesspools, therefore it is not practical to put up a proper water-closet with a two-gallon flush in a new house. Where the cesspools are not watertight they, for the most part, infect the surrounding subsoil. A few cesspools, however, notably in the centre of the town, in the Rue des Bains, the Rue de la Mer, and the Rue Pellerin, have overflow pipes into the sewers. As the cesspools must be full before they overflow, the matter that reaches the sewers is very foul indeed and occasions serious nuisance. Many of the *tinettes* or pails are made of wood and have no lids. They sometimes remain two and even three months in a house before they are removed and empty ones put in their place. Of course fermentation sets in and the consequences are dangerous and intolerable. As regards the 320 houses that have no closets at all, at about 10 p.m. the occupants of these houses may be seen emptying their utensils into the stream of the *fonques*, and, near the railway bridge especially, the nuisance this causes is very perceptible.

The slop water of all the houses is allowed to drain into the street gutters, and from the gutters gradually finds its way to the few sewers that exist in the town. These sewers, however, have insufficient fall; therefore heavy deposits are made in the sewers, the water flows very slowly, and when the tide is high the sea-water enters the mouth of the sewers and further checks the flow. Some houses, instead of draining into the gutter, which has at least the advantage of disconnecting the house from the sewer, are directly connected with the sewer, and the precaution has not been taken of trapping the pipes. Such houses, therefore, act as sewer ventilators and draw off the foul sewer air into the kitchens and dwelling rooms. These glaring defects are not, however, special to Trouville. They will be found in almost every part of France. What is special to Trouville and greatly to the honour of its administration is the fact that these evils are recognised and publicly denounced by the administration itself.

The municipality of Trouville has had under consideration three different schemes for the draining of the town. The first is the "*tout à l'égout*" or the English water-carriage system; but, in consequence of the bathing on the beach, there is no convenient outfall, and there is not a sufficient water-supply to flush the drains and sewers. It is estimated that the cost of building sewers, of increasing the water-supply and of management would amount to £36,400, and the cost of building water-closets, drains &c. in the houses would amount to £79,600, making a total of £116,000. The second scheme is the Berlier system of pneumatic drainage. This is estimated to cost £56,272, or, according to a more recent project, augmenting considerably the length of the streets so as to reach the total of 22,000 metres, including ground that may in future be built upon, the estimate is £64,000. The objection to the Berlier system rests on the assumption that the evacuator under each house would cause a nuisance if the house were not inhabited. Where there is a large house and the evacuator is constantly filled and constantly emptied no complaint

arises; but in Trouville many of the houses are small and many are uninhabited for six months or more. It does not seem to me that there would be any great difficulty in flushing these evacuators at the end of each season. However, the municipality has given its preference to a project of pneumatic drainage which is more like the Liernur than the Berlier system. This is known in France as the *système aspirateur*, and a company, the Société Générale d'Assainissement, proposes to apply this system to the town of Trouville on terms which the municipality considers the most favourable and the most practical. The cost of application would amount on an average to £4 10s. per house. Air-tight suction sewers, 22,000 metres in length, with engine-house and works for producing vacuum &c., are estimated to cost £17,200, and the sewage is to be drawn off to a guano factory some miles distant from the town.

It is not for me at the present moment to investigate the respective merits of these rival schemes. It suffices to say that the worst scheme would be infinitely preferable to a continuation of the present state of affairs. This much in passing I will, however, urge—namely, that the scheme which has found favour with the Trouville municipality, in common with the Liernur system as I have seen it working at Amsterdam, does not ensure, but, on the contrary, hinders, the maintenance of the perfect cleanliness of the soil pipes within the houses. In the Liernur system and its French adaptation the soil pipe retains the soil till such time as a functionary draws it off by bringing to bear the pneumatic suction. But, however this may be, it is gratifying to find that the municipality of Trouville is stirring in the matter, and is determined that, in one way or another, its town shall be properly drained.

## THE BRAIN OF THE LATE MR. GEORGE GROTE, F.R.S.

### II

IN THE LANCET of Nov. 12th we referred to many interesting peculiarities in the brain of Mr. Grote, as reported on in the *Journal of Anatomy and Physiology* by the late Professor John Marshall, and we now add some further details as to this particular brain together with some suggestions on cerebral physiology by the same anatomist. The general form of the brain must depend greatly on the shape of the skull, and must to a great degree correspond with it. The extreme length of Mr. Grote's head still covered by the soft parts was 8.1 in., its extreme breadth 6.5 in.—a ratio of 100 to 81—and its circumference 22½ in. Such a skull would be included among the brachycephalic, although it is just on the border-line; but a measurement of 15½ in. from one auditory meatus to the other over the vertex shows that its height was the great characteristic, for this is quite half an inch above the average of an English skull with the same circumference. This peculiarity opens up the question whether an unusual height of the cranium is necessarily or usually associated with a relatively large cerebrum or a small cerebellum, or it is only correlated with a diminished size of the lower occipital fossæ of the skull? In long skulls (dolichocephalism) the intermastoid measurements are generally low, whilst in broad skulls (brachycephalism) they are high. But although in Mr. Grote's case the unusually high measurements over the vertex were associated with a large cerebrum and a relatively small cerebellum we have no data on which we can rely for a further pronouncement on such an interesting problem. The dimensions of the cranial fossæ occupied by the cerebellum must be much more fully mapped out on the skull and carefully taken and recorded before we can discuss this point, in view of national, racial and individual peculiarities, and particularly if such measurements are to be applied to the living subject.

Mr. Grote's brain, when removed from the skull, appeared broad in proportion to its length, and, whilst fully acknowledging the difficulty of defining and expressing the relative size and extent of the various lobes, Professor Marshall, from his naked-eye observations on other brains side by side with this one, came to the conclusion "that the frontal lobes of the cerebrum appeared to be very long on their upper surface, very wide in front of the Sylvian fissure, and both long and broad on their under surface; the parietal lobes were short and wide; the temporal lobes were also wide, though short; the occipital lobes were small and shallow." He has also

suggested a valuable method of ascertaining the weights of the several lobes and their white conducting fibres, and gives full directions for making these dissections. "On being weighed, the several lobes were found to be in very nearly their usual proportion—a chief individual distinction being that the fronto-parietal mass was somewhat heavier than usual, this superiority being mainly due to an excess in the parietal lobes; the temporal lobes, however, were a little smaller, and the occipital lobes decidedly smaller than usual. The cerebral convolutions were very massive, being not only broad and deep, but well-formed and marked with secondary sulci over the whole cerebrum, but especially in the frontal and parietal regions." This relative development of different lobes and convolutions is now being studied in the light of experimental and pathological research, and has afforded us much exactitude of knowledge on localisation of function, especially in regard to the motorial area of the brain. Professor Marshall held a critical and most judicial view as to the results to be deduced from these experimental inquiries, observing that no amount of mere argument can touch the facts, however difficult they may be to understand, but that any use which is to be made of them must be cautious, reserved, and even hypothetical. Applying this method, he asks the following questions, after critically examining Mr. Grote's cerebrum:—"Supposing that we assume size and complexity of convolutions to be evidence of superior functional capacity, might we credit the very large orbital and anterior frontal regions of Mr. Grote's cerebrum with the active and able exercise of proper mental processes, and the relatively small occipital lobe with a comparative deficiency of conduct, or carelessness as to personal interests and safety? May we associate the relatively large convolutions in the frontal and parietal regions, before and behind the fissure of Rolando, with the large upper and lower limbs of a person nearly six feet, even though the purposive movements of those limbs are held in but moderate equilibrium or control by a comparatively small cerebellum? How shall the great breadth, yet comparative simplicity, of the inferior frontal convolution be interpreted in reference to any peculiarities as to verbal expression or lingual utterance? Was the bold development of the back convolutions associated with any great activity of visual perception or the relatively full development of the superior temporal convolution with any special appreciation of a love of sounds?"

Other marked peculiarities of Mr. Grote's brain were the relatively large quantity of white fibres and the asymmetry of the cerebral convolutions. This asymmetry is remarkably well shown in three photographs which are reproduced at the end of the article. Asymmetry, suggested by Professor Marshall, could scarcely be correlated with the performance of higher intellectual processes, or with their more perfect performance, for it is difficult to detect any obvious advantage in purely intellectual operations, being, as it were, hampered by an asymmetrical apparatus. He refers it to the habit, common to and inherited by the human family, of using for special purposes the right hand more than the left, generation after generation, and to all the direct and indirect consequences arising therefrom throughout its organism. This chapter is to us the most interesting and suggestive in the article. In Mr. Grote's cerebrum it was apparent on transverse section that the broad and massive character of the convolutions was due to the relatively large amount of the white substance. The sectional area of the corpus callosum was  $\frac{3}{4}$ ths of a square inch, which is about six times the ordinary proportion when compared with the total area of the inner surface of the hemisphere. "It is obvious that so high a ratio of white commissural or radiating substance must have great significance as regards the more effectual utilisation of the grey matter itself. If the grey matter be the source or seat of all special actions, whether original or reflex, exercised by or within the cerebral hemispheres, the white fibres must be accredited with the offices, not only of bringing impressions from the confines of the human frame, and conveying impulses to its muscular apparatus, but likewise of utilising to the utmost the power of the grey matter by multiplied connexions of part with part, in countless lines of combination and reflection. Just as the usefulness of the apparatus employed in telegraphy is increased according to the number of its adjuvant and event wires, so the efficacy of a certain quantity of grey matter, containing a certain number of ganglionic corpuscles, is enhanced by the multiplicity and variety of the connexions and combinations of these latter. Whether for old or for recent impressions, the paths of intercourse, combination, contrast,

construction and volitional impulse would all be increased, and the efficiency of the cerebral apparatus be thus improved. Certain it is that, under normal conditions, a well-developed corpus callosum must add to the possible, if not to the actual, capacity for work of a bilateral cerebrum; and, although cases of its absence, unsuspected during life, are on record which require further investigation, yet its relative magnitude is undoubtedly associated with varieties in intelligence or training."

### THE METROPOLITAN HOSPITAL SUNDAY FUND.

ON Friday, Nov. 25th, a meeting of the Council of this Fund, presided over by the Lord Mayor, was held at the Mansion House, for the purpose of considering the draft report of the Council, which stated that the twentieth year of collecting the fund had resulted, under the presidency of the Right Hon. Sir David Evans, in a total of £41,512, and that a further anonymous donation of £500—£250 to be used in providing surgical appliances and £250 in aid of the general fund—had been received. One legacy only, £105, had been received during the past year, and a donation of £1000 had again been most generously given by Sir Savile Crossley. The report was passed and the next annual meeting fixed for Tuesday, Dec. 13th.

Mr. Culance, the secretary of the Fund, intimated that the leading clergymen had been consulted, and it had been suggested that June 11th should be fixed for the hospital collection. Archbishop Vaughan had consented to put off the annual school collection in the Catholic Church, which happened to fall upon June 11th next year, to the 18th or the 25th of the same month. It was finally recommended that June 11th, 1893, should be adopted as the date on which the collection of the Fund should take place. The Rev. Dr. Marks proposed and the Rev. Dr. J. Kennedy seconded the following resolution, which was unanimously passed: "That it be recommended to the Committee of Distribution that all accounts presented under Law 4 of the Constitution on or from Jan. 1st, 1893, shall be audited by a chartered accountant."

A vote of thanks to the President concluded the meeting.

### THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5.30 P.M. on Wednesday, November 30th. Mr. George Pollock, the President, occupied the chair. The minutes of the last meeting were read and confirmed. The hon. secretary read the reply which had been received from an official of the College in answer to the last communication which had been forwarded to him by the committee. This reply was considered by the committee to be of a very unsatisfactory character, inasmuch as the writer neither attempted to substantiate the allegations which had been categorically refuted by the committee, nor withdrew them. A long discussion then took place with reference to the course of action which should be pursued. In the first place, a letter was drafted expressing the regret of the committee that the inability or unwillingness of the gentleman in question to substantiate his repeated allegations had not led him frankly to withdraw them, and stating what course of action the committee would pursue. This letter was unanimously adopted, and the hon. secretary was directed to forward a copy of it to the gentleman concerned. In the second place, it was agreed that, in the event of no satisfactory reply to this communication being received within fourteen days, the hon. secretary should proceed at once with the publication of the whole correspondence, with a view to submitting it in the form of a pamphlet to the Fellows of the College.

A letter was read from the hon. secretary of the Members' Association asking to be favoured with a printed list of the names of the members of the Fellows' Association, as well

as with a copy of their last report. The latter request was made with the view to the publication of a report of the proceedings of the Association of Members. The hon. secretary was directed to forward the "Further Account of the Proceedings of the Association of Fellows," published in June last, and to say that a printed list of the members of the Fellows' Association had not yet been issued.

This concluded the business of the meeting, and the committee adjourned.

### DEATH FROM ELECTRICITY.

By H. A. CLOWES, M.D., M.S. DURH. &c.

DEATHS from electricity have happily been of rare occurrence in this country. So far as I am aware, only five cases have been reported in the medical journals since 1880, though many cases have occurred in America and several on the Continent.

On the afternoon of Nov. 9th T. P. L.—, aged twenty-three, an employé of the House-to-house Electric Supply Company, was engaged in making connexion with a house in Roland-gardens, Old Brompton-road, and while working in the surface box he was observed to fall to one side as if in a fit. A fellow-workman ran to him, and found him with his left arm contracted and attached by his left hand to the connecting wire. The wire was immediately broken by a blow with an axe handle, and when released he gave a loud sigh and fell forwards on to his forehead, but made no further movement or sound. He was brought in a cab to the Queen's Jubilee Hospital, where I saw him about five minutes after the occurrence. The heart and respiration had then stopped. The face, neck and upper extremities were congested, the eyes suffused and the pupils widely dilated. The features were not distorted and the face wore a peaceful expression. There was a strong smell of burning not unlike the smell of gas, and it was at first reported that the man had fallen down while working on a gas main. The palm and first two fingers of the left hand were burnt and charred and the fingers were strongly flexed. The clothing was not burnt or injured in any way. Artificial respiration was at once commenced, and was maintained for more than an hour, but the patient did not respond in any way, and it was evident that the case was hopeless. Besides artificial respiration an injection of strychnia was given, with the idea of stimulating the respiratory centre, and the faradaic current was applied to the precordia.

At the inquest, which was held on Nov. 14th, the current which the man received was said to have been a rapidly alternating one (10,000 alternations per minute) of a strength of about 2000 volts. It was not clearly shown how he had completed the circuit, for at the time of the accident he was holding only one wire with the left hand, which was burnt, but there was no other burn on any part of the body. The piece of wire which he held had in some way become denuded of the insulating rubber. A post-mortem examination was made three days and sixteen hours after death. The body was that of a well-developed, muscular young man, and the congestion of the face, neck and upper extremities and ocular conjunctiva remarked at the time of death was still noticeable. Rigor mortis, which had set in shortly after death and had been strongly marked, was still present to a slight extent in the lower extremities. Decomposition was not advanced in any unusual degree. The whole of the palmar surface of the forefinger and middle finger of the left hand was burnt and the tissues of the carpal half of these two fingers were destroyed and carbonised, exposing the flexor tendons. The epidermis generally of the palm of the hand, the palmar surface of the thumb, and of the cleft between the thumb and index finger was burnt black and separated from the deeper structures of the skin. On the dorsal surface of the hand, between the thumb and index finger, the epidermis was destroyed and missing over a surface the size of a florin. There was a small circular abrasion, not a burn, on the outer side of the right knee, and a small ecchymosis and swelling over the right frontal eminence. There were no other external marks of injury. The vessels of the scalp, meninges of the brain and brain substance were congested and full of liquid blood, and the surface of the white substances when cut across presented a punctate appearance. The lateral sinuses were full of liquid blood, and the lateral ventricles contained a fair amount of cerebro-spinal fluid.

The brain and cerebellum appeared quite healthy. The mucous surface of the larynx, trachea and bronchi was much congested and the lungs loaded with dark blood. The heart was normal in size and consistence and its valves healthy. Although not contracted its cavities were completely empty and there was a deficiency of blood in the large vessels. The liver was much congested and of a dark-red colour. The spleen was large and engorged with blood. The kidneys were large (especially the left), congested and the condition of the tissues doubtful; the stomach and intestines were normal in appearance; the bladder contained about eight ounces of highly albuminous urine. A marked feature of the examination was the complete fluidity and dark colour of the blood, not a clot being discovered in any part of the body. My colleague, Dr. Thudichum, who kindly made a microscopic examination of the blood and nerve tissues, supplies the following note: "Blood quite fluid, without any coagula, and remains fluid on being kept; medulla oblongata and amido-myelin coagulated; no other structural change." He adds: "Electrical current derived from wire to earth 10,000 alternations per minute, causing 20,000 shocks of contraction per minute, practically tetanus."

Walterton-road, W.

## THE ROYAL SOCIETY.

THE Royal Society has on many occasions recognised the scientific work of medical men, and among the names which it delights to honour are not a few that are associated with those sciences which have been cultivated chiefly for the purposes of the art of healing. Last Wednesday's dinner, and the formal presentation of medals which accompanied it, has made an addition to the number of such names which are inscribed upon the medal roll of the Society. Foremost among them the recipient of the Copley medal, which has been termed "the laurel wreath of the Royal Society," was the venerable Virchow of Berlin, whose name—although connected by the terms of the award as well with prehistoric archæology as with pathology and pathological anatomy, and by Professor Huxley in his very interesting speech with the even remoter field of politics—is of European reputation because of its bearer's brilliant discoveries in pathological science. Mr. Langley, of Cambridge, the recipient of the second royal medal, is a brilliant representative of the younger ranks of the medical profession. On this occasion he acquitted himself in the difficult office of replying to the toast in honour of the medallists, in behalf of his absent colleagues as well as of himself, in a style which proves that the faculty of after-dinner speaking, rare as it is, is not denied to some of those to whom the greater qualities which make a successful investigator of Nature's secret truths have been vouchsafed in liberal measure. No one, moreover, who listened to Lord Kelvin's and Professor Huxley's most interesting speeches could doubt that this double qualification, if an exception, is an exception which comes near to proving a rule at the Royal Society's hospitable board. It hardly needs to be added that the Fellows assembled included a due proportion of the medical profession collected from London and the provinces, and that Sir James Paget's eloquent welcome of the Society's guests fitly represented this side of the great Institution's connexion with the profession of medicine.

## ROYAL BRITISH NURSES' ASSOCIATION.

### THE PETITION FOR A CHARTER.

THE Committee of the Privy Council, consisting of the Marquis of Ripon, Lord Oxenbridge, Lord Hobhouse and Lord Hannen, resumed on Monday last their consideration of the petition made on behalf of the Royal British Nurses' Association for a charter of incorporation.

Sir Richard Webster, Q.C., continued his speech for the opponents of the petition. Dealing first with the Register of the Association, he asserted that it contained not 2700 as his learned friend Sir Horace Davey had said, but only 1777 names, and that there were in the country about 5000 trained nurses and between 5000 and 15,000 more persons who might to a certain extent be allowed to come upon the Register. Of

the 1777 nurses on the Register of the Association there were upwards of 600 who had no hospital qualification at all, and a still larger number who had nothing like the three-years' qualification which was put forward as the main aim and object of the Association. Up to a certain date the Association allowed nurses on the Register without certain qualifications, and the number who took advantage of this period of grace was no less than 1623. Since that time there had not been a corresponding increase in the number registered. Each year the Association sent out a circular which did nothing more than inquire as to the accuracy of the name and address. From an examination of the present Register it was found that of the 1777 entries no less than 312 were not verified as to the accuracy of the name and address up to date. Moreover, there were objections of a more serious character. There were upon this Register the names of persons who had been dismissed for misconduct from the hospitals. Further, he might point out that no application of any kind had been made to the hospitals with reference to individuals whose names appeared on the Register.

Sir Horace Davey, Q.C., for the Association, said his instructions were to a contrary effect.

Sir Richard Webster replied that both in the case of the London Hospital and St. Thomas's Hospital no application of any kind had been made with reference to a large number of nurses whose names appeared on the Register.

The Marquis of Ripon asked whether their lordships were to understand that no application had been made to hospitals in any case.

Sir Richard Webster said he did not mean those two hospitals only, although those he was prepared to prove, but speaking for a large number of the hospitals for which he appeared—seven hospitals having training schools—no application was made to them prior to the names being placed upon the Register.

The Marquis of Ripon: In the first instance?

Sir Richard Webster replied that in a great majority of the cases no application had been made at all. Latterly there had been application made with reference to some of the nurses with respect to whom information was given, but with regard to putting the names on the Register or continuing them there no application was made either to the hospital or the training school. Proceeding with his case, Sir Richard Webster submitted that there was no precedent for such a Register as that of the Association receiving the sanction of a Royal Charter. If the Association merely wished to publish a list of their members, they could do so by their by-laws, and without the aid of a charter; but what they desired was an authentic Register to which every nurse seeking a full opportunity of employment must apply for admission. Such powers as the Association sought should only be given after a full Parliamentary inquiry, where the merits of the case could be discussed and evidence taken. The allegations he had made were supported by nine-tenths of the people who had been engaged in training nurses for the last thirty or forty years. Taking the hospitals of London, there were four with 1540 beds which supported the petition and eight with 2751 beds which opposed it. As to the provincial hospitals, there were seven which supported the petition and eleven which opposed it. In every case among the seven there were those who only gave the petition a partial support. It amounted to this, that there were altogether thirty large nurse-training institutions, of which nineteen with 6000 beds were opposed to this Register, as against eleven with 2622 beds which were wholly or in part in favour of it. Not only was the support not that of the majority of those who were skilled in training nurses, but there was excluded from the governing body, who asked by this charter to be constituted the authority for nurses, many of those ladies and gentlemen who were most competent to consider what was a proper qualification for nurses. The object of the Association was that the control of the nursing profession should be in the hands of medical men and nurses, therefore this was a point which he was entitled to press before their lordships. He might say that a charter had already been granted to the Queen Victoria Jubilee Institute. That charter did not provide for any register of nurses. In that case nurses were entitled to be members after one year's training. They were allowed to be called "Queen's nurses" and to wear a certain badge. It was surely a most remarkable thing that those Queen's nurses, sanctioned by Royal Charter and having privileges given them, would not be entitled to entry in this Register. The sting of the thing was that this would be the

Register of trained nurses for the year, meaning that those who were not upon it should not be considered trained nurses. He must humbly but firmly protest against the attitude of his clients being misrepresented or distorted. They were not there to object to a charter which would confine itself to proper work, as, for instance, the collection of funds, the improvement of nurses and the establishment of colleges; but they said that under colour of this application the Association were desirous of obtaining a chartered Register which would be the means of their holding out directly to the public that nurses who were not upon it were not trained nurses in whom the public ought to place reliance. If the procedure permitted of it, he desired to call witnesses. He desired to show that the mere standard of three years' work in nursing the sick was not by any means a satisfactory condition of the training of a nurse, and that many persons did become quite skilled and qualified in less than three years. He wished also to show that the hospitals remained in communication with their nurses for years after granting them their certificates, and could obtain information as regarded their fitness for their work.

The Marquis of Ripon said that in his experience he did not recollect any case of the kind where evidence was heard.

Sir Richard Webster submitted that if the merits required investigation some tribunal must be found for it.

Lord Hobhouse said his impression was that the points stated by counsel would not very much affect the issue.

The Marquis of Ripon said that at present he did not see any necessity for evidence, but their lordships would consider the matter.

Sir Horace Davey then replied on behalf of the Association. He understood that the opponents of the charter did not allege that the objects of the Association other than the keeping of a Register were not such as to deserve approbation and commendation, and reasonably entitle the Association to the status of a corporate body.

Sir Richard Webster admitted this to be the case, but said the whole matter was for the consideration of their lordships.

Sir Horace Davey, proceeding with his reply, said he was not surprised to find such a small proportion of nurses members of the Association, having regard to the opposition it had encountered and the misapprehension of motives, objects and aims to which it had been exposed. He denied that the Association had not applied to the hospital authorities for information prior to the registration of names, and produced to their lordships circular letters which the Association had been accustomed to send not only to the referees whose names had been furnished, but also to the hospitals concerned. This was a case in which nurses and medical men wished to manage their own affairs. They asked not to be under the complete supervision and control which apparently the training colleges desired to keep them. The question here was whether those nurses who were not on the books of the hospitals, and who had no means of getting there, were to be excluded from the exercise of their profession; whether those hospitals and training colleges were to have the exclusive right of furnishing the public with nurses. His clients desired the status of a chartered company, not to prevent other people from earning their living, but to keep a Register on which people if they thought fit could enter their names and be published to the world. There was no compulsion about the Register, it was of a purely voluntary character. It certainly would be very much better if many of the hospitals gave the Association their assistance. King's College Hospital answered their letters and gave them all the information they possessed, and if the other training schools would follow that example he thought it would conduce to improving the Register.

Lord Hannen put it to Sir Horace Davey whether the Association wished it to be clear that this only purported to be a Register of nurses who had applied to have their names put there.

Sir Horace Davey said that was already clear, but he did not object to a suitable alteration being made.

The hearing was then concluded, their lordships announcing that they did not propose to examine witnesses. It now falls to the committee to advise Her Majesty as to the course she should pursue with regard to the petition.

A NEW COMMISSION OF LIEUTENANCY has been issued for the City of London, and among the names of those who have been appointed Her Majesty's Lieutenants are the following medical men:—William Sedgwick Saunders, M.D., F.S.A., Thos. Boor Crosby, M.D., and Charles Brodie Sewell, M.D.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*On Typhus Fever at Wigan and Ince-in-Makerfield, by Dr. S. MONCKTON COPEMAN.*<sup>1</sup>—Dr. Copeman's report on this outbreak of typhus fever is of a somewhat exceptional character, for it enters with much more detail than is usual in these official reports into the clinical characters &c. of the disease. This attitude is the more fortunate because so few medical practitioners and so few health officers have now an opportunity of seeing typhus fever, and some very deplorable results have, in more instances than one, ensued, which would have been avoided had the first attacks been recognised as typhus fever in their early stages. The report has, under these circumstances, an interest quite beyond the usual health reports; and it will be read with profit by all who are likely at any time to have to identify and to treat this now uncommon form of continued fever. We are glad therefore that the report has been placed on sale. The disease commenced in Wigan in August, 1891, it reached its height in October and November, and ceased towards the end of March this year. In all, there were 78 cases occurring in 48 families, with 10 deaths. But the disease was not heard of officially until September 24th, and it was this that really led to the diffusion of the malady. Prompt isolation was instantly resorted to, but, says Dr. Copeman, "every single household invasion, with one exception, was traceable directly or indirectly" to the family of the first patient, who lived in a back-to-back house and who was assumed to have suffered from pneumonia. The spread is well indicated by means of a diagrammatic pedigree tree. Much pains was taken to trace the first case to its source, but although there seemed indications that Liverpool, where the disease constantly reappears, was the actual source, yet this cannot be said to be proved. The disease spread from Wigan to Ince-in-Makerfield, the adjoining township, and here again its nature was much obscured, by reason of an unexpected disease being classed under other headings than that of typhus fever. It is this that gives such special interest to the lengthened account of the "Clinical Considerations" which are involved and which are so well illustrated by a series of charts and tables. We believe this is the first printed report which has been issued of Dr. Copeman's work since he exchanged his labours at St. Thomas's Hospital for those at Whitehall. If it is a type of future ones, all will agree that his experience as a clinical physician has admirably prepared him for the career he has now chosen.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Birmingham Urban District.*—Dr. Alfred Hill gives the recorded death-rate for Birmingham during 1891 as 21·7 per 1000, the zymotic rate being 2·1, and the infant mortality at the rate of 171 per 1000 births. There was some small-pox in the borough and 44 cases were removed to the small-pox hospital. Scarlet fever was also prevalent, 1201 cases being placed under isolation in the hospital reserved for that disease. A general account of the sanitary work of the year is given under different headings, and a disease chart, tables &c., are added; but small-pox is significantly omitted from the chart. Dr. Hill, in dealing with the proposed new water-supply for Birmingham, refers to his inspection of the watersheds of the Elan and Claerwen, where he found the conditions eminently favourable, and, above all, such as to reduce to a minimum all chance of the possibility of any dangerous pollution. Samples of the water were taken; they are very soft, and contain some colouring matter of peat. Both these conditions remind us of circumstances favourable to the occasional taking up of lead from service-pipes, but the samples examined had only a very slight action upon the metal; and this slight amount could, it is believed, be reduced by storage and filtration.

<sup>1</sup> Eyre and Spottiswoode, East Harding-street, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis and Co., Dublin. 1892. Price 1s.

## VITAL STATISTICS.

## HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6020 births and 3694 deaths were registered during the week ending Nov. 26th. The annual rate of mortality in these towns, which had declined from 19.6 to 18.6 in the preceding two weeks, rose again to 18.9 last week. In London the rate of mortality was 17.7 per 1000, while it averaged 19.8 in the thirty-two provincial towns. The lowest rates in these towns were 13.6 in Derby, 15.6 in Bristol, 15.7 in Croydon, and 15.9 in Gateshead; the highest rates were 22.9 in Manchester, 23.1 in Plymouth, 24.2 in Halifax, 26.9 in Blackburn, and 31.6 in Salford. The 3694 deaths included 423 which were referred to the principal zymotic diseases, against 431 and 392 in the preceding two weeks; of these, 142 resulted from measles, 73 from scarlet fever, 65 from whooping-cough, 61 from diphtheria, 40 from diarrhoea, 39 from "fever" (principally enteric), and 3 from small-pox. No fatal case of any of these diseases occurred last week either in Wolverhampton or in Gateshead; in the other towns they caused the lowest death-rates in Sunderland, Norwich, Derby, and Bristol, and the highest rates in Leicester, Brighton, Croydon and Salford. The greatest mortality from measles occurred in West Ham, Huddersfield, Hull, Brighton, Croydon and Salford; from scarlet fever in Preston, Blackburn and Plymouth; from whooping-cough in Birmingham, Birkenhead, Salford and Preston; from "fever" in Swansea; and from diarrhoea in Halifax. The 61 deaths from diphtheria included 46 in London and 4 in Manchester. Two fatal cases of small-pox were registered in Leicester and one in London, but not one in any other of the thirty-three large towns; 16 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 2 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3944, against numbers declining from 4067 to 4045 at the end of the preceding three weeks; 302 new cases were admitted during the week, against 403 and 404 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 357 and 340 in the preceding two weeks, rose again to 353 last week, but were 90 below the corrected average. The causes of 79, or 2.1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Leeds, Sunderland, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Blackburn, Huddersfield and Sheffield.

## HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20.6 and 21.5 per 1000 in the preceding two weeks, rose again to 23.7 during the week ending Nov. 26th, and exceeded by 4.8 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13.6 in Paisley and 13.7 in Perth to 24.0 in Edinburgh and 58.0 in Leith. The 661 deaths in these towns included 104 which were referred to measles, 28 to scarlet fever, 9 to diphtheria, 9 to whooping-cough, 7 to diarrhoea, 4 to "fever," and 1 to small-pox. In all, 162 deaths resulted from these principal zymotic diseases, against 110 and 127 in the preceding two weeks. These 162 deaths were equal to an annual rate of 5.8 per 1000, which exceeded by 3.6 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 61 and 65 in the preceding two weeks, further rose to 104 last week, of which 41 occurred in Leith, 29 in Edinburgh, 16 in Glasgow, and 13 in Aberdeen. The deaths referred to scarlet fever, which had increased from 13 to 24 in the preceding three weeks, further rose to 28 last week, and included 18 in Glasgow and 6 in Leith. The 9 fatal cases of diphtheria also showed a further increase upon recent weekly numbers, and included 3 in Glasgow and 3 in Edinburgh. The 9 deaths from whooping-cough exceeded by 2 the number in the previous week, and were all recorded in Glasgow, where the fatal case of small-pox also occurred. The deaths referred to diseases of the respiratory organs in these towns, which had been 142 and 137 in the preceding two weeks, were 141 last week, and were less than half the

number in the corresponding week of last year, when an epidemic of influenza prevailed. The causes of 59, or nearly 9 per cent., of the deaths in the eight towns last week were not certified.

## HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23.9 per 1000 in each of the preceding two weeks, declined to 22.8 during the week ending Nov. 26th. During the first eight weeks of the current quarter the death-rate in the city averaged 23.1 per 1000, against 17.9 in London and 21.9 in Edinburgh. The 153 deaths in Dublin during the week under notice showed a decline of 7 from the number in the preceding week, and included 4 which were referred to "fever," 2 to diarrhoea, one to whooping-cough, and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 7 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.0 per 1000, the zymotic death-rate during the same period being 1.7 in London and 7.3 in Edinburgh. The deaths referred to different forms of "fever," which had declined from 10 to 2 in the preceding three weeks, rose again to 4 last week. The fatal cases of diarrhoea, which had been 2 and 5 in the preceding two weeks, declined again to 2 last week. The 153 deaths registered in Dublin last week included 25 of infants under one year of age and 41 of persons aged upwards of sixty years; the deaths, both of infants and of elderly persons, showed a slight decline from the numbers recorded in the preceding week. Three inquest cases and 4 deaths from violence were registered; and 53, or more than a third of the deaths, occurred in public institutions. The causes of 10, or nearly 7 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

## MOVEMENTS OF MEDICAL STAFF.

SURGEON-COLONEL WADE, Brigade-Surgeon-Lieutenant-Colonel Elvatt, Surgeon-Captains Elkington and McCree have arrived from India. Brigade-Surgeon-Lieutenant-Colonel Burnett has been appointed to Permoy. The following Officers have embarked for India in the *Serapis*:—Surgeon-Major J. F. Brodie and Surgeon-Captains de Courcy Scanlan, Faichnie and Kirkpatrick. Surgeon-Major Martin has arrived in Bombay and Surgeon-Captain Allport in Ceylon. Surgeon-Captain Hale has been appointed to the Eastern District, Surgeon-Captain Burton to Lichfield and Surgeon-Captain Wiles to Hulme. Surgeon-Captain Beatty has embarked for Sierra Leone. Surgeon-Major H. Saunders, now at Malta, has been appointed to the King's Dragoon Guards, now forming part of the Queen's Guard at Windsor.

## INDIAN MEDICAL SERVICE.

The following Surgeon-Majors who have completed twenty years' full-pay service have been appointed Surgeon-Lieutenant-Colonels:—Mathew Denis Moriarty, M.D.; Gordon Price, M.D.; Edward Beville, M.B.; Bartholomew O'Brien, M.D.; Henry Walter Hill, M.D.; Zalnor Allee Ahmed, M.D.; William Arthur Gilligan and William Edwin Griffiths. The following Surgeon-Captains having completed twelve years' full-pay service are promoted to Surgeon-Majors:—George Michael James Giles, M.B.; Arthur Robert Wyatt Sedgfeld, M.B.; Edwin Francis Horatio Dobson, M.B., Johnston Shearer, M.B.; Hem Chandra Banerji; Shambu Chandra Nandi, M.B.; Francis Samuel Peck and William Deane. The services of the undermentioned Medical Officers have been replaced at the disposal of the Government of Madras:—Surgeon-Major J. C. Marsden and Surgeon-Major R. Pemberton. Surgeon-Major D. S. E. Bain has been appointed Civil Surgeon of Coorg. The services of Brigade-Surgeon-Lieutenant-Colonel R. Bowman, Residency Surgeon in Turkish Arabia, have been replaced at the disposal of the Bombay Government. Surgeon-Major F. Day, attached to the Station Hospital at Deolali, has been transferred to the Station Hospital at Colaba. Surgeon-Lieutenants T. Jackson, F. E. Swinton and S. H. Burnett, Medical Staff, on arrival from England, have been ordered to Poona to be attached to the Station Hospital at that Station. The services of Surgeon-Colonel Richardson, Officiating Surgeon-General with the Government of India, are placed at the disposal of the Government of the North-West Provinces.

## NAVAL MEDICAL SERVICE.

The following appointments have been made:—Surgeons: H. S. Archdell, F. H. Clayton, R. J. Fyffe, P. Lord, F. J. A. Dalton, P. M. May, C. L. Bunton, F. D. Lumley, H. E. Tomlinson, A. S. G. Bell and B. Gilpin to the *Victory* additional for hospital; D. J. P. McNabb to the *St. Vincent*. Surgeon and Agent: J. E. F. Andre, at Chicester Harbour, East Wittering, Thorney and Selsey. The following qualified candidate for the Naval Medical Service has been appointed Surgeon in Her Majesty's Fleet:—Edward Thomas Meagher.

## VOLUNTEERS.

The following promotions have been made:—2nd East Riding of Yorkshire (Western Division Royal Artillery), Surgeon-Captain J. Sherburn, M.B., to be Surgeon-Major; 1st Herefordshire, Surgeon-Lieutenant. J. W. Hinings to be Surgeon-Captain; 2nd (Westmoreland) Volunteer Battalion, the Border Regiment, William Baron Cockill, Gent., to be Surgeon-Lieutenant.

## THE VOLUNTEER OFFICERS' DECORATION.

This decoration has been conferred upon the undermentioned officers.—*North-Eastern District*: 1st Berwick-on-Tweed, Surgeon-Major George Bolton; 2nd Durham (Seaham) (Western Division, Royal Artillery), Surgeon-Lieutenant-Colonel Thomas Carlyle Beatty and Surgeon-Lieutenant-Colonel Thomas Gibbon; 4th Durham (Western Division, Royal Artillery), Surgeon-Lieutenant-Colonel Samuel Gourley; 1st Lincolnshire (Western Division, Royal Artillery), Surgeon and Honorary Surgeon-Major Thomas Small, retired, and Quartermaster and Honorary Captain Richard Varley; 2nd West Riding of Yorkshire (Western Division, Royal Artillery), Surgeon-Lieutenant-Colonel Harry Meade; 2nd Volunteer Battalion, the Northumberland Fusiliers, Surgeon-Major Adam Wilson; 1st Volunteer Battalion, the Lincolnshire Regiment, Surgeon-Lieutenant Hugh George, M.D., Surgeon-Major John West Walker, M.B., retired, and Surgeon and Honorary Surgeon-Major Charles Bartholomew Moody, retired; 3rd Volunteer Battalion, the Prince of Wales's Own (West Yorkshire Regiment), Brigade-Surgeon-Lieutenant-Colonel Jas. Scarborough Loe; 1st Volunteer Battalion, the Leicestershire Regiment, Surgeon and Honorary Surgeon-Major Edwd. Rawson Denton, retired; 1st Volunteer Battalion, the Duke of Wellington's (West Riding Regiment), Surgeon-Lieutenant-Colonel J. E. Foster; 2nd Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment), Brigade-Surgeon-Lieutenant-Colonel William Milligan and Surgeon-Lieutenant-Colonel Edward Mason Wrench; 1st Nottinghamshire (Robin Hood) Rifle Volunteers, Surgeon-Lieutenant-Colonel Thomas Wright and Surgeon-Major John O'Connell Hynes; 2nd Volunteers Battalion, the York and Lancaster Regiment, Brigade-Surgeon-Lieutenant-Colonel John Blackburne, Brigade-Surgeon-Lieutenant-Colonel John Mitchell, and Surgeon and Honorary Surgeon-Major Charles Natrass, M.D., retired.

## VOLUNTEER MEDICAL STAFF CORPS.

Maidstone Division: Surgeon-Lieutenant-Colonel David Henry Monckton, M.D.—*South-Eastern District*: 1st Sussex Artillery Volunteers (Eastern Division, Royal Artillery), Surgeon-Major William Seymour Burrows; 2nd (the Weald of Kent) Volunteer Battalion, the Buffs (East Kent Regiment), Surgeon-Lieutenant-Colonel Henry Benjamin Wood, M.D., retired; 2nd Volunteer Battalion, the Royal Sussex Regiment, Brigade-Surgeon-Lieutenant-Colonel Charles Francis Lewis. *Woolwich District*: Surgeon-Lieutenant-Colonel William Warman Coleman, retired.

## A SYSTEM OF SANITARY LEGISLATION FOR INDIA.

Brigade-Surgeon-Lieutenant-Colonel Climo has recently published an elaborate pamphlet on "The Hygienic Conditions of Indian Cantonments." He contends that subsoil sewage pollution has been the result of more or less chronic surface impurity, resulting from the over-population of limited areas coupled with defective or inadequate sanitary measures. He points out that the present hygienic conditions of Indian cantonments all tend to pollute occupied areas with organic refuse and to give rise to a sewage-loaded soil which breeds enteric fever. He argues that a system of sanitary legislation should be organised and adopted for India on similar lines to that which is pursued in Great Britain, and advocates the formation of a central sanitary authority entrusted with certain powers by the Government of India, and acting under the orders of the Commander-in-Chief, together with a local sanitary authority for each canton-

ment acting in concert with, but subordinate to, the central one. This organisation would, in reality, constitute a public-health department with power to initiate sanitary work, make by-laws, and enforce the application and execution of sanitary measures, and exercise generally a sanitary supervision over all matters affecting public health in and around cantonments.

## MEDICAL OFFICERS AND NATIVE STATES.

Our Indian contemporary, the *Civil and Military Gazette*, recently published an article setting forth the difficulties which the Punjab Government had got into with the leading Punjab chiefs in the matter of medical advice. The Rajah of a native state, like other people, naturally desires to choose his own medical adviser, and applies to the Government for permission to have the services of the medical officer of his choice; the Punjab Government, on the other hand, is desirous of making the selection for him. Of course the Local Government is acting strictly within its rights and powers in this matter, but the wisdom and expediency of the course are not very apparent. Anyway, the native chief, failing to get the particular medical officer he wants, goes elsewhere to secure a medical adviser, and the appointment is lost to the medical service in India. It is unfortunate, says the *Civil and Military Gazette*, that this question of medical service by British officers in native states, which ought to be fruitful of political good, should become a source more fruitful of irritation and friction than anything else.

## THE ARMY MEDICAL STAFF.

It is stated, on the authority of the *Broad Arrow and Naval and Military Gazette*, that Sir William Mackinnon, the Director-General of the Army Medical Department, has given the following opinions on points referred to him by the Secretary of State for War: (1st) That as regards foreign service he is in favour of reverting to the old tour of five years for India; (2nd) that as to purely military titles, although personally adverse to them, he has been bound to allow that the large majority of his officers are in favour of their being conceded; (3rd) that the formation of a Royal corps has his emphatic approval; (4th) that interference with his power to sanction or object to exchanges is to be deprecated. We need scarcely add that we concur in these views; for we have always been opposed to the increase of the length of foreign tours as prejudicial to medical officers in many ways, especially as regards health; and years ago, when the regimental system was in force and the adoption of the present unification system was under discussion we strongly advocated the formation of a Royal Corps of Surgeons or a Royal Medical Staff Corps. As this has since been recommended in the reports of committees, and is, in our opinion, a fit and proper designation for such a large and important body as the medical staff, we trust that Mr. Campbell-Bannerman, the new Secretary of State for War, may see his way to giving effect to it. We are of opinion that exchanges between medical officers should be allowed subject to the approval of the head of the department.

## AGE RETIREMENTS OF MEDICAL OFFICERS.

On a late occasion we did not discuss this question because we did not consider that, in the case alluded to, it admitted of doubt, or that there was any intention on the part of the head of the Medical Department of departing from the course laid down in the regulations of the service. The question of compulsory retirement has again arisen, however, in connexion with the rank of Surgeon-Major-Generals. We can only repeat now what we have always held and urged, that, as a matter of principle and as the only just and fair method of administering a large department, the Royal warrants and regulations in force at the time should be strictly adhered to. The terms of existing regulations, no doubt, admit of the retention of officers under exceptional circumstances for the absolute good of the service, but such cases should be very rare and should be provided for, in our opinion, at the expense of the State, for whose benefit they are made. Officers so retained should be seconded in order to prevent blocks in promotion and injustice to others; and this must, we imagine, commend itself to all as a just and fair principle of administration.

## THE ARMY MEDICAL STAFF CORPS.

In order that it may not escape the notice of officers of the Medical Staff, who are naturally interested in all that concerns the good name and welfare of the men of the Medical Staff Corps, we think the recent decoration of First-Class Staff-

Sergeant Charles Williams of that corps should be recorded. Her Majesty at Windsor Castle on the 25th ult. decorated the Staff-Sergeant for distinguished conduct in the field, and especially at the engagement of Abu Klea where Colonel Burnaby was killed. As the square was being hardly pressed by the enemy Staff-Sergeant Williams and the other members of his corps, about fifteen in number, heroically rushed from time to time from the ranks and rescued some eighty or ninety wounded soldiers lying upon the field and successfully conveyed them to the shelter of the inside of the square. Staff-Sergeant Williams and the Medical Staff Corps were exposed to a galling fire from the Soudanese, and the rescuing of the wounded under the circumstances was very risky work. Those who have had experience of some of the fighting in Egypt and of the impetuous valour of the Arabs, which has been graphically depicted in Rudyard Kipling's verses, can best understand the plucky nature of the service rendered.

## Correspondence.

"Audi alteram partem."

### "EXPERIMENTS ON ANIMALS."

To the Editors of THE LANCET.

SIRS,—First a word in reply to Mr. Bowreman Jessett's letter, which consists of a series of questions, most of which are conundrums. He says he can find no mention of my method of flap-splitting for the purpose of intestinal repair in any of the surgical literature at his disposal; yet if he will turn to Vol. III. of the Transactions of the British Gynaecological Society, page 367, he will find what he wants not far from his elbow. I have not yet fully published my views on intestinal surgery; I have had so many much more important questions to settle that such little by-paths as that in question have to wait. Yet I am sure no one will quarrel with me as being a person of idle or neglectful habits, nor can I say that the medical societies or the medical journals have been churlish of placing their opportunities or their space at my disposal. Truly I find art long and life brief, and, struggle all I can, time fails me to get out my second volume, in which such details as Mr. Jessett wants will be found more fully recorded. He misrepresents me entirely when he says that I would not have any operation done on myself save as I do it. What I did say is that I would not submit to any operation myself save what I do on others. I would not submit to pylorotomy, for instance, or gastro-enterostomy, or to any of those nonsensical proceedings which give no ultimate benefit. Now, as to your leading article on this subject. I have no right to thank you for it, but I do so most heartily, for it indicates a new departure, and a very wise one, in this discussion, and I do not fail to recognise most gratefully your kindly intent towards myself and my attitude upon this troublesome question. It has been all my life my misfortune to live and grow in an atmosphere of minorities, and that is always a source of trouble. In politics, religion, ethics and medicine it has always been the same, and I have come to regard the resulting warfare and struggle as inevitable. I have already lived to see many of my minorities turned into consenting majorities, and I am hopeful to see the same result follow in other instances, and your article is one which gives me hope about vivisection. You do me justice when you say it is on the utilitarian standpoint that I take the issue. As a Radical I hate standing armies and war and all that belongs to it; but I should, like the Quaker, say to a boarding-enemy, "Friend, thou hast no business here," and pitch him overboard if I could.

You say that the discussion of the question of experiments on living animals has passed beyond the stage of recrimination. I confess I wish this were true, but certainly within the past few weeks it has been shown to be not the fact. I trust that I may be believed when I say that I have during the past fourteen years, in which I have taken part in the controversy from time to time, done my very best to induce those whose views I share to use moderate language. I have not always succeeded, I am sorry to say; but for myself I desire once for all to say that I deeply regret any word and every word that I may have used without due care, and

which may have caused anyone who does not agree with me the slightest pain. Anything which I may have said which deserves this apology has been said under provocation, and of that I have had more than a fair share.

You submit two questions for discussion, and I agree with the postulates entirely if you will change the verb of the present tense into the past perfect, and say: "1. *Have* experiments on animals *been* justified by the results obtained? 2. *Have* such experiments *been* carried on under proper restrictions and by qualified and humane investigators in this country?" You give an unqualified affirmative in answer to the questions in the present tense; but can you do so with equal assurance if the past perfect tense is used? For the public it is by the evidence of the past that suspicion is raised concerning the present, and when I find an all-round defence of the past entered into by sweeping general statements I cannot wonder at them doubting the present. The worst enemy of the man who honestly desires to aid the advance of his profession by modern research is the exalted physician and surgeon or the misguided journalist who testifies that in the past everything has been useful and good. A common-sense attitude to take would be that in times of old rough methods were used, often fruitlessly and with misleading results. At odd times we may have to revert to such methods, just as in abdominal surgery we have now and then to go back to the caution to arrest bleeding. But to bring back the illustrations of Harvey's well-meant and inevitable bunglings, or Everard Home's misunderstanding of Hunter's clinical reasoning, as illustrations of what is necessary now in methods for everyday and wholesome use is unreasonable, is fallacious and, from a political point of view, is dangerous. Even in the illustration of Von Graefe's work, ignorant though I am of modern ophthalmic surgery, I now know that I was quite right and that Von Graefe's conclusion was a purely empirical one, and not based—not even confirmed—by experiments on animals. Similarly I might assure you, did your space and the patience of your readers permit, that in my own department the labours of Pasteur and Lister had not only nothing to do with my success, but, on the contrary, my success only came to me when I had completely disregarded the entanglements into which their teaching had led me. Since I left their following I have ceaselessly been engaged in combating their mistaken application of the facts relating to dead tissue to the treatment of the living.

But a truce to polemics. Your article deserves thanks, not contention. You are kind enough to say I am a keen, perhaps an obstinate, controversialist, and that you hope I may be ere long convinced that there is some good in vivisection. Would you be surprised to hear that I have admitted as much long ago, and who could doubt it after the masterly (no word is too good for it) unravelling of the sardine poisoning case the other day by Dr. Stevenson? This prince of toxicologists "vivisected" some mice and guinea-pigs, and proved his case; but with it all there is a suspicion in my mind that if modern chemistry would give itself up to such work seriously, that splendid science could prove the presence of these mysterious poisons in a way far better than that of trusting to the random medieval method of poisoning mice and guinea-pigs. The spectroscope solved in a trice the other day the mystery of the "winking star" for the astronomer. Is not the possibility of sardine poisoning, open to all and any of us, a far more important matter than the size and shape of the orbit of Algol? It seems to me a rank discredit that we have to plead a necessity for vivisection in any case. It is so transparently unscientific—that is, inexact. Let my brethren bear in mind that this method of research after knowledge, be it useful or be it useless, stands absolutely alone in being objectionable to anyone. Not the astronomer, nor the chemist, nor the physicist, nor any one else among scientific men has had to defend or excuse anyone of his methods of research. Is it not time that we began to at least apologise for this *déte noire* of ours? Not to defend it, but to express sorrow that our methods are so primitive, our science so crude, that it is still necessary—if it really is so. Further, should we not say that we regret it; should we not undertake to restrict it as far as possible, and keep it out of the horrors of the past as much as we can? And then, should we not religiously and zealously move with all our might to replace it by better methods and exhaust all other methods first?

Even these protestations—and the bulk of us would be honest in them—would go a long way to keep moderate—

minded men on our side, but to make an all-round defence of everything that has been done is mere folly.

I am, Sirs, yours truly,  
Birmingham, Nov. 28th, 1892. LAWSON TAIT.

### "DEATH FROM IRRITATION OF ASCARIDES."

To the Editors of THE LANCET.

SIRS,—I think I may claim to have strong testimony to support Dr. Beaven Rake's contention in your last issue of the important part which human entozoa play in the etiology of disease. I have just completed a voyage in charge of 557 Indian coolie emigrants from Calcutta to Demerara that occupied eighty-seven days. Last year, from symptoms I observed in a similar cargo bound to Jamaica, I was led to suspect the general presence of round worms in Indian coolies. Gripping pains, obstinate sickness and the presence of whitish shiny stools streaked with blood and passed with great frequency, and tenesmus, and the fact that these stools were extremely offensive, quite unaccompanied by dysenteric collapse and formed the commonest symptom observed, all appeared to point to this cause. This year, within a fortnight of embarkation, I weighed every coolie, and then administered santonin to each emigrant above two years of age, which produced 989 round worms. The largest number produced by any individual was thirty-seven, but I have good reason to suspect that large numbers escaped my tally, both in the preliminary sea-sickness which attacked the entire shipment and also from their belief that a second dose of medicine would be the inevitable result of such a confession. Allowing a two months' interval to elapse, I again weighed every coolie on board the ship, and I was able to prove a net increase of 2420 lb., which, taking 110 lb. as a fair average weight for an adult, represented twenty-two extra labourers on board. This result, though doubtless due to the generous dietary provided by the Colonial Governments in some part, may, I think, be not unfairly attributed to the fact that this large number of round worms had been expelled which would otherwise have caused grave interference with the digestive functions and prevented the due assimilation of food products. In conclusion, I would mention that in one case, a child aged two, who died, no symptom save debility could be discovered, and upon making a post-mortem examination a round worm was discovered in the small intestine, but no further evidence of visceral disease.

I am, Sirs, your obedient servant,  
PERCY RENDALL, M.D.  
Devonshire Club, St. James's, S.W., Nov. 28th, 1892.

### "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—I have always been disinclined to enter on a newspaper controversy, which as a rule results in so little good, but I cannot allow the assertions of Dr. Leslie Phillips and others to pass unchallenged. As to the working of medical aid associations in other towns I know nothing, but I must emphatically deny that the Manchester United Friendly Societies' Medical Association, of which I am one of the surgeons, trade on the services of their medical officers and make a profit out of their work. The published report and balance sheet of that Association for last year show a balance to their credit of £14 9s. 2½d. (no interest at all having yet been paid on money borrowed for fitting up surgeries &c.)—not much of a profit for twelve months' work. I am confident that the first use to which a larger balance will be put will be to increase the salaries of their surgeons (in the case of one this has already been done unasked) or to lighten their work by opening another surgery, thus dividing Manchester into four districts instead of three, as at present. No canvassing for families is carried on here, the only eligible ones being those of members of one of the societies forming the Association, and as far as I have been able to see the only reason for combination is the benefit of the members, as under the present system they obtain the services of a medical man who devotes himself entirely to attendance on them, and with whom the question of expense does not arise, he being able to obtain anything necessary for their efficient treatment for the asking. Looking at the matter from the club's point of view, I quite agree with

this. Medical men admit that the remuneration from clubs is too small to expect proper attendance, and from my experience as an assistant—which has been extensive—I should not care to be treated as a club patient in the usual way. No profit is made out of our attendance on midwifery; the whole of such fees, together with those for vaccination and reporting infectious cases, belong to the surgeons. Further, no "covering" of unqualified men can occur, as there are no assistants.

I entirely fail to see in what way my conduct can be considered "infamous in a professional respect." Nothing could be more contrary to my intentions, and when it is shown that I am acting in any way derogatory to my profession I will resign without any coercion from the Medical Council, who will, I feel sure, first consider many other matters—really disgraceful to the profession of medicine before they are induced to interfere in this. There can surely be nothing wrong in my preference of an appointment worth almost double that of an ordinary assistantcy, or in being responsible to a lay committee and paid by them. The medical staffs of all hospitals are controlled in like manner, and the appointments to large works, collieries and unions are held under both such conditions. So far I have been treated with every consideration, and am perfectly uncontrolled so long as my duty is done towards the sick members; and I certainly cannot be dismissed without three months' notice, unless for gross misconduct. I honestly believe I am practising my profession in a perfectly honourable and legal manner, and am free from the jealousy and ill-will found amongst my medical brethren in private practice, caused by the struggle to obtain patients. At any rate, I prefer my present position to running a sixpenny dispensary, or a private club (admission fourpence per family per week), or acting as assistant to another man, working like a slave, entirely for his interest and profit, for a mere pittance, and having one's opinion and treatment regularly and unceremoniously set aside and the impression conveyed to patients that an assistant is altogether an inferior being; or if perchance he should become too popular, some excuse for dismissal is soon found, and this to a married man is a serious matter, all chance of a livelihood in the same neighbourhood being quite out of the question through the terms of a stringent agreement. I should also be glad to know in what way my attendance on a number of united clubs differs from that of any other medical man on a single one, the contribution per member for the medical attendance being exactly the same in each case. Naturally I should, in common with most men, prefer a lucrative private practice, but to a young medical man without means this at the outset is impossible; but in simple justice, judging by my own treatment so far by a medical association, he might do worse than accept one of their appointments, which, with stated surgery hours, rules as to the sending of messages, holidays &c., is in some respects preferable to private work.

I am, Sirs, yours faithfully,  
Manchester, Oct. 24th, 1892. VERNON MOSSMAN.

To the Editors of THE LANCET.

SIRS,—Brevity is so important to us all that I must ask you to excuse me if I imitate, in a minor degree, the curtness of such succinct phrases as "systematic robbery" and "grotesque indecency," and request my opponents to translate my terse expression into more diffuse and polite language. Most of the letters of the malcontents are simply nonsense. Here is a quotation from one of them: "He [the surgeon] is the paid servant of some person or persons not connected in any way with the medical profession. This is a most undignified and indefensible position." Thus this correspondent, in order to prove his own conduct infamous, calmly insults the medical staff of the Army, the Navy, the Poor-law Unions, County Councils, and many other bodies. The next sentence in the same letter accuses me of incompetency because (not having capital) I cannot get a larger income in private practice than I have at present. I confess I can produce no reasoning which could make an impression on this gentleman, and I therefore pass by his three letters without further notice. Another correspondent asks me to master the facts in the case of the gentleman who received only £250 a year after five years' service, though the writer must know that the officer referred to was paid much more than the "market value" of medical men with such, and so recent, qualifications. If the advertisements are an index the L.S.A. of recent standing can be employed for £60 a

year, in-doors, and I have not heard of one who would sneer at the larger salary named. The subject is unpleasant and I quit it with pleasure, even to point out the remarkable mistake of another writer who speaks of the associations as "charitable institutions," the very thing they are not. He goes on, indeed, to propose that when all expenses have been paid the members should offer the rest of their pence to the surgeon; but whatever future claim such actions may give them to be considered charitable they have none at present. One of our opponents estimates the applications for a vacant appointment on our staff at forty, another at fifty, and they thus expose the baselessness of all the talk about our salaries being "miserable pittances," our condition "servitude" and our employers "sweaters." This one fact, that we are envied by a body of medical men at least forty or fifty times as numerous as ourselves, shows beyond dispute that if we are badly paid, enslaved and "sweated" by our employers, a vast number of qualified men must be treated still more badly by their employers. Why, then, waste sympathy on us, when we are, comparatively at least, well off? At the same time, if there are any better positions to be had, we shall be glad to hear of them, and, if we can get them, we shall, I promise, resign our present appointments in a body. None of your correspondents have succeeded in framing a definition of "covering" which would include us and exclude the man who takes up a deceased brother's practice on condition of sharing the proceeds with the widow, or him who buys a practice with borrowed money and goes shares with the money-lenders. If any financier will advance me £2000 on my guaranteeing him half the net profit of the practice I should buy, I shall be delighted to become working partner in the firm thus formed, and so, I do not doubt, would many of my opponents. And now I turn to Dr. Phillips' statements, which are like the talk of one thinking aloud, flinging among us half-formed ideas which he has never criticised himself nor expected anyone else to criticise. Take the assertion that the medical officer does all the work and earns all the income of the Association. Work is done for it by herb collectors, farmers, miners, merchants and drug millers, by the labourer and his men, by the dispenser, by those who have built the surgery &c., by the secretary or collector, by the committeemen (who see that each official does his duty), and by many others. The Association, needing the product of their labour, pays for the work they have done, and, needing also a doctor, pays him. The assertion that the latter does the work of all the others deserves to be met with a burst of laughter. Take next the statement that the Associations practise. Ten thousand men and women and 4000 babes in Northampton are solemnly declared to carry on a medical practice, and the medical officers are said to "cover" or conceal the nefarious doings of this army of unconscious quacks. Comment is needless. Take, then, the assertion that "the privilege of practising medicine for gain does not exist without the licence," and think of all the unqualified assistants, all the prescribing chemists and all the herbalists. Remember that the law prevents *no one* from practising for gain. Take, next, the insinuation that a qualification has no value if laymen can invest money in practices, and call to mind that it is the qualification which makes them prefer us to quacks, and that in the clerical profession the laymen do *all* the buying and selling, the clergyman being obliged to swear that he has not paid and will not pay for the adwoson, and yet the clerical "qualification" has not lost its value. Dr. Phillips wastes a column in describing an imaginary prospectus which "could be drawn" by a company which "may" be formed, when a moment's reflection would have shown him that he was not dealing with the question at issue. Are we justified in acting as we do? That is the question; and the assertion that if we are justified certain others would be so is totally irrelevant. More than another column is devoted to declaring the difference between "combination" and "coöperation," as if we cared which word was employed. Bishops may combine and burglars coöperate, and the suggestion that the one word has a baser meaning than the other is not supported by any lexicographer or philologist. The idea of restricting the meaning of an English word—the derivation given is not quite correct, by the way—because of the meaning the Romans attached to certain similar words would be unworthy of a third form schoolboy. In reply to the statement that the Aids do not abolish middlemen, I beg to point out that medical men employing assistants are middlemen, and of the worst description, as they intercept over three-fourths of their assistants' earnings. The Aids, as I explained in a pre-

vious letter, supply the assistant with an equivalent for capital, and, besides providing him with all that is required for carrying on a practice (which a private practitioner has to pay for himself), give him a salary. Nearly the whole income is spent in this way, a very small sum being usually put by as security for the stability of the Association. The Medical Defence Union itself is a "legal" Aid Association, the lawyers doing much more of its work than we do of the Aids, and receiving only one-third of the income. The Union saves, pays rent, and employs other servants than its professional men, just as do the Associations, but while the latter pay their lay officers only 4 per cent. of the receipts, the former pays its secretary and clerks 8 per cent. The comparison is made closer by the fact that, though the Union sneers at the Aids as "trading companies," it describes itself, in a report now before me, as "a business company and not a learned society." The most baseless of all Dr. Phillips' assertions is that the Aids pay "as a rule from one-fifth to one-third of the income" to their medical officers. It appears from the reports, which are said to "substantiate" this statement, that they pay "as a rule" from 40 to 50 per cent.—a larger proportion than most medical men can devote to absolutely private purposes, and that no Association pays so little as one-fifth. May I ask its author to withdraw this erroneous assertion? I have no time now to show the worthlessness of the remedies mentioned, but if the surplus is to be divided among a portion of the Association's servants, of course the members will take care that there is no surplus; and the suggestion that we should derive profit from having the supplying of drugs in our hands strengthens the impression that the "club doctors" gave cheap drugs in improperly small doses. In conclusion, I wish to say that I think this attack is made on us at the instigation of the general practitioners, who wish to become "club doctors" once more, and to force us to serve them (for £60 in-doors) as of old. Hoping that this letter may induce your other correspondents to *think* on the subject, and cease to rush into print with raw opinions and impossible suggestions, I am, Sirs, yours truly,

Nov. 28th, 1892.

VERAX.

\* \* We have received an overwhelming amount of correspondence on this subject. We do not propose, however, to insert any more letters for the present, the matter having been referred by the General Medical Council for consideration by a committee—ED. L.

## DEATHS UNDER CHLOROFORM.

*In the Editors of THE LANCET.*

SIRS,—A patient aged fifty-seven was admitted to the infirmary on Nov. 9th, 1892, under the care of Dr. Carter, suffering from ascites, which was thought to be complicated by a tumour (? cystic) in the right pelvic region. The patient's consent having been obtained, it was decided to operate, and for this purpose she was transferred to Mr. Jordan Lloyd. On Nov. 12th, the heart having been examined, and being to all appearances healthy, chloroform was administered on a piece of folded lint. (Chloroform was given in preference to ether because of an asserted liability to pulmonary trouble.) The patient took the anæsthetic perfectly well and was in no way excited, respiration continuing evenly and deeply at normal rapidity up to the time when the skin incision had been made, when quite suddenly and without warning she became livid, made two or three shallow gasps, and breathing ceased. The heart was examined instantly and no sounds could be detected. The pupils were not dilated, being about a line in diameter. The tongue was well forward between the teeth during the administration. The head was lowered over the end of the table and artificial respiration, both by Silvester's and Howard's methods, commenced, but no air could be made either to enter or leave the chest. Insufflation of the lungs was tried by the mouth without effect; tracheotomy was then performed and insufflation again attempted through the tube, but without effect. Heart puncture made within a few minutes of the onset of alarming symptoms showed the cardiac muscle to be absolutely inactive. At the post-mortem examination the cardiac condition was not such as could be recognised by auscultation, there being no valvular lesions; nor was the condition of the heart muscle such as could have affected the duration and tone of the first sound in any marked degree.

Chloroform from the same bottle had been administered to a case by me on the previous day, and was given to another patient afterwards without any disturbing effect. The amount administered in this case was not accurately measured, but could not have exceeded half an ounce; and the patient was completely, but by no means deeply, under when the alarming symptoms arose. I am inclined to believe that respiration and circulation ceased simultaneously; but I am of opinion that the symptoms were due to respiratory cessation, aided by the upward displacement of the diaphragm from the abdominal fluid, the heart's cessation being secondary. I would call particular attention to the following—(1) The normal size of the pupils; (2) the position of the tongue; (3) the sudden development of the condition; (4) the lividity of the face throughout in the entire absence of obvious signs of laboured breathing; (5) the early arrest of the heart's action, as discovered by auscultation and puncture; (6) the complete failure from the first to make air enter or leave the chest by any artificial methods. I may add that during a fair experience of anaesthetics, both in the hands of others and myself, I have never known alarming symptoms come on so suddenly and all efforts from the first prove so absolutely futile; and this case, in my opinion, lends support to the view, now so commonly held; that in the vast majority of cases of death under anaesthesia respiratory failure plays the leading part.—I am, Sirs, yours obediently,

F. MORRIMER ROWLAND, M.B. Cantab.,  
Resident Medical Officer, City Infirmary.

Birmingham, Dec., 1892.

To the Editors of THE LANCET.

SIRS,—It is a far cry from you to where I am writing, but after waiting in vain for some more doughty champion of chloroform to appear, especially one from the Edinburgh school, I venture to raise my feeble voice, impelled thereto by what seems to me only just and fair to the merits of this useful servant of our profession, but one which appears liable to become decidedly unruly in use, and unusually fatal to our unhappy patients. I take it that the conclusions of the Hyderabad Commission have settled it that the respiratory centres are the first in order to be affected, and the rule to watch the respiration is a sound one. I make bold to broadly lay it down that there are two classes, and two only, where death occurs under the use of this anaesthetic, and these classes are—(1) unsuitable cases, and (2) unsuitable apparatus.

1. *Unsuitable cases.*—As regards these I opine that we are all agreed that they consist of those where some organic disease of the heart and lungs exists, likely to be influenced by the drug, and to these we should perhaps add any affection of the centres presiding over the circulation and respiration.

2. *Unsuitable apparatus.*—Here I have been struck by the remarkable preponderance of the use of some one of the numerous inhalers in fatal cases. It is my firm conviction that if all apparatus are carefully deposited in the lumber room, out of the reach of the scientific mechanic, we would be gratified by a decided decrease in the number of deaths reported. Roughly speaking I think it will be found on an analysis of every case of death from chloroform narcosis that where death has not been the outcome of organic disease, the existence of which was unascertained, unsuspected or overlooked, it has been the result of the use of some inhaler or other. For my part I have ever since my student days used the folded towel applied over mouth and nose, ensuring a due admixture of air with the vapour. If ever I did have recourse to any other method I soon saw reason to return to the time-honoured, simple and useful towel or napkin folded crosswise. Keeping this towel well before the nose and mouth I keep my eyes upon the respiratory movements and regulate the administration accordingly. I feel as I write this that it must seem very platitudinous, as it has been urged and recommended again and again, but apparently to deaf or preoccupied ears. I have never had since a student any mishap in giving it, and I have given it to all sorts of cases, and numberless times and often, when far away from medical assistance, alone. I therefore cannot help wondering how it is that all the deaths occur which one sees recorded. As an improvement to your present heading, then, I would suggest "Deaths under Inhaler." In thus speaking of chloroform I do not of course pretend that it is any safer than ether, and do not decry the latter; but I only desire to put the saddle on the real delinquent, and in this case I am persuaded the inhaler, patent or otherwise, is to blame. The tendency of all true

science is to the simplification of treatment and the methods of practice.

Hoping that this protest will meet with the attention the subject merits, though conscious of how much better a case many another could present,

I remain, yours sincerely,

Orange, Oct. 5th, 1892. G. A. VAN SOMEREN, M.D. Edin.

## THE USE OF ANTISEPTICS IN THE PREVENTION OF SCARLET FEVER AND OF SEPTICÆMIA.

To the Editors of THE LANCET.

SIRS,—The abridged report in the last issue of THE LANCET of my remarks at the Harveian Society on Mr. Tait's paper on Peritonitis is apt to leave an erroneous impression, which I trust you will afford me this opportunity of correcting. Inasmuch as scarlet fever spreads from patient to patient, my experience at the General Lying-in Hospital was, as you state, analogous to that of Mr. Tait in operation cases; but I differ from him *in toto* as to the channel whereby the patients are likely to have received infection, and, consequently, the deductions to be drawn from that experience are entirely at variance with the opinions advanced by him. Mr. Tait relates how, in the days when he used complete Listerian precautions, spray and everything else, he inadvertently carried scarlet fever from one patient to eleven others, on whom he operated in succession; and, assuming that he transmitted the infection at the time of the operation by direct inoculation, he puts this experience forward as evidence against the value of antiseptics to prevent not only scarlet fever but septicæmia also. From this view I entirely dissent, and for the following reason. Scarlet fever, as is generally recognised, spreads through the atmosphere, and the poison obtains entrance to the patient's system through the respiratory passages. It is not necessary, therefore, to assume gratuitously that, because a patient has been operated upon, the poison has of necessity been introduced through the wound. The very fact that three of Mr. Tait's nurses were also infected points the finger in the right direction. On this ground I would submit that antiseptics, however efficiently employed with a view to prevent direct inoculation, would not in themselves prevent infection of the patient by scarlet fever through the ordinary channels, either at the time of the operation or subsequently. On the other hand, if efficiently carried out, they will destroy, and therefore prevent, the introduction of the poison of scarlet fever and of septicæmia through the wound. I have shown how in the General Lying-in Hospital, in which for the last eleven years the service has been conducted upon Listerian principles, though scarlet fever spread from patient to patient, septicæmia as a cause both of illness and of death had been practically eliminated; and though scarlet fever spread, septic processes obtained no hold even in the scarlet fever cases. The precautions adopted aimed at and succeeded in destroying septic matter which might otherwise be carried by direct inoculation through wounds in the genital passage; but these same antiseptic precautions were obviously insufficient, and were never intended, unless supplemented, to prevent the spread of scarlet fever and of other poisons which permeate the atmosphere and find a door of entry through the respiratory passages. This experience I have related in detail in my paper on Scarlet Fever during Pregnancy and in the Puerperal State, published in vol. xxx. of the Obstetrical Transactions.

I am, Sirs, yours faithfully,

Weymouth-street, W., Nov. 23rd, 1892.

ROBERT BOXALL.

## LACTIC ACID IN TUBERCULOUS ULCERATION.

To the Editors of THE LANCET.

SIRS,—The reputation enjoyed by lactic acid as a curative agent in tuberculous ulceration of mucous membranes is well borne out by Dr. Percy Kidd's interesting case reported in THE LANCET of Nov. 19th. That this drug has a curative effect in such cases must be the conviction of all who have employed it persistently and efficiently in laryngeal phthisis. Indeed, even where the laryngeal mischief is extensive and the lungs are affected, we believe that, if accompanied by sufficiently large doses of creosote, it may be applied with advantage either by means of a cotton-wool brush or in the

form of spray, the latter being, however, somewhat choking. Some time ago the probability occurred to us (as it must have to many others) that similar good effects might follow its use in tuberculous ulceration of the skin. Accordingly, without consulting any literature on the subject, we employed it in the following cases, in each of which the concentrated acid was rubbed in vigorously by means of cotton-wool wrapped firmly round a pair of dressing forceps:—

CASE 1.—A patient aged sixty-five was admitted, suffering from tuberculous ulceration of the skin of the right forearm of two years' standing. After scraping, the acid was applied as above, and, in spite of considerable pain, repeated daily for a fortnight. During this period it was noted that a portion of infected tissue had been left behind on which the lactic acid seemed to have no specific effect, and it had ultimately to be removed. It was over two months before cure was effected, and we are not satisfied that the result was any better than that obtainable by ordinary methods.

CASE 2.—A schoolgirl aged twelve was admitted, affected with lupus of the nose, extending also to the mucous membrane. In this case only the cutaneous portion was scraped and the patient made an excellent recovery. It is to be noted that on the mucous membrane the acid apparently exercised its specific effect, a fact which may be contrasted with its failure in the previous case.

CASE 3.—A servant aged seventeen was suffering from tuberculous ulceration covering the greater part of one forearm, of ten years' standing, which had been subjected during this period to various forms of non-operative treatment. After scraping, the concentrated acid was applied and continued for five weeks, when creasote ointment was substituted. This case was encouraging, its progress and the ultimate result being all that could be desired.

CASE 4.—A fireman aged thirty-two was admitted with a patch of tuberculous ulceration the size of the palm of the hand. This was scraped and silver nitrate was applied. Later lactic acid was used, and, although producing marked pain, it was continued, the patient being discharged cured at the end of three weeks. We have heard that there has been recurrence.

CASE 5.—A schoolboy aged ten had extensive tuberculous ulceration of the dorsum of one foot with outlying nodules. This, after scraping, was treated throughout with lactic acid, the application of which was, as in the other cases, accompanied by pain. The patient was in hospital over four months, during which further scraping became necessary, and once more, although a cure was finally obtained, we were unable to detect any special advantage in the use of lactic acid.

The result has been on the whole disappointing, for while it leaves untouched the old dictum that there is but one satisfactory treatment in such cases—a thorough scraping—lactic acid evidences no superiority over caustic potash or chloride of zinc as an after application.

We are, Sirs, yours truly,

W. NEWLANDS CLEMMEY, M.R.C.S.  
JOHN BIERNACKI, M.B. Glas.

Bootle, Nov. 21st, 1892.

## BOYCOTTING IRISH QUALIFICATIONS BY LONDON HOSPITALS.

To the Editors of THE LANCET.

SIRS,—From your report of the last meeting of the Irish Graduates' Association I see that they have set themselves a Titanic task, inasmuch as they hope to get Irish qualifications their legitimate recognition by the governors of London hospitals. The following facts will prove this, being the experience of one who had the audacity to appear before one of these august corporations: In June last your columns contained an advertisement for an assistant surgeon to a large London hospital; for this appointment I was one of several candidates, and in due course appeared before a court of governors of that hospital. To my utter astonishment I was asked by the chairman why I applied for such an appointment, not having obtained the F.R.C.S. Eng. In reply, I stated that there were no such conditions in their advertisement, which led me to believe that monopoly had been done away with by them, as it had been at Hastings and Bristol. This simple statement seemed to stimulate this gentleman to add insult to injury by stating that there was no chance of any surgeon with an "inferior" qualification being admitted to their hospital; that their

tendency was to uphold the higher qualifications, and that if I wished to aspire in the future to one of their appointments, I must obtain the F.R.C.S. Eng., which I suppose is the higher college referred to, but whose new cognomen puzzled me for the nonce. Notwithstanding his provocative speech I suppressed my ire and humbly pointed out that his valuation of my fellowship was not in accordance with that of the Select Committee of the House of Lords, which seemed to surprise him—so much so that he offered to go into my application instanter, which I declined with thanks. Twenty years hence this fossilised condition of affairs will be interred with its guardians; but in the meantime those of us who are capable of, and have an ambition for, hospital work in London cannot hope for any relaxation from these gentlemen, judging from the above experience, which speaks for itself. The only alternative open is, with the help of philanthropic Irishmen, to establish a St. Patrick's Hospital in London, manned by Irish surgeons and physicians, on such a large and generous basis as that we may hope to have for consultants such distinguished Irishmen as Sir Richard Quain and Sir William Mac Cormac, and in the administration and work done in this hospital prove *practically*—"which is all that a generous English public requires"—that we Irish graduates are as worthy of their confidence as English ones, only asking "a fair field and no favour." I am, Sirs, your obedient servant,

ROBERT O'CALLAGHAN, F.R.C.S.I.

Carlow, Nov. 24th, 1892.

## TALIPES EQUINO-VARUS AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—The somewhat abrupt conclusion, owing to the lateness of the hour, of the debate on Mr. Edmund Owen's paper at the Royal Medical and Chirurgical Society, when only three Fellows had spoken, must be my excuse for addressing these observations to you. It is not to be denied that in a certain proportion of cases of congenital club-foot relapse does occur after what Mr. Owen calls the orthodox treatment, either from neglect or from faulty growth. Even such cases can, in my experience, all be brought into a good position by subcutaneous tenotomy and myotomy and the use of instruments, but it is not always easy to maintain the improvement. In two such cases at the National Orthopædic Hospital I have performed what is known as Phelps' operation with encouraging results. My father, Dr. W. J. Little, long ago stated as his opinion that congenital club-foot could not be too early operated on. I am glad to hear that Mr. Owen adopts this view. If seen early enough and the after treatment be carefully carried out, even the most severe case may be rectified without even using a Scarpa's shoe or other elaborate appliance. Whether Phelps' operation or tenotomy only be done, the foot must be held in a good position until it has grown into it. Mr. Owen spoke of the pain caused by the "orthodox treatment." No splint or shoe need be applied so as to cause pain or the subsequent formation of sores. A visit to the wards of the National Orthopædic Hospital would convince anyone that the treatment can be carried out without pain. Subcutaneous surgery is one means (as Mr. Hulke pointed out) of maintaining a sepsis, and is surely a simpler and more certain way of doing so than the most rigid antiseptic precautions. Is it, then, an anachronism? Where the one method is inapplicable we need not, thanks to Listerism, hesitate as in former days to make an open wound; but it can never be good surgery to divide any structure needlessly. The foot that has been cured by tenotomy and gradual methods has its functions less impaired than that which has undergone a radical operation involving opening of joints and probable division without hope of repair of the internal plantar nerve; but the latter is obviously a better foot than one in the condition of equinovarus. There are other points of interest raised by Mr. Owen which considerations of space forbid me to touch upon.

I am, Sirs, yours faithfully,

Seymour-street, W., Nov. 23rd, 1892. E. MUIRHEAD LITTLE.

## "CAISSON" WORKING IN BLADDER SURGERY.

To the Editors of THE LANCET.

SIRS,—As I was unfortunately unable to be present at the Medical Society on Monday, Nov. 14th, when Mr. Fenwick read a short paper with the above-mentioned title, perhaps,

you will allow me to add that I have employed an almost exactly similar plan in several instances and fully endorse its applicability to certain cases. The only way in which my operation differed from his was that I have usually sponged out the speculum instead of sucking it dry.

I am, Sirs, yours obediently,

Harley-street, W., Nov. 22nd, 1892.

W. BRUCE CLARKE.

## THE INTERNATIONAL CELEBRATION AT PADUA.

(FROM OUR SPECIAL CORRESPONDENT.)

NOMINALLY to commemorate the tercentenary of Galileo's epoch-making lectures in this august seat of learning, but really to embody the gratitude of modern science for one of the most eventful occasions in its history, the *feste*, which begin on Dec. 6th and conclude on the 8th, have already attracted the interest and in several cases even the actual presence of the votaries of inductive research all the world over. Medicine in particular will be honourably as well as numerously represented at the celebration. She has not forgotten the place that Padua holds in her annals. There it was, to go no farther back, that Fabrizio Acquapendente made the discovery embodied in his treatise, "De Ostiolis Venarum," a discovery which had the most signal effect in enabling his four years' pupil, Harvey, to put his mighty inductions on the irrefragable ground of demonstrated fact and to silence the censorious detraction of would-be vindicators of less worthy claimants. A list, indeed, of the British graduates who left the halls of Padua to diffuse its teaching and its practice throughout Christendom would fill a portly volume, and if that list dwindled down to inanity by the middle of last century it was for the reason that the pupils began to excel the mistress, or at least to transfer her doctrines and methods to other centres of education, scientific and professional. Not that she had ceased to vindicate even then and long afterwards the proud position she had held before and after the Renaissance. With pathologists like Morgagni, and with anatomists like Scarpa, she shed a light on medical teaching and practice whose lustre is hardly dimmed at this day, and if in the struggle for disenthralment from a foreign yoke she had to slacken her zeal for pure science and professional training, she is, now that the goal of a united Italy is attained, making up for the time she sacrificed and the opportunities she had to ignore, and will ere long assume her traditional rôle of leader among the Lombardo-Venetian, and honourable competitor among the Italian universities.

Preparatory to the detailed account of the proceedings, which I will send next week, I can now, through the courtesy of the organising committee, present an outline of their tenour. The Minister of Public Instruction will represent the Government at the celebration—Signor Ferdinando Martini. On the 5th there will be a reception, on the part of the Paduan students, of the students of other universities, and of those of the other institutions for the higher professional instruction throughout the peninsula. Delegates from British and other seats of learning or medical schools will also be warmly welcomed and hospitably entertained. On the evening of that day a grand choral festival will inaugurate the reception in the Sala della Ragione. On the 6th the Senatus Academicus and subordinate staff will receive the delegates of other institutes and cities, who will thereafter be presented to the civic authorities of Padua. This will be followed by a visit to the various monuments and points of historic or academic interest within the walls and neighbourhood. The University Rifle Brigade will hold a competitive trial of skill by shooting at the target, and the day will close with a grand festival, in which the students will act as hosts, in the Sala della Ragione. The 7th will be memorable for the commemoration of Galileo in the academic Aula Magna, on which occasion will be presented the *gon-falono* (standard) wrought by the ladies of Padua for the University. This will be followed by the speeches of the day, delivered by the Rector, Professor Ferrari, and by the Commendatore, Professor A. Favaro, after which will be unveiled the commemorative tablet, duly inscribed for the occasion. A "Spettacolo di gala" will be given

in the evening at the Verdi Theatre. On the 8th a *cortège* consisting of all the students attending the academic and other educational institutions of the city, and of the civic authorities and the other guilds and corporations, will patrol the city, to lay crowns on the monument of Galileo in the Piazza Vittorio Emanuele. After this a grand fencing tournament will be held by the students, to be followed by a reception given by the Town Council of Padua. The day and the proceedings as a whole will be concluded by a great festival of the students in the Sala della Ragione.

The arrangements, already in progress for some weeks, promise a most successful celebration, of which my next letter will give an extended report.

Padua, Nov. 28th, 1892.

## BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

### *The Jaffray Hospital.*

THE 28th of November was the seventh anniversary of the opening of this hospital by the Prince of Wales. A concert and fireworks testified to the event, after which cheers were given for the founder, who was unavoidably absent.

### *A Temporary Terror.*

Some of the officials of the General Hospital were lately thrown into a state of alarm by the escape of a small patient aged eleven. This precocious boy, who was under massage treatment for an injured arm, was heard to object strongly to the process, and to declare that he would drown himself. One night, during the brief absence of the nurse on duty, he disappeared. The canal was dragged, the telephone set to work, and for some hours no tidings of the fugitive could be ascertained. Meantime he had run nearly three miles in his night-shirt and slippers to the house of a relative. The question of responsibility was thus considerably lessened, and the institution resumed its ordinary routine.

### *Death from Football.*

A fatal accident from the effects of a kick during a football match on Nov. 27th was the cause of an inquest at Worcester. The Rev. G. H. Knight, one of the assistant masters at Bromsgrove College, during the game was accidentally kicked by an opponent. He subsequently complained of his head; a doctor was called in, who thought that he would be better after a night's rest. On the following morning he was found dead in bed. The necropsy showed a large clot of blood from a ruptured vessel upon the brain. Unfortunately these accidents are not infrequent, and the manner in which the game is often played gives opportunities for injury which may lead to disastrous results; but the risks seem only to stimulate the players and to heighten the interest of onlookers.

Nov. 30th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *Natural History Society of Newcastle.*

A LEGACY of £2000 has been received by the hon. treasurer of the Natural History Society from the executors of the late Mr. John Coppin of Bingley, Northumberland, who had bequeathed this sum towards the maintenance of an efficient curator for the museum of the Society.

### *A New Scientific Society.*

A new scientific society has been formed in Newcastle, having for its object the pursuit of certain branches of microscopical research, some of which have been comparatively neglected. By the regulations every member is expected to devote himself to a particular line of investigation and to mount as many slides illustrative of his work as will enable him to give one to each of his colleagues on the occasion of the monthly meeting. It has been a common complaint at our microscopical meetings that the members do so little microscopical work.

### *Gateshead.*

The medical staff of the Gateshead Children's Hospital have presented a report to the committee on the overcrowded state of the wards. The hospital was commenced on a very modest scale, but such is its utility that it was very soon

filices, and must ere long be very considerably enlarged. There should be no difficulty in doing this in a large and prosperous town like Gateshead. The Gateshead guardians, like others, have agreed to grant certain quantities of tobacco and snuff to deserving inmates of the workhouse, and I hear that this humane decision has given much satisfaction to the rate-payers.

*The late Dr. Heath of Newcastle.*

I have seen a very fine portrait of the late Dr. Heath as President of the Durham College of Medicine in the gallery of Messrs. Mawson, Swan and Morgan, of this city. It has been painted by Mr. C. Kay Robertson after the fine and well-known picture by Mr. G. W. Joy. It shows Dr. Heath in his D.C.L. robes, and it has been inspected by numerous members of the profession. There is also shown in the same gallery (published by special permission of the executors) a very fine autotype reproduction of the original picture by Mr. Joy. Those who wish to obtain copies of it should apply early, as the issue is limited and it is not published for profit.

*Death of a distinguished Colonial Surgeon.*

Mr. Daniel Robertson died last week at his son's residence in Gateshead. The deceased occupied many important positions. In 1864 he was appointed surgeon of McCarthy's Island, Gambia, on the West Coast of Africa. Previously he was Colonial Surgeon of Bathurst and Colonial Secretary in 1848; he also served as Queen's Advocate and Judge of the Court of Common Pleas, and acted some time as Governor of the same place; but his most distinguished service was when he volunteered his services as surgeon on board H.M.S. *Curlen*, the surgeon, nearly all the officers, and two-thirds of the crew having died of yellow fever.

*Cumberland.*

The water-supply of Penrith has occupied the consideration of the local board of health, and much correspondence has passed between the board and Mr. G. F. Deacon, the engineer of the proposed waterworks, and Dr. Stevenson, of Guy's Hospital, who concludes his report as to the surrounding waters by pointing out "that the difficulty felt in determining what scheme to adopt was simply an embarrassment arising out of the riches about Penrith in the matter of the water-supply." The cost of the schemes, he further said, was low in relation to the quantity and quality of the water, and, whichever was ultimately adopted, he felt satisfied that Penrith would be in the possession of one of the best supplies in the kingdom.

*Death of the Cumberland Centenarian.*

The death of the Cumberland centenarian, Mr. Thomas Moffat, is announced at the advanced age of 102 years, 3 months and six days. He was originally a weaver, and his apprentice indentures, dated Aug. 3rd, 1802, are still preserved and attest his great age. Up to a couple of years ago Mr. Moffat had uninterrupted good health. The deceased was interred at Wigton.

Newcastle-on-Tyne, Dec. 1st.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*Entries at the Dublin Medical Schools.*

THE entries for the anatomical classes for the session, according to the official returns, are as follows:—

Trinity College	181
Royal College of Surgeons	178
Catholic University	116
Total	475

As compared with last year there is an increase of 1 in the Catholic University, a decrease of 28 in the College of Surgeons' School, and a decrease of 50 in Trinity College. As regards the last-named institution there is no first-year's class owing to recent rule. This makes a decrease of 77 in the three schools as compared with the returns in 1891, which to some extent may be explained by the five years' curriculum coming into operation on Jan. 1st last. Going back as far as 1889 I find that the total entries that year were 635, showing that in three years the numbers have diminished by no less than 160, or about one-fourth of the total.

*Dublin University Biological Association.*

The opening meeting of the Association was held in Trinity

College last week, presided over by Dr. Macan. Dr. Beatty, president, delivered an address on the subject of the Functions of the Glands of the Skin. He stated in the course of his observations that he had made exhaustive experiments on numerous animals and arrived at the conclusion that he could not accept Dr. Unna's theory in reference to the sweat glands. A vote of thanks was passed to the lecturer for his address.

*Transactions of the Royal Academy of Medicine.*

The tenth volume of the Transactions of the Academy has now been issued to the Fellows. In the Section of Medicine there is an excellent paper by Dr. W. G. Smith on Recent Advances in the Etiology of Diseases of the Skin and their bearing upon Treatment; while Dr. Tweedy has, in a paper on the Diagnosis and Treatment of Diseases of the Stomach, described the instrument devised by Dr. Einhorn of New York, and which he has styled a "stomach bucket." There are papers on the Treatment of Typhoid Fever, by Drs. Boyd and Beatty; and a Case of Typhoid Relapse, by Dr. J. Moore. In the Section of Obstetrics there are Notes of a Case of Ruptured Uterus (recovery), by Dr. P. J. Barry; and an interesting communication by Dr. Atthill, on Dilatation of the Uterus, and the Treatment of some of the Commoner Forms of Uterine Disease. Dr. Cosgrave, in the Section of State Medicine, discusses the Control of Inebriates; and Mr. Flinn has a communication on Some Modern Methods of Sewage Treatment. There are other papers which I hope to refer to on another occasion.

*Cork Hospital Saturday.*

By additional subscriptions this fund has reached a total of £853, and this was allocated last week to various Cork charities, nearly half the entire amount being divided between the North and South Cork Infirmaries. Last year it may be mentioned the fund came to £600.

*Royal College of Surgeons.*

The Fellowship has been obtained by the following—viz., D. P. Coady (Naas); C. J. Lyons (British Honduras); and F. T. Newell (Dublin).

*The late Mr. William Colles, F.R.C.S.I.*

The many friends of the late Mr. Colles will be glad to learn that the medical profession are having a memorial portrait painted by Mr. W. Osborne, to be placed in the board room of the Royal College of Surgeons, Dublin. Subscriptions, limited to one guinea, should be forwarded to the Honorary Treasurer, Colles' Memorial, Royal College of Surgeons, Dublin.

*Belfast Board of Guardians: Resignation of Medical Officers.*

We are at present in the throes of a stiff medical contest in Belfast owing to the resignation of two of the medical officers of the Belfast Workhouse, which took place on Nov. 29th. One of these—Dr. Seaton Reid, the father of the medical profession in Belfast—is now in his eighty-sixth year, and has been an officer in the Poor-law service for forty-six years. Dr. Reid, who was formerly Professor of Materia Medica at Queen's College, held the office of physician to the Belfast Fever Hospital (which is under the Poor-law Board), and from the great experience which he acquired there obtained a very high reputation as a consultant in fevers and in all acute diseases. The second medical officer, who resigned on the same day—Dr. Brice Smyth—was visiting medical officer to the Union Hospital, and had charge of the Maternity. He has been for thirty years an officer of the Board of Guardians. Both these appointments are worth £150 per annum, and there is a keen competition for them, the following being candidates:—Dr. E. C. Bigger, Mr. Hall, Dr. McCullagh, and Dr. Killen. At the Board of Guardians meeting on Nov. 29th the services of Dr. Reid and Dr. Smyth were spoken of in the highest terms, and it was decided to grant them a superannuation allowance to be finally settled at a future meeting.

*Queen's College, Belfast.*

I understand that the Lord-Lieutenant has written, through his secretary, to the President of Queen's College, expressing his strong approval of the proposed students' union, and intimating his intention of subscribing £25 to the fund.

*The Belfast Charitable Society.*

At the annual meeting of the Belfast Charitable Society, held on Nov. 29th, Dr. Richard Purdon, visiting physician, in his medical report which was submitted, refers among other matters to the severe visitation of influenza at the

institution towards the end of last year, which caused fifteen deaths—a not unnatural result considering the great age of the old people in the charity, and that many of them were affected with chronic ailments of the chest, heart &c. In February of this year a complete change in the nursing arrangements was made, and this has already brought about an improvement in the cleanliness, comfort and health of the patients. The dietary has also been improved, a greater variety of food being given. Dr. Purdon states that there is much want of additional accommodation for the sick and infirm patients, at least six extra beds in each of the male and female infirm and hospital wards being required.

#### *Delfast Nurses' Home and Training School.*

The annual meeting of this deserving medical institution was held on Friday, Nov. 25th, the Countess of Shaftesbury presiding, when a very satisfactory report was presented, and special thanks were given to Dr. Calwell, Dr. Stafford Smith and Professor Sinclair for their services at the home.

Mr. David Turner has been presented by the patients and nursing staff of the Royal Hospital for Incurables with an illuminated address and a gold watch on the occasion of his retirement from the post of resident medical officer to that institution.

At Waterford Petty Sessions Mrs. Poole was fined £5 for compounding a medical prescription, not being entitled to do so. Nov. 30th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *A Singular Medico-legal Case.*

At a recent meeting of the Société de Médecine Légale an interesting communication was made, on behalf of Professor Cazeneuve, on a singular case of infanticide involving a somewhat unusual medico-legal problem. It was a question concerning an infant of five months which had died suddenly in 1891 without showing any previous symptoms of disease. At this time there was no suspicion of crime, and it was only owing to certain rumours, sixteen months later, that the police took action and caused the body to be exhumed. The chemical analysis for traces of arsenic, lead, mercury and other poisons came to nothing. However, further research led to the discovery of eight small pieces of an elastic blackish-grey substance blocking up the intestinal tract. After repeated washings and careful examination these were recognised as portions of sponge, and M. Cazeneuve was of the opinion that the ingestion of these fragments of sponge was the cause of death. In support of this opinion he cited the custom which obtains in certain country districts of killing stray dogs and predatory cats by placing in their way small pieces of sponge soaked in grease, which, upon being swallowed by the animals, become swollen in the intestinal canal, after the manner of a sponge tent and thus induce fatal obstruction. Founding an opinion on these considerations, and also taking into account the fact that the portions of sponge presented a well-defined cut surface, the medical jurist concluded that circumstantial evidence was established that the child was caused to swallow the pieces of sponge in a vehicle such as milk or soup. The jury also took this view, with the result that the accused was sentenced to penal servitude for life.

#### *Poisoning of a Prison Physician.*

A curious but luckily not fatal poisoning accident recently befell the medical officer of Beauvais prison. It appears that for some time the prisoners suffered from some inexplicable malaise, and suspecting the pharmaceutical extract of walnut leaves, which it seems is the practice to add to the prison drinking water, the medical officer, instead of having recourse to experiment on the lower animals, resolved to try the diluted extract upon himself, with the result that he almost sacrificed his life. About five minutes after taking the mixture he experienced a sense of great heat at the epigastrium, extreme dryness of the throat, dimness of vision and weakness in the limbs. Poisoning was at once suspected and energetic remedies adopted, with the result that in three days he was able to resume duty and to open an inquiry into the cause of his misfortune. It was then found that the druggist who had the prison contract for the supply of drugs, had, through a mistake on the part of his pupil, sent extract of belladonna for extract of walnut leaves. The druggist was hereupon indicted before the Correctional Tribunal of Beauvais, condemned to prison for six days and fined 100 francs.

#### *Hysteria after Ovariectomy.*

M. Debove, at a recent meeting of the Medical Society, recorded the case of a patient aged thirty-eight who had the uterine appendages, including both ovaries, removed in 1889. The result was in every way satisfactory from an operative point of view. In June, 1890, however, the patient had an hysterical attack for the first time, followed by several subsequent attacks. Her medical history previously to the operation contained no record of any hysteria. When examined by M. Debove there was well-marked hemi-anæsthesia, with "ovarian" pain on pressure, the latter exciting a fresh attack. The iliac pain, moreover, was readily transposed by a magnet. The point, however, that the communication was intended to emphasise was that the ovariectomy did not prevent the occurrence of hysteria or even of the manifestations generally known as "ovarian."

#### *The Medical Practitioner and the Concierge.*

Medical men on your side of the Channel hardly realise what their *confrères* on this side have to contend with. In England a man reckons, it is said, his home his castle; in France he has to reckon first with his *concierge* or hall porter. A case illustrating this is recorded by a Montpellier paper. A medical man having changed his address, his former *concierge* persistently refused to give his new address to the patients who came to request it. An appeal to the landlord, whose servant the *concierge* alone is, not mending matters, our *confrère* summoned them both before the local tribunal. Here it was elicited that the amiable janitor, aggrieved on the usual grounds, made answer to all inquiries for the doctor—"Unknown," "Gone without leaving address" &c. The court very properly held that such behaviour was fraught with prejudice to our *confrère's* interests, and fined the *concierge* and landlord £40 with costs.

Paris, Nov. 30th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *Professor Leyden on Professor Pettenkofer's Experiment.*

In the Society for Internal Medicine Professor Leyden alluded to Professor Pettenkofer's experiment last Monday. He attached great importance to it. He thinks that the strict adherents of the bacteriological theory are too dogmatic and one-sided. The measures taken against cholera had been one-sided too, aimed as they were mainly at the destruction of cholera bacilli. In this endeavour people had gone so far as to regard cholera patients mainly as media of cholera contagion. Such patients and even persons suspected of being such patients had had their personal rights quite inhumanly interfered with. Professor Leyden reminded his hearers that something similar had taken place in the case of tuberculous patients after the discovery of the tubercle bacillus in 1882.

#### *The Cholera Epidemic in Russian Poland.*

The Prussian Commissioner for the basin of the Vistula published on the 23rd inst. the following statistics of the cholera epidemic in Russian Poland. In three days the Government district of Radom had 24 cases and 8 deaths, Lublin 14 and 12, Siedlec 42 and 30, and Lomza 16 and 4.

#### *Scientific Publications.*

The 157th number of the "Collection of Scientific Lectures," edited by Rudolf Virchow and Wilhelm Wattenbach, contains an essay by Robert Franceschini of Vienna entitled "Biology as an Independent Science." Dr. Behring has published a book entitled "The Therapeutic Serum of Tetanus and its Application to Patients."

Berlin, Nov. 28th.

**MEDICAL MAGISTRATE.**—Thomas J. Henry, L.R.C.P., L.R.C.S. Edin., Government Medical Officer for the district of Warialda, New South Wales, has been placed on the Commission of the Peace for the colony of New South Wales.

**UNIVERSITY OF CAMBRIDGE.**—The first part of the third examination for degrees of M.B. and B.C. will be held on Dec. 13th, 14th, 16th, 17th and 19th; the second part on Dec. 13th, 14th, 15th, 16th, 17th, 19th and 20th. The examination for the degree of M.C. is fixed for the 16th, 17th and 19th inst.

## Obituary.

WM. LINDOW DICKINSON, L.R.C.P.LOND., M.R.C.S., J.P.

By the death on Nov. 20th of Mr. Wm. Lindow Dickinson, in his seventy-third year, there is severed not only from the town of Workington but also from a very large surrounding district a medical connexion which has been preserved in unbroken succession for nearly a century. Beginning practice in Workington about the early years of the present century, Mr. Dickinson's grandfather laid the foundations of a practice which extended wellnigh through the whole west of Cumberland, and which was recruited from time to time, first by Mr. Dickinson's father and uncle, and later by the introduction of the late Mr. Peat, who was associated with the deceased gentleman till some fifteen years ago, when Mr. Peat died and Mr. Wm. Lindow Dickinson retired in a great measure from active practice. In these days of railways, telegraphs, telephones &c., it is no easy matter to thoroughly estimate the great difficulties or the vast amount of hard work which the carrying on of such a practice entailed, but the high estimation in which those services were held by such a large section of the community was in itself convincing testimony of the conscientious way in which these duties were performed and the high professional skill which was at command. In this work, up to the time of his retirement, the deceased gentleman took a large and active part, bringing to bear upon the practice of his profession a mind singularly well informed, an experience ripened by his early training and a judgment at once accurate and keen. It was to these qualities, combined with a personal charm of manner, that Mr. Dickinson owed much of his success; and it is not at all astonishing that he succeeded in gaining from his patients a confidence and esteem such as it is given few men to enjoy. Nor, with all the work which came to his hands, did he neglect to keep himself thoroughly well read in all the current medical literature of the day. The study of physiology especially found for him great and absorbing interest—an interest which he maintained till the day of his death. It was doubtless to the meditative and thoughtful mind which the pursuit of this study brought to Mr. Dickinson that the medical world is indebted for the honour which belongs to him of having been the first person to diagnose trichinosis in the living subject in England. The whole matter was fully dealt with by Dr. Spencer Cobbold in the Cantor Lectures delivered in April, 1871, when the services which Mr. Dickinson had rendered to science were fully recognised. He was a typical specimen of the old family practitioner, courteous, cautious, dignified and refined, beloved by his patients and of a kind and generous nature, which tended to make his presence in the sick room particularly pleasing. In his relations with his fellow practitioners, while ready at all times to place his long experience and skill at their disposal, he yet closely adhered to the best traditions of the profession, and would never allow his name to be associated with anything that was not consistent with the strict rules of high professional practice. Until a few days before his death he had been in his usual health. On the evening on which he died he had just finished tea when he was seized with an attack of angina pectoris and passed away almost before his sorrowing family could come to his assistance. Mr. Dickinson was buried at St. John's, Workington, the funeral being attended by a large number of friends and professional brethren; and not a few of the old townspeople with whom he had so long been associated felt as they stood at the grave that they had lost in the person of Mr. Dickinson one who through life had shared much of their sorrow and who had always been to them friend and counsellor of no ordinary kind.

MICHAEL FOX, L.A.H., L.M.

WE regret to have to announce the death of Mr. Michael Fox, which occurred at Claycross, Chesterfield, on Nov. 6th, from enteritis. The deceased was well known and esteemed amongst the teachers and students of Dublin, with whom he was an especial favourite. He practised in Longford for some time, and while there he gained the admiration of numerous patients and friends; but through ill health he was obliged to relinquish his practice and travel. He took voyages to India, Australia, and to North and South America. Believing he had sufficiently recovered, he again

settled down to practice, but it proved too much for him. He was only thirty-three years of age, and was one of three brothers belonging to the medical profession.

## Medical News.

**HUMANITARIAN LEAGUE.**—A meeting of members and friends of the Humanitarian League will be held at the Wheatsheaf Restaurant, 13, Rathbone-place, Oxford-street, W., on Monday, Dec. 5th, at 8 P.M., to urge the need of abolishing private slaughterhouses and of substituting public abattoirs under direct municipal control. Dr. B. W. Richardson will take the chair, and an address will be given by Mr. H. F. Lester, Honorary Secretary of the London Model Abattoir Society.

**MR. HUBERT M. WOOD**, who has for some time past held the post of senior resident medical officer at the Royal National Hospital for Consumption, Ventnor, was on Nov. 15th presented by the staff, patients and employes of the institution, with a handsome illuminated address and valuable carriage clock, on the occasion of his resignation, as a recognition of the sincere regard in which they held him and of the deep regret they felt at his departure. Dr. Cyril Lewis, the new resident medical officer, made the presentation.

**FOOTBALL CASUALTIES.**—During a match at Aldershot between the Medical Staff Corps and the Northampton Regiment, on Nov. 19th, a private of the A Company, Northampton Regiment, fractured his leg and was admitted to the Cambridge Hospital.—A young man of Crewe playing in a match at Nantwich on Nov. 23rd, received severe internal injuries, and lies in a precarious state in that town.—On Saturday, Nov. 26th, whilst playing at Worcester for the Bromsgrove Rugby Club against Worcester, a player received injuries from which he died on the following day.—Also on Saturday last the captain of the Liverpool Caledonians, in the course of a Lancashire League match against South Shore, at Blackpool, sustained a compound fracture of the leg and was admitted to the Northern Hospital, Liverpool.—A youth aged sixteen died at the Haileybury College, Hertford, on Saturday last, from internal injuries received in a game on the previous Thursday.

**THE NATIONAL DENTAL HOSPITAL.**—The annual dinner of the staff and the past and present students of this hospital and college was held on Nov. 25th at the Holborn Restaurant. Sir James Crichton-Browne presided, and was supported by many distinguished members of the dental profession and others. In proposing "Success to the National Dental Hospital and College" the chairman said no one could venture to predict what degree of development odontological science would reach in the course of a few decades. It was advancing in public estimation year by year; and a qualified dentist ought to have a seat on the General Medical Council. For the rapid development of dentistry the profession was greatly indebted to Dr. Cunningham, who had shown how necessary it is that an examination of the teeth of school children should be made from time to time. Mr. Roughton and Mr. Harry Rose replied to the chairman's address, and after other toasts had been proposed and responded to, the meeting separated.

**VOLUNTEER MEDICAL STAFF CORPS.**—The annual competition for the Challenge Shield took place on Saturday, Nov. 26th, at the Head Quarters, 1st Middlesex Rifle Volunteers. Nos. 1, 2 and 4 companies competed. The judges were Surgeon-Major A. E. Hayes, D.S.O., secretary to the Surgeon-General at the Royal Victoria Hospital, Netley, and Surgeon-Captain Pope, the Netley adjutant. Surgeon-Major Hayes declared No. 1 company, commanded by Surgeon-Captain Valentine Matthews, to be the winners. He said that the way in which the different competing companies went through the various movements in company and stretcher drill, showed great credit both to officers and men of the corps, and it also showed that the adjutant and instructor must have worked hard to bring men up to such a high state of efficiency. All the companies drilled remarkably well, but he had never seen such perfect drill as that of No. 1, the winning company; they all moved as one man, and there was not a single mistake. Surgeon-Colonel A. J. Norton and the officers of the corps entertained the judges at mess at the Holborn Restaurant in the evening. The commandant, Surgeon-Colonel A. J. Norton, the adjutant, and all the officers were present at the competition, together with a number of friends.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ANDREW, F. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Hendon Local Board.

CONNOR, D., L.R.C.S. L.M.Irel., has been appointed Government Resident Medical Officer and Public Vaccinator for the District of Victoria Plains, Western Australia.

COSENS, W. B., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Surgeon to the Taunton and Somerset Hospital, vice Liddon.

DEANE, JOHN E. J., L.R.C.P. Irel., L.F.P.S. Glasg., has been appointed Health Officer for Rutherglen, Victoria, Australia.

ELOOE, W., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer at the Colonial Hospital, Perth, Western Australia, and Assistant to the Superintendent of Vaccinations, vice Sloman, resigned.

ESLER, A. W., M.D., M.Ch. Irel., has been appointed Health Officer for McIvorshire, Victoria, Australia.

FLEMING, ALEX. A., L.F.P.S. Glasg., has been appointed Public Vaccinator for the District of Otago, New Zealand.

FLEMING, H. H., M.B., B.Ch. Dub., has been appointed Public Vaccinator for St. Arnaud, Victoria, Australia.

GARDNER, HAROLD, Mr., has been appointed House Surgeon to Charing-cross Hospital.

HOUSE, F. M., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer and Public Vaccinator at Katanning, Western Australia.

LATIMER, H. A., M.R.C.S., has been appointed Senior Surgeon to the Swansea General Hospital, vice Thomas, retired.

LAWSON, G. L. L., M.R.C.P. D.P.H. Edin., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Brisbane Water, New South Wales.

LONGDEN, F. R., L.R.C.P., L.R.C.S. Edin., has been appointed Health Officer for Buninyong, Victoria, Australia.

LYS, HENRY GRABHAM, M.D. Lond., M.R.C.S., has been appointed Medical Officer for Out-patients to the Royal Victoria Hospital, Bournemouth.

MCCARTHY, HENRY, L.R.C.S., L.M. Irel., has been appointed Health Officer for the District of Tatura, Victoria, Australia.

MUIR, ROBT. D., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to Charing-cross Hospital.

PENNY, H. JAS., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Health Officer for Port Fairy, Victoria, Australia.

FOTTS, WALTER A. B., M.R.C.S., has been appointed Public Vaccinator for Harrow, Victoria, Australia, and Health Officer for Kowroshire, E. R., Victoria.

PULLIN, F. B., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Health Officer for Flinders and Kangerong Shires, Victoria, Australia.

RANSOME, H. F., L.R.C.P., M.R.C.S., has been appointed Honorary Assistant Medical Officer to the Manchester Hospital for Consumption and Diseases of the Throat.

REED, HENRY A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for Hamilton, Tasmania.

REID, GEO. M., M.D. Edin., L.R.C.P. Lond., M.R.C.S., has been appointed Health Officer for Mount Alexandershire, Victoria, Australia.

REID, GEO. MARR, M.B., M.S. Abord., has been appointed Public Vaccinator for Cobden, Victoria, Australia, vice Ewing, resigned.

ROBERTS, SIDNEY JOHN, L.R.C.P. Lond., M.R.C.S., has been appointed one of the Resident Surgeons to the Birmingham General Dispensary.

COLLASON, A., L.R.C.P. Lond., M.R.C.S., has been appointed Health Officer for Tempostowe Shire, Victoria, Australia.

SECCOMB, S. H., M.R.C.S., has been appointed Public Vaccinator for the District of Ivanhoe, New South Wales.

SHELLS, W. F. M., L.R.C.P. Lond., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Hillgrove, New South Wales.

TEICHELHANN, E., L.R.C.P. Irel., F.R.C.S. Eng., has been appointed Assistant Health Officer at Port Adelaide, South Australia.

THOMAS, J. T., L.R.C.P. Irel., L.R.C.S. Edin., has been appointed Medical Officer for the Mungo Sanitary District of the Newport (M.M.) Union.

TURNER, J. A., M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Combined Sanitary Districts of Leicester and Rutland.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index.)

BELOVALE HOSPITAL FOR CHILDREN, 70, Gloucester-street, S.W.—House Surgeon. Board, lodging, fuel and light found.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

BOOTLE BOROUGH HOSPITAL.—Assistant House Surgeon and Dispenser. Salary £40 per annum, with board, lodging, and washing.

BRECON INFIRMARY.—Resident House Surgeon, unmarried, and also to undertake Dispensing. Salary £70 per annum, with furnished apartments, board, attendance, fire and gas.

EDMONTON UNION.—Medical Officer for the district of Winchmore-hill. Salary £25 per annum, and 20 per cent. thereon in lieu of payment for expensive medicines, with extra fees (in Midwifery 10s. per case) prescribed by the Orders of the Local Government Board. (Apply to Mr. F. Shelton, the Clerk, 806, High-road, Tottenham.)

FARRINGTON GENERAL DISPENSARY, Bartlett's-buildings, Holborn-circus, E.C.—Resident Medical Officer. Salary £100 per annum, with apartments and attendance.

FISHERTON ASYLUM, Sallsbury.—Assistant Medical Officer. Salary £100 per annum, with board, lodging and washing.

HOLBORN UNION.—Assistant Medical Officer at the Infirmary, Archway-road, Upper Holloway, N. Salary £100 per annum, with board, lodging and washing. (Apply to the Clerk to the Guardians, Clerks' Offices, Clerkenwell-road, E.C.)

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

NOBLE'S ISLE OF MAN AND GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man.—Resident House Surgeon; unmarried. Salary £100 per year, with apartments, gas, coal and laundry free.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM.—Assistant Medical Officer in the asylum, unmarried. Salary £120 per annum, increasing £10 a year up to £160, with furnished apartments, board and lodging.

OWENS COLLEGE, Manchester.—Junior Demonstratorship in Physiology and Histology. Annual salary £100.

ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £150, with furnished apartments, fire, light and attendance.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House Surgeon. Salary, with board and residence, £75 per annum.

ST. ANDREW'S UNIVERSITY, UNIVERSITY COLLEGE, Dundee.—Demonstratorship of Anatomy. Salary £120 per annum.

STOCKPORT INFIRMARY.—House Surgeon. Salary £100 per annum, with board and apartments.

## Births, Marriages and Deaths.

### BIRTHS.

EADES.—On Nov. 20th, at Carr-street, Ipswich, the wife of S. O. Eades, L.R.C.P., of a son.

EMERSON.—On Nov. 12th, at Cloringbold, Broadstairs, the wife of Dr. P. H. Emerson of a daughter.

EMMETT.—On Nov. 26th, at Woodville, Kingston-road, Portsmouth, the wife of Richard Emmett, M.R.C.S., L.R.C.P. Lond., of a son.

EVIL.—On Oct. 8th, at Broken Hill, New South Wales, the wife of Frederick Claude Evil, M.R.C.S., of a son.

JACKSON.—On Nov. 25th, at Carrington, Wootton-gardens, Bournemouth, the wife of Basil Jackson, M.R.C.S., L.R.C.P., of a daughter.

JARDINE.—On Nov. 28th, at Lichfield-gardens, Richmond, Surrey, the wife of James Jardine, M.B., of a son.

MILWARD.—On Nov. 23rd, at Agra, the wife of Surgeon-Major Milward, of a daughter.

SUTTON.—On Oct. 19th, at Beenleigh, Queensland, the wife of Mr. Alfred Sutton, J.P., of a son.

TATHAM.—On Nov. 24th, at Halesowen, Worcestershire, the wife of Ernest J. Tatham, M.D. Cantab., of a son.

### MARRIAGES.

FLANAGAN—LOFTIE.—On Nov. 17th, at St. Mary's, Cadogan-street, Terence Woulfe Flanagan, M.B. &c., third son of the late Right Hon. Stephen Woulfe Flanagan, of Fitzwilliam-place, Dublin, to Margaret Hester Wentworth, only daughter of the Rev. William J. Loftie, of Sheffield-terrace, Kensington.

HILLIER—FULLER.—On Nov. 30th, at High Garrett, by the father of the bride, T. Ernest Hillier, M.A., M.B. (Cantab.), Paddington Infirmary, son of the late Thomas Hillier, M.D. Lond., F.R.C.E., to M. Burnett Fuller, daughter of Robert H. Fuller, M.A., High Garrett, Braintree.

WHEELER—BUSHE.—On Nov. 24th, at St. Jude's Church, Southsea, by the Rev. F. W. B. Dunno, LL.D., Rector of West Thorney, uncle of the bride, assisted by the Rev. J. Blake, Vicar of the Parish, Humphry J. Wheeler, M.D., youngest son of Thos. Wheeler, Esq., J.P., of High Wycombe, to Emmeline Alice Augusta, eldest daughter of George D. Bushe, Esq., of Wilton, Bray, Ireland.

WILLIAMS—PASCOE.—On Nov. 17th, at Kanyon Chapel, Solon-road, Brixton, S.W., John W. Williams, L.R.C.P., of New-cross-gate, to Eleanor Philippa, youngest daughter of the late Thomas P. Pascoe, Esq., of Camberwell.

### DEATHS.

FRANKLIN-LOYD.—On Nov. 25th, at Reigate, T. Franklin-Lloyd, M.R.C.S., L.S.A., aged 47.

HILL.—On Nov. 22nd, suddenly, at St. Holler's, Jersey, Surgeon-Lieut. Colonel Henry Walter Hill, Bengal Army, aged 42.

LAY.—On Nov. 21st, at Cairo, Surgeon-Major Peter Goodall Lay, Bengal Army (Retired).

PALMER.—On Nov. 24th, at his residence in Great Yarmouth, Frederick Palmer, F.R.C.S., in his 80th year.

ROBERTSON.—On Nov. 24th, at Granville House, ateshead-on-Tyne, the residence of his son, Daniel Robertson, L.R.C.S. Edin., late Colonial Secretary and Acting Governor of H.M.'s Settlement, Bathurst, West Coast of Africa, aged 79.

SHEPARD.—On Nov. 27th, 1892, at Ty Cernel, Usk, Mon., Alexander John Shepard, M.R.C.S. Eng., L.S.A., aged 77.

TAYLOR.—On Nov. 24th, at 202, Earl's Court-road, South Kensington, Michael Waistell Taylor, M.D., F.S.A., late of Hutton Hall, Penrith, in his 69th year. (Friends are requested to accept this the only intimation.)

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.

# Medical Diary for the ensuing Week.

Monday, December 5.

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.  
**ST. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations, daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M.; and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2 P.M.; Thursday, 2 P.M.  
**HOSPITAL FOR WOMEN, SOHO-SQUARE.**—Operations, 2 P.M.; and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPÆDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.  
**CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).**—5 P.M. Mr. Lennox Browne: Rhinitis, Acute, Purulent, Croupous, Hypertrophic, Hyperæsthetic (Hay Fever and Hay Asthma), Atrophic; Deformities and Deviations of the Nasal Septum.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Dr. Greville MacDonald: Laryngitis, Acute and Chronic.  
**MEDICAL SOCIETY OF LONDON.**—8.30 P.M. Surgeon-Colonel J. B. Hamilton: Cholera, its Epidemic Progression and Causation.

Tuesday, December 6.

**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**ST. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**ST. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Skin Department, 1.45; Saturday, 9.15.  
**ST. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
**PATHOLOGICAL SOCIETY OF LONDON.**—8.30 P.M. Mr. C. F. Beadles: Fibroma of Male Breast.—Mr. W. Anderson: Fibroma of Male Breast.—Mr. Dudley Cooper: Hyaline Fibroma of a Cow's Udder.—Mr. H. B. Robinson: Rodent Ulcer from Male Breast.—Mr. W. Edmunds: Fatty Tumour from the Lip.—Dr. Beavan Rake (per Mr. J. J. Clarke): Some Observations on Yaws.—Mr. J. J. Clarke: The Histology of the Yaws' Tubercle.—Mr. W. Anderson: Sarcoma of the Sterno-mastoid. Wednesday, December 7.

**NATIONAL ORTHOPÆDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**ST. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday and Saturday, same hour.  
**ST. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M. Dental Department, 9.30. Eye Department, 2 P.M.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**THROAT HOSPITAL (Golden-sq.).**—5 P.M. Mr. F. G. Harvey: Syphilitic and Tuberculous Laryngitis.  
**OBSTETRICAL SOCIETY OF LONDON.**—8 P.M. Specimens will be shown by Dr. Horrocks, Dr. Rasch, Dr. Boxall, Dr. Lewers, Dr. Handfield-Jones, and Dr. Amund Benth. Dr. Fredk. J. McCann and Dr. W. A. Turner: On the occurrence of Sugar in the Urine during the Puerperal State.—Dr. W. S. A. Griffith: A case of Galactorrhœa during a First Pregnancy. Thursday, December 8.

**ST. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.  
**CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).**—5 P.M. Dr. Dundas Grant: Affections of the Auricle.  
**LONDON SKIN HOSPITAL (40, Fitzroy-sq. W.).**—8 P.M. Mr. Augustus Harbord: Syphilis, Acquired and Congenital.  
**BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square).**—8.30 P.M. Mr. Bowdman Jessett: Twenty-five cases of Supra-vaginal Amputation of the Cervix Uteri for Carcinoma.  
**NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.**—Dr. D. Fairweather: Notes of a Case.—Mr. M. J. Bulger: A Case of Recovery after Perforating Ulcer of the Stomach.—Mr. J. McMunn: Remarks on some Urethral and Prostatic Diseases, and on some Novel Instruments for their Investigation and Treatment.  
**OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.**—8.30 P.M. Patients and Card Specimens at 8 P.M. Dr. A. Bronner: A portable Sterilising Apparatus for Ophthalmic Instruments and Bandages.—Mr. Hartridge: Intra-ocular Growth (?).—Mr. W. T. Holmes Spicer: Kerato-Malacia.—Mr. S. Johnson Taylor: Notes on a case of probable Rupture of the Optic Nerve (patient to be shown).—Mr. W. C. Rockliffe: Notes on a case of (1) Panophthalmitis following Lachrymal Sac Affection; (2) Traumatic Ectropion treated by Trewey's Operation.—Mr. Priestley Smith: (1) A case of Toxic Amblyopia from Iodoform; (2) A Double Model Eye for Ophthalmoscopy and the Shadow Test; (3) An Improved Model Illustrating Conjugate Movements.—Mr. Robert W. Doyno: Foreign Body in the Eye.  
**HARVEIAN SOCIETY.**—8.30 P.M. Mr. Field: The Pathology and Treatment of Suppurative Diseases of the Ear. (Second Harveian Lecture.)

Friday, December 9.

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Eye Department, 2 P.M.  
**CLINICAL SOCIETY OF LONDON.**—Dr. James Calvert: Case of Subacute Œdema of Lung occurring above a diminishing Pleural Effusion.—Mr. Bland Sutton: Case of Axial Rotation of a Wandering Spleen; Splenectomy; Recovery.—Dr. Francis Hawkins: Case of Hemiplegia in Typhoid Fever associated with Aphasia; Hæmorrhage from Bowels and Purpura.—Mr. Wainwright: Case of Fracture of Lower Jaw with Traumatic Aneurysm; Ligature of Right Common Carotid Artery, followed by Left Hemiplegia.

Saturday, December 10.

**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, Dec. 1st, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Nov. 25	30.22	E.	40	39	40	47	39	.02	Overcast
" 26	30.20	N.E.	45	43	52	51	40	..	Overcast
" 27	30.36	N.E.	46	44	53	50	44	.30	Cloudy
" 28	30.48	W	47	44	52	51	44	..	Overcast
" 29	30.13	S.W.	50	48	67	54	47	..	Cloudy
" 30	30.12	N.W.	40	38	68	46	38	.06	Bright
Dec. 1	30.05	W.	41	39	49	45	37	..	Overcast

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*  
*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale and advertising departments of THE LANCET to be addressed "To the Publisher."*  
*We cannot undertake to return MSS. not used.*

COMMUNICATIONS relating to the EDITORIAL business of THE LANCET must in every case be addressed exclusively "To the Editors," and not to them otherwise than in their official capacity.

*Inquirer.*—Will our correspondent say whether there is a wage limit in his dispensary; and whether it is one of the metropolitan provident-dispensaries or an independent institution; also how many medical officers there are?

A SILLY PREJUDICE.

To the Editors of THE LANCET.

SIRS.—A short time ago I was called to see a child aged two years, whom I was told was dying fast. I arrived in about thirty minutes and found the child collapsed, pulse almost imperceptible, and suffering from convulsive spasm of diaphragm. History of diarrhoea and vomiting for three days, with administration of an apple and a pint of cold milk during some slight temporary improvement on the previous day. I saw at once that the child had under present conditions about two hours to live, owing to the acute irritation which was the cause of the convulsion. So I adopted a remedy advocated by many authorities and often successfully used by myself—viz., hypodermic injection of morphia, of which I gave one-tenth of a grain. The child then slept for three hours, during which the breathing was quite easy and colour natural. After this, however, the convulsions returned, recurring about every five minutes, and despite every effort the child died asphyxiated. Owing to the injection of morphia having excited some prejudice among the uneducated class to whom the child belonged the father, I believe, expressed some dissatisfaction at the treatment, and, an officious policeman stepping in, an inquest was ordered, to find out whether the child died of morphia poisoning. This is the point about which I wish to express my strongest feeling on behalf of the profession. Surely such an annoyance, if often repeated, would paralyse medical men when called to any case *in extremis*; and although the unanimous verdict of the jury gave the cause of death according to my certificate, such an action is likely to prejudice many minds against one of the most valuable remedies in the hands of the profession, besides having been altogether frivolous and unnecessary.—Your obedient servant,  
 November, 1892.

E. C. S.

## EXPERIMENTS ON LIVING ANIMALS.

*The Editor of the "Verulam Review."*—With much of what our correspondent writes us we are entirely in sympathy, and it may be observed that almost the whole of the suggested conditions—at least, such as are at all practicable—are at present carried out. The Home Secretary may, whenever he thinks fit, call upon an experimenter to give an accurate report of all experiments done by him; and, as a matter of fact, the inspector calls for reports or inspects the records at frequent intervals. The nature of each experiment, with operation involved, is most carefully defined by the Home Secretary on every licence given, and printed forms are supplied gratis to each holder of a licence, and on these all experiments must be carefully and accurately entered together with the kind of animal experimented on and the date on which the experiment is performed. As regards anaesthetics, we may point out that the amount of the anaesthetic used could not possibly give any indication as to the depth of the anaesthesia induced or of the time during which this anaesthesia was maintained. We are therefore of the opinion that the conditions required to be conformed to by the Home Secretary form a really very comprehensive and efficient safeguard against cruelty, and along with those made compulsory by the inspector are fully as stringent and wide reaching as those suggested by our correspondent.

*Africanus asks*—“Will any gentleman who has recently passed the examination for the M.D. Durham for practitioners kindly give a brother medical man living in a colony some idea of the text-books necessary for reading for the examination, length of time required for reading, nature of practical examination in hospital and also of the extent of the *vivâ-voce* requirements?”

*Alpha*—The fees are quite reasonable, and especially those for the London journeys. It is desirable that the charge for medicines should be as low as their cost price and the trouble of dispensing warrant. Practically this is the case in our correspondent's system.

## A MODE OF PRESERVING VACCINE LYMPH.

To the Editors of THE LANCET.

SIRS,—Perhaps you may find room in THE LANCET, for the benefit of your readers, for the following formula for preserved vaccine lymph, which I have used for one year with satisfactory results. Vaccine lymph, five minims, best glycerine and distilled water, of each five minims. For the lymph select a healthy child with four plump vesicles, puncture without drawing blood, and transfer to minim measure with capillary tube; then add preservative and mix. The lymph, by the admixture, appears to clear at once and become bright-like sample enclosed, and preserved in April of this year. Adventitious particles rise to the surface in gelatinous nodules and are easily removed. Lymph so preserved retains its fluidity and ensures absorption. I treat all vaccine lymph in this way before using it, and with generally good results. It produces good plump vesicles and less tendency to premature areola. I have not had a miss since I have used it. For the distilled water hold a tumbler over the steaming spout of a kettle and a sufficiency is soon obtained. A convenient way of mixing the preservative is to take a drachm stoppered bottle with spout and divide into half-drachms with small phial; then put into it half a drachm of distilled water and half a drachm of glycerine, and mix. Then transfer lymph to Husbands's capillary tubes; fill from two-thirds to three-fourths. These tubes are to be preferred on account of their quality, shape and length. They fill easily and require less heat to fuse them. A tube put into the lymph in the minim measure takes up sufficient for a charge for four vesicles. I generally use Rose's S-needle, circular-point scarificator, which requires rotating once upon the selected places. I have just received fourth grant for successful vaccination.—I am, Sirs, yours obediently,

JAMES TILLY, M.D. St. And.,

Public Vaccinator (two districts), Brentford Union.

Nov. 20th, 1892.

*First Aid to the Injured*.—We can recommend the following as being reliable and sufficient for ordinary readers requiring information on this subject:—Osborn's First Aid Ambulance Lectures, arranged according to the St. John Ambulance course of instruction; Roberts's Illustrated Lectures on Ambulance Work. There is also a book by Surgeon-Major Martin.

*L.R.C.P. Lond., M.R.C.S.E.*—We can see no objection to our correspondent allowing himself to be so nominated under the circumstances.

## INTRA-THORACIC AUSCULTATION.

To the Editors of THE LANCET.

SIRS,—It has been my habit for some time, whenever I have suspected œsophageal stricture or gastric dilatation, to try to elucidate the case by auscultating over the accessible gastric area while directing the patient to drink a glass of water. I fancy it has furnished me with valuable confirmatory evidence, especially in cases of dilatation.

I am, Sirs, yours faithfully,

Nico, Nov. 21st, 1892. A. W. GILCHRIST, M.D., M.R.C.S., L.R.C.P.

## ST. MICHAEL IN THE AZORES AS A HEALTH RESORT.

In a lengthy communication an esteemed correspondent calls attention to the benefit he has derived from a sojourn in St. Michael, whither he went to escape the so-called diarrhoea which had been prevalent in Madeira. The journey to the former island is described as most beautiful and the scenery picturesque in the highest degree. There are many boiling springs in St. Michael, supplying hot baths of both sulphur and iron, which have excellent curative powers. The Government of Portugal has established a large building containing sixty separate bath-rooms, which are free to all comers. Here the late Mr. John Hilton enjoyed two or three years of peaceful rest before his return to and demise in this country. The climate of the Azorean Group in general is most equable, the mean average temperature for the year being rather over 60° F.; as a consequence tropical vegetation abounds and fruits and flowers are seen and enjoyed all the year round. All the parks and gardens of the landed proprietors of St. Michael are stated to be open to visitors and the public generally. The cost of living is small, and travelling about the island is cheap. Altogether the statement of our correspondent would go to show that some classes of invalids would act wisely in selecting St. Michael as a resort during the winter months.

*Sewell*.—Our correspondent's supposition is very improbable. We do not see how an “unsuspecting operator” could mistake an artificially distended bladder for a “sacculated” viscus. Moreover, the question of mechanical obstruction by an enlarged prostate could easily be verified by examination. When once a coroner has decided to hold an inquest, upon information received, the corpse is in his possession, and he has the power of imposing a fine and committing for contempt any person tampering with such cadaver. If the body has been buried, it is customary to place the matter before the Home Secretary, with a request for an order for exhumation.

*A Country Doctor*.—Probably the system our correspondent mentions is the most convenient and suitable for the purpose. But it need not be expensive. The automatic arrangement in the system referred to may obviously be dispensed with, as the earth merely thrown by hand on the excreta in the pail beneath would give equally effectual results. The quantity of dry earth needed each time is about 1 lb. (rich garden mould is the best). Slop water should be disposed of by irrigation, or run directly off into a flowing ditch or other suitable channel.

## “THE EMPLOYMENT OF COCAINE.”

To the Editors of THE LANCET.

SIRS,—With regard to the question propounded by “Young Practitioner” in the last number of THE LANCET, I am justified, I think, in saying that the use of cocaine in the conjunctival affections of children is unattended by danger. At the Ophthalmic School belonging to the parishes of St. Saviour and the City of London, an institution for the retention and treatment of children suffering from eye disorders, we constantly employ solutions of cocaine varying in strength from 2 to 4 per cent., and in many instances we apply the salt itself to the conjunctiva of the lids. Such applications are made daily to the eyes of many children, often for months or years, in order to minimise as far as possible the discomfort attendant on the use of strong remedies. We have never observed bad results from cocaine thus applied to children. It may be well to emphasise the fact that cocaine itself, while freely soluble in vaseline or castor oil, is not very soluble in water (1 in about 1000). Hydrochlorate of cocaine, on the other hand, is soluble in less than half its weight of water, and is on this account generally used in the preparation of aqueous solutions. In conclusion, let me remind “Young Practitioner” that cocaine must not be used to the exclusion of those remedies without which full justice can be done to no case of ophthalmia.

I am, Sirs, yours faithfully,

Welbeck-street, W., Nov. 28th, 1892.

SYDNEY STEPHENSON.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Hockmondwike Reporter, Yorkshire Post, Dorset Standard, Law Journal, Ilalstead Gazette, Islington Gazette, Newmarket Journal, Bath Gazette, Pembroke County Guardian, Scottish Leader, Sussex News, Mining Journal, Surrey Advertiser, Windsor and Eton Gazette, West Middlesex Standard, Scotsman, Journal of Commerce (Liverpool), Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, Local Government Chronicle, Windsor and Eton Express, Leeds Mercury, Reading Mercury, Liverpool Daily Post, Bristol Mercury, Insurance Record, West Middlesex Advertiser, West Australian (Perth), Argus (Melbourne), Lincolnshire Chronicle, Torquay Times, Australian Medical Journal, Kentish Mercury, West London Observer, Sunday Times, Oban Times, Australian Medical Gazette, Le Temps (Paris), Wigan Examiner, Staffordshire Sentinel, Builder, Devizes Gazette, Athlone Times, Architect, Keighley News, Bolton Weekly Guardian, Carlisle Express, Times of India, Norfolk Daily Standard, Surrey Times, Pioneer Mail, Hereford Times, Northampton Daily Reporter.*



Lectures  
ON THE  
PHYSIOLOGY AND PATHOLOGY OF  
BLOOD DESTRUCTION.

Delivered in the Examination Hall, Victoria Embankment,  
on Nov. 22nd & 29th, 1892,

By WILLIAM HUNTER, M.D. EDIN.,  
M.R.C.P. LOND. &c.,

ASSISTANT PHYSICIAN TO THE LONDON FEVER HOSPITAL; LATE  
SANITARY RESEARCH SCHOLAR, GROCERS' COMPANY.

LECTURE II.

II. SEATS OF HÆMOLYSIS.

GENTLEMEN,—In my first lecture I showed that the destructive change which takes place in the blood is not of the slow nature hitherto described, but is of an altogether more acute character; and, moreover, that this acute hæmolytic is an event of daily occurrence. We have now to consider where this destruction takes place. Does it occur throughout the blood generally or is it localised to certain organs of the body?

One organ at once suggests itself as the probable seat of such a process, and is indeed generally so regarded—namely, the liver. Are not the bile pigments formed by the liver, and are they not in turn derived from hæmoglobin? Is not the liver the chief seat of deposit of blood pigment in large quantities in certain diseases—e.g., pernicious anæmia—in which everything points to a great destruction of blood? Is it not also, as the experiments show, the seat of deposit of pigment when an increased destruction of blood has been experimentally brought about? Where more likely than within the liver has this destruction taken place?

Next to the liver the spleen suggests itself—if, indeed, it does not do so before. Is not blood pigment in greater or less amount a very frequent constituent of the splenic tissue, and is not the peculiar structure of this organ, along with the peculiarities of its circulation,<sup>1</sup> specially favourable to the destruction of effete corpuscles and their subsequent conversion into pigment?

On these points observers are by no means agreed. The exact rôle of the liver and spleen in hæmolytic has long been a *quæstio vexata*. The requisite data for deciding the matter one way or another have hitherto been wanting. With regard, for instance, to the significance of blood pigment in this relation the greatest differences of opinion exist. How far does the presence of pigment in the liver and spleen, whether in health, in disease, or as the result of experiment, indicate these organs as the seat of the previous destruction of blood. In the case of the liver may it not simply be due to a destruction of hæmoglobin conveyed to it from elsewhere? In the case of the spleen may not the pigment be the result of capillary extravasations of blood arising from the delicacy of the splenic tissue, as von Wittich suggests; or the result of the "scavenging" (as distinguished from any hæmolytic) function of that organ, in virtue of which all kinds of effete pigment particles are to be found in it? To these questions some very definite answers are supplied by the present investigation.

DISTRIBUTION OF BLOOD PIGMENT AMONGST  
THE ORGANS.

First of all I will direct your attention to certain peculiarities in the distribution of blood pigment amongst the three organs we have seen to be chiefly concerned in its disposal—viz., the liver, spleen and marrow. This distribution is by no means uniform. The liver, for example, is sometimes loaded with pigment while none is to be found in the spleen, while conversely the spleen may contain much pigment to the entire exclusion of the liver. The following are the chief variations in this respect I have found in the course of my observations.

1. After transfusion of blood (Experiments 1-16) the spleen

usually contains a very large amount of blood pigment, while the liver may contain not only relatively but absolutely little. The contrast between the two organs is indeed very striking. The healthier the animal after the transfusion the more striking is it. Moreover, in rabbits what little pigment is present in the liver is always in the form of minute granules within the liver cells, whereas much of the pigment within the spleen is in large conglomerate heaps. Little or no pigment is to be found within the capillaries.

2. As regards the bone marrow the conditions favouring the presence of pigment in it are usually the same as in the case of the spleen, the character of the pigment in both cases being also the same (Experiments 5, 25 and 27). In both cases the amount is greatest when the destruction has been slow and gradual, and little or none may be found when the destruction is rapid (Experiments 42, 44, 46, 47, 48, 55, 61, 65, 74, 76, 77, 83 and 84). It is only in a comparatively few cases that a distinct excess of pigment is to be found in the bone marrow when destruction is very rapid (Experiments 43, 58, 63 and 75). A very close relation thus exists, according to my observations, between spleen and red marrow as regards the relative amounts of pigment to be found in each. The relation is, however, not absolutely constant. I have never found an increase in pigment in the marrow without a corresponding, and even larger, increase in the spleen. On the other hand, I have not unfrequently found a large excess of pigment in the spleen when there was none in the marrow (Experiments 9 and 16 after transfusion; 61, 85, 86 and 87 after injection of hæmolytic agents). The closeness of the relationship in function between spleen and marrow is manifested in other and more striking ways. After removal of the spleen I have always found exceedingly well-marked structural changes in the red marrow, developed too with great rapidity (Experiments 64, 68 and 81).

3. The liver sometimes contains a large amount of pigment when not a trace is to be found in the spleen. This is strikingly seen in the sections now shown from cases of pernicious anæmia. The great disproportion between the amounts of pigment in these two organs in this disease I have fully brought out elsewhere.<sup>2</sup> I have there shown from the recorded analyses that while in health and in other diseases the average percentage of iron in spleen and liver is 0.171 and 0.083 respectively—the percentage being almost twice as great in the spleen as in the liver,—in pernicious anæmia there is a sevenfold increase in this percentage in the liver, with little or no increase in the spleen. Some of the analyses are—0.091 for the spleen and 0.614 for the liver (Stabel), and 0.227 for the spleen and 0.518 for the liver (Rosenstein). In one of my own cases I found on analysis 0.310 per cent. of iron in the liver, while the spleen, examined micro-chemically, showed hardly a trace of iron. In an old person who died of bronchitis I found a percentage of 0.0924 of iron in the liver. A similar distribution of blood pigment between liver and spleen can, I find, occasionally be induced experimentally (Experiments 42 and 43) by the action of hæmolytic agents. In the sections now shown you will note the large amount of fine pigment within the liver, confined to the liver cells, while the spleen shows comparatively little.

BLOOD PIGMENT AS AN INDEX OF THE SEAT OF  
HÆMOLYSIS.

Liver.

How far, then, are we to regard the presence of blood pigment in the spleen and liver as an indication of their relative activity in hæmolytic? Does the large excess of pigment in the spleen after transfusion, while little or none is to be found in the liver, point to the spleen as the organ chiefly concerned in destroying the foreign red corpuscles? Does the even larger excess in the liver in pernicious anæmia, while little or none is to be found in the spleen, indicate that the liver, as distinguished from the spleen, has been the chief seat of the preceding hæmolytic?

As the result of my earlier investigations, the answer I gave to both these questions was in the affirmative. For not otherwise could I account for the remarkable variations in the distribution of the pigment in the two cases. In a thesis on the subject presented to the University of Edinburgh in 1886 I drew as the result of my investigations a sharp distinction between the action of the liver and spleen as hæmolytic organs. In the liver the destruction, I concluded, was effected in some special way by the liver cells, the chief result of the destruction being the formation of bile pigments

<sup>1</sup> The arteries open directly into open mesh network of channels devoid of definite walls, from which the veins take direct origin. The interstices of this meshwork are filled with a delicate lymphoid tissue in which the various cellular elements lie embedded (von Wittich, Die Milz: Hermann's Handbuch der Physiologie, Bd. vii., 345).  
No. 3615.

and probably also of urea (Noel Paton). Within the spleen, on the other hand (or to a less extent within the bone marrow), the hæmolytic was of a different character, resembling more that which occurs around extravasations, the chief result of it being the reduction of hæmoglobin to the form of albuminates of iron. I concluded that an even balance was maintained in health between the activity of the liver and spleen, any disturbance of this relation on the part of the liver being followed by much more serious consequences than when the spleen was at fault, for the reason that the destructive process within the liver was of a much more active nature than that in the spleen. I showed grounds on this view for regarding pernicious anæmia as essentially a disease of the liver resulting from the morbid activity of that organ in hæmolytic. "The nature of the morbid action on its part, which brings about such a destruction of red corpuscles, it is of course not easy to determine. But since in other glands there are from time to time evidences of perverted activity, as shown by altered or excessive secretion, so also in the liver in pernicious anæmia it is probable that some change either in quantity or quality of its secretion is accountable for the enormous destruction of corpuscles. Confirmation of this view as to the pathology of pernicious anæmia can only be obtained after examination of the various organs in a great number of cases" (p. 215).

Such was the view I held regarding the significance of blood pigment, and in particular regarding the importance of the liver as a hæmolytic organ, at the outset of the present investigation. It is well to have it thus fully before us, if only for the reason that the present investigation of which it formed the working hypothesis has afforded no support to it, especially as regards the liver. For the results of that investigation show that the amount of blood pigment in the spleen or liver is no criterion whatever of their relative activity in hæmolytic. This is especially the case where that pigment lies within the liver cells. Pigment in this situation I find to be merely an evidence that hæmoglobin has been broken up within the liver cells without affording any clue as to where it has been set free, whether in the circulation generally in another organ, e.g., the spleen, or in the capillaries of the liver itself.

Thus the difference between spleen and liver already noted in Experiments 42 and 43 was by no means so marked in the fresh, as it now appears in the hardened tissue. In both cases the fresh spleen when tested with sulphide of ammonium revealed a very large amount of pigment, much of it in diffuse form. It is clear, then, that a good deal of this has been lost in the process of hardening, so that I cannot too much impress on you that the activity of an organ in hæmolytic cannot be correctly gauged by the amount of blood pigment found in it after hardening. Nor can it be gauged, I find, by the amount found in the fresh condition. For in two cases of pernicious anæmia, in which the liver contained a very large amount of pigment, while the spleen gave very little iron reaction, the latter was obviously the chief seat of active change in the blood. It was much swollen, purplish in colour (contrasting with the absolute pallor of all the other organs) and contained much free hæmoglobin. It is clear, then, that blood pigment as a guide to the seat of hæmolytic has but a limited significance. The information derivable from a study of the distribution of blood pigment is not always, however, of the negative character just indicated in the case of the liver. In the case of the spleen and bone marrow it is of a more positive kind, as I will now proceed to show.

#### *Spleen.*

First of all let me say that my observations supply no support whatever to the view that the presence of pigment within the splenic pulp in the conditions in which it is found so abundantly is referable in any way to the occurrence of capillary extravasations of blood. If such were the case, it ought to be specially abundant in the chronically congested spleen of cardiac or hepatic disease. I have found, on the contrary, that such spleens are frequently singularly free from blood pigment.

Moreover, they lend no support to the view that blood pigment, when present, merely collects in the spleen in virtue of the scavenging function of the cells of that organ.

You will see from the sections now shown (Experiments 33 and 34) that after injection of carmine or ultramarine blue into the blood the pigment particles are to be found in large masses within the capillaries of the liver, chiefly in the portal capillaries, while not a twentieth or even a fiftieth part of the quantity is to be found in the spleen.

So far as mere scavenging function towards inert particles is concerned the liver, according to my observations, is a far more important organ than the spleen; and this applies, I find, not only to such extraneous particles introduced into the blood, but also to stromata and other remains of red corpuscles formed by the action of distilled water within the blood (Experiments 88 and 188 [a]). After its injection in large quantity, the number of colourless granules and spherules (stromata) to be found in the spleen was both absolutely and relatively small, while in the capillaries of the liver they were in extraordinary abundance. As regards inert particles circulating in the blood, the conditions therefore favour more their arrest in the capillaries of the liver than in the spleen.

I have shown you that as regards blood pigment the reverse is often the case. After transfusion, for example, large quantities may be found within the spleen, while little or none is present within the liver, and what little is present may be solely confined to the liver cells, and absent from the capillaries.

According to Quincke the manner of death of red corpuscles after transfusion is that they gradually lose their elasticity, become effete, are taken up by leucocytes, and ultimately deposited within the capillaries of the liver and in the spleen. If such a description were a correct one, the rôle of the spleen would be a comparatively passive one, the spleen would merely be the depository of the pigment conveyed to it.

I conclude from the presence of much pigment in the spleen when none is to be found in the capillaries of the liver that the description given by Quincke does not represent what actually takes place; and that the rôle of the spleen in removing red corpuscles from the circulation is not the relatively subordinate one thus ascribed to it. This conclusion has, moreover, an experimental basis; for some experiments I made in this relation show that the cells of the spleen have the power of arresting red corpuscles before these latter have undergone sufficient change to allow their enclosure by ordinary leucocytes (Experiments 92, 93 and 94). The experiments were of this kind, that blood from the ear was examined and compared with that obtained by direct puncture of the exposed spleen. An incision was made directly over the spleen for this purpose. Control observations showed that mere exposure of the organ in this way for several hours did not appreciably affect either its size or the character of the blood obtainable by puncture from it. On the other hand, if pyrogallic acid were injected into the blood, then either immediately (Experiment 94) or within three minutes (Experiment 93), according to largeness of dose, a great enlargement of the spleen occurred, amounting, it might be, to a fourfold or fivefold increase. The spleen, at the same time, became excessively turgid, and its former red colour was replaced by a dark venous one, the position of the Malpighian bodies being, however, still marked out as red points. As early as fifteen minutes after such an injection well-marked changes were observable in blood withdrawn from the spleen, especially in the red corpuscles, while the blood of the ear at the same time showed nothing abnormal; and fifteen minutes later these altered red corpuscles were found enclosed within large splenic cells of pulp. After death in four or five hours, numerous changes in the blood, including many large cells filled with but slightly altered red corpuscles, were found in the spleen, while absent from the liver or from the blood elsewhere.

It seems to me clear, then, that the rôle of the splenic cells towards the injured red corpuscles is no mere scavenging one, since in that case similar cells enclosing red corpuscles would have been found in the liver. It is much more active. This becomes most manifest when through any cause—e.g., transfusion, or action of certain poisons—the red corpuscles have received any injury short of their complete disintegration. The injured corpuscles are seized on in great numbers by the cells of the spleen long before a single one can be found within the leucocytes. After death the chief and sometimes the exclusive seat of such cells is the spleen, few or none being found within the liver (Experiments 54, 58 and 75). The activity of the spleen in withdrawing red corpuscles from the circulation is thus, I conclude, decidedly greater than the whole body of leucocytes, including those within the liver. Were the spleen not present, red corpuscles in process of becoming effete would remain longer in the circulation than they actually do. It is in virtue of this function that the spleen may become the seat of much pigment, when—e.g., after transfusion—the liver may be free. To a certain, albeit

a limited, extent therefore the presence of blood pigment within the spleen is an indication of a special hæmolytic activity of that organ.

#### Bone Marrow.

A similar line of reasoning, without however the same experimental basis, leads to the conclusion that the pigment found within the bone marrow is an indication of an action of its cells in withdrawing red corpuscles from the blood analogous to, though much less marked than that of the splenic cells. I conclude that it acts to a certain extent as supplementary to the spleen. It is, according to my experiments, structurally, and presumably therefore also functionally, more affected by removal of the spleen than any other tissue of the body (Experiments 62, 64 and 89). The change in some cases amounts to a complete transformation, the marrow tissue being replaced by a mass of larger lymphoid cells closely packed together. Moreover, after removal of the spleen the changes found in the marrow after injection of hæmolytic agents are more marked than those met with when the spleen is present.

The information to be obtained from a study of blood pigment regarding the probable seats of hæmolysis, although not unimportant, is thus comparatively limited. So far as it goes it is chiefly negative, pointing to some organ other than the liver as the chief seat of hæmolytic change—in the case of the red corpuscles, most probably the spleen. Much more definite in character was the information I got from a study of the morphological changes in the blood during active hæmolysis, particularly from a study of their distribution.

#### MORPHOLOGICAL CHANGES IN THE BLOOD DURING ACTIVE HÆMOLYSIS.

The changes I refer to involve the plasma, the red corpuscles and the leucocytes. The chief of these are as follows:—

1. The presence of *colourless albuminous granules and spherules* of varying size, products of disintegration of plasma and red corpuscles, the smallest of them closely resembling the bodies variously termed by observers "hæmatoblasts" of Hayem, "blood plates" of Bizzozero, "granule bodies" (*Körnchenbildungen*) of Max Schultze, "elementary bodies" (*Elementarkörperchen*) of Zimmermann. They are derived, according to my observations, partly from the red corpuscles, the protoplasmic stroma of which can be seen oozing out in droplets and floating away free in the form of small spherules, partly and very largely from the plasma itself. A large number of them I therefore regard as albuminous precipitates (granules) thrown down from the plasma. The leucocytes, so far as my observations go, are an altogether secondary and unimportant source of such granules. The relation between these products of disintegration and the hæmatoblasts and blood plates regarded by Hayem and Bizzozero respectively as normal elements of the blood and by the former as the precursors of the red corpuscles has been to me a subject of much interest throughout my investigations; and it is one I would willingly discuss here did time permit. I will content myself with merely stating that the only difference I have been able to note between the granules I have described and blood plates is that the latter have seemed always to me to be more highly refractile than the former. As to the relation of these blood plates to blood formation, a subject on which Hayem expresses himself with so much assurance, I venture to think that the question is still an entirely open one. I have totally failed to satisfy myself of the existence of any such relationship.

2. Small *coloured spherules* derived from the red corpuscles, partly by a process of oozing in the way just described, but more frequently and characteristically by what I have for convenience termed throughout by observations, a process of budding. The red corpuscle is seen to become constricted at some part, forming a small bud identical in depth of colour and appearance with the chief mass of the corpuscle, and the two portions may frequently be seen for a time united by a delicate, colourless process. This change in the red corpuscle I learnt to recognise as one very characteristic of blood undergoing destructive change. I never found it in healthy blood. In no way can it be better studied than by gradually warming blood to a temperature of 45° or 50° C., as Max Schultze first showed. Under certain circumstances the whole red corpuscles may thus break up, forming a number of highly coloured spherules.

3. *Stromata*, decolourised red corpuscles, the framework of the red corpuscles freed from hæmoglobin, best studied after injection of distilled water into the blood; albuminous

spheres, usually colourless, sometimes retaining a little of their hæmoglobin, homogeneous throughout, without obvious envelope.

4. These stromata are to be sharply distinguished from *Schatten*. They are small vesicles consisting of an outer envelope enclosing a fluid and usually two or three exceedingly minute particles of indistinct character. They are derived from red corpuscles, and the envelope is usually regarded, but incorrectly, as that of the red corpuscle. It is, I believe, an artificial product, resulting from a chemical change in the extreme outer portion of the red corpuscle. I have never found it in the blood in health; it is not a product of normal hæmolysis. For its production a degree of acidity of blood is necessary such as is never found as the result of natural disease, and can only be formed by the action of certain destructive agents. The bodies I describe are not to be found in the blood after injection of distilled water, while stromata and colourless spherules are in abundance. They are frequently found, however, in great numbers after the injection of destructive agents such as pyrogallic acid and toluylendiamine, more especially the former.

It was from a study of the distribution of these changes in different organs and portions of the circulation during active hæmolysis induced by these agents that I gained most information regarding both the nature and the seats of hæmolysis.

#### ACTION OF POISONS.

The substance whose action proved most interesting was toluylendiamine. Like pyrogallic acid, although in a different way and in a different degree, it exercises a well-marked destructive action on the blood. The chief point of interest connected with it is that, unlike pyrogallic acid, its action differs greatly in different animals. It is exceedingly destructive and poisonous in cats, even in small doses—a dose of even 0.15 gramme killing a cat in the course of a few hours with intense hæmoglobinuria. It is less so in dogs, such a dose causing jaundice without hæmoglobinuria; and it is least of all so in rabbits, causing neither jaundice nor hæmoglobinuria even in large doses. In many of my experiments doses as large as one gramme were injected directly into the blood of rabbits with comparatively little effect. The action of this substance on rabbits differs indeed so strikingly from its action on dogs and cats, that Stadelmann, who first studied it, confessed himself utterly unable to account for it, and his observations were therefore exclusively confined to the latter animals. The reason that induced him to reject rabbits was the reason that induced me to make use of them; for the object of my experiments was not to induce a marked destruction of blood, such as is produced in dogs and cats by even small doses of this drug, but to simulate more closely the process which goes on in health. To cause a degree of change in the blood capable of inducing hæmoglobinuria or jaundice was not my purpose, but rather to induce such a slight exaggeration of the process of hæmolysis as would render recognisable evidences of hæmolysis usually hidden or obscure. This object I could not have attained with destructive agents like pyrogallic acid, glycerine or distilled water, for, as I afterwards found, their destructive action differs totally in its character from anything that takes place in health, and that is the case even with the smallest doses. With toluylendiamine, on the other hand, I found myself able to produce all the evidences of an increased hæmolysis without the slightest disturbance of the animals' health, and without the occurrence of any changes (e.g., jaundice, hæmoglobinuria &c.) not usually found attending that process in health. When the dose was small these evidences included slight changes in the blood such as are found in health, with increased formation of bile pigments, and increased deposit of blood pigment either in the liver, spleen, or bone marrow. With larger doses still more marked changes were induced, including in addition to the foregoing some never found in health—viz., appearance of large numbers of stromata and *schatten* in the blood, and of remains of hæmoglobin in the urine (not hæmoglobinuria). By varying the dose I was thus able in the rabbit to induce the most varying degree of destruction in a manner quite impossible in the dog or cat, where the substance has a poisonous action independent of its destructive action on the blood. Since all my information regarding the seats of hæmolysis, as well as the probable nature of this process in health, was obtained from a study of this drug, I will first record the chief facts I have elicited with regard to its action.

## THE SPLEEN THE CHIEF SEAT OF ACTIVE HÆMOLYSIS.

1. After small doses the morphological changes indicative of hæmolytic are confined solely to the spleen, and are absent from the blood elsewhere, even from that within the liver.

Experiment 80, rabbit; 0.25 gramme of toluylendiamine per kilo of weight injected intravenously; killed two days later. Numerous changes—colourless granules and spherules in great numbers, and budding of red corpuscles—in spleen and blood of splenic vein; blood of portal system elsewhere perfectly normal.

2. After a medium dose the changes extend to the blood within the liver, but are still absent from general circulation, both during life and after death.

Experiment 61, rabbit; 0.66 gramme toluylendiamine per kilo injected intravenously. Killed on following day. No change in blood of ear during life, either in plasma or in corpuscles. Well-marked changes in plasma and red corpuscles in spleen and splenic vein, also in liver, but none in hepatic veins issuing from liver, or in blood of inferior vena cava. Large amount of iron in spleen, none in liver. Similar distribution of changes in Experiment 75.

3. With still larger doses the changes extend to the general mass of the blood, but are always most marked in the portal blood, and especially in the spleen.

Experiment 82, rabbit; 0.8 gramme toluylendiamine per kilo. Death in sixteen hours. Great majority of red corpuscles in spleen and splenic vein converted into *Schatten*; only a few normal corpuscles left. In blood of mesenteric veins only a few *Schatten*; majority of corpuscles normal. In hepatic vein *Schatten* still fewer in number; and in inferior vena cava below the liver *Schatten* exceedingly few in number. Spleen gives an excessively deep iron reaction; liver a very slight one. A similar distribution was observed in Experiments 65 and 90 (cat) and 78 (rabbit).

In all cases, then, the greatest degree of change was found in the blood of the portal as distinguished from the general circulation, and especially in the spleen and the splenic vein. Had the changes been always found in the liver as well as within the spleen, one might have referred their presence in these situations to the scavenging function which we have seen is performed by these two organs. As I have shown, however, the stromata and other remains of red corpuscles, after injection of distilled water, are found in greatest abundance in the liver in the foregoing cases. On the other hand, the distribution of the changes was reversed, the spleen being the chief and sometimes the exclusive seat of the various products of disintegration. The greater number and variety of the evidences of hæmolytic in the spleen, as compared with those in the liver or in the blood elsewhere, seemed to point to that organ as the seat of an active hæmolytic.

## EFFECT OF REMOVAL OF THE SPLEEN.

To ascertain to what extent the spleen was the seat of an active hæmolytic or how far, on the other hand, it acted merely as a scavenging organ collecting from the blood the various debris circulating in it, I made a series of experiments similar to those already described, having previously excised the spleen.

This operation was exceedingly well borne by the animals; it appeared, indeed, to affect them but little. In my earlier experiments I waited for a day or two after the excision before injecting the drug. Later on, when I found that the operation itself was without any ill effect, I was in the habit of injecting the drug immediately after the spleen was excised. The results of the experiments under these circumstances appear to me all the more remarkable. I illustrated the action of toluylendiamine in the healthy animal by three experiments, in which the doses were respectively 0.25, 0.66 and 0.8 gramme per kilo of weight, doses which I may for convenience term small, medium and large.

1. After removal of the spleen the destructive action of toluylendiamine on the blood of rabbits, both in small and medium doses, is completely abolished, in large doses is much diminished.

Experiment 68, rabbit; spleen excised; 0.6 gramme toluylendiamine per kilo injected into blood; killed three days later. Absolutely unaffected during life. No changes found in blood either during life or after death. No remains of hæmoglobin in urine. No reaction of iron either in liver or bone-marrow.

Experiment 69, rabbit; spleen excised; 0.75 gramme toluylendiamine per kilo injected into blood. Killed on following day. Absolutely no change of any kind in blood either of portal or general circulation, or in liver. Liver gives no iron reaction. Urine free from hæmoglobin or its pigment remains.

The effect of removal of the spleen in lessening hæmolytic is evidenced in other ways.

2. The nutrition is less affected by toluylendiamine in the spleenless than that in the normal animal.

Thus a dose of 0.66 gramme per kilo in the healthy animal caused a loss of body weight of 150 grammes in two days (Experiment 61); while a dose of 0.66 gramme per kilo followed by one of 1 gramme per kilo five days later in a spleenless rabbit of the same brood caused only a loss of 50 grammes (Experiment 60). Almost three times the dose had caused a third of the loss of weight and that, too, notwithstanding that the animal had been subjected to a somewhat severe operation. Even more striking perhaps was the contrast afforded by other two experiments, in which a total of 0.33 gramme per kilo caused in the healthy animal a loss of weight of 170 grammes (Experiment 43); while the spleenless one, notwithstanding its operation, actually put on 200 grammes of weight in the same period of time, after more than twice the dose—namely, 0.84 gramme per kilo.

In all cases the conditions as to food and drink were alike. In the group of experiments in the healthy animal the dose of toluylendiamine varied from 0.13 to 0.8 gramme per kilo, the average of seventeen observations being 0.36 gramme per kilo. In the spleenless animal the average dose in eight observations was 0.64, ranging from 0.28 to as much as 1 gramme per kilo. Nevertheless, all the characteristic effects of toluylendiamine as a hæmolytic agent, whether as regards changes in blood, in urine, in organs, or in body weight and nutrition, were much more frequently and more strikingly manifested in the healthy animal. In the spleenless one, as has been seen, they were frequently absent.

3. The removal of the spleen lessens the formation of bile pigment. Doses of toluylendiamine, which in the normal animal cause an increased flow of bile and an increased formation of bile pigment, are now without effect (Experiments 69 and 81, in spleenless animals, twenty-four and forty-eight hours, after doses of 0.75 and 0.8 gramme per kilo respectively; no evidence of polycholia; while in Experiment 61, in normal animal, forty-eight hours after a dose of 0.66 per kilo, and even more markedly in Experiment 80, forty-eight hours after a dose of 0.25 per kilo, a large quantity of dark-green bile was found).

4. Removal of the spleen alters the character of the subsequent hæmolytic, rendering it slower and more chronic.

As I have shown, there is no more characteristic evidence of a gradual death of the red corpuscles than the presence of large pigment cells within the capillaries of the liver or within the spleen, even as there is no more striking evidence of a more acute hæmolytic involving the liberation of hæmoglobin into the plasma than the presence of pigment within the liver cells. What I find, then, is that after injection of toluylendiamine into spleenless rabbits large pigment cells are to be found in the capillaries of the liver in number and variety such as are never met with in the healthy animal, or ever otherwise found after toluylendiamine poisoning (Experiment 89).

These experiments seem to me to establish two things—first, the importance of the spleen as a seat, if not the chief seat, of active hæmolytic; and secondly, the relative subordinate rôle of the liver in this relation. They show very clearly how little value can, I think, be attached to blood pigment within the liver cells as an evidence that hæmolytic has occurred in that organ; for, as has been seen, it is precisely in this situation that a large excess of pigment is occasionally found as the result of the action of toluylendiamine. How little the liver cells, or even the capillaries of the liver, have had to do with the destruction thus occasioned is now evident, since the removal of the spleen may arrest it altogether.

I conclude then that the pigment found in the liver cells in such cases has been formed from hæmoglobin set free within the spleen. I can see no other way of interpreting these facts. The liver, instead of being the seat of active hæmolytic, has thus merely been concerned in disposing of some of its products, notably of hæmoglobin. I cannot but conclude then that the importance of the liver in hæmolytic—in the actual induction of the destructive changes in the blood—has been much exaggerated. Its rôle still remains sufficiently important, since to it belongs the function of getting rid of the hæmoglobin (and doubtless many other products) thus set free, and of preventing their passage into the general circulation.

(To be concluded.)

## Clinical Lecture

ON

### A CASE OF INTUSSUSCEPTION.

*Delivered at the Middlesex Hospital, July, 1892,*

By J. W. HULKE, F.R.C.S. ENG. &C.,  
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GENTLEMEN,—Few cases in surgery are of greater interest than those of “internal obstruction,” under which term we comprehend instances in which the blood-circulation in the piece of bowel implicated is arrested either by some constricting structure, as an adventitious band of inflammatory origin; or by some persistent embryonic structure, as the vitelline duct; or by twisting of the bowel, volvulus; or by the slipping of a piece of bowel through a small adventitious opening in the omentum or mesentery, all of which are strictly instances of “internal strangulation.” We include also those instances in which the circulation is brought to a standstill by intussusception; and we also comprise under it those instances where the lumen of the bowel is lessened, as by the encroachment of a neoplasm seated in its walls; and those where the gut is squeezed by pressure made on its outer surface, as by an advancing tumour originating outside it. Authors whose opinions are justly entitled to respect have objected to this wide use of the term “internal obstruction” as wanting in precision, and as placing together in one category cases of very different etiology. This is true, but in the present imperfect state of our knowledge the employment of the term in such wide sense is warranted by the strong recommendation of practical convenience.

The two questions which instantly present themselves in the bedside study of any case of internal obstruction—two questions a correct appreciation of which should govern the line of treatment to be adopted—are the *nature* of the cause and the *seat* of the obstruction. Students as yet without experience, whose knowledge of internal obstruction is drawn only from text-books in which the symptoms regarded as distinctive of the several forms are laid down with a dogmatic clearness that seems to leave little to be desired, will frequently find themselves in much perplexity at the bedside when in very many instances they find that a certain solution of these two questions is unattainable, and one can only arrive at a probability of greater or less degree—a probability which may amount to a strong presumption, or may be a mere conjecture, and which falls far short of a demonstration, of the nature and seat of the trouble. Instances where these can be certainly known beyond possible error before laparotomy are, I think, not numerous. For an example of such prior certainty I may cite intussusception occurring in the large intestine, where the intussusceptum descends into the rectum within reach of the finger, or even passes the anus and comes into actual view. I mention these doubts not to discourage you, but to incite you to ever closer clinical study. In studying such cases the age of the patient may give a clue, since some forms are more common in later, others in earlier, life. Thus obstruction from malignant disease of the bowel is not often met with until somewhat advanced adult life. Bear in mind, however, that exceptions to this do occur sometimes, of which we saw a striking example a few years since, the patient being a youth of sixteen years, under Mr. Lawson's care. Again, malignant tumours of the bowel are much more common in the large than in the small gut; yet within a few years we have seen instances of these in the ileum and in the duodenum. Again, obstruction due to malignant tumour of the bowel is usually gradual and insidious; yet in the case to which I have just referred the history obtained was that of an acute illness of only a few days' duration. Intussusception is more common in childhood and youth than later, but many cases have been verified in persons of middle and advanced age. In the time at which vomiting begins some have thought to find a hint as to which part of the intestinal canal is involved. Thus early vomiting has been supposed to indicate obstruction situated in the upper part of the canal, and the converse; yet occasionally vomiting has been noticed as one of the first symptoms when the obstruction has been situated at the lower end of the intestinal canal. A

case which I saw in consultation with Mr. Lawson and a medical colleague was a good example of this. The patient, a young woman, had symptoms of acute obstruction of about seven days' duration. Previously in good health, whilst in the act of lifting a heavy weight, she experienced great pain in the lower part of the abdomen. She soon began to vomit, and this was continued, being distressingly urgent at the date of her reception into the hospital. An examination of the rectum revealed its complete blockage, its anterior wall being squeezed back against the sacrum by a large mass external to and in front of the gut; a vaginal examination showed this to occupy Douglas's pouch. Of doughy firmness generally, at one spot this mass was softer, and here fluctuation was thought to be detected. An exploratory puncture proved it to be a suppurating hæmatoma, the contents of which were evacuated by an incision, when all the symptoms of obstruction disappeared and the woman quickly recovered. Pain, when localised and fixed, has been thought to denote with some approach to certainty the situation of the obstruction; but I can recall a case in which the pain was referred to the inguinal region, and the obstruction was found to be in the upper part of the jejunum. The form of internal obstruction to which I particularly ask your attention to-day is intussusception, a typical example of which has very recently been under your observation. The following is a précis of the case, abridged from the dresser's notes.

A plumber, aged seventeen years, was admitted into Foulmer ward on July 17th, 1892, in a state of extreme collapse. The surface of his body was distinctly cold. His eyes and cheeks were sunken. His pulse was rapid, very small and weak. He vomited frequently; the ejecta had a fecal smell and appearance. His abdomen was excessively distended, its parietes tense and hard. The right inguinal region and flank seemed to be rather more resistant than other parts. No stools or flatus had been passed since the beginning of his illness one week previously. The patient's calling—a plumber—had led to his condition being mistaken for lead colic, but at the time he was received into the hospital his symptoms unmistakably pointed to an acute internal obstruction. His excellent health previously and the absence of any history of an antecedent peritonitis discountenanced the idea of constriction of gut by adventitious bands of inflammatory origin; whilst his age and the acuteness of the attack, unfavourable to the supposition of malignant tumour, suggested volvulus or intussusception, the absence of tetanus and of the expulsion of mucus and blood per anum (so often characterising intussusception) appearing to favour the supposition of a volvulus. As laparotomy offered the only chance—though in his desperate condition a very slight one—of saving his life it was proposed, and, as he acquiesced, immediately done. The abdomen was opened by an incision between the umbilicus and pubes, and in the right inguinal region there was quickly found a firm cord-like object of about twice the calibre of a goosequill and about three inches long. This, at first taken to be a band or perhaps a long slender diverticulum or persistent vitelline duct, when traced was proved to be continuous at one end with distended small intestine, and at the other end to be continuous with a considerable intussusceptum, which, together with the sheathing bowel, formed a stout cylindrical mass nearly ten inches in length. The intussusceptum could not be drawn out, but it was in greater part easily extruded by gentle kneading pressure applied to its further end, until a mass about three inches in length only remained. This seemed so tightly engaged that its extrication might involve risk of laceration, it was therefore brought outside the abdomen, and sponges having been carefully packed around it so as to prevent the entrance of fecal matter into the peritoneal sac if the gut should be ruptured, and the fixity of the gut having been ascertained not to be caused by strong agglutination of the opposed peritoneal surfaces, the disengagement of the intussusception was cautiously proceeded with and soon effected. This was, however, not accomplished without the occurrence of three small rents in the peritoneal tunic, which were closed with a fine silk continuous suture. The intussusceptum, after its extrication, assumed a bright, florid-red hue. It was replaced in the abdomen and the incision was closed and dressed in the usual antiseptic manner. Before administering the anæsthetic the stomach was first emptied by the resident medical officer with a syphon of its foul, fecal contents and then flushed out with a watery solution of boracic acid; and a hypodermic injection of ether was given to combat the extreme depression. This depression continued through the night, but towards morning (July 18th) it seemed to be

rather less, and the vomiting also was less. This apparent improvement lasted till midday, when his strength failed and death occurred at 5 P.M., about twenty-four hours after the laparotomy.

At the necropsy made on the following day marks of a widely diffused slight general peritonitis were found, and in the neighbourhood of the lower part of the ileum and cæcum signs of more intense inflammation. The lowest three feet of ileum were intensely congested, their outer surface coated with flakes of coagulated lymph and of a slaty hue. This part of the gut was matted together and between the coils was a little blood clot. At the distance of ten inches from the ileo-cæcal valve was a part of the gut more deeply discoloured, and on separating this a small aperture was found from which fluid feces ran out. As no fecal matters were observed already extravasated it was inferred that this opening was made by the mechanical tearing of the gut at a sloughy spot in its removal. Close to this was a polypus of the size of a damson, attached to the mucosa by a rather wide base. For an extent of six inches below this the inner surface of the gut presented several patches, yellowish, raised and granular in aspect (as of puriform infiltration?), occurring mostly in bands the long axis of which was transverse to the length of the gut. In addition to these were a couple of small superficial sloughy spots. Note, now, two circumstances which make intelligible the occurrence of the intussusception: (1) the presence of a polypus through which a drag would be exerted on the gut by the peristalsis which passes on its contents, and (2) the tetanic contraction of the gut above the polypus which favoured its invagination when pulled on. Without such reduction of size of the entering gut traction on it through the polypus might have been inoperative; and the frequently verified absence of any such assignable mechanical factor as a polypus hints that, given such great inequality of size as that due to spastic contraction of gut, peristalsis of a neighbouring portion may alone suffice to bring about invagination. Note also the florid reddening of the gut when disengaged, so strikingly resembling that occasionally observed in herniotomy when the constriction is removed, and also like that with which you are all familiar—the blushing of the integument on the removal of an Esmarch's elastic bandage from a limb. This it was which gave expectation of restoration of the circulation within the gut, so that it was unhesitatingly replaced within the abdomen. Yet at the necropsy sloughy patches were found in the gut, and had the lad survived a little longer, on the separation of such sloughs, extravasation would hardly have remained absent. His desperately collapsed condition made it urgent to operate rapidly; had sloughs in the gut been present and recognised during the operation, the time required by excision of the irreparably damaged gut and reunion of the ends with suture would not have permitted the adoption of this course, and all we could have done would have been to bring out the ends and secure them in the abdominal wound, thus making an artificial anus, which, had he survived, could have been dealt with later. That which in this case is truly regrettable is that laparotomy was not done earlier. In acute "internal obstructions" the aphorism so pertinent to acutely strangulated (external) herniæ—that delay is a greater danger than is the herniotomy itself—is equally applicable. If recognised in quite an early stage a short time may be spent on inflation, and the measures you will find in medical text-books; but let such time be short, and in the event of minor measures not speedily proving successful, turn promptly to laparotomy with confident expectation of a smaller mortality. Delay and an expectant inaction, leaving such cases to nature, will, it may not be doubted, occasionally terminate in recovery after exfoliation of an intussusceptum and its passage per anum; but bear in mind that such a recovery is not always permanent, and that after an interval the contraction of the cicatrices may lead to renewed obstruction and to death, of which I have known in my own experience more than one example.

Old Burlington-street, W.

**NEW HOME FOR THE DYING AT BRADFORD.**—A committee has been formed for the purpose of opening, in connexion with the Samaritan Home at Bradford, a home where poor women in the last stages of any non-infectious disease will be cared for in their last days, that their passage to the grave may be rendered as peaceful as medical skill and good nursing can make it. Appeals for funds are being made by the committee, it being their intention to open this home, if possible, early in the new year.

## A CASE OF DOUBLE HEMIPLEGIA WITH BULBAR SYMPTOMS.

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THE patient whose case is here narrated was under the care of Dr. Hughlings Jackson at the National Hospital for the Paralysed and Epileptic, Queen-square. He was first admitted on May 10th, 1889. The following particulars are from the notes of Dr. Risien Russell.

The patient, R. N—, aged fifty-two, suddenly became giddy whilst walking in the street in September 1888. He also lost the use of his left side at this time and had difficulty in talking and in swallowing. His mouth is said to have been drawn to the left. He could not protrude his tongue. The unilateral loss of power gradually passed off, but he has had slowly increasing difficulty in articulating and swallowing. He is said not to have been able to make himself understood at all for four weeks after the attack, and he could swallow only liquids and semi-solids. Food was apt to "go down the wrong way," and on account of this and the "phlegm" which accumulated in his throat he not unfrequently had choking attacks. Five years before he had a similar attack, but then the loss of power was on the right side. He is said to have lost the ability to articulate for a week, and then to have gradually but perfectly recovered this power. There was also improvement in the condition of the paralysed limbs, but slight weakness of the leg remained and this was present when he was admitted in 1889. His wife observed nothing peculiar in his talking, nor had he any difficulty in swallowing before the last attack. She is quite sure that the onset of the first attack, as well as of the second, was sudden. There is nothing of consequence in his family history, but a significant incident in his previous personal history is an attack of gout ten years ago. When admitted he complained of difficulty in swallowing and inability to talk distinctly, and examination revealed the following conditions. As regards the face no notable difference could be detected between the two sides when the eyebrows were raised and in frowning, but in trying to close the eyes firmly the left orbicularis palpebrarum was seen to contract less firmly than the right. In showing the upper teeth the left upper lip was imperfectly raised. The tongue turned to the left on protrusion. There was complete paralysis of the palate, the two sides remaining quite immobile during phonation. Its tactile sensibility was preserved, but its reflex irritability was abolished. There was no paralysis of the vocal cords. These observations on the tongue, palate and vocal cords were confirmed by Dr. Semon. The tongue and muscles of the palate responded actively to faradaic stimulation. The neck movements were well carried out without pain. There was no wasting of any muscles. Movements of the box of the larynx during both respiration and deglutition did not seem to be affected. No wasting or fibrillary twitching was observed in any of the trunk muscles. The arms were fairly well nourished, and so were the small muscles of the hands. There was no fibrillary tremor, and movements were carried out steadily and exactly except that there was slight inaccuracy in touching different parts of the face with the fingers of the left hand when the eyes were closed. The grasps were feeble as tested by the dynamometer—viz., right = 60, left = 50, an ordinary right-handed grasp being about 120 on the same instrument. The triceps and wrist-jerks were well marked and equal on the two sides. There was no local or general wasting of muscles in the legs, and movements were fairly carried out as he lay in bed. No sign of unilateral weakness was evident in his gait, except slight stiffness in the right leg. The plantar reflexes were excessive but equal, both knee-jerks were exaggerated, the right being more active, and slight ankle clonus was obtained on the right side, none on the left. The sphincters of the bladder and rectum were unaffected. Sensibility was quite normal on face, trunk and extremities

As regards special senses, there was no impairment of taste or hearing. He could not smell assafœtida, but he said that his smell had always been defective. His sight with glasses was fairly good. There was marked inequality of pupils, the right being the larger. Both reacted to light and during accommodation. Ocular movements were all carried out well and there was no nystagmus. The following is Mr. Gunn's note on the fundi: "Both optic discs have their edges ill defined, but exhibit no swelling. The veins are considerably congested and the arteries silver-wire like. In the vicinity of the disc in both eyes there are numerous hæmorrhages, chiefly in the nerve fibre layer, but in the right eye there is a guttate one which is probably deeper. There are one or two roundish whitish spots, either due to fatty change in the retina or to old hæmorrhages. Ophthalmoscopic examination points to albuminuric retinitis." There was no aphasia and no impairment of the ability to read and write, but great defect of articulation. He was just able to make himself understood. He could not blow out his cheeks when he attempted to do so, as the air rushed through his nose. He was unable to whistle, although he could formerly. The heart's apex was in the left fifth space in the nipple line. No murmur was heard, but the second sound at the base was accentuated. The arteries were tortuous and the radial could be rolled under the finger. The pulse was of high tension but regular. The chest was barrel-shaped and the costal angle broad. Movements were feeble, but equal on the two sides. Respiration was mainly thoracic as he lay in bed. It was regular. Respirations were twenty-four per minute. Expiration was prolonged, but there were no accompaniments. He complained of difficulty in coughing and of inability to "bring up phlegm." No abnormality was discovered in the liver and spleen. The urine was clear, pale, faintly acid, with a specific gravity of 1010. It contained no sugar, but boiling showed the presence of a copious cloud of albumen. As regards his psychical condition he was very emotional, and laughed and cried easily and without apparent cause, and he could not stop himself from doing so.

The patient's condition remained unchanged during the time he was in hospital, except for some fluctuation in the quantity of albumen present in the urine. He was discharged on September 22nd, 1889, at his own request. On November 20th of the same year he was readmitted, and the following additional particulars of his condition at that time are taken from the notes of Dr. George Wilson, who was clinical clerk of the case. The breathing was husky and the patient complained of his inability "to bring up phlegm." On attempting to cough there was almost no result; inspiration was imperfect and the expulsive part was very feeble and jerky. The voice was rough, husky and nasal. Cotton wool placed in front of the nose was blown whenever he phonated. He could not keep up a prolonged effort of vocalisation. Thus he could not say "Ah" for more than four seconds without taking a breath. The pitch and volume of his voice were greatly impaired. In talking it frequently sank to a whisper and sometimes an attempt at phonation ended simply in a gasp. When he tried to shout as loudly as he could the result was a groan. Articulation was very defective, the defect being intensified, and the difficulty in understanding what was said being increased, by the roughness of the voice and the patient's uncontrollable laughter. He could pronounce very few of the consonants correctly; the sibilants were lost so that he could not hiss. He could not roll an "r." The words he uttered best were "no, no" and "Mama." As to explosive consonants, the following was the condition:—1. Voiceless explosives,—as initials p, t, and k, were preceded by the corresponding nasal. Thus "pea" became "mpea," "tea" became "nten," and if often repeated, "nea;" "kay" became "nkay," and if often repeated apparently "kaying, kaying, kay." If the nostrils were closed he could say "pea" and "tea" correctly, but there remained some difficulty and indistinctness about "kay." As finals, these consonants were frequently correctly articulated. He could pronounce "up," "cat" and "tick" correctly. 2. Voiced explosives. As initials these had the nasals introduced in front of them, "band," "door" and "game" becoming "mband," "ndoor" and "nggame." On repetition "bah" became "ma," "day" became "nday," "gay" became "nggay." If the nostrils were closed "band," "door" and "game" were pronounced correctly. As finals, these were also modified "rub" becoming "rum," "head," "en" and "egg" always "heng." All these peculiarities were intensified when the patient became a little fatigued. There was no aphasia, and ability to read and

write was preserved. The condition as regards swallowing was almost the same as formerly, the act being if anything accomplished with greater ease. In other respects, as regards motor and sensory power, the condition of the kidneys and other organs, little or no difference was to be made out and the patient continued as emotional as before. The vocal cords continued to act well. There was no marked change in the patient's condition during the months which followed, until March 11th. He was able to be up and about all day, at one time laughing almost continuously, at another crying as persistently. On the morning of the 11th March, he suddenly lost consciousness and quickly passed into a condition of coma which ended fatally in a few hours.

The necropsy was made by Dr. Walter S. Colman, who also made the microscopical examinations we shall mention; we are indebted to his notes for the following particulars. On removing the brain a considerable quantity of blood recently effused was found spread out in the subarachnoid space over the pons, medulla and the inferior surface of the cerebellum. This blood came from a rent in the roof of the fourth ventricle. Blood had also escaped from a rent in the corpus callosum. On making horizontal sections at the level of the basal ganglia the lateral ventricles were found distended with blood. The hæmorrhage had apparently had its starting-point in the anterior part of the left lateral ventricle, where it had extensively ploughed up the white matter and the basal ganglia. There was a mass of blood-clot in this region the size of a fist. It had passed into the third ventricle and along the iter, ploughing up the centre of the pons. The finger could be easily passed into the fourth ventricle in this direction. All the vessels at the base were extremely atheromatous. The kidneys were in an advanced stage of granular contraction, and the left ventricle of the heart was hypertrophied. Microscopic examination of the cord and medulla after they had been hardened in Müller's fluid showed extensive degeneration of the pyramidal tracts on both sides from the crura downwards. The degeneration was more extensive on the left side of the cord than on the right, and diminished as the lower levels were reached. The hypoglossal nuclei were normal, the outline of the cells being clear and distinct. The extensive destruction which the fatal hæmorrhage caused rendered the detection of any old lesions in the cerebral hemisphere impossible. From the account of the condition present during the time the patient was under observation, it will be seen that the symptomatology presented a picture resembling that of ordinary progressive bulbar paralysis. Yet the differences, although slight, were sufficient, especially having regard to the history of the case, to enable Dr. Hughlings Jackson to predict a double lesion higher than the bulb. The existence of symptoms usually associated with bulbar disease in cases in which the lesion is a cerebral one has been long recognised. The first record of such a case is by Magnus,<sup>1</sup> and is that of a patient who had paralysis of the facial muscles and of the tongue, with constant dribbling of saliva, and in whom what is called "speech" remained completely in abeyance after a second attack of left hemiplegia. In this case only a single lesion in the right hemisphere was discovered post mortem. There is a very important case recorded by Dr. Barlow.<sup>2</sup> It was that of a boy with aortic disease who had first an attack of right hemiplegia and later one of left hemiplegia. When he came under observation after the second attack his limbs were weak and wasted, but the muscles reacted well to faradism. He was unable to protrude his tongue, but there was no wasting of it, and there was no paralysis of the palate. There was some difficulty in swallowing, but no regurgitation of food. He could not talk, but he understood signs. He was very emotional, and, to quote the report, "he cried like a man with senile softening whenever he was spoken to." At the necropsy there was found to be plugging of both the middle cerebral arteries, and there were areas of softening almost symmetrical at the lower end of the ascending frontal and the hinder end of the middle and inferior frontal convolutions. Similar cases have been recorded by Lepine,<sup>3</sup> by Jolly,<sup>4</sup> by Eisenlohr,<sup>5</sup> by Kirchoff,<sup>6</sup> by Ross,<sup>7</sup> by Miss McNutt,<sup>8</sup> and by Fuller and Browning<sup>9</sup> so that the condition is well recognised.

<sup>1</sup> Müller's Archiv, 1837.

<sup>2</sup> Brit. Med. Jour., vol. ii, 1877.

<sup>3</sup> Revue Mensuelle de Méd. et Chir., 1877, p. 900.

<sup>4</sup> Archiv für Psychiatrie, Bd. iii., 1872, p. 772.

<sup>5</sup> Ibid., Bd. ix., 1878, p. 43.

<sup>6</sup> Ibid., Bd. xi., 1881, p. 132.

<sup>7</sup> Brain, vol. v., 1882.

<sup>8</sup> American Journal of the Medical Sciences, 1885.

<sup>9</sup> New York Medical Record, Nov. 1st, 1884.

In the case of R. N.—, recorded in this paper, the important points in regard to diagnosis were the distinct history of two separate attacks of hemiplegia, the absence of the usual wasting of the tongue and of the “squirming” movements which are present in it in bulbar paralysis, and the absence of fibrillary twitching in other parts. On the other hand, the peculiarity of the articulation resembled what occurs in ordinary bulbar paralysis, and the difficulty in swallowing was the same. The emotional condition also was extremely suggestive of the lower lesion. With regard to the condition of the chest movements, it is very difficult to determine how much of the weakness is due to paralysis in a case in which there is emphysema. In this case the chest was emphysematous, and it is on that account probable that a good deal of the chest weakness present was a result of this. This weakness of the chest no doubt accounted for the feebleness of the voice and the difficulty there was in sustaining it, for the vocal cords moved freely and correctly, and what difficulty there was must therefore be ascribed to imperfect bellows action. The difficulty of articulation was of course a different thing, being the result of the paralysed condition of the palate. The conditions which were present in this case find an explanation on Dr. Broadbent's hypothesis,<sup>10</sup> that bilateral movements habitually associated are represented in each half of the cerebrum. This hypothesis has been verified experimentally by Beevor and Horsley,<sup>11</sup> at least as regards certain bilaterally associated movements, such as those of pouting with the lips, mastication, swallowing and adduction of the vocal cords, and further experiment will probably show that it is true of many other movements. In our patient's case, after the first attack of hemiplegia the articulation dependent upon the condition of the palate would be, if at all interfered with, only temporarily so, on account of the preservation of the path on one side. When, however, the second lesion came on the opposite side there was no third path by which impulses could travel to the periphery, and the peripheral mechanism of articulation was consequently rendered inactive, the amount of inactivity being proportioned to the completeness of the interruption. A similar explanation applies to the condition of the chest movements, if the deficiency in those is to be ascribed to anything more than emphysema. It is unfortunate that the fatal hemorrhage was so extensive as to make it impossible to localise the lesions which caused the two attacks of hemiplegia, but that the case was one of double hemiplegia and not of bulbar paralysis is, we think, sufficiently proved by the double descending degeneration visible above the level of the medulla, and by the healthy condition of the cells of the bulbar nuclei. The bearing of the abnormal vascular condition, of the renal disease, and of the state of the fundi is too obvious to need comment.

### THE TREATMENT OF SEVERE CASES OF CLUB-FOOT.

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At a recent meeting of the Royal Medical and Chirurgical Society Mr. Edmund Owen raised the vexed question of the surgical treatment of severe congenital club-foot and advocated Phelps' open incision as the best method for the cure of the affection. I am entirely in accord with Mr. Owen in thinking there are many cases of club-foot which cannot be effectually dealt with merely by tenotomies and mechanical extension. During my charge of the orthopædic department at St. Bartholomew's Hospital for the last ten years I have met with many such cases; and although I have had them in the

wards for months under my own daily personal supervision I have failed to cure them by these means alone. Some of these cases had been under my own care from the first; but others were relapsed cases that had previously been treated at general and special orthopædic hospitals. I am not convinced, however, that Phelps' open method is the best way of treating these severe cases—indeed, in some of the cases in which I have operated I am sure that without the removal of portions of bone the foot could not have been corrected. For even after, say, the astragalus or a wedge-shaped piece of the tarsus had been excised, although the ligaments and tense structures on the inner side of the foot were freely divided from within the wound, it was not until much more bone had been taken away than I intended when I commenced to operate that the foot could be brought into a fair shape and useful position. In less severe grades than these, when the ligaments and other tense structures on the inner border of the foot and sole have been completely cut through down to the bone, whether by Phelps' open method or by Parker's subcutaneous operation, the foot can be brought into a line with the leg; but it is only at the expense of inserting, as Mr. Owen puts it, a wedge of space between the astragalus and scaphoid on the inner side and a less sized wedge of space between the os calcis and the cuboid on the outer side. Now herein I think lies the weakness both of Phelps' and of Parker's operations. I am not so sure that this wedge of space becomes filled up by granulations, and ultimately by a firm cicatricial pad, as Mr. Owen seems to believe. The condition of the foot after the operation appears to me to be analogous to what occurs after the division of the tendon of the biceps and external lateral ligament for the cure of knock-knee. After these structures have been severed the leg can be brought into a straight line with the thigh, and as long as retentive apparatus is worn the knock-knee appears cured. The down growth of the inner condyle, however—the root of the evil,—has remained untouched, and the rectification is only attained by the insertion, again to use Mr. Owen's words, of a wedge of space between the external condyle of the femur and the corresponding tuberosity of the tibia. This space is not filled up, and when the retaining apparatus is left off—and I am speaking from experience—the knee falls back into the position of genu valgum. I cannot help fearing that the same thing will happen after Phelps' operation, that the new fibrous tissue formed between the divided ligaments and soft parts will draw as it contracts, as all new fibrous tissue will, the deformed and displaced bones back into their faulty position. During the discussion on Mr. Owen's paper Mr. Brodhurst said that the bones were not at fault, and that he had never seen a case in which they were so deformed as to interfere in the slightest degree with the reduction of the deformity. His experience therefore must be contrary to that of most general surgeons. In the museum of St. Bartholomew's Hospital there are now quite a number of deformed astragali removed by my colleague, Mr. Willett, and by myself from severe and intractable cases of club-foot, and illustrations of deformed bones are given in most of the works on Orthopædic Surgery. Indeed, since Mr. Adams drew attention to the condition of the astragalus in his work on Club-foot I was under the impression that it was generally recognised on all hands that in severe cases the deformity and alteration in the articular facets of the astragalus and os calcis were often well marked, and in the case of the former bone sometimes extreme. Seeing therefore that in Phelps' operation the deformity of the bones and the alteration of their articular surfaces are not dealt with, it seems to me that we shall be very liable to have relapses. My own experience of the operation has been insufficient for me to say definitely whether such is or is not the case; and although I have heard from others that relapses after Phelps' method are not uncommon, such cases have not hitherto made their way to the orthopædic department. I admit that the objection I have just raised to Phelps' method may be only theoretical, and time alone can prove the value of the operation.

In some severe cases there is an objection to Phelps' operation which I venture to think is not theoretical. In the class of cases I refer to the equinus position is more marked than the varus, and on attempting to bring the foot up to a right angle after division of the tendo Achillis, and even the posterior ligaments of the ankle-joint, the astragalus is felt to lock against the tibia and fibula. In these cases, as I think I have proved both by dissection and by operations on the foot, the equinus does not depend, as is usually taught, on a mere tilting of the trochlear surface of the astrag-

<sup>10</sup> One of us (J. H. J.) wrote as follows in the *Medical Times and Gazette*, Aug. 16th, 1898: “Moreover, it will be found, I think, that cases of double hemiplegia confirm Broadbent's hypothesis. With regard to this, however, I will content myself by urging those who observe defective bilateral movement with hemiplegia, particularly difficulty in swallowing, to inquire carefully if the patient had not been previously affected on the other side. Again, at a necropsy on a patient known to have been paralysed of but one side, and who had had difficulty in swallowing, we should search both sides of the brain for evidences of disease. For it is a fact that much of the motor tract may be destroyed without the production of hemiplegia, or, at all events, without permanent hemiplegia.”

<sup>11</sup> *Philosophical Transactions*, 1890.

galus out of its socket, but on an abnormal downward as well as inward deflection of the neck. The inward deflection has been long recognised; the downward deflection has not, I think, received the attention it deserves. The reason why the equinus cannot be overcome in these cases after division of the tendo Achillis and the posterior ligaments is that the astragalus is already more or less in normal contact with the tibia and fibula, and further attempts at dorsi-flexion merely wedge the broader anterior surface between the malleoli. To cure the equinus, I hold, either the head and downwardly deflected neck of the astragalus, or in some cases the whole of the astragalus, and often other portions of the bone as well, must be removed. After the excision of the astragalus I have still found that the os calcis or other of the tarsal bones have locked against the external malleolus, and it has not been till parts of these bones have been removed or the external malleolus has been divided and bent backwards that the foot could be placed at a right angle to the leg. When the condition of the astragalus is present it is evident that the mere division of the ligaments and tense structures on the inner side of the foot and even in the sole will be quite futile for correcting the equinus.

In advocating some form of tarsectomy in severe cases I wish it to be understood that no one holds more strongly than myself that these severe cases, like large stones in the bladder, should never be allowed to occur. I have always taught that though I firmly believe these intractable grades of the deformity can only be cured by tarsectomy, at the best it is but a bad job. The foot, after removal of bone, is of course an imperfect member, but at the same time a useful one, and for out-patients to whom the expense of continually wearing apparatus is a great consideration the advantage of being able to dispense with irons is an immense gain. To my mind the moral of the whole question is the importance of undertaking the treatment of club-foot at the very earliest possible period. At birth the bones consist of little more than cartilage, and during the first few months of life can be readily moulded and made to take almost any shape. I have always looked up to Mr. Adams as my teacher in all things orthopædic, and although I differ from him as regards the question of tarsectomy I have hitherto, in the treatment of club-foot in infancy, followed out his method of correcting the varus before attempting to overcome the equinus, and I am bound to say with excellent results. I agree with Mr. Owen that in slight cases the division of the tendo Achillis is often all that is required in the way of operation, but I have certainly found it of benefit to correct by plaster-of-Paris or other mechanical means the varus before doing so.

Weymouth-street, W.

## SIMULTANEOUS DISLOCATION AT THE SUPERIOR AND INFERIOR RADIO-ULNAR ARTICULATIONS.

By T. W. M. LONGMORE, M.R.C.S., L.R.C.P. LOND.

A STEWARD on board a cargo steamer, aged twenty-one, was admitted to the Lady Strangford Hospital, Port Said, under my charge, in June, 1891. He was suffering from the unusual accident of a dislocation of the head of the radius forwards and of the lower end of the ulna backwards. As the causation and symptoms of this uncommon condition were very clear and exact, it seems worth recording. The patient while carrying a dish in his right hand during stormy weather tripped over a ring bolt. He pitched forwards on to the deck, falling upon his right hand, with the injured arm twisted under his body. The radial side of his hand came into contact with the deck, with the wrist bent and the hand pronated; while the weight of his body fell chiefly upon the outer side of the forearm. He felt "something give way," and found he could not flex or extend the elbow-joint, which was fixed in a semi-flexed position. The arm was pulled about by one of the engineers, and afterwards he was able to move the joint more freely. It was then roughly bandaged and put in a sling until he came to the hospital, four days after the injury. On admission, the patient was suffering very little pain or even inconvenience except from inability to use the right arm. The forearm was semi-flexed and the hand

pronated. There were only slight swelling and deformity discernible about the elbow-joint, but when the joints on the two sides were compared a flattening of the outer aspect of the forearm was noticed near the joint, over the position normally occupied by the head of the radius. The bend of the elbow was full, and on palpation a hard swelling was easily felt just to the outer side of the tendon of the biceps, against which it was pressed. On rotation of the radius this swelling was felt to move, and there was absence of movement in the normal position. Crepitus of a creaking character was felt and heard on rotation, but not on simple flexion of the joint or pressure on the radius alone. Passive movement or palpation about the elbow-joint caused very slight pain, but movement of the wrist, especially supination, was painful. The lower end of the ulna was decidedly prominent behind and there was an unusual depression between it and the carpus in front. The end of the bone could be pressed into its normal position with an audible click, but it returned as soon as pressure was taken off. On pronation or supination of the hand the same movement of the end of the ulna took place. When the radius was fixed and the ulna moved forwards and backwards the latter felt perfectly loose and could be separated from the radius and carpus with ease.

After the full administration of chloroform the head of the radius could be felt quite easily resting against the humerus in the bend of the elbow. With skilled assistance attempts were made to reduce the dislocation by fixing the humerus and steadily extending the forearm. At the same time pressure and manipulation over the head of the bone were tried. Then after full extension the forearm was flexed on the arm, at the same moment as downward pressure was made on the head of the radius. Rotatory movements of the radius during both extension and flexion were also tried. Although there was complete relaxation of muscles, yet the position of the head of the bone could be only slightly altered, and at no time did it regain its normal position. There were no signs of fracture or other injury about the elbow-joint, but it did not seem justifiable to make further or more violent efforts at reduction. So the attempt was relinquished and the arm put up in an angular splint midway between pronation and supination. A straight splint was put along the outer side with a pad pressing on the lower end of the ulna, while a similar splint and pad were made to exert pressure on the head of the radius. The splints were kept on for three weeks and were readjusted at the end of each week, when passive movements of the elbow, wrist and finger-joints were made. There was no tendency for the lower end of the ulna to become firmly fixed, so after the splints were removed a bandage and a couple of pads were worn. To restore the muscular power, friction, cold douching and graduated exercise were ordered. As there was no pain all movements were increased and the patient instructed to lift a daily increasing weight from the floor. After five weeks he left the hospital with a very useful arm. Flattening of the outer side of the forearm and fulness of the bend of the elbow were still apparent. Flexion of course was not complete, but he could button his clothes and feed himself. The chief discomfort arose from the condition of the ulna, but when it was properly bandaged inconvenience was only slight.

Cases of these dislocations occurring separately are quoted in "Holmes' System of Surgery," "Spence's Lectures" and the celebrated work on "Dislocations and Fractures" by Sir Astley Cooper. In the last-named work a series of cases of dislocation of the head of the radius forwards are given in detail. In five of these the dislocation was reduced successfully, in six it remained unreduced. In the same work it is said that "luxation of the lower end of the ulna backwards is the result of a sudden and violent pronation." The age of the patient agrees with that given in most of the recorded cases, and the fact of his being a delicate, lightly built lad, with very loose joints, would render dislocation more likely to occur than fracture. The occurrence of the double dislocation was doubtless aided by his right hand being engaged at the moment of his fall, and so, being caught off his guard, he was not quick enough to put it into the usual protective position involuntarily assumed while falling. When it is considered that the annular, the capsular, the oblique and the saciform ligaments connecting the radius and ulna were, in all probability, ruptured, and the two bones only connected by the interosseous ligament, it is wonderful that the result of the accident was not more unsatisfactory.

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## CHRONIC RHEUMATIC ARTHRITIS.

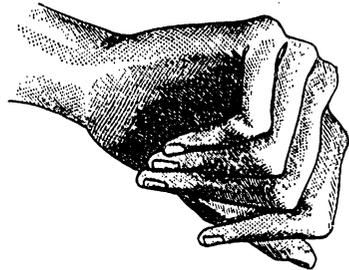
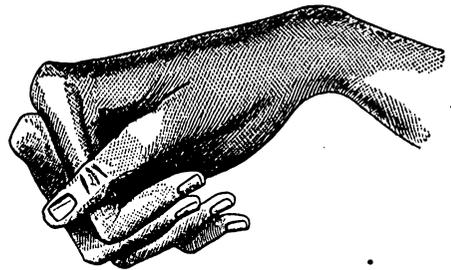
By HUGH LANE, L.R.C.P. EDIN., M.R.C.S.,  
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MEDICAL OFFICER TO THE ROYAL UNITED HOSPITAL, BATH.

WITH respect to the subject of rheumatic and rheumatoid arthritis, which I have frequently discussed in the columns of THE LANCET, the following case may prove of interest as exemplifying the distinctions originally drawn by Mr. C. T. Griffiths and myself—viz., that one disease, rheumatic arthritis, is an affection of rheumatic origin, local in character, in which the neural element is absent; and the other, rheumatoid arthritis, is a general disease of debility, having no connexion with rheumatism, in which the neural element plays a conspicuous part, and which occurs in cases with strong hereditary histories of gout and struma or phthisis, and in which the last stage is osteo-arthrititis.

The patient, a female aged forty-three (father living and healthy, aged seventy; mother died of paralysis, aged sixty-four; two brothers and six sisters all living and strong), was healthy and well till nineteen, years of age, when she had subacute rheumatism (attributed to sleeping in a damp bed), which hardly confined her to bed, but she felt pain and stiffness in her knees, shoulders, elbows and thumb-joints. These joints never got better, but remained stiff and painful after the attack, she feeling every change in the weather. This is a strong rheumatic symptom, for in rheumatoid arthritis the weather does not affect the course of the illness to the same extent, and patients will frequently say they feel better in damp or cold weather. She had subsequent subacute attacks in which more joints suffered until every joint got affected, with the exception of the temporo-maxillary articulation, and she ultimately became quite bedridden and has remained so for twenty years. The catamenia came on at fourteen years, and continued regularly. No phthisis or gout in the family history. Every joint is firmly and rigidly ankylosed, not even the slight movement which can nearly always be obtained in the ankylosis occasioned by osteo-arthrititis (the last stage of rheumatoid arthritis), in which case the ankylosis is caused by obstruction to movement by bony outgrowths. The joints are stiffly fixed; no increase in the size of a single joint beyond an apparent enlargement due to wasting of the limbs, which now are so emaciated that they present the appearance of merely skin and bone. The only joint at present in which there is any movement is the jaw, and that is healthy. She some years ago, when not quite so helpless in the spine, used to take care of her sister's child, and alter its position by raising it with her teeth, but now she cannot even turn her head. The joints of the limbs nearly all contracted, elbows at right angles and close to side; knees also bent up, and fingers contracted in palm of hand; skin healthy, colour good; no great anemia; heart fairly normal, but slight mitral bruit; pulse 60 to minute; bowels opened only once a week, and then only with the aid of an enema or aperient; general health good; eats fairly well, and seems cheerful, frequently singing to the children; and, strangely enough, she is plump in the face, the muscles of which do not appear to be wasted; feels well, except in the springtime of the year; urine, sp. gr. 1020; sugar absent; albumen absent; reaction acid; oxalates absent; small quantity of mucus; passes about 300 gr. of urea daily.

The following interesting points show the difference between the two conditions chronic rheumatoid arthritis and chronic rheumatic arthritis:—1. Family history reveals an utter absence of gout and phthisis, which I have always asserted are found in that of rheumatoid arthritis. 2. No nervous symptoms, neuroses, fornication, tingling of limbs, sweating, numbness, pigmentation of skin, and no constitutional symptoms—simply a joint affection; and although every limb is wasted, there is no evidence of general organic progressive disease, as in rheumatoid arthritis, where the muscular atrophy is one of the earlier symptoms, and as a rule precedes the joint affection. 3. Character of joints affected: all firmly ankylosed, with no enlargement, but of course apparently so, owing to the wasting of the surrounding structures; no effusion, and there are absolute flexion and fixation in this case. Flexions of joints in the

vast majority of cases are of rheumatic origin, while in rheumatoid arthritis frequently the fingers are hyperextended, but this is not the rule. The character of the joints affected in rheumatic arthritis contrasts strongly with the condition of the joints in rheumatoid arthritis, where the joints are always swollen, with a sensation under the fingers, as if of fluctuation, the swelling commencing some distance above the joint and terminating some distance below it, and always of a more or less spindle-shape. 4. In this case the temporo-maxillary is the only articulation exempt, oddly enough bringing evidence to prove the correctness of my view, that this joint plays an important part in the differentiation between these diseases,<sup>2</sup> where I pointed out that in rheumatoid arthritis the joints most used are the first to go; and, as everyone must talk and eat, this joint never enjoys a lengthened period of repose, and therefore is frequently the seat of the disease, while in rheumatic arthritis it is rarely affected. 5. Her good spirits; not so in rheumatoid arthritis, when depression is an early and constant feature. 6. The symmetry of the joints affected is another point of distinction but that is not essential in this case, as nearly every joint in the body is affected. 7. No marked anemia, which is so prominent a symptom all through rheumatoid arthritis. 8. Slight mitral bruit, but slow acting heart, soft pulse. In



rheumatoid arthritis the heart's action is rapid, usually over 100, no anæmic bruit is found and there is a hard pulse. 9. Although the illness in this case developed before the usual period, the preponderance of evidence points to this being a case of rheumatic arthritis, as described by Mr. Griffiths and myself.

The importance of this proper differentiation cannot be over-estimated, as upon this treatment entirely hinges—the treatment of rheumatism and rheumatic arthritis by anti-rheumatic medication and non-nitrogenous diet &c.; gout and gouty arthritis by appropriate medicinal treatment, depletion, diet &c.; and, finally, that of rheumatoid arthritis, in which case the strumous element so much predominates<sup>3</sup> that it has now caused quite a revolution in the treatment, approximating it to that of struma or phthisis, by cod-liver oil, tonics, stimulation and building up. It must be clearly and distinctly regarded, not as a result of rheumatism or as a hybrid condition, the diagnosis and nomenclature of which were scamped under the absurd appellation of rheumatic gout, but as a distinct disease possessing strong and peculiar features of its own, an offspring of the hereditary tendencies of gout and scrofula. Of course, from the facts of a single case like this it is impossible to deduce any absolute principles, but I hope it will be a link, though a single link, in the chain of evidence which I have previously brought forward in a large number of cases.

Bath.

<sup>1</sup> Differentiation in Rheumatic Diseases so-called. By Hugh Lane. J. and A. Churchill.

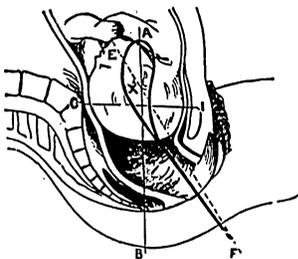
<sup>2</sup> Vide THE LANCET, Dec. 9th, 1891, and following numbers.  
<sup>3</sup> Vide Differentiation in Rheumatic Diseases so-called.

THE AXIS-TRACTION FORCEPS.<sup>1</sup>

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EVERY teacher of midwifery has to make up his mind what kind of forceps to recommend to his pupils when they commence practice. It is all very well for obstetric experts to possess a variety of instruments, and to say that, under such and such circumstances, *this* is the proper instrument to use, and, under other circumstances, *that*. The ordinary practitioner cannot be expected habitually to carry about with him more than one pair of forceps, and that pair obviously should be capable of being used in any case in which delivery by the forceps may be called for. There are of course other conditions besides this of universal applicability that are essential in a good pair of forceps. For example, it should be an instrument easily kept clean and aseptic, and, furthermore, it should in its construction be up to date—that is, it should represent all the more recent improvements, provided they have stood the test of experience and have proved to be real and are not the mere modifications of a faddist. The history of the midwifery forceps is full of interest from the first chapter to the last. The gradual evolution of the instrument from its original crude form to the shape in which it is now familiar to us is a history that always fascinates the student and at the same time teaches him the uses of the various parts of the instrument in a way that nothing else can. In the earlier part of my career as a teacher it

FIG. 1.

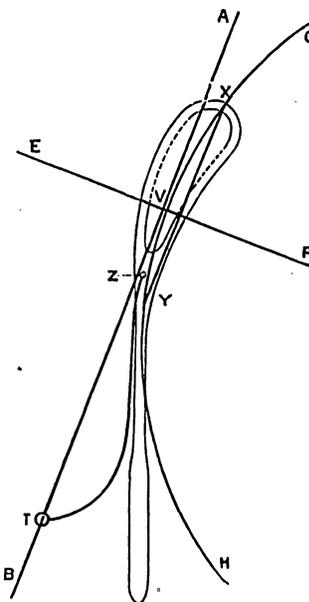


Application of curved forceps at brim (Milne Murray). C I, Conjugate diameter. A B, Axis of inlet. E F, Axis of forceps and line of traction. X R, Angle of error.

was held and taught that in the long forceps with the double curve we had arrived at something very near perfection. That instrument was in use throughout Great Britain. It was generally known in Scotland under the name of Sir James Simpson's forceps, and in the north of England under that of Robertson's; whilst in London and the south it usually bore the name of Robert Barnes. Each of these names indicated slight differences in construction, but in all their main features the three instruments were the same, their geographical distribution being more a question of local patriotism or of loyalty to an individual teacher than of any marked superiority in the particular instrument. For many years, however, there had been a steadily growing conviction in the minds of many obstetricians that the long double-curved forceps was not an altogether satisfactory instrument. The addition of the pelvic curve had ensured the more equable distribution of the grasp of the blades over the fetal head, and so had removed one of the great objections to the straight forceps, but it had not altered the direction of the tractile force. If the handles of the instrument be carried as far back as the perineum can be stretched, the direction of the traction can never correspond with the axis of the pelvic inlet. This axis, along which the mass of the fetal head must enter the brim, is coincident with a line drawn between the umbilicus and the coccyx. If traction could be made in this line there would be no misdirection of the force—it would all be available for the purpose aimed at; but exactly in proportion as the line of traction diverges from the axis of the genital canal so some of the force is expended in

driving the head of the child against the anterior wall of that canal, and is therefore not simply wasted, but acts to the detriment of the maternal tissues. With the ordinary forceps it is anatomically impossible for traction to be made directly in the pelvic axis, so that a certain amount of the force expended is ineffective. From the year 1860 forwards several attempts were made to remedy this defect by giving a backward or perineal curve to the handles. The most effective device for the purpose, however, was that which we owe to M. Tarnier, of the Paris Maternité, and which he described in the year 1877 under the term of "axis-traction forceps." The essential features of this instrument are the metallic traction rods. These rods, at their upper end, are attached by a hinge-joint to the posterior edges of the blades, and fit, by their lower extremities, into a single curved stem, at the other end of which is a transverse bar, movable in all directions, called the traction handle. When the instrument is in use, the rods lie closely applied against the shanks, while the curve of the stem connecting the rods with the handle carries the handle just sufficiently far backwards to ensure that the direction of the tractile force shall corre-

FIG. 2.



Mechanical projection of axis-traction forceps (Milne Murray).

spond with that of the axis of the pelvic canal.<sup>2</sup> Immediately below the lock and in front of the handles is a fixation screw, by means of which the handles are kept in contact and the amount of compression exercised by the instrument carefully regulated. In using the ordinary double-curved forceps, the operator keeps the handles in apposition by his own grasp, but inasmuch as in all axis-traction forceps traction is exercised solely by means of the traction handle, it is unnecessary, and indeed undesirable, to maintain any hold upon the ordinary handles when once the instrument has been properly introduced and locked. Hence

<sup>2</sup> Dr. Milne Murray (Edinburgh Medical Journal, Sept. 1891) has given the following method for testing the accuracy of any given instrument in regard to this curve (see Fig. 2):—"A piece of paper about eighteen inches square should be firmly stretched on a drawing-board or other smooth surface. A pencil line should be drawn down the centre of the paper. Place the left blade of the forceps on the middle of the paper so that the shank coincides with the line already drawn, the hollow side of the blade being upwards. Trace an outline of the blade on the paper, holding the pencil perfectly vertical in doing so. Mark the point at which the shank joins the curve of the blade; call this point Y. Mark the centre of the tip of the blade; call this point X. Join X Y by a straight line. This will form the chord of the arc which forms the middle of the curve of the blade. Bisect X Y by a line at right angles to it, E F. Describe a circle, G X V H, whose centre lies on E F, and whose circumference touches X and Y. The arc X V Y lies in the middle of the blade. Now draw a tangent, A B, to the circle X V Y, at the point V. This will be parallel to the chord X Y. Now lay the blade on the paper in its original position, taking care that the points X and Y correspond precisely with their position on the forceps. If the traction rods Z T are properly constructed, the stud T will lie on the line A B, when the rod lies close to the shank."

<sup>1</sup> An address read before the Metropolitan Counties Branch (East London and South Essex District) of the British Medical Association, Nov. 17th, 1892.

arises the necessity for the fixation screw just described. Without some such contrivance the handles would fall asunder and the instrument become completely disarranged. The advantages claimed for this instrument are as follows:—

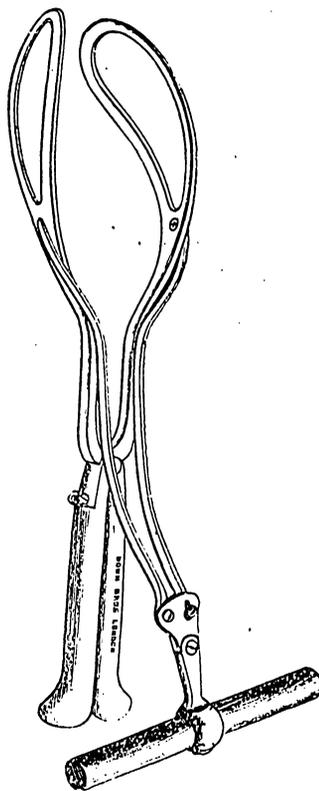
1. The traction rods, permitting traction to be made in the axis of the inlet, ensure that all the force expended by the operator is exerted usefully, and that the maternal tissues are exposed to no unnecessary pressure. 2. The application handles move forwards as the head descends in such a way as to furnish a constant guide to the direction in which traction should be made in order that it may be exercised with most effect—i.e., the direction proper to the plane of the pelvis through which the head is passing. 3. The transverse handle enables the operator to keep up a steady and continuous pull with a minimum of muscular fatigue, and therefore with the power of estimating with some approach to accuracy the amount of force he is expending. The first of these advantages Tarnier's instrument shares with Hubert's, Aveling's and some others of its predecessors. The second and third it does not; they are peculiar to itself. The objections which have been raised against Tarnier's forceps are that it is costly, unwieldy and complicated. These objections are no doubt well founded, but they are not altogether insuperable. The design of the instrument did not issue from the brain of its originator in a state of irreproachable perfection. Its details, as must always be expected in the earlier attempts to carry out a new idea, were open to criticism and capable of improvement. But its principle has stood its ground in spite of all the criticism that it has encountered; and that, after all, is the main fact that concerns us. The advantages are unmistakable and permanent; the disadvantages are for the most part accidental and removable.

As early as 1880 Professor Alexander Simpson of Edinburgh introduced a series of valuable modifications which had the effect of removing many of the objections urged against the instrument. These modifications are mainly as follows: 1. The instrument is an adaptation of the principle of Tarnier's forceps to the ordinary forceps in use in this country, and hence is much less bulky and complicated than Tarnier's. 2. The traction apparatus, including the handle and locking plate, which in the French model is detached from the rest of the instrument, is permanently attached to the blades; no part of it therefore can be mislaid or forgotten. 3. The fixation screw is greatly reduced in size, in order to emphasise the fact that the screw is not to be used for purposes of compression, but of adjustment. The instrument as thus modified has become widely popular in Scotland and amongst those English practitioners who received their professional training in Edinburgh. In the south the principle of axis traction has never been so heartily accepted or so generally taught as it has been in the north, and the great majority of English practitioners are still practically unacquainted with it. Even those who were present when Tarnier's instrument was first exhibited in this country, and to whom it therefore cannot be said to be entirely unknown, were for the most part so repelled by its bulk and complexity that they took no further interest in it. The merit of Professor Simpson's modification was that without sacrificing any important principle in its construction it in great measure got rid of those features. Other modifications have been proposed in abundance. A large number of them consist of loose traction rods, more or less resembling boot-hooks, which are to be hooked into the lower angle of the fenestræ or other convenient place, and traction made backwards. It need scarcely be said that such an arrangement, whether in itself advantageous or not, is not axis traction. It may be possible by its means to make traction in the axis of the inlet, but the guidance afforded by the application handles in Tarnier's instrument is forfeited, and no guarantee is provided that the direction of the tractile force shall alter as labour advances, and shall be at all times suitable to the part of the pelvis through which the head is passing.

It will have been inferred from what I have already said that I believe the axis-traction forceps to constitute the most important improvement that has been made in the construction of the instrument since the introduction of the pelvic curve. No one who has used it sufficiently often to overcome the slight difficulty at first experienced in its manipulation will ever willingly return to the older form. It can not only accomplish all that the older instrument can accomplish, and do it more easily, but it can accomplish more—for it will not infrequently succeed where the latter has failed. I am myself firmly convinced that the general adoption of the principle,

at least, of axis traction, the truth of which is capable of mathematical proof, is merely a question of time. It was in the form of Professor Simpson's modification of Tarnier's forceps that I first became practically acquainted with the instrument. It will therefore be readily understood that, as a mere matter of sentiment, I have been loth to suggest any alteration in the Edinburgh model. When, however, in the year 1889 Messrs. Down Brothers informed me that they were about to make some axis-traction forceps in order to meet the demand consequent upon my recommendation of them, and asked me which pattern I should recommend them to adopt, it seemed a suitable opportunity for proposing some slight modifications in Professor Simpson's instrument that experience had convinced me would still further increase its value. These proposals they at once proceeded to carry into effect, the result being the instrument shown in Fig. 3. It differs from Professor Simpson's chiefly in being generally firmer and more unyielding, in being furnished with stronger screws and a stronger stud on the traction plate, and in its being made entirely of metal. The object of these alterations is to provide

FIG. 3.



Modified axis-traction forceps.

an instrument that will not bend; that, being made specially strong in its weakest parts, will not be likely to fail at the supreme moment by the giving way of those parts; and that, by having no woodwork about it, can be rendered thoroughly aseptic by boiling. The total length of the instrument is 14½ in. The handles are 5½ in. long, the shanks 2½ in., and the blades, measured along the chord of the arc, 6½ in. The shanks are very strong and are ¾ in. apart. The greatest width between the blades is from 3 in. to 3½ in., and the distance between their extremities (when the instrument is locked and the application handles in contact) is ¾ in. Each blade has a maximum breadth of 2¼ in., and a fenestra 4¼ in. long by 1½ in. wide. The traction rods are screwed on to the solid part of the blade, immediately below the fenestræ, so as to allow of antero-posterior movement only. A key is sent with each instrument for unfastening these screws for cleaning purposes. The fixation screw is the same as in Professor Simpson's instrument, but is somewhat stronger. The design of the locking plate and the traction handle is also the same, but again the screws and knobs are of stronger construction.

I have purposely delayed publishing any description of it until its practical value has been repeatedly tested. It has now been used a good many times both at the General Lying-in Hospital and in the maternity department at St. Thomas's Hospital, and has been found to be a highly efficient instrument. The delay has enabled me to suggest an important alteration of the original model. The blades were unnecessarily wide apart between the fenestræ and the shanks, causing premature distension of the perineum as the head descended. That defect has been removed. The instrument is, I am aware, heavier than is desirable, but this fault appears to me to be more than counterbalanced by the ease with which, being constructed entirely of metal, it can be efficiently disinfected. It has been a matter of considerable interest and gratification to me to observe that Dr. Milne Murray of Edinburgh, approaching the subject from a more theoretical standpoint, has quite independently suggested a modification of Professor Simpson's instrument that in many respects resembles the one here described. I am sure Dr. Murray will believe me when I say that I had not seen his paper at the time my own suggestions were being worked out.

It may be useful, in conclusion, to give a few plain directions for applying the axis traction forceps. 1. Introduce first the left blade, to which the traction bar is attached. 2. Before introducing the right blade see that its traction rod is swung forwards, otherwise there will be difficulty in locking the instrument. 3. When the blades have been locked, swing back the traction rod of the right blade and hook it on to the traction plate. 4. Holding the instrument by the application handles, estimate the degree of compression that is desirable and tighten the fixation screw so as to keep up the compression at that point. 5. After this has been done leave the application handle untouched. 6. Make traction with the traction handle, keeping the traction rods parallel with the shanks. 7. Complete the delivery of the head before removing the forceps. This gives the operator greater command over the head, enabling him to prevent its too rapid expulsion and to make traction when there is least strain. 8. As soon as the head is born, loosen the screw, set free the right traction rod and remove the blades, first the right and then the left.

I have to acknowledge the great help I have derived in the preparation of this short address from the admirable monographs on the subject contributed to the *Edinburgh Medical and Surgical Journal* by Professor A. R. Simpson<sup>3</sup> and by Dr. Milne Murray,<sup>4</sup> to which, as well as to Tarnier's original account of his instrument, I must refer those who may desire fuller information as to its theory and scope. Dr. Murray's masterly exposition of the mechanical principles involved in the construction of the axis traction forceps gives to his paper a special and altogether unique value.

## TWO CASES OF NON-SUPPURATIVE TRAUMATIC PERITONITIS IN CHILDREN.

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IN a recent number of THE LANCET<sup>1</sup> Mr. Edmund Owen has recorded a case of traumatic peritonitis for which he performed laparotomy, with almost immediate cessation of the acute symptoms and complete recovery in a few weeks. From the nature of the original injury and the subsequent symptoms Mr. Owen expected to find pus and some visceral lesion in the abdominal cavity, but instead he only discovered a large accumulation of blood-stained serum and clots, with signs of peritonitis. Such cases are but rarely met with, and the following notes may be of interest as the results of treatment confirm the opinion expressed by Mr. Owen. The patients were in the Paddington Green Children's Hospital under the care of Mr. Watson Cheyne, to whom I am indebted for permission to record the cases.

CASE 1.—A child twelve months old was admitted to hospital on Nov. 19th, 1889. Four weeks previously Mr. Cheyne

had tapped a congenital hydrocele of the right side. The mother had not noticed anything wrong with the child, apart from the reappearance of the hydrocele, until four days before admission, when she discovered that the abdomen was swollen. During the last few days there had been occasional sickness. The patient was a well-nourished infant, but distinctly anæmic. On admission the temperature was 101° and the pulse 146. There was no sickness and no evidence of pain. A large hydrocele was present on the right side, the contents of which could be easily returned to the abdominal cavity. The abdomen was very distended, tense and tender to the touch; on the right side there was absolute dullness extending from the spine posteriorly to within a finger's breadth of the middle line anteriorly, and from the ribs above to within a short distance of the pubes, and fluctuation was distinct over this area. The left side of the abdomen appeared to be normal, and the liver and spleen were not enlarged. On the sixth day after admission the temperature had risen to 103°, while the child was more anæmic and seemed in great pain, moaning incessantly. Mr. Watson Cheyne tapped the hydrocele with a trocar and cannula and drew off four ounces of blood-stained serum, and as this did not reduce the swelling higher up, he proceeded to tap the abdomen in the middle of the dull area and drew off six ounces and a half of a similar fluid. No improvement followed. The abdominal swelling was not removed, the hydrocele quickly refilled, the anæmia increased, and the temperature rose to 104°. Accordingly two days later Mr. Watson Cheyne opened the abdomen in the middle of the right linea semilunaris and evacuated a large quantity of blood-stained fluid. On introducing his finger he felt a soft fluctuating mass in the right iliac fossa, the wall of which gave way, and another rush of similar fluid took place, accompanied by the disappearance of the scrotal swelling. The septum thus ruptured was extremely thin, and seemed to be of fibrinous structure. The finger passed easily from the peritoneal cavity into the right tunica vaginalis. The fluid removed contained no clots, but coagulation took place to some extent in a specimen put aside. The small intestine presented at the abdominal wound, and, with the exception of slight congestion, seemed healthy. The wound was then closed, a small drainage-tube being left at the upper end. Next day the temperature was normal and the patient was free from pain. There was very little discharge from the wound, and the tube was removed on the third day. The child made a good recovery and was discharged cured at the beginning of January, there being still a certain amount of resistance to be felt on palpation over the right side of the abdomen. This was probably due to thickened peritoneum and had entirely disappeared when the child was seen a year later. There had been no return of abdominal trouble and the child was in good health.

CASE 2.—A girl aged eight years was admitted to hospital on Aug. 8th, 1888, having been knocked down and run over by a cab. The wheel was said to have passed over the abdomen. The patient was suffering from shock, being quite blanched and almost pulseless. There was considerable bruising about the face, but no fracture anywhere. She complained of great pain in the back and in the epigastrium, and lay in bed with her thighs flexed on the abdomen. On the following day the abdomen was distended and tender in the epigastric region. She suffered greatly from thirst, and was sick after taking food. The breathing was entirely thoracic, the muscles of the abdomen being kept rigid. Three weeks later the pain and sickness had ceased, but the temperature at night ranged between 100° and 101°. In the epigastric region a distinct swelling could be seen and felt, extending downwards from the ensiform cartilage to within an inch of the umbilicus and passing beyond the edge of the rectus muscle on each side. As counter-irritation had no effect on this swelling, which increased in size, and fluctuation could be made out, it was aspirated a fortnight later, and ten ounces of dark-green fluid were removed. The fluid contained a large amount of albumen and red blood corpuscles. The temperature the same evening was lower than it had been for some nights, and became normal two days later. She was discharged well in three weeks, but there still remained some thickening in the epigastric region.

The course of these cases was clearly distinct from that seen in peritonitis, due to the rupture of some abdominal viscus. In the latter suppuration is soon present, and the whole course of the illness, which usually terminates fatally in a few days, is acute. In the former, and also in Mr. Owen's case, the course was more chronic, the symptoms were those of progressive disease, and suppuration was not present. The

<sup>1</sup> Sept. and Oct. 1890, and Oct. 1893. <sup>4</sup> Aug. and Sept. 1891.  
<sup>2</sup> Oct. 22nd, 1892, p. 936.

rapid improvement noted in all cases after evacuation of the blood and serum supports Mr. Owen's view that this is due to the relief of tension; but, on the other hand, much greater tension is often present in the abdominal cavity without causing any discomfort. The employment of a trocar and cannula, or, better still, of an aspirator, may sometimes be sufficient, as in Case 2; but in Mr. Owen's case the presence of blood-clot and in Case 1 the presence of a septum rendered laparotomy necessary for complete success. In the above cases the progressive anæmia was a marked symptom, and suggested that the effusion of blood continued for some time after the original injury. In Case 1—which presumably in the absence of any history of other lesion was due to the tapping of the hydrocele—the amount of blood found seemed out of all proportion to the extent of the injury.

Carlton-hill, N.W.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### ST. THOMAS'S HOSPITAL.

INGUINAL ANEURYSM TREATED BY LIGATURE OF THE EXTERNAL ILIAC ARTERY BY THE INTRA-PERITONEAL METHOD.

(Under the care of Mr. MAKINS.)

CASES in which it is necessary to ligature one of the iliac arteries for aneurysm are very rarely met with in surgical practice, and the fact that the ligature was applied in this instance through the peritoneum makes this account of especial interest. There are few instances on record where a ligature has been applied to the external iliac by the method described below, and it is worthy of remark that on the same day that Mr. Makins performed his operation Mr. Mitchell Banks operated on a similar case at the Liverpool Royal Infirmary, also with success. His patient, aged sixty-three, was of spare frame; the aneurysm was situated on the right side, was as large as a fist and of some weeks' duration. Catgut was used to ligature the vessel, and the coats were not divided. The patient left the hospital on the forty-first day after the operation. Mr. Makins draws attention in his remarks to the anatomical difficulties which may be met with, and also directs attention to the possibility of greater risk of hernia after this method. Mr. W. H. Brown, who appears to have also performed the ligation of this vessel through the peritoneum, found it very difficult to reach; but details of the case are wanting. We hope that the publication of this case will lead to the record of others, for the intra-peritoneal method (or, as we prefer to call it, the "transperitoneal") will doubtless be favoured by operators in the future. The records of ligation of the common iliac artery are more numerous than those of the artery which we are considering; but we only wish to direct attention to the latter, though it is quite possible that the operations on the common iliac of Dennis in America and of Rivington and Lucas in this country have led to the fuller consideration of this subject.

The patient was a carpenter aged thirty. Family history good; father, three brothers and two sisters alive and in good health. Mother died at fifty-four; cause of death unknown. He has, on the whole, enjoyed good health, except an uncomplicated attack of acute rheumatism three years and a half ago, gonorrhœa in youth and four years ago he acquired syphilis, which does not seem to have been thoroughly treated. At present there are no evidences of tertiary syphilis beyond the presence of the aneurysm. His occupation at times gives him heavy work and exposes him to the liability of strain.

Sept. 16th, 1892.—For the past twelve months he has noticed that when he slept on his left side he awoke in a cold perspiration and experienced considerable pain in the left groin and neighbourhood. Four months ago he thinks he

strained himself lifting a heavy wardrobe. Three months ago he noted pain and pulsation in the groin, and during the past six weeks swelling and pain down the front of the thigh to the knee. No pain referred to the testicle. These symptoms have been gradually becoming more severe, and on Sept. 15th he was sent to the hospital by Mr. Winterburn.

On admission the patient was a stoutish man of ruddy complexion, due to dilated capillaries and considerable development of subcutaneous fat. The limb was much swollen and œdematous. In the left groin there was a large oval pulsating tumour in the course of the external iliac and common femoral arteries. It extended upwards about two-fifths of the distance between the middle of Poupart's ligament and the umbilicus and for about two inches below the ligament; it was about two inches in breadth. The tumour was hard, the pulsation expansile and synchronous with the heart beat; there was a rough double bruit. Pulsation in the posterior tibial artery was weaker than on the sound side. The area of cardiac dulness was not increased, the first sound was somewhat indistinct at the apex, and the second sound accentuated over the aortic area, but there was no distinct murmur. Pulse 70-80, rather irritable; there was no marked evidence of general arterial disease; no evidence of any other visceral disease; urine, sp. gr. 1018, clear, no albumen, deposit of phosphates; bowels regular; temperature 98.8°. He remained quiet in bed during the next four days, during which time the pulse subsided and the heart's sounds and action became normal.

On Sept. 20th, the patient being under the influence of an anæsthetic of mixed chloroform and ether, an incision four inches in length, commencing one inch below the level of the umbilicus, was made in the left linea semilunaris. The incision was carried through the abdominal wall into the peritoneal cavity and was slightly enlarged downwards, and the deep epigastric artery, which originated in the tumour, doubly ligatured and divided. The small intestines were held over to the right with Messrs. Ballance and Edmunds' broad abdominal retractor, the sigmoid flexure was pushed upwards and an incision was made through the lower part of its mesentery and the peritoneum at the margin of the pelvis in the course of the artery. The wound was deep, there being about an inch and a half of subcutaneous fat and abundance of fat in the subperitoneal tissue both beneath the anterior abdominal wall and around the vessels. This, together with some retching on the part of the patient, rendered the freeing of the artery and the passage of the ligature a process of some difficulty. The spermatic vessels also were exposed and swelled up considerably in the wound. The artery was secured about three-quarters of an inch below the bifurcation of the common iliac and an inch and a half above the aneurysmal sac, and lay somewhat deeply at the inner margin of the psoas muscle; two threads of stout flossy sterilised silk were tied separately, but in close apposition, with sufficient firmness to rupture the internal and middle coats. The posterior peritoneum was sutured over the artery, and the abdominal wound closed with silk-worm gut sutures. Bicyanide dressings were then applied and a flannel roller. Pulsation in the aneurysm ceased entirely with the application of the ligatures.

The after progress of the case was in all respects satisfactory; the patient complained of some pain in the limb for the first few days, and the front of the thigh was markedly cold in contrast with the buttock. The circulation in the foot was throughout satisfactory, quick return of blood being noted after pressure upon the toe-nail on the second day. The general bodily temperature rose to 99.4° on the first two evenings, and afterwards remained uninterruptedly normal. There was never any abdominal pain, tenderness or distension.

On the seventh day pulsation was palpable in the anterior tibial artery. The bowels were opened by an enema, the wound was dressed for the first time, and the stitches removed, as it was found completely united. A week later the patient complained of some discomfort, and on examination it was found that the subcutaneous section of the wound had gaped in its central part, windowed strapping was applied, and in ten days complete union again took place. On the twenty-fourth day an abdominal belt was fitted to support the cicatrix, and on the thirtieth day he was allowed to sit up in a wheel chair. The aneurysm remained hard and firm, with no trace of pulsation throughout, and gradually diminished in size. On the forty-fourth day he was allowed to walk, and on the forty-seventh he left the hospital. The aneurysm now occupied about two-thirds the area it did before

treatment; it was hard and painless. The limb was warm, the tibial arteries both palpably pulsating, and except for slight numbness in the foot he felt well. Three weeks later he was still improving.

*Remarks by Mr. MAKINS.*—The reason for selection of the intra-peritoneal method in this case was the high position of the aneurysm. Before operation the pulsation in the iliac fossa was so forcible and extensive that it seemed probable that it might prove necessary to ligature the common iliac, and it was thought that this would be more readily performed by the intra-peritoneal method. Beyond this the intra-peritoneal method seemed to offer the great advantage of not in the least interfering with the coverings of the sac, which by the ordinary method might have been disturbed by the stripping of the peritoneum. The experience gained by the operation showed that the usual method might have been safely adopted, but this could not be definitely determined beforehand. An advantage was gained in ready access to the deep epigastric artery, which, as directly feeding the sac itself, needed ligature, but of course might readily have been secured by an extension of the ordinary wound. As to the comparative difficulty of the two operations, I think there is little to choose, and on the whole the incision for the extra-peritoneal method is perhaps to be preferred in the matter of cicatrix; in the vertical incision the advantage of suturing the fibrous structures in the linea semilunaris is gained; but, on the other hand, the resulting cicatrix passes directly through from skin to peritoneum. In the oblique incision the decussation of the various muscular layers leads to a certain intricacy and irregularity in the line of the cicatrix which may render it the stronger, since pressure is less readily brought to bear directly upon it. The choice of the iliac vessels obtained is, I think, a real advantage, since the incision needs neither extension nor modification; but in saying this it should be pointed out that this is a much stronger argument on the right than on the left side of the body. Ligature of the right common iliac artery by the intra-peritoneal method is probably the easiest of all the operations on the great arteries, since the vessel lies directly beneath the peritoneum of the posterior abdominal wall uncovered by any structures of importance. On the left side, on the other hand, the inferior mesenteric vessels as they enter the sigmoid mesocolon and pass down to the mesorectum cover practically the whole of the artery, and to reach the common iliac comfortably and safely the peritoneum would need to be divided close to the left of the median line of the sacrum and then displaced outwards. This manoeuvre has the disadvantage of exposing the vein freely, but this would probably give far less trouble than the numerous mesenteric vessels would when swollen by reason of the loss of their peritoneal support. In the case recorded above the distension of the spermatic vessels when set free by the division of the peritoneum was much greater than would have been expected.

### ANCOATS HOSPITAL, MANCHESTER.

THREE CASES OF COMPOUND DEPRESSIONED FRACTURE OF THE SKULL TREATED BY ELEVATION AND REIMPLANTATION OF FRAGMENTS, AND WITHOUT THE USE OF THE DRAINAGE-TUBE.<sup>1</sup>

(Under the care of Dr. P. TYTLER.)

THE treatment of compound depressed fractures of the skull has of late received considerable attention in our columns,<sup>2</sup> and we would only direct our readers to some of the more important points which bear out our former statements with regard to such cases. These are the reimplantation of bone, whether removed with the trephine or broken by the violence of the injury, and the closure of the wound without drainage. In these three cases the treatment was similar, the wounds were made thoroughly aseptic, perchloride of mercury was the antiseptic used, and fragments were replaced. Under these circumstances it is interesting to note that the only patient who had any necrosis of replaced fragments was the one aged thirty-eight, in whom the bone was hardest and least vascular. The youth of the patients and the healthy state of the bone have been the conditions most evident in the cases where full success has been attained, like Cases 1 and 3.

**CASE 1.**—A boy aged six years was on May 5th, 1892, admitted with a compound depressed fracture on the right side of the skull, immediately above the ear, caused by a blow from a swing-boat. The patient had suffered from symptoms of shock when first admitted, but these had disappeared when Dr. Tytler saw him about three hours after the accident. The wound was washed with antiseptic lotion and the scalp was shaved for three inches round, and then thoroughly cleansed. After the patient was under chloroform the wound in the scalp was found to be at the posterior end of a marked depression of bone. The wound was enlarged upwards by a vertical incision for about an inch; this incision was then extended forwards and downwards in a semilunar form to half an inch below the level of the fracture, passing in front of its anterior end. The flap thus outlined was reflected, displaying a gutter-like depression about an inch and a half long, formed by two long narrow fragments of bone bent in towards each other, gradually sloping and deepening towards the posterior end, where the groove was abruptly terminated by one large and several minute pieces turned nearly vertically inwards. The depression would be about three-quarters of an inch deep at its posterior end, and rose gradually to the surface at its anterior extremity. The pieces of bone were firmly wedged together, and left no opening for the elevator or sequestrum forceps. By means of a sharp chisel a notch was gently made in the sound bone at the upper aspect, so as to allow force to be brought against the upper fragment. On introducing the elevator it was easily dislodged, and the other pieces were then carefully removed without much difficulty. (All the fragments were on removal immersed in warm perchloride lotion.) After removing the end-pieces a small hole was found in the dura mater at the posterior end of the opening, where the end-pieces had been turned in vertically. There was a flow of blood and cerebro-spinal fluid from the opening. (Mr. Williamson, the house surgeon, had reported the discharge of cerebral fluid from the wound on the patient's admission.) After some small blood-clots were removed cerebral pulsation appeared. The whole field of operation was then deluged with warm perchloride lotion and cleared of all clots and debris, after which there was no bleeding which required attention. The largest fragment of bone was then placed on the dura mater and two or three small chips to fill up the vacant corners. As much periosteum was spread over the pieces as could be got. After removing the artery forceps, no vessel requiring ligature, the scalp was replaced and secured with silver sutures, applied chiefly at the points where the artery forceps had been. No drainage-tube was employed, but the wound opposite the fracture was left unsutured for an inch, so that any effusion could easily make its way out. Iodoform was then sprinkled thickly over the external wound, after that iodoform gauze and then a wood wool pad. These were secured by a gauze bandage and several long strips of strongly adhesive plaster applied as a bandage over all. The patient was then put to bed and kept on low diet for a fortnight. Happily for the patient the wound has no further history except the removal of the dressing four weeks later, when sound healing was found all round; the sutures were *in situ*, as harmless as earrings, without a trace of inflammation or ulceration. The patient was discharged well on June 6th.

**CASE 2.**—A woman aged thirty-eight was admitted on May 6th, 1892. She had sixteen wounds on the head, inflicted with an axe, varying in severity from superficial abrasions to gashes several inches long reaching down to the dura mater. The patient having rallied from the shock and hæmorrhage, the scalp was shaved and washed with 1 in 40 carbolic lotion. Under chloroform the following compound fractures were made out: (1) the front portion of the right parietal bone had been cut through with the axe down to the dura mater; (2) another fracture of the same kind was found in the posterior portion of the parietal; (3) another of the same kind, but not quite through the bone, appeared in the upper part of the occipital bone; (4) a fissure in the left parietal running parallel to and about an inch from the sagittal suture. The scalp was thoroughly washed with perchloride lotion. A flap was reflected from the middle line, passing through the two wounds anterior and posterior so as to completely expose the gashes in the parietal bone. The fracture in the anterior part extended to the dura mater and a fissure passed upwards from it to the sagittal suture. Fearing that the inner plate might be splintered or inverted in spicules a portion of bone, after reflecting off the periosteum,

<sup>1</sup> The cases were shown to the members of the Clinical Society, Manchester.

<sup>2</sup> THE LANCET, vol. i. 1892, p. 1186. *Ibid.*, vol. ii., p. 902.

was removed by the trephine along the posterior edge and the out in the bone thoroughly examined. Hairs were found embedded in the wound and a large clot of blood between the dura mater and the skull. There was no inversion of the inner plate and no splintering, except the fissure already mentioned, as proceeding to the sagittal suture. With a cutting chisel the edge of the gash was planed and cleared of all loosened and contused particles and all foreign matter, and the clot carefully washed out from the bottom of the wound. The fissure was left alone. The gash on the posterior aspect of the parietal was also explored. After trephining, as, in the first case, it was found to be less severe than the one in front, there being no fissure and no clot between the dura mater and the bone. The edges here were also planed and cleared of all débris and foreign matter. The gash in the occipital bone did not penetrate to the dura mater, and, considering the tough, non-brittle character of the bone, as shown by the trephining in the parietal, the edges were simply planed and cleared of all débris. The wound was carefully washed and then sutured; the other flesh wounds were washed and treated. The pieces of bone removed by the trephine, which had been kept in warm antiseptic lotion, were replaced and the periosteum carefully spread over them; the parietal flap was put in position and secured by four or five sutures just to secure coaptation, and loose enough to allow exit for oozing if it occurred in excess. After emptying much perchloride lotion through below the flap and over all the external wounds, iodoform was freely sprinkled over the wounds; then strips of iodoform gauze and then absorbent wool pads all over the scalp, which were firmly secured by bandages and strapping. The patient was put to bed and did well until the tenth day, when she complained of headache, and her temperature rose to 101°. Dr. Tytler was sent for. He removed the dressings and found all the wounds healed by first intention, but there was tenderness near the site of the wound on the posterior part of the parietal. Here the skin of the scalp had been much contused, and though it had been soaked with antiseptics it was feared it had not been rendered aseptic. It would have been better to have pared the lacerated edges. The wound was reopened near the painful spot and a little pus let out, and after lightly syringing the wound a small drainage-tube was inserted. Next day the temperature was normal and continued so. A sinus remained discharging pus. On probing this sinus bare bone could be felt. In this condition the patient left the hospital on June 1st, but to attend as an out-patient to have the wound dressed. Dr. Tytler was waiting for the sequestrum to separate. On Aug. 6th, there being no signs of healing, the patient was readmitted; and had the sinus laid open. It was then found that the posterior reimplanted circle of bone was loose, so it was removed and the sinus healed forthwith. The patient has remained well since.

**CASE 3.**—This case was like the first. The patient, aged eleven years, was admitted on July 11th, 1892, with a compound depressed fracture in the middle of the right side of the frontal bone caused by a blow from a swing-boat. Proceeding as in the first case, a flap was raised and the fracture exposed. A rounded piece of bone about the size of a sixpence had been driven directly inwards so that it lay at the bottom of a pit about three-quarters of an inch deep. Reflecting the periosteum a V-shaped notch was cut in the upper part of the opening with the bone forceps and the bevelled edges were clipped away with the same instrument, for it was found that a larger surface of the inner plate than of the outer had been broken off. Introducing a small forceps at the notch the fragment was seized and removed and put in warm lotion. There was no wound in the dura mater, though it had been considerably depressed by the fragment. After removal the depression was quickly obliterated by a swelling up of the whole surface till it reached the level of the inner plate, but there was no pulsation of the brain to be seen or felt. There was evidently a large meningeal hæmorrhage. There were no symptoms of compression either before or after. The bone was replaced and the wound dressed as in the former cases. The patient was put to bed and did well. The dressing was removed about eight weeks afterwards, and it was found that the wound had healed everywhere. The patient was discharged on Aug. 11th, 1892.

*Remarks by Dr. TYTLER.*—A great deal of the success in these cases was due to the prompt manner in which the wounds were rendered aseptic immediately on admission of the patients by the house surgeons, Messrs. Worboise, Bentley and Williamson. There was no drainage-tube used, and the wounds were left unsutured at certain places to allow of drainage if

it should be required. Paring the contused wound is, I think, excellent, and if freely pared it would provide an easy channel for drainage if not too tightly sutured.

### TORBAY HOSPITAL, TORQUAY.

A CASE OF IMPACTED CALCULUS BEHIND A STRICTURE OF THE URETHRA; RETENTION AND EXTRAVASATION OF URINE; OPERATION; RECOVERY.

(Under the care of Mr. F. T. THISTLE.)

THE complication of calculus of the bladder with a stricture of the urethra is occasionally met with, and the dilatation of the urethra found behind a chronic stricture facilitates the passage of a small stone into the pouch thus formed. After it has gained entrance into this dilated part the occurrence of ulceration and its escape through the opening into the tissues outside are to be expected. How long one or more of the stones in this case had been in the cavity below the urethra it is not possible to say, but instances are on record of their formation in such pouches. Erichsen points out that although mostly renal in origin they may be formed in the urethra, but in other instances appear to have been formed in a pouch lying to the outside of the passage and connected with it by a small aperture. He removed a stone consisting of triple phosphates and weighing an ounce from a point between the urethra and the symphysis pubis; the patient suffered from a tight stricture. As the evidence showing the point of origin is chiefly derived from a chemical analysis of the calculus, it would be interesting to have a report from Mr. Thistle of the composition of the other calculi removed. For the notes of this case we are indebted to Mr. A. E. Watson, house surgeon.

A man aged thirty-two was admitted into the hospital on the morning of Aug. 29th, complaining of pain and swelling in the perineum and inability to pass his urine. He was a short, dark-haired man, fairly developed, but with an anxious expression and somewhat sallow complexion. He stated that he had gonorrhœa in 1877, and in 1889 an operation for stricture was performed at St. George's Hospital. He passed a No. 5 catheter after this until six weeks ago, but was then unable to get one in. For the last three months he has suffered from a sharp cutting pain at the "neck of the bladder," worse on passing urine, and sometimes the stream suddenly stopped. He was unable to pass urine two days before admission, and on the day before (28th) his perineum became swollen and painful.

On examination an elongated, brawny swelling was seen and felt in the middle line of the perineum, and about the centre of the swelling fluctuation could be made out. There was marked tenderness, but no redness of skin. The scrotum and penis were much swollen; no urine had been passed since the day before admission, when a little dribbled away; a catheter could not be passed. The patient was put under an anæsthetic in the afternoon and a longitudinal incision was made in the middle line of the perineum over the fluctuating portion of the swelling; a stream of urine, mixed with pus, gushed out. On introducing the index finger into the wound a hard, smooth stone could be felt (this weighed ninety-one grains, and was a smooth uric-acid stone), which was withdrawn with small forceps, and on reintroducing the finger two more stones could be felt lying in a pouch, formed partly by the dilated urethra and partly by an abscess cavity. The pouch was very large, and extended into the perineum and backwards behind the neck of the bladder. It contained, besides the stones, pus and urine and several sloughs, and its walls were rough and sloughy. The second stone extracted resembled the first, and weighed 124 grains; the third was oval, weighed 425 grains, and was found at the back of the pouch behind the neck of the bladder. It had to be extracted with lithotomy forceps. A sound was then guided into the bladder, but no more stones could be found. Free incisions were made into the scrotum, penis and sides of the perineum, and a large quantity of decomposing urine was let out. A tube was introduced through the perineal wound into the bladder and another in the perineal pouch. A dressing of blue wool, absorbent wool and tenax was then applied, and the penis and scrotum were frequently fomented with warm iodoform. A morphia suppository (1½ gr.) was ordered. The patient's general condition was very bad for two days after this, but on Sept. 2nd the following note was made: Patient much better this morning; slept well. Pulse 100; stronger and fuller. Takes nourishment well. The perineal wound is looking

well, suppurating freely; the pouch is filling up. He passes urine freely through the perineal wound. The incisions in the scrotum and penis are healing rapidly. Temperature normal. On Sept. 24th a No. 1 silver catheter was passed through the stricture after some difficulty, the patient being under an anæsthetic. The catheter was guided into the bladder (by the finger introduced through the perineal wound) and tied in. The stricture was gradually dilated, and on Oct. 22nd the edges of the perineal wound were pared and stitched with silver wire. The surrounding tissues were so indurated that the wound would not unite. The patient is now in very good health, he passes urine through the perineal wound three or four times daily, and has little or no trouble from his urine dribbling through the wound.

*Remarks by Mr. THISTLE.*—The case is an unusual one, and the impaction of a stone behind a stricture is seldom a cause of extravasation of urine. The perineal pouch was most probably formed by the dilated urethra behind the stricture and the walls of an abscess. The third calculus was found at the back part of this pouch and behind the neck of the bladder. With regard to the stricture, it was situated about the bulbous portion of the urethra, and although no catheter could be passed when the patient was admitted, one was passed some weeks after, when the parts had been kept at rest and all element of spasm had disappeared. The wounds in the scrotum, penis and perineum healed very rapidly, although the tissues had been saturated with putrid urine.

## Medical Societies.

### MEDICAL SOCIETY OF LONDON.

#### *Cholera.*

AN ordinary meeting of this Society was held on Dec. 5th, the President, Mr. Hutchinson, being in the chair.

Surgeon-Colonel J. B. HAMILTON read a paper on Cholera, its Epidemic Progression and Causation. He explained the number of conflicting theories of the causation and spread of cholera by each observer reasoning on the facts that had come to his personal knowledge. The statistician surveyed the various outbreaks from his office and mapped out the progress of the disease. He alluded to the curious want of unanimity in the writings of Indian authors which had discredited Indian opinion on this subject. The object of the paper was to show that no theory hitherto propounded covered the ground of epidemic cholera, the explanation in every case falling short in some material particular. There were three principal theories: (1) propagation by drinking water, food &c.; (2) human intercourse; and (3) conveyance of the disease by the air, to which might now be added the so-called vibrio or cholera bacillus. He assumed that the identity of the disease as met with in Asia and Europe respectively was now established and he thought that its progression also took place on much the same lines. Here as there it followed certain well-defined lines, was more virulent at the commencement than at the close of an epidemic (thus accounting for the successes claimed for so-called specifics) and it did not retrograde or work backwards. Admitting the contaminated water theory for the sake of argument, he raised the question as to the value of filtration, expressing grave doubts as to the efficacy of any system of water filtration as carried out by the water companies. He called attention to a paper by the State geologist for New Jersey on the plan of precipitating the organic matter of water by the addition of two grains and a half of alum to the gallon and subsequent filtration. He asserted, on the authority of an eminent bacteriologist, that cholera had never been proved to be one of the diseases conveyed by bacilli. Koehel believed that the disease was conveyed by the bacillus, but many other authorities, after mature consideration, had come to a directly opposite conclusion, and he referred to some of the examples mentioned by the dissenters in support of their view. He denied that the diminution of cholera in Calcutta that had followed the introduction of a supply of pure water was due directly to the purity of the water. The effect of a pure water-supply on the general health would account for a large share of the diminution apart from the absence of specific contamination. The case of Fort William, where the mortality fell from 20 per 1000 to 1 per 1000 on the introduction of a better water-supply, could not be accepted as certain

proof that the improvement was entirely due to the better water-supply, because at the same time general sanitation was also much improved, notably by the erection of spacious barracks and the use of earth closets. He referred to the outbreak of cholera in the great Alipore gaol which followed the introduction of the pipe water, and he claimed that it was as fair to put this to the account of the water as it was to attribute all improvements in the mortality returns to that cause. He traced the course of epidemic cholera in India, showing how the heavy rainfall extinguished cholera in Lower Bengal and how with the monsoon it advanced up the valley of the Ganges or Bramaputra or both. He urged that this fact was evidence in favour of the air, plus heat and moisture, being the chief factor of progression. He admitted, however, that instances were on record of the cholera progressing in the face of the monsoon. In 1878-79 the disease left the endemic area and advanced to Oude, the following year it spread over the Punjab on to Cabul. During the epidemic in the north-west in 1878 large numbers of natives went by rail from the infected districts into the Punjab, many dying on the way, yet the disease never became epidemic there during 1878 and did not break out in the non-infected districts. The same thing occurred the following year, when the Punjab in its turn had become an infected district. Cholera then went up rivers and refused to ignite in uninvaded districts or in districts over which it had traversed. He mentioned several instances within his own experience of cholera breaking out under circumstances in which the water-supply could not well be suspected. He asked how it was that cholera sometimes attacked European barracks while the filthy native bazaars close by with a filthy water-supply escaped. He maintained that observation and experiment tended to prove that the comma bacillus could not determine cholera unless there was some other factor present in addition. He insisted that cholera was not infectious or contagious in the ordinary sense; indeed, the wards of a cholera hospital seemed to be about the safest place to live in during a great epidemic. He referred to an outbreak at Allahabad last year which occurred quite suddenly and without any adequate explanation, and he observed that the period of incubation appeared to be not longer than three days. In reference to the transmission of cholera by the air, he referred to the remarkable instance of two hill stations, separated by a deep valley and at a distance of fifteen miles, in which cholera broke out and ceased on the same days, the intervening country remaining free. Admitting that much still remained to be learned in respect of this disease, he characterised quarantine as impracticable, useless and vexatious. He insisted upon the importance of evacuating infected dwellings forthwith, a measure which he considered as even more important than the removal of the patients themselves. As a disinfectant he recommended crude sulphate of iron in preference to dangerous substances such as corrosive sublimate. He concluded with the suggestion that the first opportunity should be taken to try the effects of the transfusion of the blood of the goat directly into the veins of the patient in the algide stage.

The PRESIDENT said that he had had a good deal of experience personally in dealing with cholera, especially in the epidemic of 1846. He was one of the earliest converts to the water theory of Dr. Snow, and all his experience since then had tended to confirm his conviction of the truth of that doctrine.

Dr. MACLEOD of Allahabad referred to the fallacy of dealing with this subject from its general aspect. As to its incidence, it was accidental rather than general, both as regarded communities and places; its mode of progression was also peculiar—going by leaps and starts and travelling in zigzags or forwards and backwards. To use general terms such as waves and areas to describe epidemics was only to add confusion to the subject. So long as the data remained imperfect, so long would any general statement formed on those data be imperfect also.

Dr. SIMPSON of Calcutta said that the conflicting views in regard to cholera which obtained in India and Europe were due to the different methods of investigation adopted. An outbreak in England was succeeded by a local investigation, followed afterwards by statistical evidence; but in India, owing to its immense size and the paucity of medical men, the local investigation was either not conducted at all or was very imperfect, and a statistical statement was relied on in its place. All his experience pointed to the fact that when a careful local investigation had been made the cholera

which had come from a healthy to an infected district was found to have been spread chiefly by contaminated water, milk and food, together with bad drainage. As to the cholera which followed in the wake of the Hurdwar fair, its greater spread in a northern and western direction was due to the fact that the vast majority of the pilgrims came from those directions and returned thither; out of a million present at the fair only about a thousand came from Bengal. There was abundant evidence that the disease spread from a centre of infection; it travelled towards China in the east and towards Europe in the west. In Calcutta a festival was held once every twenty-seven or thirty years, called the Ardhodaya Jog; on the last occasion of its meeting cholera broke out and caused a great mortality at a time when it was unusual for cholera to be prevalent in Calcutta. Though it might be true that no exclusive doctrine would explain all local outbreaks, yet certain media were more likely to be contaminated by cholera poison than others; and in India the medium most commonly contaminated was water. Calcutta, Lahore, Delhi, Nagpoore and Bombay all bore witness to the truth of this; since they had acquired a pure water-supply they had been no longer so subject to epidemics of cholera. The Dutch in Batavia remained free from it, owing to their system of artesian wells; so also in Pondicherry, Rangoon, Colombo, Candy, Singapore and other Eastern towns. The outbreak at Damietta in 1883 was distinctly due to contaminated water.

Mr. E. HART welcomed the remarks of the last speaker, remarking on the value of such a series of affirmative facts connecting a defective water-supply with cholera outbreaks. He had never previously been able to find any light from communications from India on this subject; the reports revealed as a rule nothing but confusion, due in part to the extraordinary difficulties attending the investigation of the disease and in part perhaps to administrative pressure which had been brought to bear on the writers of the reports. Surgeon-Colonel Hamilton had really only enumerated two theories as to the spread of cholera, by water and by air, and as to the latter, the course of his remarks showed that he had totally abandoned it. Cholera certainly did not travel with the air across Europe; the rate of its progress corresponded exactly with the rate of human intercourse. For his own part he believed that water, and water only, was adequate to explain it, and the evidence to prove this was now overwhelming.

Mr. MACNAMARA referred to his experience at Fort William, and said that he had always insisted on the necessity of a pure water-supply. This was provided, and between 1863 and 1873, though cholera prevailed around to a great extent, the mortality in the Fort was extremely small. The monsoons had a great effect in the spread of cholera, for they blew up the rivers small craft, loaded with passengers, who traded with the settlements up the river, and these passengers carried the cholera up with them.

The PRESIDENT having remarked on the extreme importance of the water being boiled by individuals before consumption,

Surgeon-Colonel HAMILTON briefly replied. He said that though he did not deny the enormous value of good water, or the injury caused by bad water, there was something in addition to this which was present to explain the phenomena. He remarked on the difficulty of proving any one theory to the hilt, and said that if the question of water-supply was the sole one, how was it that British troops in perfectly clean barracks with a good water-supply suffered, when within a quarter of a mile the natives in a bazaar would escape, although the water they consumed was filthy?

## PATHOLOGICAL SOCIETY OF LONDON.

*Myxoma of Humerus undergoing Chondrification.*—*Fibroma of Male Breast.*—*Chronic Mastitis of Male Breast.*—*Hyaline Fibroma of Cow's Udder.*—*Fatty Tumour from Lip.*—*Histology of Yaws.*—*Sarcoma of Sterno-mastoid.*

An ordinary meeting of this Society was held on Dec. 6th, Sir George M. Humphry, President, in the chair.

Mr. EDGAR WILLETT showed for Mr. Howard Marsh a Myxoma of the Humerus which was undergoing chondrification in places and had involved almost the entire shaft of the bone. The limb was removed from a female fifty-four years of age, and the duration of the growth was under one year.

Mr. C. F. BEADLES showed a Fibroma of the Breast

removed from a man aged thirty-four, who entered the Cancer Hospital in May, 1891. The tumour, which was of the size of a small walnut, was hard and movable; it lay at the back of the gland imbedded in the pectoral muscle. There were no enlarged glands in the axilla. On microscopic examination it proved to be a pure fibroma without epithelial elements.

Mr. W. ANDERSON showed a specimen of Chronic Mastitis from a man aged thirty-five. The gland began to enlarge six months before the patient came under observation. It commenced without apparent cause and was gradual and painless in progress. It was hemispherical in form, about an inch and a half in diameter at its base, moderately hard to the touch and slightly tender. It was removed at the end of May, 1891, and was found to consist of new fibrous tissue developed around the elements of the gland. Under the microscope the ducts and acini presented no especial change, but around each duct was a distinct area of proliferation, and beyond this the new fibrous tissue was arranged concentrically. The patient was still quite well, but it was worthy of remark that the scar underwent a cheloid hypertrophy. Chronic mastitis in the male in later life was not specifically referred to in text-books, but it appeared to supply a missing link in the pathological analogies of the male and female mammae, completing the series of evolutionary reactions exemplified in the mastitis neonatorum and mastitis of puberty so well known in both sexes by furnishing a counterpart to the climacteric mastitis of women. The tendencies of the condition were doubtful, whether towards resolution, cirrhotic contraction or malignant degeneration.

Dr. DUDLEY COOPER showed a Tumour which had been removed from the Udder of a Cow. It was of the size of a horse chestnut, hard, freely movable and situated close to the base of the left posterior teat. Microscopically it consisted of dense fibrous tissue, with very few cellular elements, the latter being seen chiefly at the periphery: towards the centre the growth presented a hyaline appearance. He could find no record of a similar specimen.—The PRESIDENT referred to the importance of keeping clear the distinction between tumour and inflammatory growth. In tumour the change originated in the mass itself, and continued owing to an absence of the controlling influences of nutrition. An inflammatory growth, on the other hand, depended on some change from without; it could not increase, though it might be increased. From the structure of the male breast, fibroma rather than adenoma was to be expected there.

Mr. W. EDMUNDS showed a specimen of Fatty Tumour of the Lip, which was situated on the inner and left side of the lower lip. It was nearly spherical and about an inch and a quarter in diameter. It lay immediately under the mucous membrane which was stretched over it, but not ulcerated. On microscopic examination the tumour proved to be a lipoma. Adenomata within the lip were well known, but he had found no mention of a fatty tumour in this situation.—The PRESIDENT remarked that lipomata were seldom seen in places where adipose was mingled with fibrous tissue, as in the palm or sole, but were more likely to occur where fatty matter formed a greater component of the tissue, as in the back or in the shoulder.

Mr. J. JACKSON CLARKE showed for Dr. Beaven Rake specimens of Yaw Tubercles, some of which had recently developed while others were subsiding. Dr. Rake sent with the specimen some interesting observations which he had recently made. He had been using as a cultivating medium ascitic fluid and human serum mixed with glycerine and gelatine. Most of his specimens had been obtained from lepers, although the local growths showed no leprosy bacilli. Although he could find common pyogenic cocci on the surface of the tumours, he could discover no specific cocci in their substance which on inoculation would produce yaws.

Mr. J. J. CLARKE also read a communication on the histology of the Yaws Tubercle. He compared it to a syphilitic mucous tubercle, and referred to the observation that the disease might be an effect of climate on syphilis, which Mr. Hutchinson considered possible. On section the epidermis was found raised up, there was an overgrowth of papillæ and leucocytes which had accumulated beneath the epidermis. Though the specimens had been obtained from coloured people, the tubercles had become totally deprived of pigment. The rete cells were completely divested of this substance, which was found collected in the branched connective tissue cells beneath the epidermis in the papillary layer of the corium. In older tubercles the branched cells had disappeared and the pigment was absent, but in the healed tubercles the skin became again

hyper-pigmented as in the old lesions of syphilis. These phenomena appeared to resemble the flux and reflux of pigment to and from the frog's epidermis.—Mr. HULKE had seen about six cases of yaws, all in blacks, who had come hither from the West Indies. He had been unable to satisfy himself, in some of them at any rate, that the patients had suffered from syphilis. Microscopically the structure resembled granuloma; some of the tubercles ulcerated, whilst others underwent atrophy. In none of his cases was leprosy present.—Dr. COLCOTT FOX described the appearances seen in Yaw Tubercles younger than those shown, which had been sent to him by Dr. Rake. The appearances were precisely those described by Mr. Clarke. Though many accounts of the disease read like syphilis, yet authorities in charge of yaws hospitals stated that the disease was distinct. It was easily inoculable, the mucous membranes might be affected, and in ill-nourished people tertiary symptoms followed, with nodes and gummata. Yet women suffering from yaws were delivered of children showing no sign of syphilis, and people who had had syphilis would readily contract yaws afterwards. Dr. Charlovis of Java had stated that he had satisfied himself by experiment that syphilis and yaws were distinct. It was interesting to note that in Africa parents commonly inoculated their children with yaws, because in youth the disease was milder.

Mr. W. ANDERSON related a case of Sarcoma of the Sterno-mastoid from a female infant aged thirteen months. The patient was suffering from an ovoid tumour about the size of a large walnut, involving the whole length of the muscular belly of the right sterno-mastoid. The growth was of seven months' duration, its evolution slow and painless, and giving rise to no lymphatic affection or constitutional disturbance. The family and personal history of the child were negative. The growth was diagnosed as a spindle-celled sarcoma, and was excised with the whole of the muscle on Oct. 8th last. It was not encapsuled, and required careful dissection from the carotid sheath. On section it was found to consist entirely of spindle cells and to replace the whole of the muscle except a few fibres of the cleido-occipitalis. The child made a good recovery, and at present there was no tendency to wryneck. The case appeared to be the first on record of a sarcoma of the sterno-mastoid, but a like growth was known to have occurred in other muscles. One in the sartorius was referred to by Mr. Erichsen, and here the removal was followed by recurrence.

The following card specimens were shown :—

Dr. F. G. PENROSE: Cirrhosis of Liver in a boy of sixteen.

Dr. E. C. PERRY: Papilloma of Duodenum.

## ROYAL ACADEMY OF MEDICINE IN IRELAND.

### PATHOLOGICAL SECTION.

*Traumatic Malignancy.—Actinomycesis.—Aneurysm of Aorta.*  
*"Walking" Typhoid Fever.—Typhoid Bacillus.*

A MEETING of the Section of Pathology was held on Nov. 4th, Dr. E. H. Bennett in the chair.

Dr. GRAVES showed for Dr. WHEELER a specimen of Diseased Knee-joint removed from a young man under twenty years of age, who hurt his right knee by falling against a granite stone support when endeavouring to leap a chain. Although he suffered intense pain from the injury he did not seek advice until April (of this year), at which period his knee-joint was circumferentially half an inch larger than his sound joint, caused by effusion; besides, there was a marked circumscribed enlargement upon the inner and upper part of the tibia, just below the articular surface. The effusion into that joint subsided under treatment, the tibial growth rather increased, and was followed by slight glandular enlargement, situated in and corresponding to the saphenic opening. Amputation was performed at the lower third of the thigh and the stump healed. The enlargement in the groin region was not removed at the time of the amputation; it, however, increased in size as the patient convalesced. Removal was advised and recovery ensued. The new growth in the head of the tibia was an osteo-sarcoma; the gland from the groin was infiltrated with osteo-sarcoma. The gland was regarded as especially interesting, as sarcoma does not generally spread by the lymphatics. Probably the

gland became affected from the femoral vein. The growth evidently started in the periosteum.

Dr. SCOTT showed a case of Actinomycosis which was found by Sir Charles Cameron in a cow slaughtered in the Dublin abattoir and which is the first case described from Ireland. He gave a summary of the history and of our present knowledge of the disease in the domestic animals and men. The summary was illustrated by microscopical sections of the Irish case and sections of other Scotch cases sent by Professor M'Fadyean; also micro-photographs of the principal features in the sections were shown by the optical lantern.

Dr. J. W. MOORE showed a specimen of Aneurysm of the Aorta opening into the Left Lung and Pleura. The patient, a man aged fifty-seven, had suffered from aortic valve disease and chronic aortitis. He died of hæmorrhage after a series of convulsive seizures. The left pleura was filled with blood; the left lung had been torn by a blood stream which had escaped from an aneurysm of no great size in the descending aorta at the level of the fifth and sixth dorsal vertebrae, the bodies of which were eroded, leaving the intervertebral disc projecting between them.

Dr. J. W. MOORE showed a specimen of extensive Ulceration of both Agminate and Solitary Glands of the Ileum in the case of a patient aged twenty-nine, who died on the ninth day of enteric fever, with symptoms of delirium tremens, terminated by a violent convulsive seizure. The patient had walked about until within thirty hours of his death. Characteristic lesions of enteric fever were found in the ileum for a distance of no less than seven feet from the ileo-cæcal valve—the Peyer's patches near the valve being ulcerated, while those higher up in the gut were still in the stage of *engouement*. The mesenteric glands were swollen and soft. There was considerable enlargement of both liver and spleen.

Dr. M'WEENEY showed the intestines from two cases of Enteric Fever that had occurred during the previous week at the Mater Misericordie Hospital. The clinical course of these two cases had been signalled by the predominance of unusual symptoms, tending to make the diagnosis a matter of doubt and difficulty. The first case was that of a female aged nineteen, who was admitted to hospital unconscious and with a high temperature. She lived for four days, but never at any time recovered consciousness. At the necropsy the only morbid appearance found in the course of a complete examination was uniform swelling of the agminated and solitary follicles of the intestine, with some slight ulceration near the ileo-cæcal valve, enlargement of the spleen and great enlargement of the mesenteric glands. The second case was that of a man aged twenty-eight, who had died after a few days' very severe fever, covered with a rash exactly similar to that of exanthematic typhus. At the necropsy the spleen was but slightly enlarged, but the mesenteric glands were considerably swollen and so were Peyer's patches. Cultures had been made in each of these cases from the spleen and pericardial exudation, but as they had been made only on the previous day—that on which death had occurred—the cultures, though visible under the microscope, were as yet hardly to be seen with the naked eye. Dr. M'Weeny expressed the opinion that in future two separate categories of enteric fever would have to be discriminated—one due to the typhoid organism, the other to Eberth's bacillus.

### SURGICAL SECTION.

#### *Estlander's Thoracoplasty Operation.*

A meeting of this Section was held on Nov. 11th, Mr. Hamilton, President, in the chair.

The PRESIDENT read an address alluding to the various surgical advances that had of late years occurred, and spoke of anaesthesia, antiseptics and vivisection.

Sir W. STOKES made a communication on Estlander's Thoracoplasty operation. After some preliminary remarks on the great advances that have been made in recent years in thoracic surgery, he dwelt on the causes that have of late been chiefly instrumental in enabling surgeons to get better results in the treatment of empyema than formerly, these being mainly antiseptic practice and the adoption of thorough and methodical drainage. He discussed the cases in which drainage would be likely to be sufficient and those in which something more was required, and the question as to whether thoracoplasty should be regarded as only suitable and restricted to chronic fistulous empyemata, and the cases that have frequently been tapped, or whether it ever should be adopted as a primary operation.

He then spoke of the various lines of incision recommended by Estlander and others, but considered that a more important matter was to determine the point where the opening into the cavity of the pleura should be. The views of Mr. Godlee and Mr. Heuston were considered, Sir W. Stokes being of opinion that the situation recommended by them would be, in the majority of instances, too near the diaphragm. The question of flushing the pleura was also discussed, he giving his approval to the practice both during and subsequently to the operation.

Mr. HEUSTON said that Estlander's operation was only required in cases of very long standing, where the conditions as mentioned by Sir W. Stokes existed, and gave rise to a space which could not be occluded unless the chest wall were allowed to adapt itself to the collapsed lung. In the performance of the operation it was important that the periosteum of the rib should not be preserved to a great extent, as it was liable to form new bone to such a degree as to do away with the object of the operation. In the more recent cases operated on by Mr. Heuston he turned the flap of periosteum over the end of the rib where it had been cut across, and thus hindered the absorption of the discharge by the cancellous bony tissue, to which he ascribed the immunity of his patients from pyæmia, which some authors consider the greatest danger from this operation. The only point in the paper with which he (Mr. Heuston) was not inclined to agree, was in the utility of frequent washings of the pleural cavity; and always, in recent cases, he employed only one washing—viz., at the time of the operation, to remove any semi-solid lymph which might be within the pleural cavity.

#### MEDICAL SECTION.

##### *Lead Poisoning.*

At a meeting of this Section held on Nov. 18th the PRESIDENT (Dr. W. G. Smith) made a few introductory remarks, in which a retrospect was given of the work which had engaged the attention of the Section during the last session.

Dr. O'CARROLL then related the history of four cases of Cerebral Lead Poisoning, one of which was fatal. Two non-fatal cases occurred in civil servants who used lead-containing hair dyes. One of these, aged about sixty-two, had a slight hemiparesis, which passed away in a couple of days and recurred in about a fortnight. There was also some visual amnesia and some amblyopia. On discontinuing the use of the hair dye all the symptoms gradually disappeared. The other case was much more severe. The patient had, about once every three months during a period of three years, attacks of violent headache, coma, delirium and sometimes slight convulsions, followed, as a rule, by a period of insanity. The coma lasted from one to six days, the insanity from one to six weeks. The delusions on some occasions were of the grandiose character commonly associated with general paralysis of the insane. The case was from time to time diagnosed as cerebritis, diffused meningitis, general paralysis, and even on some occasions hysteria. After the patient had suffered thus for two years it was surmised that the symptoms must be due to some cause operating regularly from outside, and a hair dye found to contain lead was fixed upon as a possible source of trouble. From the date of the disuse of the hair dye the patient's symptoms underwent a gradual involution. The coma never appeared again, the headache gradually became less frequent and severe, the mental condition became for a time melancholic and then returned to normal health, and he is now, nine years after his first attack, in perfect health. One morbid condition alone remains—namely, that he gets occasional attacks of *petit mal*, from which he never suffered till this illness. The fatal case was that of a plumber who had been in good health up to about three months before death. He at first showed slight mental peculiarities, had headache, and was forgetful. Severe symptoms began with an epileptiform attack, followed by spasmodic contractions of the muscles of the right side, repeated sixty times a minute, with right hemianopia. The mind remained pretty clear, but there was total loss of the sense of personal localisation. In another fortnight he had epileptiform convulsions during about twenty-four hours, followed by partial paresis of the left side. Finally he died in a further attack of frequently repeated convulsions. At the necropsy the arachnoid was seen to be somewhat distended with fluid, so that the cerebral fissures seem to be occupied by cylindrical or spherical cysts. On removal of the arachnoid, after hardening in

Müller's fluid, the convolutions were found separated by wide fissures, while at various parts portions of the convolutions were depressed or apparently punched out. In the spinal cord a somewhat similar condition obtained in the lower dorsal region, where the main strands of fibres seemed partially separated from one another by a dissecting sub-arachnoid effusion. Professor Lapper found lead in the liver, the kidney and the spinal cord. Dr. H. C. EARL made an examination of the brain cortex at one of the convolutional depressions and reported the presence of a curious black pigmentation of the neuroglia cells and a similar staining of the neighbouring capillaries; this staining involved only part of the sections.—Dr. FALKNER said that the principal substances which were used in hair dyes were nitrate of silver, pyrogallic acid and acetate of lead with sulphur. He had discovered that nitrate of bismuth—a body insoluble in water owing to the formation of the subnitrate—was soluble when rubbed up with glycerine. This substance dyed hair a rich black.—Dr. H. C. TWEDDY thought it remarkable that the patient who stopped using the hair dye in 1886 should up to the present have occasional mild attacks and that the poison should have taken such a length of time to be eliminated.—Dr. QUINLAN said he had seen a case like one of Dr. O'Carroll's. In this case infection was caused by the use of a lead comb and the symptoms disappeared after the comb ceased to be used.—The PRESIDENT mentioned two cases which had come under his notice. In the first case saturnine symptoms were present. The patient was a manufacturer of sugar sticks and he used chrome yellow in preparing them. Thus the introduction of lead into his system was accounted for. The second case was that of a man who had become incapacitated for his duty and who was pensioned on account of a diagnosis of lateral sclerosis. Dr. Smith noticed he had a blue line on his gums. He also found out that the man had a habit of constantly chewing a pellet of lead. Slow absorption took place, and he developed spinal symptoms. He was treated with iodide of potassium and magnesium sulphate, and got well. Dr. O'Carroll, in his paper, made no mention of the spinal cord or the peripheral nerves being affected. Lead and other elements of high atomicity—such as silver, mercury and arsenic—are very poisonous to the nervous system; they act as protoplasmic poisons. Silver and lead are in many respects analogous. Both form dense albuminates with the tissues, but there is this point of difference—the silver albuminates are insoluble in chlorides and also in lactic acid, while the lead albuminates are soluble in the alkaline and acid fluids of the body. On account of this lead poisoning is more easily caused. The lead is a direct protoplasmic poison, and a little metallic poison does a great deal of mischief in the brain. Of late years a certain quantity of lead has been in some cases abstracted from the cerebrum and cerebellum. The metal forms a direct combination with the albumen. Another proof of its direct action on the nervous elements is shown by histological examination, which reveals certain pigmentary changes. In addition to this, there are certain bad effects on the general health. These two things are sufficient to account for the seriousness of the phenomena and also for their instability witnessed in cases of lead-poisoning. As regards treatment, iodide of potassium does no real harm by increasing the solubility of lead already deposited in the system. The quantity is very small and the increased quantity in solution for a couple of days would not signify. Lead is not excreted by the kidneys to any practicable extent, but it is excreted by the intestines, and it is very liable to be re-absorbed. Consequently, it is always well to combine with the iodide of potassium a saline purgative, such as magnesium sulphate.—Dr. O'CARROLL made a few observations in reply and the section adjourned.

GLASGOW MATERNITY HOSPITAL.—The directors of this hospital state in their report that the revenue has failed to meet the expenditure, owing to which fact the much desired extension of the premises has been delayed, the deficiency in the revenue having to be made up from the capital fund. No donations have been received during the year. The number of patients attended to at their own homes was 1635, and at the hospital 388. The total number of cases attended shows an increase of 104 over that of last year. The Lord Provost, in moving the adoption of the report, said that the financial state of the hospital was such that, if it continued for another three years, the whole of the capital fund would be exhausted. The report was adopted.

## Reviews and Notices of Books.

*An American Text-book of Surgery for Practitioners and Students.* Edited by WILLIAM W. KEEN, M.D., LL.D., and J. WILLIAM WHITE, M.D., Ph.D. Profusely Illustrated. Philadelphia: W. B. Saunders. 1892.

THIS work has been produced by thirteen of the most eminent teachers and practitioners of surgery in the United States of America, but the plan pursued has been a distinct advance upon the method employed in this country when several authors combine to publish a single volume. Instead of each author being alone responsible for the article or articles to which his name is attached, "the entire book has been submitted in proof sheets to all of the authors for mutual criticism and revision. As a whole, the book may therefore be said to express upon important surgical topics the consensus of opinion of the surgeons who have joined in its preparation." The chapters are accordingly unsigned, and no indication is given of the share taken by any one contributor. This is joint authorship of the best kind, and its success in this instance appears to us to have been so marked that it will probably encourage other editors to adopt it. Its success is shown by the unity of plan and even character of the book throughout. Open it where he will the reader notices the same features in the design and the same limitations and peculiarities. The great aim of the authors has been to present the latest developments of surgical theory and practice. Attention is given chiefly to that which is new both in pathology and treatment. A great deal of detail to be found in other surgical text-books is omitted here, or very briefly noticed, while Bacteriology and the details of Aseptic and Antiseptic Surgery receive much attention. This is the great merit of the book. The pathogenic bacteria are well described and figured, and the present position of the science of bacteriology is clearly stated, whilst its well-grounded conclusions are accepted fully and frankly. In the same way, the basis of the therapeutics advocated is a confident belief in the antiseptic treatment. On this the authors speak with no uncertain sound: their faith in it is strong and intelligent and it is the outcome of experience gained from a scrupulous observance of all the minute details of scientific asepsis. It has often been said that antiseptic surgery is only the adoption of cleanliness, and the unobservant have thought that modern antiseptic surgery depends less upon the observance of minute detail than the older practice, when so much stress was laid upon the spray. A careful perusal of the chapter on the proper conduct of an operation will dissipate both these views, and will demonstrate how highly scientific and how exquisitely precise such an operation ought to be. If this text-book is a fair reflex of the present position of the best American surgery, we must admit that it is of very high order of merit, and that English surgeons will have to look very carefully to their laurels if they are to preserve a position in the van of surgical practice.

Having thus expressed our high appreciation of the striking merits of this work we must go on to say that the English reader will miss in it much of the anatomical and clinical detail that he finds in his own manuals of surgery. The writers appear to have been so anxious to present the modern phase of surgical knowledge that they have seemed to ignore much of the learning acquired in other decades and other centuries. We doubt whether this text-book is well adapted for those commencing their study of surgery; it presupposes a good knowledge of surgery, or, at any rate, it will only be appreciated by those who possess such a knowledge. We are anxious to indicate the strong distinctive features of this work rather than to dwell upon details, but we cannot help wondering why adenomata are

grouped among mesoblastic tumours, and we regret the exaggerated faith in the value of large doses of alcohol in many surgical diseases. To an English eye "fiber" and "center" are unseemly; but we are not without hope of the editors, for more than once we find "fibre" has crept in, showing that they have apparently an open mind on the subject.

*Dermic Memoranda.* By WILLIAM GEMMELL, M.B. Glasgow: A. Stenhouse. London: Baillière, Tindall and Cox. 1892.

THE aim of this *brochure* of 116 pages is to give the student the essential facts of dermatology and the diagnosis of the exanthemata. The latter portion of the author's task has been fairly well fulfilled, as might be expected, as he has been a resident superintendent of a fever hospital. Of the former portion we must speak less favourably. It is very doubtful whether "thumb-nail" books of this class, even when accurate, do not give the student as much to unlearn as to learn, dogmatic statements in medicine so frequently requiring qualification. Moreover, it needs no little judgment founded upon practical experience to know what are really the most essential and diagnostic facts to be remembered. The work before us, though not discreditable to a young man, which the author presumably is, exemplifies this, and contains inaccuracies and omissions of important diagnostic points which further experience would enable him to avoid. Thus, in contrasting scabies with eczema pustulosum, he speaks of vesicles as if they were synonymous with pustules, and says that eczema does not often occur on the hands and that itching is absent. Xanthoma nodules are said to be painful, alopecia areata is often hereditary, and psoriasis is spoken of as not being a disease of childhood, and when it occurs on the sole the student is told to suspect syphilis—to say the least of it a misleading way of stating that there is a scaly plantar syphilitic sometimes called "psoriasis." "Bullafe" for *bullous* and "discreet," for *discrete*—the latter occurring too often to be merely a misprint—are only minor faults.

### LIBRARY TABLE.

*Epidemic Skin Disease.* By THOMAS D. SAVILL, M.D. London: H. K. Lewis. 1892. — This is a reprint of the various articles published by the author on the remarkable epidemic or rather endemic disease of the skin resembling either eczema or pityriasis rubra which occurred chiefly in the West-end of London during the summer and autumn of 1891. It contains a coloured plate and several reproductions of photographs, and to those who wish to possess a valuable record of this unprecedented outbreak we can recommend this *brochure* of sixty-four pages, which is well got up in plates and typography and enclosed in a parchment cover.

*The Bacteriological World and Modern Medicine* is doing good work in bringing together abstracts of a number of most important papers that are published on this side of the Atlantic, and at the same time of placing before its readers a number of original articles, especially those written in America. The most interesting and important original articles in the August number are those by Dr. J. H. Kellogg, on the New Chemistry of the Stomach, in which he criticises the work of Ewald and Boas, and Hayem and Winter's "Chemismus Stomachal" (Dr. Kellogg's paper is, however, not completed in this number), and Dr. J. M. Byron's description of an apparatus for cultivating anaerobic bacteria, either in plates or in tubes, which has the special advantage that in it either plates or tubes can be utilised, and they may be removed from time to time for examination. The chief point about this method is that hydrogen is retained in the bell jar by means of a layer of mineral oil. The more interesting translated articles

are Dr. Kitasato's Results of Pure Cultures of Tubercle Bacilli and other Pathogenic Bacteria from Sputum, and that of Professor Dujardin-Beaumez on the Liver as a Bile-making Organ. In the monthly bulletin from the Laboratory of Hygiene, by Drs. Kellogg and Paquin, we find an account of some Experiments on the Relative Influence of Germs and their Products in the Production of Disease, and a continued (illustrated) article on Liver Flukes in Cattle.

*Fever Nursing: a Course of Lectures on the Nursing Required in Cases of Ordinary Fever.* By MARY HARRIS, Matron of the Suffolk General Hospital, Bury St. Edmunds, Member of the Council of the Royal British Nurses' Association &c. London: The Record Press, Limited, 376, Strand, W.C. 1892.—This is a good sample of the Record "Booklet" series. The authoress tells us that the articles originally appeared in 1888 in the *Nursing Record* in a serial form, and that they are republished in consequence of the numbers of the journal in which they appeared being out of print. The nursing and management of the following diseases are dealt with—viz., scarlet fever, typhoid fever, typhus fever, chicken-pox and small-pox; and at the end a couple of pages of examination questions are added. We have been much gratified with our perusal of this little book, which, if it makes no claim to originality, nevertheless contains much sound and useful information well put together. The salient pathological and medical points connected with these fevers, with which every intelligent and educated nurse should be acquainted, are clearly and sufficiently set forth, as well as those points which have a direct practical bearing on the nursing and management of these diseases.

*Aix-la-Chapelle as a Health Resort.* By Drs. ALEXANDER, BEISSEL, BRANDIS, GOLDSTEIN, MAYER, RADEMAKER, SCHUMACHER and THISSEN. The English edition, translated with the sanction of the civic authorities by JAMES DONELAN, M.B., M.Ch., B.A.O. &c. London: J. & A. Churchill. 1892.—This work consists of a general description of Aix-la-Chapelle and its baths, together with a collection of essays by the physicians of the locality. "The baths," we are told, "vary in temperature from 47° to 74° 6' C. .... The douche is always administered in the bath itself. The doucheur or doucheuse enters the bathroom with the patient, and supplements the action of the douche by means of kneading and massage, or moderates the force of the jet with his hand, while he allows it to play in a slanting direction. The patient does not need to go into a separate douche-room, as is the custom in so many other establishments, but he remains some time longer in the bath after the douche in order to assist its action. Vapour baths have been placed in all the bath houses, and are supplied by the natural hot vapours of the thermal waters, which are formed either at the outlet of the lower spring or whilst flowing down in one of the channels fed by the principal spring. .... The vaporised thermal water can also be inhaled by suitable spray apparatus." The second part of the work contains papers on the Treatment of Gout, Chronic Rheumatic Arthritis, Arthritis Deformans, Diseases of the Skin, Injuries and their Consequences, Chronic Catarrh of the Digestive Tract, Chronic Catarrh of the Pharynx, Larynx and Bronchi, Syphilis, Diseases of the Nervous System, Tabes Dorsales, Syphilitic Diseases of Internal Organs, Chronic Metallic Poisoning and Diseases of the Eyes. The translation appears to have been done carefully, though here and there little Germanisms may be detected; and in the list of chemical constituents of the waters we find "iodide of soda," "chloride of ammonia," and "phosphate of soda." These are, however, but mere verbal defects in a very valuable scientific account of one of the most important thermal springs in Europe, which will well repay perusal by any physician who thinks of sending a patient to Aix-la-Chapelle.

*Handbuch der Physiologische Optik.* Von H. VON HELMHOLTZ. 2te Aufgabe, 7te Lieferung. Hamburg and Leipsic: Voss. 1892.—The issue of the parts of this important work proceeds with unaccountable slowness. No doubt Helmholtz is a very busy man, and it cannot be denied that considerable additions have been made to the original treatise; but the first part of the second edition appeared in November, 1885. It was announced that the work would be completed in ten parts; the seventh part is now reached, and only about half the work is finished, whilst seven years have elapsed. If the same time is taken for the second half, a revision of the first 500 pages will be requisite. The present part deals with the phenomena produced by quickly recurring impressions, such as those obtained by spinning tops with coloured discs and the images obtained by Maybridge and Auschütz, which, the author rightly observes, present the movements of animals with extraordinary fidelity and supply important information in regard to the muscular movement of animals. The part also contains an account of after-images and of contrast and complimentary colours, and concludes with some observations upon induced colours.

*The Journal of Physiology.* Edited by MICHAEL FOSTER. Vol. XIII., No. 6. Cambridge Engraving Company. October, 1892.—This part contains the following memoirs: V. D. Harris and W. J. Gow, Ferment Actions of the Pancreas in Different Animals; R. T. Hewlett, Fractional Heat Coagulation; W. T. Porter, Researches on the Filling of the Heart, with two plates; J. N. Langley and H. K. Anderson, on the Mechanism of the Movements of the Iris; A. E. Garrod, on the Occurrence and Detection of Hæmatoporphyrin in the Urine, with a plate; C. S. Sherrington, Notes on the Arrangement of some Motor Fibres in the Lumbo-sacral Plexus, with four plates.

## New Inventions.

### SACKLINS' PATENT READY-MADE POULTICES.

THE linseed poultices are made with the best crushed linseed, containing the full quantity of oil, and the linseed is sewn securely between muslin and waterproof calico, the latter keeping in the heat and moisture. They also contain 2 per cent. of boric acid, which is dissolved at the time of using and renders them antiseptic. The septic qualities of the ordinary poultice are done away with, and these poultices can be applied to an unbroken surface with safety. The sewing is done in such a manner that the linseed is secured in many square-shaped compartments, and by cutting along the seams it is possible to make them of the required size. When wanted for use, it is only necessary to pour boiling water over the poultices and to apply them. It is said that they may be redipped in boiling water and applied thirty times consecutively without appreciable diminution of their remedial value. The least experienced nurse can hardly spoil them, and they are certainly of much greater cleanliness in use than the average poultice of domestic life; no pieces of linseed adhere to the skin on their removal, and as they are ready-made and can be at once applied, they should find a ready sale; they are, moreover, cheap. The mustard poultices are made of pure mustard flour and ground mustard husk which contains a large percentage of bland oil, and prevents the painful effect of the mustard. They are mild and are said not to blister the skin should the patient fall asleep and wear one all night; they can therefore be tolerated for a long time and the effect of the counter-irritant is made more lasting. They are manufactured by Messrs. Sacklins and Co., 20, Royal Exchange.

## INSTRUMENTS FOR BONE SUTURE.

ANNEXED is a woodcut of the bradawl and director used at the West London Hospital in suturing bones, either by subcutaneous or by open operation. They were made for me by Messrs. Maw, Son and Thompson in April, 1889. The bradawl is of one piece of steel, without any angles or mouldings to collect dirt, and is nickel-plated. These peculiarities are, of course, for ease of purification. It is also used for aseptic cases only. The director is a size less in diameter than the bradawl and ought to be of uniform calibre throughout. That it is not quite so in the specimen drawn is an accidental error. Like the bradawl it is of steel, nickel-plated. The blade of the bradawl is 3½ in. long and of a size intermediate between a No. 8 and No. 9 catheter (French scale). The director is of the size of a No. 7 (French) and the wire generally employed is equal in thickness to No. 3 (French). The length of the bradawl is a great convenience and is intended to make it available for the subcutaneous suture of superficial bones, like the patella and olecranon. About two years after these instruments had been constructed first a long drill-bit perforated at the end, and afterwards a long bradawl, also perforated at the end, were described and recommended for subcutaneous suture. The idea of a perforated bradawl was rejected at the time when the instruments I am describing were first planned, as tending to at once increase thickness and diminish strength ;



for a too thick awl will split a patella and a thin and perforated awl is liable to break. These are not mere theoretical objections ; I have seen the patella split in three cases and I have in my possession the broken stump of a perforated bradawl made two years and a half ago. With the long-bladed awl and director to match I have sutured various bones, including the femur, the tibia, the patella, the olecranon and the astragalus and scaphoid. The director should be passed as far as the bone along the awl before the latter is withdrawn ; and of course the wire, previously straightened, is slipped through in the groove of the director. When wiring subcutaneously the wire, after passing through the bone fragments and emerging at the second skin aperture, is returned through the same aperture along the director, previously thrust back between the skin and the bone, to the original skin opening. Also, when the awl has perforated one fragment it should be used carefully as a probe (in conjunction with digital palpation from without) to ascertain the bearings &c. of the other fragment. In this way can be avoided the error of attaching the anterior surface of one fragment to the fractured surface of the other in a patella case. The results which can be got by such operations as Mayo Robson's show that the inversion of periosteum between fragments of patella has not the practical importance once attached to it. Close union of any kind, either bony or fibrous, suffices in the case of a bone which is merely inserted in an aponeurosis and which does not form part of the main skeleton. The openings made for and by the awl and director give ready egress to all liquid effusions, but not of course to clots.

Grosvenor-street, W.

C. B. KETTLEY, F.R.C.S. Eng.

## THE HECLA FOOT AND BED WARMER.

MESSRS. W. SHIRLEY AND CO. of Lord-street, Wolverhampton, have submitted to our inspection a specimen of the above appliance. It consists of a cylindrical vessel about a foot in length, made of block tin, with a screw stopper, and enclosed in a woollen jacket. The convenience of form renders it applicable to the two purposes of bed-airing and foot-warming. It is cheap and handy, and is likely to prove a welcome adjunct to household comfort.

## THE COMMON ROOM FOR FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IN pursuance of a resolution of the Council of the Royal College of Surgeons of England the room, adjoining the secretary's office, which formed part of the library not used by readers has been furnished as a common room for the use of Fellows and Members of the College. The room, which is spacious, and looks on to the garden of Lincoln's-inn-fields, has been handsomely and comfortably furnished with a Turkey carpet, two walnut octagonal tables, writing tables, settee, and a suite covered in morocco leather, together with a hat stand and umbrella stand. The principal daily and weekly newspapers are also provided. The regulations for the common room are the following :—

"1. The common room is open to Fellows and Members of the College only. 2. The common room is open on each weekday from 11 A.M. till 5 P.M. except Saturdays, when it is open from 11 A.M. to 1 P.M. It is closed during September and at such other times as the Council may direct. 3. No formal meeting of any description may be held in the common room. 4. Fellows and Members writing letters at the College may not use the College as their address.

"Note.—Fellows and Members are reminded that smoking is not permitted in any part of the College premises.

"Nov. 10th, 1892."

"EDWARD TRIMMER, Secretary.

The common room was opened on the day of the Bradshaw Lecture, Thursday, December 1st. A good fire is kept burning and the room wears a cheerful and comfortable aspect. Writing materials are provided. Probably very few of the Fellows and Members of the College are at present aware that a common room is in existence and it may be anticipated that it will be found useful by those who frequent the library and museum, or attend the lectures and meetings at the College. The room was obtained for the Fellows and Members through the application of the Association of Fellows to the Council of the College.

## THE DENTAL HOSPITAL OF LONDON.

THE annual dinner of the past and present students of this institution was held on Saturday last at the Café Royal. Sir Richard Quain, F.R.S., supported by Dr. Hare and Mr. Bryant, the President of the Royal College of Surgeons, occupied the chair. The health of the past and present students having been proposed and duly honoured, the chairman alluded to some of the more distinguished men who had passed through the hospital and school. Referring to the action of the General Medical Council, he said they are willing to take, and are taking, great interest in advancing this department of the healing art, and he could assure his hearers that that body would do all in their power to help the dentists ; but they must help themselves, and he could prophesy a great future for them if they would avoid unprofessional actions and devote themselves earnestly to their noble profession. Mr. Bryant recognised in the hospital a valuable institution for the treatment of the suffering poor, and in the school an excellent educational establishment which provided properly qualified and skilled dental surgeons for the rich. Dr. Hare, replying for the hospital, urged its claims upon public sympathy and monetary support to provide increased space and larger opportunities for work. Dealing mainly with statistics, the dean of the school, Mr. Morton Smale, said that the development which had taken place on the scientific side of dental surgery, and the fact that it was now a legalised profession, had produced two results—first, an immense increase in the number of cases treated (last year the numbers were 54,177) ; and, secondly, a large increase in the number of students. This tended to a crowded state of an already over-burdened institution, and the only remedy was to provide a new and more commodious hospital building. Such a change would necessitate an expenditure of £40,000, of which £3000 had already been promised by members of the staff and friends. He was confident that the public would soon provide the remainder. An excellent programme of music, which was partly contributed by the Hospital Glee Society, added to the enjoyment of the evening.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 10, 1892.

THE hospital problem, or rather the problem of hospital support, still continues, in spite of the Lords' Committee, to be an anxious one. Something in the way of excuse for delay must be set down to the recess. It is not in human nature to study such problems during holidays, or when grouse and partridges have to be dealt with. Our readers may remember that a conference was held in May, at Spencer House, of some of the principal governors of the larger London hospitals, to consider whether anything could be done in regard to certain recommendations made by the Lords' Committee. A committee was appointed to take into consideration the whole of the recommendations and to report to the conference. That committee, we understand, has met once, and a subcommittee of four was then appointed to make a detailed examination of the Lords' proposals in the report.

The public will anxiously look for the suggestions of this subcommittee. It is obvious that if any practical result is to follow the laborious and painstaking investigation by the Lords' Committee time must not now be lost. The report of such a committee is never so strong as when it is fresh in the minds of the public, and when those who have framed it are full of the interest of the subject and the information they have gathered. The principal recommendation of the Lords' Committee is certainly that in favour of the creation of a Central Board. There is much difference of opinion as to the feasibility of such a Board, or rather as to the feasibility of all the powers suggested by the Lords' Committee. It proposes that this Board may receive endowments, legacies and donations, and have power to publish complete statements as to the pecuniary position of each medical charity &c.; but it does not invest it with the much-needed power of controlling the erection of new hospitals, which are likely to compete with existing institutions whose wards are empty for want of funds. No doubt the distribution of existing hospitals is very faulty, but this objection is considerably weakened by the improvement in the ambulance arrangements of the metropolis, which are as yet imperfectly enjoyed by the hospitals and the patients who enter them.

Apart from the debateable portion of the report it is full of suggestions which cannot be too soon tested by being subjected to minute examination by those who are really interested in the maintenance of our existing hospitals. Some central supervision is wanted, and so long as it is helpful and friendly, not too imperious, and does not tend to compete with individual hospitals or withdraw credit and endowments from them, it is likely to be acceptable to the governors of the different institutions. The Hospital Sunday Fund and the Hospital Saturday Fund have always been very respectfully treated by the committees and governors of the various institutions, largely because these funds have given a great amount of help with the smallest amount of

interference and of criticism. If the subcommittee now engaged in detailed examination of the Lords' proposals can suggest a Central Board that will be as little officious and as helpful as the councils of these funds it will do much to give effect to the Lords' main proposal, and also to all the other principal recommendations.

The voluntary support of the hospitals and dispensaries is, and must continue to be, their glory and their strength. Nothing in the functions of the Central Board must be allowed to offend the sense of independence or the *amour propre* of the individual institutions. Public opinion is still in favour of our voluntary system, and the Lords' Committee recognises this, and rejoices in the fact. Its report is friendly, and, with the exception of an inadequate note on the out-patient abuse, is satisfactory, and even complimentary to the system. It recognises that the function of the hospitals is essentially a charitable one; and that so long as they keep to this character and guard against abuse they are worthy of all the support of the rich and well-to-do classes, who benefit indirectly by them as educational institutions and training schools of the highest medical and surgical skill. This is the overwhelming estimate of hospitals in this country. A gentleman the other day tried to induce the Birmingham and Edgbaston Debating Society to declare that, as the hospitals of the city exist for the benefit of the whole of the community, and especially for the benefit of the medical profession, and are now so largely supported by the artisan class, they should be regarded as coöperative institutions rather than charities. The proposal was rejected by a large majority, as it deserved to be. Hospitals are for exceptional cases, not for common complaints. Without making any invidious comparisons of the way in which they have been supported by different classes, they have been a noble feature in the charities of this country; and the exhaustive examination of them by the Lords' Committee emphasises this conclusion. To convert them into mere coöperative stores for the relief of all comers, and of comers that should be attended at home by the family or the club medical man, would alienate their principal supporters. Birmingham did well to reject such a trade view of its great hospitals.

IN his recent work on "The Climate of Rome and the Roman Campagna," Professor TOMMASI-CRUDELI devotes a valuable chapter to the subject of the preservation of human life in malarious countries. Our readers will be glad to have in a compact form the views of so eminent an authority on this very important and interesting topic. We must be content to admit that for the present we have no precise knowledge of the nature of the malarious poison or of the means whereby it can be extirpated from the soil of an infected locality. That the poison inheres in the soil; that it is greatly under the influence of season, temperature and rainfall; that it is excited to fresh activity by all measures involving the disturbance of earth long left quiescent; that its ravages have been much reduced by drainage, by the conversion of naked soil into meadow land, and by the erection of houses and laying down of paved streets—these facts are certain, and almost exhaust our knowledge on the subject.

Professor TOMMASI-CRUDELI points out that the traditional precautionary measures long adopted in malarious countries have had two ends in view—viz., to reduce as much as possible the quantity of the malaria ferment which enters into the system through the air breathed and to prevent a lengthened abode of the same in the system. The first point is sought to be achieved by avoiding agricultural operations during those hours at which the malarious influence is most potent—viz., about sunrise and sunset; hence, according to the writer, is really explained the much misunderstood dictum of the ancient Sybarites: "If you wish to live long and well do not ever see the rising or the setting sun." Another point of the greatest importance is to avoid breathing the air in close contact with the soil, as it can be shown that the malarious poison rises only a short distance in a vertical direction. Thus in the Pontine Marshes, an intensely malarious region, platforms four or five metres high are erected, upon which the people sleep in the open air with comparative impunity. In Greece, the jungles of the East Indies, and Central and Southern America, similar devices have been adopted with beneficial results. Another mode of eluding the malaria-laden air in close contact with the ground is to construct the dwellings in such a way that when the door is shut the internal atmosphere is renewed only by the strata of the local atmosphere which are near the roofs of the houses. This is managed in some localities by so arranging that the only opening in the outer walls is the door, and all the windows open on an inner yard at a higher level than the ground floor of the house. It is advisable also to keep the windows of the houses closed in the morning and during the early hours of the evening, especially if any excavations should be going on in the neighbourhood. Care should be exercised regarding the effects of placing vases of flowers in occupied rooms; either these should be entirely excluded from houses when malaria is rife or the utmost vigilance should be taken to secure thorough ventilation.

The above measures all aim at preventing the reception of the malarious poison into the system or of reducing the amount received. Other measures are directed to preventing the germs, already absorbed, from remaining in the human body for any length of time. These measures, according to Professor TOMMASI-CRUDELI, all resolve themselves into expedients for maintaining in an active and regular condition the circulation of the blood. Everything that tends to keep the secretions healthy and active promotes the elimination of the malarious poison and reduces the probability of it effecting destructive changes in the body. The principal indications are to maintain constitutional vigour by good nourishment, the moderate use of wines and spirits, and to avoid all disturbance of the system from variations of temperature. Hence warm clothing, even in the hot season is indispensable.

The difficulties regarding the above preventive measures are the time, expense, self-restraint and inconvenience involved in carrying them out. Acclimatisation comes to our aid; not, however, acclimatisation of the individual, but of the race. "This power of constitutional resistance has been proved to be hereditary, and the repeated selections, caused by malaria in each generation, have conduced to the eventual increase of the resisting powers of the race, and that to such a degree as

to enable it to found powerful colonies in unhealthy sites, such as in Italy were those of Selinunte, Agrigentum, Sibaris, Paestum and Rome."

The chief remedies that have been used to combat malaria are quinine, arsenic, eucalyptus, salicylates, the fruit of the lemon &c. The good effects of quinine are, of course, unquestionable. Its anti-malarious influence is, according to Professor TOMMASI-CRUDELI, rapid but fugitive. Quinine is, unfortunately, rather expensive and tends after a time to disturb the digestive organs and the nervous system. Arsenic the writer regards as a remedy of the very highest value, especially as a prophylactic. He has instituted extensive experiments among the properties of the land-owners of Tuscany, Rome, Puglia and Sicily, and among the workers on the Roman and southern railways with encouraging results. Dr. RICCII, the chief medical officer of the southern railways, experimented in the year 1883 upon seventy-eight persons in the district of Bovino, where malaria is very virulent. He divided them into two categories, one of which only was subjected to the preventive system by means of arsenic. The result was that the great majority of those who took no arsenic (we are not told the precise number) had violent attacks of fever, while of those subjected to the arsenical treatment thirty-six escaped entirely, whilst the remaining three had only slight attacks. Other experiments were not less satisfactory, and some cases of failure were attributed to the arsenic having been administered in a non-assimilable form. Professor TOMMASI-CRUDELI has no faith at all in the alleged anti-malarious influence of the salicylates, and attaches hardly any greater value to the use of eucalyptus. He also disputes the alleged beneficial results said to have attended the planting of eucalyptus trees in malarious regions. He thinks much more highly of a popular remedy widely employed in many parts of Italy, Greece, Arabia, the West Indies &c.—viz., preparations of the lemon tree. The most active preparation is said to be a decoction of the whole lemon fruit, and remarkable results are claimed for this cheap and simple remedy.

The net result of Professor TOMMASI-CRUDELI'S experience would seem to be that hygienic and dietetic measures are of the greatest importance in dealing with malaria, that arsenic has a true prophylactic influence, and that quinine and a decoction of lemons are the most valuable remedies during the actual attack.

HYDATID disease is sufficiently common in this country to make its treatment a matter of widespread interest in the profession; but the interest we feel in it here is as nothing compared with that felt by those who practise surgery in the Antipodes. There the question is often discussed in medical journals and at meetings, and it was most fitting that, at the Intercolonial Congress held at Sydney in September last, a special debate should have been arranged to elicit the opinions of those most experienced in the treatment of hydatid disease. The discussion showed that to a large extent there was no difference of opinion, although on one point the divergence of view was marked enough. All the speakers were agreed that in suppurating hydatids, and in hydatids with daughter cysts, aspiration of the tumour is ineffectual, and that the only proper treatment when the cyst is accessible is a free aseptic incision into the cyst with complete evacuation of its

contents. In hydatid disease of the lung aspiration has proved to be a very dangerous operation on account of the facility it affords of flooding the lungs with the cystic fluid. This point has been well illustrated by cases published in this country, notably by Dr. BRISTOWE and Dr. MACKENZIE, which are to be found in Vols. XXIV. and XXV. of the Clinical Society's Transactions. For such cases a careful incision into the pleura, followed by the free and complete evacuation of the cyst, is the best course.

The vexed question is, What is the best course to follow in cases of simple hydatid cyst of the liver or peritoneum? Dr. SYDNEY JONES and Dr. SCOTT SKIRVING advocated the treatment by aspiration, care being taken to employ a small needle, not larger than one-sixteenth of an inch in diameter, with full antiseptic precautions. They urged this on the ground of its simplicity and its safety, and also because, if followed by refilling of the cyst or suppuration, incision of the cyst can be practised without any additional risk or difficulty. They argued that inflammation of the sac is due to pyogenic organisms introduced by the needle, and that leakage from the puncture only occurs when a needle of large size is used. Dr. JONES points out that very soon after being emptied by an aspirator the tumour may be as large and tense as before aspiration, even in a few hours, from inflammatory exudation. He cautions his professional friends against mistaking this for refilling of the cyst with its proper fluid. The diagnosis is made by watching the cases. Where the cyst has become filled with serum, it begins to shrink in a few days and eventually all is absorbed. Where the fluid is cystic no such improvement takes place and treatment by incision has to be employed. Dr. JONES believes that many instances of so-called refilling of the cyst with hydatid fluid are cases of multiple cyst in which a second cyst has enlarged and occupied the space formerly taken up by the first. This is a matter hardly capable of proof.

The other view seems to have been the one held by a large majority of those present at the Congress. They advocated the entire abandonment of the aspirator and the employment of aseptic incision and evacuation of the cyst in every case which is accessible to the surgeon. In support of this view they refer to its safety when proper antiseptic precautions are observed and to its certainty of result. They oppose the use of the aspirator chiefly on the ground of the danger of its setting up suppuration or of leakage from the puncture into the peritoneal sac. They also urge that at the best it leaves the patient with a dead, collapsed hydatid cyst, and that it must be better to get rid of such a mass from the body than to have it lodging there indefinitely. Each party in the discussion quoted statistics and spoke with the fullest confidence in its own special views. It seems clear that surgical opinion has very largely veered round from faith in aspiration to distrust of it, and from fear of the radical treatment of the cysts to the fullest confidence in it. Time and experience will enable more evidence to be collected and sounder opinions to be formed. It is in harmony with the whole tendency of modern surgery to prefer the more radical measure and to abandon aspiration. We can hardly think that the hands of the clock will be put back and that surgeons will recur to an operation which is at best uncertain and sometimes mischievous. Dr. SYDNEY JONES and Dr. SCOTT SKIRVING have done good work in calling attention

very prominently to the conditions under which aspiration becomes a safe operation, for it is clear that up to the present it has been attended with a considerable mortality. But, unless we are mistaken, we shall before long see it abandoned entirely and aseptic incision and drainage regarded as the one trustworthy mode of dealing with hydatids of all kinds and in all situations which are accessible to the surgeon.

IN a recent number of the *American Journal of the Medical Sciences* Dr. ALLEN STARR of New York has written a paper of very great importance and of more than ordinary interest, in which he has brought together various cases observed by himself and others, from a study of which he is able to lay down some very definite rules as regards the symptoms of lesions situated low down in the spinal cord. The facts are drawn from the records of OPPENHEIM, ROSENTHAL, WESTPHAL, HUBER, BERNHARDT, OSLER, MILLS and EULENBERG, as well as from the observations which Dr. STARR himself has made in association with HERTER, LLOYD and MCBURNEY. In many of the cases the clinical facts are compared with the conditions found post-mortem, and as a result of comparison of the various conditions it has been possible to lay down a certain number of deductions of the greatest interest and of much practical importance. Thus it is found that the control of the sphincters of the bladder and rectum is lost when the lesion involves the lower three sacral segments, and the opinion is expressed that these centres probably lie in the two lowest segments of the cord. When these are destroyed the sphincter of the rectum is relaxed, and the entire rectum loses the power of emptying itself, so that artificial evacuation by means of enemata or excavation is necessary. As regards the bladder, on the other hand, the sphincter does not appear to be permanently relaxed when the cord is destroyed, so that constant dribbling rarely, if ever, occurs; but as soon as a few ounces of urine collect, the pressure is sufficient to overcome the slight resistance of the sphincter, and the urine flows away. Sufficient resistance in the sphincter to cause retention of urine is rare when the bladder centre is destroyed. Such a condition is more apt to occur when the lesion is situated higher, this effect then being due to irritation of the bladder mechanism. The same effect seems to be produced by lesions of the cauda equina, the result then being apparently due to a reflex irritation from sensory fibres. From this it is concluded that if, in a case of paraplegia, the mechanism of the bladder and rectum is not interfered with, so that these viscera empty themselves when full, the lesion has not destroyed the lower sacral segments of the cord. The other important deduction is as to the distribution of anaesthesia in lesions of the lower part of the cord. This is shown by means of ingenious diagrams constructed from a careful comparison of the conditions found in the different cases. The first zone is oval in shape and small in extent, including the perineum, the posterior part of the scrotum in males, and the vagina in females. It also included the mucous membrane of the rectum. The second zone is heart-shaped, with the point up, and includes the entire scrotum and posterior surface of the penis and mucous membrane of the urethra in males, and in females the entire genitals except the outer surface of the

labia majora and the mons veneris. These two zones can be separated clinically, but all that can be affirmed from post-mortem evidence is that the second zone is produced by a lesion involving the conus medullaris and the fifth and fourth sacral segments of the cord.

The third zone has been named the "saddle-shaped area," as it roughly corresponds with the surface of the body in contact with the saddle when riding. Such an area is shown by a necropsy to be the result of a lesion involving the fifth, fourth and third sacral segments. The fourth zone is larger but similar in shape to the third. The anæsthesia extends in the form of a strip almost as low as the popliteal space. Clinically this area has been evident in several cases, but so far there is no direct post-mortem evidence of its origin. But as it lies between two zones, one of which is the result of lesion of the third sacral segment and the other of the fifth lumbar, it seems evident that it is the result of a lesion of the second and first sacral segments. The fifth area is more extensive still, descending the back of the thigh through the popliteal space in a band and thence to the outer surface of the leg and foot. In some cases it stops at the ankle, in others it involves the entire side of the foot, dorsum and sole, and three and a half toes. This area corresponds to the fifth lumbar segment. The sixth area of anæsthesia is a result of lesion of the third lumbar segment. It involves the entire back of the thigh and leg and also the front of the thigh, except a funnel-shaped area with its broad end upwards. The narrow end of the funnel extends along the shin, even on to the foot, and the opinion is expressed that this zone will probably be differentiated into two, one corresponding to the third lumbar segment, the other to the fourth. The largest area of anæsthesia is produced by a lesion of the four lower lumbar segments. It follows the line of Poupart's ligament, and is much lower in front than behind. The abdominal walls are only affected if the first lumbar segment is diseased.

Such are the conclusions which Dr. STARR draws from his observations of the very interesting series of cases which he has been at pains to bring together. Their importance in regard to exact localisation is very great, and we have no doubt that further observations in the near future will enable the small gaps in the scheme to be filled up, and so complete a piece of work which is a model of careful and painstaking observation and deduction.

In the *Medical Chronicle* for September Dr. J. G. ADAMI (now Professor of Pathology in the University of Montreal) contributes a most interesting article on the Variability of Bacteria and the Development of Races. He has collected a very large number of records of variations in the manner of growth and modifications of the specific characteristics of some of the better known bacteria, and although it is impossible to agree with some of the conclusions arrived at as the result, no doubt, of a careful consideration and generalisation on these observations, the facts themselves, as marshalled in this paper, cannot but prove to be of great interest and value. First he deals with transient variability under the headings of change of form, changes in pigment production, variations

of ferment production and modifications of pathogeneity; he records the many changes that have been observed by various workers in organisms obtained from different sources and cultivated on various media; and he indicates how, although some of these changes may be transient and the original forms may be reproduced by transferring the organisms to suitable media, other alterations may remain more or less permanent. One very striking feature on which stress is not laid and has never been laid in this matter is that, although it has long been well known that the typhoid bacillus when separated by means of the carbolic acid method undergoes distinct morphological changes, this has never properly been associated with the marked diminution in virulence of the organism—a character which, once lost, it is very difficult to restore, the morphological characters being resumed under appropriate conditions much more readily than the specific pathogenic properties, and much of the haziness that exists on the question of the alteration of the virulence of the typhoid bacillus must undoubtedly be attributed to our imperfect methods of separating it and cultivating it outside the body. The colour variations, especially those of more permanent character, are described pretty fully, GESSARD's observations being made the basis on which the remarks are founded. The other interesting question of the identity or specificity of the streptococcus erysipelatis and streptococcus pyogenes is taken up in the discussion on natural races. Dr. ADAMI appears to agree with CROOKSHANK, BEHRING and FRAENKEL that these two organisms are identical, and that the differences as regards manifestation when introduced into the animal body are due entirely to the different tissues or positions into which they are inoculated. There can be little doubt that recent experiments confirm this idea, although we have still to get over the fact that the chemical products of these organisms differ somewhat seriously when they are cultivated outside the body. It may be, of course, that they are modified according to the position of their growth in the body, but it still would appear that the chemical products of the organism play an important part in determining the pathological manifestation indicative of their presence in the body. It is not necessary to follow Dr. ADAMI in his remarks on the observed modifications of pathogenic microbes, the examples which he gives being those of pneumonia, typhoid fever, cholera, tuberculosis and diphtheria. We have so little standard as to what should constitute a race, what a type, and what a variety that no two observers will place exactly the same value on Dr. ADAMI's generalisations; and we cannot but think that in some instances he has assigned far too great importance to trifling variations, whilst in other instances more important factors have been left out of account. Unfortunately we have as yet no standard either of nomenclature or of classification. It may be objected that, with the limited knowledge we have of micro-organisms, exact or final definition is not possible, and that all our observations can only be of tentative value. Dr. ADAMI's contribution, however, will prove useful, especially to those who wish to obtain a rapid and comprehensive view of the subject. His list of references is exceedingly full and will help workers to economise considerably, both as regards time and trouble.

## Annotations.

"Ne quid nimis."

### A PROFESSORIAL UNIVERSITY FOR LONDON.

WHEN Professor Karl Pearson first launched his scheme for founding in London a University in which the professors were to have a predominant power, and into which existing institutions of academic rank in London were to be absorbed, we pointed out that such an ideal University could not possibly be founded in London, inasmuch as the present University, the teaching colleges and the medical schools would take no part in its formation, but would use every endeavour in opposition thereto for the protection of their own interests and trust funds. We also clearly showed that a "federated" University was much more feasible, and our preference for the Gresham Charter arose from its being based on the principle of such a federation. We were much surprised when in June last we received a long list of eminent names supporting Professor Pearson's scheme for promoting a professorial University. But we now find that this is all a mistake. Whilst Professor Pearson meant one thing by a professorial University Professor Huxley and the rest of the Executive Committee of the Association (of whom three are Fellows of the Senate and another is the Assistant Registrar of the existing University of London) meant something quite different. From a recent correspondence in *The Times* we learn that Professor Pearson has resigned the secretaryship of the committee because that body is conferring in some way with a committee of the Senate of the University of London, which is apparently engaged in drawing up another "further revised" scheme to be placed before the Royal Commission. By supporting a new scheme of the Senate which Professor Pearson evidently thinks will be the outcome of such a conference, the Executive Committee will practically throw all the weight of the Association into the scale in favour of a modification of the existing University rather than endeavour to form a new institution which should absorb all those already at work on higher education in London, which latter plan is, we believe, Professor Pearson's ideal. Hence he separates himself from his former colleagues on the committee, for in his opinion they are not keeping clearly enough in view the professorial as distinguished from the federal University, which is the essential aim of the Association. It will be interesting to notice whether the eminent men who belong to the Association will adhere to the views of its founder or will follow the more practical method on which the committee now seems to be engaged. Professor Huxley's evidence before the Gresham Commission, as given in his draft statement, is entirely in favour of a federated University under the title, and prestige of the present University, which is to be reorganised so as to take in the technical schools of theology, law, medicine, engineering &c., as colleges of the University, and is to give those schools power to examine their own students for degrees, under conditions determined jointly by them and the Senate of the University, and this evidence had the "general approval" of the Executive Committee, who apparently paid but little attention to Professor Pearson's protests. We certainly did not understand that these were the views of those who originated the Association for promoting a Professorial University, and we cannot easily read them into the proposals adopted by the Association in June last. Professor Huxley, however, says that it is quite a mistake to suppose, as applied to the University, that "professorial" and "federated" are really opposed, and that what is required for London is a voluntary association for purposes of general government, with the

reservation of special interests so as to secure a "federation" of a kind sufficiently close to ensure unification for University purposes. It is evidently very annoying to Professor Huxley to find this federation scheme thrown over by Professor Pearson; but it must be remembered that Professor Pearson started the Association and denominated it one for promoting a *Professorial* University for London, and he did not, we gather, intend that any compromise with existing interests should block the way towards the attainment of his ideal.

### MR. GLADSTONE AND LIVERPOOL.

IT is always a source of pleasure to us when Mr. Gladstone leaves the party sphere of discussion and allows himself to take an excursion into other fields of reflection, as he did on Saturday last, when Liverpool enrolled him on the list of her freemen. The changes which have come to pass in his native town within his own memory form a congenial theme for any orator. It is not the least illustration of Mr. Gladstone's greatness that he can expatiate on all these changes—on the replacement of sandy beaches and wild flowers by dingy additions to the town and the replacement of a comparatively clear atmosphere by a pall of smoke—and yet conclude by finding material of hope and of ever-brightening prospects for a community whose social and sanitary affairs have often been the concern of moralists and sanitarians. Most men over eighty visiting the scenes of their boyhood where their ancestors had played a distinguished part would be apt to feel some moody sentiments and to moralise on the changes and chances of this mortal life; but there was no such note in Mr. Gladstone's speech, and, liberal and prosperous as Liverpool in the past had been, he anticipated, in spite of all changes, that she would be greater in the future than either her present self or any of her rivals. There was, indeed, one word of shame and grief over the drunkenness of the land, nowhere, perhaps, more to be lamented than at Liverpool, and we must believe that the use of such words by Mr. Gladstone in his present position was neither casual nor insignificant. It is gratifying to know that much high and satisfactory work is being done in Liverpool both by municipal authorities and by personal and religious effort to improve the people of that great city, which represents our contact with the new civilisation of the West. From a sanitary point of view it is clear that such work is being rewarded. We have only to look at the last report of the medical officer of health for the City and Port to see that an impression has been made and is yearly more and more being made on the diseases which have long testified so graphically to the degraded and cramped condition in which the majority of the people have lived in the second greatest city of the kingdom. It would be poor satisfaction, according to Mr. Gladstone's estimate, for Liverpool to go on adding dock to dock and street to street unless she can show corresponding improvement in the state of her poor. The first conditions of such improvement now exist. Her medical officer can lay his hand on every street, and on every house in every street, that supplies the diseases that imply poverty and misery so deep that they can only be reached by special measures of help and rescue. Liverpool still shares the unenviable distinction of being the most densely populated community in the United Kingdom. She still squeezes 99·3 people into an acre, while Glasgow only compresses 92·8 and London 56·5, and she still has 5·67 persons in a house, as compared with 6·1 persons sixty years ago. She is, however, demolishing houses unfit for human habitation at the rate of nearly 500 a year. The deaths from zymotic disease for last year were the lowest recorded. The deaths from fever last year, in its large sense of continued fever, were 131; whereas the average of the preceding ten years was 270. There is—and this is one of the most hopeful facts—a steady decrease of deaths below the

age of five years. Corresponding with this is the large decrease in deaths from diarrhoea—mostly an infantile disease. There is a great fall in the deaths from tuberculous disease. Every house from which fever cases or diarrhoea cases proceed unduly is marked and known to the medical officer and his staff. These are the first drops of a shower of benefactions that will fall on not only the poor of a great city, but on its municipal and its social leaders, when they come to perform the duty which Mr. Gladstone so eloquently enforced—namely, that of attending not only to the promotion of the increase of material wealth, but of all that elevates human nature and human life.

#### PREVENTION OF LEAD POISONING AMONGST GLASS POLISHERS.

LEAD POISONING amongst glass polishers due to the tin putty employed may, according to M. Guéroult, be entirely abolished by a new plan which has for the last eighteen months been adopted at the Baccarat Glass Works. The old tin putty that was used was a stannate of lead which was manufactured in special furnaces by oxidising three parts of lead with one part of tin. In the new material two parts of metastannic acid are added for each part of putty, the lead being reduced to about a third of the old proportion. Under the former system numbers of workmen suffered from lead paralysis, and many had to leave the works entirely. Since the introduction of the metastannic acid putty, however, not a single case of lead poisoning has occurred.

#### THE THIRSK RAILWAY ACCIDENT.

THE trial for manslaughter of James Holmes, the signalman whose forgetfulness produced the lamentable railway accident at Thirsk, has resulted in a verdict of guilty, the only verdict possible in the circumstances of the case; but the Court, taking a merciful view of the offence, has released its prisoner upon his binding himself to come up for judgment if called upon, thus in effect waiving punishment altogether. This result is one with which the public may, we think, be very well content, so far as it goes. That Holmes was in fault there can be no doubt; it is equally clear that his fault was a very grave one. But even grave faults do not of necessity call for punishment, and the present is eminently a case in which the exercise of clemency is to be approved. The case has, by reason of the magnitude of the calamity involved, been made the subject of much discussion, and the infliction of exemplary punishment could not heighten the effect which has already been produced. On the other hand, it is abundantly clear that the unhappy man himself, on whom the chief responsibility for this disaster rests, is only in a very limited sense chargeable with what has happened. He was at the time of the accident suffering from the effects of grief, anxiety and broken rest, and certainly not in a condition to do himself justice in the discharge of his work. It is easy after the event to perceive that he would have been wise to press his demand for exemption from duty on this particular night, a demand which it now appears would have been conceded had it been urged. But he did not appreciate how much below par he had fallen, and it can hardly be reckoned a shortcoming that he should be slow to acknowledge even to himself that he was unfit for work. When to these extenuating circumstances is added the fact that his behaviour since the calamity has been open to no reproach it will, we think, appear that this is one of those rare cases in which a crime has been committed by a man in no sense criminal. The exoneration of the signalman from so much blame involves, however, a careful consideration of the system under which the work of the signal-box is carried on. We do not now refer to the perennial subject of protracted hours of labour. The present does not seem to be a case of that sort, for although Holmes

appears to have suffered, as we have already said, from broken rest, his vigils were occasioned, not by official duty, but by domestic complications. Against such a contingency no conceivable system of distribution of work can possibly provide. But what does strike us is that no passenger traffic ought nowadays to be carried on save upon an efficient system of interlocking points. If the levers in this cabin had been so connected together that it would be impossible to move them in mistaken order, the signalman's lapse of memory would have been at once corrected when he came to manipulate the points, and no more serious consequences could have ensued than a little delay of the traffic. The Board of Trade has, by persistent work during the past ten years, done much to improve the rolling stock, and especially the brake equipment, on our various railways. We hope that it will now turn its attention seriously to this no less important point of the proper organisation of systems of interlocking the signal levers.

#### THE MEDICAL AID ASSOCIATION QUESTION AND THE PRESS.

JUDGING from the many notices of this subject in the press, it seems to be recognised as one of importance not only to the public, but to the profession. On the whole, the notices are in a tone of which the profession has no reason to complain. The *Weekly Budget* says: "Of all classes of unionists the doctors are least liable to have to encounter a lock-out." "The doctors" have never had reason to complain of being locked out, but of having been the least paid and the most tardily paid profession—a body of men who are supposed to be at the beck and call of everybody night and day for *nothing*, or for the meanest sums. The profession is the last one that is likely "to strike"; but that is only a strong reason why its relations to the public should be well considered.

#### THE PREVALENCE OF SMALL-POX.

THE small-pox epidemic at Warrington is, we trust, on the highway towards abatement. In the week ending Nov. 12th no less than seventy-six fresh attacks were notified, in the two next weeks the numbers were thirty-two and twenty-four respectively, and in the week ending the 3rd inst. the new cases were thirty in number. During the last three weeks an immense amount of revaccination has been carried out, some 8000 persons having submitted to the operation; and concurrently with this the number of fresh attacks has diminished until now it is hoped that there will be no need to provide a third small-pox hospital. Amongst measures of prevention which have been urged on the local authorities has been the closure of the elementary schools. Mr. Gornall, the health officer, however, at once set his face against this. Not only would school closure, in his opinion, have led the children to mingle more freely than ever with persons living in and coming from infected houses, but he was able to point out that whereas in pre-vaccination days there was a special excess of small-pox in young children, these have shown themselves in this epidemic to be a class which has been remarkably exempt from the disease. In short, young children still retain the protective influence of a comparatively recent vaccination, and with it they exhibit a corresponding immunity from small-pox. The Royal Commission on Vaccination have, as we noted last week, appointed Dr. Savill to inquire into the circumstances of this epidemic, and we shall therefore later on possess an authoritative account of the progress of the outbreak and be enabled to judge how far its apparent increase owing to aggregation of the sick in hospital and the apparent connexion of its abatement with a period of increased vaccination are borne out by the actual facts. Thus far it is estimated that the cost of the epidemic to the town has been not less than £5000, and at

the same time trade has been most seriously hindered. From St. Helens we hear of ten cases of small-pox; the disease has again broken out in the Dewsbury district, both Dewsbury borough and the towns of Heckmondwike, Batley and Soothill Nether being attacked. Amongst other localities where the disease has appeared or is still maintained are Brighouse, Lightcliffe, Stockport, Rotherham, Wakefield, Lancaster, Manchester, Oldham, Chadderton, Birkenhead, Ashton-under-Lyne, Keighley, Halifax, Bradford, Derby (where four attacks occurred last week), Brierfield, Hipperholme, Thrintoft and Brompton near Northallerton, Enderby near Leicester (where a navy from a lodging-house has been placed in a tent), Dronfield, Kinsley in the Hemsworth rural district, Liverpool and Manchester. In Manchester only two fresh attacks occurred last week; in Leicester there was one case; in Liverpool the new cases were eight and five respectively in the last two weeks. At Lightcliffe the disease, according to a resolution of indignant ratepayers, "rages in the district," and efforts are being made to arrange for the isolation of the sick in the Brighouse district, although the Lightcliffe people refused to join Brighouse in making hospital provision. In connexion with the prevalence in Islington it is stated that small-pox has broken out in Pentonville prison. Two fatal attacks occurred in London last week. The disease has also appeared north of the border. In Glasgow between thirty and forty small-pox patients are under treatment in the Belvidere Hospital; from Edinburgh only a single case is as yet recorded. The wide diffusion of the disease to which we have for some weeks past drawn attention cannot fail to be a source of considerable anxiety at this very ominous season of the year, and it remains to be seen how far our improved means for promptly hearing of first attacks, taken together with the increasing efforts on the part of the inhabitants to secure the earliest possible isolation of the patients suffering from the disease, will go towards counteracting the mischief that has been wrought by people who, vaccinated themselves, endeavour to persuade other persons not to secure for themselves or their children the same measure of protection.

#### HEREDITARY ATAXY.

In the last number of *Brain* Dr. Sanger Brown of Chicago has described a series of cases of extreme interest. The series comprises in all twenty-one cases spread over four generations. Of these twenty-one six have been under Dr. Sanger Brown's observation for several months and two have been examined and reported on by Dr. Norman Bridge. In summarising the results of his examination and investigation Dr. Brown found that, as we have said, the disease was traceable through several generations. He also found that it increased in extent and intensity in the later generations, tending in them to occur earlier in life and to advance more rapidly. It occurred most frequently between the ages of sixteen and thirty-five, but it began in one case as early as eleven and in another as late as forty-five. No obvious preference for sex was manifested, but it descended through females more frequently than through males. No marked influence of any exciting cause could be demonstrated, although in some cases a fall or an injury preceded the onset of symptoms. Any depressing condition also, such as lactation or pregnancy, seemed to produce a rapid advance in the symptoms. There was considerable incoördination of the voluntary muscles when the disease was well established. This was evident first in the legs, but later might extend to the arms, face, eyes, head and articulatory apparatus. Sometimes this tendency was first manifested in the arms, sometimes in the articulatory apparatus. The ataxy was often extreme before the power of walking was lost, but it was not increased by closing the eyes, and the

sense of posture was perfect. Although there might be weakness of the legs in the advanced condition there was no muscular atrophy, and in some patients there was permanent spastic contraction. In well-marked cases there were extensive choreiform movements, occurring in the hands, legs or head whenever an attempt was made to maintain the parts in a fixed position. These movements ceased during sleep. There was usually some ptosis and at times transient diplopia in the early stages, the result of weakness of the external rectus. There was no nystagmus, but optic atrophy was an early and constant symptom. The response of the pupil to light and during accommodation was sluggish. It was present, however, so long as the atrophy was not complete. The articulation was markedly disturbed, and in some instances there was a tendency for liquids to enter the larynx. In some cases only—in those in which spontaneous pains in the legs coexisted—the sphincters were slightly affected. The knee-jerk was invariably exaggerated; ankle clonus was frequent. The cutaneous reflexes were also exaggerated (this was especially the case in the early stages); they frequently declined considerably when the disease was far advanced. There was no talipes or other deformity, excepting rarely permanent spastic contractions of the legs in advanced cases. Such is the summary which Dr. Brown gives of his cases, and it will be evident that they form an extremely interesting group. They differ in many material points from ordinary cases of the hereditary ataxy described by Friedreich, notably in the condition of the reflexes; but whether the symptoms in those cases are to be ascribed to a similar underlying pathological condition it is impossible to say. In a critical note on the paper Dr. Ormerod directs attention to the cases recently described by Nonne (which closely resemble Dr. Brown's), in one of which a necropsy revealed no degeneration of tracts in the spinal cord, but a marked diminution in the size of the cerebrum, cerebellum, pons, medulla and cord, and an excess in the numbers of the fine nerve fibres in the spinal nerve roots. A case under Menzel closely resembling these is also referred to, in which at the necropsy this diminutive condition of the nerve centres was found to coexist with degeneration in the posterior columns and pyramidal tracts of the cord; and it is noteworthy that the same condition has been found post mortem in Friedreich's ataxy. Professor Bernhardt also criticises Dr. Sanger Brown's cases, and agrees with Dr. Ormerod, and indeed with Dr. Sanger Brown himself, in believing that in a strictly systematic sense the cases do not belong to Friedreich's type, although they would certainly be placed in a category of hereditary or generic ataxy. To every neurologist the cases are of the utmost interest, and Dr. Sanger Brown is to be congratulated on his good fortune in meeting with them as well as upon the care and thoroughness with which he has investigated their condition.

#### SEPARATED MILK.

THE grievance brought to the notice of the President of the Board of Agriculture and to the Parliamentary Secretary of the Local Government Board by a deputation from the Central Association of Dairy Farmers last week is an obvious one. It appears that a large quantity of "separated" milk comes to London for the purpose of being mixed with new milk, the mixture being sold as genuine at a lower price than actually genuine milk could be supplied for. Honest dairy-men therefore laboured under considerable disadvantage, and they asked the Board of Agriculture to help them by law or by regulation, so that such a mixture should be sold for what it really was. The reasonableness of this request must be admitted, and was admitted by Mr. Herbert Gardner and Sir Walter Foster; but the difficulties in the way of legislation upon this matter are not inconsiderable. Until a definite standard with regard to the quality of milk is decided upon it is not clear as to how this state of things is to be remedied. There are

poor milks and there are rich milks, the former being as genuine as the latter. Public analysts are therefore compelled to adopt a low standard or else run the risk of very occasionally prosecuting—in the event of the milk being genuine, although of wretched quality—an honest dealer. On the other hand, it is equally clear that rich milk may be diluted down to the poor standard and yet be regarded as genuine. This applies to the fat of milk as well as to the non-fatty matters. In view of the fact that the low limit adopted by some analysts is only approached in some few cases, as shown by the figures of an enormous number of analyses, it seems to us not unreasonable to suggest that the Act should only countenance the sale of milk of good average quality. It is well known that poor milk is in most instances yielded by ill-fed and ill-conditioned cows—and this is a point which should be considered. If, at any rate a cow does yield milk of poor quality under normal conditions, such milk should be mixed with the rich and healthy product of other cows.

#### THE DENTAL HOSPITAL OF LONDON.

THE annual dinner of this institution was held last week under the presidency of Sir Richard Quain. The large number of distinguished guests present and the keen interest shown by all in the welfare of the hospital and school, must have brought to the minds of many, perhaps more especially old students, the days not far distant when their quarters were in a small private house in the south-west corner of Soho-square, with but five or six chairs in the badly lighted stopping-room. The first move was to a large, specially constructed building in Leicester-square, which quickly had to be supplemented by the addition of a new wing; the later increase in staff, with afternoon admission of patients, and the establishment of a department for the supply of artificial dentures to the necessitous poor, will also be recalled to mind. It would, however, appear that the demand for dental operations and for scientific teaching necessitates the erection of a larger hospital. This is estimated to cost about £40,000, of which £3000 have already been promised by the staff and two or three friends interested in the hospital. If success in the past is a guarantee of success in the future, this sum should be quickly subscribed.

#### PROFESSIONAL OVERCROWDING.

NOWADAYS, and in every calling, we are liable to be constantly reminded that the ranks of workers are becoming inconveniently overcrowded. The statement has no doubt some foundation in fact, and it is one which conveys a very practical meaning to members of our own profession, which is at no time so overpaid that it can bear a lavish distribution of its emoluments. Fortunately the assertion admits of qualification. A comparison of medical practice in various large centres of industry, including the metropolis itself, has shown that the total number of resident practitioners has not grown in proportion to the increase of the general population. Overcrowding has in this case a relative rather than an absolute meaning. The number of workers is not disproportionate, yet work and incomes alike tend rather to restriction than to excess. We must therefore look to other causes than mere congestion within the profession itself to account for this fact. Among these we should probably include the development of specialism. Sufferers who would in a past generation have sought counsel of their nearest medical neighbour flock in crowds to some one or two who are supposed to hold the key to their constitutional secrets. The profession as a whole must lose in proportion, and often by no means justly. Another prime cause is to be found in the competition of hospitals. The abuse of charity evident for some time past in many such institutions has latterly undergone, it is true, considerable abatement under the exercise of

stricter methods of inspection, so that some relief of professional over-pressure may be looked for in this direction. Clubs and dispensaries again exert a similar but an even more deleterious influence. They are, as a rule, far too little subject to regulation as to the status of patients admitted to the charitable relief—for it is nothing else—which they afford. More than this, they are often administered, if not owned, by medical men themselves engaged in family practice, who for the sake of some supposed profit, either in means or in reputation, connive at impositions by well-to-do persons which are under any circumstances absolutely disgraceful. Such are some of the influences at work in every considerable centre of population, which, in spite of a correct statistical relation between the number of practitioners and of the local population, maintain a state which virtually tends to overcrowd and to starve out the former. We need hardly point out the fact that the true remedy for such conditions is to be found not among the regulations of licensing bodies or local authorities, but in the self-respecting decision of medical practitioners themselves.

#### IS SCARLET FEVER A BOVINE MALADY?

PRINCIPAL MCCALL of the Veterinary College, Glasgow, answers this question in the negative. In a recent address he analysed the evidence in the famous Hendon case of 1885, and in a more recent epidemic in Glasgow, due to the distribution of milk from two farms a few miles to the south of the city. In the latter case it was shown that the eruption on the cow's teats, to which the epidemic had been traced by some, had been present for twenty-four days, during which time the milk had been consumed by those on the farms and by the public in Glasgow without the production of scarlet fever, and as scarlet fever has a short incubative stage, it is clear that the cow's affection could not have been of that nature. Those who had become inoculated from the cow's teats also showed no signs of fever or eruption. Twenty-four days after the cow's teats were known to be affected a farmer's boy was seized with scarlet fever, which, however, was prevalent in two adjoining villages, and immediately afterwards the disease appeared in Glasgow in connexion with this particular milk-supply. Of course the milk-supply was stopped, and justly so; but, as Professor McCall points out, it is a serious matter to the farmer to cast to the dogs the milk of fifty-three cows. He suggests that dairy farmers should form a benefit society, with medical, veterinary and law officers, and that vendors of milk in the city should create a similar society.

#### PARALYSIS AFTER PNEUMONIA.

VARIOUS forms of paralysis have been described as occurring after a croupous pneumonia, but the complication is decidedly rare. Dr. Bouloche<sup>1</sup> has studied several such cases, which he divides into two groups, according as they occur early in the course of the primary disease or do not appear until the later stages.<sup>2</sup> Most of the former group are of a hemiplegic type; in rarer instances the paralysis is confined to a single extremity or region of the body. It occurred both in old and young people, appearing either after the physical signs and symptoms of pneumonia were fully developed, or completely masking the lung affection, so that the true state of affairs could only be discovered on post-mortem examination. This was particularly the case with old people in whom paralysis followed pneumonia, and was the more remarkable in that no local lesion could be discovered to account for the hemiplegia, as in seven out of seventeen cases which Dr. Bouloche found recorded in medical literature. The only pathological condition which could be detected in the brain after death in such cases was an atheromatous condition of the

<sup>1</sup> Thèse de Paris, 1892.

<sup>2</sup> Paralytiques précoces et paralytiques tardives.

vessels in the Sylvian fissure. The prognosis of this hemiplegic condition depends upon the age of the patient. In advanced life it is almost always fatal, but in young adults the outlook is much more favourable. The hemiplegia is often accompanied by aphasia, but as a rule it is transitory and recovery is rapid. In some of the fatal cases meningitis extending over the cerebrum was frequently met with, occasionally together, with softening of the cerebral substance from atheroma of the vessels. The second form of paralysis in connexion with pneumonia (paralysies pneumoniques tardives) does not appear until the convalescent period of the disease, and in the majority of instances not until the patient is almost well. One case, which occurred in a patient under the care of Professor Rendu, is recorded in detail. The symptoms closely resembled those of diphtheritic paralysis, paralysis of the palate and extremities, paresis of accommodation, loss of tendon reflexes, atrophy of muscles, reaction of degeneration, sensory disturbances; all these symptoms improved after three months and the patient finally recovered. As a rule, the paralytic symptoms appear about the tenth or twentieth day. Sensation is but slightly affected. The paresis affects the lower extremities more than the upper; sometimes the soft palate is also attacked, but the sphincters remain free. The pathological conditions which are the cause of this complication are uncertain, but the close analogy which they bear to diphtheritic paralysis would seem to indicate that a "toxic neuritis" is produced. The prognosis is almost always a favourable one. In a few cases after the appearance of the usual symptoms multiple sclerosis, meningo-myelitis, or a general weakness of the nervous system remained.

#### ENTERIC FEVER AT RUNCORN.

THE Runcorn Improvement Commissioners have thanked their health officer, Mr. F. McDougall, for his interesting report on enteric fever. With such action we have but to express concurrence, still we trust that something more than the thanks reported by the local press have followed the receipt of such a report. Mr. McDougall tells of widespread fever and of conditions which are an obvious cause of nuisance and disease, and he adds that these conditions, notably those attaching to the storage of huge quantities of filth and excreta near houses and schools, are due to a want of proper building by-laws. In a town like Runcorn a very strict limitation should be placed on the capacity of all filth receptacles, and the scavenging organised by the authority should be such as to prevent the need of anything but small receptacles for filth and refuse. There are now model by-laws dealing with all such matters, and authorities who have brought under their notice the fact that so fatal a disease as enteric fever is due to their failure to make proper by-laws incur a very grave responsibility unless they deal with the matter effectually and promptly.

#### ALCOHOL AND ACETIC ACID OBTAINED FROM PAPER.

It is quite within the bounds of possibility, as every chemist knows, to convert, by a series of simple chemical operations, an old linen shirt into sugar and alcohol. By merely immersing linen in cold, strong sulphuric acid, the celluline  $C_6H_{10}O_5$ , of which it is mainly composed gradually dissolves and, assimilating one molecule of water  $H_2O$ , resolves itself into glucose  $C_6H_{12}O_6$ . The glucose so formed may be recovered by neutralising the excess of acid with chalk, and from the product so obtained alcohol may be prepared by the ordinary process of fermentation. According to recent researches, acetic acid, too, can also be produced from similar materials—as, for example, paper pulp, Esparto grass &c., all of which contain celluline. The process, although apparently so simple, is somewhat different in detail. By digesting any

of the above substances, or, indeed, starch, sugar or other carbo-hydrates with alkali, such as caustic soda, a salt of the alkali, acetate of soda is formed. This can easily be recovered, and the product on distillation with sulphuric acid could be made to yield pure acetic acid, which it is well known is the acid of ordinary vinegar, in which it occurs to the extent of 3 to 4 per cent. Moreover, acetic acid  $C_2H_4O_2$ , being an oxidation product of alcohol  $C_2H_6O$ , it is possible by means of a reducing agent (a mixture evolving hydrogen) to convert it once more into alcohol. This conversion is only of theoretical interest, however, and of no practical value. Messrs. Cross and Bevan, who read a paper on this interesting action of alkali upon celluline bodies at a meeting of the Society of Chemical Industry last Monday, attached some importance to the process, as in all probability by its agency paper-makers might be in a position in the future to recover from their waste materials a product (acetate of soda) of value in certain industrial processes. Apart, however, from the possible practical value of these results, they are calculated to throw a new light upon the nature and constitution of that important cluster of bodies known as the carbo-hydrates.

#### THE CARDIAC GANGLIA IN ENDOCARDITIS.

DR. DMITRI KUZNETSOFF (St. Petersburg Military Medical Academy Dissertations, 1891-92, No. 70) has examined microscopically the nerve ganglia of the heart in twenty-three cases of acute and subacute endocarditis, comparing them with five control cases, and finds that the endothelial layer of the capsules of the ganglia is affected, the cells multiplying and swelling so as to form granulations. The changes in the nerve ganglion situated in the lower portion of the inner auricular septum are mainly due to the extension of the vascular granulation-forming process from the valves to the adipose tissue surrounding the ganglia. He has not found vacuolation of the ganglia, and he could not in general make out any connexion between changes in the muscular structure of the heart and in the ganglia.

#### DISTRIBUTION OF SENSORY DISTURBANCES.

THIS was the subject of a paper of much interest read before the Neurological Society of London by Dr. Henry Head, at its meeting on Nov. 17th. He set himself to show that the pain of visceral disease is distributed over definite regions, and is frequently associated with cutaneous tenderness. This tenderness reveals certain areas which correspond with those over which herpes zoster is distributed, and numerous graphic records of cases of herpes were shown, as well as diagrams in which the painful areas were indicated, bearing out this statement. It was also stated that each organ is definitely associated with a certain root area or with several areas, and when all the areas found to be tender in consequence of visceral disease are placed together on a chart of the body two gaps are seen, one on the arm and the other on the front of the leg or thigh. By tracing those tender areas to their origin in the cord, a means is found for indicating the segment of the cord from which the organ receives its sensory supply, and thus the course of the sympathetic fibres to the various organs can be mapped out. In this manner it is found that sensory sympathetic fibres arise from the first dorsal to the first lumbar roots inclusive; that no visceral fibres are given off from the second, third and fourth lumbar, and that again visceral fibres come off from the fifth lumbar and the first, second, third and fourth sacral. The fifth sacral and the coccygeal give no visceral fibres. Various conditions are referred to as altering the resistance of the nervous system, such as anæmia, pyrexia &c., so that localised pain or tenderness may become generalised. The sensory disturbances in hysteria were also referred to, and two varieties were distinguished—a cerebro-spinal and a psychical. The scope of the paper included a

discussion of several relative problems, for which there was not sufficient time. By common consent it was agreed that the subject was of such interest and the observations were so important that a profitable discussion of them in their various relations could only be undertaken when the members had had an opportunity of studying the views brought forward, and the evidence for them, when these were published. An adjourned meeting for the discussion is to be held, subsequently to which we hope to deal fully with the views which the paper embodies.

#### VILLAGE SANITATION.

MR. GEORGE DE'ATH of Buckingham is an ardent advocate of village sanitation; and as the result of the experience he has acquired both as to the sanitary circumstances of villages in his own county and as to the almost impossible task of securing for them proper sewerage, together with adequate water-supply, cleansing, control of buildings &c., he comes to the conclusion that a supervision of rural districts ought to be maintained by non-local medical inspectors connected with the central authority, that further powers of compulsion must be exercised and that the incidence of rating for sanitary purposes ought to be put on a more satisfactory footing. He also urges the necessity of means of adequate isolation of the sick and of institutions at certain central points where bacteriological and other similar work needed for purposes of diagnosis and of the adoption of successful preventive measures could be performed for the local health officers.

#### LARGE TUMOUR OF THE FRONTAL LOBE.

In a recent number of the *Medical News* (Philadelphia), Dr. Morrison gives a description of the case of a patient, first seen in 1886, when he was suffering from vague pains in the head, which were ascribed to syphilitic meningitis, and were relieved by iodide of potassium. Dr. Morrison lost sight of him and never saw him again until two days before his death in December, 1891. In the interval he had been in various hands, and had been in the Pennsylvania Hospital for a period of six weeks. From the somewhat fragmentary history it seems that in the summer of 1888 he had an epileptiform convulsion, and that the pains in the head returned with increased severity. They were worse on stooping. In August, 1889, he gave up his work, and about this time it was noticed that his speech was slower than formerly. Soon after leaving work his eyesight began to fail, so that he was unable to recognise persons or objects at some distance. When in the Pennsylvania Hospital he was in a condition of mental hebetude. The tongue was protruded straight and there was no paralysis. He had extensive hæmorrhagic retinitis in both eyes. There was no material change in his condition when he was seen by Dr. Morrison two days before death, except that he was feverish, with injected conjunctivæ and other symptoms of influenza. Next day he became comatose, and died that evening. At the necropsy the dura mater was found to be strongly adherent to the pia mater along each side of the longitudinal fissure. There was a large tumour in the left frontal region attached superficially to the dura mater, and apparently growing from it. This mass had occupied the greater part of the anterior fossa of the skull, and below it had invaded the left half of the cribriform plate of the ethmoid, so that there was a direct communication between the interior of the skull and the nasal cavity. The tumour extended backwards into the frontal lobe two and three-quarter inches. It was not adherent to the brain substance, but had apparently pressed the frontal convolutions backward, and when it had eroded the ethmoid it had apparently also destroyed some central tissue. After preservation in alcohol for five months the weight of the mass was five ounces, and one curious point about it is the

fact that there was a small exostosis on the inner aspect of the frontal bone, which formed a distinct indentation in the tumour. There was no evidence on the bone here of any external injury, but it may be that the irritation of the dura at one point by such an exostosis was a very important factor in the production of the growth. The tumour was a spindle-celled sarcoma, but the chief interest of the case lies in the absence of motor symptoms due to the growth—an absence which seems to confirm the current views as to the functions of the frontal lobes.

#### PROGRESS OF TYPHUS FEVER AT DUNDEE.

THE epidemic of typhus fever at Dundee shows some signs of abatement. In all twenty-eight cases have occurred in twenty-one houses. Of these twenty-one houses, six contain only one room, and thirteen only two. Only one five-roomed house was invaded. Pending fuller data, these facts show clearly the oft-established relationship between typhus fever and cubic space. Though half the cases were school attendants, the Dundee School Board have not agreed to the health officer's suggestion to close the public schools.

#### THE METROPOLITAN HOSPITAL SUNDAY FUND.

IN drawing the attention of our readers to the meeting of the Metropolitan Hospital Sunday Fund held at the Mansion House on Nov. 25th to consider the report of the Council, we noted that the date of the next annual collection of the fund was fixed for June 11th. We ought also to have stated that Archbishop Vaughan pointed out that, owing to the collection on behalf of schools belonging to the Roman Catholic denomination having been fixed for June 11th, it would be necessary for the Roman Catholic churches to make their Hospital Sunday collection on June 18th.

#### INFECTIOUS DISEASE AT LEEDS.

THERE are at present ninety cases of scarlet fever and forty-eight of small-pox under isolation at Leeds. Nine cases of the latter disease were removed during the week. It is said that there are a great many private sufferers from both diseases who have not been removed to hospital. Leeds at the present moment is in the unenviable position of being one of the very few large towns in England which has not adopted notification. The occurrences there will, it is hoped, cause an early removal of the stigma.

#### THE ORIGIN OF HÆMOGLOBIN.

WE look to comparative physiology and histology for much of our information on the origin of the blood-corpuscles, and quite recently considerable light has been shed on the subject by the researches carried on in both the phylogenetic and ontogenetic relations of these corpuscles. In the *Transactions of the Canadian Institute for 1891* Dr. A. B. Macallum<sup>1</sup> deals with the question of the origin of hæmoglobin of the fusiform corpuscles and of the hæmatoblasts in the blood of amphibia. Working with lake lizards (*Necturus lateralis*) and the larvæ of *Amblystoma punctatum* and examining the blood fresh, or fixed either in the fumes of osmic acid—1 per cent. solution for two hours—or by a saturated solution of corrosive sublimate or picric acid, or by Ehrlich's fluid (the only fixing reagents which he found serviceable), and staining with the various colour reagents usually recommended, he obtained most beautiful preparations, as a result of the study of which he concludes that the hæmoglobin of the blood-corpuscles is derived from the abundant nuclear chromatin of the hæmatoblasts. This chromatin, he considers, is an iron compound, the constant oxidation and reduction of which constitutes the chemical

<sup>1</sup> Studies on the Blood of Amphibia.

process underlying life. The fusiform cells of amphibian blood he maintains are derived from the blood-corpuscles—that they are in fact the remains of the broken up or destroyed red cells, the latter in this conversion losing the cell membrane and the greater portion of the discoplasm. The hæmatoblasts in amblystoma are probably the direct descendants of cells split off from the extreme ventral portions of the visceral mesoblast. Of course the most interesting part of the paper is that dealing with the origin of the hæmoglobin and with the iron in this compound. The importance of the use of freshly prepared ammonium sulphide in aiding in the solution of this question can from Dr. Macallum's evidence scarcely be over-estimated.

#### HEALTH OFFICERS AND NOTIFIED CASES.

THE function of the health officer with regard to cases notified to him is at all times a delicate one. He is *primâ facie* bound to accept the practitioner's certificate, even though he may know that this is based on incorrect diagnosis. At Megavissey, recently, a practitioner complained to the Local Government Board that the health officer had questioned his diagnosis in two instances of notification of diphtheria. The health officer has explained that he examined one case in his private capacity and the other at the request of the patient. The authority have accepted this explanation. We think it would have been better if the health officer had examined these patients in conjunction with the practitioner who certified. The case also illustrates the disadvantage of health officers being engaged in private practice.

#### SMALL-POX ISOLATION AND WORKHOUSE INFIRMARIES.

A CASE of small-pox has occurred at Keighley in the person of an inmate of the workhouse infirmary, the disease having been no doubt contracted from a tramp who three weeks ago was taken into the building suffering from small-pox and isolated in a room which communicates with the wards by a passage. At a special meeting of the guardians, and after consultation with the mayor, it was resolved to transfer the small-pox cases to the new model lodging house, which had already received two cases sent by the corporation. The proprietor of the lodging house, however, absolutely refused to receive any more cases, so that the danger of infection to other inmates of the workhouse infirmary remains as serious as before. It is a striking commentary on the ineffective state of sanitary administration and the absolute lack of isolation accommodation. This, too, in a town which rivals Leicester in its disregard of vaccination. An analogous question as to the use of the workhouse infirmary for the reception of cases of small-pox has arisen at Rotherham, where the medical officer has reported the likelihood of the disease spreading among the workhouse inmates. At the meeting of the guardians, when this report was received, it was stated that arrangements were in progress for the erection of an isolation hospital. In truth, the present prevalence of small-pox is doing much to demonstrate the weak points of sanitation in this country.

#### IS SCURVY A PARASITIC DISEASE?

DR. FREIRE<sup>1</sup> has come to the conclusion that scurvy is a disease probably of a parasitic nature. Having three cases under his charge (mother and two children) he took the opportunity of making the following experiments: After carefully sterilising the gums he drew off a drop of blood and inoculated, amongst other media, a peptone beef gelatine made with saturated solution of common salt; although

there was no growth in the ordinary media, in this one, at the end of about six days, there appeared a fine thread or film, almost like a flake of mucus, floating in the semi-fluid gelatine (semi-fluid because of the high temperature at which it was kept). At the end of fifteen days the gelatine was quite liquefied, and there were now numerous colonies of minute micrococci  $\frac{1}{1000}$  of a millimetre in diameter, each surrounded by a soft transparent material. This micrococcus was readily stained in fuchsin. Taking into account the fact that the hygienic conditions were bad in the case of the three patients, it can scarcely be maintained that the disease was distinctly infectious or contagious; but the fact that the organism was present in all three cases is interesting as suggesting the infective nature of the disease, and also as affording some evidence as to the cause of certain of the pathological conditions met with in scurvy, notably the hæmorrhages.

#### INFECTIOUS DISEASE AND NOTIFICATION AT LEITH.

MEASLES and scarlet fever are unusually rife at Leith. More than two hundred cases of the former disease are occurring weekly in the place and a score or so of the latter. A lively discussion as to the necessity for closing the schools has taken place in the Public Health Committee of the Council, and eventually a negative determination was arrived at. But a still more important question is shortly to be decided by the Town Council, being nothing less than the question of notification. At present a system of voluntary weekly notification is in force, but the Council will resolve at an early date whether the Act of 1889 shall be adopted or not. A sort of *plébiscite* of the medical profession has already been taken by an active journal in Leith. This has resulted in a well-nigh unanimous representation in favour of notification.

#### CONDITION OF THE BLOOD IN GASTRIC AFFECTIONS.

A CONSIDERABLE amount of uncertainty has hitherto existed in reference to the condition of the blood in connexion with gastric affections, especially in ulcer and malignant disease of the stomach, and authors differ greatly in their statements on the subject. Orterspey<sup>1</sup> has made some careful experiments in order to attempt to clear up these doubts, and the following are the results he has obtained: In nine cases of ulcer of the stomach the results were very uniform—diminution in the amount of hæmoglobin and in the number of red blood-corpuscles, these changes being particularly marked in those patients who had had hæmatemesis. These results of course correspond with the anæmic state so constantly met with in connexion with this disease, and all previous investigators have found the same condition. Out of twelve cases of cancer of the stomach, in one the blood was perfectly normal, in eight the number of red discs was diminished, in eleven there was a diminution in the amount of hæmoglobin present, in five there was an increase in the number of leucocytes, whilst in two, although the hæmoglobin was diminished, the red corpuscles were about normal in number. All these changes are neither characteristic of the cancerous cachexia generally nor of cancer of the stomach in particular, as they also occur to a similar degree in the course of many other affections. There is therefore no diagnostic difference in the blood to be noted in the two diseases, ulcer and carcinoma of the stomach. There is, perhaps, more value in the examination of the blood in doubtful cases, when there is uncertainty as to the case being one of malignant disease or chronic catarrh or a neurosis of the stomach, as the last two sometimes lead in extreme cases to the absence of hydrochloric acid in the gastric juice.

<sup>1</sup> Recherches sur la Nature Parasitaire du Scorbut. Rio Janeiro: Imprimerie de Pinheiro et Cie. 1890.

<sup>1</sup> Berlin. Klin. Wochenschrift.

## FOREIGN UNIVERSITY INTELLIGENCE.

*Gratz.*—Dr. J. Moeller of Innsbruck has been appointed to the chair of Pharmacology and Pharmacognosis.

*Kazan.*—Dr. L. Darkshevich has been appointed to the chair of Nervous Diseases.

*St. Petersburg (Military Medical Academy).*—Dr. Verigo has been recognised as *privat docent* in Physiology.

*Val-de-Grâce (Military Medical School).*—Dr. Vaillard has been appointed Professor of Epidemiology and Diseases of Armies, in succession to Dr. Kelsch.

## DEATHS OF EMINENT FOREIGN AND COLONIAL MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. M. P. Mansuroff, Emeritus Professor of Dermatology in the University of Moscow.—Dr. Alfredo Corradi, Professor of Therapeutics and *Materia Medica* in the University of Pavia.—Dr. L. Amabile, Honorary Professor in the University of Naples. (Obituary notices of the two last-named will be found in another column.)—Dr. Giacomo Giuseppe Alvisi, member of the Italian Senate.—Dr. Friedrich Herrman, formerly senior physician to the Obukhoff Hospital, St. Petersburg, in his eighty-second year.—Dr. Geo. Ross, Professor of Medicine in the McGill University, Montreal.—Dr. Berry, one of the Bath Physicians at St. Moritz.

ON Wednesday last the committee appointed by the Chamber of Shipping of the United Kingdom and the Shipping Federation, with the approval of the Board of Trade, met to consider the question of the quality &c. of the food supplied to the mercantile marine. At this meeting the preparation of a draft scale of victualling was completed and next week the evidence of practical men on the general subject will be taken.

THE ceremony of laying the foundation-stone of the Clarence wing of St. Mary's Hospital has been fixed for the 17th inst. The Prince of Wales, accompanied by the Duchess of Fife, will arrive at the hospital at half-past twelve, when his Royal Highness will be received by the Duke of York, as President of the hospital, and the Duke of Cambridge. The Duchess of Fife will receive purses in aid of the Clarence Memorial Fund.

THE new premises of the Royal Eye Hospital in Southwark will be opened on the 15th inst. by the Duke of York. He will be received by the Duke of Cambridge, Sir Joseph Lister, Admiral Sir Harry Keppel and other friends of the institution.

MR. R. E. SPRAGUE ORAM has been appointed Her Majesty's Chief Inspector of Factories in succession to Mr. Whymper. Mr. Oram acted in 1889 as travelling secretary to the House of Lords' Committee on Sweating.

THE Senatus of the University of Aberdeen have appointed Professor Matthew Hay, M.D., for a further period of four years as one of their representatives in the University Court.

MR. H. H. CLUTTON, M.A., M.B., F.R.C.S., has been appointed by the Senate of the University of Cambridge an additional Examiner in Surgery for the present term.

MR. G. A. WRIGHT, B.A., M.B. Oxon., F.R.C.S., has been appointed an Examiner in Surgery for the Second M.B. Examination of the University of Oxford.

## Pharmacology and Therapeutics.

## EFFECT OF BITTERS.

DR. P. TERRAY, after investigating the effects of bitters upon the stomach of the dog, comes to the following conclusions: Gentian is the most powerful stimulant to the automatic movements of the stomach, and next in order come ceratine, conduragine, taraxacum, sulphate of quinine, and, last of all, quassia. Absinthe in small doses diminishes the movements of the stomach, and in larger doses arrests them entirely. Calumbine and strychnine excite the stomach until a condition of tonic contraction is reached. Picrotoxine has no decided effect. Ceratine increases the peristaltic movements of the bowel in addition to those of the stomach. From these results it would appear that bitters can be used with advantage in cases of atony of the stomach with a moderate amount of dilatation, and that ceratine can be prescribed when purgative effects are desirable.

## ICHTHYOL IN GONORRHOEA.

Until recently ichthyol has been but little employed in gonorrhoea, but from a series of observations made by Dr. Jadassohn on some 200 cases occurring in the out-patient department of the Breslau Hospital and in private practice, and published by him in the *Deutsche Medicinische Wochenschrift* (Nos. 38 and 39), it would appear that in many instances it proves a very valuable local remedy. In anterior urethritis in the male subject injections gradually increasing from 1 to 5 per cent. in strength and in posterior urethritis from 1 to 10 per cent. may be given. In the female subject the cervical canal and the urethra will even bear applications of the undiluted substance, but there does not seem to be any advantage in employing this or a very strong solution. The addition of 10 per cent. of glycerine was made to the applications used for female subjects. A 1 per cent. solution exercised in most cases a very decided anti-gonorrhoeal action, the gonococci disappearing generally more quickly than with other methods of local treatment, such as injections of resorcin, corrosive sublimate and permanganate. In a certain number of cases, however, it, like other remedies, failed. Again, in some few cases the gonococci, after having apparently vanished, reappeared, but these were more exceptional than under other methods of treatment. A good many cases which had been unsuccessfully treated with nitrate of silver were cured with ichthyol, and some in which ichthyol failed were cured with nitrate of silver. Attempts to combine ichthyol with resorcin, boracic acid &c., were not very successful; but Dr. Jadassohn found that some cases both of anterior and posterior urethritis could be remarkably well treated by alternating injections of ichthyol and nitrate of silver.

## NEW DRUGS.

Dr. Domingos Freire (*Sur un Alcaloïde et deux Principes Résinoïdes Extraits de la Jurubêbe. Rio Janeiro: Imprimerie de Pinheiro & Co., 1890*) describes an alkaloid and two resinoid principles obtained from the jurubêba or *solanum paniculatum*. The alkaloid, the method of preparation of which he gives—jurubêbine—in the form of a hydrochlorate when injected in very minute quantities into a small bird produced marked tetaniform convulsions, preceded however by a semi-lethargic condition in which there was contracture of the extremities; these convulsions ended in death. Of the resinoid substances obtained jurubêbine has an extremely purgative action, whilst the second, jurubêbin, a resin soluble in potassium hydrate is non-active. Dr. Domingos Freire considers that the poisonous alkaloid is found especially in the leaves of the plant and that like strychnia it exaggerates or stimulates the excito-motor action of the cord. The purgative resin obtained from this same plant he looks upon as probably analogous to podophyllin.

## THE SALICYLATES IN PLEURISY.

The salicylic treatment of pleurisy, which was first recommended by Aufrecht nine or ten years ago, has recently found considerable favour amongst Swedish physicians, Professor Edgren having employed it in the Serafim Hospital in Stockholm, and Dr. Koster in the Sahlgren Hospital in Gothenberg with great success. In cases where the effusion is quite recent salicylate of soda given in divided doses of from forty-five to sixty grains per diem is stated to cause rapid absorption, so that aspiration is not required, or if practised a portion only of the fluid need be removed;

The pyrexia disappears simultaneously with the fluid. When other serous membranes, as the pericardium or the peritoneum, become affected the salicylate acts in an equally beneficial manner on them in causing the absorption of the effusion. In certain of Professor Edgren's cases, it is true, the drug failed to produce any marked effect either on the effusion or on the temperature, but it is not unlikely that in these cases the pleurisy was really secondary and of tubercular origin, though in other cases of undoubted tubercular pleurisy the salicylate was by no means without effect.

#### HYDRASTININ.

According to Dr. Faber hydrastinin, when given during labour, though it sets up uterine contractions, does not expedite the expulsion of the child, but rather retards it. The pains, which are of a character similar to those produced by ergot, are sometimes very protracted, lasting in one case for as much as a quarter of an hour. In metrorrhagia, whether due to endometritis, myoma, or tumours in the uterine appendages, hydrastinin has proved valuable, and is best administered hypodermically, the dose being about five centigrammes.

#### A NEW SUBSTITUTE FOR COCAINE.

The acetamide of eugenol—which is contained in oil of cloves—has recently been prepared; it occurs in crystalline form, and appears to enjoy the property of producing local anaesthesia in a very high degree. It may be used similarly to cocaine for this purpose, and, as it has no caustic action and is an energetic antiseptic, it may be found to be even superior to cocaine for minor operations on the mucous membranes.

#### THE ALKALOIDS OF COD-LIVER OIL.

According to M. Bouillot, the alkaloids of cod-liver oil, given in quantities of from 2 to 3½ grains during the twenty-four hours, have a distinct diuretic action, increasing not only the quantity of urine, but that of urea. As had previously been stated by MM. Gautier and Mourgues, who studied their effects on animals, M. Bouillot found that they cause a marked increase in intra-organic oxidation, the oxidation of the leucomaines being rendered nearly complete and the toxicity of these bodies being diminished. It therefore appears to him that the alkaloids of cod-liver oil are likely to be of considerable value in therapeutics.

#### PHARMACOLOGY OF BROMIDE OF ETHYL.

Dr. Ginsburg (St. Petersburg Military Medical Academy Dissertations, 1891-92, No. 111), writing on the pharmacology of bromide of ethyl, states among the results of his numerous experiments on dogs and rabbits that in small doses it increases the irritability of the heart muscle, but in large doses diminishes it; thus in the former case the excito-motor ganglia or accelerator nerves are stimulated, while in the latter the irritability of the heart muscle is lowered and the frequency of its contractions diminished. Bromide of ethyl also lowers the blood pressures, paralysing the peripheral vaso-motor nerves. With large doses the heart takes a share in lowering the blood pressure. The drug does not appear to have any effect on the pneumogastric or on the vasodilator nerves, either central or peripheral.

### A NOTE ON THE FORTHCOMING CONFERENCE ON CHOLERA IN ST. PETERSBURG.

THE following brief account of the nature and object of the conference on cholera to be held in St. Petersburg towards the end of December may be of interest. The purpose of the conference is to decide on the measures to be adopted to meet the fresh outbreak of the disease that is fully expected to occur next year, more particular attention being paid to the special measures demanded by varying local conditions. With this object a circular letter was addressed on Oct. 30th (Nov. 11th) by the Minister of the Interior to the Governor of each province (or "government") throughout the country, requesting him to select one or two physicians who had had a close personal experience of the epidemic during the past summer to act as members of the conference. The opening meeting will take place on Dec. 13th (25th), and it is expected that the conference will last for from five to seven days. The Ministry has undertaken to bear all the travelling expenses of

the members, who will receive a sum of two roubles each per diem for lodgings, and an additional daily payment of three roubles during the time they are in St. Petersburg. In order that the medical men selected may have every means for forming an opinion on the questions to be discussed, the Medical Department of the Ministry has enjoined its local representatives to furnish each member with all the information at their disposal, such as medical reports, bulletins on the course of the epidemic, charts, plans, results of examinations of water and of soil and the administrative and local arrangements made for meeting the epidemic.

The programme of the conference is already in print. It sets forth the points to be discussed in the following order: (a) Measures for improving the sanitary condition of inhabited localities: (1) The chief features of localities with water-supply of unsatisfactory quality and the possibility of providing them with harmless water; (2) the nature and means of cleansing cesspools; (3) organisation of the sanitary supervision. (b) Measures directed against the introduction of infection and the preliminary arrangements for meeting the forthcoming epidemic: (1) The means of determining the first case of cholera and the organisation for registering the cases and deaths; (2) the means for isolation and carriage of patients; (3) the various systems of supplying medical aid and their relative efficiency in combating the epidemic; (4) the rôle of sanitary overseers and the instruction of the inferior members of the service in dealing with the sick and in disinfection; (5) the methods of disinfection that have appeared most suitable and efficient; the disinfection of dejecta, houses, utensils &c.; the cost of disinfection and the possibility of substituting for it destruction (by burning); (6) the means of disposal of refuse and the methods of disinfecting in villages; (7) which is preferable, the removal of the sick to hospital or their isolation at home, where all precautionary measures can be taken?

A second form of considerable interest has been circulated among members of the conference. It contains in full detail the programme of the Government Report on the Epidemic of 1892, which it is hoped will be issued in the course of a few months. The main heads of the report will be the four following:—Preliminary information; the cholera epidemic; the measures for meeting it; and finally, observations bearing on the symptomatology, treatment, etiology and prophylaxis of cholera. The information will further be grouped under a large number of subdivisions, the enumeration of which is sufficient to cover nearly two sides of a foolscap sheet of paper. With the elaborate machinery at the disposal of the Russian Government for obtaining information and statistics from every part of the country the report will, it is expected, be full, thorough and accurate, and its publication will be looked forward to as an event of no little interest and importance.

## CHOLERA.

#### CURRENT NOTES, COMMENTS AND CRITICISM.

WHEN a full account has been rendered of the cholera epidemic of 1892 the results will be so lamentable as to appear little short of appalling. It is difficult at present to estimate the aggregate loss of life it has caused, and to realise all the sickness, misery and destitution it has entailed. The events and figures making up the history of the epidemic, which we have chronicled week by week, in reality fail to represent the facts adequately, much less to afford a true picture of what have been the sufferings of the various populations of the different countries invaded by the disease. Among no people, perhaps, have these been greater than among the Jews in Poland. During the three months that cholera was raging in the Governments of Lubin, Siedlec, and Radow, for example, the death-rate was terrible, and the destitution consequent thereupon calamitous. A correspondent, writing recently in the *Jewish Chronicle*, says that in the case of Lubin 90 per cent. of the victims were Jews who inhabit the unhealthiest quarter of the town. The epidemic has now passed away, but has left terrible traces behind it. Many thousand families are described as being without bread, without a roof, without clothes, and deprived of all means of subsistence. Apart from the effects of the disease, it is to be feared that the application of ill-considered measures for its repression,

and a totally inadequate provision for coping with it, have greatly added to and aggravated the sufferings of the unfortunate people. Death, quarantine, disinfection, stagnation of commerce and suspension of trade have placed the poor in a state of misery which defies description. As so commonly happens it is not exactly known when cholera first appeared in Lubin; but it reached its full intensity about the middle of August. The town has about 40,000 inhabitants. For several weeks the deaths from cholera reached nearly eighty per diem. On the lowest calculation 2500 deaths occurred in August and September, and the disease almost exclusively attacked one portion of the town and a certain class of its proportion. Of the total number of deaths about one-tenth only occurred in the upper town, and this would give for the 15,000 residents in the lower town the proportion of one death in six. At Miedzzyzec, a town of 8000 inhabitants, the mortality from cholera was 300, and at Miechow 350 died out of a population of 2000. The method of procedure adopted at Lublin on the occurrence of a death from cholera was for the police to proceed to the house in which the death occurred and turn all the people out, and place seals upon the doors. They were not allowed to remove any of their clothes or belongings for fear of spreading infection, and were at once transported to large wooden huts erected at some distance from the town without any other sort of provision having been made for them. The starvation, sickness and misery that followed may be readily imagined. A spirit of charity and solidarity, which has always been a distinguishing feature of the Jewish race, was soon manifested by some of the richer Jews, but their efforts and resources in aid of the poorest sufferers are exhausted, and with the presence of winter the prospect is a pitiable one.

There is, happily, but little to chronicle regarding cholera nearer home. According to official reports there were four deaths from that disease in Holland during the past week. A death from cholera is also reported at Brussels. Several cases of choleraic disease are still under treatment at the St. Jean Hospital at Bruges.

Although an occasional case is reported in Hungary and France, cholera—at any rate as an epidemic disease—has disappeared for the present. Several cases have recently occurred in the town and suburbs of Epernay. It is perhaps worthy of note that Epernay is on the line of communication between Paris, the Ardennes, Dinant and Namur. At Dinant it is alleged that there were some cases of cholera last summer, although the fact of their occurrence was skillfully concealed. At Calais some excitement was caused lately among the maritime population by the removal to hospital of five persons, all of one family, who were attacked with choleraic symptoms. In view of its possible return next spring in the province of Saratoff it has been decided by the authorities at St. Petersburg to supplement the staff of the sanitary service by a considerable increase in the number of officials.

According to the latest intelligence the disease has broken out again in a virulent form in several villages of the province of Poltava, and the Russian authorities are continuing to prosecute various measures in anticipation of a recrudescence of cholera in the spring. At the last meeting of the Medical Society Surgeon-Colonel J. B. Hamilton read a paper on the epidemic progress and causation of cholera mainly based upon observations and experience of that disease in India, which led to an interesting debate, an abstract of which is published in our reports of medical societies for this week.

We are glad to notice that at a recent meeting of the London Common Council the exertions of the Port Sanitary Committee and Dr. Collingridge in endeavouring to protect the Port of London against cholera were fully recognised. Dr. Collingridge in particular was indefatigable and rendered very valuable services to the public.

## CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### A VISIT TO HONFLEUR.

*The Water Drunk on English Ships.—The High Death-rate.—Cholera Patients and Rum.—Chaos in Sanitation.*

THERE is no regular water-supply at Honfleur. A number of springs exist within the town and some at a little distance from it. The public derive their water from these

springs, but some of the fountains were constructed so long ago that all record has been lost. There is the water, but even the town authorities are unable to say whence it comes. There are five principal springs, and the one that supplies the shipping with water is known as the Source St. Leonard. This spring is somewhere on the inland side of the old St. Leonard Church and the theatre. The church has a fine portal, built in the sixteenth century, but underneath the water has formed a small subterranean lake which renders the church so damp that the ornamental painting has been spoilt. It is supposed that the water comes from the hill Côte Vassal, which is about seventy metres high and is close at hand. Red flint, a little clay and iron and a large quantity of lime compose the soil of this hill. The rain falling on the surface of the hill dries very quickly and helps to form the St. Leonard spring, but no one knows where this spring is situated. The fountain, however, which gives the water is by the church, but on the other side, so that the water has to pass under the church before it reaches the fountain. This fountain is in the very centre and low-lying part of the town and is surrounded by public washing tanks. Here dirty linen is daily washed, and there is no saying to what extent the splashing of the dirty water may filter through the earth into the drinking water below. Apart from this, before reaching the fountain the water could be contaminated by filth from the numerous surrounding houses. Samples of the water have recently been sent to Paris for bacteriological examination. From this fountain near the St. Leonard Church, pipes convey a portion of the water to a little fountain on the quays near to the mooring station of the Newhaven boats, and it is from this secondary fountain that the sailors usually take their supply to fill the tanks on board the English ships. May not the bringing of such water into English ports be far more dangerous than the arrival of travellers from abroad?

There have been twenty cases of cholera at Honfleur, most of them occurring at the end of August and during the month of September, in the Hochas and St. Nichol quarters. In the latter district there is an important public fountain. The water comes through some very old pipes, partly made of wood and tarred over. These pipes are supposed to be from 200 to 300 metres long, but they are so ancient that nobody can tell in what direction they are laid or where the spring is that fills them with water. To find out it would be necessary to dig up several streets. On one occasion, for instance, a house near the port was flooded. The cellars were full of water and no one could imagine whence it came. At last it was noticed that a fountain some distance off, and near the chief post-office, did not run as plentifully as usual. An investigation was made, with the result that a broken pipe was discovered; and when this was mended the cellar was no longer flooded. The water had passed under two streets and two blocks of houses to reach this cellar. The higher districts of the town have no fountains. All the pumps or fountains or springs are in the low-lying portion of Honfleur—that is to say, precisely where the water is most exposed to the danger of contamination. Where there are pipes the water is not under pressure. The pipes often leak and, as there is no pressure from within, foul water can enter the leaking pipes from without.

If the water was derived from the subsoil of a perfectly clean, well-drained and healthy town there would be less fear of contamination; but, as already stated, Honfleur is an exceptionally unhealthy and dirty place. Fortunately there are only 9726 inhabitants; but in the last ten years the deaths were not far short of a third of the population. There were from 1882 to 1891 no less than 2901 deaths, of which 1456 were of persons under twenty years of age. The irregularity in the annual number of deaths suggests the frequent occurrence of epidemic disease. The deaths for each of the ten years mentioned were, in due order, as follows:—347, 301, 252, 275, 329, 283, 326, 334, 222 and 332. Allowing for fluctuations of the population, this gives a death-rate of 29 to 30 per 1000 per annum. When it is considered that the population is less than 10,000, that the town is swept by fresh sea breezes, is beautifully situated and has every facility for good sanitation, such a death-rate can scarcely be described as otherwise than preventable. A few elementary measures of hygiene would in all probability reduce the death-rate by one-half.

Not only is there no regular water-supply at Honfleur, but there is also no drainage system. A few sewers exist here and there, but no one knows exactly where they are or how many there may be. There is no plan of the drainage or of

the water-supply; in fact, the question seems to be entirely ignored. In most of the houses there are pails, and there is a contractor who undertakes to empty these pails once a month, if paid 12s. a year. But a very large number of the inhabitants object to pay the 12s. They simply carry their pails downstairs themselves and empty the contents into the port amidst the shipping. The water thus polluted is then used to wash the decks &c. of the ships. Of course the principal sewers also fall into the port, and still further help to corrupt the water in which the ships float while they are loading butter and poultry, fruit and eggs for the British market. There is no law compelling the householders to empty their pails or *tinettes*. They may or may not employ the contractor, just as they think fit; the pails may remain in the house and overflow with filth just as the people choose. The idea of enforcing cleanliness does not seem to have dawned upon the authorities. Even when the contractor does come to remove the contents of the pails or of such cesspools as exist he sometimes employs a tub cart which leaks, and thus befouls the streets through which it passes. In many houses there is neither closet, cesspool nor pail, but everything is simply emptied into the gutter in front of the door. This is often done in broad daylight in the principal streets, and before numbers of people. From the gutter this filth, in the course of time, finds its way to such sewers as exist, and at the sewer mouth mixes with the offal from butchers' shops. These sewer mouths are so badly constructed that they get choked up and occasion vile odours. When, as the result of a storm or some special rush of water, the sewer mouth is cleared, the filth travels slowly down to the port. The pneumatic system of emptying cesspools is not applied, nor is any attempt made to burn the foul gases that escape from the cesspools. By the side of these cesspools—and no serious measures are taken to prevent the cesspools from leaking—may often be found a spring of water. Apart from the public fountains, a great number of persons have springs in their own gardens and drink the water. There are, in fact, springs of water in all directions, every one of them more or less exposed to contamination, and everybody is allowed to drink what water he pleases without any regard to the danger incurred.

The western portion of the town faces a long beach, where an embankment could be easily constructed to hold the tide in check and a fine site could be thus created either for building purposes or for an esplanade and pleasure grounds. At present, however, this beach has been converted into a wilderness covered with the refuse of the town. Here is thrown the "soft core" and the "hard core" from the street sweeping. Here are to be found ankle-deep—sometimes knee-deep—such refuse as bottles, broken crockery, tins, dirty straw, dead animals, shrimp skins, fish bones and offal, cabbage stumps, household refuse of every description, and an enormous amount of apple refuse from which the juice has been extracted to make cider. To keep all this moist, to ensure its active fermentation, all along the remains of what used to be the city sea wall there are large numbers of drains or small sewers pouring forth slop-water, urine and fecal matter. The pure sea breezes that should give health and vigour to the inhabitants of Honfleur pass over this festering mass of decomposing organic matter before they reach the town. It is said that some orders have been issued forbidding the throwing of refuse on this beach. If so, the orders were given out only as a matter of form; they are in no wise observed. I have been the whole length of this beach; every obnoxious article mentioned I have seen; and while I was on the spot some carts with refuse came and unloaded on the beach in my presence.

The first case of cholera occurred on Aug. 27th. A man who had been to Havre was taken ill very suddenly and died as he was being conveyed to the hospital. Dr. Massard, the "doctor for epidemics," being fully aware of the insanitary condition of Honfleur, and fearing that the epidemic would spread very rapidly in such a town, adopted the most rigorous and extreme measures possible. He caused everything belonging to the victim to be at once burnt; his clothes even, and his furniture, were destroyed by fire; then he gave orders that the passenger boat from Havre should be thoroughly disinfected. It was forbidden to bring over fresh vegetables from Havre, and no dirty linen was allowed on shore from the Havre boats. Nevertheless, other cases occurred at Honfleur; eighteen patients were treated for cholera at the hospital and nine died. The deaths were very sudden, accompanied with all the symptoms of Asiatic

cholera, notably what Dr. Massard described as the blue or "toad skin." The patients for the most part came from poor quarters of the town; but there are other quarters of Honfleur, even more poor and more insanitary, where no cases of cholera occurred. Most of the patients were known to be drunkards, yet, much to his surprise, Dr. Massard noticed that when ill they manifested a strong repugnance for the rum that was prescribed. On the other hand, the patients who were not drunkards took the rum given to them without any difficulty. Apart from cholera, typhoid fever is now prevalent at Honfleur, and at all times there has been a great deal of fever of a malarial type, necessitating a large consumption of quinine.

In spite of all these facts it is said that Honfleur is too poor to attempt any sanitary improvements. The timber trade is gradually leaving the town, and many Scandinavian ships now go to Dieppe, Havre and Rouen. One large timber-sawing factory has been closed, and this means a decrease in the municipal receipts of £720 per annum out of a total of £5500. Yet in spite of this the Municipality has recently constructed a huge new dock, which in face of the decreasing trade was quite unnecessary. Had the financial liabilities incurred for this new dock been contracted for purposes of providing a good water-supply and good sewers the town would soon have acquired a better reputation, and this would have materially helped to bring the trade back. At about four miles' distance from the town an ample supply of pure water could be obtained and delivered at Honfleur under pressure. The cost of the works necessary is estimated at £20,000; but the Municipality does not seem to understand the importance of such an undertaking. In spite of the high death-rate an impression prevails that Honfleur is a very healthy place. Notwithstanding the efforts of a few local reformers—notably Dr. Rachet, who is a municipal councillor, and Dr. Massard, who as "doctor of epidemics" represents the central government—nothing will be done unless strong outside pressure is brought to bear. This might be achieved, on the one hand, by the French Minister of the Interior and, on the other hand, by the English shipping companies, who so largely contribute to maintain the trade of the port.

## LEPROSY IN BRITISH GUIANA.

THE experience of Dr. Barnes, as medical superintendent of the public leper asylums of British Guiana, does not lead him to regard leprosy as contagious—at least under ordinary conditions. In the "British Guiana Medical Annual and Hospital Reports," just published, he says:—"At the Public Lunatic Asylum there have been for many years several lepers living in a ward in association with other patients and no spread has occurred. Similarly, at the Trinidad and our own leper asylums no healthy person employed as nurse, doctor, or in any capacity has ever developed the disease. Further, upon taking charge of the leper asylums I found at Gorchum a dozen children, varying in age up to fifteen years, quite free from signs of the disease, although born of diseased parents and living with and as lepers. I may also mention particularly the case of a man employed for twelve years in washing the inmates' clothes at Mahaica. He is still quite healthy. The asylum at Molde, founded over 150 years ago, shows the same state of affairs. No doctor or nurse has ever developed leprosy. Doctors and trained nurses should enjoy perhaps some immunity, as they may be expected to be cleanly in their habits; but this factor scarcely exists among the employes at our own asylum, their ablutions being confined chiefly to a careless rinse with a few ounces of water."

Dr. Barnes is opposed to the compulsory segregation of lepers, thinking that the stamping out of the disease may be expected to be accomplished by the elevation of the people. As regards treatment he does not believe there is any specific; the chief thing is to make the leper take care of himself. If he leads a quiet, steady life, avoids burning or cutting himself, and cleanses any ulcer that may form, resting the hand or foot on which it is, he may look for a comparatively comfortable existence. In some cases of leprous fever, however, Dr. Barnes has seen salicylate of soda act like a charm. In operations on lepers he has found hemorrhage to be slight, contrary to the experience of some other writers. Dr. Beaven Rake's plan of

cutting through perforating ulcers he considers the best treatment for such cases. As to the question of heredity he says: "In spite of the habitual denial of hereditary taint amongst the creoles, I have been told by some of the old inmates of the asylums that almost all the creole inmates have or have had relatives who were leprous. This I intend to work out, as fully as possible, to verify or disprove the assertion. My own experience shows that the more I learn of the family history of the inmates the more hereditary taint is revealed. Amongst the general population of the colony hereditary influence is held with at least as great tenacity as is contagion. I know that it is frequently sufficient to frustrate projected marriages even amongst the educated classes. Of course, the occurrence of the disease amongst several members of a family might arise as well from contagion as from hereditary influence."

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Lanark County.*—Dr. James M'Lintock has submitted to this County Council just such a report as is wanted as the first of a series of annual reports. It takes up under a series of headings all the points which are needed in order to serve as a basis of future action. Whether statistics or physical conditions of the district are concerned; whether the different circumstances as to sewerage, water-supply and disposal of excreta are in question; or whether the more incidental considerations such as hospital accommodation, river pollution, inspection of trades, dairies &c. are involved: all these various matters are dealt with in so far as their bearing on public health is concerned. There is plenty of sanitary work to do in the county, and Dr. M'Lintock is fully conversant with both the existing state of affairs and with the lines on which work should be carried out in the future. His report deserves wide circulation throughout the county.

*Woolwich Urban District.*—This extra-metropolitan district had in 1891 a gross death-rate of 22.4 per 1000 and a zymotic rate of 2.8 per 1000, the latter rate being mainly the result of deaths from whooping-cough, measles and diarrhoea. In this connexion Dr. W. R. Smith urges that measles should be added to the list of notifiable diseases and that he should thus have an additional means of taking steps to prevent the attendance at elementary schools of children coming from houses in which that disease exists. He at the same time points out that the notification of erysipelas is without apparent benefit. No less than some 5000 cases of this affection were notified in London last year, and the Local Government Board hold that it is of such concern to lying-in women, to vaccinated infants and to persons requiring surgical operations that they cannot take steps to remove it from the Notification Act. House-to-house inspection is progressing in Woolwich, and some action is being taken as regards the housing of the working classes. But Dr. Smith states that the condition of the houses in Woolwich is one that causes him considerable and continuing anxiety, more particularly in view of the mortality returns from phthisis and allied disorders.

*Blackpool Urban District.*—Dr. A. J. Anderson gives the corrected death-rate for 1891 as 18.2 per 1000, and he at the same time points out that owing to the sudden influx of visitors of all classes the population, on which the rates are calculated, run risks quite in excess of that commonly attaching to places of a like number of inhabitants. The infant mortality remains very high—namely, 181.9 per 1000 births, although there was no summer diarrhoea due to excess of temperature. The heavy rate of deaths amongst infants is largely set down to neglect amongst mothers, who have to look after visitors rather than care for and suckle their babies. After discussing the working of the system of compulsory notification, Dr. Anderson reports on the opening of the new isolation hospital on July 7th. The old sanatorium received 11 patients in the first six months of the year; the new one received 51 in the second half of the year. The increase since July may have more than one explanation, but it is noteworthy in connexion with the provision of a proper instead of a very unsatisfactory hospital. House-to-house inspection has now been maintained for four

years, and much good has resulted. Details of the work are given, and it is clear that the accumulated results must be beneficial to the town and increase its prosperity.

*St. Helens Urban District.*—The annual rate of mortality was, last year, above the average, and this was mainly due to influenza; but the excess of deaths maintained in St. Helens and the failure to secure a more substantial abatement in its average are remarkable. Mr. M'Nicoll gives the rate for 1892 as 25.4 per 1000. Infant death is great in amount, and the mean zymotic rate is high. The latter is due to ignorance and carelessness, and to the breeding grounds of disease which are maintained in the borough by reason of its deep and filthy middenstends. The various causes of disease are discussed at some length, and then a description is given of the sanitary work of the year. Some really important work has been carried out, notably the construction of a new intercepting sewer; houses unfit for habitation have in some cases been dealt with, and a decision has been come to not to take a retrograde step which would involve relapse as regards refuse removal, merely on the score of expense. During the year eighty-nine patients were admitted into the isolation hospital, the largest number of admissions being cases of enteric fever. It is satisfactory to note that an assistant medical officer of health has been appointed, the holder of the new office being Dr. John Robertson of Edinburgh; and Mr. M'Nicoll testifies that his labours are already telling forcibly on the sanitary organisation of the town.

*Wem Rural District.*—Mr. Cecil A. Corke gives an account of the measures adopted in face of an epidemic of measles. He found that the mere exclusion of scholars from infected houses served no sufficient purpose, but when school-closure was resorted to the prevalence became controlled. The authorities of Sunday and other voluntary schools consented to act in concert with the elementary schools as to closing; but Mr. Corke considers that the power to close such schools should go hand in hand with that exercisable over the public elementary schools. The death-rate during the year was 16.9 per thousand; a new cemetery site has been decided on; care has been bestowed on water supplies, and nuisance inspection has been maintained. But the district needs some means of hospital isolation and the compulsory notification of infectious diseases ought to be adopted.

*Teignmouth Urban District.*—Dr. Cecil Piggott, after discussing the meteorology of 1891, explains that the corrected death-rate for the year was 17.7 per 1000 and that the zymotic rate was very low. The causes of death are considered in the report, and the subject of the etiology of influenza is entered into in some detail. The local medical profession have strongly pressed on the authority the need for an isolation hospital, and this attitude receives Dr. Piggott's support. Indeed, a place like Teignmouth, professing to be a health resort, has a duty in respect to the isolation of first cases of infectious diseases quite in excess of that of other sanitary districts which make no such profession. Evidently excellent work by way of systematic inspection is in progress, house drains seem to be effectually tested and remedies are applied where needed. The water-supply ought to be a constant one and surface wells need to be abolished. On the whole, the report tells of good work well sustained throughout the year.

*Isle of Wight Rural District.*—Dr. Joseph Groves once more gives a very complete report on the greater part of this island, a district to which many look with interest. Last year the general death-rate was 16.5 and the zymotic rate was 1.6 per 1000. In dealing with the infectious diseases each parish is separately considered, and credit is given to the notification system for supplying valuable information. No means of isolation have been provided, but since the issue of the report some preliminary measures have been taken which may result in action as to this important matter. By-laws and questions of scavenging have been considered at length, but decided action is still awaited. There is also need of a better provision of water, the more especially because in some well-known localities which are frequented by visitors shallow and polluted wells exist, and ill-kept rainwater is still resorted to. This subject is dealt with at considerable length by Dr. Groves, and the sanitary authority can certainly not complain that they have not received full information as to the places where action is needed. Much the same may be said as to defects of sewers and drainage. Indeed, we are forcibly struck with the fact that whilst detailed information has again and again been supplied to this authority as to the lines on which effective sanitary administration should proceed, so little is done to remedy defects that ought to be obvious to all. Difficulties must be admitted to exist,

especially as to water-supply; but the account of the sanitary state of the contributory places of this otherwise attractive rural area is by no means pleasant reading; and it ought to call forth much more energy than has yet been apparent on the part of the authority.

*Bradford Urban District.*—The vital statistics of this important borough are discussed at some length by Dr. Arnold Evans, who records the general death rate for 1891 as 22·0 and the zymotic rate as 2·3 per 1000 living, whilst the infant mortality was at the rate of 181 per 1000 registered births. Whooping-cough, scarlet fever, and diarrhoea were the largest contributors to the zymotic death-rate. Of scarlet fever 1163 cases were notified, this being a larger number than in any year since 1887. Of the 1163 cases, 780 or 67 per cent. were isolated in hospital. Of typhoid fever 157 cases were notified, a number which has remained fairly constant for some years past. But it is clear that notification is utilised to get rid of the conditions with which this disease is commonly associated, and hence diminution may ultimately be expected. The fatal attacks of this disease during the year were under the average. Perhaps one of the most interesting parts of the report is a description of a hospital for small-pox, in which all outgoing air passes through a furnace. Dr. Barry, of the Local Government Board, has visited the institution, and has made experiments as to the germ-destroying properties which it is said to ensure. An official report on this inquiry may be expected, and we trust that it will not be delayed since the matter is one of great importance to sanitary authorities generally. There is much in Dr. Evans's report that we must pass over. But we cannot conclude without saying that in style, matter, and utility it is an excellent document.

#### VITAL STATISTICS.

##### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6005 births and 3680 deaths were registered during the week ending Dec. 3rd. The annual rate of mortality in these towns, which had been 18·6 and 18·9 per 1000 in the preceding two weeks, declined again to 18·8 last week. In London the rate was 17·7 per 1000, while it averaged 19·6 in the thirty-two provincial towns. The lowest rates in these towns were 10·3 in Birkenhead, 13·0 in Halifax, 14·0 in Huddersfield and 15·2 in Bradford; the highest rates were 25·1 in Brighton, 25·7 in Salford, 27·5 in Hull and 28·7 in Bolton. The 3680 deaths included 429 which were referred to the principal zymotic diseases, against 392 and 424 in the preceding two weeks; of these, 150 resulted from measles, 70 from scarlet fever, 60 from diphtheria, 56 from whooping-cough, 45 from "fever" (principally enteric), 44 from diarrhoea and 4 from small-pox. No fatal case of any of these diseases occurred last week in Wolverhampton or in Derby; in the other towns they caused the lowest death-rates in Oldham, Huddersfield and Halifax, and the highest rates in Manchester, Bolton, Brighton and Salford. The greatest mortality from measles occurred in Manchester, Cardiff, Bolton, Croydon, Salford, Hull and Brighton; from scarlet fever in Salford, Cardiff, Sunderland, Bolton and Plymouth; from whooping-cough in Norwich, Manchester, Salford, Birmingham and Bolton; from "fever" in Swansea; and from diarrhoea in Plymouth and Burnley. The 60 deaths from diphtheria included 39 in London, 6 in Manchester, 2 in West Ham, 2 in Salford and 2 in Sheffield. Two fatal cases of small-pox were registered in London, one in Liverpool and one in Sheffield, but not one in any other of the thirty-three large towns; 19 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and one in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3882, against 4063, 4045 and 3945 on the preceding three Saturdays; 302 new cases were admitted during the week, against 404 and 303 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 340 and 353 in the preceding two weeks, declined again to 343 last week, and were 92 below the corrected average. The causes of 67, or 1·8 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth,

Bristol, Bolton, Oldham, Sunderland, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Liverpool, Salford, and Huddersfield.

##### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding three weeks from 20·6 to 23·7 per 1000, further rose to 24·2 during the week ending Dec. 3rd, and exceeded by 5·4 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·3 in Paisley and 17·1 in Dundee to 27·7 in Aberdeen and in Edinburgh, and 58·7 in Leith. The 673 deaths in these towns included 112 which were referred to measles, 16 to scarlet fever, 12 to whooping-cough, 9 to diarrhoea, 7 to "fever," 2 to diphtheria, and not one to small-pox. In all, 158 deaths resulted from these principal zymotic diseases, against 127 and 162 in the preceding two weeks. These 158 deaths were equal to an annual rate of 5·7 per 1000, which exceeded by 3·5 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased from 61 to 104 in the preceding three weeks, further rose to 112 last week, of which 39 occurred in Leith, 36 in Edinburgh, 18 in Aberdeen, and 16 in Glasgow. The deaths referred to scarlet fever, which had risen from 13 to 28 in the preceding four weeks, declined again last week to 16, and included 6 in Glasgow, 3 in Leith, and 3 in Greenock. The 12 fatal cases of whooping-cough showed a further increase upon recent weekly numbers, and included 11 in Glasgow. The deaths referred to different forms of "fever," which had been 11 and 4 in the preceding two weeks, rose again to 7 last week, of which 3 occurred in Leith and 2 in Dundee. The deaths from diseases of the respiratory organs, which had been 137 and 141 in the preceding two weeks, declined to 134 last week, and was 197 below the number in the corresponding week of last year, when influenza was prevalent. The causes of 86, or nearly 13 per cent., of the deaths in the eight towns last week were not certified.

##### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·9 and 22·8 per 1000 in the preceding two weeks, rose again to 23·3 during the week ending Dec. 3rd. During the past nine weeks of the current quarter the death-rate in the city averaged 23·1 per 1000, the rate for the same period being 17·8 in London and 22·6 in Edinburgh. The 156 deaths in Dublin during the week under notice exceeded by 3 the number in the preceding week, and included 6 which were referred to "fever," 2 to diarrhoea, one to scarlet fever, and not one either to small-pox, measles, diphtheria, or whooping-cough. In all, 9 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·3 per 1000, the zymotic death-rate during the same period being 1·7 in London and 7·9 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 4 in the preceding two weeks, further rose to 6 last week. The 2 fatal cases of diarrhoea corresponded with the number in the preceding week. The death from scarlet fever was the first fatal case of this disease recorded during the past four weeks. The 156 deaths registered in Dublin last week included 44 of infants under one year of age and 33 of persons aged upwards of sixty years; the deaths of infants considerably exceeded those recorded in any recent week, while those of elderly persons showed a marked decline. Four inquest cases and 4 deaths from violence were registered; and 45, or more than a fourth, of the deaths occurred in public institutions. The causes of 30, or nearly 25 per cent., of the deaths in the city last week were not certified.

#### THE SERVICES.

##### MOVEMENTS OF MEDICAL STAFF.

SURGEON-COLONEL CHURCHILL has arrived from India and assumed Administrative Charge of Woolwich. Brigade-Surgeon-Lieutenant-Colonel Evatt has been posted to Woolwich for duty. Brigade-Surgeon-Lieutenant-Colonel McWalters and Surgeon-Captain Miles have arrived from India in the *Malabar* on completion of their tour of service. Surgeon-Lieutenant-Colonel Gabbett has taken over Charge

of the Women and Children's Hospital at Colchester. Surgeon-Captains Reilly and McDowell have embarked in the *Euphrates* for service in India. Surgeon-Captain O'Brien has been transferred to Armagh and Surgeon-Major Smythe to Cahir.

#### ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel Poole Robert Gabbett, from the Seconded List, to be Surgeon-Lieutenant-Colonel (dated Nov. 28th, 1892).

#### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Chas. Elliott Leopold Barton Hudson, Middlesex Yeomanry (Duke of Cambridge's Hussars), to be Surgeon-Lieutenant (dated Dec. 7th, 1892).

#### INDIAN MEDICAL SERVICE.

The undermentioned Medical Officers of the Indian Medical Service have been posted to General duty, Poona district:—Surgeon-Lieutenants F. E. Swinton, S. H. Burnett, and T. Jackson. The following appointments have been made:—23rd (2nd Battalion Rifle Regiment) Bombay Infantry, Surgeon-Lieutenant W. C. Sprague, to officiate in Medical Charge, vice Surgeon-Captain Wm. Jennings, transferred to the Civil Department for temporary employment. The services of Surgeon-Captain C. H. L. Palk, I.M.S., have been placed temporarily at the disposal of the Government of India. The services of Surgeon-Colonel J. Richardson, M.B., Officiating Surgeon-General and Sanitary Commissioner with the Government of India, have been placed at the disposal of the Government of the New Provinces and Oudh. Surgeon-Colonel J. G. Pilcher, Officiating Inspector-General of Civil Hospitals, North-West Provinces and Oudh, has been appointed to officiate as Inspector of Civil Hospitals, Bengal. The services of Surgeon-Captain W. Vost, M.B., I.M.S., Bengal, have been placed at the disposal of the P. W. Department, and the services of Surgeon-Captain P. W. O'Gorman, I.M.S., Bengal, have been placed temporarily at the disposal of the Government of Bengal. The services of temporary Uncovenanted Medical Officer H. A. McLeod have been placed at the disposal of the Chief Commissioner of Assam. The following appointments of the Army Medical Staff are announced:—Brigade-Surgeon-Lieutenant-Colonel R. P. Ferguson, Army Medical Staff, has been appointed to the Administrative Medical Staff of the Bengal Command, to be Principal Medical Officer, Allahabad District, vice Surgeon-Colonel F. W. Wade, transferred to the Home Establishment. Surgeon-Colonel C. H. Y. Godwin, having been appointed to the Administrative Medical Staff of the Bengal Command, to be Principal Medical Officer, Rawalpindi District, vice Surgeon-Colonel A. Allan, deceased. Brigade-Surgeon-Lieutenant-Colonel F. B. Scott, M.D., C.M.G., having been appointed—in anticipation of promotion—to the Administrative Medical Staff of the Bengal Command, to be Principal Medical Officer, Quetta District, vice Surgeon-Colonel W. Graves, transferred. Under instructions from the Horse Guards, Surgeon-Colonel F. W. Wade, Brigade-Surgeon-Lieutenant-Colonel A. F. Churchill, M.B., and Surgeon-Captain T. Rudd, M.D., have been directed to proceed to England in anticipation of promotion.

#### NAVAL MEDICAL SERVICE.

The following appointments have been made:—Fleet Surgeons: W. Graham to the Pembroke Dockyard and J. L. Sweetnam to the *Inflectible*; Staff Surgeons Horace X. Browne to the *Phabe* and Thomas M. Sibbald to the *Catypso*; Surgeon H. W. G. Green to the *Bellerophon*.

#### THE VOLUNTEER OFFICERS' DECORATION.

This decoration has been further conferred upon the undermentioned officers:—*Western District*: 1st Devonshire (Western Division, Royal Artillery), Surgeon-Lieutenant-Colonel John Steele Perkins and Veterinary Lieutenant James Heath; 1st Glamorganshire, Surgeon-Lieutenant-Colonel Charles Pegge; 1st Gloucestershire, Surgeon-Lieutenant-Colonel Francis P. Lansdowne; 2nd (Prince of Wales's) Volunteer Battalion, the Devonshire Regiment, Surgeon-Major (ranking as Lieutenant-Colonel) John Henry S. May, retired; 4th Volunteer Battalion, the Devonshire Regiment, Surgeon-Lieutenant-Colonel Joseph Harper; 2nd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry), Surgeon-Lieutenant-Colonel Edward Liddon, M.D.; 3rd Volunteer Battalion, Surgeon-Lieutenant-Colonel Wm. Harford Glover Phelps, M.D., and Surgeon and Honorary Surgeon-Major Henry William Livett, retired; 1st (Brecknockshire) Volunteer Battalion, the South Wales Borderers, Surgeon and Honorary Surgeon-Major

Jas. Williams, retired; 1st (City of Bristol) Volunteer Battalion, the Gloucester Regiment, Surgeon-Major (ranking as Lieutenant-Colonel) George M. Stansfeld, retired; 1st Volunteer Battalion, the Duke of Cornwall's Light Infantry, Surgeon-Captain (Honorary Surgeon-Major) Richard Charles Mason Pooley; 1st (Pembrokeshire) Volunteer Battalion, the Welsh Regiment, Surgeon-Major George Griffith and Surgeon-Lieutenant-Colonel Edward P. Phillips, retired; 3rd Glamorgan, Lieutenant-Colonel James Griffith Hall.—*Home District*: 2nd Middlesex, Surgeon-Lieutenant-Colonel John Wickham Barnes and Surgeon-Lieutenant-Colonel Thos. Thyne, M.D. 3rd Middlesex, Surgeon-Major John Cook, M.D.—*Royal Engineers*: 1st London, Surgeon-Lieutenant Richd. Buswell; 1st Middlesex, Surgeon-Lieutenant-Colonel Matthew Baines, M.D.; 1st Surrey (South London), Surgeon-Captain Charles Swaby Smith; 2nd Volunteer Battalion, the Oxfordshire Light Infantry, Surgeon and Honorary Surgeon-Major Edwd. Law Hussey, retired; 1st Bucks, Brigade Surgeon-Lieutenant-Colonel William James Shone; 1st Volunteer Battalion, Princess Charlotte of Wales's (Royal Berkshire Regiment), Surgeon and Honorary Surgeon-Major James Ellison, M.D., retired; 2nd Volunteer Battalion, the Duke of Cambridge's Own (Middlesex Regiment), Surgeon and Honorary Surgeon-Major John Prince, retired; 1st Middlesex (Victoria and St. George's), Surgeon and Surgeon-Major (ranking as Lieutenant-Colonel) William Geo. Shepherd, M.D., retired; 4th Middlesex, Brigade-Surgeon-Lieutenant-Colonel Andw. Clark; 12th Middlesex (Civil Service), Surgeon and Honorary Surgeon-Major Henry Spencer Smith, retired; 13th Middlesex (Queen's Westminster), Surgeon and Honorary Surgeon-Major Robert Cross, retired; 3rd London, Surgeon and Honorary Surgeon-Major Charles Hy. Bennett, M.D., retired; 14th Middlesex (Inns of Court), Surgeon and Honorary Surgeon-Major Alfred Cooper, retired; 15th Middlesex (the Customs and Docks), Surgeon-Lieutenant-Colonel Frederick William Humphreys, Surgeon-Lieutenant-Colonel Robert Gordon Tatham and Surgeon-Major (ranking as Lieutenant-Colonel) Walter Dickson, M.D., retired; 19th Middlesex (St. Giles's and St. George's, Bloomsbury), Surgeon-Lieutenant-Colonel Henry Reynolds Myers and Acting Surgeon William Gill, retired.—*Volunteer Medical Staff Corps* (London Companies): Surgeon-Lieutenant-Colonel Commandant Arthur Treherm Norton, Surgeon-Lieutenant-Colonel William Henry Platt and Surgeon-Captain (Honorary Surgeon-Major) John Adam Watson.

#### RETIREMENTS IN THE MEDICAL STAFF.

There has not been a very active run of promotion of late in the army medical staff, and it is perfectly natural that any measures likely to retard it should be unpopular and that the Army List ought to be often scanned, especially towards the close of the year, to see what the prospects are in this respect. In the ensuing year there will be five retirements on account of age in the administrative ranks of the medical staff.

#### SOLDIERS AND TOBACCO.

Sir Evelyn Wood says, in a recent report on the Aldershot manoeuvres, that there was less smoking in the ranks on the line of march than in the previous year, with the resulting advantage that fewer men fell out. He appears to be in favour of regulating the quality as well as the quantity of tobacco smoked by the soldier. By far the larger number of soldiers in all armies smoke. During the Franco-German war one of the first things the German soldiers sought was tobacco. The loss of his pipe is keenly felt as a real deprivation by the military and civilian smoker alike, and there is no gift more valued by the inmate of a work-house or a lunatic asylum than tobacco. Without entering into the *pros* and *cons* of the tobacco controversy it cannot be doubted that the immoderate use of the strong kind of tobacco which soldiers affect is often very injurious to them, especially to very young soldiers. It renders them nervous and shaky, gives rise to palpitation, and is a factor in the production of the irritable or so-called "trotting heart," and tends to impair the appetite and digestion. It would be a great point gained if soldiers could be induced to smoke some of the milder kinds of tobacco, and we do not see why these should not be sold in canteens. The soldier unfortunately prefers the strongest, because it is cheaper, inasmuch as a small quantity produces an effect that would only result from the consumption of a much larger quantity of any of the milder kinds. On active service it would be a good plan for the Government to supply the soldier with tobacco of the latter sort either as a free issue or at a trifling charge.

## THE SOLDIERS' MESSING.

We are very glad to hear that means have been taken for spreading a practical knowledge of the new method of military cooking among the regiments and depôts quartered at various stations by sending the superintendent of the Army School of Cooking at Aldershot to inspect their cook-houses and appliances and to afford practical instruction in the Aldershot system, which is said to have given such general satisfaction at that camp.

## SICKNESS AMONG THE TROOPS IN NORTHERN INDIA.

We have already alluded to the prevalence of sickness among the troops at Peshawar and to the removal of one regiment, the Royal Welsh Fusiliers, to Nowshera, about twenty-eight miles distant. Cherat, the nearest hill station to Peshawar, is also occupied by half a regiment from that garrison. At this season and during the autumn months Peshawar is frequently—we may say usually—unhealthy from the prevalence of a bad form of malarious fever. Removal from the Peshawar valley is often the only reliable remedy; quinine and other drugs are of little or no avail as long as the affected men remain in the district. The Northumberland Fusiliers relieves the Royal Welsh Fusiliers at Peshawar, and the Royal Scots Fusiliers will be railed from that station to join the camp of exercise at Rawal Pindi.

## ROYAL VICTORIA HOSPITAL, NETLEY.

Lord Sandhurst, Under Secretary of State for War, accompanied by his private secretary, visited the Royal Victoria Hospital last week, and went over the buildings and grounds with the principal medical officer of the district.

## THE WOUNDS CAUSED BY SMALL-BORE BULLETS.

Our service contemporary, the *Army and Navy Gazette* of last week, published a communication from Veterinary-Captain Smith, the late professor of the Army Veterinary School, detailing the results of further experiments with the Lee-Metford bullet on the bones of the horse at ranges fixed at every hundred yards—from 100 to 1000 yards. These results are apparently mainly determined by differences in the strength and resistant powers of the substance and structural arrangement of the bone at the part struck. From 50 to 200 yards the effect is pulverising and destructive; but from 300 to 1000 yards the effect is different, according to the part of the bone hit—that is to say, whether it be the dense resistant substance of the shaft or the cancellous spongy structure of the ends of the bone. In the former case, the shaft of the bone is shattered and fissured in all directions with much loss of substance, and it makes but little difference as regards the destructive effect whether the bullet be fired at 50 or 1000 yards. In the latter case, the bullet may only give rise to a hole in the spongy cancellous structure of the extremities of the bone struck, which is sometimes perfectly clean, but frequently fissured, the fissures extending or not into the joint. If the extremity of the bone, as in the case of some of the bones of the extremities of a horse, consists more of compact than spongy structure, then the pulverising effect is produced and no clean hole is made.

## THE REMOVAL OF ST. GEORGE'S BARRACKS.

According to a contemporary St. George's Barracks, Trafalgar-square, are to disappear, and the Guards from these barracks are to have new quarters built for them at Millbank. We presume that the building now appropriated for recruiting purposes at St. George's Barracks and approached from the back of the square, will also disappear, and it is quite time that it did so, for the very inferior accommodation afforded for recruiting is not by any means of a creditable character. It seems to us that smart, airy and clean-looking rooms or offices, of a more attractive kind than the old buildings, are required for this purpose, and they should be in prominent positions and not hidden away in a sort of cul-de-sac or at the end of a back street.

## ROYAL MILITARY COLLEGE EXAMINATION.

The candidates for the competitive examination for Sandhurst have been exceptionally numerous on this occasion and gave full occupation to the medical officers responsible for their preliminary physical examination. The candidates are stated to have numbered about 800 altogether, and as the cadetships to be competed for only amount to about 120, the competition will be severe.

## PRACTICAL HINTS FOR LADY TRAVELLERS TO INDIA.

We have received copy of a small pamphlet published by

Mr. Stanford of Cockspur-street, on "How to Pack, How to Dress, and How to Keep Well on a Winter Tour in India." Its author is the Hon. Mrs. Neville Lyttleton, and it sets forth various details in these directions which are likely to prove useful to ladies embarking for India. Its price is one shilling, and if the information contains nothing particularly new, it is of a ready practical kind and supplies hints and suggestions in regard to various points that might otherwise fail to be remembered.

## Correspondence.

"Audi alteram partem."

## "ABDOMINAL SECTION IN CERTAIN CASES OF PELVIC PERITONITIS."

To the Editors of THE LANCET.

SIRS,—Although present at the adjourned discussion at the Obstetrical Society on Dr. Cullingworth's paper I was not prepared then to express an opinion on the many issues raised, but trust that the importance of the matters in dispute may be a sufficient excuse for trespassing on your valuable space in the form of a letter. Personally I think the title of the paper was unfortunate, grouping as it did several classes of pelvic disease, which, whether diagnosed before or after operation, ought to have been classified under their distinctive headings. Had Dr. Cullingworth instead confined his paper to the frequent connexion which exists between inflammatory disease of the uterine appendages and pelvic peritonitis, giving at the same time his views as to the value of abdominal section in those cases alone, a less discursive but much more valuable discussion would have been the result. At the present moment the treatment of the above class of diseases may with fairness be called the burning question of the day in gynecological circles; and the reduction to plain well-defined lines of their therapeutics would be conferring a real benefit upon the profession at large. Some of the speakers seemed to look upon appendageal disease as a comparatively trifling malady, and one which usually occasional rest, assisted by nature, would cure.

No doubt a large number of these cases do get well under non-operative treatment, but not such as those described in Dr. Cullingworth's paper, where the evidences of disease were unmistakable and the lives of the patients imperilled by the recurrent attacks of pelvic peritonitis. It is the so-styled conservative treatment of such cases which is directly responsible for incomplete operations and great mortality. Anyone who has had much experience of this kind of operative work must have been compelled at times to stay his hand by reason of the extent and intimacy of visceral adhesions; and yet, in the face of this, which is common experience, we are asked to believe that abdominal section is indicated rarely only as a *dernier ressort*. That these neglected cases kill is indisputable, although frequently the death certificate is differently worded. They are fertile producers of intestinal obstruction, of septicæmia and general peritonitis, and, short of these, are responsible for more invalidism in women than probably any other form of disease. Much in the course of the debate was made of Dr. Cullingworth's mortality, and Dr. Williams went so far as to say that the death-rate of the series—viz., 18 per cent.—was not higher than that throughout the country in this class of case, with a few exceptions. If so, it would be deterrent, but it is far from the truth, as was abundantly proved by Dr. Cullingworth himself when speaking of his latest cases and others. Out of my last fifty cases I have lost two patients; although in no case has an operation been done without a clear history of recurrent inflammation, objective signs of appendageal disease and, unless in cases urgently demanding operative relief, treatment for a sufficient period by rest. This seems to me the truly conservative treatment and that which is in accordance with the teachings of modern surgery, and Dr. Cullingworth is to be congratulated in having the courage to express so unequivocally his opinions.

I am, Sirs, yours faithfully,

Nottingham, Nov. 6th, 1892.

GEORGE ELDER, M.D. Glas.

## "DEATHS UNDER CHLOROFORM."

To the Editors of THE LANCET.

SIRS,—Having had the advantage of being a pupil of the late Sir James Syme in the Edinburgh Royal Infirmary, and having administered chloroform to some of his operation cases, I may perhaps be allowed to sound a forgotten or neglected note in the admirable rules for chloroformisation which he always laid down, and to which I have always strictly adhered, without ever meeting with a fatal though sometimes with an alarming case in thirty years' practice. The particular detail in the mode of administration to which I refer, and on which Sir James Syme was very emphatic, is that it should never be given on lint, and especially on folded lint. Now, it is a significant fact that amongst recent cases reported in THE LANCET of "deaths under chloroform," in at least two of them the chloroform was administered on folded lint. No further comment is needed.

I am, Sirs, your obedient servant,

WM. ROBINSON HILL, M.D. Edin.

Lymington, Hants, Dec. 5th, 1892.

To the Editors of THE LANCET.

SIRS,—Under the above heading in THE LANCET of Dec. 3rd you publish two letters, the second of which expresses Dr. Van Someren's classification of deaths under the use of chloroform. Curiously enough, the first letter by Dr. Rowland supplies details of a fatal case, showing that the accompanying circumstances were such as Dr. Van Someren advocates; the open method was adopted, and the heart was to all appearance healthy. From Dr. Rowland's account I conclude that death was due to one of two causes: either the reflexes were not abolished, and thus, although the patient was doubtless insensitive to pain, yet the effect of the skin incision was to arrest the heart through reflex irritation of the pneumogastric, the heart's action being already probably embarrassed by the upward pressure of the ascitic fluid; or the patient actually received a poisonous dose of the drug, and its lethal effect on the medulla resulted. That deaths occur with painful regularity under chloroform is apparent, notwithstanding recently expressed opinions of its perfect safety if the respiration solely be attended to. Every anaesthetist is aware that there are certain cases in which it is impossible to administer ether with due regard to the safety of the patient; but that there are numberless instances of chloroformisation in which ether, an undoubtedly generally safer anaesthetic, might have been used is equally true. With the present method of giving gas to start with ether is robbed of many of its defects; and I am of opinion that the annual death roll from anaesthetics would be materially diminished were ether, instead of chloroform, more frequently made use of.

I remain, Sirs, yours obediently,

Old Burlington-street, Dec. 2nd, 1892. PERCY EDGELOW.

## "DEATH AFTER VACCINATION."

To the Editors of THE LANCET.

SIRS,—*Appropos* of an annotation which appeared in THE LANCET of last week under the above title, will you allow me space to make a few comments? If the beneficent results of vaccination are to be obtained with the fewest mishaps, surely some further steps should be taken by the authorities to render such lamentable accidents as far as may be impossible. It is important to recognise that, however admirably vaccination may be performed in respect to selection of the lymph and technique of the operation, in a certain proportion of cases in the first eight days or so more or less unusually severe local inflammatory effects will occur, and "rashes" evolve—e.g., various phases of erythema multiforme and urticaria. Such complications, however, are usually manageable, transient and benign, and of no great importance, though naturally distasteful or alarming to the parents. It is after the vaccination has been pronounced successful and the child dismissed, no doubt with admirable advice and instructions for protecting and healing the sores, that real danger is to be apprehended from various infections. There is a certain proportion of mothers to whom it is nearly or quite useless to give instructions. The only safe course to prevent the occasional disastrous ill effects is to keep the children under observation until the sores have healed up under the

influence of proper treatment. Surely it is contrary to all modern teaching that children should be allowed to go about for weeks and even months with open sores, exposed to all sorts of possibilities of infection. A very simple trouble, and one which most commonly brings discredit on vaccination, is the auto-inoculation of pus producing the affection known as impetigo contagiosa. Formerly, I believe, it was the custom to see the vaccinated children later than the eighth day, and I strongly advocate that the vaccination should not be considered completed until the sores have satisfactorily healed.—I am, Sirs, yours faithfully,

T. COLCOTT FOX, M.B. Lond.

Harley-street, W., Dec. 6th, 1892.

## "THYMOL AS AN ANTHELMINTIC REMEDY."

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to confirm the general results of Dr. Sonsino in his communication under the above heading in THE LANCET of Nov. 19th, 1892? For about two years I have used thymol as the one efficient remedy for expelling anchylostoma from more than two hundred patients. Unlike other vermifuges it seems to have a special action upon this worm, but I have always found that it was necessary to administer the drug two, three or more times. My usual habit is to give it once a week until upon two occasions no worms have been found in the stools after its administration. During the intervals the patient is dosed with iron to try to counteract his great anaemia. I originally gave ninety grains of thymol in six wafers within six hours, but I have now reduced the amount to sixty grains in two doses, accompanied by brandy. Even with this modified quantity anemic patients are seriously collapsed for about four hours, the temperature falls about two degrees Fahrenheit, and the pulse and respirations become correspondingly less frequent. I only mention this to show that thymol must not be given in large doses without great care. Like Dr. Sonsino, I find that any coexisting ascarides or oxyurides are brought away by thymol, though not more satisfactorily than by the usual santonine and enemata. So far thymol has not yielded good results on the few taenia mediocanellata patients on whom I have tried it. It seems irrational to suppose that it could have any beneficial action on blood worms, such as filaria hominis. I have tried it, however, on several chronic cases of distoma haematobium, without any effect. To these I gave it in doses of four grains three times a day for several weeks.

I am, Sirs, yours faithfully,

Cairo, Nov. 26th, 1892.

F. M. SANDWICH, M.D.

## "COMPOUND FRACTURE OF THE INFERIOR MAXILLA TREATED BY WIRE SUTURE."

To the Editors of THE LANCET.

SIRS,—In justice to the late Mr. Hugh Owen Thomas of Liverpool, perhaps you will allow me to draw attention to the fact that about twenty years ago, in your columns, he described his method of treating compound fracture of the inferior maxilla by wire suture. In your last week's issue Mr. Carter of Leeds describes, as if original, a procedure almost identical even to detail with that of Mr. Thomas. The Thomas method has been described in some of the standard Surgeries, and two editions of the *brochure* descriptive of the operation have been published, the last by Mr. H. K. Lewis in 1881. I have performed the little operation in quite a large number of cases, and the ingenious way in which Mr. Thomas has shown us how to twist the ends of the wire may save Mr. Carter, as it has saved me, from the necessity of the guttapercha splint.

I am, Sirs, yours faithfully,

Liverpool, Dec. 6th, 1892.

ROBERT JONES.

## THE CONDITION OF THE COMPETITORS' FEET AFTER THE LONG DISTANCE MARCH.

To the Editors of THE LANCET.

SIRS,—As considerable interest has very naturally been taken in the great marching competition held at Kingston in November I shall be glad if you will allow me to present to

your readers a few facts which have come under my own personal observation with reference to the condition of the men's feet after the march. By the courtesy of the officers on duty at the barracks I was allowed to see all the competitors who were present at the time when I arrived. Unfortunately I was unable to reach Kingston on Sunday, Nov. 6th, before the afternoon and by that time most of the competitors who had completed the distance had left. I wish to express my best thanks for the permission to see the cases which was so readily granted.

The greatest sufferer in his feet, mainly from ill-fitting boots, was a sergeant of volunteers. His feet were red, swollen, painful and blistered. The largest blister was situated between the ball of the great toe and the arch of the foot. It corresponded exactly in position with, and was obviously caused by, the projecting edge of the lining of the sole of the boot. The lining leather was altogether too hard. When the finger was pushed against the projecting edge the "upper," which was saturated and softened owing to the dirty state of the roads, receded and left the finger resting upon this sharp chisel-shaped unyielding ridge; so sharp was this, that it caused pain in the finger-tip when the latter was pressed firmly upon or drawn along it. There was also a blister on the little toe just on the classical position for a corn, due mainly to the fact that the boot had been built on a badly-shaped last. On the back of the heels were sores, and rather deep ones, due to friction against the seam which corresponded in position to the top of the stiffening. The shape of the heel of the boot was moreover such as to allow too much up and down movement of the foot with each step.

It was an agreeable surprise to go from this bad case and find the line men, who came in second in the competition, without exception in a far better condition. After an examination of each foot of each man in the team there was really little on the whole worth noting. One man—and he only on one foot, the right—had a blood blister the size of a shilling on the inner and upper aspect of the ball of the great toe. This was caused most probably by friction against the end of a deep and stiff wrinkle which ran across the boot. Two men had tender callosities in the soles of their feet. A few of the men had little blisters at the tips of some of their smaller toes. One complained of aching ankles and a pain in the arch of his foot, due chiefly, no doubt, to the fact that he suffered in a slight degree from flat foot. Some of the men showed no traces of suffering in their feet.

It is not my intention now to criticise in detail the regulation boot which this team wore, but merely to mention a few decidedly good points which it possesses, and which give it superiority over the commoner boots in the market, and especially over the bad pair which the volunteer referred to wore. 1. The general form of the sole is good, being true to the normal outline of the foot, not kidney-shaped, as so many inferior boots are made nowadays, owing to the employment of badly shaped lasts. 2. The lining is soft, smooth, and remarkably free from anything like a projecting seam. 3. The method of lacing is one of the best. 4. The shape of the heel of the upper part of the boot, made as it is to the natural form of the heel of the foot, is one of the best features. The cut of this heel is peculiar, and peculiarly good, one would imagine, as it must greatly prevent up-and-down friction, which is such a fruitful cause of ulcers and lesser troubles at the back of the heel.

It would be going beyond my present purpose to refer to other points which would more properly form part of a treatise on boots in general. My reason for desiring to see the competitors' feet and boots after a severe test such as this notable march was that I had made boots a hobby. At one time I suffered rather severely myself from corns brought on by London boots and pavements, and I soon realised how much larger a proportion of the public suffered in the same way than I had previously supposed to be the case. Considering the severity of the pain often endured, notwithstanding high prices paid for boots by some of the best makers, it seemed to me that this subject deserved very careful study, and would require a long series of experiments before anything like a satisfactory solution of the difficulty could be arrived at. The relief of corns is a comparatively simple matter, but their complete prevention is a problem not yet solved. As the result of many experiments, I have had boots made for myself by which corns can be produced or prevented in my own case at will. In the earlier attempts, as might have been anticipated, there were many difficulties and discouragements encountered. I shall be very glad to show the boots to any member of the medical profession who

may be suffering from either corns or a tendency to flat-foot and wish to try an experiment; and I hope to have an early opportunity of showing them at one of our medical meetings.

I am, Sirs, yours faithfully,

London, Dec. 5th, 1892. ALFRED EDDOWES.

### "TREATMENT OF OPHTHALMIA AMONGST CHILDREN OF 'THE POOR.'"

To the Editors of THE LANCET.

SIRS,—Your annotation on this subject affords me an opportunity of entering a protest against the fashionable system of boxing up a crowd of cachectic children in a special isolation hospital to cure them of infectious ophthalmia. "It is impossible," you say, "to confine them for many weeks consecutively to the infirmary, and the managers naturally hesitate to incur the expense of a special medical attendant and a staff of nurses, and the still greater expense of building &c. .... When the treatment has been continued for a year or more the disease is practically abolished." Let us hope so. Infectious granular ophthalmia is, *par excellence*, the eye disease of Ireland. If it were the practice of Irish ophthalmologists to incarcerate hundreds of such cases in special isolation hospitals and to keep them there for "a year or more" under subjection to all the paraphernalia of green shades, darkened windows, compress bandages &c., thousands would not number the cases of blindness, or tens of thousands of pounds the cost of isolation hospitals. Let me advise English school managers and my brother ophthalmologists to try our method—to spend not one penny in the shutting up of a crowd of poor cachectic children in hospital, but to make arrangements to give them a run in the fields for a couple of months, combined with a little local treatment to the conjunctiva, a liberal farinaceous dietary and a suitable tonic treatment. If they will adopt this course I can promise them a cure—in the average case—not within "a year or more," but within a month and at a nominal cost. I subscribe to the theory of isolation as a protection against infection, but am of opinion that, in this disease at least, that hobby is being ridden to death.

I am, Sirs, yours truly,

ARCHIBALD HAMILTON JACOB, F.R.C.S.I.  
Dublin, Dec. 8th, 1892.

### "MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—In view of the inquiry by a committee of the General Medical Council into the proceedings of Medical Aid Associations, may I appeal to all medical men who have had experience of these bodies either in the capacity of medical officer, locum tenens, or otherwise to communicate with me? The experience of former medical officers will be particularly valuable as being less liable to be biased by personal interests than that of present incumbents, and there seems no means of communicating with such except by this public appeal.

I am, Sirs, yours faithfully,

Birmingham, Dec. 8th, 1892. LESLIE PHILLIPS.

### "PERIODATES IN CHOLERA."

To the Editors of THE LANCET.

SIRS,—There is a paragraph in your "annotations" under this head (p. 1230) which is not in accordance with chemical and physiological laws, which I therefore desire to correct. The misstatement is that the action of the periodates "can only depend on the readiness with which they give up free iodine." Permit me to explain that, although many hundreds of observations have been made of the action of the periodates upon the living body in health and in disease, in no single instance has an examination of the body's fluids or any one of its various excretions ever yielded "free iodine."

I am, Sirs, yours faithfully,

London, Dec. 7th, 1892. RICHARD WEAVER, F.C.S.

SUCCESSFUL VACCINATION.—Mr. Frank L. C. Richardson, public vaccinator for the Rhayader district of the Rhayader Union, Radnorshire, has received a Government grant for successful vaccination for the second time in succession.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

*Workhouse Extension at Stockport.*

THE Local Government Board, through their inspector, have for some time been urging the Stockport guardians to build a new workhouse in supplement of the accommodation existing at their present establishment at Shaw Heath. At their last meeting the guardians had under consideration the Board's recommendation, but they decided to reject it and to extend their present workhouse instead, and thus to provide for present needs. The guardians appear to be labouring under the pleasant delusion that the pauper class are steadily becoming more temperate and that destitution is therefore certain to decrease—at any rate, in the Stockport Union. They therefore are about to inform the Local Government Board that in their opinion any considerable extension of workhouse accommodation is at the present juncture unnecessary.

*Small-pox Prevalence.*

Since my last letter fresh cases of small-pox have been reported in many of the towns hereabouts, in which it had been prevalent more or less for some weeks previously. At Warrington, Liverpool, Oldham, St. Helens, and also in this city itself, fresh cases have occurred from time to time; whilst a sharp outbreak has recently taken place at Lymm, a residential suburb of Manchester. Infection appears to have been imported in the first instance from Warrington, and the disease has since spread somewhat rapidly. Altogether about twenty-four cases have been reported up to the present date, and, as the village of Lymm is but a small one, considerable anxiety amongst the inhabitants has been the not unnatural result. According to the local papers the Lymm local authority are doing their best to erect a hospital for the accommodation of the small-pox patients who are now being nursed at home; but hitherto their efforts have been unsuccessful.

*Salford Royal Hospital: an Experiment.*

The annual meeting of the Board of Governors of this excellent charity was held on Nov. 24th, at the Royal Hospital in Chapel-street. The report stated that the abolition of the recommended system had been agreed upon by the governors, and that for the period of the ensuing twelve months, at any rate, they had decided to try the experiment of admitting to the benefits of the charity all persons, not in receipt of Poor-law relief, who were too poor to be able to afford to pay for medical attendance and medicine. During the past year the experiment of allowing some of the members of the nursing staff to attend private patients at their own homes had been tried with encouraging success, and in several instances applications had been refused in consequence of the limited number of nurses available for this purpose. Altogether the hospital and the dispensary which is attached to it appear to be in a flourishing condition, and it is certain that both departments of this excellent institution are doing an admirable and much-needed work in the County Borough of Salford.

*The Ladies' Health Society and their Work.*

From a recent report it appears that the female visitors who act under the joint direction of the Ladies' Health Society and the medical officer of health are still doing useful work in the slums of our city. In the course of last quarter the female health visitors, thirteen in number, paid nearly seven thousand sanitary visits to poor people and, in addition, made 650 special inquiries on behalf of the medical officer of health into cases of infectious disease or of death. According to the returns just issued the work of the health visitors appears to have increased enormously during the recent quarter as compared with previous ones. It is, however, explained in the report that this increase is actual only in part, and to a certain extent results from the adoption of a new system of bookkeeping in the Public Health Office, by which every sanitary visit is placed to the credit of the appropriate health visitor. In the pamphlet from which this information is taken there is a table which shows the amount of work done in the several districts of the city, and accompanying the table is a chart showing the relative position of the several districts and indicating by appropriate shading the areas which still require the attention of the Society. In addition to the work of the Ladies' Health Society here referred to there is another association which appears

to be working on similar lines, and which will eventually do good work in Manchester. This association is termed "The Ladies' Society for Visiting the Jewish Poor." It has been established for several years and has been usefully but quite unostentatiously employed amongst the Jewish residents of Red Bank, one of the worst and most neglected districts of the city. The female district visitor employed by the Jewish Society, in common with the health visitors of the before-mentioned Society, works under the supervision of the medical officer of health, and we learn that this excellent organisation will shortly provide a second district visitor for the benefit of the Jewish poor in the populous neighbourhood of Strangeways, which is almost exclusively occupied by members of that community and where the conditions of life sadly require the attention of the Society.

*Owens College.*

At the last meeting of the Council Mr. Thomas Jones, M.B. Lond., F.R.C.S. Eng., surgeon to the Manchester Royal Infirmary, was appointed to the Professorship of Surgery about to become vacant by the resignation of Professor A. W. Hare. At the same meeting the Council established a Professorship of Clinical Surgery in the College, and appointed to this professorship Mr. Walter Whitehead, F.R.C.S. Edin., F.R.S., surgeon to the Manchester Royal Infirmary. Both these appointments are subject to the approval of the court of governors.

December 6th.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

*South-west Lancashire Assizes.*

MR. JUSTICE GRANTHAM is presiding in the Crown Court at the Assizes, which opened on the 5th inst. The calendar is a heavy one, containing the names of nearly 120 cases. Among those of medical interest was that of William Henry Hale, described in the calendar as a physician, but the genuine character of whose American diploma is even doubtful; while it is an undoubted fact that he possesses no British qualifications to entitle him to practise in the United Kingdom. He was charged with obtaining money by false pretences from a number of persons who consulted him for deafness. He was to-day convicted and sentenced to eighteen months' hard labour. There is also the case of the man Duckworth, charged with the murder of a little girl at Blackburn. There is another charge of murder against a woman, she having left her child on a doorstep, taken its clothes away and so caused its death. Four men are charged with the manslaughter of a boy who dared them to throw him into the canal. They, taking him at his word, threw him in, and, though they did all they could to rescue him, he sank at once and was drowned. There are many other very serious offences.

*Advertising Quacks.*

The utter futility of the recent Act for the suppression of advertising quacks is shown by what has occurred in this city. Posters and handbills of a suggestive and even indecent character are industriously distributed, but they are so carefully worded as not to constitute a breach of the law. Unholy alliances between duly qualified and registered medical practitioners and these obscene quacks continue to exist, and it is greatly to be hoped that some means may be found of bringing them before the Medical Council. At the same time the public must take their full share of the blame for the continual existence of these gentry. There is a positive demand for quackery and an impatience with the rational bounds and etiquette of legitimate medical practice.

*A Year's Apprehensions for Drunkenness.*

The Head Constable's report gives a total of 10,088 persons (5613 males, 4475 females) as having been drunk when apprehended. Of these, 5404 were drunk and disorderly, 2998 drunk and incapable, 510 assaulting police constables, 184 other assaults and 992 other offences. Three-fifths of the whole number were natives of Liverpool, Ireland furnished 1609, Scotland 324, Wales 175, the Isle of Man 20 and foreign countries 265. These figures are eloquently in favour of foreigners, a large number of whom are employed in various capacities on board ships and steamers, and whose chief recommendation is their sobriety.

*A Year's Accidents.*

Another table of melancholy interest in the Head Constable's annual report is that of the number of accidents happening within the city and reported by the police. Of a total of 2127 there were 124 fatal cases. Running over by carts, cars &c. caused 400, injuries on board vessels in docks 334, falling into docks, canals &c., 404. Only 65 were caused by burning and 8 by firearms.

December 8th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*Tynemouth Infirmary.*

THE annual meeting of the Tynemouth Victoria Jubilee Infirmary has been held. During the year there had been 118 in-patients, being an increase of twenty over the previous year. The financial statement was satisfactory, showing a balance in hand on the year's work. Alderman R. M. Tate, J.P., retired because, he said, he did not believe in a perpetual chairman.

*Westmoreland and Cumberland.*

The twenty-third annual report of the Westmoreland and Cumberland Hospital Sunday Fund has been issued, which shows that the total sum collected and remitted to the fund during the present year was £962, against £893 in the previous year. Of the £912 distributed by the committee the Cumberland Infirmary (Carlisle) got £493; Carlisle Dispensary, £47; Carlisle Fever Hospital, £121; Silloth Convalescent Institution, £111; and Workington Infirmary, £140.

*Cumberland Infirmary Nursing Scheme.*

The Cumberland Infirmary nursing scheme is now said to be fairly launched. The contracts for the building have been let for about £2000 and the amount of money in hand reaches £2500. More it is confidently expected will be provided by the public. The existing nursing staff will be removed into the new buildings as soon as they are ready, and it is hoped to add twenty more nurses, who will be for the most part employed in nursing the sick in various parts of the city of Carlisle.

*The late Dr. M. W. Taylor.*

The *Carlisle Journal* has a long appreciative notice of the late Dr. M. W. Taylor, who died at Earl's Court, London, last week. He was long in active practice in Penrith, Cumberland, where he played a conspicuous part in the formation and maintenance of the Cumberland and Westmoreland Archaeological Society, and to him is said to belong the credit of having been the first to point out the dangerous properties of milk as a means of transmitting scarlet fever. He also wrote a valuable paper on the Fungoid Origin of Diphtheria.

*The Outbreak of Small-pox in the Northallerton Union.*

On Wednesday, Nov. 30th, at the adjourned meeting of the Northallerton Rural Sanitary Authority, cases of small-pox were reported in the district, one of which proved fatal yesterday. The medical officer has urged the necessity of revaccination in all cases. So far as could be ascertained the disease had been brought into the district by cattle drovers or tramps. Owing to the spread of the disease in various parts of the country the Darlington Board of Guardians have rescinded a resolution adopted two years ago, not to prosecute parents for omitting to have their children vaccinated.

*The New Asylum at Sunderland.*

The Sunderland Town Council having applied to the Local Government Board for sanction to borrow over £20,000 for the purchase of a site for a new lunatic asylum at Ryhope and other objects, and improvements in the town, instructions have been given for Colonel Charles Henry Luard, R.E., to hold an inquiry at the Town Hall on Dec. 8th at 11 A.M.

*The Bowes Museum at Barnard Castle.*

There is a financial hitch in the carrying on of this very fine museum, and the trustees have applied to the Charity Commissioners for more means to keep up the museum and park. The commissioners have named £1000 as the maximum to be allowed for one year, and suggest local subscriptions and a charge for admission. The trustees reply that they have no power to charge for admission. The difficulty is, however, only temporary, as it is said that a substantial portion of the

legacy of the late Mr. John Bowes of £100,000 will soon be available.

*Scheme for Sick Nursing at Seaham Harbour.*

A large town's meeting has been held at Seaham Harbour to consider and promote a scheme for sick nursing which has been proposed by the Marchioness of Londonderry, who opened the proceedings. A committee was appointed to consider the matter in all its bearings, and also the question of the future use of the infirmary.

Newcastle-upon-Tyne, Dec. 7th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS)

*Public Health Affairs in Leith.*

OWING to the prevalence of scarlet fever and measles in Leith the attendance at the board schools has fallen off by a third, or even a half, in some of the schools. The School Board met to consider the question of attendance, and decided to close the schools if they obtained a certificate from the medical officer of health. By obtaining such a certificate it is understood that the education grant for the schools is obtained notwithstanding that they are closed. After this a special meeting of the Public Health Committee was held, and the application of the School Board considered, when it was decided that they would not take the responsibility of closing the schools, nor, as it appears, were they prepared to acknowledge that there was an epidemic in the burgh. Leith has not adopted the system of notification which has been so productive of benefit to the adjoining community of Edinburgh—in fact, the public health authorities seem to appreciate very imperfectly their important responsibilities to the community. There has been trouble about hospital accommodation for infectious diseases, there was much dissatisfaction at the time cholera was rife in Hamburg as to the precautions at Leith against its admission into this country, and now there is this epidemic of scarlet fever and measles, not to mention typhus fever and a death-rate of somewhere about 58 per 1000. It can hardly therefore be wondered at that there is a feeling of dissatisfaction and want of confidence in the actions of those responsible for the care of the public health.

*Edinburgh Hospital for Women and Children.*

The annual meeting of the subscribers to this hospital was held last week, Dr. Sibbold presiding. At the dispensary there had been 225 patients on the books, and the total visits to it were 1537. In the cottage hospital attached to it thirty-nine patients had been received in the course of the year, sixty-nine visits had been paid by the resident medical officer and sixty-six by students. The balance-sheet showed a deficiency of about £31, the total expenditure for the year being a little over £279.

*Royal Society of Edinburgh.*

The first ordinary meeting of this Society was held on Monday, Professor Sir Douglas MacLagan, M.D., in the chair. The chairman thanked the Fellows for doing him the honour of again electing him as their president and then proceeded to deliver a short introductory address. In it he referred to the meeting of the British Association which had been held in Edinburgh since they last met and to the important part which Scotsmen and Fellows of the Royal Society had taken in the establishing and working of the Association.

*The Medical Preliminary Examination.*

The Joint Board of Examiners, created by Ordinance No. 13 of the Universities Commissioners, met in Edinburgh for the first time in the end of last week. The representatives from Aberdeen, St. Andrews and Glasgow were present as well as those representing Edinburgh. The Board resolved:—  
1. Beginning with the examinations in 1893 the papers set for the Arts and Medical Preliminary Examinations shall be the same. 2. In judging the English paper the examiners shall fix a higher and a lower standard, the lower being sufficient for candidates in the Medical Preliminary Examination. 3. Every candidate for the Medical Preliminary Examination must pass on the higher standard in at least one of the required subjects, and may pass on the lower standard in the remaining subjects where there is a lower standard. 4. The standard for French and German in the Medical Preliminary Examination shall be that prescribed in the Arts Ordinance,

No. 11. 5. For the first Medical Preliminary Examination, to be held under this Board in the spring of 1893, no candidate shall be required to pass on the higher standard in any subject. 6. The ensuing spring Preliminary Examinations for Arts, Science and Medicine shall begin on Saturday, April 1st next. 7. For the Preliminary Examinations in April next each University shall accept the equivalents already announced in the calendar of that University.

#### *The Waste of Water in Edinburgh.*

The Works Committee of the Edinburgh and District Water Trust are taking further steps to check the waste of water in the city and district. Two large meters are to be placed on one of the main pipes. The engineers have been instructed to report on the construction of a pressure reducing tank to check waste during the night; they have also been instructed to bring up a monthly report of the night inspections and investigations for the prevention of waste.

#### *Health of Edinburgh.*

At the meeting of the Public Health Committee held on Dec. 6th the report was submitted on the health of the city for November. The total number of deaths was 495, making the death-rate 22.43 per 1000, as compared with 25.97 for the corresponding month of last year and 14.42 for November, 1890. The average death-rate for the month during the past five years was 18.04 per 1000. The death-rate in the three main divisions of the city was, in the New Town 17.38 per 1000, in the Old Town 31.56 per 1000 and in the Southern Division 13.08 per 1000. Of the deaths, 47.88 per cent. were of children under five years. Diseases of the chest caused 26.46 per cent. of the deaths and zymotic diseases 30.30 per cent. Of the zymotic diseases, 1 was from typhoid fever, 7 from diphtheria, 12 from scarlet fever, 126 from measles, and 3 from erysipelas. The birth-rate was 26.87 per 1000. The intimations of infectious diseases during the month numbered 2350; of these, 1 was typhus fever, 21 typhoid fever, 26 diphtheria, 1 small-pox, 244 scarlet fever, and 2057 measles.

#### *Health of Aberdeen.*

For last week the returns of zymotic cases were: Measles, 359; scarlet fever, 19; diphtheria, 4; erysipelas, 2; puerperal fever, 1; total cases, 385; being a decrease of 85 as compared with the previous week. The decrease is due to the decline of the measles epidemic.

#### *Aberdeen University Senatus.*

At a meeting of the Senatus of Aberdeen University held last Saturday it was reported that the Milne Medical Bursary had been conferred on Mr. Robert G. Henderson, M.A.; the Duthie Medical Scholarship on Mr. W. E. G. Duthie, M.A.; and the Gregor Medical Bursary on Mr. Andrew Thomson. Professor Matthew Hay was re-elected an assessor from the Senatus to the University Court. It was intimated that Mr. J. Scott Riddell, M.A., C.M., M.B., had been appointed assistant to the professor of surgery; Mr. Alex. Brown, M.A., B.Sc., to the professor of natural history; and Mr. John Marnoch, M.A., M.B., C.M., to the professor of institutes of medicine.

#### *Public Health of Glasgow.*

In the fortnight ending Nov. 26th, the death-rate was 22.3. There were four deaths from small-pox—a male, aged thirty-seven, vaccinated; a female, aged twenty-eight, vaccinated; a male, aged twenty-one, "hæmorrhagic," unvaccinated; a male, aged four weeks, "hæmorrhagic," unvaccinated. This number had not been equalled since the spring of 1884. Small-pox, however, is diminishing. Three weeks ago there were fifteen fresh cases, two weeks ago nine fresh cases, last week seven fresh cases. The authorities thus seem to be mastering the outbreak. Scarlet fever is decreasing, but measles is rapidly increasing.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Outbreak of Fever at the Hibernian Military School, Phoenix Park.*

SIR C. CAMERON, M.D., in his report to the Board of Works as to the outbreak of sickness among the boys in the Hibernian school, states that the fever is of a non-enteric character, of short duration, and probably in origin dietetic. As stated recently in these columns the health of the boys has been exceedingly good, the mean annual death-rate per 1000

during the last three decades having been 6.5, 4.5, and 3.75 respectively, and there has not been a single death from any of the principal zymotic diseases for the past ten years. Some months since the Board of Works made arrangements to apply the "oxygen process" to the school outfall in the coming year, while the supply of sterilisers used on the irrigation field has been increased. The cause of the outbreak will, however, be investigated by a committee, of whom Sir George Porter, Bart., will be chairman, when the dietary of the boys, the water-supply and other matters will be dealt with. It is rumoured that the water-supply of the school is insufficient, and that water has to be stored in tanks for the use of the inmates.

#### *Transactions of the Royal Academy of Medicine, Vol. X.*

In addition to the papers noticed in this column last week I may allude to some others in the sections of Surgery and Pathology. "Ballooning of the Rectum" is the title of a communication by Mr. Hamilton. Attention was drawn to this condition in THE LANCET of 1889 by Mr. Bryant, but Mr. Hamilton described the symptom in 1883. He has seen this condition under the most varied and dissimilar circumstances, but cannot fix its value as applied to the purpose of diagnosis or prognosis of disease of the intestine higher up. There are three papers on cerebral surgery: one of a case of traumatic epilepsy, aphasia and paralysis of six years' duration, treated by trephining, and in which recovery took place, by Mr. Heuston; trephining for cerebral cyst by Mr. Wheeler, and for uncomplicated word blindness by the same operator, in the last case with success; and trephining for meningitis, by Mr. McArdle. In the Section of Pathology Mr. Patteson describes two cases of adenoma of the breast observed in two children, aged thirteen and twelve years and nine months respectively; and Dr. E. H. Bennett has an excellent paper on the Rarer Forms of Fracture of the Carpal Extremity of the Radius, and gives some examples illustrating more particularly fracture of the radial-styloid and longitudinal fracture or fissure of the lower end of the bone. Dr. James Little has a short account of a case of painless cancer of the liver, the organ weighing 178 ounces; and Dr. A. W. Baker contributes a report on the Present Aspect of Dental Caries. Space will not admit of further references; but the present volume is not less valuable than its predecessors.

#### *County Weasford Infirmary.*

Mr. Gibbon, one of the governors, is plaintiff in an action against the management of the infirmary with a view to restraining the defendants from applying the interest on £1000—money left to the infirmary—towards increasing the salary of Mr. Hadden, the surgeon of the institution. The facts are as follows:—Mr. Hadden was elected about four years since, the advertisement of the vacancy stating that the salary would be £120 yearly, with residence; but it could only be, as a matter of fact, £94 per annum, the sum presented under the statute by the grand jury. It was chiefly in consequence of this that the governors devoted the interest of the £1000 bequest towards increasing the surgeon's salary. Whichever way the matter may be decided, the interests of the infirmary must necessarily suffer.

#### *Health of Ireland: September Quarter.*

The births registered during the quarter amounted to 25,340 and the deaths to 17,167, or 14.8 per 1000. The birth-rate was 0.5 under the average for the corresponding quarter of the past ten years, and the death-rate was 0.2 over the rate. There was a marked subsidence of the epidemic of measles in Dublin and Belfast. Scarlet fever proved very fatal in Castlereagh Union, and whooping-cough was prevalent in some unions in Connaught, but the general mortality from these diseases was below the average. Compared with the corresponding quarter of 1891, the returns of pauperism show a decrease of 279 in the average number of workhouse inmates on Saturdays during the quarter, and a decrease of 3384, or 5.5 per cent., in the average number of persons on out-door relief. The fever (typhoid) at present prevailing in Cork is of a mild type, and consequently the mortality is very low.

#### *Entries at the Belfast Medical School.*

During the present winter season 164 students are attending the Royal Hospital, being only three less than last year. At the Queen's College there are 220 in the medical faculty, being between thirty and forty students less than in 1891-92. This falling off is in the number of the first-year men

principally, but it must be recollected that last year's entries (to avoid the fifth year) were phenomenally large.

#### The Samaritan Hospital.

A meeting of the committee of this hospital was held on Dec. 6th for the purpose of appointing two honorary attending physicians, when Dr. Campbell (Demonstrator of Anatomy at Queen's College, Belfast) and Dr. St. Clair Boyd (Surgeon to the Western Hospital for Women and Children) were elected.

#### The Belfast Medical Students' Association.

A deputation from the above association, consisting of the secretary and ex-secretary, presented a memorial to the Belfast Board of Guardians on Tuesday last. It appears that in 1891, at the request of the Students' Association, the board granted the privilege to the students of entering the wards of the union infirmary for the purpose of receiving clinical instruction, of which the students availed themselves, but that, on the ground that the teaching staff was not sufficiently large, the Senate of the Royal University refused to accept the certificates of the medical officers. The memorial referred to the difficulty students had in gaining experience in certain diseases which would be obviated were they able to attend the infirmary, and they beg, as now an election is about to take place owing to two medical resignations, that the board of guardians will increase the number of their medical officers. The chairman said that what the students wanted was to have the staff increased and the infirmary thrown open in the same way as the Royal Hospital. If they had power to do this they would be most happy to meet their views, but he was afraid that it would be objected to, as they could not increase the staff without expense. One of the deputation said this could be met by the students' fees. Ultimately it was agreed that a subcommittee of the board should meet the Medical Students' Association and the President of Queen's College, Professor Redfern, and Professor Cuming, on Tuesday, Dec. 13th, to consider the subject.

The Cork Dispensary Committee have elected Mr. Callaghan medical officer in the room of Dr. Townsend, resigned.

December 6th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

### Medical Students v. Town Councillors: Termination of the Dispute.

A FORTNIGHT ago I communicated the particulars of the conflict that had arisen between the dressers of the Hôpital St. Antoine and the section of the Municipal Council charged with the superintendence of the Paris hospitals. The matter was so warmly taken up by the entire mass of students that the competitive examinations for admission to "dresserdom" had to be deferred *sine die*, and the expediency of a general strike of dressers was even mooted. Fortunately, more moderate counsels have prevailed, and the reproach of having abandoned poor, innocent sufferers to their own resources has been spared the *jeunesse médicale* of this Faculty. The quarrel has ended, as most quarrels should—viz., in a compromise. Acting in accordance with a formal wish expressed by the Société Médicale des Hôpitaux and the Conseil de Surveillance de l'Assistance Publique, the director of the latter department and the Municipal Council have consented to let bygones be bygones, and the offending *externe*, M. Salmon, has accordingly been reinstated. Henceforth all such misunderstandings will be dealt with by a Commission of the Conseil de Surveillance mentioned above. The *examens d'internal et d'external* have been resumed as usual, and the sensitive and fiery Gaul, both municipal and medical, will, it is hoped, now that *l'honneur est satisfait*, "pursue the even tenour of his way."

### Approaching Removal of the Académie de Médecine.

The ordinary tourist, however well acquainted he may be with noteworthy buildings in Paris, would assuredly be puzzled to specify the situation of the dingy structure within whose portals the learned members of the Académie de Médecine periodically foregather. The reason is not far to seek. The building is quite unworthy of the society it shelters, its aspect being forbidding and mean, and the Rue des Saints-Pères exceedingly narrow at that point. Many attempts have been made by the Academy to secure more fitting quarters,

and I am happy to be able to announce that a move will be made at no distant date to the Rue Bonaparte, where, in exchange for a piece of land belonging to the Academy and 263,500 francs, the Municipal Council have, on behalf of the Assistance Publique, agreed to cede a building hitherto occupied by a branch of the Mont-de-Piété or pawnbroking office.

### A Sensible Measure.

The careful observer cannot fail to notice the ravages made amongst the working classes of Paris by the habitual abuse of such beverages as absinthe, vermouth, amer Picon, eau de mélisse, vulnéraire &c. During a visit I paid to Dr. Lancereaux's wards at the Hôtel Dieu, on Monday last, I saw two well-marked instances of paralysis of the extensors in women addicted for years to the excessive consumption of vermouth and eau de mélisse respectively. In the latter case the forearms as well as the legs were affected. In one man under Dr. Lancereaux's care the abuse of these liquors had so exaggerated the reflexes, that a slight tickling of the soles of the feet made him bound violently out of bed. Dr. Lancereaux, who has for many years paid special attention to alcoholism in all its forms, is never tired of agitating for the repeal of the taxes on such comparatively innocent beverages as beer, cider and perry. These he distinguishes from their noxious congeners by the name of *boissons hygiéniques*. He contends, and rightly contends, in my opinion, that the cheapening of these drinks would contribute powerfully to the diminution of alcoholism. This view appears to have gained some adherents in the Chamber of Deputies, for Parliament is now considering a proposal to abolish all duty on wine, beer, cider, perry and hydromel. No beer worth drinking can be procured here for less than threepence a glass, which, with at least a penny for the waiter, brings the cost up to double what it is in England. In the *cafés* on the boulevards a glass costs forty or fifty centimes. It is to be hoped that the Chamber will, if it adopts the proposed measure, supplement it by increasing the duty on beverages, the consumption of which, freely adulterated as they are, constitutes a danger to the community. I am persuaded that this would sensibly diminish the mortality from phthisis in this city. About 10,000 victims succumb annually to this scourge in Paris.

### Æsthetic Disinfection.

The gratuitous disinfection of clothing and bedding provided by the municipality is happily becoming more and more *à la mode* in Paris; but side by side with the public ovens there have sprung up private ones whose claims to patronage, as set forth in elaborate circulars, consists in the fact that the yellowing of the linen which occurs at the municipal establishments is by their process counteracted by further treatment. The Conseil d'Hygiène will soon take the question into consideration and it is intended to have the operations of these enterprising *industriels* carefully superintended by the medical inspectors attached to the Prefecture of Police. A code of regulations will also be issued, so as to render private disinfection a reality.

December 7th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

### Cholera in Russian Poland.

YESTERDAY'S official report of the state of cholera in Russian Poland gave the numbers of cases and deaths in the various Governmental districts as follows: Radow 28 and 12, Siedlec 32 and 18, Lubin 8 and 6, Warsaw 4 and 7, Lomza 2 and 3, in three days.

### Remuneration of Medical Students who served in the Hamburg Epidemic.

During the recent cholera epidemic in Hamburg a misunderstanding arose as to the remuneration of the medical students who volunteered their services. The dean of the medical faculty here has now published the following: "The Cholera Commission of the Senate of Hamburg, in a letter addressed to the undersigned dean, expresses its thanks to all the students of medicine who assisted in combating the cholera epidemic, and at the same time intimates the wish to send the undermentioned fee to all those who worked in the Hamburg hospitals in the belief that their services were to be remunerated at the rate of 20 marks a day."

*The Charité.*

In the fiscal year 1889-90 the number of patients treated in the Berlin Charité was 21,457, in 1890-91 only 20,352. This decrease is attributed to the opening of the hospital in Urban. On the other hand, the number of women who have been delivered in the Charité has been almost constantly increasing since 1876. In that year it was 879 and in 1889-90 it was 1564.

*The Berlin Hospitals.*

At a meeting of the Central Committee of the Berlin Medical District Associations on the 25th ult., it was resolved to express to the municipal authorities of Berlin the wish that greater opportunity should be afforded by the municipal hospitals for the practical training of medical men, and that the medical service in the said hospitals may be so organised that there may be one physician and two assistant-physicians for every 100 or 120 patients.

*Myxœdema.*

The first trial made in Germany of the treatment of myxœdema by implanting the thyroid gland of an animal, or injecting the juice extracted from such glands, has been recently made by Professor Mendel, of Berlin, who reports a slight improvement in the condition of the patients.

*The Hofmann House.*

The Hofmann House, called after the late Professor Hofmann, which is to serve as the home of the German Chemical Society, is estimated to cost 1,200,000 marks. The Langenbeck House cost only 300,000 marks.

*"An Indian Oculist."*

An "Indian oculist" was expelled from Munich by the police last Thursday.  
December 4th.

## EGYPT.

(FROM OUR OWN CORRESPONDENT.)

*Visit of the Khedive.*

HIS HIGHNESS THE KHEDIVÉ, accompanied by his Greek physician and other members of his staff, paid an official visit to the School of Medicine on Nov. 24th and was much pleased with the signs of recent progress which were shown to him. The pathological museum has now been seriously taken in hand and has lately been enriched by a valuable collection of calculi, old instruments and surgical specimens gathered together by Duruy Bey, the professor of surgery. This medical school was started in 1837 by French enterprise, revived again temporarily under distinguished Germans, such as Griesinger, Bilharz and Pruner, and now is being successfully galvanised into life by English energy.

*Mecca Pilgrimage.*

The annual pilgrimage to Mecca passed off without any question of cholera being raised, and some 18,000 returning pilgrims passed through the observation encampment at Tor during July and August in very fair health. It is true that thirty-nine of them, mostly Turks, Persians and Tunisians, died in camp, but the quarantine statistics show that twenty-nine of these deaths occurred in old men between the reputed ages of sixty and ninety-five. The most common causes of death were general debility and chronic enteritis. The entire absence of cholera at Mecca in 1892, in spite of its presence there in the two preceding summers, is interesting when compared with the alternative march of cholera along the north of Europe. It would appear that cholera is never endemic in Mecca in spite of the utter neglect of sanitation, but requires always to be imported by pilgrims from India or Persia.

*The Nile Flood.*

The supply of water in the river during the summer months of this year was exceedingly low, and, as often happens, this was followed by a dangerous rise. It was not until September that anxiety was felt about the safety of the Nile banks; but for two months incessant vigilance had to be displayed. The chief danger was in the lateness of the flood and in the fact that the maximum rise was kept up for twenty-one days instead of for one day, as in 1887, when the last high Nile took place. To the credit of English engineers it ought to be noted that the floods of 1887 and 1892 are the only great floods on record in the history of Egypt when no breach of the banks has taken place and no disaster has occurred.

There are, roughly speaking, some 7000 millions of cubic metres of water stored in the irrigation basins of Upper Egypt in a high flood year, and this water has to be discharged again into the river, late enough to prevent any flooding in Lower Egypt, but early enough to ensure time for the crops to be sown and ripened before the hot weather can dry them up. If the basins are emptied at the slowest possible rate it means that 11,000,000 cubic metres of water are added every hour to the already overcharged river. In 1887 about 39,000 acres of crops were destroyed by the flood, and this damage is hardly worth mentioning in comparison to the disasters of 1878, when whole villages and miles of railway were swept away. In 1892 only 7700 acres of crops—mostly maize—have been destroyed. In order to successfully manage this year's flood a special credit of £12,000 was voted and spent chiefly on stone, sacks, timber, trees and rope &c. For the last month the river has been sinking rapidly and all danger is long over.

*Malarial Fevers.*

Dengue has not appeared this autumn, though it did so in an epidemic form after the high flood of 1887. Intermitting fever, usually rare and seldom before seen in Europeans without previous malarial taint, has occurred several times this autumn in consequence of the high Nile. The victims can be traced to dwelling-houses the floors of which are below the height of maximum river rise, as in many of the oldest parts of the town. The plasmodia of malaria have for the first time in Egypt been discovered in the blood of some of these patients by Dr. Kauffmann. Treatment with methylene blue has been tried in the cases of some natives, but it does not appear to be in any way superior to quinine for uncomplicated malaria, as occasionally seen in this country.

*Tænia Nana.*

Twenty worms of the tænia nana variety were recently found in the small intestine of a negro, who was admitted moribund into the native hospital. This is only the second time the worm has been found in Egypt since Bilharz first discovered it here in 1851.

*Port Said Hospitals.*

Dr. Robertson, after being eight years in charge of the native hospital at Port Said, has lately succumbed to a severe attack of neglected dysentery. His death, which is universally regretted by all who know him, is the first which has taken place among English doctors since they were admitted to the Government service in 1884. He has been succeeded by Mr. Frank Milton. The hospital has 100 beds and is nursed by seven French sisters of charity, and, besides gratis patients, admits those who pay at rates varying from four to eight francs a day. Many of the poorer patients are admitted from Turkish vessels, suffering from chronic dysentery and malaria. The second hospital at Port Said is an English one, due to the energy of Lady Strangford shortly before her death. The staff consists of an English doctor, three English nurses and a probationer. There are thirty-five beds, all for paying patients, and there has recently been added an infectious ward capable of holding eight beds.

November 23th.

## Obituary.

M. W. TAYLOR, M.D. EDIN., F.S.A.

THE announcement of the death of Dr. Taylor, which took place on the 24th ult., will be received with regret by all who had the privilege of his friendship. He was born in 1824 at Portobello, near Edinburgh, and was educated in that city and at Portsmouth. Having obtained his degree, which by special permission of the Senatus he gained at the age of twenty, he acted as class assistant to Professor A. J. Balfour, and distinguished himself by the proficiency he attained in botanical studies, in recognition of which he was elected a Fellow of the Botanical Society of Edinburgh. Towards the end of 1844 Dr. Taylor proceeded to Paris, and there studied under the most eminent surgeons of that city. Thereafter he visited various foreign capitals, and thus extended his knowledge of the methods pursued by physicians and surgeons abroad. In 1845 he repaired to Penrith, and, having acted for a few months as *locum tenens* to Dr. John Taylor, he subsequently succeeded to the practice on the

death of that gentleman. In 1858 he married Miss M. W. Rayner, daughter of a Liverpool merchant; and for nearly forty years carried on with great success his professional work in the above-mentioned city. As evidence of the esteem in which he was held by his fellow townsmen and in recognition of the value of his services, both public and professional, he was presented, on his retirement from practice, with a handsome service of plate. Dr. Taylor's contributions to medical literature were neither few nor unimportant. His investigations into the part played by milk in the dissemination of scarlet fever excited considerable interest at a time when that article of domestic consumption had been previously unsuspected as a source of infection. The fungoid origin of diphtheria also engaged his attention, and in a paper contributed to a local medical society fresh light was thrown on that important matter. Dr. Taylor, however, did not confine his interest to medical and pathological topics, but extended his sympathies to other subjects connected with the mental and physical well-being of his neighbours. He was the founder of the Penrith Literary and Scientific Society, and the formation of the free library, reading-room and museum was largely due to his exertions. Altogether the citizens of Penrith have reason to congratulate themselves that for so many years they numbered the deceased physician amongst them. The funeral, which took place on the 28th ult. in the grounds of Christchurch, was attended by all the more prominent residents of the town, many of the friends of the deceased coming from a distance to show their respect to his memory.

#### ALFONSO CORRADI.

THOSE of us who learned to admire and esteem Professor Corradi at the last International Congress of Hygiene and Demography and who looked forward to renewing our acquaintance with him at the International Congress of Medicine and Surgery in September next will hear with great regret that he died at Pavia on the 28th ult. in his sixtieth year.

Alfonso Corradi was a native of Bologna, where he was born on the 6th of March, 1833. He passed through a brilliant curriculum in general and professional education at the Local University, where he graduated with the highest honours in medicine and surgery in the years 1855 and 1856. He was yet a young man when he filled the post of assistant-surgeon at the Ospedale di Vita, after which, in 1859, he gained in public competition, over several very formidable rivals, the coveted professorship of general pathology in the University of Modena. In 1863, again by open competition, he was appointed to the chair of general pathology at Palermo, where he taught with great success till 1867, when he was transferred to Pavia as lecturer on general therapeutics, materia medica and experimental pharmacology—a post which he held till last year, at the close of which he was called by the unanimous vote of the medical faculty of the University of Bologna to the chair of the history of medicine in that seat of learning.

His powers as a clinical physician and private consultant were only second to his ability as an expositor, whether by tongue or by pen, from the professorial chair or at the editorial desk. As early as 1857 he started, in conjunction with Professor Brugnoli, the *Rivista Medica*, which soon rose to be the first of its class in Italy; but ephemeral work was far from exhausting his energies. Within eight years from that date he had published the first volume of his monumental treatise, entitled "Gli Annali delle Epidemie in Italia dalle prime Memorie sino al 1850" (Annals of the Epidemics in Italy from the Earliest Records to 1850), a treatise which ran to five octavo volumes, and was succeeded by another of more exclusively modern interest, "La Chirurgia in Italia dagli Ultimi Anni del Secolo fino al Presente" (Surgery in Italy from the Closing Years of Last Century to the Present Time), Bologna, 1871. Similar historical works are his "L'Ostetricia in Italia dalla Metà del Secolo fino al Presente" (Obstetrics in Italy from the Middle of the Present Century till the Year now Passing), in three quarto volumes, Bologna, 1872; his edition, with preface and copious annotations, of the "Lettere del Lancisi al Morgagni e parecchie altre ora per la prima volta pubblicate" (Letters from Lancisi to Morgagni and several others now for the first time published), Pavia, 1876; and his "Memorie per la Storia della Università di Pavia e degli Uomini più illustri che v' insegnarono" (Memoirs in Illustration of the

History of the University of Pavia and of the most distinguished Men who taught there), Pavia, 1874-8, 3 vols., 4to. It will be remembered also that in 1888, on the solemn celebration of the eighth centenary of the "Mother of Universities," Bologna, Professor Corradi's pen was once more in requisition, when he delighted the *savants* assembled there from all parts of the world with his graphic sketch of the origin, the development and the future outlook of his *alma mater*. Other works of his it would be impossible to give in full detail; but mention may be made of his French paper contributed to the *Union Médicale* of Paris, 1865; "Sur l'Étiologie et l'Histoire de la Pèlagre"; to his "Escursioni d'un Medico nel 'Decamerone'" (A Physician's Excursions into Boccaccio's "Decameron"), 1878; and to other lucubrations, only possible to a physician who was also a widely read man of letters, published in successive volumes of the "Atti dell' Istituto Lombardo." Professor Corradi's high qualities of head and heart were known and appreciated in every great medical school. In Germany and in Great Britain he was held in especial admiration and esteem, and his compatriots have noted with something like national pride the unique honours conferred on Italian medicine in the doctorates bestowed on him by the Universities of Cambridge and London.

#### LUIGI AMABILE.

"UNA vera perdita per la scienza" (a real loss to science) is the compendious note of our Italian contemporaries on the death of the Senator Luigi Amabile, Professor of Pathology in the University of Naples. A student and graduate in that school, he soon became connected with its teaching staff, first in the department of surgery and then in that of pathology: He was a bold and successful operator when laparotomy was yet in its infancy, while his treatise written in conjunction with Tommaso Virnicchi, and published at Naples in 1859, "Sulle Soluzioni di Continuo del Intestino e sul Loco Governo" (On Solutions of Continuity in the Intestines and in their Prevalent Seat), did much to promote sound and effective abdominal surgery. Besides his professorial duties, discharged with much energy and acceptance, he was an unwearied author and critic of papers read and discussed before the various medico-chirurgical societies of Naples and its provinces. His published memoirs and pamphlets on subjects of scientific and professional interest are very numerous, and several of these procured him the honorary fellowship of learned bodies, not only in Italy, but beyond the Alps. He represented more than once in the Italian Chamber the constituency of Avellino in the Liberal interest and was, in consideration of his statesmanlike intervention in hygienic and educational legislation, promoted to a seat in the Senate. To the last he retained his connexion with his *alma mater*, in which he held the post of Professore Ordinario e Direttore di Materia Patologica with equal usefulness and credit. Over and above his strictly professional work he distinguished himself in historical research, and, apart from his writings in medicine and surgery, established for himself an honourable reputation for his treatises on the philosopher and humanist Tommaso Campanella and on the "Inquisizione di Napoli." He died on the 24th ult.

#### THOMAS WATTS, M.R.C.S., L.S.A.

MR. THOMAS WATTS, who died on Nov. 29th, was for many years in practice in the country around Frampton-on-Severn, where he lived until he was compelled to retire on account of heart disease. Born in 1822, he received his preliminary education from Dr. Hales of Bath, entering King's College, London, in 1840. After leaving the College he worked with his father, on whose death in 1860 he succeeded to the practice.

#### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the College, held on Thursday, the 8th inst., Mr. Bryant, the President, in the chair, the minutes of the ordinary Council meeting of Nov. 10th were read and confirmed.

The Council confirmed their resolution of the 10th ult.,

and removed a Member from the privileges &c. of Membership, and the Secretary is to request him to return his diploma.

On the recommendation of the Nomination Committee, Mr. Clement Lucas was appointed an Examiner in Anatomy for the second examination for the Membership. Mr. F. Treves was appointed a member of the Court of Examiners in Surgery.

It was also agreed that, as recommended by the Nomination Committee, in pursuance of a unanimous resolution of the Board of Examiners in Anatomy and Physiology for the Fellowship, the papers on anatomy and physiology be in future given on separate days instead of on the morning and afternoon of the same day as at present arranged.

Sir W. MacCormac was elected a member of the Court of Examiners in Dental Surgery in succession to Mr. Heath.

The best thanks of the Council were given to Mr. Heath for the delivery of the Bradshaw Lecture on "Diseases of the Nose."

The President stated that he had accepted, on behalf of the Council, a silver box which had once belonged to Edward Jenner, presented to the College by Mr. A. M. Sydney Turner, J.P., M.R.C.S., of Gloucester, and the best thanks of the Council were given to Mr. Turner for his present.

Mr. Heath was appointed a member of the Committee of Management, in the place of Mr. Hutchinson.

A letter was read from the President reporting the proceedings of the General Medical Council at their late session, and the best thanks of the Council were given to him for his services as the representative of the College.

It was agreed that the lectures during the coming year (1893) should be delivered at 5 P.M. instead of 4 P.M. as hitherto.

## Medical News.

**ACCIDENT TO A SURGEON AT LEEDS.**—Mr. Corrie of Nippet Cottage, Burmantofts, on Tuesday last, was conveyed to the Leeds Infirmary with a simple fracture of one of his legs consequent on a fall upon some ice-covered steps.

**THE annual meeting of the Manchester Hospital Sunday and Saturday Fund** was held on Monday. There had been received for the former £4305 17s. 6d., against £4852 0s. 11d. in 1891, showing a decrease of £544 3s. 5d. The amount contributed to the Hospital Saturday Fund was £3924 5s. 8d., against £3960 2s. 11d. last year, or a decrease of £35 19s. 3d.

**RUGBY SCHOOL RUNS.**—We understand that new regulations have been made respecting these runs, which it is stated are for exercise and not for competition. There will be two sets of "runs," one for big and another for small boys, any boy being able to obtain a medical certificate releasing him from these exercises if physically unfit. A responsible person will be in charge of the runs, and all those taking part in them will keep together until within two miles of the house.

**SCARBOROUGH FEVER HOSPITAL.**—At the instigation of the urban sanitary authority of Scarborough the erection of a temporary fever hospital has been commenced within a third of a mile from the Royal Artillery Barracks. The rural sanitary authority have protested against the erection of this building, their medical officer having stated that infection could make itself felt for over 1000 yards. At a meeting of the rural authority on Dec. 1st it was unanimously decided to intimate to the urban authority that it was desirable to stop the building of the hospital.

**INSTITUTE OF CERTIFICATED SANITARY INSPECTORS.**—The first annual meeting of the members of this Association was held on the 3rd inst. at the Sanitary Institute, and Mr. Wynter Blyth delivered the presidential address. The institute has for its objects the raising of the status of sanitary inspectors and the advancement of that branch of science which is concerned with the healthy internal arrangements and surroundings of households. Mr. Blyth said the new society was not established in a spirit of rivalry with any other association. It was unwise to trust to local authorities. The assistance of Dr. Newsholme would be of the highest value. They would have to obtain a charter of incorporation. Sir Thomas Crawford, Sir Douglas Galton and others addressed the meeting.

**PADDINGTON-GREEN CHILDREN'S HOSPITAL.**—In aid of the funds of this useful institution, which is greatly in need of help, a sale of fancy work was recently held at Lord Brassey's house in Park-lane. Owing to the large number of out-patients attending the hospital it has been found necessary to build a new wing. The interest of the occasion was enhanced by the opportunity afforded to visitors of inspecting his lordship's Indian museum.

**ROYAL BRITISH NURSES' ASSOCIATION.**—The fifth annual conversazione of this institution was held at Princes' Hall, Piccadilly, on Wednesday evening last, when Princess Christian pinned on the breasts of the new members the Association's bronze cross. The guests were received by Sir J. Crichton Browne, Mr. Pick, Miss Stuart of St. Bartholomew's Hospital and Miss Hogg of the Naval Nursing Hospital. Most of the metropolitan hospitals and many of those in the provinces were represented, the nurses being in uniform. Amusement was provided by Mr. Corney Grain and the performance of the "Bijou" Orchestra under Mr. J. Plougher.

**WESTERN INFIRMARY, GLASGOW.**—During the past year there have been treated in this infirmary 12,442 out-door patients and 3897 in-door. The average period of residence of the in-door patients was 34·37 days; the deaths numbered 312, or 8·03 per cent., but deducting 61, those who died within forty-eight hours after admission, the death-rate becomes 7·2 per cent. The total income (ordinary and extraordinary) for the year amounted to £26,157 6s. 10d.; after meeting all claims, both ordinary and extraordinary, the sum of £1461 9s. was carried to stock account. Each fully occupied bed cost £61 4s. 9½d.; the average cost per patient was £5 15s. 5½d. The Lady Hozier Convalescent Home at Lanark, a gift to this infirmary, containing about fifty beds, is almost ready for occupation, and the directors make an appeal for the £1300 to £1500 needed for its annual maintenance.

**AN INSANITARY BOARD SCHOOL.**—At the Southwark Police-court this week the clerk to the Lambeth vestry appeared to support a summons taken out against the clerk of the London School Board for disregarding notices requiring him to execute certain repairs in order to place the Johanna Board School in a sanitary condition. It appears that at the school in question a rain-water pipe connected with the drain was found to be discharging sewer air four feet below the open windows of the building. Dr. Verdon, the medical officer of health, had visited the school in the early part of 1891 and found the closets to be foul and ill-constructed. Cases of scarlet fever and diphtheria had arisen amongst the scholars, and he was convinced that the infection was due to the want of sanitary arrangements. Asked if the school could not be closed in order to afford time for effecting the proper repairs, the vestry clerk said that in that case the Government grant would be stopped. The magistrate, however, decided that after the expiration of seven days the work necessary must be proceeded with.

**VICTORIA INFIRMARY, GLASGOW.**—From the annual report of this institution, just published, we learn that last year 1081 patients received in-door treatment. Their average period of residence was 25·9 days; the deaths numbered 76, or 7·4 per cent.; but of these 23 cases were of such a nature that death took place within twenty-four hours, and deducting these the death-rate is reduced to 5·1 per cent. The average cost of each fully occupied bed was £60 11s. 1d., and the average cost per patient £4 9s. 3d. These sums would have been much smaller but for the large feu-duty which has to be paid for the site of the infirmary. The out-door patients numbered 9431. The new pavilion at present building will, it is expected, be ready for patients in a few months; this will raise the accommodation to 150 beds. The ordinary income during the year exceeded the ordinary expenditure by £20 7s. 1d.—"a somewhat unusual but most satisfactory experience." Over a fourth of the ordinary maintenance income was subscribed by working men. The interest of working men in this infirmary is kept up by the fact that they elect five of the board of governors from amongst their own number, and it is gratifying to find that the number of works and factories qualified (by the amount of their subscription) to take part in this election is yearly increasing. Taking into consideration all sources of income and all kinds of expenditure, this infirmary has paid its way and added £3416 to its capital account, which now amounts to nearly £16,000.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ANDERSON, F. T., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the No. 4 Sanitary District of the Alton Union, vice Lazenby, resigned.

ANDERSON, W. H., M.B., C.M. Glasg., has been appointed Medical Officer for the No. 8 Sanitary District, Birkenhead.

BAILEY, S. H., M.B., M.S. Aberd., has been appointed Medical Officer for the Fifth Sanitary District of the Nottingham Union, vice Buckoll, resigned.

BODY, H. M., M.R.C.S., has been reappointed Medical Officer of Health for the Crediton Urban Sanitary District.

BURTON, DR., has been reappointed Medical Officer of Health for the Greenford Rural Sanitary District.

CALLAGHAN, THOS., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Cork Dispensary District, vice Townsend, resigned.

DERAVIN, E. A., M.B., B.Ch. Melb., has been appointed Assistant Medical Officer of the Bendigo Hospital, Victoria, Australia.

DERRY, B. G., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Bodmin Urban Sanitary District.

DOLAMORE, W. H., L.R.C.P., M.R.C.S., L.D.S., has been appointed Second Dental Surgeon to the Westminster Hospital.

EDEN, W. A., L.S.A., has been appointed Assistant Medical Officer of the Infirmary, St. George's Union, vice Tompsett, resigned.

EVANS, WILLIAM, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Anglesey Rural Sanitary Districts.

ELLIOTT, HARRY SCOTT, M.R.C.S., L.R.C.P., L.S.A. Lond., has been appointed Assistant House Physician to St. George's Hospital.

EWING, S. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Resident Medical Officer of the Victorian Eye and Ear Hospital, Melbourne, vice Shuter, resigned.

FRASER, PETER, M.D., M.S., B.Sc. (Public Health) Edin., has been reappointed Medical Officer of Health for the Llangefni Urban Sanitary District.

FUSSELL, E. F., M.B. Aberd., M.R.C.P. Lond., has been reappointed Medical Officer of Health for East Sussex.

GARDNER, W. T., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Medical Officer of Health for Acton.

GAULT, DAVID, L.R.C.S., L.R.C.P. Edin., has been appointed an additional Public Vaccinator for the District of Pahiatua, New Zealand.

GILPIN, F., M.B. C.S., has been reappointed Medical Officer of Health to the Stratford-upon-Avon Town Council.

HEARD, C. DE WOLFE, M.B. Melb., L.R.C.P., L.R.C.S. Edin., has been appointed a Public Vaccinator for Macarthur, Victoria, Australia.

HOOPER, F. L., M.R.C.S., has been appointed a Public Vaccinator and Health Officer for Morningside Shire, Victoria, Australia.

HUMPHREYS, J., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Trawsfynydd Sanitary District of the Festiniog Union.

MALVIN, M., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Eastern Sanitary District of Scarborough.

MILLARD, E. J., M.B., Ch.M. Sydney, has been appointed Junior Resident Medical Officer of the Hospital for the Insane, Paramatta, New South Wales, vice Scott, resigned.

MIRBACH, RUDOLPH, M.D., Ch.D. Munich, has been appointed an additional Public Vaccinator for the District of Waipawa, New Zealand.

MITCHELL, H. ST. JOHN, L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator for Swan Hill, Victoria, Australia.

MORSE, EDWARD, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for Torrington.

MULLALLY, W. T., M.D., M.Ch. Qu. Univ. Irel., L.M. K.Q.C.P. Irel., has been appointed Health Officer to the Council of the Shire of Ballarat, Victoria, Australia.

OLDMEADOW, L. J. H., M.B., C.M. Edin., has been appointed Assistant House Surgeon to the Northern Hospital, Liverpool.

PEEBLES, F. M., M.B. Melb., has been appointed Resident Medical Officer of the Bendigo Hospital, Victoria, Australia.

PULLIN, T. H. S., M.D. St. And., F.R.C.S. Edin., M.R.C.S., has been reappointed Medical Officer of Health to the Sidmouth Local Board.

RYAN, T. F., M.B. Melb., has been appointed Health Officer for Lawloit Shire, Victoria, Australia.

SHOWMAN, L. F., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator for Birchip, Victoria, Australia.

SHUTER, R. E., M.B., Ch.B. Melb., has been appointed Resident Medical Officer of the Melbourne Hospital, Victoria, Australia.

SMITHIES, J. J., L.F.P.S. Glasg., L.R.C.P. Edin., has been appointed Medical Officer for the Gisburn Sanitary District of the Clitheroe Union, vice Lazenby, resigned.

SOUTHBY, A. J., M.R.C.S., has been reappointed Medical Officer of Health to the Slough Local Board.

TENNANT, T. H., L.F.P.S. Glasg., has been appointed Government Medical Officer and Vaccinator for the District of Hillston, New South Wales.

URQUHART, C. T. D., M.B., C.M. Aberd., has been appointed Physician to the Hospital for Incurables District, Aberdeen.

WILLIAMS, G. R., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Fourth Sanitary District of the Henstead Union.

WALL, M. E., M.D. Munich, has been appointed a Public Vaccinator for Bannockburn, Victoria, Australia.

WILSON, J. F., M.D., M.Ch. Irel., has been appointed Medical Officer of Health for the Meriden, Rugby, Solihull, Southam and Warwick Unions, and the Kenilworth, Rugby and Warwick Urban Sanitary Districts.

WRIGHT, HENRY, L.R.C.P., J.M. Edin., has been reappointed Medical Officer of Health for the Gainsborough Rural Sanitary District.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BELGRAVE HOSPITAL FOR CHILDREN, 70, Gloucester-street, S.W.—House Surgeon. Board, lodging, fuel and light found.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon, for six months. Residence, board and washing provided.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House Surgeon. Rooms, coals and lights provided.

LEEDS PUBLIC DISPENSARY, New Briggate.—Junior Resident Medical Officer. Salary £85 per annum.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon.

NEW HOSPITAL FOR WOMEN, 144, Euston-road.—Two Clinical Assistants for the Out-patient Department, for one year.

NEW HOSPITAL FOR WOMEN, 144, Euston-road.—Two qualified Medical Women as Assistant Physicians in the Out-patient Department, for two years.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—House Surgeon. £120 per annum, increasing by £10 a year at the discretion of the Committee, with furnished apartments, board and washing.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon, for six months. Board, lodging and washing provided, with prospect of an honorarium of £10 10s.

ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £150, with furnished apartments, fire, light and attendance.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House Surgeon. Salary, with board and residence, £75 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand.—Clinical Assistants for six months.

ROYAL UNIVERSITY OF IRELAND, Dublin.—Examiner in Ophthalmology and Otology.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Junior Assistant-House Surgeon. Salary £57 per annum, with board, lodging and washing. (Applications to Dr. Crochley Clapham, Hon. Sec. Medical Staff, the Grange, near Rotherham.)

STOCKPORT INFIRMARY.—House Surgeon. Salary £100 per annum, with board and apartments.

UNIVERSITY OF EDINBURGH.—Five Examiners.

VICTORIA HOSPITAL, Folkestone.—House Surgeon, unmarried. Salary £80 the first year, with an increase of £10 yearly for the following; two years, together with board and residence.

## Births, Marriages and Deaths.

### BIRTHS.

BIGGER.—On Dec. 4th, at Queen's-park-gardens, Streatham-common, the wife of Dr. W. Grimshaw Bigger, of a son.

BODILLY.—On Dec. 2nd, at Grove-road, South Woodford, Essex, the wife of Reginald Thomas Hacker Bodilly, L.R.C.P., M.R.C.S., of a son.

ROBERTS.—On Nov. 29th, at Melton-under-Wychwood, Oxon., the wife of Henry Roberts, M.R.C.S., of a daughter.

TAIT.—On Nov. 28th, at Highbury-park, the wife of Edward Sabine-Tait, M.D., of a son.

### MARRIAGES.

DOWNIE—OGILVIE.—On Dec. 6th, at Buckingham-terrace, Edinburgh, Kenneth Mackenzie Downie, M.D., Indian Medical Service (Bengal), to Margaret, youngest daughter of the late James Ogilvie, Esq.

GORDON—REED.—On Oct. 6th, at Clunes, Victoria, Australia, by the Rev. Elder Gray, B.A., Arthur H. Gordon, M.R.C.S. Eng., A.K.C. Lond., youngest son of the Rev. J. B. Gordon, formerly Prebendary of Doon, to Elizabeth Scott, widow of the late Arthur Reed, of Clunes.

LYNDON—CLEMENTS.—On Nov. 30th, at St. Peter's Church, Eaton-square, George Ernest Lyndon, M.R.C.P., L.R.C.S. Irel., of Pembroke-gardens, Bayswater, to Lady Selina Clements, fifth daughter of the late Hon. and Rev. Francis Clements and sister of the late Earl of Leirrim.

PEARCE-THOMAS—DAWSON.—On Nov. 30th, at St. Nicholas Church, Brighton, by the Rev. Canon Haddock, Vicar of Clapham, Bedfordshire, assisted by Rev. C. W. Bond, Vicar, W. Pearce-Thomas, M.B., C.M., Heckmondwike, Yorks, to Alice Mary, daughter of the late Rev. J. F. Dawson, The Woodlands, Bedford, and 1, Vernon-terrace, Brighton.

SMART—CADDY.—On Nov. 29th, at St. Luke's Church, Kew-gardens, William Herbert Smart, M.D., of Polesworth, Warwickshire, to Florence, elder daughter of Dr. Caddy, D.I.G., Royal Navy, of the Charterhouse, Lion-gate-gardens, Richmond.

WEBB—GOADBY.—On Dec. 1st, at Christchurch, Sandown, Isle of Wight, Sidney Roberts Webb, M.D., second son of Conrade E. Webb, of Hampstead, to Agnes Phoebe, second daughter of Major S. H. Goadby, of Sandown.

WREFOED—GUERRIER.—On Dec. 7th, at the Parish Church of St. Peter, Woking, John Wrefoed, L.R.C.P., M.R.C.S., third son of the late Samuel Wrefoed, of Exeter, to Emma Mary Joynton Guerrier, younger daughter of H. J. Guerrier, Esq., of Colville, Woking.

## DEATHS.

- HADAWAY.—On Dec. 6th, at Garlinge, Westgate-on-Sea, Dr. James Hadaway, formerly of 47 B, Welbeck-street, Cavendish-square, aged 78.
- ROWLANDS.—On Nov. 28th, at King-street, Carmarthen, James David Rowlands, M.B.C.S., eldest son of James Rowlands, F.R.C.S.
- SHONE.—On Dec. 3rd, at East Sheen, S.W., of pneumonia, Richard Lewis Shone, Surgeon, aged 60 years.

*N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.*

## BOOKS ETC. RECEIVED.

- ACKERMANN & EYLLER, Chicago.  
Consumption and Kochine (Tuberculinum Kochu), Vol. II August 1892. By Rudolf Seiffert. With Coloured Plates. pp. 118.
- BAILLIÈRE, TINDALL & COX, King William-street, Strand, London, and at the Australasian Medical Gazette Office, Sydney.  
The Australasian Medical Directory and Handbook. Edited by L. Bruck. Third Edition; corrected up to 31st August, 1892. pp. 237.
- DAVIS, F. A., Co., London and Philadelphia.  
Diseases of the Lungs, Heart and Kidneys. By N. S. Davis, Jun., A.M., M.D. 1892. pp. 350.
- KEGAN PAUL, TRENCH, TRÜBNER & Co., London.  
Past and Future; being a Second Edition, with Addenda, of Saturn's Kingdom, or Fable and Fact. By C. M. Jessop, M.R.C.P. Lond. 1892. pp. 307. Price 6s.
- LONGMANS, GREEN & Co., London.  
Civilisation and Progress. By J. B. Crozier. Third Edition. 1892. pp. 404. Price 14s.
- MACMILLAN & Co., London.  
The Chemical Basis of the Animal Body. An Appendix to Foster's Text-book of Physiology. Fifth Edition. By A. Sheridan Lea, M.A., D.Sc., F.R.S. 1892. pp. 290. Price 7s. 6d.
- MACDOUGALL, A., Glasgow.  
Transactions of the Glasgow Pathological and Clinical Society. Vol. III. Sessions 1886-1891. Edited by A. E. Maylard, B.S., M.B. Lond., and J. H. Carslaw, M.B. 1892. pp. 303.
- PRINTED FOR THE ASSOCIATION, Philadelphia.  
Transactions of the Association of American Physicians. Seventh Session, May, 1892. Vol. VII. pp. 355.
- PENTLAND, YOUNG J., Edinburgh and London.  
Illustrations of the Nerve Tracts in the Mid and Hind Brain and the Cranial Nerves arising therefrom. By Alex. Bruce, M.A., M.D., F.R.C.P. Edin. With Plates. 1892.
- SMITH, EIDER & Co., Waterloo-place, London.  
Transactions of the Pathological Society of London. Vol. XLIII., for the Session 1891-92. pp. 357.
- SPOTTISWOODE & Co., Gracechurch-street, London.  
The Dentists' Register for 1892. pp. 230.
- THE RECORD PRESS, Limited, 376 Strand, London.  
Tasty Tit-Bits and Dishes Dainty. By Lady Constance Howard. pp. 102. Price 1s. 6d.
- UNWIN, T. F., Paternoster-square, London.  
Real Cookery. By Gild. 1893. pp. 80.
- WOOD, WM., & Co., New York.  
Diseases of the Chest, Throat and Nasal Cavities. By E. F. Ingals, A.M., M.D. Second Edition. Illustrated. 1892. pp. 675.  
Text-book of Nervous Diseases. By Chas. L. Dana, A.M., M.D. Illustrated. 1892. pp. 524.

Royal Road to the B.P.; by Mr. F. Clayton (Harmer & Harley London, 1892); price 1s.—Helbing's Pharmacological Record, No. XI., November, 1892 (at 63, Queen Victoria-street, London).—An Operation for the Radical Cure of Stricture of the Lachrymal Duct, with Description of a Stricturetome; by C. H. Thomas, M.D. (reprint from the Ophthalmic Review, Vol. XI., No. 181).—De la Cystocèle Inguinale rencontrée au Cours de la Kélotomie; par le Dr. Henri Bourbon (G. Steinhell, Paris, 1892).—Teacher and Student, an Address; by Wm. Osler, M.D., F.R.C.P. Lond. (J. Murphy & Co., Baltimore, 1892).—The Veterinarian; December, 1892 (Longmans, Green & Co., London); price 1s. 6d.—Poems in Petroleum; by J. C. Grant (E. W. Allen, London, 1892); price 2s.—Chirurgische Mittheilungen über die Chronisch Rheumatischen Gelenkentzündungen; von Prof. Dr. Max Schüller (L. Schumacher, Berlin, 1892).—A Case of Myxoedema in a Male; by A. Davies, M.B.; also a Case of Myxoedema in a Male successfully treated by Injections of Sheep's Thyroid Juice; by A. Davies (Adlard & Son, Bartholomew-close, London).—Les Salpingites; par M. le Dr. Landau (H. Lamortin, Bruxelles, 1892).—Studien zur Physiologie und Pathologie des Blutes und der Lymphe; von Dr. M. Löwit (G. Fischer, Jena, 1892).—Congrès Français de Chirurgie, 6e. Session, Paris, 1892 (Félix Alcan, Paris).—Physiologie, Travaux du Laboratoire de M. Chas. Richet; tome premier, Système Nerveux, Chaleur Animale (Félix Alcan, Paris, 1892).—The Cry of the Children (an Essay in Tyranny and Ignorance); by a Free Lance (Williams & Norgate, London, 1892); price 2s. 6d. net.—La Comtesse de Chambrun ses Poésies (C. L.) (Calmann Levy, Paris, 1893).—Magazines for December: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

## Medical Diary for the ensuing Week.

## Monday, December 12.

- KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.
- ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
- ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
- ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.
- CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2.
- HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.
- METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
- ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.
- CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
- UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M. Thursday, 9 A.M. Eye Department, 2.
- MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. A. Ernest Sanson: The Irregular Heart—a Clinical Study

## Tuesday, December 13.

- GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
- ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
- ST. MARK'S HOSPITAL.—Operations, 2 P.M.
- CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
- WESTMINSTER HOSPITAL.—Operations, 2 P.M.
- WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 1.45; Saturday, 9.15.
- ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.
- ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Dr. Arthur H. N. Lewers: On some points in the Supra-vaginal Amputation of the Cervix Uteri for Cancer, with special reference to the methods adopted in cases where for two years and upwards the disease has not recurred.—Dr. A. Haig: The Effects of the Iodides on Arterial tension and the Excretion of Urates.

## Wednesday, December 14

- NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.
- MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
- CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
- ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
- LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.
- ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
- SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
- GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30. Eye Department, 2.
- ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
- CHILDREN'S HOSPITAL, GREAT ORM-ND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
- HUNTERIAN SOCIETY (London Institution).—8.30 P.M. Pathological Evening. Dr. James Galloway: Protozoa as Causes of Disease (with Lantern Demonstration).—Dr. Arnold Chaplin: Specimens showing Induration of the Lungs.—Dr. Charleswood Turner, Mr. C. J. Symonds and Mr. J. Poland will also exhibit Specimens.

## Thursday, December 15.

- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2.
- CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).—5 P.M. Dr. Dundas Grant: Affections of the External Meatus.
- HARVEIAN SOCIETY.—8.30 P.M. Mr. Field: The Pathology and Treatment of Suppurative Diseases of the Ear. (Third Harveian Lecture.)
- NEUROLOGICAL SOCIETY OF LONDON (National Hospital for the Paralysed and Epileptic, Queen-sq.).—8.30 P.M. Dr. Batten (introduced by the President): Facial Hemiatrophy.—Dr. Buzzard: Case with Anomalous Nervous Symptoms.—Dr. Pitt: Muscular Atrophy, with Hypertrophy of Neck Muscles.—Dr. Ferrier: Syringomyelia. And other cases.

## Friday, December 16.

- ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
- UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2.
- LONDON SKIN HOSPITAL (40, Fitzroy-sq., W.).—3 P.M. Dr. E. J. Barry: Psoriasis and its Treatment.

## Saturday, December 17.

- UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 8th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Dec. 2	30.14	N.E.	36	35	45	44	35	.30	Hazy
" 3	29.60	S.E.	34	43	55	52	36	.11	Raining
" 4	29.61	N.W.	36	34	61	40	35	.12	Cloudy
" 5	29.73	N.W.	32	..	40	39	31	..	Cloudy
" 6	29.83	S.W.	33	32	..	41	31	..	Foggy
" 7	29.97	N.E.	36	35	43	41	33	.11	Overcast
" 8	30.23	N.	38	36	41	30	35	..	Cloudy

Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

COMMUNICATIONS relating to the EDITORIAL business of THE LANCET must in every case be addressed exclusively "To the Editors," and not to them otherwise than in their official capacity.

RECURRENCE OF MEASLES.

Mr. Leonard S. Barnes, M.R.C.S., L.R.C.P. (Whitwell, Herts.), writes:—

"A severe epidemic of undoubted measles broke out in August and September last in this and neighbouring villages. All the schools were closed. This November the epidemic has returned, and with a few exceptions all the children have had it again, but more severely than in the last epidemic, several children dying of broncho-pneumonia. In this village out of 183 children 171 have had measles, nearly the same proportion as last August. Also in this last epidemic a great many adults who had had it in younger days caught the infection again. The first epidemic was typical of morbilli in every symptom and in the incubation and appearance of rash. I should like an explanation if anyone would forward me one."

\*\* Although from time to time undoubted instances of recurrence of true measles are met with, even at a short interval, yet we are unaware of any widespread recurrence similar to that observed by Mr. Barnes. Is it possible that the first and milder cases were cases of röteln?—ED. L.

Mr. J. P. Long.—A list of the most recent literature on the subjects of pharmacology and therapeutics is given in our Students' Number, Sept. 3rd, 1892.

HÆMORRHAGE AFTER TOOTH EXTRACTION—ITS ARREST.

To the Editors of THE LANCET.

SIRS,—I have seen but two cases of serious hæmorrhage after tooth extraction. In both of these cases the plugging of the cavity with a piece of wool soaked in turpentine was at once rapid and effectual; and I think this treatment, which I owe to my teachers, is worthy of being more widely known. I am, Sirs, yours faithfully,

Aldersgate-street, E.C., December, 1892. R. MCINTOSH, M.B.

USE OF TITLES.

R. J. W.—The title mentioned—M.B.—implies the possession of a University degree in medicine, and many of our correspondent's friends will give him, in courtesy, the title of doctor; but he will do well not to assume it as a right. His titles appended to his name are its best ornament. The title of "Doctor" appertains to various faculties.

THE VIENNA MEDICAL SCHOOL.

We have been favoured by an occasional correspondent with a sketch or résumé of the advantages which may be derived by a newly qualified practitioner from a sojourn of a few months in either Berlin or Vienna, preferably the latter. A short abstract of the communication can only be given here. *In limine*, a knowledge of the German tongue, or at least a working acquaintance with it, is almost indispensable to one who is desirous of pursuing the study of one or other of the ancillary branches of medicine and surgery. In Vienna every subject is taught in classes. Before the student can attend any course he has to matriculate in the university, which means simply sending in a paper with various items of information in it concerning birth-place, religion &c. Then, having decided what courses he proposes to attend, he fills in more papers and, as a rule, prepays the fees for them at the university. A difference is usually made between qualified and unqualified men, the former being generally charged a higher fee for a course than the latter. An advantage may be obtained in Vienna, as compared with London, in that a student can attend private classes limited to four or five men, whom a *privat docent* will teach and to whom he will show cases (spoken of as "material"). These patients are paid so much per hour for submitting to examination. By means of this system a large number of cases may be seen in a short time. The subjects which can with most advantage be studied are diseases of the throat, of the ear and of the skin. Gynecology can also be fairly well studied in the Austrian capital. Bacteriology, however, is better learnt in Berlin than in Vienna. In some of the clinics, moreover, especially the smaller ones, exceptionally interesting cases are retained and come up periodically for examination by the students. Living in Vienna is not expensive; comfortable board and lodging may be had there at a cost of £2 2s. per week. In conclusion, it may be stated that if a student has only a short time at his disposal and wishes to get some experience in diagnosis in three or four special diseases, he will do well to spend that time in Vienna, and if on his arrival there he applies to the Secretary of the Anglo-American Medical Association, he will at once be supplied with, or put in the way of obtaining for himself, all the information he requires for his purpose.

Mr. J. G. Williamson, M.B.—Their name is legion. Among the leading ones are: *New York Medical Record*, *New York Medical Journal*, *Boston Medical and Surgical Journal*, *Medical News* (Philadelphia).

ENGLISH PRACTITIONERS ABROAD.

To the Editors of THE LANCET.

SIRS,—Sir Richard Quain, in his address at the General Medical Council, draws attention to the illiberal legislation respecting the practice of medicine by English medical men in France and Switzerland. As one who has run the gauntlet of heavy fines, permission to practise, retraction of permit, and, finally, the expense and loss of time in passing the Swiss examinations, I should like to point out yet another obstacle in the way of practice abroad, besides the examinations to be undergone. I refer to the taxation imposed on income. What the French scale is I am unable to say; but here, in Davos, the taxes on an income of 12,000 francs amount to 13.75 per cent. cantonal tax and about the same for local taxation. Roughly, that means paying six shillings out of every guinea. All incomes are treated alike, native and foreign. The scale begins at 1 or 2 per cent. on small incomes, but when 12,000 francs (about £377) are reached the taxation amounts to the sum I have stated. I am, Sirs, your obedient servant,

A. TUCKER WISE, M.D.  
(Diplôme Suisse Fédéral).

Davos Platz, Switzerland.

"INVESTIGATIONS INTO THE ETIOLOGY OF MEDITERRANEAN FEVER.

Surgeon-Captain M. Louis Hughes (Malta) adds the following note to the paper on this subject which appeared in our last issue:—"Since forwarding this paper three more fatal cases of this fever have come under my notice, in all of which I have been able to demonstrate the presence of this micro-organism, both by cultivations and in cover-glass preparations of fresh splenic substance."

PHOTOGRAPHS AND TESTIMONIALS.

To the Editors of THE LANCET.

SIRS,—Will you call attention through your columns to a decided grievance of qualified assistants who reply to advertisements? Some time ago I replied to one. With my reply I forwarded a copy of testimonials and enclosed a stamped and addressed envelope for their return. From that day to this I have not seen either my testimonials, envelope or stamps. Surely, in the name of honesty, when a stamped addressed envelope is enclosed it is only just to return testimonials. The same applies to photographs, which are frequently advertised for but, as far as my experience goes, never returned.

I am, Sirs, yours faithfully,

Dec. 7th, 1892.

AGGRAVATED (M.B.).

## METHOD OF MOUNTING SPUTUM.

MR. W. R. LAKE, F.R.C.S., submits to us a description of a method he has employed for preserving sputum containing tubercle bacilli, though, as he states, the method may have been already adopted with respect to other tissues. The following is the description of the process:—"The sputum to be preserved is put into a 5 per cent solution of corrosive sublimate, in which it can be kept for three weeks or more; but before using a specimen it should be transferred for some hours to normal saline solution, or the whole may be kept in a weak solution of corrosive sublimate in the normal saline solution. The next step consists in placing a small piece of the coagulated mucus on a cover glass after drying with filter paper and adding a few drops of a 1 in 2 solution of iodide of potassium, coloured slightly with iodine. As the secretion becomes coloured it softens; the excess of fluid is removed by filter paper and the sputum squeezed between two cover glasses in the usual way, dried and stained with Gabbet's stain. This method also enables one to keep a specimen to prove the efficacy of doubtful staining fluid."

Mr. G. S. Smith, B.Sc.Lond.—Our correspondent must be aware that there are many possible explanations for the discordant results, in view of the varying conditions of time and place as well as the differences in individual modes of thought and appreciation.

## NEW SOURCE OF LEAD POISONING.

To the Editors of THE LANCET.

SIRS,—I have lately had my attention drawn to a new source of lead poisoning. A considerable number of men are now employed by the manufacturers of storage or secondary cells (used for electric lighting and other purposes) in making, cleaning and recoting the plates. The usual form of plate is a lead plate coated with red lead, but latterly cells have been introduced for the purpose of driving and lighting vehicles of various kinds, where lightness is an object, to meet which requirement the plates are made by compressing in a mould a mixture of sulphuric acid and red lead. The superfluous material which escapes from the mould is wiped off by hand apparently in many cases. This could be easily avoided, but it seems difficult for the men to escape getting the material on their hands during some part of the process, and I am told that during the mixing of the red lead and sulphuric acid a great deal of finely powdered red lead flies about and is inhaled. Most if not all the men seem to do their work with their hands unprotected, and one man came to me with his hands still showing traces of the red lead which he had been using.

The precautions which suggest themselves are extremely simple: the wearing of a thick leather or indiarubber glove in coating and making the plates and a respirator during the mixing process, as well as the enforcement of the usual rules as to cleanliness in eating and the use of sulphuric acid drinks, if the poisoning take place in that way and not by absorption through the skin. I believe many observers do not consider the latter method of introduction a likely one. As the manufacture of such batteries is of recent origin it is extremely likely that the employers do not think of the risk they are putting the men to, and the men being poorly educated (as the work is quite simple) and not following a trade with traditions, as in the case of painters and plumbers, may not have even heard of lead poisoning. I have seen three such cases during the last few weeks at the Westminster Hospital, all coming from the same employers; and I understand from one of them that out of thirteen men employed by his firm in making plates, four of them have suffered from lead poisoning in six months. During the last eighteen months I have seen two or three others from various works, so the carelessness is not peculiar to one firm.

I think that the matter is sufficiently serious to have attention called to it, seeing that plumbism is such a very unpleasant affection in its immediate consequences as well as serious in its remoter results, and at the same time easily avoided, if only those who are chiefly concerned will take the trouble to enforce precautions which are so simple in themselves.

I am, Sirs, yours truly,  
Lower Seymour-street, W., Nov. 28th, 1892. W. A. WILLS, M.D.

## MEDICAL ADVERTISING IN BANGALORE.

WE insert with much regret an advertisement in an Indian newspaper, the *Bangalore Spectator*, by a medical man, whose prizes might have been expected to raise him above either the disposition or the need to resort to such unprofessional methods of making his merits known.

"C. G. R. Naylor, M.R.C.S. Eng., L.R.C.S. and P. Edin., late resident surgeon, Royal Maternity Hospital, Edinburgh; twice prizeman in midwifery and diseases of women and children; general medical practitioner and accoucheur. Open to engagement or consultation. Address, 'Charlton Hall,' No. 1, Magrath-road, near Daily Post Press."

M.R.C.S. Eng.—Our correspondent will find both subjects fully treated in Ziemssen's System of Therapeutics, of which an English translation was published a few years ago (Smith, Elder and Co.). The most recent manual on Medical Electricity is that by Stevenson and Jones (H. K. Lewis).

## THE "TELEPHONE EAR."

WE hardly needed Mr. Rudyard Kipling's vivid sketch of the life passed at the end of a telephone by the American millionaire in summer quarters to bring before us that latest outcome of a too keenly competitive civilisation, the "telephone ear." That particular neurosis, which seems, in the *New World* at least, to be earning a place in classification with the "lawn tennis leg," had already been foreseen and described by Professor Lannois of the Lyons Medical School. For ears which are not especially sound he considers the telephone to be quite contra-indicated, as even in a comparatively robust organ its continuous use is followed by symptoms more or less grave—cephalalgia, vertigo, hyperesthesia, insomnia and sometimes psychical disturbances of a character which might become chronic. He counsels a sparing use of the instrument in the case of those whose ears are sound and an absolute abstention from it in those whose organs are already impaired from causes hereditary or induced. His memoir, which was read and discussed in a confirmatory sense at the Congress of Aural Surgeons held in Paris in 1880, will be found in the "*Comptes Rendus et Mémoires*," p. 265, for the same year.

W. B.—We believe our correspondent could not do better than consult Dr. Thresh of Chelmsford, the county health officer.

## A FINGER GUARD.

To the Editors of THE LANCET.

SIRS,—May I draw attention, through the medium of your columns, to a new form of finger guard which has been made for me by Messrs. Maw, Son and Thompson? It is made of the thinnest possible rubber and rolled up, so that it can be applied to the finger in a moment. I have used these guards for the last six months in my outpatient clinic at the Lock Hospital with great comfort. The rubber is so thin that the slightest induration can be appreciated, and I need hardly insist on the importance of diagnosing an infecting sore at the earliest possible moment. The fingers are most easily cleansed and sterilised after each examination without corroding the surgeon's skin or risking the infection of the next patient. To those surgeons who have to examine a number of cases in a limited time, the old-fashioned precautions—bits of lint &c.—are impossible, and if no precautions be taken infection is merely a matter of time. I can strongly recommend these guards to all surgeons and gynaecologists.

I am, Sirs, yours faithfully,

Hertford-street, W., Nov. 1892.

ARTHUR H. WARD.

## HISTOLOGICAL RESPIRATION TEST.

IN an article in the *Boletín Médico de Puebla* on a new method for determining whether a child has breathed, Dr. Moreno points out that the epithelium of the alveoli of the lungs before birth is of a cubical character, but that after respiration has taken place it is flattened out into the ordinary tessellated variety. In order to determine whether this change has or has not occurred he injects a solution of nitrate of silver of the strength of 1 in 800 into the bronchus, which is then tied, and the whole lung suspended in the same silver solution for some hours. It is then dried, washed with distilled water and hardened in spirit, during which, being exposed to the action of light, the inter-epithelial cement reduces the silver salt and becomes blackened, so that the outline of the cells can be made out. Sections are then made and a solution of chloride of sodium employed to wash away any excess of silver. The sections are mounted in glycerine and examined.

Dr. R. McLeod (Upper Norwood).—The paper was duly received and is marked for publication.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

## During the week marked copies of the following newspapers

have been received:—*The Morning, Natal Witness, Cork Examiner, Leith Express, Dundee Advertiser, Coventry Herald, Medical Monthly, Times of India, Health, English Mechanic, Keighley News, Public Opinion, Flintshire Observer, Scientific American, Optician, Leeds Mercury, Scottish Leader, News of the World, Court Circular, Liverpool Daily Post, Sunday Times, Indian Engineering, Horncastle News, Irish Times, Blackburn Standard, Yarmouth Independent, Leicester Daily Post, Liverpool Mercury, Ipswich Journal, Western Morning News, Freeman's Journal, Trowbridge Chronicle, Medical Record (New York), Shield's Daily Gazette, Birmingham Daily Post, West Middlesex Standard, Surrey Advertiser, Hertfordshire Mercury, Mining Journal, Bristol Mercury, Insurance Record, Local Government Chronicle, City Press, Yorkshire Post, Reading Mercury, Weekly Free Press and Aberdeen Herald, Guy's Hospital Gazette, Local Government Journal, Builder, Architect.*



Lectures

ON THE

PHYSIOLOGY AND PATHOLOGY OF  
BLOOD DESTRUCTION.

Delivered in the Examination Hall, Victoria Embankment,  
on Nov. 22nd & 29th, 1892,

By WILLIAM HUNTER, M.D. EDIN.,  
M.R.C.P. LOND. &c.,

ASSISTANT PHYSICIAN TO THE LONDON FEVER HOSPITAL; LATE  
SANITARY RESEARCH SCHOLAR, GROCERS' COMPANY.

LECTURE II. — (Concluded.)

GASTRO-INTESTINAL CAPILLARIES AS A SEAT OF  
HÆMOLYSIS.

THE spleen being thus apparently the chief seat of hæmolytic change, one naturally inquires where this change takes place after its removal. As regards blood pigment, the place of the spleen is then taken, I find, partly by red bone marrow, partly by the capillaries of the liver (Experiments 64, dog, and 89, rabbit), the amount of pigment within the capillaries of the liver being greater than ever observed under any other circumstances. Pigment alone has, however, as we have seen, but a limited significance in this relation, and this is again found to hold good. For my observations show that, after removal of the spleen, it is not the capillaries of the liver, but those lying at the other end of the portal area—namely, within the gastro-intestinal mucosa—that constitute the chief seats of hæmolytic change. The evidence I can adduce in support of this view is naturally much less conclusive than it was in the case of the spleen, on account of the widespread area over which these capillaries extend.

This evidence is of the following nature. When destruction was moderate in amount the blood of the mesenteric veins showed no changes, while that of the splenic vein showed, it might be, extremely marked changes (Experiments 78, 80, 86 and 87). If the degree of destruction were greater, slight changes were found, but much less pronounced in character than those in the splenic vein (Experiment 82). In short, when the spleen was present it was exceptional to find changes in the blood issuing from the gastro-intestinal tract, even when a considerable hæmolytic change had been experimentally induced. After removal of the spleen, on the other hand, this was the rule even with a considerably less hæmolytic change.

Not only were changes more frequently met with, they were more various and extensive in their character. While in the normal animal they comprised at most the presence of an excess of albuminous granules, in the spleenless animal they included not only a much larger number of both granules and spherules, but also—what formerly had never been found—large pigment cells enclosing red corpuscles and red corpuscles in process of active disintegration, oozing out of their stroma and breaking up into coloured spherical bodies. Such changes had previously been entirely confined to the blood of the spleen and the splenic vein (Experiments 62, 64 and 77). They comprised, moreover, a still more significant change, one to which I have as yet made no reference—namely, a very large increase in the number of leucocytes, fourfold or fivefold increase (Experiment 64, dog)—a change never observed to the same degree even in the splenic vein, to which it formerly was mainly confined (Experiment 121, dog). Obviously therefore some of the changes mainly confined to the spleen in the normal animal were after its removal carried out within the much wider area of the gastro-intestinal capillary tract. Surprising as this result at first seemed, it ceased to be so in the light of the facts afterwards ascertained. For with regard both to its extent and the mass and activity of the cells, both epithelial and lymphoid, lying in closest relation to it, the capillary area of the gastro-intestinal mucosa may fitly be regarded as an organ second in size and functional activity to none in the body, not even excepting the liver. Difficult as I felt it to be then to explain why the destructive action of a drug like toluylendiamine should apparently be more marked in this area than in another, I nevertheless concluded that such was

No. 3616.

the case. My difficulty was cleared up when, as will presently be seen, I found that it was activity of cells more than any other factor that determined the occurrence of hæmolytic change even after the injection of a destructive agent like toluylendiamine.

I conclude, then, that second only in importance to the spleen, the gastro-intestinal capillary area is the most important seat of hæmolytic change. I place it second to the spleen for the reason that when the spleen is present, the changes in the blood coming from this area are altogether less marked than those found in the splenic vein. I place it before the capillary area of the liver; partly because the chief changes after removal of the spleen are presented by the blood issuing from the gastro-intestinal area, and are of the same character as those previously found in the splenic vein; and partly because as regards their mass, their character and their activity, the cells lying in relation to the capillary area resemble more closely those within the spleen, than do those in relation to the liver capillaries.

RÔLE OF THE LIVER IN HÆMOLYSIS.

To sum up the results of my observations with regard to the chief seats of hæmolytic change. In their order of importance, the seats are: (1) The spleen; (2) the gastro-intestinal capillary area; (3) the capillaries of the liver; and lastly (4) the red bone marrow. All of these have two features in common of capital importance—namely, comparative slowness of the circulation and a large mass of active cells lying in close relation with the blood. With the exception of the bone marrow—and I regard it of little importance in comparison with the others—all the other seats are in connexion with the portal circulation and pour their blood into it. In all cases therefore the products of hæmolytic change, whatever be their nature, have to pass through the liver before they reach the general circulation. It is then that the chief rôle of the liver in relation to hæmolytic change becomes in my opinion manifest. A certain amount of hæmolytic change may take place in its capillary area as the result of the activity of the mass of leucocytes contained within it, and to a certain extent also it may be the activity of the liver cells adjacent to it. Still the chief function of the liver is not in inducing hæmolytic change, but getting rid by excretion or otherwise of the products of hæmolytic change. Amongst the most abundant of these is hæmoglobin. Set free within the spleen and in the gastro-intestinal capillary area (as we shall presently see by the activity of the cells lying in these areas), it is carried to the liver, passed through the endothelial cells of the walls of the capillaries and taken up by the liver cells. It is here broken up, the usual products of this destruction being the bile pigments and a small trace of iron daily excreted in the bile (Young, Kunkel, Hoppe-Seyler, Baserin and Novi). Sometimes in addition to these, but, in my opinion, not necessarily constantly, a trace of blood pigment remains behind in the liver cell. The morphological products of destruction—the granules and spherules &c.—are likewise arrested in passing through the liver, and prevented from passing into the general circulation, not, however, through the agency of the liver cells, but through that of the leucocytes within the capillaries. I conclude from the frequency with which I have found elements of this kind and pigment cells in the capillaries of the liver and in the portal area, while none were to be found in the general circulation during life or in the systemic veins after death, that the power thus possessed by the leucocytes and endothelial cells of the liver is a very considerable and an important one.

The description I have given of the seats, and by anticipation also of the nature, of hæmolytic change thus in many respects from the conceptions regarding this process with which we started. And in no respect more so perhaps than with regard to the rôle of the liver in hæmolytic change. Hitherto the first place has been tacitly assigned it in this relation. The rôle of the spleen (and other organs) has been called in question either on the ground that no diminution was discoverable in the number of red corpuscles issuing from it, or that no free hæmoglobin could be detected in the blood of the splenic vein (Schäfer). But as regards the liver, if any organ were specially concerned in hæmolytic change more than another, that organ was admittedly the liver, and the destruction was, moreover, effected in some way or other through the agency of the liver cells.

One of the results of this investigation has been, in my estimation, the overthrow of the liver from this position of supremacy and its relegation to another, doubtless still very

important, but nevertheless somewhat humbler sphere of action—namely, that of an excretory organ. And instead of hæmolytic action occurring in the blood generally, and not in any particular organ, we have shown that it is confined almost exclusively to the *portal* as distinguished from the *general* circulation; and moreover, that its two chief seats within this area are first the spleen and secondly the gastro-intestinal capillary area. Lastly, instead of it being an occasional process, consisting in a slow change in the blood, evidenced in the case of the red corpuscles by their gradual loss of elasticity and loss of function, we have seen that hæmolytic action is a daily process involving a daily liberation of a certain amount of hæmoglobin into the plasma of the blood, and its conversion into bile pigments through the agency of the liver cells.

### III. NATURE OF HÆMOLYSIS.

In ascribing such an importance to the activity of cells lying in close relation to the blood, I am anticipating somewhat, for no evidence in support of this has as yet been adduced.

The next object of my investigation was to ascertain why hæmolytic action should be confined to the *portal* as distinguished from the *general* circulation, and why, in particular, the removal of the spleen should so materially affect the action of a destructive agent injected directly into the general blood. In arriving at a solution of this problem I encountered at the outset considerable difficulties, which I vainly at first endeavoured to overcome. The destructive action of the poison, as I satisfied myself time after time, was so obviously intensified within the spleen—sometimes, indeed, confined to that organ—that my first surmise was that the poison had accumulated in the spleen in greater quantity than elsewhere. I therefore sought for a method by which I could detect the presence of toluylendiamine even in the smallest quantity. I thought at one time I had found such a method in the use of benzoyl-chloride—an agent which, as I found, formed a bulky compound with toluylendiamine. On being put to the proof, however, the method failed me. It became then clear to me that the only method by which I could hope to attain my end must be a colorimetric one. After a time such a one I found—a reversal of that usually employed for the detection of nitrites in drinking-water. Phenylendiamine gives with nitrites after adding a drop of dilute hydrochloric acid a deep characteristic colour reaction. If phenylendiamine could be thus used to detect the presence of nitrites it was clear that the process might be reversed and that nitrites could be used to detect the presence of phenylendiamine, or also, as I now found, of toluylendiamine.

After a number of trials and failures I succeeded in working out a method based on this principle for the detection and estimation of toluylendiamine even in minute traces in the blood and other tissues. The delicacy of the colour reaction was such that I found I could estimate the substance even to a hundredth of a milligramme. Thus, out of 10 milligrammes of the substance added to the entire blood of an animal received into 50 cc. of a 10 per cent. NaCl solution I found on estimation 9.95 milligrammes—viz., 9.75 in the plasma, and 0.2 milligrammes in the corpuscles (Experiment 132).

I made use then of this method in another series of experiments both on rabbits and dogs, in which the amount of toluylendiamine in the various tissues and excretions was estimated at intervals of time after its injection, varying from one hour up to eighteen.

The results were as follows. In the first place I found not the slightest support to the view that the drug accumulates in the spleen in greater amount than elsewhere; on the contrary, even three hours after injection of half a gramme of toluylendiamine the amount found in the spleen was too small to be estimable—less even than in blood, liver or kidneys (Experiment 126). I found, however, what to me was even more instructive than this, absence of toluylendiamine from the spleen—namely,

(1) That even within the short space of one hour after its injection the total amount of the substance present in the blood rarely exceeded one milligramme and was generally less, even after injection of quantities of half a gramme (Experiments 119 and 125, dog, 126, 128 and 135, rabbit).

(2) That the organs containing most of the substance were those concerned in excretion—namely, the liver and kidneys;

(3) Lastly, and most important of all, that in passing through the body almost the whole of the toluylendiamine was broken up, only an eighteenth or twentieth part of it being accounted for in the urine and bile excreted subsequently to its injection (Experiments 121, dog, and 135, rabbit).

For this last result I was quite unprepared. For toluylendiamine is a remarkably stable body, and it had never occurred to me as possible, still less probable, that it could be thus broken up. The fact however that it is so supplies, I think, the key that is wanting to the explanation of the remarkable effect of removal of the spleen on its action.

### DIRECT AND INDIRECT ACTION OF POISONS ON THE BLOOD.

I desire now to make clear that whatever action toluylendiamine exercises on the blood cannot possibly be a direct one. Its destructive action is not like that of glycerine or distilled water—which destroy at once the red corpuscles with which they are brought into contact. Their injection into the blood is followed almost immediately by hæmoglobinuria; the degree of destruction is directly proportional to the quantity injected, and is greatest at the time of injection. Their action on the blood corpuscles within the circulation is precisely the same as it is on them outside the body, and ceases when they pass out of the blood.

Very different is the case with toluylendiamine. It does not destroy the blood directly; in rabbits its injection is not followed either immediately or remotely by hæmoglobinuria; its destructive action is not proportional to the quantity injected, for we have seen that it may be great with a small dose (when the spleen is present) and absent altogether with a large dose (when the spleen is absent); nor does it reach its greatest intensity at the time of injection, but not till several hours later—at a time when, as I have shown, less than a milligramme, if even so much, is present in the blood. Lastly, its action on the corpuscles of the blood is not the same as its action on them outside the body. For while within the body, as we have seen, it gives rise to well-marked changes in the plasma and corpuscles—formation of granules, spherules, stromata and *Schatten*—at a time, too, when hardly a milligramme is to be found in the whole blood—outside the body I have found that its addition to normal saline solution in proportions so great as  $\frac{1}{4}$ ,  $\frac{1}{2}$  and 1 per cent. greatly increases the preserving power of the latter on red corpuscles. In all these respects, then, the destructive action of toluylendiamine presents a striking contrast to that of such agents as glycerine or distilled water. It is apparently as indirect as that of the latter is direct.

And in this respect, although to a less marked degree, a similar contrast is presented by the actions of toluylendiamine and pyrogallic acid. As I have already described, after the injection of pyrogallic acid into the blood large numbers of red corpuscles are injured so directly by contact with the substance that within fifteen minutes they are to be found enclosed within the cells of the spleen. No such direct poisonous action on the red corpuscles was ever observed with toluylendiamine. The destructive action of pyrogallic acid on the blood is thus, to a considerable extent at least, a direct one.

Interesting confirmation of the distinction I have thus drawn between the action of different poisons on the blood was afforded me by experiments, in which I excised the spleen and then injected pyrogallic acid. The result showed that the action of poisons that act directly on the blood is little or not at all affected by removal of the spleen.

*Experiment 78.*—Normal rabbit; 0.5 gramme of pyrogallic acid per kilo injected intravenously. The following day *Schatten* found in the blood. Two days later the animal looking ill; number of red corpuscles fallen to 3,410,000 per cubic millimetre. From this time gradual recovery.

*Experiment 79.*—Rabbit; spleen excised; 0.55 gramme of pyrogallic acid per kilo injected intravenously. Following two days numerous *Schatten* in blood, and on the third day the number of red corpuscles had fallen to 1,360,000 per cubic millimetre. From this time onward the recovery was rapid.

In this case the removal of the spleen was absolutely without effect on the destructive action of pyrogallic acid. When smaller doses were given, some slight difference was observable in the direction of a lessened effect after removal of the spleen, but this was in no sense so marked as we saw to be the case with toluylendiamine (Experiments 75 and 76). The removal of the spleen slightly lessened the destructive action, but it failed to do what was so striking in the case of toluylendiamine—abolish it altogether. This result need not occasion any surprise. On the contrary, had it been otherwise—had the removal of the spleen influenced to any material extent the action of a substance so undoubtedly injurious to the blood as pyrogallic acid, one might have felt disposed to think that some fallacy underlay the observations

already recorded regarding its effect on the action of toluylendiamine.

As it is, the result serves, in my opinion, to establish two things: first, the difference between the action of substances that act directly on the blood and those that act indirectly; and secondly, the importance of the spleen in determining the action of the latter. The importance of this latter conclusion becomes evident when it is stated that according to my observations hæmolytic action in health is of this indirect nature.

Since, then, the action of toluylendiamine differs in so many respects from that of agents acting directly on the blood, since, in particular, unlike the latter, its destructive action can be lessened or abolished altogether by the removal of a richly cellular organ, the spleen, I conclude that it is the activity of cells more than anything else that in its case determines the occurrence of hæmolytic action. This conclusion is, of course, only applicable in its entirety, so far as toluylendiamine is concerned, to the particular animal on which the observations have been made. Its importance, however, is much more wide-reaching, and rests on the circumstance that it is, I think, capable of extension to all other animals and to the particular poisons that in their case, like toluylendiamine in rabbits, act indirectly on the blood. For inasmuch as I have shown that the cells are the final arbiters whether or not a substance of this kind shall occasion hæmolytic action, the conclusion is obviously one of wider applicability than usual. The issue is left with the cell—a factor common to all animals alike; and in this particular case, not with cells generally but with the cells of spleen and of the gastro-intestinal capillary area.

#### HÆMOLYSIS IN HEALTH.

I think it is possible, in the light of the foregoing observations, to form a somewhat clearer conception of the process of hæmolytic action in health than has hitherto been possible. We have seen, in the case of a body so stable as toluylendiamine, how much its hæmolytic action is dependent on the activity of a particular group of cells. I think it is permissible to conclude that the same thing will apply—if possible even more—to the comparatively harmless products formed in health likely at all to affect the blood injuriously. Under no circumstances, I conceive, are the ordinary products of metabolism of such a character or in such amount as to exert a direct injurious action on the blood. So far as they act in this way their action is an indirect one, and as such will specially depend on the activity of the cells of the spleen and the gastro-intestinal capillary area. We possess as yet no data for estimating the amount of hæmolytic action in health. I conclude that it is considerable, although there is no reason to consider it great. It varies very considerably not only in different classes of animals, but also in different animals of the same class and even in the same individual at different times. It has a certain relation to the general bodily activity, being greatest in youth and early adult life and becoming less as age advances. This relationship, however, is not so much in virtue of bodily vigour *per se* as of the activity of one of the processes usually associated with bodily vigour—namely, digestion. I conclude that if it were not for the changes in the blood associated with digestion the daily hæmolytic action would be almost *une quantité négligable*, instead of being, as I conceive it is, considerable in its amount and still more in its importance. The change which would then occur would be of the nature of a slow decay and would be evidenced in the case of the red corpuscle by its death without disintegration and by the presence of large heaps of blood pigment in the spleen and liver capillaries. This, however, as we have seen, is not the case; and the difference is mainly to be ascribed to what takes place during digestion. The activity of the cells lying in closest relation to the blood, especially those of the gastro-intestinal capillary area and spleen, affects in the first instance the plasma, and secondarily such of the red corpuscles as are already weakened, and brings about their disintegration. We have seen what the fate of the hæmoglobin under such circumstances is—namely, that it is liable to be carried to the liver and be there broken up into bile pigments, leaving, it may be, not a trace of blood pigment behind.

I conclude, however, that all the hæmoglobin thus set free need not thus be disposed of. To what extent the presence of a certain amount of iron may be necessary for the liver cell to carry out its various functions it is, of course, impossible to say. So far as my observations go I am disposed to think that once it has passed into the liver cell the iron of the hæmoglobin molecule is less available for subsequent use than it is when stored up either in spleen or bone

marrow—use, that is to say, for purposes of blood formation. It is this consideration that leads me to think that a considerable part of the hæmoglobin set free during digestion is in all probability utilised at once for purposes of blood formation, without being converted either into bile pigment or blood pigment. For it will not have escaped your attention that the areas which I have described as the seats of hæmolytic action—the gastro-intestinal capillary area, the spleen and the bone marrow—are precisely the areas in which blood formation is supposed to go on. That both processes should go on in one and the same place involves no contradiction. It is, on the contrary, what one would expect if, as I believe is the case, the blood is a tissue, and, like other tissues, is under the control of one particular set of cells. The same law holds good for it as for other tissues. It is the wear and tear on the blacksmith's muscle that leads to its great development; so also I conclude, in the case of the blood in health,—blood formation and blood destruction go hand in hand, take place in the same areas and are affected by the same conditions. It might be interesting to speculate why this reconstruction should be constantly taking place. This would, however, lead too far from my present purpose, which is to direct attention to the important fact that such is the case.

As to the extent to which hæmolytic action occurs in health, it is not necessary to consider it great in order to prove it important. For like many other normal processes, it derives its chief importance from the variations that occur in disease. I conclude the amount of hæmolytic action which daily occurs is strictly determined by the degree of activity of the leucocytes of the blood and the mass of lymphoid cells in the spleen and gastro-intestinal tract.

#### *Influence of Digestion.*

As far as the activity of these cells is influenced by the character and amount of the food taken, precisely to the same extent is hæmolytic action affected. It is greatest, therefore, I conclude during full digestion, and is reduced to a minimum during starvation. As evidence of this I note amongst other facts the following: 1. During full digestion I find changes in the plasma and red corpuscles within the spleen identical in character with those produced by the action of destructive agents and far in excess of anything ever found in the starving animal. 2. For the reasons fully stated in my first lecture the increased formation of bile pigments during active digestion is evidence of an acute hæmolytic action at this period. 3. The large increase in the number of leucocytes within the blood during digestion as noted by Pohl, and especially within the portal blood as noted by myself, taken along with the corresponding increased formation and excretion of uric acid at this period as noted by Horbaczewski, appear to me to be facts of special interest in this relation—the former indicating the increased activity of leucocytes at this period and the latter the increased disintegration that is occurring both in them and in the cells of the spleen. 4. The increased tendency to coagulation at this period, specially marked in the portal blood first described by Wooldridge and since confirmed by Wright, is important as indicating at once the activity and instability of all the elements of the blood at this period—viz., of plasma, leucocytes and red corpuscles. 5. Lastly, as marking the special activity of the spleen during this period, I would note the great enlargement which according to observations I have made on animals takes place in the spleen during digestion. Still more markedly is this the case under the influence of hæmolytic agents injected directly into the blood. The action of such agents on the spleen in causing enlargement is, I have found, both immediate and striking. The spleen within less than half a minute after their injection becomes enlarged several fold and engorged with dark venous blood, where previously it had been small, comparatively poor in blood and of a bright red colour. The action is a direct one on the tissue of the spleen itself. Great variations in size may occur for a time under the influence of such substances—the spleen contracting up and again expanding at very frequent intervals. With very large doses the usual effect may be reversed, and instead of expansion we have sharp contraction, lasting it may be for several hours. Such a contraction I have found sometimes take place immediately after death; a fact of some importance, since it indicates that the activity of the spleen during life cannot necessarily be gauged by its size after death.

#### *Action of Cholagogues.*

Within the limits of health, next to digestion the greatest

hæmolytic takes place, I conclude, under the action of chologogue agents, such as mercury, podophyllin, iridin, euonymin &c., action of which has been so carefully studied by Professor Rutherford. The action of these "hepatic stimulants" is chiefly evidenced by an increased excretion of bile and increased formation of bile pigments. They are hence spoken of as stimulants of bile secretion, and credited accordingly with a special stimulating action on the liver. The foregoing observations show how such an increased formation of bile pigments must necessarily have been preceded by an increased destruction of blood. On the view hitherto prevalent that the liver has as much to do with this destruction of blood as with the subsequent excretion of bile and bile pigments, it was natural to ascribe the action of such substances to their special action on the liver. Since, however, according to my observations the destruction of blood occurs chiefly outside the liver, and is effected mainly by the activity of cells of the spleen and gastro-intestinal mucosa, I conclude that the chief and certainly the initial action of chologogue agents is not on the liver, as hitherto supposed, but on the cells outside the liver, by whose activity the preceding hæmolytic is determined. In the case of chologogues, as in that of hæmolytic generally, the chief function performed by the liver is to excrete the products already formed. This view by no means excludes the one that these substances also influence the activity of the liver cells; on the contrary, such is doubtless the case. What I conclude, however, from the observations now recorded is that such an action on the liver cell does not account for everything; but that, to be effective at all, these agents must have first acted on the blood through the lymphoid cells of the spleen and gastro-intestinal mucosa.

#### HÆMOLYSIS IN DISEASE.

In disease, as in health, hæmolytic is also of this indirect nature. It is not induced by substances having a direct injurious action on the blood. The exceptions to this rule are such affections as paroxysmal hæmoglobinuria and the hæmoglobinuria of burns and scalds and similar diseases, where the destruction is, as I have elsewhere shown, induced outside the area of the portal circulation, by influences—e.g., exposure to cold or great heat—acting, it may be, over only a limited area. Malaria also exemplifies a disease in which hæmolytic is induced more or less directly,—in its case, by the parasitic action of the plasmodia of malaria on the red corpuscles.

The type of increased hæmolytic of most importance and interest in disease, however, is not that attended by hæmoglobinuria, but that marked by progressive deterioration of the blood and profound anemia unaccompanied by any such direct evidence of destruction as hæmoglobinuria. Such a disease I have elsewhere, by a lengthy series of observations, shown pernicious anemia to be. The excessive hæmolytic which occurs in it, evidenced amongst other things by the large accumulation of pigment in the liver, exemplifies, as I have inferred, the action of a poison or poisons of a specific nature produced by agencies acting within the gastro-intestinal area. In respect of its character and its evidences—the changes presented by liver and spleen, the absence of hæmoglobinuria and nevertheless the presence of blood pigment and of iron in the urine, the occasional occurrence of jaundice—the hæmolytic of this disease is typically that induced by substances acting indirectly on the blood. So also, I conclude, is the excessive hæmolytic which marks the whole series of toxæmic conditions of which jaundice is a more or less prominent feature, especially of the worst form of all, that condition termed acute yellow atrophy of the liver.

**PUBLIC LAVATORIES AT REDCAR.**—The question as to whether the erection of public lavatories was advisable seems to have created considerable dissension in the minds of the town councillors of Redcar. It would have been thought that on such a subject unanimity was inevitable. Common sense however prevailed, and in the end a committee was appointed to choose a site and provide an estimate of the expense of the undertaking.

**GUEST HOSPITAL.**—By the statement of the honorary secretary, read at the annual meeting of the subscribers to this charity, which was held on the 12th inst., a satisfactory record was offered. One item of the report was specially cheering—viz., that the contributions of workmen had reached a higher level than they had ever attained previously. More funds, however, were required to provide additional accommodation for private patients.

## AN ANALYSIS OF TEN THOUSAND CASES OF DISEASE OR DISTURBANCE OF THE EYES, SEEN IN PRIVATE PRACTICE:

WITH NOTES AND COMMENTS.

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(Continued from p. 391.)

#### AFFECTIONS OF THE CORNEA.

THE total number of affections of the cornea amounted to 492, of which 227 were in males and 265 in females. The cases were as follows:—

	Males.	Females.	Total.
Superficial keratitis . . . . .	38	53	91
Interstitial keratitis . . . . .	31	61	92
Superficial ulceration . . . . .	56	52	108
Deep ulceration . . . . .	60	68	128
Abrasions or slight injuries . . . . .	20	9	29
Severe wounds . . . . .	7	1	8
Conicity . . . . .	5	15	20
Staphylocoma after sloughing . . . . .	4	5	9
Cicatrices after operation . . . . .	0	1	1
Pemphigus . . . . .	2	0	2
Congenital malformation . . . . .	1	0	1
Kerato-iritis (rheumatic) . . . . .	0	1	1
Kerato-iritis (in leprosy) . . . . .	2	0	2
Lead deposit . . . . .	1	1	2
	227	265	492

The chief facts brought into prominence by the foregoing table are the greater liability of the female sex to suffer from keratitis, both superficial and interstitial, as well as from conicity; and the greater liability of the male sex—as might be expected from the conditions of their lives—to wounds and injuries, both trivial and severe. It is also remarkable, as illustrating one of the differences between hospital and private practice, in that no cases of the severe "vascular keratitis" with which we are so familiar in the former are included. I have purposely omitted the figures relating to the form of keratitis which is associated with the so-called "serous" iritis of modern German writers—the "aquo-capsulitis" of fifty years ago,—because it seemed more convenient to regard the affection of the cornea as secondary to, or a complication of, the affection of the iris and uveal tract. I have placed these cases under "iritis," but the tissues involved are really so numerous that the disease almost deserves a separate place in classification.

**Superficial keratitis.**—In the 38 males who were the subjects of superficial keratitis the right eye alone was affected in 13, the left eye alone in 14, and both eyes in 11. In the 53 females the right eye alone was affected in 13, the left eye alone in 24, and both eyes in 16. In 5 males and 4 females the eyes were of myopic formation, and in 2 males and 3 females they were hypermetropic. Wherever such errors of refraction were found to exist they were carefully corrected by glasses at an early period after recovery and before the patients were allowed to resume work. As a rule, the cases were not severe when seen at an early stage and if they had not been irritated by improper local applications. The treatment usually consisted in the instillation of a solution containing atropine and cocaine, perhaps a grain of the former and four of the latter to an ounce of water, three or four times a day, followed after a few days by a very weak ointment of the yellow oxide of mercury. If only one eye were affected, or if one were much worse than its fellow, it was closed by a vertical strip of gelatole plaster, so applied as to fasten down the cilia of the upper lid to the cheek and to arrest all friction movement. The general health was carefully considered, the diet regulated, the patients kept in a dimly lighted room when in-doors, but encouraged to be out as much as possible, with the protection of dark spectacles or even of opaque pads. Great care was taken to avoid everything which could either excite or aggravate photophobia, because the nervous conditions on which this depends, and the spasm of the orbicularis muscle which it excites, are alike very unfavourable to recovery. As soon as photophobia is at all confirmed my experience is that it maintains a morbid condition in spite of remedies and that it requires the prompt attention of the surgeon. I am accustomed in such cases to divide the orbicularis muscle at the outer canthus, using an anæsthetic if necessary, and making a clean cut through all the tissues, conjunctiva, skin and muscle, from the outer

canthus quite up to the margin of the orbit. The incision is best made by a sharp curved bistoury, the point of which should be carried within the conjunctival sac, made to transfix all the tissues, and then to divide them in a horizontal line continuous with that of the palpebral fissure. The cut will bleed freely for a minute, but the bleeding soon stops, and the patient should be put to bed in a dark room. The relief afforded to the eye by the removal of spasmodic lid pressure will be immediate and the photophobia, as a rule, will speedily disappear. If any one medicine be of greater value than another, for the purpose of diminishing corneal irritability, it is arsenic, and this I have always given in the absence of any other special indication, or when any such indication had been fulfilled. If the keratitis were still obstinate, in spite of muscular section and treatment, I have had recourse, with great advantage, to peritomy, or the removal of the circum-corneal annulus of the conjunctiva and subconjunctival tissue. The results of this operation are often long in declaring themselves, but they are of the most satisfactory description when obtained.

As illustrations of some of the more severe and obstinate cases I may quote the following:—

Miss C—, aged twenty, was brought to me in the month of April, suffering from chronic superficial inflammation of both cornea, which had existed for seventeen months with but little alteration. There was much photophobia, but there were no serious changes in the corneal tissue, the epithelium being chiefly affected. She brought with her a bundle of prescriptions, from which I made out an account of the treatment to which she had been subjected. This included a lotion with quinine and alum, the insufflation of dry calomel, a zinc lotion, a borax lotion, atropine drops, syrup of iodide of iron internally, a belladonna lotion with ointment of peroxide of mercury, quinine and anodynes internally, blisters, alum lotion, opium lotion, atropine drops with bromide of potassium internally, drops of iodide of potassium, tincture of serpentaria and chloral hydrate, and lastly iodine paint. I divided both her orbicularis muscles and put her upon arsenic, with a very weak ointment of yellow oxide of mercury as a local application, and in three or four weeks she was quite well.

Miss L—, aged twenty-seven, was seen in the month of January, after she had suffered from keratitis of the left eye for fifteen months. The lids were swollen, there was intense photophobia, and the skin of the cheek was much irritated by the overflow of tears. She had been continuously under medical care and had never derived benefit. I gave her boric-acid ointment for the cheek and for a chink or crack which the photophobia had produced at the outer canthus, and a 10 per cent. solution of cocaine as a local application to the eye. There was no improvement, and the eye was then closed and arsenic administered, but with no better results. At last, but not until March, I prevailed upon her to submit to what she called an operation, and performed peritomy, at the same time dividing the orbicularis. All active symptoms rapidly disappeared and the cornea ultimately regained its transparency, which was the more important inasmuch as the other eye, which escaped inflammation, was the subject of laminar cataract.

Miss M—, a lady of middle age, was the subject of very obstinate superficial keratitis with very general opacity. When somewhat better she went to Yorkshire, and there, having a relapse, she came under the care of Mr. Teale, who, finding that she made no satisfactory progress, performed peritomy. The operation at once arrested the further progress of the disease, and the cornea almost entirely recovered its transparency in the course of a few months.

Miss H—, aged fourteen, was attacked by keratitis, at first of one eye only, and was seen by a practitioner who gave her a sulphate of zinc lotion. This at once greatly aggravated the disease and the other eye soon afterwards suffered. The child ultimately made a complete recovery; but the irritant stirred up mischief which at one time threatened to be very serious, and a malady which would have been trivial if treated at first in a soothing manner was converted into one which interrupted the education of the patient for at least six months.

Among cases of an unusual character I may mention one in which keratitis existed over a symmetrical annulus of each cornea, leaving the centre free; and another in a medical man, whose right cornea became inflamed after the removal of a Meibomian tumour from his upper lid. I did not see him during the acute period, but the inflammation had left an indelible mark in the shape of a central nebula, and the eye was astigmatic, a condition which the patient

assured me had been produced by the disease, and which he attributed to a modification of the corneal curvature during its course. He stated quite positively that he had normal vision of the affected eye until it became inflamed, and as it was the right one he was likely to know.

Another case worth mentioning was one in which a gentleman had suffered from keratitis for six weeks, under the care of an eminent ophthalmic surgeon, to whom a second was in course of time added in consultation, because the general practitioner in attendance discovered what he believed to be a foreign body imbedded in the cornea. The original consultant differed from this opinion, and the second consultant agreed with it, with the result that I was invited to confer with them. A very careful examination by focal illumination and other methods showed a sort of double black speck with a connecting line, like a dumb-bell, with one end larger than the other, which seemed to lie obliquely in the corneal tissue below the pupil, and in an approximately horizontal position, the larger end nearer the surface. There was no trace of corneal wound, but much general disturbance of the surface epithelium—disturbance which was said to be diminishing and the sight to be improving. I formed the opinion that the dark object was a mass of pigmented cell proliferation and not a foreign body in the ordinary sense, and therefore opposed a suggested exploratory puncture. The dark object ultimately underwent absorption and the case terminated in recovery.

*Interstitial keratitis.*—In the 31 males who suffered from interstitial keratitis the right eye alone was affected in 2, the left eye alone in 5, and both in the remaining 24. In the 61 females the right eye alone was affected in 8, the left eye alone in 12, and both in the remaining 41. The figures, as far as they have any significance, may be taken to illustrate the distinctly constitutional character of the affection, the greater liability of the female sex, and the greater liability of the left eye. In 5 males and 6 females the eyes were recorded to have been myopic; in 6 males and 10 females they were hypermetropic, but it is of course possible that the nature of the disease may in some instances have stood in the way of any accurate measurement of the refraction. That this was so is rendered probable by the percentages, which on the 92 cases in both sexes would give 12 per cent. of myopes and 17 per cent. of hypermetropes, as against a general average of 31.5 per cent. of the former and 23.23 per cent. of the latter.

In many of the cases the evidences of inherited syphilis were unquestionable, but in several, and those not the least severe, such evidences were wholly wanting. In none of the latter, moreover, have I had any reason to suspect the implantation of syphilis by vaccination—an occurrence to which I believe I traced interstitial keratitis many years ago in a child whose parents were unquestionably free from taint. But the cases in which syphilis was clearly present and those in which it might be assumed to be absent were so precisely alike in the general character of the eye affection that I have regarded the latter as being identical with the former, and have believed with regard to all of them that the specific poison must have found entrance by some unusual channel. The principles of treatment have been always the same—namely, to sustain the general health as much as possible; to administer mercury internally, in small doses and for a long period; to use none but the most soothing local applications; and, when only one eye was affected, to give the most complete attainable rest to the other. The worst cases which I have seen, and those in which some permanent injury has been inflicted upon the cornea, have been those in which, at some early period, applications of an irritating character have been employed, such as solutions of zinc sulphate or of silver nitrate; and the mischief done in this way is often irremediable. In any protracted case severe photophobia is a common symptom and is one which is liable to recur from time to time. It should on each occasion be met at the very commencement by confinement to a dimly lighted but well-ventilated room; but this confinement should never be permitted to interfere with bodily exercise, which may be accomplished, even in the dark, by dumb-bells or similar contrivances, or by skipping. A first return to daylight, as the photophobia subsides, may often be facilitated by the use of spectacles filled with glass of a peacock-blue tint, which, when tested by the spectroscope, is found wholly to exclude the red rays of the spectrum. In every specially bad case I have been accustomed to perform iridectomy, always with great benefit; and I have seen many instances in which I have done this to one eye only, it being the

more severely affected of the two, with the result that it has made by far the best and most complete recovery. The following may be taken as examples of the more severe forms of the affection:—

Miss W—, seen once in consultation when nine years of age, with photophobia and corneal irritation of the right eye. This soon subsided, but two years later she was brought to me again with very severe interstitial keratitis of the right eye and a commencement of similar trouble in the left. The right eye was at once iridectomised and both ultimately recovered; but the right cornea regained its transparency much more completely than the left, and the right is now the working eye for most purposes.

Mr. W—, seen at ten years of age, with very severe double interstitial keratitis, to which drops containing nitrate of silver had been applied. Both eyes were iridectomised soon afterwards and both recovered, but with some permanent residual haze. Four or five years after the operations there was myopia = 5 D., with corrected vision =  $\frac{1}{2}$ .

Miss B—, very severe case, affecting the left eye only. Iridectomy, followed a few weeks later by peritomy. Ultimate complete recovery.

Miss D—, aged twenty-four. Tall and well-grown young lady, of perfectly healthy general aspect, but with history of paternal syphilis. Both eyes had been severely affected in childhood and both ears. She was deaf, and the corneae were so hazy that she was unable to read. There were clear patches among the haze, and I made two very small iridectomies, in the hope of improving vision, but with very little success. In such cases, even when an artificial pupil can be made behind a comparatively clear portion of cornea, the result is usually disappointing, although the operation is worth trying. Even if the rays which enter through the artificial pupil form a defined image upon the retina, that image is generally damped and rendered indistinct by the diffused light which falls upon it through the corneal haze.

Mr. Y—, aged sixty. Case similar to the preceding. On account of the cloudiness of his corneae an artificial pupil had been made in one eye by the late Sir William Bowman and in the other by the late Mr. Critchett, but his sight had remained exceedingly defective. He came to me on account of progressive cataract and I removed his lenses, but the state of the corneae remained as an insurmountable impediment to good vision.

Miss P—, aged seventeen. Severe case affecting the right eye only, and already beginning to improve, as far as the acuteness of the inflammation was concerned, but with the cornea densely clouded. Peritomy was performed and was followed, after the lapse of a few weeks, by steady and continuous improvement.

Mr. H—, aged twenty-two. Specific paternal history. Both eyes were severely affected, and both had been injured by irritating applications. I saw him in consultation with a provincial ophthalmic surgeon, and he has steadily improved under a treatment by closed lids and the internal administration of mercury.

*Superficial ulceration.*—The cases of superficial ulceration of the cornea were 108 in number—56 in males and 52 in females. In 13 males and in 13 females the right eye only was affected; in 23 males and 9 females the left eye only; and both eyes in 20 males and in 30 females—figures which can scarcely be regarded as other than accidental. The great majority of the cases were phlyctenulae, or ulcerating corneal pimples, occurring in delicate children, and readily yielding to constitutional treatment combined with ointment of yellow oxide of mercury as a local application. There were some, however, of a totally different and very remarkable type, which seemed to point to some underlying neurosis, some definite failure or perversion of the nervous influence by which the nutrition of the parts concerned is normally controlled; and the changes thereon consequent have extended to other tissues of the eye, so as to destroy or materially to impair the sight.

Mr. D—, a gentleman between forty and fifty years of age, was brought to me on account of corneal ulceration. He was somewhat prone to liver derangement, had a flushed face and congested conjunctivae, and his forehead presented numerous pimples of acne. Both corneae were scarred by small nebulae, the surfaces of which were more or less flattened, and near the upper portion of the right cornea there were two small clear ulcers, looking almost as if little bits of corneal tissue had been gouged out, and each with a vessel running to it from the conjunctiva. Under the influence of mercurial alteratives and salines, with yellow ointment to

the eyes, he soon improved, but the improvement was not of long duration. When he ceased to be under treatment fresh ulcers appeared, and after a while he became the subject of an insidious iritis, which formed small adhesions in each eye. Then his lenses became opaque and were extracted—the right without complication, the left, some months afterwards, with a small loss of vitreous, but with good healing and fair vision. He had scarcely recovered from the second extraction when his right cornea again became the seat of ulceration, and the consequent nebulae and facets so much impaired his sight as to leave him unable to read small print. At the same time very delicate deep films appeared in both eyes, apparently from cell proliferation on the posterior capsule, and these films, when torn by needles, did not retract, but fell together again, leaving matters much as before. The patient can see his way about and can read large print, but his eyes are only of very moderate usefulness, and the persistence of one morbid change after another is not of good omen for his future.

A still more distressing case was that of a young lady of twenty, who came to me asking me to remove her left eye, which, she said, had never possessed useful sight and had become a source of constant pain and trouble. I found great congestion and hypertrophy of the conjunctiva and retro-tarsal folds, and the upper part of the cornea, down to below the level of the pupil, was thickened, vascular, superficially ulcerated and very painful. The lower part was of normal aspect and so, as far as could be seen, was the iris. The patient was very thin, somewhat anæmic, and the subject of extremely obstinate constipation, but seemed otherwise healthy, and was possessed of great energy and decision of character. After trying for a month without success to improve the condition of the eye by treatment I consented to sacrifice it, being very much influenced by the consideration that it had never been useful. For the sake of appearances I performed Mules's operation, on May 5th, with entire success. There was rather more swelling of the lids than usual, but the healing was complete and the stump left nothing to be desired, nor has it ever since given the slightest trouble. An artificial eye was worn with perfect movement and all seemed to be satisfactory, and so remained for some months. In the following October, however, the right cornea was attacked in the same way that the left had been in the original affection. The patient improved under treatment, relapsed, improved again, and again relapsed, vision not being affected except by the state of the cornea, which varied from time to time. During many months these fluctuations continued, the patient being all the time under my observation or under that of Mr. Teale of Leeds. At last, after a consultation with him, I scraped away all the diseased corneal tissue, irrigated the surface with boro-glyceride solution, covered it with iodoform, and closed the lids with pad, plaster and bandage, which remained undisturbed for a fortnight. At the end of that time the eye seemed well, the scraped portion of cornea being covered by a firm cicatrix and the rest being clear and bright, with good vision. As a measure of precaution the coverings were reapplied for another fortnight, and then the eye was used. All went well for a few weeks, when the cicatrix yielded and the disease broke out afresh. I proposed to renew the scraping, but a day or two intervened before this could be done, and by that time the mischief had spread over the whole of the corneal surface. In the hope of saving at least a portion of the margin, behind which an artificial pupil might eventually be made, I repeated the scraping and disinfection, and pared and united the edges of the lids. There was no reaction, and all pain soon disappeared. After the lapse of some months, the eye being quite comfortable, I thought of reopening the lids, but on examination it appeared that perception of light had wholly disappeared. The patient was unconscious even of bright sunlight directed upon the surface of the upper lid by a lens, and this state seemed to show that disease must have invaded the retina as well as the cornea. She had become active and helpful as a blind person, and was unwilling to submit to any further treatment. Neither Mr. Teale nor myself could recall any precisely similar case; but I have since heard of an almost identical one from Mr. Bickerton of Liverpool. It seems impossible to explain so remarkable a succession of morbid changes in any other way than by the hypothesis of profound neurotic disturbance.

*Deep ulceration.*—The cases of deep ulceration of the cornea numbered 126—60 in males and 66 in females. As might be expected, the cases in which both eyes were thus

affected were comparatively rare, and included only 1 male and 10 females. It may be presumed that the difference would be due to the greater number of traumatic cases in the male sex. The right eye was affected in 30 males and 31 females, the left in 29 males and 25 females. Putting aside cases arising from injury (and a comparatively slight injury to the cornea is often followed by deep ulceration in the aged), the most noteworthy have depended upon conditions implying exhaustion, and have reminded me of the dogs which were either starved or fed upon isinglass and water by Majendie, and whose corneæ sloughed in the centre. One such instance was furnished by an Indian chaplain who had been reduced almost to a skeleton by chronic dysentery; another by a lady who had suffered from "bleeding piles," and had recently been operated upon for their relief. The ulcers of inanition are of two distinct kinds: the one central, which is the more common, the other peripheral, cutting out a deep groove around the corneal margin and threatening, so to speak, to trephine it. The central ulcer usually presents a grey and irregular sloughing surface; the peripheral ulcer is often so transparent that it might easily escape detection by a hasty observer.

A sloughing ulcer which occupies the central portion of the cornea must leave behind, in the best result, a dense central opacity which will cover the pupil and take away the power of sight; and experience shows that any such ulcer which is rebellious to treatment will nevertheless heal spontaneously as soon as it has perforated. The effect of perforation is to diminish tension, and the same thing may be done by iridectomy. For any central sloughing ulcer, which deepens or extends in spite of treatment, it has therefore been my practice to perform iridectomy promptly, selecting for the purpose the locality in which the artificial pupil, which must in any case be needed to restore vision, seems likely to be most useful. The older the patient, apart from extreme decrepitude, the more desirable will it usually be to lose no time; but the measures which may be taken previously, and which may sometimes supersede the necessity of an operation, are to increase and support the strength by suitable diet and medicines, and to apply solutions of eserine to the eye, at the same time maintaining closure of the lids by plaster. In some cases I have found it useful to scrape and irrigate the ulcer as a preliminary to lid closure, but this chiefly in comparatively young subjects. Eserine appears to exert a decidedly controlling influence over the migration of white corpuscles, and through this influence to arrest the spreading of an ulcer. When, as usually happens, there is much pain, the eserine may be combined with cocaine, without any diminution of its special effect. The peripheral ulcer does not leave a cicatrix which interferes with vision, and it may generally be cured by bodily rest, with generous diet and closure of the lids, aided, when healing commences, by the occasional application of a morsel of yellow ointment.

*Abrasions or slight injuries* of the cornea were 29 in number—20 in males and 9 in females. In two males both eyes were affected, the cases being both due to gunpowder explosions. In 13 males and 5 females the right eye suffered; in 5 males and 4 females the left. Many of the cases were due to the lodgment of foreign bodies, the presence of which had often escaped observation, even although the patients had been under medical care. I have notes of two cases in which a foreign body had remained undetected in the cornea for three weeks, one in which it had so remained for six weeks, one for seven weeks, and one for three months. Among curiosities of practice I may mention the case of a young lady who burnt the cornea of her left eye with hot curling tongs, and that of a gentleman who came to me one morning saying that he had been struck by something on the eye while shooting in Scotland on the previous day, and that he had not only lost the sight of the injured eye, but that its altered appearance showed it to have sustained grievous injury. He had travelled all night in order to seek advice. He had been struck by a flake of burning cigarette paper, which was instantly quenched by the moisture of his eye, and adhered closely to its surface, covering most of his cornea and some of the conjunctiva with a black patch. I peeled off the bit of paper with forceps and had the satisfaction of finding the eye unhurt. A few drops of cocaine solution removed all discomfort, and the patient returned the same night to his grouse moor.

*Severe wounds* of the cornea numbered 8—7 in men and 1 in a woman. In six of the men the right cornea was wounded; in one man and in the woman the left. The cases were only dis-

tinguished from other severe injuries by the limitation of the external wound to the cornea, and will be more appropriately mentioned when such injuries come under consideration. An exception may be made in the case of a lad of fourteen, who pierced his right eye with a sharp steel pen containing ink. The pen passed rather deeply between the layers of the cornea without penetrating into the anterior chamber, and left an ink-stained triangle conspicuous against a blue iris. Sharp inflammatory reaction seemed impending; but the local application of atropine and cocaine, with cold moist compresses, complete functional rest, a dimly lighted room and a saline purgative, brought about a better state of things, and the boy recovered without any impairment of sight. The ink stain was visible for some time, but underwent gradual absorption.

*Conicity* of the cornea occurred in 20 cases—5 males and 15 females. In the males the right eye alone was affected in two; both eyes in the other three. In the females the right eye alone was affected in one, the left eye alone in two, and both eyes were affected in the remaining twelve.

Some of my contemporaries will possibly remember that forty-five or more years ago a surgeon (whose name I am glad to have forgotten) advocated what he called the "emetopurgative" treatment of conical cornea. This treatment consisted in administering to the hapless patient an emetic and a purgative every morning for a twelvemonth. One can only feel surprise at its having failed to cure, together with conical cornea, every other ill to which human flesh is heir. But it was actually practised, and, if my memory does not deceive me, a controversy of a somewhat acrimonious character was occasioned by the respective claims of two practitioners to the honour of having devised it. It is at least certain that during its prevalence—and in the absence, it must be remembered, of the exact methods of testing vision which have been employed in more recent times—persons were found who maintained that they had derived benefit from it. I mention it only because one of my male cases of conical cornea occurred in the person of a decrepit-looking and emaciated elderly gentleman, who asked me if I had ever heard of the plan in question, and who went on to say that he had survived its adoption. It had done no good to his eyes, and had, he declared, completely shattered his constitution.

Knowing, as we now do, that conicity is a consequence of central atrophy of the cornea, the thinned portion being projected forwards under the influence of intra-ocular pressure and of the action of the recti muscles, I think it is usually vain to treat it, as I have seen done, as if it were progressive myopia, requiring the strict enforcement of functional rest. The remedy, complete disuse of the eyes, would for many persons be worse than the disease. My own experience convinces me that it is desirable to operate for the cure of conicity in all ordinary cases—certainly in all in which the affection is progressive and in which the condition of the general health is not such as to place any difficulty in the way. After trial of various methods in hospital as well as in private practice I have finally settled upon the following plan. The eye being first completely cocaineised and the pupil brought fully under atropine, I set one of Bowman's corneal trephines to such a depth that it will not be likely to go through the membrane, and with it cut out a circle of tissue over the apex of the cone, of a size corresponding to the amount of projection. The circle of corneal tissue marked out by the incision is then peeled off by forceps, and the exposed surface touched with a very fine point of nitrate of silver. The touch should be a contact and no more, and solution of chloride of sodium should be applied immediately, or otherwise the effect of the caustic will be liable to spread beyond the borders of the wound and to invade the surrounding epithelium. The lids should then be closed with plaster and the patient kept very quiet in a dimly lighted room until all irritation has subsided. Atropine should be applied daily; the result will be a circular cicatrix on the apex of the cone, densely opaque and of a white or somewhat buff colour, which will effectually resist any further extension of the conicity, and will not permit any light to pass through it to the pupil. When this cicatrix is firmly established and all irritation has ceased, the pupil should be fully dilated and the fundus of the eye examined ophthalmoscopically by the direct method, in order to determine through what region of the cornea below the horizontal meridian and beyond the cicatrix the best curvature is maintained and the retinal vessels are visible with the weakest lens and with the smallest

amount of distortion. Behind the spot thus selected an artificial pupil is made by the method which I have described as "optical iridectomy," the essentials of such a pupil being that it shall be small, of V-shape, and that its base shall be at the pupillary margin and its apex towards the periphery of the iris. I need not republish here the technique of this operation; but I would not counsel anyone to undertake it until after a reasonable amount of dexterity in ophthalmic surgery and a fairly complete knowledge of the behaviour of the iris during evacuation of the aqueous humour have been gained as the result of practice. The operation is one which requires both skill and knack; but the visual results which it affords are worth all the care required in performing it. Finally, when the eye has forgotten the iridectomy, the cicatrix may be tattooed with India ink, and thus completely concealed from ordinary observation. To what extent the artificial pupil is noticeable will depend of course mainly upon the colour of the iris.

It seems to me to be of great importance that the order of procedure above set forth should be strictly adhered to. I have seen one case in which an eye was entirely lost in the hands of a surgeon who began his treatment by an iridectomy, and then, while the iris was still irritable, cauterised the corneal surface. Intense iritis was the result, and the eye was rendered permanently useless as an organ of vision.

*Pemphigus*.—Only two cases presented themselves of the peculiar gradual drying up of the cornea associated with complete conjunctival atrophy, which has been described in former years as "xeroma," and which has lately been regarded (I am not quite sure whether correctly) as a form of ocular pemphigus. Both patients were males, apparently in good health. Both were transferred to hospital, and there is nothing to record about them except that in one I tried the effect of dissecting off the atrophied conjunctiva and of replacing it by that of a rabbit. The graft united well and the progress of the corneal disease was stayed, but only for a time. As soon as the fresh conjunctiva came under the dominion of the patient's nutritive conditions it degenerated and shared the fate of his own which had preceded it. I could not claim more than that the advent of complete blindness had been delayed for a few weeks. The second case was only noteworthy as having afforded to the council of the Ophthalmological Society an opportunity of casting theegis of their protection over the practice of meeting homœopaths in consultation, and as having therefore compelled me, as a matter of ordinary self-respect, to withdraw from the membership of a body by which such a course was at least tacitly sanctioned.

*Lead deposit*.—I may pass over the single example of corneal malformation and the three instances in which keratitis was associated with rickets or with leprosy as being rare conditions of only small interest in daily practice, in order to mention the two examples of lead deposit on the cornea. Most text-books contain a word of warning against the use of lead lotions for the eyes, but they are nevertheless still occasionally prescribed. For simple conjunctivitis a solution of acetate of lead is probably quite as good as any other astringent, but it is apt to leave a scale of opaque carbonate upon any spot where the cornea has lost its epithelium. The late Mr. Dixon was accustomed to describe how an old lady, who had been cured of ocular catarrh by a lotion of acetate of lead, put the remainder of the medicament away in a cupboard, and brought it out as a precious treasure whenever there happened to be a bad eye in the family or among her neighbours. The bottle soon contained a considerable sediment of carbonate of lead, and this was carefully shaken up prior to application. In hospital practice it is not at all uncommon to see lead deposits upon the cornea, but private patients have generally been preserved from them. In one of my cases the lead had been on the cornea for about two years, and formed a dense white central patch, the surface of which was covered by little cracks, and which from time to time set up violent irritation by acting as a foreign body. The sufferer was a middle-aged man of very quiet temperament, and he had borne this long period of misery. About once a month his eye would be actively bad for a week, and then it would quiet down again, and be only uncomfortable. The patch so covered the centre of the cornea as to block out vision. After a thorough application of cocaine I scraped away the whole of the lead, the epithelium was soon reproduced and both vision and comfort were restored. In this instance, fortunately, the lead was external to the true corneal tissue, just beneath the epithelium, and it

had done no permanent injury. When it is deposited in an ulcer of any depth its removal is much more difficult and less favourable results must be looked for. The cicatrix will probably be at least partially opaque and the curvature of the cornea will be impaired. It is all the more necessary that such risks should not be incurred; and, as all the benefits to be obtained from a lead solution may be obtained equally from the salts of zinc or of silver, there is no excuse for subjecting a patient to risk of permanent injury in the course of endeavours to relieve a comparatively trivial affection.

(To be continued.)

## TREATMENT OF THE NOSE AND THROAT AS A SOURCE OF MIDDLE-EAR DISEASE:

PRECAUTIONARY SUGGESTIONS.

BY THOMAS BARR, M.D. GLAS.

THE extraordinary interest developed of late years in diseases of the nose and throat has led to the greatly extended use of remedies applied to those regions. Nasal irrigations, by means of the douche, syringe or simple sniffing, are not only much more frequently prescribed by medical men, but it is now no uncommon thing for patients to resort to them without medical advice or guidance. Cauterisation of the interior of the nose, by the galvanic cautery, chromic acid or other corrosive substance, has become almost the routine practice of the numerous rhinologists who now devote themselves to this region; while operations upon the nose and naso-pharynx more or less severe have become of striking frequency. That, on the whole, good to humanity has resulted from this great activity cannot be doubted. Unfortunately, however, it often happens, from the imperfection of human agency, that with improved and increased methods of treatment there is involved the danger of doing mischief. The middle ear, from its intimate connexion with the nasal channels, being in fact an offshoot from these, is specially exposed to danger from energetic nasal treatment. It may therefore be useful at the present time to draw attention to this source of danger to the middle ear, and to the precautions calculated to avert such danger.

### NASAL IRRIGATIONS.

I shall consider first the risks attending the use of irrigations to the nose, such as Weber's douche, the syringe and simple sniffing. Since the case reported by Roosa of New York in 1869 of acute otitis media, followed by pyæmia, caused by Weber's nasal douche, many instances of acute purulent inflammation of the middle ear arising in this way have been placed upon record. Attention has also been drawn to this source of danger by Knapp, Elsberg, von Tröltzsch, Politzer, Weber-Liel, Berthold, Guye and others. My own experience has taught me that the entrance of liquid into the middle ear through the Eustachian tube during the use of the nasal douche or syringe, is a very common occurrence. This accident is fortunately, however, by no means always followed by inflammatory mischief. Patients, especially children, frequently mention that they experience pain in the ear during the act of syringing, although no real mischief results. On the other hand, serious mischief to the ear may ensue. Purulent disease with all its possible consequences, or simple catarrh with temporary or permanent injury to the hearing, may without doubt be a consequence. While many of the cases of purulent middle-ear disease excited in this way have been mild and short in duration instances are, in my experience, not very uncommon in which the disease has assumed a persistent and even serious character. I can recall several cases which illustrate this. A young lady who had daily for nearly a year used an alkalo-saline solution, by means of the syphon nasal douche, suddenly while in the act of using the douche became conscious of the liquid passing up into the middle ear. Intense pain in that ear was immediately experienced, followed by suppuration, perforation of the membrane and, ultimately, by caries and necrosis of the mastoid. I operated on the mastoid, and, after many months of great distress and anxiety, the purulent disease was brought to an end, leaving behind, however, a permanently damaged tympanum. More recently a gentleman, after the

employment of the posterior nasal syringe by a medical man, was seized with a purulent disease of the middle ear. He was confident that it followed immediately after and was caused by the injection of the liquid. The purulent disease proved extremely obstinate, involving months of treatment before the secreting process was brought to an end, leaving, however, a permanent perforation. Still more recently a patient, whose ears had hitherto been in a sound condition, was under treatment for an affection of the nasal passages. This treatment included the use of Weber's nasal douche. Purulent disease was excited in both middle ears, which, from the manner of its onset, was clearly due to the entrance of the liquid into the middle ears. The suppuration assumed a most persistent character, and the perforations increased so as to involve a large part of each membrane. Serious deafness ensued, and ultimately, after the use of many different methods of treatment, the secreting process was brought to an end, leaving behind large perforations.

What are the conditions which favour the entrance of liquid into the middle ear during the use of the syringe or douche? Structural peculiarities in the nasal passages and Eustachian tube, existing naturally or induced by disease, are probably the most important factors. In children, for example, owing to the smallness of the naso-pharyngeal space, the width and shortness of the Eustachian tubes, their limited control over the muscles of deglutition, there is more likelihood of liquid injected into the nasal passages finding its way into the middle ear. Likewise in adults, whose Eustachian tubes have been rendered abnormally patent by atrophy of the mucous membrane, or where the muscular mechanism of the Eustachian tube has been impaired, the resistance to the passage of air or liquid is much diminished. In those conditions liquids injected into the nasal passages or drawn in by the patients, however carefully, are apt to find their way into the tympanic cavity. In one of the cases just referred to there was marked imperfection in the due and firm closure of the Eustachian tubes. Of these structural peculiarities, however, the partial or complete impermeability of one or other nasal passage or of the cavity of the naso-pharynx is the most fruitful source of accident. Such impermeability is common, and may be due to deflection, exostosis, or enchondrosis of the septum, to hypertrophic or other swelling of the turbinated bodies, or to post-nasal growths. When one of the nasal passages is thus closed and liquid is injected into the opposite nasal passage by a syringe, the nozzle of which fits tightly into the orifice of the nose, a passage of liquid into the middle ear will be an almost certain result.<sup>1</sup> The employment of strong force, either from too great height of fall in the case of Weber's douche or from excessive pressure upon the piston in ordinary syringing, is always improper, but is especially mischievous when there exists any of those forms of obstruction. It is to be carefully noted that in any case, even when no structural peculiarity exists and when the syringe is used with every caution, *the performance of the act of swallowing during the passage of the fluid through the nasal passages greatly favours the entrance of the liquid into the middle ear.* Another danger is that the liquid still remaining in the crevices of the naso-pharynx, shortly after the injection, is often impelled into the middle ear if the patient blows the nose vehemently or sneezes.<sup>2</sup>

I have said that liquid frequently finds its way into the middle ear without any injurious effects. What are the circumstances which determine injury when liquid finds its way into the middle ear? A middle ear predisposed to inflammation, either through hereditary tendency, a past attack or a present chronic disease, is of course much more apt to be injured by the entrance of the liquid. The force by which the liquid is propelled into the ear must to some extent determine the effect. The character of the fluid, however, especially in regard to temperature, strength and purity, is a still more important factor. A proper degree of warmth is essential to safety: we know that cold liquids injected into the ear through the external auditory canal are apt to prove injurious; they must prove at least equally injurious when forced through the Eustachian tube. The habit of drawing or sniffing cold water into the nasal passages, indulged in by some persons with the idea of curing or preventing cold in the head, is probably responsible for a number of middle-ear inflammations. This method of irrigating the nose is no doubt

often mischievous, especially where the Eustachian tubes are abnormally permeable.<sup>3</sup> Irritating solutions finding their way into the middle ear must of course be more likely to excite inflammation than those of a mild character. The rôle played by mucus, pus or blood forced from the naso-pharynx into the middle ear is not easily determined, although when accompanied by pathogenic organisms, such as those peculiar to ozæna, diphtheria, scarlet fever and certain forms of nasal catarrh, they must prove most important sources of mischief. When a combination of all these conditions and causes exists in the one case the danger to the middle ear must be great, if not unavoidable, and it is probable that such a combination not unfrequently exists.

#### THE GALVANIC CAUTERY AND CORROSIVE SUBSTANCES.

Let us now consider to what extent the galvanic cautery and corrosive substances—such as chromic acid—are responsible for the production of mischief in the middle ear. Exciting as they do more or less inflammation in the tissues of the nose, it would not be surprising if extension to the middle ear sometimes took place. I believe, however, that such mischief, when it does occur, is frequently due to the neglect of certain precautions after the cauterisation. These applications being usually made in the doctor's house, exposure to the air—travelling, it may be, to a distant part—tends to increase the irritation and leads to its extension from, say, the inferior turbinated body, to the Eustachian tube immediately behind. The following case illustrating this came lately under my observation. The left nasal passage of a lady was cauterised with the galvanic cautery in London. On the day following she travelled to Glasgow, feeling as if she had a severe cold in the head with violent sneezing. On the day after her arrival in Glasgow she was seized with severe pain and throbbing in the ear corresponding with the side which had been cauterised. When I saw her a week afterwards she suffered from acute otitis media on the left side, with implication of the mastoid, which, in the region behind the ear and in the posterior wall of the auditory canal, was bulging and painful; neither discharge nor perforation had taken place, but the hearing power was almost abolished in that ear. After leeching the mastoid and incising the posterior wall of the external auditory canal, with only temporary benefit, it was proposed to perforate the mastoid behind the auricle, but, after consultation, it was decided, owing to the subsidence during the previous twenty-four hours of the pain over the mastoid, to postpone the operation. The hearing began to improve and the bulging of the posterior wall of the canal gradually diminished, with ultimate but very slow recovery. In this case I do not think that one would be justified in positively asserting that the cauterisation was the direct cause of this middle-ear mischief, although the order of events—the cauterisation followed by the nasal irritation, then by the pain in the corresponding ear—would lead one to suspect that the operation on the nose had something to do with what followed. Syringing the nose after cauterisation, when the passage is obstructed from swelling, is apt to force liquid into the middle ear and thus excite mischief. Probably the introduction of micro-organisms along with the applications, such as when the part of the electric cautery near to the burner has been imperfectly cleaned and disinfected, may be the means of exciting suppurative inflammation in the middle ear. When the cautery is applied near to the mouth of the Eustachian tube the danger is of course greater. Hence cauterisation of the naso-pharynx is particularly apt to injure the middle ear, as recorded cases prove. Galvanic cauterisation of the pharynx granular pharyngitis may likewise be followed by acute purulent inflammation of the middle ear. Such a case is within my knowledge. Gruber also remarked at the meeting of the British Medical Association in Nottingham that the galvanic cauterisation of the wall of the pharynx may, by injury to the muscular fibres beneath, damage the muscular mechanism of the tube. In regard to the use of chromic acid I have not yet seen a case of middle-ear mischief from the use of this corrosive, but, judging from the irritation and swelling of the mucous membrane usually produced by this substance, implications of the middle ear might occasionally be expected. In a paper by Eitelberg<sup>4</sup> there are descriptions of cases of troublesome middle-ear suppuration excited by chromic acid applied to the nasal mucous membrane. When the galvanic cautery or chromic acid has to be applied to the nasal mucous membrane too great care cannot be enjoined upon the patient to avoid exposure to cold.

<sup>1</sup> See Guyo's paper in *Berliner Klinische Wochenschrift*, March 10th, 1891.

<sup>2</sup> Löwenberg in *Berliner Klinische Wochenschrift*, May 4th, 1891.

<sup>3</sup> Eitelberg in *Wiener Medicinische Presse*, June 7th, 1891. <sup>4</sup> *Ibid.*

## OPERATIONS ON NOSE AND THROAT.

Let us now consider to what extent the greatly extended use of operations on the nose and naso-pharynx may be regarded as a source of mischief to the adjoining cavity of the middle ear. The removal of adenoid vegetations from the naso-pharynx has become of late years one of the commonest of operations. As an operation most frequently performed in cases of defective hearing I have had very considerable experience of it. While I have no doubt seen a considerable number of cases in which, after the removal of these growths, a purulent inflammation affected one or both middle ears, I have not had experience of any case in which this assumed a serious character—none so serious as we have seen to happen after the nasal douche. I observe, however, that Dr. Gorham Baton, at the twenty-fifth annual meeting of the American Otological Society, describes a case in which inflammation of the mastoid cells and periosteal abscess followed upon the operative removal of these vegetations. I have, however, seen at least one case in which permanent aggravation of deafness followed this operation, where a chronic adhesive catarrh of the middle ear existed. I think in this form of deafness we should be very cautious in operating upon the naso-pharynx or nasal passages. While the ordinary exudative catarrh may be very much benefited in this way, there is no doubt a fear of doing more harm than good in these adhesive or hypertrophic forms of catarrh. Most aural surgeons have seen cases of inflammation of the middle ear following the removal of tonsils and nasal polypi. The extent to which operations upon the nasal septum and turbinated bodies and the forcible mechanical distension of the nasal passage by instruments constructed on the principle of the glove stretcher, so frequently performed of late years, affect the middle ear prejudicially has not yet come to light. Eitelberg describes an obstinate suppuration of the middle ear following the removal of the posterior end of the inferior turbinated body. It is fitting also to refer here to the possibility of exciting inflammation of the middle ear in cases where the posterior nares have been plugged in consequence of bleeding from the nose.<sup>5</sup> Serious mischief has arisen in such cases from the retention of the plugs too long and the production thereby of septic inflammation in the middle ear. One case of death is reported from this cause, owing to cerebral complication. In considering the liability of the middle ear to receive injury from any of these forms of nasal treatment, it is to be remembered that here, as in all organs of the body where the vulnerability of the organ is increased by hereditary weakness and by previous or existing disease, the action of a local cause, be it the entrance of liquid into the ear or the production in the neighbourhood of the middle ear of inflammatory irritation or septic mischief, is fraught with the greatest danger. I would venture to urge upon rhinologists the importance of giving due attention to these considerations when treating the nasal regions. Do not order the nasal douche without considering the possible effects upon the middle ear, especially where an old inflammatory disease or a marked tendency to deafness already exists. Do not hold out vain hopes to persons suffering from incurable deafness that cauterisation of the inferior turbinated body, the removal of a tonsil, perhaps only slightly enlarged, or of a vegetation in the naso-pharynx, will restore or improve the hearing. Instead of improvement the very opposite result may follow. I have had patients coming to me, suffering from incurable sclerosis of the middle ear and labyrinthine mischief, who were encouraged to expect great improvement of the hearing if such operative measures were submitted to; such expectations being held out without even the preliminary precaution of examining the ear. It is not surprising that the effect of such treatment is often to increase rather than to improve the deafness. It is a great mistake to conclude in such forms of deafness that if a deflection of the septum or a degree of hypertrophy of the inferior turbinated body exists, operative measures should immediately be adopted. Even when some adenoid growths exist in the naso-pharynx, in sclerosis or adhesive catarrh of the middle ear, it is a question for serious consideration whether operative interference with these growths may not excite an increase in the morbid process in the ear, instead of benefiting them. I cannot do better than here quote from the recent work of my friend, Dr. McBride. He says: "If ten persons who, in answer to leading questions, state positively that they are not in any way troubled by symptoms referable to their nose be examined the probability is that more than half will show such evidence

of disease—e.g., spines on the septum, thickening of the mucosa over the turbinated bodies &c.—as would lead to severe operative measures being advised by many rhinologists if they were to carry out what they advocate. This excessive operative zeal appears to me to be a great danger, threatening as it does the credit of our profession as a whole, and rhinology in particular. Recently an authority is reported (wrongly reported, I trust) to have stated before a medical society in America that he cured diseases of the internal ear by operating on the nose, and his remarks do not seem to have excited laughter. I have dwelt perhaps unduly on these points, but the practical outcome I desire to lead up to is this: let no surgeon be induced to operate on the nose simply because there is some degree of hypertrophy of the mucosa unless the symptoms are sufficiently important to warrant such interference."

## PRECAUTIONARY SUGGESTIONS.

I shall now state as concisely as possible the precautions which to my mind should be kept in view when treating the nasal passages and naso-pharynx, in order to avoid or diminish the risk of exciting disease in the middle ear. 1. Patients before using the nasal syringe, Weber's douche or the hand douche, should be carefully instructed by the surgeon in their proper and safe use. 2. Previous to injecting fluids by the syringe or Weber's douche into the nose, or prescribing such, the nasal passages should be carefully examined, and if one should be found obstructed the fluid should be injected *into the obstructed passage*. 3. The nozzle of the syringe should not tightly close the nostril and during the injection of the fluid the stream should be frequently interrupted. 4. If a syringe is employed, too great force must not be used, especially if there be resistance to the flow of the fluid from one nostril to the other; if Weber's douche is employed the fall must not be too great—not more than two feet. 5. The fluid injected should always be comfortably warmed—say 80° to 90° F.—and it should hold in solution a saline, such as a 1 per cent. solution of common salt or bicarbonate of soda, while in ozæna or other bacterial diseases a definite antiseptic should be employed. 6. The act of swallowing must carefully be avoided during the douche; this is aided by breathing through the mouth. Eitelberg suggests that the patient should protrude the tongue so as effectually to prevent the act of swallowing. 7. In the case of infants or very young children, or in adults whose Eustachian tubes are abnormally permeable, the syringe or Weber's douche should not be employed. The liquid should in these cases be poured into the nasal passages with a spoon or other suitable appliance while the patient (if old enough) should sound the vowel "a." 8. The patient should not blow his nose or, if possible, sneeze for at least fifteen minutes after; he should be instructed that in the event of the liquid entering the ear, he must swallow several times with the nostrils closed. 9. After operations on the nose or naso-pharynx, or the use of corrosive substances which may produce swelling or obstruction, the syringe should be avoided or used with great caution, for a few days, during which the patient should be careful to avoid exposure to cold or septic influences. 10. In operations or cauterisation great care should be taken to secure cleanliness and an aseptic condition of the instruments or appliances used. If the finger-nail is employed to scrape away vegetations there is obviously special need for precautions in these directions.

Glasgow.

## ON THE DIAGNOSIS OF THE DIFFERENT FORMS OF PROSTATIC ENLARGEMENT.

By C. MANSELL MOULLIN, F.R.C.S. ENG.,  
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ONE of the natural results of the recent advances in the surgical treatment of enlargement of the prostate is the demand for a higher degree of accuracy in the diagnosis of the different forms assumed by the growth. So long as passing a catheter at longer or shorter intervals was the only method for giving relief exact measurements were not of much consequence. Then the chief question was the amount of residual urine and the number of times the patient was disturbed in the twenty-four hours; the growth might extend backwards towards the rectum or upwards into the bladder; or it might spread into the walls of the urethra and compress the passage into a narrow slit. So long as it did not obstruct

<sup>5</sup> Gellé in Archives de Laryngologie, No. III., 1892.

too seriously the passage of a catheter or prevent the patient manipulating one for himself the particular shape it assumed was not material. To-day all this is changed. Now that it is possible to effect a radical cure in a large proportion of cases and dispense with the use of an instrument it has become a matter of the highest importance to ascertain the exact size, direction and position of the outgrowth in every instance in which other conditions render such a proceeding advisable. One form can be dealt with most easily through the perineum; another supra-pubes; a few require a combination of the two methods; in one case the dimensions may be such as almost to preclude the idea of radical cure; in another the growth may be so small or so situated that it can be effectually removed by comparatively speaking a minor operation.

To this end museum specimens are of but little value. Nearly always they are taken from the bodies of those who have died in an advanced stage of the disease from complications it has caused, long after the time for radical treatment has passed by; and even when they are not they give but a very imperfect idea of the condition of the parts during life. In its normal state the gland is not a very vascular structure, although it is surrounded by a voluminous plexus of veins; but when it is enlarged and partial retention has commenced, the constant straining, the passage of instruments and the other troubles incident to this disorder sooner or later give rise to attacks of congestion, which may be so intense and prolonged as to lead to very considerable alterations in its size and consistence. I have known the walls of the prostatic urethra so tense and swollen that a full-sized catheter could scarcely be pushed down it; yet two days later, at the necropsy, when all that remained of the congestion was the discolouration of the mucous membrane and a few thrombi in the veins, the forefinger could be introduced with ease. Measurements, if they are to be a guide in the selection of cases and methods, must be taken under the conditions that are present during life.

Rectal examination is only of use when it gives positive information and then only in a certain proportion of instances. As McGill pointed out, the prostatic enlargements which give rise to urinary symptoms are intra-vesical (and urethral), not rectal. The cases in which operation is most successful are those in which there is a median projection overhanging the orifice or a trilobed outgrowth surrounding it and meeting over it as the bladder contracts. Quite small growths in this situation may cause complete retention and that in a very early stage of the disease, while the patient is comparatively young and his kidneys are still sound. Yet in a certain proportion of these cases there is either no rectal enlargement at all or so little that it rather tends to throw discredit upon the diagnosis than to assist it. The converse, it is true, deserves more reliance. When the growth projects far into the bowel there is generally some elongation of the prostatic urethra; but this is not invariable, and even when it is present it does not follow that there is of necessity loss of power in the wall of the bladder with accumulation of residual urine.

Examination of the urethra with a catheter or sound gives fuller details. The length of the prostatic dilation is easily measured, and occasionally the presence of a dilatation can be detected anterior to the bladder in the substance of the gland. So far as the general shape is concerned a short-beaked metal sound is the better guide. Combining the two methods, the rectal and urethral, the thickness of the tissues that separate the two passages in the middle line can be estimated with tolerable accuracy; if the sound is reversed in the bladder it is sometimes possible to form an idea of the extent to which the growth has invaded the posterior margin of the vesical outlet and the floor of the trigone beyond; and occasionally the existence of a median projection may be suspected from the peculiar jerk communicated to the instrument when it is reversed and moved slowly from side to side, but the enlargement must be very firm and well marked to show so much. Beyond this it is only in rare cases that any further information can be obtained through the ordinary channels. The cystoscope, which has done so much for the bladder, is of very little service where the prostate is concerned. It may reveal the existence of an overhanging lobe when it projects well into the bladder, or show the presence of an ulcer or a fissure at the neck, but it reveals little or nothing of the shape of the rest of the gland, and of course can give no information as to its consistence; and the clinical symptoms, except in those instances in which complete retention occurs suddenly without any evidence of congestion or thrombosis, merely indicate the necessity for something further in the

way of relief without furnishing a clue as to the way in which it is to be obtained.

In all these methods of investigation the posterior portion of the gland in the middle line is the only part that receives any attention. The lateral lobes may be enormously enlarged and compress the urethra into a slit, but unless the growth is so irregular in shape that the point of the sound is caught or turned to one side as it passes by or has spread so far into the bladder that the projection can be seen through a cystoscope there is nothing to show whether they are affected or not. Yet in a large proportion of cases they and not the so-called median lobe are the real offenders. By the increase in their length they raise up between them a fold of mucous membrane (often containing prostatic tissue) which stretches across behind the vesical orifice and prevents the bladder emptying itself. By the increase in their thickness they compress the urethra into a narrow slit, through which when there is the least congestion the bladder is unable to force its contents. They in the large proportion of cases are the centres from which the glandular growth spreads beyond its normal boundaries into the wall of the urethra, and even in those instances in which the immediate cause of retention is the presence of a median valve they are of very material assistance by the way in which they make the opening rigid and unyielding. In short, if the operation is to be a radical one, with a prospect of permanent cure, they require to be dealt with as thoroughly as the rest, and accordingly it is of the first importance to obtain beforehand exact information with regard to their relative size, shape and density.

There are two methods not in common practice by which something may be gained before resorting to digital exploration. Of these one is only of use for distinguishing between valvular obstruction and compression of the urethra. If a catheter with a terminal orifice is passed down to the apex of the prostate and connected by a rubber tube with a funnel containing warm boracic solution under normal conditions a pressure of a very few inches is sufficient to make the fluid enter the bladder. Roughly the measurement may be taken by the height to which it is necessary to raise the funnel and the patient's sensation tells at once when the fluid begins to enter; but if greater accuracy is desired the tube may be connected with a manometer by means of a side branch. In cases of purely valvular obstruction the fluid enters freely and quickly and at the ordinary pressure; on the other hand, when the canal is compressed it remains stationary until the funnel is six feet or more above the patient's body and even then it only trickles in. It is usually advisable to repeat this after an interval of a few hours or on the following day, and care must be taken that a catheter is not passed shortly before the experiment is tried.

The other method is based upon the relation that exists between the size and shape of the prostatic urethra and that of the prostate itself. It is true that this must not be pushed too far; the prostate may be distorted and covered with outgrowths without of necessity entailing much alteration in the channel that runs through it; but leaving on one side cases that present conspicuously exaggerated features and restricting it to the ordinary type of overgrowth, in which there is an ever-increasing difficulty in emptying the bladder, some degree of proportion certainly does exist in the majority; and although it is impossible to define accurately in every instance the parts that are enlarged or the extent to which they have grown, great alterations in the dimensions of the urethra are practically always associated with definite changes in the shape and size of the gland.

Measurements should be taken in the middle of the prostatic urethra and at or as near as may be to the vesical orifice. The former are the more valuable, for when the alteration in size or distensibility at the outlet is very marked, the shape of the gland is usually too irregular for accuracy. The opening, for example, may be distorted into a semi-lunar shape by the growth of a median projection from behind and give an antero-posterior diameter that is altogether deceptive. In the middle of the prostatic urethra this rarely happens. There an increase in the antero-posterior diameter without any great change in the transverse one always indicates overgrowth of the lateral lobes. If the measurement diminishes rapidly towards the bladder, and if the urethra is at the same time increased in length, it is proof not only that they are enlarged, but that they have raised up between them a fold of mucous membrane across the posterior boundary of the outlet; and if there is at the same time much of an angle in the posterior wall, stopping the passage of a catheter with an ordinary curve, it shows that the fold is of considerable

thickness, projecting forwards as well as upwards and contains therefore an outgrowth of glandular tissue. In other words the vesical orifice is raised, displaced forwards and surrounded either by a continuous collar or by three projecting eminences which meet together over it when the bladder contracts. The lateral diameter deserves an equal amount of attention. Normally the transverse section of the prostatic urethra about its centre is crescentic in shape with the convexity forwards. When there is general enlargement this becomes altered into a triradiate star and then increased width is a sure indication that there is overgrowth in the posterior wall, involving not merely the vesical outlet, but the urethra as well—such a growth, in short, as can scarcely be dealt with satisfactorily by the supra-pubic route alone.

It is more difficult to ascertain the extent to which the urethra is displaced in the substance of an enlarged prostate. Usually there is very little overgrowth in front, but I have met with one instance in which this was so great that the channel lay a long way behind the centre, and in another in which prostatectomy was performed it is recorded that the anterior growth was the main and almost the sole obstruction. It may be suspected if when the prostate is distinctly enlarged the antero-posterior diameter of the urethra is not

the other, the interior of the prostatic urethra can be mapped out with perfect accuracy, and in many instances, owing to the difference in the resistance presented by the walls, the nature of the growth can be ascertained as well, whether it is soft, nodular and adenomatous or hard and dense like fibroid. Combining the knowledge obtained by these measurements with what is revealed by rectal examination and cystoscopy, an accurate opinion as to the size and shape of the overgrowth can usually be formed in those cases in which operation is advisable without having recourse to digital exploration.

Wimpole-street, W.

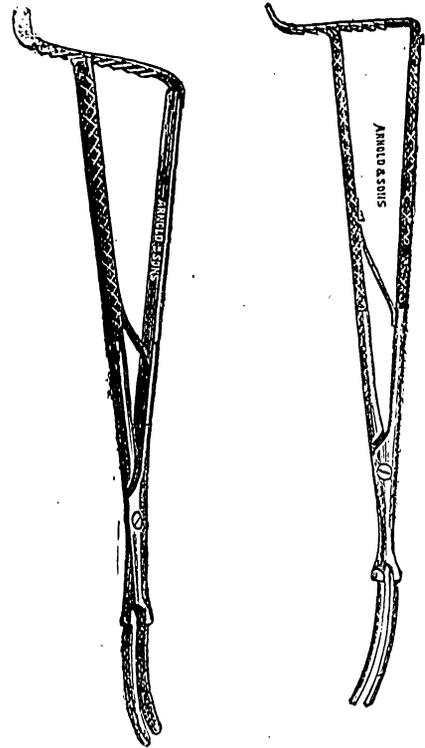
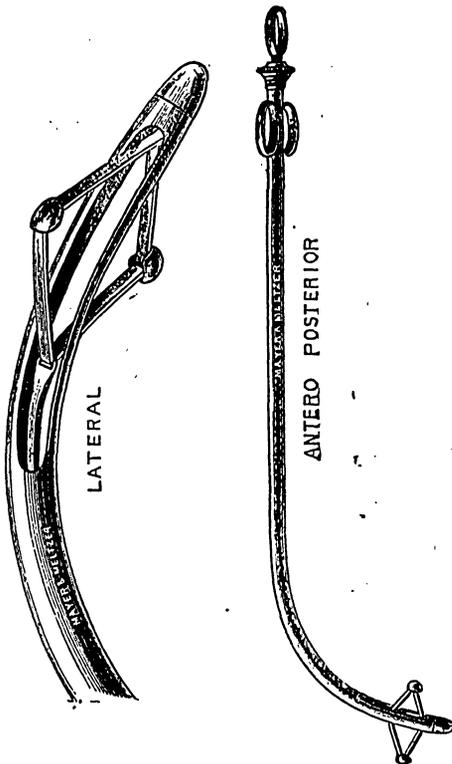
UTERINE DILATORS.

By C. YELVERTON PEARSON, M.D. R. U. I., F.R.C.S. ENG.,  
SURGEON TO THE COUNTY AND CITY OF CORK HOSPITAL FOR WOMEN  
AND CHILDREN ETC.

ANYONE introducing a new form of uterine dilator owes some apology to the profession, yet I think the great variety of such instruments already in existence is in itself an evidence that no form has given perfect satisfaction. For some years past I have been accustomed in cases where I desired to effect rapid dilatation of the cervix, first to pass

FIG. 1.

FIG. 2.



increased and the channel is unusually straight, but it cannot be proved. The same thing must be said of irregular or extreme forms of overgrowth; it is seldom that they can be accurately defined without digital exploration.

Messrs. Mayer and Moltzer have made for me two instruments for taking these measurements, very simple in construction. Each consists of a diamond-shaped metal frame, hinged at the four angles to allow of expansion and contraction and enclosed in the curve of a prostatic catheter, part of the wall of which has been cut away. In the one the sides are open to allow of lateral expansion; in the other the front and back for antero-posterior measurement, the projecting angles in each case being protected by little rounded buttons upon the hinges so that the mucous membrane may not be hurt or bruised. Expansion and contraction are carried out by means of a stilet gliding backwards and forwards in the shaft and terminating in a finger ring, and the measurement scale, which is marked upon the handle of the stilet, gives at a glance the width to which the diamond is opened at the moment. By means of these, introducing first one and then

graduated metallic dilators, and when the canal was sufficiently opened by this means, then to effect further dilatation by means of a modified glove-stretcher. I have now got Messrs. Arnold and Son to make two instruments on the latter principle, which can be used separately or simultaneously, and by means of which the cervical canal can be rapidly and safely enlarged, in all cases where the cervix is sufficiently yielding to justify rapid dilatation, from a diameter slightly exceeding that of an ordinary uterine sound to a size sufficiently large to readily admit one finger. The accompanying illustrations will render a full description of the instruments unnecessary. But a few points and the method of use require special mention. The smaller instrument with the blades closed can be passed without difficulty through any uterine canal that will admit an ordinary uterine sound. The blades are curved and open in an antero-posterior direction on compressing the handles. The latter are provided with a catch working on a rack which permits their slow approximation, but checks their tendency to separate until it is so desired. When the full amount of dilatation has been effected, the blades of this

instrument are permitted to close; it is then withdrawn, and the larger one is substituted. This is used in a similar manner, except that the blades expand in a lateral direction—i.e., at right angles to the other. When the larger instrument has been compressed so as to produce the fullest expansion of the blades, if any further dilatation be desired, it can be accomplished by inserting the smaller dilator between the expanded blades of the larger one, and again opening them. But for the purpose of curetting this will not be found necessary. In cases where the cervix is rigid and rapid dilatation to any considerable extent is therefore contraindicated, the following method will be found most satisfactory:—First, use the small dilator until the canal is sufficiently opened to admit a medium-sized tent, then introduce a tent, and permit it to remain for three or four hours. At the end of this time the cervix will have become so soft and yielding that the full amount of dilatation required for ordinary purposes can be readily accomplished with my dilators.

For these dilators I claim the following advantages:—1st. Only two instruments are required for all ordinary purposes. 2nd. They will rapidly and safely dilate the cervical canal from its ordinary size to a diameter sufficiently great to admit a full-sized finger. 3rd. Owing to the way in which the blades open, they will dilate the os internum to a slightly greater extent than the os externum, a point which most of the dilators in use fail to accomplish. 4th. The compressing force of the hand, while capable of exerting all the force desirable, acts as a guide to the amount of pressure and resistance, and can be used in a delicate manner, so as not to risk any injury by over-stretching, having this great advantage over any screw-like mechanism. 5th. As the blades are only two inches long from the projecting shoulders they will not come in contact with the fundus.

Sidney-place, Cork.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### UNIVERSITY COLLEGE HOSPITAL.

#### TWO CASES OF EXOSTOSIS INVOLVING JOINTS; REMOVAL THROUGH THE JOINTS; COMPLETE RELIEF.

(Under the care of Mr. ARTHUR BARKER.)

THESE cases illustrate the safety with which exostoses may be removed at the present day even when their removal involves incision into a large joint. Before the system of antiseptics had been sufficiently developed surgeons would have hesitated before attacking such bony outgrowths, however much they might have interfered with the neighbouring joint. They may, however, now be removed, and frequently are, without risk of pyæmia or bone inflammation, if they simply cause unsightly deformity. Should they interfere with the utility of a limb, give rise to neuralgia or other symptoms due to pressure or be increasing rapidly, few surgeons would hesitate to remove them. Innes has recorded a case in which an exostosis of the head of the tibia caused gangrene of the foot and leg by pressing on the arteries, and Braun also relates a case of ankylosis of hip due to the presence of such a growth. We are indebted to Mr. J. B. H. White, surgical registrar, for the notes of the cases.

CASE 1.—A man aged fifty-eight, an engineer by occupation, was admitted to University College Hospital on March 17th, 1891. Eight months before admission he had noticed a little tumour the size of a pea just above the flexure of the left elbow-joint. It could be shifted from side to side and the movement was often accompanied with grating. There was no pain, but as the swelling gradually enlarged increasing difficulty in bending the elbow made him seek relief. There was no history of an injury. On admission there was, in the position indicated above, a prominent swelling of bony hardness and as large as a walnut; with the arm extended the summit of the swelling was crossed by the

median basilic vein and just internal to this by the brachial artery; the mass then appeared to be fixed. When the elbow-joint was flexed to a right angle the tumour was movable from side to side, but not in the direction of the length of the limb. The tumour appeared to be altogether beneath the brachialis anticus muscle. The next day an incision two inches long was made over the summit of the swelling. The median basilic vein and brachial artery were held aside by hooks. The fibres of the brachialis anticus muscle were divided longitudinally over the tumour, and when the latter was reached the fibres of the muscle had to be separated from its surfaces, to which they were closely attached. In removing the lowest part of the tumour the elbow-joint was opened. The wound was sutured with silk, with a drain consisting of several strands of silk, and was dressed with dry salicylic wool. The arm was placed on a splint in a nearly extended position. The parts removed at the operation consisted of a piece of bone measuring  $2 \times \frac{1}{4} \times \frac{3}{8}$  in. Both surfaces were covered by torn muscle fibres, in places distinctly tendinous. At the lower end of the fragment were two articular surfaces separated by a notch; these surfaces were covered by very dense fibrous tissue and not by cartilage. One of the articular surfaces on the anterior half of the other articulated with the coronoid process of the ulna, in which there was a pit to receive it; the posterior half of the latter surface articulated with the humerus. In the evening of the day of operation the temperature reached  $101.6^{\circ}$ ; it had regained the normal by the fourth day after operation and remained normal afterwards. The wound was dressed on the second day after operation; the discharge was serous. The wound was dressed again on the sixth day and the silk drain removed, and on the twelfth day, when all the sutures were removed. There was a small part unhealed in the centre of the wound from which some clear fluid like synovia was discharged. The patient left the hospital on the seventeenth day after the operation with the wound soundly healed and with perfect use of the limb.

CASE 2.—A woman aged forty-four was admitted to this hospital on Aug. 10th, 1891. Twenty-six years ago she was run over by a travelling coffee stall, the wheel of the vehicle passing over her legs just above the knees. Six years later she first noticed a little lump just above the left knee-cap. It was then no larger than a pea. During the last twenty years it had gradually increased in size, but more rapidly during the last two or three years. On admission there was a bony outgrowth from the front of the left femur forming a considerable prominence on the front of the limb a finger's breadth above the upper margin of the patella; it was completely covered by the quadriceps extensor and appeared to be pedunculated; when the knee-joint was flexed an interval of three inches and a quarter separated the patella from the exostosis. On the third day after admission an incision three inches long was made on the outer side of the swelling and deepened through the muscle; the supra-patellar pouch of the knee-joint was opened; the exostosis was cut off with an osteotome and the base afterwards rendered smooth; the edges of the posterior layer of the synovial membrane of the joint were sewn together by a continuous silk suture over the bony defect and the skin wound by interrupted sutures; the wound was dressed with dry salicylic wool; it was not drained. A back splint was placed on the limb. With the exception of a rise to  $100^{\circ}$  on the day following the operation the temperature was normal throughout. The wound was dressed on the third and again on the tenth day after operation. On the latter day all the stitches were removed and wool and collodion applied. The patient left the hospital on the fourteenth day with the wound quite healed and with perfect movement in the joint. The parts removed at the operation consisted of a flat oval piece of bone measuring one inch and three-eighths by three-quarters of an inch. It was composed of spongy bone, with a thin layer of compact tissue all round the sides and on the summit a layer of cartilage one-sixteenth of an inch thick. The periosteum covering it was much thicker than normal.

Remarks by Mr. BARKER.—Of the numberless cases of bony exostoses which every hospital surgeon meets with it must be admitted that very few ever imperatively require operation. Those which lie in the neighbourhood of joints, however, are the exception to this rule, interfering as they often do with the movements of the articulation. Such I have frequently had to remove by operations of more or less severity. Both the cases recorded above I believe to have been originally exostoses, although in the first the bony mass was movable when first seen and was seated in the insertion of a tendon.

It is, I believe, rare to find bony growths in the substance of tendons except where they spring from bone. I cannot help thinking that this man had a pedunculated exostosis springing from the coronoid process and running up the insertion of the brachialis anticus, which ultimately became broken off at its base and then moved with the tendon in which it lay, causing much discomfort and weakness to the man, who worked much with the hammer. The case of the woman was one of a true pedunculated spongy exostosis in a not very common position, though we have specimens in our museums which illustrate the variety clearly. Like the exostosis in the first case it had appeared rather later in life than is usual, or, at all events, it only gave trouble in middle life. Such cases are pathologically very remarkable if we accept Cohnheim's theory as to the production of exostoses. His explanation seems to fit in better with their appearance during the first two decades of life, which is the rule rather than with their production in middle life. Surgically these cases show how easily and with what impunity joints may be opened provided we are confident of securing perfect asepsis and subsequent rest, and in both instances large joints were opened freely and large portions of bone were removed from them without producing the slightest reaction or causing the least impairment of function subsequently.

## Medical Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

#### *Supra-Vaginal Amputation of Cervix Uteri for Cancer.*

An ordinary meeting of this Society was held on Dec. 13th, the President, Sir Andrew Clark, in the chair.

Dr. LEWERS read a paper on some points in the Supra-vaginal Amputation of the Cervix Uteri for Cancer, with special reference to the methods adopted in cases where, for two years and upwards, the disease had not recurred. He considered the subject under the following heads: (1) The indications and contra-indications for the operation; (2) its mortality; (3) the results as regarded recurrence; and (4) the details of the operation in those of his own cases where the disease had not recurred for periods of two years and upwards. The paper was based on an experience of nineteen cases. So far as the first head was concerned Dr. Lewers would lay special stress on the importance of careful examination under anaesthesia in doubtful cases, with the view of determining their fitness or otherwise for operation. As regarded the mortality, none of the cases succumbed at the operation; as regarded recurrence, full proof was brought forward of the malignant nature of the disease in those cases where the disease had, for periods of two years and upwards, not recurred. The specimens themselves and drawings of them were shown for reference on this point. As regarded the fourth head, he laid stress (a) on the importance of making the preliminary incisions for clearing the cervix as far as possible from the diseased tissue; (b) on the importance of removing the cervix in an anatomically complete condition at the level of the internal os uteri; (c) on the little risk involved in opening Douglas's pouch during the operation; and lastly (d) on the apparent value of applying the cautery freely to the "bed" from which the cervix had been dissected out and of cutting off the cervix from the body, after it had been cleared, with the cautery rather than the knife or scissors.

Mr. JESSITT referred to twenty-four cases on which he had operated during the years 1889, 1890 and 1891: fifteen of them were at present without recurrence, five had had recurrence, three he had lost sight of and one died. These results, compared with those of total extirpation of the uterus, stood out very favourably, for Martin of Berlin gave the death-rate of total extirpation at 16 per cent., while in America Post found that a collection of cases gave a mortality of 24 per cent. His own experience of total extirpation was very unfavourable. He thought that Dr. Lewers might have gone further in many of his cases and, instead of cutting off the cervix transversely, he might have removed a cone-shaped piece of the uterus above the level of the internal os. In patients who had not reached the menopause, in order to avoid the danger of retention of the menses he introduced a stem and allowed the uterus

to heal round it, leaving the canal patent. He related an instance in which hæmatometra followed an operation where this precaution had been neglected. In two of his cases the microscopical examination was not decisive as to malignancy, though clinically they had malignant characters. It was of little importance whether Douglas's pouch was opened up or not; he never stitched it up. He had found a tendency to hæmorrhage when the slough caused by the actual cautery came away, and he preferred the scissors to the cautery for the reason that the cautery hardened the tissues and masked any disease that might be left behind.

Dr. CHAMPNEYS advocated the division of the cases into three classes—cancer of the body of the uterus, cancer of the supra-vaginal portion of the cervix and cancer of the vaginal portion of the cervix. For cancer of the body of the uterus vaginal hysterectomy should be performed and in suitable cases this operation perhaps gave the best results of the three. In cancer of the vaginal portion the supra-vaginal amputation should be performed; the disease here did not tend to spread upwards so much as laterally. Where the disease began in the canal of the cervix the case was the least favourable of the three, owing to its deeper seat and its tendency to spread upwards before notice of its presence was given, and when discovered it was found often that the mischief had spread laterally and the operation was often difficult and unsuccessful. There was some doubt as to what was the best operation to be done in these cases, but as the extension upwards was usually a late manifestation, and when this had occurred the disease had already spread so far laterally as to render partial operation inadvisable, the best chance was given to the patient by total extirpation. In considering foreign statistics it should be remembered that vaginal hysterectomy had been done in Germany for many affections other than cancer, such as displacements of the uterus, and therefore their total results should be more favourable than ours.

Dr. ROUTH said that in practice cases were usually met with only at a late period, when the disease had extended towards the internal os. He preferred the écraseur, and especially the electric écraseur, for making the section of the cervix, as hæmorrhage was thus avoided. He had used the actual cautery without consecutive hæmorrhage, but he never applied it above a red heat. He spoke well of the results of the bromine treatment; one part of bromine to five parts of spirits of wine was applied on a tent with cotton wool, and below it plugs were placed which were soaked in carbonate of soda. The bromine should be left in not more than four hours and afterwards a slough half an inch in thickness would separate, glycerole of pepsin being used to dissolve the slough and keep the parts free from odour.

Mr. HULKE said it had been his lot to have charge of a cancer ward at a neighbouring hospital, and he usually had many of these cases under observation; but they generally entered the institution when the disease was too far advanced to render operation practicable. Extirpation could only be of benefit when lateral infiltration was absent and there was but a limited implication of the vaginal walls. Most of the cases which were unfit for the supra-vaginal amputation were equally unfit for complete extirpation. He concurred in preferring the scissors rather than the cautery to make the section of the uterine tissue, and had seen hæmorrhage follow separation of the sloughs when the cautery had been used.

Dr. HEYWOOD SMITH thought that one could go too far in cutting wide of the disease; it was possible to cut out a cone of uterine tissue without entering the utero-vesical space or opening Douglas's fossa. His objection to the écraseur was that it cut on a dead level and was apt to draw in more tissue than was intended. Having cut out a cavity he plugged it with sponges wrung out of very hot water to stop the hæmorrhage and then packed tightly with swabs soaked in a saturated solution of chloride of zinc, plugging the vagina with carbonate of soda tampons. In twenty-four hours he removed the vaginal plugs and in four days the zinc swabs; later a slough separated like the finger of a glove.

Dr. AMAND ROUTH emphasised the importance of making a microscopical examination in doubtful cases and related a case in which a large growth, considered at first to be too far advanced to admit of operation was found to be adenomatous and was successfully removed, there being no recurrence after three years.

Dr. HERBERT SPENCER said that the mortality from the two operations ought not to be compared. He referred to an American paper which appeared recently by Dr. Byrne, President of the New York Obstetrical Society, who gave the

German statistics of mortality after total extirpation at 14.5 per cent. Dr. Byrne had had 400 cases of supra-vaginal operation without a death; he removed the cervix by means of a galvano-cautery knife, and he attributed his wonderful absence of recurrence to the "roasting" of the tissues by means of the hot knife. Mr. Spencer added that in the majority of cases, if the section were made with a knife, the limit of the disease could be accurately seen. He had seen pyometra in one case in which the cervix had been removed with the scissors and he feared that the use of the stem might increase the risk of septic infection.

Dr. LEWIS, in reply, said that most observers seemed to agree that the mortality of total extirpation was about 16 per cent. He did not see the advantage of removing much of the body of the uterus; if a case was found at the operation to require this, it was better to perform total extirpation. Though he had never met with occlusion after the operation he had seen considerable narrowing, which had led to a little increase of the dysmenorrhœa usually present in the case. He had never met with hæmorrhage after the actual cautery, but had seen it as a secondary phenomenon after the separation of the chloride of zinc slough on the tenth day. He admitted that cancer of the vaginal portion of the os was much more amenable to treatment than when the disease began in the cervical canal because it was recognised earlier. He insisted on the importance of keeping the cervix in an anatomically entire condition during removal. The statistics of vaginal hysterectomy when performed for cancer of the body of the uterus should be kept quite separate from those for cancer of the cervix, for the operations differed so much from each other. He had had no experience of the bromine treatment. Though he admitted that the majority of cases which were unfit for the supra-vaginal amputation were unfit also for complete extirpation, yet he showed a specimen which was an exception to this rule. He had tried the treatment of advanced cases by scraping and chloride of zinc plugs; and though every now and then a case would improve for three or four months, they then rapidly relapsed and became as bad as before; he had therefore abandoned this palliative method.

## MEDICAL SOCIETY OF LONDON.

### *The Irregular Heart.*

AN ordinary meeting of this Society was held on Dec. 12th, the President, Mr. Hutchinson, in the chair.

Dr. SANSON read a paper on the Irregular Heart. He stated that it was a review of forty-seven cases presenting pronounced irregularity of the heart for long periods, which had all been under his own observation, all of them being independent of structural disease as a protopathic lesion. They were considered in two groups, the smaller group of ten cases being all examples of Graves' disease. The mode of observation was described and it was recommended—(1) to observe the radial pulse in the usual way; (2) to count the heart beats and observe the rhythm by auscultation; (3) to observe the radial pulse and auscultate the heart simultaneously; (4) to cause the patient to elevate one or both arms whilst the observer auscultated the heart region so that the effect of increased extra ventricular pressure might be gauged. All the cases taken as illustrative were investigated by the sphygmograph and the various forms of irregularity and their mode of production were described. The associations of cases of cardiac arrhythmia were then considered: (1) dyspepsia; (2) syphilis; (3) osteo-arthritis; (4) disturbances of the sense of hearing and naso-pharyngeal affections (illustrative cases were given under this head which tended to show that a reflex from the naso-pharyngeal tract and from the neighbourhood of the auditory mechanism was often a potent cause of cardiac irregularity); (5) influenza (instances were given of special forms of arrhythmia due to the disturbance of the nervous mechanism by this cause); (6) mental disturbances and the effects of severe nervous shock; (7) cases without notable associations (these were parallel with those cases of rapid heart which showed no notable morbid alliances). In the second category were considered ten cases of Graves' disease, in some of which the cardiac irregularity was of the most pronounced degree. It was shown that in such the patient might be perfectly unaware of any irregular movements of the organ and it was also shown that subjective suffering was not in any way correlative with the evidences of arrhythmia. It was urged that the attention of

the subject should never be drawn to his irregular heart. Dr. Sanson submitted that all forms and degrees of irregularity, from the slight to the most pronounced, were to be ascribed to disturbances of the nervous mechanism of the heart. The associations in cases of irregular heart strikingly resembled those in rapid heart. Both such forms of disturbance of the heart rhythm were to be found in cases of osteo-arthritis, in those of aural, nasal and pharyngeal disorder, and especially in Graves' disease. The cases without notable associations might point the lesson that whilst the central disturbance from which the other affections of Graves' disease were offshoots brought about in the majority abnormal rapidity of the heart's contractions, in the minority it induced irregularity. So in many instances arrhythmia cordis might be considered a "forme fruste" of Graves' disease, only it was better to express it that the *ensemble* of the phenomena of Graves' disease was due to the extension from the area of disturbance, which was focally that portion of the nervous system which was concerned with the regulation of the heart's movements. In all such cases, whether manifesting tachycardia or arrhythmia, outbreaks of dyspnoea or of gastrointestinal disturbance—vagus storms as he had termed them—were frequently observed. It seemed probable that whilst sudden overstrain was more likely to produce a tendency to morbid acceleration, the more chronic forms of mental depression tended to be associated with irregularity. When a sudden shock or extensive disease, however, specially involved the afferent fibres of the vagus, pronounced cardiac arrhythmia might be the result.

Dr. B. W. RICHARDSON, while recognising fully the extreme clinical value of the paper, said that his attention had been rather directed to simple intermittency, and he had obtained as many as 400 illustrations of this pulse. When intermittency once began, and it usually commenced after sixty, it was permanent. It was generally due to failure in the sympathetic nerve-supply, though it might depend on irritation of the vagus. As to the effect on the body of irregular cardiac action, it had very little effect provided the patient did not know of it, but it became serious if the patient dwelt on it, and death might then occur from slight causes. There was a modification of the irregular pulse during the course of an acute disease, and always to the disadvantage of the patient.

Dr. MAUDE said that he had had some cases under his care which illustrated the paper. A year ago, in a case of otherwise ordinary Graves' disease, he found a rhythmical irregularity of the pulse, the peculiar characters of which afterwards disappeared, an ordinary rapid pulse remaining. The rhythm seemed to resemble the respiratory phenomenon of Cheyne-Stokes breathing. He had watched a good many cases of Graves' disease, but in only a few was there an irregular pulse. He lived in a district where goitres were common, and had seen quite a hundred during the last five years, and in at least six of them he had found cardiac arrhythmia and acceleration; one or two cases had developed since into typical Graves' disease. Not much attention had been paid to the irregularity of pulse in epileptics. He quoted a case in which an epileptic suffering from late syphilis and irregular pulse died quite suddenly, and at the necropsy nothing could be found to account for it.

Dr. WOAKES desired to speak as to the condition of two patients who had been referred to in the paper. One was a lady who was under treatment ten years ago for deafness and nasal affection who got better, but she returned later, and a cleavage of the middle turbinated bone was found, a part of which had become attached to the septum nasi. Heart perturbation or cardialgia was a common consequent on nasal disease. In a second case the patient was suffering from severe tinnitus, with intense vertigo and some deafness. He found a large mass of granulation tissue in the higher region of the nose on the left side, deflecting the septum. He removed the growth with a galvano-cautery, and found a cleavage of the turbinated bone. After operating on the nose the cardiac trouble got better.

Dr. PASTEUR quoted a case to show the effect of position on the pulse. A woman who had been weakened from an attack of pelvic cellulitis suffered from much depression with extreme palpitation and a week later there was found extreme cardiac irregularity; immediately she lay down the pulse became perfectly regular. Under treatment she improved and the effect of posture on the pulse disappeared.

Dr. RICHARDSON remarked that Dr. Knox of Edinburgh had pointed out that this difference in the pulse between the standing, sitting and lying postures was a purely physio-

logical one. He himself always took his pulse readings in the three positions.

Dr. THOROWGOOD observed that in the pregnant woman there was no difference in the pulse, whether they were standing or lying. The test of elevating the arms in cases of weak heart should be applied with care and caution; he had seen a patient who tried it fall down in a faint and later the same man died suddenly of cardiac disease.

Dr. STEPHEN MACKENZIE referred to the irregular heart which occurred in anæmia, in which there was often a peculiar rhythm, as pointed out by Dr. Wilks. In diphtheria there was a great alteration in frequency of action, together with marked irregularity. He agreed that the prognosis was graver when the patient was cognisant of the malady. He knew of a medical man who had had an irregular heart for twenty years and seemed none the worse for it. He had seen instances where an irregular or intermittent heart had become regular during the course of an acute disease. He quoted a case to show how suddenly rapidity of cardiac action might come on and pass off. In cases of irregularity the trouble often passed off, but in cases of intermittency the condition was generally permanent.

Dr. SOLOMON SMITH doubted if there was a valid reason for drawing a line of distinction between cases of irregularity of hearts which were diseased and those which were not. The symptoms and the causation of the irregularity in the two were precisely the same. Treatment in both, which was directed to external causes of irritation, was more likely to be efficacious than measures aimed at the heart itself. In all cases of irregularity there was a dislocation of stimuli, which made the heart contract arrhythmically; even where the cause was intrinsic it might not be always due to overloading of the heart and need not mean weakening of the heart muscle, even in cases of organic valve disease. This view of the origin of the irregularity would bring the two classes of cases more in line.

Dr. ALLOHIN referred to the cases associated with mental trouble, and asked Dr. Sansom whether in such instances he had found the irregularity associated with a high tension pulse which remained permanently, but was unaccompanied by albuminuria, the heart itself appearing normal; he had seen several such cases. The severity of the symptoms was generally in direct proportion to the acquaintance of the patient with his condition.

Dr. SANSOM, in reply, said that one of the objects of his paper was to insist that cardiac irregularity might be perfectly devoid of really dangerous significance. He thought that nasal and aural troubles were the commonest reflexes which started the cardiac derangement. In the diphtheritic cases it was difficult to eliminate the myocarditis which might be present. Though irregularity often ceased with the onset of acute disease it usually returned after the latter passed away. Intermittency was generally persistent and was serious only to a minority. He had related elsewhere many cases of irregularity coexistent with high tension. He concurred entirely in the view that the irregularities in cases of cardiac disease were ingravescent of a neurotic character on the cardiac lesion and were not part of the disease itself. Many cases of mitral stenosis were accompanied by irregularity, due to an interference with the transmission of nerve impulses between the auricle and the ventricle. The irregularity in typhoid fever was probably due to myocarditis. Fatty degeneration of the heart was not usually accompanied by irregularity, contrary to what was once the accepted teaching. The objects of his paper were to show that cardiac irregularity might co-exist with a sound and good organ, and that irregularity was one of the not infrequent associations of Graves' disease.

### CLINICAL SOCIETY OF LONDON.

*Subacute Pulmonary Œdema occurring above a diminishing Pleural Effusion.—Excision of a Wandering Spleen for Axial Rotation.—Hemiplegia in Typhoid Fever.—Fracture of Lower Jaw with Traumatic Aneurysm.*

AN ordinary meeting of this Society was held on Dec. 9th, Sir Dyce Duckworth, President, in the chair.

Dr. JAMES CALVERT read a communication on a case of Subacute Œdema of Lung occurring above a diminishing pleural effusion. A man aged forty-five was admitted into the Royal Free Hospital on Sept. 22nd, 1891, with pleural effusion. On Sept. 23rd the whole of the left side was dull with fluid; it was aspirated and forty-five ounces of clear yellow serous fluid drawn off, followed by partial expansion

of lung above the fourth rib. The position of the heart beneath the sternum was not altered by the aspiration; it was evidently held by adhesions. Two weeks after the operation the lung above the fourth rib became œdematous, with abundant subcrepitant râles, and profuse expectoration of grey frothy, watery fluid. During these two weeks the effusion had diminished, which was evidenced by the sinking in of the intercostal spaces, by the resonance of the sound side extending to the left of the sternum and by the breath sounds becoming audible at the base behind; the upper limit of fluid could not be percussed out with accuracy because of pleural thickening and adhesions. The œdema persisted for three weeks and then began to decline gradually, so that when the patient left the hospital in January only an occasional crepitation could be heard. He attended as an out-patient for six months and during this time he had no cough, no expectoration, no crepitations, and he gained weight and strength. The temperature after the aspiration was normal throughout. This subacute œdema, evidently different to the acute œdema occurring immediately after aspiration, was not due to an increasing effusion compressing the lung, or to a rupture of the effusion into the lung, or to new growth obstructing the venous return, but was probably due to obstructed venous return in a lung held by adhesions and endeavouring irregularly to expand in presence of a diminishing effusion. Practical point:—These crepitations, limited to one apex and persisting for weeks, were not due to phthisis.—Dr. SAMUEL WEST thought that the case stood almost by itself; he had never seen anything of the kind. What, he asked, was the comparative frequency of acute œdema of the lung? It occurred in only a small percentage of cases of pleurisy. He referred to an instance which was not long ago in St. Bartholomew's Hospital, under Sir Dyce Duckworth. Paracentesis was performed and about two hours afterwards the patient expectorated two pints of fluid. It gave rise to no symptoms because only one lung was involved, and in a short time the expectoration subsided and the patient did well.—The PRESIDENT could not believe that these cases were at all allied to acute œdema, which itself was exceedingly uncommon.—Dr. CALVERT, in reply, said that the colour of the effusion which was drawn off was yellow, whereas the expectoration was grey, like soapy water. Therefore he did not think it could have come into the lung through a crack in the pleura, as some had suggested.

Mr. BLAND SUTTON communicated the details of a case in which he had performed Splenectomy for a Wandering Spleen. The patient, a married woman aged twenty-two, mother of one child, became aware of the existence of a swelling in the left half of the abdomen. In March she was seized with acute pain in the tumour, accompanied by vomiting and diarrhœa. On her admission to the Middlesex Hospital the tumour, which was very mobile, resembled hydronephrosis of a movable kidney, but the diagnosis was eventually reduced to a hydatid cyst of the omentum or a wandering spleen. On March 21st an exploratory operation was undertaken and the swelling proved to be a greatly enlarged spleen, with a twisted pedicle. The pedicle was untwisted and the spleen returned to the left hypochondrium. The patient lost her pain, rapidly convalesced and left the hospital wearing a carefully adjusted belt. Six weeks afterwards the spleen was in its normal position and apparently of proper size. On July 7th the patient came again to the hospital with a return of her trouble; the "lump" had appeared again and she was suddenly seized with acute abdominal pain, vomiting, diarrhœa and hæmorrhage from the vagina. After consulting with his senior colleagues Mr. Sutton advised the patient to submit to removal of the spleen. In order to give some idea of the wandering capabilities of the spleen it might be mentioned that on July 9th it was in the right iliac fossa in front of the cæcum. On July 10th it was in the left iliac fossa, resting on Poupart's ligament. On July 12th it was in the pelvis, its lower end resting on and doubling up the uterus. Splenectomy was performed on July 12th, the abdomen being opened through the scar of the first operation; the incision extended from the umbilicus to the symphysis pubis. The pedicle was twisted through three complete turns and with its distended veins looked like a huge umbilical cord. The pedicle was transfixed and tied in two halves with thin but strong plaited silk and then encircled with a separate ligature for safety. The wound was closed in the usual manner. The patient was treated as after an ovariotomy and recovered without the least drawback. The spleen weighed sixteen ounces, and though of an unusual shape

was in texture quite natural. Observations on the numerical strength and proportions of the blood-corpuscles were made before and subsequently to the operation, and it had been arranged to continue them for some months to come.—The PRESIDENT, while congratulating Mr. Sutton on his excellent result, hoped that the sequel of the case would be reported to the Society. He remarked on the apparent thickness of the splenic capsule, as seen in the specimen; but this was due to its shrinking and preservation in spirit.—Dr. GLOVER asked if anything in the previous history explained the condition found. Was it not possible to have fastened the wandering organ to the parietes?—Mr. SUTTON, in reply, said that Dr. Andrews in the St. Bartholomew's Hospital Reports had collected the histories of a number of cases of axial rotation of abdominal organs. Such cases first came into prominence when a discriminating diagnosis of ovarian tumours began to be made. The spleen was so greatly distended that he feared even to handle it, much more to put a stitch in it. Records showed that it was very difficult to untwist the pedicle, and they demonstrated that the far safer practice was to remove the spleen rather than allow it to remain or endeavour to replace it by external manipulation.

Dr. FRANCIS HAWKINS read notes of a case in which Hemiplegia with Aphasia occurred during the course of typhoid fever, and at the necropsy a thrombus was found in the left auricle and a clot in the left middle cerebral artery; the case was also complicated by purpura and hemorrhage from the bowels. In an analysis of seventeen cases which had been collected from various sources, hemiplegia was found to have been associated with typhoid fever three times in children, the youngest being between two and three years; the remaining cases occurred in adults, most cases at ages between twenty and twenty-five; the oldest patient was thirty. As regarded sex it was much more frequent in males than in females and the period of occurrence was between the third and fourth weeks and during convalescence. In one instance hemiplegia was noticed as early as the ninth day. The right side was paralysed in twelve cases and the left in four. Facial paralysis was also present in some instances. Aphasia was present in twelve instances, being associated in ten cases with right hemiplegia and in two with left. Hemorrhage from the bowels, syphilis and pneumonia complicated some cases. The duration of the hemiplegia was in most instances from ten days to several weeks, but in one case it lasted only three days. Recovery took place in the majority of cases, but the hemiplegia remained persistent in some cases and death occurred in two instances. The cause of the hemiplegia when it occurred late in the disease was thought to be due, as shown in the case recorded, to the formation of a thrombus in the left ventricle giving rise to an embolus, and so hemiplegia in these cases was regarded as a consequence of a cardiac complication. Instances of such a condition in diphtheria and noma vulvæ were quoted. When the hemiplegia occurred early in the disease it was suggested that another cause must be sought, and instances were quoted of hemiplegia being present in cases of pneumonia and phthisis in which no coarse lesion could be found.—Dr. HALE WHITE said that the cause of the hemiplegia was undoubtedly ante-mortem clotting in the left auricle or ventricle, an embolus being then carried to the cerebral vessels. The cases quoted demonstrated the late period at which the blood tended to clot, and showed that a typhoid fever patient was not "out of the wood" when the temperature fell in the third week. The blood was likely to clot in cases in which severe hemorrhage had occurred, these being analogous to the thrombosis in anæmia and also in low-class, badly fed patients. He regarded the hemiplegia as a complication rather than as a symptom, the blood clotting in the left side of the heart instead of in the more common site—the left subclavian vein.—Dr. DIVER asked what line of treatment was pursued as soon as the purpura showed itself.—Dr. VOELCKER asked if there was any evidence of softening as the result of the embolus. He referred to a case of septic endocarditis associated with hemiplegia in which on the cortex of the brain were found distinct purpuric spots.—Dr. LONGHURST inquired if any statistics were extant as to clotting fifty years ago, and he asked if ammonia or other diffusible stimulant might not be the means of preventing thrombosis.—The PRESIDENT said that nowadays the attention of the practitioner was directed too little to the patient and too much to the disease, and in these cases the peculiar needs of the individual should always be thought of.—Dr. HAWKINS, in reply, said that he regarded the hemiplegia neither as a symptom nor as a complication, but as the consequence of a cardiac lesion. No purpuric spots were observed on the brain, but there was some softening.

Mr. WAINWRIGHT read the notes of a case of Fracture of the Lower Jaw associated with Traumatic Aneurysm. The patient, aged twenty-three, was admitted on July 24th, 1889, into Charing-cross Hospital, having been jammed by a descending lift, and sustained a fracture of the lower jaw on the left side together with concussion of the brain. Some days later an abscess formed on the right side and was opened. He left the hospital on Aug. 18th, but returned on the 29th with fresh abscesses formed over the right side of the jaw, which were likewise evacuated. On the 31st he was seized with a sharp pain on the right side of the face and on examination a pulsating swelling was discovered in the parotid region. The house surgeon was summoned and, considering the pulsation to be merely transmitted from the carotid artery, cut into the swelling, giving exit to a small quantity of pus, which, however, was immediately followed by a smart gush of blood, when it was discovered that a traumatic aneurysm had been laid open. Mr. Wainwright was called and he found a second and hitherto unsuspected fracture of the jaw just below the right condyle. The right common carotid artery was ligatured and the wound healed readily, but a fortnight later hemiplegia slowly developed associated with mental weakness culminating in dementia. The mental symptoms subsequently improved to a limited extent.

## OPHTHALMOLOGICAL SOCIETY.

*Kerato-malacia in Young Children.—Panophthalmitis following Lacrymal Abscess.—Probable Rupture of the Optic Nerve.*

AN ordinary meeting of this Society was held on Dec. 8th, the President, Mr. Henry Power, F.R.C.S., in the chair.

Mr. HOLMES SPICER read a paper on Kerato-malacia in Young Children. These subjects were more liable to gangrene of the cornea than adults when their vitality was reduced below a certain level. The gangrene might either be spontaneous or the result of comparatively mild attacks of conjunctivitis. In the late stages of tuberculous meningitis and in infantile diarrhoea the cornea underwent destruction, this being due partly to exposure and partly to insensibility. After measles or whooping-cough, with bronchitis and malignant varicella, where there had been much exhaustion, the cornea was not infrequently seriously damaged by large perforating ulcers. After serious malnutrition the cornea might slough spontaneously, as was not uncommonly seen among nurslings in countries where the mothers practised long religious fasts. In this country it was rare except among the hand-reared who had had insufficient nitrogenous diet. The affection generally attacked both eyes of children from four to nine months old; it began with dryness of the conjunctiva, with patches of froth on its surface and with night blindness; soon the whole cornea became opaque and perforated, the termination being very often fatal. In treatment a principal feature should be the increase of the nitrogenous constituents of food, some meat juice or raw meat finely powdered, in addition to milk for young babies, and cod-liver oil. Locally eserine in the form of ointment should be applied to the eye, with warm applications to the lids. Some of the cases under this treatment made a good recovery; in one case the cornea recovered, although the child eventually succumbed.—The PRESIDENT alluded to the disease as met with in adults, and mentioned a case he had recently seen in a woman completely crippled by arthritis deformans.—Mr. DRAKE-BROCKMANN said he had met with many cases of kerato-malacia in India in times of famine, during epidemics of cholera and not infrequently in association with chronic dysentery. He thought the condition in children was often associated with congenital syphilis. In many cases destruction of the cornea occurred with extraordinary rapidity.—Mr. DOYNE mentioned the case of a child of six weeks in whom, after this condition, the cornea cleared almost completely.—Mr. PRIESTLEY SMITH (Birmingham) dwelt upon the necessity of keeping a careful watch upon the cornea in children and others prostrated by serious illness. The cornea was often exposed during sleep and prone to severe ulceration. Protection of the cornea by a bandage, or adhesive plaster on the eyelids, would often prevent this dangerous complication. Sometimes even union of the margins of the lids was necessary, as in blepharoplasty. He split each lid at its margin, in its long axis (as in Arlt's operation for trichiasis), and brought together the raw surfaces of the upper and lower lids with stitches, without loss of tissue, the results being satisfactory.

Dr. ROCKLIFF (Hull) read the notes of a case of Panophthalmitis following Lacrymal Abscess. The patient,

aged sixty-three, had suffered for thirty years from lacrymal obstruction, but never before the present attack, from abscess of the sac. The suppuration in the lacrymal sac was followed by conjunctivitis, chemosis, keratitis with hypopyon, panophthalmitis and excision of the globe. On examination the whole eyeball was filled with inflammatory products and there had been much matting of the orbital tissues. Dr. Rockliffe also reported the case of a man who had been kicked in the face by a horse, dividing the lower lid close to the inner canthus and splitting the cheek open. The resulting cicatrix produced ectropion. Tweedy's operation was performed, with results quite as satisfactory as in cases in which the deformity was at the outer canthus.

Dr. JOHNSON TAYLOR (Norwich) read notes of a case of Probable Rupture of the Optic Nerve in a young man who, in stooping to pick up kindling wood, struck the right lower eyelid violently against the end of a piece of wood standing obliquely on the floor, with the result of immediate and permanent loss of sight in the right eye. The neighbouring bone was not struck; there was no probability of penetration; the skin alone of the lid appeared to have been broken; no tenderness or swelling of the eyelid or conjunctiva followed and only slight temporary patchy discolouration of the skin resulted. No headache, vomiting or other symptoms ensued; the patient immediately resumed his work and continued it for several hours. When seen for the first time, five days later, the right eye had no perception of light, the direct pupillary reflex was entirely absent; indirect reflex and contraction of the pupil with convergence were normal; movements of globe normal. The appearances on ophthalmoscopic examination were almost nil, and quite inadequate to explain the symptoms. After discussing the possible explanations of the case, Dr. Taylor suggested that the optic nerve had been ruptured either by sudden violent and extreme rotation of the globe or by overstretching, the result of the sudden proptosis produced by the piece of wood being driven in between the eyeball and the lower orbital margin.—

Mr. ADAMS FROST spoke of a case he had seen at Moorfields, in which the stem of a tobacco pipe had pierced the orbit and ruptured the optic nerve. The disc became recognisably atrophied in about a month. The wound through which it entered was so trifling that, unless the stem had remained in the orbit till the patient came under observation, it would have been impossible to say that there had been more than a mere scratch. He thought that in Mr. Taylor's case direct injury to the nerve by penetration offered the more plausible explanation.—Mr. C. WRAY mentioned a patient under his care in whom, after removal of the blind eye, an orbital exostosis was found, against which the nerve might easily have been compressed.—Mr. BULLAR (Southampton) referred to a case similar in many respects to Mr. Taylor's, in which there had evidently been a perforating wound of the orbit.—Mr. TWEEDY gave an account of a man under his care at University College Hospital, in whom a portion of the stem of a tobacco pipe had entered the orbit, damaged the optic nerve, causing blindness, and had remained embedded for two years. The man was unaware that he had received any injury other than a scratch on the eye.

The following card specimens were shown:—

Dr. BRONNER (Bradford): Portable Sterilising Apparatus for Instruments, Bandages and Dressings.

Mr. JULER: (1) Guttate Choroiditis; (2) Cyst of Iris; (3) Pemphigus of the Conjunctiva.

Mr. LAWFORD: New Growth in the Ciliary Region.

Mr. HARTBRIDGE: Intra-ocular Growth.

Mr. FRANK HAYDON: Ophthalmoscopic Atlas for recording Changes in the Fundus Oculi.

Mr. SILCOCK: Recurrent Growth in both Orbits (?Syphilitic).

Dr. A. SANDFORD (Cork): (1) Double Sarcoma of Orbit in an Infant; (2) Gunshot Wound of Eyeball.

## OTHER METROPOLITAN MEDICAL SOCIETIES.

**ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.**  
The sixth annual general meeting was held in the Court-room of Guy's Hospital on Monday, Nov. 21st, at 4.30 P.M. The following gentlemen were elected office-bearers for the Session 1892-93:—President: Sir W. Turner, F.R.S.; Vice-Presidents: John Curnow, Alexander Macalister, and H. St. John Brooks. Treasurer: G. B. Howes. Secretaries: Ambrose Birmingham (Ireland), A. M. Paterson (Scotland), Geo.

Henry Makins (England). Council: Wm. Anderson, Stanley Boyd, D. J. Cunningham, John Cleland, L. A. Dunn, Percy Fleming, Wardrop Griffith, W. P. Herringham, Alexander Hill, Robert Howden, C. B. Lockwood, Clement Lucas, T. H. Openshaw, T. W. Reid, Arthur Robinson, H. D. Rolleston, J. Bland Sutton, Johnson Symington, Arthur Thomson and Bertram Windle. H. J. Waring, M.B., B.S., F.R.C.S., and F. C. Kempson, B.A., were elected Members of the Society, and seven candidates for election were nominated to be balloted for at the next meeting. Mr. Arthur Thomson presented the Report of the Collective Investigation Committee for the session 1891-92. The Treasurer made his report, and stated that the Manuscript Index to the first twenty-five volumes of the *Journal of Anatomy and Physiology* is rapidly approaching completion.—Professor CURNOW exhibited a Parietal Bone with a complete Dentated Transverse Suture; Mr. BLAND SUTTON a Rudimentary Supernumerary Pollex, containing a single conical piece of bone articulating with the trapezium, possessing a basal epiphysis and bearing a nail; Mr. T. W. P. LAWRENCE a series of Abnormal Potuses; Mr. F. G. PARSONS a last Rib in *Hystrix Cristata* mainly converted into fibrous tissue. Papers were read by Professor MACALISTER, F.R.S., on the Acromion Process and on the First Costo-vertebral Joint; by Dr. CARWARDINE on the Supra-sternal Bone in Man; by Mr. ARTHUR THOMSON on a Theory of the Development of the Skin in relation to Pigment. Professor CUNNINGHAM, F.R.S., contributed a paper on the Delimitation of the Regions of the Abdomen. The proceedings and papers will be found *in extenso* in the January number of the *Journal of Anatomy and Physiology*.

**EPIDEMIOLOGICAL SOCIETY.**—At a meeting on Nov. 16th, Dr. F. J. PAYNE, on retiring from his tenure of office as President for the past year, took as his subject that of Tuberculosis as an Endemic Disease. The communicability of phthisis or tuberculous disease through the inoculation of the specific poison, as distinguished from other and ordinary inflammatory products, first enunciated by Villemin in 1835, though the validity of his conclusions had been impugned, was, he said, clearly formulated by Cohnheim, who in 1881 placed the doctrine of its specific nature on a basis as firm as that of small-pox and other diseases of which the actual contagium vivum was as yet undiscovered, till soon afterwards Koch, by the isolation of the bacillus tuberculosis, its artificial cultivation and inoculation experiments, confirmed and extended by numerous other investigators, gave to the etiology of tuberculosis a certainty attaching to no other human specific disease. Dr. Payne then spoke of the characteristics of this group of diseases, its long and insidious incubation and progress, and the absence of any tendency to self-extinction of the morbid process, its endemicity &c. The evidence derived from a study of the tubercle bacillus in artificial cultures was wholly against the supposition of an ectogenetic origin. The observations of Buchanan and others established beyond doubt the connexion of phthisis with dampness of sites and defective subsoil drainage, but the disease might flourish on the best drained soils. Overcrowding and deficient ventilation were potent predisposing causes and instances were given in support of this contention. Dr. G. Cornet's researches did not support the hypothesis of universal diffusion of tubercle bacilli and their inevitable inhalation by all persons. Dr. Cornet failed to detect them in dust collected out of doors and in the medical wards of hospitals and other places unless phthisical patients were present, but the sputa of such patients were highly infectious. The only other mode of communication worth consideration was that through the use of milk from phthisical mothers and animals. The communicability of tubercle therefore was so incomparably feebler than that of small-pox &c. as scarcely to entitle it to the position of a contagious disease. The broad fact of heredity was universally admitted, though when the parasitical nature of the disease was recognised a recoil took place and heredity was explained to mean no more than the inheritance of a greater susceptibility than was possessed by others. The hereditary transmission of or tendency to tubercle and its manifestation in later life were well marked in cattle. Maffen's experiments on the inoculation of hen's eggs with the bacilli of fowl tubercle ("fowl-cholera," as it was absurdly called) were remarkable. The bacilli did not develop in an egg, but becoming incorporated with the embryonic structures developed the disease in the young chickens. Among cattle tubercle was so general that some persons were inclined to look on it as originally a bovine disease, since communicated

to man in various ways, especially by infected milk. But it was suggestive of its endemicity that while unknown among wild animals, nearly all monkeys, ruminants and rodents brought into the Zoological Gardens sooner or later died of tuberculosis, a fact that was explicable only on the hypothesis of localisation and contagion.

**HARVEIAN SOCIETY OF LONDON.**—At the meeting on Nov. 3rd, Dr. Cheadle, President, in the chair, Mr. MALCOLM MORRIS showed a case of Rodent Ulcer. It commenced as a hard pimple at the inner angle of the eye; it does not appear how many years ago, but it did not ulcerate until 1870. In October, 1888, it measured one inch by one inch and a half; had attacked the periosteum and bone; was scraped and the actual cautery applied. At present a large cavernous ulcer occupies the space between the eye and nose and extends for some distance on to the cheek. No operative treatment is proposed on account of the man's age and ill health, but it is being treated locally with a solution of resorcin (thirty grains to the ounce) and opium internally to relieve the pain.—Dr. STEPHEN MACKENZIE read a paper on Dermatitis Herpetiformis. He defined it as a cutaneous neurosis characterised by the multiformity of its manifestations, which may consist of erythematous, papular, vesicular, bullous and urticarial eruptions, and may appear concurrently or consecutively, being usually attended with pigmentation of the skin; a grouping of vesicles is the most characteristic feature and present in most cases at some part of their course; it is usually attended with great itching and burning; it runs a chronic course with exacerbations or relapses and intervals and usually terminates spontaneously, but may end fatally; it is attended with some, but usually not great, disturbance of the general health; it affects both sexes at all ages, but is most common in the middle period of life; in women it is often connected with pregnancy, but may occur independently of it. He gave notes of twelve cases of the disease observed by himself; one of the patients, a woman aged forty, with very characteristic eruption being exhibited. The vesicular and bullous varieties had in his experience been the most common, and in nearly all a grouping of vesicles on the herpetic plan had been present at some period of the disease. All parts of the body are liable to be attacked, but in most cases the palms and soles escape. The disease is most liable to be mistaken for vesicating and bullous erythema and pemphigus, but is to be distinguished from these by its polymorphic character and severe pruritus. As regards its pathology, he thought it was either a peripheral neuritis or a functional neurosis. As regards treatment no internal remedy exercised a certain curative influence, but arsenic sometimes succeeded, and where it failed to cure it often controlled it. Of local treatment soothing applications failed to give more than temporary relief, and sulphur, as recommended by Duhring, was most deserving of trial.—Dr. RADCLIFFE CROCKER related his experience of this disease and showed a number of photographs and water-colour paintings illustrating its various points. In the main he agreed with Dr. Mackenzie as to the pathology and treatment of the disease.—Dr. J. J. PRINGLE had seen twelve indubitable cases of the disease among about 6500 skin patients at the Middlesex Hospital in the last four years and two in private practice. Of the hospital cases no less than seven were examples of the type described by Unna as hydroa puerorum, and fully accorded with his description, especially as regards the presence of pain rather than of itching and of papulo-vesicles rather than bullae. Two cases had proved fatal: one was a lady aged eighty, who died of marasmus after being afflicted for eight months; while the other began as a hydroa gestationis, lasted seven years and the patient died of peritonitis following perforation of the ileum, which as well as the cæcum presented numerous ulcers considered as internal manifestations of the disease. Throughout the case there had been indications of marked implications of the alimentary mucous membrane.—Dr. SAMUEL WEST related his experience of the disease, and showed photographs and drawings from patients.—Dr. MACKENZIE briefly replied.—At the meeting on Nov. 17th (Dr. Cheadle, President, in the chair) the Clinical Pulse Manometer was exhibited, an instrument designed to show in ounces the degree of compressibility of the pulse and thus to give some recordable measure of the pulse tension. When endeavouring to estimate the pulse tension with the fingers it is necessary to use three fingers. If a considerable amount of pressure is required to stop the pulse, it is said to be of "high tension;" if very little pressure is sufficient, it is called a "low tension pulse." The instrument is designed to measure the pressure

exerted by the proximal finger. It requires some care and practice in using, but given that the results are far more accurate than those obtainable by the finger, though like these they require to be checked by the other signs of pulse tension.—Dr. WALTERS had used Dr. Batten's manometer for some months and thought it a very valuable instrument. He found that the pulse tension in health varied between seven and thirteen ounces, the average being about ten or eleven ounces. He had found it as low as five ounces in a perfectly healthy and active man. In disease the lowest tension he had met with was three ounces and the highest was twenty ounces.—Mr. BUCKSTON BROWNE read a paper on the Treatment of (so-called) Impassable Urethral Stricture. He pointed out the dangers often encountered by the use of fliform guides, and he laid great stress upon the importance of avoiding all perineal incisions into the urethra. He showed that occasionally these incisions did not heal, and then the state of the patient was deplorable. All could be done, even in the very worst cases, safely and efficiently through the urethra by a surgeon who thoroughly relied upon his manipulative power, if he was in addition convinced, not only as Syme taught, that where urine came out an instrument could always be put in, but that in all cases, whether urine issues from the external meatus or not, an instrument could always be passed through the penis, through the stricture and into the bladder. Secondly, Mr. Buckston Browne maintained that when once an instrument had been passed a surgeon who had confidence in himself should be able immediately to replace it by one a size larger, and so on until there was room for the introduction of a Civiale's urethrotome. He also insisted that if an instrument could be passed through the orifice of a stricture by looking, as in Wheelhouse's operation, it could be surely passed by feeling, therefore there was no need to open the perineum and expose the patient to all the risks of a perineal wound. In reply to questions Mr. Buckston Browne said that as far as the condition of the kidneys was concerned the results after his operation were quite as good, if not better, than after any other form of urethrotomy. He thought it quite possible to leave the urethra and tap it again in passing the small steel sounds; indeed, the same thing might occur in external urethrotomy. In his own practice he had never seen septicaemia. In a case of retention if anaesthesia was necessary and the patient was prepared to remain in bed for some little time, he would proceed to perform his operation at once. He thought that the scar tissue in cartilaginous strictures might be absorbed to a surprising extent provided a free flow of urine could be ensured. He would abolish Syme's and Wheelhouse's operations on the ground that they were never necessary.

**HUNTERIAN SOCIETY.**—At the meeting on Nov. 23rd, F. Gordon Brown, M.R.C.S., President, being in the chair, Dr. HINGSTON FOX showed two cases of Myxœdema in women aged forty-two and fifty-four years respectively. Both were about to undergo treatment, the one with fresh sheep's thyroid glands administered by the mouth, the other with a powdered extract obtained from the glands.—Dr. STEPHEN MACKENZIE then read a paper on Urticaria, having first showed a boy aged fourteen who had suffered from urticaria pigmentosa all his life. The disease was now quiescent, but there was no difficulty in raising well-marked wheals surrounded by red areas on scratching his skin with the finger nail. Dr. Mackenzie placed the nervous centre of the reflex mechanism in the dense plexus of fine nerve fibres in the superficial layer of the corium. Local irritation was a frequent direct cause of urticaria. In other cases this was indirect, as from the ingestion of mussels; here probably a poison entered the blood and affected the nerve plexus in the skin. Urticaria also attacked mucous membranes and was thought to give rise to asthma. A case of urticaria following the rupture of a hydatid cyst was described, a rare and singular phenomenon. It had also followed parturition and the passage of a uterine sound. Cases illustrating rarer forms of urticaria were then detailed: (1) Urticaria hæmorrhagica, in a boy aged two years, after eating fried Dutch plaice; (2) giant urticaria, in a man aged thirty-seven, after working in a hot vat containing some chemical; (3) chronic urticaria, in a boy aged fourteen, following chicken-pox; (4) urticaria pigmentosa, the case already shown. The treatment consisted in the discovery and removal of the cause and the mitigation of the effects.—The PRESIDENT alluded to urticaria following sea bathing and to the frequency of the disorder when erysipelas was pre-

valent.—Dr. PYE-SMITH doubted whether the disease could be regarded as a peripheral reflex phenomenon. Local irritants might act by their direct influence on the blood-vessels themselves and the indirect causes probably acted reflexly through the cord. A true relation existed with acute articular rheumatism. There was also a close connexion between urticaria and erythema, so that he would regard them as varieties of one disease.—Dr. F. J. SMITH described an attack of urticaria from the bite of a jelly-fish.—Dr. NEWTON PITT referred to two cases in which urticaria was always brought on by contact with ipecacuanha.—Dr. MACKENZIE, in reply, fully agreed as to the connexion with rheumatism, although numerically such cases bore a very small proportion to the whole. His theory of the nerve centres in the skin was based merely on clinical evidence and therefore quite open to question.

**SOCIETY OF MEDICAL OFFICERS OF HEALTH.**—At the meeting on Nov. 21st, Mr. SHIRLEY F. MURPHY, in delivering the inaugural address on his election to the office of President for another year, traced the history and the expansion of the Society from its origin among the metropolitan officers to its extension to the provinces and the formation of branch associations. As he had last year followed the genesis and development of the medical officer of health and the beneficial influence exerted by this order in educating the architect, the engineer and the public, he now asked whether, with all our progress; we might not learn by comparing, not our own experiences only among ourselves, but the practices of other countries in those matters especially which we, rightly or wrongly, ignored or deemed of little moment. He then spoke of the necessity of more regular State inspection of our food-supply. In Germany they required assurance that all meat was fit for food; here we assumed it to be so unless the contrary happened to be shown by conspicuous changes. The cattle market and slaughter houses of Berlin were simply perfect and were the pattern of those in other German cities. The procedures involved employed nearly 200 officials, including a score of clerks, the remainder being veterinarians, microscopists, inspectors &c. All condemned carcasses and offal were disposed of on the premises, fat boiling, glue boiling &c. being carried on there. Small fees were charged for each operation and fodder provided at cost price. To exercise an equally strict control of the meat-supply of London an army of nearly 1500 officials would, he imagined, be required. He then referred to experiments on animals with tuberculous flesh more or less cooked and the results obtained which were positive in proportions varying from 0.0 to 47.7 per cent. with the degree of tuberculation and the thoroughness of the cooking. The percentage of tuberculous cattle brought to market varied greatly in different places. Mr. Schmidt in Alsace found the proportions vary from 0.3 to 3.1 in different Rhenish towns, but in North Germany Ostertag found from 10 to 26 per cent. In Berlin the average was 4 per cent., but in districts where cows were largely fattened for the butcher it was from 8 to 12 per cent. It might be said that things were better in this country, but almost the only evidence we had was the recent inquiry of the new Board of Agriculture, from which it appeared that the percentage of animals affected was 12.22 of bullocks, 16 for cows in calf, but only 1 for calves sent to the butcher and 1.5 for bulls. In the London markets the average was 15.5, or one animal in every six, and doubtless many more among carcasses were disposed of more or less surreptitiously. He was strongly of opinion that though we might dispense with the microscopical examination for trichinosis, which employed the majority of the eighty microscopists at Berlin, all animals should be slaughtered and dressed in public abattoirs only, under the eyes of fully qualified inspectors and that the inspection should next be extended to dead meat imported from abroad or sent in from the provinces. Then dairy farms ought to be brought under effective veterinary control. A large dairy company which supplied the greater part of the milk consumed in Copenhagen kept a staff of seven veterinary surgeons solely for the systematic inspection of the cows on the various farms with which they had contracts. Our Cow-sheds and Dairies Order was practically useless, since the only diseases recognised were those scheduled in the Contagious Diseases (Animals) Act. In conclusion Mr. Shirley Murphy stated that the whole question would be seriously taken up by the Society with the co-operation of the Medical Officers of Health of those towns where meat inspection was efficiently carried out.—Dr. SISLEY then read a paper on the Prevention of Cholera in England, asking whether we were prepared for a recrudescence of the epidemic on the Continent next year,

and whether our abandonment of quarantine, which most persons held to be, like free trade and protection, a question settled for all time, was a wise policy? However this might be, he would remind the Society that its abandonment in 1849 by the General Board of Health was founded on an assumption which all now admitted to be utterly false—viz., that cholera was caused by atmospheric influences; and that the absolute exclusion of all infected persons and things even if practicable would be of no avail to keep the epidemic from our shores. Surgeon-General Cornish had called attention to the injustice and unwisdom of imposing heavy expenditure on the port sanitary authorities for the benefit of the country at large, since the probability was that persons bringing infection from France or Belgium would not manifest the disease until they had reached inland towns in perhaps remote parts of the kingdom. He concluded by asking the Society to pass a series of resolutions for the completion of the sanitary survey, the granting of new powers to the port sanitary authorities, the transfer of their special burdens to the imperial exchequer, the provision of a pure water-supply to London &c. After a short discussion it was decided that some of these questions being set down for future discussion and others open to difference of opinion, the Society should not commit itself to any abstract resolutions until time had been given for their deliberate and careful consideration.

**WEST LONDON MEDICO-CHIRURGICAL SOCIETY.**—At the clinical evening, held on Dec. 2nd, F. Swinford Edwards, F.R.C.S., President, being in the chair, Dr. RAYNER BATTEN exhibited a Clinical Pulse Manometer.—The PRESIDENT showed a Femur with Subperiosteal Sarcoma after amputation at hip-joint in a woman aged twenty-six. The limb was removed by the Furneaux Jordan method, and primary union had taken place throughout the entire length of the wound on the ninth day, and the patient left the West London Hospital well within the month.—Mr. RICHARD LAKE showed a boy aged six on whom he had operated for Cholesteatoma of the Mastoid Antrum, which had penetrated the posterior fossa. Uninterrupted recovery followed.—Mr. WILLIAM STEER showed: 1. A case of Friedreich's Disease, which commenced at the age of ten years by difficulty in walking, especially in the dark and on going upstairs. At seventeen walking was impossible and now at the age of twenty-four the patient is quite unable to stand. There is incoordination of muscles of both upper and lower extremities and head and neck, loss of knee-jerk and plantar and cremasteric reflexes, hesitating speech and lateral nystagmus. One brother had died of the same disease. 2. A case of Idiopathic Muscular Atrophy in a lad of fifteen, commencing at the age of twelve. There was no marked atrophy of the face muscles and labials were well pronounced. The muscles of the upper extremities were much wasted. 3. A case of Myxœdema in a male.—Mr. KEETLEY showed: 1. A case of Inguinal Hernia complicated with Undescended Testicle. An operation for radical cure had been performed and the testicle brought into the scrotum, the tunica vaginalis testis being held there by a temporary suture uniting it to the adjacent tissues of the thigh. 2. A case of Subcutaneous Suture of the Patella.—Mr. BRUCE CLARKE showed a case for which he had performed nephrography nine months previously. The operation had been undertaken because the symptoms were severe, resembling those of renal colic. In his experience these cases yielded by far the best results after operation.

**GLANDERS.**—On the 9th inst. the representatives of several of the London omnibus companies, together with others concerned in the management of horses, waited upon the General Control Committee of the London County Council for the purpose of trying to induce that body to reconsider its decision not to compensate owners of glandered horses slaughtered to prevent the spread of this disease. The committee agreed to reconsider the question.

**SURGICAL AID SOCIETY.**—The report read at the annual meeting of the friends of this useful society, held on the 9th inst., was a highly favourable one, showing enhanced interest in its work, and an augmenting increase in its income. During the past year an average of 210 patients had participated weekly in its benefits, the total for the year being 10,887. No less than 111,938 of the suffering poor had been helped by this society from the time of its commencement in 1862. The usual votes of thanks to the Lord Mayor, who presided, and the officers of the society terminated a very satisfactory meeting.

## Reviews and Notices of Books.

*Public Health Problems.* By JOHN F. J. SYKES, B.Sc. (Public Health), M.B. Edin., Medical Officer of Health for St. Pancras, London, and Honorary Secretary of the Incorporated Society of Medical Officers of Health. Illustrated. London: Walter Scott, Limited. 1892.

WE have been much gratified by our perusal and examination of this book. It is not by any means a mere compilation or a dry record of details and statistics, but it takes up essential points in evolution, environment, parasitism, prophylaxis and sanitation bearing upon the preservation of public health and discusses them in a suggestive and reflective spirit. It fulfils its title of "Public Health Problems" by the manner in which its author approaches and treats the various subjects and conditions influencing health. It is not an encyclopædic handbook or digest to be referred to for figures, details and rules of procedure; its value lies in its statement of principles and reasons, from a consideration of which the reader should be led to make his own deductions and shape his course accordingly. We may make our meaning clearer, perhaps, by way of illustration. A gifted and highly cultured lady was sensible that time had somewhat weakened her fine memory, and she was rather sensitive on the point. One day, when one of her daughters had gently brought some dropped stitches of information to her recollection, the old lady shrewdly retorted that "she had not forgotten them, but had assimilated them long ago." It is not so much in reading a certain class of books that one requires to recollect exactly the information as to assimilate it and record the impression it made at the time. After an introductory chapter in which the ideas to be conveyed within the limits of the volume are briefly outlined and allusions are made to the problems of life and health, personal and public, the author proceeds in Part I. to the internal and external influences upon health, and begins with heredity, following it up with chapters on physical influences and chemical media and biological agents. Part II. is devoted to the consideration of communicable diseases, Part III. to defensive measures against these, and Part IV. to urban dwelling. Heredity is a somewhat intricate and difficult subject, but it is lucidly as well as ably discussed in the chapter devoted to its consideration. The aim of hygiene is to ascertain, first of all, the range of modifiable conditions affecting health, and then to determine the measures and processes by which these conditions can be modified in favour of the individual or community. The limit of adaptation of the individual is much sooner reached than the limit of modification of the environment. The chapter on biological agents briefly indicates the practical principles underlying our recent advances in this direction, and the necessity of studying, in connexion with human pathology, the conditions affecting all organic life and their influence upon the health of man. The subject is considered in more detail in relation to communicable diseases, their causation, dissemination, modifications and parasitism. Under the head of urban conditions the author does well to advert to some points, for example, in regard to the provision of cubic space, which are occasionally apt to be overlooked or disregarded in practice. The amount of space to be provided will manifestly depend upon many circumstances, a thousand cubic feet of air being ample under certain conditions and quite inadequate under others. The importance of superficial and wall space should always be borne in mind in relation to site and the facilities for the ventilation and lighting of a room or building. A man may be suffocated in a crowd with the sky above him, and whether he is in a spacious cathedral or a handbox ventilation is still essential. The growing evils of town life through defective air, light and space are

forcibly dwelt upon and the remedial methods by which these may be overcome or minimised are pointed out. We cordially agree with the author's conclusion of the whole matter to the effect that public opinion is but the expression of public education, and that this is the key that must unlock the doors of ignorance and let in the light and air of hygiene equally as fully as other human knowledge. The knowledge acquired by education must be trusted to bring home to a nation that the acquisition of health means the acquisition of wealth. The information, as well as the writing and the reasoning are of a kind not readily adaptable to the extracting of passages, although we had marked several with the intention of discussing them and of affording some samples of the author's style and method of treating the subject. We must content ourselves, however, by saying that the book is scientifically and well-written, and that its author has evidently been anxious to gather the latest and best information on public health problems so as to obtain for himself first of all, and afterwards to aid others in getting for themselves, a good grip of the subjects with which he deals.

*Anæsthetics; their Uses and Administration.* By DUDLEY WILMOT BUXTON, M.D., B.S. London: H. K. Lewis. 1892.

THE new manual on Anæsthetics in Lewis's practical series is a well-written and instructive work and will amply repay perusal. The author claims for it that it is a practical manual rather than a disputatious treatise, and this is exactly the kind of book that is most useful to the student. There are several passages in it which might be studied with great advantage not only by the junior students but also by the full surgeons to a hospital, and notably one in which Dr. Buxton calls attention to a practice which has over and over again been condemned in the columns of this journal—viz., that of a surgeon allowing his dresser to administer the anæsthetic instead of procuring the services of a recognised anæsthetist. He says: "It is surprising that surgeons who have witnessed the attempts of novices to give anæsthetics should hold any view save that no one is capable of safely giving any anæsthetic unless he has been carefully taught and has obtained considerable experience."

The practice of anæsthetics is still making strides in a forward direction, and this book is very nearly up to date; but two points omitted, which will doubtless be noticed in the next edition, are the great improvement in Junker's inhaler by Mr. Carter Braine, and Mr. Rowell's practice of admitting air during the administration of  $N_2O$ . This latter is a distinct advance, because it proves conclusively that the anæsthesia produced by the inhalation of  $N_2O$  is not due to asphyxia, but is a purely anæsthetic condition; the gasping respiration and the discolouration both being absent owing to the admission of air, time is given for the  $N_2O$  to produce its true anæsthetic effect. On this point the author remarks that "nitrous oxide gas possesses well-defined anæsthetic properties, which appear to be quite distinct from the asphyxial symptoms frequently accompanying its administration."

The improvement in Junker's inhaler by Mr. Carter Braine has entirely done away with the danger of administering the fluid chloroform itself, or even its spray—an accident which may happen when Junker's inhaler is tilted during the operation. Only the vapour of any anæsthetic used can be administered, whatever the position of this inhaler may be. The chapter on the history of anæsthetics will be found interesting alike to the student and the general practitioner. Chapter IV. is devoted to ether, but the headline of this chapter is unfortunately chosen, being "Sulphuric Ether—Anæsthetic Ether," and this may lead the student to conclude that the ether used for local anæsthesia is also used for inhalation. On turning to the chapter on local anæsthesia

we find that the author notes that this ether is a specially prepared one, being a mixture of anhydrous ether with an equal part of hydride of amyl; but he omits to caution his readers that this ether mixture if inhaled may kill by suddenly stopping the heart's action, a result which may follow the administration of chloroform. It therefore follows that anæsthetic ether should never be used for inhalation. The author does not mention that the specific gravity of anæsthetic ether for local purposes is 0.656°, while that for inhalation is 0.720°. Dr. Buxton criticises the Ormsby inhaler rather severely, but we have not found his objections to it to hold good in practice. We find under the heading "Dangers and Accidents of Ether Inhalation" the author states that when asphyxia is imminent "the head must be thrown back and the tongue drawn forward; by this means respiration may be induced to start; but failing this, tracheotomy must be performed." But we should prefer laryngotomy, an equally efficacious and easier operation.

In the pages dealing with the physiological action of chloroform Dr. Buxton gives an interesting account of the Hyderabad Commission, and, in common with most English anæsthetists, does not agree with the conclusions the Commission arrived at. To quote his own words: "Various European and American persons of authority traverse this by pointing out the fact that in temperate climes deaths from chloroform inhalation occur in the practice of the most skilled anæsthetists, and that such deaths have been repeatedly observed to have resulted from primary heart failure."

## CHRISTMAS BOOKS.

### NEW BOOKS FOR YOUNG PEOPLE.

THE large assortment of new books for young people, which we have received from the various publishers furnish examples of such general excellence, high character and instructive nature as to make one wish to be young again. The faculty of imagination is perhaps more active and more appreciative in youth than in adult life. Besides affording food for this faculty the Christmas books this year are extremely rich in accounts of heroes, deeds of valour and historical incidents. Compared with dry text-books of geography and history there is no schoolmaster who will not allow that the most reliable and the most lasting knowledge of these subjects is to be obtained from books such as are provided for young readers at this season of the year; and it is with pleasure that we proceed briefly to note such works as have come under our observation. Novels with a moral are not wanting, but they are of a very polished kind. Fairy stories are plentiful and very varied. Tales for young children are told with spirit-stirring interest and excellent taste, and we are pleased to note that, without exception among the large number of books submitted to us, ghost stories are conspicuous by their absence; they are apt to provoke morbid fear and timidity in young children.

BLACKIE & SON (Limited), 49, Old Bailey, E.C. — This firm of publishers have submitted to us some excellent new books for boys. Foremost amongst these is "Beric the Briton," from the pen of G. A. Henty. The volume will be eagerly sought after by boys who are anxious to know something of life in this country at the period of the Roman invasion. The book abounds in interesting and instructive historical facts and thrilling national pictures of the Druids and of the ancient kings and queens of Britain, such as will stir up much chivalry, courage and manliness—not to speak of national pride—in the heart of any boy who reads the work. "Condemned as a Nihilist" is from the same pen, but the story is laid in Russia. The geography of Russia, life in the prisons and the treatment of Russian prisoners, together with the perils and adventures attending an attempted escape, will afford to boys many an interesting hour. A third book, still

from the same pen, is called "In Greek Waters." Here life in Greece on the shores of the Mediterranean, with all the surrounding scenery and picturesque descriptions of historical places, together with a history of the recent Greek War of Independence, will also be found highly instructive. "The Thirsty Sword" is the title of a story from the pen of Robert Leighton, describing the Norse invasion of Scotland which ended in the famous battle of Largs, where Alexander of Scotland defeated Haco of Norway, the battle which put an end for ever to the Scandinavian supremacy in Scotland. "The Captured Cruiser," by C. H. Hyne, is a sea tale which boys will read with much delight, as also "An Old-time Yarn," by Edgar Pickering. For girls, "The Heiress of Courtleroy," by Anne Beale, and "A Very Odd Girl," by Annie E. Armstrong, will be found to be suitable gift books.

SKEEFINGTON & SON, 163, Piccadilly, W. — "Olga's Dream," a nineteenth-century fairy tale, is novel in respect of its matter and of its illustrations. Norley Chester has endeavoured to work up in the form of a fairy tale some of the wondrous scientific inventions and political improvements which have taken place during the present century, and a very pleasant fairy tale it makes. These have been very humorously illustrated by Mr. Harry Furniss and Mr. Irving Montague. Having all the interest of a fairy tale pure and simple, it is certain to amuse children; it is at the same time impossible for anyone to read it without profiting by the suggestions, references and amusing touches which decorate the pages of this excellent volume. "Soap Bubble Stories" for children, by Fanny Barrie, is an excellent specimen of a book for the more juvenile *clientèle*. Describing it in the words of the authoress, it consists of "Some white froth whipped up in a fairy basin, the soap being the imagination and the pipe a humble black pen." The stories are amusing, and the book well illustrated. Another tiny volume of a different class from this same firm is "The Schoolboy's Little Book," perhaps too learned and too good for most schoolboys.

CHATTO & WINDUS, 214, Piccadilly, W., have furnished us with an excellent selection of story books for Christmas. Before alluding to these, however, we may note *The Antipodean*, a new journal, which is edited by George Essex Evans and John Tighe Ryan. We welcome this new publication, the object of which is to form a literary link between the mother country and those of her children who live beyond the seas. If one were to judge of the literary abilities of Antipodeans in general, from the style and excellence of the articles in this first number it would be impossible for any candid critic to criticise Australian writing adversely. A feature of the first number of the journal is the photographic illustrations of the authors of the various articles. "Bimbi" is a story book which all children will read with delight. The stories are from the pen of "Ouida," the well-known writer, and they are of exceptional merit, and will be highly appreciated by all who read them. The stories of the French dog "Moufflou" and of "The Little Earl" are specimens of children's tales of an excellent character. We next take up "The Fate of Herbert Wayne," written by E. J. Goodman, and dedicated in memory of thirty years' friendship to Dr. James Peddie Steele, himself a brilliant author and erudite scholar. The plan on which the book is written renders it very fascinating, the plot is well sustained, the writing is facile and manly, and, though treating of a psychological subject, there is nothing morbid throughout the whole work. A book of an interesting character is "Corinthia Marazion," a novel by Cecil Griffith. It is a clever work, interesting as a story and full of admirable character studies; pictures and scenery are graphically drawn, and the whole book is well constructed. One of the most taking of the whole group submitted to us is from the pen of Walter Besant, entitled "Verbena Camellia Stephanotis." *The*

*Gentleman's Annual* contains a complete novel, entitled "The Loudwater Tragedy," by T. W. Speight.

LONGMANS, GREEN & Co., 39, Paternoster-row, E.C., forward to us a copy of "The Green Fairy Book," edited by Andrew Lang. It is a typical Christmas present, handsomely bound and printed, tastefully edited and beautifully illustrated, forming a companion volume to those which have already appeared as "The Blue Fairy Book" and "The Red Fairy Book." It contains a selection of the best fairy tales from all countries—France, Russia, Italy, Scotland, England and China—and affords a remarkable illustration of how all these nations agree in their liking for fairy tales. The following quotation may be taken from the editor's preface: "You see in the tales how a boy who is kind to beasts and polite and generous and brave always comes best through his trials, and no doubt these tales were meant to make their heroes kind and unselfish, courteous and courageous." That is the best possible comment which can be given to any book, and we endorse it in the case of Mr. Lang's work. "Another drawing-room book is the "Biography of Slander," edited by Edna Lyall.

T. NELSON & SONS (London, Edinburgh and New York) have submitted to us the following volumes, which of their kind are well worthy of that energetic firm. There is a peculiar appropriateness in the appearance this year of "With the Admiral of the Ocean Sea," by Charles Paul Mackie, in which the author portrays with much realism, and necessarily therefore with great interest, the never-to-be-forgotten discovery of the New World by Christopher Columbus. Original sources of information have been consulted; the dramatic incidents in the career of the hero are appropriately dealt with; and the attitude of his powerful patrons, as ungrateful at last as they were slow-witted at first, is duly treated. As a book calculated at once to instruct and interest both the young and children of a greater growth we have pleasure in recommending this volume.—"In the Days of Chivalry." E. Everett Green deals with the stirring period in which our Black Prince taught our brethren across the Channel that the residence of the Normans in Britain had not deteriorated the race. Disinherited brothers, after many adventures, come to "their own again," and exhibit not only a manly prowess, but the higher virtues of magnanimity and forgiveness.—Of "Martin Rattler," which has long been a favourite among boys, we need say no more than that Robert Michael Ballantyne, in the new edition of this deservedly popular book, will continue to amuse and instruct boys for many years to come. To make the past live and to instil interest and vitality into the dead bones of ancient history, there is no more effectual method than the "historical novel." It is not necessary that such should deal only with the prominent political personages of any age. The "history" of a period includes the experiences of all classes. In the thirteenth century the baron was always an arbitrary person. In "The Robber Baron" of Bedford Castle, the authors provide a careful study, historical and topographical, of the social conditions of the period. "The old, old story" has its place here, while the reward of virtue and punishment of vice will commend the tale to every well-conditioned reader, young or old.

SMITH, ELDER & Co., 15, Waterloo-place, S.W., have sent us the following Christmas books: "Hours in a Library," by Leslie Stephen, new edition with additions, in three volumes. We could not wish a better companion to a library than this well-known work. It consists of a series of essays on the works of the following among other authors: De Foe, Richardson, Pope, Scott, Hawthorne, De Quincey, Sir Thomas Browne, Horace Walpole, Dr. Johnson, Crabbe, Hazlitt, Disraeli, Fielding, Wordsworth, Macaulay, Brontë, Kingsley, Sterne, George Eliot, Carlyle and Coleridge. The papers are eminently analytical and critical, and on the whole we think the works

of the various authors are treated with great fairness and keen insight.—"The White Company," by A. Conan Doyle, is a stirring romance by this well-known author. The interest of the story is sustained to the end and the narrative throughout is highly instructive.—"Grania: the Story of an Island," by the Hon. Emily Lawless. New edition. This is a capital story of Irish life in one of the islands of Aran, Galway Bay. The picture given here of the peasants in some of the remote districts of the west of Ireland shows a keen perception of the habits of the people and considerable literary skill in making from such rough material so readable a book.—"The Slave of the Lamp," by Henry Seton Merriman. New edition. A very clever and well-written story and thoroughly enjoyable from beginning to end.—The new edition of "A Woman of the World," by F. Mabel Robinson, adds fresh interest to a very pleasant everyday story.

T. FISHER UNWIN, 11, Paternoster-buildings, has submitted to us some copies of "The Children's Library." "Nutcracker and Mouse King," a translation from the German of Hoffmann, by Ascott R. Hope, to which is added a translation by the same author of Hoffmann's "Educated Cat," will be read with avidity by many children. The philosophic faculty of the German finds expression even in nursery tales, and the gradual development of the perceptions and conclusions of a cat has an interest for others than the feline race.—"Once Upon a Time" is a collection of fairy tales translated from the Italian of Luigi Capuana. The sixteen complete little stories of which the volume consists will instruct and interest children and parents alike. Many of the illustrations, which are by Mazzanti, enhance the value of the book.—"Finn and his Companions," by Standish O'Grady, revives memories of the sturdy race who, possessed of pristine virtues in the days of the Romanised and degenerate Britons, impressed their influence upon a considerable portion of these islands. The illustrations are by J. B. Yeats. These Ossianic tales, circling as they do round the personality of St. Patrick, should at Christmastide prove very acceptable reading. The paper and printing of this series are all that could be desired.—"A Splendid Cousin," by Mrs. Andrew Dean, issued by the same publisher, is one of the handy pseudonym library rendered famous originally by the appearance of Mademoiselle Ixe. It would not be fair on reviewing a novel to sketch the outline too fully, but the reader will find much to interest in this story. Whether the conduct of the "Splendid Cousin" might not have been rendered still more noble by a less conventional termination may be a matter of opinion.—"Colette," by Philippe Saint-Hilaire, is a very readable rendering of a very old theme. The imprisoned Princess—the isolated fair one—wasting her beauty in the unrecognised seclusion of an old chateau, like many similarly situated young ladies, keeps a diary—natural, artless, charming. The liberating Prince, of course, arrives in due course, Parisian, but honourable, and all die happy. The armchair in the smoking-room would have its attractions increased by the prospect of dreaming over "Colette."—"Daddy Jake the Runaway" and other Stories, by "Uncle Remus" (Joel Chandler Harris), will make a very suitable Christmas present. It is printed on good paper, is well illustrated and abounds in "plantation" humour. The jingle of rhyme adds greatly to the merriment of the nursery, and in "Another Brownie Book," by Palmer Cox, issued by the Century Company, New York, and T. Fisher Unwin, London, both rhyme, matter and illustration will provoke the mirth of the rising generation.

CASSELL & Co. (London, Paris and Melbourne) provide a rich supply of handsome Christmas volumes. It is a triumph of literary production that for a sum of nine shillings a solid, well-printed and well-illustrated volume like "Cassell's Family Magazine" should be possible of purchase. Families dwelling in remote parts of the country, where libraries may not be easy of access, would find in this

volume material, instructive and entertaining, which would occupy them for many weeks.—It is only the privilege of the few to have, or to have had, it in their power to haunt the great artistic collections of Europe, or to have had opportunities of drinking in the refining influences of cultured and æsthetic surroundings. Not only by such, however, but by all interested in the cultivation and diffusion of "taste," *The Magazine of Art*, issued by the same enterprising firm, must be regarded as a missionary of art, for it brings within the reach of all by carefully written critiques and skilfully executed engravings, well-known and teaching pictures and sound and valuable instruction. "*The Historic Houses of the United Kingdom*" is a charming descriptive, historical, pictorial account of some of the splendid Abbeys and Castles in this country. The descriptions of Floors Castle and Cawdor Castle will interest readers beyond the Tweed, while the account of Kilkenny Castle will delight Irish readers. It is to the English reader, however, that the lion's share of this gorgeous literary feast no doubt naturally falls. To visit and admire the castles themselves will be the natural sequence of a perusal of this beautiful and artistic book.

#### OTHER SEASONABLE PRODUCTIONS.

*Mona MacLean: Medical Student.* A Novel, by GRAHAM TRAVERS. Three volumes. Edinburgh and London: William Blackwood and Sons.—This is a capital book, just sufficiently medical to give it special interest to medical readers, but not of so professional a character as to diminish its interest for the public. The pictures are drawn with the touch of an artist, and those portions of the work which delineate Scottish life and character have a special attraction by reason of their aptness. A noteworthy feature of the novel is the variety of scene and place which it affords. The conversation throughout the work is easy, flowing and well sustained. The plot is of the slightest kind, and it is worthy of remark that, as is usually the case in novels written by lady authors, the men in this volume are either heroes or "jolly good fellows." We are able to speak very favourably of the book as a healthy, well-written, and effectively-told tale.

*McEwan's Phonographic Magazine.*—We welcome the first appearance of a new magazine devoted to phonography edited by so able an exponent of the "winged art" as Mr. Oliver McEwan. Everything which tends to promote ease, legibility and rapidity of writing is highly valued by shorthand writers. Nothing will promote this so much as accuracy of outline and proper formation. In these respects *McEwan's Phonographic Magazine* may be taken as a model, and when some practice has been attained in the art of lithographing the characters, and of arranging the matter, these qualities will be the more appreciated. On the whole the editor may be congratulated on the success of his venture, and we hope that he will always adhere to his promise to provide "a magazine which can be recommended by teachers to their pupils without any fear of corrupting their phonographic morals." We regret to observe the extent to which the spirit of criticism, to which the epithet "captious" is not in all cases inapplicable, has been developed on the last page of this new publication. Such criticism does not beget friends and we question its wisdom.

*The Medicine Lady.* By L. T. MEADE. 3 volumes. London: Cassell and Co. 1892.—It is not surprising to find the episode in modern medicine known as the "Koch treatment" taken advantage of by the novelist, for indeed the history of that startling discovery, the manner of its promulgation and the furore it excited in all quarters of the globe, were very novel, if regrettable, departures from the sober course of therapeutics. It is around the discovery by a young enthusiastic physician of a cure for consumption that Mrs. Meade has woven a story of

much interest and of marked power. To be sure the topic in question is not one that usually forms the groundwork of a romance; disease and its treatment are hardly pleasant subjects for fiction; but we may credit the authoress with dealing with them skilfully, and one finds in her work not a few sketches of character which are typical enough, together with some home truths concerning the "arts" of medical practice that are hardly overdrawn. On the other hand, the opening scenes, in which the highly neurotic heroine appears in the capacity of a probationer nurse in a children's hospital, are by no means as realistic as they might be. Whilst doubting the utility of works of this class, we do not refuse to admire the construction of the plot, which we may leave our readers to ascertain for themselves.

*The Dawn of the English Reformation; its Friends and Foes.* By HENRY WORSLEY, M.A. Cheap Edition. London: Elliot Stock.—The history of religion in its various forms and guises, with the illimitable transformations which these forms undergo in the lapse of time and under the influence of theological teachers and in some cases of fanatics, must always be of interest to the reflecting mind, even when the subject is regarded simply from the standpoint of the philosopher. The question, however, is a very wide one, and is for the most part outside the region of investigation to which a medical journal necessarily devotes itself. Nevertheless, a few words may be said respecting the scope and character of Mr. Worsley's book. It is divided into six chapters and deals respectively with the condition of the religious world in England before the period of the Reformation; the classical revival at Oxford and Cambridge, with an account of the work and writings of the men who were most prominent in that revival; then follows a record of the part taken by Tyndale (by the translator of the Scriptures) in the Reformation; the separation from Rome in the sixteenth century, and finally the passing away of mediævalism. The fact of the complete extinction of this phase of religious observance may, by the way, be open to question. These matters are learnedly and intelligently set forth and, so far as we are in a position to judge, the volume forms a trustworthy history of the events connected with the rise and progress of the Reformation in England.

*Diaries &c. for 1893.*—The presence on our office table of a batch of diaries for the year 1893 reminds us to take note of the provision made by account-book publishers to supply for the ensuing twelvemonth the requirements of literary men, merchants and others. Amongst publications of this order which demand commendation are those of Messrs. Charles Letts and Co., which for variety and ingenuity leave nothing to be desired. Thus we have the "Improved" (interleaved) "Diary," containing the information usually included in almanacks; a "Diary" specially adapted for note-taking; another for cash entries; a "Day on a Page Diary," enclosed in a neat case; a "Tablet Diary"; a "Scribbling Diary"; and a "Blotting-pad Diary," which provides space for a month's notes at a glance. All these are handy and useful.—Charles Letts and Co.'s "A B C Medical Diary and Visiting List" is published jointly by the above firm and Messrs. Burroughs and Wellcome. The form in which this edition appears presents no great departure from that adopted in former issues of the same diary. There is, however, an addition in the shape of "Excerpta Therapeutica," containing, in an alphabetical arrangement, a list of the principal drugs in general use, both pharmacopœial and extra-pharmacopœial. Also in this issue is included a list of signs which will be useful as an aid towards making the recorded entries complete.—Finally, we have "Letts' Medical Diary," published by Messrs. Cassell and Co., Limited, one specimen being issued in silken covers, and the second in pocket-book form. These are old favourites, and need no further commendation.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 17, 1892.

SINCE the vacation the Gresham Commission has been largely occupied in taking evidence with regard to the various views held by persons interested in the question of the higher University education in London. This has been in many respects quite discordant and often, from what we hear, superfluous. We understand that some of the professors in the Faculty of Science at King's College are still expected to give evidence on the reassembling of the Commission after the Christmas holidays. The Rev. Dr. WACE and Sir GEORGE YOUNG will also be asked to meet the objections that have been raised in evidence against the granting of the Gresham Charter before the hearing terminates. It is believed that the Commission is also desirous of having some reconstructive scheme placed before it by the University of London before the sittings are concluded. A Committee of the Senate, including Professors HUXLEY, THORPE and RÜCKER, has heard the views of the Executive Committee of the Association for Promoting a Professorial University in London (on which are the same three Professors), Sir HENRY ROSCOE and Professor WELLDON being the spokesmen. The possibility of a compromise between the views put forward by the Association, and the traditions of the existing University, has at once led to the resignation of Professor KARL PEARSON, who was the originator of the professorial scheme. Professor HUXLEY has put forward his proposals in a recent letter to *The Times*, on the rough notes of which his evidence before the Gresham Commission was based. They ran as follows:—

“Do not venture to ask for all I want, but for as much as it seems possible to get on the way to that.

“Suggestions tentative and open to modification.

“(a) Retain title and prestige of University of London; reorganise it in such a manner as to secure general uniformity and efficiency of work with freedom and elasticity. In short, unify without fettering.

“(b) Make the institutions which contain technical schools of the theology, law, medicine, engineering and so on into colleges of the University. Let these examine their own candidates for degrees, under conditions determined jointly by them and the Senate of the University; and present such as they declare fit to the University for *ad eundem* graduation.

“(c) Deal in the same way with institutions giving adequate instruction in the other categories of University work—if they so please, or let the University examine.

“(d) Provide ample means for instruction in the modes of advancing natural knowledge and art, either in material connexion with the existing University or in particular colleges.

“(e) Professoriate to have large but not preponderant representation in Senate, and wide, but not exclusive, influence in regulating instruction and examination in accordance with the general aim at unification.

“(f) All State and municipal contributions, private endowments and University fees for instruction and examination to be paid into a University chest. All professorial staff and current expenses (save in cases that may be reserved), to be paid out of the University chest; also building and fitting

expenses where there is no sufficient endowment of a college. The payment of the professorial staff to be primarily regulated by the kind and amount of the work done for the University, not by number of students.

“(g) No bar to be placed in the way of anyone who desires to profit by any description of University instruction. If after trial he does not profit, time enough to exclude. Value of exclusion as disciplinary measure.”

We need not further discuss whether these views were those of the original promoters of a professorial scheme; in any case it is clear that they are altogether opposed to the views of Convocation and every tradition of the University of London. They will, however, be strenuously supported by an influential section of the Senate of the University, and may form the basis of the constructive scheme which that body will place before the Commission. But the annual Committee of Convocation has also been considering a draft outline of a scheme to be submitted to Convocation at its meeting on Jan. 17th next. This scheme deviates but little from former schemes put forward by Convocation, except in containing more definite proposals for the establishment of a University professoriate. Convocation is to retain its existing powers, rights and privileges, and even to extend them a little. But the professors in their proposals definitely urge that Convocation is not, as at present, to have a veto upon the action of the Senate. We think the Senate will hardly be able to make any compromise between these two irreconcilable positions, and we foresee that grave difficulties will arise when it has to choose on which horn of the dilemma it prefers to be impaled. But in all these schemes the claims of the London medical students for degrees on a fair standard are ignored. We understand that these claims will again be brought forward at the meeting of Convocation, but we anticipate that they will be refused by the votes of the other faculties in Arts, Science and Laws. Even after the report of the former Commission, and the judgment of the Committee of the Privy Council, London graduates cannot apparently appreciate the absolute necessity for the institution of a lower but fair standard for medical pass degrees, and they will run every risk, even to the formation of a second University, rather than give way on this point. It is therefore particularly opportune that this subject should have been brought before London practitioners on the 8th inst. by the Metropolitan Counties Branch of the British Medical Association, and that strong and clear resolutions affirming it should have been passed and ordered to be forwarded to the Royal Commission and to the Lord President of the Council. In the Gresham Charter the views of the London medical teachers were so fully adopted that less recognition in any new scheme which may be recommended by the Commission will hardly prove acceptable to the teachers or be just to the students.

AFTER a long hearing, extending over eight days, before Mr. Justice GORBELL BARNES and a special jury, a verdict has been returned upholding the validity of the will made by Miss ELLEN ROE whilst she was a lunatic, so found by inquisition, and an inmate of a registered hospital for the insane. This lady was born about 1824, and was sixty-six or sixty-seven years old when she died. It appears that when she was between thirty and forty years of age she became addicted to alcoholic intemperance, and such was the effect of the bad

habit upon her mind that she had to be placed in a lunatic asylum at Northampton, whence she was transferred to the care of an uncle. In 1884 she was again placed in the asylum, having been found a lunatic on inquisition, and from that time until her death in December, 1891, in the sanatorium at St. Ann's Heath, she remained a "Chancery lunatic" for the most part under asylum supervision. The substantial question that arose at the trial was the testamentary capacity of the deceased lady at the dates, September and October 1891, when she executed a will and a codicil, which were propounded by her brother, a legatee, as the last will of his sister. Mr. NIX and another executor under former wills of the deceased claimed that if the court pronounced against the documents propounded by the plaintiff, it ought to decree probate of a will executed by the deceased in the year 1889. Mrs. SPARKS, a sister of the deceased, pleaded that the documents were not duly executed, and that at the time of their execution the deceased was not of sound mind; and she prayed for a decree of intestacy.

The executor under the documents propounded by the plaintiff was the medical superintendent of the sanatorium, who is a beneficiary under them to the extent of £1000 in the event of their being admitted to probate. He, however, renounced the executorship. The deceased died in December 1891, two or three months after having executed the will in question. In the month of May 1891, the medical superintendent, in his official capacity, certified to the Master in Lunacy that the deceased was then "still of unsound mind"; but in his evidence before the court, as given in *The Times*, he gave it as his opinion that it was doubtful whether, when Miss ROE was admitted to the sanatorium as a Chancery lunatic, medical men could have been got to testify that she was of unsound mind; that he was almost certain a medical certificate to that effect could not have been obtained in the next month; and that at that time, and after, he regarded her as sane. He saw no objection to her executing the testamentary papers of 1891.

The testatrix appears to have been anxious to leave a sum of £1000 to the Archbishop of Canterbury, and a similar sum to the Lord Chancellor in view of their supporting the will; but we have the gravest doubt as to whether, if she had done so, the Lord Chancellor, the legal custodian of all lunatics, would have felt himself either bound or able to accept the money willed to him by a Chancery lunatic circumstanced as Miss ROE was.

Coming to the evidence, we have referred to the fact that the medical superintendent of St. Ann's Heath Sanatorium failed to discover insanity or testamentary incapacity in Miss ROE, and his opinion is borne out by that of his subordinates, a lady-companion and a clerk, who had both come to the conclusion that the deceased was quite sane. The former testified that Miss ROE "was excitable and took dislikes to people, but she always gave reasons for doing so, and as far as witness had an opportunity of knowing, those reasons were good ones. She never thought Miss ROE in the least insane."

Apart from the evidence given by the staff of the sanatorium, we fail to find that any of those who had official relations with Miss ROE as an asylum inmate had any doubt as to her insanity and testamentary incapacity. The superintendents of the two other asylums in which she had resided

and the legal and the two medical Chancery Visitors in Lunacy gave definite and explicit evidence on these points; and the sum and substance of that evidence was stated by Sir J. CROFTON BROWNE as follows: In his opinion "Miss ROE was competent to make a will as far as giving lucid and accurate instructions, and as far as clearly apprehending the facts of her disposal of property went, but she was constantly dominated by insane antipathies and delusions which involved the persons who, in the course of nature, had claims upon her. He distinguished between a mere dislike and a belief that an injury had been inflicted. Now, although Miss ROE was pressed again and again to mention any act of cruelty or neglect by her relatives she never did so, but repeated in a vague way that they were her enemies, that they had treated her very badly, and that she could never forgive them. She laboured under a monomania of suspicion."

No doubt her two sisters, to whom she left nothing by her wills of 1891, had incurred some amount of her resentment by having become, in the first place, the petitioners in the inquisition proceedings, and, afterwards, the committee of her person and estate, but this cannot be regarded as an unnatural or unkind position for them to take up, whilst it is by no means unusual for undoubted lunatics to dislike or hate their committee. But it is poor encouragement for loving and devoted relatives to take up their natural and proper position as guardians under such circumstances, if they have to do so at the risk of having their reasonable expectations displaced in favour of strangers, by the process of legalising the testamentary mental operations of a person suffering from delusional insanity.

In his summing-up, Mr. Justice GORELL BARNES dwelt with emphasis upon the judgment delivered by Lord Chief Justice COCKBURN in "*BANKS v. GOODFELLOW*" (5 Q.B., 149), and he quoted as follows from that authority: "It is essential to the exercise of such a power (of making a will) that a testator shall understand the nature of the act and its effects; shall understand the extent of the property of which he is disposing; shall be able to comprehend and appreciate the claims to which he ought to give effect, and, with a view to the latter object, that no disorder of the mind shall poison the affections, prevent his sense of right, or prevent the exercise of his natural faculties; that no insane delusion shall influence his will in disposing of his property and bring about a disposal of it which, if the mind had been sound, would not have been made. Here, then, we have the measure of the degree of mental power which should be insisted on. If human instincts and affections, or the moral sense, become perverted by mental disease; if reason and judgment are lost and the mind become a prey to insane delusions calculated to interfere with and disturb its functions, and to lead to a testamentary disposition due only to their baneful influence, in such a case it is obvious that the condition of testamentary power fails, and that a will made under such circumstances cannot stand." We are quite willing to accept this constructive statement of the degree of mental power necessary to establish the existence of testamentary capacity. For we hold that the existence of insanity does not of necessity imply the testamentary incapacity of the individual; and we regard it as most material to the question, that the condition of mind should not be dealt

with apart from the character of the dispositions made in their relation to rightful claims; or, in other words, as in the deliverance just quoted, that no insane delusions shall influence the testator's will in disposing of his property or bringing about a disposal of it, which, if the mind had been sound, would not have been made.

The testamentary relationships of insane and morbid minds with their environments bristle with difficulties, and there are points in the case of "ROE v. NIX and Others" which are exceptional, not to say unique. We cannot help expressing our feeling that in consequence of disease there was some amount of mutilation or dislocation of the natural affections and instincts in the case of Miss ROE.

We are well aware how unwilling juries are to interfere with the rights of even lunatics to execute a valid last will and testament, and to dispose of their property as they may desire—and very properly so. But we confess that we should not have been surprised to find that in "ROE v. NIX and Others" the verdict of the jury had gone to uphold the weighty and independent medical and official testimony that was produced with a view of establishing the insanity and testamentary incapacity of the deceased lady. In any case, whether, in September and October, 1891, Miss ROE was or was not of sound mind and capable of executing a valid will, we hold strongly the opinion that it is quite wrong and should be made illegal for any superintendent of an asylum to derive benefit from a will executed by any person whilst under his detention and care upon a certificate of insanity or as a lunatic so found by inquisition.

THE question of "uplifted hand" versus "kissing the book" has now, thanks to Dr. GORDON HOGG, passed into what may be called the "acute stage." It will be interesting and perhaps profitable to look back upon what has been the nature of the incubative period (to use again the medical metaphor) of this now burning question. Although it is one which concerns everyone who may be called upon to take an oath in our courts of law or elsewhere, and is therefore a general question, there are two very cogent reasons why it should have been taken up by those who represent the medical profession. Its members are summoned as witnesses much more frequently than those of the other two professions or, indeed, of any other body of men. A large proportion of those who obtain medical and surgical diplomas soon become resident medical officers to hospitals, infirmaries and dispensaries. Among their duties is that of giving evidence at inquests more or less frequently and also in the police, the sessions and assize courts. There are few practitioners who have not at one time or another been called into the witness-box while those who hold appointments as analysts, professors or lecturers on forensic medicine, police surgeons &c. are frequently required to give evidence. It follows from this that most of the members of the medical profession are thoroughly acquainted with the practice of our courts of law with regard to the manner in which the oath is administered. As comparatively few are Quakers the oath is taken by the greater proportion, and this is done by kissing a copy of the New Testament, or of the

Pentateuch by those who are of the Hebrew religion. As the medical man is generally the last witness he has the spectacle of seeing the book kissed by a very mixed class of previous witnesses which naturally suggests ideas the reverse of pleasant. In THE LANCET of March 13th, 1886, page 527, a letter appeared from Dr. HARKNESS of Derby. In it he stated that having to give evidence in the Divorce Court before the late Mr. Justice BUTT he objected to kiss the Testament proffered to him on the ground that two of the previous witnesses were notorious prostitutes and that he might incur a risk of infection. His remark appeared to amuse the judge and some of the counsel, though others upheld his objection. Eventually, at the suggestion of the judge, he kissed the open pages instead of the cover, but, as he truly observed, this still involved the handling of an unclean book while the pages might also have been pressed by unclean lips. And this brings us to the second reason for noticing this apparently, but not really, trifling matter. That infection may be conveyed in this way is undoubtedly within the bounds of probability; hence as medical journalists anxious to safeguard the health of all witnesses, whether medical or lay, all jurors, and all who may be required to take an oath, we felt bound to support Dr. HARKNESS'S objection. His letter was followed by several others. One writer suggested kissing the thumb or holding the book near but not against the lips. Another suggested the use of a cover made of some material which would not absorb infectious matter. A third and better suggestion was that witnesses should swear with uplifted hand, as has been always the practice in Scotland from time immemorial. The subject dropped for a while, to be revived again in 1888. In THE LANCET for that year, vol. i., page 586, it was suggested that in the then proposed Oaths Bill, providing affirmation instead of oath for those who had no religious belief, provision should be made for those who preferred to swear with uplifted hand instead of kissing the book. Whilst we were thus suggesting this on medical grounds others were doing the same for religious reasons, to relieve Presbyterians in Ulster from the necessity of kissing the book and to enable them to swear with uplifted hand like their brethren in Scotland. The coincidence is at least remarkable. Ultimately the Act was passed with the now famous fifth clause:—"If any person to whom an oath is administered desires to swear with uplifted hand, in the form and manner in which an oath is usually administered in Scotland, he shall be permitted so to do, and the oath shall be administered to him in such form and manner without further question." So that all that is necessary to secure this more cleanly form of adjuration is that the person (whether juror or witness) shall express his desire to be so sworn.

This Act was passed on Dec. 24th, 1888, but attracted so little notice that its clauses, and particularly the fifth, were wholly unknown to us until a correspondent called our attention to them in a letter which was published in THE LANCET of Jan. 23rd, 1892, p. 235. While lamenting this oversight it would appear that it has been shared by those who have less excuse—solicitors, coroners, magistrates and their clerks. More than one witness claiming to be sworn with uplifted hand has been refused, the responsible official being ignorant

that this refusal was illegal. Now that the Act is nearly four years old it is imperative that it should be known to all whom it may concern, such ignorance being unpardonable. Dr. GORDON HOGG has not only taken care that all jurors and witnesses appearing before him shall be made fully acquainted with the privilege given them by this Act, but has also impressed upon them the risks which they incur by the older and more general mode of oath-taking, and has succeeded in making, so far as his court is concerned, the newer and less objectionable mode the rule and not the exception. Some medical witnesses giving evidence before other coroners have claimed to be sworn with uplifted hand, and their claim has been at once admitted.

So far this is very well, but much more remains to be done. It is perfectly right that medical witnesses should set the example and show the public that they have the courage of their opinions. But it is equally right that other witnesses and jurors should lose no time in following the example. The average Englishman who appears as juror or witness is ready enough to grumble at any grievance, but much less ready to aid in its reform. Those who have complained of having to kiss the book—and their name is legion—have only themselves to thank if they continue to do it. Silence in this matter will signify consent, and it must not be assumed hastily that all who preside in our courts of law will pioneer this reform so boldly as the newly elected coroner for West Middlesex has done.

And this leads to a very important question. The Act says "*In the form and manner in which an oath is usually administered in Scotland.*" There the oath is administered by the presiding judge, sheriff, sheriff-substitute or baillie, who stands, holds up his right hand, directs the witness to hold up his, ungloved, and to repeat after him the form of words, which differs from that used in England, being in the first, not the second person, and with some slight variations, as follows: "I swear by Almighty GOD as I shall answer to GOD at the Great Day of Judgment that I will tell the truth, the whole truth, and nothing but the truth." Do the words we have talicised refer only to the uplifted hand, or do they involve an exact imitation of the Scotch form? If so, are our judges, recorders, magistrates and grand juries all aware of this obligation should jurors and witnesses claim to be sworn in this way? Are they ready to see the crier or usher who now administers the oath gradually disestablished and to take upon themselves the duty now performed by him?

Leaving this question to those more competent to answer it, we must in conclusion express our satisfaction that this very desirable reform has made so decided an advance. Setting aside for a moment the risk of infection, the indiscriminate handling and kissing of the same book by a succession of jurors and witnesses is, to say the very least, a nasty practice which cannot be defended when there is ready to hand an equally solemn and less objectionable alternative. So far witnesses and jurors have endured that which they believed could not be cured; but it is impossible to suppose that when they are made fully acquainted with the fact that they have a choice they will hesitate to use it, or to feel any doubt as to which mode they will prefer.

## Annotations.

"Ne quid nimis."

### THE METROPOLITAN HOSPITAL SUNDAY FUND.

THE annual meeting of the constituents of the Hospital Sunday Fund was held on Tuesday afternoon at the Mansion House. The Lord Mayor, the Right Honourable Stuart Knill, presided, and displayed a hearty interest not exceeded by any of his predecessors in the success of the Fund of next year. The attendance was good, and the resolutions adopting the report of the Council, continuing the laws of its constitution, and filling up vacancies in the Council caused by death or otherwise, were unanimously adopted. A few reasonable questions were put from the body of the meeting, such as show a healthy interest in the cause. One of these had reference to the number of letters allowed to particular congregations. The gentleman who spoke thought that the poorer contributing congregations should have more letters of recommendation than those which sent large sums to the Fund. The answer was very easy, that the Council by its laws was entitled to *letters of recommendation equal to half only of what might be claimed by annual subscribers*, and that such letters were always given in fit cases on the application of ministers or others representing such congregations, one minister, representing one of the poorest congregations in the East-end, testifying that he had never made an application without its being responded to. The point is that letters of recommendation are given not to any congregation, rich or poor, but to the Council for distribution. Though the total receipts of this year are less than they were last year, the difference is explained chiefly by the large donation of £5000 given by the Duke of Cleveland. The satisfactory feature of the collection is that it represents thirty more contributing congregations than last year. Indeed, the number of these steadily increases. There have now been twenty yearly collections, beginning in 1873, the year of Sir Sydney Waterlow's mayoralty. In that year there were but 1072 contributing congregations, or 669 less than in the present year. There can be no doubt that the Fund has a strong place in the confidence of the churches and of the community generally and that it draws together, as no other cause does, men of all creeds. It is a grand thing while men are still conscientiously unable to worship in each others' churches that they are able to meet on such a platform as this to perform one of the first duties of pure and undefiled religion. June 11th is fixed for the Hospital Sunday of 1893. A report of the meeting will be found on page 1405.

### THE LOCAL GOVERNMENT BOARD AND CHOLERA PROSPECTS.

WE understand that, in view of the prospect of a renewal of cholera next spring and summer, the Local Government Board have decided on an increase in the staff of their medical inspectors, and that the appointments, which are mostly of a temporary character, have already been practically determined on. A cholera survey will forthwith be instituted, much on the lines of the survey that was carried on during the European epidemic of 1884-86. An alteration has also been made as to the Orders under which the importation of rags and bedding into this country from infected places is prohibited, the object being to relieve, as far as possible, a number of trades in which various woollen, linen and other articles, technically described as rags, are largely used for the manufacture of cloth, rugs, paper &c. The principal changes effected by the new Order go to admit all articles that are clean without any restrictions

whatever, and of removing the prohibition as regards other rags provided they are properly disinfected at the ports of arrival. If such disinfection is found practicable, it will be proper to maintain it with respect to other diseases than cholera; for if there is one disease which is easily communicated by old torn-up garments which constitute so large a proportion of the rags used in paper mills, it is small-pox—a disease which has again and again broken out amongst rag-sorters employed in these and other mills and manufactories.

#### SICK NURSING.

Few things are more remarkable in the present day than the great interest now being taken in the important function of nursing the sick. The recognition of the value of this work is becoming more and more manifest in all classes, from the Queen upon the throne to the humblest housewife. Nursing is an art which has escaped from the rule-of-thumb method formerly practised by the Sairey Gamp school and has entered upon a career fit to be undertaken by educated and refined women. The fourth annual report of the Scottish branch of the Queen Victoria Jubilee Institute of Nurses now lies before us, and the success of its efforts towards mitigating the pain and misery accompanying the sick bed is extremely gratifying. The appreciation shown by the recipients of the intelligent ministrations of these angels of mercy has created an increasing demand for their services, so that ampler accommodation has had to be provided by an extension of the Home in which nurses are housed and trained. In Edinburgh and Leith during the year for which the report is issued, 1969 cases have been nursed and 40,999 visits have been paid. The amount of distress alleviated and comfort imparted by the efforts of such attendants on the sick it would be impossible to estimate. Amongst the various purposes to which charitable aid can be applied none is of more value and urgency than that of nursing the sick.

#### THE PREVALENCE OF SMALL-POX.

WHILST the small-pox epidemic at Warrington continues to decline, the abatement is not so great as was hoped. In the week ending Dec. 10th twenty-four fresh cases were reported; and Mr. Gornall is still able to state that no one revaccinated fourteen days before developing small-pox has contracted the disease. He also adds that all the fatal cases in children have been amongst the unvaccinated. On the other hand, the new attacks are mostly in houses where antecedent cases have occurred and where vaccination, whether primary or secondary, has been neglected. Some 12,000 people have been revaccinated, but this is only one-fourth of the population. The demand for vaccination is lessening with the diminution of small-pox, and some of the stations for its performance will in consequence be closed. The number of patients suffering from small-pox in hospital was 139 at the end of last week, and it is assumed that ample hospital accommodation now exists. In Leeds the epidemic prevalence is still maintained; fifty-six cases were in hospital last week, and eight fresh attacks were heard of. Cases or deaths have freshly occurred at Liversedge, Nelson, Sedgefield (where the disease has broken out in a common lodging-house), Keighley, Otley (where the prevalence seems to be abating), Runcorn, Scarborough (where it is proposed to erect a hospital outside the town in the rural district in opposition to the terms of the Public Health Act, under which the sanction of the authority of the latter district ought first to be obtained), Hipperholme and Lightcliffe (from which places the patients have been removed into the Brighouse Hospital), Northallerton, Golborne and Derby. In the latter borough four cases appeared last week, three of them occurring in patients alleged to be unvaccinated; all four cases were at once removed to the town isolation hospital. During the same period nine attacks were reported from Oldham, four from Chadderton, twelve from

Manchester, nine from Liverpool, besides cases from Halifax, Birkenhead, Wakefield, Middlesbrough, Leicester and a few other towns. In the metropolis a marked increase in the amount of small-pox has taken place, and over thirty patients are now under treatment in the hospital ships belonging to the Metropolitan Asylums Board.

#### THE INTERCOLONIAL MEDICAL CONGRESS.

OUR New Zealand correspondent writes:—"By special wire from Sydney as this mail leaves we learn that the Medical Congress has received an invitation to hold its next session in Maoriland. The invitation has been unanimously accepted. Mr. Batchelor of Dunedin has been elected president, a well-deserved compliment paid him by his New Zealand brethren, for he is of long standing among us and is of high professional reputation. We have in this beautiful country a rich store of natural wonders to show our Australian brothers, and we can promise them that we will do all in our power to make their visit a pleasant one. It is impossible to visit the various sanatoria of this marvellous land without being struck with their immense value from a medical standpoint, and the time has now arrived when the fame of the hot springs, situated in various parts of the colony, attracts tourists from all parts of the earth. New Zealand offers many inducements to those seeking a pleasant holiday or those in search of health; and I trust the medical profession generally in Australia will grasp the opportunity now offered them of visiting New Zealand and seeing for themselves a country which excels in natural beauties any other in the world."

#### THE EFFICACY OF VACCINATION RESTATED.

OUR attention has been called to a letter addressed to a provincial journal—the name of which has not been furnished with the extract forwarded—published in a district where small-pox has lately been very prevalent. It is a letter which, in its sensible and moderate language, should appeal to every thinking member of the community, and we trust it will be especially weighed and appreciated by those who know the writer—for he must be well known. He is a Catholic priest, and his ministrations have during the epidemic brought him in contact with some hundreds of sufferers from small-pox. He writes, he says, in no spirit of controversy and with "no qualifications except ordinary powers of observation," and this is his testimony. 1. That controversy about the merits of vaccination should be kept distinct from the merits of vaccination laws, just as temperance and drastic liquor laws are not of necessity linked together in point of desirability. It is the public weal that must govern law making. 2. That some constitutions are impervious to small-pox infection. 3. That a single vaccination in some persons suffices for life, whereas in others re-vaccination is necessary, perhaps more than once; but although the period of absolute protection conferred may be of limited duration, it has in all, or nearly all, an "unquestionable modificatory power." He adds that he has never seen a re-vaccinated small-pox patient. 4. His personal experience is that the mortality among unvaccinated patients is treble (if not quadruple) that among vaccinated. 5. That there is a "vast difference between what the unvaccinated patients have to go through, compared with the vaccinated ones. . . . The majority of the former who recover only escape by a hair's breadth, while their vaccinated neighbours are having a comparatively easy time of it." 6. The vast preponderance of medical opinion in favour of vaccination. There is no such consensus for most other prescriptions. 7. As to the risk of vaccination, it is "not so great as when you go to the station and take your child to Leeds or Manchester." He has seen hundreds of children vaccinated and no bad results; and in one case shown to him he was not satisfied that it was clear from the fallacy, *post hoc ergo propter hoc*. "There is always an element of

danger in powerful remedies." Father Patrick Mulcahy—which is the name of this discerning writer—concludes by saying that he himself has been vaccinated four times in forty-two years, and he advises and implores his friends to vaccinate and revaccinate. Although there is hardly a point raised in this letter which is not perfectly familiar to the medical profession, and although some of the statements—e.g., as to relative mortality of the two classes—may be considerably under the mark, yet it is well in these days of "leagues" and "commissions" to bring into prominence the simple truth as it has appeared to the mind of an intelligent observer whom the most pronounced anti-vaccinationist can hardly dare to charge with those aspersions which are so freely bestowed on the medical profession in this matter.

#### A LAUDABLE UNDERTAKING.

A VERY considerable service is done by anyone who points out means by which the sources of everyday worries can be materially lessened. The other day we had an opportunity of inspecting an institution which, it seems to us, will well serve this very useful end. It is housed in an old-fashioned country house, near Caterham, in Surrey. There are around the house, and at the disposal of this institution, twelve acres of land. Nine of these are meadow land, and the rest gardens, poultry yards &c. Close to the house stand its stable, dairy, cow-house, and, in short, the ordinary surroundings of a farm-yard. Besides the usual offices, the house contains ten bedrooms, and three or four sitting-rooms, all well furnished. The purpose which this institution is intended to serve is one which interests a very large number of people, for it aims at the proper training of young women in the details of household management. A sensible woman, no matter what may be her station in life, will always greatly desire for herself, and for other women, that intimate knowledge of household affairs which goes so far to make a happy home. Girls marry and then too often find themselves obliged to try to manage a household without any clear ideas of how to do it. That much and great unhappiness results from this source is a matter of everyday experience. In this Surrey farm-house at Caterham girls are taught, by actual practice, all the duties of the housekeeper. In turn the pupils do the marketing, attend to the sitting rooms and bedrooms, make the beds and do dairy work in all its branches. They also do all cooking and kitchen and laundry work. The objects aimed at in this system of training are so important to the health and happiness of a home that we are glad to direct attention to it. Those who are interested in the subject can obtain from the Principal, Fryerne, Caterham, any information they desire.

#### THE SANITARY INSPECTORS' ASSOCIATION.

THE address which Mr. John Hutton, chairman of the London County Council, has just given to the Association of Sanitary Inspectors contained a useful lesson to others as well as to those who were present on that occasion. Mr. Hutton entitled his lecture "An Attempt to improve the Sanitary Circumstances of London," and he took the opportunity of explaining the intentions of the Council in the preparation of the by-laws which that body proposes to make under the Public Health (London) Act, 1891. The subject was not only well chosen, but was in every sense timely, for the draft by-laws have just been issued, and Mr. Hutton's explanation will very considerably assist members of sanitary authorities to appreciate their meaning. For our part we regard with much satisfaction this evidence of the interest which the chairman of the great governing body of London takes in the sanitary welfare of the vast population of the metropolis—an interest which augurs well for the development of an efficient administration. Mr. Hutton

referred to the rapid increase of the population of London and sketched the changes which had taken place from the early conditions of the past to those which the County Council were endeavouring to bring into existence under the powers conferred upon it by the Act of last year. He dwelt also on the saving of life which had been effected since medical officers of health were appointed after the passing of the Metropolis Local Management Act of 1855, and showed how the reduction in mortality had particularly occurred in the cases of diseases which were influenced by sanitary measures. Passing then to the proposed by-laws, he pointed out that some of the subjects thus dealt with were referred to in an Act of the time of George III., and these provisions had remained in force until they were superseded by those of the Act of last year. The by-laws relating to house refuse are particularly interesting because they are designed to bring about in the future a daily collection of refuse throughout London, and they at once give to sanitary authorities facilities for organising this system in any parts of their districts in which a daily collection is desirable. The old brick dustbin will eventually be replaced by a movable metal receptacle, all new houses are to be provided with an "ashpit" in this form, and for existing houses every new dustbin is to be of this kind. Whenever the sanitary authority is prepared to make a daily collection of dust it may require the householder, whatever kind of dustbin he has, to provide a movable receptacle, which is to be placed in front of the house at times of which the sanitary authority may give notice. Offensive refuse is to be removed at times and in a manner to prevent nuisance, and the collection of manure in sunk manure pits is to be no longer possible. The by-laws as to water-closets, earth-closets and privies are well designed, and will by degrees effect marked improvement in the apparatus now existing in London. The provisions which may perhaps excite some amount of opposition are those which relate to the disposal of refuse; the Council has evidently made up its mind to rid London of the dustyards where refuse is sorted and dealt with in proximity to inhabited houses, and it will probably be necessary for some sanitary authorities to alter their arrangements to meet the views of the Council. But these changes are distinct gains to London and its inhabitants will be benefited by the more stringent conditions which the Council imposes. It is quite likely that some slight modifications will have to be made in the by-laws before they become law; this is inevitable when any Bill is drafted, but they form a substantial code which will prove in every way serviceable to the metropolis." Mr. Hutton's explanations will go far to make the by-laws acceptable to the authorities who will have to administer them, and we are convinced he has acted wisely in thus introducing them to the body of sanitary inspectors. The interest which the chairman of the Council has manifested in the welfare of the sanitary inspector and in his work will constitute a useful tie between the Council and the large body of men upon whose efficiency the sanitary condition of London must largely depend.

#### THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE staff and members of this school dined together to the number of over 200, at the Cannon-street Hotel, last Saturday evening. The president, Major Maclure, was in the chair, and was supported by Lord Sandhurst, Under-Secretary of State for War. Major Maclure, in proposing the health of Her Majesty, was able from personal knowledge to say that the Queen was well informed as to their work, and took much interest in it, as also did Miss Nightingale. Lord Sandhurst displayed great interest in the work done by the staff of the school, and in giving the prizes

expressed his intention of being present at inspection on the Monday following. Surgeon-Colonel Hamilton proposed the toast of "Success to the Volunteer Ambulance School of Instruction," and gave a history of the evolution of the whole Volunteer movement. The toast was responded to in an able speech by Surgeon-Captain H. F. Stokes. He said that over a thousand members had received instruction, a high percentage of whom had obtained proficiency certificates. Instructors had been sent on the application of medical officers to distant camps of brigades and regiments, and such localities as Wye, Port Talbot, Bridgend, Minehead and Aldershot. The inspection took place on Monday last at the London Scottish headquarters, when two strong companies paraded in drill order. The examining officers were Surgeon-Captains Yarr and Bostock. Each company was put through a course of stretcher drill and lifting of wounded, after which each man underwent a *vivâ-voce* examination in first-aid, and at its conclusion Surgeon-Captain Yarr announced that he should have much pleasure in recommending the whole of the class for certificates of proficiency. This is the fourth class in succession where all the members have presented themselves for examination and all have passed. The success is attributed to the rule that any man absenting himself from drills or lectures three times is at once struck off the roll, and no man is allowed to present himself for examination unless he knows his work. Such discipline reflects high credit on the medical officer instructors.

#### HÆMOLYSIS.

In the exhaustive and erudite study of the process of blood destruction or hæmolysis, which was chosen by Dr. Wm. Hunter for his recent lectures in connexion with the Grocers' Company Research Scholarship, the proposition that the blood acts in its physiological and pathological relations similarly to other tissues is one which will at the present day be accepted without demur; but, although there is no doubt of the waste and renewal of all tissues and cells, the blood is singularly adapted for observing the method of such changes owing to the special coloured element that it contains. It was then mainly of an exposition of the destiny of hæmoglobin that the lecturer made, and the facts and arguments which he adduced from observation of normal changes on the one hand, and of abnormal—whether induced experimentally or as the result of morbid action—on the other, were both numerous and sufficient. It would hardly be fair to Dr. Hunter to attempt a critical survey of the elaborate details of his work. He was dealing, as he said, with a comparatively novel subject, and no criticism could rightly be passed by anyone who had not traversed the same ground. It may, however, be permitted to indicate a few of the salient points which are to be gathered from his exposition. In the first place, the derivation of bile-pigment from hæmoglobin is unquestioned, and it is to be noted that this conversion is not entirely limited to the liver cells, whither the products of effete red corpuscles are conveyed by leucocytes. For leucocytes and connective tissue cells can also produce pigments identical with bilirubin and biliverdin from hæmoglobin, although in the main the conversion is effected in the liver. The red corpuscles may, however, part with their hæmoglobin under the influence of changes created in the blood plasma, and the colouring matter thus set free may come to be deposited in the spleen, liver and bone marrow. That the portal area of the circulation is the region where this liberation of blood pigment (active hæmolysis) mainly takes place is a view which was, we believe, originally propounded by Dr. Hunter, who has still further elaborated it. He shows that this hæmolysis may occur in health, during digestion, in the spleen and gastro-intestinal capillaries; that it may be effected, in the same area, by the action of toluylendiamine;

and that it probably occurs here in pernicious anæmia and malignant jaundice. The resulting free blood pigment is deposited to a large extent in the liver and to a lesser degree in the spleen, and even in the kidney—as evidenced by micro-chemical examination. The subject embraces, however, many other questions than these which we have indicated; and we only regret that Dr. Hunter had no opportunity to gather up the fruits of his labours in a few general propositions.

#### EPSOM COLLEGE.

ONCE more we have to congratulate the College on receiving a munificent gift in aid of its funds. "J. S.," who recently contributed £1000, has recently transferred to the College long mortgage securities to the extent of £2750. This generous supporter of this most successful and deserving institution has now given between £6000 and £7000 to help on the good work. H. Mayo, a student, has gained an open scholarship of £50 a year at Caius College within the last few days. The College is completely full, and the repute of the school has risen so rapidly that there are already four times as many candidates as there will be probable vacancies at Christmas. Such success and such pressure must compel the council to lose no time in providing extended accommodation.

#### LAPAROTOMY IN ITALY.

PROFESSOR GIUSEPPE RUGGI, who holds the chair of Clinical Surgery in the University of Bologna, performed the other day his fiftieth successful laparotomy, and to celebrate the event, unique (it is said) in the surgical annals of Europe, 120 physicians and surgeons of the city and province entertained him at a banquet in the Hôtel Brun. A medal in commemoration of the event was struck in Professor Ruggi's honour and presented to him in a felicitously eulogistic speech. Professor Ruggi, in acknowledging the testimonial, referred to the high name achieved in abdominal surgery by Bologna, which records on a tablet in her surgical clinique the resection of the liver performed for the first time by Count Pietro Loreta, whose later and no less brilliantly successful feat of digital divulsion of the pyloric and œsophageal orifices affected with fibroid stenosis was described by THE LANCET in its obituary notice of that ill-starred surgeon, whose death by suicide shortly after the operation in question is still mourned in Italy as a national loss.

#### THE HEALTH OF SCHOOL CHILDREN.

AMONG the numerous associations which have recently applied for public assistance in carrying on the work entrusted to them is the committee appointed by the Congress of Hygiene (1891) to inquire into the physical and mental condition of children in relation to their education. The investigations instituted by the committee, as we learn from its latest circular, have not been fruitless. Altogether some 50,000 children attending 106 schools have been examined. These establishments included homes, orphanages, industrial and public elementary schools and those under the control of the Poor-law. The condition of the children as described by the committee is by no means encouraging, though we may gather some hope from the fact that the unhealthy state of many of them did not necessarily imply any marked reduction of the normal standard. Thus, while nearly 6000 presented "bodily defects," 5000 showed "deviations from the normal nerve state," 2000 were pale, thin &c., 3600 were reported as "mentally dull," but only 288 as crippled, deformed or subject to fits. Without a more intimate knowledge of the meaning of such general terms as the above, it is impossible to form a clear idea of the educational capacity of these children. It is sufficiently evident, however, that the physique of a large proportion of them was perceptibly inferior. It is also a

significant fact, as bearing upon questions of hereditary incapacity and of low nutrition as related to such incapacity, that this injurious variation was chiefly noticeable among pauper children and those of criminal parents. The questions whether "overpressure" was not really another name for "underfeeding," and whether the standards of education were equally suitable to all cases, naturally suggested themselves to the committee. Though still without sufficient data to afford a basis for generalisation as to the most appropriate methods of instruction, they are evidently of opinion that some readjustment of the strain thus imposed on weak children is called for. Whether this can best be brought about by varying the amount or quality of the work exacted in any case, or by such arrangements for better nutrition as may appear to be needful, is open to further discussion. A combination of both methods would probably attain the best results. There might also be some advantage in rearranging the hours of work. We cannot but think that if these were more concentrated, so as to leave the better part of the afternoon free from school work, a material gain would be achieved. A reasonable amount of home preparation would then be possible, and this might obviate the fagging drudgery of such preparation carried out late in the afternoon by children whose brains were already wearied by several hours of scholastic labour.

#### THE PLUMBERS' COMPANY.

THAT the importance of plumbing is gradually becoming more and more recognised by the public is a fact which cannot but be highly gratifying. Evidence of this growth in the general estimation of the value of this department of architecture and house building is afforded by the success which has attended the efforts of medical officers of health and the conductors of sanitary associations to promote technical education in this direction. The presence of the distinguished company which on Wednesday last assembled at the dinner given by the Plumbers' Company may be taken as additional testimony, if such were needed, of the great interest taken in technical sanitation. On that occasion the Lord Mayor was supported by about 250 gentlemen, amongst whom were some of the most prominent sanitarians of the three kingdoms. It was fitting that the speech to which chief attention was directed should have been made by the Parliamentary Secretary of the Local Government Board. In it Sir Walter Foster alluded to the Plumbers' Registration Bill, which, after receiving careful consideration in the course of committee, he is hopeful of getting incorporated in the legislative enactments of the coming year. He said that in the department with which he was connected a feeling of great sympathy with the measure existed. Sir Joseph Savory, Mr. Bryant (President of the Royal College of Surgeons) and other gentlemen spoke in appreciation of the useful work of the company, and altogether the festival was of such a kind as to mark a distinct advance in the realm of sanitation to which the energies of the Worshipful Company of Plumbers are devoted.

#### THE ENTHUSIASM OF HEALTH.

SIR JAMES PAGET is desirous of implanting in our national character "an ambition for renown in health" comparable with that for bravery, beauty, or success in athletic games. Let us consider what this means. The subject is one which may be viewed in two different aspects. In the one case health, like the other qualities above mentioned, is regarded as a comparative rarity. As such it must appeal to the sense of admiration in minds of every type, even the most ordinary, and persons of strong physique would then stand out from the half-dead level of pallid humankind like rocks on a sandy shore. This condition we may be sure is very far from

realising Sir James Paget's ambition. His view takes in the subject from another point. It is that of minds higher than the ordinary in respect of their physiological knowledge. He would raise the most ordinary to the level of these and would thus awake in them the slumbering sense of self-preservation in the matter of hygiene. "After virtue, knowledge," said Goethe, thus laying the foundation of his desires in healthy morality, and what virtue was in his ideal of mental satisfaction, health is in the physical system. What were beauty, athletic success, or even bravery—that is, physical courage—without this foundation? We can hardly credit their existence in such a case. A short and perishing life they might have, that is all. Their best and most enduring forms cannot be thus established. The intelligent ambition which appreciates this fact is certainly a feeling to be fostered by every possible means, and we are pleased to think that its culture is in these days increasingly cared for. Hitherto many sins have been committed against the body by persons who knew no better. Thanks to the extension of science teaching these are becoming plainly visible to the eye of reason. What we still want is the development of a yet keener sense than ordinary knowledge, an anxiety to live aright, an enthusiasm to learn and to obey the true law of our nature, moral and physical. We see more of this than formerly. We do not so tamely submit to the cramping tyranny of fashion. We are less easily gulled by the deceit of "wild oats." Even that capricious child, Society, submits many of its habits to sanitary rule. Yet there is room for improvement. The tide of enthusiasm must rise higher.

#### THE SANITARY CONDITION OF HASLEMERE.

THE question of the proper sanitary administration of Haslemere is still the subject of dispute and discussion; it has also become involved in a good deal of confusion by reason of the number of bodies who are concerned and who are intervening in the matter. In the first place the Surrey County Council have urged the provision of a proper system of sewerage and they have recently called attention to the facts that the water-supply is very inadequate and that several polluted wells still remain in use. Then come the rural sanitary authority, who are the properly constituted and responsible health authority for the place, and they, as far as can be judged, are waiting to see how far they will be compelled to go, and with how little complainants of one and another sort will be content. Next come the parochial committee, a body having no functions which can relieve the rural authority of their statutory responsibility, and who seem to differ amongst themselves a good deal as to what ought to be done. And lastly, we read of a Sanitary Aid Committee wishful for reform and of a Ratepayers' Defence Association. The latter body, whilst professing all sorts of interest in the sanitary circumstances of Haslemere, seem principally to attend meetings where changes for the better, but which would cost money, are opposed and, as a rule, voted down. Then, again, we find advocates for and advocates against an adequate water-supply. Some of the latter talk sensibly, and point out that an increase in the supply of clean water means that an increase of dirty water will have to be got rid of, and that such increase will in consequence involve an efficient sewerage to dispose of the extra liquid refuse. This in turn produces a class of opponents who, whilst wishing to avoid sewers with their attendant cost, are yet anxious to do something to stave off the day of a sewer system, and who, if the increase of water did not involve the rapid filling of cesspools and other difficulties, would vote for more water. And in the end we find that Haslemere sanitation is for the present to be met by the purchase of a horse and cart for scavenging, by some drain flushing and by the laying of a few sanitary pipes and such like expedients. But even an extra sanitary

inspector is refused "on the ground of expense." Meanwhile intending residents in this parish will do well to inquire of the County Council what the sanitary history of the place is, what its sanitary circumstances now are and what they are likely to be in the more immediate future.

#### OLD EPSOMIANS' DINNER.

THE sixteenth annual dinner of Old Epsomians was held at the Holborn Restaurant on Tuesday evening, Mr. Henry Morris being in the chair. The treasurer of the College (Dr. Constantine Holman), the head master (the Rev. T. N. Hart-Smith), Mr. J. Lumsden Propert (the son of the founder), Mr. B. Pollard (hon. sec. of the club) and several other members of the Council, and about fifty "old boys," assembled. The speakers referred to the highly satisfactory state of the school and pointed to the number of scholarships gained at the Universities and at the medical schools and to the prospect of having to provide in the immediate future for the accommodation of some 150 more boys. In anticipation of this extension and with the view of avoiding divided services, which the College chapel would then necessitate, attention was drawn to the desirability of either enlarging the present chapel or building a new one. It was resolved therefore to make an effort to raise a fund from Old Epsomians and their friends for rebuilding or enlarging the College chapel. A committee was afterwards formed for carrying this resolution into effect. The probable amount required is £2500 to enlarge and £6000 to rebuild. The meeting, which was a very successful one, was enlivened by instrumental and vocal music rendered by Dr. J. J. Pringle, Mr. Cecil J. Sharp, Mr. Templar Saxe, the Rev. C. C. Elcum and Mr. Harris.

#### THE REPORT OF THE SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN.

OFFICERS of the law took a prominent part in the discussions of the first autumnal meeting of the Society for the Prevention of Cruelty to Children. The speeches delivered by the Home Secretary and Mr. Lockwood, Q.C., were characterised by much vigour and were in complete accord with the Society's purposes and proceedings. Both were agreed that the sentences imposed in cases of cruelty had erred rather on the side of leniency than of severity. Most persons acquainted with the subject will recognise the justice of this view and also of an argument in which the former speaker insisted on the liability for costs incurred by parents who had by their neglect or other forms of cruelty compelled the State to provide for their offspring. The Massachusetts law goes further than this, and declares for the forfeiture of parental rights on the part of those who may be found guilty of such conduct. A measure of this kind might not be out of place in our own legislation. It is well known that certain magistrates have shown a marked reluctance to deal hardly with criminals of the class in question. This kind of backwardness, as pointed out by the Archbishop of Westminster, is not mercy, and his appeal for more terror in their law cannot fail of approval by the voice of public opinion. We must close these remarks with a brief notice of the Society's present position. A retrospect of the eight years which have elapsed since its beginning shows an increase in the number of cases dealt with from 122 to 9401 and of convictions from 13 to 1104. The present percentage of the latter in relation to cases tried is 94. These are figures which will suffice to prove the need of the Society's efforts. It is to be remembered, moreover, that they concern but a third part of the area of this country, and the fact is also suggestive as regards the condition of children in the other two-thirds, which we may call unprotected territory. This important point was brought out in the speech of the Rev. H. Price Hughes. We regret to learn that the Society, like so many other actively bene-

ficial institutions, has overflowed in usefulness beyond the scope of its bank account. If our memory does not mislead us this is a new feature in its history. The amount of the deficit for the past half-year is stated at £4500. This has not been incurred on behalf of working expenses merely, since these amount to no more than 13½ per cent. of its whole outlay. It is manifest that the cost of legal proceedings and other duties essential to the character of such an Association as this must be as heavy as its success is of public importance. We trust therefore that an appeal for funds which are so well employed will meet with that free and general acceptance to which the Society is entitled.

#### MUSICAL NEIGHBOURS.

It will be generally admitted that the charms of music do now and then fail to be appreciated, and the fact is apt to be somewhat freely attributed to a want of at least one sense in the listeners. If, however, we may judge from the evidence lately tendered in connexion with a suit in the Chancery Division a similar apathy may show itself even among the initiated. There is a freshness about this case which might enliven even a law court. It dealt with the convenience of two adjacent households both addicted to musical performances and, it would appear, equally resentful of each other's privilege in this particular. It is not difficult to picture the condition described as existing. The question arises nevertheless whether in such a case, or more fittingly in any other where the performance is one-sided, no means of relief can be provided. It is evident that while making every allowance for personal liberty, it must be kept within those limits which are essential to collective existence. Comfort in health, safety and progress in sickness, demand that within our own home quiet, if desired, should prevail. Our neighbour may exercise his musical talent if he pleases, but so that any extreme transit of sound to another dwelling is guarded against. Concerts, school singing, practising and the like must exist on mutual sufferance. The dividing wall buttressed with furniture or otherwise may aid materially in securing the needful seclusion. Still it must be remembered that this is, after all, common property and may not be used at the caprice of either of its joint owners as a mere sound-receiving diaphragm. This view of the matter may possibly require modification to suit, if this be possible, the extravagances of disputants in music. It can hardly fail to commend itself as of general utility, more especially where, as in many of the newest houses, the common partition is of the slightest character.

#### STAS'S SCIENTIFIC WORK.

THE Fellows of the Chemical Society attended a special meeting at Burlington House last Tuesday for the purpose of doing honour to the memory of Stas and signifying the general admiration of British chemists for his well-known scientific work. A lengthy paper entitled "Jean Servais Stas and the Measurement of the Relative Masses of the Atoms of the Chemical Elements" was prepared by Professor J. W. Mallet and read before the Fellows by Professor H. E. Armstrong. In spite of its great length the paper was listened to with rapt attention throughout. All those present knew they were listening to the biography of a great master who would be ever remembered "not merely for his contributions to descriptive chemistry in the discovery and examination of new substances, or for his eminence as a teacher or writer, or for his practical application of knowledge to the affairs of human life—though in all these directions his services claim honourable record in the history of chemical science—but especially will those who themselves cultivate this science ever think of him as the man who with untiring zeal and clear-sighted power of investigation worked on for years upon the foundation stones of

quantitative chemistry, thinking no pains too great, no toil too severe that could render more accurate the results which others might take and trust as the basis of their researches, however little the greater part of mankind might feel interest in or even know of his quietly pursued investigations." An interesting discussion followed the reading of the paper, in which Professor Crookes, Dr. Russell, Professor Dewar, Professor Muir, Dr. Scott and others took part. They were unanimous in expressing their high admiration and appreciation of the splendid and brilliant researches of Stas, and urged upon the younger chemists present to take up the theme, to follow in his steps and with that earnestness with which Stas was so preëminently endowed to seek as diligently as he did after the truth.

#### EPIDEMICS IN MEXICO.

YELLOW FEVER is widely prevalent in Mexico. From Cordova comes intelligence that the disease has been fatal to about a thousand persons, business being suspended and many of the inhabitants having fled to the neighbouring mountains. Enteric fever and small-pox are also announced as prevailing somewhat widely in different parts of the country.

#### THE POLLUTION OF THE EXE.

WE understand that the condition of the River Exe has been recently the subject of inquiry. The river, it is stated, is polluted by sewage from Tiverton and from villages between that point and Exeter, and it is alleged that the Culme in addition to sewage receives the refuse of numerous paper mills as well as of tanneries and creosote works. The Exeter Town Council has appointed a committee to consider and report on plans for dealing with the sewage; these have been prepared by the city surveyor and it is to be hoped that no time will be lost in providing means for the purification of the river, for the conditions described are anything but a credit to the county.

#### CHARGES AGAINST HOSPITALS.

WE have had to comment only too frequently on the attitude assumed by certain of our lay contemporaries towards the hospitals. To insert in their columns accusations against a hospital founded on the inaccurate statements made at an inquest or the verdict of a jury which has either been misled by those statements or improperly directed by the coroner may be a very good way of increasing the sale of a paper, but does no credit to the paper which does it. The reputation of a hospital is dear to those who are in any way interested in its management or prosperity, and its funds do not permit of action such as might be taken by a private individual in a case of libel; the generous and manly thing would be to defend the helpless. The attack in most instances appears to be made without due care, for the charges could on inquiry at the institution maligned be easily refuted. Most certainly any charges could and ought to be investigated at the time and not allowed by the presiding coroner to go forth from his court with his approval as true unless proved. No hospital or charitable institution should be judged without an opportunity of clearing itself, and the frequency with which these charges are made in a particular district—charges which we have often carefully investigated and found groundless—compels us to reluctantly conclude that there is a desire on the part of some or other persons to damage the reputation of a hospital. If there is neglect of duty on the part of the hospital by all means let it be brought to light, and if censure is deserved let it be given. Such things should be made known, but before condemnation it is usually the custom in England at least, for the accused to be told of the charge and asked what can be said in his favour to refute it, not to condemn him in his

absence and even without his knowledge of the charge. "Audi alteram partem" is still a good motto, and worth remembering.

#### PREVALENCE OF MEASLES.

MEASLES is becoming somewhat epidemic in certain parts of the United Kingdom. In Hull no less than 600 cases with forty-six deaths were recorded last month and in Glasgow 300 attacks were announced at the close of last week.

#### THE INSTITUTE OF CERTIFICATED INSPECTORS.

A NEW association has been formed, consisting of sanitary inspectors who have obtained a certificate from the Sanitary Institute or some other body. The principal objects of the institute are stated to be: (1) the raising of the status of certificated sanitary inspectors; (2) the advancement of sanitary science; (3) the dissemination of sanitary knowledge among its members and the general public; (4) the rendering of practical assistance and encouragement to those holding appointments as sanitary inspectors but who have not yet obtained the qualifications necessary to become members or associates. These objects are altogether praiseworthy, and we hope that the institute may be able to do useful work in the directions indicated. We are, however, not quite sure that the ground is not already covered by the work of the original Sanitary Inspectors' Association, which has now been in existence some years. An element of weakness is, we think, introduced through the division of the sanitary inspectors into two bodies, and it does not appear to us that the mere possession of the certificate forms a sufficient reason for this separation, or to lead to much expectation that the new body will be able to take any very active part in the promotion of the second of its objects. We are in favour of sanitary inspectors being fully educated to perform the duties which are imposed upon them by Acts of Parliament and the Orders of the Local Government Board made thereunder, and it may be that a justifiable rivalry between the two associations will stimulate their members to fit themselves better for the public service.

#### PUERPERAL THROMBOSIS OF THE PULMONARY ARTERY.

DR. LUSK says "thrombosis of the veins furnishes the most frequent cause of sudden death in labour and during the puerperal period." A very graphic case of the sort, though happily ending in recovery, is reported by Dr. W. W. Hewlett in the *New York Medical Record* of Nov. 29th. A patient, after a very easy labour, contrary to the advice of Dr. Hewlett, sat up on the fourth day, as she always had done. On the twelfth day, when everything seemed favourable, and while in the sitting posture, she was seized suddenly with intense dyspnoea, extreme restlessness, followed by cold extremities, cyanosis, nausea and profound weakness. The respirations were 58, the pulse 130, the temperature normal. There was no hæmorrhage; at times the respirations were 80. She was calling for air, had profuse perspiration, cold extremities and livid nails. There was no pain; the intellect was perfectly clear. No heart sound was audible in front. She could not be auscultated behind. Her only complaints were shortness of breath and extreme cold. The treatment consisted in absolute rest, drawing the urine off by a catheter, keeping the extremities warm, free stimulation with whisky and ammonia and the use of digitalis. For a week the patient suffered from faintness, dyspnoea and cold sensations. After the eighth day improvement began, but was very gradual. She was not able to sit in her chair till three weeks after the attack. There can be little doubt as to the nature

of the lesion in this case, and quite as little as to the value of the therapeutic measures which were so intelligently used. Such cases are happily rare, but most practitioners of experience have seen them. The wonder is, considering the complicated nature of the puerperal condition, that they are not more frequent.

#### FOREIGN UNIVERSITY INTELLIGENCE.

*Berlin.*—Dr. Ludwig Katz has been recognised as *privat-docent* in Otology.

*Copenhagen.*—Dr. Hirschsprung has been appointed Lecturer in Children's Diseases.

*Dorpat.*—Dr. Vasileff has been appointed Professor of Special Pathology and Therapeutics in succession to Dr. Unverricht.

*Munich.*—Dr. Gustav Klein of Würzburg has been recognised as *privat-docent* in Midwifery and Gynæcology.

A GREAT many humane persons will feel a sense of relief in learning, on the authority of the *Yorkshire Herald*, that the wretched woman who has so frequently figured in police reports under the name of "Tottie Fay" and a multiplicity of aristocratic aliases, has been found to be insane and is recommended to be removed to a lunatic asylum. The constant repetition of her name in the police reports led many people to believe that she was suffering from mental disease and was irresponsible for her conduct. She was probably at best an emotional creature of weak mind and unstable nervous system, and the intemperate habits to which she became a victim did the rest.

At the Conference of Port Medical Officers of Health to be held to-day (Saturday) at the Mansion House the following subjects will be brought under discussion: Medical inspection, quarantine, addresses of destination, disinfection &c., disposal of infected corpses, disposal of other infected articles not capable of disinfection, hospitals, other difficulties experienced or anticipated and other matters. The Lord Mayor will preside. The Conference will be opened at 11 A.M., and the first sitting will be continued until 1 P.M. The second sitting will begin at 2.30 P.M. The advantage of such an interchange of views amongst port medical officers is very obvious.

ITALY is actively preparing for the International Congress of Medicine and Surgery to be held in Rome in the last week of September, 1893. Throughout the peninsula the medical schools are constituting local committees for their adequate representation at that "parliament of the profession," the last announcement to this effect having come to us from Pisa, where Professor Pasquale Landi has been elected president, Professor Gaetano Rummo vice-president, and Dr. Gustavo Gasperini secretary, of a very strong "comitato" consisting of fourteen prominent physicians and surgeons belonging to that school.

DR. WALTER HAYLE WALSHÉ died on the morning of the 14th inst. at his residence, 41, Hyde Park-square, after a long and painful illness. His works on diseases of the heart and on diseases of the lungs are classical treatises, and place him in the foremost rank among the fathers of English modern medicine. His remains will, in conformity with his written directions, be cremated next Saturday at Woking.

THE late Hon. W. H. Cross, M.P., whose lamented death has been announced this week, was junior counsel for the Royal British Nurses' Association in their application for the charter, along with Sir Horace Davey and Mr. Muir Mackenzie. Mr. Cross attended the first hearing, but was too ill to attend the second. He took more than a mere professional interest in the case.

DR. E. C. PERRY has been appointed by the Court of Committees to succeed the late Dr. J. C. Steele as Superintendent of Guy's Hospital. Dr. Perry vacates the appointments of Warden of the College and Dean, but continues to hold the posts of assistant physician to the hospital and demonstrator of morbid anatomy in the medical school.

THE town council of Weybridge has adopted a new scheme for the disposal of its sewage, which includes the discharge of the clarified effluent into the Thames at a point above the intakes of the London water companies. The scheme is understood to have the approval of the Local Government Board.

At a meeting on the 12th inst. of the managers of the Royal Infirmary of Edinburgh, Surgeon-Major-General S. A. Lithgow was appointed to the office of superintendent of the infirmary. He is at present serving as principal medical officer of the Southern District on the staff of the Duke of Connaught.

THE next meeting of the Epidemiological Society of London will be held at 11, Chandos-street, Cavendish-square, on Dec. 21st, at 8 P.M. A paper on "Measles Epidemics, Major and Minor," will be read by Mr. B. A. Whitelegge, M.D., B.Sc.

DR. PAUL RAYMOND has been awarded a prize, offered by the President of the French Republic, for the best essay on the means to be adopted by the Legislature or by private initiative for restricting the abuse of alcohol and combating its dangers.

MR. THOMAS HAWKSLEY, M.D., M.R.C.P. Lond., founder of the National School of Handicrafts for Destitute Boys at Chertsey at a cost of £30,000, and formerly in practice in London, died at Chertsey on the 13th inst. at the age of seventy.

A BENEVOLENT lady, Mrs. Brown, who died at Adelaide recently, left £100,000 to the Home for Crippled Children and to the Convalescent Home for the Infant Poor.

THE death is announced of Dr. James Hobson Aveling, of Upper Wimpole-street, on the 13th inst.

## THE METROPOLITAN HOSPITAL SUNDAY FUND.

THE twentieth annual general meeting of the constituents of the Metropolitan Hospital Sunday Fund was held at the Mansion House on Tuesday, Dec. 13th, when the Right Hon. Stuart Knill, Lord Mayor (president and treasurer), occupied the chair. The LORD MAYOR was supported on the platform by Sir Sydney Waterlow, Dr. Adler, the Rev. Prebendary Daniel Moore, Mr. F. C. Carr-Gomme, the Rev. J. F. Kitto, Dr. C. J. Hare, Dr. Kennedy, the Rev. W. H. Barlow and others. In opening the proceedings he said it gave him very great pleasure to follow the example of his predecessors in giving the use of the Mansion House for the purpose of the meetings in connection with the Hospital Sunday Fund. To him the Fund was a source of great pleasure indeed, and he would be glad to help it in every possible way.

SIR SYDNEY WATERLOW, in moving the adoption of the report, said that this was the twentieth time that he had had the gratification of submitting this resolution to the constituents. In commenting upon the report he drew attention to the resolution which was passed at the meeting of the Council on Nov. 25th last, when it was decided to recommend to the Committee of Distribution that all accounts presented under law 4 of the Constitution on or from Jan. 1st, 1893, should be audited by a chartered accountant and said

that it would now read as "certified by either a public or a chartered accountant." This change he thought would bring the accounts into one form and they would have a much easier task when comparing the relative merits of the respective hospitals. He pointed out that the contributions received this year were less because they had not had a repetition of a donation of £5000 which had been received last year. With regard to the provision of surgical appliances they were now granted to persons who could show that they were really in need of them, and they did all they could to prevent poor people from tramping a number of miles for the purpose of obtaining letters.

The Chief Rabbi (Dr. ADLER) seconded the resolution, remarking that it would be desirable to see an increase of hospital accommodation in the outlying districts of London.

A resolution recommending that the laws of the Constitution in force last year be continued being passed, the Rev. J. F. KITTO proposed that the Council for the year 1892 be re-elected for the year 1893, with the following names to fill vacancies—viz.: Rev. John Storrs, B.D., Rev. J. Monro Gibson, D.D., Rev. Donald McLeod, D.D., Rev. W. H. Harwood, Admiral the Hon. F. Egerton, Sir George B. Bruce, Thomas Bryant, Esq. (President, Royal College of Surgeons), Walter H. Burns, Esq., Thomas Rannie Grant, Esq., J. H. Hale, Esq., and Howard Potter, Esq.

Dr. C. J. HARE, in seconding this resolution, remarked on the representative way in which the selection had been made, embodying as it did men of all ranks, creeds and professions.

The Rev. C. J. RIDGWAY then proposed the following resolution: "That the 11th of June be fixed for Hospital Sunday of 1893 and that the cordial coöperation of all ministers of religion within the metropolitan area be again invited in the usual way."

The Rev. W. H. BARLOW seconded, testifying to the benefit of the addresses given at the Mansion House previously to Hospital Sunday, which he said had been reported in THE LANCET, and those ministers who were wise made it the foundation of their addresses on the following Sunday.

The LORD MAYOR, in answer to a question in reference to district meetings, said that they had been tried, but they became very flat, and, either accidentally or otherwise, it so happened that the funds were larger when there were no district meetings than when there were district meetings. With regard to the meeting at the Mansion House before Hospital Sunday, he should follow the example of those who had gone before him, and he hoped with the same success.

A vote of thanks to the Lord Mayor terminated the meeting.

## CHOLERA.

### CURRENT NOTES, COMMENTS AND CRITICISM.

CHOLERA still prevails in Brittany, notably at Lorient. The disease has also appeared at Vannes. Further north two cases and one death at the civil hospital of Dunkirk, three cases and two deaths at Hesdin, and two deaths at Equihen, near Arras, are recorded. A woman also died of cholera at Dizy-Majenta, near Epemay. In fact, there are strong grounds for fearing that in the north-west of France the disease is the reverse of extinguished. There was one case at Hamburg on the 8th inst., the patient having arrived from Stettin on the Baltic, and two cases previously on Nov. 9th and 11th, and it is now reported that four cases have occurred since the 12th inst. Russia has been the greatest sufferer from the cholera epidemic and the disease, although it has greatly abated, still continues to prevail in a large number of the affected provinces. Of 51 formerly affected 15 only are now completely free. In the province of Podolia there were 864 victims during the past week:—In Kieff, 508; in Bessarabia, 498; in Tamboff, 297; in Kherson, 205; in Volhynia, 70; in Saratoff, 50; and in the Province of Samara, 35. A certain number of cases are also still reported weekly from twenty-nine other provinces. The last issued official statistics form a terrible record. There have been altogether since the outbreak of the cholera epidemic 550,000 cases in the whole of Russia, of which 260,000 proved fatal. From Berlin we learn that Dr. Klemperer, assistant to Professor Heydon, had read a paper before the

Society of Surgeons of the Charité Hôpital upon the results obtained from an injection of milk from cholera-infected goats. It is clear that a much larger amount of information is required, and of a far more precise character than that which has appeared in the daily papers, before any opinion can be arrived at in regard to such experimental researches.

With regard to the paper read by Surgeon-Colonel Hamilton on Cholera, its Epidemic, Progression and Causation, and the debate that followed, we may here make a few remarks. The paper covered a wide field, but one of its main contentions was as to the adequacy of the so-called water theory to account for the spread of epidemic cholera. According to the published abstract, it would appear—for the point does not seem to have been brought out with perfect perspicuity—that while the great importance of a pure water-supply in times of cholera is fully recognised, it was contended that an impure water-supply was not invariably the sole agent at work or the only vehicle, by any means, by which the cholera-cause was spread; and, on the other hand, that even in the cases where impure water was admittedly a powerful factor, if not the primary and essential one, its acquired potency in this respect had not been demonstrably traced to the introduction and presence of any specific cause, contagium or vitalised agent—such as the comma bacillus, for example. In any discussion it is necessary to understand where the point of divergence takes place. We may assume that all are agreed that a pure water-supply protected from all sources of contamination is obviously of great importance, for this is now commonly regarded as an accepted axiom in hygiene and beyond controversy. No one acquainted with India would probably deny that the unwholesome water-supplies of that country are great causes of disease there. The fact that the drinking-water of the larger number of Indian stations is obtained from wells which are always liable to contamination, and that in a large number of instances there is chemical proof that the well water is bad and unfit for use, places the fact beyond dispute. As far as the public health of India is concerned there is no direction probably in which more good could be effected than in this. So far then as the provision of pure water goes as a public health measure all are practically agreed; but it is at this point that the divergence of opinion begins, for those who hold that cholera depends entirely and exclusively upon the presence of a specific agent in the water supplied to a population take up a very precise and definite doctrine which they are bound to follow out to a logical conclusion. Of course if cholera depends upon a micro-organism which multiplies in the bodies of its subjects, moisture, food and clothing may also be vehicles for the spread of infection as well as water, but it is generally held that the water supplied to a population offers the greatest facilities for its spread and is consequently regarded as the most common vehicle for its dissemination. That all epidemics and outbreaks of cholera in India and elsewhere are to be accounted for, however, by a contaminated water-supply is believed by many to be far too exclusive a view and opposed to facts and experience, of which Surgeon-Colonel Hamilton cited some examples by way of samples. In the subsequent debate Dr. Simpson of Calcutta, in criticising the paper, made, as might have been expected, some very pertinent remarks. He attributed the conflicting views in regard to cholera which obtained in India and Europe to the different methods of investigation adopted. He rightly laid stress upon a thorough and systematic method of investigation into the causes of an outbreak being undertaken at once and on the spot whilst all the facts are still fresh and can be ascertained and examined. Statistical investigations should follow, and occupy a secondary, and not a primary, place. Dr. Simpson appears to hold that importation, contaminated water and bad drainage are the principal factors in the spread of cholera. It is obviously impossible in the course of an evening to discuss adequately so large, difficult, and complex a subject as that of cholera. Much that might have been said was necessarily omitted, and even statements of fact are susceptible of being differently read and interpreted. It must be borne in mind that the period of introduction and that of the manifestation of the disease need not coincide. The effects of the distribution of the cholera-cause may be immediate or remote, according to whether the conditions prevailing at the time be favourable or otherwise. Let it suffice for the present to say that the views entertained by many Indian observers are not generally accepted in this country and on the Continent. Suspension of judgment is an attitude with which people have generally little sympathy, but we must never-

theless be content in the meantime to await the results of public researches before we can dogmatically insist upon any theory or hypothesis yet put forward as being exclusively the right one.

## CHOLERA IN BELGIUM.

(FROM OUR SPECIAL CORRESPONDENT.)

*The Brussels Bureau d'Hygiène and the Epidemic.—Official Statistics of Cholera in Belgium.—Cholera in the Province of Antwerp.—Cholera in the Brussels Suburbs.—Influence of Season and Locality on Cholera.*

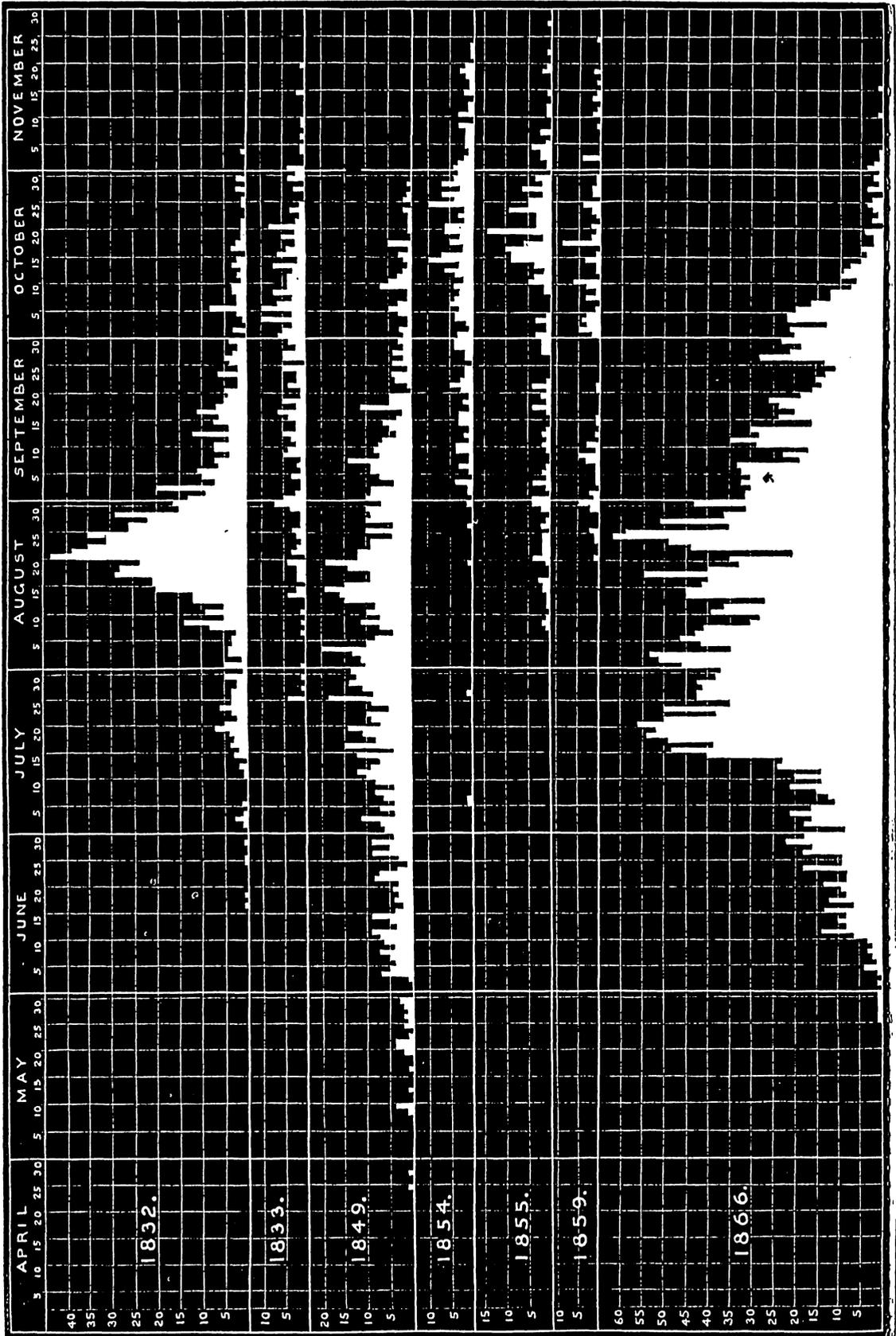
THE efficacy of good sanitation as the most reliable means of preventing cholera is being put to a severe test at Brussels. The capital of Belgium can boast of being one of the best administered towns on the Continent of Europe so far as 'sanitation' is concerned. In THE LANCET of Nov. 16th, 1889, I gave some account of the improvements which had been effected. Taking the vital statistics by periods of five years I showed that the average death-rate from 1868 to 1873 was 29.3 per 1000 per annum and the zymotic death-rate 4.90 per 1000. The Bureau d'Hygiène was created in 1874 and great sanitary works were undertaken, with the result that from 1884 to 1887 the death-rate had fallen to 22.9 per 1000 and the zymotic death-rate to 1.31. During the following five years the improvement has been still further accentuated. This year, for instance, when in August the first cholera scare spread to the town of Brussels, the death-rate was only 20 per 1000, and I described at the time the elaborate precautions that were taken to ward off the danger. The few cases of cholera which occurred in August and September were nearly all, if not all, what might be described as imported cases. The patients were either travellers from Paris or else the crews on board barges that had come from Antwerp &c. Since the creation of the Sanitary Bureau in 1874 from 11,000 to 12,000 houses have been overhauled, altered and improved in respect of drainage &c. As the town of Brussels consists of only about 18,000 houses hopes were entertained that though many cases of cholera might come from the outside, still the epidemic would not gain a footing in the capital. The principal danger was with the floating population that constantly arrived in Brussels by the canals from Antwerp, Boom and other towns where cholera prevailed. For instance, when I was in Brussels last a barge arrived from Antwerp with its skipper, named De Tay, very ill on board. The barge was stopped for medical examination before being permitted to unload in the port of Brussels. The bargeman's wife, unaccustomed to these proceedings, was seized with panic; she imagined that the authorities were going to accuse her of seeking to poison her husband. Thereupon she seized all his clothes—the clothes stained with cholera dejections—and threw them into the canal. When Dr. Huart and Dr. Matthys, the doctors entrusted with the sanitary work for that district, arrived on the spot they found that the bargeman was suffering from cholera. Thereupon the alarm increased. No one could be induced to remove the man from the barge, so that the doctors had to take him in their arms, hoist him up the ladder of the little cabin as best they could, carry him along the quay till they reached their carriage, in which the bargeman was conveyed to the hospital. Then men had to be engaged to recover the clothes from the canal and burn them; but the burning was of little use, for the soiled clothes had been some hours in the water. Notwithstanding this and similar incidents cholera did not seem to spread in Brussels. Yet Brussels has suffered from several cholera epidemics, the last being the most severe. Indeed it was this last epidemic which decided the authorities to spare no pains to improve the sanitary state of the town. For this work Brussels had the good fortune to secure the services of Dr. E. Janssens, who was appointed chief of the Bureau d'Hygiène when this institution was first created and has continued ever since to organise the sanitary services of the town. With a view to meeting the present danger of cholera Dr. Janssens has recapitulated the history of the previous epidemics, and more especially of the great epidemic of 1866. In the Bureau d'Hygiène there is, suspended from the wall, a huge map of Brussels such as it was in 1866, and every house where cholera occurred is painted red. Any inhabitant of Brussels can see this map and thus at a glance realise

what happened in his house and his district during the last epidemic. Many of the worst houses fortunately have been demolished; but careful note has been taken of those that remain and instructions have been given to the police to keep special watch to see that cholera does not break out again in the same houses. These precautions have not been taken in vain, for, though Brussels has so far escaped from what may be called an epidemic, still there have been some cases, especially during the last few weeks, of cholera in that town. In all thirty-one cases of cholera have been recorded at Brussels. Of these, twenty-eight were inhabitants; the other three were strangers to the town. There are three patients still under treatment; twelve recovered and sixteen died. Several of these cases of cholera occurred, as was foreseen, in the same houses where there had been cholera in 1866. It was also found that, in spite of all the efforts of the sanitary authorities, well water was still consumed in some of the houses where these cases have occurred. Consequently it has been necessary to employ coercive measures to close the wells and to substitute the town supply of water.

Unfortunately from a sanitary point of view Brussels is but the centre of a vast agglomeration of separate communes, each enjoying a wide measure of autonomy or local self-government. These surrounding communes are only separated by the width of a street from Brussels. They are not suburbs, but in some portion of their area form the actual continuation of the town. Whatever may be the administrative and political divisions, there is no topographical division. These numerous communes, at least so far as sanitation is concerned, are not so well administered as the town of Brussels. Enjoying more space and, being nearer the purer air of the country, they ought, with equally good sanitation, to be in a safer position than Brussels itself. The reverse is the case; and it is these suburbs, rather than Brussels itself, which have suffered from cholera. To the north-west, at Molenbeek St. Jean, there have been 62 cases of cholera, and the gravity of these cases may be judged by the fact that there were 52 deaths. At Anderlecht, to the south-west, there were 16 deaths from cholera; in the south, at St. Gilles, 2 deaths and in the north-east, at Schaerbeek, 1 death from cholera. No cases of cholera have been reported from the other surrounding communes—namely, Laeken, Etterbeek, St. Jossetenoode and Ixelles. From this it will be seen that there is much more danger of cholera in the suburbs than in the town, and that Brussels has been hedged in and surrounded on all sides by cholera cases. It speaks well for the sanitation of Brussels that so far the town should have escaped with but 31 cases and 16 deaths.

Also it must be borne in mind that travelling is cheap and easy in Belgium and that travellers are continually going backwards and forwards from cholera-infected towns and districts to the capital. Dr. Bus, the Director-General of Hygiene, has just communicated to the Belgium Superior Council of Public Hygiene full statistics of this year's epidemic of cholera in Belgium. From this official report it appears that from the 20th of July to the 12th of October there were noted 1207 cases of cholera and 626 deaths from this cause. From the 13th of October to the 4th of November there were 129 cases and 63 deaths. From the 5th to the 23rd of November there were 105 cases and 51 deaths. This gives a grand total, counting from the 20th of July to the 23rd of November, of 1441 cases and 740 deaths. With regard to the present distribution of the epidemic, it is still from the province of Antwerp that the greatest number of cases are reported. Here, in the town of Boom, there have been during the last fortnight 12 cases and 5 deaths. Cholera has prevailed in this town ever since August 26th. In THE LANCET of Sept. 17th I described at length the wretched sanitary condition of this unhappy locality, which I visited with Dr. Desquin, the President of the Provincial Medical Commission. During the fortnight, from the 5th to the 23rd of November, cholera has been most prevalent at Malines; there were 26 cases and 12 deaths. The other towns in the province of Antwerp were—Niel, 7 cases, 1 death; Isighem, 3 cases, 1 death; Terhaighen, 4 cases, 2 deaths; Bergerhout, a suburb of Antwerp, 2 cases, 1 death; Bumpst, 3 cases, 3 deaths; and Duffet, 2 cases, 1 death. Altogether, for the province of Antwerp since the 5th to the 23rd of November, 59 cases and 26 deaths. During the same fortnight there have been in the Province of Western Flanders, at Bruges, 20 cases and 13 deaths; at Westkirke, 1 case, 1 death; at Oudenbourg, 1 case, 1 death; at Assebroeck, 2 cases. Altogether for this Province, 24 cases and 15 deaths. In the Province of Brabant

DIAGRAM OF SEVEN CHOLERA EPIDEMICS AT BRUSSELS.



1832.	Population 99,414; Mortality from Cholera 864 = 87 per 10,000	1854.	Population 147,690; Mortality from Cholera 281 = 19 per 10,000
1833.	" 100,214; " 268 = 27 "	1855.	" 149,000; " 236 = 16 "
1849.	" 198,189; " 1607 = 78 "	1859.	" 157,260; " 114 = 7 "
	" 1866; Population 168,494; Mortality from Cholera 849 = 212 per 10,000		

at Brussels, 9 cases and 4 deaths; in the Province of Western Flanders, at Steendorpe, 2 cases and 1 death; at Termonde, 5 cases and 2 deaths; and at Lokren, 2 cases; in all, 9 cases and 4 deaths. In the Province of Liège, in the town of Lidje, 3 cases and 2 deaths. There is no cholera in the Provinces of Limbourg, Luxembourg and Namur. Such, then, is the present state of affairs; and though the epidemic is evidently decreasing, still it is spread over such a multitude of districts that it is impossible not to fear a virulent return of the scourge.

At the same time it must be noted that, of the seven epidemics of cholera which have occurred in Brussels, only those of 1832 and 1833 and of 1854 and 1855 followed one upon the other. Dr. Janssens has prepared and just issued a most interesting diagram of these seven epidemics which he has kindly given us permission to reproduce in the columns of THE LANCET. Unfortunately the limits of space render it impossible to do full justice to this work. The original diagram is divided into as many vertical columns as there are days of the year, while every horizontal line measures one death. In the reproduction it has been necessary to leave out the winter months, and the horizontal line is drawn at every five deaths. Nevertheless, single deaths can be readily seen and counted. What it has not been possible to show is the significant fact that, though the influence of season on the epidemics is very emphatic, the note of warning is often sounded altogether out of season. Thus, in 1849, there was one death on the 21st of February, then no further deaths were noted till the 24th and the 27th of April, on which days the second and third deaths took place. Again, in 1854, there was one death on the 7th, 14th, 15th and 17th of January, two deaths on the 21st, one death on the 28th, and one death on the 3rd, the 5th and 10th of February. Then nothing whatsoever happened till the month of July; when, as it will be seen by the accompanying diagram, there were three deaths, and also three deaths in the month of August. During the next three months there was a very small epidemic, which did not quite die out till January of the ensuing year. In this latter month (January, 1855) there were 18 deaths, occurring from the first day of the year to the 18th. Then no more cholera was reported before the following month of August, when a very small epidemic broke out, which reached its maximum intensity in October. These two epidemics of 1854 and 1855, which were preceded by a few cases in the depth of winter, only caused 282 and 236 deaths respectively, and this is equal to 19 and 16 deaths per 10,000 inhabitants. The smallest epidemic of all was that of 1859, when there were but 114 deaths, or 7 deaths in 10,000 inhabitants. The epidemic of 1849, which was preceded by a few warning cases, was more serious, as there were 1007 deaths, and this gives a proportion of 73 deaths per 10,000 inhabitants. The most serious were the first and the last epidemics—that of 1832, with 864 deaths, or 87 per 10,000; and that of 1866, with 3469 or 212 deaths per 10,000 inhabitants. The epidemic of 1833 caused but 268 deaths, or 27 deaths per 10,000 inhabitants. For the three severest epidemics, those of 1832, 1849 and 1866, the month of August was the most fatal; during the four slight epidemics of 1833, 1854, 1855 and 1859, the greatest number of deaths occurred in October; but all the seven epidemics are chiefly fatal within the four months July to October. The effect of the season of the year on the disease is thus most emphatically denoted.

The influence of locality on cholera is set forth with equal emphasis by Dr. Janssens, by statistics in which he gives for every street, court or alley in Brussels the number of deaths from cholera which occurred during the seven epidemics; then, calculating the number of inhabitants in these streets, he adds the proportion per cent. of deaths. Thus, in looking over this list, I find that during the seven epidemics there were 39 deaths from cholera in the Rue de Flandre, and these were only equal to 1 per cent. of the population of that street. In the Rue aux Laines there were 25 deaths, or 1.2 per cent. Then, going to the other extreme, in the Impasse St. Médard, a small court, there were 7 deaths, and this is the highest record, for it is equivalent to 20.8 per cent. of the population, or a little more than 1 death out of every five persons living in the court. The next worst is the Impasse Wellotiens with 11 deaths, or 18.6 per cent.; then follow the Impasse Peeters, 41 deaths, or 17.3 per cent.; the Impasse Tordier with 23 deaths, or 17.2 per cent.; the Impasse du Templier with 2 deaths, or 16.6 per cent.; the Impasse du Charon and Rue

Ophen, each with 15.7 per cent. of deaths to the population, and so on down to the 1 per cent. mentioned above.

There are still unfortunately some black-spots remaining in Brussels. Good sanitation does not altogether obliterate the effects of poverty, and though a town may be greatly improved as a whole, there still remain dark corners where no amount of supervision can prevent overcrowding and dirt. The cholera seems already to have found out one or two of these evil places; but as yet little harm has been done. If it is humanly possible, with the knowledge and the means actually available to prevent the mischief extending, past experience shows that the population of Brussels may rely on the devotion and ability of its sanitary authorities and of their distinguished chief, Dr. Janssens.

## THE MUNICIPAL SLAUGHTER-HOUSE OF BRUSSELS.

(FROM OUR SPECIAL CORRESPONDENT.)

IN Brussels all private slaughter-houses have been rigorously abolished. A large public slaughter-house was built so far back as the year 1836, and there is a law bearing the date of March 30th, 1836, and another that of Aug. 12th, 1848, which regulate the management of this slaughter-house. Public slaughter-houses organised by municipalities, controlled by municipal functionaries and belonging to the municipality have existed in Belgium for half a century, and yet in London, the greatest metropolis in the world, there is no such organisation. The innumerable private slaughter-houses of the British metropolis are not only a dangerous nuisance in themselves, but how is it possible to control the quality of the meat coming from such places? The inspectors cannot be everywhere at one and the same time, and though they have the right of entry and of inspection, it is practically impossible to watch constantly so many slaughter-houses scattered over so vast a tract of ground. In London all private slaughter-houses should be abolished and a few large model public slaughter-houses substituted in different districts. At these large slaughter-houses an efficient staff of veterinary surgeons, bacteriologists and public functionaries could be kept on the spot, and every animal and every carcase could be thoroughly examined by properly trained and qualified veterinary surgeons. Then and then only can we feel certain that no unwholesome meat is sent to the market.

To the municipal slaughter-house at Brussels has been annexed the municipal cattle market. It stands to reason that wherever it is possible the cattle market and the slaughter-house should be close to each other. On the exterior boulevard of Brussels there are handsome iron sheds with glass roofs, where the cattle are brought and exposed for sale. One day it is the market for horned cattle, the next day for sheep, the day after for swine, and so on. If the cattle, as is generally the case, are bought for slaughter, on quitting the market they have only to pass through a gateway to enter the slaughter-house. In the slaughter-house there are vast stables, where the cattle can be kept for a day or two, if necessary, before they are slaughtered. The cattle market is practically in the open air, though under shelter. It is built of iron and glass and paved with granite, all non-absorbing substances, which can be easily washed and purified. The weighing-machine, made of iron, is carefully washed with a disinfectant after each market. The fee paid for bringing cattle to this market is 5*d.* for horned cattle, 2*d.* for calves and pigs, and 1*d.* for sheep. The butcher having made his purchases conveys his animals to the slaughter-house and then pays for its use 2*s.* 5*d.* per head for big cattle, 1*s.* 8*d.* for cows or horses, 10*d.* for a pig or a calf, and 2*d.* for a sheep. The stables in the slaughter-house are lofty buildings with windows on each side. There is nothing special to be said about them—they are neither better nor worse than thousands of other stables. Nor is there much to be said concerning the slaughter-sheds, which are of about the same size and build, though of course the interior fittings are different. The pavement is of large blue granite flagstones, which are slightly chipped so that the surface is roughened and thus the men and beasts are prevented from slipping. At the spot selected for slaughtering there is an especially large stone to which is affixed an iron ring. A rope passing through this ring pulls the bullock's head

downwards, when it is struck with a mallet. It requires about twenty minutes to skin and draw the animal, to sling it up, and push it along the beams, to which it is suspended by the hind legs, and hung out of the way at the other side of the slaughter-shed.

There now comes into play an important regulation. The heads, feet, liver, lights &c., have to be boiled on the spot, and there is an establishment set apart for tripe dealers in the slaughter-house. Thus those portions of the carcass which cannot be easily kept are boiled then and there, and are therefore in a much safer condition to be sent to the various retailers in the town. In another and distinct part of the slaughter-house the entrails are treated—washed, the skins scoured and the tripe set aside. Here also the blood, collected in shallow tin pans, is exposed to the action of the air and the albumen secured for various industrial purposes. This section of the Brussels slaughter-house is certainly very defective. The work is done in what looks like a railway arch—a vaulted structure with very inefficient ventilation. The pavement is uneven and the foul splashing from the washing of the entrails can easily sink into the earth and contaminate the subsoil. The ventilation is altogether inefficient and the stench at times very objectionable. Of course, there are thousands of flies about, and their bites have occasionally, though fortunately not frequently, been known to be very venomous. This portion of the slaughter-house does no credit to the Brussels municipality, and all that can be said is that it was built long before the attainment of the present knowledge of hygiene. It was therefore very satisfactory to turn from this unpleasant spectacle and visit the section devoted to the stabling and the slaughtering of pigs. This is admirably ventilated and beautifully clean. The central portion of the pointed roof overlaps the lower portion, so that the air can pass freely in and out between these two portions of the roof, and thus there is continuous ventilation the whole length of the ceiling.

From time to time various regulations have been issued for the management of this slaughter-house. The latest bears the date of December 10th, 1891, and is signed by the Burgomaster, M. Buls. These rules maintain the necessity of forbidding the entrance into the town of any meat that does not bear the stamp certifying it has been duly examined. All persons who carry meat through the town must also carry with them a written statement giving the name of the owner of the meat and the address of the place whither it is about to be conveyed. All meat must be taken directly to its destination, any loitering on the road is illegal. All hotel keepers, restaurant keepers, or persons who have boarders staying with them, must, if they bring meat into Brussels, observe the same rules with regard to the examination of the meat, the stamp it bears, its rapid and direct transport through the streets; in fact, must submit themselves to the same laws and regulations as govern the butcher's trade.

Nevertheless, and this is a strange and inexplicable inconsistency, a person may introduce meat into the town for his own use without submitting to any control further than that of giving his name and address. Thus a person may go outside Brussels, buy some meat, and so long as he declares that it is for his own private consumption no measures are taken to see that the meat is wholesome. Of course it will be said that a control exists in the outlying district where such meat is purchased. But supposing the meat is not purchased in the regular way,—it may have been obtained from some farmer who has secretly slaughtered an animal because he was doubtful as to its state of health,—such dangerous, unwholesome meat can be introduced into Brussels under the pretext that it is only for private consumption. This private consumption includes a dinner given to friends at which all the friends can be poisoned. But if in such a case the host were to call upon his guests to pay for the dinner he had given them, he would then be considered as a boarding-house keeper, or restaurant keeper, and would be prosecuted if his meat had not been examined and stamped. Thus a citizen of Brussels may feed himself and his friends on bad meat so long as he does it gratuitously. This, I take it, is a gross exaggeration of the respect due to individual liberty. If persons can be punished for attempting to commit suicide, why should they not be punished for eating bad meat, or meat that has not been properly examined?

Two other services attached to the Brussels municipal slaughter-house are of interest. Here are kept under surveillance the calves that have been employed to supply the vaccine lymph. These calves, having served their purpose, are brought for slaughter, but before and after death they are

very carefully examined by the veterinary surgeons. It is only when a favourable report has been received that the lymph taken from the calves is given out for vaccination purposes. In another part of the slaughter-house there is the dépôt for stray dogs. Here they are kept in strong iron cages, and here also is the fatal lethal chamber. It is a simple apparatus. On the asphalt flooring an indentation has been made. This is about three inches deep and two inches wide and forms a square. In the centre is placed the cage containing the dog. By a pulley arrangement an iron box is let down over the cage. It is like a square bell covering over the cage, and fits exactly into the indentation or little trench made in the flooring. The trench is filled with water, so as to prevent the gases escaping, and ordinary coal gas is discharged inside the cage. In this manner the dog soon dies of asphyxia.

Though the abolition of private slaughter-houses and the creation of a municipal slaughter-house offer the best guarantees for the due inspection of meat, it must be confessed that the municipal slaughter-house of Brussels is now in grave difficulties. Formerly it was a source of income to the municipality, now its sheds are to a great extent abandoned, and it is difficult to defray the working expenses. This is due to an unexpected but a most energetic and successful competitor. A private company, having at command a very large capital, has purchased extensive grounds in the commune of Anderlicht. This is not Brussels, but it is just outside Brussels. Here they have built a gigantic cattle market and slaughter-houses, which are much better situated than the Brussels slaughter-house, for they are in the open, almost in the country, and by the side of both a railway line and a canal. The cattle step out of the railway trucks into the cattle market, instead of being driven along the streets. The general conveniences are therefore much greater. But the buildings are not only modern, they have many new and scientific improvements. To begin with, the water-supply is most ample and of good quality. An artesian well has been sunk to a depth of 100 metres. Above the well there is a water tower 35 metres high, and on its summit the water reservoir has a capacity of 150 cubic metres. An engine raises water into this reservoir at the rate of 500 litres per minute, and at present the consumption of water in the slaughter-houses and cattle market is about 150 cubic metres per day. A cheap and practically unlimited water supply should be one of the first considerations that should govern the selecting of a site for a slaughter-house.

Then there must be a prompt and cheap means of disposing of manure and all offensive refuse. This is supplied at Anderlicht by barges on the canal, which pass all along one side of the slaughter-house and cattle market. The manure these barges take away is sold at the market for from 2s. 10 $\frac{1}{2}$ . to 3s. 8 $\frac{1}{2}$ . according to the season of the year. As the stable will hold 900 head of cattle there is naturally a considerable accumulation of manure, and the stabling that now exists is found to be insufficient. It is proposed to spend £40,000 more to extend the buildings. These stables are most carefully built. There are no angles, the mangers are carefully rounded off so that no dirt can accumulate in corners and all can be very easily cleaned. Along the whole length and slightly above the manger is a water pipe, so that it may be instantaneously flushed out. The flooring is of Kilker Dutch brick, which is very hard, and is placed in full cement, so that the flooring becomes absolutely watertight. For the older built stables the more luxurious flag-stone pavement was used, but this is not so good, though dearer, because it is not watertight. The roofs are rounded and ten metres in width. Other roofs are of tin, with inner stycco ceiling, which can be and is washed with the fire hose. There are louvre windows on each side, and at the two ends are ventilators on the Venetian blind system.

The slaughter-house sheds are more elaborately ventilated than the cattle sheds. The doors are in part of wire-work, so that even when shut the air comes through. On the roof there are special oowl ventilators. The windows are face to face on both sides of the sheds, and to supplement these will be found numerous openings on a level with the floor. In the part of the building devoted to the preparation of tripe &c. the apex of the roof is open along its whole length, and this opening cannot be closed. In some of the sheds the Otto Meurer patented flooring has been tried. This is a sort of compressed cement which does not get polished or slippery. It is formed into blocks slightly convex, perhaps a foot broad. On either side is a very small circular drain or gutter which is bridged over by a perforated iron plate. The whole

of the flooring slightly inclines and all liquids are carried off instantly. One bucket of water thrown over these convex blocks will do more effective cleansing than several buckets on an ordinary floor.

Some interesting experiments are being made here in the destruction of bad or diseased meat. To sterilise such carcasses by exposing them to steam only arrests temporarily the decomposition, and carcasses thus treated might contaminate the fields where they are thrown as manure. The chemist at Anderlicht prefers to use sulphuric acid. The gases that arise from the dissolution of the carcass are made to pass through a coke fire, so as to be purified and prevent nuisance. When the carcass is completely dissolved by the acid this liquid, which retains practically all the nitrogenous matter of the animal in the form of ammonia, is thrown on phosphates at about 20 per cent. It is calculated that 500 kilos of dissolved animal carcass and sulphuric acid make with the phosphates 1000 kilos, or one ton of excellent manure, which can be sold for about £2 8s., and should not cost more, all told, than £1 15s. to produce. From the public health point of view it is most important that an advantageous method of dealing with condemned meat or carcasses should be discovered. There will then be less temptation to smuggle away such condemned meat and convert it into sausages &c.

Altogether there is no denying the great superiority in position, size, buildings and appliances of the slaughter-houses and cattle market built by a private company at Anderlicht. These are much superior to the municipal slaughter-house at Brussels. The result is that most of the trade has gone to Anderlicht, which is quite near enough to Brussels to supply all the wants of the capital. Indeed, Anderlicht is a suburb of Brussels which happens to be under a different municipal authority. The company hope to increase the number of inhabitants at Anderlicht because of the business that the market will bring, then they will be able to sell at a profit the land they bought before building the market and slaughter-houses. It is, in fact, a gigantic speculation which has altogether overthrown the calculations of the Brussels municipality, and should serve as a warning to reformers in England. Municipalities must be careful when they undertake to build slaughter-houses to see that under some rival and neighbouring local authority other slaughter-houses are not brought into existence which shall disastrously compete with them. The experience of the Brussels municipality is perhaps unique, and it is impossible not to sympathise with that body. They gave all Europe an excellent example so far back as the year 1836 when they built their municipal slaughter-house. Of course Brussels was but a small town then, and the site selected was as much outside Brussels then as Anderlicht is to-day. The newer portions of the Brussels slaughter-house are better built; but, of course, so old an institution cannot be expected to have all the modern improvements, and it compares unfavourably with the Anderlicht slaughter-house. And now, through want of a common understanding between the local authorities of Anderlicht and of Brussels, a war is waging in respect to slaughter-houses which has resulted in a very serious loss to the Brussels taxpayers and in no gain in the reduction of local taxation at Anderlicht.

## A WELSH MEDICAL SCHOOL.

THE University College of South Wales and Monmouthshire at Cardiff is a flourishing and progressive institution, and having done excellent work in the past is now desirous of extending its influence, and in this wish is supported by all the ardour of a strong local patriotism. So far as university education in medicine is concerned the University of South Wales has hitherto taught only the preliminary arts and sciences. It has taken as its ideal in this teaching the standards of the University of London, and the successes of its pupils at that University have been well above the average. The students have evidently been thoroughly and efficiently instructed in the subjects and syllabuses that have been put forward by this University as a guide for its examinations, and university education on these lines has been most systematically and vigorously carried on to the great advantage of its numerous students from Cardiff and from the adjacent area of South Wales. For many years past the University authorities have been anxious to develop

a medical side, and donations to about £5000 have been promised to its support. The finance committee presented a detailed report to the Council on the 7th inst., and it was not only determined to institute the proposed School of Medicine, but to advertise at once for professors of anatomy and physiology, each at a stipend of £350 per annum. We presume that some large share of the students' fees is to be added to such a remuneration. The medical school is evidently intended to fulfil two very different objects. It is to carry out the curriculum of the Intermediate M.B. Examination of the University of London, and this doubtless will be well done. There are many reasons why the scientific portion of a medical student's education should be taught in the country, provided that good teachers, plenty of material and efficient apparatus can be found. The second part of the scheme does not so well satisfy us. The earlier subjects of the curriculum for the non-university student can be learnt in the dissecting-room and in the laboratory, side by side with his fellow who is preparing for the University, but the attempt to add clinical work and hospital practice, if they are to be at all thorough, is a much more doubtful procedure, and in laying down the opinion that students should attend a hospital from the first, the Council is not in accord with those who have drawn up the new regulations of the examining boards or with most university authorities. If whilst he is spending two or three years at Cardiff the student is only to learn bandaging and dressing and the rudiments of surgery and medicine we have nothing to urge against it, but if anything more ambitious in the way of clinical instruction and hospital work be attempted it will end in failure. Science may be well taught in University Colleges in many provincial towns; efficient clinical teaching and practical work with sufficient material for the future practitioner's thorough training can only be obtained in the largest teaching-centres and in our most populous cities.

## PROPRIETARY MEDICINES.

ON Wednesday morning last, Mr. Piper, grocer, of 20, Warwick-road, Pithlico, and others represented by counsel, appeared before his Honour Judge Bateman, at the instance of the Pharmaceutical Society, for an alleged breach of the Pharmacy Act, 1893. The action was brought to recover the penalty for selling a proprietary medicine, known as Dr. Collis Browne's chlorodyne, said to contain a preparation of opium, a poison scheduled in the Act.

The plaintiffs were represented by Mr. Grey, and Mr. Bonsor appeared for the defendants.

Mr. Bonsor said that he admitted the sale and purchase of the preparation, but not that it was a poison within the meaning of the Act. It was true that it had been decided that they were subject to a penalty for not labelling the preparation, but the preparations which his clients sold were not poisons within the meaning of the Act.

His Honour: Is it not curious that these questions should again be raised before me after it has been decided by a police magistrate, who is a judge of first instance like myself?

Mr. Bonsor: The patent medicine question has never been gone into before a magistrate.

His Honour: Surely it has and discussion after discussion has ensued. Mr. Bonsor: But no evidence has been called on behalf of the defendants to show what a patent medicine is or is not.

His Honour: Everybody knows what a patent medicine is.

Mr. Bonsor: I think not.

His Honour: Surely it is a medicine produced by letters patent.

Evidence was given proving the purchase of the bottle and that it contained two grains of morphine to the ounce.

Mr. Bonsor said that the case was being defended by the Grocers' and Provision Dealers' Association, not in any captious spirit or to avoid payment of a paltry penalty, but because they considered it a matter of considerable importance. It was a matter of some surprise that it was only after the expiration of twenty-four years that the Pharmaceutical Society had thought proper to do what was now represented to be a public duty. It was not a question of the safety of the public, but it really meant that if the Society were right in their contention that no one but a chemist or druggist in this country could sell a preparation containing as an ingredient one of the poisons mentioned in the Act, they would secure to themselves a monopoly of the sale of a very large number of valuable medicines and deprive the public and a very large portion of the poorer classes living in outlying districts, of the means of obtaining simple remedies in cases of illness. There was hardly a cough drop, or antibilious pill, or a tonic, or a medicine of common-day use that had not some preparation in it containing poison. If their contention was good, these things, even cough drops, would have to be labelled with the word poison and sold only by chemists and druggists. What the plaintiffs had to show was that this preparation was in itself a poison. Proprietary medicines had always been regarded as patent medicines in the trade, and the exemption in the Act referring to medicines under letters patent included the proprietary or so-called patent medicines.

In summing up his Honour said that the question was whether chlorodyne was a poison or not. The defence was that although it contained some of three different poisons, it was mixed with other preparations. The label itself settled the question. The question was: Did the poison cease to be a poison because it was mixed with something else? The mischief intended to be prevented by the Act would

be allowed if it were once admitted that they had only to mix a poison with water or something else, and it ceased to be a poison. It seemed to him almost too clear for argument that a poison, however mixed up with other things, did not cease to be a poison. He was told that this was a patent medicine, and came within the exemption clause. He could quite understand that the title had been kept up as a handy and convenient one for the vendors in this business; but he found that there was something recognised by the law as a patent medicine and other preparations that required a stamp, while to include anything else of a similar character there were the general words in the schedule. Patent medicines were protected and exempted because everybody could know what they contained; but nostrums and proprietary medicines might contain the most deadly poisons and be of the utmost injury to the public without anyone but the owner being aware of it. He could not hold that these were exempted, and thought the defendants were liable to the penalty.

Application for leave to appeal was made and granted, the other cases standing over until after the appeal has been heard.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5923 births and 3838 deaths were registered during the week ending Dec. 10th. The annual rate of mortality in these towns, which had been 18·9 and 18·8 per 1000 in the preceding two weeks, rose again last week to 19·6. In London the rate was 17·7 per 1000, while it averaged 21·0 in the thirty-two provincial towns. The lowest rates in these towns were 11·2 in Halifax, 13·0 in Leicester, 14·7 in Gateshead and 15·1 in Huddersfield; the highest rates were 26·1 in Manchester, 28·3 in Bolton, 29·5 in Oldham and 31·6 in Salford. The 3838 deaths included 444 which were referred to the principal zymotic diseases, against 424 and 429 in the preceding two weeks; of these, 164 resulted from measles, 77 from diphtheria, 60 from whooping-cough, 56 from scarlet fever, 41 from diarrhoea, 41 from "fever" (principally enteric), and 5 from small-pox. No fatal case of any of these diseases occurred last week either in Halifax or in Wolverhampton; in the other towns they caused the lowest death-rates in Huddersfield, Bristol and Newcastle-upon-Tyne, and the highest rates in Hull, Oldham, Brighton and Salford. The greatest mortality from measles occurred in Bolton, Croydon, Oldham, Hull, Brighton and Salford; from scarlet fever in Salford, Swansea, Plymouth and Preston; from whooping-cough in Norwich, Nottingham, Birkenhead, Gateshead and Birmingham; from "fever" in Preston, Derby and Swansea; and from diarrhoea in Burnley. The 77 deaths from diphtheria included 58 in London, 3 in Sheffield, 2 in West Ham and 2 in Bradford. Three fatal cases of small-pox were registered in Oldham, one in Sheffield and one in Birkenhead, but not one in London or in any other of the thirty-three large towns; 31 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and one in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3772, against 4045, 3945 and 3882 on the preceding three Saturdays; 273 new cases were admitted during the week, against 303 and 302 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 353 and 343 in the preceding two weeks, further fell to 339 last week, and were 105 below the corrected average. The causes of 78, or 2·3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Bristol, Oldham, Newcastle-upon-Tyne, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Huddersfield and Sheffield.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 20·6 to 24·2 per 1000 in the preceding four weeks, further rose to 24·5 during the week ending Dec. 10th, and exceeded by 5·6 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·2 in Greenock and 17·2 in Perth to 25·4 in Glasgow and 41·6 in Leith. The 683 deaths in these towns included 102 which were referred to measles, 13 to scarlet fever, 13 to diphtheria, 12 to whooping-cough, 10 to diarrhoea, 6 to "fever," and not one to small-pox. In all, 156

deaths resulted from these principal zymotic diseases, against 162 and 158 in the preceding two weeks. These 156 deaths were equal to an annual rate of 5·6 per 1000, which exceeded by 3·3 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased from 61 to 112 in the preceding four weeks, declined to 102 last week, of which 31 occurred in Edinburgh, 28 in Leith and 26 in Glasgow. The deaths referred to scarlet fever, which had been 28 and 16 in the preceding two weeks, further declined to 13 last week, and included 11 in Glasgow. The 13 fatal cases of diphtheria considerably exceeded the number recorded in any recent week; 8 occurred in Glasgow and 3 in Edinburgh. The 12 deaths from whooping-cough corresponded with the number in the preceding week, and included 8 in Glasgow, where 3 of the 6 fatal cases of "fever" were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 141 and 134 in the preceding two weeks, rose again to 151 last week, but were little more than half the number in the corresponding week of last year, when influenza was very fatally prevalent. The causes of 68, or 10 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·8 and 23·3 per 1000 in the preceding two weeks, further rose to 24·0 during the week ending Dec. 10th. During the past ten weeks of the current quarter the death-rate in the city averaged 23·2 per 1000, against 17·8 in London and 22·9 in Edinburgh. The 161 deaths in Dublin during the week under notice exceeded by 5 the number in the preceding week, and included 3 which were referred to diarrhoea, 2 to "fever," one to whooping-cough, one to scarlet fever and not one either to small-pox, measles or diphtheria. In all, 7 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 1·9 in London and 7·5 in Edinburgh. The fatal cases of diarrhoea, which had been 2 in each of the preceding two weeks, were 3 last week. The deaths referred to different forms of "fever," which had increased from 2 to 6 in the preceding three weeks, declined again to 2 last week. The 161 deaths registered in Dublin last week included 26 of infants under one year of age and 44 of persons aged upwards of sixty years; the deaths of infants showed a marked decline, while those of elderly persons showed an increase upon recent weekly numbers. Six inquest cases and 6 deaths from violence were registered; and 60, or more than a third, of the deaths occurred in public institutions. The causes of 17, or nearly 11 per cent., of the deaths in the city last week were not certified.

### VITAL STATISTICS OF LONDON DURING NOVEMBER, 1892.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during the month of November in each of the forty-one sanitary districts of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases in the accompanying table was equal to 14·6 per 1000 of the population, estimated at 4,263,294 persons in the middle of this year. Owing to the epidemic prevalence of scarlet fever and of diphtheria in London this rate had steadily increased during the preceding nine months from 5·1 to 17·9 per 1000. Among the various sanitary districts the rates last month were considerably below the average in St. George Hanover-square, Westminster, St. James Westminster, Hampstead, Strand, City of London, and Woolwich; while they showed the largest excess in Hackney, Holborn, Bethnal Green, Whitechapel, Limehouse, Mile-end Old Town, and St. Olave Southwark. The prevalence of small-pox in London showed a further increase during November, 32 cases being notified during the month, against 3 and 10 in the preceding two months; of these 32 cases, 19 belonged to Islington, 5 to Hackney, 3 to Lambeth, and 2 to St. Pancras sanitary districts. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained 20 small-pox patients at the end of November, against 8 and 6 at the end of the preceding two months; the weekly admissions averaged 5, against 2 and 1 in the previous two months. The prevalence of scarlet fever in London during November showed a slight decline from that recorded in recent months;

MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON.—NOVEMBER, 1892.  
(Specially compiled for THE LANCET.)

Sanitary areas.	Estimated population in the middle of 1892.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.														
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Mesles.	Scarlet fever.	Diphtheria.	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhoea.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON...	4,263,294	32	3552	905	1	359	15	45	1077	3	5989	14'6	2	154	139	210	55	1	55	2	78	716	1'8	7309	17'9	138
<i>West Districts.</i>																										
Paddington	119,199		74	34		14		23			145	12'7														84
Kensington	168,721		97	17		12		16			107	15'1														196
Hammersmith	100,642		59	10		12		15			145	14'5														114
Fulham	98,185		117	7		6		25			121	18'0														142
Chelsea	97,300		68	21		7		6			69	9'4														141
St. George Hanover-square	76,948		39	16		1		10			51	9'6														158
Westminster	58,208		35	5		1		1			14	6'0														135
St. James Westminster	24,363		8	4		1		1			14	6'0														96
<i>North Districts.</i>																										
Marlybone	140,799		63	83		9		38			145	10'7														67
Hamstead	71,652		30	15		6		6			85	9'0														81
St. Pancras	224,207		161	62		11		49			288	12'8														170
Whitechapel	224,451		277	76		23		87			489	18'0														140
Hackney	235,370		274	60		37		64			443	19'6														140
<i>Central Districts.</i>																										
St. Giles	89,071		21	2		5		24			52	13'9														78
St. Martin-in-the-Fields	14,204		13	4		—		2			19	14'0														160
Strand	24,256		9	2		4		1			16	6'9														210
Cothorn	82,012		89	6		5		13			64	20'3														232
St. George-in-the-East	45,313		43	24		9		6			101	16'1														128
Limehouse	41,850		27	7		4		11			60	12'6														110
St. Luke	41,850		27	7		4		11			60	12'6														110
City of London	36,992		22	5		4		6			37	10'5														140
<i>East Districts.</i>																										
Shoreditch	123,083		110	19		12		29			171	14'4														154
Bethnal Green	129,846		151	73		11		75			314	25'3														166
Whitechapel	74,853		73	21		7		38			141	19'7														138
St. George-in-the-East	45,313		45	14		8		16			69	15'9														136
Limehouse	57,480		63	6		9		7			95	17'2														186
Mile End Old Town	107,811		133	31		16		39			221	21'4														123
Poplar	167,857		167	37		23		56			280	17'4														143
<i>South Districts.</i>																										
St. Saviour Southwark	26,973		21	3		2		4			30	11'6														233
St. George Southwark	59,846		39	16		6		14			74	12'9														142
Newington	116,649		104	10		3		10			147	13'1														226
St. Olave Southwark	12,787		15	1		1		6			21	17'1														212
Bermondsey	84,440		80	11		8		12			122	15'1														154
Rotherhithe	39,459		18	11		4		12			45	11'9														175
Lambeth	277,917		256	66		18		4			419	15'7														117
Battersea	166,313		168	34		2		42			248	16'5														165
Wandsworth	164,003		191	21		5		43			285	16'9														130
Camberwell	241,465		192	48		1		5			293	12'7														144
Wandsworth	169,724		124	21		2		49			209	12'8														183
Greenwich (excluding Penze)	74,673		39	14		1		12			80	11'2														92
Woolwich	41,376		28	1		—		5			33	8'3														127
Plumstead	61,704		73	31		6		15			125	14'2														108

\* Including 69 cases of membranous typhoid.

this disease was proportionally most prevalent in Fulham, Hackney, Holborn, Bethnal Green, Limehouse, Mile-end Old Town, St. Olave Southwark, Battersea, and Wandsworth sanitary areas. The Metropolitan Asylum Hospitals contained 3754 scarlet fever patients at the end of November, against numbers increasing from 1142 to 3843 at the end of the preceding nine months; the weekly admissions averaged 363, against 355 and 429 in the preceding two months. Diphtheria also showed decreased prevalence during the month under notice; this disease was proportionally most prevalent in St. Pancras, Clerkenwell, Bethnal Green, Whitechapel, St. George-in-the-East, Mile-end Old Town, Rotherhithe, and Plumstead sanitary areas. There were 255 cases of diphtheria under treatment in the Metropolitan Asylum Hospitals at the end of November, against 318 and 312 at the end of the preceding two months; the weekly admissions averaged 48, against 55, 54, and 57 in the preceding three months. Enteric fever was proportionally most prevalent during November in Hackney, Holborn, Limehouse, Mile-end Old Town, and Lewisham sanitary areas. The Metropolitan Asylum Hospitals contained 113 enteric fever patients at the end of November, against numbers increasing from 47 to 124 at the end of the preceding six months; the weekly admissions averaged 15, against 14, 20, and 15 in the preceding three months. Erysipelas showed the highest proportional prevalence during the month under notice in Marylebone, Islington, St. Giles, Holborn, Clerkenwell, Bethnal Green, Mile-end Old Town, and Poplar sanitary areas. Eleven cases of puerperal fever were notified during November in Islington, 5 in Camberwell, and 4 in Lambeth sanitary districts.

The mortality statistics in the accompanying table relate to the deaths of persons actually belonging to the various metropolitan sanitary districts, the deaths occurring in the institutions of London having been distributed among the various sanitary districts in which the patients had previously resided. The distribution of these deaths, and especially of those resulting from zymotic diseases, affords the most trustworthy data that can be secured upon which to calculate reliable rates of mortality. During the five weeks ending on Saturday, Dec. 3rd, the deaths of 7309 persons belonging to London were registered, equal to an annual rate of 17.9 per 1000, against 16.9, 15.7, and 17.1 in the preceding three months. The lowest death-rates during November in the various sanitary districts were 9.6 in Hampstead, 12.7 in Lewisham (excluding Penge), 13.3 in St. James Westminster and in Wandsworth, 14.1 in Paddington, and 14.8 in Kensington; in the other sanitary districts the rates ranged upwards to 21.5 in the Strand, 22.8 in St. Olave Southwark, 23.8 in Limehouse, 24.1 in Whitechapel and in St. George-in-the-East, 24.9 in Bethnal-green, 25.9 in St. Saviour Southwark, and 27.6 in Holborn. During the five weeks of November 716 deaths were referred to the principal zymotic diseases in London; of these, 210 resulted from diphtheria, 159 from scarlet fever, 154 from measles, 78 from diarrhoea, 58 from different forms of "fever" (including 55 from enteric fever, 1 from typhus, and 2 from ill-defined forms of continued fever), 55 from whooping-cough, and 2 from small-pox. These 716 deaths were equal to an annual rate of 1.8 per 1000, against rates declining from 3.9 to 1.9 in the preceding four months. Among the various sanitary districts the lowest zymotic death-rates were recorded in St. George Hanover-square, Westminster, St. James Westminster, Hampstead, St. Giles, and St. Olave Southwark; and the highest rates in St. Martin-in-the-Fields, Clerkenwell, Bethnal Green, Whitechapel, St. George-in-the-East, Rotherhithe, and Greenwich. The 2 fatal cases of small-pox were 16 below the corrected average number in the corresponding month of the preceding ten years; both these cases belonged to Islington. The 154 deaths referred to measles were as many as 121 below the average; among the various sanitary districts this disease showed the highest proportional fatality in Bethnal Green, St. George-in-the-East, St. George Southwark, Greenwich, and Lewisham. The 159 fatal cases of scarlet fever were 11 below the corrected average, notwithstanding its general prevalence; this disease was proportionally most fatal in Fulham, Bethnal Green, Whitechapel, Mile-end Old Town, and Woolwich. The 210 deaths referred to diphtheria exceeded the corrected average by 75; this disease showed the highest proportional fatality in St. Pancras, St. Martin-in-the-Fields, Bethnal Green, St. George-in-the-East, Lambeth, Camberwell, and Plumstead. The 55 fatal cases of whooping-cough were little more than a third of the corrected average; this disease was somewhat fatally prevalent in Clerkenwell. The 58 deaths referred to different forms of "fever" were

just half the corrected average; there was no marked excess of fever mortality in any of the sanitary districts during the month under notice. The 79 fatal cases of diarrhoea were 19 below the corrected average. In conclusion, it may be stated that the mortality in London during November from these principal zymotic diseases in the aggregate was as much as 26 per cent. below the average.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 138 per 1000, and was slightly below the average; the lowest rates of infant mortality were recorded in Paddington, St. James Westminster, Marylebone, Hampstead, St. Giles, and Lewisham; the highest rates in the Strand, Holborn, Limehouse, St. Saviour Southwark, St. Olave Southwark, Rotherhithe, and Greenwich.

## THE SERVICES.

**SURGEON-COLONEL WADE** has been appointed to the Administrative Charge of the Aldershot Division. The death of Brigade-Surgeon J. Ferguson, retired pay, lately employed at Fleetwood, has been confirmed.

### ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Francis Johnson, M.B., F.R.C.S.I., retires on retired pay.

### INDIA AND THE INDIAN MEDICAL SERVICE.

The following appointments have been made:—5th Bombay Cavalry (Sind Horse): Surgeon-Captain J. B. Jameson to Officiate in Medical Charge, vice Surgeon-Captain J. G. Hojel, transferred temporarily to the Civil Department; 7th Bombay Lancers (Beluch Horse): Surgeon-Captain F. E. Murray to Officiate in Medical Charge, vice Surgeon-Captain J. L. T. Jones. Surgeon-Major A. Duncan, M.D., Corps of Guides (M.C.), has been granted leave for six months, and Surgeon-Captain C. T. Hudson, I.M.S., leave to proceed out of India for one year. Pension service, fourth year, commenced June 25th, 1892. Assistant-Surgeon P. P. Moolan and Surgeon-Captain W. E. Jennings have respectively delivered over and received charge of the Ratnagiri Gaol. Surgeon-Captain U. N. Mukerji, I.M.S., has passed the higher standard examination in Persian. Dr. D. McDonald and Mr. Nanabhai Ardesar Moos have respectively delivered over and received charge of the office of Lecturer in Experimental Physics at the Elphinstone College.

### NAVAL MEDICAL SERVICE.

The following appointments have been made:—Fleet Surgeon Alfred T. Corrie to the *Malabar*; Staff Surgeon Richard E. Biddulph to the *Canada*. Surgeons: Herbert W. G. Done to the *President*, additional, and Charles W. Sharples to the *Vivid*; George M'Gregor to the *Canada* and Charles G. Matthews to the *Vernon*.

### VOLUNTEER CORPS.

*Rifle*: 4th Volunteer Battalion, the Royal Scots (Lothian Regiment): Surgeon-Major J. McGibbon, M.D., to be Surgeon-Lieutenant-Colonel, to resign his commission, also to be permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement (dated Dec. 10th, 1892).

### THE VOLUNTEER OFFICERS' DECORATION.

In addition to the lists already published, this decoration has been conferred upon the following officers.—*North-Western District*: 1st Lancashire, Surgeon-Major Nicholas K. Marsh, retired; 3rd Lancashire, Surgeon-Lieutenant-Colonel Arthur A. Corte; 6th Lancashire, Surgeon-Lieutenant-Colonel Thomas Cayzer; 2nd Volunteer Battalion (the Royal Warwickshire Regiment), Brigade-Surgeon-Lieutenant-Colonel Clement Dukes, M.D.; 4th Volunteer Battalion, the Cheshire Regiment, Surgeon and Honorary Surgeon-Major Robert Hopwood, retired; 2nd Volunteer Battalion, the East Lancashire Regiment, Surgeon-Lieutenant-Colonel Luke Fisher, retired; 1st (Cumberland) Volunteer Battalion, the Border Regiment, Brigade-Surgeon-Lieutenant-Colonel Cornelius Scamp Hall; 1st Volunteer Battalion, the South Staffordshire Regiment, Surgeon-Lieutenant William F. M. Jackson; 3rd Volunteer Battalion, the South Staffordshire Regiment, Surgeon and Honorary Surgeon-Major J. Fraser, M.D., retired; 1st Volunteer Battalion, the Prince of Wales's Volunteers (South Lancashire Regiment), Surgeon-Captain (Honorary Surgeon-Major) Edward Lister; 2nd Volunteer

Battalion, the Loyal North Lancashire Regiment, Surgeon-Lieutenant-Colonel F. B. Mallett, M.D.; Surgeon and Honorary Surgeon-Major Robert Settle, M.D., retired; 1st Herefordshire, Brigade-Surgeon-Lieutenant-Colonel Peter B. Giles; 1st Volunteer Battalion, the Manchester Regiment, Surgeon and Honorary Surgeon-Major Edwin H. Roe, retired; 5th (Ardwick) Volunteer Battalion, the Manchester Regiment, Brigade-Surgeon-Lieutenant-Colonel John Armstrong, retired; 1st Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment), Surgeon-Major Wm. H. Folker, retired; Surgeon-Major William Dawes, retired; 2nd Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment), Brigade-Surgeon-Lieutenant-Colonel Herbert M. Morgan; Surgeon-Major Walter George Lowe, M.D.

#### MANUAL FOR THE VOLUNTEER MEDICAL SERVICE.

It may interest many of our readers to know that Surgeon-Captain Reginald Sleman, M.A., of the Army Medical Reserve and 20th Middlesex ("Artists") R.V., and Lecturer and Instructor Volunteer Ambulance School of Instruction, has brought out a small manual for the Volunteer Medical Service, to which are added chapters on the Army Medical Reserve and the Yeomanry Cavalry. It embodies a large amount of information within a small compass. The constitution of the Volunteer force, the formation of brigades and bearer companies, the appointment, rank and promotion of medical officers, the Army Medical Reserve, Yeomanry, Medical and Volunteer Medical Staff Corps, schools of instruction, duties of medical officers, camp hospitals and several other subjects are taken up and discussed. The information has not hitherto, so far as we know, been made ready and available in a small manual, and it is consequently likely to prove a useful aid to those interested in the medical services concerned.

#### NEW WATERWORKS AT BENARES.

Those of our military medical readers who know the big native city of Benares will be glad to hear of the opening of the waterworks there. There is probably no country in which the provision of wholesome water is more needed as a measure of public health than in India. The Indian Government cannot expend work and money in any better direction than in the improvement of the water-supplies of that country. We learn from the last *Weekly Pioneer* that the waterworks at Benares is a large undertaking. The total length of the pipe system is upwards of fifty miles and it is provided with 323 standposts in the public streets. The works are designed to afford a supply of twenty gallons per head of population in the sewered area and fifteen gallons in the unsewered area of the city. The system of wells generally adopted in India is a dangerous one. The natives are careless as regards their drinking water, but with facilities for obtaining a good wholesome supply of water in the public streets they will not be slow to avail themselves of it.

#### FEVER IN THE NORTH-WESTERN PROVINCES, INDIA.

The North-Western Provinces of Bengal have been unusually unhealthy this season. There is always a good deal of sickness in August and September, chiefly from malarial fever. We gather from the Indian papers that this year the death-rate in the North-Western Provinces for the month of September last has been nearly 130 per 1000.

#### PRACTICAL SANITARY PROGRESS IN INDIA.

Sir Auckland Colvin is to be congratulated on his successful efforts in the cause of sanitation and public health in India. He has recently had the satisfaction of seeing the Village Sanitation Bill and two other measures of a similar nature passed into law by a meeting of the local council at Allahabad.

#### LONG-DISTANCE MARCHES.

A military correspondent suggests that, as all competitions are liable to abuse, it would be advisable and prudent for a medical officer to inspect the men of each section during the march at stated intervals.

**ALEXANDRA PALACE.**—Great exertions are being made by the inhabitants of the northern suburbs of London especially to wrest the palace and its beautiful and spacious grounds from the grasp of the builder. A meeting was held a few days ago with this object and a proposition was moved and carried unanimously urging the County Councils of Middlesex and London to take such steps as they may think best to secure for the public the use and benefit of this desirable place of recreation and enjoyment.

## Correspondence.

"Audi alteram partem."

### "ABDOMINAL SECTION IN CERTAIN CASES OF PELVIC PERITONITIS."

To the Editors of THE LANCET.

SIRS,—I quite appreciate Dr. Elder's objection to the miscellaneous character of the cases reported in my paper at the Obstetrical Society. There can be no doubt it would have facilitated discussion if the series had been limited to cases of uncomplicated inflammatory disease of the uterine appendages. It would also have deprived the speakers who opposed the views for which I was contending of some of their most telling points. But when one has to decide in each individual case whether it shall or shall not be included in the list one realises the difficulty of classification and how purely arbitrary any classification of these cases must necessarily be. Take, for example, a case I operated upon the day before yesterday. There was a history of recurrent pelvic inflammation and there had been pus in the urine for five months. A mass was felt filling the right side of the pelvis and pushing the uterus against its left lateral wall—precisely the condition, in fact, that was and still is, by those unfamiliar with the teachings of modern pelvic surgery, supposed to be characteristic of cellulitis in the broad ligament. The diagnosis a previous experience of similar cases led me to make was salpingitis, with suppurating ovarian cyst, the latter communicating with the bladder. This diagnosis was confirmed in every particular. There was a suppurating cyst of the right ovary, three inches in diameter, communicating by a small fistulous opening with the bladder, and embracing the cyst, was an inflamed and adherent Fallopian tube. Dr. John Williams, if I understood him correctly, would have excluded that case from such a list as I prepared, on the ground of its being a new growth. But it was the *suppurative inflammation* of that new growth (due probably to infection from the adjacent tube) that necessitated the operation and was the occasion of its being performed. Ought such a case to be excluded or not? Rightly or wrongly, I came to the conclusion, in writing my paper, that it would be best, notwithstanding the obvious inconveniences of such an arrangement, to give the entire series of cases and classify them afterwards. Then, again, with regard to the mortality, if I had excluded tubercle and new growths and especially if I had excluded cases operated upon before I had acquired the requisite boldness and dexterity my mortality would have been exceedingly small. But by so doing I should have sacrificed honesty and should still have failed to disarm opposition. It would then have been open to objectors to point out the misleading character and scientific uselessness of long lists of successful operations and the ease with which statistics can by careful manipulation be made to prove anything.

I thank Dr. Herman for his excellent paper on the subject and Drs. Galabin and Elder for their interesting and valuable letters. The evidence brought forward by Dr. Galabin as to the mortality in cases not operated upon forms a contribution to the discussion of the very highest importance.

I am, Sirs, yours faithfully,

Brook-street, W., Dec. 10th, 1892. CHAS. J. CULLINGWORTH.

P.S.—The case above alluded to affords a further illustration of the truth of one of the propositions laid down in my paper—viz., "That it is safer to attack cases of pelvic suppuration from above than from below." The cyst contained two separate loculi, each of which was full of pus. Had an opening been made from below, either by means of the knife, trocar or aspirating needle, the result would have been that even if one abscess had been emptied the other would have been left untouched. Previously to the patient's admission an attempt had, indeed, been made to puncture the swelling from below, but fortunately the thickness of the cyst wall, by causing the instrument to bend up, prevented the intention from being carried out.

## ACCIDENT UNDER CHLOROFORM; RECOVERY.

*To the Editors of THE LANCET.*

SIRS.—A few brief notes on a case that might be called "apparent death from insufficient chloroform" may be useful. The patient, a strong man of about thirty, had a very large sarcoma of the testicle. Chloroform was at once given, according to our usual practice with new patients from a distance, although he had had a full meal. Chloroform was given slowly by a native assistant. The patient struggled when the first incisions were made and almost immediately began to retch and brought up a little rice. The stomach probably remained full. Up to this time he had taken about five drachms of chloroform, but after vomiting no more was put on the cap by the assistant. I was assisting Dr. Ernest Neve with the operation. A clamp was put on the cord and the tumour cut away. I had previously noticed great dilatation of the pupils. The patient now became rigid, almost in a state of opisthotonos; the face was blanched, no pulse or cardiac impulse could be felt and the breathing stopped. He was lifted at once off the table and put on the floor with legs raised. Artificial respiration was begun and was assisted by irregular gasping inspirations. The wound had ceased bleeding and the heart's action appeared to have stopped; several minutes passed. The clamp on the cord was loosened; dilute ammonia was injected into the arm and half a pint of hot water into the rectum. A slight colour now returned, though the pupils continued widely dilated and a feeble pulse could be felt. The operation was rapidly proceeded with and the wound stitched; sensibility began to return. Suddenly smart bleeding began, owing to retraction of the artery above the ligature on the cord. The wound had to be reopened. I then took charge of the chloroform myself and rapidly administered two drachms; the breathing became quiet and regular, the artery was found and ligatured, and the operation completed without any difficulty. I would call attention to a few points: (1) Although a good deal of chloroform was administered, it was obviously insufficient; (2) clamping the cord in a semi-anæsthetised patient who had just been vomiting produced shock which in the higher nervous organisation of a European might have proved fatal; (3) the patient bore the rapid administration of another full dose of chloroform when properly administered perfectly well and showed no signs of shock when the cord was religatured.

For over twenty-five years the extensive surgical work of this medical mission has been carried on without a single death under chloroform, which is the only anæsthetic employed. To what do we owe our immunity? Not to climate, for the temperature of the operating room from October to March is never above 50° and often below 40°; partly perhaps to the low nervous organisation of the natives and their perfect confidence in taking chloroform; chiefly, it would appear, to the sound principles on which it is administered, according to the rules laid down by Syme, although the actual administrators are always unqualified native assistants.

I am, Sirs, yours faithfully,  
ARTHUR NEVE, F.R.C.S. Edin.

Kashmir Mission Hospital, November, 1892.

## "THE TREATMENT OF SEVERE CASES OF CLUB-FOOT."

*To the Editors of THE LANCET.*

SIRS.—The relative values of (1) Dr. Phelps' method of treatment, (2) osteotomy and (3) the older plan (pressure by fixed bandages, splints and apparatus, coupled with tenotomy) can hardly be rightly estimated unless we consider a few points which have hardly been dealt with in recent discussions or correspondence. First, it should be kept in mind that when a case is cured by means of gradual moulding in plaster-of-Paris or other splints, in combination with tenotomy and the severing of any tight bands of fascia, the result is much better than after osteotomy. By the first method the bones have been changed in shape by degrees and the joints continue to be movable, while after osteotomy the foot is, as acknowledged by Mr. Walsham, "an imperfect member," and tarsectomy is "at the best ..... a bad job."

Two reasons for performing osteotomy have been given: first, that it is a remedy when all others have failed, or are supposed to be sure to fail; secondly, to cut short by one operation the tedious and lengthy process of the less severe

method. The first reason is of course unassailable, provided that the premisses are correct; but there can hardly be a doubt that some even of the most severe cases have been comparatively or actually cured without the cutting of bones. As to the second reason, I would submit that it is not quite a sound one. Patients who undergo osteotomy must be subjected to after treatment if relapses are to be prevented, and even if the whole length of such treatment is less than with other methods it is, to say the least, unfair to leave it out of consideration altogether. With regard to Dr. Phelps' operation also prolonged after treatment is necessary, and this fact was distinctly insisted on by Dr. Phelps when he read his paper at the International Congress at Copenhagen. There is another method for the treatment of severe cases which, if carefully applied, is most useful in reducing the deformity—I mean forced pressure with a wrench under an anæsthetic, regarding which operation I expect to deal more fully in a paper to be published very shortly. As the subject stands at present the osteotomists have yet to prove that removing large wedges from the foot or excising whole bones is the best plan of treatment for even the more severe cases of club-foot; and before we can accept Dr. Phelps' treatment as one to be largely adopted we ought, I think, to compare it very carefully as regards the permanent results with other methods, and especially with the forced reduction I have referred to above.

I am, Sirs, yours truly,

Queen Anne-street, Dec. 12th, 1892.

NOBLE SMITH.

*To the Editors of THE LANCET.*

SIRS.—Mr. Walsham writes of me in your last issue that my experience must differ considerably from that of others because I have stated that the condition of the bones of the tarsus at birth does not interfere with the reduction of talipes equino-varus. Having operated on many hundreds of such cases, I repeat that such is my opinion. It never has been my ill luck to be obliged to recognise that in a child of six weeks old, when the tendons are usually divided, the tarsal bones form a serious impediment to the reduction of deformity. Even should they be abnormal they are at that period easily moulded and brought into position and shape. The cause of relapse into deformity which so frequently occurs is that the posterior tibial tendon has not been divided. Scarcely a week passes that I have not occasion to prove this; either the tendon has been neglected or it has been missed. In such cases relapse is sure to occur later. But I have never known relapse to occur when the tibial tendons have been divided during the first few months of existence, where deformity has been entirely removed and where care has been taken to render and to keep the limb supple. I cannot therefore agree with Mr. Walsham in his opinion that in slight cases of equino-varus it is alone necessary to divide the tendo Achillis. But I willingly endorse that respecting tarsectomy—"at the best it is but a bad job."—I am, Sirs, yours faithfully,

Grosvenor-street, W., Dec. 12th, 1892.

B. E. BRODHURST.

## "EXPERIMENTS ON ANIMALS."

*To the Editors of THE LANCET.*

SIRS.—Mr. Lawson Tait, by his letter of Nov. 26th,<sup>1</sup> finds his experience as to sensitiveness of the peritoneum at variance with that of other surgeons generally. I must confess I am not an habitual reader of Mr. Tait's communications. I have, however, gathered that a want of agreement between his opinion and the opinion of other members of the profession is not a matter so remarkable as to excite comment from one, like myself, unable to offer an opinion on subjects purely surgical. Yet Mr. Tait's letter has been pointed out to me, and I would ask space to say that his opinion of the sensibility of the healthy peritoneum is contrary to knowledge he might have obtained by a little study of a science he just now affects to contemn. The peritoneum was shown by Haller in the experiments of his famous essay<sup>2</sup> to be quite insensitive to mechanical and many other modes of excitation. No doubt Mr. Tait's excuse for his mistaken observations and his contradiction of the well-established fact adduced by Dr. Gee is want of acquaintance with the physiological work achieved by Haller and Haller's pupils.

Mr. Tait's allusion to the peritoneum seems unfortunate for

<sup>1</sup> Brit. Med. Jour.

<sup>2</sup> De Partibus Corporis Hum. sentientibus &c., cf. p. 418, et alt. loca, Opera Minora, vol. i.

the position occupied by himself in the vivisection controversy. His allusion brings prominently forward (1) That a fact of importance was early ascertained by means of vivisection experiments; (2) that a person of Mr. Tait's acuity, oblivious to experimental results, has quite failed from clinical opportunities to obtain the fact for himself. From Mr. Harrison Cripps' letter I gather there are persons not a few who, having undergone surgical operations involving the peritoneum, can from memory of their own sensations further enlighten Mr. Tait. That the healthy peritoneum is a membrane sentient under mechanical interference is a dictum which Mr. Tait will, I imagine, find as difficult to substantiate before the surgeon as before humble followers of Haller's science like myself.

I am, Sirs, yours faithfully,  
C. S. SHERRINGTON, M.A., M.D.  
The Medical School, St. Thomas's Hospital, Dec. 7th, 1892.

## ROE V. NIX AND OTHERS.

To the Editors of THE LANCET.

SIRS,—The reports in the daily press of the proceedings in this trial, concluded yesterday, were very short, and a remark which, at the conclusion of my evidence, by permission of the learned judge, I made to the Court was not reported. May I venture to ask you to allow me to reproduce it in THE LANCET? In one of Miss Ellen Roe's letters read in court she said, referring to a visit of mine to her after she had made her will, that I had in joke asked her whether she had remembered Dr. Deas and myself in it. I stated to the Court that I had no recollection of having made this joke, but that if even in joke I had suggested the possibility of any medical superintendent or official visitor being guilty of an act of such grave professional impropriety as to accept a legacy under the will of an insane patient under their control, it was at best but a very poor joke and one which, if made, I should desire most emphatically to recall. I felt indebted to Mr. Justice Gorell Barnes for the great courtesy which permitted me to make this public disclaimer.

I am, Sirs, yours truly,  
C. LOCKHART ROBERTSON:  
Lord Chancellor's Visitors' Office,  
Royal Courts of Justice, Dec. 10th, 1892.

## LIGATURE OF THE EXTERNAL ILIAC.

To the Editors of THE LANCET.

SIRS,—In the report of Mr. Makins' case of Ligature of the External Iliac Artery by the transperitoneal method contained in your last issue, reference is made to the fact that I have also operated in the same way. The report goes on to say that "details of the case are wanting." I did tie the external iliac by the transperitoneal method in September last and, so far as the operation went, successfully, but as ten days later gangrene of the leg came on necessitating amputation, I have delayed publication of details until such time as the case is complete. I may perhaps be permitted to add that my reason for adopting the abdominal incision was that the position of the aneurysm rendered the ordinary operation impossible.

I am, Sirs, yours faithfully,  
W. H. BROWN.  
Leeds, Dec. 12th, 1892.

## "DEATHS UNDER CHLOROFORM."

To the Editors of THE LANCET.

SIRS,—I hope Dr. Van Someren's communication on this subject may meet with the notice which it deserves. It is not flattering to our national vanity that more deaths from chloroform should occur in England than elsewhere. Yet if the matter were fairly investigated perhaps it may be found that the desire to be extra-scientific was the cause of all these misfortunes. What can be more plausible than the supposition that mathematical exactness in the administration of anesthetics can be attained by the use of specially constructed "inhalers"? These complications are evidently at the root of the evil, and the only point wherein my experience differs from Dr. Van Someren's is as to the absolute safety of a folded towel. I do not doubt for a moment that many have used it, and can use it, without even the shadow of a mischance. But, alas, some are "duffers" and forget the possibility of a fold "going wrong" from the movements of the patient, or even from the manner of folding. As for

folded lint, it is simply an abomination. It has not stiffness enough in it to keep its shape, and the result is that in your very last issue a death from this cause at Birmingham has been recorded. By all means let the inhalers be "sent to the lumber room," and let the Italian method (taken from a German source) be adopted—viz., "the mask of Esmarch." This will retain its form in all hands, and can be slightly raised so as to admit more air when required. They have no personal knowledge of chloroform deaths in most Italian hospitals.

I am, Sirs, your obedient servant,  
EDWD. HAUGHTON, M.D.  
Spring-grove, Upper Norwood, S.W., Dec. 9th, 1892.

## THE RESULT OF THE ROYAL COMMISSION ON VACCINATION.

To the Editors of THE LANCET.

SIRS,—I have during the last four weeks vaccinated four infants. The vaccination officer of many years' standing has resigned. Would it not be as well to close all vaccination stations and await the result? The Commission would soon have some further demonstration of small-pox v. vaccination, which appears to be necessary. I have applied to my board two or three times to know if they consider it advisable to continue my services.

I am, Sirs, yours faithfully,  
WM. WOODWARD, M.D.,  
Public Vaccinator to the Worcester District.  
Worcester, Dec. 12th, 1892.

## THE TRICENTENARY CELEBRATION AT PADUA.

(FROM OUR SPECIAL CORRESPONDENT.)

TWENTY-SEVEN foreign and seventy Italian delegates, together with the Senatus Academicus and subordinate teaching staff of the University of Padua, attested the importance attached, not in Italy only but abroad, to the third centenary of Galileo's first lecture on mathematics in that seat of learning. The lateness of the season and its more than usual inclemency explain the non-attendance of many more than the actual representation; but Great Britain is fortunate in having such delegates as Professors Darwin and Norman Lockyer, while America could hardly have had a more accomplished, a more "academically minded" deputy than Professor William James of Harvard University, where he holds with such acceptance the chair of Psychology. While on this subject I may mention that the letter in which the public orator of Cambridge, Dr. Sandys, conveyed the greeting of his *alma mater* to the sister University has been greatly admired for its felicitous conception and for its Latin style. Niebuhr remarked that Italian scholars have an almost instinctive sense of Roman genius and Roman form which makes their criticism of modern Latinity peculiarly valuable. If such is the case, then Cambridge may be congratulated on the universal and unqualified eulogy which her public orator's letter has received from the compatriots of Livy.

Earlier in the proceedings than was expected took place in the "ufficio" of the Rector (the Commendatore Ferraris) the presentation of the *gonfalone* by the ladies of Padua, whose work and gift it was. The fine artistic banner now hangs in the Aula Magna of the University in testimony of the new life to which the womanhood of Italy has at length awakened, a life admirably illustrated on the 5th inst., when in the Scuola Normale Femminile the lady superintendent (the Signora Vittoria Wolf Bassi) gave a masterly lecture on Galileo and his place in the *role* of the sciences before an attentive and highly appreciative audience of her own sex. The lecture may be classed with those already signalled in THE LANCET by Professors Mosso and Celli, as indicating the healthy and ennobling influences under which the womanhood of Italy is now growing up.

At midday on the 6th the delegates, Italian and foreign, having been cordially received by the Rector in the Aula Magna, started on a tour of the city, the whole *cortège* being conveyed in twenty-five carriages. After the public monuments, including Galileo's house, had been duly honoured, an

interval of *riposo* was followed by the grand evening reception in the Casino Pedrocchi, where the magnificent hall displayed before the 400 guests a *coup d'œil* of surpassing splendour, the most attractive among its ornaments being the artistic reproduction in life-like detail of "Padua Antiqua" and "Padua Hodierna." Under the brilliant electric light the spectator saw for himself not only the native town of Livy, but the city familiar to the "Admirable Crichton," to Arthur Jonston, to William Harvey, and to countless British celebrities, whose education in science and in medicine, in whole or in part, was carried on in the Paduan school. The Minister of Public Instruction, Signor Martini, arrived at eleven o'clock, after having had to deliver, from the balcony of his hotel, an improvised but extremely happy address to the crowd below and his presence gave additional *clat* to an assemblage already unprecedentedly brilliant for the distinction of its constituents and the richness and variety of their costumes. There was a good deal of dancing—a peculiarly Venetian pastime—kept up till the more prudent retired to prepare for the very full and interesting programme of the 7th.

At midday the Aula Magna of the University was thronged in every part for the great commemorative celebration of Galileo. As the eye ranged over the sea of faces and figures it paused on the numerous foreign delegates in their characteristic vestments—the "toghe rosse" (red gowns) of the British representatives contrasting effectively with the different-coloured costumes of the professors from Paris or Nancy or of the Magyar professor, Lavegy, from Budapest. The first to command and then to break silence was the Rector, whose stately eloquence was followed by a written discourse from the competent pen of Professor Favaro, the well-known biographer and illustrator of Galileo. This splendid *éloge* will be made *publici juris*, when even more justice will be rendered to its merits than was conveyed in the prolonged plaudits amid which its author resumed his seat. These having died away, the foreign delegates succeeded—the admirable English discourses in which the congratulations of the Royal College of Physicians of London and of the Universities of Cambridge, Oxford, Edinburgh and Glasgow were expressed losing much of their effect by the strangeness of the language employed. The same must also be said of the speeches in German of the Rector of the University of Berlin, of the head of the Berlin Polytechnic and of the directors of the Polytechnic schools of Brunswick and Stuttgart. Much more intelligible and proportionately applauded was the fine Latin discourse of the Rector of Carlsruhe University. But the best received of all were the orations in Italian of the Russian delegate Professor Schourlo of Dorpat, of the Rector of Göttingen University, of the representatives of the Polytechnic institutions of the latter school and of Munich, as well as of the Swedish deputy. Signor Martini's discourse was also a finely conceived and nobly phrased piece of eloquence, after which the oratory was adequately kept up by the Syndic of Pisa and the representatives of the other Italian Universities. Then followed the honorary degrees conferred on the foreign deputies, among whom those of the English-speaking nationalities were not forgotten.

In the evening a sumptuous banquet was given to the Minister of Public Instruction and to the delegates, Italian and foreign, when once more the rhetorical element was not the least attractive feature of the symposium. A performance of "Hamlet" at the Teatro Verdi brought the memorable day to a close. The next day, the 8th inst., was the one set apart for the laying of wreaths on the statue of Galileo in the Piazza Vittorio Emanuele—a ceremony performed in procession, headed by an effective band. All the local technical and classical schools came next in order, and to these succeeded the Rector Ferraris conducting the students of the University of Padua as well as those of the other universities native and foreign. Conspicuous among the latter were the German, Swiss and Swedish *Burschenschaft* in their gay academic insignia and with swords drawn. The municipalities were next represented in the pageant, followed by the Italian and foreign professors, succeeded in turn by the civic band and the survivors of the Italian wars of unity and independence (1848-49, 1859-60, 1866-67 and 1870). A dense mass of the populace brought up the rear. One by one the wreaths were deposited on the statue of the hero of the day, after which the inevitable harangues were delivered with native-born eloquence—by Signor Marzolo in behalf of the Paduan Town Council; by another orator, whose name I did not catch, in behalf of the prefect; by Professor Galanti in behalf of the various institutes; and by a student of the University of Pisa.

This formed the official termination of the memorable "Tercentenario Galileiano"—a ceremony in which the intervention of the English-speaking *savants* gave manifest gratification to its Italian promoters. Galileo's mighty contemporary, Bacon, despite Hallam's well-known disparaging criticism, holds in Italian estimation a place equal, if not superior, to Galileo himself. Both share their reverence as concurrent forces in the revival of learning and the resurrection of science on inductive lines, and this twofold worship of theirs made peculiarly interesting the presence of delegates from the British and transatlantic schools. This *rapprochement* between the two nationalities will receive further strengthening from the great International Congress of Medicine and Surgery to be held in Rome next year, when Italy will again play the part of hostess with a cordiality and completeness all the more effective that she rehearsed the part at the grand Tercentenary Celebration at Padua, just consummated so brilliantly.

December 9th, 1892.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

### *The Assizes.*

IN sentencing the man Hale to his well-merited punishment of eighteen months' imprisonment with hard labour Mr. Justice Grantham characterised the fraud as the most impudent which had ever come before him. It was a sad sight to those who were in court to see witness after witness either chronically deaf or in a condition of perfect health detail their experiences of how they had been lured by the carefully worded advertisement to consult Hale and his undiscovered accomplice Miller. After parting with their hard-earned money they paid a second visit, only to find the so-called doctors gone. This mode of proceeding, repeated at Glasgow and Dublin and commenced at Belfast, formed a chain of evidence which could not be resisted. The prisoner was ably defended by Dr. Commins, but it was clear that there was no defence.

### *Opening of University College, Liverpool.*

The new buildings of University College in this city were opened yesterday by Lord Spencer, who was supported by a large and distinguished company. Great enthusiasm prevailed, the opening having been looked forward to for some time past with keen interest. The new buildings form a very imposing pile and add greatly to the architectural character of the many new public buildings recently erected here. Even the thoroughfare has acquired a classic appearance very different from that which it formerly wore, while the new Jubilee clock tower, which forms a very prominent feature of the new college, with its clock and chimes, will be useful as well as ornamental. Principal Rendall announced another donation of £1000 from Lord Derby; and the Right Hon. J. Bryce, M.P., Chancellor of the Duchy of Lancaster, in speaking at a banquet given by the Mayor at the Town Hall in the evening, announced that Her Majesty the Queen had been graciously pleased to bestow out of certain funds belonging to the Duchy of Lancaster the sum of £4000 upon the College. Lord Spencer unveiled a bust of Mr. Henry Tate, a liberal donor to the College, and was presented with a silver key to the Victoria Buildings by Mr. Edward Lawrence. It was a happy coincidence that Mr. Robert D. Holt should be the Mayor, he being a member of a family who have been most liberal contributors to the College.

### *The Blackburn Murder.*

The trial of Cross Duckworth, a brass finisher of Blackburn, aged thirty-two, for the wilful murder of a girl aged nine, was commenced on the 12th inst., occupying the whole of that and the next day. The medical evidence was given by Dr. Wheatley, police surgeon and medical officer of health for Blackburn. When he saw the body of the child soon after its discovery he found a handkerchief covered with blood firmly fixed in the mouth. There were several bruises on the child's face, blood flowed from the mouth, and the soft palate was partly torn from the hard palate. The base of the tongue and back of the throat were also lacerated, thus showing that much force must have been employed in pushing the handkerchief into the mouth. The left hand was covered with blood, while there was much on the right hand. There were no indications that the child had been violated. The evidence against the prisoner was circumstantial,

and was furnished by a large number of witnesses. The handkerchief found in the child's mouth resembled others found in the prisoner's house, and the cast of a boot mark in the ground near where the child's body was found corresponded with the boots worn by the prisoner. He was convicted and sentenced to death, the jury recommending him to mercy on the ground that they did not think the prisoner premeditated murder, but that it followed an attempt at outrage. It is greatly to be hoped that whatever may be the prisoner's fate it will act as a warning, this latter crime having been unhappily frequent of late.

#### *How Small-pox is Spread.*

Two women were fined by the stipendiary 40s. and 20s. respectively, with costs, for not notifying to the medical officer of health the existence of small-pox in their houses. The offence was aggravated in these cases by the fact that, although the health inspectors called at the house, the existence of disease was denied, though several children were palpably suffering from small-pox at the time. At last the women got alarmed, acknowledged the truth, and four patients were removed to the hospital. Other cases of small-pox occurring in the neighbourhood were traced to this house.

December 14th.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Health of Railway Servants.*

It is stated that a circular has been issued by the General Manager of the North Eastern Railway with regard to the engagement of all new servants in the traffic department. In future a strict medical examination will be enforced on all persons wishing to enter the same and every five years the servants at the time in the employ of the company must subject themselves to a medical examination. In case of any accident occurring on the line all servants implicated therein must also subject themselves to medical examination and they will not be allowed to start work again unless they possess a certificate of competency.

### *Middlesbrough Asylum.*

Three sites have now been selected as suitable for the proposed lunatic asylum at Middlesbrough, and a committee has been appointed for the purchase of one of them.

### *A Child Suffocated by a Ball.*

An inquest was held in the Royal Station Hotel, on Friday, the 9th inst., on the body of a child aged eight months, who died at the house of its parents under the following curious circumstances. The child was lying on the previous day in its cradle, in which there was a transparent india-rubber ball. The latter seems to have come in two, and one half of it had got over the child's mouth, causing its death by suffocation. The verdict was in accordance with the above facts.

### *Workington Water-supply.*

Workington is about to receive an increase in its water-supply. The engineer, Mr. Taylor of Workington, has shown to a committee appointed for the purpose his plans, by which an addition of the purest water from Crummock of 15,000 gallons a day can be delivered to the town.

### *Small-pox in Durham.*

The inspector to the Local Board of Bishop Auckland reported a case of small-pox in the workhouse there last week. The patient was in the Local Board hospital and had tramped from a colliery in the district. He has also been tramping about the county for some time. This is by far the most common mode by which infectious disease is disseminated—namely, by tramps.

### *Outbreak of Hydrophobia in Wensleydale, Yorkshire.*

A rather serious outbreak of hydrophobia has occurred at a farm in Wensleydale. Some time ago a dog at the farm showed some signs of the disease, not however before it had bitten a beast. Both the dog and the bitten beast were shot, since then another bullock has been pronounced to be suffering from hydrophobia. A meeting of the Contagious Diseases (Animals) Committee of the North Riding has been called to consider the outbreak.

### *Scarlet Fever at Jarrow.*

Scarlet fever is now epidemic at Jarrow, and at present

there are twenty-eight cases in the hospital under treatment. Measles is also prevalent.

### *South Shields and the Importation of Small-pox.*

Reference was made at the last meeting of the South Shields Local Board to the importation of small-pox into the borough. It was stated that during the past five weeks three cases of small-pox had been imported, all the patients being sailors from a foreign port (Smyrna). Prompt isolation, with re-vaccination of exposed persons in several instances and special precautions as to disinfection, had prevented re-spread of the disease; and although the danger was not yet passed it was hoped that this most loathsome disease had been stamped out.

### *The Weather and Mortality of the Aged and Young.*

The late severe weather has considerably increased the death-rate, especially of the very young and aged. At Aspatria, Cumberland, the death of Mr. Erasmus Hinde took place last week in his one hundred and second year. It is said that till about a week of his death he was well, and even hearty, and in possession of all his faculties, and that his memory was marvellously good. There also died at Gateshead last week Mrs. Gifford Allan, at the age of ninety-five years. This lady was one of the oldest inhabitants of Edinburgh, and about twelve years ago she removed to Gateshead to reside with her son. Deceased was related to Sir Alex. Crichton, for several years physician at the Court of St. Petersburg and also to the late Sir Wm. Archibald Crichton, physician to the Emperor Nicholas.

Newcastle-on-Tyne, Dec. 14th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

### *The Edinburgh Medico-Chirurgical Society.*

THIS Society held its second meeting last week, Dr. Joseph Bell, President of the Society, in the chair. Among the exhibits were a vesicle calculus with paraffin forming its nucleus; an ulcerated vermiform appendix, shown by Dr. David Wallace; and an interesting specimen of an empyema which communicated with the œsophagus, the case doing exceedingly well until the child took measles and died, was shown by Dr. James Carmichael. Dr. Templeman of Dundee read notes on two rare cases of Sudden Death in Medico-legal Practice. The first was that of a man who had an altercation with his son for coming home late at night and died soon afterwards. The post-mortem examination showed that death had occurred with the heart in asystole, the left ventricle being full of blood. The heart muscle was believed to be normal and there was no atheroma and no lesion in any other organ. The second case was one of a woman who died soon after receiving a blow in the epigastrium, and in this case also the heart muscle was believed to be normal and the other organs were healthy, the only point noted being a congestion of the abdominal viscera. The probable immediate cause of death in each case was discussed and compared with recorded cases of a similar kind. In the second case Dr. Templeman inclined to the opinion that the blow led to a distension of the abdominal veins, which so reduced the blood pressure that the heart failed. Dr. David Wallace read an interesting and important paper on Cystoscopy in Relation to Vesical Neoplasms from notes of twenty-three cases, and illustrated part of his paper with a microscopical demonstration of sections of vesical neoplasms. He dwelt upon the great value of the cystoscope for diagnosis in the majority of cases and of the harmlessness of using it. He also pointed out its value for illuminating the interior of the bladder during operations on that viscus. Referring to the diagnosis of vesical neoplasms he and the subsequent speakers agreed that hæmaturia without evidence of inflammation was pathognomonic of their presence. The conclusions drawn in the paper were supported by Mr. John Duncan and Professor Chiene. Dr. Ramsay Smith read notes of a Case of Acquired Umbilical Fœcal Fistula, and some discussion took place on the causes which might produce the condition. The Society decided to hold a special meeting on Wednesday, the 21st inst., to consider what steps should be taken with reference to a hall in which the Society should hold its meetings.

*Sanitation in Loochmaben.*

It appears that the Police Commissioners of this burgh as the local sanitary authority had obtained a report on the condition of the burgh from Dr. Chalmers' assistant sanitary medical officer for Glasgow, the report being intended as a reply to that by the Board of Supervision's inspecting officer. The report stated that the death-rate from enteric fever was thrice that of Glasgow and from phthisis nearly double. The prevalence of these diseases gave the burgh an unenviable prominence and led to the conclusion that its present condition was such as to cause great anxiety, and that the high death-rate from enteric fever could not be dissociated from the system of wells in the burgh. As a consequence there was urgent necessity for a water supply being provided which should be beyond the risk of contamination. A publicly-signed petition was presented signed by three-fourths of the ratepayers, traversing some of the statements in the report by the Board of Supervision, and this had been signed by most of the Commissioners. There appear to have been some animated scenes during the meeting, and many of the citizens and their representatives evidently think that as their fathers had drunk of the wells so ought they. This same battle is being fought in other places in Scotland and will have to be fought in many more, and the medical officers of health will require all the courage which a strong moral support from their brethren can give them, to go on steadily and perseveringly fighting against local prejudice and ignorance. The first generation of health officers in our counties have much trying but important and valuable pioneer work to do, and their hands must be upheld in the doing of it.

December 13th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*The Meath Hospital, Dublin.*

By the regretted resignation of Dr. Foot, senior physician to this hospital, from ill health, a vacancy for a physician took place which the Medical Board have filled up by electing Dr. James Craig. Dr. Foot, who has been physician to one of the principal hospitals in Dublin for over twenty years, was educated at the Meath, was curator of the pathological museum, and succeeded the late Dr. Alfred Hudson as visiting physician in 1871. His withdrawal from the hospital will be a great loss, as he was an excellent clinical teacher and his reputation brought many pupils to the institution. Dr. Craig, late clinical assistant to the physicians and assistant physician to the National Children's Hospital, is a graduate in arts, medicine and surgery of the University of Dublin.

*Visiting Physicians to Cork Union Workhouse: Age Qualification.*

The Cork guardians at a recent meeting adopted a resolution in reference to an advertisement for a physician to the workhouse, to the effect that no medical man of less than ten years' experience of his profession would be eligible for the office of visiting physician to Cork Union. This announcement caused considerable indignation among the medical profession in Cork, and at a meeting held they came to the conclusion that the adoption of such a rule would be injurious to the best interests of the patients and unfair to many well-qualified and eligible candidates. Independently of this protest Article 33 of the Local Government Board's General Order, dated December 1882, would prevent any undertaking of the kind proposed by the guardians being carried out, and would necessarily cause a fresh election for a physician to be held; but the guardians having seen their error, have rescinded the objectionable rule as to age, and substituted another advertisement.

*Eye, Ear and Throat Hospital, Cork.*

Last year 409 intern patients and 3245 extern cases received treatment at this hospital. There was no death. A large number of students attended the hospital and courses of evening lectures were delivered regularly in the more theoretical subjects, with demonstrations in the use of the ophthalmoscope, laryngoscope and other methods of diagnosis. The amount received from private patients was £332, but the year closed with a debt of £380.

*A Singular Challenge.*

Dr. John Roche, of Kingstown, in a communication to a

Dublin newspaper states that, in order to show the non-injurious properties of bacilli, he is willing to swallow any quantity of the so-called typhoid bacilli and to take any volume of the tubercle bacilli, if from clean cultures, in order to let humanity perceive that, so long as other things are equal, the so-called specific bacilli are of no moment.

*Insanitary Condition of Kilkenny.*

Mr. Stafford, Medical Inspector, Local Government Board, has reported upon the very insanitary state of this town and upon the urgent necessity of a supply of pure drinking water. Typhus fever has been prevalent for some time past, the accommodation of the lower classes is insufficient, and the sewerage and general cleansing operations are stated to be very defective.

*Case of Small-pox.*

A case of small-pox, which appears to have been contracted in England, was recently admitted into Cork-street Fever Hospital.

*The Ulster Medical Society.*

At a meeting of the Ulster Medical Society held on Wednesday, Dec. 7th, papers were read by Dr. Alexander on Uterine Hydatids, and by Dr. Henry O'Neill on the Uses of Methylene as an Anesthetic and the Method of its Administration. An interesting discussion followed the reading of both communications.

*The Ulster Hospital for Women and Children.*

On Monday the Duchess of Abercorn opened a grand bazaar and fancy fair, promoted on behalf of the Ulster Hospital for Women and Children. Recently the hospital has been removed to a more commodious building in Ballymacarret, on the co. Down side of the Lagan. In securing and furnishing their new institution a good deal of outlay has taken place and the bazaar was organised to raise £2000 so as to relieve the committee of the burden of debt. I understand that the bazaar has been very successful.

*Deaths in the Profession.*

Two members of the profession have died recently—Mr. Thomas Ball, who has for some time been in practice in Belfast, and Dr. Jamison, who was for a very lengthened period dispensary medical officer in Newtownards. He was succeeded in the Poor-law appointment some years ago by his son.

*Belfast Medical Students' Association.*

At the opening meeting of this flourishing Association held at Queen's College on Friday, Dec. 9th, Dr. Mitchell (outgoing president) introduced his successor, Dr. J. S. Morrow, who delivered his inaugural address, and amongst other matters referred to the fact that in hospital work in Belfast clinical material was deficient in certain departments. He said a strenuous effort would be made this session by that Association to have the Union Hospital recognised for clinical instruction, where those special forms of disease were to be seen, and where there was a wide field for clinical instruction. The Rev. Dr. Hamilton, President of Queen's College, Belfast, said, at the conclusion of Dr. Morrow's address, that he believed that the attempt now being made to have the Union Infirmary recognised for teaching purposes seemed to be more likely to reach a successful issue than ever before. The Society could rely on his influence and support in the matter. He also announced that the Students' Union Fund was now between £3000 and £4000, and suggested that the students should show their interest in the scheme in some tangible manner. It was then decided that this year there should be a united conversazione given by the Medical Students' Association and the Literary and Scientific Society.

*Election of Medical Officers at the Belfast Union.*

Dr. E. C. Bigger was on Tuesday last unanimously elected medical officer to the Belfast Union Hospital and Dr. Hare was on the same day chosen by a large majority as medical officer to the union infirmary.

Mr. William Frazer, F.R.C.S.I., of Dublin, has been elected an honorary member of the Society of Antiquaries of Scotland, which limits its honorary members to twenty-five.

Mr. F. Brannan, M.B., has been appointed house surgeon to St. Michael's Hospital, Kingstown.

The death is reported of Mr. William Scott, J.P., F.R.C.S. Edin., at his residence, The Bawn, Aghnacloy, County Tyrone, aged seventy-five years.

December 13th.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Passage of Microbes through the Placenta.*

At a recent meeting of the Biological Society M. Anché of Bordeaux made known the result of certain researches he undertook into this subject. Two women, one of whom was pregnant three months and a half, the other two months, were attacked with small-pox and as a result aborted. In the blood and liver of the foetus of the former was found the streptococcus pyogenes; in the latter the staphylococcus pyogenes aureus. Both these patients succumbed. In the blood and viscera of the first was found the same micro-organism as in the foetus, while the staphylococcus was observed in the blood of the second. These observations are of interest not simply as illustrating the passage of micro-organisms through the placenta—a fact which had been previously ascertained in other affections—but because this was the first time that such a thing was noticed in small-pox. They were also suggestive as probably explaining certain hitherto obscure causes of abortion and death of the mother, without apparent secondary infection through the uterine passages.

*Urea and Urinary Bacilli.*

Achard and Renault, as a result of their inquiries in this direction, find that urine, when containing urinary bacilli, remains acid in reaction with no trace of ammonia or its carbonate. They further observe that pure solutions of urea will hardly, if at all, cultivate the bacillus. But in solutions of urea rendered nutritive by the addition of pancreatic peptone the bacilli grow well in a solution with a proportion of 1 per cent. of urea. Their evolution is less marked in a 3 per cent. solution and hardly at all in one of 5 per cent. At the same time it was found that the microbes lost their force and their property of giving a reaction with indol, this reaction being usually well marked in cultivations in pancreatic peptone. The conclusion arrived at by these observers is that urea does not serve for the nutrition of urinary bacilli, and that even when in very feeble proportion it retards and finally prevents their development.

*The Bacillus of Acute Rheumatism.*

M. Lucatello of Genoa claims to have discovered the microbe of articular rheumatism. At the recent Medical Congress in Italy he showed several cultures at different periods of their development and in various media of a micro-organism which he had succeeded in isolating in two cases of articular rheumatism. In one case it was found in the blood, the spleen and in an infiltrated ganglion situated near the affected joint; in the other it was obtained from the effused fluid in the knee-joint. He describes it as small and round, staining indifferently by Löffler's liquid, and not developing either in the air or in blood plasma. *In vitro* it will only grow under fairly thick layers of some solid substance or oil, in hydrogen or in vacuo, at a temperature of 37° C. It has no pyogenic or saprogenic properties.

*Presentation to Professor Pasteur.*

The medical section of the Academy of Sciences has decided that the friends and admirers of M. Pasteur will meet on Tuesday, Dec. 27th, in the large amphitheatre of the Sorbonne at half-past ten in the morning, in order to present him with a souvenir of his seventieth birthday. This will consist of a gold medal engraved by M. Roty, one of his fellow-academicians. On one side the medal will bear an effigy of the recipient, and on the other the following inscription: "To Pasteur, on his seventieth birthday—homage of science and humanity—Dec. 27th, 1892."

December 14th.

## Obituary.

## WM. AUGUSTUS MAYBURY, M.R.C.S., L.S.A.

On the 10th inst., William Augustus Maybury, M.R.C.S., L.S.A., passed peacefully away at his residence, Cedar Lodge, Frimley, Surrey, in the presence of several members of his family, after an illness borne with singular patience, fortitude and resignation, at the advanced age of eighty-three. He was born at Cleady, Kenmare, co. Kerry, and in his early manhood came to England, when he pursued his medical studies at Westminster Hospital under the celebrated sur-

geon, Guthrie, and at St. Thomas's under Le Gros Clarke, South, Green, Solly and Simon. In 1836, he married Miss Clara Constable, younger daughter of Mr. Jas. Constable of Storrington, Sussex. For twelve years he practised in Little Tower-street, London, and then removed to Frimley, where he continued to follow his profession for a period of over forty years, having at one time held the post of medical officer to the Frimley district of the Farnham Union. He belonged to the old school of practitioners now almost extinct and was a man of indomitable energy and perseverance. He has left behind him his widow, five sons (all in the medical profession) and two daughters to mourn their irreparable loss.

INSPECTOR-GENERAL D. L. MORGAN, C.B., R.N.,  
M.D., F.R.C.S. Eng.

THE death is announced of Dr. David Lloyd Morgan, C.B., of Rhôsmaen, near Llandilo, which took place on the 3rd inst. Dr. Morgan was born at Rhôsmaen in 1823. He studied at the London Hospital and took his M.D. degree at St. Andrew's University. He was also a Fellow of the Royal College of Surgeons of England. In 1846 he entered the Royal Navy and finally became Inspector-General in the Naval Medical Service in 1877. The late officer had a distinguished career and a large amount of war service. He served on the West Coast of Africa, in the Mediterranean and Black Sea, and was present at the operations against Sebastopol, after which he was specially promoted and received the Crimean and Turkish medals. Later he served with the land forces in China and was present at the capture of Canton, Cheking and the Taku Forts, again receiving a medal and a special commendation. From 1862 to 1865 he was senior medical officer of the flagship *Enryalus* in Japan and China. As senior medical officer of the flagship *Royal Alfred* he served in the West Indies, and as Deputy Inspector-General at Bermuda, Hong Kong and Chatham. He received the Blane medal in 1871 and was made C.B. in the same year. Later he became Inspector-General at Plymouth and the Royal Hospital, Haslar. He was a Hon. Physician to Her Majesty the Queen.

## PROFESSOR JOHANN GEORG JOESSEL.

Professor Joessel of Strasburg died last Wednesday. An Alsatian by birth, he was one of the professors of the medical faculty in Strasburg before the Franco-German war and was appointed to one of the two professorships of anatomy in the new university there, which was founded in 1872. His province was descriptive anatomy. His chief work was the unfinished "Lehrbuch der Chirurgisch-Topographischen Anatomie" ("Manual of Surgico-Topographical Anatomy"). The first part, which treats of the limbs and the breast, appeared in 1884. His age was fifty-four.

## Medical News.

## ROYAL COLLEGE OF SURGEONS OF ENGLAND.—

The following gentlemen have passed the necessary examinations, and having conformed to the by-laws and regulations, were, at the ordinary meeting of the Council, admitted Fellows of the College:—

- Doyle, Robert Walter, L.S.A., St. George's Hospital and Bristol Royal Infirmary; diploma of Member dated July 27th, 1890.  
 Robinson, William, M.D. Durh., Durham University and Middlesex Hospital; July 20th, 1881.  
 Childs, Charles Plumley, L.R.C.P. Lond., King's College Hospital; July 19th, 1883.  
 Thomas, J. Lynn L.R.C.P. Lond., London Hospital; Jan. 20th, 1886.  
 Edridge-Green, Frederic Wm., M.D. Durh., L.R.C.P. Lond., St. Bartholomew's Hospital and Durham; June 27th, 1887.  
 Olive, Eustace John Parkes, M.B. Cantab., L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital; Nov. 14th, 1889.  
 Foster, W. Jas., L.R.C.P. Lond., St. Mary's Hospital; Feb. 13th, 1890.  
 Gray, Thomas Campbell, L.R.C.P. Lond., Bristol General Hospital; May 8th, 1890.  
 Hallidie, Andrew Hallidie Smith, M.B. Cantab., L.R.C.P. Lond., Cambridge and London Hospital; May 8th, 1890.  
 Hopkins, George Herbert, L.R.C.P. Lond., University Colleges, London and Liverpool, May 8th, 1890.  
 Thomas, John Llewellyn, L.R.C.P. Lond., St. Bartholomew's Hospital; May 8th, 1890.  
 Collum, Archie Tillyer, L.R.C.P. Lond., Charing-cross Hospital; July 28th, 1890.  
 Preston, Charles Henry, M.B., L.R.C.P. Lond., Manchester Royal Infirmary and London Hospital; July 28th, 1890.  
 Griffith, William Stokes, M.B. Cantab., L.R.C.P. Lond., Cambridge and St. Thomas's Hospital; Nov. 13th, 1890.  
 Mole, Harold Frederic, L.R.C.P. Lond., Bristol Royal Infirmary and St. Bartholomew's Hospital; Nov. 13th, 1890.  
 Wyman, Cuthbert, M.B. Cantab., L.R.C.P. Lond., Cambridge and St. Thomas's Hospital; Feb. 12th, 1891.

Four other gentlemen passed the examination, but not having attained the legal age (twenty-five years) will receive their diplomas at a future meeting of the Council. Twelve were referred.

The following gentleman having previously passed the necessary examinations, and not having attained the legal age, was also admitted a Fellow of the College:—

Marshall, Charles Devereux, L.R.C.P. Lond., University College Hospital diploma of Member dated July 28th, 1890.

The following gentlemen were admitted Licentiate in Dental Surgery:—

Allworth, F. Parnell, Guy's Hosp.	Kershaw, Geo., Manchester.
Apthorpe, S. Ralph	Martin, G. W., Liverpool.
Baly, C. F. P., Univ. Coll. & Dent. Hosps.	Mordaunt, F. G., Ch.-cr. & Dent. H.
Blain, E. J., Char.-cr. and Dental Hosps.	Mosely, Edward, "
Blewitt, F. J., Guy's Hosp.	Northcroft, George, "
Danolds, H. G., Ch.-cr. & Dent. H.	Osborn, Lewis J., Liverpool.
Fennings, F. J., "	Parris, R. S., Ch.-cr. & Dent. H.
Fitter, Septimus, Birmingham.	Ranken, John G., "
Fouraker, F., Char.-cr. & Dent. H.	Read, C. Scholefield, "
Gabell, Douglas P., "	Roberts, H. Trist, "
Gardner, C. Smith, "	Steele, T. Barton, "
Goodman, Wm. H., "	Stevens, Herbert J., "
Harrison, Philip, Guy's Hosp.	Tisdall, Chas. Jas., "
Henry, A. R., "	Townend, E. Francis, "
Hilder, A. T., Birmingham.	Turner, Harold A., Guy's Hosp.
Hope, A. C., Middlx. and Dental.	Watson, F. E., Middx. & Dent. H.
Johnson, H. W., "	Weston, E., Ch.-cr. & Dent. Hosp.
	Whittles, J. D., Birmingham.
	Woodcock, R. E., Guy's Hosp.

Thirteen gentlemen were referred, twelve for six months and one for one year.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on Dec. 8th the following degrees were conferred:—

*Doctors of Medicine*.—Charles Forbes Harford-Battersby, Trinity; Edward Collingwood Andrews, St. John's; Joseph Squier Hinnell, Pembroke.

*Bachelors of Medicine and Bachelors of Surgery*.—John Basil Hall, Pembroke; Joseph John Perkins, Emmanuel.

BROMPTON HOSPITAL.—The report of the committee of management, read at the quarterly Court of Governors on the 25th ult., gave details of the nature of the work effected in renovating the building and in enlarging the chapel. Ninety-three in-patients had been sent to the convalescent home at Sandgate for a month. The number of patients admitted since Aug. 4th had been 512. The committee appeal for increased support.

ROYAL INSTITUTION.—The following are the lecture arrangements before Easter:—Sir Robert Stawell Ball, six lectures (adapted to a juvenile auditory) on Astronomy; Professor Victor Horsley, ten lectures on the Brain; the Rev. Canon Ainger, three lectures on Tennyson; Professor Patrick Geddes, four lectures on the Factors of Organic Evolution; the Rev. Augustus Jessopp, three lectures on the Great Revival—a study in Mediaeval History; Professor C. Hubert H. Parry, four lectures on Expression and Design in Music (with musical illustrations); the Right Hon. Lord Rayleigh, six lectures on Sound and Vibrations. The Friday evening meetings will begin on Jan. 20th, when a discourse will be given by Professor Dewar on Liquid Atmospheric Air. Succeeding discourses will probably be given by Mr. Francis Galton, Mr. Alexander Siemens, Professor Charles Stewart, Professor A. H. Church, Mr. Edward Hopkinson, Mr. George Simonds, Sir Herbert Maxwell, Bart., the Right Hon. Lord Rayleigh and other gentlemen.

REQUESTS AND DONATIONS TO HOSPITALS.—Mr. Herbert Ellis, late of the Priory, East Farleigh, Kent, bequeathed £200 each to the West Kent General Hospital and the Kent County Ophthalmic Hospital at Maidstone.—The Worshipful Company of Mercers has granted a donation of £52 10s. to the Hospital for Epilepsy, Regent's-park.—The entertainment given at St. George's Hall, Langham-place, London, on the 29th ult. by the "Strolling Players" resulted in the sum of £100 being handed over to the funds of the Surrey Convalescent Home at Seaford.—The Royal Portsmouth Hospital has received an anonymous gift of £1000.—A legacy of £5000 (duty free) has been received by the Governors of Middlesex Hospital from the late Mr. James Stewart Forbes.—The late Mr. W. C. Asquith, of Colne, bequeathed £100 to the Victoria Hospital for Burnley and district.—A donation of £100 has been forwarded to the Royal Sea Bathing Infirmary for Scrofula, Margate, by the executor of the late Mrs. E. Holm.—Mrs. Cleavor, late of Beverley, bequeathed, duty free, £500 to the Beverley Cottage Hospital.—Mr. John McCormick left £500 to the City of Dublin Hospital. The Duke of Leinster has given £50 to the building fund of the Rotunda Lying-in Hospital.

ATHLONE WATERWORKS.—The Town Commissioners have approved of a plan for waterworks for the town, at an expenditure of £3500.

FOOTBALL CASUALTY.—During a match at Shottersmill, Surrey, on Saturday the 3rd inst., one of the East Molesey "backs" collided with a player of the home team, the latter sustaining a fracture of the clavicle.

HOSPITAL SATURDAY FUND SPORTS.—The council of the above fund have decided to organise cycle and athletic sports in 1893 on behalf of the medical charities of the metropolis. Many gentlemen well known in the athletic world have consented to assist.

MEDICAL PROTECTION.—A meeting of the council of the London and Counties Medical Protection Society was held at Harley-street on the 1st inst., Dr. Heron being in the chair. Some financial and other business was disposed of and Dr. Mead reported good progress in organising new districts.

INSANITARY BOARD SCHOOL AT LAMBETH.—The adjourned hearing of the summons against the London School Board was resumed at the Southwark Police-court on the 14th inst. Since the last hearing the Board had appointed a committee to visit the Johanna-street schools and to ascertain whether there were any grounds for closing them. The committee had reported that there was not sufficient cause to justify the closing of the schools. The Board having complied with the notices served upon them the vestry did not press for a penalty; but the presiding magistrate, Mr. Marsham, ordered the Board to pay £5 5s. and costs, remarking that there had been considerable neglect and delay in paying attention to the sanitary condition of the school.

METROPOLITAN ASYLUMS BOARD.—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight on Dec. 13th was as follows:—Eastern Hospital, 342 scarlet fever, 59 diphtheria and 39 enteric fever; North-Eastern Hospital, 487 scarlet fever; North-Western Hospital, 352 scarlet fever, 87 diphtheria and 19 enteric fever; Western Hospital, 272 scarlet fever, 32 diphtheria, 1 typhus fever and 16 enteric fever; South-Western Hospital, 284 scarlet fever, 52 diphtheria and 18 enteric fever; South-Eastern Hospital, 351 scarlet fever, 16 diphtheria and 15 enteric fever; Northern Hospital, 878 scarlet fever and 9 diphtheria; Gore Farm Hospital, 716 scarlet fever. On the hospital ship *Atlas* there were 31 cases of small-pox.

MEDICAL DEFENCE UNION.—A local committee of the Union was recently established in Liverpool, consisting of the following gentlemen:—Drs. Carter (chairman), Barr, Costine, Cregeen, Macfie Campbell, G. Stopford Taylor and Mr. Robert Jones. Honorary secretary: Mr. Richard Williams. On Dec. 5th a public meeting of the profession was held at the Medical Institution, Dr. Carter in the chair, when Dr. Leslie Phillips, one of the general secretaries of the Union, was present, and explained the objects and position of the company. In reference to the proposal to elect alternately a metropolitan and provincial chairman of the Union, the meeting was unanimously of opinion that such a course would be detrimental to the best interests of the Union at the present juncture. At the close of the meeting several gentlemen handed in their names to be enrolled as members.

MEETING OF THE METROPOLITAN ASYLUMS BOARD.—At the meeting of the managers on the 10th inst., the death of Mr. H. Seymour, one of the original members of the Board, was announced, and great sympathy with the members of his family was expressed. Afterwards the return of fever patients in the various district hospitals was read, by which it appeared that for the two weeks ending the 8th of this month, the total number of cases of scarlet fever was 3774, as compared with 3874 for the preceding fortnight; the cases of diphtheria were 250 as against 269, and the enteric fever cases numbered 115, as against 112 for the same corresponding period. A conversation took place on the need of more accommodation for doubtful cases of small-pox patients and the question was referred to a special committee. Finally, in view of a report from the British Dental Association concerning the condition of the teeth of the boys of the training ship *Exmouth*, the committee had decided to appoint a qualified dental surgeon for about six weeks at a remuneration of four guineas a week.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALLAN, F. J., M.D. Edin., D.P.H. Camb., has been appointed Medical Officer of Health for the Strand Sanitary District, vice Evans.  
 ALLEN, J. D. C., M.B., C.M. Edin., has been appointed House Surgeon to Noble's Isle of Man Hospital, Douglas.  
 ANDRÉ, J. E. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the manhood Sanitary District of the Westhamphett Union.  
 BARRETT, R. H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Second and 3rd Sanitary Districts of the Wisbech Union.  
 BOYD, J. ST. CLAIR, M.D., M.Ch. Irel., has been appointed an Honorary Physician to the Samaritan Hospital, Belfast.  
 CAMPBELL, JOHN, F.R.C.S. Eng., M.A., M.D., M.Ch., & M.A.O. Irel., has been appointed Surgeon to the Samaritan Hospital for Women, Belfast.  
 COPLEY, W. H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Seventh Sanitary District of the Wisbech Union.  
 CRAIG, J., M.D., B.Ch., M.R.C.P. Irel., has been appointed Physician to the Meath Hospital, Dublin.  
 CLEASY, ROSE, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Windlesham Sanitary District of the Chertsey Union.  
 CULROSS, J., M.B., C.M. Glasg., has been appointed Medical Officer for the Newton Abbot District of the Newton Abbot Union.  
 CUTCLIFFE, MONTAGU, L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to the Devon and Exeter Hospital, vice Abram, resigned.  
 FROST, J. K., M.R.C.S., has been appointed Medical Officer for the Madley Sanitary District of the Dore Union.  
 GILBERT, H. P., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Eleventh Sanitary District of the Wisbech Union.  
 GROOM, WM., Jun., M.D. Camb., M.R.C.S., has been reappointed Medical Officer for the Newton and Tydd, St. Giles Districts of the Wisbech Union.  
 GROOM, WM., Sen., M.R.C.S., L.M., has been reappointed Medical Officer for the Eighth Sanitary District of the Wisbech Union.  
 GÜNTHER, THEODORE, M.D. Tübingen, L.R.C.P. Lond., has been reappointed Medical Officer of Health for the Hampton-Wick Sanitary District.  
 JONES, ROBERT, M.D. Lond., B.S., F.R.C.S. Eng., L.R.C.P. Lond., L.S.A., has been appointed Medical Superintendent of the London County Council's New Asylum at Claybury.  
 LLOYD, EVAN, M.B., C.M. Glasg., has been reappointed Medical Officer of Health for the Rural Sanitary District of the Tregaron Union.  
 MARSHALL, R. J., M.B., C.M. Glasg., has been appointed Deputy Medical Officer for the Iver Sanitary District of the Eton Union.  
 MASON, GEORGE, M.R.C.S., has been reappointed Medical Officer for the Ninth Sanitary District of the Wisbech Union.  
 MULCAHY, T. A., L.R.C.S., L.R.C.P. Irel., has been appointed medical officer to Barrington's Hospital, Limerick.  
 OSBURN, H. B., L.R.C.P. Lond., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer for the Bagshot Sanitary District of the Chertsey Union.  
 PETHICK, C. S., M.B. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Woolton Sanitary District of the Prescott Union.  
 RUSSELL, J. S. RISIEN, M.B., M.R.C.P., has been appointed Assistant Physician to the Metropolitan Hospital.  
 SINCLAIR, F. H., M.D., M.Ch., L.R.C.P., L.R.C.S. Irel., has been reappointed Honorary Attending Physician to the Belfast Hospital for Consumption and Diseases of the Chest.  
 STACK, E. C., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Honorary Attending Surgeon to the Belfast Hospital for Consumption and Diseases of the Chest.  
 TATHAM, E. J., M.D., B.C. Cantab., M.R.C.S., has been appointed Medical Officer for the Hales-Owen Sanitary District of the Stour-bridge Union.  
 TURNER, DAWSON, Dr., has been appointed one of the Examiners in Physics by the Royal College of Physicians of Edinburgh.  
 VARDON, A. D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Eastern Sanitary District by the Gamrie Parochial Board.  
 WAGGETT, ERNEST B., B.A., M.B., B.C. Camb., M.R.C.S., L.R.C.P. Lond., has been appointed Pathologist to the London Throat Hospital.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BERMINGHAM AND MIDLAND EYE HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.  
 BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence.  
 CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House Surgeon. Rooms, coals, and lights provided.  
 CHESTER INFIRMARY.—House Surgeon. Salary £80 per annum, with board, lodging and washing.  
 COUNTY OF CHESTER.—Medical Officer of Health. Salary at the rate of £100 per annum, payable quarterly, in addition to out-of-pocket travelling expenses.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon, for six months. Residence, board and washing provided.  
 GRIMSBY AND DISTRICT HOSPITAL.—Resident House Surgeon (unmarried) who will also undertake Dispensing. Salary £60 per annum, with furnished apartments, board, attendance, hire and gas.  
 HOSPITAL OF ST. PETER PORT, Guernsey.—Surgeon for one year. Salary £50 per annum, currency (vaccination included), in addition to which a certain allowance is made for the vaccination of children of persons not chargeable to the parish.  
 HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £40, with board and lodging.  
 KING'S COLLEGE, London.—Sambrooke Medical Registrar.  
 MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon.  
 NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartehill, Stoke-upon-Trent.—House Surgeon. Salary £120 per annum, increasing by £10 a year at the discretion of the Committee, with furnished apartments, board and washing.  
 RICHMOND UNION.—Medical Officer and Public Vaccinator for the District of Mortlake. Salary £75 per annum, exclusive of the usual fees for midwifery cases and certain surgical operations. Vaccination fees 2s 6d. per case. Applications to Mr. A. J. Wood, Clerk to the Guardians, 17, The Green, Richmond, Surrey.  
 SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Senior Assistant House Surgeon. Salary £75 per annum, with board, lodging, and washing.  
 SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Junior Assistant House Surgeon. Salary £57 per annum, with board, lodging and washing. (Applications to Dr. Crochley Clapham, Hon. Sec. Medical Staff, the Grange, near Rotherham.)  
 STOCKPORT INFIRMARY.—House Surgeon. Salary £100 per annum, with board and apartments.  
 STOCKPORT INFIRMARY.—Junior House Surgeon, for six months. Board and residence provided. An honorarium of £10 will be given after six months' satisfactory service.  
 T., care of Davies and Co., Advertising Agents, Finch lane, Cornhill.—Resident Medical Officer for a Mining Company in Mexico. Healthy situation. Free passage and quarters, but no board allowed.  
 UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, Cardiff.—Professor of Anatomy. Stipend £350 per annum.  
 UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, Cardiff.—Professor of Physiology. Stipend £350 per annum.  
 UNIVERSITY OF EDINBURGH.—Five Examiners.  
 UNIVERSITY OF GLASGOW.—Assistant Examiner in Zoology. Salary £30 per annum.  
 WEST HERTS INFIRMARY, Hemel Hempstead.—House Surgeon and Dispenser, who shall also be Assistant Secretary, for two years. Salary £100 per annum, with board, furnished rooms, free light, attendance and washing.

## Births, Marriages and Deaths.

### BIRTHS.

CANTLE.—On Dec. 13th, at The Peak, Hong Kong, the wife of James Cantle, F.R.C.S., of a son.  
 CARTER.—On Dec. 10th, at Glenholme, Upper Richmond-road, Putney, S.W., the wife of Frederick H. Carter, F.R.C.S. Eng., of a son.  
 CREGGH.—On Dec. 12th, at St. George's, Bermuda, the wife of Surgeon-Captain S. H. Creggh, A.M.S., of a son.  
 DAVIES.—On Nov. 30th, at Penrill, Machynlleth, North Wales, the wife of Alfred O. Davies, M.R.C.S., of a son.  
 HAMILTON.—On Dec. 6th, at Prince's avenue, Liverpool, the wife of R. J. Hamilton, M.R.C.S., of a daughter.  
 KAY.—On Dec. 2nd, at Bentley Cottage, Bentley, Hants, the wife of William Kay, M.R.C.S., L.S.A., of a daughter (stillborn).

### MARRIAGES.

SMART—CADDY.—On Nov. 20th, at St. Luke's, Richmond, William Herbert Smart, M.A., M.B. (Cantab.), of Polesworth, Warwickshire, only son of the late Sir William R. E. Smart, K.C.B., M.D., Inspector General R.N., to Florence, elder daughter of Dr. Caddy, Deputy-Inspector-General (retired) R.N., of Charterhouse, Lion Gate gardens, Richmond.  
 THOMSON—RATCLIFF.—On Dec. 8th, at the Church of Holy Trinity, Ashby-de-la-Zouche, by the Rev. A. Beauchamp St. John, David Thomson, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P. and S. Glas., to Alice Emma, third daughter of the late Samuel Ratcliff, Highfields, Ashby-de-la-Zouche.  
 WOOD—WALTON.—On Dec. 8th, at St. Andrew's Church, Southport, by the Rev. Canon Cross, D.D., assisted by the Rev. Wm. Wood, M.A., brother of the bridegroom, Arthur Wood, M.B. and C.M., of Southport, to Fanny, second daughter of the late Joseph Brice Walton, Esq., of Leonard House, Southport, and formerly of Sowerby Bridge, Yorks. Edinburgh graduates of 1837 please note.

### DEATHS.

AVEILING.—On Dec. 12th, at Upper Wimpole-street, Cavendish-square, James H. Aveling, M.D., aged 64.  
 FURLEY.—On Dec. 6th, at Church-road, St. Leonards-on-Sea, Edward Furley, M.D., aged 80, formerly of West Malling.  
 MAYBURY.—On Dec. 10th, at his residence, Cedar Lodge, Frimley, Surrey, William Augustus Maybury, Surgeon, aged 83.  
 MUNCKTON.—On Dec. 12th, at Curry River, near Taunton, William Webber Munckton, M.R.C.S. (for forty-one years coroner for the Western Division of Somersetshire), in the 75th year of his age.  
 RICHMOND.—On Dec. 8th, at his residence, Greenock, Archibald F. Richmond, M.D. Aberd., L.F.P.S. Glas., aged 71.

N.B.—A fee of 6s. is charged for the insertion of Notices of Births, Marriages and Deaths.

# Medical Diary for the ensuing Week.

## Monday, December 19.

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.  
**ST. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations, daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M.; and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2 P.M.; Thursday, 2.  
**HOSPITAL FOR WOMEN, SOHO-SQUARE.**—Operations, 2 P.M.; and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPÆDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2.

## Tuesday, December 20.

**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**ST. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**ST. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Skin Department, 1.45; Saturday, 9.15.  
**ST. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.  
**PATHOLOGICAL SOCIETY OF LONDON.**—Mr. Wainwright (introduced by Mr. Shattock): Disease of the Adrenals in an Infant.—Mr. W. Arbuthnot Lane: Case of rapidly destructive Papilloma of the Penis. Dr. H. D. Rolleston: (1) (for Mr. Bull) Sarcoma of the Kidney growing down the Ureter; (2) Spontaneous Rupture of Internal and Middle Coats of Aorta leaking into Pericardium.—Mr. J. Jackson Clarke: Case of Squamous Epithelioma of the Septum Nasi due to Psoroparmerosis.—Dr. S. W. Wheaton: A Specimen of Ulceration of the Arm following Vaccination in a case of Hereditary Syphilis.—Dr. F. C. Turner: Sarcoma of both Ovaries in a Child. Card Specimen.—Ivory Exostosis of the Skull.

## Wednesday, December 21.

**NATIONAL ORTHOPÆDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**ST. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday and Saturday, same hour.  
**ST. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M. Dental Department, 9.30. Eye Department, 2.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
**ROYAL MICROSCOPICAL SOCIETY.**—8 P.M. Mr. J. Hood: On New Species of Rotifera.—Mr. E. M. Nelson: On the Chromatic Curves of Microscope Lenses.

## Thursday, December 22.

**ST. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2.  
**CENTRAL LONDON THROAT AND EAR HOSPITAL (Gray's Inn-road).**—5 P.M. Dr. Dundas Grant: Affections of the External Meatus.

## Friday, December 23.

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Eye Department, 2.  
**LONDON SKIN HOSPITAL (40, Fitzroy-sq. W.).**—3 P.M. Dr. Sanctuary: Eczema, Differential Diagnosis and Symptoms.

## Saturday December 24.

**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

## METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 16th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Dec. 9	29.60	N.	43	42	57	43	36	.25	Overcast
" 10	30.01	N.	34	38	47	48	33	..	Cloudy
" 11	29.51	S.W.	48	42	50	47	34	.14	Cloudy
" 12	29.58	S.W.	44	42	48	46	42	.01	Overcast
" 13	29.89	N.W.	40	37	53	44	35	.03	Hazy
" 14	30.09	S.W.	40	40	..	52	35	.05	Raining
" 15	30.03	W.	52	51	60	55	40	.12	Overcast

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

COMMUNICATIONS relating to the EDITORIAL business of THE LANCET must in every case be addressed exclusively "To the Editors," and not to them otherwise than in their official capacity.

### THE NOTIFICATION OF CHICKEN-POX.

MR. JOHN M. FOX, medical officer of health for the Mid-Cheshire Combined Sanitary District, has addressed a note to the Secretary of the Local Government Board, in which he advises that chicken-pox be included within the scope of the Notification Act. He assigns as his reason for taking this step the varied and perplexing appearances assumed by small-pox in vaccinated persons, the consequent increasing difficulty of diagnosis and the possibility, occasionally converted into actual fact, that some such cases will escape detection altogether and be suffered to spread disease among the community. The proposed extension of the Act would cover all doubtful cases and enlist the aid of medical officers of health in determining their true character.

Dr. David Wallace (Edinburgh).—We shall be glad to consider the communication if our correspondent will be good enough to submit it to us.

Mr. T. W. Collinson, M.B., C.M. Edin., M.R.C.S. Eng., is thanked for the suggestion which shall have our careful consideration.

### VESALIUS THE ANATOMIST.

To the Editors of THE LANCET.

SIRS,—Can any of your readers tell me where I may be able to get information as to the private and personal history of Andrew Vesalius. I would like to know whether the great anatomist had ever married, and if so whether he had any children and whether he was fortunate or otherwise in his choice of a wife. I am, Sirs, yours truly,  
 Edinburgh, Dec. 10th, 1892.  
 G. M. C.

Inkerman.—We are much obliged for our correspondent's courteous note; but we think that under the circumstances it would be very difficult to comply with his request.

Raglan should consult his medical attendant.

## WATCHMAKERS AS OCULISTS.

THE treatment of defective eyesight has been hitherto almost completely confined to the attention of two classes: on the one hand stands the skill of the scientific specialist, and on the other the self-confident, though somewhat haphazard, enterprise of the advertising optician. It appears that still another class is to be added, recruited from the humbler ranks of the watchmakers and jewellers. In the current number of the *Horological Journal* is an invitation to the latter to add the special knowledge of treating errors of refraction to their more mechanical craft:—"Messrs. J. Raphael and Co., 13, Oxford-street, W., request us to state that they are preparing a room for the purpose of giving instruction to watchmakers and jewellers in defects of vision and the art of applying suitable glasses applicable to various cases. Dr. Percy Jones, of the Westminster Ophthalmic Hospital, and Mr. C. Wilkinson, late attendant at the Eye Hospital, Moorfields, will be in attendance. Considering the large number of watchmakers and jewellers that are called upon to provide relief for customers suffering from astigmatism and other abnormal eccentricities, the facilities proposed by Messrs. J. Raphael and Co. will doubtless be widely appreciated." As the above announcement appeared in the editorial columns of a trade journal it is to be hoped that it was inserted without the knowledge of either of the gentlemen concerned, and it would be unfair to make further comment without affording them some opportunity of explanation.

*Dr. J. McKenzie Davidson.*—Engenolactamide does not seem to be obtainable from wholesale chemists in London. For local anaesthesia the crystals may be applied direct to the mucous membrane. Further information about this substance may be obtained from the original paper in the *Pharmaceut. Centralb.* No. 30.

*Dr. Jas. A. Rigby (Preston).*—The communication shall receive attention.

## "NEW SOURCE OF LEAD POISONING."

To the Editors of THE LANCET.

SIRS,—Electric storage batteries are stated in your last issue (p. 1302) to be recently discovered to cause lead poisoning during their manufacture. A reference to THE LANCET, January, 1883, p. 161, will show that you have very fully described this source of plumbism (in the *Medical Digest*, Section 288:5, for "L. 1/83, p. 161" read p. 161).

I am, Sirs, yours faithfully,

Boundary-road, N.W., Dec. 12th, 1892. RICHD. NEALE, M.D. Lond.

## PRICE OF MEDICINES.

THE Danish Pharmaceutical Union has at various times caused prescriptions to be made up in the best pharmacies of different countries, in order to compare the prices charged with those obtained in Denmark. In 1888 a prescription for which the price in Denmark was represented 100 was charged in Norway 110, in Austria 117, in Belgium 141, in Germany 145, in Switzerland 149, in Russia 197, in Italy 242, in France 247, in England 259 and in the United States 350. During the present year different parts of the German empire were tested, and it was found that Saxony and Prussia were perceptibly cheaper than Wurtemberg and Alsace-Lorraine. The most expensive of the large cities of America which were tested proved to be New York, where a prescription costing a franc in Denmark cost 4 fr. 40.

*West Africa.*—We cannot fix a date for the publication of the Report of the Commission which we have appointed to investigate the subject of Malarial Fever. Approximately we might mention the months of April or March next.

*Mr. D. S. Kemp.*—The original paper regarding the effect of bitters will be found in *Les Nouveaux Remèdes*.

## THE METHOD OF FIXING BLOOD FILMS.

*Seloc* might consult another paper by Dr. Muir, which appeared in the October number of the *Journal of Pathology and Bacteriology*; also the coming number of the Proceedings of the Royal Society, as Messrs. Kanthack and Hardy have quite recently given a paper on Eosinophilic Cells, in which they discuss the various methods of preparation; and Harris and Power's "Manual for the Physiological Laboratory," 5th Edition, page 77

## THE PIANOFORTE AS A FOCUS OF INFECTION.

THE sources of infection in this civilised age are as numerous as they are varied and meet us at every turn. The *Musical Times* in one of its recent issues calls attention to one of these sources of trouble, and one which is very apt to be overlooked. A well-to-do household is extremely likely to include amongst its members a devotee of one of the "tuneful nine." The probable presence of musical instruments in such a family cannot be regarded as a very violent assumption, and in the list of such distributors of harmony the pianoforte will very likely take a prominent place. Yet the result of the fondness for sweet sounds may perchance be the introduction into the home of an element of discord much more displeasing than that which strikes the sensitive ear, since it may affect the harmonious working of the whole economy. How this disaster may arise is set forth with more or less cogency by our contemporary aforesaid. He puts the matter in this way. A garment exposed to infection can, he says, "be quickly disinfected, but it is far more difficult to fumigate all the multitudinous cloths, baizes, felts, and woollen materials which the complex mechanism of a piano contains. It is questionable, indeed, whether this is ever properly done. Few pianos are regularly cleaned out. Dust accumulates in them, and they become a receptacle for all kinds of dangerous germs. Amongst musicians it is well known that one of the chief centres in Germany of cheap piano-making is Hamburg; and—especially in the alum of St. Pauli, where the cholera has been rife—thousands of pianos are in course of construction, the majority of which are destined for the English market." Without wishing to lay undue stress on the importance of attention to this danger in the household, it is well that the recognised principles of cleanliness should be observed in respect of such articles of furniture as commonly escape thorough inspection, in consequence of the difficulty and expense attending the process.

*Mr. E. K. Knox.*—An English medical man wishing to practise in the Canary Isles should obtain the *Licenciado* from the Central University, Madrid, or from some other Spanish Medical Faculty for which he may be required to pass an examination, and he must be prepared for possible delay and disappointment. The best course would be to communicate in the first place with the British Consuls at Madrid, Tenerife and Cadiz.

*Perplexed* asks: "Will any medical brother kindly give me advice how to recover a debt for professional attendance upon a staff sergeant in the army and a stoker in the navy? I am told that they cannot be sued as civilians."

*Mr. R. Gordon.*—We do not insert advertisements from medical aid associations in want of medical officers.

*Mr. H. S. Page and Mr. Geo. N. Patterson.*—We do not recommend practitioners.

*Avunculus* has not enclosed his card.

ERRATUM.—We are requested to state that in the marriage announcement "Smart—Caddy," published in our issue of Dec. 10th, the gentleman's name should have read "William Herbert Smart, M.A., M.B. (Cantab.)," not "M.D." as printed.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Redcar and Saltburn-by-the-Sea Gazette, Health, Leicester Daily Post, Agnostic Journal, Sheffield and Rotherham Independent, Hospital Gazette, Woman, Western Gazette, Morning Leader, Daily Chronicle, The Zoophilist, Tasmanian Mail, Public Opinion, Norfolk Daily Standard, Star, Harwich Free Press, Sitings, Le Courrier de la Presse (Paris), Insurance Record, City Press, Surrey Advertiser, Leeds Mercury, Bristol Mercury, Yorkshire Post, Liverpool Daily Post, Reading Mercury, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Local Government Journal, Mining Journal, Hertfordshire Mercury, Blackpool Times, Hampshire Advertiser, Aberystwith Observer, Bognor Observer, West Sussex Gazette, Bath Chronicle, Le Temps (Paris), Manchester Guardian, Pioneer Mail Times of India, Sunday Times, Hull News, Vegetarian, North British Daily Mail, Builder, Architect, Evening Chronicle (Newcastle).*

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R.—Dr. James A. Rigby, Preston; Dr. Lockhart Robinson, Wimbledon; Mr. F. A. C. Richardson, Leicester; Mr. J. W. Robinson, Sheffield; Messrs. Richardson and Co., Leicester; *Record Press*, London.

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B.—Dr. Bourke, Earl's Court; Mr. E. Butler, Whitchurch; Mr. G. Barton, Westminster; Mr. C. Birchall, Liverpool; Mr. J. Blackburn, Barnsley; Borough Hospital, Birkenhead; Bedford General Infirmary.

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A Clinical Lecture

ON THE

VALUE OF SUTURES IN THE TREATMENT OF CUT THROAT AND SURGICAL WOUNDS OF THE AIR PASSAGE.

Delivered at the Middlesex Hospital on Nov. 29th 1892,

By HENRY MORRIS, M.A., M.B. LOND.,  
SURGEON TO AND LECTURER ON SURGERY AT THE HOSPITAL.

GENTLEMEN,—I have recently described to you the varieties of wounds met with in cases of cut throat and also the sources of danger and the after complications in these cases. In my lecture yesterday I pointed out the effects of a foreign body in the air passages and the treatment you should employ in such accidents, and I told you that as there is danger so long as such a body remains in the air passages it is the surgeon's duty to remove or aid the expulsion of it by early tracheotomy, laryngotomy or thyrotomy.

Now, at first sight it may seem to you that there is no connexion between the treatment for cut throat and for foreign bodies in the windpipe; but there is this in common, that in each class of cases you may have to decide the question as to the employment of sutures. It is on this subject I wish to speak to you to-day, basing my remarks on cases which have been under my care in the hospital.

If you will refer to a passage in that very excellent and standard article on "Wounds of the Neck" by Mr. A. E. Durham in the third edition of the "System of Surgery" you will find, under the account there given of the treatment of cut throat, directions of which the following is an abstract. Mr. Durham says that as a general rule neither sutures nor adhesive plasters should be used, and for these reasons: 1. They are at best needless in most cases, because primary union can rarely be expected. 2. They are sources of danger in various ways: (a) If bleeding recurs blood may trickle into the air passage and cause suffocation; (b) at a later period purulent discharges may pass into the air passages or otherwise give rise to serious trouble; (c) inflammation and œdema of the neighbouring parts and of the mucus membrane of the larynx may ensue, or viscid mucus may collect, and if it cannot be expelled through the wound will obstruct the air passage and increase dyspnoea; (d) closure of the external wound by sutures is liable to be followed by emphysema. It is allowed that in the healthily granulating stage the surfaces may be approximated by sutures and plaster, though they may be torn out during coughing, and must be removed if discharges are confined, or pain is occasioned. Nelaton, we are told, recommended sutures at this stage in order to prevent the turning in of the edges, and the risk of a permanent fistula. It is also allowed that in certain exceptional cases sutures may be necessary from the first, as where "the cartilages of the larynx are cut in several places and the different pieces are much separated from each other"; and in cases "where complete division has been effected between the thyroid and cricoid cartilages, and these parts are separated from each other, one or two sutures may be used to approximate them; and if the trachea is completely divided across it may be desirable to have recourse to one or more sutures"; but, Mr. Durham adds, "in all such cases it is better to wait for a time after the divided portions of the air tube have been sutured in order to judge of the effect produced before attempting to close the external wound." No directions you see are given for the immediate and complete closure of the wound by a number of sutures introduced into each of the divided structures.

Mr. Durham in this description lucidly sets forth the treatment in common practice with surgeons, and recommended in standard works on surgery. Nor did it escape his researches into the literature of his subject that Albanese of Palermo, "whose experience in the treatment of wounds has been very extensive, would appear to advocate the immediate application of sutures in all cases of wounds of the trachea." In describing the removal of foreign bodies from the larynx by thyrotomy Mr. Durham says: "After the foreign body has been extracted, the edges of the incision through the

thyroid cartilage should be brought together and secured by sutures not passed through the mucous membrane. It may be well to retain the laryngeal or tracheal cannula for two or three days, or until all indications of laryngeal mischief have passed away."

As many of you know, I have ventured to depart from the usually approved practice of leaving cut throat wounds to heal by granulation and cicatrization, and have sought by the liberal employment of buried and superficial aseptic sutures to bring about immediate union. In doing this I use great care, after thoroughly cleansing all the parts about the wound, to unite accurately end to end the cut edges of each structure which has been divided; cartilage with cartilage, membrane with membrane, muscle with muscle, fascia with fascia and skin with skin; by this means, and at the same time by the insertion of a few pieces of drainage-tube at selected points of the wound, the various, sources of danger which have been mentioned above are provided against and primary union has been readily attained.

I first used sutures on the air passage in January, 1888, in a case of papilloma of the larynx removed by extra-laryngeal excision. The crico-thyroid membrane, the cricoid cartilage and the membrane between the cricoid cartilage and first ring of the trachea were incised vertically and afterwards the wound was completely and accurately closed by five carbolised catgut sutures passed so as not to perforate the mucous membrane. Two were inserted in the crico-thyroid membrane, two in the cricoid cartilage, and one in the membrane below the cartilage; and two silk sutures held the skin together. Immediate union was obtained.

After vertical section of the cricoid cartilage it would seem that sutures prevent lateral gaping, otherwise caused by the inferior constrictor muscles. This was indicated by the sense of dragging and pulling experienced by the patient during swallowing, and referred by him to the cricoid cartilage. When publishing this case I recommended the treatment by primary sutures in cases of cut throat with the view to obtain immediate union and thereby avoid the possible contraction of the cicatrix which follows healing by granulation. Immediate union is not followed by contraction, and if the edges of the divided air tube be accurately sutured emphysema will not occur and there will be no danger from the entrance of discharges from the surrounding tissues into the lungs. Allowing for the defective state of the health and the depressed or excited mental condition of most persons with cut throat, the wounds being of the incised character ought, if accurately approximated and aseptically maintained, to heal by immediate union.

At the time I wrote the only case of cut throat in which I had applied sutures neither the food passage nor the air tube had been opened. It was not long, however, before I had the opportunity of putting my recommendation into practice, and I have on three occasions since employed primary sutures where the air passage has been opened. I will now briefly relate these cases in the chronological order in which they occurred.

CASE 1.—On August 1st, 1888, a man aged forty-five was admitted into Broderip ward. He was a well-made man, with a very restless manner, an anxious expression, pallid mucous membranes and a cold clammy skin. He had been drinking freely for ten days and on two occasions had had delirium tremens. On the front of his neck were two clean cut wounds self-inflicted with a razor two hours before admission. The upper wound was situated just in front of the hyoid bone, and extended one inch and a half to the left and one inch to the right of the mesial line, dividing the soft structures down to the bone. The lower, almost horizontal, extended about two inches on each side of the middle line. The skin, fascia, muscles, thyro-hyoid membrane and epiglottis were completely divided, and when the head was slightly raised the rima glottidis and back of the pharynx were brought into view. The two wounds were separated by a narrow strip of skin about half an inch wide. Hæmorrhage had been arrested before admission. The tongue was pale, moist, furred and tremulous. Pulse 68, small and compressible. Respiration 20, regular and unattended by pain. Phonation was neither painful nor defective. Shortly after admission he was removed to the operating theatre, anaesthesia was induced, and a thorough examination of the wounds was made, in the course of which there was rather free hæmorrhage from unsecured branches of the superior thyroid artery. These were ligatured,

and after removing blood-clots and thoroughly cleansing the wounded parts the upper wound was closed with several fine silk sutures. The lower wound was then attended to, and first the cut edges of the epiglottis were accurately held together by four (non-chromicised) aseptic catgut sutures. These were inserted obliquely and so that the mucous membrane was not injured, and when tightened good apposition all along the cut edges was obtained. The edges of the divided thyro-hyoid membrane, then the divided sterno-hyoid and thyro-hyoid muscles were in turn sutured with catgut, and the skin wound was closed with fine silk sutures. A small drainage-tube was inserted at each extremity of the wound, and dry boracic dressing was applied. The head was bent forwards and fixed in the usual way, just as if the wound had not been closed by sutures. An enema of beef-tea and brandy with a little liquid extract of ergot was administered on his return to bed, but was not retained, and he was found to have diarrhoea. A few hours afterwards—viz., at 5 P.M.—he had not been sick, but had spat up a few small blood-clots; there was slight difficulty in breathing. As the diarrhoea was troublesome a starch and opium enema was administered. At 9 P.M. he was quite comfortable, there was scarcely any dyspnoea, and the diarrhoea had abated. On Aug. 2nd there was neither pain, cough nor dyspnoea, but the patient was very restless and had only slept one hour. The temperature and pulse were regular. Nothing had been given by the mouth, and the nutrient enemata had been only partially retained. In the afternoon of this day the wound was dressed; it was looking quite quiet; a little blood-stained serum had escaped. In the morning of Aug. 3rd everything was perfectly satisfactory. The drainage-tubes were discontinued. Some water was given him by the mouth, none of which escaped at the wound. At 9 P.M. on this, the second, day fifteen ounces of milk and two ounces of whisky were swallowed slowly, but without pain or difficulty, and three or four small pieces of ice were taken just afterwards. From this time he improved rapidly and continued to be fed by the mouth on milk-and-whisky, a pint of milk and two ounces of whisky night and morning. On Aug. 7th all the superficial sutures were removed. There were a few drops of laudable pus from the track of the right drainage-tube. The wound being quite healed on the 10th, he was allowed up on the following day. He walked into the garden for an hour. He expressed himself as quite well, without pain or tenderness or difficulty of breathing or swallowing or any defect of voice. On Aug. 14th a laryngoscopic examination showed the larynx congested, the epiglottis curved so that its external margins unduly approximated towards the glottis. The vocal cords were normal in appearance and action. He left the hospital at the end of the fortnight from the infliction of the wound.

CASE 2.—A man aged fifty-four cut his throat in three places with a large clasp knife about 8.30 A.M. on Dec. 12th, 1889. He was seen soon afterwards by the late Mr. Bellamy, and some carbolised lint and a bandage having been applied to the wounds he was brought to the Middlesex Hospital and admitted under my care. He was in a very restless and violent state and tried to tear off his bandages; he stared wildly around him, and his hands and legs had to be strapped down to keep him at all quiet. Every three or four minutes there were convulsive spasms of various muscles, the muscles of the face and arms being specially affected. At one time there was opisthotonos, but this was thought by the house surgeon to be caused by voluntary struggling. The patient was quite conscious. A large quantity of blood was said to have been lost. He had been an epileptic for six or seven years and latterly his mind had been giving way. His relatives had contemplated sending him to a lunatic asylum. Five years ago he contracted syphilis, through a chancre on his finger (he was a medical practitioner), when attending a midwifery case. He had been for some time somewhat intemperate. An hour or two after his admission he was taken to the operating theatre, anaesthetised, the wound cleared of clots, all bleeding points were torsioned or ligatured and all the divided parts brought together and maintained in accurate apposition by sutures;—buried catgut sutures being used for the laryngeal structures, muscles and fascia; and silk sutures for the skin;—three drainage-tubes were inserted, the wound was dressed with dry antiseptic dressing and the patient was returned to bed, where his head was fixed in the approved fashion. Restlessness and excitement returned after recovery from the anaesthetic and he expressed his determination not to get well. The next day the wound was doing quite satisfactorily, but his restlessness and excitement continued. He made frequent efforts to tear open

the wound, and during the second night after the operation—about 1 A.M. on Dec. 14th—he suddenly raised himself and, violently bending his body forwards, tore open his wound and then sank back in bed exhausted and died in a few seconds. The post-mortem examination was made thirteen hours after death, and the following notes are extracted from Mr. Leopold Hudson's report:—A well-nourished, well-built man. (a) Deep incised wound three inches and a half in length notching the thyroid cartilage just below the pomum Adami. The greater part of this incision was on the left of the middle line. (b) A second incision was on the left of the first and above it, and it ran downwards and inwards towards the middle line, joining the first obliquely. (c) A third incision, three inches long, began at the middle line and ran horizontally outwards to the right on the level of the thyro-hyoid membrane. There was considerable effusion of blood into the posterior wall of the pharynx and a perforating wound of the pharynx just behind the left superior cornu of the thyroid cartilage. The tip of the thyroid cartilage itself had been shaved off. There was marked oedema of the left aryteno-epiglottidean fold and to a less degree of the right also. There was a jagged wound in the larynx beginning above the left false cord posteriorly, and running upwards and forwards to terminate in the substance of the epiglottis. The epiglottis had been partly divided. There was extensive extravasation beneath the mucous membrane around this cut. The stitches which had been placed in the deeper parts could be seen; none of them had penetrated the mucous membrane. The upper lobe of the left lung was partially adherent. The lower lobe of each lung showed some small areas of inhaled blood, and there were some patches of lobular pneumonia in the lower and back part of each lobe. The upper lobes were emphysematous. The right side of the heart was distended with fluid blood. The left ventricle was very considerably hypertrophied. The aorta showed patches of atheroma. The liver contained a small branched calculus in the substance of its right lobe, but otherwise was normal. The kidneys had very adherent and thickened capsules and the cortex of each was indurated and in places atrophied. The stomach contained a small quantity of altered blood; its mucous membrane was somewhat injected.

CASE 3.—A man aged forty was admitted into Broderip ward on March 8th, 1890, having cut his throat, dividing muscles, fascia and thyro-hyoid membrane, but not the epiglottis. Bleeding points were ligatured and under chloroform the divided structures were brought together separately by buried catgut sutures; silk sutures being used for the skin. Three drainage-tubes were introduced. Boric lint and boric charpie covered with alembroth gauze were the dressings. The wound healed without an interruption and the man was discharged from the hospital on March 27th.

CASE 4.—A man aged forty-eight was admitted into Broderip ward at the end of October, 1891, suffering from a urethral stricture for which perineal section had to be performed. As he was approaching convalescence he became morose and depressed, dreading his discharge from the hospital and being under some delusions about the stoppage of his pension, and pauperism that was staring him in the face. His discharge from the hospital was postponed once or twice because of this, but it was not suspected that he meditated suicide. However, on Jan. 20th, 1892, at 5 A.M., the man dressed himself and went to the lavatory. The nurse, who was attending to a patient close by, saw him go in and shut the door, and shortly afterwards, hearing strange gurgling sounds and thinking he was vomiting, she went to the lavatory and there found him on his hands and knees bleeding profusely from a deep wound in the throat and a blood-stained razor lying on the floor beside him. She promptly placed a draw sheet round the wound, endeavoured to stanch the hæmorrhage by pressure and sent for the house surgeon. On his arrival digital compression and afterwards torsi-pressure forceps and ligatures arrested the bleeding. The wound extended from one sterno-mastoid to the other. Two gashes had been made, bisecting one another in the middle line just at the apex of the thyroid cartilage. The skin, fascia, platysma, thyro-hyoid and sterno-hyoid muscles on each side, the thyro-hyoid membrane and the epiglottis on the level of the upper border of the thyroid were all divided. On the right side the wound was more extensive than on the left and the anterior edge of the sterno-mastoid was cut, the carotid sheath was exposed and many small, but none of the main, arteries were divided. On the left side two or three small arteries were divided. Between 1 and 2 o'clock the patient was removed to the operating theatre,

anæsthetised, every bleeding point was sought for and secured by ligatures, and after thoroughly clearing the wound seven catgut sutures were required to unite the epiglottis and the thyro-hyoid membrane. Thirteen catgut sutures were inserted into the muscles and fasciæ; and the cut edges of the skin were joined by sixteen fine silk sutures. Three small drainage-tubes were introduced, one in the centre and one at either end of the superficial part of the wound. Dry iodoform dressing was applied and the patient's head was fixed in the usual way. Nothing was to be given by the mouth for twenty-four hours, but he was to be fed by nutrient enemata, consisting of beef-tea and half an ounce of brandy every four hours. During the evening and night the patient was sick twice and the vomit contained a little blood-stained mucus. On the 22nd and 23rd the temperature rose to 101°, but the wound was doing perfectly well. The drainage-tubes were removed and shortened on the 22nd, and altogether discontinued on the 26th. He was allowed to take fluid nourishment by the mouth on the 23rd. There was only slight difficulty in swallowing. He had previously had a good deal of cough and expectorated a quantity of greenish sputum. On the 24th he sweated a great deal, was in a highly nervous state, very morose and restless, and had a very wild appearance; but his pulse was fair, his temperature 98°, and the wound was doing thoroughly well, the edges having united by first intention except where the drainage-tubes were. He declared he could not swallow and efforts at swallowing seemed to cause some straining; but the dysphagia was largely feigned, though in part it was real and probably due to stiffness and soreness at the base of the epiglottis, when the tongue was moved in deglutition. Certainly it was not excited by convulsive coughing set up by the passage of the food over the epiglottis and upper aperture of the larynx as is so often the case when the wounded parts are left ununited by sutures. On Jan. 29th all the superficial sutures were removed. The scar was firm and narrow; dysphagia had ceased entirely. There was no expectoration. He got up to-day and every day from this time. On Feb. 5th he went into the garden and on the 15th he left the hospital. He might have left sooner, but was detained for some days longer than necessary because of his repugnance to leave. On Feb. 29th it was reported to some of the ward staff that he had endeavoured, but without success, to reopen his throat by dragging forcibly at the scar.

The quick recoveries in Cases 1, 3 and 4 speak for themselves. The patients may be said to have quite recovered within ten days of the infliction of the wounds. In Case 2 there is no reason to doubt that the same excellent result might have been attained had the patient only allowed himself a chance by keeping quiet and being amenable to treatment.

Besides the brief paragraph in Albanese's article on "Wounds produced by Weapons,"<sup>2</sup> where he makes allusion to his success in the treatment of wounds of the trachea by interrupted sutures and antiseptics, the following letter shows that the same line of treatment had suggested itself to Surgeon-Major J. S. Abye Curran, who wrote to me in 1888 as follows:—

"Lissonfield, Rathmines-road, Dublin, May 2nd, 1888.  
 "DEAR SIR.—With reference to the concluding paragraph of your very interesting paper which appeared in the *British Medical Journal* of April 21st, I have great pleasure in stating that I entirely agree with you in the conclusions you have arrived at as regards the best treatment in cut throat. I have had some five or six cases under my care amongst the troops in India, all of whom, I am glad to say, eventually recovered, but the mode of treatment never satisfied me as being correct or surgical. My last case there was a bad one: the wound was inflicted by a razor and extended horizontally across the throat for about three inches and a half, completely cutting across the thyro-hyoid membrane and allowing the larynx and trachea by its own weight to fall down, leaving a gap of about one inch between the cut ends. The hæmorrhage was great, although none of the large vessels were cut. The epiglottis remained attached to the upper segment; all fluid taken by the mouth returned by the wound. He was fed by daily passing a stomach tube. I applied a gymnastic belt round his waist, and had his head fastened down to this by long tapes attached to a night-cap. I tried by every means in my power to keep the parts in apposition, but failed, and in desperation put in two silver wire sutures, one on either side through the ala of the thyroid and round the hyoid. One cut its way through the thyroid next day from the constant coughing, and I put strong silk ones instead, which acted better. I then brought the wound together except at the very centre, and things went on well for a few days when œdem of the plicæ setting in I had to perform tracheotomy. The case ultimately made an excellent recovery, but the

entire case so disgusted me that I resolved the next case I should have to treat of a similar nature I would perform tracheotomy on the spot and bring the edges of the wound together. Having returned soon afterwards from India I had not an opportunity of carrying out my wishes, and had forgotten all about the matter until seeing your paper.

"I am yours very sincerely,

"J. S. ADYE CURRAN, M.B., F.R.C.S.I.,  
 "Surgeon-Major, M.S."

This account by Surgeon-Major Curran gives an excellent picture of the miseries and delay which attend healing in cases not treated by accurate closure of the wound by primary buried sutures. It will be noticed that Dr. Curran's patient had cut into his air passage on the same level as each of my patients—namely, through the thyro-hyoid membrane—detaching part of the epiglottis.

The frequency of cases of cut throat in civil practice may be guessed at from the following particulars extracted from the records of the hospital for the purposes of this lecture by Mr. Leopold Hudson:—

Year.	Cases.	Sex.	Result.
1887	4	3 males and 1 female	All recovered
1888	4	All males	2 died
1889	5	All males	1 died
1890	1	A male	Recovered
1891	3	All males	1 died
1892	6	5 males and 1 female	All recovered

Two of the cases of 1888 were under my care; in one the air passage was not opened, the other is Case 1 related above; in both sutures were used and both recovered. The fatal case in 1889 is Case 2 related above. Of the 10 cases in 1890, 1891 and 1892, in 4 there were wounds of the air passage; one through the thyro-hyoid membrane dividing the epiglottis, one through the crico-thyroid membrane, and one through the trachea wounding the œsophagus. In a fourth (Case 3, *supra*) the thyro-hyoid membrane was cut without the epiglottis being divided. In one of these 4 cases there were two wounds, in the other 3 the wounds were single. Of the 6 cases in which the air passage was uninjured the wounds were single in 3 cases, double in 2, and triple in 1. In one of these 6 cases the left sterno-mastoid muscle was cut halfway through; the wounds in the other 5 cases were quite superficial. In all 6 cases sutures were used, and 3 of them suppurated.

On this last mentioned fact I wish to say a few words. One of the 3 cases which suppurated was under me, and it forcibly shows the advantage of the primary introduction of sutures at as early a stage as possible, and also the necessity of restraining the movements of the head and neck during treatment.

A man aged forty was admitted on Oct. 8th last with a cut nine inches long from a spot one inch below the left mastoid process to a corresponding point on the right side. The left sterno-mastoid was cut half through. No large vessel was divided. Three sutures only were inserted and these at long intervals apart. The wound was covered with a piece of lint and a thick layer of cotton wool retained by a bandage. No head and waist straps were applied. As the wound did not extend into the air tube, and as no important structure had been wounded, and as I was told sutures had been inserted, I did not look to the wound till the 10th, when I at once ordered several other sutures to be introduced. On the 12th delirium tremens was well established, the wound had suppurated and the stitches introduced on the 10th all gave way. The only sutures which held were the three inserted immediately after his admission into hospital. At each of these spots primary union took place, and did not afterwards break down in spite of the restlessness during delirium. I think it fair to conclude that had a number of sutures been introduced at once and the head fixed with two bands passing from the head to the chest or waist belt the whole wound would have healed securely by primary union. Be this as it may, however, I would impress upon you the necessity of securely fixing the head and steadying the neck during the healing of the wounds after closure by sutures.

The advantages to be obtained in cases of cut throat from the use of primary sutures in the manner I have recommended may be summed up as follows:—1. The cut edges of each structure being brought into exact apposition, and so retained by the sutures, union by first intention is secured. 2. This rapidity of union allows of rectal feeding being employed up to the time the patient can swallow naturally. 3. The distress caused by feeding three or four times a day through a tube passed into the pharynx or œsophagus is thereby avoided. 4. The prevention of painful or distressful attempts at swallowing, attended by the escape of the fluid at the wound and the excitement of troublesome spasmodic cough. 5. The pre-

<sup>2</sup> Albanese's statement is: "Les blessures même à la trachée, le plus souvent transversales sous la région hyoïdienne, provenant d'homicide ou de suicide, furent aussi toujours réunies par provoir intention par des points de suture détachés, et je confesse n'avoir jamais vu survenir la moindre suffocation." Extract from article in the *Transactions of the International Medical Congress, 1881*, vol. ii., p. 436, *Blessures à l'Arme Blanche*, by Dr. E. Albanese, Palermo.

vention of the great risk of contraction or stricture of the air passage or food passage so likely to follow when the wounds have been allowed to heal by granulation. 6. The prevention of a temporary, or permanent fistula opening into the air or food passage. 7. The avoidance of an alleged danger in cases where the epiglottis is cut through—viz., of suffocation from the detached portion of the epiglottis falling over the upper aperture of the larynx.

I have called this last an alleged danger because I am very sceptical about it being a real one, except in those very severe cases when the wound is above the hyoid bone and, extending right through the base of the tongue, shaves off the tip of the epiglottis. In such cases the tip of the cartilage, cut right adrift as it may be, is certainly capable of falling over the aperture of the larynx, but in all probability it will be in a moment blown away by a forced expiratory effort. Of course there is the possibility of a piece small enough being chopped off to fall into the cavity of the larynx, and if not coughed out at once causing suffocation. But there is no danger from this cause when the wound is on the level of the thyro-hyoid membrane. In these wounds if the epiglottis is cut through it is divided below some or all of its attachments to the glosso-epiglottidean folds; and, held by these, it is drawn forwards, but cannot fall backwards over the laryngeal aperture.

I show you here the tongue and larynx from two post-mortem room subjects, in which the throat was cut after death at this level, and in each case it was found that there was no tendency whatever for the upper part of the epiglottis to fall back. On the contrary, it fell forwards towards the base of the tongue and sank downwards slightly, so that the lower edge of the part still held by the glosso-epiglottidean folds was somewhat in front of the upper edge of the part attached to the thyroid cartilage. In this way a vertical aperture is left between the cut edges through which any liquid taken into the mouth mechanically runs away through the wound.

## A Lecture

ON THE

# MINOR AILMENTS OF THE RECTUM AND ANUS.

*Delivered before the Preston Medico-Ethical Society,*

By J. A. RIGBY, M.D. LOND.

MR. CHAIRMAN AND GENTLEMEN,—The subject I am about to address you upon to-night—Minor Ailments of the Rectum and Anus—is one which is exceedingly difficult to deal with, not because of its obscurity but because of its simplicity. At the outset I mean to refer to the subject of hæmorrhoids, their causation and accompaniments. It is said that hæmorrhoids are frequently caused by obstruction of the circulation, either through heart, lungs or liver; thus the veins of the rectum, it is said, more frequently become hæmorrhoidal in cirrhosis and other diseases of the liver or in thoracic disease. I do not agree with this opinion. I do not think, judging from my own experience, that patients suffering from thoracic disease or cirrhosis, or any other disease of the liver, are one whit more subject to hæmorrhoids than anyone else; and if you think the matter out there is no reason why they should be. Take the case of heart disease, for instance, where there is hypertrophy. The increased muscular action is merely compensatory and is entirely occupied in overcoming the valvular resistance or incompetence, so that there is no actual increase of pressure in the blood stream. The circulation may be, and doubtless is, particularly in the later stages, more sluggish, but there never is, from beginning to the end, any increased intravenous pressure such as would cause hæmorrhoids. Again, in the case of cirrhosis of the liver we get a gradual invasion of and encroachment upon the real glandular tissue of the liver, with more or less complete obliteration of the bloodvessels. This at first sight would appear a most fruitful source of dilatation of the hæmor-

rhoidal veins and consequently of hæmorrhoids; but what says experience? I have attended numerous cases of cirrhosis of the liver, and as far as my memory serves me they were not distinguished by the presence of hæmorrhoids any more than other cases, if so much. The reason of this is obvious. The obliteration of the bloodvessels by the new fibrous growth proceeds very slowly. The portal vein is formed by the junction of the superior mesenteric and splenic veins; the superior mesenteric returns the blood from the small intestines, the cæcum and ascending and transverse portions of the colon; the splenic returns the blood from the substance of the spleen and receives the vasa brevia from the left extremity of the stomach, the left gastro-epiploic vein, pancreatic branches from the pancreas, the pancreatico-duodenal vein and the inferior mesenteric vein. Now I wish you to particularly notice what the inferior mesenteric vein does. It returns the blood from the rectum, sigmoid flexure and descending colon, but it does more—its hæmorrhoidal branches insinuate with those of the internal iliac and thus establish a communication between the portal and general venous system. Now let us see the effect of this most important insinuation on the subject of hæmorrhoids. In cirrhosis of the liver there is a gradual but certain and remorseless strangulation and obliteration of the portal vein and its tributaries, there is constantly increasing distension of the terminal venules of these tributaries with, ultimately, ascites due to the distended vessels relieving themselves one way or another (which it is not my present province to discuss) of their excess of fluid; but, in consequence of the insinuation of the hæmorrhoidal branches of the inferior mesenteric vein with those of the internal iliac, a safety valve action occurs, the pressure is relieved, the excess of blood is sent into the general circulation and we do not get hæmorrhoids in consequence of cirrhosis of the liver. I have taken some pains to go into this thoroughly, because these things are passed on from one text-book to another without in many cases being carefully tested clinically; and hence we are hampered at the outset of our career with wrong theories of causation and consequently our treatment of these maladies is inefficient and exasperating both to ourselves and to our patients. Again, this safety-valve action of the internal iliac on the inferior mesenteric veins explains clearly why constipation, the pressure of tumours and of the gravid uterus are not by any means the great factors in the causation of hæmorrhoids. They are often said to be. Besides the constant presence of hæmorrhoids in persons who are otherwise quite healthy and subject to no other infirmities shows clearly to me that we must find another solution for these troubles.

With your permission I will now give you my theory as to their causation. In the first place, I find them quite as frequently—I believe more frequently—in persons whose bowels act regularly or are even somewhat relaxed than in those who suffer from constipation, which is explained by a careless and unnecessary prolongation of the act of defecation and the consequent incarceration of a portion of rectal mucous membrane within the sphincter ani. The subsequent discomfort, as the day passes on, eventually most likely wears off; the standing posture, movement and the tonicity of the lining of the bowel itself, ultimately remove the prolapsed bit of mucous lining beyond the reach of the sphincter and the patient again feels comfortable. The same process is subsequently repeated, however, till in course of time he finds that every morning for some hours after evacuation he is in a state of more or less pain, often amounting to absolute agony, for as you can readily see it is a mischief that tends to perpetuate itself and increase. The tender lining of the bowel has no time to recover itself before it is attacked again and the irritable sphincter lays hold of the slightly prolapsed lining at once, and by its constant action draws down and bruises or crushes it more and more, till, in cases that have gone on for years, the patient has often no respite, not even for a minute in the day, and presents himself to you a pitiable object with a ring of congested, inflamed or even sphacelated lining of rectum external to the sphincter ani. I could have described the process more in detail than I have done, but I think you will be able to grasp my contention now, which is, that hæmorrhoids are a purely local complaint in the great majority of instances, and that constitutional causes, and liver complaints especially, play a very small part indeed in their production. Another important factor in the production of hæmorrhoids is the customary position for defecation, which imparts too much force into the process.

Now I am going to take you a step further in the train of causation. We have found dilated hæmorrhoidal veins, caused by strangulation by means of the sphincter ani, a bruised, inflammatory and swollen condition of the mucous membrane from the same cause and a prolapse more or less complete of a ring of mucous membrane through the sphincter. This state of affairs is so intolerable that frequently the patient himself observes that it is only to be relieved by gently returning the prolapsed bowel at once through the sphincter after each stool. The day comes, however, when through hurry or carelessness or because the prolapse has been more swollen than usual the patient finds that on returning the gut he does not attain his usual ease, but is left with a weary burning pain which lasts for hours. What has happened? In returning the gut he has made a fissure of the anus, and though on examination you may perceive only what seems an insignificant crack, yet you have there the elements of the most lasting pain and distress, and what, if unrelieved, is sufficient to embitter life. I now come to the treatment. The hackneyed treatment adopted is to relieve the portal circulation by aperients, often mineral waters. The preparations of sulphur, senna and black pepper are greatly in favour and astringent ointments enjoy a great reputation, which I must here state is entirely undeserved, for I believe they do more harm than good; and if my view is correct the astringent acting on the inflamed mucous surface of the rectum would tend to harden it and so give the sphincter ani more power to lay hold of and drag down an increased tract of rectal lining membrane. I may state that I do not intend to discuss here the operative treatment of hæmorrhoids, but only the preventive or palliative treatment, and I will further anticipate by stating that if my directions are carefully followed out I believe the operations for hæmorrhoids, either crushing or cutting, will become very rare. I will assume my patient to have the condition described—namely, a ring of prolapsed rectum protruding through the anus and covered more or less completely with distended and inflamed veins. According to the severity of the case I should put the patient in bed and in extreme cases apply a few leeches—two or three if necessary. This, followed by a poultice and bathing with a soothing poppy-head lotion, invariably reduces the inflammation, and in the course of a day or two, with rest in bed, allows the hæmorrhoids and prolapse generally to be returned. Matters are now much simplified and the patient is in a fair way towards recovery. The next and most important point in treatment is what has to take place at the time of the next defecation. For this I am indebted to the suggestion of a patient. Whether it is generally known or not I cannot say, but I do know its importance has never, in my opinion, been sufficiently insisted upon. This is that the patient must lie on his back when his bowels act, and use a bed-pan or other such vessel. By doing this, from some mechanical cause that I will try to explain, the seat does not come down, there is no extrusion of mucous membrane or hæmorrhoids through the anus and the dire train of symptoms I have before described is thus avoided. The reason of this is more or less obvious. The increased and unnatural propulsive power obtained by using the tuberi ischii as fulcra fixed against the stool is lost and there is rather less than the natural propulsive power, together with the loss of the action of gravity. Be the cause, however, what it may, by thus defecating in the recumbent posture, there is neither prolapse of the hæmorrhoids nor of the seat, and if the operation be followed by bathing with a soft sponge and warm water and the application of the following ointment you will be surprised at the wonderful improvement that takes place in the patient. The ointment I have just alluded to consists of one part of the red oxide of mercury ointment to three parts of spermaceti ointment. It seems to both cool and soothe the part and if freely used after each motion and in bad cases about once a day besides will cure or greatly relieve hæmorrhoids and cure cases of fissure of the anus without having recourse to the knife. All this, you will say, seems vastly simple and agreeable and I have no doubt you are somewhat sceptical as to its being quite as beneficial as I seem to think. In answer to that all I can say is, try it and you will find it will do what I have said and more. Of course, in addition to the above local treatment a little tonic or tonic and aperient may prove useful, such as the sulphate of iron combined with a little sulphate of magnesia and peppermint water or some mineral aperient water. Moreover, it is just as well to avoid the use of acrid, rough and irritating papers for cleansing purposes.

## ABSTRACT OF THE

## Middlemore Lectures

ON THE

## RETINAL AFFECTIONS OF BRIGHT'S DISEASE AND DIABETES,

*Delivered at the Birmingham and Midland Counties Eye Hospital,*

By ROBERT SAUNDBY, M.D. ED., F.R.C.P. LOND.,

PROFESSOR OF MEDICINE, MASON COLLEGE; PHYSICIAN TO THE GENERAL HOSPITAL; CONSULTING PHYSICIAN TO THE EYE HOSPITAL.

*Lecture I.*—The following classification of the retinal affections of Bright's disease formed the basis for the descriptions given by the lecturer:—(1) Diffused opacity; (2) white patches—(a) rounded soft edged areas generally situated near the disc and (b) smaller, brighter, often radiated specks, generally near the yellow spot; (3) hæmorrhages; (4) optic papillitis; (5) diffuse retinitis; (6) secondary atrophic changes; (7) general retinal periarteritis. General retinal periarteritis was included in this classification because, although not solely, it is usually associated with Bright's disease and has therefore as much claim to be regarded as one of the retinal affections met with in Bright's disease as any of the forms more usually recognised. The pathological explanation of all these changes was sought in the dyscrasia which sets up, first, nutritive disturbances, and, secondarily, inflammatory and degenerative changes in the tissues. The minute histological details of each were fully described. The course of the inflammatory lesions was shown to be not necessarily hopeless of cure, though more or less permanent structural change might remain; even the degenerative spots sometimes disappear; cases illustrating these facts were quoted. The difficulty of assigning any absolute diagnostic value to these appearances was pointed out and illustrated by drawings and cases. On the other hand, the prognostic meaning of the degenerative white specks (b), of diffuse neuro-retinitis and of general periarteritis in otherwise well-assured cases of Bright's disease is well defined and of the most serious character. The lecture was illustrated by a number of diagrams and by microscopical preparations kindly lent by Mr. E. Treacher Collins, Mr. Lawford and Mr. Priestley Smith.

*Lecture II.*—After a brief historical introduction the lecturer described the retinal affections of diabetes in accordance with Hirschberg's recent classification: (1) Retinitis centralis punctata diabetica, in which there is a characteristic inflammation of the central portion of the retina, giving rise to the appearance of bright spots often coalescing and frequently accompanied by hæmorrhages; (2) retinitis hæmorrhagica diabetica, in which the essential process is hæmorrhage followed by inflammatory and degenerative changes; (3) mixed cases. The disease in all its forms occurs only in persons of middle or advanced life and in cases of diabetes of some standing. It is generally bilateral and causes disturbance of vision, the patients complaining of a mist before their eyes. In the first form the ophthalmoscope reveals groups of small, clear, bright specks situated in the structure of the retina, in and around the disc, occurring on the nasal as well as the temporal side, never radiated in arrangement, but often occupying large areas; never pigmented, but accompanied by fine punctiform hæmorrhages. It is never attended by optic papillitis or diffuse retinitis. Newly formed bloodvessels have been observed and there is a decided tendency to the occurrence of large hæmorrhages into the vitreous. This description was illustrated by a case and the fundus oculi shown by means of Mr. Priestley Smith's demonstrating ophthalmoscope. The pathology of the affection was held to be dependent on the diabetic dyscrasia which leads to nutritive changes in the walls of the vessels and to the effusion of albuminous material into and between the layers of the retina. In the second form the hæmorrhages are usually punctiform but may be striated and are situated all over the retina; their source is not the superficial retinal vessels and their rounded shape indicates that they are situated below the nerve fibre layer. There may be haziness of the retina, dependent on some degree of

oedema. The hæmorrhages are due to vascular degeneration caused doubtless by the dyscrasia, but the histological details have not been worked out. The course of both is progressive and no instance of recovery has been recorded, although temporary improvement in vision occasionally takes place. The first form is highly characteristic when well marked, but the diagnosis should always be confirmed by examining the urine. Little is known definitely as to the prognostic importance of either, but on general grounds it is probable that they indicate an advanced degree of those nutritive derangements which herald a fatal termination.

This lecture was illustrated by drawings and microscopical sections, the latter being kindly lent for the purpose by Dr. Stephen Mackenzie.

## TWENTY-FIVE CASES OF SUPRA-VAGINAL AMPUTATION OF THE CERVIX UTERI FOR CARCINOMA.<sup>1</sup>

By FREDERIC BOWREMAN JESSETT, F.R.C.S. ENG.,  
SURGEON TO THE CANCER HOSPITAL, BROMPTON.

In bringing these cases before the profession I wish it to be understood that I do so for the purpose of giving my support to the operation of supra-vaginal amputation of the neck of the uterus in those cases only in which the cancerous growth is limited to the external os or the cervical canal. If the vaginal wall or the body of the uterus are implicated, then in my opinion the operation is contra-indicated. The cases I am now reporting are those on which I have operated during the years 1889-90-91. With the exception of one or two, all the specimens were examined microscopically after removal and pronounced to be carcinoma. The one or two cases referred to were noted as doubtful cancer, but these had all the clinical aspects and characteristics of malignancy. The following are brief notes of the cases and, as will be seen, I have arranged them in chronological order.

In the year 1889 I operated on four cases:—

CASE 1.—Mrs. —, aged sixty. Large family; duration of disease some months; os ulcerated and hardened; the cervix feels thickened and somewhat nodular; uterus freely movable; vagina free; supra-vaginal amputation performed on May 1st, 1889. The patient made an excellent recovery and had no recurrence until September, 1891, when the disease reappeared. She declined further operative interference.

CASE 2.—Mrs. —, aged sixty-one. Three children; duration of disease some months; os ulcerated, extending into cervical canal; bleeds readily; offensive discharge; supra-vaginal amputation performed on July 16th, 1889. The patient made an excellent recovery, remaining free from disease until her death, which resulted two years later from bronchitis. The uterus post mortem, which I was enabled to get, was absolutely free from any recurrence of the disease.

CASE 3.—Mrs. —, aged forty-two. Four children; duration of disease six months; os presented a ragged, ulcerated surface; cervix hard and thickened; uterus movable; vagina free; supra-vaginal amputation performed on Sept. 22nd, 1889. The patient made a good recovery, and is at present free from any recurrence.

CASE 4.—Mrs. —, aged forty-one. Two children; duration of disease twelve months; posterior lip of os thickened and rough; deep ulceration, extending into cervix; uterus movable; vagina free; supra-vaginal amputation performed on Dec. 21st, 1889; recovery; no recurrence; suffers a good deal from pain at ordinary menstrual periods.

In the year 1890 I operated on eleven cases:—

CASE 5.—Mrs. —, aged fifty-four. Father died of cancer of stomach. Two children; duration of disease five months; os and cervix indurated and somewhat ulcerated; uterus enlarged and only slightly movable; supra-vaginal amputation performed on Feb. 2nd, 1890; stump healed slowly; recovery, but the disease returned in three months.

CASE 6.—Mrs. —, aged twenty-nine. Four children; duration of disease six months; the cervix is hard and thickened, the os ulcerated and cervix fissured; uterus mobile;

vagina free; supra-vaginal operation performed on March 1st, 1890; recovery; still free from any recurrence.

CASE 7.—Mrs. —, aged fifty-four. Sister died of cancer of the uterus. Two children; duration of disease eight months; cervix enlarged and indurated; vaginal surface free; offensive discharge; uterus movable; supra-vaginal amputation performed on March 25th, 1890; rather severe hæmorrhage; recovery; recurrence in a few months.

CASE 8.—Mrs. —, aged forty-five. Aunt died of cancer. Duration of disease ten months; three children; cervix enlarged, indurated and ulcerated; several isolated nodules on cervix; uterus movable; supra-vaginal operation performed on April 20th, 1890; recovery; no recurrence.

CASE 9.—Mrs. —, aged thirty-five. Duration of disease eight months; cauliflower growth from cervix; uterus movable; supra-vaginal operation performed on April 14th, 1890; died of pelvic cellulitis.

CASE 10.—Mrs. —, aged forty-two. Six children; duration of disease ten months; irregular ulcerated growth from cervix; vagina free; uterus movable; supra-vaginal amputation performed on May 20th, 1890; recovery; disease recurred in a few months.

CASE 11.—Mrs. —, aged sixty. Father died of cancer of liver. Two children; duration of disease four months; large cauliflower growth from cervix, bleeds freely when touched; uterus freely movable; supra-vaginal amputation performed on Aug. 9th; free hæmorrhage; recovery; well when last seen.

CASE 12.—Mrs. —, aged thirty-nine. Four children; duration of disease twelve months; cervix ulcerated and ragged; uterus somewhat fixed; offensive blood-stained discharge; supra-vaginal operation performed on July 26th; disease extended into the body of the uterus; patient recovered slowly; the disease recurred immediately.

CASE 13.—Mrs. —, aged forty-three. Eleven children; duration of disease nine months; irregular growth of considerable size springing from cervix; left side of os more especially affected; a good deal of hæmorrhage at times; supra-vaginal amputation performed on Aug. 12th, 1890; patient made good recovery; no recurrence subsequently.

CASE 14.—Mrs. —, aged fifty-four. One child; duration of disease six months; extensive ulceration of os; cervix hard and indurated; uterus movable; supra-vaginal amputation performed on Nov. 7th, 1890; sharp hæmorrhage; forceps left on; patient made good recovery; no signs of recurrence subsequently.

CASE 15.—Mrs. —, aged fifty-seven. One child; duration of disease twelve months; well defined rough, irregular growth from cervix; vagina free; supra-vaginal amputation performed on Dec. 5th, 1890; good recovery; no recurrence at present time.

In the year 1891 I operated on ten cases:—

CASE 16.—Mrs. —, aged fifty-one. Duration of disease twelve months; hard irregular mass springing from the os-uterus, freely movable; supra-vaginal amputation performed on Jan. 30th, 1891; recovered; no recurrence.

CASE 17.—Mrs. —, aged forty-five. Duration of disease eight months; ulcerating mass protruding from cervix; uterus freely movable; vagina not implicated; supra-vaginal amputation performed on Feb. 16th, 1891; recovery; no recurrence at present date.

CASE 18.—Mrs. —, aged forty-seven. Three children; duration of disease six months; cervix infiltrated with growth; vagina free; uterus freely movable; supra-vaginal amputation performed on March 26th, 1891; good recovery; no recurrence.

CASE 19.—Mrs. —, aged forty-five. Duration of disease six months; large cauliflower growth extending half way down vagina; vaginal walls implicated posteriorly; supra-vaginal amputation and removal of disease with scissors performed on May 17th, 1891; patient gradually sank and died June 3rd. Unsuitable case.

CASE 20.—Mrs. —, aged forty-four. Married; three children; duration of disease seven months; os uteri deeply ulcerated and cervix considerably thickened and hard; supra-vaginal amputation performed on May 29th, 1891; good recovery; no recurrence subsequently.

CASE 21.—Mrs. —, aged forty-five. No children; duration of disease twelve months; large ulcerated mass protruding from cervix, implicating vaginal wall; supra-vaginal operation performed on July 12th, 1892; good recovery; disease recurred in October.

CASE 22.—Mrs. —, aged forty-five. Seven children (two miscarriages); duration of disease ten months; large hard ulcerated mass implicating both lips of the os; uterus freely

<sup>1</sup> Abstract of a paper read before the Gynecological Society on Dec. 8th, 1892.

movable; vagina free; supra-vaginal amputation performed on Aug. 4th, 1891. Good recovery; no signs of recurrence subsequently.

CASE 23.—Mrs. —, aged fifty-one. Five children; duration of disease five months; deeply ulcerated condition of os cervix; infiltration hard; uterus movable; vagina free; supra-vaginal operation performed on Dec. 5th, 1891; good recovery; no recurrence subsequently.

CASE 24.—Mrs. —, aged forty. Eight children; duration of disease two years; small eroded surface at posterior lip of os, with great thickening and induration of cervix. This patient was treated for some time without effect. Supra-vaginal amputation performed on Dec. 18th, 1891; made a good recovery and free from recurrence at present.

CASE 25.—Mrs. —, aged fifty-one. Six children; duration of disease three months; deeply ulcerated patch on posterior lip of os, the edges of which are roughened and everted; bleeds freely; supra-vaginal operation performed on Dec. 19th, 1891; good recovery; no recurrence at present.

From a study of these cases I think a valuable lesson may be learnt. In Cases 5, 7, 10 and 12 recurrence took place within a very short time of the operation. It may be taken therefore that they were unsuitable for this special form of operation. In Cases 5, 7, 10 and 21 no doubt total extirpation of the uterus per vaginam would have been more likely to have been of permanent benefit; while in Case 19 simple curetting and plugging with chloride of zinc wool might have been the better treatment.

*Remarks.*—I am quite in accord with Drs. John Williams, Schroeder and Hofmeier, whose statistics go conclusively to show that when carcinoma of the uterus is seen early and the disease is limited to the vaginal portion of the organ, supra-vaginal amputation is all that is necessary and it is useless to put the patient to the extra risk of total extirpation. It may be well here to define my meaning of supra-vaginal amputation as applied in this paper. It is not only the amputation through the cervix, by which operation the neck of the uterus is removed, but also the removing at the same time a large cone-shaped piece from the fundus of the uterus, which cone may if necessary be extended to the fundus. Gusserow gives the mortality after supra-vaginal amputation when performed with the knife at 9.09 per cent. and with the galvanic cautery at 7.75 per cent. Dr. Post, in the *American Journal of Obstetrics*, November, 1887, in 700 cases of vaginal hysterectomy he had collected, gives the mortality at 24 per cent. Since that time no doubt the methods adopted for this latter operation are much improved, but even Professor Martin (Berlin) gives his mortality at 16.6 per cent.; while, on the other hand, Leopold and Scenger give their mortality as low as 6.2 and 8.3 per cent. respectively. There can be no doubt, however, that the deaths after supra-vaginal amputation are considerably less than after total extirpation, and I think I have shown that the results obtained are such as to warrant us in advising the former operation in preference to vaginal hysterectomy. A few words as to the class of cases in which the supra-vaginal operation of the cervix is applicable. They may be summarised by saying that, in my opinion, if a case of carcinoma of the uterus, in which the disease is limited to the vaginal portion of the viscus and the fundus is free, the uterus being movable and the vaginal not implicated, such a case is one suitable for the high operation. By this operation I mean that a good-sized conical piece should be removed above the disease. In those cases in which the fundus is implicated, but the uterus is freely movable, I agree with Martin of Berlin and Skene of Brooklyn that nothing short of total extirpation of the entire organ is likely to be of any service. In those cases of the series which I have brought forward in which neither of these operations is indicated, as in Case 19, I think there is another course of treatment available which may be of great benefit in prolonging life and lessening pain; but of this I hope on a future occasion to give my experience. For the present I may say that this paper is based entirely on my own practice and upon those cases which have come under my notice, and I trust that should the profession think well of the treatment it will be given a fair and impartial trial.

Buckingham Palace Mansions, S.W.

**SUPERANNUATION GRANT.**—Dr. Edward M. Shirriff of Kingston-on-Thames, lately medical officer of the Ham sanitary district of the Kingston Union, has been granted a superannuation allowance of £21 per annum.

## A CASE OF CONVULSIONS PROVING RAPIDLY FATAL.

By G. MATHESON CULLEN, M.D. EDIN.

THE following case of convulsions is of some interest on several accounts. In the first place, the patient was a typically healthy girl and had not been ailing in the least when she was suddenly struck down by this illness; secondly, the diagnosis was not by any means easy; and finally, the convulsions ended in death within five or six hours.

A female aged sixteen years and a half, tall for her age, strong and robust; employed in a circus as a supernumerary. She had scarlet fever when a child, but otherwise she never had a day's sickness. Mother and only sister died of tuberculous affections; no brothers; father alive and well. On the evening of Jan. 6th, 1891, she went to meet a male friend of hers, with whom she spent a couple of hours in a public house. She had several glasses of rum but was not intoxicated, because she left her friend and took her part in the circus as usual. She conducted herself there somewhat strangely, but as this was only regarded as some novel "fooling" on her part no particular attention was paid her. The performance over, she went straight home and saying that she felt tired she went to bed; this was about 10 P.M. So tired was she in fact that she did not undress, but lay down in her clothes. Her father left the house for his work a little before five the next morning and she rose to lock the door after him. He was surprised to see her with her clothes on and asked her the reason of it, but she only muttered a few words to the effect that he "need not mind" and closed the door quickly upon him. The father returned for his breakfast at 9 A.M., and his niece, who had slept with his daughter during the night, told him that that girl had not risen yet. After breakfast he went to the bedroom and tried to rouse the sleeper, but without success. About 10.30 A.M. she began to have "fits," and I was called in about 11.30 A.M. When I arrived she was quite comatose, insensible to everything, with complete anaesthesia of skin. Her cheeks were flushed; skin warm and moist; pulse 100, very feeble; temperature in right axilla 105.9°, in left 106.2°; respiration shallow, 60 per minute; pupils were widely dilated and insensible to light, right more dilated than left; conjunctival and superficial skin reflexes absent; knee-jerk absent, but ankle clonus marked. Convulsions were present, and were somewhat peculiar as regards the order of their occurrence. First of all the eyes twitched to the left, then the head jerked in the same direction, then the left arm, and finally the left leg became affected with spasms. The whole left side of body being thus affected the convulsions became more rapid, and at last became general, the right side being affected as well as the left, and then it required all the force of several bystanders to prevent her being jerked on to the floor. The convulsions then grew feebler and disappeared altogether on the left side, while they still persisted on the right, but gradually all movement ceased and the girl lay quite still with paralysis of all the extremities. The breathing became rapid and stertorous, with some frothing at the mouth, while the convulsions were general, but after the acme of the fit the respiration grew less and less forcible till all movement ceased, and then it almost stopped, the breathing being carried on by a few sighing respirations, three or four at a time, and separated by intervals of twenty or thirty seconds. The convulsions from first to last extended over about ten minutes, while the period of calm lasted from three to five minutes, after which the eyes would twitch to the left and the whole scene be acted over again. This regular alternation went on during the hour and a half I was able to watch the patient, and it continued I am told till 4 P.M., when, in the calm period following a fit, she quietly expired. There was nothing abnormal to be made out in any of the organs. The lung sounds were masked by mucous râles. No relaxation of any of the sphincters. About a teacupful of apparently normal urine was drawn off by catheter. On examination for albumen no trace was detected.

*Diagnosis and necropsy.*—My first idea on seeing the paralysis of the right side and convulsions on the left side was that the case was one of hæmorrhage into the left internal capsule with subsequent rupture into the lateral ventricles. The tuberculous history suggested a tuberculous tumour as the starting-point of the bleeding. The subsequent bilateral

nature of the convulsion, however, was against any lesion demanding an absolute destruction of brain tissue at the point considered. Poison had been suggested by the friends, who were naturally startled by the suddenness of the attack. I was unable, however, to reconcile the symptoms with those following any poison. Uræmia and pyæmia were equally untenable. Tuberculous meningitis was not very likely, because of the robustness of her body and also by reason of her previously good health, but the tuberculous family history and the difficulty of finding anything more likely made me incline towards it as the diagnosis. On the whole, however, I was very glad that the father was determined to sift the matter to the bottom and had called in the police to investigate the case. Accordingly, on Jan. 8th, 1891, Dr. Harvey Littlejohn made a post-mortem examination on the case, and at his invitation I was present at it. All the organs healthy; a few cysts in the kidneys, but capsule stripped off readily and there was no apparent disease. The examination of the brain showed nothing abnormal save a slight increase in the puncta hæmorrhagica of the white matter.

This, then, was a case of idiopathic convulsions, and because of their periodic character they might be classed under the heading of epilepsy, especially under that form of it which is known as "status epilepticus." On the other hand, the tonic convulsion which is so constant a feature in epilepsy was here conspicuously absent. Still I am sorry that the possibility of "status epilepticus" did not occur to me, for then I might have been led to try amyl nitrite, which Sir J. Crichton Browne has found so valuable in these cases. However, with the high temperature present in this case, I fear not even that remedy could have averted the death which appeared imminent at the first moment I saw the patient. Croton oil and bromides were alone tried.

Lauriston-place, Edinburgh.

## A TYPICAL EXAMPLE OF THE EFFECTS OF MOUNTAIN AIR.

By A. T. TUCKER WISE, M.D. BRUX.

AT the suggestion of Sir Andrew Clark I publish the following case as illustrating the rapid curative effects of mountain air in unilateral consolidation of the lung.

Dr. X—, aged thirty-one, was advised by Sir Andrew Clark to winter in the Alps and came under my observation at Davos towards the end of October, 1891. His illness commenced in the month of May with cough and profuse hæmoptysis after influenza. On his arrival here I found him suffering from a paroxysmal cough, chiefly troublesome in the morning and accompanied by muco-purulent expectoration containing tubercle bacilli in moderate numbers. The pulse was 116 at rest, running up to 140 on movement; temperature 97.2°; urine, sp. gr. 1015, phosphatic. Night sweats had ceased previous to arrival. The chest formation and family history were good. He had lost 20 lb. in weight, was anæmic and complained of weakness, shortness of breath and depression. On physical examination of the chest limited expansion was observed on the left side with marked dulness extending from the clavicle to the third intercostal space. Posteriorly there was dulness over the supra-spinous fossa and between the border of the scapula and spine on a level with the first and second dorsal vertebra. From time to time a few clicking râles were detected with puerile breathing. Vocal fremitus was not marked on either side, the difference in vibration having little significance. Chest measurements gave 19 in., expanding to 19½ in., on the right side: 18 in., expanding to 18½ in., on the affected side during deep inspirations. The other organs were normal. An irritable condition of the heart was treated with aconite and hydrocyanic acid; then a tonic system of treatment was adopted—iodide of arsenic with quinine &c. In the first week the pulse dropped from 116 and 140 to 84 at rest and 104 on movement. After the second week the dulness over the upper part of the left lung had completely disappeared and the patient was rapidly regaining lost ground. Progression towards recovery, with gradual expansion of the chest and gain in flesh and strength, was uninterrupted until February, when the following note was made: Insignificant difference in respiratory murmur; no dulness or râles of any kind; three or four bacilli found

in expectoration on Jan. 26th; no expectoration since then; pulse 80 to 84.

*Remarks.*—This case illustrates the rapidity of recovery in lung lesions which is occasionally observed at these elevations. Sir Andrew Clark regarded the consolidation, not as miliary tubercle, but rather as being due to a caseous condition of disease. This was subsequently borne out by the march of the affection. No consolidation depending on a miliary deposit would have cleared up so readily. The patient has now (October, 1892) resumed his practice, is in robust health, weighs 13 st. 5 lb. (gained 28 lb. in Davos) and presents no sign of disease whatever with the exception of a faint expiratory harshness heard over the left apex, which would scarcely attract the attention of any auscultator unacquainted with the previous facts. The climatic advantages at high altitudes in relation to pulmonary disease are, to put it shortly, as follows: 1. Dryness of the air and its comparative freedom from micro-organisms and atmospheric dust, entailing a lessened liability to catarrh and irritation of the bronchial tract and drying the lungs. 2. Profusion of sunlight; with the low temperature the heat of the sun is easily borne and the violet rays of the spectrum act chemically on the blood, increasing the hæmoglobin. 3. Diminished barometric pressure; this facilitates chemical action in the blood and tissues, favours vaporisation of moist secretions in the lungs and aids pulmonary circulation and expansion. 4. The general stimulus of high levels, producing exhilaration and an increase of nutrition.

Davos Platz.

## THE PHYSIOLOGICAL EFFECTS OF ALTERNATING CURRENTS.

By W. S. HEDLEY, M.D. EDIN.

THERE seems no reason to doubt that, under certain conditions, the physiological effects of rapidly alternating currents vary with the frequency of the alternations. M. Tesla has proved this of currents with enormously high frequencies, and other observers have proved it of currents with comparatively high frequencies. It is easy to show by experiment that, under certain conditions and limits, the effects of an alternating current, so far as sensation and muscular contraction are concerned, decrease as the rapidity of alternation increases. Perhaps we may say that, under certain conditions, the severity of the physiological effects of an alternating current varies in an inverse ratio with the frequency of alternation. M. Tesla found that the current required to keep a tube of a certain length at a certain degree of brightness with the ordinary low frequencies was probably powerful enough to produce dangerous shock, but that if the number of alternations was raised to 20,000 per second the same degree of brightness was retained in the tube, but the current could be "scarcely felt." He explains that this is primarily due to the fact that a much smaller potential is required to produce the same light effect and also to higher efficiency in the light production. We need not follow the explanation as to light, and, so far as I know, the question of physiological effect is not further dwelt upon by M. Tesla. In discussing this experiment Professor Houston<sup>1</sup> considers that perhaps the principal cause why the high frequency of alternation is comparatively harmless is to be found in the fact that it is "in accordance with modern ideas to consider the electric energy as rained down on the surface of the conductor from the space outside it," and that if this view be correct what happens in the case of alternating currents is that, so to speak, "the bolt is no sooner hurled at the body than it is hurled away from it." In considering the possibility of getting something therapeutically practical and useful out of this and similar experiments, it is of importance in the first instance to make an attempt to discover what is the immediate electrical factor in producing these physiological effects. Is it mere rapidity of alternation *per se* or is it something that results from this rapidity of alternation? With a view to enlighten myself on these points I proceeded as follows: Taking a large induction coil and obtaining the interruptions by means of an electric motor in the circuit, having its fly wheel arranged with contact points touching a spring as it revolved and so designed that a musical sound would denote the number of alterna-

<sup>1</sup> A paper read before the Electrical Section of the Franklin Institute.

tions, I obtained results of which the following table gives an example:—

Rate of alternation.	Current in primary.	Electro-motive force in primary.	Total energy.	Effects (of secondary) on sensation and muscular contraction.
Per second.	Milliampères.	Volts.	(Watts).	
(a) 808	160	2 8	0'42	Well marked.
(b) 2428	120	"	0'34	Slight.
(c) 4482	100	"	0'28	Nil.

It thus appears that increase of rapidity of alternation brings down current strength.

*Control Experiment 1.*—A large coil was used which, when worked with its own spring and a current of 2 ampères at 8 volts, gave a spark of a quarter of an inch (5800 volts calculated by De la Rue and Müller's sparking tables). When the spring was screwed down and the motor<sup>2</sup> used to make contact and run at (my) medium speed—i.e., about 2428 alternations per second—the current in the primary fell to 0'75 ampère and the spark of the secondary to a little more than an eighth of an inch (say, 3000 volts), again showing the fall in current strength with a rise in frequency.

*Control Experiment 2.*—As a control experiment of both the above I went on to test the effect on sensation and muscular contraction of varying rates of alternation, but with the current in primary kept constant. Motor run as above, but coil worked by large Leclanché battery with a cell collector. Having obtained well-marked sensation effects and muscular contraction at a low speed, with a certain current strength, the speed was increased, with the effect that the current in primary was diminished. More cells were then thrown into circuit and the current brought up to its original value; the result was that the physiological effects became as marked as before. The inference therefore seemed tolerably clear that sensation and muscular contraction are not so much affected by rate of alternation as by the amount of current strength. Taken together, these experiments point as follows:—(1) That increased rapidity of alternation diminishes the current in primary, and therefore, of course, the induced current in secondary; (2) that with this increased rapidity and diminished current strength there is diminished physiological effect, but that if, with the increased frequency of alternation, current strength be kept up to its original point there is no such diminution apparent; (3) that therefore the current strength is one great immediate factor in producing these physiological effects. It seems that changing the frequency of alternation, by the motor method at least, is one way of influencing current strength.<sup>3</sup> How this may occur is a different question, but a highly interesting one, both from a medical and from an electrical point of view.

Norfolk-square, Brighton.

## CASE OF DRAINAGE OF THE BLADDER THROUGH THE PERINEUM, WITH COMPLICATION.

By ANDREW KEY, M.D. EDIN. &c.

THERE are some points of very great interest in connexion with this case which I think make it worth publishing. I have condensed my report of it as much as possible and do not enter into minute details. About nine years ago a gentleman, then aged fifty-four, consulted me. He had for a good many years suffered from an irritable condition of his bladder. On examination this was found to be due to enlargement of the prostate, producing the usual symptoms—increased frequency of micturition, some difficulty in the act, with much more than the usual pain; there was no stone in

the bladder and the urine was in all respects healthy. These symptoms gradually increased in severity until, during the last three months of 1889, his life became miserable. His business engagements were very numerous, necessitating his presence frequently in Edinburgh, Dundee &c.; but his bladder symptoms had become so much intensified that he was almost unable to leave home. At this time, three months before he underwent the operation, he began to pass more urine than the normal quantity and on examination this was found to be of low specific gravity. In addition to an enlarged prostate he was found to have further trouble from diabetes insipidus. He was passing from 90 oz. to 100 oz. of urine in the twenty-four hours, of a density of 1006. As usual in such cases, he suffered greatly from thirst. No treatment had any effect upon this state of matters. During the last month of 1889 his sufferings were very great—he had to micturate every half hour, with great difficulty and increased pain. I had advised him to pass a soft catheter night and morning, or at least every night, as it was very evident that he never emptied his bladder. He could manage this well enough, but the urethra was so irritable that he had to abandon the attempt. The prostate was now so enormously enlarged that mere palliative treatment was evidently useless. The only mode of relief seemed to be by establishing an outlet for the urine through the perineum. He consented to this and the operation was performed by Professor Annandale of Edinburgh on Jan. 11th, 1890. Chloroform having been administered by me, the ordinary lithotomy staff was introduced and the bladder opened into in the middle line of the perineum. This staff was then withdrawn, a straight grooved one was passed through this opening in the perineum into the bladder and by means of it the opening was enlarged. Although he had micturated immediately before the operation, quite a pint of urine escaped into a basin. On passing the finger into the bladder the prostate was found to be enormously enlarged, Professor Annandale remarking that it was the largest, or one of the largest, he had ever seen. The operation was easily and quickly done and without a hitch. It was now clearly seen that a deep pouch had been formed behind the enlarged prostate which no catheter could have emptied and which at all times contained about a pint of urine, accounting for the frequent desire to micturate and the unsatisfactory result thereof. A strong stiff gutta-percha tube, smoothly rounded at the internal end and perforated, was tied into the bladder, which was washed out twice a day with a warm solution of boracic acid. As the patient resided twelve miles from Montrose, my son, then assisting me, remained with him for the first four days and nights; all had gone well and he was enjoying freedom from pain and quiet rest. But exactly a week after the operation—at 4 A.M. on the morning of the 18th—a messenger arrived at my house stating that Mr. S— had been wakened suddenly with most acute pain in his left leg and that it had become rapidly greatly swollen. I went at once and diagnosed embolic clot in the femoral artery. I found the leg already double the girth of the other and the suffering intense. I administered a large dose of morphia subcutaneously and put up the leg in cotton-wool with a flannel bandage. Sleep soon followed and by morning the pain was much relieved. It was now evident that the case would be a tedious one, requiring much care. A thoroughly qualified nurse was got and the patient placed on a large water pillow. The embolic clot was a very serious complication, possibly due to the vitiated condition of the blood of one suffering from polyuria. But the case became more grave when exactly a week after, on the 25th, the right leg went in the same way as the left had done, the treatment being of necessity the same. Dr. Johnston of Kair repeatedly saw the patient with me and the prognosis was a very grave one. Phlebitis did supervene, however, all over the superficial veins of the legs, thighs and lower abdominal region. The patient was now very ill and utterly unable to help himself in any way. Fortunately the temperature did not rise and the constitutional symptoms were not so severe as might have been expected. He had excessive thirst, due to the polyuria, which still persisted. He could take plenty of food and a sufficient amount of stimulants—claret, occasionally a little champagne, but chiefly whisky and potash water. The legs were carefully looked after, well wrapped in cotton wool and no symptom of gangrene ever showed itself. Another week having passed without any further complication I was beginning to hope that my patient, who had been an exceedingly temperate, healthy man with a splendid constitution, would pull through,

<sup>2</sup> Driven with a current of 1·2 ampères from a bichromate battery.

<sup>3</sup> It is evident, therefore, that in all such experiments attention ought to be paid to the possible reduction of the initial electrical energy by reason of increased frequency. It is possible, although so far as I know nowhere stated in the published records of other experiments, that instruments were used which enabled these high frequencies to be obtained without diminution of current strength.

when he was seized on the morning of Feb. 1st with a most intense rigor, followed by the usual very hot stage and excessively profuse perspiration. For the first week after this rigor he had two rigors quite as severe every twenty-four hours, but without any marked periodicity, and was then left so exceedingly weak and ill that recovery appeared utterly hopeless. Dr. Johnston consulted with me repeatedly and at the end of this week of misery we concluded that he must certainly die. When the first rigor seized him he was put upon large doses of quinine and his allowance of stimulants was increased. Fortunately he could still take a fair amount of nourishment. His stomach retained everything, and this gave us a little hope. Another point in his favour was that even during the highest state of fever the temperature did not go much beyond 103°, falling to almost normal after the sweating stage. At the end of a week the rigors diminished in frequency to one a day, then one in two days, and before they finally left, which they did at the end of three weeks, one every third day, also gradually lessening in intensity. His weakness was now extreme. During all this time the wound in the perineum was perfectly healthy; no abscess, either external or internal, was formed. It was three or four months before any diminution of the circumference of the legs was apparent. All this time the urine had been daily carefully measured and the density taken. During the rigors, and when the profuse perspiration existed, the quantity had diminished. It certainly increased again, but never was so much as 90 oz. or 100 oz. in the twenty-four hours, and the density began to rise. In short, the blood got rid of the poison and the urine gradually became normal in quantity and quality. It was so at the end of three months after the operation and has remained so until now. I do not think the operation had anything whatever to do with the prolonged and varied illness; the blame must be attached to the state of the system, whatever that might be, caused by the polyuria. After the rigors had quite passed away, a long flexible indiarubber tube, with a stopcock at the end of it, was attached to the stiff tube in the bladder, and as his urine could be retained for about four hours the stopcock was then turned and the bladder emptied. The stiff tube had so completely accommodated itself to the perineal opening that there was little or no leakage. This tube was easily removed and a fresh one put in about every ten days.

At the end of seven months after the operation the patient was able to be out of bed and lie on a couch, and was soon afterwards assisted daily into another room. His health was now perfectly restored and he gradually recovered the use of his legs. In the month of December, nearly twelve months after the operation, he was able to go to Edinburgh and attend to business, doing so ever since, with frequent journeys elsewhere. The only pain or inconvenience he suffers from, and which he has always had since the operation, is a spasmodic contraction of the bladder, more or less daily, with the passage of a little urine through the urethra.

There are one or two points in connexion with this case which I should like to bring prominently forward. For many years before suffering from his bladder trouble the patient conducted a very large business. He had often very little opportunity for micturating and gradually accustomed himself to do without emptying his bladder for ten or twelve hours. I think one of the functions of the prostate gland is to assist the vesical sphincter. The prostate began to enlarge at an unusually early age, when the patient was not much over forty. Professor Annandale was astonished at its size. Then the irritation of the enlarged prostate or that of the urine, constantly retained in the bladder, had in some way produced the polyuria, which disappeared with the trouble caused by the enlarged prostate. Again the polyuria was disposed of in the same way as any other form of blood poisoning, but without any tangible manifestation, by severe rigors and intense diaphoresis.

High-street, Montrose.

**ILKESTON COTTAGE HOSPITAL.**—At the annual meeting of the friends of this institution, held a few days ago, the chairman was able to give a very satisfactory account of the success which has attended the work accomplished during the past year. Its finances also bear a similarly favourable aspect. One pleasing feature in the career of the hospital has been the practical appreciation shown by the working classes in the progress of the charity. Reference was also made to the proposal to build a new hospital, for which funds are already to some extent available.

## AN OBSCURE CASE OF CANCER OF THE PYLORUS UNDETECTED DURING LIFE.

By J. BALMAIN MACLEOD, M.D. ABERD.,  
SENIOR VISITING PHYSICIAN, DUNDEE ROYAL INFIRMARY.

Miss C—, aged fifty years, consulted me for the first time on April 4th, 1890, for indigestion. She stated that she had always enjoyed good health till towards the end of 1889, when she had a sharp attack of influenza, from which she made a very slow recovery, and then, for the first time, symptoms of indigestion set in. The patient was a thin, wiry, pale-complexioned person. She complained of pain over the region of the stomach about an hour after taking food, which passed off in about half an hour, leaving her entirely free from pain till the next meal. Tongue very much furred; bowels constipated; appetite poor; stomach and bowels distended with flatulence. Nothing abnormal could be detected on examining the stomach. She had had no vomiting, but complained of acidity. I put her on a course of bismuth, rhubarb and soda, and carefully dieted her. On this treatment she seemed to improve, and left Dundee on May 6th for a change of air. On June 18th she again reported herself; she appeared to have improved by the change, but still suffered more or less from a fixed pain in the stomach; referred to a spot towards the left of the epigastric region. After seeing her for a few days she went to the Highlands for a further change, where she remained for about six weeks. Towards the middle of September, however, the pain appeared to increase, and was more constant than before, and now was not influenced by food; the pain was of a dull aching character, referred to a spot in the left epigastric region. She also complained very much of flatulence, with fetid eructations. Various remedies were tried, peptonised foods prescribed, but the pain persisted. Bismuth and morphia in powder were ordered, which had a decided effect in dulling the pain. About the middle of December Professor Grainger Stewart of Edinburgh saw her in consultation, and after a careful examination could detect no organic lesion, although by this time she had emaciated very much and had a cachectic appearance. He gave as his opinion that the dyspepsia was of a neurotic nature, and advised very much the same treatment to be continued. For a few weeks she appeared to rally and kept comparatively free of pain while taking the bismuth and morphia. Her appetite was wonderfully good and the food well digested, but she steadily emaciated from week to week and died on May 19th without any pain or suffering during the last fortnight of her life, and was calm and collected to the end.

On May 20th Dr. Stalker, for some time pathologist to the Dundee Royal Infirmary and my junior colleague there, kindly conducted the post-mortem examination along with me, and we found as follows: The body was extremely emaciated and anæmic, with commencing œdema of the extremities. On opening the abdomen the stomach was found adherent to the under surface of the left lobe of the liver, and was held well back. The adhesion took place all along the line of the lesser curvature of the stomach, from the pylorus to the cardiac end. The pylorus itself was surrounded by a thick hard band or ring of scirrhus cancer, interrupted only at the posterior part, where for about half an inch the ring was almost absent. A finger could very easily be passed through the pylorus. There was no dilatation of the stomach and no secondary deposit anywhere.

*Remarks.*—The great interest attaching to this case is the difficulty of diagnosis met with during life. I all along entertained a strong suspicion of malignancy (and expressed it) based upon the steady emaciation of the patient, her cachectic appearance, her period of life, and a family history of cancer, an aunt having died of the disease; but the fact that there were no symptoms of vomiting, and never had been, combined with the position of the painful spot well toward the left of the epigastrium, militated against and obscured a diagnosis of cancer of the pylorus. It is probable that there was some consecutive atrophy of the glands of the stomach,

and that this atrophy, even without pyloric stricture, may have produced the graver nutritional disorder that was apparent from the first; and the fact that the pylorus was adherent to the under-surface of the liver and was dragged to the left side beyond the reach of palpation, though immediately over the spot to which she always pointed as the seat of pain, was another obscuring element. The limited amount of organic change in the pylorus during the fifteen months she suffered under the affection is also interesting. The post-mortem examination was therefore specially instructive, and is my plea for publishing the case.

Airliebank, Dundee.

## REPORT OF A CASE OF HYDROPHOBIA.

By J. L. KERR, M.D. ABERD., C.M., F.R.S. EDIN.,  
PUBLIC ANALYST; LATE EXAMINER IN CHEMISTRY AND IN MEDICAL  
JURISPRUDENCE AND TOXICOLOGY, UNIVERSITY OF ABERDEEN.

A GIRL aged eleven years was bitten upon the hand by a stray dog on May 24th, 1892. The wounds were upon the fingers and thumb of the right hand and were small, being perforations of the skin without any laceration. I cauterised them with strong carbolic acid shortly after their infliction. They healed quickly; the girl showed no symptoms of any kind and the whole incident was well-nigh forgotten. On Nov. 29th, 1892, 189 days after the hand was bitten, she began to be ill. She had no marked symptoms during the day, but ate and drank very little and complained of pain in the right forearm and elbow. In the evening of the same day she complained of inability to swallow, and said when she tried to drink "it took her breath." She also said her heart beat very fast, which it did; the pulse rate was much accelerated and the heart's action turbulent in character. The temperature was normal. The patient had an anxious look, but no other noteworthy symptoms. She either had inability to swallow or her repugnance to do so was so great that she would not try. She passed a very restless night and in the morning the respiratory spasm and the rapid pulse rate had much increased. Any efforts to swallow liquids or solids were made with great unwillingness and produced marked respiratory spasm and general muscular spasm of the whole body in a slight degree. She complained of hunger and thirst, but no persuasion would induce her to eat, drink or suck ice. She was very lively and talkative, "like as if she was drunk" her mother said, both at this time and during the quiet periods throughout the illness. Towards the evening she had short periods of maniacal delirium, for which she apologised, saying that "she could not help it for it came on her all at once." On the third morning she had increased respiratory spasm and great hyperæsthesia of the skin, for a draught of air or a touch or the fear of a touch would produce a general spasm of all the muscles of the body. During the quiet periods her pulse rate was 138 per minute and was easily accelerated by the least excitement. She ate about ten grapes with little difficulty. About half-past two o'clock in the afternoon she had a severe attack of maniacal delirium, with loud and piteous cries, lying on the floor, the limbs moving about and the body twisting from side to side in a peculiar way. At the same time she vomited small masses of solid mucus, exactly resembling nummular sputum, and from this time onwards she was unable to swallow her saliva and spat it out almost constantly. At half-past six she had general convulsions; she lay upon her back in bed, moaned piteously and then flexed and extended the upper and lower limbs very rapidly; she was cyanosed and the eyelids became swollen immediately afterwards. After the cessation of the convulsions the jaw dropped and she was unable to close her mouth completely. The weakness increased very rapidly, and about eleven o'clock in the evening she had another attack of convulsions, not so severe as the first, followed by gradually increasing paralysis of all the muscles of the body, and she died by failure of the heart at three o'clock in the morning of Dec. 2nd, 1892.

Crawshawbooth, Manchester.

## Clinical Notes: MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

### MALARIA WITH RUPTURE OF THE SPLEEN AT THE END OF THE FIRST WEEK.

By SIDNEY J. PALMER, M.B. DURH., M.R.C.S.

THE following notes may be found of interest on comparison with a case reported in THE LANCET of Sept. 17th last by Dr. Bowie.

The patient aged twenty-six was admitted into hospital on Sept. 19th, having arrived the day before from the Danubian port Galatz, being a fireman on board a ship. He left the latter port on Sept. 3rd in apparently good health, though he was drinking freely whilst on shore. He worked in the usual manner until Sept. 12th, when he was suddenly seized with shivering and vomiting and had to go to his bunk, where he was treated by the captain with quinine. The shivering fits continued daily until he arrived at Liverpool on Sept. 18th. He, however, felt better and went home in a cab from the ship; feeling worse the next day he applied to the hospital and was admitted. He was found on examination to be in a very weak condition, although he was able to walk. He was very anæmic, with marked pallor of mucous surfaces and slightly jaundiced complexion. He felt very cold. Temperature 101.6°; extremities cold; tongue clean and moist. Heart: No murmur heard, but all sounds weak and distant. Apex beat not felt, best heard in the fifth space one inch inside the nipple line. Lungs: Breath sounds normal. Abdomen: Slightly tympanitic over front. Splenic area of dulness considerably enlarged (eight inches vertical, five inches in the transverse diameter). No tenderness on palpation or percussion. Liver: Slightly enlarged. He says he has never had ague before. Had rheumatic fever a year ago; all the joints affected. No other illness that he remembers. He ascribes the present attack to having drunk largely of Danube water, with which the ship was supplied at Galatz. The patient was put to bed, hot bottles applied to the feet and quinine and caffeine given internally. Five hours after admission the patient suddenly became very blanched, complaining of great pain over the abdomen. He was found to be lying on his left side, his legs drawn up and quite collapsed. He could not move on account of pain. The left half of the abdomen was found to be absolutely dull as far as the middle line and extremely sensitive on percussion. Morphia was given, but he rapidly sank and died half an hour after the initial symptoms of collapse.

*Neuroscopy, thirty-six hours after death.*—Post-mortem rigidity poorly marked. On opening the abdomen, which was considerably distended, a quantity of dark blood escaped. On further examination a large collection of dark clot was found in the left flank, surrounding and quite hiding the spleen. On removing the spleen—which was done without any force, no adhesions being present—and the adherent clots, a ragged rent was seen to extend for three inches across the lower part of the anterior margin. The rent in the capsule, which was very thin, corresponded to the tear in the spleen substance itself and there was no stripping away of capsule from surrounding spleen substance. The parenchyma was of lighter colour than usual and very soft and diffused. The spleen and clot weighed 3 lb. 2 oz.; the spleen separated from the clot weighed 14 oz. The liver weighed 62 oz., pale and greasy on section. Intestines shrunken and empty; nothing found on opening them. Kidneys, each 6 oz.; pale, otherwise healthy. Stomach empty; nothing abnormal found. The heart weighed 12 oz.; valves and apertures healthy; muscular substance pale and flabby. The lungs were healthy. The reason this case appears to be worth publishing is the rarity of spontaneous rupture occurring so early in the disease. The evidence that the malaria had only existed for seven days is undoubted, and I have not been able to find a case on record occurring so soon after the first evidence of malaria. Most of the cases on record have been where malaria was of some months' or years' standing, and generally preceded by muscular effort. Here, however, the patient was lying in bed at the time of rupture, and there is nothing to account for it except causes in the organ

itself. The case was admitted into the Northern Hospital, Liverpool, under the care of Dr. Barr, to whom I am indebted for permission to publish the case.

Seaton, Devon.

### THE TREATMENT OF SYPHILIS.

By J. McNAMARA, M.B., B.CH., B.A.O. R.U.I.

THE widespread existence of syphilis and the grave importance of correctly treating it must be my excuse for discussing the best method of dealing with this mysterious disease. I will take it for granted that mercury in some form or other is the proper drug to be administered during the primary and secondary stages of the disease. The first question then is, What is the best preparation of mercury to be given in these circumstances? Since each of the numerous preparations of mercury is believed to be of benefit in syphilis, and since the only constant factor in these various preparations is the metal itself, we must suppose that it is the metal itself which is the curative agent, and not any of the substances with which it is combined. This fact suggests the answer that the best preparation of mercury is that which in safe unirritating doses contains the largest quantity of the metal; for if mercury be the enemy of the syphilitic virus, it is inconceivable that the very small quantity of the metal contained in the one-sixteenth of a grain of the perchloride can be as useful as the comparatively large quantity contained in a grain of mercury with chalk. This theoretic advantage of preparations containing a large quantity of the metal is also confirmed by experience, for one of the most convincing proofs of the value of mercury in syphilis is its rapid and striking influence over infantile syphilis. Now, mercury with chalk is the preparation most commonly given in this form of the disease; and that the cure is more rapid than in the case of adults is, in my opinion, due to the comparatively large quantity of mercury circulating in the small body of the infant. Moreover, I have seen patients progress but slowly when taking the perchloride, but rapidly improve when put on a course of mercury with chalk. But while I hold that it is of advantage to have a large quantity of mercury circulating through the tissues of the patient, this quantity must not be so large as to produce salivation, purgation, or any other injurious effect. For when the struggling tissues are injured by mercury or by any other cause, then the enemy triumphs and the worst forms of syphilis may ensue. I hold, then, that mercury with chalk is the best preparation to be given in primary and secondary syphilis. It is the least irritating of the preparations containing a large quantity of the metal. It should be continued for a prolonged period. For mild cases in young vigorous adults the treatment should last at least seven months; for more severe cases and in patients above thirty-eight or forty for not less than a year. For an ordinary adult one or two grains three times daily, with a grain or so of Dover's powder, should there be a tendency to diarrhoea, will be sufficient. This, of course, should be combined with the avoidance of alcoholic excesses and of everything calculated to lower the vitality of the patient. For tertiary syphilis the value of large doses of iodide of potassium is undoubted and needs no discussion. I may, however, remark that the common idea that iodism is prevented by the addition of aromatic spirit of ammonia or that iodism is less likely to follow large doses than small ones is not borne out by my experience. I will conclude by referring to a class of cases not unfrequently met with, where tertiary symptoms have supervened before the secondary symptoms have subsided. These cases can be conveniently treated by a mixture containing fairly large doses of iodide of potassium combined with drachm doses of the liquor hydrargyri perchloridi in decoction of cinchona.

Sutherland-avenue, W.

### ASCARIS LUMBRICOIDES AS A COMPLICATION OF TYPHOID FEVER.

By J. S. REYNOLDS, L.R.C.P. & S. EDIN.

A BOY aged fourteen years, of good family history, came to consult me on Nov. 20th, 1891, complaining of general malaise with vomiting and pain in the stomach. On the 23rd I was

sent for to visit him at his home and found him suffering from the prodromitory symptoms of typhoid fever, with pale face, dark lips, scanty and high-coloured urine and severe typical diarrhoea. The temperature during the disease was characteristic, rising in the evening to fall again next morning and reaching a maximum of 104.2°. The tongue was furred at the sides and clear at the tip and middle. On the tenth day the "spots" appeared on the abdomen. The case progressed favourably, defervescence taking place by lysis. After sixteen days' apparent convalescence—i.e., Dec. 26th,—the temperature went up and the diarrhoea returned with its former severity. The symptoms ran a shorter course and once more the patient became convalescent. On Jan. 11th, 1892, the disease again made itself manifest, but until the 18th no especial symptom appeared. When making the morning visit to the patient I found that immediately before my arrival he had passed a large round worm of about ten or eleven inches long. From that date forward recovery was unimpeded and by Feb. 12th it was not necessary to continue visiting at the house. In the early stages of the disease an ordinary saline mixture, with two minims of tincture of aconite every four hours and ten-grain powders of salicylate of soda thrice daily, was given, no food being allowed beyond a simple milk diet. On Nov. 25th active delirium was present and continued for some days, the treatment being a sedative draught containing bromide of potassium and tincture of henbane to be taken at night as required. The diarrhoea was now uncontrollable. Fortunately at this very time there was a correspondence in the columns of THE LANCET concerning the treatment of this malady, more especially the diarrhoea—viz., tincture of iodine and carbolic acid—and having been adopted was followed by great success. The patient received one minim of tincture of iodine and one-eighth of a grain of carbolic acid thrice daily, the doses being doubled after three days. During convalescence he was put on an acid mixture, with sulphate of quinine. On recurrence of the symptoms the former treatment was again used with equal success; and also in the second relapse. After the voiding of the worm no other was passed, although the ordinary vermifuge was given. The only stimulant administered during the attacks was a tablespoonful of hot milk every hour or half hour as required. The case was reported under the Notification of Diseases Act and the usual hygienic measures carried out. The fever ran an ordinary course till the first relapse, which was thought to have been caused by a chill, the patient having come downstairs without permission. The second relapse was attributed to the presence of the parasite; and the question now arises whether both cases were not due to the same cause. As the case appears to me to be very rare, it may perhaps be of general interest to the profession.

Wolverhampton.

### OVARIOTOMY AT THE AGE OF SEVENTY-EIGHT YEARS AND FIVE MONTHS.

By HERWOOD SMITH, M.A., M.D. OXON.

L. R.—, single, was seventy-eight years old in February, 1892. She menstruated naturally from the age of sixteen to forty-five. The patient was first seen on May 25th. Six months ago she noticed her abdomen getting larger and was losing flesh. Examination: Abdomen large and tense, dull on percussion, slightly resonant in the flanks, fluctuation quite distinct (one wave). Measurements: (1) Ensiform cartilage to umbilicus, 7 in.; (2) pubes to umbilicus, 10½ in.; (3) right anterior superior spinous process to umbilicus, 10½ in.; (4) left anterior superior spinous process to umbilicus, 11 in.; (5) girth at umbilicus, 37 in. Vaginal examination: Uterus movable, tense swelling in front of the uterus. On July 10th the measurements were: (1) 7½ in.; (2) 10½ in.; (3) 10½ in.; (4) 12 in.; (5) 37 in. The operation was performed on July 12th. Incision 3 in.; pedicle thin and flat, transfixed and tied in halves with silk; wound closed with six silk-worm gut sutures and one superficial. The tumour was of the right ovary and multilocular, but the secondary cysts were very few and small; it weighed 25 lb. The left ovary was atrophied. The operation lasted fifteen minutes. The stitches were removed on the 18th and on the 20th the wound was quite healed. The patient was seen on Sept. 13th. She was then quite well, getting about and gaining flesh.

As this patient was of such an advanced age I thought the case not unworthy of record.

Harley-street, W.

### MUSCULO-SPIRAL PARALYSIS FOLLOWING INJURY; RECOVERY.

BY W. N. CLEMMY, M.R.C.S. ENG. &c.

On Jan. 20th, 1892, a seaman aged forty-one was admitted to the Bootle Borough Hospital, under the care of Dr. Forbes. The patient stated that a fortnight previously while on board ship he had been thrown against the bulwarks and received a fracture of the lower third of the right humerus. It had been set by the captain and on examination was found to be in apparently good position. While in hospital union occurred and subsequently he attended for a short time as an out-patient. Shortly before his discharge signs of musculo-spiral paralysis were noted, and this tending to become worse the galvanic current with massage was periodically applied. No improvement followed and on March 30th he was readmitted for operation. A long incision was made on the outside of the forearm and the musculo-spiral nerve exposed between the supinator longus and brachialis anticus. On tracing it upwards it was found to be invested in callus at the seat of fracture. As regards the fracture itself, the lower fragment was rotated inwards and displaced upwards and forwards, so that there was formed a recess in which the nerve was lodged and compressed. About two inches of the nerve were involved in the surrounding callus which, being somewhat soft, was gouged away and the nerve exposed and completely freed. The operation was completed by closing the wound after the insertion of a drainage tube. Four days later he had pringling over the area supplied by the nerve, in those places where previously there had been anaesthesia. Fourteen days later he complained of severe pain from the wrist to the finger ends. Power of extension of the second and third phalanges was first noticed eighteen days after the operation—it of course being very slight. To aid the extensors (by preventing the opposing action of the flexors and also the natural tendency of the hand to fall pronate), a splint was kept on the flexor aspect of the arm and hand. By the time the patient was discharged three and a half months after the operation he had but partial wrist drop, while now he has completely recovered with almost full power over his hand and forearm, shown by the fact that he has resumed his ordinary occupation as a sailor.

Bootle.

### PERFORATIONS THROUGH THE ANTERIOR PILLARS OF THE FAUCES.

BY WALTER FOWLER, M.A., M.B. CAMB., F.R.C.S. ENG.

IN THE LANCET of July 16th, 1892, Dr. Morrice quotes a previous contribution of mine in these pages (Nov. 30th, 1889) and brings forward evidence to prove that these lesions may be caused by diphtheritic ulceration as well as by scarlet fever mischief. Whether diphtheria is responsible for the majority of the perforations or whether scarlet fever occupies the premier position is immaterial to the practical side of the question, although interesting from an etiological standpoint. The object I had in view when publishing my memorandum on Nov. 30th, 1889, was to show that these perforations were no evidence *per se* of syphilis. Dr. Morrice having actually observed them in several cases, being caused by diphtheritic sloughing, corroborates my view, and his cases and remarks are exceedingly interesting and valuable. Perforations through the anterior pillars of the fauces are discovered very frequently when investigating ear complaints. At first I certainly considered them as evidences of syphilis, but being struck with the great frequency with which they were bilateral I was led to investigate their origin; hence my contribution to THE LANCET on Nov. 30th, 1889, wherein I described their clinical features. I do not for one moment wish to assert that a unilateral perforation is *not* syphilis; where one occurs careful attention should be paid to the history, and the diagnosis of syphilis should not be inferred on this one fact alone. On the other hand, a perforation through the soft palate (a subject not now under consideration) may be confidently taken *per se* as evidence of syphilis, notwith-

standing that this lesion may be very rarely caused by lupus; and also, according to Dr. Morrice, scarlet fever (which must also be rare). I may add that since my previous contribution on this subject was published I have actually seen a perforation through an anterior pillar that remained permanent, caused by the bursting of a tonsillar abscess (idiopathic); and have likewise had frequent opportunities of verifying my previous views, which I must now extend, thanks to Dr. Morrice, by the inclusion of diphtheria as one of the causes of these lesions.

Echuca, Victoria.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### LONDON HOSPITAL.

PHOSPHORUS NECROSIS OF THE UPPER JAW; CHRONIC  
ABSCESS OF THE BRAIN.

(Under the care of Mr. FREDERICK TREVES.)

THERE are many circumstances which make it probable that the necrosis in this case was the result of exposure of the patient to phosphorus fumes. In the absence of other causes, a slowly extending necrosis of the upper jaw in a patient with a history such as this may safely be ascribed to the effects of the phosphorus. It is luckily unusual at the present day to meet with necrosis of the maxillæ due to this cause, the effect of Larinsér's paper on the subject in 1845, the contributions of Wilks, Bristowe, Simon and others in this country being to clearly demonstrate the cause and point out the remedy. Suppurative meningitis is rarely a cause of death in these cases, but a case is recorded which was under the care of M. Hervieux at the Hospital Necker, in which the patient, a lucifer-match maker, had necrosis of the lower jaw, the upper jaw and afterwards of the bones of the palate, the bones entering into the orbit and the frontal. He died with brain symptoms. Pus was found between the dura mater and the brain.<sup>1</sup> For the notes of this case we are indebted to Mr. H. M. Speechly, house surgeon.

A dipper in a Scotch match factory was admitted into the London Hospital on Oct. 11th, 1892. His age was forty-nine, but he had the appearance of being much older. He was thin and anxious-looking. He had worked at his trade for thirty years without suffering any inconvenience therefrom until about nine months previously to admission. The first symptom complained of was toothache in the right upper jaw, which troubled him continuously for four months. He then had some decayed teeth removed. Shortly after the gum tissue sloughed off the jaw, part of which became exposed. On May 9th some dead bone was scraped away, which gave him some relief. Gradually, however, the necrotic process spread, and a very offensive discharge, previously slight, caused him much distress during the interval between the month of May and the time of his admission into the London Hospital. For six months previously to admission he complained continually of severe headache in the frontal and occipital regions. He could bear no hard covering on his head, so he always wore a soft cloth cap. The headache was almost constant and prevented him from sleeping. His pupils were normal. On Friday, Oct. 14th, Mr. Treves operated. The sequestrum was found to include the whole of the right upper jaw, below the level of the infra-orbital foramen, and was bathed in pus of the foulest description. The cavity, after being washed out, was stuffed with iodoform gauze. The after treatment consisted in irrigating the cavity hourly with a lotion of carbolic acid (1 in 80) and the patient was placed on a liberal diet. From Oct. 11th to the 23rd the temperature was never high; it varied from 97.6° F. as the lowest

<sup>1</sup> System of Surgery, Holmes and Hulse, p. 477, vol. ii., 1883.

point to 99° 8' as the highest, being usually about 99°. Until Oct. 23rd the patient appeared to be doing well; his headache had almost gone, he slept well and was very cheerful. He was disinclined to get up, but was preparing to return home on Oct. 24th. At 3 A.M. on Oct. 23rd, eight days after the operation, on being aroused to have his mouth washed out as usual it was found that he had become unconscious. The temperature, too, had risen to 104°. On attempting to do anything for him he resisted and became very irritable and difficult to feed; he was also very restless and kept groaning and putting his hand to his head as if in pain; he vomited once some greenish mucus. Heart, lungs and abdomen showed no signs of disease; no motor or sensory paralysis; pupils contracted but equal and reacted to light.

Oct. 24th.—Patient fed by suppositories and with difficulty induced to take about a pint of milk during the night. Temperature between 99° and 100° during the night; pulse 84, full but compressible; respiration easy, equals 32; pupils normal; knee-jerks slightly exaggerated on both sides, with ankle clonus. Some twitching movements had been noticed in the left hand. Very restless; groans continually. Urine drawn off by catheter.

25th.—The patient has been more apathetic for the last twelve hours. He has taken milk by the mouth and is now passing urine and fæces under him; no vomiting; pupils contracted, equal, and respond slightly to action of light; groans continually; cheeks puff in and out with respiration, but no stertor; respiration 28 per minute and diaphragmatic; pulse full, but easily compressed, 108; skin warm; sweating freely on head and face; right palpebral fissure wider than left, the eyelids being partially closed; fundi normal, except for some enlargement of veins. The patient's condition was now desperate. On the afternoon of this date, after consultation with Dr. Stephen Mackenzie, Mr. Treves decided to trephine in the hopes of liberating any collection of pus that might have formed in the brain. By means of a two-inch trephine the skull was opened over the right motor area and a small trocar and cannula passed in several directions into the right hemisphere without result. The patient succumbed an hour after the operation.

The post-mortem examination was made on Oct. 27th by Dr. Percy Kidd. The pleura, larynx, trachea and bronchi were normal. In the upper lobe of the left lung at the lower margin was a small abscess the size of a Spanish nut with a slightly developed capsule. There were a few ill-defined reddish nodules in the posterior part of the lower lobe (broncho-pneumonic). No morbid change of any importance was discovered in any other of the viscera. Brain: Diffuse, purulent meningitis of base, less extensive over vertex. At the apex of the right temporo-sphenoidal lobe was a small encapsulated abscess, close under the cortex. It was evidently of long standing. Both lateral ventricles were filled with pus. In the right ventricle the ependyma was distinctly thickened and of a greenish-red colour. The supuration was evidently not recent. The brain tissue around the right ventricle was softened and numerous punctiform ecchymoses were seen. In the left lateral ventricle gelatinous greenish pus was found, but there was no thickening of the ependyma and the brain around was normal. The rest of the brain was healthy. The right cavernous sinus was occupied by a softening and stinking clot. On removal of the brain the foramen rotundum was found to admit a cedar pencil and to lead into a large space from which the greater part of the superior maxilla had been removed. The edges of the enlarged foramen rotundum were necrosed and greyish in colour. The parts of the superior maxilla remaining and also the body of the sphenoid were greyish and necrosed.

*Remarks by Mr. TREVES.*—The removal of the large sequestrum was effected without the least difficulty. A few taps from the chisel set it free. The patient was allowed to get up a few days after the operation, but he was rather inclined to remain in bed, stating that he had arrears of sleep to make up. There was no sickness after the operation, and he vomited only once during the whole progress of the case. He was an active-minded and intelligent man. The abscess of the brain was evidently of long standing and was due to direct extension from the seat of disease. A sudden lighting up of the inflammatory trouble brought about the fatal termination. The long period during which the abscess on the right side of the cerebrum remained dormant is illustrated by many other cases of cerebral abscess. The patient's condition at the time of the operation was desperate, and considering the liberal manner in which the trocar was used the non-evacuation of the abscess was remarkable. The pus in the abscess on the right side was very thick.

## SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

THREE SURGICAL CASES.

(Under the care of Mr. PYE-SMITH.)

WE have frequently published in THE LANCET examples of the secondary effects of otitis media, and this case also illustrates them well. The cerebral abscess might probably have been cured had not septic phlebitis and thrombosis occurred. Perhaps this complication could have been successfully dealt with by evacuation or excising part of the lateral sinus and jugular vein; but apart from the difficulty and risk attending such an operation the patient's condition was thought not to admit of it. The case also emphasises the necessity for treating patients suffering from chronic otitis media whilst the continuance of the disease is indicated by the presence of a discharge. For the notes of these cases we are indebted to Mr. G. Wilkinson, house surgeon.

*CASE 1. Cerebral abscess secondary to purulent otorrhœa; drainage of abscess; thrombosis of lateral sinus; pyæmia; death.*—A child aged ten years was sent to the hospital by Mr. W. W. Banham on April 20th, 1892, with cerebral symptoms secondary to otorrhœa. The history was that for eighteen months the patient had had discharge from the left ear, with deafness. The discharge had occasionally ceased for a time, when the deafness had become worse, but she had not complained of headache. She is supposed to have had measles two years ago, but was not seen by a medical man. There is no history of a blow on the head or ear. On April 17th she began to complain of headache, which gradually increased in intensity and was not localised. Vomiting came on shortly after, the patient ejecting everything she took. There were no convulsions. On the 18th she was seen by Mr. Banham, and immediate removal to the hospital was advised. As she seemed somewhat better on the 19th her parents delayed to send her. On the 20th the headache was again severe, so she was sent in. After admission she complained of no further headache, nor did she vomit. She seemed, however, nervous and irritable, constantly crying to go home and being very backward to answer questions. There was a purulent, offensive discharge from the left ear, no tenderness or œdema over the mastoid process or below it, or over any part of the skull. In the meatus were some prominent granulating discharging pus. She declared herself unable to hear the ticking of a watch held close to the ear on the left side, though she could on the right. Examination of the optic discs showed slight fullness of the veins but nothing more. The temperature rose to 101° on the 21st. On the 22nd she seemed to be going on well and took food well, but about half-past five in the evening, without premonitory symptoms, she was seized with convulsions. There seems at first to have been drawing up of the right arm and turning the head to the right side. Then clonic spasms succeeded. When seen by the house surgeon about three minutes after the commencement of the fit the patient was lying on her back, the head being turned to the right, the eyes to the left and upwards. There were clonic spasms of the face, eyes and neck and all the limbs, the left side being most affected. In a few seconds the spasms became more violent on the right side. The breathing was short and jerky and the pulse very rapid. The fits continued for about ten minutes without intermission, after which the child remained comatose, the face cyanosed, the breathing jerky, with long intervals and somewhat stertorous. She perspired profusely. Other spasms of short duration succeeded. There was some hæmorrhage from the left ear. The temperature rose to 102.4°. At 9.30 she was seen by Dr. Burgess in consultation with Mr. Pye-Smith, and immediate operation was advised. At 10 p.m. the operation was commenced without an anæsthetic, the patient being comatose. There was slight conjunctival but no pupil reflex. The point selected for the trephining was an inch and a half behind and an inch and three-quarters above the left auditory meatus. A flap was raised from the bone around this point and a three-quarter inch trephine applied. The skull was exceedingly thin. When the bone had been raised the dura mater was incised and there was some troublesome hæmorrhage from one of the pial vessels. The brain bulged. A trocar and cannula were thrust downwards, forwards and somewhat inwards towards the roof of the tympanum. At the first thrust pus was struck two inches below the surface; about three drops only were obtained; it was very fetid. A larger cannula and

trocars were now used, but no more pus was obtained. A track was next made in the brain tissue with a small Volkmann's spoon in the direction of the cannula, but no more pus was found. A small-sized rubber drainage-tube was put in and brought out through a hole in the flap, which was then replaced and sutured. The mastoid antrum was next sought for immediately behind the upper half of the auditory meatus. A chisel (three-sixteenth of an inch) and a gouge were used for removing the bone. The wall of the lateral sinus was exposed posteriorly, but as far as could be judged the sinus was free from thrombosis. Finally, the mastoid antrum was opened by working in a forward direction and a communication with the middle ear established. No pus was evacuated. A small rubber drainage-tube was passed through the wound into the middle ear. Some granulations on the posterior wall of the auditory meatus were scraped and dead bone found below them, which was scraped away as far as possible. Both wounds were now dressed with iodoform, alembroth gauze and sublimate wool, a piece of gutta-percha tissue being placed over the upper dressing to keep the two separate as far as possible. The operation lasted about two hours. The patient stood it well and partially regained consciousness. She evidently felt the second skin incision. The pulse after the operation was 150 and the temperature normal. She passed a fair night, lying quite passive unless disturbed. The temperature rose to 101.8 during the night but was normal in the morning, when the pulse was 128.

April 23rd.—She takes small quantities of milk well. She cannot be got to answer questions, but cries out when the head is being dressed or when she is moved. On the first dressing there was a small quantity of serous fluid from the auditory meatus, distinctly offensive. No purulent discharge from either of the tubes. Later in the day she became very restless, pulling at the bandages and calling "Mother" and "Oh, dear!" Twenty grains of bromide of potassium were given and ten grains ordered every four hours. An ice-bag was applied over the dressing and the hands tied. She continued in much the same condition till the afternoon of the 24th, when she became more conscious and recognised her father. The improvement continued until the 25th when she could apparently understand what was said to her. Temperature 100° in the evening, pulse 120. On the 26th the temperature rose to 101° and some pus came from under the flap over the trephine wound; none from the tube in the brain. She seemed more apathetic. This condition became more marked every succeeding day. On the 28th the discharge from the ear had become copious and very offensive. Tenderness and puffy swelling were now observed below the mastoid process with some hardness in the line of the internal jugular vein. Her condition was, however, considered to be too critical for further operation. The head was much retracted and kept turned to the left, the muscles of the neck and back rigid, the tongue and lips dry, the teeth covered with sordes and the complexion dusky. No dulness or physical signs of disease was found in the chest.

On May 1st a considerable quantity of greyish, very offensive pus came from around the tube in the brain, after which the patient seemed to rouse herself for a short time from the semi-comatose condition in which she was. She opened her eyes and seemed to take some notice of what was going on. The temperature fell from 103° to 99°. It rose, however, on the 2nd to 103.2° and finally to 105°, the patient dying in a comatose condition in the afternoon.

*Necropsy.*—An abscess cavity about the size of a hazel nut was found in the brain substance just above the roof of the tympanum. The membranes were adherent to the bone at this spot, and there was some inflammation around. The purulent track through which the drainage-tube had passed led down to this, but had evidently failed to drain it. There was a septic thrombus in the left lateral sinus, extending some distance down the internal jugular vein. In both lungs were found a large number of small, recent pyemic abscesses, though there were none in the other viscera. There was no fluid in the chest.

This was probably a case of the usual ilco-cæcal variety of intussusception. It is of interest as showing that distension of the lower bowel by water may succeed when that by air fails. If a tube and funnel be used, as in this case, there would seem to be less danger of rupturing the bowel by water (unless the funnel be held very high) than there is by air, which must always be injected with considerable force, and the entrance and exit of which cannot be so easily regulated.

CASE 2. *Intussusception reduced by water.*—A male infant

aged seven months was brought to the hospital about 6 P.M. on April 21st. He was a robust, well-nourished child, quite healthy up to the onset of the present attack. The history was that about 3 P.M. the child had apparently been seized with great pain in the body, had begun to scream and toss itself about, kicking his legs and doubling up his body. Any pressure on the body seemed to increase the pain. He had been sick repeatedly, but there had been no action of the bowels or tenesmus. On inquiring it was found that the bowels had been opened about twice daily, and on the morning of the 21st had been opened twice. The patient had been fed entirely at the breast, but about 1 P.M. on the day of admission had had a small piece of pudding (boiled dough and treacle) given to him by his sister. On examining the abdomen it was thought that there was a tumour on the right side, but the muscles were so rigid and the child so restless that it could not be made out for certain. Nothing was felt per rectum. At 8 P.M. the child was seen by Mr. Pye-Smith in the absence of Mr. Thorpe. He was then quiet and the abdomen flaccid and not distended. A distinct sausage-shaped tumour could be made out lying across the abdomen above the umbilicus. With the finger in the rectum the left extremity of this could be felt through the bowel wall, feeling like the dimpled end of an intussusception. 9 P.M.: Ether was given and abdominal taxis was tried for about ten minutes without effect. Air was next injected through a valveless Higginson syringe, which was clamped by the fingers alternately on the distal and on the proximal side. The tumour was decidedly lessened, but was not quite reduced. A second inflation was made after a while, but the tumour did not entirely disappear. 9.40 P.M.: As the tumour was still felt, a normal saline solution was made to flow into the rectum through a tube attached to a funnel held three feet above the bed. About a pint and a half was thus introduced, and the abdomen became much distended. On removal of the tube much of the fluid escaped. About twenty minutes were occupied in this proceeding, after which no distinct tumour could be felt. Half a drop of laudanum was administered, to be repeated every hour unless the pupils became contracted. The child had no further symptoms. He was fed per rectum and kept under the influence of opium for two days, after which time he was again fed at the breast and made an uninterrupted recovery. On the 24th the bowels were opened, the evacuation containing blood and mucus. On the 27th they were opened freely without blood or mucus. The patient was discharged on May 6th, quite well.

The association of the symptoms, deafness, tinnitus, vertigo, vomiting and forcible falling movements towards the affected side are familiar as occurring in paroxysmal attacks in Ménière's disease, and would suggest the conclusion that the part injured by the fall was the same as that affected in that disease. The site of the lesion in Ménière's disease is, however, a matter of dispute. The blow over the mastoid process might readily cause damage to the internal ear and semicircular canals, which Knapp and other writers believe to be affected in Ménière's disease. Had a hemorrhage occurred into these parts the symptoms could scarcely have been so transient. In view of the paroxysmal nature of the attacks in Ménière's disease, Dr. Wilks believes the primary seat of the disturbance to be in the brain, affecting chiefly the auditory and probably contiguous "equilibrium centre." If in this case we are to refer the injury to the brain, one would expect the concussion to be transmitted mostly to the temporo-sphenoidal lobe and cerebellum. The temporo-sphenoidal lobe is supposed to contain the auditory and "equilibrium centre," and an injury to the cerebellum would account for "forced movements" towards the same side, nystagmus and frequent vomiting.

CASE 3. *Head injury, with unusual symptoms.*—A child aged eight was brought to the hospital on the night of Sept. 7th with a history that she had been pushed down by another girl, and had struck her head on the pavement. She had not lost consciousness, but seemed dazed for a short while. On raising her the mother found the child could not walk. On questioning her she complained of pain in the left side of the head and of feeling dizzy and dazed. On examining the head a bruise was found over the left mastoid process and zygoma. There was incessant and somewhat violent nystagmus in a lateral direction, which increased when she was told to look at the finger or to follow the finger with her eyes. The movements were most marked when she was looking towards her right and upwards. There was also slight convergent squint. The mother said she had noticed the eyes working at times before the accident.

She was asked to sit up, but appeared to be unable to do so. When supported in a sitting position the body was forcibly bent over towards the left side; when unsupported she fell forcibly towards the same side. She was put to bed and kept quiet for an hour, after which she seemed to have got over the dazed feeling—in fact, she seemed a very intelligent child and readily answered the questions put to her. She complained of a noise in the left ear like the ringing of a bell; both ears were rather deaf; the ticking of a watch could only be heard within a distance of four inches, but readily when placed over either mastoid process; she said she had had a discharge from the right ear from time to time; there was no sign of paralysis of sensation or motion in any part, nor was there loss of coördination, the patient being able to place the forefinger on the tip of the nose or heel or opposite the great toe when the eyes were closed without hesitation; the knee-jerks and superficial reflexes were normal. During the first hour she vomited three times. The optic discs appeared normal and the temperature was normal.

Sept. 8th.—She vomited once in the night and once this morning. She still leans to the left in the sitting position and falls when unsupported, though less forcibly. The nystagmus and tinnitus are less. The temperature is normal.

9th.—She has vomited three times since the last note. She can now sit and stand fairly steadily. The nystagmus and tinnitus are diminishing.

13th.—The vomiting has continued from time to time till to-day. There are still slight nystagmus and tinnitus, but no vertigo or convergent strabismus.

Oct. 4th.—There has been no vomiting since Sept. 13th; there is slight nystagmus on slight lateral movement of the eyes; there is no tinnitus, vertigo or unsteadiness in standing with the eyes open; when the eyes are closed she sways a little; there are slight choreiform movements of the arms and head.

17th.—She can now hear the watch at three feet from the left ear, but only one foot from the right ear. There is still slight nystagmus and choreiform movements.

Nov. 3rd.—The nystagmus has now disappeared; the only symptoms are the choreiform movements; the optic discs are normal. The child was discharged to-day.

## Medical Societies.

### OBSTETRICAL SOCIETY OF LONDON.

#### *Sugar in the Urine during the Puerperal State.*

A MEETING was held on the 7th inst., Dr. J. Watt Black, President, in the chair.

Drs. FREDK. J. McCANN and WILLIAM ALDREN TURNER communicated a paper on the Occurrence of Sugar in the Urine during the Puerperal State. They having investigated a series of 100 cases arrived at the following conclusions: 1. That sugar is present in the urine of women during lactation. They assume with Hofmeister that this sugar is milk sugar. Glucose may also be found. 2. That sugar is present at some period in every case. 3. That in the majority of cases the largest amount occurs on the fourth and fifth days of the puerperium. 4. That the quantity depends on (a) the condition of the breasts; (b) the quantity and quality of the milk; (c) the suckling of the child. Of 100 cases the average quantity found was 0.35 per cent.—i.e., one grain and a half per ounce. 5. That when lactation is diminished or suppressed the amount of sugar diminishes or disappears. 6. That when the production and exhaustion of the milk are equal the amount of sugar is very small.

Dr. A. ROUTH asked if any of the cases had been followed so as to ascertain whether the glycosuria persisted.

Dr. BOXALL mentioned the case of a suckling woman who was admitted into University College Hospital for repair of a ruptured perineum and whose urine was loaded with sugar. The operation was postponed for a week or two, when the sugar had disappeared. When resident at the General Lying-in Hospital his observations as regarded the presence of sugar in the urine of lying-in women completely coincided with the conclusions stated in the paper.

Dr. HORROCKS pointed out that the paper was on a physiological and not a pathological subject. The cases were not diabetic and in none of them, therefore, was there any reason for hesitating to perform any operation required. In true diabetes the fear of operation might induce coma, but other-

wise he knew of no reason for not operating upon diabetic patients.

Dr. WHEATON agreed in the main with the results arrived at, but he did not think sugar was so frequently present as stated in the paper. Normal urine always contained a small amount of copper-reducing substances. In the cases where only 0.17 per cent. of sugar was found he thought the reduction of the copper was probably due to the excess of uric acid and urates generally present in the early part of the lactation period. Drs. McCann and Turner had not shown that the sugar present was really lactose and he asked if they had found any test to distinguish between it and dextrose or diabetic sugar. It seemed a most unusual thing that the secretion of a gland should be reabsorbed, and it would be important to ascertain whether the sugar existed in the blood during lactation. He had found that where a considerable amount of sugar existed in the urine of the mother it was present also in that of the infant, suggesting that the sugar was incapable of assimilation and was of a more or less poisonous nature, and that its presence in excess might be injurious to the child. He thought the sugar in the urine of pregnant women might be due to congestion of the liver, which was present, or to a ferment in the mother's blood producing a similar effect by the decomposition of glycogen.

Dr. CULLINGWORTH suggested an alteration in the heading of the last column of the main table and this was at once accepted by Drs. McCann and Turner.

Dr. LEWERS asked whether, in addition to Fehling's test, that by potash and the specific gravity had been noted.

Dr. GRIFFITH thought the probable explanation of the presence of sugar in urine of nursing women was that it is a resorption process from the mammary glands, varying in quantity with the activity of the secretion and the difficulty with which the breasts were emptied, and, as had been suggested, possibly with the composition of the milk.

In reply, Dr. McCann thanked the Fellows for the reception given to the paper. The observations were made on 100 cases and over 1400 samples of urine tested. They had followed strictly the method of testing with Fehling's solution advocated by Sir W. Roberts—viz., (1) avoid prolonged boiling; (2) allow suspected urine to stand twenty-four hours before deciding that it does not contain sugar; (3) do not add excess of urine. Dr. McCann pointed out the importance of distinguishing between glycosuria and diabetes. Glycosuria without constitutional symptoms is of little importance. Unfortunately the cases could not be traced, as lactation is stopped when the patients leave the hospital. The only method of distinguishing between glucose and lactose is by the polariscope, and where much sugar is present in the urine, probably accompanied by a large amount of lactose in the milk, the nutritive value of the milk is diminished. Various tests had been employed; the quantitative estimation was made with Pavy's solution. He pointed out the many important points still requiring elucidation, such as the composition of the milk, its nutritive value and the condition of the blood during lactation.

Dr. GRIFFITH communicated notes of a case of galactorrhœa occurring during a first pregnancy in a patient under the care of Dr. Fentem of Bakewell. The excessive flow of milk (which amounted to a pint daily) continued during the whole period of gestation, and the treatment, which consisted in the administration of iron and quinine with pilocarpine and in firmly bandaging the breasts, was apparently without material benefit.

The following specimens were shown:—

Dr. HORROCKS: (1) Long forceps, (2) Uterine Sound, (3) Saline Transfusion Apparatus.

Dr. RASON: Woman, subject of Osteomalacia, cured by Excision of the Ovaries.

Dr. LEWERS: Papilloma on Peritoneal Aspect of Ovarian Cyst without other Peritoneal Infection.

Dr. A. ROUTH: Deformed Fœtus.

Dr. BOXALL: Placenta Prævia of unusual size and shape.

### HUNTERIAN SOCIETY.

#### *Influence of Protozoa in certain Diseased Conditions.*

A MEETING was held on Wednesday, Dec. 14th, F. GORDON BROWN, M.R.C.S., President, in the chair.

Dr. JAMES GALLOWAY made a communication to the Society respecting the above. The general term "Protozoa" was preferred as certain of the parasitic forms were of doubtful classification. The well-known psorospermic disease of young

rabbits was taken as the basis, and the main symptoms of this affection described, as observed in the young and in the adult animal, including, as easily recognised signs, emaciation, severe illness and acute enteritis. The main stages in the development of the parasite (*Coccidium oviforme*, Leuckart) were then described. The lesions caused by it in the liver and in the intestine were referred to in detail, and the importance of the condition as giving an example of the infection of epithelial cells by a parasite which undergoes one stage of its development within the epithelial cell, was emphasised. The method by which the parasite gains access to the cell was suggested to be by movements on the part of the invading organism, either alone or possibly aided by movements on the part of the epithelial cell itself. The stage of development undergone external to the body was said to be of great importance in reference to the infectious rather than contagious character of the disease. The close resemblance of the growths observed in the organs of the host to adenomatous tumours was shown. Coccidial infection in the human subject was alluded to. The question of protozoa occurring as parasites in malignant tumours in the human subject was then considered, and many forms of epithelial cell inclusions which had been described as parasites were noted, and arranged roughly as follows:—1. The invagination of one epithelial cell within another. 2. The occurrence of invading leucocytes within epithelial cells. 3. The endogenous formation of cells, possibly by direct division of the nucleus without division of the cell body, or more probably by asymmetrical karyomitosis of the cell nucleus, giving rise to several masses of chromatin bodies within one cell wall. 4. The various forms of degeneration of the cell body or its nucleus, such as the colloid &c. Many of the so-called parasites were caused by one or other of these processes. Certain other cell inclusions had been described by some observers abroad and by Dr. Ruffer and Mr. Walker in this country. Dr. Galloway was able to confirm in almost every particular the appearances described by these authors. The occurrence of the inclusions within the cell body, occasionally also within the nucleus itself; the structure of the inclusions, consisting in the adult condition of a very distinct capsule, enclosing one or more very obvious, brightly staining bodies; the radial striations passing from the periphery towards the centre; the variations in size indicating various stages of growth; the completely distinct staining reactions shown by the inclusions when compared with the nuclear chromatin of the epithelial cells and its degeneration products, were mentioned as clearly differentiating these bodies from any form of cell degeneration and guiding to the conclusion that, in our present state of knowledge, these inclusions must be regarded as parasitic protozoa, probably having very distinct effects on the epithelial cell growth and possibly even on the causation of the malignant tumours in which they have been found. The importance of careful histological methods was strongly emphasised and the cause of many of the doubtful accounts of "cancer parasites" was ascribed to imperfect methods of preparation. The demonstration was illustrated by drawings, by the use of the lantern and by microscopic preparations.

Dr. RUFFER expressed his entire agreement with Dr. Galloway's conclusions, and added some account of his investigations into the development of the parasites. Contrary to his first belief he could now with more perfect methods see the intranuclear form of the parasites in every specimen of cancer he examined. It first appeared as a little round body staining by hæmatoxylin, which approached the periphery of the nucleus and then escaped and lay free in the protoplasm of the cell. There might be one or many of these bodies and in some cases the nucleus actually burst. He knew of nothing in human pathology which would correspond to this unless it were a parasite. He had been able to see the living parasite in fresh juice scraped from a rapidly growing cancer of the breast placed in normal physiological fluid on the stage. It looked just like an amœba enclosed in a capsule, putting out pseudopodia to the periphery and withdrawing them. As to the part these bodies played in cancer he could only say that there was no reason against the supposition that some of them might be the actual cause of cancer. A nucleus containing the parasite was hardly ever to be seen dividing, but where cells were dividing the parasite was found in the neighbourhood. His suggestion was that the bodies produced karyokinesis in the cells around and thus caused the cancer growth.

#### *Fibroid Degeneration.*

Dr. ARNOLD CHAPLIN showed specimens of Fibroid Indu-

ration of the Lungs. The patient was a woman aged forty-one years who had suffered from cough for many years with little emaciation. At the necropsy the upper lobes of both lungs were found densely invaded by fibroid growth without much thickening of the pleuræ; there were some small, smooth-walled cavities in the right lung and masses of calcified and caseous material in the bronchial glands. The kidneys and liver showed evidence of chronic fibroid change. Dr. Chaplin submitted the case as an instance of general fibroid degeneration due to a fibroid diathesis and distinguished clinically by its onset after acute lung disease, by its slow apyrexial course and the absence of tubercle bacilli. An acute deposition of tubercle may occur near the close.

## PROVINCIAL MEDICAL SOCIETIES.

**BRADFORD MEDICO-CHIRURGICAL SOCIETY.**—At the meeting of this Society, held on Dec. 6th, Dr. J. H. Bell, President, in the chair, Dr. MAJOR showed a boy aged fifteen whose father had died a short time since of general paralysis, whilst the mother was mentally defective, suffered from slurring speech and probably was on the verge of the same disease. The boy himself was formerly bright and intelligent and a good singer. He first came under observation in February last for choreiform movements, attacks of headache and vomiting. He was treated with arsenic and improved. Later stammering came on, with tremors of the tongue and lips and liability to fall in walking. Mental impairment has developed, but is not very considerable; it is chiefly loss of memory and a silly expression. No hallucinations, optic neuritis, nystagmus or visual defects. The case is reported on account of the youth of the patient. Cases at seventeen and sixteen have been reported in this country and one of fourteen on the Continent.—Dr. RABAGLIATI showed specimens of Ovarian Sarcoma, he had recently removed. The first patient, aged forty-one, had noticed a movable tumour like an egg. On operation ten and a half pints of ascitic fluid escaped and an egg-shaped tumour, weighing four pounds and a half, was removed. Histologically it was a spindle-celled sarcoma with some myxomatous degeneration.—Dr. MAJOR also showed a specimen of an old Hydatid Tumour of the Liver from a man aged sixty-six. The right lobe of the liver contained a tumour the contents of which formed a faecal-like mass in which no hooklets could be found, but microscopic examination revealed the characteristic laminated membrane of hydatid cyst.—Dr. KERR spoke of the Hypnotic and Hysterical Conditions as similar, and although hypnotic treatment could not cure disease yet it was sometimes the only means available for removing symptoms. The knee-jerk is exaggerated if a patient is directed to concentrate all his voluntary power in one direction—as tightly closing eyes, clenching the jaws or fists. It is said that the tonic control exercised by the cerebral cortex on the lower centres is thereby decreased. In the case of an epileptic aura referred to a limb a tight ligature is applied, and in some cases the stimulus is said to act on the cortical centres affected and avert the threatening discharge. In hypnotising the cerebral balance is disturbed; all the cortical effort, as it were, is turned in one direction and self-control is abolished, the patient's nervous system becoming a complicated mechanism of reflexes. In conclusion, the speaker demonstrated the various hypnotic and post-hypnotic phenomena produced by suggestion.—Drs. GOYDER and RABAGLIATI joined in the discussion, which was adjourned for a month.

**LIVERPOOL MEDICAL INSTITUTION.**—A new and successful departure was adopted at the Medical Institution by devoting the whole of an evening to the study of clinical cases. The upper suite of rooms was thrown open, and screens were placed between the patients. Over sixty cases were shown, including those of medical, surgical, eye, ear and skin diseases. Eighty members of the institution were present, a number of country members and visitors availing themselves of the opportunity of seeing the more interesting cases at the time in the Liverpool hospitals. A discussion on some of the more important cases terminated the proceedings. Messrs. Barraud's portrait of the Members and Associates of the Liverpool Medical Institution was hung upon the walls for the first time. For the success of this original idea the members are indebted to the indefatigable secretary of the ordinary meetings, Dr. George G. Hamilton, who was warmly congratulated by many members on the results, and a hope was expressed that the successful experiment would be repeated.

**MANCHESTER MEDICAL SOCIETY.**—At a meeting of this Society, held on Dec. 7th, Mr. A. W. Stocks presided.—Dr. REYNOLDS showed a case of Male Hysteria in a patient aged sixty-six who exhibited very markedly the trepidant variety of the so-called symptom—complex “astasia-abasia.” He pointed out that this was probably no new symptom, but merely a new name for the well-known difficulties of walking and standing as met with in hysterical and neurasthenic patients. The patient also had other hysterical symptoms, as retraction of the field of vision, irregular patches of anaesthesia &c. Dr. Reynolds also showed (1) a case of Hereditary Chorea coming on about the age of six, the patient's father having suffered from adult chorea; (2) a case of Bilateral Chorea following an attack of slight right-sided hemiplegia in a male adult; and (3) a well-marked case of Hysterical Chorea in a girl who also had hemianesthesia.—Dr. EDGE mentioned a case of Aortic Regurgitation, in which a presystolic murmur had been frequently heard, and expressed the opinion that it would prove to be one of the cases first described by the late Dr. Flint, in which after death no mitral lesion could be discovered. Dr. Edge also mentioned a case of Mitral Stenosis, in which the presystolic murmur was unusually well conducted to the left and could be heard at the back. A loud rough murmur was also heard in this case over the pulmonary area. After excluding other causes this murmur was considered to belong to the group described by Quincke, in which, owing to retraction of the left lung, the pulmonary artery comes in contact with and is thus flattened against the parietes at each systole and a murmur produced. Allusion was also made to Dr. Bramwell's opinion that this murmur is exocardial and caused by the pericardium covering the root of the pulmonary artery being roughened by a deposit of lymph and rubbing against the chest wall.—Dr. T. HARRIS related the result of a number of post-mortem examinations in cases of Mitral Stenosis and Cardiac Dilatation, which showed that in the cases where the deep cardiac dulness extended as high as the second left interspace it was due to the enlargement of the conus arteriosus of the right ventricle and that the left auricle in the cases which he had observed was either not seen at all from the front or only the tip of its appendix was visible. Dr. Harris also referred to the difficulty which such cases sometimes presented in diagnosis, as the dulness resembled closely that caused by pericardial effusion.—Dr. LEBCH showed a case of Mediastino-pericarditis. The boy came under observation in August, 1890, and at this time had bronchitis, greatly enlarged liver, ascites and anasarca, and a slight cyanotic condition. There was well-marked pulsus paradoxus. The jugular veins were distended, but did not increase in size during inspiration. There was slight increase of cardiac dulness, but no evidence of valvular disease. Save for the disappearance of dropsy the boy has continued in much the same state since 1890, but increasing emphysema has rendered the area of dulness in the cardiac region less marked. At the present time pulsus paradoxus is not so well marked as formerly. The respiration is markedly abdominal, and during inspiration the heart beat can be felt very distinctly in the 6th space as if it were dragged down by the diaphragm, whilst in expiration the heart in this space is almost absent.

**MANCHESTER PATHOLOGICAL SOCIETY.**—At a meeting of this Society, held at the Owens College on Dec. 14th, Dr. Judson S. Bury, President, in the chair, Mr. F. H. W. COTTAM exhibited a Skull showing an aperture through the bone two inches and a half long and seven-eighths of an inch broad, situated in the upper frontal region close to the mid-line. The patient had been an inmate of the County Asylum, Prestwich, and had inflicted the above injury on himself with a carpenter's axe. Death occurred twenty-four days later after the formation of a cerebral abscess.—Dr. THOMAS HARRIS showed specimens from two cases of Primary Malignant Disease of the Pleura. Microscopically the one growth presented the character of a squamous cell epithelioma. The other was of a cylinder cell type. Dr. Harris referred to the rarity of such cases and to the subject of the development of neoplasms of the cancer type in tissues which, like the pleura, are developed from the mesoblastic layer of the embryo. Although he felt that recent embryological researches and also much of our pathological knowledge might be against the view of primary epithelial malignant tumours arising in tissues developed from the mesoblast, he nevertheless held that occasionally, though certainly rarely, such tissues did give rise to such growths.—Mr. J. W. SMITH showed the preparation from a case in which Suffocation had resulted from Ulceration of a Sup-

purating Bronchial Gland into the right bronchus. The patient a girl of three, who was supposed to be choking from a piece of toffee, was brought to the Manchester Royal Infirmary in a moribund condition. Tracheotomy and artificial respiration were performed without success. At the necropsy an oval ulcer with ragged edges was found on the outer and posterior wall of the right bronchus. It communicated with the cavity of a caseous bronchial gland. A flocculent slough the size of a horse-bean lay at the bifurcation of the trachea. Caseous nodules were scattered through both lungs.—Finally Dr. R. T. WILLIAMSON exhibited and described sections of the cord in a case of Acute Myelitis simulating Hæmatomyelia. On the day of the onset of the symptoms the patient got up apparently quite well, but while drawing up the window blinds found herself suddenly unable to use her arms. An hour later both legs became paralysed. Then followed paralysis of intercostals, bladder and rectal symptoms, analgesia and thermo-anaesthesia on the left side below the seventh rib and hyperæsthesia on the right side. Death occurred in forty-two days. Examination of the cord revealed myelitis affecting chiefly the grey matter of the lower cervical and upper dorsal regions. The left posterior horns were much more affected than the right. There was no evidence of hæmorrhage at any part.

**MIDLAND MEDICAL SOCIETY.**—At the second ordinary meeting of this Society, held on Nov. 16th, Mr. Eales, President, in the chair, Dr. MARSII showed a Papilloma removed from the Larynx of a patient and the patient herself. There had been a history of some laryngeal trouble for eighteen months; never any dyspnoea or pain. On examination a small papilloma was seen on the free edge of the left vocal cord, about its centre, and a group of three or four smaller ones at the anterior commissure. They were incised with a laryngeal knife and removed with Mackenzie's forceps. The patient's voice at once returned and has remained well since. A very small papillary growth has since recurred on the anterior commissure.—Dr. SUCKLING read notes of two cases of Dropped Foot from Sciatic Neuritis. The first was a woman aged sixty-six, who had had trouble for six months, attributed to sciatica, and had lately lost the power of raising the toes. The external popliteal nerve was thickened and tender. The plantar reflex was absent on the affected side. The second case was that of a man, aged sixty, who suffered from pain in the course of his sciatic and peroneal nerves. In this case, during paroxysms of pain, all power of dorsal flexion of the foot would be absent. Dr. Suckling called attention to the great preponderance of left-sided sciatica over right-sided sciatica and suggested that a loaded rectum might possibly be a predisposing cause of the neuritis. Nearly all cases of sciatica were, in his opinion, in greater or less degree due to neuritis. He also spoke of temporary dropping of the foot after paroxysms of pain in locomotor ataxy and of dropped foot in phthisis.—Mr. JORDAN LLOYD showed a specimen of Annular Carcinoma of the Sigmoid Flexure removed by operation from a woman, sixty-two years of age, suffering from acute symptoms of intestinal obstruction. The lumen of the bowel was contracted to the size of a crow quill, but the patient had not complained of abdominal symptoms until a few days before the operation.—Mr. LLOYD also showed a life-size drawing of a Primary Multinodular Cancer of the Liver removed post mortem from the body of a woman forty-two years of age. The specimen was shown because of the enormous size of the organ, which weighed 15 lb. 12 oz.—Dr. FOXWELL showed a Heart taken from the body of a girl of seventeen, in which there was a communication between the auricles. The opening into the right auricle was some quarter of an inch in diameter; that into the left auricle very little more than one-sixteenth, and situated much higher up in the wall of the septum, so that a valvular passage existed between them, which, it seemed, must be closed, or nearly so, during the auricular systole. The pericardium was almost universally adherent; where it was not, its layers were separated by caseous material; where adherent its layers were largely infiltrated with calcareous matter, which in places was one-eighth of an inch in thickness and was very dense and continuous forming a rigid shell to the heart. The history was one of good health and strength, though always short-winded on exertion, up to the age of fourteen; since then the patient has felt increasing failure of strength with symptoms of bronchitis. No acute rheumatism or scarlet fever.—Mr. TAYLOR showed three specimens of Diseased Kidney removed by Nephrectomy: 1. A large Pyonephrosis removed by the Abdominal Method,

the patient making a good recovery. 2. A Carcinoma of the right Kidney Removed through a Lumbar Incision. Recurrence had taken place within three months. 3. A case of Hydro-nephrosis operated on successfully through the abdomen.—Mr. BARLING then read a paper on Appendicitis.

**NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.**—Dr. T. Oliver presided at this meeting on Dec. 8th. Professor BEDSON demonstrated a ready method for the Detection and Estimation of Free Hydrochloric Acid in the Contents of the Stomach. Jolles' method was based on the fact that a solution of eosin shows two absorption bands in the blue-green portion of the spectrum, which are destroyed by hydrochloric acid intensified by alkalis, but not affected by lactic, butyric, acetic or formic acid.—Mr. MORGAN showed a boy on whom the right common carotid was tied for Uncontrollable Hæmorrhage from the mouth, apparently following extraction of a tooth. The bleeding recurred after ligation, but in a much less severe form and was easily controllable by plugging the bleeding spots.—Dr. MURPHY showed a girl on whom he had sutured the tibia for ununited fracture with a good result.—Dr. HUME showed a man from whom he had removed a large Sarcomatous Kidney by anterior incision. There had been no hæmaturia, and the ureter was found to be blocked. The amount of urine both before and after operation was about normal.—Dr. PAGE showed—(1) a man aged thirty-eight, whose right kidney he had removed for Pyonophrosis. The kidney was unusually high, so that the tumour could not be felt before the abdomen was opened and the removal was more difficult than usual; (2) a boy from the synovial membrane of whose knee-joint a Growth had been dissected; (3) a man aged seventy, who had all the symptoms of Stone in the Kidney. At the operation no stone could be found and all his symptoms had returned.—Dr. PAGE showed a man whose femoral artery he had tied for Popliteal Aneurysm.—Dr. MURPHY showed a similar case in which he had tried compression of the femoral artery but had afterwards to ligature.—Mr. WILLIAMSON also showed a case in which he had ligatured.—Dr. A. E. MORISON showed specimens from three cases of Ectopic Gestation in which he had recently operated, all the patients recovering.—Dr. LIMONT showed a woman suffering from widespread Lichen Planus. On one leg there was a patch of lichen verrucosus.—Dr. HUME showed Calculi removed from three patients by supra-pubic lithotomy, and Dr. SELBY PLUMMER showed one removed in the same way.—Dr. COLBY showed a Syringe which he had used for intra-laryngeal injection of menthol. Cough and dyspnoea had been greatly relieved by the treatment.—Mr. WILLIAMSON showed a Cup of Bone removed from an excised eyeball and two specimens of Glioma of the Retina.—Dr. ROBERTSON showed some of the Modern Instruments used in throat and ear surgery.

**NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.**—At an ordinary meeting of the Society on Nov. 12th, Mr. R. C. CHICKEN, F.R.C.S., the President, read a paper on Reducible Hernia. The object of the paper was to show that the proper treatment of a recent reducible hernia was by operation and not by truss. That the treatment by truss should be reserved as a means towards radical cure in congenital hernia or as a permanent palliative remedy in the case of the infirm, sick or aged. Under the antiseptic treatment the risk to the patient was almost *nil*—much less than that entailed by wearing a truss. The actual mortality was less. It was strongly urged that the operation should be performed early and before the rings and adjacent parts were displaced, or before the contents of the sac became too large or adherent. At the conclusion of Mr. Chicken's paper a cordial vote of thanks was moved by Messrs. Boobbyer and Anderson respectively, and carried unanimously.—Mr. R. C. Chicken presided at a meeting of the Society on Dec. 12th, when the following communications were received.—Mr. ANDERSON showed a boy aged ten upon whom he had successfully operated for Double Osseous Ankylosis of the Hip. A free and fairly firm joint was secured on both sides. He also showed a man aged forty-five upon whom he had operated for Empyema with Multiple Sinuses with complete success.—Dr. HUNTER exhibited, with Dr. ELDER, the Fœtus and Membranes from a case of Tubal Pregnancy rupturing at the end of the second month, upon which the latter had performed abdominal section. Ten days had elapsed since the operation and the woman was recovering without a bad symptom.—Dr. HANDFORD showed specimens of Multiple Military Aneurysms taken from the brain of a man aged sixty, who was first attacked with Right Hemiplegia. The one-sided paralysis after a few hours' duration spread to

the other side and the man rapidly succumbed in a state of coma. The vessels at the base of the brain were separated by washing away the brain substance with a stream of water. The aneurysms were from twenty to thirty in number and from one-twenty-fifth to one-tenth of an inch in diameter.—Dr. SYKES-WARD showed a specimen of Acephalous Monster (weighing nine pounds) which he had delivered with some difficulty by turning.—Dr. WILLIAM B. RANSOM showed a Spleen some six inches in diameter, removed from a typhoid fever patient at seventeen who died in the third week. The cystic cavity was filled with bile-like fluid and its walls showed the splenic trabeculae dissected out.—Mr. ANDERSON exhibited a Uterine Fibroid weighing many pounds which was successfully removed by himself.—Dr. HUNTER then read a paper upon Myxœdema and advocated the injection of thyroid extract. After discussing the usual symptoms and course of the disease, he described several cases in which the treatment had been adopted with complete success. He laid stress upon the necessity of a slow injection of the juice.—Dr. WM. RANSOM recommended the ingestion of raw thyroid tissue. He stated that he had unsuccessfully applied the thyroid treatment to a case of exophthalmic goitre.—Dr. HANDFORD advised the slight cooking of the gland tissue and gave an account of a case of myxœdema recently under his own care, in which every other line of treatment had been tried without benefit.—Mr. WOOD of Ilkeston gave a further history of the same case.—Finally, Mr. ANDERSON read a paper on Tubercular Tendo-vaginitis. In describing tubercle in tendon sheathes, he stated that its behaviour in them was practically the same as in joints. He advocated early operation by scraping and free drainage, with antiseptic precautions.—The PRESIDENT said that the removal of tubercular tissue from surfaces to which it was adherent by scraping had been very generally attended with the best results.

**PLYMOUTH MEDICAL SOCIETY.**—On Dec. 10th the PRESIDENT (Mr. Leah) brought forward a boy aged eleven, whose legs had been amputated at the "seat of election" for Infantile Paralysis.—Mr. WOOLLCOMBE demonstrated the present condition of the right elbow of a labourer aged thirty-two, whose joint was excised two months previously by Mr. Swain for a Compound Comminuted Fracture; and the left elbow of a blacksmith aged twenty-six, whose joint was removed six months ago by the same operator for Tuberculous Disease commencing in the Olecranon. The former was flail-like, but improving; while the latter could saw and hammer and possessed a remarkable power and range of extension.—Mr. WOOLLCOMBE also showed for Mr. Swain a man aged thirty-five cured by Laparotomy of a Cyst of the lesser Peritoneal Sac, full details of which will be published as an addendum to Mr. Jordan Lloyd's cases.—Mr. FOX exhibited for Mr. Jackson a multipara aged fifty-four with marked Myxœdematous Facies of three years' duration.—Mr. A. C. RENDLE demonstrated a very typical case of Xanthelasma Palpebrarum in a woman of thirty-five, noticed for six or seven years, and accompanied by burning and itching of the lids.—Dr. LUCY showed two microscopic specimens of commencing Epithelioma of the Tongue removed from a man aged sixty-nine exhibiting early "cell-nest" formation.—Mr. R. S. THOMAS brought forward large Multilocular Dermoid of left and Dermoid of right Ovary removed from a nullipara of thirty-eight and Dermoid Cyst of Ovary from a girl aged eleven, with microscopic specimen of cyst wall showing skin, hair and sebum.—At a meeting held in the Society's library on Saturday, Nov. 26th, under the presidency of Dr. Aldridge (Plympton), Mr. WOOLLCOMBE read a paper on the Connexion in Disease between Distant Organs not known to be related in Health. Four examples were chosen as illustrating this connexion—viz.: (1) The inflammation of one or both parotid glands after injury or disease of the abdominal contents, and orchitis, urethritis and nephritis after mumps; (2) the cerebral abscess which accompanies or follows empyema when there has been no abscess of the lung; (3) the relatively much greater frequency of abscesses of the heart and kidneys after pyæmia due to acute necrosis than in pyæmia following amputation; (4) the association of certain forms of arthritis with hepatitis and jaundice. Mr. Woolcombe produced notes of 130 cases illustrating the first of these connexions, and showed that the parotitis might follow injury or disease of almost any part of the generative-urinary or alimentary tracts and that there was no connexion between the side of the abdomen affected and either parotid in particular. In his opinion the injury of branches of

the sympathetic, causing first paralysis and subsequently increased activity of the vaso-dilator fibres and a consequent largely increased blood-supply to the parotid, afforded the only rational explanation. Next 442 cases of pyæmia collected by Paget were analysed and it was shown that abscess of heart and kidneys followed in cases after acute necrosis in 61 per cent., and in cases after amputation in only 1 per cent. Mr. Woolcombe suggested that the explanation lay in the different microbes engaged, and proposed making an attempt to propagate the microbes of pyæmia following amputation on portions of the heart and kidneys of patients in whom during life they had not caused abscesses of those organs. The other subjects were alluded to briefly, and he gave it as his opinion that the cases of arthritis followed by hepatitis and urticaria were examples of rheumatic arthritis complicated by slight pericardial and endocardial changes (unnoticed), and followed by nutmeg liver, which, by upsetting digestion, gave rise to urticaria.—Drs. Aldridge and Fox and Messrs. E. Square, M. Butteel, C. Rendle, A. Rendle and Lucy, and Fleet-Surgeon Ellis, R.N., joined in the subsequent discussion.—Mr. C. RENDLE showed the Left Kidney, Uterus and Annexa removed post-mortem from a woman aged seventy-two, who some twenty years ago was seen by Sir Spencer Wells with an abdominal tumour on which he wished to operate; a year later the "tumour burst," and was discharged per vulvam (not known whether through vagina or urethra.) Only one kidney, that shown, was present, the right kidney, ureter and ureteral opening in bladder being absent. The left kidney was much hypertrophied, and contained in the medulla a red pulsatious fluid.

**SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this Society was held on Dec. 8th, the President, Mr. Simeon Snell, F.R.C.S. Edin., in the chair.—Dr. ARTHUR HALL introduced a woman twenty-three years old with the remains of the hyaloid artery persisting in the left eye. In front of the disc a cloudy funnel, with a short black rod-like body on the inner side of it, extended for some distance into the vitreous. There was also a slight central opacity of the lens.—The President, Dr. Porter and Mr. Pye-Smith made remarks.—Mr. RICHARD FAVELL showed a specimen of Tubal Mole which he had removed by abdominal section. The tumour, which was about the size of a walnut and had a small central cavity, was attached to the lower wall of the right Fallopian tube. No embryo was found, but a microscopic section showed chorionic villi.—Mr. RICHARD FAVELL related a case of Missed Abortion, in which a blood mole, after being retained in the uterus for six months and a half, was expelled about the time when gestation, had it been normal, would have terminated. The patient had no hæmorrhage in the interval.—Mr. RICHARD FAVELL showed a specimen of Fibroma of Ovary which he had removed from a woman sixty-three years of age. The tumour weighed just over three pounds, and had a thin, short pedicle which was tied in one loop. The patient made a good recovery.—Mr. RICHARD FAVELL related for Mr. LAYER particulars of the removal of an Ovarian Cyst for acute axial rotation.—Mr. Coombe, Dr. Hamel and Dr. Keeling joined in the discussion on Mr. Favell's specimens and cases.—Dr. BLACK MILNE communicated a note on the Etiology of Acute Bright's Disease. He related an instance where in one house three healthy children were almost simultaneously attacked. They had not been exposed to wet or cold and careful examination and inquiry as to the possible existence of diphtheria, scarlet fever or other of the exanthemata was made with negative results. A probable source of origin was suggested in the presence of an offensive privy-midden in a small back yard near the kitchen door. In another instance where two children in one house were found suffering from acute nephritis, Dr. Milne failed to discover any cause whatever. Reference was made to a possible microbic origin.—Dr. Burgess, Dr. Porter and Mr. Pye-Smith made remarks.—Dr. MARTIN reported a case of Diarrhœa in Advanced Phthisis in which half-drachm doses of dermatol four times a day effectually stopped the diarrhœa after various astringent remedies had been tried for days without avail.—Mr. ATKIN read a paper on Flat-foot and drew attention to the fact that slight cases often remained undiagnosed, complicating and even causing more easily detectable complaints. The connexion with ingrowing toe-nail and sweating of the feet from pressure on the plantar nerves was adverted to. The want of unanimity of opinion amongst authorities as to the causation and treatment was gone into at length.—Mr. H. J. Knight and Dr. Sinclair White took part in the discussion which followed.—A meeting was held on Thursday, Nov. 24th, Mr. Simeon Snell, President, in the chair.—Mr. PYE-SMITH

showed three patients on whom he had recently performed Excision of the Tongue.—The adjourned discussion on Anæsthetics was resumed by Dr. ARTHUR J. HALL, who laid stress on: (1) The methods of preparing the patients; (2) personal idiosyncrasies in taking anæsthetics occurring in families; (3) early signs of danger—e.g., the state of the pupil, pulse or respiration. Dr. MARTIN spoke in favour of chloroform. He dwelt upon the necessity of securing the patients' confidence before beginning to administer the anæsthetic. Too heavy a dose should not be given at the outset. Slowing or irregularity of the pulse often gave an earlier warning of danger than any change in the respiration. Mr. PYE-SMITH thought it important to endeavour to answer such questions as the following: Is one anæsthetic safer than others and of general applicability? If so, which is it? How is it to be administered, and under what circumstances is it to be discarded for some other? He thought nitrous oxide the safest, but not generally applicable. Ether he regarded as safer than chloroform and of very general applicability in this country. He suggested as rules never to give chloroform when ether might be equally well used; never to give chloroform in any case without the patient's urgent wish, and when in doubt as to which to administer to give ether. Mr. Richard Favell, Mr. Charles Atkin, Dr. Rhodes, Dr. Anthony McCall, Dr. Littlejohn, Mr. Wightman, Mr. Dale James and the President joined in the discussion. Dr. Porter and Dr. Cleaver replied.

**SOCIETY OF MEDICAL OFFICERS OF HEALTH.**—At a meeting of the North-Western Branch of this Society Mr. VACHER intimated that the parent society had resolved that the memorandum of the members of the branch on the Prevention of Phthisis should be considered at one of the parent society's meetings.—Dr. ROBERTSON then read an elaborate paper on Compulsory Isolation of Certain Diseases. He said that the mortality statistics of Great Britain as well as abroad showed that an enormous number of persons died every year from preventable diseases, whilst much of the sickness and permanent damage to health escaped observation and record. Isolation was the only available means by which infectious disease might be checked. Reasonable isolation precautions could not at present be enforced and there was a necessity for the existence of compulsory powers in certain cases. He regarded scarlet fever as the type of a most important sub-group which required isolation for every case. With regard to this disease a clause in the Public Health Act of 1875 gave the medical officer of health power to enforce isolation under certain conditions, but the weakness of the clause was so great that but little use had been made of it. By isolation he did not mean compulsory removal to hospital if proper precautions could be taken at home.—In the discussion that ensued Mr. SERGEANT, medical officer of health for the county of Lancashire, said he thought it would be injudicious at the present time to ask for additional powers of compulsion, and indeed for this purpose hospital accommodation was as yet very inadequate. Other members who spoke were of opinion, on the other hand, that as far as hospital provision was available, sufficient powers of isolation already existed.

**CERTIFYING SURGEONS' ASSOCIATION.**—A meeting of the general committee of this Association was held at Manchester on Tuesday last, Mr. Hughes (Ashton) presiding, when there was a large attendance. The first annual reports—obliged to be furnished to the Home Office under the new rule—dating from Jan. 18th to Nov. 1st and giving the number of children examined and rejected, with the cause of rejection in each case, were dealt with, copies of their reports having been furnished by members of the Association to the hon. secretary Dr. Holmes. The rejections in several large districts—chiefly in Lancashire—ranged from 3 to 4 per cent. Taking the returns as a whole, however, the chairman expressed the opinion that there appeared to be some laxity in the certifying in some districts from which returns of rejections had been received, which were meagre in comparison with others. After some discussion it was resolved to urge the importance of the subject on surgeons in these districts. It was also decided to resume the issue of quarterly reports, giving the number and causes of rejection. The general feeling was that the retention of the surgeons had led to greater care being taken in the employment of children in a physically weak state, the number of such children presented for examination being thereby sensibly lessened. The Association was stated to be making good progress.

## Reviews and Notices of Books.

*A Treatise on Gynecology, Clinical and Operative.* By S. Pozzi, M.D., Professor in the Faculty of Medicine (Paris), Surgeon to the Lourcine-Pascal Hospital. Vol. I. The New Sydenham Society. London. 1892.

THIS translation of Professor Pozzi's work, issued by the New Sydenham Society, has the advantage of having been made from the proof-sheets of a new edition supplied to the Society by the publishers as they were ready. The handy size of the book contrasts favourably with that of the first volume of the American edition. The subjects dealt with in this volume are "Antisepsis in Gynecology," "Anæsthesia in Gynecology," "Methods of Producing Union and Arresting Hæmorrhage," "Metritis," and "Fibromata"—their medical and surgical treatment. Antisepsis is dealt with in great detail, both as it affects operations to be performed per vaginam, and abdominal operations. In both the extreme importance of rendering the hands and nails aseptic is very rightly insisted on and minute directions for the purpose are given. As regards the nails, we should, however, consider the plan of keeping them short and thoroughly brushing them with soap and water preferable to cleaning them with a pointed nail file, as here advised. Dr. Pozzi lays stress on the difficulty of disinfecting the vagina by injections. To be effectual, while the vaginal pipe is manipulated with one hand, two fingers of the other must be used so as to stretch out the folds at every part of the passage, and one finger should be passed as far as possible into the os uteri. Even then disinfection is only temporary, as germs descend from the supra-vaginal cervix. To obviate the infection from this source, we are told, requires three such injections at intervals of an hour, each consisting of a litre of 1 in 3000 sublimate solution. The author naturally draws the inference "that the uterine sound should never be passed, nor should a dilator be introduced into the uterine cavity without having previously disinfected the vagina and cervix by three injections." We are inclined to think that the passage of the sound in this country has rarely been preceded by so rigorous a disinfection, but we entirely agree with Dr. Pozzi as to the reality of the danger. Fortunately the number of cases where the use of the sound is absolutely necessary for diagnosis is a relatively small one, and there is no reason why the precautions mentioned should not be observed. It is not too much to say that the habitual use of the sound as part of an ordinary examination may be taken to indicate a want of familiarity with the bimanual method of examination. We are glad to observe that the use of Hegar's dilators is condemned "unless the cervix is already soft and dilatable." Much more space than usual is devoted to "metritis," which is evidently regarded as not unfrequently separable clinically from perimetritis, and as often being the condition causing the patient's symptoms, and consequently the one to which treatment must be directed. We are told later on, however, that salpingitis coexists most frequently with metritis, and that the diagnosis must only be metritis if the appendages seem healthy when a careful examination is made under anaesthesia. There is an excellent account of the relation of micro-organisms to metritis and particularly to puerperal metritis. Winter's researches are quoted, according to which pathogenic organisms are normally present in the vagina and cervix in half the cases, but fortunately they have for the time lost their virulence. It is argued, however, that under favourable conditions—for instance, in presence of organic débris—they may resume their activity for evil. Therefore, as regards puerperal infection, while, as here stated, no doubt the infection from without—"heterogenetic" infection—is the rule, the possibility of "autogenetic infection," arising from

pathogenic germs so often present normally in the cervix and vagina, must be remembered. These observations, at all events, would explain the two fundamental rules recognised by all obstetric authorities: the importance, first, of absolute asepsis as regards the accoucheur's hands, instruments &c., and secondly, of leaving nothing in utero—pieces of placenta, membranes or clots—that can undergo decomposition.

The author adopts a studiously moderate attitude towards disputed points—for example, in regard to the use of the electrical treatment for fibroid tumours, he says: "Even an opinion can scarcely be formed, so contradictory is the evidence." It is interesting, however, to see from a discussion of this question at the Surgical Society of Paris that "it seems that the value of this therapeutic agent has been overstated from the point of view of the diminution of the tumours in size"—a conclusion in accordance with the views of most English authorities. There is a very complete account of abdominal hysterectomy for fibroids and of the various modifications of the operation; and also a comprehensive review of the most recent statistics of those operators who have had the most experience in this direction. From this it appears that, notwithstanding great experience and the greatest operative dexterity, whether the pedicle be treated according to the intra-peritoneal or the extra-peritoneal method, the mortality of hysterectomy for fibroids still remains high, especially when we remember that the natural mortality of fibroid tumours is insignificant. We are glad to know that the remaining portion of the work is well advanced in preparation and may be expected shortly.

*Papyrus Ebers. Das älteste Buch über Heilkunde. Aus dem Aegyptischen zum erstenmal vollständig übersetzt.* Von Dr. Med. H. JOACHIM, Pract. Arzt in Berlin. (Papyrus Ebers, the Oldest Book on the Healing Art. Translated, for the first time in full, from the Egyptian by Dr. H. Joachim.) Druck und Verlag von Georg Reimer. Berlin. 1890.

YEAR by year achæological research finds its most precious treasure-trove in the great Nile Valley, the home, or more truly the hive, of primeval civilisation. To that region every art, every science, traces its first beginnings, and medicine in particular acknowledges no earlier source. From the scanty and by no means precise indications of Greek and Roman writers we had long known the priority of Egypt in the science of disease and its remedies. These indications were from time to time confirmed and supplemented by representations of medical appliances and surgical instruments on obelisks, in temples and on tombs, and these again were still further enriched or illustrated by the discovery of manuscripts dealing directly or remotely with the healing art. But the most important because the most systematic and authoritative testimony to Egypt's priority in medicine is that yielded by the Papyrus Ebers, so called from the brilliant Orientalist and romancist who was fortunate enough in the winter of 1872-73 to obtain the priceless document from a citizen of Luxor, a village representing the ancient Thebes.

Other papyri bearing on Egyptian medicine were not unknown to the learned world. There was the larger and the lesser "papyrus Brugsch" in the Berlin Museum dating from the fourteenth century (B.C.)—even yet untranslated though ably summarised by the editor after whom it is named. There was the papyrus of the British Museum, attributed to the time of the eighteenth dynasty—not yet edited even, and known to us only from a short notice of it by Mr. Samuel Birch. There were other papyri, dealing half with magic, half with medicine, in the museums of Leyden, Turin, Boulaq and Paris. But none of these can for a moment compare with the Papyrus Ebers now in the library of Leipsic University for antiquity, for wealth of subject-matter, pharmaceutical and pathological, for compendiousness and freedom from clerical inaccuracies.

Around this document quite a literature has already gathered, but till the other day our best knowledge of it was that communicated by its discoverer and editor, Georg Ebers. He had fixed its date as that of "the middle of the sixteenth century before Christ." He had identified it with the book *περι φαρμάκων* mentioned by Clemens Alexandrinus, a father of the Church, who lived under the Emperors Severus and Caracalla (193-217 A.D.), according to whom it must have been the pharmaceutical part of a medical encyclopædia consisting of five other parts. He had shown that it was no original production, but indeed a transcript from an earlier work. On all these points additional light has lately been thrown, by none more effectively than by its translator into German, Dr. Joachim, who, summing up the results of his review of Ebers' conclusions, formulates his opinion as follows: "In the Papyrus Ebers we have a kind of medical compendium or collective treatise, committed to writing, at least about the year 1550 before Christ, but belonging, in its several constituent parts, to periods of time more or less anterior to that date."

It is not, therefore, the treatise on *materia medica* merely which such able writers as Dr. Berendes in the "Pharmacie bei den alten Culturvölkern" would have us believe, nor is its interest confined to the preparation and exhibition of medicaments, as a recent commentator on the "Archéologie Médicale de l'Égypte et de la Judée" would seem to imply. Were such its chief aim and exclusive subject-matter we should expect to find it dealing with remedial agents from the purely pharmaceutical standpoint, their special virtues, their actual effects, their injurious sequelæ and such like. As Dr. Joachim observes it makes mention primarily of the ailments of special organs, particularly of the stomach and the eyes, of diseases of women and of the structure of the body; and secondarily, though in minute detail, of therapeutic appliances. Under the former aspect its reference to pathological states has peculiar interest for the medical historian who seeks to connect ancient "types of disease" with their modern equivalents—an inquiry which often results in the conclusion that the malady known to the ancients under a particular name by no means corresponds in essential features with the malady to which in modern times the same title has been given. In this connexion the reader will find Dr. Joachim's excursus on the "Chlorosis Ægyptiaca" most instructive and suggestive, concluding as he does that, under the obscure malady so designated, we must understand a disease due to the parasitic worm which in Egypt haunted the duodenum—*ankylostomum duodenale*—the pathological expression of which was that hæmatic disorder known as chlorosis—in this case the "Chlorosis Ægyptiaca."

We might follow Dr. Joachim throughout his most careful and clever introduction and give further evidence of the scientific knowledge he has brought to bear on his version of the Papyrus Ebers—knowledge which places him at a distinct advantage over its able and keen-witted discoverer; but our space will admit of only a brief reference to his work and the claims it has on the profession. It was undertaken in behoof of the busy practitioner who cherishes a natural curiosity to know the first simple rudiments of his time-honoured craft. Himself a practising physician, he yet had the mental pluck to dedicate all his spare time to mastering the Egyptian language—a task which, to "the languid students of the present day," as Hallam describes them, would of itself seem sufficient life-work. After unwearied application he made himself master of the original of the papyrus and proceeded to give its meaning, word for word, in his native German. Difficulties, neither few nor small, continually beset his progress, but these he has either surmounted or left indicated for subsequent solution by the readers whom he fondly hopes he may induce to follow in his footsteps. With

regard to his execution of the translation, we have the testimony of perhaps the greatest of living Egyptologists as to its sterling merits—the testimony of Professor Lieblein of Christiania. This attestation is all the more significant, as besides his unique knowledge of the Egyptian language and Egyptian archaeology Professor Lieblein had himself been long engaged on the Papyrus Ebers, and has strengthened Dr. Joachim *mit Rath und That* (with word and deed) on all critical occasions. The introduction, of which we have already spoken, furnishes the reader with every needed *Orientirung* (initiation) before entering on the study of the book itself, and a painstaking index completes the value of the whole. We can only echo Dr. Joachim's wish that his translation of this ancient manual of the healing art will be appreciated at its true value and stimulate an ever-increasing contingent of the profession to study that strangely neglected though most fascinating department of history—the rise and evolution of medicine.

*The Operations of Surgery.* Intended especially for the use of those recently appointed on a Hospital Staff and for those preparing for the Higher Examinations. By W. H. A. JACOBSON, M.A., M.B., M.Ch. Oxon., F.R.C.S. Second Edition, with 235 Illustrations. London: J. & A. Churchill.

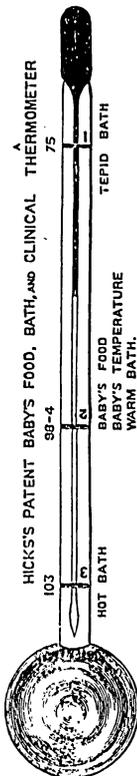
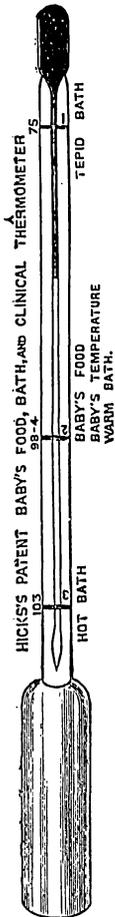
WE regret that through an oversight we have not yet noticed this the second edition of a most excellent manual. The first edition was speedily exhausted and another demanded. The plan of the book remains unaltered. There are, however, certain improvements—for instance, "the chapters on the results of Otitis Media, Brain Surgery, Extirpation of the Larynx, Inguinal Colotomy, Nephrolithotomy and Cholecystotomy have been largely rewritten; while the additions include sections on Anæsthetics, Antiseptics, Diagnosis of Renal Calculus and the conditions which simulate it, Calculus in the Ureter, Intestinal Anastomosis, Typhlitis and Appendicitis, Rupture of the Intestine, Pancreatic Cysts, Tubercular Disease of the Bladder, Prostatectomy, Erasion of the Knee and many minor ones." As we stated in our review of the first edition of the work it aims at being much more than a mere dry exposition of the various operations which are performed on the human body for the cure or relief of disease or deformity &c., and gives the indications for the performance of the operation described, shows the dangers to be feared from the operation, the results both immediate and remote to be expected and the after treatment required. The present edition is larger than its predecessor, has two to three lines to each page more than the first edition and contains more illustrations of the same useful character. The handbook is one certainly to be recommended.

## New Inventions.

### A NEW THERMOMETER.

WE have received from Mr. James Hicks of Hattor Garden, manufacturer of scientific registering instruments, a new form of thermometer suitable for use in the nursery. It is provided with a mercury bulb in the usual way and a graduated tube. At the other extremity the glass is widened out into an air chamber, one form of which is cylindrical and the other spherical. These chambers serve as floats to the instrument when taking the temperature of the bath. Among the various uses for which these thermometers are adapted is the securing of uniformity of temperature of the food of young children and the testing and regulating the heat of the child's bath. They can also be used in taking the temperature of the skin in the axilla or in mucous cavities, and will thus serve in a rough-and-ready way as a premonitory warning in cases of febrile disease. The

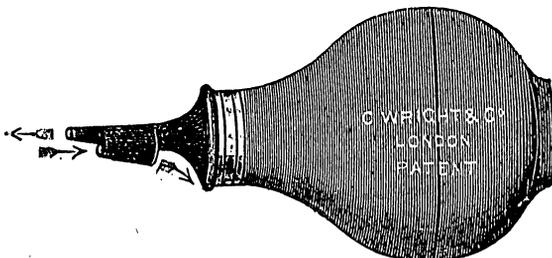
graduated tube contains but three marks—viz., one at 75°, which marks the temperature for a tepid bath; the second at 98.4°, the temperature of a child's body and the temperature to which water should be raised when a warm bath is required; the third at 103°, which marks the temperature of the water when a hot bath is required. This easy system



of marking cannot but be very useful to nurses. We have tested these thermometers against registered instruments, and find Hicks's patent to correspond with the readings of those registered instruments in all cases. These instruments are useful in every household, and their cheapness renders them easily accessible.

A NEW EAR SYRINGE.

Messrs. C. Wright and Co. of New Bond-street, have submitted to us an ear syringe for the use of patients and nurses. It is not always an easy matter to provide a syringe



which will be used effectually by unskilled persons, and at the same time it is, in certain inflammatory diseases of the ear attended with profuse discharge, most necessary that the

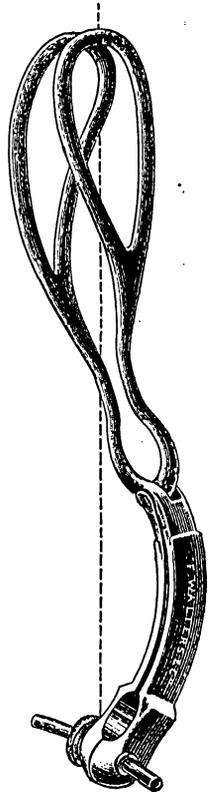
ear should be completely cleansed several times in the course of the day. This syringe ensures two requirements:—1st. The stream of water or other fluid passes along the roof of the canal and so the ear is thoroughly cleansed. 2nd. No injury can be done to the ear, as the nozzle is so constructed that it cannot be inserted too far. The ingenious arrangement which secures this also forms a passage for the returning stream of fluid.

A NEW BANDAGE ROLLER.

Mr. James Bellaers of Regent-street, Leicester, has submitted to us a new bandage roller, which is so constructed that it can be instantly adjusted to any width of bandage. The machine being made of metal is easily kept clean and is a distinct improvement upon many of the old bandage rollers. It is portable, light and strong, qualities which render it useful for first-aid work and nursing classes. It can be readily and securely fixed on any table.

AN IMPROVED ASEPTIC AXIS-TRACTION FORCEPS.

Messrs. Walters and Co. of Moorgate-street, E.C., have manufactured for me a new axis-traction midwifery forceps which is at once efficient, simple and cleanly. The instrument is made entirely of steel (plated) and the surface is perfectly smooth throughout, affording no nidus for the lodgment of disease germs, while the whole instrument can be plunged in boiling water or otherwise purified. The blades are of the usual shape. A Barnes' foramen is placed at the lock for use if necessary when the head is at the outlet. Beyond the lock there is a perineal curve, exactly counteracting the pelvic curve of the blades. Longitudinal handles are abandoned. At the extremity of the perineal curve (where it meets the axial line) there is a movable transverse traction rod and a second foramen (between the parts of the forceps) to receive the middle finger, thus forming a very comfortable hold for the operator. The traction rod also secures the two halves of the forceps when in position, being provided with two lateral rings, one fixed and one movable (the latter running freely by screw action), so as to embrace the extremity of the forceps. The forceps is about an inch longer than Sir J. Simpson's. This forceps, while as efficient as the usual axis-traction forceps, is less complicated and less likely to retain septic material. The fault of forceps with a perineal curve (without added tractors) has generally been that they have been provided with longitudinal (wooden) handles, ignoring the fact that traction can only be efficiently applied at one point—viz., where the perineal curve meets the axial line. To sum up, I claim for the forceps that it is (1) efficient, (2) aseptic, (3) simple in its mechanism and (4) comfortable for the operator.



Winchester.

G. TAYLOR, M.B.

MEDICAL MAGISTRATES.—Dr. Robert McPherson of Stalybridge, Mr. Henry R. Leech, L.R.C.P., L.R.C.S. Edin., of Birmingham, and Dr. Joseph Thornley of Bolton, have been added to the Commission of the Peace for the boroughs of Stalybridge, Birmingham and Bolton respectively.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 24, 1892.

WITHIN a very few days two remarkable men have died—Dr. WALTER HAYLE WALSHÉ and Sir RICHARD OWEN. In our obituary column of this week we have sketched the principal features and events in the long and fruitful life of Sir RICHARD OWEN, which is full of suggestion and stimulus to those who consider it. Next week we hope to notice in some detail the life and work of Dr. WALSHÉ. Both of them illustrate the longevity of scientific men. Indeed, both of them had outlived most of their contemporaries, though happily neither of them had outlived his fame. It is gratifying to think not only that both of these great men were members of the medical profession, but that to both of them this profession was the stimulus of their genius and the basis of their enduring work. It is difficult to go back to the time when RICHARD OWEN was a medical practitioner. His name had for years dropped out of even the Medical Register. But for all that his life began with the study of anatomy and medicine in Edinburgh and he was in practice for some time in the neighbourhood of Lincoln's-inn. His genius was recognised by ABERNETHY and other members of the profession, and in the Hunterian Museum of the College of Surgeons he found the first scene and opportunity of his most useful and laborious work. Though his attitude towards the greatest anatomical conceptions of the century has been somewhat conservative; though his recognition of the doctrine of evolution has been, to say the least halting, it is impossible not to see even in his own anatomical work a large part of the foundations on which that great doctrine has been based. We can well imagine the intensity of the feeling that DARWIN confessed to Sir CHARLES LYELL when he wrote—"How curious I shall be to know what line OWEN will take: dead against us, I fear." Nevertheless it is most gratifying to read further that "he wrote me a most liberal note on the reception of my book, and said he was quite prepared to consider fairly and without prejudice my line of argument." DARWIN considered that OWEN had suggested belief in the unity of Origin of Birds, and OWEN himself made claims to having discovered the principle of Natural Selection, though DARWIN said that whether OWEN or he were first, both of them were preceded by Dr. WELLS and Mr. MATTHEW. No one can be surprised that OWEN at fifty-five years of age, as he was when the "Origin of Species" appeared, should think conservatively. What is more curious than divergence of opinion on great and novel doctrines and generalisations is the opposition of giants in science on questions of fact as in the famous scene in the British Association at Oxford when OWEN, having asserted that the brain of the gorilla presented more differences as compared with the brain of man than it did when compared with the brains of the very lowest and most problematical of the quadrumana, was answered by Mr. HUXLEY with a direct and unqualified contradiction. All these details will now be forgotten and the world will think only of OWEN'S prodigious labours and his unsurpassed knowledge

in comparative anatomy, of his genial nature and general accomplishments, of his distinguished appearance, of his enormous public services in the promotion of public health and of the successful importunity which he brought to bear on rigid economists until they yielded and gave the nation a museum of Natural History somewhat proportionate to its own wealth in money and in great anatomists, to say nothing of the greatness of the subject which it is meant to illustrate.

Of Dr. WALSHÉ, pending our biography of next week, we need only here say that he was one of the most accomplished physicians of the middle of this century. None that have ever met him will forget the charm of his courtesy as an Irish gentleman, and none that are familiar with the literature of medicine and its modern progress will fail to recognise that he was one of its most enlightened teachers and practitioners. His books are still authoritative and classical. His precision of observation, his accuracy of diagnosis, the carefulness of his anatomy, and the lucidity with which he expounded the new methods of physical diagnosis, which he had studied under LAENNEC, have been recognised by all his contemporaries, from Sir THOMAS WATSON downwards. He was a true physician in the sense of being a student of nature and of facts in the matter of disease. But he was not a mere physician. His mind was of that liberal type that could not be holden of any one pursuit; and, like other great physicians, he took pleasant excursions into the regions of philosophy and metaphysics and even of theology. One of the most recent—we believe the most recent—instances of such excursions and their results will be found in THE LANCET of Jan. 5th and 12th, 1884. It has sometimes been said that the very boldness of these excursions stood in his way and gave an impression of want of reverence for more ordinary or more orthodox views. And, in fact, it must be admitted that he did not so much care for "views" as for truth. In these very articles he estimates that the definite discovery of the relation of the left third frontal convolution to the faculty of language was worth all the speculations of all the metaphysicians in the previous centuries. But for all this, there was no want of reverence in him. And it is only to be regretted that for so many years before his death the world saw and heard so little of one who observed it so much, and who did so much to raise the standard of professional knowledge and method.

THE experience of the past autumn, whilst affording proof of the indebtedness of the country to the vigilance and labours of the health officers of a number of our principal ports, revealed also certain sources of weakness in our port-sanitary administration, and it at the same time led to a variety of demands which may be regarded as going beyond the necessities of the case. Hence it was a happy idea on the part of the Lord Mayor to invite the health officers of our ports to a conference where real needs could be emphasised and where discussion might dispose of certain demands that were unreasonable and impracticable. Amongst the latter the question of quarantine was very summarily disposed of. Dr. DAVIES of Bristol moved that the detention of vessels having no sickness on board merely because they came from infected ports was unjustifiable. This resolution was supported by Dr. MASON of Hull,

by Dr. ARMSTRONG of Newcastle and by others, and was unanimously adopted. From the public health point of view quarantine against cholera in British ports has, we trust, now received its *coup de grâce*. Other subjects discussed were of a different character. One proposal was that the Local Government Board should issue a list of infected ports; but no definition of an infected port appears to have been suggested. Herein lies the great difficulty. Is Hamburg now an infected port? The answer is both Yes and No. But which answer is to be acted on? Dr. COLLINGRIDGE, as chairman, urged that the Government could not undertake any such task, and he moved an amendment which led to the abandonment of the original proposal. But we fear the alternative of forming a committee to publish a list of such ports will not prove to be practicable, and we are convinced that if attempted it will be found to involve very great difficulties and inconsistencies. One of the greatest difficulties is indicated in the recommendation which was resolved on, to the effect that port medical officers should be armed with compulsory powers to detain vessels arriving from infected ports until released by formal certificate. England and the majority of the European Powers have recently decided that disease on board, and not the port from which a vessel sails, is to be regarded as the criterion for purposes of health. And this is the only sound method of action. How, for example, will the Southampton health officer deal with vessels arriving from Bombay? He must detain them because "all ships from infected or suspected ports should be treated as infected until found otherwise," and because Bombay port is well-nigh always infected; and yet the much-abused Egyptian Government will regard these very vessels as healthy and admit them to the free passage of the Suez Canal because no disease exists on board. We fear that, as regards some such points as these, solitary ports at home and a few European ports near at hand have alone been held in view, and we cannot but think that when the full scope of some of the proposals made comes to be appreciated several of the conclusions arrived at will not be found practicable. Bitter complaints have been made by those interested in British shipping this year because English ports have been branded as infected abroad by reason of the occurrence—indeed, the importation—of one or two cases of cholera. What will it be next year if the port sanitary authority of London or other body issues an English list of "infected ports" in Europe?

On some points excellent suggestions and proposals were made by various speakers. Thus, when it is decided that medical inspection of certain vessels is necessary, it is intolerable that the vessel should continue its journey with the inspecting health officer on board, and thus carry him many miles up a river estuary—perhaps, indeed, right into dock. The proposal that some detention should, under proper limitations, be enforced, and that proper stations should be appointed where such work has to be done, must be regarded as a proper one. The truth is that our actual experience as to what is really necessary in order to carry out our system of medical inspection has until recently been extremely limited, and we must look mainly to experienced port health officers for advice as to what is needed in order that the system may become effectual without the imposition of needless and impracticable restrictions. From

this point of view the Conference has done excellent service. It was, of course, only a consultative body; it could only advise, and it is intended that the port authorities shall themselves soon meet and put forward such conclusions as, after mature deliberation, they may deem necessary for the proper performance of their duties. One question is sure to give rise to much discussion both on their part and on the part of the Imperial Government—namely, that the cost of carrying out the cholera precautions should be borne by the Imperial Exchequer. How far this is to apply to inland authorities as well as port ones does not as yet transpire, but it must be remembered that their duties may also become onerous and costly and that they are likely to follow suit in making a similar demand.

WE dwelt recently upon the general meteorological features of the resorts most in favour as winter quarters. In the present article we will give a similar slight sketch of the subject from the point of view of therapeutics. In many cases the selection of a winter residence is a simple matter. Thus, where mere debility, anæmia, or proneness to bronchial catarrh is the motive for avoiding the British winter, the patient will probably benefit by repairing to any of the very numerous resorts where the average of sunshine, warmth and fine weather in winter is decidedly above what may be fairly expected at home. Such cases do very well on the Riviera, or at Pau or Biarritz, or at Algiers or Egypt. With regard to such patients the line cannot be drawn with any strictness, and the usual rules regarding humidity, equability of temperature &c. have no precise application. Generally, debilitated and anæmic patients require moderate stimulation; hence the decidedly sedative resorts had better be avoided. More care and discrimination will be required in advising patients who have made but an imperfect convalescence from some acute illness—such as typhoid fever, pneumonia or pleurisy, or from a surgical operation. The practitioner must, in such instances, decide whether the amount of constitutional vigour present, the degree of integrity of the digestive functions, the amount of fever (if any) point to the case requiring moderate or decided stimulation or whether soothing meteorological conditions are indicated. If pneumonia or pleurisy has become decidedly chronic and the chance of an acute recrudescence seems remote, few resorts afford such good results as the Alpine or other mountain sanatoria. Where a surgical operation has left some local mischief or constitutional dyscrasia behind, sea air is usually best, either (preferably) in the form of a sea voyage or at one of the moderately bracing marine resorts, such as Margate, Biarritz or San Remo. In the case of impaired convalescence after typhoid fever it would be well to remember that very bracing conditions may tend to light up the fever again, that a long and wearisome journey is very undesirable, and that resorts such as Madeira, where diarrhoea is very common, should be avoided.

Our next group—viz., rheumatic and renal cases—is easily disposed of. Warmth and dryness are here indicated, and the elevated sanatoria are inapplicable. Our choice will probably lie between the Riviera, Malaga, Morocco, Algeria and Egypt, and these resorts all present considerable advantages for the patients in question. If the Riviera be chosen probably Mentone or San Remo

presents the greatest advantages in these cases; if Algeria be selected the patient should spend as much of his time as possible inland rather than on the coast; and if Egypt be the choice, the region of the Delta should be avoided. Many resorts are vaunted as at once dry, warm and equable. If such really existed they would be a veritable paradise for the sufferer from chronic rheumatism or chronic nephritis. Unfortunately, such a combination is a meteorological impossibility. Wherever we find a high degree of warmth with a high degree of dryness, there by necessity we also find great differences between sun and shade temperatures and between diurnal and nocturnal temperatures. This is a point regarding which it behoves us to warn our patients. The chief means of avoiding the dangers of a warm and dry climate are the use at all times of woollen clothing, and the avoidance of exposure at and immediately after sunset. As we have hinted, rheumatic or renal cases should never be sent to the high altitudes.

The neurotic patient is always troublesome to deal with, and to suggest suitable winter quarters for him is not very easy. It is satisfactory, however, to reflect that nervous invalids often benefit by travel *quâ* travel. "Anywhere, anywhere, out of the world," says the poor victim in HOOD'S touching poem. "Anywhere, anywhere away from home" is the feeling expressed or implied in hosts of nervous cases. However, even in such instances it will not do to act at haphazard, and some approximate rules will be found helpful. Thus, neurotic cases do very badly in the mountains, the keen air being apparently too exciting for them. They do badly also at some resorts, such as Cannes or Nice, where there are too much glitter and glare, and where the exposure to the sea is too direct. On the whole, neurotic cases had better avoid both the mountains and the exposed marine resorts, and fall back upon the sedative or moderately bracing resorts, such as Pau, Arcachon, Montreux, Grasse, Pisa or Rome. Neurotic cases, especially if these be hypochondriac, do badly on shipboard, the "sad sea waves," the monotony of life and the deprivation of many social enjoyments and customary occupations tending to aggravate their melancholy.

The last class of patients wintering abroad—viz., pulmonary cases—will require rather fuller consideration. We have already said that chronic pleurisy and unresolved pneumonia, if all acute symptoms have definitely subsided, often do surprisingly well at the elevated mountain resorts—Davos, the Engadine, the Dolomites, Colorado &c. Bronchitis, either subacute or chronic, is greatly under climatic influence, and immense benefit may accrue from a well-planned winter abroad. A warm, moist and equable climate, such as that of Madeira, does best where there is much hacking cough without excessive secretion. Where bronchorrhœa exists a drier climate, such as that of Mentone or San Remo, will be found more applicable. The high altitudes are usually out of court in all forms of bronchitis, but more especially if any emphysema be present. The case of phthisis is peculiar and difficult. No known climate prevents the development of tubercle in the lung, but yet every authority admits the great benefit often resulting in this disease from climatic change. The subject is too vast and too abstruse to be more than glanced at in a leading article. Several principles are clear. Cases of chronic

phthisis, without much fever, rapid wasting, or large and progressive destruction of lung tissue, are alone applicable for climatic treatment. Early quiescent disease limited to one apex, and without much constitutional disturbance, constitutes the special case where signal advantage often accrues from well-directed climatic change. In such cases the relative merits of the sea voyage, the elevated sanatoria, the Riviera, Madeira, Algeria and Egypt must be carefully weighed, but no detailed or precise rules can be formulated. The high altitudes are contraindicated by the presence of any weakness of the circulatory apparatus, by emphysema, rheumatism or renal mischief, and by nervous irritability. There are few definite contraindications to the sea voyage except melancholia, an invincible dread of the sea and extreme proclivity to sea-sickness. The fact that the patient has had hæmoptysis, though often regarded as very important, really affords no sure help in determining the question before us. Proneness to diarrhoea or intestinal mischief would contraindicate Madeira.

Change of climate may often be sought as a means of palliation in advanced and hopeless cases of phthisis. In such instances mild, sunny and sheltered resorts will be found most advantageous.

THE discussion of what are called "hospital manners" has recently occupied the attention of more than one of our contemporaries. The phrase, according to one of these, describes the "specially rude and flippant attitude which the house surgeons, house physicians and other subordinate officials of our great hospitals are often charged with exhibiting to poor humanity which is forced to seek the aid of those great and noble institutions." It is proverbially easy to bring general and sweeping charges against any large body of men engaged in arduous, beneficent, and often, we regret to say, thankless work. That a house physician or house surgeon may occasionally be guilty of inconsiderate, or what seems to be inconsiderate, behaviour towards some of those who come under his care is possible; but that any isolated instance of such behaviour should be made the ground of a general attack on a large body of hard-working, conscientious, and, as a rule, extraordinarily patient men, is not only ungenerous but unjust. A good deal is said and written about young men "just qualified" and "puffed up with an undue sense of their own importance," and this is not stated as any mitigation of their offence. It is certainly news to us that a house physician or house surgeon, holding any of those posts which are coveted by the best of the younger men who enter our profession, is habitually in the frame of mind which such a description implies. The very fact that he has been selected for his responsible position is an indication that he has shown not only an unusual ability in dealing with disease, but also that, in the opinion of those who are brought daily in contact with him as teachers, he possesses other qualities marking him out as the most suitable man for the duties to which he aspires—duties which consist not only of medical treatment, but which also evoke and demand the power of dealing justly and considerately with suffering humanity and anxious friends and relatives. That the choice is justified in the vast majority of cases we have no doubt; that an occasional instance of inconsiderate treatment—we do not believe of patients, but of their friends—can occasionally be brought forward we cannot

regard as an indictment of the whole class. Besides, as a matter of fact, the house surgeons and house physicians at our large hospitals are often men who have held their medical qualification for some months or even years, and who have employed the interval in study and the acquisition of experience in some continental medical school or in attendance at various English hospitals; and even if they do occasionally suffer under the "grievous" disadvantage of being young men, it is a disadvantage which every day is remedying. It seems to be assumed that a young man, as soon as he receives his hospital appointment "throws his good breeding to the winds and addresses the poor mortals whose suffering he is paid to attend to and relieve, as if they belonged to an entirely inferior group of the quadruped class." The writer from whom we have quoted has certainly been unfortunate in his acquaintances among the class he is abusing. We venture to think that our experience and knowledge of that class are much more extensive and certainly more intimate than his, and although occasionally we may have met a house surgeon or house physician who does no credit to the traditions of his order, such instances are very uncommon. The sneer also with regard to the payment is singularly out of place. The well-paid house physician or house surgeon we have not had the privilege of meeting as yet. He may possibly be looming in the distance, but many of the class whom we have been fortunate enough to know at our large hospitals have not only given up their time and energy to the duties of their posts, but have actually had to pay no inconsiderable sum for that privilege—a sum so considerable as to place entirely out of the reach of many the possibility of enjoying the experience which the duties imply. This of course is a point which we do not wish to emphasise, and it would certainly be no excuse if the charges implied were found to be well grounded. Our contention is that they are not, and that rudeness and incivility are as rare among house surgeons as they are amongst the general body of medical practitioners; and we would further venture to ask whether the general public show to the junior staff at hospitals the consideration which is naturally their due? We do not excuse incivility or rudeness, far less inconsiderateness, to patients on the part of a hospital resident any more than we excuse the same behaviour in his practising colleague. In both such conduct is reprehensible and to be deplored, and in both we think it is exceptional. But the discussion, however unfortunate in tone and temper, and however great the ignorance of facts displayed may be, should serve to put house physicians and house surgeons more on their guard to carry out even more carefully those virtues of Christian charity to the practice of which they have dedicated their lives.

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A NEW PROFESSORSHIP IN JEFFERSON MEDICAL COLLEGE.—At a meeting of the Board of Trustees held on Wednesday, Nov. 30th, Dr. G. E. de Schweinitz was, on the unanimous recommendation of the Faculty, elected Clinical Professor of Ophthalmology in the Jefferson Medical College. At the time of his election Dr. de Schweinitz was Professor of Ophthalmology in the Philadelphia Polyclinic and Lecturer on Medical Ophthalmoscopy in the University of Pennsylvania.

## Annotations.

"Ne quid nlmis."

PROFESSOR MOLESCHOTT.

WE give elsewhere an extended report of the honours conferred in the University of Rome on its septuagenarian Professor of the Institutes of Medicine. A notable man, even had he never travelled beyond his native Netherlands, Moleschott has made himself yet more notable by his singularly varied, not to say adventurous, career. He began scientific life, as we have already indicated, under the auspices of Gerard John Mulder, and the methods and the knowledge he thus early mastered fitted him for the rôle he was destined to play as a reforming physiologist in doctrine and in exposition. His career at Heidelberg is memorable in academic and scientific annals for the intrepidity with which he assailed and seriously invalidated the views of Liebig, particularly in the domain of nutrition, and after his virtually constrained withdrawal from Germany to Switzerland he continued his thoroughgoing independence of investigation and of teaching in the medical school of Zürich. His beautiful memoir on "Licht und Leben" marked him out as a physiologist equally competent in the sphere of speculation and of analysis, and the fame he acquired among the Swiss led to his transference, on the invitation of Cavour, to the then somewhat backward school of Turin. There his early and keenly sympathetic adoption of evolutionist principles brought him much enthusiastic support from the younger generation of students, while he continued to delight and conciliate the older by his lucid exposition of all that was soundest in the new biology. His pupils soon carried his spirit and methods, as well as his doctrines, to other centres of professional education, so that his fame was thoroughly established throughout Italy when some twelve years ago he was called to the chair of Physiology in Rome. Again he made his mark, in spite of much recalcitrant tradition, and year by year he sent forth to the Italian cities and provinces a thoroughly equipped band of working practitioners and hygienists. The good he thus achieved can be estimated only by those who remember the slovenly training so long the rule in Italian Universities; indeed, the reinvigoration of medicine at his hands has been quite as remarkable as the revival of archæology at those of the Germans in the same peninsula. Nothing has been more wholesome for Italy than the substitution within the last twenty years of Teutonic for Latin influences, particularly as these latter were represented by the French. Italy's Gallic neighbours were too nearly akin to herself to exert the same fresh, deeply penetrating reforms in research and in teaching as those introduced by the investigators and expositors of the Rhinlands. While France tended to confirm Italy in her worst, most traditional shortcomings, Germany infused a new life and gave a novel direction to her ideas and her work, and the fruits of her influence have been especially made conspicuous by the Dutchman as to birth, but Teuton as to experience and idiosyncrasy, James Moleschott. It was to express her gratitude for services really inestimable that Italy came forth in all her academic and scientific strength on the 16th inst., when her central school was the scene of a commemoration as brilliant and impressive as it was unique. The brotherhood of science, the intercommunion of diverse yet harmoniously inspired nationalities, the alliance, offensive and defensive, formed between them for the defeat of prejudice and the reclamation of the unexplored or waste lands of thought had no finer illustration than the reciprocity of feeling evoked between the hero of the day and his admirers—a reciprocity which Italy will exemplify on a yet more imperial scale in

the grand concourse of the profession which is to hold its triennial *festa* in Rome in the last week of September, 1893.

### ROYALTY AND THE HOSPITALS.

It is gratifying to see indications that the members of the Royal Family are beginning to resume their public functions and that hospitals are among the first institutions to be favoured with their presence. Nothing could be kinder or more congruous on their part. "A fellow-feeling makes us wondrous kind." The interest of the Royal Family in hospitals has always been great and practical, but it can well be imagined that the keen anxieties and suffering through which they have passed this year have quickened even their sympathy with institutions and with a profession which are associated with sickness and all the "lenient arts" for its mitigation. We are grateful to their Royal Highnesses the Prince of Wales, the Duke of Connaught and the Duke of York for their recent services in this direction, which we report elsewhere. Their example will stimulate the sympathy of others for hospitals, which need and deserve twice as much support as they receive. Nor are we less pleased to think that the active resumption of public functions will be the best remedy for the grief which must still deeply affect the Royal household.

### A MEDICAL MAN v. THE GOVERNMENT OF WESTERN AUSTRALIA.

It is always gratifying to us to record the vindication of an injured medical man, and the gratification is greater in proportion to the strength of his enemies and the delay in his redress. A striking case of the sort is related in several copies of the West Australian (Perth) papers. It is that of a medical man, Mr. Henry Lionel Smith of Albany, who in 1887 was acting medical officer of Albany, and in that capacity was attending a boy named Webb and two or three other patients in the old hospital there. Webb had colonial fever. The hospital had been sold to the West Australian Land Company and the purchasers of it wanted it cleared by the removal of the patients to the new hospital, a quarter of a mile distant. Mr. Smith was only waiting for furniture in the new hospital. The old hospital was surrounded by a stone wall, the stone of which was wanted by the Land Company who had bought the ground. Mr. Smith gave his consent to Mr. Castledine, clerk of works to the Land Company, for the removal of this wall on the understanding that there was to be no interference with the main building in which the three patients were in charge of an orderly. Instead of this the Land Company partly demolished a lean-to wall, thus impairing the building itself, and worse still, after Mr. Smith's visit, proceeded to remove doors. The night following was windy and wet and the boy Webb got congestion of the lungs and was so much worse as to necessitate his removal the next day to the new hospital, in which he died. He was removed with great care by Mr. Smith, assisted by Mr. Stewart. Mr. Smith certified his death to have been caused by congestion of the lungs and suggested an inquest to the resident magistrate. The first day the inquest was conducted by the police sergeant, the second day by the coroner, Mr. Bailey, who was also manager of the Union Bank. The jury consisted of three persons—all which arrangements seem to us very curious where conduct and character turn, as well as questions of cause of death. The verdict of the jury was as follows: "We are of opinion that Joseph Webb came to his death from congestion of the lungs accelerated by undue exposure, and we consider there is no blame attached to the Land Company, but that Mr. Castledine exceeded his instructions in pulling down the hospital door and not replacing it. And we also consider the after-consequences arose entirely

from Dr. Smith giving permission to pull down the hospital before all the patients were removed, and that the orderly has been guilty of gross neglect of duty." This permission was exactly that which Mr. Smith had *not* given. About two months after Mr. Smith received a communication from the Colonial Secretary enclosing a minute from Governor Broome, dated July 19th, commenting on the circumstances attending the death of Webb and directing plaintiff's dismissal, the dismissal to take effect at the end of 1888. Mr. Smith remonstrated with Dr. Waylen, the chief of the medical department, and with the governor, and finally appealed to the Secretary of State, with no further effect than to prolong his dismissal into 1889. Nothing remained for him but to enter an action by petition of right to recover £1000 damages from the Government for wrongful dismissal. The Government threw every obstacle in his way, even to pleading an infringement of the Royal prerogative. The Attorney-General was against him in the trial and exhausted every argument and theory to defeat his claim. The Chief Justice took a clear position and stuck to it, but the jury gave a verdict in Mr. Smith's favour and assessed the damages at £200. The Attorney-General again sought to reverse the verdict, on the motion of the plaintiff's counsel to have judgment entered for him, but his Honour was unmovable. He admitted the Crown could do almost anything. It could dismiss without notice and without giving reasons, but if it dismissed a man and gave a cause reflecting on his character he had a right to appeal to the public and to go to the jury. He thought the jury had judged rightly, and refused to interfere with the verdict, though he granted stay of execution at the request of the Attorney-General, that he (the Attorney-General) might appeal to a full court as to the right of the Government to dismiss a servant and abuse that servant with impunity. We desire to concede great rights to Governments and to the Crown for public purposes, but we draw the line at the right to cast a slur on faithful public servants and so to injure them and their reputation for life. Mr. Smith deserves the thanks of the profession and even of the public for his dogged fight with the Government of Western Australia in defence not only of his own character, but of a great public principle, and is entitled to congratulations on his success.

### THE PROOF OF DEATH.

THE minds of some persons are haunted by a persistent fear lest their bodies should be buried alive—a fear which is happily almost entirely destitute of any rational excuse. The aspect of death is in every way so different from that of life that it needs no skilled inspection to distinguish it. This is the rule, and one broken but very rarely by an exception. Occasionally, however, some difficulty has arisen even as regards this primary distinction. A case recently reported may be mentioned in illustration. A newly born infant of poor vitality, whose mother died in her confinement, had after a short time apparently died also, and was actually coffined when a cry revealed the fact that it still breathed. Later on the same day the vital flicker again appeared to be extinguished, but this time the care of the medical attendant prevented the occurrence of any mistake as to its existence. It has been suggested that in order to guard against the possibility of any such disastrous oversight in future no certificate of death shall be given except after personal inspection of the deceased by a medical man. We do not know of any objection to this proposal. On the contrary it has much to recommend it. The ordinary signs of death do not require any full explanation on our part. It is worth while to note, however, that such a case as that referred to above is exactly of the kind in which especial care should be exercised as regards this matter. It is where extreme feebleness results in a state of torpor continuing perhaps for days

with faint signs of life, where breath and heart-beat show but an occasional indication, where muscular power is nearly absent, as in old paralytics, and rigor mortis hardly to be depended on, that we seek with some anxiety for absolute proof of death. This is to be looked for in such cases not so much in any isolated sign as in the association of several to the exclusion of all vital manifestations. Among the most reliable indications that life is extinct we would mention rigidity, cadaveric discolourations in relation to position and surface pressure, and as an early and almost certain sign the glairy eyeball, with its pupillary aperture fixed in dilatation.

#### THE MUNICIPALISATION OF HOSPITALS.

THE *Halifax Guardian* of the 10th inst. contains an excellent article deprecating the municipalisation of hospitals. There are two drifts of opinion just now, as respects hospitals, which need to be resisted. One is to make them municipal or State institutions and to rob them of that virtue and charm (which foreigners, notably Guizot, have so much admired) which attach to voluntarily supported institutions and which distinguish them in fact and in various desirable particulars from a workhouse infirmary. Another is to be found among a certain—we hope a very limited—section of the working classes, who take a wrong view of their contributions to these noble charities and are apt to imagine that they carry a right of ordinary medical attendance. Nothing could be more absurd. When a working man contributes to a hospital he contributes to help himself, a fellow-workman, or his wife or child in case of exceptional sickness or accident only; and this is a high privilege and duty. But it carries no right of attendance for ordinary ailments, for which other regular provision should be made by every self-respecting man. The Committee which has been considering the Report of the House of Lords' Committee, we understand, likely soon to give expression to the results of its deliberations. We have every reason to think that it will recognise the private and voluntary character of our hospitals.

#### THE PREVALENCE OF SMALL-POX.

WHILST a wide diffusion of small-pox is still maintained in England and whilst new areas are constantly being added to those already infected, no marked outbreak on an important scale has as yet prevailed except in Warrington, and even there the abatement is maintained, only 12 fresh cases having occurred last week. In Manchester there were during the same period 14 fresh attacks, and in Dewsbury the disease has again broken out, some 12 to 15 patients having sickened. In Leeds 9 fresh attacks occurred, but the patients in the small-pox hospital have been reduced from 56 to 49 in number. At Oldham some 30 patients are in the Westhulme hospital, there are about 29 to 30 under isolation in the hospital used by the Lightcliffe and Hipperholme authorities and 8 patients are in the St. Helens Hospital. In Halifax there were 13 fresh attacks last week; 3 occurred in Barnsley, 3 in Batley, 3 in Chadderton, 4 in Oldham, 2 in Birmingham, 2 in Birkenhead, 4 in Wakefield, 4 in Leicester, 3 in Liverpool, 2 in Sheffield, and slight occurrences, including single attacks, are heard of from Bootle, West Hartlepool, Derby, Northampton, Sunderland, Hull, Lancaster, Runcorn, Nuneaton, Newcastle and Doncaster and also from the rural districts of Leigh and Sedgefield. In the metropolis there were 9 fresh attacks last week and the hospital ships contain about 30 patients. As far as can be judged up to the present date we have to face a somewhat wide dissemination of the small-pox infection; but whether owing to the fact that we have not yet reached the season for its principal activity or to the circumstance that the contagium is not generally prevalent in its most virulent form, there would appear grounds for believing that, apart from the

manufacture—so to speak—of any special virulence of infection, as by the aggregation together of the sick in populous places, the prevalence may possibly pass away without leading to a general epidemic. This, however, is mere surmise, and any hopes based on such a view may at any moment be set aside by the onset of conditions, meteorological or other, that have the faculty of adding to the potency for spread of the prevailing contagium.

#### SPIRITS AND MALT LIQUORS IN WORKHOUSES.

A PARLIAMENTARY return has recently been issued by the Local Government Board showing, in three parallel columns, the daily average number of inmates in the workhouses of union counties, the expenditure on spirits, wine and malt liquors and the average expenditure per head of inmates. The Board has sent these statements to the guardians throughout the country and has especially directed their attention to the great differences in expenditure in respect of wine, spirits and beer for the in-door poor in different districts. These differences do not seem very intelligible from any consideration of climate or circumstance. They are very great. Thus, for example, in Rutlandshire the average expenditure *per inmate* is 12s. 10d., while in the northernmost county of England, Northumberland, it is only 4d. Between these extremes there is every variety of cost per head. In Hertford it is 8s. 2d., in Essex 7s. 8d., in Dorset 4s. 7d., in London 4s. 5d., in Lincoln 3s., and in Lancaster 1s. 10d. The propriety of such allowances is a difficult question to be settled on no extreme principles. It is largely a medical question—for the sick it is entirely so—which medical men should regard in all its aspects. It would be interesting if, together with such particulars, we could have some information as to the comparative health, longevity and period of residence of the inmates of workhouses which differ so greatly in their allowance of alcohol, and to know what other differences of food obtain that may account for or justify such variations in the allowance of articles on which the poor set such store, but to which they often owe their pauperism. We are inclined to think that where this questionable comfort is withheld some pains should be taken to introduce compensation in the form of better food.

#### BILIOUS FEVER, NOT YELLOW FEVER.

DR. DOMINGOS FREIRE, whose researches on yellow fever have from time to time attracted much attention and criticism, especially at the hands of Dr. Sternberg of the United States Army Medical Department, has recently<sup>1</sup> demonstrated the fact that the bilious fever of hot countries is a distinct disease from yellow fever, that the symptoms are entirely different, and that the bacteriological causes are also distinct. As regards symptoms he finds that in yellow fever there are three distinct periods—(1) a period of hyperpyrexia, which lasts for twenty-four or forty-eight hours; (2) a short variable period of apyrexia; and (3) a recurrent hyperpyrexia, during which the phenomenon of hemorrhage and the ataxo-dynamic symptoms appear. The icterus comes on during the second or third period and sometimes even only after death. There are the peculiar look of the face, the watery vomit, which gradually becomes darker or even black, this symptom continuing for a long time; the marked constipation, and only in the later stages diarrhoea. Yellow fever is contagious and does not usually recur; there is no enlargement of the spleen except where there has been antecedent malaria. It is entirely intractable to the use of quinine and its salts. The organism associated with its etiology Dr. Freire thinks is a micrococcus, the so-called micrococcus xanthogenus. In bilious fever, on the other hand, there is a regular

<sup>1</sup> Sur l'Origine Bactérienne de la Fièvre Bilieuse des Pays Chauds. Rio de Janeiro, 1892.

periodic advance, sometimes intermittent, sometimes remittent; in the first case, with marked irregular exacerbations; in the second, with a febrile exacerbation which generally occurs towards evening or during the night. The yellow colouration generally commences at the beginning of the disease and continues throughout its whole course. The characteristic facies of yellow fever is quite wanting, the vomit matter is yellow or green from the commencement and gradually diminishes as the disease advances, bile-stained motions are passed during the whole course of the disease; it is only slightly infectious, but the patient is subject to recurrence of the disease; the liver and spleen are hyperæmic and congested and they often undergo fatty degeneration. The implication of these organs, together with the fact that quinine salts have an almost specific action upon the progress of bilious fevers, indicates that this disease is probably of a malarial nature. Dr. Freire was able, moreover, to isolate a bacillus about  $\frac{1}{10}$  of a millimetre in length and  $\frac{1}{100}$  of a millimetre in breadth, non-motile, deeply stained by methyl violet, sometimes slightly curved and usually containing a single spore at its extremity. These, if not identical with, resemble the organisms described by Klebs and Tommasi-Crudeli. When inoculated they are fatal to guinea-pigs, from the bodies of which they may again be separated. It is interesting to note that he was able to obtain these organisms not only from the blood, but also from the urine and from the bile.

#### LONDON LAUNDRIES.

APART from the sanitary condition of laundries, which is often so defective as to gravely compromise not only the health of the washerwomen, but that of their customers, complaints have recently and justly been made against the reckless destruction of the linen. The linen is corroded with lime, frayed out and torn with rough handling and wire brushes; flannels are shrunk so that they can no longer be worn, or if worn they are unhealthy, for they have lost their porosity and have become hard pieces of woollen board. In these days of technical education cannot better technical instruction be given to laundresses? and at the close of this century of scientific progress, if "chemicals" must be used, cannot some chemical substance be found that will be less destructive in its effect than those actually employed by laundresses? Any circumstance that leads the public to hesitate in sending clothes to be washed is detrimental, as cleanliness is the first law of health. The whole question of laundry work is important and urgent. With the continually increasing concentration of population the difficulty of washing the linen becomes greater and greater; and new and more scientific methods will have to be applied to meet the circumstances of the case.

#### NERVE ROOTS OF THE BRACHIAL PLEXUS.

IN the Proceedings of the Royal Society a paper appears by Dr. Risien Russell, giving the results of an experimental investigation of the nerve roots entering into the formation of the brachial plexus of the dog. The methods employed were: (1) Observation of the compound movements in the fore limb of the dog by electrical stimulation of the peripheral end of a whole nerve root which had previously been exposed and divided; (2) minute differentiation obtained by electrical excitation of the individual bundles composing such a nerve root; (3) direct observation (after dissection) of the muscles thrown into action by electrical stimulation of the separate nerve roots, and the determination of the question whether a single bundle of fibres representing a single simple movement remains distinct in its course to the muscles it supplies without inosculating with other nerve fibres; (4) whether, when a muscle receives nerve fibres from more than one nerve root, both nerve roots supply fibres to one and the same muscular fibre; (5) the influence

of section of one or more roots in excluding certain muscles from a generalised epileptic spasm induced in the limb by cortical excitation; (6) differentiation of parts of nerve roots by the degeneration method. The conclusions from these various methods are confirmatory one of another. It is found that the compound movement obtained by stimulation of a whole nerve root is the result of the synergic action of a group of muscles, an effect which may be resolved into its component parts. The simple movements bear a constant relation to the nerve roots—e.g., flexion of the elbow is always represented one root higher than extension,—and fibres subserving a certain movement have a constant position in the same nerve root—e.g., extension of the wrist is represented by a bundle of fibres in the upper part of the circumference of the root. Each bundle of nerve fibres remains distinct in its course to the muscle or muscles, producing a movement without inosculating with other motor fibres. The action of certain muscles is always found to predominate on stimulation of one root, and if flexion is the gross result of stimulation of one root, extension is the predominant result of the excitation of another. It is also found to be possible by stimulation of a single bundle of fibres in a nerve root to produce contraction of a single muscle, and of it alone, although the same muscle is always represented in more than one root, but to an unequal extent in these. The muscular fibres innervated by one root, however, are not supplied by the other. Similarly by division it is found that a temporary paresis is produced in the group of muscles supplied by a nerve root, but there is no incoördination of the remaining muscular combinations, and in an epileptic spasm produced by cortical excitation the position assumed by the limb is modified by the division of a nerve root, the modification being the result of throwing out of action the muscular combinations subserved by the divided nerve root. The degeneration experiments confirm the results; but the Wallerian law is found to be erroneous in regard to the degenerations resulting from division of the nerve root on the distal side of the ganglion; for, in addition to peripheral degeneration in such a root, degenerated fibres are also found in the part of the sensory root between the ganglion and the spinal cord, a condition which makes it likely that there are certain nerve fibres which do not depend for their trophic supply on the ganglion.

#### RAILWAY SIGNALMEN.

IN consideration of the fact that so great a proportion of railway accidents have been occasioned by errors in making or in reading signals, it is clear that too much attention can hardly be paid to this department of railway management. Our readers will therefore excuse another reference to a subject, well worn indeed but unhappily never trite. Three weeks ago while discussing the Thirsk accident we suggested the adoption of some system which would obviate as far as possible the necessity of depending for security of life and limb upon the limited and variable capacity of any railway servant. An incident which occurred the other day near Wakefield is worth noting in this connexion. In this case a signalman, apparently in his usual health and on duty, died suddenly, the fact being only discovered when inquiry was made as to why his signals were not working. Of course it is impossible, by the most perfect method, to obtain absolute immunity from the risk of accident. We are also pleased to note the great skill and energy which have been expended by railway companies upon this part of their organisation and the large measure of success which has rewarded their efforts. Not even these considerations, however, can diminish the pressing necessity for further improvements which are suggested by the incident above mentioned. In particular we would again direct atten-

tion to the advantages connected with a system of interlocking signals. Such a system, controlled by electricity and capable of acting only in obedience to that control, is now, we understand, in action upon some lines. It by no means does away with the labour of signalmen, but it greatly diminishes its anxious responsibility. We should therefore welcome its more general introduction. Such a reform, combined with a considerable addition to the numbers of the working staff, should go far to secure for travellers by rail that safety which is their minimum of right.

### INFLUENZA.

WE observe in some quarters the expression of a fear that influenza is likely to recur in epidemic form this winter. That in many places there are—and have been for some time—sporadic cases of the malady there can be little question; but, so far as previous experience goes, it is improbable that it will prevail to anything like the extent to which it has done in the past three winters. It is, however, conceivable that local outbreaks may occur in this country, just as in France and elsewhere they have often occurred in the intervals between the greater invasions; and it is therefore incumbent upon us to be alive to this possibility, and inculcate on the sufferers the necessity of the avoidance of fatigue and exposure in the early days of convalescence which so often retard recovery or promote grave sequelæ.

### THE LOUTH GUARDIANS AND THE DISMISSAL OF DR. BEST.

A VERY remarkable incident lately happened at the Louth Board—the dismissal by 21 votes to 13, practically without notice and without complaint or reason, of Dr. Palemon Best, medical officer of the Grimoldby district, and the appointment in his place of another medical man who does not seem to have made a direct application for the appointment, though a guardian stated he was prepared to say that he would take it. We were about to express ourselves most strongly on this procedure in our present number as one of the most monstrous and unreasonable steps ever taken by a public body against an officer of high local standing, high professional qualifications and boasting of twenty-five years' service; but on the point of going to press we learn with satisfaction that the guardians have rescinded their former resolution by 17 votes to 8. For twenty-five years Dr. Best had been reappointed without being present or being required to be present. A sort of notice was given him of the meeting at which his appointment was cancelled, but so slight that he did not realise its seriousness and did not attend; but after his most unjustifiable dismissal he demanded, like an honest servant, a hearing, with the result we have stated.

### HYSTERIA IN CHILDREN.

DR. F. JOLLY contributes a paper on this subject to the *Berliner Klinische Wochenschrift*. Hysteria in children may take the form of periodical outbursts of peculiar mental disturbances or may produce local symptoms. Most commonly vague pains are complained of in various parts of the body (particularly in the joints), these pains being frequently accompanied with spastic conditions of the limbs (rarely paralyses) and anæsthesias. Both sides of the body are affected in the great majority of cases, although occasionally there may be a monoplegia or hemiplegia. To the above symptoms tremors may be added; these tremors may in some cases be the first thing complained of, especially in cases where traumatic influences have been at work. Further, spasms may occur in the muscles of speech and respiration (sharp cries, singultus &c). The speech may become stammering or confused or the patient become perfectly dumb for a longer or shorter period, and this may even be accom-

panied by deafness. In some cases observed by Dr. Jolly "hysterical blindness" occurred. As regards anæsthesia of the skin and deeper parts this was usually but slightly marked—diminution of the sense of touch, lessened sensation to pain and contraction of the field of vision. The hysterical attacks were generally characterised by screaming, crying and laughing, accompanied by convulsive movements of the extremities. There was commonly some slight loss of consciousness, but as a rule the patient retained some recollection of what had occurred. The treatment which proved most effectual was isolation, dashing cold water over the child, the faradaic current and judicious verbal correction. With regard to the cause of the hysteria, Dr. Jolly found that there was in most cases a history of a nervous disposition in the parents, this being frequently added to by debilitating diseases and bad feeding, anæmia and unfavourable moral surroundings. Education and imitation also exerted powerful influence.

### MODEL LODGING HOUSES.

IT is satisfactory to note that the very active propaganda made in favour of the better housing of the poor and of the working classes is bearing more fruit. In the course of a week we read of the opening of two model institutions of this description. One named Rowton House, close to Vauxhall station, will accommodate 470 toilers at the rate of 6*d.* a night; and the other, in Macklin-street, Drury-lane, will hold 100 persons at the same charge. But close at hand—in Parker-street—the County Council is building a lodging-house which will probably bring down the rent at present levied. It must be remembered that the ordinary price is 4*d.* a night in a registered lodging-house, and that therefore these two model establishments do not cater for the poorest, the lowest, the dirtiest sections of the population, for those in fact who most need "paternal interference." They will, however, help those who are already seeking to help themselves and will make their path upwards towards respectability more easy to tread. This, though not the most needful, is nevertheless good work. The artistic decorations of the lodging houses and the facilities for reading will do much in the educational sense; while the excellent provision for cooking, washing of clothes and of the person, and the effort to grapple with the difficult question of ventilation will very materially contribute to the improvement of health.

### THE ADMINISTRATION OF PURE OXYGEN.

ADVERTING to the employment of oxygen for the limelight and other purposes, Mr. T. C. Hepworth points out that the success of this comparatively new industry (the separation of oxygen from the air) has been so marked that, as a natural result, competitors with rival processes have come forward. But, according to his experience, the rival product turns out oftentimes to be not oxygen, but a half and half mixture of oxygen and air, with a slight excess of the latter. He recently obtained, for instance, a sample of gas from a dealer, which on testing (with a Hempel absorption pipette charged with metallic copper and ammonia) was found to be a mixture containing only 60·6 per cent. of oxygen. He next tested the illuminating power of this highly diluted oxygen with a lime-light jet, and for sake of comparison placed by its side a precisely similar jet supplied with Brin's oxygen, and as might have been expected, the light given by the former was little more than half as intense as that afforded by the latter. With the good oxygen the lime cylinder was quickly pitted, whilst the other showed no symptom of destruction. It is also to be remarked, he says, that the consumption of the diluted gas is, for a given period, about one-third more—striving with both jets to get the best possible light—than that of good oxygen. On the same principle, a mountaineer at a high altitude will pass a greater volume of air through his lungs in a given time than he will when he is in the valley breath-

ing that which contains the normal quantity of oxygen. He concludes that this matter is of great importance to many workers, and might be one almost of life and death in the case of a patient for whom inhalation of oxygen had been prescribed. If this be so, our readers will be grateful to our correspondent for these words of necessary caution.

#### DRAINAGE OF FROGNAL.

THE inhabitants of Hampstead and Frognal are becoming alarmed at the appearance of typhoid fever and diphtheria in their midst and seem disposed to blame the main drainage of Frognal for their continued prevalence. The matter has been referred to the London County Council, who will doubtless make inquiry into the allegations that have been made.

#### TYPHUS FEVER IN DUNDEE.

THE spread of typhus fever from Dundee into the neighbouring village of Monifieth is creating a scare and will, it is expected, lead to the provision of some form of permanent hospital isolation in the district. Scarlet fever and measles are also causing anxiety and parents are urged to discourage during the Christmas holidays assemblages such as children's parties, which are often a fruitful source of epidemic extension of those diseases.

#### TREATMENT OF LUPUS.

DR. SHLAPOBERSKI has found the caustic action of nitrate of silver in contact with iodoform, which it decomposes with a hissing noise, very efficacious in the treatment of lupus. In an obstinate case he scraped away all the large nodules and applied nitrate of silver, afterwards covering the parts with collodion containing 10 per cent. of iodoform. The treatment was renewed daily. In three months there was a decided improvement, and in seven months the parts were entirely healed. There has since been no recurrence though more than four years have elapsed.

#### CORROSIVE SUBLIMATE AS A GERMICIDE.

DR. C. T. McLINTOCK<sup>1</sup> has made some extensive researches upon corrosive sublimate as a germicide. His experiments show that this substance is not a strong germicide, as germs withstand its action for some time. He maintains, however, that though corrosive sublimate is not a good germicide that is no proof that it may not be valuable as a disinfectant. As is well known, of all substances it has the greatest antiseptic power, and, according to Dr. McLintock's theory, a germ treated with sublimate, unless perchance it gets into the blood or is exposed to very exceptional conditions, is powerless to grow—that is to say, it is probable that a spore of subtilis or anthrax treated with sublimate (1 in 1000) and then thrown on the soil or into water will not germinate owing to the fact that the capsule of sublimate surrounding it is not removed. The former experiments alleged to prove its germicidal power were faulty, inasmuch as in some there was carried over with the disinfected material enough of the sublimate to act as an antiseptic; in others, as those of Abbott, it was not recognised that the sublimate combined with the investment of the germ and prevented any growth, especially in solid media. Again, different cultures have, as pointed out by Esmarch and Gruber, very varying powers of resistance, an all-important factor in determining the germicidal value of any agent. Corrosive sublimate forms with cellulose, as cloth, filter paper &c., with silk, with albuminous bodies, with some part of bacteria, probably the envelope, a chemical compound that cannot be removed by any amount of washing with water. This sublimate when acting on a germ forms a capsule around it that protects the germ for a time from the further

action of the sublimate, and in turn forms an impenetrable barrier to the growth of the organism unless removed. This barrier may be removed with salines and is more rapidly removed in proportion to the renewal of the saline, conditions that are fulfilled in the circulating blood. The action of sublimate on bacteria is probably closely analogous to that of alcohol. All experience leads to the belief that absolute alcohol is immediately fatal to protoplasm, and the only way that we can explain the fact that spores may survive in absolute alcohol for weeks is on the assumption that the alcohol somehow changes the envelope of the spore, rendering it impermeable. Dr. McLintock thinks with De Barry that the presence of a gelatinous envelope in many, if not all, bacteria at certain stages of their life history has not received the attention it deserves. This envelope probably serves the organism in protecting it against temperature, dehydration and chemical agents. Whether the germs contained in solutions treated with sublimate, and disposed of as such material usually is, do or do not grow remains to be proved.

#### PREVALENCE OF MEASLES.

MEASLES is still rife in various parts of the country, affecting chiefly school children, and the question of school closure affords ground for animated debate as well as for divergence of opinion and practice. Thus at Leith, where the disease is still extensively prevalent and many children are away from school, it has been eventually decided that the schools shall remain open. On the other hand, at Wishaw, Pudsey and Hull it has been determined to resort to closure. At the latter place there have during the past four weeks been some 600 cases and forty of them have proved fatal. In the face of this it has been wisely decided to include measles in the list of notifiable diseases, at least for a time. It is pleasing to learn that measles is distinctly declining in Aberdeen.

#### THE CORONER OF OXFORD AND THE INFIRMARY.

THE *Oxford Times* of Dec. 17th contains the report of an inquest on the body of a dairyman, who had lately been in failing health. After delivering all his milk on Dec. 6th he was found dazed and ill by the side of his horse, which he was holding by one hand. One of the witnesses, Mr. Charles Howard, gave an excellent account of his symptoms and of going to his assistance. Deceased was taken to the infirmary on an ambulance and died the next morning. He was promptly seen there by the house surgeon, who diagnosed cerebral hemorrhage, of which there was hemiplegia and every other symptom, and by him was transferred to Dr. Dalgliesh, the house physician, a graduate of Durham, who had held similar offices in Leeds and Newcastle. Dr. Collier was in the hospital almost immediately afterwards, but an urgent diphtheria case requiring tracheotomy distracted Dr. Dalgliesh's attention and he forgot to ask Dr. Collier to see the case. The man got worse so rapidly and his condition was at once so hopeless and so clear in a diagnostic sense that he did not send for Dr. Collier. A certificate in accordance with the facts was given. But the coroner "heard enough," as he thought, to stop the funeral, hold an inquest, and make some very severe reflections on the infirmary and the patient being there twenty-four hours without seeing one of the physicians. Undoubtedly urgent cases should be seen as a rule by the honorary officers; and here it would have been well had this been the case. But we think the remarks of the coroner were greatly in excess of what was called for. The man received prompt attention from two able officers and according to the clear evidence every care that could have benefited or saved him. We think it would have been much better had the coroner ordered a post-mortem examination and supplied the jury with solid facts in place of his own remarks.

<sup>1</sup> Medical News, Oct. 8th, 1892.

ACUTE MIGRATORY OTITIS.

DR. SZENES of Budapest proposes the term "acute migratory otitis media" for a class of inflammatory diseases of the middle ear. He has seen three instances in which one side is first affected and about three days after complete recovery the middle ear of the opposite side. This migration or metastasis is not easily accounted for, but it may be analogous to the somewhat rare migratory form of pneumonia where a small portion of the lung is first attacked and after its recovery another and perhaps distant and larger portion becomes affected. In the first case of migratory otitis seen by Dr. Szenes the left ear was first attacked, the process becoming suppurative. When the inflammation appeared in the right ear energetic measures—as local bloodletting and cold compresses—were successfully employed to prevent suppuration. In the second case there was no suppuration either in the right ear—which was the one first attacked—or in the left. In the third case there was suppuration on both sides.

FOREIGN UNIVERSITY INTELLIGENCE.

*Rostock.*—Dr. Christian Lemcke, who has been Docent in Laryngology and Otology since 1885, has been raised to the rank of Extraordinary Professor.

*St. Petersburg (Military Medical Academy).*—Dr. Blumenau has been recognised by the conference of the Academy as *privat-docent* in Diseases of the Mind and of the Nervous System, Dr. Massen as *privat-docent* in Midwifery and Gynæcology, and Dr. N. Kuskoff as *privat-docent* in Pathological Anatomy.

*Tomsk.*—There are now 302 students in this University which at present contains only a medical faculty. The majority of them were educated at clerical seminaries in European Russia and at gymnasia in Siberia. A great many

of them are in needy circumstances, and are receiving assistance from various sources. The cost of the University to the imperial funds amounts to about £20,000 annually. During the past year surgical, therapeutical, obstetric and gynæcological clinics have been opened, though the number of beds is very limited. Next year clinics for children and for eye and skin diseases are expected to be opened, besides a second surgical clinic.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Kraus, Medical Inspector in Hamburg, of cholera, in Altona.—Dr. Karl Petersenn, formerly chief Medical Officer of the Riga Marine Hospital.

A MEMORIAL has been presented by Sir Henry Roscoe, M.P., to Earl Cowper, chairman of the Royal Commission on the proposed Gresham University. The memorialists "respectfully record their strong opinion that the foundation of a teaching university for London, without due provision being made for higher education and original research, would be unworthy of the metropolis, and would entail the neglect of an admirable opportunity for promoting the advancement of science and learning."

THE Library of the Royal College of Surgeons has been enriched by the presentation of a large collection of Russian medical dissertations and other works by Dr. Theodore Maxwell of Woolwich. Dr. Maxwell, whose linguistic powers have been amply exhibited in his valuable "Terminologia Medica Polyglottica," has also prepared a catalogue of these works, containing references to abstracts of some of them which have appeared in THE LANCET and elsewhere.

LUNACY IN ENGLAND, SCOTLAND AND IRELAND DURING THE YEAR 1891.

WE have before us the Reports for the year 1891 of the Commissioners in Lunacy for England, of the Commissioners in Lunacy for Scotland and of the Inspectors of Lunatics for Ireland. The returns show that the numbers of the insane under official cognisance in the three portions of the kingdom on Jan. 1st, 1892, were:—

—	Males.	Females.	Total.
England and Wales ..	30,030	48,218	87,848
Scotland .. .. .	5982	6817	12,799
Ireland .. .. .	8405	8284	16,689
Total .. .. .	54,017	63,319	117,336

Dealing first with the report on lunacy in England and Wales it is found that there is an increase in the numbers of 1053 as compared with those returned on Jan. 1st, 1891.

While these are the numbers under the official cognisance of the Commissioners they say in a footnote that the detailed report of the Registrar-General showing the total number of insane persons in England and Wales as enumerated at the last census will not be published for another year. In the statistics of the report the statutory definition of the word "pauper" is adhered to as meaning a person who is "wholly or partly chargeable to a union, county or borough," whilst the word "private" is held to include all persons who are not paupers. The figures in January, 1892, show, as compared with the previous January, an increase of 73 (40 males and 33 females) in the private class, an increase of 954 (418 males and 536 females) in the paupers, exclusive of an increase of 26 (10 males and 16 females) in the criminal patients. A decrease of 300 in the insane in ordinary workhouses is regarded as in some measure due to the removal to asylums of patients not unfit for workhouse care, but for whom there is in workhouses a deficiency of accommodation and an indisposition on the part of guardians to provide it by building. Another year's experience confirms the Commissioners in their opinion that the costly proceedings under Section 24 of the Lunacy Act by magistrates' orders and medical certificates tend to restrict the registration of patients in workhouses and

The following summary shows the classification and distribution of the patients on Jan. 1st, 1892.

Where maintained on Jan. 1st, 1892.	Private.			Pauper.			Criminal.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
In county and borough asylums .. .. .	445	558	1,003	24,300	30,048	54,414	09	23	92	24,880	30,029	55,600
In registered hospitals .. .. .	1,840	1,696	3,526	143	92	235	2	1	3	1,985	1,770	3,764
In licensed houses:—												
Metropolitan .. .. .	800	833	1,630	374	573	947	—	—	—	1,180	1,406	2,686
Provincial .. .. .	592	810	1,402	276	362	638	8	—	3	871	1,172	2,043
In naval and military hospitals and Royal India Asylum .. .. .	240	10	250	—	—	—	—	—	—	240	16	256
In Criminal Lunatic Asylum, Broadmoor .. .. .	—	—	—	—	—	—	482	157	639	482	157	639
In workhouses:—												
Ordinary workhouses .. .. .	—	—	—	4,087	6,272	10,050	—	—	—	4,687	6,272	10,950
Metropolitan district asylums .. .. .	—	—	—	2,841	3,098	5,030	—	—	—	2,841	3,093	5,939
Private single patients .. .. .	105	252	447	—	—	—	—	—	—	105	252	447
Out-door paupers .. .. .	—	—	—	2,260	3,437	5,700	—	—	—	2,260	3,437	5,700
Total .. .. .	4,118	4,155	8,273	34,056	43,892	78,838	556	181	737	30,030	48,218	87,848

also sometimes promote the removal to asylums of cases which might be adequately cared for in workhouses. It is, we think, high time, as we have several times pointed out, that steps should be taken for the removal of such stumbling blocks to the proper working of an Act which has much to recommend it in many respects.

From Table I. we gather that the numbers of the insane at the various stages of ten years from 1859 were the following:—

1859	::	::	30,762		1870	::	::	60,885
1869	::	::	53,177		1880	::	::	84,840

The numbers on Jan. 1st for the last three years were: 86,067 in 1890, 86,795 in 1891, 87,848 in 1892. The average annual increase in the ten years from 1882 to 1892 was:—

	Males.	Females.	Total.
Private .. .. .	21	55	76
Pauper .. .. .	566	657	12 3
Criminal .. .. .	1	—	1
<b>Total .. .. .</b>	<b>588</b>	<b>712</b>	<b>1300</b>

The total lunatics to population were in the following ratio per 10,000:—

1859	::	::	18.67		1890	::	::	29.02
1869	::	::	23.93		1891	::	::	29.86
1879	::	::	27.54		1892	::	::	29.88
1889	::	::	20.65					

On this subject the Commissioners have had to correct the figures that they had entered in the last few reports. They state that "as the annual increase of population for the last nine years appears to have been somewhat over-estimated, the fresh calculations now published show that the ratio of the fresh admissions to the corrected population is somewhat higher than was previously apparent." "Taking into account," they add, "that the admissions of the last two years have been swelled by the reception from workhouses of a considerable number of patients previously classed therein as of unsound mind, and enumerated in our returns, and only removed owing to insufficient accommodation in the workhouses, this Table does not indicate that the ratio of fresh cases of insanity to the population is materially increasing." It is something, at all events, to get a definite expression of opinion from the Commissioners on this vexed question. It is satisfactory indeed that the complicated statistics on the point have at last reached a stage of settlement, as it were, which permits a reckoning to be made in terms such as those used by the Commissioners, who are best able to sum up all the *pros* and *cons* that must be weighed before anything like an authoritative opinion can be arrived at. The feeling throughout the country, due partly to a greater interest in the subject and partly to the daily announcement of the enlargement of our pauper and other asylums, is undoubtedly that an absolute increase of the insane to the population is taking place. We take it that the measure of this increase is the satisfactory one given by the Commissioners—namely, that it is not a *material* increase. Our curiosity in this matter will not be satisfied until we have seen the forthcoming return of the Registrar-General as to the total number of insane persons throughout the country, including those who are outside as well as those who are within official cognisance. For it cannot be doubted that the still remaining difficulties as to certification and the cumbrousness generally of the process of having a person for his own good removed to proper asylum care compel a large proportion of lunatics to wander and drift about in our midst to the no small danger of the community or of themselves.

The insufficiency of asylum accommodation is strongly commented on by the Commissioners. The pressure for asylum room continues in undiminished severity, and the Commissioners do not find that County Councils are more prompt than their predecessors who had the control of asylums in adopting measures of relief. They refer to at least twenty counties that are defective in respect of the provision of proper accommodation for their insane, and their strong remonstrance on the subject ought to have weight with County Councils and make them bestir themselves for ameliorating the condition of the hapless insane who come under their jurisdiction.

In other asylums defective sanitation gives only too much colour to the belief that its influence is productive of diseases which would not otherwise present themselves among asylum

inmates, and for this no sort of excuse can be advanced. Mere want of money must not be urged under such circumstances where a person is shut up and has his health seriously, if not fatally, attacked by dysenteric diarrhoea, typhoid fever, pneumonia, erysipelas &c. arising from foul drains, defective closets and the like. The Commissioners continue to recommend in all cases where defective sanitary conditions exist a thorough rearrangement of drains and sewerage under competent advice as at once the most effectual and the most economical remedy.

(To be continued.)

## CHOLERA.

### CURRENT NOTES, COMMENTS AND CRITICISM.

THERE is much more difficulty in affording an accurate chronological and geographical record of the distribution and progress of cholera from week to week than might be supposed. In the first place, there is a good deal of reticence on the part of officials and others about notifying cases on account of the real or supposed injury that any declaration of the kind might cause to the commercial and other interests of the locality or town concerned; then there is the difficulty attending the appearance of isolated or sporadic cases that their precise nature cannot always be determined at the time, and the consequent delay involved. But it is safer under the circumstances to include all cases of apparent among those of real cholera at the present time; for it is these sporadic cases that possess a good deal of significance as indications, on the one hand, that the disease is not dead, and, on the other, they occasionally serve as aids in attempting to forecast the future. Another difficulty, too, in preserving an accurate cholera record arises from the occasional repetition by different papers of intelligence already recorded as if it were new. For instance, the figures forming the total number of cholera cases and deaths in Russia recently announced as the latest official statistics have been already published in THE LANCET of last week.

There have been some indications of a recrudescence of the disease on the Continent during the past week. The weather has been exceptionally warm and damp for the season. The temperature at Hamburg, for instance, was 50° F. at the beginning of the week.

As regards France there were 6 deaths from cholera in Paris in the week ending the 3rd inst. and 4 deaths from diarrhoea among adults. At Dunkirk an *infirmier* at the cholera barracks died of that disease on the 15th, and a fresh case is reported at Condekerque-Branche, a village close to Dunkirk. We have heard nothing lately from Marseilles nor have we learnt any particulars of the extent of the outbreak—said to be serious—at L'Orient or of that at Epernay.

At Hamburg there has been a reappearance of the disease, although not to any extent. The Cholera Commission of the Hamburg Senate announces that a patient brought to the hospital for treatment on the 16th and another who was taken ill subsequently have been found to be suffering from Asiatic cholera. One of the cases originated in the city and the other in the suburb. No cases have occurred in the harbour district since Oct. 13th last. A death from cholera took place at Hamburg on the 12th, and two fresh cases occurred in the same house in that city on the 16th inst. According to the latest intelligence two fresh cases of cholera were reported on the 21st inst., and it is stated that there were also seven cases of suspected cholera. The Commission subsequently reported that the two cases which occurred on the 20th were found to be cholera on bacteriological examination, but both appear to be a mild form of the disease, one of the patients being already nearly well. The Board of Health have been occupied, it is alleged, in preparing for a possible fresh outbreak of the disease in the spring.

From Budapest it was reported at the beginning of the week that cholera had broken out in the garrison of the fortress of Peterwardein in South Hungary, but no further intelligence in regard to it has since reached this country. There were two fresh cases and one death reported from Pest on Sunday last.

## PRECAUTIONS AGAINST CHOLERA.

## CONFERENCE OF PORT MEDICAL OFFICERS OF HEALTH.

DR. COLLINGRIDGE, medical officer of the port of London, is to be congratulated for taking the initiative in convoking a conference of port medical officers of health. The Lord Mayor of London has also rendered great service in throwing the Mansion House open to this meeting and by the hospitable reception he accorded to the medical officers. The result has been a good attendance of port medical officers, though there were some absences which were as significant as they were to be deplored. Dover, Folkestone and Newhaven were not represented, though it is at these three ports that by far the greatest number of passengers coming from cholera-infected districts have landed and are continuing to land, for the cholera epidemic has not yet entirely subsided. There were present at the Conference Dr. Collingridge for the Port of London; Dr. Mason, Hull; Mr. Harris, Southampton; Mr. Gurney, Harwich; Dr. Armstrong, Newcastle; Dr. Wood, Sunderland; Dr. Piggott, Teignmouth; Dr. Lawton, Poole; Dr. Malcomson, the Tees; Dr. Elliston, Ipswich; Dr. Styan, Ramsgate; Mr. Watson, Rochester; Dr. Brown, Colchester; Mr. Bately, Great Yarmouth; Dr. Wynne, Lowestoft; Mr. Wellington, Wisbech; Dr. Fausset, Fleetwood; Dr. Simpson, Weymouth and Portland; Dr. D. S. Davies, Bristol; Dr. Campbell, Gloucester; Mr. E. Davies, Swansea; Dr. Walford, Cardiff; Mr. Tratman and Mr. J. C. Heaven, Bristol (assistants); Mr. Williams, Plymouth; Mr. Griffith, Milford Haven; Dr. Evers, Faversham; Mr. Clegg, Boston; and Mr. E. P. King, Chepstow.

The Conference met on Saturday morning and the proceedings were opened by the Lord Mayor, who said he was proud to welcome the medical officers who had so far perfectly succeeded in protecting England from the scourge of cholera. He congratulated the medical officers for seeking to come together so as to carry out their work in an intelligent and uniform manner. By exercising their powers with gentleness and without unnecessary severity they would best succeed, for they would thus avoid exciting the ill feeling of a large section of the community.

The Lord Mayor having retired, Dr. Collingridge was elected to the chair. The Conference commenced by discussing a resolution brought forward by Dr. Armstrong of Newcastle, to the effect "That it is desirable that medical inspection for the prevention of cholera should be kept up by day and by night without any intermission." To this it was objected that a very large increase of the existing staff would be necessary, and Dr. Mason of Hull maintained that it was extremely difficult, and often very dangerous, to carry out night inspection on the rough and broad waters of the Humber. The Chairman, however, stated that the resolution only suggested the desirability of night inspections as a general principle, though of course exceptions might be made where justified by special local difficulties. The words "as a general principle" being added after "it is desirable," the resolution was carried by 24 to 4 votes. It was further decided that all ships coming from an infected or suspected port should be thus inspected, and then followed a lengthy discussion as to what ports were to be considered infected. Dr. D. S. Davies moved that an official list of foreign infected ports should be issued by the Local Government Board. Mr. Harris suggested that such a list, if published in the *Official Gazette*, would prevent the friction and disputes that arose between port officials and ship captains and owners as to the ports that were or were not infected. Dr. Armstrong thought that there ought to be some compulsory form of international notification; this should comprise the notification of suspicious cases; for it was while "people were fiddling about with bacteria" that all the mischief was done. Dr. Collingridge, however, urged that no Government dare issue such a list. At the present moment the whole coast line from St. Petersburg to L'Orient was infected. Hamburg was still infected, yet no Government, in the face of the official declarations to the contrary, dare place Hamburg on an official list of infected ports. The only practical course would be for the medical officers themselves to issue a list for their own guidance. Other speakers complained that the Government had not given sufficient help and that ships arrived with clean bills of health given them by British consuls, though the newspapers all declared the towns in question to be infected. It

was a difficult matter to make a ship miss a tide when the evidence as to infection was of so conflicting a character. Dr. Davies of Bristol seconded Dr. Collingridge's proposal. Dr. Wynne of Lowestoft urged that the chief difficulty was with the fishing boats, especially the steam trawlers that run in and out so rapidly from different ports according to the condition of the fish market. This opinion was endorsed by Mr. Griffith of Milford Haven. The Congress then decided that the London Port Sanitary Authority should be requested to issue as occasion arose a list of infected ports, for the guidance of all the port medical officers.

The next question was the power to stop ships for medical examination. Dr. Mason maintained he could not properly examine 300 or 400 emigrants in the dead of the night and that he ought to have power to keep ships from entering dock before daylight. Mr. Harris agreed that ships should not be allowed to enter dock without a certificate and should therefore have to wait till the medical officer had been able to visit the ship and give the certificate. If the ship owners or their agents would agree to help the delay would be but slight, as they could warn beforehand the medical officer when their ships were approaching the port. Another delegate suggested that as the pilot was master of the ship pilots could be informed that according to the cholera circular they would be fined £50 if they brought the ship in previously to its being visited by the medical officer. Then, again, an arrangement could be made that no Custom officer should go on board till after the medical inspection. These suggestions had been carried out in several ports. Mr. Wellington of Wisbech caused a considerable sensation by explaining that he lived six miles off the port and that he was sometimes nine miles away on his rounds when a ship came in. It was the little ports that were the weak side in our armour. In large ports the work was done fairly well. To catch a ship at Wisbech he had been obliged to start at three in the morning and go out a distance of fifteen miles over rough water. Dr. Armstrong energetically declared that the little ports offered the greatest danger; they were the back door through which the cholera would enter while the front door was carefully guarded. The Conference ultimately decided to approach the Local Government Board so as to ask for compulsory powers of detention of ships from suspected or infected ports, and that these ships should not be released till they had received a certificate from the port medical officer. This was carried unanimously. It was further resolved unanimously, in respect to the 17th Section of the Quarantine Act, "that the detention of the port medical officer on board ships not having received pratique is objectionable." As a matter of fact, medical officers came off such ships constantly, though by so doing they were liable to six months' imprisonment and a £300 fine. In view of increasing the staff of port medical officers and so as to satisfy the exigencies of commerce the Conference voted that it is desirable arrangements should be made for the prompt medical inspection of ships arriving from infected or suspected ports and their subsequent supervision. As so many ships came from ports that are but a few hours' journey away their subsequent supervision is very essential. Then, again, the Conference decided that false answers made to questions put by the port officials to masters of ships concerning the health of anyone on board should be treated as a penal offence. The Conference laid down the principle that all ships from infected or suspected ports should be treated as infected till found otherwise and this was to apply equally to short sea passages. If in spite of this the ship entered dock the penalty, instead of being only £50, should be so increased as to act as a genuine deterrent. Mr. Harris related that a ship's master whom he had kept out of the Southampton docks afterwards stated that, had he known the penalty was only £50, he would have entered in spite of instructions to the contrary. Complaints were made that fishing boats carried no flags at all, and it was urged that vessels coming from infected ports should signal themselves. On the proposal of Dr. D. S. Davies, seconded by Dr. Wynne, it was resolved that "power be obtained to enforce the hoisting of a signal by all vessels, including fishing boats, coming from an infected or suspected port, or having been in communication with such vessels." After a good deal of conversation, which showed that while some ports had taken many precautions others were not at all prepared to meet an epidemic of cholera, it was determined that a return should be obtained from every port as to the preparations that have been made, notably in reference to

cholera hospital, steam launches, staff, number of ships entering each port &c.

The Conference now began to discuss the all-important question of quarantine, which was defined as the detention of a healthy ship. Mr. Williams stated that at Bridgewater a man belonging to a vessel from an infected port was seized with cholera in a train and travelled many miles in an unconscious condition. Mr. Harris was the only speaker who insisted on the fact that passengers from infected towns could penetrate into the country without entering the Thames or any of the ports where inspection was organised. Dr. Mason insisted on the importance of the second line of defence. A man who had landed from a ship at Hull had been seized an hour after medical inspection, but the second line of defence was ready and in another hour's time he was in the cholera hospital. Dr. Davies proposed and Dr. Mason seconded, "That in the opinion of this Conference quarantine or the detention of a vessel having no sickness on board and so certified by the medical officer of health is unjustifiable."

Dr. Collingridge pointed out that quarantine in the Port of London would mean the detention of 2000 to 4000 persons per week on board ships at the mouth of the river; and, inasmuch as anyone would be able to land at night for half-a-crown, it would be useless. Quarantine might be excellent in theory—it was absurd in practice; and the Conference should emphatically declare, once and for all, that quarantine could not be relied upon and therefore must not be attempted. This advice the Conference followed, for the above resolution declaring quarantine unjustifiable was carried unanimously.

While disapproving of quarantine, the Conference approved the practice of taking the name and addresses of passengers and of the crew, and, to simplify the procedure, voted that these addresses should be communicated direct from the port medical officer to the medical officer of health of the district where the passenger was about to reside. Dr. Collingridge described how, on investigation being made, it was found that, out of a large number of Jew emigrants coming to London, 30 per cent. had given false names and addresses. Several hundred of these Jew emigrants had not been allowed to land, and the ships' companies were obliged to convey them back to Germany, because they were dirty and could not give their addresses. The *Cholera Circular* had very effectively checked the tide of foreign pauper emigration to London. A resolution was passed requiring lodging-house keepers to have a register containing the particulars regarding sailors and others who came from infected or suspected ports.

The question of disinfection was now brought forward, and the discussion showed that the vaguest ideas prevailed on this matter. No one attempted to indicate how a ship should be disinfected. It was acknowledged that the bilge water was too considerable in bulk to be disinfected, and therefore should be pumped out, but the danger of such a practice for inland ports was not touched upon. Nor did anyone venture to describe how the cabins, hold or cargo of a ship were to be disinfected, and nothing was said as to the manner bedding, clothing, furniture, carpets &c. removed from a ship should be treated. There is no general principle governing these operations and every port authority does just what it can or what it likes. The Conference, in the face of this deplorable and dangerous state of affairs, carried a resolution to the effect that "more efficient methods of disinfection be applied," and a committee was elected for the purpose of investigating the entire question.

In respect to hospital accommodation, the necessity of not confusing the general infectious diseases hospital with the special cholera hospital was insisted upon. Several speakers described the difficulty of building cholera hospitals on shore in consequence of the opposition of the population. At Sunderland there had been violent demonstrations against the cholera hospital. Thousands of people gathering together, headed by brass bands, had mobbed the authorities and stoned the medical officer. On the other hand, considerable objection was made to floating hospitals, as these could only be placed on the smooth water of a river, which might easily be contaminated by the patients. Then, again, the amount of accommodation provided in cholera hospitals was not based on any sort of principle and did not correspond with the traffic in the ports or their population. Nor was there at these hospitals or elsewhere the means of giving baths and properly disinfecting the crew and passengers from an infected ship. The Conference voted that it is the duty of the sanitary authorities to provide forthwith proper and special hospital accommodation for the treatment and isolation of cholera cases.

The difficulty of finding the necessary funds to meet all this expenditure was discussed. Under the stress of panic money was forthcoming, but it was more needed beforehand. When the panic begun it would be already too late. At Southampton the cost this year was equal to a twopenny rate and it was doubtful whether the ratepayers would again support such an outlay; at Weymouth and Portland Roads expenses had to be incurred without any compensation. The shipping brought no trade to a port of refuge; it was all cost and no profit. Some ports were extremely poor and yet had to pay for protecting rich inland manufacturing districts from the danger of cholera. The Conference resolved that "Special precautions against cholera, being incurred for the benefit of the entire country, should be defrayed by the Imperial Exchequer."

Dr. Collingridge now explained that the Conference had accomplished the first part of its task, they had come to a common agreement as to what was most needed. The next step would be to invite the sanitary authorities to hold in London a larger conference; and, travelling over the same ground, reaffirm the principles established that day. Then the Local Government Board could be approached by a representation from the entire country; and, by that means, the desired reforms might be obtained. This proposal was adopted. The Conference finally carried a vote of thanks to the Lord Mayor of London; to the chairman, Dr. Collingridge; and to the various port authorities, Custom House Officials &c., who had assisted the Port Medical Officers in their difficult task of warding off the cholera epidemic. In the evening, a number of the members of the Conference dined together at Frascati's Restaurant, and thus terminated a gathering which had lasted, with but brief intervals, for close upon twelve hours.

## THE RUSSIAN CHOLERA CONGRESS.

THE fatality connected with the cholera epidemic which has been raging during the present year, and which, according to official records, has carried off some 280,000 victims, has induced the Zemstvo (local) medical practitioners to hold a Congress at St. Petersburg to discuss various questions in connection with the epidemic, and to devise or suggest measures it would be expedient to adopt in view of its probable appearance next year. No one not personally engaged in the work of combating the disease will be admitted to the Congress. Physicians and reporters for the Russian press will, we are told, form no exception to this rule. An official specially appointed for the purpose will attend the meetings and will receive all the papers from the authors immediately after each has been read. The Congress will assemble on Dec. 25th (new style) and will continue its sittings for a week. The following is an abridged programme of the proceedings:—

On the first day (Sunday) the members will receive the whole of the statistics relating to the epidemic, together with reports on the causes and conditions of the outbreak (illustrated by plans, maps &c.), the measures devised for the sanitation of places of public resort as well as of personal cleanliness. Monday, the 26th, will be devoted to meetings of committees, the demonstration of approved methods of disinfection, the exposition of measures, against the importation of cholera (quarantine, cordons, closing of schools, prevention of extensive migration of the population, overcrowding, provision of reception-rooms for the sick, organisation of registration &c.). On Tuesday, in addition to the committee meetings, the report on measures for combating the epidemic will be discussed, such as the organisation and determination of the amount of medical aid and the appointment of stationary and flying columns, isolation, means to be employed for the proper burial of cholera patients, disinfection &c. The proceedings of the Congress on Wednesday and Thursday will consist chiefly of discussions on reports of committees detailed off to consider the various subjects included in the foregoing programme, which committees will hold a general session on the evening of Thursday and be continued on Friday and Saturday. On Sunday the proceedings of the Congress will close with the usual formality.

## ROYALTY AND HOSPITALS.

## ST. MARY'S HOSPITAL.

ON Saturday last, Dec. 17th, the foundation stone of the new wing of St. Mary's Hospital, Paddington, was laid by His Royal Highness the Prince of Wales. The wing, which is to be called "The Clarence Memorial Wing," will cost when built £100,000, and of this sum one-fifth has already been received. Among the distinguished guests who assisted at this ceremony were the Duke of York, president of the hospital, Princess Maud, the Duke of Fife and the Duke of Cambridge. An address was presented to His Royal Highness which referred to the fact that "the original foundation stone of this hospital was laid forty-seven years ago by your Royal Highness's illustrious father, the first stone of an enlargement was laid twenty years later by your Royal Highness and a further extension was opened by Her Royal Highness Princess Louise, Marchioness of Lorne, in 1883." His Royal Highness, in thanking the governors for the kind welcome they had extended towards him, said he hoped the new site and the new façade would fulfil all local wants. Referring to his son's acceptance of the presidency of the hospital, he said he knew what a satisfaction it was to his son to accept this honour not only on account of the great philanthropic objects of the institution, but to render some debt of gratitude to the distinguished physician, Dr. Broadbent, for the great care with which he had attended him during his long and serious illness of last year. The Prince of Wales then formally laid the stone, after which his Royal Highness presented awards to successful students.

## THE ROYAL EYE HOSPITAL, SOUTHWARK.

ON Thursday, Dec. 15th, His Royal Highness the Duke of York honoured the neighbourhood of the Borough with his presence for the purpose of opening the new Royal Eye Hospital. The imposing ceremony took place within the Surrey Theatre, where there were assembled the Duke of Cambridge, Admiral the Hon. Sir Henry Keppel, the Lord Mayor, the Earl of Kilmorey, the Bishop of Rochester, the Bishop Suffragan of Southwark, Archbishop Vaughan and others. On arriving at the theatre the Duke of York was saluted by the hospital companies of the Volunteer Medical Staff Corps, who formed a guard of honour. Receiving a golden key His Highness inserted it in a model lock electrically connected with the hospital, thus completing the circuit, simultaneously opening the hospital and discharging the signal cannon. A novel feature of the opening of this hospital was an oxygen-hydrogen lantern demonstration of the chief features of the new hospital.

## THE ROYAL VICTORIA HOSPITAL, BOURNEMOUTH.

The Duke of Connaught opened the new wing of this hospital on the 19th inst. An address was presented by the Mayor (Alderman H. Newlyn). His Royal Highness said it had not previously been his good fortune to visit that beautiful and salubrious town; but, like every Englishman, he had heard of it, and congratulated the town on the great strides it was making, and on the popularity it had achieved.

## AN OBJECT LESSON IN GYMNASTIC ANATOMY.

ON Monday, the 12th inst., a lecture on Physical Education was delivered in the Gymnasium of the Royal Military Academy, Woolwich, by Surgeon-Major Deano of the Medical Staff. The lecture, which had been previously given at the Royal Military College, Sandhurst, was in itself well worth listening to, but it excited a good deal of popular interest—as far as the cadets were more especially concerned at any rate—owing to the fact that Sandow, the strong man, was in attendance and afforded in his person a practical illustration of what can be done by physical training in an individual naturally of powerful build—in fact, an object lesson in gymnastic anatomy. The proceedings were under the auspices of Colonel Fox, the inspector of gymnasia at Aldershot, and there was, it need scarcely be added, a full attendance. The lecturer commenced by giving

various instances in ancient, mediæval and modern times of men who were characterised by their superior development of both physical and mental qualities, ending by citing the present Prime Minister, "as not only a man of powerful intellect but as a hewer of trees." He then went on to explain that nature had given us a certain amount of capital or reserve on which we could draw, and added that this might be more clearly represented by assuming that our personal equation was 1. This reserve force was continually being drawn upon, and could only be maintained by good food, sleep and healthy exercise both of mind and body. He pointed out that physical exertion and exercises undertaken for strengthening and developing the muscles were not without exercising a favourable influence also in developing the mind, and among other illustrations remarked that it was commonly recognised that the more exercise a schoolboy took the more fresh and quick he became in his studies. Be this as it may, however,—and in a sense and within limits it is undoubtedly true—the lecturer went on to say that if England was the most athletic nation it was also the worst physically trained one, for young men took up such games as cricket, football, racquets or running, which collectively were very good indeed in their way, but he pointed out that, taking them separately, they all tended to develop only certain parts of the body. In order to avoid this partial development the first thing to be noticed in studying the human frame is, that it is made by nature to stand erect, from which we might infer that all exercises should be performed in that position on the ground on which we stood, and not above it, as in so many of the exercises provided in gymnasia in England. Sandow's development had been attained by constant and systematic use of the muscles, and especially by the employment of 5 lb. dumb-bells, each exercise being designed to increase the power of some particular muscle or group of muscles. Sandow had modelled his system of training on that in fashion with the Greeks and Romans. He had not employed any modern gymnastic apparatus, but had attained his marvellous muscular development mainly by the use of light dumb-bells in connexion with observations on the anatomical arrangement and disposition of his muscles. The lecturer then asked Sandow to perform certain feats and exercises in illustration of what had been advanced. From this point to the conclusion the proceedings became, in a physiological and anatomical sense, very interesting and instructive, for rarely indeed can the various muscles be seen by being put into action in the living body as definitely and precisely as if they had been laid bare by a dissection in a dead one, as was the case in Sandow's exhibition of them. Stripped to the waist, he was able to demonstrate by different movements how great was the command he had over various muscles. Clapping his hands behind his head he was able to make his biceps rise and fall in time to music. Walking round the audience he displayed various muscles in action as they were separately named. By putting his hand behind his back in such a position as to cause contraction of the deltoid he can raise that muscle to a degree that makes the shoulder look out of all proportion to the rest of his body. The development of the flexor and extensor muscles of the upper extremities, especially of the triceps, was also noteworthy. He can flex or bend his wrist to such an extent that a vertical line drawn from the knuckles will fall on the region of the muscles of the forearm. The intimate physiological connexion between the terminal nerves distributed on the skin and those of the muscles beneath, as well as the contractile power of the muscles themselves, are readily manifested; and the normal reflexes should be capable of being easily demonstrated. Sandow applied the hands of some of the bystanders to the skin over the chest walls and other parts of the trunk of his body, with the result that a young fellow described the sensation as being like that of "moving your hand over corrugated iron." Standing in the centre of the room he showed his maximum and minimum chest measurement. After an efforted expiratory act, aided apparently by the pressure of his arms against the ribs laterally, a difference of twelve inches is caused by deep inspiration and forcible action of the inspiratory muscles. When he fully inflates his chest and "sets" its muscles his arms form an angle of about 40° with his body owing to the size and prominence of the muscles under the arm and towards the back of the shoulder and those of the lateral aspect of the chest. The pectoral, and serratus muscles are very noticeable. Taking two packs of cards, together he attempted to tear the two packs—104 cards—in

twain, and after spending about ten minutes in his efforts to do so he succeeded in accomplishing his purpose, affording at the same time an indication of the great muscular strength of the hand and wrist. He failed in doing this at Sandhurst. In order to illustrate the development of the muscles of the back he took a short length of circular indiarubber of about an inch or more in diameter and fitted with handles. This, on being previously passed round the audience, could hardly be stretched by four cadets pulling at each end. Sandow, however, taking hold of the handles and turning his back to the audience, stretched the indiarubber across the back of his neck until his arms were extended at right angles to his body. The action of the muscles of the back caused them to look, as it was remarked, like snakes coiling and uncoiling themselves under his skin. In order to show his weight-lifting power he used a bar-bell weighing 270 lbs., which one of the strongest sergeants of the academy had only succeeded in lifting from the ground by the use of his body as well as his arms. Taking the bar-bell in the centre Sandow allowed it to swing, as it were, by its own weight across his shoulder, from which position he slowly raised it upwards to arm's length above the shoulder. An arrangement was then shown for exercising the adductor muscles of the leg. It consisted of two upright posts and pieces of india-rubber, which are hooked to them and to straps which fasten round the leg just above the knee. The performer sits in a chair between the posts and tries to press the knees together by extending the indiarubber. A cadet who had tried the apparatus could with great effort just do this with three pieces of indiarubber connecting his legs with the posts. Sandow, having attached one more piece of indiarubber on each side, which was all that was available, opened and closed his knees with the utmost ease and without any apparent effort. With the view of showing his gymnastic agility, Sandow very neatly turned a somersault at the close of the performance. His personal equation, as compared with that taken on the previous assumption, may be represented as 50. It is scarcely necessary to add that, with cadets for an audience, Sandow did not lack applause and that there is at present a "great run" on all the light dumb-bells at the Royal Military Academy. The demonstration is, as we have said already, chiefly interesting from an anatomical and physiological point of view, and we have not attempted to discuss the merits of this system from the standpoint of military training and hygiene. The advantages of out-door exercises and sports—in the way of fresh air, emulation, pleasurable excitement and variety—over more systematic and exact methods of physical training need not be stated, for they are obviously on the side of the former.

## COLOUR VISION.

THE report presented to the Royal Society by the Committee on Colour Vision is both interesting and important. The committee held no less than thirty meetings and examined more than 500 individuals as to their colour vision. They also took the evidence of various officials connected with marine and railway work, as well as of several surgeons and experts in testing for colour vision. The results of such an exhaustive inquiry are of the highest importance, and seeing that the conclusions at which the committee arrived have as a natural corollary the framing of certain recommendations with reference to the examination of individuals in whom, for efficient work in their various posts, good colour vision is a necessity, it is to be expected that their labours will have important practical results.

The report deals in the first place with the nature of colour vision, and a short and succinct account is given of the Young-Helmholtz theory of colour vision and of that of Hering. The defects in the ordinary forms of colour blindness are described and also those defects which arise in consequence of disease or injury. The dangers from mistaking signals likely to arise from these defects are pointed out; and while it is stated that no direct evidence had come before the committee showing that accidents on land or water have been conclusively traced to such defects, yet the absence of such conclusive evidence does not disprove the high probability that such accidents have really occurred in

consequence of such defects. It is evident that every colour-blind person employed in certain capacities afloat and on shore must be a source of public danger, and one significant fact is stated showing the probability—that some years ago at least a considerable number of sailors were employed who were defective in their colour vision. The fact referred to is the existence of colour blindness in 4 per cent. of the orphan children of sailors on training ships. As it is well known that colour blindness is to a large extent hereditary, it may be assumed as more than probable that a considerable number of the fathers of these orphans suffered from this defect; and the unsatisfactory nature of the tests officially adopted by the Board of Trade for colour testing of the Marine service does not lessen this probability. It is, however, satisfactory to find that the different tests employed in the Royal Navy are regarded by the committee as most efficient.

The chief recommendations as stated in the letter of Lord Rayleigh, chairman of the committee, are that the Board of Trade or some central authority should schedule certain employments in the mercantile marine and on railways, the filling of which by persons whose vision is defective, either for colour or form, or who are ignorant of the names of colours, would involve danger to life or property, and that the proper testing of all candidates for such employment should be compulsory. This testing should be entrusted to examiners certificated by the central authority, the test to be used for colour vision being that of Holmgren (the sets of wools to be approved by the central authority), and the tests for form those of Snellen. A certificate of the candidate's colour vision and form vision should be given by the examiner, and lists sent annually to the central authority showing the results and stating the nature of the employments for which examinations were held; while rejected candidates may have the right of appeal to an expert approved by the central authority, whose decision should be final. If, however, a candidate whose colour vision is normal is rejected for naming colours wrongly, it is recommended that he should be allowed to be re-examined after a proper interval of time. Re-examination of persons filling the scheduled employments is suggested every third year or oftener, as well as periodical inspection of the tests and the mode of examination at the different testing stations. The committee also recommended that the coloured lights for ships and for lamp signals on the railway should, as far as possible, be uniform, the colours adopted being those of the green and red sealed pattern glasses of the Royal Navy; and that in the case of judicial inquiries regarding collisions or accidents witnesses giving evidence as to the nature or position of coloured signals or lights should themselves be tested for colour and form vision. The immense importance of the subject is evident, and the practical and thorough nature of the suggested measures must recommend them to everyone.

## Public Health and Poor Law.

### LOCAL GOVERNMENT DEPARTMENT.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

*Margate Urban District.*—Margate claims a low death-rate for 1891—namely, 11·4 per 1000 of the permanent population. The zymotic rate was also as low as 0·5 per 1000, and since there were no Margate deaths in the sanatorium, which is outside the area of Margate borough, the record is noteworthy. The hospital was, however, systematically used, 63 patients being sent in. The establishment is by no means a satisfactory one, and Mr. Scatliff hopes that some arrangement will soon be made between the several Isle of Thanet authorities to provide themselves with a more suitable set of hospital buildings. Measles is not notifiable in Margate, but its notification is urged on the ground that school restrictions could be utilised to stay the spread of the disease. In connexion with the current sanitary work it is satisfactory to read that all the remaining wells discoverable on private premises, twenty-seven in number, have been closed.

*Leicester Urban District.*—The late Dr. Tomkins commenced this report, and it was completed by Mr. H. J. Blakesley, F.R.C.S. During 1891 the general death-rate was

21·2 per 1000. No case of small-pox occurred last year, but amongst the notified diseases were 794 of scarlet fever, 65 of diphtheria, 178 of enteric fever and no less than 238 of erysipelas. With regard to the latter disease, the opinion has more than once been expressed that, as notification is now utilised in some districts, the system leads to the reporting of much that was never intended to be included under the term "erysipelas." Much information as to current work is given in the report. The local circumstances as to water-supply, common lodging-houses, slaughter-houses and other matters are fully gone into. The dairies, bakehouses &c. are considered in some detail and a number of excellent charts and tables are appended. In fact, the volume concludes a series compiled under the late Dr. Tomkins' supervision and care which any borough may well feel proud to issue.

*Booy Urban District.*—This report deals almost exclusively with questions of disease and vital statistics; but at its close it is stated that regular inspections are maintained, that scavenging is properly carried out and that the question of sewerage is under discussion. According to Dr. John Brown, the general death-rate during 1891 was 21·5 and the zymotic rate 1·5 per 1000 living.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6125 births and 4046 deaths were registered during the week ending Dec. 17th. The annual rate of mortality in these towns, which had been 18·8 and 19·6 per 1000 in the preceding two weeks, further rose to 20·7 last week. In London the rate was 19·4 per 1000, while it averaged 21·6 in the thirty-two provincial towns. The lowest rates in these towns were 13·5 in Huddersfield, 14·7 in Derby, 15·0 in Portsmouth and 15·5 in Newcastle-upon-Tyne; the highest rates were 27·1 in Sunderland, 27·3 in Brighton, 28·3 in Hull and 35·4 in Bolton. The 4046 deaths included 448 which were referred to the principal zymotic diseases, against numbers increasing from 392 to 444 in the preceding four weeks; of these, 145 resulted from measles, 80 from diphtheria, 80 from whooping-cough, 68 from scarlet fever, 37 from "fever" (principally enteric), 35 from diarrhoea and 3 from small-pox. These diseases caused the lowest death-rates last week in Huddersfield, Wolverhampton, Leeds and Newcastle-upon-Tyne, and the highest rates in Cardiff, Oldham, Bolton, Salford and Brighton. The greatest mortality from measles occurred in West Ham, Manchester, Oldham, Bolton, Hull, Salford and Brighton; from scarlet fever in Bolton, Swansea and Preston; from whooping-cough in Birmingham, Nottingham, Norwich and Salford; and from diarrhoea in Gateshead. The mortality from "fever" showed no marked excess in any of the large towns. The 80 deaths from diphtheria included 59 in London, 3 in Bristol, 3 in Cardiff and 3 in Sheffield. Two fatal cases of small-pox were registered in Oldham and one in London, but not one in any other of the thirty-three large towns; 33 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and not one in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3621, against numbers declining from 4067 to 3772 on the preceding six Saturdays; 286 new cases were admitted during the week, against 302 and 273 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had fallen from 353 to 339 in the preceding three weeks, rose again to 365 last week, but were 121 below the corrected average. The causes of 101, or 2·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Cardiff, Bradford, Newcastle-upon-Tyne, and in four other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, Hull and Gateshead.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding five weeks from 20·6 to 24·5 per 1000, further rose to 25·5 during the week ending Dec. 17th, and exceeded by 4·8 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in

Perth and 16·8 in Paisley to 28·1 in Edinburgh and 43·9 in Leith. The 710 deaths in these towns included 87 which were referred to measles, 18 to scarlet fever, 11 to diarrhoea, 10 to diphtheria, 5 to whooping-cough, 5 to "fever," and not one to small-pox. These 136 deaths were equal to an annual rate of 4·9 per 1000, which exceeded by 2·6 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 112 and 102 in the preceding two weeks, further declined to 87 last week, of which 26 occurred in Edinburgh and 26 in Glasgow, 17 in Leith, 11 in Dundee and 8 in Aberdeen. The deaths referred to scarlet fever, which had declined from 28 to 13 in the preceding three weeks, rose again to 18 last week, and included 10 in Glasgow, 5 in Leith and 3 in Edinburgh. The fatal cases of diphtheria, which had 2 and 13 in the preceding two weeks, were 10 last week, of which 6 occurred in Glasgow and 2 in Edinburgh. The 5 deaths from "fever" showed a slight further decline from those recorded in recent weeks and included 2 in Edinburgh. Of the 5 fatal cases of whooping-cough 4 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 134 and 151 in the preceding two weeks, further rose to 198 last week, but were 48 below the number in the corresponding week of last year, when influenza was fatally prevalent. The causes of 58, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 22·8 to 24·0 per 1000 in the preceding three weeks, further rose to 24·9 during the week ending Dec. 17th. During the first eleven weeks of the current quarter the death-rate in the city averaged 23·4 per 1000, against 18·0 in London and 23·4 in Edinburgh. The 167 deaths in Dublin during the week under notice showed an increase of 6 upon the number in the preceding week, and included 4 which were referred to "fever," 3 to scarlet fever, 2 to diarrhoea, 1 to diphtheria, and not one either to small-pox, measles or whooping-cough. In all, 10 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·5 per 1000, the zymotic death-rate during the same period being 2·2 in London and 6·7 in Edinburgh. The deaths referred to different kinds of "fever," which had been 4, 6 and 2 in the preceding three weeks, rose again to 4 last week. The 3 fatal cases of scarlet fever exceeded the number recorded in any recent week. The 2 deaths referred to diarrhoea differed but slightly from recent weekly numbers. The 167 deaths registered in Dublin last week included 21 of infants under one year of age and 47 of persons aged upwards of sixty years; the deaths of infants showed a further decline from those recorded in recent weeks, while those of elderly persons showed a further increase. Eight inquest cases and 4 deaths from violence were registered, and 54, or nearly a third, of the deaths occurred in public institutions. The causes of 13, or nearly 8 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

### MOVEMENTS OF MEDICAL STAFF.

THE following officers have embarked in the *Malabar* for service in India:—Surgeon-Major Asbury, Surgeon-Captains Swan, Winter and Anderson. The following have embarked in the *Euphrates*:—Surgeon-Captains Birrell and Morse. Surgeon-Captain Morris has proceeded in Medical Charge of drafts to Ceylon. Surgeon-Lieutenant-Colonel Finlay has been placed in charge of the recruiting at Hounslow and Brigade-Surgeon-Lieutenant-Colonel McWalters has taken up duty at Portsmouth on return from a tour of foreign service.

### ARMY MEDICAL STAFF.

Surgeon-Major-General J. G. Faught, A.M.S., Principal Medical Officer, Aldershot, having attained the age of sixty, has been placed on retired pay and has accordingly handed over the Medical Administration of the Aldershot Division.

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant-Colonel James Keith Anderson, M.D., 2nd Volunteer Battalion, the Black Watch (Royal Highlanders), to be Surgeon-Lieutenant-Colonel, and Surgeon-

Captain Edward Bass Reckitt, 1st Lincolnshire Volunteer Artillery (Western Division, Royal Artillery), to be Surgeon-Major (both dated Dec. 21st, 1892).

#### INDIA AND INDIAN MEDICAL SERVICE.

Surgeon-Captain J. B. W. Buchanan, Medical Staff, has been transferred from general duty, Mhow District, to general duty, Poona District. Surgeon-Lieutenant-Colonel B. O'Brien, M.D., Civil Surgeon, Agra, on being relieved by Surgeon-Major A. J. Willcocks, will be transferred to the Kheri District. The services of Surgeon-Captain G. B. Irvine, Indian Medical Service (Bengal), have been replaced at the disposal of the Military Department with effect from the date on which he may be relieved of his duties as Officiating Medical Officer of the Meywar Bhil Corps. The services of Surgeon-Captain J. F. Evans, M.B., Bengal Establishment, have been placed at the disposal of the Punjab Government for appointment as Officiating Professor of Chemistry and Toxicology in the Lahore Medical College and Chemical Examiner to the Government of the Punjab during the absence on furlough of Surgeon-Captain D. St. J. D. Grant, or until further orders. Surendra Nath Sirkar, student of the Calcutta Medical College, has been admitted into the Service as an Assistant Surgeon. The services of Third Grade Assistant Surgeon Surendra Nath Sirkar, of the Imperial Establishment, have been placed temporarily at the disposal of the Chief Commissioner, Central Provinces. Surgeon-Major J. Lewtas, M.D., Joint Civil Surgeon of Simla, has been appointed to the Medical Charge of the Army Head-Quarters Staff and establishments remaining at Simla during the winter. Leave has been granted to Brigade-Surgeon-Lieutenant-Colonel H. B. Purves, Civil Surgeon, Howrah (u. p. a.), for two months, without pay; Surgeon-Major K. M. Downie, M.D., 29th Bengal Infantry (p. a.), till April 1st, 1893; Surgeon-Captain D. T. Lane, M.D. (m. c.), for three months; Surgeon-Captain W. H. B. Robinson, 34th Bengal Infantry (m. c.), for three months. The undermentioned Officers have been granted extension of leave:—Surgeon-Major J. C. Marsden, I.M.S., six months (m. c.); Lieutenant W. A. Oswald, I.S.C., six months (m. c.). Surgeon-Captain D. St. J. D. Grant, Professor in the Lahore Medical College and Chemical Examiner to the Government of Punjab, has obtained furlough out of India for two years from Nov. 26th, 1892. Surgeon-Major A. J. Willcocks, M.D., Civil Surgeon, on return from furlough will be posted to the Agra District. Assistant Surgeon Phirozsha Palanjee Mullan, L.M. & S., has been placed on general duty. The undermentioned have passed the lower standard examination in Hindustani:—Surgeon-Captains E. S. Marder, E. C. Freeman, H. E. Winter and G. S. McLaughlin, of the Medical Staff. Surgeon-Captains W. R. Edwards, I.M.S., and A. J. Macnab, I.M.S., have passed the lower standard examination in Pushtu.

#### THE VOLUNTEER OFFICERS' DECORATION.

Among those officers who were presented with this decoration on Monday last by Field-Marshal the Commander-in-Chief were Surgeon-Lieutenant-Colonel Clark of the 4th Middlesex and Surgeon-Lieutenant-Colonel Norton, M.S.C.

#### THE FALL IN THE VALUE OF SILVER.

There is probably no reader of THE LANCET in India who is not more concerned with the depressed state of the silver currency than with any other question at the present time, for it seriously affects all the civil servants and military and medical officers serving in that country. The question is a really serious and urgent one and Mr. Gladstone will be compelled to deal with the problem somehow as soon as Parliament meets. If a further fall takes place in the value of silver the difficulties of the Indian Government will be seriously increased and it will not be at all easy to provide for the interest on loans and for the salaries of Indian officials—political, civil and military. The International Conference at Brussels has been foiled in its attempt to deal with the question and the British Government will certainly have to take it up in Parliament. In the meantime, the loss in the aggregate to medical officers and others serving in India who have to send money home to their families is very considerable.

#### THE PHYSIQUE OF YOUNG OFFICERS.

We would call attention to the account of an interesting demonstration in the way of physical training that has recently been afforded to the cadets of the Royal Military College, Sandhurst, and the Royal Military Academy, Woolwich. No doubt a great deal can be effected by a systematic

course of training and the use of light dumb-bells in strengthening and developing the physique—especially in the case of young men. Out-of-door games will naturally be preferred to in-door exercises and drills and they certainly have the hygienic advantage of fresh air. If these games be severally analysed, however, it will be recognised that for the most part each of them only exercises and strengthens some particular portion of the body and its muscles. The boys of our large schools and young men generally who join in athletic sports rarely, however, confine themselves entirely to one kind, but take part in a variety of games. In so far as physical exercises bring about the *mens sana in corpore sano*, they tend to mental as well as physical robustness; and by inducing a healthy play of the animal functions generally, and of the circulation of the blood in particular, they give rise to a fresh, clear and prompt intellect; but more cannot be got out of the animal machine than goes into it, and if the energy goes off in one direction it will not in another, and a man can hardly undergo great physical and mental work at one and the same time. Notwithstanding much that is said at present it seems to us pretty clear that, speaking generally, the physique of our young officers is very good and quite equal to what it was. In any one of the service clubs in London, for example, a number of young men may be seen of healthy aspect and fine physique. It must be remembered, too, that a man of small but wiry frame frequently displays great energy, activity and endurance, and that men of this type, at the end of an active day's hunting or shooting, or after a march, will often manifest fewer signs of fatigue than others of larger mould.

#### SIR AUCKLAND COLVIN.

There have probably been few men who, on relinquishing high civil office in an Indian province, can look back on their past record with less misgiving than Sir Auckland Colvin; and his work has mainly been in those directions in which sanitarians and members of the medical profession are most interested. He has done all he could in the way of social and humanitarian questions, in organising sanitary measures for the towns and villages of the North-western Provinces, in inaugurating waterworks and drainage schemes for water-logged and fever-stricken districts, in getting hospitals erected and in pushing forward various practical reforms for improving the public health of the province over which he presided. Sir Auckland Colvin was always accessible and could speak to the natives in their own language with perfect fluency; he knew his own mind and also how to express it in terse English, and he had plenty of initiative and energy. His departure from India at the close of his official career is justly regarded as a matter of regret in that country.

#### THE TREATMENT OF YELLOW FEVER BY COLD.

A military surgeon of experience remarked some years ago that in the event of the occurrence of an outbreak of yellow fever on shipboard the best course was to put the ship's head to the northward and to steer there; and he added that if he were himself a sufferer from that disease, he should like to be put into the ice-house, if the ship had one, until he got there. It seems that a Spanish practitioner residing in the island of Cuba has made some experiments in this direction on yellow fever patients by putting them inside a metal-lined box with double walls and top, the intervals between which are filled with ice, by which means the temperature of the inside air is of course greatly reduced and rendered very damp at the same time. Dr. Garcia, who is the experimenter in question, is, according to the *Daily News* in Havana, prosecuting his investigations.

#### THE EFFECT OF MODERN RIFLE FIRE.

Surgeon-Captain Perry Marsh, Medical Staff, in a communication to the *Army and Navy Gazette* of last week, calls attention to the fact that the results of the experiments made by Veterinary-Captain Smith on the bodies of horses with the Lee-Metford rifle bullets are substantially in accord with those which had been already published by himself. There certainly does not appear much room for doubt that to Surgeon-Captain Perry Marsh the credit is due for having first demonstrated the facts. This officer states that he has now collected the reports of a large number of cases in which men have been wounded by the Lee-Metford missile. "My series embraces cases of wounds of various parts of the body at ranges varying from a few inches up to 3000 yards. In not a single instance is there any evidence of extensive disorganisation of the parts by the missile, unless considerable resistance had been offered to its passage by a large compact bone. In all soft parts such as muscle, large

organs and also in expanded cancellous bone. nothing more than a mere clean-cut key-hole wound has resulted. The extent of damage produced entirely depends, as I have repeatedly pointed out, upon the amount of resistance which the bullet meets in its course. For this reason experiments on horses are somewhat unreliable guides in assisting us to form an opinion as to what the destructive effects of the missile are when striking the human body. It should be borne in mind that the large heavy bones of the horse offer a very different degree of resistance to penetration to that offered by the smaller and lighter ones of the human body. Disregard of this fact appears to have been the chief cause in leading Professor Smith astray in his conclusions regarding the damage done by the Lee-Metford bullet when striking the human body at short ranges."

#### THE AGE AND PHYSIQUE OF OUR RECRUITS.

The current number of the *United Service Magazine* contains a contribution under this title by Brigade-Surgeon Staples which many of our readers will peruse with interest in connexion with the late report of Lord Wantage's Committee and the various articles and letters that have appeared on the subject. On the assembly of Parliament the attention of the new Secretary for War, Mr. Campbell-Bannerman, will no doubt be directed to this matter.

## Correspondence.

"Audi alteram partem."

### THE LATE DR. WALSHÉ.

To the Editors of THE LANCET.

SIRS,—The labours of Walshé, and even his methods, belong to a past generation. No one in these days will attempt to rival him in the accuracy or the fullness of his descriptions of the physical signs of disease. Yet at this moment it cannot be without interest to look back some forty years and compare his teaching with ours. In 1854 there appeared the second and, as some think, the best edition of Walshé's "Diseases of the Lungs and Heart," and for precision, lucidity and finish, for concentration without obscurity and a severity of phrase hardly short of pedantry, the book is unique. It appealed especially in its day to thoughtful men, young to practice, who had already discovered a certain vagueness in medicine and were weary of that facile and slipshod style of composition of which Walshé never wrote one line. In numbered paragraphs, section and subsection, with frequent reference to clinical authority, all of his own collecting, Walshé put forth a body of facts, the grammar of his science in such fashion that the book seemed suited rather to be learnt than read. To many a student of thirty years ago Walshé was not merely a text-book, it was his bible. With such a method of work it is no wonder that when Walshé turned from the study of disease in its purely physical aspects, the point of view that alone attracted him, and came to more general discourse as to the look and the manner of his patients his cunning deserted him and he became insipid and uninteresting. He hated general expressions and was so calculating in the saving of words as to write "facies" (p. 403) instead of "face," thinking that the Latin word carried a fuller meaning and might repay the expenditure of two extra letters. Thus Walshé failed where his great contemporary Sir Thomas Watson was supreme. It is curious to note the different bent of the two and the preference of each for his own department. Watson is always easy and picturesque, but the nice description of auscultatory sounds troubled him. "It is a hard thing," he says, speaking of bronchophony and bronchial breathing, "to describe these things in words. Three minutes at the bedside of a patient will put you in possession of them for ever." Three minutes where Walshé expends many pages of small type, while he devotes much time to a sign so comparatively unimportant as egophony, that sound which "does not appear to traverse the stethoscope, but rather to flutter tremulously about the applied

end." And when all is said, the author seems still uneasy lest his description should be too little hedged about with qualification and exception. "I long believed," he writes regretfully, "fine crepitation to be distinctive of pneumonia, but unfortunately in rare instances (I have seen two such within the last year) pure œdema of the lung does give crepitant rhonchus in no point distinguishable from that of pneumonia."

Yet for all his severity the serious reader (and what other could he possibly attract?) cannot fail to see that Walshé has feelings and passions, perhaps even prejudices, like other men. This is shown in his treatment of contemporary writers on his own subject. He differs from Stokes and from Sibson occasionally and with much respect, from Skoda more often and not unwillingly, from Hope always and with joy. So, too, in his phraseology. Careful and well weighed as is every word, there are some words of which his use is peculiar. Thus he habitually writes "infinitely" as though it were the equivalent of "very" and speaks of certain phenomena as "infinitely rare" when his meaning is that they are very uncommon. But it is not for small criticism such as this that I now write. It is rather to point out that the physical examination of the heart and lungs, as Walshé taught and practised it, is hardly understood now in his sense. It was a passion with him, like his love of music and akin to it. It may even be granted that he refined overmuch and that his standard of health was too strict and narrow. That is not the fear now. The art of auscultation is growing old and has passed the age of enthusiasm. But we may well hope that in his declining years Walshé was spared the knowledge that is now taught in some quarters that the terms "bronchial" and "tubular" are much the same, and that a single adjective apiece may suffice to describe the several categories of "crepitant rhonchus."—I am, Sirs, yours faithfully,

Wimpole street, Dec. 22nd, 1892.

OCTAVIUS STURGES.

### NASAL DOUCHE OR NASAL SYRINGE.

To the Editors of THE LANCET.

SIRS,—In the article by Dr. Barr on "Treatment of the Nose and Throat as a source of Middle-Ear Disease: Precautionary Suggestion," every possibility of exciting inflammation within the middle ear is carefully dealt with, and finally in the use of the nasal douche and nasal syringe no less than eight precautionary suggestions are given in great detail. I beg to add one suggestion which will so far as any danger is concerned to the middle ear from nasal douche or nasal syringe embrace all. It is that the nasal douche should never be used, and the patient or nurse should be personally instructed how to employ the nasal syringe effectually and harmlessly. This rule I have rigidly observed since 1874 without a single accident, and I have seldom passed a day when at work without ordering a nasal syringe. I have also endeavoured to enforce this rule in every edition of "Diseases and Injuries of the Ear" and in "Holmes's System of Surgery." It has been necessary to do this, as I am confident from the number of cases I have seen in which the douche has induced inflammation of the middle ear that it is unsafe to trust it in the hands of patients, however carefully instructions as to its use may be given. In again drawing attention to this subject and treating it in so exhaustive a manner, Dr. Barr's article cannot fail to be of great service to many who have not had the opportunities (which he has) of observing the dangers to which he refers. It is altogether futile for anyone to quote in defence of the douche that numbers of persons habitually use it with impunity. This in no sense does away with the undoubted fact that many eventually injure their ears with it. Thus it differs in regard to safety from a properly constructed nasal syringe.

I am, Sirs, yours faithfully,

London, Dec. 20th, 1892.

W. B. DALBY.

### THE PREVENTION OF CHOLERA IN ENGLAND.

To the Editors of THE LANCET.

SIRS,—THE LANCET of Dec. 17th contains a brief and substantially accurate report of a paper which I read on Nov. 21st before the Incorporated Society of Medical Officers of Health. The report, however, states that I questioned whether the "abandonment of quarantine was a wise policy."

I should be sorry for your readers to suppose that I intended to question the wisdom of the abandonment of quarantine in England, and I ask you to allow me to quote the words I used:—"The practical objection to quarantine is that it cannot be effectually carried out. Even in countries which have little commercial spirit, and amongst the inhabitants of which there is no markedly hostile protest against the great loss of time which quarantine naturally causes, it has been found that the system is practically of little or no value in the prevention of the spread of such a disease as cholera. There is little, therefore, to commend the system to us, and the President of the Local Government Board was decidedly right in his decision to decline to adopt it this year in the case of ships coming from infected ports. The wisdom of this decision is, I think, generally admitted. But, if it were not admitted, let us consider for a minute what would happen if a system of quarantine were adopted. This year, it must be remembered, the infected ports were those of Russia and of Germany. Let us suppose that next year those of France were affected. What would happen to our commerce if all communication were cut off from French ports and if passengers from Calais and Boulogne were quarantined? Practically quarantine could not be effectually carried out."

I am, Sirs, yours faithfully,

York-st., Portman-sq., Dec. 10th, 1892.

RICHARD SISLEY.

### "TREATMENT OF OPHTHALMIA AMONGST THE CHILDREN OF THE POOR."

To the Editors of THE LANCET.

SIRS,—My attention has been called to Dr. Jacob's letter in your issue of the 10th inst. That gentleman appears to labour under a complete misapprehension with regard to the steps which have been taken to deal with ophthalmia in some of the London parochial schools. Before entering his "protest" against (what he is pleased to term) "the fashionable system of boxing up a crowd of cachectic children in a special isolation hospital," Dr. Jacob should have made sure of his facts. The confusion in his mind seems to have arisen from the assumption that isolation involves a kind of imprisonment. Since the isolation carried out at the Norwood and Hanwell schools was confided to my hands, I may be permitted to explain to Dr. Jacob the real facts of the case. Most reasonable persons will admit that to allow children with a contagious disease like ophthalmia to have washing and sleeping arrangements in common with unaffected children would be to fly in the face of Providence and court the danger of an extensive epidemic. It may reassure Dr. Jacob to learn, however, that as part of the system, special arrangements have been made for a large amount of outdoor exercise at Hanwell. Every child, for instance, is compelled to walk for two hours each day beyond the precincts of the ophthalmic school. Further, football is compulsory for the boys, while hockey is played energetically by the girls. Dr. Jacob will therefore see that a course of open-air treatment is carried out systematically at Hanwell. The "farinaceous dietary" he so strongly recommends is replaced by a liberal diet-table arranged on a somewhat more comprehensive and scientific basis. So far, then, the ground is to a certain extent common between us. As to the "little local treatment to the conjunctiva," of which Dr. Jacob speaks, I can only say that I have found after a somewhat lengthened experience of the disease that months or even years of systematic care are required to effect a cure in cases of severe trachoma.

Dr. Jacob takes it for granted that affected children are "kept under subjection to all the paraphernalia of green shades, darkened windows, compress bandages &c." Dr. Jacob may be perhaps astonished to learn that no dark room exists at Hanwell, and that the employment of even a shade for the eyes is an event of some rarity. As for compress bandages, such appliances are most unsuited for cases of trachoma, and indeed for conjunctival affections in general. The statement made by Dr. Jacob, that "infectious granular ophthalmia is, *par excellenciam*, the disease of Ireland," will not surprise English readers who have perused his views on the treatment of that affection.—I am, Sirs, yours faithfully,

SYDNEY STEPHENSON, M.B. Edin. &c.

Welbeck-street, W., Dec. 20th, 1892.

### "EXPERIMENTS ON ANIMALS."

To the Editors of THE LANCET.

SIRS,—The question of whether or not the peritoneum of the human being is sensitive or not is not one which can be settled by experiments on animals; and if my views prove to be correct it only affords another illustration of the misleading nature of the experiments I condemn. If there is an error on my part, it of course must be in my erroneous interpretation of phenomena yielded to me by 3300 human peritoneal cavities. But I am collecting evidence on the subject from other surgeons, and I shall send you the conclusions summarised from that evidence when it is complete. I confess at present as I read Dr. Sherrington's letter I can hardly believe that my eyes convey the true meaning of his words, so absurd do they seem to me.

I am, Sirs, yours faithfully,

The Crescent, Birmingham, Dec. 13th, 1892. LAWSON TAIT.

### SUBCUTANEOUS SUTURE OF THE PATELLA.

To the Editors of THE LANCET.

SIRS,—Please permit me to correct a statement in the account of my instruments for bone suture in your issue of Dec. 10th. Dr. D. W. Aitken's instrument described in my paper as a long bradawl perforated at the end is really a tubular bradawl.<sup>1</sup> The perforated instrument was originally described by Ceci of Genoa in the *Deutsche Zeitschrift für Chirurgie*, Bd. xxiii., p. 285. A brief extract of this paper in the *Centralblatt für Chirurgie* for Aug. 14th, 1886, treats it with unmerited contempt and gives a wrong reference to it—viz., Bd. xxxii. instead of Bd. xxxiii.

I am, Sirs, yours truly,

C. B. KIBBLEBY, F.R.C.S. Eng.

Grosvenor-street, W., Dec. 21st, 1892.

### NITROUS OXIDE GAS.

To the Editors of THE LANCET.

SIRS,—It is in the experience of most if not all administrators of nitrous oxide gas to find the gas obstructed during its exit from the bottle, and on the tap being further unscrewed for the gas to rush out sometimes to an uncontrollable extent, blowing off or bursting the india-rubber connexion, causing great annoyance to the administrator and serious alarm to the patient. This obstruction is said to occur when the bottles are in the horizontal position and to prevent it taking place, the late Dr. Sheppard, anaesthetist to Guy's Hospital Dental School, invented an ingenious contrivance. As, however, the cause of this obstruction is not generally known and so easily prevented I venture to state the reason and remedy for it. It is due entirely to a small quantity of water accumulating from several fillings of the bottles the result either of the condensation of moisture from improperly dried gas or introduced in the process of pumping the gas into the bottles. When this water freezes on account of the absorption of heat which takes place during the changing of the liquid gas into the gaseous condition, it forms an effectual barrier to the outward flow of the gas which may suddenly yield as the tap of the bottle is further unscrewed. The remedy is a simple one and is in the hands of the manufacturers of the gas or of those administrators who have their own bottles refilled—namely, taking the precaution to have the taps of empty bottles removed and the water shaken out. I have adopted this plan for two years, during which time I have experienced no inconvenience in administering nitrous oxide gas from bottles placed in the horizontal position.

I am, Sirs, yours truly,

S. EDWARD PEBBLEY, M.R.C.S., L.R.C.P. Lond.,  
Anaesthetist to the National Dental Hospital.

The Terrace, Camberwell, S.E., Dec. 10th, 1892.

### "ON THE DIAGNOSIS OF THE DIFFERENT FORMS OF PROSTATIC ENLARGEMENT."

To the Editors of THE LANCET.

SIRS,—It is allowable to the profession, I presume, to succinctly criticise any article dealing with matters of importance in your valuable journal; at least such have been

<sup>1</sup> Brit. Med. Jour., July 23rd, 1892.

the traditions of THE LANCET. Mr. Mansell Moullin, in writing on the diagnosis of prostatic enlargement, does not as clearly express his meaning as some of his readers would desire; nor does he at all satisfy those who seek for novel or efficient solutions of difficulties in the means he recommends. All his dissertations appear at last to bear upon an invention which, were its practical utility equal to the theory of its rationale, I for one would feel grateful not envious, enlightened not puzzled. "With it the prostatic urethra can be mapped out with perfect accuracy," "and ..... owing to the difference in the resistance presented by the walls, the nature of the growth can be ascertained whether it is soft, nodular" &c. How, may I ask, can such possibly be with an extent of accuracy pointing to utility? We have, firstly, apparently a bulky instrument which, even when closed, is in itself capable of obliterating pro tem. these irregularities it is meant to differentiate, and the expanding sides of the frame of which can only at best (even granting that they can be much expanded) indicate to an extent the diameters of the canal, but not at all unilateral deviation or distinguish anterior from posterior encroachment. Secondly, how can the consistency of the enlargement be told by such means with anything like accuracy? No, Sirs, an instrument which carries out what is really wanted must be based on different principles.

You did me the honour of publishing a description of an automatic urethrometer in your issue of Oct. 10th, 1891, which instrument was lent in June last to Mr. Moullin at this request, and I challenge him now to say it has not given him the ideas which he now tries to apply to the instrument he describes. My perfected instrument, I submit, when bent especially, will, in its withdrawal from the bladder, carry out scientifically the desiderata dwelt upon by Mr. Moullin; for not only will it work automatically, and register to a nicety the resistance of the prostatic walls, but it will draw an outline of their contour.

Mr. Moullin has rewarded me with but scant courtesy for the trouble I took in taking him the instrument, though he promised me "full credit." Nevertheless, I would not now trespass on your space were his instrument to fulfil what is wanted. Finally, will you allow me to suggest that the only manoeuvres of any worth, in my humble opinion, are those of Mercier, and were the beak of his sound hinged on a pervious shaft carrying a wire attached to the beak and in obedience to the operator's hand, whilst recording the extension of the beak, we would, I think, be nearer what is required.

I am, Sirs, your obedient servant,

Crouch-end, Dec. 20th, 1892.

JAMES MACMUNN.

## THE SENATOR JAMES MOLESCHOTT.

(FROM OUR SPECIAL CORRESPONDENT.)

CROWDED to its utmost capacity with students, with medical practitioners and consultants, with the teaching staff of the various schools and institutions, with Senators and members of Parliament and with the fair sex, the Aula Magna of the Roman University offered an imposing spectacle when, at 11.15 A.M. to-day, the Rector, accompanied by Professor Moleschott, the Minister of Public Instruction (Signor Martini), the President of the Chamber of Deputies (Signor Zanardelli), the Dutch, Bavarian and Swiss Ministers, the Prefect, and a long train of the Senatus Academicus and eminent citizens entered and took their seats on the raised platform. To the left of Signor Martini, who presided, stood on a pedestal a very fine bust in bronze of the hero of the day, the formal presentation of which on his having completed his seventieth year was the occasion of the gathering. The sculptor is Ettore Ferrari, and the highly intellectual features of his subject were universally admired as having been given with a fidelity and a life-like animation worthy of both.

When the applause, often repeated, had subsided, Professor Toscani rose and in well-chosen language, in the name of the Faculty of Medicine, presented Professor Moleschott with a parchment signed by 400 brethren in science and teaching, at the same time handing over to him the bust and expressing the hope that it will

long adorn the hall of the institute in which he has taught so indefatigably and so well. This proceeding was followed by the presentation, through Professor Durante and on the part of the Accademia Medica di Roma, of another parchment signed by 200 working practitioners and consultants, to testify their appreciation of Moleschott's scientific work. The third to rise was the Rector of the University, who spoke as an academic colleague in a similar sense, and the fourth was Professor Paliani, Director-General of Hygiene for the kingdom of Italy, a former pupil of Moleschott at Turin, whose medical faculty and accademia he represented. His speech, even more eloquent than those of his precursors, was loudly applauded as he resumed his seat after presenting to Moleschott a numerous signed parchment from the practitioners and teachers of the sub-Alpine capital. After him came M. de Westenberg, Minister of Holland at the Court of the Quirinal, whose discourse was redolent of patriotic pride in the honours done to his distinguished countryman and who concluded by presenting, in the name of the "Dutch Committee for the Moleschott Jubilee," an illuminated address and two fine works of art by his compatriots, Joseph Israel and Alma Tadema. It was now the turn of Professor Colassanti, whose task it was to represent the Dutch Academy of Sciences, the University of Amsterdam, the Dutch Medical Association, the Utrecht Society for the Promotion of Science and Art, the Society of Dutch Rationalists, entitled "De Dageraad," the Institute of Experimental Physiology of Naples and other bodies, and who presented in their name, as well as in those of numerous individuals, a long array of letters and telegrams of congratulation along with a parchment of the Senatus Academicus of Amsterdam, the diploma of honorary membership of the Dutch Medical Association, and a volume published in Moleschott's honour by the "De Dageraad" Society of Rationalists, containing the autographs of many distinguished savants and men of letters, Italian and foreign. Finally, His Excellency Signor Martini, in chaste yet glowing terms, congratulated Professor Moleschott on the auspicious day—a day to which the Italian Government could not remain indifferent—and, on the part of King Humbert, presented him with the *insignia* of the Order of Civil Merit of Savoy.

Prolonged cheering from the upstanding assemblage greeted Professor Moleschott as he rose to make his acknowledgments. In a strain of the manliest, most purely scientific, modesty he dwelt on the magnificent honours that had been conferred upon him, and sought their explanation in the single-hearted devotion to truth that united him to his brother investigators and teachers throughout the world. In a passage of splendid eloquence he pictured himself and his fellow-workers on the great gulf stream of research, following in the deep wake of a mighty vessel—that of inductive science—whose cargo they were ever enriching, but whose port of debarkation they were destined never to see. This image he elaborated with fine effect, till, by an artistic transition, he passed to his own chequered career. In Holland he had imbibed with his mother's milk the love of liberty. His father was a freethinker in the domain of science and instilled into his young mind a passion for work which soon found its highest fruition in daily recurring investigation in the laboratory and the pathological theatre. The lessons he had acquired at the feet of the great physiological chemist, Mulder, he followed up in Germany by acquisitions made in her schools—acquisitions confirmed or modified by intercommunication—aye, even animated controversy—with such pioneers of science as Liebig. It was in Germany that he gained the gentle consort who for twenty years shared his fortunes, his sorrows and his joys, and here he made touching allusion to her tragic and untimely end—self-destruction in a sudden access of mania—in language which went straight to the heart of his audience. His loyalty to truth and to freedom of discussion cost him his chair at Heidelberg; but that loss was made up by Switzerland, the refuge of the patriot, as all Italians understood, which gave him hospitality in the great medical school of Zurich. A few years in the Helvetian Republic enhanced the love he had always borne her as a stranger till, at the instance of the mightiest diplomatist and statesman of the nineteenth century, Camillo Benso di Cavour, he was brought to Turin to throw in his lot with the Italian resurrection and to strengthen her growing energies on the scientific side. Able Ministers of State like Quintino Sella, who asked the Chamber of Deputies to grant—"di urgenza"—the Italian citizenship to the Dutch physiologist, or like de Sanctis, who, after the splendid results of that same physiologist's teaching in the sub-

Alpine capital, transferred him to the University of Rome, vied with men of science and men of letters to make his residence and work in Italy ever more pleasant and more effective, till his citizenship in the land of his adoption was crowned by his having been made one of the Conscript Fathers of the Legislature. These and such-like details, familiar to the student of contemporary scientific history, Professor Moleschott referred to in exquisite Italian idiom, winning the mind and soul as well as the heart of his audience by the manifest care and success with which he had mastered their beautiful language and their noble literature, and confirming by the best of all title-deeds—those of intellectual and moral naturalisation—his right to say of himself, "Civis Romanus Sum."

Seldom have I assisted at a more interesting, a more gratifying demonstration—not the least reassuring feature of which was the splendid physical and mental vigour of its hero, giving earnest of continued work in the laboratory and chair of physiology—for the advancement of medical science and for the rehabilitation of the profession in Italy. At the close of the proceedings the audience, one by one, saluted the "modesto soldato del progresso civile," as he termed himself, on its way out; while all through the day he continued to receive congratulations by telegraph from the chief medical schools of the peninsula, such as Turin, Modena and Bologna.

Rome, Dec. 16th.

## MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

### *Increase of Small-pox.*

It would appear that after all Manchester is not to escape without closer acquaintance with the scourge which has so long been prevalent in many of the neighbouring towns of Lancashire and Yorkshire. The weekly health return just issued by the Corporation indicates that within the last three weeks more than 40 fresh cases of small-pox have been reported in Manchester, and I hear from another source that on one occasion this week as many as 10 cases were sent to Monsall within a period of twenty-four hours. The distribution of small-pox infection seems to be very general; it is by no means confined to one or two areas, but cases are cropping up, now in one district, now in another, so that a general feeling of uneasiness is beginning to prevail as to whether or not the disease is about to assume epidemic proportions throughout the city generally and thus to become unmanageable. At the monthly meeting of the Manchester Infirmary Board, held on the 19th inst., the subject of small-pox prevalence was specially referred to. Mr. Alfred Simpson, chairman of the Monsall Committee, in moving the adoption of the minutes, said he regretted to have to say that there had been for several weeks past a steady increase in the number of patients received at Monsall Hospital suffering from small-pox. At the present time there were 37 persons in hospital suffering from that disease. The week before 12 were received, last week the admissions were 15, and already this week several others had been admitted. The gravity of the case arose from the fact that 14 out of the 15 patients received last week came from widely separated districts of Manchester, from which it was evident that they would for some time to come have to provide for a distinct epidemic of small-pox. The permanent accommodation at Monsall, from present appearances, would very shortly be exhausted, and it would be necessary to resort to temporary accommodation for any considerable number of cases in excess of the number they now had there. He also added that he had heard with regret from the Hospital Medical Staff the opinion that the population of Manchester at the present time was not well protected from small-pox by vaccination and re-vaccination. Having regard to existing circumstances and to recent experiences in Warrington and elsewhere the action of the Council at their last meeting is greatly to be regretted. The Sanitary Committee, presumably at the instance of the medical officer of health, had carefully elaborated a scheme for the erection of a small-pox hospital on vacant land adjacent to but quite isolated from the present fever hospital at Monsall. The committee presented a very full report giving the reasons which had led them to bring forward their scheme and urging the necessity which undoubtedly existed for promptitude in making provision for the proper isolation

of small-pox. According to local newspaper reports the case advanced by the opposition against the scheme of the committee was a peculiarly weak one; but inasmuch as Monsall is within the district of Newton Heath, an opportunity was afforded to the discontents of that township to make it a grievance that all the small-pox in the city should be sent into their district, some of the representatives going the length of suggesting that each of the several townships of the city—some sixteen in number—should establish a separate hospital for infectious disease in their own districts. It is more than probable that had the debate on the report been kept within reasonable limits, the committee's recommendation would have been confirmed. As it was, however, the discussion was prolonged until after dark, by which time a large portion of the Council had retired, so that when at length the division was taken the proposal of the committee was rejected by a bare majority, the whole matter being referred to the committee for "further consideration and report" some time in January next. From the report of the medical officer of health, which was circulated at the Council meeting, it appears that small-pox is still being treated at Monsall in a couple of pavilions which are in close proximity to the fever wards. The fear though is that infection may spread, as it almost assuredly will do, from the small-pox wards to the other portions of the hospital; in which case both the hospital authorities and the Corporation would incur very serious responsibility, especially since the danger of their present practice has been duly pointed out to them by their medical advisers.

### *The Unemployed and Local Distress.*

There is no doubt that since the advent of somewhat severe weather there has been a good deal of distress in certain districts of the city, and this has been rendered more acute because of the cotton operatives' strike, which unfortunately has not yet come to an end. Most of the boards of guardians and local boards have held meetings to consider the question, but up to the present time there does not appear to have occurred any unusual amount of destitution in consequence of the stoppage of out-door work. The return of comparatively mild weather during the last week has of course greatly improved the circumstances of that portion of the unemployed who are really desirous to obtain work.

Dec. 20th, 1892.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

### *The Newcastle Royal Infirmary and its Management.*

A CORRESPONDENCE of a somewhat acrimonious nature has been going on for some time as to the management of the Royal Infirmary. The fact is the infirmary has at present an advance balance of about £2000, which to some minds would show that it is doing a very large amount of work, but others, acting the part of candid friends, are attacking its management by anonymous letters in our local papers. Now, I am not defending the management of the institution, but I do say that these letters are not fair. If the writers have faults to find with the infirmary let them find it in an open way, declare themselves at the many opportunities presented at the Governors' meeting or openly in the press and then we should know how much weight to attach to their opinions. Above all they should be sure of their facts. This irresponsible letter-writing is calculated to injure a noble institution. It is, however, pleasant to see that one of our large coal companies has sent a donation of £150 and others have followed its example.

### *Ambulance Work in the North.*

The annual meeting of the Middlesbrough centre of the St. John Ambulance Association was held last week. The report showed that, owing to the trade depression in the district, less work had been done during the year than usual; still 258 members had attended a full course of instruction. During the eleven years that they had been working there had been 185 classes with about 5550 members, of whom 4534 had qualified for examination. Surgeon-Major IJutton had also examined a class of seventy-seven at Wynyard Park, the seat of Lord Londonderry, the classes being mostly composed of members of the household. Lady Londonderry and Lady Helen Stewart, amongst others, submitted themselves to examination and highly satisfied the examiner. At Darlington also the members of the Railway

Employés Ambulance Class, instructed by Drs. Middlemiss and Petter, were examined by Dr. Ellerton, of the St. John Ambulance Association, who expressed himself as highly pleased with the results, especially in the bandaging-stretcher exercise.

*Hospital Saturday at West Hartlepool.*

On Saturday last the usual hospital collection was made at West Hartlepool. It is said that the box collection did not exceed the expectations of the committee, but on the other hand Dr. Gourley has had for varded to him several handsome donations in connexion with the scheme.

*How Infectious Diseases are Spread.*

At the meeting of the Chester-le-street Rural Sanitary Authority a case of small-pox was reported. The man had died in the workhouse hospital, having come from Northallerton with a wife and child, who were also suffering from the disease. Small-pox, it is known, has been prevalent in the neighbourhood of Northallerton lately. In connexion with this matter it may be noted that last week a raid was made by the police on tramps and nondescripts found sleeping in coke-yards and cinder-ovens in the county of Durham owing to the frequent fatalities arising therefrom. About sixty-seven tramps are reported to have been arrested. They were brought before a special police court and although a few were discharged the majority were sentenced to imprisonment. They were described as being in a dreadful state from dirt and disease and apparently had not been washed for years. There were two negroes amongst the number.

*A White Seal on the Northumbrian Coast.*

A splendid specimen of the white seal was caught last week in Newbiggin Bay. It was first observed, by some gentlemen who were shooting, making efforts to get out to sea, but it was prevented from doing so by a fisherman stunning it by a stone. It was taken to the village and with difficulty kept alive for a few days. It measured nearly five feet in length and weighed nearly 1 cwt.

*Presentation to Dr. Smellie.*

Dr. Smellie of Jarrow has received a presentation at a meeting presided over by the Mayor of Jarrow. Dr. Smellie has been many years resident in Jarrow, but has received an official appointment in Wigtonshire.

*Memorial to the late Dr. Maclagan of Berwick.*

The Berwick authority have agreed to the erection of a memorial to the late Dr. Maclagan in the High-street, Berwick. Newcastle-on-Tyne, Dec. 21st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

*Draft Ordinances by the Scottish Universities Commission.*

DRAFT ordinances bearing in an important manner upon the Faculty of Medicine in the Scottish Universities have just been issued by the Commission. One of these deals with pensions to principals and professors. After ten years' service an annual allowance is granted of twenty-sixtieths of the amount of salary of his office. After ten years one-sixtieth is added for each additional year of service. In calculating the pension, £900 is to be held as the maximum salary of either a principal or professor. The University Court is given power to transfer chairs from one faculty to another and to determine to which faculty new chairs shall belong. The following are briefly the regulations as to the application of Parliamentary grants, as to salaries, and for the institution of a fee fund &c. The Universities of Glasgow, Aberdeen and Edinburgh receive as their respective shares of the annual sum of £42,000, being the Parliamentary grant under the Act of 1889:—Glasgow, £12,180; Aberdeen, £8400; Edinburgh, £15,120. And of the annual sum of £30,000 constituting the Parliamentary grant under the Act of 1892, Glasgow receives £8700, Aberdeen £6000 and Edinburgh £10,800. These sums are ordained to be paid to the University Court of each University. The whole fees payable to the professors in any of the Universities shall be drawn by the University Court and are to be collected in such manner as the Court may from time to time appoint, and shall constitute a fee fund, and the fees so collected are to be kept in

a separate account known as the "fee fund account." It shall also be in the power of the Court to fix from time to time the fees in any of the classes. The sums payable to the professors other than the fees are ordained to be kept in a separate account, to be called the "salaries account." These include endowments and sums paid out of public moneys. The professors and their successors are to receive annually out of the salaries account the respective sums paid into it, and are also to receive from the fee fund such sum as shall bring their salaries in each case up to the amount given in a separate schedule and referred to further on. In the event of a deficiency in the fee fund in any year, the payment shall be diminished proportionally to the normal salary of each professor. In no case is the total salary of a professor to fall below the sum in the second column as under; and if the fee fund is insufficient to make good the minimum salary, the deficiency is to be supplied out of the other funds of the University. Professors appointed to chairs which may hereafter be instituted by the University Court shall receive such salaries and shall have such interest in the fee fund as may be fixed by the Court when the chairs are instituted. Notwithstanding the foregoing provisions, the professors in the University of Edinburgh are during their tenure of office to receive out of the fee fund the full amount of fees drawn from their classes in each year, but under deduction in each case of such sum as may seem to the Court to be just and equitable, not exceeding the average of the sums paid by the professor for the salaries of assistants and class expenses. The medical professors of Glasgow and Aberdeen Universities are to receive during their tenure of office a sum equal to 90 per cent. of the net emoluments of their office, estimated on an average of the five years immediately preceding. Provision is also made for the application of the revenues of the University for expenses of administration, salaries and pensions, the upkeep of buildings, the upkeep and equipment of libraries, museums and laboratories, for the remuneration of lecturers and assistants and of any additional professors who may be appointed. It is further ordained that out of the Parliamentary grants there shall be annually set aside a sum to account of the Pension Fund. The salaries of the principals are set forth as: Glasgow £1100, Aberdeen £800, Edinburgh £1100. The normal and minimum salary in the three Universities in the Faculty of Medicine and specially scheduled are as follows:—

	Glasgow.		Aberdeen.		Edinburgh.	
	£1200	£800	£900	£600	£1400	£800
*Chemistry .....	1200	800	900	600	1400	800
*Physiology .....	1200	800	900	600	1400	800
*Pathology .....	1100	700	900	600	1400	800
*Anatomy .....	800	600	700	500	1000	800
*Natural History .....	800	600	700	500	1000	800
*Botany .....	600	500	500	300	600	500
Medicine .....	600	500	500	300	600	500
Surgery .....	600	500	500	300	600	500
Midwifery .....	600	500	500	300	600	500
Materia Medica .....	600	500	500	300	600	500
Medical Jurisprudence .....	600	500	500	300	600	500
Clinical Surgery .....	600	500	500	300	600	500

The figures in the first columns are what are called the normal salaries of the chairs, those in the second columns the minimum salaries. The six chairs marked with an asterisk are calculated on the ground that the Professors are not engaged in practice.

*Queen Victoria Jubilee Institute for Nurses (Scottish Branch).*

The fourth annual report of this Institute shows that there is an increasing demand for nurses both in Edinburgh and throughout the country. The result is that the home has had to be enlarged by the purchase of additional property. There is now accommodation for twenty-three nurses and further accommodation can be provided when necessary. During the year twenty-seven district probationers had entered the home and twenty nurses had completed their training and received appointments. At the close of the year the council was responsible for thirty-one nurses, of whom six were in the home, thirteen undergoing district training, eight being trained in the Edinburgh Royal Infirmary and the remainder in other hospitals. During the year fourteen new local associations had been formed. During the same period 1969 cases had been nursed and 40,977 visits had been paid. The total ordinary receipts had been £1731 9s. 5d. and the expenditure £1641 1s. 10d. Considerable progress is also reported regarding the pension fund for Queen's nurses in Scotland, which was originated last year by a gift of £500 and now stands at slightly over £800.

*Opening of New Home for Nurses at the Royal Infirmary, Edinburgh.*

In the beginning of the week the new home for nurses at the Royal Infirmary was formally opened. The building contains 121 nurses' rooms, a sick room with six beds and two separate sick rooms, 16 bath rooms and a large recreation room.

*The Health of Leith.*

During the past week the number of deaths in this burgh was 69, making the death-rate 43·82 per 1000. Zymotic diseases caused 23 of the deaths—1 being typhus fever, 5 scarlet fever, 1 diphtheria, 1 erysipelas and 15 measles.

*Aberdeen District Nursing Association.*

The monthly meeting of the executive committee took place recently, when it was reported that during the month from Nov. 14th to Dec. 12th 25 new cases had been entered on the register; 8 patients had recovered, 3 had been removed to the Royal Infirmary, and 6 had died. Number still on register, 23; number of visits paid during the month, 461. A pamphlet drawn up by the Rev. Dr. Danson, describing the working of the Association, is being circulated in Aberdeen.

*Health of Aberdeen.*

Dr. Matthew Hay, in his report for November, says that the death-rate for the month, 23·35 per 1000 per annum, is considerably higher than in the preceding month (19·73). It is, however, lower than in November, 1891, when it was 24·85. The increase is almost entirely due to a higher rate in the older and more densely populated part of the town. This difference is due to several insanitary causes, chief among which is insanitary housing. Dr. Hay urgently recommends an early effort to deal with the recommendations contained in the report by the sanitary inspector and himself, and assures the Town Council that till this is done no decrease in the death-rate can be expected. Dr. Hay reports also one death during the month from influenza, and mentions that he has seen during the past week several cases and has heard of many more. He reminds his readers of the epidemic of last year, when ninety deaths resulted from influenza in four months.

*Draft Medical Ordinances for St. Andrews University.*

The University Commissioners have this week issued ordinances relating to the allocation of chairs between St. Andrews and Dundee, the formation of faculties and fee funds and the establishment of the chairs necessary to complete the Conjoint University School of Medicine. The main provisions of the medical ordinance are similar to those of the other Scottish Universities. The previous ordinance is repealed and the degree of M.D. conferred on practitioners over forty years of age is therefore to be abolished. The new chairs to be established are those of pathology and materia medica, medicine, surgery and midwifery. The Dundee Royal Infirmary is recognised as the official hospital. The arrangements for the constitution of the Conjoint Medical School are not yet complete, no provision having yet been made for the formation of a fee fund in the Medical Faculty as in the case of the faculties of Arts and Science. In these faculties the Commissioners ordain the establishment of a common fee fund for the chairs in both St. Andrews and Dundee as well as a "salaries fund," out of which latter a specified "minimum" salary (£400 to £500) is to be paid. Thereafter the common fee fund (into which the whole of the fees are to be paid) is to be divided proportionally among the occupants of the contributing chairs to bring the gross salary up to a specified "normal" figure, which varies from £500 to £700. The matter of pensions is also dealt with. The total sum to be allocated to St. Andrews University out of public funds is £10,800 per annum, or about one-seventh of the whole amount disbursed to all the Universities. The objects upon which this sum is to be expended are clearly specified and include the endowments of the above-named medical chairs and the equipment required for the Conjoint Medical School. With regard to the curriculum, the first year of medical study (comprising chemistry, physics, zoology and botany) is duplicated and may be taken in either St. Andrews or Dundee. The courses for the remaining four years are to be provided exclusively in Dundee and comprise the chairs of anatomy and physiology in Dundee, along with the new chairs to be instituted, and clinical instruction in the Dundee Infirmary &c. The endowment of the chair of Medicine in St. Andrews

is, on the death or resignation of the present occupant, to be diverted to the foundation of a chair in the Arts Faculty in St. Andrews.

*Dundee Royal Infirmary.*

The appointment of Superintendent of the Infirmary has become vacant owing to the resignation of Dr. M'Cosh. His occupancy of the post, extending over a period of more than seventeen years, has been marked by many improvements of a permanent character, and during his term of office the hospital has been raised to a condition of great efficiency. Dr. M'Cosh is to be entertained at dinner by the medical staff of the hospital and his professional and personal friends prior to his leaving Dundee.

December 21st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

*General Prisons Board Report.*

THE fourteenth report of the Board of Irish Prisons has now been issued. It treats of local and convict prisons and I desire for the present to refer to the former. The number committed to the larger local prisons during the year ended March last who were wholly illiterate was 11,835, or 32·5 per cent. of the total commitments to those prisons; while the proportion of illiterates of the population, five years old and upwards, in Ireland who could neither read nor write is shown by the census of 1891 to be only 18·4 per cent. The Board again draw attention to the evil of sending persons to prison simply for a few hours, and especially in cases of habitual and frequent offenders, and show that 65 per cent. of the entire number of sentences were for terms of fourteen days or under, while those sentenced to six months or over only represent 3 per cent. of the whole. Since the Board were invested with the management of local prisons in 1878 up to the present, they have reduced the number of bridewells from ninety-five to sixteen, thus lessening in number a class of prisons most of which were altogether unsuitable, both from a sanitary and disciplinary point of view, for the detention of human beings. The average daily number of prisoners in the local prisons during the year was 2506, and the deaths nine, equal to 3·6 per 1000 on the daily average number in custody. The death-rate for the estimated population of the whole of Ireland during the same period was 19·6. There were outbreaks of typhoid fever in four of the local prisons—in Tullamore, Clonmel, Galway and Mountjoy. In Tullamore the outbreak was remarkably sudden, and although very careful investigation was made as to its cause, and a special commission appointed to examine the prison, they could come to no decision. The healthy prisoners were removed to Clonmel and shortly after their transference three of them developed typhoid fever. There has been little change in the number of cases of insanity transferred from local prisons to asylums. The total number was 71, of whom 57 were insane on committal. The board have repeatedly in their reports called attention to the very objectionable practice prevalent throughout the country of committing lunatics to goals instead of sending them direct to the asylums, but they regret to state that little or no improvement has taken place in regard to this matter during the past year. The profit realised on the various descriptions of industrial labour carried on in the several prisons during the year 1891-92 was £2879 11s. 3d., in addition to which there were extra receipts to the amount of £166 10s. 9d.

*Dublin Orthopaedic Hospital.*

The annual meeting which was held last week was presided over by the Lord Chancellor of Ireland. Several improvements have been carried out in this hospital which tend to increase the comfort of the inmates. Two of the wards, for example, have been artistically decorated by the members of the Kyrle Society. During the past year 98 new cases were admitted, which with 18 in hospital give a total of 116 treated within the year. Three deaths took place during the year and only 17 since its foundation, while the number of cases treated in it has reached a total of 1155.

*Clinical Instruction in the Union Hospital and Infirmary, Belfast.*

At the weekly meeting of the Belfast Board of Guardians held on Dec. 13th the Chairman (Sir D. Taylor) reported that

the committee appointed to consider the memorial presented at the last board meeting by the Belfast Medical Students' Association had met that morning and had a long conference on the subject of the memorial with the President of Queen's College, Professor Redfern, Professor Cuming and two representatives of the students, and they approved (one member of committee—a guardian—dissenting) of the following proposals submitted by Dr. Cuming:—“That the hospital and infirmaries of the Belfast Union be opened for clinical instruction in medical science to the students of Queen's College in the following manner and under the following conditions:—1. That the teaching be conducted by three unpaid clinical lecturers—one for medicine, one for surgery, and one for midwifery and the diseases of women, together with such of the medical officers of the union as may be willing to and may be appointed to act in conjunction with the clinical lecturers. 2. Each of the clinical lecturers to have placed under his care forty patients, selected from among those admitted to the hospitals and infirmaries. 3. The clinical lecturers to be responsible to the Board of Guardians and to the Local Government Board for the treatment of the patients so placed under their care, and to conform to such regulations as may be laid down for their guidance. 4. No patient to be placed in the clinical wards or retained in them contrary to his expressed wish, and no patient to remain in the clinical wards longer than the clinical lecturer shall deem advisable. 5. The clinical lecturers to be responsible to the Board of Guardians for the maintenance of due order during the period allotted to clinical instruction. 6. The regulations for clinical instruction and the nomination of clinical lecturers to be made by the Council of the Queen's College, subject to the approval of the Board of Guardians.” A long discussion followed, in which, amongst other matters, it was stated that the union workhouse in Cork and other places were open for the purpose of clinical instruction to medical students, and that the Royal University recognised the certificates issued from these institutions. Finally, it was decided by a large majority (23 to 13) that the foregoing proposals be adopted and entered on the minutes, and that the Local Government Board be requested to sanction them.

#### *The Belfast Health Society.*

On Thursday, Dec. 15th, a meeting was held at Queen's College, Belfast, to inaugurate a Health Society in Belfast. Dr. H. O'Neill, having spoken of the high death-rate of Belfast, said the object of this new Belfast Health Society would be to draw the attention of the public to the laws of health by means of popular lectures, publishing of leaflets and by giving assistance to the constituted authorities in the detection of insanitary conditions, as well as by the promotion of sanitary improvements. Dr. Whitaker, medical officer of health, and Dr. Graham, chairman of the Public Health Committee, were present. It was decided to form such a society and to appoint the Rev. Dr. Hamilton, President of Queen's College, first President of the Society, Dr. O'Neill secretary, and Sir James Henslett treasurer.

#### *Belfast Dispensary Committee.*

At a meeting of this committee, held on Dec. 19th, it was decided to reapportion the districts and to create two new ones. For some time it has been felt that the medical officers have now too much to do, and the present rearrangement will serve to relieve them.

A subscription ball in aid of the funds of Mercer's Hospital was held last week at the Rotunda and proved most successful.

Dr. Gijsani has been elected visiting physician to Cork Workhouse. There were four candidates for the post.

December 21st, 1892.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

#### *A Medical Martyr.*

AMONGST the victims to the late cholera epidemic at Havre was a *confrère*, Dr. Piesacki, who, dying at his post, left a penniless widow to mourn her loss and to support six members of the family. The Société de Protection des Victimes du Devoir Médical has come to the poor lady's aid by voting her a

sum of 1000 francs together with an annual income of 200 francs. It has also been resolved to further her application for a grant of a tobacconist's shop. This may seem strange to English readers, but the privilege of vending the fragrant weed, which is in the gift of the Government, is much coveted. It is, as a rule, given to the widows or poor female relatives of soldiers or functionaries who die in the service of their country. The position is one to which no kind of humiliation is attached in France.

#### *Posthumous Honours.*

This is the time of year when scientific prizes are awarded by the various Societies of Paris. Last year I had the pleasure of recording the name of our distinguished compatriot Dr. (now Sir Frederick) Bateman of Norwich in this connexion. This year a diligent perusal of the prize-list of the Académie de Médecine fails to discover an English name, and yet the list is a very long one. The Leconte prize of the Académie des Sciences, of the substantial value of 50,000 francs (£2000), has been allotted to the work of the late Dr. Villemin, who will be known to posterity as the discoverer of the infectious and transmissible nature of tuberculosis. M. Pasteur, in presenting the report of the Prize Committee, said that few discoveries had influenced medical thought to such a degree as that with which Villemin's name will for ever be associated. This honour, continued M. Pasteur, must be counted for Villemin *le premier hommage de la postérité*.

#### *Ward Boheos.*

Professor Guyon never tires of emphasising the necessity of frequent catheterisations for the subjects of prostatic hypertrophy. This is the only way of preventing stagnation of urine and its corollary increase of tension of the bladder walls—the two dangers *par excellence* to be avoided in such cases. Hypertension induces congestion and the experiments of M. Reblaud show that congestion favours microbial infection, not only of the bladder itself, but of the ureters and renal pelvis. Even when the bladder is already infected repeated catheterism is the best safeguard against ascending pyelo-nephritis. One of Professor Guyon's patients had practised hourly catheterism without regard to antiseptic precautions for a period of twenty-six years, with the result that, although the bladder became infected the kidney remained healthy, and the “prostatic” lived to the age of 102 years. M. Guyon reminds us that the sensation of the *besoin d'uriner* becomes frequently dulled in these patients, and that consequently this must not be waited for before passing the catheter.

Dr. Legroux of the Trousseau (Children's) Hospital often draws attention to the significance of abdominal pain and vomiting in little girls affected with vulvitis. Such symptoms reveal the presence of peritonitis due to the penetration of the microbes of the vulvar pus into the peritoneal cavity via the uterus and the Fallopian tubes. In one such case which terminated fatally there were found post mortem a collection of pus in one of the tubes and numerous peritoneal adhesions in the pelvis. According to the same clinician a valuable sign of anæmia of a grave character may be discovered on auscultating the globe of the eye. In this disease, when the ear is applied to a flexible stethoscope placed over the globe covered by the upper eyelid, a *souffle* analogous to that heard in the neck and over the vessels of the limbs may be easily distinguished.

December 21st, 1892.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *The Cholera.*

A MEMORIAL concerning the recent cholera epidemic has been laid before the Federal Council of the German Empire. It treats of the development of the epidemic, the measures taken against it, and its influence on international traffic. It contains the following: “The cholera is now as good as extinct in Germany. During November only isolated cases were reported. It is in Russia that the situation is still most grave; especially in the south and south-west of Russia many cases and deaths have occurred within the last weeks. In Livonia also the epidemic has spread to noteworthy dimensions. In Poland, especially in the districts of Radom, Siedlec and Lublin, it is by no means extinct; on the con-

trary, it seriously threatens the Prussian parts of the basins of the Niemen and the Vistula from there. Though the cholera may be regarded as vanquished for the present in Germany, and is also likely to be kept away from our frontiers by the measures taken during the coming winter, the danger of an epidemic in 1893 is not to be underrated. The experience of former epidemics is that, whenever cholera has penetrated into the basin of the Volga, it has generally abated in Russia during the cold season, but not quite ceased. Isolated cases generally occurred during the whole winter, became more numerous in spring, and produced new epidemics. The first cases of cholera which were of special importance for the prevention of an epidemic, had often, owing to the slightness of the symptoms, remained quite unnoticed. In view of this, the Minister points out the necessity of the bacteriological examination of the contents of the small intestine in all cases in which there is a suspicion of cholera. It is therefore urgently to be recommended, with a view to the rapid determination of the disease, that adequate material for investigation be at once sent to the nearest university institute provided with the requisite apparatus, or to the Imperial Office of Health, where a reliable decision will be promptly arrived at." The obvious objection to this is that the place where the suspicious case occurs may be very distant from any such institute. The cholera epidemic in Russian Poland is rapidly on the decrease.

#### *Professor Virchow on Cremation.*

Professor Virchow addressed the following letter to the Cremation Society in the early part of this month:—"In answer to your favour of the beginning of October, in which the board requested me to give my opinion of the utility of the introduction of optional cremation, especially in the case of persons dying of cholera or other epidemic diseases, I have to state that I adhere to the opinion expressed by me in the Prussian Landtag in 1881, and regard cremation as absolutely useful both from the sanitary and from the politico-economical point of view. For large cities especially, cremation is to be striven for, as burials *en masse* in cemeteries often immediately adjacent to inhabited districts reawaken apprehensions of danger."

#### *Heat Apoplexy in the Prussian Army.*

The number of cases of heat apoplexy in the Prussian army between March 31st and Oct. 1st, 1892, was 198, the number of deaths from this cause 11. The corresponding numbers in 1891 were 121 and 6. The increase was due to the great heat this year during the autumn manoeuvres.

#### *The Chicago Exhibition.*

Sanitary Counsellor Dr. Oldendorff of Berlin has been appointed a member of the committee of the Section of Medical Climatology of the International Medical Congress connected with the Chicago Exhibition.

#### *Paul Niemeyer.*

The friends and pupils of the late sanitary councillor Dr. Paul Niemeyer, the founder of the Hygienic Society, have erected a monument of him on his grave at Rixdorf, one of the southern suburbs of Berlin.

December 12th.

## VIENNA.

(FROM OUR OWN CORRESPONDENT.)

#### *Cholera in Austria-Hungary.*

THERE is now only the district of Husiatyn on the Russian frontier whence cases of cholera have been reported since Nov. 15th last; even this week two new cases occurred there. But other parts of Galicia and the other Austrian provinces have remained free from cholera. In the neighbouring parts of Russia the disease is raging very severely, especially in Podolia, and according to private and confidential reports received at Budapest, recent severe outbreaks of cholera have been notified in the southern provinces of Russia and at Batum. In Hungary the number of cholera cases decreased considerably during last month, and at Budapest, where 665 cases of cholera with 368 deaths were reported in October, only 188 cases with 111 deaths were recorded in November. Isolated cases only are occurring now at Budapest and in the provincial districts of Hungary and the measures

directed against the spread of the epidemic have been abandoned by the Government.

#### *The Poison of Egg Albumen.*

In a previous letter to THE LANCET I reported that Professor Gruber of Vienna had prepared a poisonous substance from fresh egg albumen by treating it with water and alcohol. Further researches made by Professor Gruber revealed the fact that the poisonous action produced by the extract was due to the alcohols and to sulphide of hydrogen present in the albuminous liquid.

#### *Poisoning by Corrosive Sublimata.*

At a recent meeting of the Vienna Medical Society Professor Albert gave an account of an interesting observation made on himself. For two years he had suffered from dyspeptic troubles, the cause of which he could not at first discover. At the same time he observed that his finger-nails became softer and that two apparently healthy teeth were falling out spontaneously. He recently came to the conclusion that these symptoms might be due to poisoning by corrosive sublimate which he as a surgeon had to use daily. This view has now proved to be correct by an analysis of his urine, made at the Chemical Institute, a considerable quantity of iodide of mercury being obtained from it. His case should prove a warning to surgeons to be careful in using the sublimate, which seems to be easily absorbed by apparently healthy skin.

#### *The Use of the Galvanic Current for the Examination of the Urine, Sputum &c.*

Two Vienna physicians have recently used the galvanic current instead of the *centrifuges* now so much in use for producing deposition. The method is based on the same principle as that devised by Webster for the electrical treatment of sewage. By the electrolytic action of weak galvanic currents the gas-bubbles formed in the liquid carry with them the formed elements—cells, bacteria, even crystals—to the surface, whence they may be easily removed for microscopic examination &c.

December 12th.

## NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

#### *The Sanitary Condition of Wellington.*

On the evening of Sept. 14th a public meeting of vast importance to the inhabitants of the Empire City was held in the Opera House to consider the proposal of the City Council that a special loan should be raised for the purpose of carrying out an efficient system of drainage. This gathering has not met a moment too soon. There was a large attendance and great interest was taken in the proceedings generally. Mr. H. Bell, the Mayor of Wellington, presided and the seats on the stage were occupied by some of the leading citizens. The sum proposed to be borrowed for drainage purposes is £165,000. The Mayor proposed, after an introductory speech, the following resolution:—"That this meeting approves of the proposals of the City Council set forth in the public notice thereof as advertised." Mr. Bell drew attention to the present drainage of the city, showing that with the exception of a small part of it lying to the south of Newtown Ridge all the sewage of the city is discharged into the harbour. As a result the shores are silted up with the refuse of filth of a growing population. The watercourses have been converted into sewers and polluted. Their beds are therefore a fitting nest for the propagation of germs of all kinds of diseases. The existing system of box drains which constitute the main sewers—where there are no natural watercourses—are necessarily made large enough to carry flood water as well as the ordinary surface water sewage. The result is then that we get great spaces in these boxes where sewer air is constantly present and where "fever germs" can breed under exceptionally favourable surroundings. Furthermore, it must be remembered that a considerable part of the Te Aro end of the city consists of swamp land, in which the drains have sunk and are bent in such a manner as to leave "escapes" at many spots for the dangerous gases. To show that the condition of things is not on the mend and that something radical must shortly be done it is only necessary to quote the number of deaths from zymotic disease as shown by the

Registrar-General's report for the last six years. It is as follows:—

Year.	Under Five Years.	Over Five Years.	Totals.
1886	30	38	68
1886	68	22	85
1887	68	26	89
1888	30	25	55
1889	49	26	75
1890	43	34	77
1891	55	46	104

How is the remedy to be applied? Since Wellington or a large part of it lies on a flat and is surrounded by hills, to deliver the sewage of that flat into any other place but the harbour it must be lifted up. This can be accomplished by pumping, so that the sewage can be delivered into Cook's Straits. Now various plans have been suggested to engineers from time to time to accomplish this end. Sixteen years ago Mr. Clinic was instructed to furnish plans &c. by the then existing City Council for a system of sewerage for 50,000 persons. Since then numerous other plans have from time to time been submitted, but for various reasons no definite step has been taken one way or the other. The City Council in 1890—much to their credit—having determined that the city should be cleansed, and having before them several schemes for effecting this purpose, proceeded to appoint a commission of independent experts—first, to examine the several schemes already sent in; and, secondly, to advise the Council generally as to the best means of draining the city. Admittedly two of the most eminent engineers in the colony were appointed, Messrs. Ferguson and Cuthbert. The further taxation which these loan proposals will involve is really of very little importance. It being settled that the city must be cleansed, it follows that the expenditure is like the doctor's bill—you cannot stop to count the cost. It is a matter of life and death. After all the additional rating will not be found to be excessive, for it will amount to 4½d. in the pound, and this will gradually grow less. An amendment to the Mayor's address was introduced by Mr. MacDonald, "That the citizens of Wellington are not in favour of raising a loan under the Wellington City Sanitation Loan Empowering Act of 1892 until Parliament has passed an Act vesting the expenditure of any moneys raised under the provisions of the Act in a drainage board." A very lengthy discussion ensued, and finally the resolution was put to the meeting and on a show of hands was declared carried by a majority of about two to one. However, on the evening of Sept. 24th an opposition mass meeting was called by advertisement to consider what action should be taken regarding the poll of ratepayers in connexion with the borrowing of this sum of £165,000. Several speakers insisted that a special drainage board should be elected and the following resolution was put: "That this meeting is strongly of opinion that to entrust the City Council with the uncontrolled expenditure of £165,000 for drainage purposes would be highly imprudent, and the meeting pledges itself to vote against the loan proposals and not to support any large expenditure of money for drainage until a duly constituted drainage board has been formed to deal with the complete sanitation of the city of Wellington." The proposition was ultimately put, and on a show of hands being taken about half a dozen hands were held up in opposition, the meeting (consisting of about 700 persons) being practically unanimous in support of the resolution. The effect of these two meetings was that the whole subject was left to the decision of the body of ratepayers, the result being that the ratepayers by a most substantial majority decided to accept the drainage scheme and to furnish the means for the same. I am glad to note that there was no difference of opinion as to the scheme generally and I sincerely trust that now we shall soon see Wellington emerge from the dark cloud of insanitary scandal which has for so many years surrounded it.

**DEATH OF A MEDICAL CORONER.**—The death is announced of Mr. W. Webber Munceton, M.R.C.S., for nearly forty years Coroner for the Western Division of Somerset. His failing strength—he was seventy-four years of age—had rendered it necessary of late that the duties of the office should be carried on by his deputy, Dr. Cordwent of Taunton.

## Obituary.

SIR RICHARD OWEN, K. C. B., F. R. S., F. R. C. S. ENG. (HON.).

AFTER a life of strenuous labour the giant constitution of Professor Owen has at last succumbed, after a conflict with Death in which every inch has been stoutly contested. Born at Lancaster on July 20th, 1804, Owen's remarkable vitality has only failed when his ninetieth year was almost within hail. And it has been a life full of work, full—too full, perhaps—of controversy, and yet full of much happiness at home, among friends, and abroad. The bitterness of death, in his case, fell on him thrice—when, in 1873, he lost his wife; his attached sister, who for many years kept his house; and his only son. As to all who live to a great age, there came, too, the grief of losing all or nearly all with whom he had lived or worked, chief of all of whom was Edwin Chadwick. Almost contemporaneous with Owen there worked in various countries of Europe great zoological pioneers. Of these, Henri Milne-Edwards of Paris and Carl Theodor von Siebold of Munich preceded him, but Sven Loven of Stockholm and P. J. van Beneden of Louvain are left to mourn him.

The great age to which Owen lived may be measured by remembering that he was the pupil of Cuvier; that he was addressed in terms of admiration of his "father's" work by Oken, who did not recognise in the youthful Englishman an already famous zoologist; and that he was assistant to Charles Bell when the last named was Professor at the College of Surgeons of England. United by ties of marriage with Clift, he was almost brought into touch with John Hunter, the great object of his veneration. Before his eyes Darwin rose to his great pre-eminence, and he watched with interest the whole of the career of Francis Balfour, only too soon lost to science. Princes now of middle age were his pupils. It was by Sir Robert Peel that he was first placed on the Civil List, and for forty years he occupied the charming cottage in Richmond Park, which he owed to the favour of his Sovereign. A life of such extent would, with an ordinary worker, result in a considerable accumulation of books and memoirs; but Owen was more than an ordinary worker; rising early, he did several hours' writing before attending his office in Lincoln's-inn-fields or the British Museum. Better than most men he knew how to rid himself of untimely visitors, and he gave less time than many give to affairs of business outside their own walk in life. The result is to be seen in his catalogue of the Hunterian Museum, which extends over ten quarto volumes; his three volumes on the Anatomy of Vertebrates; and his treatise on Odontology, illustrated by more than 150 plates. Some of the numerous memoirs which he communicated to learned societies have since been collected into separate volumes; those on British fossil reptiles fill four quartos, and the twenty-five memoirs on the fossil birds of New Zealand form another handsome volume. Five memoirs were devoted to the osteology of marsupials, while the extinct mammals of Australia and the reptiles of South Africa were very copiously dealt with. He did not, however, as many do now, confine himself to one group of the animal kingdom; the once rare sponge, now so common a drawing-room object, was first described by him and appropriately called "Euplectella." Having his attention called "by an intelligent student of the name of Paget" to a deposit in human muscle, he was the first to give a systematic zoological description of the now well-known Trichina. Of nearly every animal of importance or interest he made early, if not the first, dissections. On the nautilus he wrote a memoir which is still classical and is most beautifully illustrated; he dissected its rare zoological ally, the Spirula, and the Argonaut, with its delicate shell. The apteryx, the dodo, the giraffe, the gorilla, have all had Owen among their historians. And with what charm are many of these histories told, for if Owen disliked the speculations of the modern school he was always on the look out for an opportunity to generalise. Some of these generalisations are now universally accepted, others are still in doubt; one suspicion has been only recently shown to have been justified; others, again, have been shown

to be based on insufficient knowledge or inaccurate observation.

It is striking that the most important general doctrine which Owen was the first to teach has been of considerable service in the exposition of the theory of evolution. Till he pointed out the difference no distinction was made between organs that performed the same duties and organs that had the same structure; both were called analogous organs. He, however, distinguished as analogous those that, like the wings of butterflies, bats and birds, served the same purpose, from those that are homologous, or, like the wings of birds and bats, the arm of man or the forefoot of the horse are formed on the same plan. It is clear that when the question was asked, Why are homologous organs made in the same way? an obvious answer (if not, indeed, the right answer) is because they are descended from an organ common to them all.

The whole of Owen's long working life was chiefly spent in two institutions only. After receiving his medical education at Edinburgh he was for a short time connected with St. Bartholomew's Hospital; selected as an assistant to Clift in 1828, he became in time Conservator of the Hunterian Museum, and held that office till 1856; from 1834 he was for twenty-two years Hunterian Professor, and his lectures attracted large audiences and the most select of the intellectual society in London. From 1856 to 1884 he was superintendent of the natural history departments of the British Museum. His official energy in this post was largely directed to the extension of the galleries devoted to natural history. He early found an ardent supporter in Mr. Gladstone, and there can be no doubt that Owen never forgave Mr. Disraeli for delaying by an adroit speech and skilfully caught votes the building of the new museum at South Kensington. In 1882 and 1883 Owen had the satisfaction of seeing the building open to the public, and the treasures from Bloomsbury brought safe to their new home. His strength, however, was beginning to fail, and early in 1884 he resigned his office. He could now say with Dido:

"Urben præclaram statui; mea mœnia vidi,"

and the time for beginning to rest had come. For some years he was connected with the Royal Institution as Fullerian Professor. As has already been said, Owen did not busy himself much with a share in affairs. He was of course for many years to all practical purposes the unpaid prospector of the Zoological Society, but he found his reward in the dissection of the animals. He made numerous reports to the British Association, but they were reports of investigations. In 1857 he was president of that learned body and he was the first president of the Microscopical Society, in the institution of which he took some interest. He was thrice a member of a Royal Commission when the questions of public health and meat supply were under consideration.

Of the world's honours he had his share. Made a C.B. in 1873, he became a K.C.B. on his retirement from the British Museum; the Sovereigns of Italy and of Brazil conferred distinctions on him; he belonged to the Prussian "Ordre pour le Mérite" and four years later (1855) he entered the French "Legion d'Honneur." He received the Royal medal before he was forty years of age and the Copley medal in 1846; he was an Honorary Fellow of the Royal Colleges of Surgeons, both of England and Ireland.

Richard Owen lived so long that his many great services to science stand in danger of being forgotten by the present generation, who knew him better as the pungent controversialist of the year that followed the publication of the "Origin of Species." It is true, indeed, that Owen was not seen at his best in controversy; to those who knew him at home, who were privileged to saunter with him in the beautiful garden behind his little cottage, this was a matter for wonder no less than regret. Wonder, because his love of nature was so intense that one thought it must have been the mistress of all his actions; and regret, because his nature was so affectionate, his manner was so engaging, and his conversation so delightful, that none ever came into familiar contact with him but cherished for him a profound regard. The manner which endeared him to his Queen and her family, the ability which gave him a place in that most select of coteries, "The Club," the social flexibility which made him at home with men of all professions were as much at the services of the least known of his friends as at the command of a princess. Those who knew him at home will always cherish the recollection of a nature essentially happy, grateful for kindness, and anxious to please and serve those with whom he was glad to associate.

SAMUEL DUKINFIELD DARBISHIRE, M.D. Oxon.,  
M.R.C.S.

To a small number who were aware of the long period of illness through which he had passed the announcement in *The Times* of the death of Dr. S. D. Darbishire came as no surprise, but there must be a very large number of his associates at the University and in the medical profession who will lament with deep sorrow the early loss of one who had throughout his life endeared himself to all with whom he was brought in contact. Born at Manchester in 1846, he was educated privately until he matriculated at Balliol in 1866. His father was a respected and prosperous merchant, and Samuel Dukinfield was the seventh son. His early days were for the most part spent at his father's country seat, Pen Dyffryn, near Penmaenmawr, where he became an expert and powerful swimmer, and formed friendships with many of those, older and younger, with whom his mother took pleasure in filling her large and hospitable mansion amongst the hills of North Wales. Soon after going to Oxford he showed his talent for rowing and was made stroke of the Balliol eight. At that time the Balliol boat was very low on the river, but under his auspices it soon began to make "bumps" and to gain a higher place. In 1868 he first stroked the Oxford eight in the race at Putney against Cambridge. Supported by a powerful crew he secured for his University the eighth consecutive victory against her rivals and in the following year he again repeated his success, but in 1870 his crew were beaten at Putney. The most notable event, however, in his career as an oarsman was the race which was rowed from Putney to Mortlake, on Aug. 27th, 1869, against a four of Harvard University. The Americans had sent a challenge to Oxford, which was readily accepted, although there was some difficulty in arranging the match owing to the time of year at which the Americans preferred to row. At length, however, a crew was found which contained perhaps the four most powerful and finished oarsmen that ever sat in a boat together. Of these Darbishire, who rowed stroke, was the lightest member of the crew, weighing 11st. 8lb. The Americans dashed off with a lead but were soon overtaken, and the Oxford crew had an easy task and finished the distance in 22 min. 28 sec. The following extracts from his letter to Dr. Morgan, published in "University Oars," are of interest at the present moment. Writing in 1869, he says: "As to myself, I can confidently say that the rowing and training have done me a great deal of good. I have always been very well during training and the more I row and train the stronger and healthier I seem to get. If my testimony is of any weight I can assure you that as far as my experience goes the 'Varsity Race' and the training for it is not injurious; but it is when men row continually in races, both in training and out, or when they keep in training too long or break it too suddenly, that they injure themselves." In the three years that he stroked the 'Varsity boat his weight was, in 1868, 11st. 3lb., in 1869 11st. 9lb., in 1870 11st. 11lb. He took his arts degree in 1870 and soon afterwards entered as a student of St. Bartholomew's Hospital. He became M.R.C.S. in 1876 and was house surgeon to Mr. Callender and subsequently house physician. He then went abroad and studied at Tübingen and Vienna. On his return he worked in the out-patient rooms of the Hospital for Sick Children, Great Ormond-street. He took the M.D. of Oxford in 1883, and besides two papers published in St. Bartholomew's Hospital Reports wrote a Lecture on Recreation in the publications of the International Health Exhibition. At one period he got together materials for a contemplated paper on the action of muscles in rowing, but this was unfortunately never published. After his marriage he settled in general practice in Addison-road, Kensington, but a few years later he bought the practice of Dr. Giles in Oxford and settled in the house vacated by that gentleman in the High-street, near Magdalen College. He was elected to the staff of the Radcliffe Infirmary, of which at the time of his death he was the senior physician. A vacancy occurring in the office of University Coroner, his candidature was supported by a very large number of friends, and after an unusually large poll he was elected to the office. He became an Examiner in Medicine for the University and a member of the Board of Faculty of Medicine. He was also the local secretary of the Oxford Graduates' Medical Club, and

besides fulfilling all these duties found leisure for the congenial work of coaching the University and other crews. Not long after taking up his residence in Oxford his health began to fail and he became very emaciated and worn. After consulting two or three London physicians he went to St. Thomas's Home, where he improved to a certain extent; but the symptoms, which were mainly attributable to some nerve disorder, became more aggravated, and he went abroad, but returned greatly reduced in health, and died under the shadow of the hills where his boyhood had been passed.

#### JAMES H. AVELING, M.D. ABERD.

IT is with regret that we have to record the death of Dr. Aveling, who, as an obstetrician as well as a gynaecologist, was an earnest worker in the department of practice to which he had devoted himself. As an example of his original work in the first department we may mention his midwifery forceps with the perineal curve, an important step in the direction of the great principle of axis traction so enthusiastically promulgated by the celebrated Tarnier of Paris. In the department of gynaecology we may mention his shot and coil sutures, his polyptribe and his sigmoid repositer for chronic inversion of the uterus. Dr. Aveling commenced his professional career in Sheffield and from the commencement of that career devoted himself especially to the treatment of the surgical diseases of women. Diligently cultivating this field he soon succeeded in establishing a hospital for women in that town, one of the first of its kind in England. In 1870 he left Sheffield with the good wishes of its citizens, displayed in the form of a public testimonial presented to him by the Mayor in their name. Shortly after settling in London he founded, with the assistance of Dr. Robert Barnes and Dr. Chambers, the Chelsea Hospital for Women. Dr. Aveling was for many years the editor of the *Obstetrical Journal*, during part of which time he was associated with the late Dr. Wiltshire. On his resignation he was succeeded in the editorial chair by Drs. Galabin and Herman successively. His contributions to medical literature were numerous and for the most part exhibited originality to an unusual extent. He was possessed of the inventive faculty, a quality found in other members of his family, for his brother was a well-known engineer who invented the steam road-roller. Dr. Aveling's most important works were "The Influence of Posture on Women in Gynaecic and Obstetric Practice," "The Chamberlens and the Midwifery Forceps," "English Midwives, their History and Prospects," "Memorials of Harvey," and "Inversion of the Uterus." Of the above-mentioned works we can especially recommend to our readers his "History of the Chamberlens and the Midwifery Forceps." In addition to these works Dr. Aveling contributed throughout the whole of his career a series of clinical articles to medical periodicals. He was for some time chairman of the board for examining midwives of the Obstetrical Society of London. He was a believer in the electrical treatment of uterine tumours and employed Apostoll's method of dealing with them. In addition to his professional work he took great interest in archeology. As an example of his work in this direction we may mention "The History of Roche Abbey." Shortly after the publication of this work he was elected a Fellow of the Society of Antiquaries. He also wrote a volume of fables in verse, which he composed during his holidays in Scotland. His remains were cremated at Woking on Thursday, Dec. 15th, in the presence of a large number of friends. He succumbed at the age of sixty-four to an acute attack of typhoid fever, which lasted only ten days.

#### GILBERT W. NORTHEY, M.R.C.S., L.S.A.

MR. NORTHEY, who died on the 16th inst. at the age of forty-two, was one of the best known practitioners in Devonshire. His death took place at Tavistock, his native town, where his father, whom he succeeded in practice, still survives him. Mr. Northey was a very fine type of the country practitioner; a man of indomitable perseverance and of splendid powers of endurance, he has largely fallen a victim to his love of work and his devotion to his patients. Mr. Northey was for the last twenty years in large and active practice in Tavistock and the neighbourhood, and it is not too

much to say that to few men is it given to leave behind them a greater void or to be more generally missed. Alike in the sick room and in the hunting field he had by his genial courtesy made many a Devonshire man with whom he had but the most slender acquaintance feel the charm of his personality. Who deceased leaves behind him a widow and four children and innumerable friends to mourn his early death.

## Medical News.

**UNIVERSITY OF DUBLIN: WINTER COMMENCEMENTS.**—The following degrees were conferred last week by the University Caput:—

*Bachelor in Medicine, Surgery and Obstetrics.*—Arthur Joseph Abbott, Vernon Langley Ardagh, Francis James Barter, George Beare, Henry Mark Eustace, Thomas Gibbons, Robert Wallace Wesley Henry, John Halahan, Gervais Bolton Jones, Frederick Kiddle, Alfred Moore, Hercules Bradshaw Moorhead, Arthur Augustus Mussen, John Switzer Owens, Charles Howard Saunders, Charles Burnett Scott, and Ernest Wentworth Wade.

*Doctor in Medicine.*—Arthur Joseph Abbott, Lyster Cole-Baker, Harry Payle, Frederick James Green, Vernon Lampher Jones, William Ffennell McCarthy, James Acheson McCullagh (stip. cond.), Hercules Bradshaw Moorhead, Nicholas Alexander Reid, Horatio Francis Ninian Scott, Alexander Silcock, Francis Sydney Swiney, and Samuel Constantine Westwood.

*In Absentia.*

*Bachelor in Medicine.*—Henry Lindo Ferguson.  
*Doctor in Medicine.*—James Wilson Eakin, Henry Lindo Ferguson, and Ludovic Tarleton Young (stip. cond.).

**ORDER OF ST. JOHN OF JERUSALEM.**—Her Majesty the Queen has sanctioned the enrolment of Mr. S. Osborn, F.R.C.S., as an honorary associate of the Order of St. John of Jerusalem in recognition of his services in the cause of "first aid to the injured" and he has accordingly received the decoration of the Order.

**INSTRUCTION IN FEVERS.**—It is announced that a course of instruction in the diagnosis and treatment of fevers will be given in January at the five hospitals of the Metropolitan Asylums Board. These courses will be conducted respectively by Dr. Goodall at the Eastern Hospital, Dr. Gayton at the North-Western Hospital, Mr. Bruce at the Western Hospital, Dr. Caiger at the South-Western Hospital and Dr. MacCombie at the South-Eastern Hospital.

**A COTTAGE HOSPITAL FOR REDDITCH.**—Some time ago it was announced that the late Mr. Edwin Smallwood of Alcester had bequeathed the sum of £5000 for the purpose of erecting a cottage hospital for Redditch. Some difference of opinion appears to have arisen with regard to the eligibility of a proposed site, and in the end Mr. W. Smallwood, the brother of the deceased and residuary legatee, has generously supplemented the bequest by the gift of £10,000, the whole sum being sufficient to defray the entire cost of the hospital.

**HOSPITAL SATURDAY FUND.**—On Saturday last a meeting attended for the most part by representatives from metropolitan cycling and athletic clubs was held at the Mansion House with the view of considering the proposal to organise sports in London next year in aid of the medical charities in connexion with the Hospital Saturday Fund. The Lord Mayor took the chair in the first instance and expressed his sympathy with the proposal. Subsequently Mr. Dyke Acland presided, and a resolution was carried pledging the meeting to support the suggestion.

**ÆSCULAPIUS LODGE, No. 2410.**—The ordinary meeting took place at the Café Royal, Regent-street, on the 14th inst. In the unavoidable absence of the W.M., Deputy-Inspector-General Belgrave Ninnis, M.D., R.N., Bro. Brindley James presided, supported by the officers, a large number of brethren and some distinguished visitors. Bros. Hugh Lane, L.R.C.P. Edin., M.R.C.S. Eng. and John Davies, M.R.C.S. Eng., L.S.A. Lond., were unanimously elected joining members. Bros. W. Arbutnot Lane, M.S. Lond., F.R.C.S. Eng., and Frank Fowler, L.R.C.P. Lond., M.R.C.S. Eng., were admitted to the second degree. After the routine business was gone through the lodge was closed. At the subsequent banquet the usual royal and masonic toasts were given with commendable brevity, the intervals being pleasantly occupied by instrumental and vocal music of a high order.

**CHESTER INFIRMARY.**—By charging a shilling a head for viewing Eaton Hall, the seat of the Duke of Westminster, his Grace has been enabled to raise annually some £500, which is handed over to the treasurer of the Chester Infirmary. This year the proceeds from this source have amounted to £600.

**THE EXPOSURE OF PUTRID FISH.**—At the County of London Sessions last week a manufacturer of manure and his carman were charged with collecting fish offal in a putrid state without having subjected it to proper disinfection. The nuisance, it appears, had been continued for a long time, and Sir P. H. Edlin imposed a fine of £40 and bound over both defendants with sureties to keep the peace for twelve months.

**HULL AND EAST RIDING CONVALESCENT HOME.**—For the purpose of raising a fund to provide means for furnishing and maintaining the home, the building for which has been supplied by the generosity of Messrs. J. and F. Reckitt, a public meeting was held this week. It appears that a sum of from £4000 to £5000 will be required for this purpose and an annual income of at least a third of that amount has to be secured. The Mayor, who presided, proposed a resolution thanking Messrs. Reckitt for their generous gift, and in the course of the meeting a hope was expressed that the amount necessary to complete the gift may be forthcoming.

**MEDICAL DEFENCE UNION.**—A council meeting was held at the Medical Institute, Edmund-street, Birmingham, on Friday, Dec. 9th, at 4 P.M., Dr. Saundby in the chair. Eleven fresh applications for membership were accepted. The recommendation of the Metropolitan Local Committee was adopted, and it was resolved to defend a member in an action for malpraxis, with which he was threatened. It was resolved to obtain legal opinion on the interpretation of Section 22 of the Coroners Act 1887. A letter of thanks was received from a member who had been assisted. A local committee was adopted for Monmouthshire, and also for the town of Monmouth. Other business was transacted.

**FOOTBALL CASUALTIES.**—On the 10th inst., while playing a game on the Chilwell-road ground at Beeston, a member of the Chilwell Red Rose Football Club fractured his arm. During a match at Dublin on the 16th inst. between Dublin and Cambridge Universities, a Cambridge "forward" fractured one of his legs. On Saturday last the following casualties occurred:—A youth aged twelve of Small Heath, Birmingham, while playing a game, fractured one of his legs and was admitted to the Queen's Hospital. In the course of a match between Blackpool and Fleetwood reserve teams at the Royal Palace Grounds a Blackpool "forward" fractured one of his legs. In the progress of a match at Coalport between Coalport and Shifnal a player in a scrimmage fractured one of his legs. During a match between the Hartington (Staveley) Club and New Whittington Exchange a player sustained a compound fracture of the right leg and dislocation of the ankle and was removed to the Chesterfield Hospital. In a match at Farnham Park between Farnham and a team from the Lincoln regiment stationed at Aldershot a player fractured his right leg.

**PROSECUTIONS UNDER THE INFECTIOUS DISEASES (NOTIFICATION) ACT.**—The first prosecutions in Liverpool under this Act took place before the stipendiary magistrate on Dec. 14th. It appears from the evidence of Dr. Hope, the deputy medical officer of health, that on Nov. 25th a man named Patten was removed to hospital from 134, Elias-street, suffering from confluent small-pox from which he since died. In accordance with the practice in Liverpool, in addition to the usual disinfection and cleansing of the premises, daily visits were made by the inspector, whose business it was to inquire whether any person in the house is unwell, and if so, to report the matter forthwith. Three of Patten's children developed small-pox on December 2nd and 3rd, and a fourth patient, son of a woman named McKnight who lived in the house, also fell ill with the disease on December 3rd. It was proved that up till December 8th both Mrs. Patten and Mrs. McKnight assured the inspector that every one in the house was perfectly well, and the actual condition of things was not discovered till December 9th. Mrs. Patten was fined the full penalty of 40s. and costs, and Mrs. McKnight 20s. No medical man had been called in.

**JUBILEE OF M. PASTEUR.**—The celebration of the seventieth birthday of M. Pasteur will take place in the Grand Amphitheatre of the New Sorbonne on Tuesday, December 27th, 1892, at 10.30 A.M.

## Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

**BURY, R. F.**, has been appointed House Surgeon to St. George's Hospital.

**CORT, J. G. D.**, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Second Sanitary District of the Blackburn Union.

**CAMPBELL, W. A.**, M.B., C.M. Glasg., has been appointed Medical Officer for the Usk Sanitary District of the Monmouth Union.

**CRAIGIE, JAMES, M.D.**, C.M., B.Sc. Pub. Health, Edin., has been appointed Medical Officer of Health for the Burgh of Musselburgh, N.B.

**CULROSS, JAMES, M.A.**, M.B., C.M., has been appointed Medical Officer and Public Vaccinator to the No. 4 District of the Newton Abbot Union, vice Davies, resigned.

**DOUGLAS, NORMAN G.**, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Western District of the Scarborough Union and Public Vaccinator for the Borough.

**ELLIOTT, C. N.**, M.B., C.M. Dub., has been appointed Medical Officer of Health for the Rural Sanitary District of the Oundle Union, vice Calcott, resigned.

**ELLIS, W. C.**, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Tollerton Sanitary District of the Great Ouseburn Union.

**GOODWIN, EDWD. KNOR, M.R.C.S., L.R.C.P. Lond.**, has been appointed Assistant House Surgeon to the Royal Albert Hospital and Eye Infirmary, Devonport, vice McKinnon, resigned.

**HARRISON, REGINALD, F.R.C.S.**, has been appointed Honorary Surgeon to the King-ton Provident Dispensary, vice Cook.

**HUGHES, EDWARD, L.R.C.P., L.R.C.S. Edin.**, L.F.P.S. Glasg., has been appointed Medical Officer to the Collieries at Ton, Ystrad Rhondda.

**LITTLE, ANDREW, M.B., C.M. Aberd.**, has been appointed Ophthalmic Surgeon to the Victoria Hospital, Burnley.

**MILLIGAN, WM., M.D., C.M.**, has been appointed Lecturer on Diseases of the Ear at Owens College, Manchester.

**OVEREND, W.**, has been appointed Junior Assistant Medical Officer to the Infirmary, Fulham Union, vice Smith.

**ROMER, R. LESLIE**, has been appointed House Physician to St. George's Hospital.

**SMITH, SYDNEY G.**, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer at the Highgate Infirmary.

**SYMMERS, WM. ST. CLAIR, M.B. Aberd.**, has been appointed Pathologist to the General Hospital, Birmingham.

**WARRINGTON, W. B.**, M.B., B.Ch. (Vict. Univ.), has been appointed House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.

**WILSON, JOHN, L.R.C.P., L.R.C.S. Edin.**, has been reappointed Medical Officer of Health, Pudsey.

**WINSTANLEY, R. W.**, L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Shuttermill Sanitary District of the Farnham Union, vice Whiting.

**WOOLLETT, S. W.**, M.R.C.S., has been appointed Medical Officer for the Wangford Sanitary District of the Blything Union.

## Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

**ALNWICK INFIRMARY.**—House Surgeon (unmarried). Salary £120 per annum, with furnished apartments, attendance, coals and gas, but without board.

**ANCOATS HOSPITAL, Manchester.**—Resident Junior House Surgeon. Salary £50, with board and washing.

**BIRMINGHAM AND MIDLAND EYE HOSPITAL.**—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

**BRIDGWATER INFIRMARY.**—House Surgeon. Salary £80 per annum, with board and residence.

**CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.**—House Surgeon. Rooms, coals, and lights provided.

**CHELSEA HOSPITAL FOR WOMEN, Fulham-road, London, S.W.**—Clinical Assistant. The fee is £3 3s. for the three months' course.

**CROYDON GENERAL HOSPITAL.**—House Surgeon for two years. Salary £100, increasing £10 per annum up to £120, with board and residence in the hospital.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.** House Physicians.

**HOSPITAL OF ST. PETER PORT, Guernsey.**—Surgeon for one year. Salary £50 per annum, currency (vaccination included), in addition to which a certain allowance is made for the vaccination of children of persons not chargeable to the parish.

**HOSTEL OF ST. LUKE, Devonshire-street.**—Honorary Visiting Medical Officer. (Applications, by letter only, to the Secretary, Hostel of St. Luke, Church House, Westminster.)

**HULL ROYAL INFIRMARY.**—Junior Assistant House Surgeon. Salary £40, with board and lodging.

**KENSINGTON DISPENSARY.**—Honorary Medical Officer. (Applications to the Hon. Secretary, 7, Stamford-road, Kensington-square, W.)  
**KING'S COLLEGE, London.**—Assistant Physician.  
**MANCHESTER ROYAL INFIRMARY.**—Resident Medical Officer for the Fever Hospital at Monsall, for twelve months. Remuneration £250 per annum, with board and residence.  
**NATIONAL HOSPITAL FOR THE PARALYSED (ALBANY MEMORIAL),** Queen-square, Bloomsbury. —Senior House Physician. Salary £100 per annum.  
**SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.**—Senior Assistant House Surgeon. Salary £75 per annum, with board, lodging, and washing.  
**SOUTHPORT INFIRMARY.**—House Surgeon. Salary £100 per annum, with board, furnished rooms, and attendance.  
**STOCKPORT INFIRMARY.**—Junior House Surgeon, for six months. Board and residence provided. An honorarium of £10 will be given after six months' satisfactory service.  
**UNIVERSITY OF GLASGOW.**—Assistant Examiner in Zoology. Salary £80 per annum.  
**UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE,** Cardiff.—Professor of Anatomy. Stipend £350 per annum.  
**UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE,** Cardiff.—Professor of Physiology. Stipend £350 per annum.  
**WEST HERTS INFIRMARY, Hemel Hempstead.**—House Surgeon and Dispenser, who shall also be Assistant Secretary, for two years. Salary £100 per annum, with board, furnished rooms, free light, attendance and washing.

**Births, Marriages and Deaths.**

**BIRTHS.**

**CAMERON.**—On Dec. 19th, at 201, Gray's-inn-road, W.C., the wife of W. Sinclair Cameron, L.R.C.P. & S.E., of a daughter.  
**KNIGHT.**—On Dec. 19th, at Kewick, the wife of Alexander A. H. Knight, M.D., of a son.  
**LOWNDS.**—On Dec. 14th, at Hall Gate, Doncaster, the wife of Henry A. Lownds, L.R.C.P., of a son.  
**MCGEAGH.**—On Dec. 15th, at 28, Spellow-lane, Liverpool, the wife of R. T. McGeagh, M.D., of a son.  
**OLIVER.**—On Dec. 13th, at Kingsland-road, E., the wife of Dr. Hewitt Oliver, of a daughter.  
**STOKES.**—On Dec. 21st, at 2, Highbury-crescent, N., the wife of H. Fraser Stokes, M.R.C.S. Eng., L.R.C.P. Lond., of a son.  
**TUKE.**—On Dec. 6th, at Chiswick House, Chiswick, the wife of T. Seymour Tuke, M.A., M.B. Oxon., of a daughter.  
**WINGATE-SAUL.**—At Fenton-Cawthorne House, Lancaster, on Dec. 18th, the wife of W. W. Wingate-Saul, M.D., of a daughter.

**MARRIAGES.**

**BRADBURY—WHEELER.**—On Dec. 21st, at St. Mary's, Newton Solney, Derbyshire, Harvey K. Bradbury, L.R.C.P., of Burton-on-Trent, to Annie Rose, elder daughter of Mrs. Wheeler, of Newton Solney, and granddaughter of the late Josiah Cash, M.D., of Matlock Bridge.  
**CLARKE—HARRISON.**—On the 20th inst., at St. Paul's Church, Clifton, by the Rev. J. Michell Clarke, rector of Penny Drayton (uncle of the bridegroom), assisted by the Rev. Canon Mather, the Vicar, and the Rev. W. Gordon (cousin of the bride), J. Michell Clarke, M.A., M.D. Cantab., M.R.C.P., eldest son of the late W. Michell Clarke, Surgeon, Clifton, to Amy, eldest daughter of Dr. A.M. J. Harrison, of Falland Lodge, Clifton.  
**CRAWFORD—WILSON.**—On Dec. 15th, at Newington-road, Edinburgh. W. S. Crawford, B.A., Caius College, Cambridge, F.R.C.S.E., of Mount-pleasant, Liverpool, to Shelah, third daughter of J. Wilson, M.D., of Wanlockhead, Dumfriesshire.  
**JOHNSON—KING.**—On Dec. 20th, at St. Matthew's, Bayswater, Raymond Johnson M.B., F.R.C.S., of Weymouth-street, Portland-place, W., to Mary Helen, older daughter of Robert King, of Lansdowne-road, W.  
**MACLEAN—HEWLETT.**—On Dec. 13th, at St. Mary's Church, Totnes, Devonshire, J. C. B. Maclean, M.A., M.B., Lieutenant-Surgeon, R.N., son of the late Rev. A. Maclean, D.D., of Kiltearn, Ross-shire, to Maude, eldest daughter of E. Hewlett, The Priory, Totnes.  
**OWEN—O'NEILL.**—On Nov. 26th, at St. Michael's Church, Colombo, Ceylon, Arthur Deaker Owen, M.R.C.S., of the Perak Government Service, Straits Settlements, to Katharine, eldest daughter of Major O'Neill, Teignmouth, Devon, late 28th Regiment.  
**RUSSELL—LOCKHART.**—On Dec. 20th, at All Saints, Hockerill, Bishop's Stortford, by the Rev. John Menet, M.A., Vicar, assisted by the Rev. W. J. Freve, M.A., George H. Russell, M.D. Lond., J.P., of Manchester, to Amy, third daughter of the late Theodore Lockhart, Esq., and granddaughter of the late James Lockhart, Esq., of Lanham, Essex, and Marston and Oving, Bucks.

**DEATHS.**

**BRIGHT.**—On Dec. 18th, at his residence, Stafford-terrace, Plymouth Dr. James Richard Douglas Perceval Bright, in the 80th year of his age.  
**DARSHIRE.**—On Dec. 16th, at Plas Mawr, Penmaenmaur, S. D. Darshire, M.D., late of Oxford, aged 46.  
**MAYBURY.**—On Dec. 10th, at his residence, Cedar Lodge, Frimley, Surrey, William Augustus Maybury, M.R.C.S. & L.S.A., aged 83.  
**WALSHE.**—On Dec. 14th, at Hyde-park-square, Walter Hayle Walshe, M.D., LL.D.

*N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.*

**METEOROLOGICAL READINGS.**

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 22nd, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Dec. 16	80°87	S.W.	44	42	55	52	42	..	Foggy
" 17	80°31	W.	50	48	53	51	42	..	Cloudy
" 18	80°32	S.W.	40	43	54	51	46	..	Cloudy
" 19	80°22	S.W.	46	45	..	47	45	..	Overcast
" 20	80°09	W.	44	43	..	47	43	..	Overcast
" 21	80°11	S.W.	44	43	..	47	42	..	Foggy
" 22	80 07	S.E.	38	37	..	39	37	..	Foggy

**Medical Diary for the ensuing Week.**

**Monday, December 26.**

**KING'S COLLEGE HOSPITAL.**—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.  
**ST. BARTHOLOMEW'S HOSPITAL.**—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
**ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.**—Operations, daily at 10 A.M.  
**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.**—Operations, 1.30 P.M.; and each day at the same hour.  
**CHELSEA HOSPITAL FOR WOMEN.**—Operations, 2 P.M.; Thursday, 2.  
**HOSPITAL FOR WOMEN, SOHO-SQUARE.**—Operations, 2 P.M.; and on Thursday at the same hour.  
**METROPOLITAN FREE HOSPITAL.**—Operations, 2 P.M.  
**ROYAL ORTHOPÆDIC HOSPITAL.**—Operations, 2 P.M.  
**CENTRAL LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M., and each day in the week at the same hour.  
**UNIVERSITY COLLEGE HOSPITAL.**—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2.

**Tuesday, December 27.**

**GUY'S HOSPITAL.**—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
**ST. THOMAS'S HOSPITAL.**—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
**ST. MARK'S HOSPITAL.**—Operations, 2 P.M.  
**CANCER HOSPITAL, BROMPTON.**—Operations, 2 P.M.; Saturday, 2 P.M.  
**WESTMINSTER HOSPITAL.**—Operations, 2 P.M.  
**WEST LONDON HOSPITAL.**—Operations, 2.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Skin Department, 1.45; Saturday, 9.15.  
**ST. MARY'S HOSPITAL.**—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

**Wednesday, December 28.**

**NATIONAL ORTHOPÆDIC HOSPITAL.**—Operations, 10 A.M.  
**MIDDLESEX HOSPITAL.**—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
**CHARING-CROSS HOSPITAL.**—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
**ST. THOMAS'S HOSPITAL.**—Operations, 1.30 P.M.; Saturday, same hour.  
**LONDON HOSPITAL.**—Operations, 2 P.M.; Thursday and Saturday, same hour.  
**ST. PETER'S HOSPITAL, COVENT-GARDEN.**—Operations, 2 P.M.  
**SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.**—Operations, 2.30 P.M.  
**GREAT NORTHERN CENTRAL HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 1.30 P.M. Dental Department, 9.30. Eye Department, 2.  
**ROYAL FREE HOSPITAL.**—Operations, 2 P.M., and on Saturday.  
**CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.**—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

**Thursday, December 29.**

**ST. GEORGE'S HOSPITAL.**—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2.

**Friday, December 30.**

**ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.**—Operations, 2 P.M.  
**UNIVERSITY COLLEGE HOSPITAL.**—Eye Department, 2.

**Saturday, December 31.**

**UNIVERSITY COLLEGE HOSPITAL.**—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

COMMUNICATIONS relating to the EDITORIAL business of THE LANCET must in every case be addressed exclusively "To the Editors," and not to them otherwise than in their official capacity.

### TERCENTENARY OF GALILEO AT PADUA.

A CORRESPONDENT writes:—"I observe in THE LANCET of Dec. 17th that your Special Correspondent refers to the 'admirable English discourses' at the Tercentenary of Galileo at Padua 'losing much of their effect by the strangeness of the language employed.' He must have been misinformed, as not only were the addresses of Sir J. Fayer and Professor Darwin delivered in Italian, but they were received with marks of considerable approval, and the former was printed *verbatim* in the *Veneto* of Dec. 11th."

A *Friendly Society's Medical Officer*.—We cannot reopen the discussion pending the decision of the General Medical Council.

### THE AZORES.

To the Editors of THE LANCET.

SIRS,—When writing recently the account of my visit to the island of St. Michael in the Azores, an abstract of which you printed three weeks ago, I omitted to refer your readers for full information on the subject to the most complete and most interesting account of the nine islands in this Archipelago, written by Mr. W. F. Walker in his work entitled "The Azores or Western Islands," with maps and illustrations (Triibner & Co.). A copy of this work has quite recently been added to the library of the Royal College of Surgeons, Lincoln's-inn, where of course it may be seen by any Fellow or Member.

I am, Sirs, yours truly,

London, Dec. 21st, 1892.

WILLIAM PROWSE.

### PROVISION FOR MEDICAL MEN UNABLE TO WORK.

*Dr. John Craigie*.—The course proposed would be quite impossible. The examining bodies have no powers to impose such a charge. Medical men individually should deny themselves in the early part of life to provide for rainy days and old age. We admit it is difficult to do so; but there are great inducements and facilities, as in the different forms of life insurance. Within the Metropolitan Postal District the Society for the Widows and Orphans of Medical Men dying with scanty residue is an admirable society with ample funds, only complaining of being inadequately appreciated by those whose families might benefit by its steadily increasing accumulations.

### MEDICAL ATTENDANCE ON SOLDIERS AND SAILORS.

WITH reference to the inquiry of "Perplexed" in our last issue (p. 1425), he will be interested to know that a claim for medicines and attendance on a soldier can be recovered from the State under the conditions which are laid down in the Army and Navy Regulations, paragraphs 50 and 828. He should write to the principal medical officer of the district for Army Form O1600, and make out his claim upon this document.

### "L'AMENDE HONORABLE."

THE following apology has been sent to Mr. Victor Horsley:—

"Dec. 17th, 1892.

"SIR,—This morning's post has brought me a letter from the secretary of the Victoria-street Society, of which I herewith enclose a copy. From that letter it appears that I was entirely misled in making, on the authority of the writer's former assurance, the statement in our extra number published last month with regard to the alleged falseness of your charge against the Duke of Newcastle. So far, therefore, as concerns the assertion in that article that your statement was untrue, I hasten to offer you the fullest retraction and the most sincere apology. A similar apology will of course be made in the January number of the *Review*, the issue of which I have desired the printers to hasten as much as possible, that no time may be lost in withdrawing, as publicly as it was made, the misstatement we were unfortunately deceived into adopting. Should you desire to send copies of the number containing the retraction to any of your friends I shall be happy to place them at your disposal.—I am &c.,

"(Signed)

"THE EDITOR OF THE 'VERULAN REVIEW.'"

Enclosure.

"Victoria-street Society, Dec. 15th, 1892.

"SIR,—I am directed to inform you that on further inquiry it has been found that the Duke of Newcastle did consult Professor Horsley while a Vice-President of this Society. His name has therefore been removed from the list.—I am &c.,

"(Signed)

B. BRYAN, per S.B."

C. T. R.—In the cases mentioned by our correspondent effectual disinfection can only be insured by the use of such powerful agents as sulphur dioxide, chlorine or bromine. There are very simple contrivances to be had for the vapourisation of carbolic acid, eucalyptus &c., which may be obtained at any of the well-known wholesale houses.

*Scatpel*.—We think it would be held that the covenant was infringed.

### "WATCHMAKERS AS OCULISTS."—AN EXPLANATION.

To the Editors of THE LANCET.

SIRS,—Our attention has been called to a paragraph that appeared in THE LANCET of last week under the above heading. We beg herewith to give you our explanation of the original paragraph in the *Hydrological Journal*. Our ideas were to furnish London and country jewellers &c. with the required information for correct execution of oculists' prescriptions, with which we find from a large experience they are brought in daily touch, and to enable them to take correct measurements for fitting spectacles and folders, also to point out the relative value of the focal measurement of lenses—several systems of which are in use, and lead often to errors and lengthy correspondence. Moreover, we proposed to make clear the system of neutralisation of lenses and the properties of prisms, cylinder and spherical lenses; all of which we considered could be better explained by a qualified and experienced medical man, hence our sole reason for proposing to retain the services of Dr. W. Percy Jones. At the same time we regret to note that through an error Dr. Jones was described as of the Westminster Ophthalmic Hospital.

We are, Sirs, yours truly,

Oxford-street, W., Dec. 21st, 1892.

J. RAPHAEL & CO.

### TAKING THE OATH.

A CORRESPONDENT writes:—"In confirmation of your article on 'Oath Administration' may I venture to relate the following circumstance which happened to my father, Dr. L—, many years ago. He was one of the Middlesex magistrates when a witness—a Scotchman—came before him to give evidence. Something in the man's manner led my father to think that he was about to swear falsely. When the clerk had handed the book and the witness was proceeding quite readily to take the English oath my father stopped him and, lifting up his hand, began very slowly with the words—'I swear by Almighty God' &c. The man drew back, saying, 'Na, na, I canna tak that oath.' Does not this point to the greater solemnity of the oath by the 'uplifted hand'?"

A. B. C.—We do not recommend practitioners.

### THE MORALITY OF VIVISECTION.

W. J. C. writes:—"Might not vivisection find a precedent in the 'scapegoat' for their practices? The Sacred Narrative (Leviticus, xvi) states that the Deity instructed His priest to inflict a lingering, and probably a painful, death on an inoffensive animal, to save a people from the effects of their sins."

## DOUBLE QUINSY.

Mr. J. A. Eytton-Jones sends us notes of an interesting case of double quinsy, followed by laryngitis, pneumonia and death, notwithstanding some improvement consequent on tracheotomy. The patient, a healthy male, ten months old, the child of healthy parents, developed a double quinsy, with enlargement of the sub-maxillary glands. About the fifth day of illness there was some inspiratory dyspnoea, and some hours later tracheotomy became necessary and was successfully performed. There is said to have been no evidence of false membrane in the fauces or trachea, but in the absence of a post-mortem examination we do not think one can speak with positiveness in this matter. The report makes no mention of the presence or absence of albuminuria, but refers to an imperfectly ventilated drain in the vicinity of the patient. The clinical sequence of events in the absence of positive proof to the contrary is suggestive of diphtheria, a scourge which may be marked in its onset, may occur in circumstances of apparently good sanitation, and whose true nature is sometimes first declared by the presence of albuminuria.

Dr. Thomas W. Parkinson (Tongue).—Our correspondent will find a very perfect description of "retro-pharyngeal abscess," with a complete bibliography of the subject in Bosworth's new volume on "Diseases of the Throat," published by Wood, New York.

## "VESALIUS THE ANATOMIST."

To the Editors of THE LANCET.

SIRS,—I would recommend to your correspondent "G. M. C." the "Histoire de l'Anatomie et de la Chirurgie" of M. Portal, published in Paris by P. Fr. Didot le jeune, Quai du Augustins, 1770, where, in the first volume, commencing at page 394 and ending at 433, he will find the fullest account of Vesalius's life and work with which I am acquainted. Albert von Haller, who so much admired the writings of Vesalius, has, in his "Bibliotheca Anatomica," vol. i., liber iv., § 103, pp. 180-87 inclusive, given a good summary of the anatomist's life. Boerhaave and his pupil Albinus wrote a biographical sketch of Vesalius. Haller and Portal both tell of the hatred felt to Vesalius by his contemporaries, especially his quondam friends J. Gunther and Jacobus Bois, with whom as a student he learned the anatomy of Galen. That he died a bachelor is, I think, pretty certain. No writer that I know of makes mention of his having been married; and after his death the vindication of his character was undertaken by his brother, Francis Vesalius, who gave up the study of law and embraced that of medicine, that he might defeat the calumnies of his brother's enemies. On the disputed question, Did Titian illustrate a copy of Vesalius's works? I can give an affirmative answer, and I am not without hope of becoming the possessor of a copy. I may just add that Knight, who published about 1835, considers that it was some political trouble that caused Vesalius to undertake his memorable journey to Jerusalem. Nevertheless, the more I read on the subject the more convinced I am that the flight was to escape clerical persecution. I am, Sirs, yours truly,

Dublin, Dec. 17th, 1892.

GEORGE FOX, F.R.C.S.I.

To the Editors of THE LANCET.

SIRS,—I have much pleasure in giving "G. M. C." the required information. Andreas Vesalius was born at Wesel on the Rhine. Therefore, according to the custom of the time, he adopted the name of Vesalius. Three weasels (Old German "Wesel") are represented on his family escutcheon. He studied at Louvain; was a resurrectionist, according to his own confession; went to Paris, where he worked under Sylvius, and, when only twenty-two years old, his fame was so great that he was appointed professor of anatomy at Padua. According to Lauth ("Histoire de l'Anatomie"), he contracted an unfortunate marriage with a wicked woman. He had a severe illness, during which he made a vow that if he recovered he would undertake a pilgrimage to Jerusalem. Persecuted by the Catholics of Madrid, he carried this resolve into effect. Coming back he suffered shipwreck at the Island of Zante. Here he contracted a severe illness, which proved fatal, and he died, deserted by everybody, at the early age of fifty. Prof. Burggraeve's work ("Études sur André Vesal," Gand, 1841) gives a complete life-history of the great man. I am, Sirs, yours truly,

Harlesden, N.W., Dec. 10th, 1892.

JULIUS MOSTERTZ.

To the Editors of THE LANCET.

SIRS,—Your correspondent "G. M. C." asks, at page 1424 of your last issue, for information regarding the life and history of Vesalius. In the *Asclepiad*, 1885, p. 132, he will find this subject fully treated. In THE LANCET, Juno, 1889, p. 1041, he will find an interesting annotation as to whether Vesalius dissected the living. These references are to be seen in Section 565:6 of the "Medical Digest."

I am, Sirs, obediently yours,

Boundary-rd., N.W., Dec. 10th, 1892. RICHD. NEALE, M.D. Lond.

## GASTROTOMY FOR FOREIGN BODY.

A WOMAN, aged sixty-nine, in a distressed condition of mind, supposed to have swallowed a full-sized razor on Tuesday, Dec. 13th, was admitted into the Lincoln County Hospital the same day. There were no symptoms, and the presence of the razor could not be determined until Sunday, Dec. 18th, when the end could be felt in the region of the pylorus. On Monday vomiting commenced, and Mr. Cant, one of the surgeons to the hospital, operated. Opening the abdomen by an incision in the median line, then seizing the razor and bringing the stomach to the opening, he was able successfully to remove it. The wound in the stomach was doubly sutured and the external wound closed. Thirty hours after the operation the temperature was normal; the bowels had acted naturally and there was no unfavourable symptom. The razor, a large, black, bone-handled one, was somewhat acted upon by its six days' digestion.

## DIARIES &amp;C.

We have already received several new medical diaries for the approaching year and these have been brought under the notice of our readers. Specimen pages of Smith's "Physicians, Surgeons' and General Practitioners' Visiting List, Diary, Almanack and Book of Engagements" have been submitted to us, as well as a copy of the book. The specimen pages are circulated for the guidance of those who have not as yet used the book. The almanack is of a convenient size for the pocket and contains ample information for medical officers of health and for general practitioners. Postal regulations, tables of wages, a pharmacopoeial companion and other information of a trustworthy kind is given. Ruled pages are provided for visiting list and journal, obstetric engagements, addresses, lists of instruments lent and wanted &c. Altogether the book is as perfect and complete as it is possible for a medical man's diary to be.

## THE "DRIQUIC" BLOTTING PAD.

MESSRS. SPICER BROTHERS, 2, New Bridge-street, E.C., have submitted to us a specimen of their new Blotting Pad, furnished with a material which they have named "Driquic." We have examined and tested with some care this fresh addition to the armamentaria of the writing desk and find it for the purpose intended to be much superior to the pads ordinarily employed. A disadvantage commonly experienced by persons who have occasion to make constant use of a pad is that the absorbent power of the blotting paper speedily becomes exhausted, thus necessitating the provision of a fresh sheet. This inconvenience is very much modified by the use of the "Driquic" pad.

## "A MODE OF PRESERVING LYMPH."

In the letter of Dr. James Tily which we published in our issue of Dec. 3rd it appears that an error arose in the interpretation of the meaning of the prescription which he recommended for the preservation of vaccine lymph. The following was the actual wording of the formula: "℞. Vaccine lymph, ℥v; best glycerine, aq. destillat, aa par. œq., ℥v." This was rendered: "Vaccine lymph 5 minims, best glycerine and distilled water of each 5 minims." By this Dr. Tily was inadvertently made to appear as if he wished the lymph to be diluted to twice the extent which he actually intended.

ERRATUM.—On page 1398 of our issue of Dec. 17th the last line of the first paragraph should read "Autobiography of a Slander," by Edna Lyall.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*North Wales Observer, South Austell Weekly News, Millom Gazette, Public Opinion, Sheffield and Rotherham Independent, Cork Constitution, National Reformer, Retford News, Bucks Herald, Aberdeen Times, Alnwick County Gazette, Birmingham Daily Post, Pudsey News, Surrey Comet, Louth Times, Worthing Gazette, Leicester Daily Post, English Mechanic, Manchester Examiner, Manchester Courier, Birmingham Daily Gazette, The Telegram (Dorset), Echo, South and North Lincolnshire Advertiser, Sanitary Record, Mining Journal, Local Government Chronicle, Insurance Record, Bristol Mercury, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Reading Mercury, Liverpool Daily Post, Leeds Mercury, Yorkshire Post, Surrey Advertiser, West Middlesex Advertiser, Pioneer Mail, Local Government Journal, Guy's Hospital Gazette, West Middlesex Standard, Times of India, Coatbridge Express, Norwich Mercury, Citizen, Hereford Times, Le Temps (Paris), Sunday Times, Builder, Architect, City Press.*

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Letters, each with enclosure, are also acknowledged from—

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ABSTRACT OF A  
Clinical Lecture

ON  
INFLAMMATION STARTING IN THAT PORTION OF THE ALIMENTARY CANAL SITUATED IN THE RIGHT ILIAC FOSSA.

*Delivered at the General Hospital, Birmingham, on Nov. 10th, 1892,*

By WILLIAM F. HASLAM, F.R.C.S.ENG.,  
SURGEON TO THE HOSPITAL.

GENTLEMEN,—In approaching the question of affections of that portion of the alimentary canal situated in the right iliac fossa, characterised by inflammation, with or without the formation of pus, it will be well to note the clinical characters of cases as they come before us with symptoms either directly referring to that region or where, by operation or after death, the initial lesion of an extensive suppuration or general peritonitis is found to have been situated there. 1. Patients, often young adult males, are from time to time seen with these symptoms: Constipation, nausea or vomiting, slight elevation of temperature—not, however, associated with any rigor—pain in the right iliac fossa of varying intensity, though not as a rule severe, tenderness in this region, together with some swelling that appears early and is comparatively large and at times doughy. Under simple treatment, combined with rest, the attack passes off and recovery takes place, though there may be subsequent recurrent attacks. In these cases there is often a previous history of constipation. 2. When symptoms somewhat similar to the above but more severe are met with. There is often an initial chill or rigor, the temperature rises to a higher level, there is general tenderness of the abdomen, so that unless a careful examination is made no special tenderness is noticed in the right iliac fossa. This, however, can be detected in the early stage of the disease by pressing with the fingertip on a point one and a half to two inches from the anterior superior iliac spine on a line from that point to the umbilicus. This corresponds closely to the root of the vermiform appendix and is known as McBurney's point. There is a tendency for pain, which in the abdomen is often considerable, to radiate to the testis, thigh, and perineum. The right abdominal muscles may be rigid. Swelling appears after a few days, but not so early as in the preceding class of cases and is more fixed; it can at times be made out from the rectum. Cases presenting these symptoms may terminate either (a) by complete recovery, or by a partial recovery which is followed by relapses, the severity of which often increases with their number and any one may set up serious or even fatal mischief; (b) by an increase of all the symptoms and by suppuration occurring, either limited by adhesions to its own particular neighbourhood, and after a time making its way to the surface, or by bursting through the adhesions and invading the general peritoneal cavity, giving rise to a sudden development of the signs of a general and acute peritonitis; or (c) by the production of the same condition owing to a suppurating or gangrenous appendix discharging its contents into a peritoneum unprotected by limiting adhesions. 3. A few cases are met with in which the patient, often a young boy, is attacked by the sudden onset of a most violent and acute peritonitis, but in whom there is nothing in the antecedent history pointing to the right iliac fossa as the starting point of it, yet a post-mortem examination shows death to have been caused by a purulent peritonitis due to rupture of an appendix containing fetid pus and often in a condition of gangrene. Here then are several groups of cases having (with the exception of the last) certain symptoms in common, such as fever, with pain and swelling in the right iliac fossa, yet some get well never to recur, others never completely recover but relapse again and again, while others terminate in abscess that may point at the surface or burst into the general peritoneal cavity. What are the pathological conditions met with in these cases and what means have we for

coming to any conclusion as to the actual state of affairs in each case so that we may treat it on sound principles? Until the last few years these conditions were spoken of either as perityphlitis or typhlitis, but recently the term "appendicitis" has been applied to at any rate a large number of them, as it has been abundantly proved, both by operation and by post-mortem examination, that the appendix has been the cause of the disease. Perityphlitis was first used at a time when it was supposed that the cellular tissue in the iliac fossa became inflamed as a primary affection independently of any inflammation of the cæcum or appendix. If such occurred there could be no objection to the name, but inasmuch as this is not the case it seems advisable to use the term typhlitis where there seems to be good reason to regard the cæcum as the seat of the disease and to signify that the appendix is at fault by using the term appendicitis. Perityphlitis has also been used by those who, while recognising the importance of the appendix as a potent factor in the causation of mischief here, preferred it as indicating that the swelling is around the cæcum. The use, however, of these terms, if founded on an accurate diagnosis of the case, is of more than passing interest, for in studying the pathology of these affections in the iliac fossa we find that the contents of the region—viz., the cæcum and appendix—give rise to symptoms that differ in degree and course. Speaking broadly, while the cæcum is responsible for a few cases where there has been only one attack, probably of a mild character, and many of those in which recurrence has taken place, the appendix is the cause of relapsing ones and nearly all those in which suppuration occurs, suppuration and perforation being seldom due to the cæcum. The numerous cases that have now been recorded enable us to formulate some facts as to the pathology of the cæcum and appendix, while from recent research of Treves and others into the anatomy of these parts certain points have been made out that throw further light on the subject. For instance, it has been shown that the cæcum is usually entirely covered by peritoneum, and that though it may not have a mesentery, as the appendix has, it is for practical purposes as much within the peritoneal cavity as that is; consequently inflammation spreading from its interior is likely to reach a peritoneal covering and not any cellular tissue in the iliac fossa. The mucous membrane of the cæcum may be inflamed in association with a general colitis, or more frequently from irritation due to retention and impaction of feces; inflammation thus started may spread into the appendix, and by closing the opening from this into the cæcum give rise to an appendicitis with retention of mucus, a recognised cause of recurrent attacks. The cæcum may be the seat of ulceration, either from fecal irritation, tubercle, dysentery, typhoid or foreign body, this latter being extremely rare. As the result of ulceration its peritoneal coat may become inflamed, together with the peritoneum in the immediate neighbourhood, producing matting together of parts and in very rare cases suppuration or even perforation. From a pathological point of view, then, the cæcum offers a ready explanation for mild and for many recurrent attacks, the cause being usually fecal accumulation; but for the cause of those in which suppuration is met with we must, with but few exceptions, look elsewhere. If now we inquire what has been found in the appendix when it has been removed for relapsing attacks, or seen at the bottom of an abscess that has been opened, or in the post-mortem room, we find conditions that will account for some recurrent attacks, and for nearly all those where there have been relapses—the patient never having been completely well between the attacks—or where suppuration or perforation had taken place.

Dr. Robert W. Weir of New York has published records of twenty-six cases where removal of the appendix was effected between the attacks, and from these we learn that in no case was any foreign body found; foreign bodies usually causing the graver lesion of perforation. In ten of these cases a catarrhal appendicitis was found, the lumen of the tube being greatly reduced in size; in others, in addition to the catarrh, the tube was found to be distended with mucus or muco-pus. In four there was either bending or kinking of the appendix on itself or a stenosis at its upper end with an accumulation of its contents. While these conditions are sufficient to account for symptoms it must be remembered that post-mortem records show that evidences of previous inflammation of the appendix are often found in those who have died from other causes and who never had symptoms pointing to this region. In the suppurative or perforated cases the appendix has been

found twisted and gangrenous, perforated, with or without there being any foreign body or, what is practically the same thing, any hard fecal concretion. Another curious fact that has been demonstrated by early operation and its results by examination after death in some cases of acute peritonitis, is that the appendix may be distended with fluid and pass into a condition of gangrene without there being any limiting adhesions. There may be then in the cæcum and appendix causes which can produce peritonitis of varying degrees of intensity. When the peritoneum over the cæcum becomes inflamed, as the result probably of a stercoral ulcer, it may with the relief of the cause of this resolve, or if of greater severity various adhesions and matting together of parts may result, or in very rare cases suppuration or even perforation may take place; but with the appendix the risks of serious trouble are far greater. In favourable cases no doubt resolution with but slight inflammation may take place, in others a dense mass of inflammatory tissue may form, matting together the structures in the neighbourhood; this may remain more or less quiescent, or there may be in its centre a small quantity of pus ready at any time to light up further mischief; or a slight leakage may take place from a distended appendix, but the escaping fluid is prevented either by old adhesions or by a protective inflammation of the peritoneum on neighbouring parts from invading more than a limited part of the peritoneum; this leakage will then set up an abscess, which may make its way to the surface, break into an adjacent organ or into the general peritoneal cavity. And lastly, a distended appendix may discharge its contents directly into the general peritoneal cavity, owing to the absence of proper adhesions. The fact that an abscess, at first localised, may invade this cavity by a bursting of its wall must be ever before one: for, firstly, it is desirable to prevent this—an almost certainly fatal complication—by the early evacuation of pus; and, secondly, when opening one of these limited abscesses the greatest care should be taken to avoid, by rough handling or syringing out, breaking through a barrier whose thickness is unknown but on whose integrity the patient's life may depend. The line of treatment to be adopted in these conditions has provided ample opportunity for the expression of somewhat conflicting opinions by physicians and surgeons. Nor is this to be wondered at when the position is viewed from a distance. Not so many years ago these cases, as already pointed out, were termed cases of perityphlitis or typhlitis, and though the appendix was seen at times to be the cause of the mischief, it was not assigned its proper place, as a frequent cause, until more recently. Cases, then, with symptoms referable to this region, when admitted into the wards of a general hospital, would naturally be assigned to the medical or surgical side, according to the prominent symptoms of each. Those, for instance, where the symptoms were slight—that is, pain in the right iliac fossa, resistance or even swelling, with some elevation of temperature—would naturally come under the care of the physician, who by simple measures would conduct the case to a successful termination. While at the other extreme, cases with local suppuration or general acute peritonitis would come to the surgeon, who would find an operation urgently needed. Consequently while physicians were in favour of general treatment, surgeons on the other hand favoured operation. These conflicting opinions therefore were based on the fact that the physician saw most of the cases where the cæcum was at fault and some where the recurrent attacks were due to the appendix, while the surgeon met with those in which the appendix was the cause of suppuration or perforation and where obviously nothing short of operative interference would be of any avail. These two conditions were not however clearly defined pathologically, but were spoken of under one name, so that one side, finding the so-called cases of typhlitis do well without operation, supported treatment by simple measures, while the other side, finding that cases known by the same name required operation, advocated that as the proper treatment—the fact being that two varieties of disease were grouped under one name, and consequently it was impossible to apply a general rule of treatment to both. It is only by a division pathologically into those where the disease is due to the cæcum, or typhlitis, and those where it is due to the appendix, or appendicitis, that we can see on what lines to proceed. If clinically the case can be diagnosed as typhlitis, then there is no doubt that operative interference is seldom called for; but if, on the other hand, appendicitis is a correct diagnosis, the question of operative interference may present itself under two circumstances: firstly, for the evacuation of pus from a local abscess or

from the general peritoneal cavity; and secondly, for the relief of relapsing attacks. As the formation of a correct diagnosis between typhlitis and appendicitis is a matter of considerable practical moment, what are the signs on which such a distinction can be based? It is always a difficult matter to draw clear and early distinctions between two diseases which have up to a certain stage a considerable resemblance to each other; but when, as in the conditions under consideration, we remember that the cæcum and appendix are situated in the same region and that a certain amount of localised peritonitis is common as an early symptom when inflammation spreads from the interior of either, the difficulty of accurately determining the starting point of the disease is considerably increased. It is only by knowing certain points on which careful inquiry should be made and by a judicious weighing of the evidence derived from an examination of the patient that we can come to any conclusion. The points for careful inquiry are as follows: 1. The onset of the disease. In typhlitis this is less sudden and less marked than, at any rate, in many cases of appendicitis. 2. Pain in typhlitis is less severe and more confined to the region of the cæcum; it is not so diffused over the abdomen nor does it tend to radiate to distant parts. 3. Tenderness in typhlitis is more local, but there is not any one spot where *excessive* tenderness can be elicited by digital pressure, as can be done in the early stages of appendicitis at McBurney's spot. 4. The swelling in typhlitis appears early; it is larger, less fixed, more doughy and more easily felt than in appendicitis. It cannot be felt from the rectum. 5. The febrile disturbance as indicated by the temperature and pulse is less in typhlitis than in appendicitis. 6. The progress of the case. In typhlitis many cases soon tend to get well. In appendicitis, while undoubtedly some recover under general treatment, many others steadily increase in severity until pus is formed, while others relapse. 7. A previous history of many attacks would rather favour a diagnosis of typhlitis, especially if a reliable history could be obtained of these being accompanied by swelling in the right iliac fossa. Recurrent attacks of appendicitis may occur without there being any evidence of tumour, and there is moreover a tendency in many cases for these attacks to terminate in suppuration or perforation. Dr. Weir records the examination of thirty cases of acute perforative appendicitis following recurrent attacks and the explosion into abscess or general peritonitis occurred in twenty-two before the third attack and only once after the fifth. 8. A previous history of constipation is suggestive of typhlitis. But it must be remembered that owing to the varying degree of the severity of these attacks there is in many cases considerable difficulty in coming to a satisfactory diagnosis.

Looking at the records of cases, it seems that if the symptoms are due to the appendix surgical interference is called for (1) in all cases where the general peritoneal cavity is involved; (2) where there is evidence of local abscess; (3) where in the course of an acute attack symptoms progress in spite of treatment and where there are good grounds to believe that pus is being formed, though it is too deeply situated to give rise to fluctuation. These cases form perhaps the most important group, as by the early opening of a deep-seated and as yet small abscess a general peritonitis may be avoided. It may be asked whether deep-seated pus can be detected by the aspirating needle. No one would deny that at times it may, but on all considerations it is better not to use the aspirating needle; far more useful information is obtained by an exploratory incision. Puncture by a needle here is by no means free from danger, nor is the information it gives at all reliable, unless of course pus is drawn. (4) In those relapsing cases where the restoration to health is incomplete and the patient is rendered unfit for the duties of life. In these cases there seems to be good reason to believe that the patient's safety is best consulted by an exploration and possible removal of the appendix in an interval between the attacks.

**FOOTBALL CASUALTY.**—A youth aged nineteen, while playing a game last week at St. Mary's-row, Birmingham, sustained a dislocated ankle.

**MEDICAL MAGISTRATES.**—Mr. Robert Parry, L.R.C.P. Lond., M.R.C.S., of Carnarvon, and Mr. Anthony Herbert Martin, M.R.C.S., L.S.A., of Evesham, have been placed on the Commission of the Peace for the Borough of Carnarvon and County of Worcester respectively.

## MYOSITIS OSSIFICANS.

BY CHARLES STONHAM, F.R.C.S. ENG.,  
ASSISTANT SURGEON TO THE WESTMINSTER HOSPITAL.

IN the following paper I propose to consider the present position of our knowledge of the fortunately rare disease known as myositis ossificans. Comparatively few cases have been so far recorded, but those which have been observed have presented a chain of symptoms of great interest and have excited so much speculation as to their causation that the bibliography of the subject, a list of which is appended, is already extensive. The principal contributions of English writers to our knowledge of myositis ossificans are a paper by London, read before the First Intercolonial Medical Congress, Adelaide, 1887, and one by the late Mr. Sympton. The latter gentleman some time before his death kindly sent me further details of his case, with permission to use them for embodiment in this paper. Mr. Willett has also kindly placed at my disposal the notes of a case under his observation at St. Bartholomew's Hospital.

*Further Progress of Mr. Sympton's Case, Brit. Med. Jour., vol. ii. 1886, p. 1026.*

Jan. 24th, 1887.—Two bosses the size of filberts are now present to the inner side of that situated over the posterior superior spine of the right ilium. The boy is in good health and has gained flesh. The parents have now removed to a village six miles from Lincoln.—Aug. 7th: The boy has fallen over a bucket and fractured both bones of his left forearm at the junction of the lower with the middle third. The parents have returned to Lincoln.—Aug. 24th: A hard boss the size of a cobnut has formed at the insertion of each pectoralis major and the anterior margin of each splenius is tense and indurated. The boy suffers no pain and his general health is excellent.—January 17th, 1891: The fracture united well. Three weeks ago the boy complained of pain and stiffness of the right side of his neck and of a swelling below the right ear. The pain has now left him, but there is a boss the size of a walnut in the upper third of the right sterno-mastoid muscle. There are also six nodules the size of buck shot in the latissimus dorsi between the left scapula and the spine. He continues in good health.

*Additional Note kindly sent me by Mr. E. Mansel Sympton.*

Nov. 12th, 1892.—Eight months ago C. A. M.—fell on his right patella and soon afterwards a hard swelling appeared on its surface. This is now of the shape of a limpet shell. For the last four months he has complained of stiffness and swelling above the left knee. Now there is a firm hard lump involving the rectus, vastus externus and internus, and extending from just above the patella upwards for about four inches. On the left side also there is a similar swelling just above the popliteal space in the biceps and semi-tendinosus muscles. Thus the movement at the knee-joint is considerably limited. A nodule about the size of a filbert can also be felt about half-way up the inner side of the thigh, apparently situated in the sartorius muscle. The seat of fracture of the bones of the left forearm is still marked by a nodule, though the bones are quite straight. The lad keeps in good health, but he feels pain in the various swellings and in the places where the swellings have occurred in cold and damp weather.

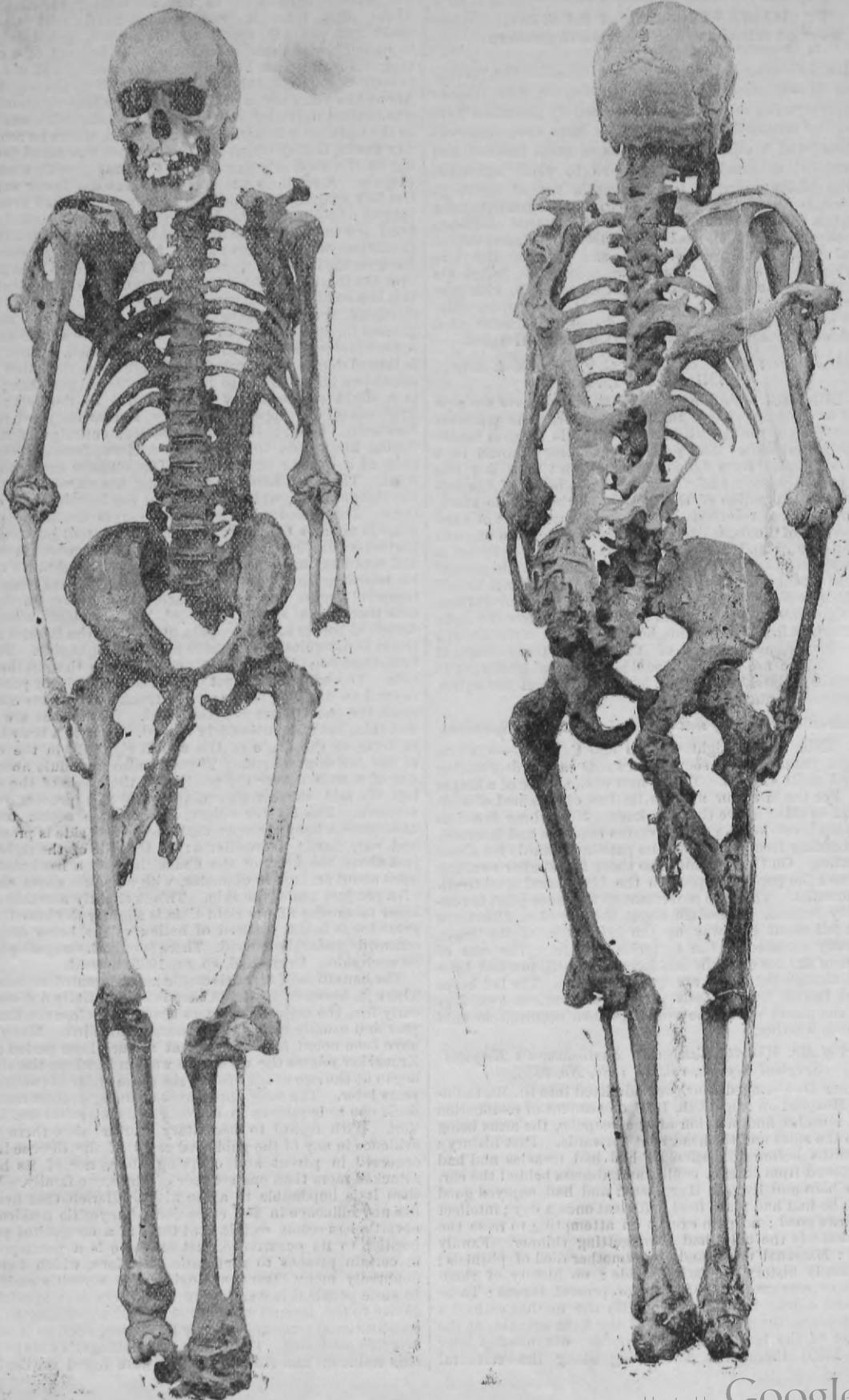
*Report of Mr. Willett's Case in St. Bartholomew's Hospital Surgical Reports, vol. iii. 1886, No. 2556.*

Thomas D—, aged four, was admitted into St. Bartholomew's Hospital on Aug. 30th, 1886, on account of ossification of the muscles and fixation of the scapulae, the arms being kept to the sides and the head bent forwards. Past history: Six months before admission he had had measles and had also suffered from eczema capitis and abscess behind the ear. He was born and lived in Haggerston and had enjoyed good health; he had had plain food and meat once a day; intellect and spirits good; no pain except on attempting to raise the arms; latterly the child had been getting thinner. Family history: Maternal uncle and grandmother died of phthisis; good family history on father's side; no history of rheumatism or new growths. History of present illness: Three years and a half ago (January, 1883) the mother noticed a swelling about the superior angle of the right scapula, at the insertion of the levator anguli scapulae. Six months later (July, 1883) there was a swelling along the vertebral

border of the bone and about the inferior angle, which the mother attributed to the shoulder "growing out." About this time it was also noticed that the boy could not put his spoon to his mouth, not being able to raise his right arm sufficiently. He fell out of a child's high chair and hurt himself, but the mother did not know exactly where; after this he kept his head to the right side. About two years and a half ago (January 1884) a prominence was noticed in the left erector spinae and the child was taken to the Children's Hospital, Hackney-road, where he remained five weeks, during which time no increase was noted (according to the mother's account) in the bony growth about the scapula. A swelling was now noticed at the lower angle of the left scapula and the movements of the left arm were limited; before this the left arm was the one used. The head now began to come over and lean towards the left side. Condition on admission: Right frontal eminence enlarged. Neck on the left side: there is slight fulness and a hard growth over the fourth and fifth cervical transverse processes; over this is a small movable tumour like a bursa. There is caput obstupum, the head being inclined to the left, the mastoid process brought nearer to the clavicle. The sterno-mastoid muscle is stretched over the swelling mentioned. Spine: There is lateral dorsal curvature to the right, the deviation being about two inches opposite the eighth dorsal vertebra; there is a slight compensatory lumbar curve to the left; some kyphosis of the upper dorsal spine, so that the head is bent forwards. Chest: Respiration almost entirely abdominal; during inspiration there is only a circumferential thoracic gain of a quarter of an inch. The scapulae are both quite fixed. There is a hard growth along the vertebral border of the right scapula, which is largest at the inferior angle of the bone. The latissimus dorsi as it covers the angle of the scapula appears to be changed into bone, and the tendinous portion extending from this point to the humerus is ossified and contains hard irregular nodules. The right arm cannot be raised quite to the horizontal; the fingers touch the temporal region and easily reach the mouth. On the left side there is a similar mass of bony hardness along the vertebral border of the scapula and above the inferior angle, but it is not quite so extensive as on the right side. The left latissimus dorsi is in a similar condition to that on the right side. The left arm cannot be raised, actively or passively, beyond an angle of 45° from the trunk; the fingers can just reach the mouth, but not the head. Both arms are small and thin, but not particularly wasted. There is a bony nodule in front of the angle of the eighth right rib in the course of the latissimus dorsi. There is also a nodule about the size of a walnut over the position of the angle of the eighth left rib and the corresponding transverse process of the vertebra. The erector spinae on each side seems to have undergone a bony change; that on the left side is prominent and very hard. Lower limbs: On the side of the right knee just above the head of the fibula there is a hard plate-like mass about an inch in diameter, with a nodule about the size of a pea just under the skin. This is slightly movable. The inner tuberosity of the right tibia is slightly thickened. Each great toe is in the position of hallux valgus, being displaced outwards under the second. There is only the unguis phalanx on each side. Urine acid, sp. gr. 1025, normal.

The causation of myositis ossificans is shrouded in obscurity. There is, however, no doubt that it is essentially a disease of early life, the majority of cases occurring before the fifteenth year and usually between the second and third. Many cases have been noted as beginning at a much later period; thus Kronecker relates the case of a woman in whom the disease began at the age of fifty-four: she came under his notice two years later. The early appearance of the symptoms naturally leads one to inquire as to heredity and congenital predisposition. With regard to hereditary transmission there is no evidence in any of the published cases of the disease having occurred in parent and offspring alike, nor of its having attacked more than one member of the same family. While then it is impossible to agree with Helferich that heredity has any influence in the causation of myositis ossificans, it nevertheless seems certain that there is a congenital predisposition to its occurrence, just as there is a predisposition in certain persons to rheumatic affections, which have undoubtedly many strong analogies with myositis ossificans. In some people it is well known that there is a special proclivity to the formation of bony growths, pointing to some constitutional tendency to bony formation, such as is seen in myositis ossificans. In Billroth and Zollinger's case of myositis ossificans numerous osteomata were found on the bones

FIG. 1.

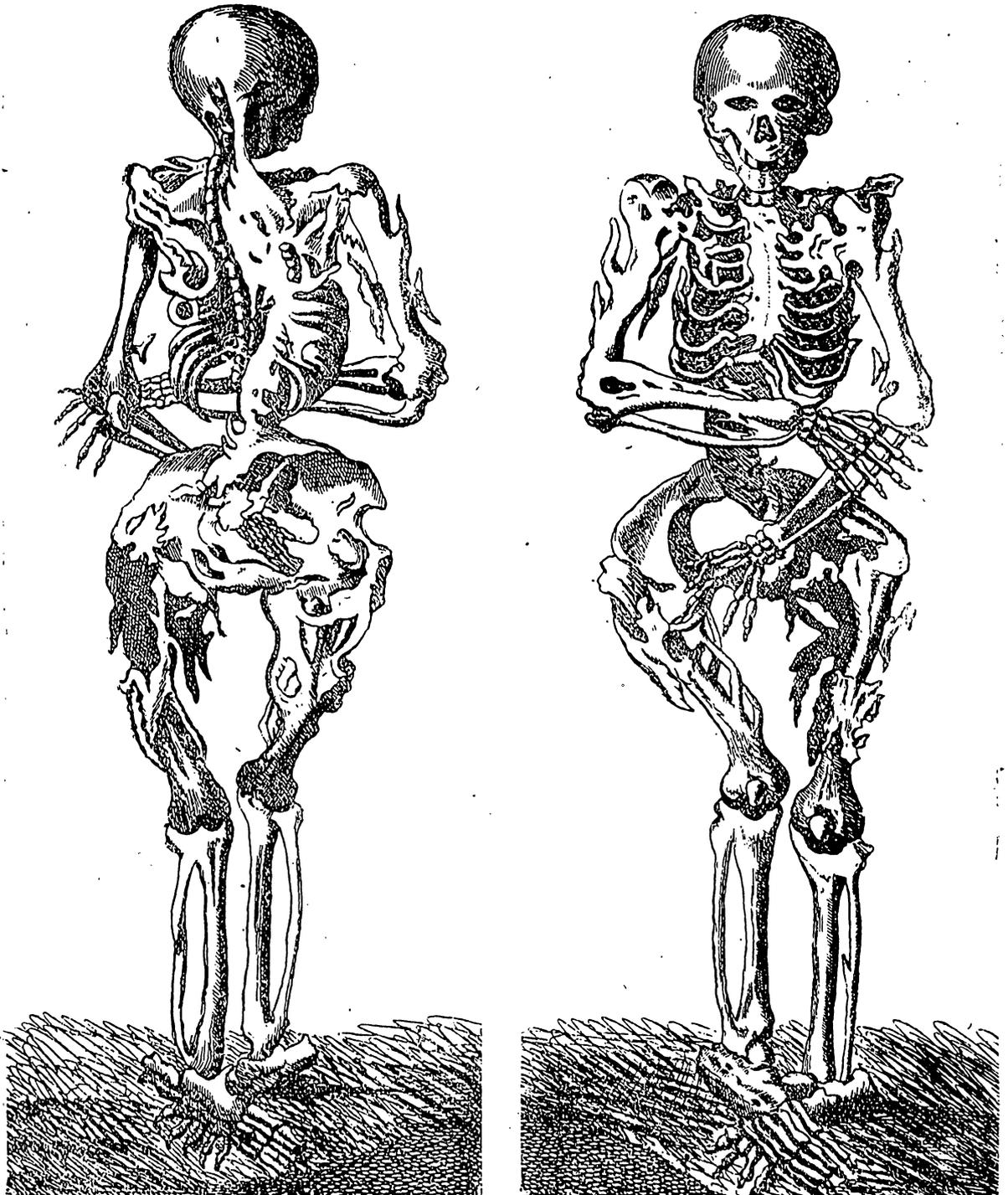


From the specimen in the Museum of the Royal College of Surgeons, England.

and it is specially noted that these were true osteomata and not ossific deposits at the tendinous insertions. Skinner, Eberth, Minkowitsch and others have noted similar cases. Admitting, however—and it seems impossible to doubt it—a

point in the etiology of myositis ossificans it is necessary to review the family histories of the patients. Unfortunately in many cases this has not been mentioned or only very shortly so, but I think we may fairly assume that in such

FIG. 2.



The skeleton of William Clark, in the Museum of Trinity College, Dublin.

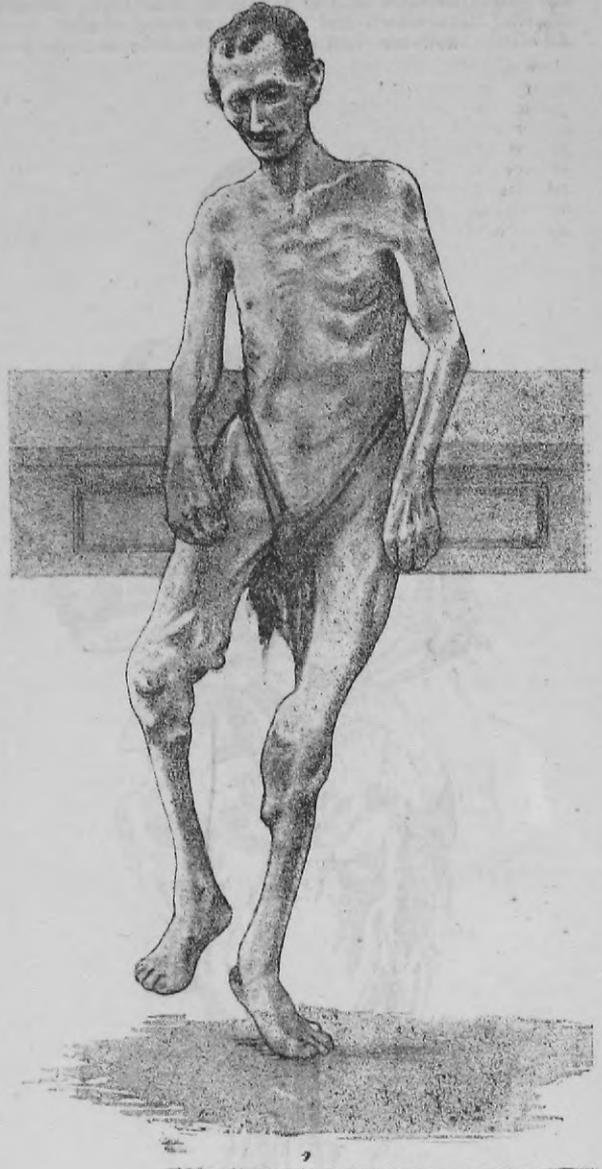
constitutional predisposition to the formation of new bony tissue, we are not carried very much further, since we know nothing as to the nature of such predisposition or of the causes which induce it. In endeavouring to elucidate this

cases there was nothing noteworthy in the history, as all the recorded cases are by good observers who would pay full attention to any important feature of the case. It would appear that in some cases at least there was a distinct famil-

history of rheumatism (Lendon, Sympson) and in many the onset or progress of the disease was very similar to muscular rheumatism. In Henry's case the disease began with acute arthritis of the wrist and elbow; Minkewitsch met with the disease in a girl following rheumatic arthritis of the left knee. In nearly all the cases rheumatic pains are complained of. Hawkins was of opinion that the disease was of a rheumatic nature. Lieutaud held a necropsy on a case of myositis ossificans, the patient having always suffered from rheumatism. The onset of the symptoms has in many cases, as in rheumatic affections generally, clearly followed exposure to cold or a chill. Thus Hawkins' case began in the loins of a patient twenty-two years of age after getting wet through. Testelin and Danbressi relate that in their case the patient had always worked in a damp cellar, under conditions strongly favouring rheumatism. On careful perusal of the published cases of myositis ossificans one is struck with its close resemblance in many leading respects to muscular rheumatism, even if it be not a phase of the disease itself. At the same time, as Haltenhoff justly points out, the analogy between rheumatic affections and myositis ossificans is incomplete and in some important particulars the diseases differ widely. Thus in myositis ossificans the joints never show any post-mortem evidence of disease nor are there any of the visceral lesions seen in rheumatism and the general health remains good. The chief points of resemblance are that both are essentially chronic diseases, liable to advance by periodic more or less acute attacks; both lead to muscular degeneration, rheumatism to fibroid change and myositis ossificans to bony growths with a minimum of fibrous tissue. In this respect it is worthy of note that in chronic rheumatic arthritis numerous bony outgrowths occur at the articular margins.

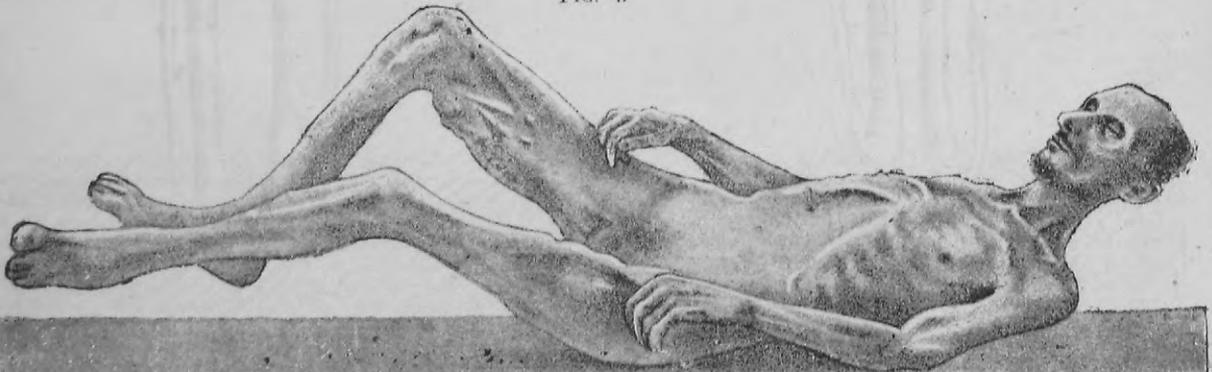
With regard to the relations of myositis ossificans to other diseases I have been unable to trace any. In one or two cases there was a family history of phthisis and in one case related by Bókay the disease was associated with rickets. The majority of cases of myositis ossificans occur in the male sex, the proportion being four or five males to one female. Pinter, however, thinks it probable that if all cases met with were recorded this preponderance of the male sex would be diminished, and even suggests that there might be found "an unfavourable balance on the female side." I am unable to find on what grounds Pinter bases this opinion, which appears to be diametrically opposed to what we already know. The effect of injury in the production of the disease and of periodic acute attacks is important. Billroth and Zollinger's case began after a violent fall upon the hands, Munchmeyer's after a fall on the back. In Lendon's case the first evident signs of the disease were said to be due to chastisement with a ruler and trivial injuries certainly produced subsequent inflammatory swelling followed by ossification. Skinner notes that injury always caused a lump to appear, but that the disease began independently of injury. Helferich and Partsch report that their cases arose from injury and that successive attacks were directly traceable to it. Abernethy mentions the case of a boy in whom an ossific lump always followed a trivial injury. Pinter denies that injury is a causative factor in myositis ossificans on the ground that injuries are very common and the disease is very

FIG. 3.



Dr. Lendon's case of myositis ossificans.

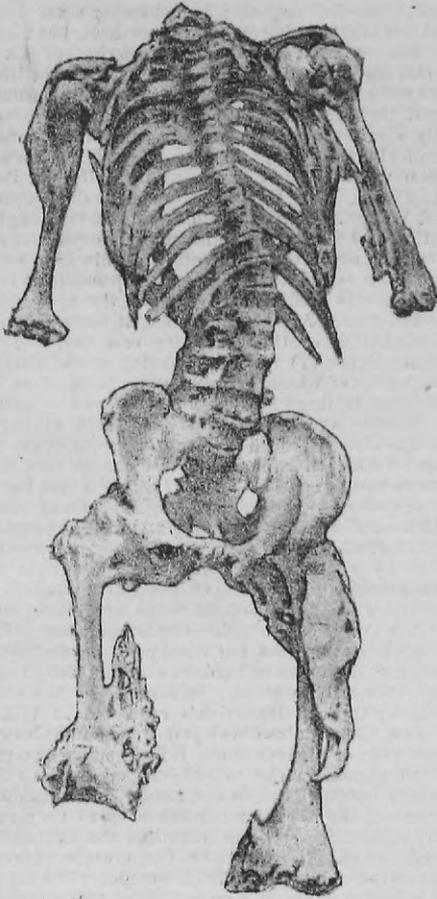
FIG. 4.



rare; but, as pointed out by Lendon, it is the peculiar constitutional diathesis which leads to such untoward results from otherwise harmless injuries. Pinter in support of his opinion mentions that in many cases, carefully watched by competent observers, there was no evidence connecting myositis ossificans with injury. On the other hand, we have numerous examples by equally good observers showing the contrary and while freely admitting that injury is not a necessity as a causative agent, it cannot be doubted that in some cases at least it plays an important subsidiary action. Nicoladoni and Hayem suggested that the condition was dependent upon central changes in the spinal cord or in the peripheral nerves. Schultze has, however, conducted investigations on this point in two cases with negative results. In one case he found the spinal cord of good size and well-developed and microscopic

misleading and it would be more correct to speak of the disease as an interstitial myositis ossificans. It is a noteworthy fact that the disease begins first in the muscles of the back and neck, the favourite sites of ordinary muscular rheumatism. Affecting the latissimus dorsi and the trapezii, with the rhomboids, deeper back muscles and muscles of the neck, the disease gradually spreads to the limbs. First affecting the muscles of the shoulder and the pectorals, the scapulae become fixed to the chest and the arm is rendered useless. The upper limb is affected in most cases in advance of the lower and the disease spreads from the proximal to the distal end. By the gradual ossification of the pectorals, latissimi, trapezii &c. the chest becomes enveloped in a dense bony cuirass, so that the thoracic respiratory movements are much hampered or altogether lost (Skinner, Minkewitsch.) This fixity of the chest is increased

FIG. 5.

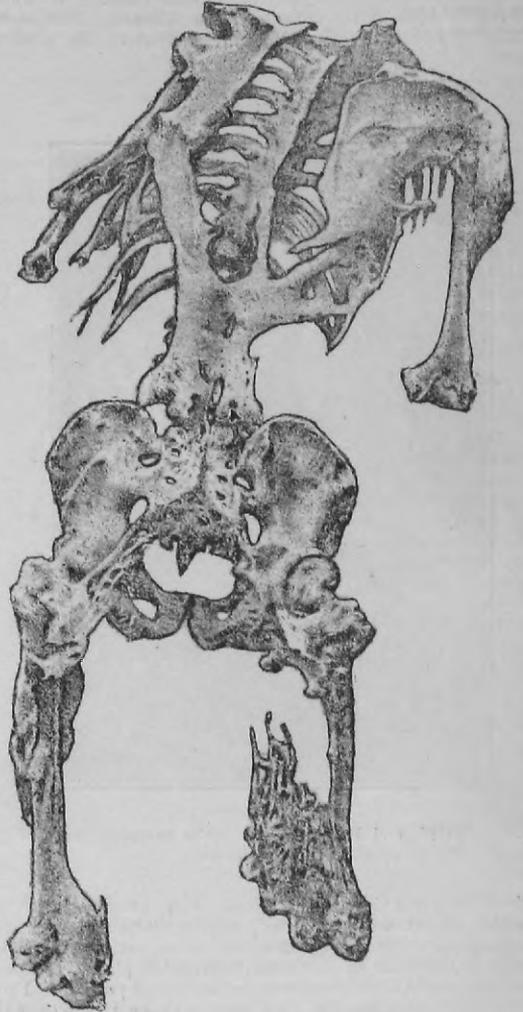


Dr. Lendon's case.

examination showed nothing abnormal. In Munchmeyer's case Schultze examined the cord and peripheral nerves with a like result. In Lendon's case the cervical cord was examined, but this "revealed nothing unusual except a sprinkling of corpora amylacea."

*Pathological anatomy.*—That ossification may take place in muscles which from long continued irritation have been the seat of chronic inflammation is well known. Ossification of the adductors of the thigh in cavalry soldiers and occasionally in shoemakers and the drill bone in the deltoid of the old Prussian infantry are cases in point. Such instances have, however, nothing to do with myositis ossificans. It is well established by many observations that myositis ossificans is primarily a disease of the cellular tissue binding the muscular bundles together; the muscular tissue itself takes no active part in the process, but undergoes degeneration and atrophy. The name therefore is open to objection and

FIG. 6.



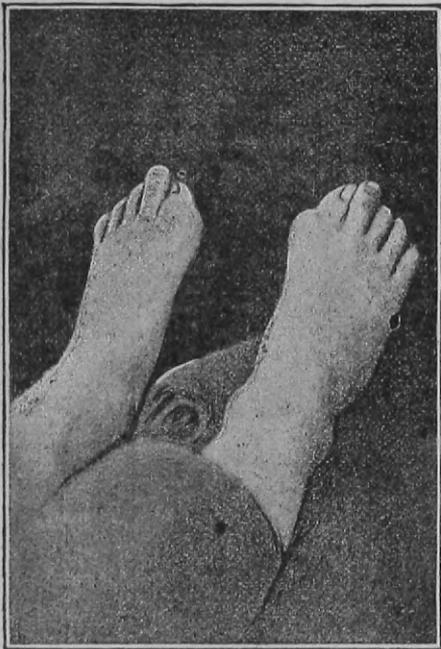
Dr. Lendon's case.

by ossification of the costo-vertebral ligaments (Lendon). The muscles of the abdomen, the diaphragm and those essential to life are hardly ever affected and then only to a small extent. When the muscles are first attacked there is only a sense of stiffness; this, however, gradually increases, the hardness of the parts becomes more marked, bony masses in adjacent muscles fuse and the rigidity is absolute, the patient in advanced cases being rendered almost as rigid and helpless as a block of marble. In the case of the spinal column it is not infrequently deprived of all movement and curved to one side or to the other; this is in part due to the ossific plates in the muscles, but more especially to ossification of the various ligaments and synostosis of the vertebrae, as well shown in

Lendon's case. The joints become fixed, not by true bony ankylosis, but by the rigid bars of bone formed in the substance of the muscles acting upon them. I cannot find any mention of actual disease of the joint surface. Lendon records that in his case the joint surfaces were but slightly altered—"the hyaline cartilage was replaced by a fibroid substitution and in the left knee it was slightly uneven and the condyles were soft and spongy." The position of the limbs and joints varies according to the muscles affected. Ossification of the muscles of the neck and of the vertebral ligaments renders the head fixed and slightly flexed by involvement of the sterno-mastoids. The muscles of mastication are frequently affected, the lower jaw becoming completely immobile, so that the patient can only be fed through a gap in the dental arch (Testelin and Danbressi) or after the removal of a tooth for the purpose (Helferich, Munchmeyer). In Bókay's case the ocular muscles were affected and Billroth and Zollinger found a calcareous plate in the choroid coat of the eye.

A glance at the accompanying figures (Nos. 1 to 6) will give a good idea of the extent of the disease. The osseous formations are many of them independent of the skeleton,

FIG. 7.



M etyl and hallux valgus. (Mr. Sympton case of myositis ossificans.)

but in some parts they are attached to it, spreading into the muscular insertions as pointed, stalactite-like masses. As already stated, true spongy exostoses are sometimes met with. Usually in the form of flattened, perforated plates, the bony tissue may be in nodular masses or sharp and pointed. From pressure and irritation the skin and cellular tissue over the affected muscles may slough, forming large, foul sores, adding much to the sufferings of the patient and exposing him to the risk of septic absorption. In Lendon's case the discharge from these sores contained gritty portions of bone and small sequestra. Sometimes large, deep abscesses are met with, doubtless due to the irritation set up by the sharp spiculae of bone (Rogers). The bone found in myositis ossificans has been examined microscopically and chemically by some observers, the results in each case being similar. Dr. Poggiale made a chemical examination of a dried portion of the new bone and found that in 100 parts there were 58 per cent. of organic matter and 42 per cent. inorganic, accounting for the comparative softness of the bone as compared with normal osseous tissue. Of the organic material he found cartilage 54.3 and vessels 3.70, while the inorganic part consisted of

calcium carbonate 8.66, calcium phosphate 32.09 and magnesium phosphate 3.25. Poggiale was unable to find any traces of alumina, silica and the oxides of iron and manganese which have been described by Bazellius, Fourcroy and Vaugelin. Hawkins examined a portion of bony material which he removed by operation from the back of his patient. He found that the muscular fibres were inserted into it just as muscles are inserted into skeletal bones. The piece removed consisted of firm bone, but a small piece was cartilaginous; it was covered with periosteum and consisted of an outer firm shell and an inner cancellous spongy tissue. Microscopically it presented the characters of true bone. Hamilton also found the new tissue chemically and microscopically like true bone. This skeleton is in the museum of Steevens's Hospital, Dublin.

With regard to visceral lesions, I am unable to find any mention of pathological conditions which could in any way be associated with this disease, nor should we, seeing that the general health remains good, expect otherwise. In most cases the urine is reported as being normal. Pinter records a quantity of brick-dust deposit; Munchmeyer notes a diminution of the quantity of phosphates by one-half, but adds that the urine was only examined over a period of six days. Pinter in one case recorded by him states that the lime and phosphates were diminished to one-tenth of the normal, and in a second that kreatinin, lime and magnesia salts were "decidedly diminished." A curious and rare congenital deformity of the thumbs, great toes or both has been noted in connexion with myositis ossificans by Helferich, Partsch, Kümmell, Pinter, Von Gerber, Uhde, Lendon, Sympton, Godlee and Willett. Helferich appears to have thought this rare condition of hallux valgus and microdactyle was a mere coincidence, but since the publication of his case so many others have been noted that it seems impossible to suppose that coincidence is sufficient to explain the association of two rare conditions. At the same time, it must be admitted that no explanation of the connexion can be given. The accompanying figure (7) is from a photograph of Sympton's case, in the report of which he says "the head of each first metatarsal bone is large and prominent and the great toe on either side is small, apparently consists of only one phalanx and is directed towards the outer border of the foot." In this case no mention is made of any similar condition of the thumbs as mentioned by Godlee, Helferich and Partsch.

*General symptoms.*—The general health of those suffering from myositis ossificans usually remains good. The onset of the disease and of fresh attacks is in most cases, but not in all, accompanied by slight fever, general malaise, pain (often severe), tenderness and swelling of the part attacked. The swelling is red and the superficial veins are engorged. In a few days the symptoms subside—the temperature falls, the swelling diminishes but does not disappear, permanent stiffness remains and the exudate hardens and gradually becomes transformed into a bony mass. In some cases the onset is more insidious; thus in Helferich's case and in Willett's, reported above, the nodules developed in the muscles of the back without pain or obvious acute inflammatory symptoms. The lymphatic glands in the neighbourhood of the affected part frequently become swollen and tender, but subside with the subsidence of the irritation; in other cases they remain permanently enlarged. In some instances the inflammatory exudate is converted into scar tissue, the muscle undergoing fibrous but not bony change. Fibrillar contractions are often seen in the affected muscles, due doubtless to the irritation caused by the bony plates. Munchmeyer records in his case a sensation of coldness in the limbs with actual loss of temperature. Oedema is not uncommon. The subjects of myositis ossificans are, on account of the impeded thoracic movements, especially liable to chest affections and not a few of them die of pneumonia or phthisis. Later on in the disease, when bed-sores and ulcers have formed over the bony projections, the general health suffers severely from the prolonged and profuse discharge, accompanied by repeated septic absorption.

*Treatment.*—In spite of all treatment the disease makes steady progress and nothing has so far proved of any real value. Improvement due to treatment must not be confounded with remissions and temporary quiescence of the disease. Mercury, iodide of potassium, sarsaparilla, iron, mineral acids, colchicum, arsenic, phosphorus and numerous drugs have been found useless. Munchmeyer found that the induced current did harm. Baths have in some few cases been followed by temporary benefit. Rogers endeavoured to induce by a salted diet a condition similar to scurvy. Under

this treatment it is related that some of the bony nodules became absorbed, but the patient suffered so much in health from the treatment that his condition was rendered worse than before. In Hawkin's case local blistering always did good, the pain and swelling being relieved; but he does not state that it arrested the bony formation. The avoidance of cold, damp and especially injury seems specially indicated. Further than this, the patient must be treated on general principles. Excision of the bony nodules does no good.

*Conclusions.*—1. The disease is associated with a congenital, but not hereditary, predisposition to the formation of bone in inflamed parts. 2. It is closely allied to muscular rheumatism and rheumatoid arthritis. 3. It runs an essentially chronic course over many years, steadily progressing, but with distinct remissions, and may extend over a long period, beginning usually in early life, especially in the male sex. 4. The muscles of the back and shoulders are the earliest and most extensively affected; those muscles of great importance to the life of the individual almost always escape. 5. Local injury must be accepted as a great causative factor in producing fresh foci of disease. 6. It is sometimes associated with hallux valgus and microdactyle. 7. Death usually occurs from pulmonary complications or suppuration and sloughing with septic absorption. 8. Treatment is useless.

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Harley-street,

## A CASE OF MYOSITIS OSSIFICANS.

BY BILTON POLLARD, M.B. LOND., F.R.C.S. ENG.,

ASSISTANT SURGEON TO UNIVERSITY COLLEGE HOSPITAL AND SURGEON TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN.

A BOY aged nine years was brought to me at the North-Eastern Hospital for Children in July, 1891, with the request that, if possible, something might be done to increase the mobility of his neck and his arms, which were very stiff. His mother gave the following account of his disease. When he was six months old the child was brought to the North-Eastern Hospital for Children because a lump was forming on the lower angle of his right scapula. No operation was performed. Six months later several nodules began to appear on the boy's ribs. During his second year his right arm began to get fixed and the lump on his scapula increased in size. About this time it was noticed that the boy's neck was getting stiff, but no bony masses were detected in it. During his third year a hard lump began to form between the right iliac crest and the last rib and the other nodules increased slightly in size. During his fourth year the boy fell and cut his right knee. The wound healed quickly, but a hard nodule formed a little below and to the right of the patella. The boy's neck became a little stiffer and was carried rather forwards, but as yet no hard bands were detected in that region. One or two lumps appeared about the inferior angle of the left scapula and one above the left iliac crest. During his fifth year the range movement of the boy's left arm became restricted and he began to have difficulty in bending his back. During his sixth year his neck got stiffer and bony bands along the front of his neck were then noticed for the first time; fresh nodules were also observed on his ribs. During the seventh, eighth and ninth years no fresh bony growths were detected; but the stiffness of the boy's neck and back and the limitation of the movements of his arms increased, and now he began to walk stiffly. The boy's general health had always been good; his appetite was good and he slept well; he had had whooping-cough, chicken-pox and measles, but not scarlet fever; he had not had rheumatic fever and he had not complained of pains in the muscles affected. The family history was very good; the boy's father and mother were both strong and healthy, as also were their three other children. The boy is continually falling on his face, for if he trips over anything he cannot prevent his fall, and if he does he cannot protect his face owing to the stiffness of his arms.

*Present state, July 8th, 1891.*—The boy walks slowly and very stiffly. He can stand quite steadily, but a very slight push is enough to upset him. The movements of his head are extremely limited both upwards and downwards and to either side. His head can only be rotated enough to bring his chin to a vertical line carried upwards from the sternoclavicular articulations and his chin cannot be raised or depressed more than a quarter of an inch. His neck is quite stiff. The skin between the chin and the sternum stands off in a prominent fold and close beneath it there is a bony band. This band commences above in an irregularly shaped boss of bone about the size of a walnut, which is fixed to the inferior border of the body of the lower jaw just to the right of the symphysis and extends as a rounded hard cord to the right of the cricoid cartilage, where it expands into a flat bony plate which extends across the middle line. From the angles of this plate below there pass two bony cords, that on the right side terminating in a rounded knob just above the sternoclavicular articulation, whilst that on the left side takes a more oblique course and ends in a similar manner just above the clavicle, opposite the interval between the two heads of the sterno-mastoid muscle. Both sterno-mastoid muscles stand out prominently and are very firm, but no spicules of bone can be felt either in them or the lateral muscles of the neck. The right arm can be raised from the trunk through an angle of 45°, but with this limited range of abduction the scapula moves too. The arm can be brought to the side, but it cannot be carried backwards beyond the posterior axillary line; it can be carried forwards for about 45°. The restricted movement appears to depend on the contracted state of the muscles in the axillary folds. Along the posterior axillary fold is a scar one inch and a half in length, which resulted from an operation performed at the Holloway Hospital, where a piece of bone was removed when the boy was in his third year. Beneath the scar there is a bony plate, which

commences below in a mass of bone continuous with the inferior angle of the scapula and extends upwards nearly to the bicipital groove. It appears to be situated in the latissimus dorsi muscle; it is slightly movable. The lower border of the pectoralis major muscle is shortened and feels like a dense fibrous cord. There is a hard swelling on each of the rib cartilages where the muscle arises from them. The fibres of the deltoid muscle are very tense and their outline is plainly visible beneath the skin, but no masses of bone can be felt in the muscle. The outer bicipital ridge is very prominent. The movements at the elbow-joint are not restricted. No bony spicules can be felt in the muscles of the upper arm and the only mass which can be detected in the forearm is situated on the radial border about two inches above the styloid process. It is an oval mass measuring about one inch in length and half an inch in breadth; it has no bony attachment to the radius; it is slightly movable from side to side and appears to be situated in the lower part of the supinator longus muscle. The fingers and thumb can be moved freely. The left arm, like the right, can only be raised 45°, but it cannot be brought to the side of the body. It cannot be carried forwards beyond the mid-axillary line, but it can be extended for the normal distance. In the situation of the teres major muscle there is a thick band of bone which extends from the inferior angle of the scapula almost to the humerus, but it has no bony attachments either to the latter or to the scapula. At the bend of the left elbow there is a projection formed by an irregular nodale of bone about the size of a Barcelona nut; this appears to be connected with the biceps tendon. Still deeper there is another mass, which seems to involve the lower fibres of the brachialis anticus muscle. With these exceptions the muscles of the upper arm, forearm and hand of the left side are unaffected.

The spine is very rigid throughout and it is only in the lumbar region that any mobility can be made out. Just to the left of the fifth and sixth dorsal spines and probably in the lower fibres of the trapezius muscle there is a rounded plate of bone measuring about three-quarters of an inch in length and half an inch in breadth. On the left side there are several small bony nodules situated apparently in the latissimus dorsi muscle, and three of them are fixed to the ribs and seem to occupy the slips of muscle which arise from them.

On the right side of the spine in the lumbar region there is a flat plate of bone which is movable from side to side. It extends from just above the crest of the ilium to the last rib and laterally from just to the right of the middle line outwards for about two inches. It appears to occupy that part of the aponeurosis of the latissimus dorsi muscle which blends with the posterior layer of the fascia lumborum. The anterior border of the latissimus dorsi muscle stands out prominently, and in this situation, close beneath the skin, there is a large mass of bone of very irregular shape, which is attached below to the crest of the ilium and extends upwards rather behind the mid-lateral line of the trunk and overlaps the ribs above. Slightly above and behind this mass there is another one of much smaller size; it is movable from side to side. No bony masses can be felt in the muscles of the anterior abdominal wall. The movements of the hip-joints are impeded in all directions. No bony plates can be felt in the muscular fibres of the glutei; but just below the great trochanter, on the outer and back part of the right thigh, there is a flat plate of bone about three inches in length and one inch in breadth at its widest part. It lies close beneath the skin and is slightly movable. It appears to occupy the fascia lata of the thigh, where the lower fibres of the gluteus maximus are inserted into it. There is a smaller plate of bone on the left side in a similar situation; it is apparently continuous with the femur. No bony masses can be felt in the muscles of the thighs, but in each there is a strong spicule of bone extending from the adductor tubercle upwards for about two inches in the tendon of the adductor magnus. They are both firmly fixed at their lower ends. There is a movable plate of bone of irregular shape, measuring about three-quarters of an inch in diameter, situated between the lower end of the condyle of the left femur and the patella; and there is a smaller movable plate of bone just above and in front of the outer tuberosity of the right tibia. Both these plates of bone appear to occupy the fibrous expansion derived from the extensor muscles. The knees cannot be fully extended, but flexion is free. The inner borders of both tibiae present bony growths just below the tuberosities. The boy's parents were anxious that if possible something might be done to give him freer movement of his left arm and his neck.

On July 21st, 1891, an incision was made along the anterior

border of the osseous band in the left posterior axillary fold. The teres major muscle was exposed and the bone was found to occupy the substance of this muscle in nearly its whole extent, but it was not fixed either to the scapula or the humerus. It was dissected out. The mobility of the arm was a little increased. The bones were also removed from the front of the neck. They were superficial to the deep fascia and apparently in the platysma muscle. The mobility of the neck was not at all improved owing most probably to ossification of some of the posterior muscles of the neck. The bones removed had the naked eye appearances of physiological osseous tissue. They were unfortunately mislaid before a microscopic examination of them had been made. The increased mobility of the left arm which was obtained by the operation was soon lost.

The boy was examined again on Dec. 24th, 1891. He had got stiffer and more bony. Bones had formed again in both the situations from which they had been removed. In the neck there was a strong spicule of bone, which was attached to the inferior border of the lower jaw just to the right of the symphysis and extended to just above the right sternoclavicular articulation below. Its lower extremity was free. It was situated immediately beneath the skin. The right arm could only be abducted 15°, flexed 15° and extended just beyond the mid-axillary line. In addition to the plate of bone previously noticed in the posterior axillary fold there was a large flat bony plate occupying the greater part of the pectoralis major muscle. It was not fixed by bone either to the thorax or the humerus.

The left arm could be abducted 45°, flexed 15° and extended 45°; the muscles of the anterior axillary fold were very small and firm, but no bony deposit could be felt in them; the posterior axillary fold was occupied by a bony mass, which commenced in an irregular nodule attached to the inferior angle of the scapula and extended forwards almost to the humerus, but was not attached to it; the bone lay immediately beneath the scar of the wound, through which a similar plate of bone had been removed fifteen months before.

Harley-street, W.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alla pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### MIDDLESEX HOSPITAL.

CASE OF MULTIPLE VISCERAL INJURIES OCCASIONED BY A CRUSH, WITH TRIVIAL MARKS OF VIOLENCE ON THE SURFACE OF THE BODY.

(Under the care of Mr. HULKE.)

THE occurrence of severe visceral injuries inflicted by external mechanical violence, unattended with manifest or concurrent or with but very trifling marks on the surface of the trunk, is a circumstance frequently noticed by writers on military surgery. This class of injuries probably occurred more often in bygone years when spherical cannon shot discharged with relatively low velocity was employed. It is well-known that modern authors are agreed that probably most of the instances of death popularly ascribed by soldiers and bluejackets to the effects of the "wind" of a closely passing cannon shot are, in fact, due to actual impact of an almost completely spent ball on the combatant's body. Typical examples were seen in the course of the siege of Sebastopol. In two of these, brought to the "General Hospital in the Front," the clothes were but slightly damaged and the abdominal wall bore no mark of injury; but the liver and spleen were comminuted into pulp and the intestines much lacerated. Perhaps in the larger number of such injuries the abdomen is the region implicated, but the thorax also offers examples. Thus amongst many men wounded by the explosion of a large magazine at Inkermann and the heavy firing which imme-

diately followed this, who were brought to the General Hospital, was a private in a British Line regiment whose left arm was shattered by a piece of an exploding shell. Large quantities of bright frothy blood oozed bubblingly from his mouth, nearly choking him, for he had barely strength to cough and he could only speak in a scarcely audible, broken whisper. Yet two small lacerated wounds in the integument near the lower angle of the scapula were the only marks of violence on the outersurface of his chest. He succumbed about twenty-four hours after receiving the injuries. At the necropsy these wounds were found to be superficial and not to penetrate the chest wall. The costal pleura was not torn, but it was found entire over two transversely fractured ribs. The lung, however, was extensively torn by large rents which passed from its base upwards and from its outer surface towards its root, opening large bronchi and bloodvessels. It is suggested that this very extensive damage was caused by forcible compression of the chest at the moment of full expansion of the lungs by the shattered arm violently driven against the chest wall. In civil life similar injuries are not unfrequently caused by machinery; by the buffers of two railway carriages nipping an incantions porter whilst coupling; or by a person being squeezed against a wall by the nave of a dray. In the following case very extensive fatal lacerations of several abdominal organs were produced by a crush which the sufferer inadvertently brought on himself in a manner that recalls a mode of execution judicially decreed in the early Middle Ages as the penalty for crimes regarded as peculiarly atrocious, and known as "pressing to death"—the *pains forte et dure*.

W. C.—, aged thirty-seven years, was admitted into Founder ward on June 22nd, 1892, in the early forenoon. The surface of his body was bedewed with beads of cold sweat, the temperature was distinctly subnormal, the pulse was 100°, very small and weak, and the pupils were dilated and motionless. He was perfectly conscious and complained of great pain. In short, his condition was extreme collapse. Across his back, over the lower ribs, particularly on the right side, were grazes. Lying on his right side this side of the abdomen was non-resonant when percussed. Lying prone under a lift for the purpose of oiling the cylinder piston he had inadvertently set the cage in motion, and this descending had crushed him upon the floor before he could extricate himself. A workman who went to his aid and reversed the cage said that the space between the bottom of the cage and the floor could only have been a very few inches. The house surgeon gave a subcutaneous injection of sulphate of ether and ordered small quantities of brandy to be given at intervals regulated by its apparent need. He also passed a catheter and drew off half an ounce of clear normal urine untinged with blood. The man said that he had emptied his bladder about twenty minutes before the accident. His condition continued without notable change throughout the day. At 8 P.M. the catheter (a soft red rubber one) was again passed and two drachms of slightly blood-tinged urine drawn off. Next morning (June 27th) the collapse appeared rather less extreme. He had great thirst and his abdomen was tympanically swollen, except the right side, which continued dull. At noon one ounce of normal urine was removed with a soft catheter. In the afternoon he sank and died at 5 45 P.M. The extreme collapse; significant waxy, bloodless appearance of the skin and also of the buccal mucosa; coupled with the dullness of the most dependent part of the abdomen—the right side—and the great thirst clearly indicated an extensive internal hæmorrhage. In face of such profound collapse and of the great probability, from the manner of the accident, that the damage was not limited to a single organ or part, but was multiple, laparotomy for discovery of the source and the arrest of hæmorrhage could not be entertained. The case was considered hopeless from the first and the following details of the post-mortem examination leave no doubt of this.

At the necropsy made by Dr. Voelcker abrasions were noticed on the lower limbs and on the lower part of the abdomen and loins. Both eighth ribs were fractured. The right pleural sac contained twelve ounces and the left eight ounces of blood. The peritoneal sac contained forty-six ounces of fluid blood. The spleen was lacerated on its inner and posterior aspect above the hilus. The right lobe of the liver was extensively lacerated both on its upper and on its lower surface. The right kidney also was lacerated and the loose tissue around it was distended with blood, which had crept upwards behind the diaphragm and gained entrance into the pleural cavity near the root of the lung. The left supra-renal capsule was distended with blood-clot.

## LANCASHIRE COUNTY ASYLUM.

CASE OF GLIOMA OF THE CORPUS STRIATUM (LENTICULAR NUCLEUS) WITH MELANCHOLIC SYMPTOMS, ENDING IN UNILATERAL CONVULSIONS WITH HYPERTHERMIA.

(Under the care of Dr. COWAN, assistant medical officer.)

CASES of mental alienation arising from the development of cerebral tumours are not at all common. By mental alienation we mean such a degree of psychical disturbance as necessitates the incarceration of the unfortunate subject in an asylum. Authorities differ as to the relative frequency with which cerebral tumours are found in insane people and differ widely. Thus Clouston gives the proportions (quoting from various sources) of from two to twenty-eight cases out of 1000, which latter proportion has been his experience. Bucknill and Tuke, Bristowe and Griesinger, mention neoplasms as a cause but do not go into details as to frequency. Savage says: "It is rare to meet with insanity directly depending upon a growth within the skull. Among several thousand patients in Bethlem only one exostosis and syphilitic tumours have been met with post mortem."<sup>1</sup> As to the frequency of psychical disturbance arising in cases of cerebral tumour experiences also vary. Thus Andral and Durand Fardel assert that this occurs very seldom. Calmeil and others say that some form of mental alienation is present in from one-third to one-half of their cases. At this asylum, out of a very large number of patients treated during the last few years, it is comparatively rare to meet with cases of cerebral tumour and still rarer that it is certain the tumour is the cause of the mental disorder. Taking the statistics of the last five years, out of 14,969 persons under care during this period eight times only has a tumour been found—namely, in 4 males and 4 females. In three of these instances no definite symptoms were developed and the presence of the tumour was probably only accidental and not the exciting cause of the insanity. Even considering that in all the eight cases the tumours were the exciting causes the proportion is exceedingly small—i. e., 0.53 in 1000, or roughly 1 case in 2000. In earlier years the proportion is even less than this. In 7 out of the 8 cases the growth was a glioma or a sarcoma. With regard to the symptoms of this case several points seem of interest: 1. The rather long history—nearly two years and nine months. 2. The slight symptoms produced by the growth, probably due to its position, as it was only when pressure was exerted on the internal capsule that definite symptoms were produced. The more or less constant fixed headache, which was rarely acute, unaccompanied by nausea or vomiting and the slight attacks of giddiness. The hemiplegia, due evidently to the pressure of the slowly growing growth on the internal capsule and affecting both the motor and the sensory tracts. The absence of any other focal signs and of optic neuritis at any stage of the development of symptoms. 3. The occurrence of the unilateral fits at irregular intervals and of great severity on two occasions. The early occurrence of the status epilepticus with high temperatures. These convulsions seem to have been due to the pressure on the internal capsule and not to any pressure on the motor convolutions causing irritation and therefore discharges of motor impulses. The almost simultaneous affection of all the muscles involved also points to a uniform pressure on the posterior limb of the internal capsule. There was no evident reason why the fits should occur, or why they should be so severe on the two occasions—no hæmorrhage having apparently occurred into the tumour at these times. 4. The growth did not involve the internal capsule itself so far as could be ascertained by careful examination with the naked eye and with the microscope. The internal capsule simply being slightly pressed upon, as the gliomatous tissue did not extend beyond the middle of the inner part of the lenticular nucleus. 5. Speech was slow and drawing, but it was doubtful whether this was not a natural characteristic and not a result of the disease. It was thought at first that the case was probably one of early general paralysis of the insane, but more extended observation and especially the occurrence of the peculiar convulsions rendered this very unlikely. The diagnosis of a slow-growing new growth and probably one in the region of the right corpus striatum was then made, which proved to

<sup>1</sup> Insanity and Allied Neuroses.

be correct. From these few and somewhat unusual features, but more especially from the definite causation of melancholic symptoms by a new growth, a result by no means common, we have ventured to think that the case is an interesting one. In conclusion we have to thank Mr. Rooke Ley, the medical superintendent, for his kind permission to use the notes of this case.

A clerk aged twenty-six years was admitted to hospital on Nov. 20th, 1891. His family history presented nothing of importance and there was no history of insanity or of organic nervous disease in the family. He had never had a day's illness till two years ago and had not suffered from any kind of venereal disease. He first complained of headache a little over two years ago, which was intermittent at first but soon became constant and gradually increased in severity: a dull never-ceasing aching in the frontal and right temporal regions. No vomiting at any time. For the last few months he had noticed a gradual weakening of the left arm and leg. He says that he had two fits—of an epileptiform character, from the description—shortly before admission. He gave but a very imperfect account of himself during the last year. He had been in several situations, but had to give them up on account of the increasing pain in his head interfering so much with his powers of working steadily. He had been depressed and fearful for two months before admission, and to drown his sorrows had taken to drinking spirits. This rendered him more and more melancholic, dull and stupid, and he became delusional and developed suicidal tendencies. Measures were therefore taken for his removal to an asylum. The medical certificate stated: "He is dull and depressed and complains much of headache. He says 'that he is trying to discover perpetual motion.' He wishes to put his head under an express train to cure both the headache and enable him to discover perpetual motion."

On admission the patient, a tall and muscular young man, had a frowning look, as if in pain. He was dull and miserable and complained much of a constant aching pain in the forehead and right temple, which at times became very acute. He never had any nausea or actual vomiting, but was giddy at times. The thoracic and abdominal viscera were normal; urine acid, sp. gr. 1024, contained no albumen or sugar; clear without deposit. Nervous system: There was slight left hemiplegia, involving the tongue, face, arm and leg, both motor and sensory paths being affected. The motor loss, although slight, was, however, very noticeable on comparing the two sides of the body; it affected equally the parts of the side involved. Sensory affection: Hemi-anæsthesia was also slight but well definable and of equal distribution, sensation over the left half of the body being distinctly dulled and delayed for every kind of stimulation. There was no apparent difference between the two sides with regard to the organs of special sense—sight, hearing or taste. Eyes: No affection of the ocular muscles, range of movement being good; no nystagmus. Pupils equal, of medium size and reacted well to light and accommodation. Ophthalmologically the fundi were normal. No sign of any papillitis, old or recent. Vision =  $\frac{5}{6}$ . Fields of full extent. Colour vision normal. Superficial reflexes badly marked on the left side, the plantar and abdominal being only just present. Deep reflexes: Both knee jerks brisk, the one on the left side being especially so; tendon jerks in the left arm fairly easily obtained; no cloni. Speech was rather drawling and hesitating, but this seemed natural to him; articulation good. Mentally he was dull and depressed. He feared some vague impending evil and thought that he was "done for" and meditated suicide. He begged pitifully for his life, as he fancied that he was being fattened up to be killed at Christmas. His memory was very deficient with regard to recent events and he could therefore give but a very imperfect account of himself.

On Nov. 28th it was noted that he had a severe fit, apparently of an epileptiform nature. It was uncertain how the fit began, but it consisted for the most part of clonic convulsions of the left side of the body. Consciousness was lost for a few minutes. No rise of temperature was noted. After the fit the patient complained much of giddiness and of severe headache. His condition remained unaltered for the next two months. He always complained bitterly of the constant wearing pain in the right side of the head, which, however, was not severe enough to disturb his rest much. His face always wore an expression of pain and he was constantly frowning and half-closing his eyes as if blinking at a strong light. He had, however, no photophobia. The loss of power and of sensation did not seem to further increase. Mentally he remained dull and miserable, although he bright-

ened up somewhat at intervals; was rather vacant and listless, with slow mental reaction. He was ordered thirty grains of bromide of potassium three times a day and for a time he took iodide of potassium, but without benefit. In the evening of Feb. 3rd, 1892, he had a series of seventeen epileptiform fits in about two hours. There was no aura, the patient becoming convulsed and falling to the ground, consciousness being lost very soon. The convulsion began in each fit in precisely the same manner: (1) Strong conjugate deviation of eyes and head to the left, followed almost instantly by (2) tonic contractions of the left side of the face, the left arm and left leg. The tonic contractions lasted a few seconds and were followed by (3) clonic convulsions of the same parts. Each fit lasted about four minutes and was followed by an interval of about two minutes. The convulsion appeared to begin in all parts of the left side of the body almost at the same instant, there being no appreciable interval. The face was very livid and bloated and the surface of the body generally was dusky and bedewed with sweat. The temperature slowly rose until it gained a maximum of 103.8° towards the end of the fits. Consciousness was not regained during the continuance of the fits, the conjunctival and other reflexes remaining absent until some time after the occurrence of the last fit. The right side was not involved. The power of swallowing was not lost and chloral hydrate was given by the mouth, two doses of thirty-five grains, each at an interval of forty minutes. Soon after the second dose the severity of the fits diminished and the interval between them became longer until they finally ceased. The knee jerk and other tendon jerks on the left side were abolished for a short time. There was no increase of paralysis on the left side after consciousness was regained, although there had been for a short time after the fits had ceased.

Feb. 20th.—It was noted that he has had no return of fits but still suffers from headache, which is very persistent, and he is much as usual. Is still dull and despondent, but rather less so than he was. The physical signs are practically unaltered. The slight left hemiplegia remains, but has not increased. No other affection of muscles or of sensation has shown itself. No optic papillitis. Pupils are equal and react well. The reflexes are as described on admission. There has been no nausea or vomiting.

June 8th.—Had one slight fit to-day similar to the previous ones in character. Consciousness was lost for a few minutes.

July 14th.—Had this evening a series of twelve consecutive left-sided fits. The first began at 9.5 P.M. There was no apparent aura, the man falling suddenly to the ground without a cry and rapidly becoming unconscious. Each fit lasted from six to ten minutes from first to last and was followed by an interval of from one to three minutes before the onset of the next fit. The fits were very severe and were severally alike in their characteristics, each fit resembling in its features the preceding ones. The description of the fits which occurred last February applied to the present series in every respect except that each phase of the convulsion had a longer duration than at that time. Beginning as before with a strong conjugate deviation of the head and eyes to the left, followed by an almost simultaneous stiffening of the muscles of the left side of the face, body and left arm and leg in tonic contraction, and ending in very strong jerkings of these same parts. No appreciable difference in the times of onset of the muscular contractions (tonic or clonic) in the several parts affected could be detected. The temperature rapidly and steadily rose, and at 9.30 P.M. (twenty-five minutes after the onset of the fits) had reached 104°; pulse 120; respiration 40. At 10.15 the temperature was 107°, and 109° at 10.35 P.M.; pulse 180, feeble and running; respiration 64, shallow and whiffling. Ninety grains of chloral hydrate were given in two doses—the first dose at 9.30 P.M., the second at 10 P.M. At this time he was able to swallow, although apparently quite unconscious. Whisky was also given by the mouth and by the rectum. As the temperature increased the man's condition became very serious indeed. He was quite comatose, lying supine with flaccid limbs in the intervals between the fits; the face was of a dark-red colour, becoming more and more livid and bloated as fit succeeded fit, until his face and body generally assumed the same livid dusky tint. He sweated profusely, the water rising in the form of steam in clouds from the surface of the body. He breathed rapidly, shallowly and with a whiffling sound. The pulse was very small, soft and of a running character. The pupils were widely dilated and insensible, reflexes of every kind being quite abolished.

As the chloral seemed to have no effect and the man's condition was very serious the inhalation of chloroform was commenced at 10.15 P.M. It had to be cautiously administered because of the feeble state of the patient and then intermittently. For some time it also had no effect, and it was not until 10.35 that the fits began to lessen, and from that time until 11.5 only a few abortive ones occurred. At 11.40 the temperature had fallen to 107° and at 11.35 to 104.6°. The chloroform was then stopped, and shortly afterwards there seemed to be a slight return of consciousness and of reflex action, the man becoming restless and a slight conjunctival reflex (right) was obtained. During the next few hours the restlessness became more marked, the patient tossing his head from side to side, groaning and often raising his right hand to his head. There was a marked look of pain on his face, which still wore a livid aspect. Breathing became jerky and catching.

15th.—A: 10 A.M. the temperature had fallen to 100°; pulse 120, still soft and small; respiration 56, whiffling and catching. There is complete left hemiplegia (face, arm and leg), both motor and sensory. Reflexes, superficial and deep, are absent. Pupils small, equal, and act badly. He has been restless during the night but with short sleeps; is conscious, but is dull and drowsy and can give no account of himself. Still complains of right-sided headache; has had no vomiting. Can swallow but slowly and chokily. Passes his evacuations into the bed. Has had no return of fits. 5 P.M.: The patient is becoming weaker, face is paler and is looking pinched. Temperature 99.6°; pulse 132, very feeble and running. He is breathing very quickly and shallowly, 64 to the minute, and is drowsy and sleeps at intervals, but he is often distressed by the pain in his head, which at times is very severe, causing him to groan loudly and to toss from side to side; he has not vomited; can swallow, but less readily. There is a slight return of power in the left thigh (extensors), but otherwise the paralysis of the left side is complete; no squint or apparent weakening of the eye muscles. He was ordered stimulants and liquid nourishment by mouth and rectum. No twitching of muscles or return of the convulsions.

The patient did not improve but steadily became weaker, the heart evidently failing. The pulse became imperceptible at the wrist, the extremities were cold and the face pale and pinched. Towards the last he lapsed into stupor and died quietly at 11.45 P.M.

*Post-mortem examination, thirty-nine hours after death.*—The body was well nourished and muscular. Rigor mortis was present in legs, passing off in arms and absent in neck. There were marks of old ulcers on the right calf over the lower half of the fibula; the post-mortem staining was well marked. The calvaria was fairly hard and of medium thickness, symmetrical, and showed no sign of disease or of injury. The dura mater and pia arachnoid were normal; twenty-nine drachms of translucent fluid collected; sinuses full of dark liquid blood. The brain weighed 48½ oz. There was a moderate amount of venous congestion on the surface, but this did not extend to the smallest radicles. The cortex generally appeared normal, was firm in consistence, and the convolutions were well marked except in the following parts. The right temporo-sphenoidal lobe at its upper and anterior part was small and soft, and the adjacent parts of the ascending and third frontal convolutions were also rather small and flattened. On separating these convolutions and opening up the Sylvian fissure a yellow translucent mass was seen occupying the position of the island of Reil on this (the right) side. This growth was evidently the cause of the wasting and flattening of the above-named convolutions. On further dissection the full extent of the growth was made apparent. It was of an oval shape, twenty-three lines in its antero-posterior diameter and eighteen lines in its lateral diameter. Occupying the place of the convolutions of the island of Reil it had involved the claustrum and the outer or third part of the lenticular nucleus in their entirety and nearly half of the second part of the said nucleus. The internal capsule was flattened and somewhat displaced inwards, but the growth had not involved it nor was there any apparent difference in colour and texture compared with the normal condition. The brain tissue round the tumour looked pale and somewhat yellowish. The tumour was of rather soft consistence, especially in the centre, where the softness amounted almost to diffuence. It was of a yellowish-buff colour and of gelatinous appearance. No hæmorrhages old or recent had occurred into the tumour. After hardening sections of the tumour showed it to be a soft glioma of typical appearance; fatty degeneration was beginning in the middle; no hæmatoidin

crystals were seen. Other sections were made both in the fresh state and after hardening to determine the extent of the growth. The internal capsule showed no evidence of growth and it was not until the middle of the second part of the lenticular nucleus was reached that glioma tissue was observed. No evidence of new growth was found in the frontal or temporo-sphenoidal convolutions. The lateral ventricles were normal. No other lesion of the brain or of the spinal cord was observed. All the organs were soft and dark in colour, probably from the pyrexia. With the exception of small hæmorrhages into the lower lobes of both lungs there was no evidence of disease in any of the thoracic or abdominal organs.

## Medical Societies.

### PATHOLOGICAL SOCIETY OF LONDON.

*Lingual Ulcer.—Infantile Adrenal Disease.—Papilloma of Penis.—Hæmorrhage into Pericardium.—Renal Sarcoma spreading down Ureter.—Psorospermosis and Squamous Epithelioma.—Ulceration of Arm following Vaccination in Hereditary Syphilis.*

AN ordinary meeting of this Society was held on Dec. 20th, the President, Sir George Humphry, in the chair.

Mr. WINGRAVE showed a patient aged fifty with a sharply defined ulcer on the tip of his tongue of about the size of a shilling and heart-shaped, with the apex extending towards the frænum. The base consisted of florid raspberry-like granulations, projecting through a creamy discharge, whilst the edge was of a vivid red and rather elevated. The surrounding tissue was but slightly indurated. Beyond a little soreness during eating there was no pain. The submaxillary glands were scarcely felt. It commenced ten months ago as a small red pimple, which he attributed to smoking clay pipes. There was no specific history. His father died of "blood-spitting," but beyond this there were no family indications of tubercle. He had never been seriously ill excepting two years ago, when he spat up blood for several weeks on and off. Had smoked and indulged in alcohol freely. Had lately lost flesh and been troubled with night sweats and bronchitis, with profuse expectoration. During the last few weeks diarrhœa had reduced his strength considerably. Beyond some bronchial râles no definite physical signs were to be made out. His dentition was somewhat remarkable, the canines being represented by very prominent "tusks," whilst his other teeth were in various states of decay. The canines were filed down and all rough edges were removed so that for at least four months dental irritation might be excluded. Superficial scrapings were examined for tubercle bacilli with negative results. The case had a strong resemblance to two examples of lingual ulcer reported by Mr. Morton on Jan. 5th last, but in these there was abundant evidence of tuberculous changes elsewhere. The general features and the sites of the ulcers were similar, whilst the age in one was fifty-five and the other thirty-four.

Mr. WAINWRIGHT showed the Adrenals removed from an infant that was admitted to hospital with purulent ophthalmia. At the post-mortem examination these organs were found extensively diseased. They were half an inch long and five-eighths of an inch across, being tough and slightly nodulated. The outer layer was white and apparently normal. Inside this there was a band of yellow pigment, and the central portion was translucent and gave a sensation of grittiness to the knife. Under the microscope the internal portion was proved to consist of a fibrous network containing many small cells in its meshes and also much caseous and calcareous matter. There was nothing resembling a tubercular area or giant cells.—Dr. WHEATON considered that the lesions were the result of an antecedent hæmorrhage.

Mr. W. ARBUTHNOT LANE read the report of a case of very extensive rapidly destructive Papilloma of the Penis which had been under his care. It occurred in a man aged thirty-nine, who had never before suffered from any venereal complaint. Three weeks after connexion with a prostitute he found the prepuce swollen, and he was seen by a medical man, who stated that he found a ragged chancre on the under surface of the prepuce. This became phagedenic, and was treated by nitric acid &c. The organ, in spite of

this treatment, continued to enlarge, and he was admitted into Guy's Hospital about four months after the onset of his symptoms. On admission the penis was represented by a large soft globular mass as big as an orange and consisting of a soft finely branching papillomatous material, which bled readily both spontaneously and on being manipulated. This extended to the root of the penis, where it ceased abruptly, and forwards around the margin of the glans. Warty material was observed in the orifice of the meatus, but this was not continuous with the papillomatous growth around the corona. No trace of any ulceration of a phagedænic character or otherwise could be seen. On attempting to shave off the warty mass it was seen to penetrate the corpora cavernosa to some extent and to have destroyed the floor of the penile urethra, along which the growth extended forwards to the anterior orifice and backwards nearly to the limit of the outside growth. The penis was therefore amputated and its subsequent examination appeared to show that the papillomatous growth started in the urethra at a distance of about three-quarters of an inch from the orifice, that it perforated the spongiosum and skin of the foreskin, when it simulated a chancre, which soon developed an apparent phagedænic appearance, and that the soft papillomatous growth rapidly extended backwards and forwards over the penis, destroying the skin and the surface of the cavernosa. It was papillomatous in structure, presenting no evidence of epithelial ingrowth. The patient recovered without any recurrence and was now quite well.—Mr. SHATTOCK referred to a specimen in St. Thomas's Hospital, which was much like the one shown and which, while it resembled in structure a papilloma, yet infiltrated the neighbouring tissues.—Dr. WILKINSON thought that the formation was much like those structures which grow in the bladder resembling papilloma, but being really of carcinomatous nature. The specimen was referred to the Morbid Growths Committee.

Dr. ROLLESTON showed the Heart and Aorta of a man who fell dead off his cab and was brought into St. George's Hospital. There was a rupture of the internal and middle coats of the aorta a quarter of an inch above the aortic valves. The rupture ran upwards for an inch and a half and was on the right side of the aorta. The external coat and visceral layer of the pericardium were intact, except for a small perforation about the size of a pin's head. It was bulged out and very thin. The aorta was generally atheromatous and the first part of the arch was slightly dilated. The veins of the neck were distended with blood. The pericardium was distended with twenty-four ounces of recent jelly-like blood clot in addition to some blood-stained fluid; there was no pericarditis. There was a little recent clot adherent to the outside of the bulging formed by the external coat of the artery at the site of rupture. It appeared probable from the large amount found in the pericardium that the blood had filtered in gradually.

Dr. PENROSE showed the Urinary Organs from a case that had been in St. George's Hospital under the care of Mr. Bennett in the early part of 1888. The whole of the left kidney had been replaced by a large round-celled sarcoma, which weighed six pounds two ounces. The right was much enlarged and dilated. The bladder was also enlarged, and contained two masses of sarcoma cells, one of which was attached to and appeared to be growing from the neck of the bladder, but the other was lying loose within the cavity of the bladder. Both these masses consisted almost entirely of large sarcoma cells, identical with those of which the kidney growth was composed. From the clinical history of the case it was gathered that the patient had been losing flesh for about two years before death; that early in December, 1887, the urine became difficult to pass, as the stream would stop suddenly, and only after a considerable interval of time would dribble away. On Jan. 23rd, 1888, after having strained hard to pass urine, during which the patient was in great agony, he found a long worm-like body issuing from the urethral meatus, and about a quarter of an hour later this mass was shot out of the urethra. It was examined by Dr. Delépine, who reported as follows: "This cast is partly composed of coagulated blood and partly of tumour cells. The tumour cells form masses distributed all through the cast; from their nature the tumour is evidently much degenerated, and it is difficult to say whether the stroma between them is not partly due to coagulated blood. It is difficult to say whether the tumour is carcinomatous or sarcomatous; it is probably sarcomatous." Whilst the patient was in hospital the urine was generally clear, acid, of low specific gravity, and with a trace of albumen; occasionally, however, it contained some small

round masses which were found by Dr. Delépine to consist of red blood corpuscles, mucus and large oval and round cells in an advanced stage of fatty degeneration. After consultation it was determined not to operate. The patient died on April 11th, 1888. At the post-mortem examination, besides the condition of the urinary organs mentioned above, secondary growths were found in the retro-peritoneal glands and in the right lung; otherwise the organs of the body appeared to be healthy. Unfortunately the brain and eyes were not examined. Dr. Penrose expressed his indebtedness to Mr. Bennett, Dr. Delépine and Mr. Bull for allowing him to bring forward the case and use their notes.—Mr. SHATTOCK referred to a specimen in St. Thomas's Hospital in which sarcoma of the kidney was associated with a cyst of the ureter.—Mr. SHIELD questioned whether the lower growth was not one which had become implanted from the upper.—Dr. CHARLEWOOD TURNER referred to a specimen which he showed some years ago. It was an instance of cirrhosis of the liver and the blood in the larger branches of the portal vein was found to contain liver cells. This was believed to be due to rupture within the organ, the cells becoming detached and washed into the blood current.—Mr. BIDWELL, after examining a kidney recently removed for sarcoma, found the ureter much dilated and an easily detachable fungating growth extending down it.—Dr. ROLLESTON regarded implantation as improbable and believed that the growth was an extension down the ureter which had contracted adhesions at a lower point.—Mr. SHIELD maintained that the known fact of secondary growths arising from portions of the original neoplasm carried by the veins was in favour of the implantation view.—Dr. PENROSE replied that he regarded the lower growth as an implantation one and similar to that at the neck of the bladder. There was a mass of sarcomatous cells lying free in the bladder which was covered with phosphatic deposit.

Mr. J. JACKSON CLARKE described a case of Epithelioma of the Septum of the Nose. The growth was removed from a gentleman aged eighty-two by Dr. Scanes Spicer, and was a squamous epithelioma abounding with what must be regarded as psorosperms. Before making the report the sections were compared with those of a case of psorospermiosis of the kidney, ureter and bladder previously described. At the time he brought the specimens from that case before the Society he had been unable to prove conclusively that the lesions were of psorospermial origin. This was on account of the absence of coccidia with special capsules resisting staining fluids like those of the rabbit's liver and of the resemblance of the large cells in the cysts of the kidney and ureter to the so-called "colloid cells" of squamous epithelioma. But he had since fully convinced himself that that case was one of psorospermiosis. A further examination of the lesions showed those of the ureter and bladder to be of the type of cystic adenomata. On comparing the psorosperms of the renal and ureteral cysts with certain cells of the squamous epithelioma he found an exact correspondence of structure and concluded that the epithelioma was also of psorospermial origin. The chief points of resemblance were enumerated as follows:—1. In neither case were coccidia with special stain-resisting capsules discovered, but every other stage of the rabbit's coccidia was represented in both cases. 2. In sections of the tissues hardened in Müller's fluid large cells, chiefly oval in shape, staining deeply with carmine and but slightly with acid hæmatoxylin, were present. In the epithelioma the form of some of the cells was greatly modified by pressure of the surrounding cells. In epithelioma these cells, which had hitherto been regarded as degenerated epithelial cells, were unmistakably psorosperms. The idea of degeneration was in both cases absolutely negatived by the beautiful nuclear figures presented by some of the peculiar cells and by clear evidences of the biological processes described below. 3. The large cells at a certain period of their existence showed an extension of the nuclear network which eventually filled the whole cell and this then divided into a great number of amœbæ which were set free by rupture of the capsule of the mother cell, if it had not disappeared already. Conjugation previously to the amœba formation was observed. 4. In both cases there were many large psorosperms lying within epithelial cells, the parts of which adjoining the parasites were modified into capsules. In sections stained with micro-carmine and mounted in glycerine these capsules were seen to possess a beautiful radial striation, which sometimes gave a semblance of a radiated structure to the protoplasm of the psorosperm, a semblance which on close examination disappeared. Mr. Clarke had not seen any clear account of the amœboid stage of

psorosperms in cancer. Most writers had failed to distinguish the amoebæ from leucocytes. He stated that this stage of the parasite's cyclic existence afforded the key to the malignant character of the disease. He had detected clear evidence of the following process:—1. A single psorosperm or one resulting from the conjugation of two or more became changed by the formation of a usually delicate but sometimes coarse reticulum which extended outwards from the nucleus or nuclei till it filled the whole cell. 2. The reticular plasmodium usually surrounded by the capsule, consisting of the dead and distended host-cell broke up into rounded segments which kept the reticular structure and stained slightly purple with acid hæmatoxylin. 3. Within some of these daughter psorosperms fine filaments of chromatin appeared, whilst the reticular structure became less obvious in the rest of the cell. The amoeboid cells were set free by rupture of the capsule (when present). They give evidences of multiplying by division and were easily distinguished from leucocytes in specimens treated with acid hæmatoxylin. 4. The amoeboid parasites made their way in vast numbers into the connective-tissue spaces beyond the epithelial part of the growth. In their passage they caused separation of columns of epithelial cells and thus brought about a multiplication of the points of epithelial ingrowth and detachment of small groups of epithelial cells. A considerable amount of inflammation was caused by the invasion of the vascular tissues by the amoebæ, with the same result as was seen in inflammatory papillomata—e.g., mucous tubercles—namely, an extension of epithelial growth and a formation of new bloodvessels &c. 5. Most of the amoebæ disappeared and the inflammation subsided. A small proportion of the parasites entered epithelial cells, where, even in the non-nucleated amoeboid stage, they could with care be detected. In the course of growth they remained near the central parts of the epithelial columns, as the now familiar intra-cellular psorosperms which in squamous epithelioma were most abundant in and about the cell nests. When they arrived at a certain stage the cycle was renewed and a fresh extension of growth, sometimes with separation of lymphatic or venous epithelial emboli, and resulting metastasis. In conclusion, he insisted that the cyclic life of the parasites and their reaction on the tissues of the host accounted for all the phenomena of the disease. The contents of the cysts in the case of psorospermiosis of the urinary tract resembled to the naked eye those of the cysts of colloid cancer. A consideration of the case afforded suggestions for the investigation of mammary adenomata, adenoma of the cervix uteri &c. in their relation to cancer. The amoeboid psorosperms were identical in structure with some of the plasmodia met with in ague. The cyclic course of this disease was suggestive of a cycle in the life of the parasites. There might be psorosperms in the enlarged spleen and in lymphadenoma from which it was but a step to leucocythæmia and sarcoma. In the squamous epithelioma of the septum of the nose and in one of the lip, two of the tongue, in a cancer of the kidney and several of the breast he had found the structural evidence so full and complete both in the primary and in the secondary growths, that in these cases he deliberately attributed the disease to the parasites. In a cystic scirrhus removed by Mr. Edmund Owen from a woman aged twenty-eight the cream-like contents of the cysts consisted wholly of amoeboid psorosperms. The paths of the infection remained to be explored; apart from this the mystery of the disease was solved.—Mr. SHATTOCK said that, with Mr. Ballance, he had been studying this subject for a long time. Until the organism was successfully cultivated and Koch's four postulates were fulfilled it was not right to affirm that these organisms were the cause of cancer, though that view might seem exceedingly probable. These appearances had mostly been found in squamous epithelioma, but there were many objections to examining surface growths, as the vagina, for instance, normally contained protozoa, and growths from the uterus might be influenced by their presence. Though Mr. Clarke might have demonstrated one cycle of the growth of the parasite, it was quite possible that there was another cycle outside the human organism—in rabbits, for instance, appearances were often found different to those described. He himself inclined to Metchnikoff's view that the parasite did not grow within the body or within the tumour. They could not infect lower animals with cancer from the human being, but they were endeavouring now to discover how to cultivate the parasite outside the body and then infect the lower animals with it. Though there had been a few cases of successful inoculation, these were as rare as the occurrence of cysticerous in man.—

Dr. GALLOWAY found that Mr. Clarke's description did not agree with that of other observers and held that it required much courage to say it was the psorosperm at all. He agreed that squamous epithelioma was a most misleading growth to study and said that the material to be examined should be removed with much care and immediately placed in hardening fluid.—Mr. CLARKE replied that he had not confined his study to squamous growths and he maintained that there was evidence in the sections he had shown of the biological processes he had described. The cycle he had described as taking place within the body he believed to be the most important if not the only one so far as the patient was concerned. He had adopted every precaution in preserving the tissues before examination.

Dr. WHEATON showed a specimen of Ulceration of the Arm following Vaccination in a case of Hereditary Syphilis. The child was born in an infirmary, and was vaccinated when seven days old. It was well nourished at the time of birth, but the mother stated that it had "snuffles" from the first. No result followed vaccination until the seventh day, when large white blisters appeared at the points of inoculation. Seven days later the blisters burst, leaving three deep ulcers in the skin. Simultaneously with the bursting of the blisters similar ones appeared on the abdomen. The ulcers on the arm continued to enlarge and two of them coalesced, so that there were two circular ulcers on the arm, each larger than half a crown, when the child was admitted into hospital, six weeks after vaccination. On admission there was also a general pemphigoid eruption with desquamation of the cuticle of the hands and feet, fissures of the mouth and dark-brown stains on various parts of the body. Mercury was at once given and the ulceration of the arm improved rapidly; when the child died four days later one ulcer had nearly healed and the other had become covered with a thick scab. Dr. Wheaton said that the case was clearly one of phagedenic ulceration; following vaccination in a child suffering from hereditary disease, and in which the vaccination had hurried on the development of the cutaneous eruptions of hereditary syphilis. In cases where primary inoculation had occurred by vaccination the secondary eruption never appeared in less than nine weeks afterwards, whereas in the present case it had developed in fourteen days. The presence of hereditary syphilis was a frequent cause of phagedenic ulceration in infants. Any lesion of the skin, such as vaccination, impetigo or the separation of the umbilical cord, might be followed by this ulceration; and he had seen it occur on the soft palate, accompanying tonsillitis in a syphilitic infant. It was impossible to avoid vaccinating infants who might appear to be quite healthy but were the subjects of hereditary syphilis, and the earlier the vaccination was performed the greater the risk, as in the case described.—Mr. SHIRLEY MURPHY had found that similar effects followed the use of calf lymph in children suffering from hereditary syphilis, and that the syphilitic eruption generally appeared on the tenth day after vaccination, which coincided with the time of the appearance of the eruption in inoculated small-pox and also with that of the appearance of erythematous rashes after vaccination.

The following card specimen was shown: Ivory Exostosis of the Skull.

## Reviews and Notices of Books.

*Dissections Illustrated: a Graphic Handbook for Students of Human Anatomy.* By C. GORDON BRODIE, F.R.C.S., Senior Demonstrator of Anatomy, Middlesex Hospital Medical School, Assistant Surgeon to North-West London Hospital. Part I., The Upper Limb. London and New York: Whittaker & Co. 1892.

THE first part of this handbook, which will be completed in four parts, contains seventeen coloured plates, two-thirds of the actual size drawn and lithographed by Mr. Percy Highley. The plates are exceedingly well drawn and placed on stone, and when we add that in many respects they are nearly as good as the well-known masterpieces of Professor Ellis and Mr. Ford we are giving them high praise. By reducing the size and the expense it is hoped that students will use such plates as models for their own dissections and we may say that if so

used much benefit will be derived from the study of them. We venture to think that the diminution from the life-size will prevent the plates from being too greatly used by the student to "recall the work already done when revising his anatomy previous to an examination." This revision can only be thoroughly done by direct study from the subject itself. The plates seem to be quite correct and to have been taken from actual dissections, and some good illustrative diagrams are added. The explanatory letterpress is clear and concise, but mainly morphological and not such as can be understood by the junior student. But apart from this we can strongly recommend the work as a legitimate aid in the dissecting-room. The cost of this part is 8s. 6d., which is certainly remarkably small when the accuracy and finish of the illustrations are taken into consideration.

*Alcoholism and its Treatment.* By J. E. USHER, M.D., formerly Surgeon Superintendent and Medical Officer of Health to the Queensland Government. London: Baillière, Tindall & Cox. 1892.

THIS little work of 148 pages contains some interesting studies in alcoholism from a cosmopolitan standpoint and differs very much from the scholastic essays on this subject with which we in this country are so familiar. The conclusions of the author as to the causation of chronic alcoholism are thus expressed:—"Heredity in 60 per cent. of cases; injuries, railway shock and wasting diseases, 20 per cent.; nervous exhaustion, 10 per cent.; whilst 5 per cent. of the remainder can be laid to insanitary conditions and poor food." We cannot but think that the former cause will be found to coexist with many of the latter if a severe investigation were made. The chapters on insanity and alcoholism, alcoholic trance and crime and cerebral automatism or trance, are very interesting. The cases would have appealed more strongly to English readers had they occurred in this country. Extreme forms of religious devotion, extreme examples of neurotic diseases and extreme cases of alcoholic inebriety and narcotic poisoning, and we may add a use of powerful physiological drugs for the cure of the latter conditions, seem to be much more common in America than in this country. The laws of England and America differ very much as to the mode in which sufferers from alcoholism should be dealt with, and a concise review of the drunkard's legal relations in America and in England, both in civil and in criminal cases, is one of the best features of the book. The only efficient treatment of confirmed alcoholism consists in isolation, proper supervision and the prevention of the obtaining of alcoholic stimulants or narcotics under any pretext; for the adjuvants used by many and various well-known authorities on alcoholism we must refer the reader to the later chapters of the work itself.

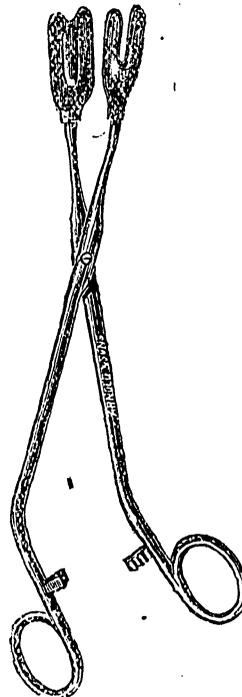
**THE CORBETT HOSPITAL, STOURBRIDGE.**—The gentleman (Mr. John Corbett of Impney) to whose liberality the existence of this institution is owing, as well as many other gifts in the way of enhancing its value to the poor of the neighbourhood, has forwarded a further cheque of £500 to the committee in order to supplement any deficiency which may be found to exist in the amount required for furnishing the institution.

**METROPOLITAN ASYLUMS BOARD.**—The number of patients remaining in the several hospitals of the Board at midnight on Dec. 27th was as follows:—Eastern Hospital, 305 scarlet fever, 59 diphtheria and 38 enteric fever; North-Eastern Hospital, 407 scarlet fever; North-Western Hospital, 316 scarlet fever, 93 diphtheria and 13 enteric fever; Western Hospital, 285 scarlet fever, 32 diphtheria and 13 enteric fever; South-Western Hospital, 271 scarlet fever, 54 diphtheria and 19 enteric fever; South-Eastern Hospital, 327 scarlet fever, 17 diphtheria and 15 enteric fever; Northern Hospital, 755 scarlet fever and 6 diphtheria; Gore Farm Hospital, 620 scarlet fever. On the hospital ship *Atlas* on the same date there were 39 cases of small-pox and at the South-Eastern Hospital there was one case.

## New Inventions.

### TONGUE FORCEPS.

HAVING frequently felt the want of a reliable and efficient



tongue forceps when performing operations on the mouth and naso-pharynx, and having invariably met with disappointment when using any of the numerous instruments supplied for this purpose, I have designed an instrument which I can with confidence recommend to my professional brethren. It has been manufactured for me by Messrs. Arnold and Sons with their usual care and has thoroughly answered my requirements. The blades are somewhat quadrilateral with rounded handles, fenestrated and made of slightly flexible steel, with the surfaces for contact roughened; the lower blade has a U-shaped notch for receiving the frænum linguæ. The blades are covered with rubber to prevent injury to the mucous surface. The handles are long, provided with a catch and bent at an angle, so that they can be held without interfering with the view of the operator. These forceps will retain an efficient hold without inflicting injury on

the organ, and will be found as valuable for drawing forward the tongue during anaesthesia as for operative purposes.

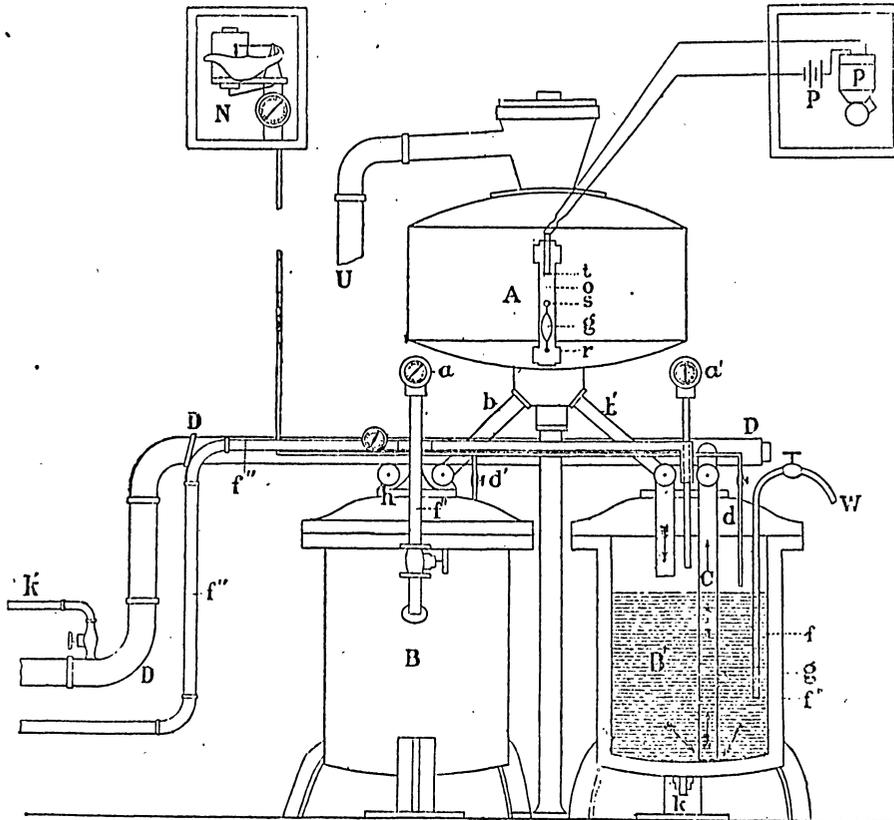
C. YELVERTON PEARSON, F.R.C.S. Eng.,  
Assistant Surgeon to the North Charitable Infirmary and  
City of Cork Hospital &c.

### APPARATUS FOR THE DISINFECTATION OF FLUIDS.

MANY readers of THE LANCET have lately been interested in reading of Professor von Pettenkofer's dietetic feat in eating Koch's cholera microbes. It must, however, be admitted by everyone that the whole incident proved nothing, except that Koch's bacilli disagreed with von Pettenkofer. It is not uninteresting to note that the number of THE LANCET which contained this record contained also a careful account by Dr. Clemow of Cronstadt of the methods adopted in Russia for the disinfection of cholera evacuations. Amongst other methods he mentions that of boiling, which process is carried out at the Alexander (Barrack) Hospital at St. Petersburg. The apparatus is somewhat complicated and a description of it may be of interest. The receptacle A, holding about eighteen gallons, is joined by means of tubes, *b* and *b'*, with the two boilers B and B', having double walls *f* and *f'*, capable of supporting a pressure up to seven atmospheres. The pipes *b* and *b'* open within the boilers in such a manner that the end of each stands out a little from under the lid of the boiler. Into each of the boilers is led another tube, *c*, going almost to the bottom, which unites with the tube *d* for the purpose of passing the contents of the boilers into the drain. Each boiler is provided with a manometer *a* and *a'*, showing the pressure within the boilers. The steam from the general steam boiler is led by the tube *f'* into the interval, *g*, between the walls of the boilers, and having done its work has exit through the tube *h* into condensing vessels. At the stopcocks of the tubes *b* and *b'* and also of the tube *c* is an adjustment, *h*, allowing

the stopcocks of the entrance to open when the stopcock on the exit tube is closed and *vice versa*. The tube *w* serves for receiving samples of the contents of the boilers for examination. For control of the work from the boilers *B* and *B'* are the tubes *d* and *d'* go to the manometer *N*, which has a clock-work mechanism and a recording apparatus which marks the pressure in the boilers and, how long the pressure has lasted. This control apparatus is situated in the private room of the doctor who has charge of the disinfecting processes. For control of the fluids entering the receptacle *A* and to avoid its

boilers into the drainage-pipe by the tube *D*, cold water being previously admitted into this last through the tube *N'*, for mixing with and cooling the disinfected fluid. The whole process, counting from the moment of filling the boilers and entrance of steam till the exit of fluid into the drain, takes about an hour, during which the pressure as shown by the manometers attains that of three atmospheres, with a pressure of four atmospheres in the great general steam-boiler. This time is shorter if the boilers work constantly—i.e., their walls being warmed by the previous boiling are not cooled by the new portion of fluid entering them. This apparatus was



being overfilled in a gauging-tube, *o*, is placed a glass float, *g*, with a reservoir of mercury at the lower end, and a little cup, *s*, at the top, which is also filled with mercury. Through the upper opening of the gauging-tube are admitted into its canal two platinum wires, *z*, of equal length, the lower ends of which can be fixed at any given height, corresponding to the level of a known quantity of gallons of fluid in the receptacle *A*. The upper ends of these wires are united with elements (Laclanché), *p*, and with a bell, *r*, placed in the building of the general boilers of the hospital, and therefore near to the firemen and machinists. Fluids from the post-mortem room flow through tube *U* into *A*, the level of the post-mortem room being higher than that of the receptacle *A*. The whole process of disinfection is carried out thus:—From the receptacle *A* the fluid flows through the tubes *b* and *b'* into the boilers *B* and *B'*. Into the now empty receptacle fresh quantities of fluid are introduced while that is being disinfected in both boilers, so that the one process does not prevent the other. When the boilers are filled steam is admitted through the tube *f'* into the interval *g* between the walls of the boilers. The degree to which the fluid is heated is shown by the manometers acting on the recording apparatus *N*. When the process is finished the stopcocks of the tubes *c* open and let out the contents of the

invented by MM. Vassilief and Krel, and the diagram is taken from Dr. Krupin's book. I have to thank this gentleman for his permission to reproduce it and Dr. Clemow for kindly translating the accompanying description.

RICHARD SISLEY.

**THE ALBERT PALACE.**—The promise of £15,000 made to Mr. John Burns, M.P., by Mr. Passmore Edwards seems likely to result in the acquisition by the public of this important place of instruction and recreation as soon as the necessary preliminaries are carried out with the First Commissioner of Works.

**LONDON AND COUNTIES PROTECTION SOCIETY.**—A meeting of the Council of the East Anglian Division of this Society was held at Hatter-street, Bury St. Edmunds, on Wednesday, Dec. 21st., Mr. Fegen of Braudon presiding. After some general business had been transacted, it was decided to hold a general meeting of the members and others interested in medical protection at Bury, at an early period in 1893. John Kilner, Esq., F.R.C.S., senior surgeon to the West Suffolk Hospital, being invited to preside. Mr. Mead (Newmarket), the organising secretary, reported that at least thirty divisions had been already formed and that at a recent meeting of the General Council in London 142 new members were elected.

# THE LANCET.

LONDON: SATURDAY, DECEMBER 31, 1892.

## THE ANNUS MEDICUS 1892.

THE year 1892, viewed from a medical standpoint, has been an eventful rather than a happy one. It was not many days old before a recrudescence of influenza manifested itself in this and other countries, and that in a more fatal form than on previous occasions. One of its earliest and most distinguished victims was our illustrious ally the KINGEDIVE; pneumonia ensued and put a speedy termination to the life of his Royal Highness, under circumstances fully detailed in THE LANCET of Jan. 23rd. The death of the Duke of CLARENCE from pneumonia on Jan. 14th, on the very eve of his marriage to the Princess MAY, was an event which sensibly affected the whole nation, and even other nations, as was natural from considerations of the lofty rank and anticipated future of the illustrious pair and the affection in which the Royal Family is held at home and abroad. We shall have to tell later of the wide mischief wrought throughout this country and other lands by this epidemic and of another one still more "feared of man," but which yet does not move more mysteriously and uncontrollably, and from which we happily have been so far spared in spite of occasional cases landed on our open shores.

The public spirits, to speak colloquially, have been lowered throughout the year by the prevalence of depressed conditions of trade and by a movement which it should be the object of legislators to counteract—that of the rural population into towns, depriving them of the advantages of country life while complicating and injuring in many ways the case of dwellers in towns. It is not seemly for us to indulge in reflections on political affairs save as they affect the health and wellbeing of nations, but we may be permitted to make note of the fact as one unprecedented in history that Mr. GLADSTONE at the ripe age of eighty-three has again become Premier and that he has taken into his Ministry a member of our own profession—Sir WALTER FOSTER. Whatever the politics of medical men they will not fail to see in this act of Mr. GLADSTONE a certain recognition of a profession, for which our statesmen have done less and to which they have shown less respect than the statesmen of any other country of Europe. It is undeniable that the profession has great lessons to teach States, and that our own country in particular has been served as well as, if not better than, any other by its medical men either in practice or in medical relation to the Government. But so far they have been lightly regarded as compared with other professions, and one great branch of the Legislature, the House of Lords, is conspicuous by the determined exclusion from it of medical men, no matter to what eminence they may have attained. In respect of France, on the contrary, columns of *The Times* are filled with a report of the proceedings in honour of M. PASTEUR on his attaining to his seventieth birthday, graced by the presence of the PRESIDENT of the Republic and led by M. DUPUX, Minister of Public Instruction. We shall at once proceed, under definite heads, to indicate the chief facts in the medical history of the year 1892.

### *Anatomy and Physiology.*

The large and constantly increasing number of journals devoted to the subjects of anatomy and physiology, together with the length, variety and excellence of the papers they contain, render it year by year a more difficult task to supply a concise summary of the work that has been accomplished in these departments of medicine and still less to give any critical estimate of its relative value. Long articles are not always the best, even when names of high repute are appended to them, whilst an unknown and rising man may in a few lines shadow forth a substantial addition to our common stock of knowledge. Perhaps the most interesting of the memoirs that have recently seen the light are those on the nervous system. No one who first attempts to unravel the various plexuses of nerves that exist in the thorax and abdomen would conceive that by any human means the origin, course and distribution of their constituent fibres could be traced, so complex and intricate is the interlacement they present. To effect the dissection by hand with the naked eye is impossible, but even the microscope with its various accessory means of staining and mounting seems at first sight to afford little aid to the inquirer. But care, close observation and patience overcome many obstacles and the researches of GASKELL, SHERRINGTON, RUSSELL, EDGEWORTH and LUCIANI show that the scheme of the arrangement of these complex networks is beginning to yield to the attack and that it may be hereafter possible to understand the composition and the function of each separate strand. This result proceeds mainly from the original observation of GASKELL, that the splanchnics and other visceral nerves, instead of consisting exclusively, or almost exclusively, of sympathetic fibres, really contain three or four quite distinct sets of fibres, distinct in their origin and distribution, probably possessing distinct attributes and powers, and presenting sufficient difference in their aspect to enable them to be followed. From EDGEWORTH'S observations, for example, it appears that the pelvic viscera have a double supply of large medullated fibres, one coming directly from the sacral nerves, the other indirectly through the hypogastric from the lower dorsal and upper lumbar nerves, and by making a series of continuous sections upwards from the ramus communicans it was found possible to trace up these large fibres into the posterior root of the nerve, affording strong evidence of the sensory function of these large medullated fibres, a view that is fully sustained by the results of degeneration on cutting the posterior root proximally and distally to the ganglion and from the results of its stimulation, and still further sustained by examination of the fibres proceeding to the Pacinian corpuscles in the mesentery of cats. From such converging and mutually corroborative evidence it is clear that the large medullated fibres found in the sympathetic, and probably also those in the sacral splanchnics, are sensory in function. So, again, the observations of RUSSELL and SHERRINGTON have demonstrated that great uniformity underlies the apparent complexity of the brachial and lumbo-sacral plexuses, that the several roots have a very definite and constant distribution, that the fibres representing or capable of exciting certain movements always preserve the same position in a given root; so that, for example, extension of the wrist is effected by a fasciculus of fibres in the upper part, whilst flexion is re-

sented by a bundle in the lower part of the same root, and that a great number of muscles obtain their nerve supply from several nerve roots; so that whilst their synergic action in the various coördinated movements of the body is provided for, injury or disease of a particular root is followed by only a partial and temporary loss of function. SHERRINGTON has been able to give a long and interesting list of the muscles that can be called into action by the stimulation of each special nerve root. It cannot be doubted that such researches will prove of the utmost value in diagnosis and treatment, and it is difficult to see how such knowledge can be obtained without the aid of experiments on animals rendered insensible by chloroform.

The difficult subject of taste sensations has been investigated by L. E. SHORE of Cambridge, whose experiments were based on the remarkable action of a plant named *Gymnema sylvestre*, belonging to the Asclepiadææ, the leaves of which contain about 6 per cent. of a substance resembling chrysophanic acid, which paralyses the sense of taste for sweets and bitters, but has no action on the gustatory perception of acids and salts. His observations show further that gymnema does not affect the tactile acuteness of the tongue or the perception of electrical shocks, and he has come to the conclusion that acids and salines in solutions of moderate strength excite two sets of nerves—one of general sensation and pain and the other of true gustatory function. In connexion with this subject ÖHRWALL has taken much trouble in examining the gustatory sensations excited in 125 fungiform papillæ, and has found that 21 per cent. are not sensitive at all, whilst 48 per cent. are sensitive to sweet, bitter and acid tastes. Some are sensitive to only two and a few to sweet only or to acid only, but no papilla was found which was sensitive to bitter only. In one of those exceptional cases, from which so much may be learned, the process of digestion in the stomach and small intestine was followed out by MACFADYEN, NENOKI and SIBBER. The patient was the subject of a hernia and after the operation had an artificial anus, the opening being at the ileo-cæcal valve. The duration of the passage of food from the mouth to this spot was found to be two hours at the earliest and the food of one meal continued to pass for from nine to fourteen hours. The food consisted of bread, meat, peptones, oatmeal, milk, eggs, sugar and beef-tea. The chyme as obtained from the end of the small intestine contained dissolved coagulable albumen, mucin, peptones, dextrin, sugar, inactive fermentescible and optically active paralactic acid, volatile fatty acids, especially acetic acid, the biliary acids and bilirubin. The acid reaction of the chyme was always due to the presence of organic acids. Neither indol, skatol, phenol, leucin, nor tyrosin was present, showing that in this case at least the albumen was scarcely touched by microbes in the small intestine, whilst the carbo-hydrates were decomposed with formation of acids.

Considering the prevalence of the habit of smoking and the enormous quantity of tobacco that is consumed comparatively few observations have been made from which its influence on the nervous system can be deduced. It is known to be injurious in various ways when taken in excess, but the effects of moderate smoking have attracted comparatively little attention. Some interesting facts have,

however, recently been recorded by LOMBARD. He has shown that the effect of even one cigar of moderate strength is to reduce the nervo-muscular energy to one-fifth of its previous amount. The depression is of course only temporary, but complete recovery of the former strength does not occur until more than an hour has elapsed. The loss of power was determined by ascertaining what weight could be raised in a given time by the flexion of one finger to a cord passing over a pulley to which a weight was attached. On this ground alone it is advisable that boys should not be encouraged at too early a period to commence the use of tobacco. The action of nicotine on the third nerve and ciliary ganglion has been carefully studied by LANGLEY and ANDERSON.

Many isolated physiological facts have been noted, which it is difficult to arrange in any definite order. Thus BAYLISS and STARLING have demonstrated that there is no essential difference between the hearts of mammals and cold-blooded animals and that each is subject to the same varieties of nerve influence. KAUFFMANN, experimenting on the masseter and levator labii superioris muscles, finds that the quantity of blood traversing a physiologically active muscle is enormously increased, in some instances being as much as fivefold the ordinary quantity at rest. The capillaries become greatly enlarged, the tension in the arteries falls, whilst it rises in the veins. A new form of sugar has been found by SALKOWSKI in the urine of a patient taking morphia in excess. It precipitates copper oxide from an alkaline solution of the sulphate slowly but abundantly; it does not ferment nor does it polarise light. It may be identical with the sugar excreted after the ingestion of arabinose and xylose observed by EBSTEIN. KÜLZ has proved that glycogen can be formed from various proteids. In view of the predisposition of tubercle for the apices of the lungs MELTZER of New York has endeavoured to ascertain whether in normal breathing all parts of the lungs share equally in the respiratory act, and has come to the conclusion that probably the apices and back part of the upper third of the lungs do not participate in the breathing so largely as the other parts of the lungs. The pale aspect of Europeans in the tropics has often been a subject of comment and EIJKMANN has demonstrated that this is not due to any diminution in the globular richness of the blood or of the amount of acid hæmoglobin contained in the red corpuscles, but probably to congestion of the vessels of the abdominal viscera. DAREMBERG, experimenting with dogs, cattle, rabbits, pigeons, tortoises and frogs, finds that while the serum of the blood has little or no effect on the corpuscles of the blood of the same species it dissolves those of other species and genera which, if true of the plasma also, is of importance in transfusion. TIGERSTEDT gives a much lower estimate than is usually accepted in regard to the amount of blood propelled into the aorta at each systole, calculating it on various grounds to be less than two ounces. He finds the duration of one entire circuit to be one minute. AHLFELD states that rhythmic movements of the abdominal wall may be seen in women in the second half of pregnancy and attributes them to the intra-uterine respiratory movements of the fetus. POEHL has investigated the action of spermin or extract of the testis, and has obtained a substance having the formula  $C_{10}H_{20}N_4$ ; and LODÉ has made the curious calculation,

showing the prodigality of nature, that the number of spermatozoa in one ejaculation is upwards of two hundred and twenty-five millions, and that for one Graafian follicle eight hundred and forty-eight millions of spermatozoa are formed. It has generally been concluded that amyloid substance is a pathological product, but KRAWKOW points out that it is closely related to chitin and to colloidin obtained from colloid carcinoma.

#### *Pathology.*

The vast amount of pathological research that is now being carried on in laboratories in all parts of the civilised world, and which finds a record in scientific periodicals, renders it impossible to do more than indicate here a mere fraction of the additions to knowledge that are being made in this direction. Even the year-books which are specially intended to summarise these writings must find it difficult to collate all that is being done. As concerns this country it is fitting to mention the appearance this year of a *Journal of Pathology*, of which two numbers have been issued. The lack of such a medium of publication in addition to the Transactions of Societies has long been felt here, and the favourable auspices under which the new journal has appeared together with the high quality of its contributions seem to have already ensured it a prosperous career. As to the general subject-matter of pathological investigation there is no question that the foothold obtained by bacteriology becomes yearly more and more stable; and the question which is at present most engaging attention is the difficult but highly important one of the nature of the changes which produce immunity from the results of microbial viruses. Of the fact of such immunity—whether spontaneous or acquired—there is no dispute. It is one of the proven facts of science. But opinion is sharply divided as to the manner in which it is brought about—a division well shown in the interesting debate at the Pathological Society of London in the spring. A great deal turns upon the topic of phagocytosis, upon which Professor METCHNIKOFF has thrown so much light; but whether this remarkable process, quite as much physiological as pathological, is solely, if indeed mainly concerned in the production of immunity from infective disease, or whether it is in this respect supplemented or supplanted by the chemical action of the fluids of the body, are indeed moot points. The arguments are weighty on both sides. Although neither can be said to have come off victorious, much fresh knowledge has accrued from all that has been said and written in support of one or other view. The discoveries of the Drs. KLEMPERERS on the pneumonic virus, of Drs. BRIGGER, FRÄNKEL and SIDNEY MARTIN in diphtheria, of Dr. KITASATO, Dr. CATTANI and others in tetanus, are all in the same direction—that, namely, of emphasising the importance of the study of the toxins produced by bacterial life as the chief thing in the production of the phenomena of infective diseases. No one can doubt that it is not so much in its biological aspect as in its chemical that the future development of the parasitic theory of transmissible diseases will be made. It is important to note that renewed researches are being made to elucidate the mysteries of malignant growths by reference to parasitism; and several valuable and suggestive inquiries have been made which tend to show that the alleged parasite is of microzoic rather than micro-phytic nature. Should this really be so, the ingenuity of investigators will have to be turned

in the direction of discovering media for the cultivation of these protozoic organisms if the conclusions are to be based on evidence as sound as that which now obtains for many specific diseases. The most recent study of the morphology of these "cancer organisms" is that by Drs. RUFFER and WALKER in the second number of the *Journal of Pathology*; whilst inoculation experiments on animals have been made by Drs. FISCHER, DUPLAY and CAZIN with negative result, attributable to natural immunity on the part of the animals inoculated. To demonstrate the real nature of malignant disease may of course not immediately result in more efficient methods of dealing with it, but it will be an advance capable of infinite extension and application and do much to stimulate exertion towards its more effective treatment. One of the notable monographs of the year was that on amœbic dysentery by Drs. COUNCILMAN and LAFLEUR of the Johns Hopkins Hospital, Baltimore—a paper conclusive in its results as to the etiological connexion between these protozoic organisms and dysentery, and as important in its way as the demonstration of the plasmodium malarie by Professor LAVERAN. As regards other diseases it may be noted that the announcement of the discovery of a bacillus in measles by Drs. CANON and PIELICKI of Berlin brought to mind the much prior claims of BRAIDWOOD; that in typhoid fever the question of identity between EBERTH'S bacillus and the bacillus coli communis has been raised, and that the advent of cholera has opened the way to studies upon its microbe and toxins, with the alleged demonstration of a method of producing immunity. The study of the blood in health and disease is being ardently pursued in many quarters. Drs. DALAND and SADLER have made numerous observations in hæmatometry in various affections; Dr. A. GARROD has conducted a similar inquiry in rheumatism; and a monograph on the general subject has been written by Dr. von LEMBECK. Dr. W. HUNTER'S recent lectures on hæmolysis were remarkable for the completeness with which he carried out his observations on a rarely explored ground. Sir W. ROBERTS has, in his Croonian lectures, enunciated many important facts upon uric-acid gravel and gout, and a new theory of renal dropsy enunciated by Dr. DICKINSON gave rise to a prolonged debate at the Medico-Chirurgical Society. Finally, amongst a few of the notable publications and republications of the year may be noted the work on Epidemics in Great Britain, by Dr. C. CREIGHTON; that on Ligature of Arteries, by Messrs. BALLANCE and EDMUNDS; the English edition of Papers on Acromegaly, by Dr. MARIE and others, issued by the New Sydenham Society; and the welcome volume of Dr. H. G. SUTTON'S Lectures on Medical Pathology.

#### *Therapeutic Progress.*

The occurrence of two epidemics during the year has necessarily diverted a great deal of attention from progressive study. Influenza in the earlier part of the year and cholera in the autumn produced a crop of specifics of which little need be said beyond noting that the efficacy claimed for them was, as usual, greatest during the decline of the epidemics. Notwithstanding these causes of instability a great deal of steady, honest work has been done towards giving greater precision to the knowledge of the value of older remedies, and also towards the investigations of the claims of the many new drugs which are ever at

our gates. One most curious phase of the year has been the persistent effort to prove the utility of various extracts and juices derived from the animal kingdom. This has been most marked in the treatment of myxœdema; extract of thyroid gland has been injected subcutaneously; patients have been fed on fresh thyroid glands, and an extract of thyroid gland has also been given by the mouth, while, from the surgical side, several cases of thyroid grafting have been reported. Dogs' serum has been used in tuberculosis and ox serum in syphilis, and it is reported that the serum of lambs' blood gave equally good results in the latter disease. Injections of testicle juice have been employed in cancer and in tuberculosis, while an extract of supra-renal capsules is said to have renewed vitality in moribund animals. Another subject that has attracted considerable attention is the employment of normal salt solution in various forms of collapse, whether due to vomiting, diarrhœa or profuse hæmorrhage, such as that occasionally met with in midwifery. In the last class of cases rectal injections of salt solution have also been advocated. The value of digitalis in various forms of cardiac failure has given rise to considerable discussion; although some writers have urged that it should be used in aortic regurgitation, and others have held that it is dangerous in this condition, there seems to be a general consensus of opinion that its employment should be determined by symptoms of cardiac failure, whether this failure be associated with aortic or mitral regurgitation. At the meeting of the British Medical Association at Nottingham a discussion was held upon cardiac tonics, when the value of digitalis was again considered in its relation to other cardiac tonics; experience appeared to indicate that the simultaneous use of caffeine and digitalis would often be more effectual than an increased dose of digitalis alone. The cardio-vascular action of theobromine and caffeine has been further investigated; under erythroplœim patients with heart disease are said to breathe more freely, but an examination of the physiological action of the active principles of urechites suberecta indicates that from its cumulative properties its future employment as a cardiac tonic is improbable. Arsenite of copper in anæmia, the use of atropine as a hæmostatic and the value of camphorated oil in cases of collapse have also received attention. The administration of oxygen in various acute respiratory affections led to numerous communications; it was employed together with strychnine in pneumonia, alone in a severe case of broncho-pneumonia following influenza, and it was also recommended in asthma and in convalescence,—massage, electricity and oxygen being regarded as substitutes for change, exercise and sea air. Rectal antiseptic injections in epidemic influenza, and in advanced phthisis with large cavities, have once more received commendation. Phthisis has also been treated with creasote, guaiacol, camphoric acid and cantharidates, but increased experience with the last named has given rise to some anxiety owing to the frequency of consecutive albuminuria. In the treatment of vomiting hydrochloric acid and strontium bromide have been recommended; chlorobrom has been used for sea-sickness and solanine for painful disorders of the stomach; orexin hydrochlorate has somewhat gained in favour as a stomachic and aid to digestion; salicylate of bismuth has been used in infantile diarrhœa and lactic acid in

many other forms of diarrhœa, having given good results even in phthisis. Much has been written of the value of glycerine in the treatment of hepatic colic, for which, when due to gall-stones, large doses of olive oil have also been recommended. Thymol has been vaunted as an anthelmintic, but its range of application appears to be very restricted.

The therapeutic researches connected with the work of the kidney have occupied a limited range, although they have been of much importance. The action of diuretin has been studied both experimentally and clinically; in some cases it appeared to cause diarrhœa, in others the amount of urine passed seemed to decrease rather than increase, but it has nevertheless been used with great satisfaction in many cases of cardiac dropsy. Lactose, glucose and copaiba balsam have also been employed as diuretics. The Croonian lectures on the chemistry and therapeutics of uric-acid gravel and gout must also be mentioned in this connexion. An interesting question has been raised as to the action of quinine in malaria and the possibility of the associated hæmaturia being the result of quinine or being made worse by it. Contradictory statements have been made regarding the action of syzygium jambolanum in diabetes mellitus, and the propriety of relaxing the usual and rigid dietetic restrictions in diabetes has been dealt with in our columns. Salts of strontium have been recommended for the albuminuria of nephritis, and methylene blue, which deeply colours the urine, has been suggested in the treatment of neurotic patients.

Exalgine has been used with some advantage in chorea, but for the relief of pain it appears to be somewhat disappointing. Bromamide has been employed in a number of ill-defined cases of neuralgia. Carbolic acid has been injected hypodermically for tetanus. Hydrastinin, pilocarpine and bromide of strontium have been used in epilepsy. For the production of anæsthesia penthal has been introduced, but in several cases it has given rise to alarming symptoms and it can hardly be considered a safe remedy at present. The same applies to bromide and chloride of ethyl as anæsthetics. The bearing of recent physiological and chemical research on the question of anæsthesia formed one of the subjects discussed at Nottingham, while the toxic action of impure chloroform and the comparative action of different brands of chloroform have been closely studied. The search for new hypnotics happily appears to be on the wane; trional and tetronal are said to be more prompt than sulphonal, but not superior to hyosine in cases of great mental excitement. Further experience has emphasised the inconveniences of sulphonal, its tardy action and the persistence of its effects; hyosine has again given cause for anxiety; paraldehyde has received praise both as a hypnotic and diuretic, and somnal—a new hypnotic—has not been sufficiently employed to allow of definite conclusions.

The treatment of diphtheria has been discussed at St. Petersburg, and during the year papers have appeared recommending for this disease the use of petroleum, antipyrin, tannin, zinc chloride and the removal of membrane and application of antiseptics. Typhoid fever has also been assailed by newer methods; chloroform in repeated small doses, calomel, salicylate of soda, creasote, naphthalin and alpha-naphthol have found adherents. Methylene blue and phenocol have been recommended in malaria, naphthalin in whooping-

cough, salipyrin in rheumatism, and paracresotic acid as an antipyretic.

The morality of the opium question and the ethics of opium and alcohol have been discussed in our columns at some length. The antidotal action of chloride of gold against snake poison has been disputed. Pilocarpine has been recommended in prurigo senilis and in selected cases of labyrinthine deafness, as have dermatol and europhen in syphilis and hydrogen peroxide as a diagnostic agent for detecting the presence of pus; inoperable malignant neoplasms have been treated by aniline dyes, and a possible future for toxines as new therapeutic agencies for the cure of infectious diseases has been forecast. Amongst the legion of newer remedies the following may be mentioned: Solveol, solutol, thymacetine, saprol, hæmol, hæmagallol, losophan and salophen, the last named being a convenient abbreviation for a combination of salicylic acid with acetyl-paramido-phenol ether. Where not influenced by passing fashion the therapeutic work of the year has been characterised rather by consolidation than by novelty and reconstruction.

#### *Surgery.*

The year that is just closing has not been marked by any epoch-making discovery or advance in surgery. But it would be idle to deny that surgery is a steadily advancing art and science, and that each year some gains are to be reckoned. When the history of surgery in the nineteenth century comes to be written the latter half will be seen to be the period of the greatest progress attained since the art was first practised. Surgical pathology has been revolutionised and surgical therapeutics have been to a large extent established upon a true scientific basis. Surgery has become at once more successful and more responsible. Our ability to control results has added a new weight to those borne by our predecessors. They when met by failure and disaster could only shrug their shoulders and appeal to Providence. We, however, know that such failure is generally to be traced to some error of omission or commission of our own. In all branches surgery is becoming more and more exact, and the old rough and inexact methods will soon be as extinct as the dodo. For an acute abscess the lancet and poultice are now not used, but the aseptic knife and careful antiseptic dressing. For a boil or carbuncle the old-fashioned crucial incision has been relinquished, being replaced by the removal of all the infective slough and tissue; and so through all the range of operative surgery. Thus excision of joints is replaced to a very large extent by arthrectomy. In operating for cancer of the breast it has been shown that it is very important to remove the entire gland, including all outlying nodules, the fascia over the pectoralis major muscle, the axillary lymphatic glands and the strand of tissue containing the lymphatic vessels passing from the breast to the glands. This is not empirical, but the result of painstaking pathological investigation and demonstration. The enucleation of tumours of the thyroid body is becoming more generally recognised as preferable to the drainage of cysts, the scraping out of soft tumours or excision of a part or the whole of the thyroid gland. This is a distinct advance. Again, the practice of applying a ligature to the main artery close above an aneurysm has been practised of late with great success. Such an operation, when conducted without infection of the wound, is shown to be unattended with the risks previously asso-

ciated with it, and to be free from some of the disadvantages, such as recurrence of the pulsation, which belong to the Hunterian operation. Less and less is heard of the treatment of aneurysm by compression, as surgeons' confidence in their ability to conduct an aseptic ligature of an artery has increased. In abdominal surgery much is being done to place the treatment of diseases and injuries of the stomach and intestines upon the same satisfactory footing as that of diseases of the ovary. If the success has not been all to be desired, it is nevertheless highly encouraging. Lumbar colotomy is fast giving place to the inguinal operation, and excision of the rectum is established as an effective operation. In the practice of asepsis two things are forcing themselves more and more on surgeons' notice—the danger of infection through the organisms contained in the skin of the patient and on the surgeon's instruments and fingers and the little risk of infection through the air. Much greater attention is paid to the cleansing of the patient's and the surgeon's skin and more efficient means are used for the thorough cleansing of surgical instruments. Heat is the most trustworthy antiseptic and instruments are now commonly sterilised by dry or moist heat, the simplest and best means of all being to boil them for a short time in a 1 per cent. solution of bicarbonate of soda; this appears to be fatal to every bacterium and spore.

#### *Obstetrics and Gynæcology.*

The year now closing, like its predecessor, has witnessed a great activity in operative procedures and in the recording of results at the various societies devoted to obstetrics and gynæcology throughout the country. As a rule, little or no mention has been made of the treatment of the diseases peculiar to women by drugs or remedial measures short of surgical operations—a department of therapeutics which we think is being somewhat overlooked by the societies. At the meeting of the Obstetrical Society of London in January Dr. HERMAN gave an interesting analysis of the cases of nearly four thousand consecutive out-door patients at the London Hospital, from which he concluded that there is a marked relation between backward displacements of the uterus and prolonged hæmorrhage after delivery. At the same meeting Dr. INGLIS PARSONS brought before the Society his results of APOSTOL'S method of treatment by electrolysis of fibromata and various morbid conditions of the uterus, which caused considerable discussion. These results were encouraging to the advocates of this treatment, for in fourteen of the cases of fibromata the hæmorrhage was reduced in all, in six of which no relapse took place, and in one the tumour entirely disappeared, pregnancy subsequently occurring. His general conclusions were that electrolysis when properly employed arrested growth in most cases and might even reduce the size; that it arrested hæmorrhage in nearly all and, as a rule, relieved pain and pressure symptoms. Dr. WATT BLACK, in his presidential address, dwelt especially on the losses during the previous year of Drs. BENNET, FORDYCE BARKER, CARL BRAUN and SCANZONI. At the meeting in March three papers on Cesarean Section were read by Drs. CULLINGWORTH, LEITH NAPIER and SHAW, and a discussion of the subject occupied two meetings, and amongst others Dr. MURDOCH CAMERON of Glasgow related his interesting experience. At a subsequent meeting the relative position of Craniotomy and Cesarean Section

was discussed. In October Dr. CULLINGWORTH read a very interesting paper on the Value of Abdominal Section in certain Cases of Pelvic Peritonitis based on an Experience of Fifty Cases. The important question debated was whether surgical interference was or was not frequently called for in cases of pelvic peritonitis. Dr. RENTOUL communicated to the Manchester Medical Association a lengthy paper dealing with the proposed registration of stillborn children. The Fellows of the Edinburgh Obstetrical Society have shown considerable activity during the year and some very interesting and valuable contributions have been made. Amongst others, Dr. BERRY HART communicated a paper on the Alleged Growth of the Placenta in Extra-uterine Gestation after the Death of the Fœtus. This paper is of value in tending to clear up some difficult points in pathology. A contribution on the Structure of the Human Placenta, with Special Reference to the Origin of the Decidua Reflexa, by Drs. BERRY HART and G. LOVELL GULLAND, showed a great amount of careful investigation, which was undertaken to endeavour to explain the overwhelming frequency with which the fertilised ovum grafts itself on the uterine cavity. Dr. J. CLARENCE WEBSTER communicated some interesting details regarding the Female Pelvis in the Fifth Month of Pregnancy. He has also written an instructive work on the Anatomy of the Female Pelvis during the Puerperium—the result of his investigations carried on in the laboratory of the Royal College of Physicians of Edinburgh. An important feature in regard to the literature of Diseases of Women is the translation by the New Sydenham Society of a new edition of the excellent Treatise on Clinical and Operative Gynecology (reviewed in our last issue), by Dr. POZZI, Surgeon to the Lourcine-Pascal Hospital in Paris—a work not limited to a French view of gynecology, but recording the labours of practitioners in our own and other countries.

#### *Ophthalmology.*

The death of Sir WILLIAM BOWMAN at an age when he could still enjoy the learned leisure he had so well earned by a long and earnest devotion to science and to practice has removed from the scene the most conspicuous worker of late years in the important department of ophthalmology. His works live, and by their truth, not less than by their originality, have won for themselves a high and permanent position in medical literature. The lecture founded by the Ophthalmological Society in his honour was this year delivered by Professor LEBBER of Heidelberg, who gave to an appreciative audience a summary of his careful investigations into the pathological processes which take place in the cornea and other tissues of the eye, as the result of punctures with needles charged with the spores of certain fungi. The observations he has made are of great interest, since they show that the spores of *aspergillus fumigatus*, for example, find a soil congenial to their growth in the substance of the cornea and that, probably through their excreta, the germinating spores kill the adjoining area of the membrane, whilst remarkable, not to say conscious, efforts are made by the leucocytes of the blood, which form a ring round the affected region, to limit and define their injurious action. Pursuing a similar line of research M. GILLET DE GRANDMONT has been able to obtain pure cultures of various fungi chiefly belonging to the staphylococcus form, which he has

collected from corneal ulcers; whilst a distinguished practitioner, M. DE WEOCKER, has gone so far as to predict that in the near future it will be proved that all inflammatory affections of the cornea are of microbic origin. In accordance with this view he has devised a kind of shield which can be adapted to the parts surrounding the eye, and then becomes capable of retaining a quantity of antiseptic fluid in contact with the cornea. The employment of chlorine water, either pure or diluted, has been recommended by several ophthalmic surgeons of large experience in various forms of inflammation of the cornea on account of its powerful antiseptic action. Its application even when undiluted appears to be attended with but little pain, and such pain can easily be removed by the instillation of a few drops of a 4 per cent. solution of cocaine. The Graefe prize for the advancement of ophthalmological knowledge has been awarded to VON HIPPEL for his fairly successful efforts to effect the transplantation of the cornea. The principal feature in his method of treatment consists in the removal of a small area only of the cornea, taking care to preserve intact the membrane of Descemet, the whole proceeding being conducted under very strict aseptic conditions. Some of his results appear to have been excellent, the transplanted cornea retaining its transparency for many months. In this country the more severe forms of granular lids are rarely seen, but on the Continent the disease is of common occurrence and the heroic remedies to which the surgeon is apt to resort are well known in the method of treatment strongly recommended and practised by DARIER and ABADIE, which consists in placing the patient under chloroform, everting the lids with or without division of the outer canthus as may be required by the exigencies of the case, scarifying the granulations and then, which is the capital point of the method, brushing the surface with a brush having short stiff bristles, the surface being subsequently washed with a solution of corrosive sublimate and covered with iced compresses. This method, severe as it is, is said always to ameliorate and sometimes to cure the patient, yet the possibility of forming cicatricial bands should not be overlooked. The vexed question of the existence of a dilator muscle in the iris acting in opposition to the sphincter has been attacked by Mr. LANGLEY and Dr. ANDERSON, who, from a review of the evidence for and against the presence of such a muscle as well as from their own observations, think that the probabilities are in favour of the explanation that the sympathetic nerve causes a dilatation of the pupil, not by producing a contraction of the radially arranged blood-vessels, but partly by causing contraction of a dilator muscle and partly by occasioning inhibition of the sphincter muscle. In connexion with this subject it may be mentioned that NAWROCKI and PRZYBYLSKI have satisfied themselves by experiment that the dilator nerves of the pupil descend from the encephalon into the spinal cord, emerge by the anterior roots of the eighth cervical and the first and second dorsal nerves, then enter the rami communicantes, and thence pass into the loop of Vieussens. The cervical sympathetic and superior cervical ganglion then penetrate the skull and join the Gasserian ganglion and accompany the ophthalmic division. They reach the iris by the long ciliary nerves and do not enter the lacrymal ganglion. The curious observation of Dr. BROWN-SÉQUARD that the iris responds directly to the action of light, even when the globe of the

eye has been divided into an anterior and posterior half and when, therefore, all central nerve influence must have been abolished, has been corroborated by STEINACH, who attributes the contraction to the action of light upon certain pigmented muscle fibres, for movement is still observed when the nerve elements of the iris have been paralysed by atropine. Very careful measurements of the images of Purkinje made by TSCHERNING have led him to the conviction that towards the end of the act of accommodation the lens undergoes displacement downwards, a movement that centres the eye, but its axis always directed two degrees below the visual line. A very long and exhaustive report of a committee on colour vision was presented to the Royal Society who, in the course of the past summer, have held many meetings and examined a large number of persons. The committee have recommended that the Board of Trade, or some other central authority, should schedule certain employments in the mercantile marine and on railways, the filling of which by persons whose vision is defective either for colour or form, or who are ignorant of the names of colours, would involve danger to life and property. The testing for all candidates should be compulsory. They recommend HOLMGREN'S coloured wools test for colour and SNELLEN'S tests for form. It is to be hoped that the recommendations contained in this report will be fully carried out.

Besides Sir WILLIAM BOWMAN, others whose names are well known in Ophthalmology have passed away. Amongst these are Professor WHARTON JONES, who was for many years connected with University College Hospital; Sir GEORGE AIRY, the late Astronomer Royal, the defect of whose own eyes led him to recognise their error of refraction, to which he applied the term "astigmatism," and to devise the means for correcting it; ERNEST BRÜCKE, the distinguished Viennese physiologist, whose anatomical description of the eye of man, researches on subjective colours and discussion of the YOUNG-HELMHOLTZ theory of colour are well known. The first part of a treatise on the diseases of the eye by HIRSONBERG, which promises to be good when completed, has been published, and new editions of the manuals of SWANZY, FUCHS, VOSSIUS and others. Amongst the smaller treatises on special subjects are those of SNELL on Miner's Nystagmus and of ERNEST CLARKE on Eye Strain.

#### *Dental Surgery.*

The subject which has raised the most lively interest and discussion this year is probably the question of "anæsthetics," especially with regard to the administration of a mixture of oxygen with the ordinary nitrous oxide. Mr. BRUNTON of Leeds, in a paper read before the British Dental Association, advocated where many teeth required removal the employment of the extended or "Howard" position of the patient—that is, with the head hung back quite below the end of the couch—a position which is safer and after a little practice gives the operator no more trouble than the ordinary one. Chloride of ethyl seems to be gaining popularity as a local anæsthetic and can be now obtained in tubes with screw tops, so that the quantity desired may be used without the loss of the remainder. Of new antiseptics hydro-naphthol is the only noteworthy one which serves as a mouth wash, a dressing, or in the form of a tooth-powder. The statistics with reference to the average of caries of the teeth amongst school children have been unremittingly investi-

gated by the committee appointed by the British Dental Association, and show a very serious and unexpected amount of disease. A report of Dr. LAUFER with regard to the teeth of Russian children points to very much the same conclusion. Mr. HOWARD MUMMERY has added to the store of knowledge on the subject of the pathology of the teeth and the part which bacteria take therein. The subject of pathology is now considered so important that it is proposed to institute a professorial chair of bacteriology at some of the dental schools. Politically the most important step taken during the year and one which cannot prove to be other than of benefit to the public and the practitioner is the decision of the General Medical Council to put a stop to "covering."

#### *Chemistry.*

Inorganic chemistry has again been a favourite field of investigation. Since Mr. CROOKES' brilliant spectroscopic researches and his important observations on the genesis of the elements grave doubts have sprung up in many minds as to the elementary character of the bodies now called "elements," and it is extremely probable that many of them will after all turn out to be compounds. The spectroscope promises to lend valuable aid in demonstrating this. From the results of a long investigation by Mr. PARRY, for example, it would appear that iron is a very complex body and there is every indication that this metal will after all prove to be a chemical compound or, if not, an element subject to considerable allotropic modification. Further particulars of the interesting element fluorine, which was recently isolated, are given by its discoverer, M. MOISSAN. The colour of fluorine is paler than that of chlorine, but decidedly more yellow; its spectrum consists of thirteen bright red lines. M. TESLA'S lectures on alternating currents of high potential and frequency have attracted considerable notice. By M. TESLA'S researches a way has been opened up into a new region of inquiry. A new compound of carbon with barium ( $C_2Ba$ ) is described by M. MAQUENNE, and is interesting chiefly on account of the readiness with which it yields remarkably pure acetylene when treated with water. The metal boron has been obtained in a state of purity by M. MOISSAN of fluorine fame. Professor THORPE and Mr. A. E. TUTTON have investigated the properties of phosphorus trioxide and have made some interesting observations. Not the least important of these is that the disease of the lower jaw acquired by persons employed in making lucifer matches is traceable to the action of the volatile phosphorus oxide which is largely formed when phosphorus ignites without firing. Limettin ( $C_{11}H_{10}O_4$ ) is a crystalline substance discovered by Professor W. A. TILDEN in the essential oil of the lime. M. GENVRESSE has discovered an interesting and simple mode of synthesising tartaric acid from glyoxalic acid, which is calculated to throw some light upon its natural formation, more particularly as glyoxalic acid, the starting-point, is closely related to oxalic acid, which, as is well known, occurs naturally in certain plants. Mr. CROOKES, by employing alternating currents of enormous voltage, obtained visible flames composed mainly of burning nitrogen. The nitrogen of the air may thus be directly burnt into a powerful acid—nitric acid. Dr. LEBEL has also shown that the passage of electrical discharges through air (as lightning) results in the formation of nitric acid and nitric oxide. Mr. LUDWIG MOND has con-

tinued his researches on the action of carbon monoxide gas on metals. He has obtained two iron compounds,  $\text{Fe}(\text{CO})_6$  and  $\text{Fe}_2(\text{CO})_7$ . The compound  $\text{Fe}(\text{CO})_6$  is formed when CO gas is passed over heated pure iron; the metal may be deposited on articles by merely immersing them in the resulting vapour. All attempts to "give wings" to other heavy metals, with the exception of nickel and iron, have failed. The compounds thus obtained are called "carbonyls."

The synthesis of azoimide ( $\text{N}_3\text{H}$ ) (a very unstable and explosive body) has been effected by Professor WISLIÖENUS. Professor RAMSAY has investigated the impurities of chloroform. When the purest chloroform obtainable was exposed to light between March and July he found that it emitted an acrid odour when opened, due to the formation of phosgene gas (a compound of carbon monoxide and chlorine,  $\text{COCl}_2$ ,  $(2\text{CHCl}_3 + \text{O}_2 = 2\text{COCl}_2 + 2\text{HCl})$ ). The subject of flames has been vigorously attacked during the year by two able but independent investigators, Professors SMITHIELLS and LEWES. The latter finds that the heavy hydrocarbons which occur in the non-luminous part of the flame are almost entirely converted into acetylene before they reach the luminous zone. In his opinion the luminosity of flame is therefore brought about by dissociation of the acetylene. Professor SMITHIELLS' experiments led him to conclude that when the hydrocarbon is starved of oxygen the carbon burns preferentially to the hydrogen. Experiments upon the possible effect of long-continued applications of a copper sulphate spray used as a fungicide have been made in New York. In the soils containing copper more seeds germinated in almost every case than in the soils containing no copper. Analysis of the tops of tomatoes grown in the 5 per cent. soil showed 0.06 per cent. copper, proving conclusively that these plants can take up sulphate of copper by their roots. Grapes also were found to contain  $\frac{1}{100}$  gr. of copper per pound—a negligible and harmless quantity probably. Fluor-sulphonic acid has been obtained in a pure state by Professor ПЮРПЕ by acting on hydrofluoric acid with sulphur trioxide; it combines with water with extraordinary violence. Aluminium as a useful metal is rapidly coming to the front. It is produced more cheaply and is finding consequently a more extended application. Major VON SILLICH, to mention one application, has found that aluminium gives a stroke on slate, and a German company has undertaken the manufacture of pencils based on this fact. They need no pointing and are well-nigh inexhaustible and unbreakable. The writing, which may be erased with a wet sponge, is as clear as with ordinary pencils and requires little more pressure. Aluminium also is largely used now for the manufacture of lenses, opera-glasses, scientific instruments &c., the advantage derived from its exceeding lightness being in some cases considerable.

Chemical science has this year sustained irreparable loss by the death of many of its most able investigators. Amongst them are such famous names as Professor KARL SCHORLEMMER, LL.D., F.R.S., Dr. T. STERY HUNT, Professor J. W. HOFMANN, Professor HERMANN KOPP, and Mr. A. NORMAN TATE. The following books have been the most important additions to chemical literature:—"Watts' Dictionary of Chemistry," Vol. III., by H. FORSTER MORLEY and M. M. P. MUIR; the "Chemistry of Paints and Painting," by A. H. CURRIE, M.A., F.R.S.; and a "Manual of Chemical Technology," by RUDOLF WAGNER, translated

and edited by W. CROOKES, F.R.S. An event of interest during the year was the presentation of an address to the eminent *savant* Professor BUNSEN, by the Chemical Society, on the occasion of his attaining his fiftieth year of foreign membership.

#### Public Health.

A number of considerations have affected the condition of Public Health during the past year. In the first quarter the death-rate exceeded that for any corresponding quarter since 1879, the excess being largely due to epidemic influenza; and the deaths amongst people over sixty years of age were no less than 32.9 per 1000 above the average. During the next two quarters the general death-rate was below the average, but as the summer advanced a considerable outbreak of scarlet fever prevailed in the metropolis. This outbreak was never excessive in point of fatality; during a number of weeks when it was at its highest the death-rate was below the decennial average; but owing to notification, to the removal of the stigma of pauperism on those using the hospitals belonging to the Metropolitan Asylums Board, to the excellent repute attained by those hospitals, as also to the increasing demand on the part of the public for means of isolation, the strain upon the Managers was very severe. Early in November a diminution of the epidemic set in and it is now rapidly abating.

Cholera next appeared upon the scene. Travelling slowly from the valley of the Ganges through Persia and Afghanistan, it traversed Russian Turkestan, and early in the summer had attacked ports on the eastern and southern shores of the Caspian, whence it found its way into Transcaucasia and European Russia, and diffused itself very generally throughout European Russia. Aided probably by the emigration of Russian Jews it suddenly appeared in Hamburg; it spread in various parts of Northern Germany, of Belgium and of Holland, and was also conveyed to ports of the United States by European emigrants. Later in the year cholera also spread into Austria-Hungary. From North Sea ports, and notably from Hamburg, isolated cases reached this country, the first importation taking place on Aug. 25th. But earlier in the year cholera had already broken out in the suburbs of Paris; it was first called "cholérine" and its real nature seems to have been misapprehended. The disease, however, remained prevalent and spread to a considerable number of towns and places in the north-west of France, a notable epidemic occurring at Havre—indeed, some observers are induced to regard the Hamburg epidemic as due to an importation from France rather than to the movements of Russian Jews. Be this as it may, France has been very markedly infected, and the infection is still manifesting itself in certain localities, notably in Brittany. We do not propose to discuss in any detail the course or extent of the European cholera epidemic of 1892; its complete history has yet to be written, and our columns have already been largely occupied with accounts of its general progress and with carefully compiled reports of its special incidence on certain countries and towns. As regards this country we would recall the fact that between Aug. 25th and Oct. 18th twenty-nine cases of cholera occurred in England, that all the attacks took place in persons arriving from infected places on the continent of Europe, and that in no single instance was there any spread of the disease. This result

was largely due to the activity displayed by the Medical Department of the Local Government Board and the sustained labours of port health officers. But notwithstanding this a demand arose in certain ports for quarantine restrictions and for power to destroy numberless articles arriving from abroad on the ground that they might convey infection. The first of these requests probably received its deathblow at the recent meeting of port health officers at the Mansion House, and the second did not succeed in securing any extension of prohibition beyond that which was already in force as regards rags and the bedding of immigrants.

But the true test of our system of sanitary organisation against cholera has yet to come. We cannot impose any such restrictions on trade and traffic as will with certainty prevent extension of the disease beyond our ports, and hence it becomes of the utmost importance that sanitary reform should be actively carried on in our inland districts. Recurrence of cholera must be looked upon as a most probable contingency next spring and summer, and reform is notably necessary as regards water-supplies, many of which are notoriously open to sewage or excremental contamination at their sources. With the object of securing the utmost available protection against this disease, a cholera survey is forthwith to be instituted by the medical staff at Whitehall; but no such survey can produce effective result unless the sanitary authorities and the public whom they represent determine to remedy those conditions which are known to be favourable to cholera extension.

For the moment another disease—namely, small-pox—seriously occupies the attention of public health authorities. It is very widely distributed throughout the northern half of England; in several places—such as Warrington—it has assumed epidemic proportions, and it is now spreading to places in the midlands and in the south, including the metropolis. The danger of a wide prevalence of this disease during the ensuing spring is the greater because of the season of the year in which the present distribution is showing power of further extension, and because of the growing neglect to enforce the provisions of the Vaccination Acts which has marked the period during which the Royal Commission on Vaccination has been sitting. In London the danger of an epidemic extension has been in part removed by reason of the system under which the isolation of small-pox patients has been carried out in the neighbourhood of populations; but in provincial towns the matter is different, and the Warrington experience seems to point strongly to the danger of aggregating such patients in the neighbourhood of dwellings.

Diphtheria is another disease which is causing anxiety, and its present spread and mortality in the metropolis afford a further confirmation of the view that this disease, formerly so closely identified with rural areas, is gradually taking its place as a serious cause of death in urban centres. By many persons the increase is attributed to ordinary sanitary defects of sewerage, water-supply &c., notwithstanding the fact that the incidence of the disease in our towns has corresponded with the precise period during which the greatest progress has been made in such matters in urban areas. Reviewing recent investigations into the etiology of this disease we are strongly inclined to regard its spread as more likely to be due to the development of throat affections amongst children aggregated in elementary schools and the

use of milk from cows suffering from an analogous disease than to other causes.

Some important changes have been made during the year in the staff of the medical department of the Local Government Board. Sir GEORGE BUCHANAN, after long and distinguished service, retired last April from the post of medical officer, receiving the honour of knighthood on the occasion. He was succeeded by Dr. THORNE THORNE, C.B., whose post as senior assistant medical officer was filled by Mr. W. H. POWDER. Other changes followed, and the medical staff has, we believe, just been strengthened by the addition of two permanent inspectors, as also by the appointment of four temporary inspectors, to assist in performing the additional duties which it is expected will devolve on the medical department during the ensuing year. During the past year cholera largely occupied the attention of the staff; but further progress was made with the investigations into the causes and intimate pathology of epidemic influenza, the current work was maintained and amongst some of the more important reports issued were two on enteric fever in Rotherham and the neighbourhood and at King's Lynn, and one on typhus fever at Wigan. The two former reports have a strong bearing on the subject under the consideration of the Royal Commission on Metropolitan Water-supply, especially in reference to the need for maintaining a standard of purity in the sources of our public water services beyond that which at present prevails in many parts of the kingdom.

#### *Forensic Medicine.*

The year 1892 will be marked in forensic annals chiefly by the poisoning by strychnine of several "unfortunates" in London by THOMAS NEIL CREAM. A full account of the tragedy has been given in THE LANCET. Suffice it here to say that the criminal had led a roving life between this country and the American continent, that he had been imprisoned abroad for complicity in causing the death of a man by poison, and that he sought to fix his heartless and apparently motiveless murders on innocent people with attempts at blackmail. Two cases of murder somewhat resembling each other have been disclosed and the perpetrators convicted. We refer to the crimes of FREDERICK BAILEY DEEMING and ANDREW MCRAE. DEEMING was tried at Melbourne for the murder of his wife, whose body was found beneath the cemented floor with the skull broken and the throat cut. The murderer had disposed of a previous wife and her children in a similar way in this country, and the discovery of their remains—also cemented down—was made about the same time as the murder in Melbourne was brought to light. Insanity was set up in defence, but the plea failed, and DEEMING was executed. MCRAE's case is noticed in our present issue. For the first time since the passing of the Marriage Dissolution Act a plea of irresponsibility on the ground of insanity has been advanced in the case HANBURY v. HANBURY. The respondent was accused of acts of cruelty and adultery, and it was in answer to these that inebriety and recurrent attacks of mania were set forth as legal exonerations. The jury, however, ignored the contention, and found that the misdeeds were committed during the intervals of the attacks. An important alteration has been made by the Coroners Amendment Act of 1892, whereby several blots on the previous law have been removed. It is now legal for a deputy-coroner to discharge the duties of the

office rendered vacant by the death of his principal, whereas formerly he could only do so during the absence of the chief. Borough coroners, prior to the passing of the Act, were obliged to nominate barristers or solicitors as their deputies. Now this restriction has been removed. Lastly, a period of three months, instead of ten days, is now fixed as the period during which a coronership remains vacant. Poisoning by ptomaines contained in tinned foods has unfortunately been further illustrated, and some additional facts relative to the nature of the toxic substances have been made known. The subject, however, may still be regarded as in its infancy. Death after vaccination has on several occasions been investigated by coroners' juries, but in each instance it has been shown that vaccination has only had a secondary share in causing the fatal issue. Pending the report of the Royal Commission on Vaccination it is not necessary to add to what has recently been reported in *THE LANCET*. Death certification and registration has been the subject of a leading article, wherein we pointed out the prevalent abuses and suggested an appropriate remedy for them. Our records have shown that criminal abortion, baby farming and cruelty to children are still all too prevalent, but much has been done to expose the criminality and cruelty attendant on these illegal acts and, we trust, at the same time to lessen the frequency of their occurrence.

*The Royal College of Physicians of London.*

The year has been on the whole an uneventful one at the Royal College of Physicians. It has not even seen the determination of the legal question at issue between the College and the General Medical Council respecting the complete and independent character of the College licence, which has been called in question by the Council. The relegation of the Gresham University Charter to a Royal Commission induced the College to have its position in the matter laid before the Commission by the President (Sir A. CLARK), the Registrar (Dr. E. LIVING), and Drs. NORMAN MOORE and ALLCHIN. A noteworthy declaration of the College upon the question of the transfer of practices between Members and Fellows as being contrary to the traditions of the College "and derogatory to the position of a physician," has had its natural sequel in an addition to the College by-laws. In educational matters the scheme for a five-years' curriculum was somewhat hurriedly pushed through the College in conjunction with the Royal College of Surgeons,—a scheme which introduces important changes in the earlier and later parts of the student's career. The changes in respect to physiological teaching have not been such as to commend themselves to the schools, and will doubtless soon be subject to fresh revision; but the fifth year of clinical work has on the whole been well planned. The period of testing its efficacy has, however, yet to come. Sir ANDREW CLARK was chosen President for the fifth time, and he delivered on the occasion an address which dealt largely with the University question in which he has shown so much interest. A hastily convened comitia in the summer vacation issued a memorandum upon cholera at the request of the Local Government Board, but happily the occasion for its being acted upon did not arise. We had occasion to express our opinion on this memorandum at the time of its issue (*vide THE LANCET* of Sept. 24th). An influential committee has been appointed to undertake the decennial

revision of the nomenclature of diseases. By the resignation of Mr. W. GURNER of his office of bedell the College has lost the services of an old and valued official. The vacancy thus created was filled by the appointment of Mr. FLEMING. The Gulstonian lectures were delivered by Dr. SIDNEY MARTIN, who dealt with the chemical pathology of diphtheria compared with that of anthrax, infective endocarditis and tetanus; the Lumleian lectures on Certain Points in the Etiology of Disease were given by Dr. PYE-SMITH; and the Croonian lectures on the Chemistry and Therapeutics of Uric-acid Gravel and Gout were delivered by Sir W. ROBERTS. The Milroy lecturer was Dr. FRANCIS WARNER, who gave the results of an exhaustive Inquiry as to the Physical and Mental Condition of School Children; and the Bradshaw lecturer was Dr. GEE, who took for his subject the Signs of Acute Peritoneal Disease. Dr. BRIDGES delivered the Harveian oration, which was followed in the evening (St. Luke's Day) by the recently revived Harveian dinner.

*The Royal College of Surgeons of England.*

The year which has now closed will always be memorable in the history of the Royal College of Surgeons; for during it the important case of STEELE v. SAVORY was brought to a conclusion, the decision of the judge being given against the plaintiff as representing Members of the College; and there has been manifested a desire on the part of the Council of the College to extend the privileges of the Fellows. With regard to the trial mentioned above, the details are still sufficiently fresh in the minds of our readers to make detailed reference to it unnecessary. The Fellows and Members have gained a common room at the College, where they can meet, read the papers, write letters &c.; and the principle of calling the Fellows together separately from the Members for consultative purposes has been established. The first meeting of the kind was held on July 7th, after the election to the Council. The object of the meeting was said to be "to afford the Fellows an opportunity of expressing their views on any points they might wish to bring forward." The committee which recommended these changes also considered another question—the advisability of permitting Fellows to be present at meetings of the Council, but did not recommend it.

The ninth annual meeting of Fellows and Members was held on Nov. 3rd, when the report for the collegiate year was presented to the meeting by Mr. BRYANT, the President. The report, which was a full one, was noteworthy for the changes which had been made in the arrangement of its contents, the subjects treated of being placed under their various headings instead of being scattered in fragmentary reports of meetings of Council or committees, and were thus much more accessible to those taking an interest in the work of the College. The proceedings were without particular importance. It has been agreed to commemorate the jubilee of the Fellowship during the course of next summer, and a plan has been approved, the details for the carrying out of which have been handed over to a committee. At the annual election of Members of the Council Mr. THOMAS SMITH and Mr. DURHAM were re-elected, and Mr. TWEDDY and Mr. HOWARD MARSH were elected Members of the Council. Mr. THOMAS BRYANT was chosen President of the College for the third time; Mr. DURHAM and Mr. CHRISTOPHER HEATH Vice-Presidents (the former had held the officesince the

death of Mr. BERKELEY HILL early in the year). We have fully reported in the columns of THE LANCET the changes which have been necessitated in the examinations owing to the adoption of the five years' curriculum, also the changes which have been made in the composition of the various examining boards. Visitors to the College at the time of the election of members of Council were very much impressed and pleased with the changes and improvements which have been made in the buildings. It contains undoubtedly one of the most complete museums of the kind in the world, and the arrangements and furnishing of both museums and library are very satisfactory. It has been necessary to do a good deal to the drainage of the place and the expenditure of considerable sums of money has been called for. The Council considers, however, that it has now got to the end of the heavy expenditure and will be able to retrench. The needful improvements cannot, however, be considered as fully completed until the theatre has been reëcted; it is at present about the most uncomfortable lecture theatre we know of. The finances were not quite satisfactory, judging by the yearly report. There was then a balance of £450 in respect of revenue over expenditure, but the extraordinary expenditure of £11,209 for extension of the College premises and the Examination Hall buildings had necessitated a sale of £12,000 worth of stock. There is, however, about £1400 to be paid for drainage works, and it is doubtful if the balance expected next year will be realised. The loss of income from sale of stock will amount to some £200 a year. We would again urge some diminution in the present rate of ordinary expenditure for a time. The Bradshaw Lecture was given by Mr. CHRISTOPHER HEATH, who took for his subject Diseases of the Nose, and the Morton Lecture by Dr. SIMS WOODHEAD. No candidates sent in dissertations for either the Jacksonian or College Triennial Prizes. Mr. F. G. HALLETT has performed a useful task in compiling a catalogue of the busts and objects of art in the College. In addition to the loss of Mr. BERKELEY HILL, a Vice-president, the Council has received intimation of the death of several past members of its body, including EDWARD COCK, SAMUEL A. LANE, F. LE GROS CLARK, C. HAWKINS and JOHN WOOD.

*Army, Indian and Naval Medical Services.*

There is not very much to chronicle in connexion with the public medical services for the past year. Promotion has not been particularly active in 1892, but, as regards the Army Medical Staff, at any rate, it promises to be more so in the coming year. As regards the medical staff, moreover, it cannot be said that the adoption of the new military designations for medical officers has brought about a state of perfect contentment. It is difficult to find abbreviated titles for ordinary every day use. That of Brigade-Surgeon-Lieutenant-Colonel, for example, is a great mistake. It is manifestly such a cumbrous and lengthy designation that it cannot be generally used in military or social life. The medical officers desire to have their service made into a Royal Medical Staff Corps or a Royal Corps of Surgeons in place of the present organisation, and in that case the majority of them would prefer purely military titles to the present mixed ones. It must be remembered that all the recommendations contained in the report of Lord CAMPERDOWN'S Committee have never yet been carried out. The main points on which medical officers are desirous of seeing changes made, in

addition to the foregoing, are that, in the first place, as regards terms of foreign service, the old rule of five years for India should be reverted to. This is a very reasonable desire, for the increase in the length of foreign tours injuriously affects their health and is otherwise prejudicial to their interest. In the present depressed value of the rupee it cannot any longer be said that a medical officer obtains any financial advantage to recoup him for the risk incurred to health by additional service in India. Next, that the rank of Brigade-Surgeon should be officially recognised by the Indian Government; and, lastly, that more latitude generally should be given to medical officers to effect exchanges with one another, subject to the approval of their departmental head. There has been a good deal of discussion of late in regard to the extension of service beyond the age retirements laid down for medical officers. We have never concealed our opinion on this subject. As a matter of principle and as the only fair and just method of administration it seems to us that Royal Warrants and Regulations should be strictly adhered to in this respect. The retention of officers beyond age limits should be exceptional and for the good of the service only; and, as a rule, the officers so retained should be seconded in order to prevent blocks in promotion and consequent injustice to others. This applies, of course, to all the three medical services—Naval, Medical Staff and Indian Medical Service. A new Order has been issued to the effect that officers of the Army Medical Staff are in future to be detailed for general service in India, their posting and exchange to presidencies being arranged by the principal medical officer, under the orders of the Commander-in-Chief of that country. Hitherto the custom has been to detail the medical officer in this country, when placing him under orders for India, for the particular presidency in which he is to serve. The new Order has its advantages and disadvantages and the judgment in regard to it will no doubt be influenced by the effect it will have on the interests of the individual officers concerned respectively; but, on the whole, we believe that the change, which has been effected no doubt for service and departmental considerations in India, will not be generally popular. It opens the door to patronage and possible abuse, and it will certainly require to be honestly and judiciously worked. We have during the past year striven to keep our readers *au courant* with the progress of medical work and events in India and the Indian medical service. There is little to add in connexion with the events which have taken place in the past year in the Naval Medical Service, the members of which appear to be well satisfied with the rank and titles about which there has been so much discussion in the military services. It has been stated that the late Sir RICHARD OWEN served for a brief period as a midshipman in the Royal Navy; if so, the naval service may be said to share with the medical profession the loss of one of the most distinguished names in science of this age by his death, but that service with the rest of us may rejoice that in Professor HUXLEY they still possess an authority of the highest scientific reputation and distinguished also in the walks of philosophy, literature and general culture.

*Volunteer Service.*—The Volunteer Medical Service has during the past year materially improved in efficiency—rank having been more clearly defined, and the proficiency examination having been rendered compulsory within two years of

gaining a commission. These changes have tended to raise the standard of the service. With the view of assisting medical officers to pass the proficiency examination classes have been held several times during the year, under the auspices of the Volunteer Army Service Institute, which have been well attended and found to be very helpful. Greater interest has been taken in Bearer Company Drill and larger numbers of men from the various regiments have gone through courses of instruction and gained the Army Ambulance certificate. In every direction progress in the Volunteer Medical Service is evident. For the first time a number of decorations have been conferred upon this service and upon medical officers belonging to it.

#### *The General Medical Council.*

The General Medical Council held its two usual meetings. At the first the members sat five days—from May 24th to May 28th inclusive—and at the other (in November) only four days—from the 23rd to the 26th inclusive. It is obvious that the Council, though spending rather less time over its business of late years, has more and more responsible duties to discharge both to the public and the profession. The *personnel* of the Council has been altered by the lamented death of two of its distinguished members—Dr. GEORGE YEOMAN HEATH and Sir GEORGE MACLEOD. The former is replaced by Dr. PHILIPSON in the representation of the University of Durham and the latter by Dr. DAVID CALDWELL McVAIL in the representation of the Crown for Scotland. The University of Aberdeen has no longer for its representative Professor STRUTHERS, who laboured much and well in the service of the Council. On the expiration of his term of office Dr. ANGUS FRASER was elected in his place. One chief work of the Council was to appoint an Inspector and Visitors to report on the examinations of the various bodies. Some of these reports will come up for discussion at the meeting in May next. Questions of professional behaviour arose in several cases at both meetings. In the result the names of five practitioners were ordered to be erased from the Register, three for “infamous behaviour in a professional respect,” and two on the ground of having been convicted of felony. A very important motion by Sir JOHN SIMON, urging the duty of the examining bodies in the first instance to deal with irregular conduct in their diplomas, was properly postponed till the next meeting of the Council in consideration of the fact that the case which suggested his motion is the subject of appeal. At both meetings of the Council, in connexion with the complaints by the War Office of defective preliminary education in applicants for army medical appointments, the question of the examination in arts, held by the Apothecaries’ Society, was raised. It is not in evidence that this examination is specially to blame; but it is used as the portal to the profession by hundreds who do not take the Apothecaries licence. It is naturally objected that the *potestas clavium* of the profession conceded or delegated by other bodies to the educational authorities of the country should reside so largely at Blackfriars. The Apothecaries are tenacious of their old privilege, and the question is still the subject of somewhat unseemly difference between the Council and a body which depends on it for coöperation. On the unsatisfactory state of the law, especially in France and Switzerland, prohibiting English practitioners from

practising, even among their own compatriots, in those countries, the President (Sir RICHARD QUAIN) spoke strongly and explained that statements had been prepared of the state of English law, in accordance with the wishes of the Council, to be forwarded by the Foreign Office to countries concerned. At the November meeting an important memorial, signed by over a thousand practitioners, was presented to the Council on the subject of Medical Aid Associations from Dr. LESLIE PHILLIPS, representing the Medical Defence Union, complaining that the way in which such institutions are worked is injurious to the public and the profession alike. Counter-representations were made on behalf of the associations. In the end the Council resolved that the question should be investigated and for this purpose appointed a committee of six of its members “to fully sift the matter and report to the Council at its next session.” There is reason to hope that both the associations and their medical officers will assist the Council to come to a right judgment on this subject. The Council also determined at the November meeting to apply the regulation as to “covering” unqualified assistants to the case of registered dentists and to give them due notice, so that ignorance may not be successfully pleaded. Dr. RENTOUL presented a memorial complaining of the action of the Obstetric Societies and certain other parties in giving to women certificates which purported to be “qualifications” in midwifery, contrary to the spirit and letter of the law. The Council agreed to communicate with the bodies concerned and to advise them that such certificates should be expressed in language that would not convey the impression that they are legal qualifications to practise midwifery.

#### *The Proposed Teaching University for London.*

AT the close of the year 1891 the Draft Charter promoted by King’s and University Colleges and agreed to by the representatives of the London Medical Schools had been passed by the Lords of the Privy Council, and was awaiting the assembling of Parliament for its assent. Permission had been obtained before the meeting of Parliament for changing the name from the “Albert” University to that of the “Gresham,” and the Gresham Grand Committee had given the scheme their full support. But during the Parliamentary recess a very formidable opposition had arisen, and it became evident that the passing of the Charter was seriously imperilled. As soon as the medical schools of London had consented to become constituent Colleges in the new University the authorities of the Victoria University and the provincial schools of medicine assumed a hostile attitude to the movement and took every means to defeat the passing of the Charter, especially in the House of Commons. In spite of the protests and disclaimers of the deans of the London medical schools a statement was widely circulated to the effect that the new University was intentionally being established in order to lower the standard of medical degrees, and that this was sure to be brought about if the Senate contained such a large representation of the medical schools as was proposed in the Charter. We pointed out the unfairness and injustice of these statements, but they evidently considerably influenced the minds of the provincial members of Parliament, especially of those from the north of England and from the district around Birmingham. The opposition from the provinces was sup-

ported by many members of the Senate and Convocation of the University of London, by the authorities of Bedford College, the Birkbeck Institution and other similar bodies, whilst the University Extension Society agitated a much wider scheme for the education of non-collegiate students. Professor KARL PEARSON and some other professors in the Faculty of Science at University College actively urged the formation of a Professorial in opposition to a Federated University. On March 3rd a deputation representing these interests waited on Lord SALISBURY, at which Vice-Chancellor RENDALL and Mr. CHAMBERLAIN were the principal speakers, and it was soon apparent that the Government would give way to the Parliamentary opposition, although Lord SALISBURY pointed out that the objections then raised should have been placed before the Lords of the Privy Council, who would have duly inquired into their value. On March 9th the Draft Charter was remitted by Mr. BALFOUR for reconsideration and on April 25th a new Royal Commission was appointed "to consider and if they think fit alter and amend the proposed Charter remitted in compliance with an address of the House of Commons, so as to form and report to us a scheme for the establishment under Charter of an efficient Teaching University for London." The members of this Commission are Earl COWPER (the chairman), Lord REAY, Bishop BARRY, Lord PLAYFAIR, Vice-Chancellor RENDALL, Professors RAMSAY and SIDGWICK, Canon BROWN, Mr. ANSTIE, Q.C., and Mr. R. C. PALMER as representatives of the various lay interests concerned in the question; whilst medical education is represented by Sir W. S. SAVORY, Sir G. M. HUMPHRY and Professor BURDON-SANDERSON. London medical teachers who are not specially connected with the corporations, and the general medical practitioners who are vitally affected by changes in London medical education are conspicuously missing from the *personnel* of the Commission. The sittings began on May 21st and on the 28th the first witnesses were heard, and the proceedings are likely to run well into February before the evidence will be completed. A large number of persons have given lengthy and contradictory opinions as to what ought really to constitute a University in London, but all are in the main agreed that it should specially concern itself with University education in London and not be merely an Imperial Examining Board. If one University is to combine both functions it must delegate the duties specially pertaining to them to two separate committees of the Senate, and thus reconstitute itself into a two-sided University. The evidence of the medical witnesses called before the Commission was practically a restatement of that given before the former Commission, who fully recognised the medical side of the question and reported that the London medical student was suffering from a grave injustice and that steps to remedy the grievance ought to be taken. During the past month a correspondence in *The Times* has shown us that the supporters of the Professorial University are scarcely agreed as to what is the exact basis of their scheme. Professor HUXLEY wishes to retain the title and prestige of the University of London and to "federate" the technical schools as colleges of the University, whilst Professor PEARSON will not hear of a University with federated colleges, and has consequently resigned the secretaryship of the Association for promoting a Professorial University in

London. The new departure has the support of many of the scientific Fellows of the University of London and of the Professors at South Kensington, but will probably be strongly opposed in Convocation. We see no provision for meeting the medical difficulty in Professor HUXLEY's new scheme, which so far has only been shadowed forth in outline.

#### *British Medical Association.*

The sixtieth annual meeting of the British Medical Association was held at Nottingham on Tuesday, July 26th, and following days. The President of the year, succeeding Dr. ROBERTS THOMSON of Bournemouth, was Mr. JOSEPH WHITE, senior surgeon to the General Hospital, Nottingham. The meeting was characterised by a fairly good attendance of members and by the great variety of subjects treated. A noticeable event was a motion by Dr. S. H. GALTON to admit women to the membership of the Association and by its being carried without a dissentient voice. The addresses delivered were of much interest. In that of the PRESIDENT the advances of British medicine since the last meeting of the Association in Nottingham, thirty-five years ago, including Preventive Medicine and Surgery, was ably traced. The other addresses by presidents of sections, Dr. RANSOM, Mr. CROFT, Sir W. FOSTER, Mr. BEVAN LEWIS, Mr. VICTOR HORSLEY, Dr. MARSHALL, Dr. BROOKHOUSE and Dr. HAYES, were original and suggestive. Amongst the more noticeable features of the addresses was an attack by Mr. VICTOR HORSLEY on the too exclusively anatomical and post-mortem character of pathology as heretofore studied; also a needed protest by Dr. GAIRDNER of Glasgow against Touting in Medicine, or the tendency to take our therapeutics from what Americans call "the machine," without sufficient organisation for observation and report, by practitioners in all parts of the country. Amongst important discussions we may mention those on Liver Surgery, on Post-partum Hæmorrhage, on Tubal and Uterine Disease, on Psychoses after Influenza, on the Treatment of Dyspnœa, on the Treatment of Ringworm, on Therapeutics &c.

#### *The Church Congress.*

The public interest in medical subjects was excited by the Church Congress at Folkestone, where a discussion was raised on "anti-vivisection." This subject, or the way in which it was handled on both sides, seemed to displace and supersede all topics merely theological, and for weeks afterwards the sound of battle was in the air between those who view experiments on animals from a theoretical point of view and those who find themselves face to face with disease in the whole animal creation and whose mission it is to understand and to control it. Without defending all the expressions used we have no hesitation in saying that the cause of science and true humanity has been immensely strengthened by the discussion. It leaves, of course, many well-meaning people "of the same opinion still." But amongst men and women with any ordinary sense of proportion the case is established by overwhelming considerations for a careful and regulated use of the lower animals, wherever possible under conditions of anaesthesia, for the purpose of investigating the nature and processes of disease and the action of remedies.

#### *Hospital Mirror.*

The columns which we have devoted to the description and illustration of cases under the care and treatment of members

of the profession in our public hospitals and dispensaries throughout the world have been filled as usual with accounts of more than passing interest. We have continued the custom of making editorial comments on the cases as they have been brought forward from week to week, and have received letters expressive of the appreciation in which such remarks are held by our readers. In the review of a year's work done in this department we are, however, necessarily obliged to limit the extent of our selections and omit reference to many cases of importance. The value of saline injections into the veins in certain conditions is exemplified very strongly by the record of the cases of patients in whom it appeared probable that a fatal result would have ensued without its employment: a child aged nine months, in a state of collapse after long-continued vomiting and diarrhoea; a woman aged twenty-eight, who became collapsed with signs of internal hæmorrhage some hours after ovariectomy; a man aged twenty-eight, who had lost much blood as the result of a gunshot wound of the leg, on whom amputation was performed after the injection, and although another injection was afterwards required recovery ensued; a patient aged eighteen, who had lost much blood as the result of a deep burn extending to and implicating the popliteal artery, was enabled to undergo amputation and recovered; a railway shunter, who was much collapsed after crush of both legs, underwent a double amputation, and although the saline solution was not employed before the operation it was injected with great advantage before the patient was removed to bed. In two other instances it was also used, but the cases were more desperate and the patients ultimately died; one had received very extensive internal injuries, the other a burnt wound of the axilla from which hæmorrhage requiring ligature of the axillary artery occurred, this was followed by gangrene of the arm, secondary hæmorrhage ensuing at a later date, and the arm was amputated. Other cases of severe injury are described, notably one in which the patient had received a stab wound in the left loin through which the colon protruded, and a second in the practice of the same surgeon of a girl aged eighteen who had received a stab in the left side penetrating the pleural cavity and diaphragm, with protrusion of omentum through the chest wall. Both patients recovered. A case of fracture of the anterior inferior spine of the ilium from excessive muscular action in a man aged thirty-five is apparently an example of an injury hitherto unrecorded, but rests on the authority of a careful observer. Two cases of recovery after severe injuries to the spine are worthy of attention. A man aged thirty-eight whilst working in a tunnel was bent forwards between a heavy beam of timber and the ground, his body being in a sitting position. On admission there was complete paraplegia with much shock, loss of sensation as high as the seventh ribs in front, priapism and retention of urine; on the fourth day he had pains running down the inner side of the arms with girdle pains; on the sixth day a depression could be felt in the position of the second dorsal spine, and after reduction of this under chloroform recovery, gradually ensued. The catheter was required for six weeks, but no cystitis resulted. A year later the man could walk four miles with the aid of a stick. A man who had fallen into a chalk pit received a fracture of the second lumbar vertebra and was at first paraplegic and suffered

from retention, subsequently some improvement resulted, various muscles partially recovering and the patient regained power over the bladder. As the symptoms became stationary laminectomy was performed nine weeks after the injury with satisfactory results, for in a few weeks the patient could walk up and down stairs without any support; this is an example of the class of spinal injury in which the operation of laminectomy is specially indicated. Excision of the head of the femur was performed in the case of a boy aged eleven years; the head of the bone had been displaced between the layers of the abdominal wall and was lying midway between the umbilicus and pubes; below the latter reduction could not be effected. The amount of shortening immediately after the accident was three inches; after the operation (which did not permit of the femur being brought lower down) it amounted to two inches. The recovery of a patient from traumatic peritonitis with severe symptoms is recorded, also a case of complete rupture of the intestine, in which the history was misleading and the extent of the injury unsuspected until examination after death which was due to peritonitis. Few cases of bilateral empyema are on record. We have given particulars of two: in a child aged ten years the treatment was by resection of rib—first on the left and eleven days later on the right side; the collection on the right side was localised. In a child aged eighteen months the left side was treated by resection; on the twelfth day pus was found on the right side, but the child died a day later somewhat suddenly, before any further treatment could be carried out. We have published cases of abdominal section, for recurrent pelvic peritonitis (a most important series); for primary carcinoma of the kidney; for excision of malignant growth of cæcum, the faecal fistula which was formed in the first instance being subsequently cured by resection; for the performance of LORETA'S operation; for the removal of the uterus. A patient suffering from faecal fistula, the result of ulceration of the cæcum and perityphlitic abscess, was treated by lateral anastomosis of intestine, SENN'S bone plates being used; recovery was apparently complete in six weeks' time; the fistula was of six months' duration and had not improved after scraping &c. A recovery after excision of the vermiform appendix, which was found in a perityphlitic abscess, is described; the patient—a boy of twelve—had suffered with symptoms referable to the cæcum for ten days. As examples of more recent departures in surgery we may mention a case of trans-peritoneal ligature of the left external iliac artery for aneurysm occupying a high position in the inguinal region, the patient, aged thirty, making a satisfactory recovery; a case of thyroid grafting for myxœdema in which the graft appeared to live and the patient improved, but relapsed amid the less favourable surroundings of her own home; a case of open tenotomy of the structures occupying the popliteal space in old-standing contraction of the knee-joint, the good effect of this method, in certain cases, being clearly shown.

#### *The Medical Societies.*

In our annual retrospect of the work of the medical societies the increased demand on our space, in conjunction with the ever-increasing volume of the contributions, has compelled a rather different method of review. We have therefore, so far as practicable, gathered together under general and special headings the communications that have

been noticed without reference to the Societies which served as their birthplace. It has been found possible to refer to but a moiety of the many valuable essays that have been tendered; for the enlightening and critical discussions which have followed their production we must ask our readers to refer to the full reports which we have published from week to week. To observant students of the progress of the medical art these reports of themselves appeal eloquently as evidences of honest work. The activity displayed by those who, though engaged in the active practice of their profession, yet find time to place fully before their brethren the results of their labours at the bedside and in the laboratory can call for nothing but hearty commendation. The presidential address of Mr. HUTCHINSON at the Medical Society on Names, Definitions and Classifications in Disease is one that is worthy of being considered by both physicians and surgeons, for it abounds in practical hints on these subjects which are the outcome of a life experience. In the domain of Medicine the treatment of Hydatid of the Lung was fully discussed, the subject being introduced in a paper by Dr. ORD and Mr. ROBINSON. Again, later, it was dealt with in a paper by Dr. HECTOR MACKENZIE. Dr. GOODHART, in his admirable Harveian Lectures, dealt with the Common Neuroses, or the neurotic element in disease and its rational treatment. Dr. MITCHELL BRUCE and Mr. MARMADUKE SHEILD communicated a paper on Gelatiniform Degeneration of Hydatid Cysts, commenting on the rarity and the clinical importance of this occurrence. Dr. ARCHIBALD GARROD, in two papers on the Changes in the Blood in the course of Rheumatic Attacks, stated that in acute cases the red corpuscles diminished to the extent of about a million per cubic millimetre, the white corpuscles being increased. Dr. WALTER CARR, in a paper on Splenic Anæmia in Children, expressed his belief that the malady was due to a separate cachexia, to which both syphilis and rickets predisposed. Dr. BRISTOWE related some instructive cases of Hepatic Cirrhosis, in which a cure or subsidence of ascites took place, and he insisted on the fact that the efficacy of treatment depended largely on accuracy of diagnosis. The subject of Relapsing Appendicitis received additional attention and many valuable clinical cases were placed on record. Dr. F. J. WETHERED gave his opinion on the Diagnostic and Prognostic Value of Tubercle Bacilli in the Sputum. Dr. LAUDER BRUNTON discussed, from a physician's point of view, the Causation and Treatment of Hæmorrhoids and Allied Affections. Dr. RALFE dealt with the Treatment of Diabetes, dividing the confirmed diabetics into two classes—alimentary and general—and suggesting appropriate therapeutic measures for each. Attention was called by Dr. BURNEY YEO to the frequency with which Cardiac Asthenia followed on Influenza. Many other papers on the complications and sequelæ of this disease were produced. Dr. THIN made an important addition to our knowledge of the symptoms and pathology of Psilosis Linguae et Intestini. A communication on Renal Dropsy by Dr. DICKINSON elicited the current views of many of the foremost thinkers on this subject. The rarer complications of Rheumatoid Arthritis were dwelt on by Dr. KENT SPENDER, and Mr. HUGH LANE discussed the diagnosis of this affection from rheumatoid arthritis. The benefit following the Arsenical Treatment of a case of Leucocythæmia was set forth in a paper by Mr. DOUGLAS DREW. The treatment

of Pernicious Anæmia by Transfusion was advocated by Dr. BRAKENRIDGE and Dr. AFFLECK. Dr. B. W. RICHARDSON gave some interesting and curious details of a new method of Physical Diagnosis by Intra-thoracic Auscultation. An interesting sequel to a case of Tuberculous Peritonitis was placed on record by Mr. LAWFORD KNAGGS. Dr. W. B. HADDEN discussed the Bearings of Syphilis in respect of the Production of Nervous Diseases in Children. Dr. O'CARROLL related the clinical history of four cases of Cerebral Lead Poisoning. Dr. COLLIER pointed out the tendency of young Englishmen to indulge in athletic exercises to an extent likely to prove harmful and to cause Diseases of the Heart and Arteries. A valuable clinical communication on cases of Irregular Heart was furnished by Dr. SANSOM, who held that all forms and degrees of arrhythmia were to be ascribed to disturbances of the nervous mechanism of the heart. Dr. FRANCIS HAWKINS gave the results of a careful analysis of seventeen cases of Typhoid Fever associated with Hemiplegia.

The following were some of the Pathological subjects of interest which were brought forward: Mr. MORTON of Clifton directed attention to the subject of Tubercular Ulcer of the Tongue. The condition of the Breast Tissue in cases of Carcinoma was studied by Mr. RAYMOND JOHNSON and Mr. BEADLES, their results emphasising the necessity for complete removal of every vestige of the gland in cancer. Mr. KANTHACK gave a minute description of a case of Madura Foot. Dr. GRIFFITHS exhibited a Dermoid Cyst, probably originally ovarian, which was found attached to the great omentum. A thoughtful paper was read by Mr. SHATTOCK on the Inadequacy of the Current Terms applied to Suppuration and suggesting a new term. Dr. SIMS WOODHEAD introduced a discussion on Phagocytosis and Immunity, which excited much attention and brought out the latest views of many eminent pathological workers. Mr. HOWARD MARSII dealt with the subject of Senile Tuberculosis, and discussed its diagnosis from osteo-arthritis. Nine cases of Congenital Dislocation of the Radius were collected by Mr. F. C. ABBOTT, seven of them occurring in one family. Mr. JACKSON CLARKE showed a litter of five kittens, all of them with Congenital Malformation, and he gave evidence to show that this was due to the mechanical effects of an abdominal tumour in the dam. A specimen of Ileo-colic Intussusception caused by an inverted Meckel's diverticulum was exhibited by Mr. JAMES ADAMS, and another instance of Intussusception associated with Polypus was brought forward by Mr. LOCKWOOD. Dr. F. C. TURNER demonstrated Microscopic Changes in the Brains of Five Fatal Cases of Chorea. A case of Pedunculated Sarcoma of the Cerebellum was brought forward by Dr. M'WHEENY. Dr. ROLLESTON dealt with the subject of Fat Necrosis, regarding it as a trophic lesion resulting from spread of morbid change from the pancreas to the solar plexus. A specimen of Adenoma of the Soft Palate was brought forward by Mr. C. A. MORTON. Mr. W. ANDERSON claimed that he had found, in a specimen of Chronic Mastitis of the Male Breast, the missing link in the pathological analogies of the male and female mammae. At the last meeting of the Pathological Society a curious specimen of Renal Sarcoma growing down the Ureter was shown by Dr. PENROSE, and Mr. JACKSON CLARKE believed that he

had proved to demonstration the causative rôle played by psorosperms in the production of squamous epithelioma.

There were some valuable contributions to surgery. Professor WILLIAM ROSE, in his admirable Lettsomian Lectures, dealt fully with the treatment of Trigeminal Neuralgia from a surgical point of view, and illustrated his remarks with accounts of his own operative successes in these cases. Mr. BRUCE CLARKE advocated the Galvano-cautery for the radical cure of Prostatic Obstruction. Mr. BLAND SUTTON put on record a successful case of Trephining for Hæmorrhage from the Middle Meningeal Artery. He also related successful examples of operative interference in a case of impaction of gall-stones in the common bile-duct and in an instance of splenectomy for wandering spleen. Mr. BOWREMAN JESSETT gave the details of five cases of Gastro-enterostomy, and two of Jejunostomy for Malignant Disease. Mr. MORGAN showed a boy who had sustained a Compound Fracture of the Skull; the comminuted portions of bone were replaced and the patient made a good recovery. A case of Punctured Wound of the Thigh, involving both femoral artery and vein, recorded by Mr. H. ALLINGHAM, led to a discussion as to the proper primary treatment of such a case and the best time to amputate after gangrene supervened. Mr. W. G. MCPHERSON communicated the results of a useful research as to Antiseptic Preparations of Catgut and Silk and their relation to Wound Infection. He found that the most aseptic material sold was the fine undyed silk twist, untreated with any antiseptic material. Mr. GREIG SMITH, in a paper on Enterostomy in Intestinal Obstruction, described a novel method of treatment of the gut, and Mr. F. PAUL gave an account of a case of Enterectomy performed by a method of his own device. Cases of Pylorotomy and Jejunostomy were also brought forward by Mr. MAYO ROBSON, and Mr. A. LANE gave details of a case of Excision of a Cancerous Stricture of the Small Intestine. Mr. BARWELL communicated a paper on the Operative Treatment of Congenital Dislocation of the Hip. A contribution on Nerve Grafting by Mr. DAMER HARRISSON contained a review of the published cases in which this procedure had been carried out. A paper on some further cases illustrating Hepatic Surgery, from the pen of Mr. KNOWSLEY THORNTON, elicited an animated discussion. Mr. ARBUTHNOT LANE recommended a new method of Nephrorrhaphy by splitting the renal capsule posteriorly, twisting the portions stripped up and attaching them to sutures passed through the parietes. He also introduced another way of completely erasing the ankle-joint. Mr. LITTLEWOOD gave particulars of a successful case of Laparotomy for Traumatic Cyst of the Pancreas. Mr. HULKE later related a case of Pancreatic Cyst treated by Exploratory Laparotomy with a fatal result. Mr. GODLEE, in a paper on Ligature of the Left Subclavian Artery for the Cure of an Axillary Aneurysm, dealt with the justifiability of the operation, the best method of performing it and the best material for ligature. Mr. T. W. NUNN read a paper, in continuation of a previous communication, on Cubitus Valgus and Cubitus Varus arising from Fracture at the Elbow-joint. Mr. W. G. SPENCER advocated timely Amputation in Gangrene from Diabetes Mellitus as a means of prolonging life and reducing sugar excretion. Mr. GODLEE later read a paper on this subject, holding that the determining causes were the

same in diabetic as in other forms of gangrene. A case of Traumatic Aneurysm of the External Iliac Artery in a boy aged six was contributed by Mr. CLUTTON. Mr. G. R. TURNER related a case of Traumatic Volvulus of the Small Intestine successfully treated by early Abdominal Section. Mr. MBEREDITH summarised his experience as to the best way of treating the Peritoneum in Abdominal Surgery. Mr. BLAND SUTTON showed two cases of Amputation of the Arm for Lymphatic Œdema in cases of Cancer of the Breast, in which much comfort to the patient ensued. Mr. HOWSE advocated Amputation through the Thigh, either as a preliminary operation to, or in some cases instead of, amputation through the hip where the hip-joint itself was diseased and the patient in very bad condition. Mr. HULKE gave the details of a case of Hepatic Abscess which burst into the peritoneal sac and which was successfully treated by incision and flushing. Mr. EDMUND OWEN, for the radical treatment of severe Talipes Equino-varus in children, recommended the operation introduced by PHELPS of New York.

In the department of State Medicine and Public Health a thoughtful paper on the Causes of Famine and its relation to Disease was contributed by Sir WILLIAM MOORE. Dr. WILLS of Southwell, in a contribution on Occupation in its Relation to Health, made some sensible observations on the selection of employment for those predisposed to tubercle. Brigade-Surgeon PRINGLE gave his views as to what constituted efficient Vaccination, and Dr. S. M. COPEMAN made some interesting observations on the Bacteriology of Vaccine Lymph. Dr. SISLEY discussed the relation between Influenza in Man and Animals. Mr. C. F. CASSAL referred to the effects of boric acid on health when used as a preservative for food. Dr. COSGRAVE dealt with the subject of the Control of Inebriates. Inspector-General LAWSON read a paper on Cholera in Ships at Sea and their Connexion with Manifestations of the same Disease on Land; and Surgeon-Colonel HAMILTON also introduced a debate on its Epidemic Progression. The Seasonal Prevalence of Enteric Fever in London was the subject of a communication by Dr. LOUIS PARKIS. Dr. F. J. PAYNE, in his retiring address at the Epidemiological Society, took as his subject that of Tuberculosis as an Endemic Disease. The "clinical evenings" have been continued by the older societies and adopted by many others. They have been well attended and usually were abundantly supplied with cases for demonstration.

#### *Special Commissions and other Reports.*

*Sanitary.*—In the first issue of THE LANCET of this year we continued our investigation into the ventilation of theatres and other places of public assembly. The great amphitheatre of the new Sorbonne at Paris was selected to illustrate the most recent innovations. We had previously described how at the Vienna Opera House the principle of warming only a portion of the air and then mixing it with pure cold air before its admission had been adopted. At the Sorbonne the purer outside air may be supplied without any sort of warming. The entire wall space of the Sorbonne is previously heated and radiates warmth through the supply of incoming cold fresh air. As the cold air strikes the warm walls it is warmed, becomes lighter, expands and travels upwards. If, on the contrary, according to the old methods warmed air were admitted it would on striking the cold walls lose its heat,

contract, become heavier and fall as a cold draught on the heads of the people below. Our report and accompanying illustration show how these principles are practically applied. Subsequently in a report of the warming and ventilation of private dwellings we described the villa which M. SOMESCO, civil engineer, built for himself at Creil, near Paris, where the same principle is applied. In this case, the outer walls of the house are hollow. The "blanket" of air in the tubular walls is warmed by a furnace in the basement. This heat, passing through the inner wall, radiates across the dwelling-rooms, with the result that, even in cold winter weather, M. SOMESCO'S family sit with their windows wide open, breathing the fresh garden air, and this without suffering from cold or from draughts.

A special report on "Sanitation in the Shop" materially helped to rouse public attention to the abnormal conditions under which shop assistants have to work. The facts brought forward in our report were considered of such importance that our Commissioner was called before the Select Committee of the House of Commons on the Shop Hours Bill and the entire report of THE LANCET was reprinted in the Blue-book on this question. We pointed out the evils likely to result from standing behind a shop counter for fourteen hours a day, from sleeping in crowded attics above the shops and eating hurried meals in basements under the shops, and near unventilated, badly constructed drains. At the same time we showed that it was in the small rather than in the large shops that such evils would be found to prevail.

During the earlier part of the year we described at some length the French Workmen's Sanitary Congress, which was a notable effort of the organised working classes to grapple with the problems of public health in which they are most concerned. In this they received notable assistance from Dr. DUJARDIN-BEAUMETZ, Dr. HENRY NAPIAS, Dr. A. J. MARTIN and other leading sanitary reformers of France. In special articles on sanitation at Calais, and on the Dieppe and Harwich routes, we described the results of our researches as to the improvements effected in passenger communications with the Continent. As travelling abroad for recreation and for health becomes more and more general, this subject is of increasing practical importance. We were also the first to give the full authentic account of the Sanitary Conference held by the different European Powers at Venice and published the text of the protocol there adopted and which now governs the traffic through the Suez Canal, in respect to medical examinations, quarantines &c. During the controversy arising out of the pretended danger of importing cholera through the Suez Canal many complaints were made by foreign critics as to the slow progress of the sanitary measures the English Government is expected to adopt in India. It was therefore gratifying to be able to describe the very satisfactory drainage of the waterlogged town of Rangoon, which has been accomplished, in spite of topographical difficulties. But though the French Government was very anxious to take precautions against cholera at Suez it displayed neglect nearer home. While the cholera epidemic, failing altogether to avail itself of the Suez route, was travelling through Asia towards Russia, another and apparently a separate epidemic had already broken out in the suburbs of Paris. The true nature of this epidemic was revealed by our Special Correspondent. From the commence-

ment of July up to the present date we have published almost every week special articles describing the result of investigations made on the spot. A great many of these articles deal with Paris, the contamination of the Seine water, the measures taken to cope with the epidemic in the French capital and the conflicts between the various local sanitary authorities. The condition of Paris was of the greatest interest, as it was the centre—for a long time the unsuspected centre—from which the western extremity of Europe has been infected. The first case of cholera at Havre, on July 5th, came from Paris; the first cases at Antwerp, on August 15th, came from Havre; and at the same time in another part of Belgium, the first persons to suffer from cholera at Jumet were Belgian workmen who had just returned home from Sarcelles near Paris. Our Special Correspondent consequently went to study these facts on the spot, and reported on the insanitary conditions which favoured the spread of cholera at Jumet, Antwerp, Boom and other places. He also described the sanitary administration of Brussels and the quarantine station of the Scheldt at Doël. Subsequently he visited and examined the drainage, the water-supply, the housing of the poor, the methods of disinfection and other details bearing upon the prevalence of cholera throughout Normandy. We have thus been able to publish very complete accounts of what has occurred at Rouen, Havre, Caen, Trouville, Honfleur and Dieppe. With the aid of maps and diagrams the history of the epidemic in France and Belgium and the sanitary condition of some of the towns visited have been graphically illustrated. By thus carefully noting on the spot the conditions under which the epidemic in some instances developed rapidly, in others slightly and in some cases not at all, we may hope to have brought forward an array of facts that will help to solve the great problems at issue in regard to the prevalence and growth of cholera epidemics.

*Analytical.*—It is satisfactory to be able to report continued activity in this interesting department, in spite of a temporary suspension of operations which was necessary towards the end of the year in order to provide what has long been wanted—increased laboratory accommodation. The new laboratory, in fact, has only quite recently been finished, and it is now replete with all those modern apparatus, fittings and appliances which the carrying out of carefully conducted and accurate chemical analysis in all its branches now demands. As the improvements that have been effected are considerable we think it would be of interest to our readers to describe them somewhat in detail; and this we propose to do in our next issue, which will be the first number of THE LANCET of 1893. Our attention has again been engaged in the elucidation of the fog and smoke question, and considerable time was spent in the early spring in investigating a stove which was said, not only to consume its own smoke, but also to effect an important economy in the consumption of fuel. Our Analytical Commissioner conducted a series of interesting analyses in Bradford, Yorkshire, where the invention was in working order. Independent examination was subsequently made in THE LANCET Laboratory, and the entire analyses and results were embodied in our Second Report on Perfect Combustion and Smoke Prevention, in THE LANCET of March 5th. The actual coals used were examined, the products of combustion were

repeatedly analysed and the economical value of the system deduced. Some idea of the scientific work this entailed may be gathered from the fact that no less than fifty-five single analyses were published in the report. It is satisfactory to learn that quite recently this system has been favourably reported on by many leading chemists and engineers, and a large demand has since arisen for its widespread adoption.

We have added to our records another report upon mineral waters, temperance beverages &c., selecting this time as a type of temperance beverage Kop's Alc. This inquiry involved, as a reference to THE LANCET of May 21st will show, thirty-seven single determinations, which were made with the view principally of ascertaining how far the beverage could justly be regarded as of the non-intoxicating order. As a matter of fact it contained a minimum of alcohol, a negligible quantity,  $\frac{1}{3}$  per cent. by weight. Being submitted for a short time to a fermentative process it is made more closely to resemble ordinary beer, while as regards hop constituents it is even more strongly charged.

An interesting analysis (made in THE LANCET Laboratory) of the water of Hagar's Well at Mecca appeared in connexion with a paper on the Holy Places of Arabia, by Dr. WORLNET, in THE LANCET of May 14th. A similar analysis had been made in 1883. Referring to the previous sample the following interesting observation is made:—"Our recent analysis indicates that the putrefactive process is still going on, and it follows that the ingress of putrefiable substances into the water has again been permitted."

The next Analytical Commission was instituted to reinvestigate the subject of arsenical wall papers. The report appeared in THE LANCET of July 2nd. From the great number of examinations made we were in a position to state that, owing doubtless to the action of the medical profession in unanimously condemning the practice of employing arsenical colours in wall papers—an action in which THE LANCET took no small part—wall papers loaded with arsenical pigment have apparently become a thing of the past, and those containing any arsenic at all contained an almost imperceptible quantity, while others gave no response to a test which serves to detect the  $\frac{1}{10000}$  part of a grain.

In the same number of THE LANCET appeared an article on dangerous diabetic flours, in which two preparations in particular were shown to be absolutely pernicious as diabetic foods, containing over 62 and 66.6 per cent. of starch respectively, although both were advertised as mainly free from starch.

Lastly, under the heading of "Analytical Records from THE LANCET Laboratory," the total number of foods, drugs &c. reported upon amounted to 118, and the number of analyses made, exclusive of special commissions, was no less than 230. We have repeatedly had occasion, it should be remarked, to point out in our columns the unsatisfactory way in which the Food and Drugs Act is being worked in many districts owing to the unaccountable lethargy of the authorities. In several places and in one metropolitan district—St. Martin-in-the-Fields—not a single sample was procured for analysis during the official year. This we have deprecated in strong terms, and now that the Local Government Board have taken the matter in hand it is to be hoped that this state of things will be, as it needs to be, quickly remedied.

Meanwhile we hope to pursue with renewed vigour the work of this all-important department. We are in a better position to do so; the laboratory is now not only situated on THE LANCET premises, but it is fitted with all those appliances and modern improvements by which chemical investigation has been made more accurate and manipulation less laborious.

#### *Hospital Administration.*

The past year has not been marked by any changes of importance in the ordinary course of hospital administration beyond those which are regularly in progress, but it has been signalled by the appearance of the last volume of the report issued by the Committee of the House of Lords and the publication of the full results of that inquiry. It is much to be hoped that the inquiry will not fall to the ground, although it must be admitted that the difficulty of the subject dealt with has driven the Committee to make suggestions for the formation of a controlling body of so unusual a character that no surprise need be felt if extreme difficulty should be found in giving effect to them. It would have been comparatively easy to extend the jurisdiction of some existing Government department over these institutions, but this expedient has not been approved, and the Committee has very wisely decided that the less departmental control is brought to bear upon the work of hospitals the better. But the adoption of a principle like this, however sound, tends not to the solution but to the creation of a difficulty and the future must show whether or not the plan approved by the committee has in it the elements of successful work. Apart from the scheme of control the principal recommendation contained in the report is that relating to the foundation of a new hospital for the south of London—a recommendation for which much can be said on the ground of the needs of the district indicated, but which should be adopted only after an inquiry directed more pointedly to the matter in question. It may be admitted that the distribution of hospital accommodation in London, and especially south of the Thames, leaves much to be desired, and yet the proposal to correct this imperfection by the creation of a new institution to compete for the gifts of the charitable should be very jealously scanned and adopted only if in the end it should prove impossible to attain the desired result by any other means. At present therefore more is to be hoped than can be confidently predicated of the Committee's report—the great event, so far as Hospital Administration is concerned, of the past year.

#### *The Benevolent Agencies of the Profession.*

Notwithstanding an impression to the contrary, the attainment of success in our profession is not by any means a matter of course, and many are apt to be left at the end of their life's journey with inadequate provision for old age or for those whom they may leave behind them. The societies that are meant to mitigate the results of such a state of matters deserve all the help, and more, that they receive from successful practitioners. A great effort was made at the Biennial Dinner in April under the presidency of the Right Hon. (now Sir) DAVID EVANS, the Lord Mayor, in which we were glad to take our share, to increase the good done by the Medical Benevolent College by raising a sum that would enable the governors to remove the pensioners from the school to live amongst their friends and so to afford addi-

tional facilities in the College for the education of sons of medical men. THE LANCET Relief Fund established to assist members of the profession temporarily in need has been administered, as in former years, by the Presidents respectively of the Medical Council and of the two Royal Colleges in conjunction with ourselves. The Almoners in their report, published in the first number of THE LANCET of the present year, were able to place on record twenty-two cases of relief afforded, in every one of which a pressing and temporary need had been assuaged either by a gift or a timely loan, as the case required. The fourth annual report of the Fund and Forms of Application will be published in our next issue. The Medical Benevolent Fund and the Society for the Relief of Widows and Orphans of Medical Men continue their beneficent work. The latter society has constant occasion to regret that more members of the profession in the postal district of the metropolis do not take advantage of its benefits.

#### *Metropolitan Hospital Sunday Fund.*

The Metropolitan Hospital Sunday was held on June 19th, 1892. The sum obtained was less than in the previous year, but the number of contributing congregations is largely increased.

#### *Honours to Medical Men.*

The following is a list of the medical honours of the year:—Dr. GEORGE JOHNSON, Dr. FREDERIC BATEMAN, Dr. GEORGE BUCHANAN and Dr. P. C. SMYLY were made Knights. Dr. THORNE THORNE and Fleet-Surgeon MAHON, R.N., were made Companions of the Bath. Professor FLOWER was made a Knight Commander of the Bath. Surgeon-Major-General RICE and Surgeon-Major S. ROBINSON were made Companions of the Star of India. Surgeon-Captain HARE was made Companion of the Distinguished Service Order. Dr. A. OGSTON, Regius Professor of Surgery, was appointed Surgeon-in-Ordinary to the QUEEN in Scotland, and Sir WM. STOKES Surgeon-in-Ordinary to the QUEEN in Ireland. Dr. BROADBENT was appointed Physician-in-Ordinary to the Prince of WALES and Dr. WM. HICKMAN Physician-in-Ordinary to the Duke of EDINBURGH. Sir W. FOSTER, to the satisfaction of the profession, was appointed Parliamentary Secretary of the Local Government Board.

#### *Obituary.*

The obituary of the profession seems a very heavy one if we have respect to the many names of distinguished members of the profession which it contains. Many of these indeed died at a ripe age. Dr. JOHN McDONNELL, F.R.C.S.I., of Dublin, and pupil of the famous RICHARD CARMICHAEL, died at the age of ninety-six. Mr. ROBERT PHILIPSON EDGER, of Hetton-le-Hole, Durham, died aged ninety-four, having taken the Apothecaries' licence in 1823. Dr. GEORGE DIXON LONGSTAFF also died aged ninety-four, having been assistant to the celebrated Professor HOPE of Edinburgh. The lives of some of these long-lived members of the profession would prove worthy of the attention of Sir GEORGE HUMPHRY. Dr. W. F. CUMMING of the clan Cumming and of the Isle of Mull died aged eighty-seven; but it is fifty-six years since he left India and travelled to restore his health. Among many charming qualities and accomplishments he was a great angler. He angled till, from exposure to wet, he became paraplegic. But he went on fishing, having a contrivance for being carried down to the loch, and he still succeeded in catching as many salmon

as before. Highly related in Scotch society, he was appointed by the Duke of ARGYLL to be his private secretary in two Governments,—one that of Lord ABERDEEN, the other that of Lord PALMESTON. But we may not dwell on the great variety of character, service, and history of medical men, as we are tempted to do when once we begin to reflect on the lives whose termination it is our painful duty to record. The following are some of the names which have appeared in our obituary during the year 1892, out of a long list of which we are sorry to omit even one:—Professor JOHN WOOD, Professor BERKELEY HILL, Brigade-Surgeon F. R. WILSON, OSCAR CLAYTON, Sir GEORGE PAGET, ALFRED CARPENTER, Sir MORELL MACKENZIE, Dr. JAMES ROSS of Manchester, GEORGE YEOMAN HEATH, Sir WILLIAM BOWMAN, Dr. HENRY TOMKINS of Leicester, Mr. ESQUIRE DUKES of Canonbury, Dr. TRIPE of Hackney, Dr. D. HAYES AGNEW of Philadelphia, Mr. GEORGE HOGARTH MAKINS, Dr. PHILIP VANDERBYL, Mr. THOMAS COLLEY of Chester, Dr. WILLIAM COLLES (aged eighty-four, son of the celebrated ABRAHAM COLLES), Mr. JAMES PIESSE HARRIS of Liverpool (fifty years in practice), Sir WILLIAM AITKEN, M.D., Mr. FREDERICK LE GROS CLARK, Sir GEORGE MACLEOD, Dr. AITKEN of Inverness, Dr. CONWAY EVANS, Dr. HENRY JOHN TYLDEN, Mr. WALTER PYE of St. Mary's, Dr. KEILLER of Edinburgh, Mr. EDWARD COCK, J.P., F.R.C.S. Eng. (aged eighty-seven), Dr. GEORGE ROSS, Professor of Practical Physic in Montreal, Mr. ROBERT ZACCHERUS PITTS of Chelmsford, Mr. WILLIAM LINDOW DICKINSON of Workington (the first to note trichiniasis during life in this country), Inspector-General D. L. MORGAN, Sir RICHARD OWEN, Dr. WALSH, Dr. DARBISHIRE, Dr. AVELING, Surgeon-General FASSON (who was superintendent of the Edinburgh Royal Infirmary since his retirement from the Army Medical Service), Inspector-General R. TAYLOR, C.B., and, as we are going to press, Surgeon-Colonel GODWIN, the late Professor of Military Surgery at Netley, and others. We have noticed the extreme longevity of some of the lives of our colleagues. It is sad to note, on the other hand, the death of many young men struck down in the very middle of the battle of life or earlier—sometimes with typhoid fever, perhaps with influenza. The only comfort is that they have died at their posts and that in most instances they have left behind character and work that will be at once the inspiration and the example of their children and of those who survive them.

#### *Conclusion.*

We must now conclude our annual summary and may perhaps be permitted in so doing to express to our readers the seasonable wish of "A Happy New Year." We can conceive no profession capable of affording truer happiness than our own. Standard bearers fall, but the great army of healers and helpers remains fighting, not only against disease, but against all those conditions which produce it. Before the Annus Medicus of 1892 can be mastered in all its significance the duties of another year will begin to press on us. It is gratifying to believe, as we firmly do, that disease after disease is coming increasingly under the control of well-directed medical skill and service and that the very failures of the years that are gone are among the conditions of better success in those which are to come. There are still diseases which are the opprobrium of medicine, but not of medicine alone. Medicine has a right to demand the help of society,

of Legislatures, of all men of light and leading. It has been too much the fashion to leave medicine single-handed to cope with disease and the misery which accompanies it. But with more generous help and recognition, medicine will yet appear as a very angel of mercy and as a controlling force over the most appalling diseases.

## Annotations.

"Ne quid nims."

### THE QUEEN AND THE HOSPITALS.

It is no new thing for us to have to note the sympathy which Her Majesty always evinces for the distressed among her subjects. With her gracious sanction a facsimile of the letter which she addressed to the nation in response to the widely expressed and respectful sympathy of her people on the occasion of the lamented death of the Duke of Clarence and Avondale has been largely distributed among the in-patients of hospitals throughout the kingdom. If we may be permitted to paraphrase the highest title which a Sovereign can bear, we make bold to say that that which will spring most readily from the hearts of her English subjects as applicable to Her Majesty, and designating at once her kindly interest and the homage of a grateful people, will be the proud title "Mater patriæ."

### OPERATION FOR JACKSONIAN EPILEPSY.

IN the last number of the *International Journal of the Medical Sciences* Dr. Alexander B. Shaw, of St. Louis, records a curious and interesting case, in which operation was undertaken on the brain for the purpose of relieving epileptic attacks beginning in the right arm and sometimes being limited to that limb. The patient was a married woman of thirty-one, the mother of several children. There was nothing in her previous history—either syphilis or injury—to suggest a cause for the fits. The first attack came on in March 1890, without any warning. Its character is not described, but the patient lost consciousness, and remained unconscious for some time. During the next six months the attacks recurred about every two months. They then became more frequent, in spite of treatment, until March, 1891, when she was having an attack about once in every three or four days, the majority being mild and unaccompanied by loss of consciousness, but a certain proportion were more severe and rendered the patient unconscious. During the first few months all the attacks were preceded by a feeling of numbness or pricking, or both, commencing in the right hand and spreading up the arm. This was followed by jerking of the arm, which would sometimes terminate the seizure. Usually, however, forced extension of the toes followed and jerking of the right lower limb. Sometimes the attack went no further; frequently general convulsion succeeded, with unconsciousness and conjugate deviation of the head and eyes to the right. Just before the operation in December, 1891, there was marked weakness on the right side of the body, involving the face, arm and leg, which was greater after a fit. There was also impairment of memory, but no mention is made of any affection of speech, which we should have expected to be present, at least after the seizures. Both visual fields were limited, but apparently optic neuritis was not present. There is said to have been anæmia of the right disc. Trephining was performed over the arm area, and considerable difficulty was experienced in removing the button of bone on account of a considerable thickening of the skull throughout two-thirds of the circumference of the opening. This thickening was

greatest over the arm centre in the ascending frontal convolution. The opening was enlarged with forceps and the brain was found to bulge very considerably. After opening the dura mater the cortex was found to be much altered and its consistence was such as to suggest the presence of fluid. None was found on tapping, however, but the surface was irrigated with sterilised water and it then became lighter and more natural in colour. The wound healed well, and since the operation the patient has remained free from pain in the arm and there has been no spasm or convulsion, local or general, and although there is absolute loss of power in the right arm, the facial deformity has disappeared, there is less difficulty in getting about and the patient's memory is better. The result of the operation must be regarded as satisfactory. The further progress will be interesting, especially if it clears up the diagnosis. From the facts ascertained it seems as if the condition of the bone had been the means of altering the cortex and giving rise to the convulsions.

### THE LATE SIR RICHARD OWEN.

A PRELIMINARY meeting was held on Wednesday afternoon at the house of Sir James Paget, with the view to the promotion of a memorial to commemorate the late Sir Richard Owen's services to science. It was resolved to form a committee to carry out the object, upon which the following among others have already consented to serve: The Presidents of the Royal Colleges of Physicians and Surgeons and of most of the scientific societies, the Duke of Teck, Lord Playfair, Professor Huxley, Sir Joseph Hooker, Sir Henry Acland, Sir John Evans, Dr. Michael Foster, Mr. Sclater, Sir W. Savory, Mr. Hulke, Sir Joseph Fayrer, Sir Edward Fry, Dr. Günther, Mr. Carruthers and Dr. H. Woodward. Sir William Flower will act as treasurer, and a general meeting will be called at an early date in the rooms of the Royal Society. It was suggested that the memorial should be a marble statue, to be placed in the hall of the Natural History Museum.

### THE HEALTH OF ITALY.

THE year closes for the Italian peninsula with an exceptionally clean bill of health and with a no less favourable prospect for the year to come. The President of the Council of State has just received from the Senator, Professor Moleschott, the customary report, setting forth, on the authority of the "Consiglio Superiore di Sanità," the health statistics of the country, with the conclusions to which they lead up. With the one exception of pellagra—a local disease, due to an entirely preventable cause, the consumption of unsound grain—no malady on an epidemic scale has for months been met with in the peninsula; while sporadic ailments themselves appear in reduced number and intensity. To the report thus satisfactorily made by Professor Moleschott confirmation has been given by the "Scuola d'Igiene," which, from a special and independent standpoint, reviews the sanitary state of the kingdom and embodies its judgment in official form. These gratifying announcements become still more acceptable when the causes of the improved health conditions of Italy are taken into account. These are mainly the increased activity of the officers of State hygiene, the wider diffusion of sound sanitary knowledge among the population and the greater efficiency of medical practice in the provinces. Italy is thus seen to be on the right tack and to be already reaping her reward, and not only will the physical and moral well-being of her people be the gainer from this enforcement and observance, public and private, of sound sanitary law, but material advantages will also be hers from the freer, less apprehensive influx of foreign residents into her cities and provinces—a source, as she herself admits, from which about one-third of her yearly income is drawn. From Her Majesty Queen Victoria to the most modest of personally conducted

tourists next season will witness a larger number of visitors to Italy, her winter cities and her "sun-traps," than she has hitherto calculated on, and it will be her own fault if successive seasons do not register a steady advance on their immediate predecessors, till the residence of the invalid or convalescent within her borders becomes as safe and as unvarying a proceeding as that on the French Riviera or even at our own familiar health resorts.

#### THE PREVALENCE OF SMALL-POX.

If any change has taken place in the prevalence of small-pox it is in the direction of the widening of the area of distribution. Much anxiety is felt as regards Manchester, for with an increasing amount of small-pox and an increase in the number of districts affected the accommodation available at Monsall is becoming exhausted. This matter was some time since the subject of a carefully compiled report by Dr. Tatham and the occurrence in question may expedite action on the lines which he so ably advocated. The Corporation are, in the meantime, being pressed by the Manchester and Salford Sanitary Association, the members of which have acquired the reputation of supporting every properly devised scheme for the protection of health in the two boroughs concerned. Between 40 and 50 attacks have occurred in Manchester during the present month. In Barnsley the disease is spreading—6 cases were reported last week and removals to the Kendray infectious hospital are increasing; in Halifax a fresh extension has taken place—some 30 patients were in the small-pox hospital and 9 fresh attacks were recorded last week; cases have occurred at Lancaster; a considerable outbreak is reported from West Halton, in the Brigg rural district, Lincolnshire; in Chadderton and Oldham combined there were 20 new cases last week, 11 in Liverpool, 4 in Rotherham, 4 in Southampton, 3 in Derby and minor outbreaks in a number of other places; 6 cases are in hospital in Edinburgh. In the Metropolitan Asylums Board ships 38 cases are under isolation and 7 fresh cases were reported last week.

#### CHRISTMAS INCIDENTS.

THE oft-repeated saying that in point of weather and in every other way the character of Christmas is changing is true only in a limited sense. Change and evolution must of course rule in this, as in all other times and things, but their processes are never revolutionary. We are not justified, therefore, in speaking even of the present rigorous weather as old-fashioned any more than we can ignore the freshness in maturity which marks the continuance of the season's ancient customs. Merry and bright as usual has been the Christmas of 1892 and we would willingly set our eyes on this aspect of it and look at no other. A sharp and timely frost, which came as if by appointment, has dressed the earth with winter's jewelled robe and has fixed with a wholesome chill the air laden with moisture-bred miasmata. It is true that fog, that spectral oppressor of our cities, has not spared us; nevertheless we have occasionally seen the moon and stars by night and even the metropolis has caught a glimmering half-smile of sunshine by day. This year thence on ponds and streams has been formed suddenly and with a deceptive appearance of solidity. It has tempted many, the more in consequence of the general holiday, to venture upon it when a very little reflection should have convinced them of its uncertain quality. Already the number of ice accidents is unusually large and these have repeatedly happened in spite of the plainest warnings. We are pleased to learn that at all events the ice on all ornamental waters under the control of the London County Council is being jealously guarded from such misuse until the fact of its bearing is beyond dispute. We need hardly impress upon every local authority, public or private, the wisdom and the duty of exercising a like restraint

upon the rashness of careless and inexperienced persons, as well as of maintaining for use in case of need the ordinary rescue and restorative appliances. There is no possibility of forgetting that the great winter festival has a social side. It is the common meeting point of every class. Its appeals to each are based upon the same sanctions of faith and of human kinship. Its usages, likewise, however they may be modified by circumstances, whether affluent or straitened, partake of the same essential characteristics. In the practice of these the rich and the poor meet together, and it is not, in our opinion, a subject of regret that even the poorest may enjoy some remembrance of his neighbour's charity. We are not indeed of those who would pamper with superfluous delicacies and expensive efforts at entertaining the inmates of workhouses, hospitals and the like institutions. There is too great a tendency perhaps to this kind of practice in our days. Nevertheless it must be admitted that all are the better for recognising in some substantial way the claims of poverty to participate in the universal enjoyment, and it were false economy to deny the occupants of hospital or workhouse an extra ounce of tobacco or of tea when their wealthier neighbours have enough and to spare. Excess of a somewhat serious character is unfortunately so far a constant circumstance in Christmas-keeping, and the case of a man recently found frozen to death while apparently lying in a drunken sleep is not by any means unique. The habit of "treating" with drink is happily falling more and more into disuse and its general discontinuance will cause no regret to any person who thoughtfully considers the matter. The incident just mentioned, however, may be remembered by the police and others as proving that even the drunken at this season may require, even if undeserving, some further care besides mere incarceration.

#### THE ALTHORP MURDER.

ON Dec. 24th at the Northampton Assizes Andrew McRae, a married man, was found guilty of having murdered a single woman named Annie Pritchard on July 20th last. The case is remarkable, firstly, from the ghastly circumstances surrounding the crime and, secondly, that the three essential facts to be established to validate a conviction—viz. (1) identification of the remains, (2) the proof of violent death and (3) the fixing the murder upon the accused—were all contested by counsel for the defence. It will be remembered that the greater part of the body of an adult female was found in a sack at East Haddon by the side of the railway. The woman Pritchard was proved to have been on terms of intimacy with McRae and it was also known that she had been delivered of a child. Some portions of incinerated bones were found in the fireplace at the warehouse where McRae was employed, and these, in the opinion of Mr. Milligan, belonged to a human being. In this he was supported by Mr. T. Bond, with the reservation that they bore a great resemblance to the phalanges of apes. There can be little doubt that the remains found at East Haddon were those of Pritchard, since some of the clothing was identified as having belonged to her. Further, McRae about the time of the disappearance of Pritchard purchased some lime. Another link in the chain of evidence consisted in the fact that the sack in which the remains were found bore a mark similar to others used in the warehouse before referred to. Again there was nothing but a suggestion to the effect that Pritchard was still alive. Moreover, McRae was proved to have occupied rooms with a woman corresponding to the description of Pritchard; in fact, the prisoner's counsel admitted they were known to each other, but contended that McRae had only given the woman shelter. It was further contended that there was no evidence that the person whose body was found at East Haddon had not died a natural death. The theories put

forward by McRae's counsel, although plausible, signally failed to cover the facts which had transpired and the jury had no alternative but to convict McRae. Mr. Justice Kennedy passed sentence of death.

#### HINDOO OCULISTS IN LONDON.

At the Marylebone Police Court, on the 21st inst., three Hindoo gentlemen—Molla Bux, Nabre Bux and Shah Deen—of 39, Camden-road, appeared, charged with pretending to be doctors of medicine or physicians. They practised as Indian oculists and distributed handbills in which Molla Bux was designated "Dr." Mr. W. T. B. Woods prosecuted on behalf of the London and Counties Medical Protection Society. The theory of the defence was that Molla Bux was an Indian oculist, that Nabre was his assistant and Deen his clerk, but the prosecution alleged that occasionally the two latter would lead persons to believe that they were "Dr. Molla Bux." Mr. Warburton adopted a bold line of defence. He admitted the facts and maintained that they amounted to no violation of the law. A certificate in Hindustani was put in and translated to the following effect: ["Dr. Molla Bux was practising for diseases of the eye and had given satisfaction to persons in the locality." This qualified him to practice in India. It seems a slight basis for a similar claim in England. But on his agreeing to use the word "Mr." Molla Bux instead of "Dr." and to avoid all pretension to being "registered," the summonses were dismissed.

#### THE SCHOOL BOARD AND THE VESTRIES.

THE important inquiry before Mr. Horace Smith at Clerkenwell Police-court on the sanitary state of the Yerbury Schools, where sixty-six of the scholars are said to have had diphtheria this year, was again adjourned. At the second sitting Mr. Harris, medical officer of health, was further examined, and described the tests he had applied to the drains and the soil—"made" soil—in which they were laid with joints left open, permitting leakage of sewage-water into the ground and foul air, gases, and emanations to make their way under the school premises and up through the thin and porous asphalt of the playground. His evidence was confirmed by that of Mr. James Patten Barber, surveyor to the Islington Vestry, by Professor Corfield, and by Mr. de Courcy, surveyor to the Hornsey Local Board. The magistrate undertook, at the request of the counsel for the board, to see the drains. The board maintains that the drains are no worse than others laid fifteen years ago. It is obvious that the Vestry of Islington is only doing its duty in having the real state of the drains thoroughly investigated. It would, perhaps, have been well if the medical officers of the respective authorities could have agreed without such an inquiry; but failing this it must have a good effect on the public and on responsible bodies to set all facts in the open light of a court of law. We have still to hear the evidence of the "other side."

#### MISMANAGEMENT OF MORTUARIES.

THERE are some honorary offices which men will strive after, and the duties of which they will undertake and discharge with readiness and perseverance; there are others which they accept because a public necessity is laid upon them and of which they will be quit at the earliest opportunity. As regards the great majority of mankind, it may be truly said that the functions of jury service belong to this latter class. Any pretext of business or of health is eagerly grasped at as a straw which may bear up one who is threatened with this fate. What is true of the juryman in an ordinary law case is probably true in a sensibly greater degree of one who has to use his judgment in aid of a coroner's decision. Obviously therefore it is at least highly impolitic to add by any avoidable annoyance to this never very palatable service,

Such an absence of ordinary care and we may say of ordinary civility as was apparent at a recent inquest in the Camberwell district was by no means calculated to improve the temper either of the coroner or his assessors. In this case it was impossible to view the body till the mortuary door, which was found to be locked, had been opened. In order to effect this object the St. Saviour's Board of Works had to be applied to, the jury going in procession for the key. It was noted also that though post-mortem examinations were conducted here, not even a piece of soap was provided for the use of those who performed them. This neglect of ordinary measures of cleanliness in connexion with inquest arrangements is not unknown in other parishes besides Camberwell. One want in particular is common and it is one which will be cruelly felt at the present time—namely, hot water. We need not remind our readers of the paramount importance of cleanliness in medical practice. The matter has been mentioned times without number in our columns and we must again protest against the unfairness of subjecting medical men and others to such annoyances as these, which might be most easily remedied, but which are still from sheer neglect suffered to remain as they now are—the causes of serious inconvenience, and even of injury, to the public health. There should be no difficulty in providing a coroner's officer with a key for any mortuary, or in making such provision as is absolutely needful for the wants of practitioners whose duties take them thither.

#### DEATH OF SURGEON-COLONEL C. H. Y. GODWIN, A.M.S.

It is with sincere regret that we record the death of Surgeon-Colonel C. H. Y. Godwin, whose decease will be widely deplored throughout the Army Medical Staff, where his eminent scientific attainments were highly appreciated. The news reached this country by telegram on Saturday last, he having died on the previous day, the 23rd inst., at Rawal Pindi, where he was principal medical officer of the division. He had only been in India three months when he was attacked with acute dysentery, which proved fatal in less than a fortnight. The circumstances under which he went to India will be fresh in the minds of our readers. On the resignation by Sir Thomas Longmore of the chair of military surgery at the Army Medical School, Netley, Brigade-Surgeon-Lieutenant-Colonel Godwin, who had acted in the capacity of assistant professor, succeeded Sir Thomas Longmore as professor. He had not long occupied that position when he was promoted to the rank of surgeon-colonel, but in consequence of some difficulty with the Treasury authorities regarding his pay, he was obliged to resign his chair of surgery. Thereupon he was ordered to India, and he had not been two months in that country when he was attacked, as we have said, with acute dysentery, which proved fatal in less than a fortnight.

#### SOME EFFECTS OF WOUNDS OF THE HEART.

SCIENCE, notwithstanding its usually strict obedience to law, surprises the observer of its processes not infrequently with some curious departure from its regular methods. To the by-law which decrees this occasional variation the science of pathology conforms and by many apparent freaks of diverse causation varies the processes by which disease more usually reveals itself. One such was the subject of an inquest at the Lambeth coroner's court a few days ago. The deceased, a female school teacher, died of pericarditis, and this condition was found on examination to be due to the presence of a needle which had penetrated the cardiac apex. The motive of course was suicide and the chosen method surely was a painful one enough. A very similar case was related at a meeting of the Royal Academy of Medicine in Ireland by Mr. William Thomson (THE LANCET, March 24th

1888). In this instance the sufferer was a lunatic and the cause of his fatal illness a pin which had been pushed up to its head in the fifth left intercostal space. It is hardly needful to observe that death in such cases does not occur suddenly, but what is more noteworthy is the fact that even where a considerable wound, such as that of a knife-stab, has been inflicted in the heart, the vital functions of that organ may continue for some time afterwards. A note in THE LANCET of Dec. 15th, 1888, bears upon this subject; and a still more striking illustration of the same fact is recorded in the Transactions of the Æsculapian Society for 1884. This latter example is further interesting as an instance of traumatic mitral murmur. The relatively late occurrence of death in such cases has an evident connexion with the obliquity and the size of the wound inflicted, or, in other words, with the suddenness and amount of the resulting hæmorrhage.

#### "A FILTHY AND POISONOUS RITE."

A FORTNIGHT since we drew attention to the unbiased testimony of a Roman Catholic priest to the efficacy of vaccination based on his personal powers of observation exercised in the performance of his self-sacrificing and Christian duty. To-day—in strange contrast with that experience—we are confronted with the *ex cathedra* utterance of a member of another profession, one from whom we might expect a judicial estimate of the subject. To be sure this gentleman has not—like the good priest—himself come into contact with small-pox patients; he has not seen the ravages it creates among the unvaccinated and the vast amount of suffering and death it inflicts upon unprotected children. His strong remarks are purely based on *a priori* considerations, on violent mistrust of the medical profession, as well as on the ground of interference with the liberty of the subject. He talks of the "medical despotism" which imposes the "filthy and poisonous rite" of vaccination upon a subservient nation, and he informs the world that "some of the noblest" of our ranks are on the side of anti-vaccination. It is, perhaps mere waste of time and energy to meet this effusion in the way it deserves, but we would ask Mr. Hopwood, Recorder of Liverpool, one plain question. Does he believe that the medical profession advocate vaccination and re-vaccination in their own interests or in those of the community whom they serve? There can only be one answer to that question, but it is not the one which fits in with the terms of the letter which has led to these remarks.

#### ACTINOMYCOSIS OF THE SPINE.

WITHIN the last two or three years a large number of cases of actinomycosis have been placed on record. The spinal column, as the seat of the primary disease, however, is very rare, and the following case, recorded in the *Münchener Medicinische Wochenschrift*, No. 25, 1892, is worthy of notice. The patient was a girl aged sixteen. For a long time the diagnosis remained uncertain, for from the family's clinical history tuberculosis was suspected. The primary symptoms pointed to the spine or posterior portions of the ribs as the seat of disease. It was considered probable that the spine was first attacked and that the morbid process then spread to the ribs and pleura, producing an acute and extensive pleuritis on the left side with a large amount of effusion. The inflammation then extended further up the spine and the pus penetrated between the intercostal muscles and the costal pleura, at first slowly and then more rapidly. At the same time the left lung was gradually invaded. The lung tissue then commenced to break down and a small abscess formed which finally burst into the bronchi. An examination of the sputum about this time cleared up the diagnosis, for the "ray fungus" was found and thus once more proved the value of such an examination in cases where the diagnosis is doubtful. Now that the examination of expectorated matters and discharges

from the chest is becoming more systematic cases of this kind will probably become much more numerous. To return to the account of this case: The pus extending on the left side finally penetrated the pericardium, leading to a sharp attack of pericarditis, followed by death. Although careful search was made no metastatic deposits were found in the other organs of the body.

#### EPIDEMIC INFLUENZA.

TOGETHER with the news as to a recurrence of epidemic influenza in Southern Russia and notably in Kieff, Odessa, Kherson and Nicolnieff, and with the announcement of attacks further north, as in Moscow, we are having unmistakable signs that we still have to do with the disease in this country for another winter. In Sheffield a number of people have been attacked, isolated occurrences are reported from other places, and the metropolis is by no means free. We may hope that this is the last manifestation of an epidemic which is on the wane before its final disappearance. It is highly improbable, however, that it will attain to anything like the dimensions of its previous outbreaks.

#### A WORKSHOP IN ST. JAMES'S.

THE St. James's Vestry had resolved to make a sudden visit to a tailor's cellar workshop. This place was represented as being twelve feet below the pavement, with a window looking out on to the area, which, however, is said to be so hemmed in that it was almost impossible to see the sky. The room was triangular and contained a number of gas-jets and a stove for heating the tailors' irons. It is supposed to be overcrowded and badly ventilated. The curious part of this matter is the energy with which a vestryman complained against the entrance of the sanitary inspector in this workshop; and when the vestry decided to go there themselves to verify the statements made, he wished to give the shopkeeper timely warning. Much yet remains to be done before the Amended Factory Act will be thoroughly applied and its principles realised. In the West-end generally, as well as in the sweaters' dens of Whitechapel, there are numerous workshops where the worst conditions prevail and where the health of the workers is gravely compromised. Our investigations in respect to sweating among tailors showed that even in some of the best workshops where there is no sweating and very good wages are paid there is often no ventilation, insufficient light and overcrowding. We are glad to see that the majority, in any case, of the St. James's vestry are quite disposed to take measures to put an end to such grievances.

#### MUSCULAR ATROPHY AND HEMIPLEGIA.

MESSRS. JAFFRAY AND ACHARD, in the *Archives de Médecine Expérimentale et d'Anatomie Pathologique*, have contributed some observations and made an attempt to reconcile the different theories which have been held with reference to the occurrence of atrophy after hemiplegia. This condition, according to Charcot and Leyden and their followers, is a result of an affection of the anterior horns in the spinal cord. Déjérine, on the other hand, ascribes the condition to an affection of the peripheral nerves; while Quincke, Eisenlohr, Babinski and others hold that there is no discoverable anatomical condition underlying the change, but that it is the result of a functional disturbance in the cells. In two cases examined by Messrs. Jaffray and Achard changes were found in the anterior horn cells, so far confirming Charcot's views. To explain the different conditions and reconcile the different theories, they suppose that in the first place, on account of the lesion of the pyramidal tracts, there is stimulation of the cells of the anterior horns, giving rise to contracture. If this stimulation is succeeded by exhaustion then

atrophy results, but in this there are several stages. At first there is simple muscular atrophy, the nerves not yet being appreciably altered, and the anterior horns and intramuscular endings being anatomically intact. But later degeneration in the motor nerves sets in, and in the peripheral nerve endings; and last of all, the cells in the anterior horns undergo visible atrophy.

#### ISOLATION ARRANGEMENTS FOR LEITH.

THE authorities of Leith are contemplating the erection of a new hospital for infectious diseases, and with this object in view a deputation, consisting of the provost, a number of councillors, with the burgh architect and Dr. Gray, the health officer, have recently conferred with Dr., Thorne Thorne and Mr. Power at the Local Government Board offices. They decided to visit one of the Metropolitan Asylums Board Hospitals, the hospital belonging to Leamington and Warwick and the one at Walker erected by the Corporation of Newcastle-upon-Tyne on their return journey.

ON the 22nd inst. certain changes took place at the Coombe Lying-in Hospital, Dublin, by which Dr. S. R. Mason, late master of the hospital, was appointed consulting surgeon, and Mr. P. P. Barry, L.R.C.P.I., L.R.C.S.I., late assistant to the master, was appointed deputy-master.

A MEMORIAL TABLET has recently been unveiled in the portico of the Ducal Palace at Mantua in honour of Dr. Achille Sacchi, whose romantic career as Garibaldian surgeon in Italy's wars of independence, followed by many years of philanthropic activity as practitioner and as citizen among the poor of the Venetian territory, has already been narrated in THE LANCET (April 12th, 1890).

MR. H. N. MILTON, medical officer of the Kasr-el-Aini Hospital at Cairo, some time since obtained a verdict against the French journal, *Le Bosphore Egyptien* on account of a violent article which it contained making certain allegations against English practitioners in Egypt. The judgment in the first instance awarded £1000 damages, but on appeal the amount was reduced to £80.

AT a meeting of the Governors of St. Mungo's College, Glasgow, held on Thursday, Dec. 22nd, Mr. Robert Thomas Kent, M.A., F.R.C.S., was appointed Professor of Anatomy in room of Mr. Henry E. Clark, M.R.C.S., who had been appointed Professor of Systematic Surgery, and Dr. Robert Fullarton was elected Lecturer on Diseases of the Throat and Nose, vice Dr. David Newman, resigned.

WE have to announce with regret the death of Inspector-General J. R. Taylor, C.B., F.R.C.S. Eng., of the Army Medical Department, and Honorary Surgeon to the Queen, at the age of eighty-two. This officer joined the medical service nearly sixty years ago, in May, 1833, and retired in 1863. He had seen much active service in the Crimea and elsewhere and was in receipt of a distinguished service reward.

THE post of medical superintendent of the now London County Asylum at Claybury has been filled by the appointment of Robert Jones, M.D. Lond., B.S., F.R.C.S. Eng. & Co. lately superintendent and resident physician of Earlswood Asylum. The contributions of Dr. Jones to alienist literature have been both numerous and important, whilst his official work in connexion with the asylums at Colney Hatch and Earlswood, and as an adviser on the best methods of asylum construction, mark him out as eminently fitted for the important post to which he has been elected.

MR. WALTER A. PRICE, aged twenty-four, a fourth year's student of the Bristol Royal Infirmary, was taken ill, while on duty as dresser for the week, on Dec. 8th with lymphangitis of the arm and after a few days developed cellulitis and died in that institution on the morning of Dec. 15th. A memorial service was held in the infirmary chapel on Saturday, Dec. 17th, which was attended by the members of the honorary staff, the resident medical officers and a large number of nurses, students and patients.

THE *London Gazette* of Tuesday last publishes an important notice calling attention to the clause in the Factory and Workshop Acts by which the Home Secretary is empowered to certify that in his opinion certain processes in the manufacture of earthenware explosives in which di-nitro-benzole is used and in conducting chemical works and quarries are dangerous or injurious to health. To carry out this provision the chief inspector may serve on the occupier of the factory or workshop a notice in writing, either proposing such special rules or requiring the adoption of such measures as may appear to the inspector to be efficient and practicable.

THE history of the healing art will shortly be enriched with an important contribution from the pen of the Senator Antonio de Martini, Professor of Medicine in the University of Naples. Dr. De Martini's subject is the Discovery of the Circulation of the Blood, and the proofs he has already given of proficiency in the historical aspects of medicine, coupled with his long association with an acknowledged master in those studies—Dr. de Renzis, the editor and translator of Celsus and historian of the Salernitan school—afford ample grounds for expecting from him an able and independent review of one of the greatest, while also the most gradual, of all discoveries in biology.

#### M. PASTEUR'S JUBILEE.

(FROM OUR SPECIAL CORRESPONDENT.)

THE seventieth anniversary of the birth of the illustrious *savant*, Louis Pasteur, was celebrated on Dec. 27th, in a style worthy of the great occasion. From the early hour of 9.30 A.M. streams of admirers began to pour into the large amphitheatre of the Sorbonne, the headquarters of the University of France having been aptly chosen as the scene of the ceremony, which no one present is ever likely to forget. The floor of the amphitheatre was reserved for deputations, both native and foreign, and for personages attending in an official capacity. The public filled the rest of the places, one of the "tribunes" being occupied by the band of the Garde Républicaine, another in the centre by Madame Carnot and one to the left by Madame Pasteur and members of her family. At 10.30 A.M. M. Pasteur entered, leaning on the arm of M. Carnot, the chief of the State. M. Pasteur wore evening dress, the sombreness of the costume being relieved by the addition of the scarf of the Grand Cross of the Legion of Honour. When the applause that greeted their entry had subsided, M. Carnot took the chair, while M. Pasteur seated himself at the far end of the first row of *fauteuils* by the side of his son, M. Jean Baptiste Pasteur, and behind a table destined to bear the weight of the piles of addresses and gifts sent from all parts of the world. To the right of the President were noticed MM. d'Abbadie, President of the Académie des Sciences; Le Royer, President of the Senate; Ribot, President of the Council; together with the Corps Diplomatique, our own Ambassador, the Marquis of Dufferin and Ava, being of the number. On M. Carnot's left were MM. Joseph Bertrand, Permanent Secretary of the Académie des Sciences; Floquet, President of the Chamber of Deputies; Dupuy, Minister of Public Instruction; and the rest of the Ministry *au grand complet*. Behind this first row the platform was occupied by deputations of the five divisions composing the Institute, of several foreign

societies, of the Académie de Médecine, and by M. Gréard, Vice-Rector of the Académie de Paris, the Deans of Faculties, the Presidents of the Cour de Cassation, Cour d'Appel and Conseil d'Etat, the Procureur-Général, the Prefects of the Seine and of Police, the President of the Municipal Council, the Director of the Assistance Publique &c. The semicircle of seats on the floor of the theatre was filled by deputations of the Association Générale des Etudiants (several members of which acted as ushers), the École Normale Supérieure, the École Polytechnique, a great number of French and foreign universities and societies, internes of Paris hospitals and members of the Institut. The first speaker was the Minister of Public Instruction, who, addressing first the President, characterised the gathering thus honoured by his (M. Carnot's) presence as "la fête de la France et de l'humanité," seeing that at that moment the thoughts of the entire scientific world and of thinking humanity were centred on what was passing at the old Sorbonne. Addressing, then, M. Pasteur as "cher et illustré maître," he said that, although his life-work could only be analysed by the scientific, the ignorant and the learned alike knew that he had accomplished *quelque chose de grand*; the most profane amongst us could not remain insensible to the results of his labours—labours conducted with so much patience and tenacity as to command the admiration of the world. All his success was due to his unswerving faith in science—"foi d'apôtre," as the orator termed it. Had he devoted his energies to pure science the topmost place would have been his. Happily for himself and for humanity he deserted that path and henceforth passed his days in inventing antidotes for diseases that had for centuries decimated both the animal and human populations. M. Dupuy here quoted Renan, who, addressing M. Pasteur on the occasion of his (Pasteur's) reception at the Académie Française, said: "Votre vie scientifique est comme une traînée lumineuse dans la grande nuit de l'infiniment petit, dans ces derniers abîmes de l'être où naît la vie." Agricultural France was fully aware of the debt of gratitude owing to him for his great discoveries made since the year 1860 on the principles of fermentation and their application to wine making, the manufacture of vinogard and brewing. Ever marching onward, he had aspired to the solution of such mysteries as the cause of diseases affecting the lower animals. Having given to farmers a vaccine for anthrax and swine typhoid, he had achieved the same success with hydrophobia. Henceforth, thanks to him, the following formula may be unhesitatingly accepted as true: "Ferments and viruses are living beings, vaccines are attenuated viruses and the basis of medicine is the artificial attenuation of viruses." In a magnificent peroration the Minister wound up his discourse by saluting M. Pasteur—that *merveille de la science et miracle du génie*—in the name of France and of humanity.

M. d'Abbadie, President of the Académie des Sciences, then congratulated M. Pasteur on behalf of the Institute and presented him with a splendid gold medal, the product of an international subscription. The medal, the work of M. Rotz, of the Académie des Beaux-Arts, bears on one side the effigy of M. Pasteur and on the other the following inscription: "À Pasteur, le jour de ses soixante-dix ans, la science et l'humanité reconnaissantes.—27 décembre, 1892." With the medal there was also presented a list of subscribers' names. Speeches by MM. Joseph Bertrand and Daubrée, of the Institute, were also delivered.

Sir Joseph Lister gave expression to the feelings of gratitude which animated the breasts of all practitioners of the healing art, and handed M. Pasteur a letter sent by the President of the Royal Society. Sir Joseph Lister said that he had the great honour of laying before him the homage of medicine and surgery. To no other man were the medical sciences so indebted as to M. Pasteur. His researches on fermentation had shed such a light on surgery as to transform the treatment of wounds from the too frequently disastrous empiricism which formerly obtained into a successful scientific method. Thanks to M. Pasteur, surgery had undergone a complete revolution, which had deprived it of its terrors and widened almost to an unlimited extent its usefulness. Nor was medicine less indebted to his profound and philosophical studies, which have lifted the veil which had covered for ages infectious diseases. M. Pasteur discovered and demonstrated their microbian origin. Thanks to his own special labours and to that of his pupils, the causation of quite a number of maladies is now revealed—

Felix qui potuit rerum cognoscere causas.

This knowledge has already facilitated to a remarkable extent the diagnosis of these plagues of humanity and in-

dicated the path to follow for their prophylactic and curative treatment. Along that path his grand discovery of the attenuation and intensifying of viruses would ever remain as a guiding star. As a striking example, Sir Joseph Lister mentioned Pasteur's researches on hydrophobia. With the exception of a few ignorant people, everyone appreciates the greatness of the results obtained by the application of his original method against this disease. M. Pasteur had furnished us with a means of diagnosis which unerringly dissipated all the horrible doubts which formerly haunted persons bitten by a healthy dog suspected to be rabid. Had he achieved no other triumph, this diagnostic one alone would entitle him to the eternal gratitude of mankind. But he had gone further, and by his marvellous anti-rabic inoculations he had been enabled to pursue the poison after its entrance into the system and vanquish it there. In conclusion, Sir Joseph Lister reminded M. Pasteur that of the diseases to which human beings were subject, those of an infectious nature were by far the most common. It was therefore only fitting that the medical and surgical branches of the profession should on that solemn occasion offer him their tribute of respect, admiration and profound gratitude.

Other speeches followed by M. Bergeron, on behalf of the Académie de Médecine, and M. Santon, President of the Paris Municipal Council. Then followed the presentation to M. Pasteur of addresses brought by delegates of various French and foreign societies. The names were called in alphabetical order, the foreign list being as follows:—Medical Society of Amsterdam, University of Athens, University of Barcelona, Medical Societies of Berlin, Berne, Brussels and Christiania, Health Association of Cologne, Academy of Sciences of Copenhagen (this latter sent a gold medal), Royal University of Ireland and Royal Academy of Medicine of Dublin, Faculties of Medicine of Gand and Geneva, Universities of Genoa, Lausanne, Liège, Association for the Advancement of Medicine of London, Medical Society of Lund, Institute of Medicine and Association of Sciences of St. Petersburg, Naturalists' Societies of Little Russia, Universities of Posen and Stockholm, Academy of Medicine of Turin, University of Utrecht and Medical Society of Warsaw. Besides these bodies, French ones were, as may be imagined, well to the fore in their congratulations. M. Ruffier, the Mayor of Dôle, M. Pasteur's native town, then delivered an address and offered to his distinguished fellow townsman an album containing an exact facsimile of the certificate of birth and the photograph of the house where he was born on Dec. 27th, 1822.

During this long series of presentations M. Pasteur was greatly moved, tears rolling down his cheeks on several occasions. So moved was he by the warmth of his reception that on rising to speak he could only utter a few broken sentences. The rest of his speech was read by his son. The presence of the President of the Republic, he said, transformed a *fête intime* into a *grande fête*, and thus the simple birthday of a *savant* became an epoch for French science. But in this joyful hour his thoughts involuntarily strayed to the hard struggles of searchers after truth, whose ideas had been stifled by the prejudice against which they had had to struggle. Not many years ago a man he had so loved and admired—Claude Bernard—had for a laboratory in the neighbouring Collège de France no more appropriate place than a low damp cellar. May he not have there contracted the disease which killed him? He could not refrain from contrasting the splendour of this reception with the above *souvenir* of his dead friend. "Je salue cette grande mémoire." It seemed that by a delicate attention his friends had tried to recall before his eyes the panorama of his life. The Mayor of Dôle brought him the photograph of the very humble house where his father and mother lived and struggled for existence. The presence of the pupils of the École Normale reminded him of the dawn of his enthusiasm for scientific research, as did that of the representatives of the Lille Faculty of his first studies in crystallography and fermentation—studies which revealed to him quite a new world. All his hearers knew how he had been led to pursue physiological investigations. If he had from time to time disturbed the calm usually reigning in the Académies by somewhat lively discussions, he did so because he was upholding the truth. Addressing the foreign section of his audience, M. Pasteur said: "You delegates of foreign nations who have journeyed so far to give a proof of your sympathy for France, you bring me the greatest joy a man can feel who believes that science and peace will triumph over

ignorance and warfare, that nations will end by understanding each other to their mutual edification, and that the future will belong to those who shall have done the most for suffering humanity. For the truth of this I appeal to you, my dear Lister, and to you all, illustrious representatives of science, medicine and surgery." Addressing his younger auditors, he said: "Young men, young men! trust to these sure, powerful methods only the primary secrets of which we are yet acquainted with; and whatever your path in life may be, keep clear of sterile and slanderous scepticism. Do not be discouraged by the sadness of certain epochs which it is the lot of every nation to pass through. Live in the serene peacefulness of laboratories and libraries. Ask yourselves, 'What have I done to educate myself?' Then, after having made some progress, ask yourselves the further question, 'What have I done for my country?' The time will then perhaps come when you may enjoy the immense delight of contemplating the benefits you have shed on progress and the good of humanity by having contributed to their progress. But let your efforts be successful or not, you should be in a position to say, 'I have done my best.'" I reproduce the closing sentence of M. Pasteur's discourse:—"Messieurs, je vous exprime ma profonde émotion et ma vive reconnaissance. De même que sur le revers de cette médaille, Roty, le grand artiste, a caché sous des roses la date si lourde qui pèse sur ma vie, de même vous avez voulu, mes chers confrères, donner à ma vieillesse le spectacle qui pouvait la réjouir davantage, celui de cette jeunesse si vivante et si aimante." The English delegates present were: Drs. Sidney Martin, Sims Woodhead, Cartwright-Wood, Armand Ruffer, Professor Burdon-Sanderson, Sir J. Paget, Sir T. Spencer Wells, Sir Joseph Lister and Sir Henry Roscoe.

## CHOLERA.

### CURRENT NOTES, COMMENTS AND CRITICISM.

THE continued appearance of cases of cholera over such a wide area in Russia, Poland, Germany and France sufficiently indicates the extent of distribution of the disease and naturally gives rise to disquieting apprehensions as to the probability of its still further extension and manifestation in epidemic force during next year. The cold weather—and it appears to have been extremely cold of late in Northern Europe and on the Continent generally—has no doubt greatly checked, but it has not destroyed, the disease.

The official statistics recently published at Berlin show that 8510 persons have died of cholera in Germany during the epidemic. In the city and State of Hamburg, where it prevailed most severely, the deaths were 7614, equal to about 1·22 per cent. of the population. The number of deaths in Prussia was 892, of which 502 occurred in the Government district of Schleswig, 116 in Lüneburg, 90 in Stade, 66 in Stettin, 42 in Potsdam, 16 in Magdeburg and 15 within the precincts of Berlin. The disease prevailed also in other German States to a relatively small extent. Mecklenburg-Schwerin, for example, which appears to have suffered most, had 43 deaths and the remaining States had a cholera mortality varying from 12 to 1 only. The statistics show that the epidemic attacked the districts near Hamburg most severely and spread up the river with diminishing force. Altona, in immediate proximity to Hamburg, had 328 deaths. The parts of the districts of Stade and Lüneburg, which lie on the left bank of the Elbe, also suffered severely for some time during the Hamburg epidemic. The town and subdistrict of Harburg had 102 deaths, 61 of which occurred at Wilhelmsburg, which has 8666 inhabitants. During the past week there have been almost daily several fresh cases of cholera at Hamburg. On the 27th inst. 4 fresh cases and 2 deaths were reported, and there were in addition 7 persons suffering from suspected cholera. There were a severe frost and dense fog at Hamburg on that date. Two fresh cases and one death from cholera were reported on the 28th.

From St. Petersburg we learn that cholera continued to prevail in the Vassili Ostroff quarter of that city and the disease is stated to have been very prevalent along the Caucasian shore. The Black Sea ports are officially reported to be free from cholera. According to a telegram from St. Petersburg on the 25th inst. no fresh cases of cholera had

been registered there during the past two days. The cold was intense, the thermometer registering 30° F. below zero. A large medical congress had assembled in that city to consider what means should be adopted in the event of the re-appearance of epidemic cholera in the spring and summer of 1893. There were 250 Russian doctors present at the preliminary meeting on the 25th inst., under the presidency of the Director of the Medical Department of the Minister of the Interior. In the south-western provinces of Russian Poland the disease was still prevailing severely according to telegraphic intelligence from Cracow.

There has been no further information as to the continued prevalence of cholera at Budapest. As regards France several cases of the disease have been recorded at Dunkirk—four cases and two deaths were reported as late as the 27th inst. Madame Joséphine Graffin, known as Sister Véronique, died last week from cholera at the Calais Hospital, where she had devoted herself to the nursing of cholera patients. Sister Véronique had only been in Calais one month, having come from Chartres. This death has caused some sensation and a public funeral attended by all the municipal authorities was given her. One of the male cholera patients in the hospital also died on the same day. At Paris there has been one death from cholera on Dec. 11th, 13th and 17th respectively, and a woman from the suburb of Noyent-sur-Marne died in a Paris Hospital on the 13th of the month. Five deaths among adults attributed to diarrhoea also occurred during the same week. We cannot be certain as to whether sporadic cases of cholera continue to make their appearance or not in other parts of France in the absence of any official or definite information on the subject, but the disease has presumably ceased there.

One of the remarkable and significant peculiarities of cholera has been frequently exhibited during the progress of the present epidemic. We allude to the localisation of the disease, its persistent adherence to places, districts, streets or individual houses. The occurrence of more than one case or of several cases in succession in the same house or locality, and sometimes with considerable intervals of time between them, has been frequently noticed. It was from observing this that the Indian practice of immediately evacuating an infected house or locality was adopted and followed with such success in that country. Low-lying sites, moisture, proximity to rivers and the outfall of sewers, and overcrowding of houses or population have also been influential factors in the incidence and spread of the disease, and as regards its importation it has frequently happened on searching investigation that cholera which was said to have been imported into a place at a given date has turned out to have been already there.

We are anxious to possess more particulars as to the results of the various bacteriological observations that have been made during the progress of the epidemic. So far as is known up to the present time the comma bacillus is practically confined to the intestine; it is rarely found in the vomited matters; it is not present in the blood or in the different tissues and organs of the body generally. Cholera discharges are *sui generis*; they are not found in any other disease and are distinctive of cholera, and it therefore requires to be shown that the bacillus is not merely a concomitant, but the cause of that condition; for, notwithstanding all that has been said on the subject, it has not yet been satisfactorily determined that the lower animals on inoculation with the bacillus manifest the same conditions or the same morbid phenomena that characterise cholera in man.

## CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

### A VISIT TO DIEPPE.

*Cholera during the Bathing Season.—Severe Cases.—The Tide and the Subsoil.—How Gutters should be Flushed.—Contaminated Water of the Port.*

THERE are few towns on the French coast better known to Englishmen than Dieppe. More than 100,000 passengers, the vast majority of whom are English, pass through Dieppe annually on their way to or from Paris; also, as Dieppe is a most attractive sea-bathing summer resort, a great number of persons of all nationalities, but principally American, English and French, spend some portion of the summer

in this gay and attractive town. The sanitary condition of Dieppe is therefore of more than local interest, and this is particularly the case now that events have unfortunately shown that the town has not been free from cholera. This summer, while Dieppe was still crowded with fashionable visitors, the cholera broke out. The first case occurred on Aug. 17th, and Dr. Allemand, the "Doctor for Epidemics," failed to find any evidence tending to show that the case was imported. The victim was a woman, suffering from organic disease, who could not go out of her house and therefore had not been travelling. The second and third cases were reported on Aug. 22nd and 24th. There seemed to be no connexion between these three cases, they occurred in different quarters of the town, and the patients were unacquainted with each other. In the third case, the death was very sudden, and there could be no doubt as to the true Asiatic character of the cholera. So serious were the symptoms that two days later, on August 26th, a special service was organised to cope with the epidemic that was probably at hand. The ordinary patients were removed from the west wing of the town hospital, and the pavilion, consisting of two floors, was at once converted into a cholera hospital. On the first floor there are three rooms—one was allotted to men, the other to women, and the third was utilised as an observation room for doubtful cases. All the provisions for the cholera wards were passed in by the window, and great care was taken to isolate this part of the hospital. But one case occurred, and this in a manner for which the authorities can scarcely be held responsible. The patients were not allowed to receive visits from the members of their families. There was a special mortuary room for cholera cases, and burial generally took place two or three hours after death. All soiled linen was soaked in a solution of sulphate of copper for several hours. The dejecta and vomit were mixed with chloride of lime and buried in the garden of the hospital. All clothing was burnt till a stove for disinfecting by steam, super-heated under pressure, was obtained. The nurses were forced to change clothes and wash their hands on leaving the dormitories; 85 serious cases were treated in the hospital and there were 51 deaths; then 11 men and 19 women died in the town. In all 123 cases of cholera were reported to the Mayor, and Dr. Allemand is under the impression that there were altogether 80 deaths. On the other hand, at the Ministry of the Interior, only 69 deaths had been reported, but before full reports reach headquarters there is some delay. In any case, as Dieppe is but a small town with a population of 23,050 inhabitants, the epidemic was serious, though the facts were well concealed from the public at large. It was serious not only by reason of the number of cases, but because of their severity. Out of 48 deaths observed at the hospital 32 occurred within six to twenty-four hours after the admission of the patients. Four patients died in less than six hours, 15 in less than twelve hours and 4 in less than eighteen hours. There were also at the hospital 10 cases brought in from neighbouring districts outside Dieppe and only 4 recovered. The slight discrepancies in these figures do not affect the main features of the epidemic. In all these cases premonitory diarrhoea was very rarely observed. The patients had no pulse but a "fishy, dark, glutinous skin" and seemed to die of asphyxia. The total suppression of urine was very frequent and was treated by the administration of benzoate of caffeine. It is important to note that no case of illness among infants less than two years old was reported as cholera, however similar the symptoms might have been. The Mayor was at once informed of every case of cholera, and when the patient's room was evacuated it was disinfected by the burning of sulphur in the proportion of 50 grammes per cubic metre of space. Cases of contagion in members of the same family seemed clearly established, but there was no evidence to show that there was contagion in districts. In one case father, mother and child all had cholera one after the other and the child alone survived. Everything in this house was burnt by order of the Mayor. There were several cases of the wife or of the husband dying the one shortly after the other, but there was nothing to show that the cholera was conveyed from district to district; it seemed to spring up spontaneously in various directions. For instance, the first case happened at the outskirts of the town, to the south of the Berny Dock beyond the town railway station. The second case was at Le Pollet, the small and poor district on the eastern side of the port. These two first cases therefore were about as far apart from each other as is possible without overstepping the boundaries

of the town. Then a number of cases occurred on the other side of the port, in the narrow streets of the old sailors' quarter immediately behind the station in the tidal, where the passengers from Newhaven land. There were also cases at the cattle market. Thus the cholera broke out at the southern, the eastern, the northern and the western extremities of the town. Nor were the central districts exempt. The poor, the badly lodged, the intemperate were the principal sufferers, but there were others also who contracted the disease and who were neither poor nor intemperate. Then, when the cholera ceased, it was immediately followed by a small epidemic of typhoid fever. There were 24 cases and 4 deaths. Ten cases occurred in the town and 14 in the hospital. Four patients contracted typhoid fever and some of the hospital nurses, Sisters of Mercy and washerwomen also suffered. The latter cases were attributed, not to any special contagion, but to special susceptibility induced by the great strain and fatigue endured during the cholera epidemic.

As Dieppe enjoys the reputation of being a very healthy town, many persons will be surprised to hear that it has suffered, comparatively speaking, so severely. Though the cholera has broken out in a great number of places, there have been but few victims, excepting at Havre. Consequently the number of cases and of deaths at Dieppe compares unfavourably with the many other towns that have had but slight visitations of cholera. Yet Dieppe has a good water-supply, a good air supply and a soil not likely to be easily contaminated. By a good air-supply I mean that the town is constantly swept by strong sea winds which should purify its streets. A great part of the town faces the beach and the beach faces the north-west. By an ingenious diagram in the accompanying map the direction of the winds is indicated for the four seasons of the year. It will be seen that the prevailing winds drive up the Channel from the west, the south-west and south. On the other hand, the north-east, east and south-easterly winds, which are the land winds, are of rare occurrence.

The water-supply of Dieppe dates back several centuries, when an aqueduct was constructed to St. Aubin and brought a large quantity of water to a reservoir at the foot of Dieppe Castle; but eight years ago another and supplementary aqueduct was built, together with a much larger reservoir.

The water obtained is hard, but free from organic impurity, excepting in the autumn. The reservoir is not covered over and at that season a certain number of falling leaves are blown into the water and vegetable decomposition ensues. No evil has yet been traced to this exposure to dust and leaves; nevertheless the necessity of covering the reservoir is not only admitted, but the work is actually in hand, the expense is provided for and the reservoir will be properly covered over before next spring. For the higher quarters of the town there are two reservoirs on the heights or cliffs that are on both sides of Dieppe. They are both covered over with masonry and grass. No cattle are allowed to graze over the reservoirs and the grass is only utilised to make hay.

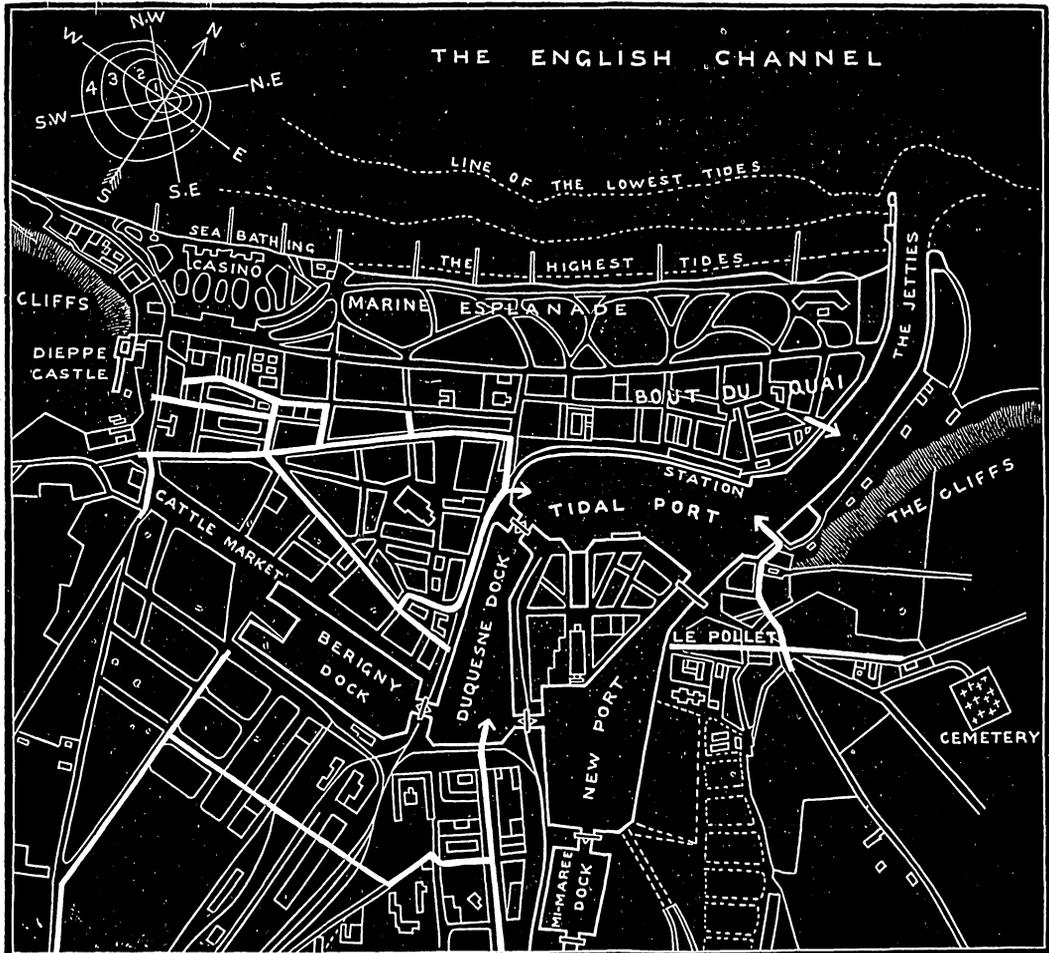
Dieppe is situated between two ranges of cliffs, each some eighty metres high. The name of the town is derived from the English word "deep." When Normandy belonged to England it was known as the "deep port," and some nine centuries ago the sea went about four miles further inland up the valley of the Arques. As the sea receded it left behind flint pebbles and these, mixed with clay brought down by the river Arques, formed the soil on which the town of Dieppe now stands. The sea tide can still run up between these flint stones and this should be a great advantage from a sanitary point of view. First, it compelled the inhabitants of Dieppe to build an aqueduct long before the importance of a pure water-supply was fully appreciated, because all the water in the wells was brackish; secondly, the tide working its way backwards and forwards below ground must help to drain and purify the subsoil. We have already seen how at Havre, in the Perret district, where the subsoil is washed by the tide in a similar manner, there was less typhoid fever and less cholera than in other quarters of the same town where no such purifying force exists. In respect therefore to its air-supply, its water-supply and the nature of its subsoil, Dieppe is especially fortunate. Why, then, has this town suffered more than so many of its neighbours? Certainly Dieppe was more exposed to the risk of contagion than most of its neighbours, but there is no evidence, at least with regard to the first cases, to show that they were due to contagion. Nevertheless there were any number of Parisians at Dieppe, and if the

cholera can be brought from one town to another town by travellers, then for several months Dieppe was daily exposed to this danger. If, however, in respect to the air, the water and the subsoil, Dieppe enjoys special advantages, the old quarters of the town are dirty, the houses high, overcrowded, and the inhabitants poor. A great number of these houses date from 1694, when the combined Dutch and English fleets bombarded and in a great measure destroyed Dieppe. The town was then rebuilt and, in those days, the knowledge of domestic sanitation was very limited. Most of the houses have no proper closets. I was assured, on good authority, that four-fifths of the population have *tinettes*, that is to say a large wooden tub placed in a cupboard generally at the top of the house. There are three or four companies, that undertake to remove these tubs or pails

into the flint subsoil and the sea tide carries their contents away. These *bétoires* are generally twenty-five to thirty feet deep, but in course of time they become so choked up that they cease to be porous. They then have to be emptied in the ordinary way, and men go down and scrape the sides to render them porous again. Thus only one-fifth of the houses have cesspools and only one-quarter of these cesspools are water-tight, and therefore do not contaminate the surrounding subsoil.

The slop or kitchen water of the houses at Dieppe, as is the case in most towns of Normandy, drains into the street gutters, and from thence into such sewers as exist. But before reaching the sewers it has here, as elsewhere, many opportunities of sinking into the ground and of helping to befoul the subsoil. Formerly most

DIEPPE



The broadest white lines indicate the sewers and the arrow-heads the sewer outfalls. The diagram indicates the direction of the winds during each of the four seasons of the year. In the original diagram, of which this is a proportionate reduction, every millimetre represented three days of wind.

and convert the contents into guano; but it is left to the choice of the inhabitants whether they give notice or not when their pails are full. A great many poor people seek to avoid the expense entailed by the removal of the pails; but there is a by-law forbidding the emptying of night soil into the street gutters. It is, however, notorious that there are numbers of persons who actually have the patience to dissolve the solids so as to be able to throw them out into the street gutter without being detected by the police. This disgusting practice is all the more easy because the police, as a body, are badly recruited and doubtless themselves resort to the same expedients in their own homes. The remaining fifth of the inhabitants have cesspools, and of these cesspools three-quarters are *bétoires*—namely, are as porous as possible. They are dug

of the streets had but one central gutter and there were very few sewers. Some years ago, however, the town raised a loan of close on £80,000, which was spent chiefly on sanitary improvements. The water that ran down the street gutters was so limited in quantity that it required a good storm to thoroughly cleanse them. From 1880 to 1882 these central gutters were abolished. The earth underneath them was found to be very black and foul. It was removed, new pavement was put on the streets and two side gutters provided. At the same time the water supply had been greatly increased by the building of new reservoirs and water mains. A number of street fountains were created from whence water could be discharged into the gutters. M. Condor, the town architect or borough surveyor, then introduced an important innovation. At Rouen, Paris and most towns the

street gutters are washed twice a day, when a large quantity of water is discharged into them. But at other times the gutters are almost dry. At night especially, just when people empty the worse filth into the gutters, there is no water to carry it away. It has therefore ample time to sink in between the pavement stones and befoul the subsoil. At Dieppe it was resolved not to flush the gutters twice a day with a large volume of water, but to allow a small quantity of water to run in them all day long and all night. This had the advantage of keeping the gutters always clean, and was not extravagant, for it economised the cost of sending men round twice a day to open and shut the hydrants; nor were there valves to get out of order from constant opening and shutting. If the street is long, and there is no sewer near, then the amount of water running in the gutter is increased; but if the sewer is near, then less water is given. The amount varies from six to fifteen litres per minute coming from each of the numerous water-delivery pipes. The efficiency of this method has been proved, for during the twelve years that it has existed opportunities have occurred of digging up some of the gutters, notably at the Bout du Quai, behind the Maritime Station. Though this is one of the worst quarters of the town, the sand beneath the gutters was found to be quite clean, and very different from what it was under the old method of intermittent flushes. This is, however, just one of the quarters where there has been many cases of cholera. Then, if the map of Dieppe be studied, it will be seen that this district is so close to the beach that it must greatly benefit by the wash of the tide. Why should it not, as a result of this circumstance, have in some measure escaped from cholera like the Perret district at Havre? Perhaps because the houses at the Bout du Quai of Dieppe are older, higher, and if they have the sea on one side, they have on the other side the very foul water of the port.

In building sewers for Dieppe no care whatsoever has been taken of the outfall. The principal outfall is by the fish-market, at that end of the tidal port which is the farthest removed from the sea. On the other side of the port, but nearer the sea and almost immediately opposite the Maritime Station, there is the sewer outfall of the Pollet district. This is equally a very poor quarter and has much suffered. Thus the two worst districts face each other at the entrance of the port, and the port that separates them receives the entire sewage of the town. Further inland, on either side and behind the town railway station, there is a comparatively new district. Here some sewers have also been built and their outfall is in a worse place even than that of the sewers from the older portion of the town. The outfall is in the dock called the Bassin Duquesne. Thus the sewage cannot flow away except when the dock gates are open and the outfall is at the extremity of the dock, farthest away from the dock gate leading into the tidal port. Thus a portion of the sewage is delayed in the dock before it reaches the port; it has time to make deposits which still further contaminate the water. The port is therefore very foul, and this may be one of the causes why cholera gained ground in Dieppe. The subsoil of Dieppe ought to be comparatively pure, because it is washed by the tide; but a glance at the map will show that the greater part of Dieppe lies between the sea and the port and docks. Perhaps infiltrations from the port have done more to befoul the subsoil than the tide of the sea to purify it; and in this respect the position of Dieppe is not similar to that of the Perret district at Havre. The position of the Pollet district is different. It is separated from the sea by the cliffs and possibly when the tide rises the water passing under the Pollet district comes in from the port which it touches rather than from the other side of the cliffs. Thus it is that, though the subsoil waters of Dieppe should be comparatively pure because the tide flows in and out through the flint stones, the water from the dock and port, heavily charged with sewage that finds no ready exit to the sea, may also pass into this porous subsoil and by its foulness defeat the wholesome effect of the pure sea water that comes in with the tide.

In any case, there can be little doubt that the waters of the port are dangerous. Four cases of cholera seem to be due to the effects of the water in the port. A sailor, an abstemious, steady, healthy man, slept on board a tugboat in the harbour close to the sewer outfall. He contracted cholera and died. Another sailor who slept on board a fishing-boat also died of cholera, but he was a man of intemperate habits. The third case was that of a man of steady habits and with ample

means. He likewise slept on board a fishing boat and died of cholera after four days' illness. The fourth case was more remarkable. This was that of a man who lived at a long distance from the port; he was steady and in the enjoyment of perfect health. At ten o'clock in the morning he accidentally fell into the port and swallowed a considerable amount of water before he was rescued. At first he seemed none the worse for this immersion, but later in the day he was seized with cholera and died the same evening. These four cases coming from the port were among the worst that occurred, three out of the four patients dying in a few hours and the other after four days' illness.

Compared with other towns in Normandy, Dieppe is to be congratulated for the energy and enterprise shown by its municipal authorities in seeking to effect sanitary improvements. Unfortunately there is still much remaining to be done. Firstly, a suitable sewer outfall must be found. Doubtless there are topographical difficulties, but these can be overcome by the application of machinery; then there should be no reason why houses should not drain entirely into the sewers, and the filthy pails, the abominable cesspools and the flow of slop water in the gutters could all be abolished. When this has been properly done and the water in the port becomes pure and clean, Dieppe should have little cause to fear cholera.

## CHRISTMAS AT THE HOSPITALS.

AT this season of the year, when peace on earth and good will to men is the prevailing sentiment, it is not strange that those institutions which have been established for the purpose of making glad the hearts and lightening the burdens of those stricken with disease should share in the feeling. The dreary hospital bed has been brightened, the weary sufferers cheered and gladdened by the manifestations of interest taken in them by many of the philanthropic at this season, as well as by those whose duty it is in the hospitals to minister to their diseases.

*Charing Cross Hospital.*—The annual entertainment at this hospital took place on Dec. 21st, 22nd and 23rd, when the students and their friends ministered to the pleasure of those able to attend by the performance of a farce. On Boxing Day the inmates of the various wards were entertained by the resident officers. Mr. Robert Martin delighted the little occupants of the children's ward by the presentation of a large Christmas-tree laden with toys, which will be distributed on New Year's Eve.

*St. George's Hospital.*—On Christmas Day all the patients at this hospital who could partake of the particular fare were supplied with roast beef and plum pudding for dinner. On the following Tuesday a tea and entertainment were provided in the wards.

*St. Thomas's Hospital.*—Christmas Day falling on a Sunday this year the usual Christmas dinner for the patients and the carol singing by the Nightingale nurses were postponed until the following Tuesday.

*King's College Hospital.*—Roast beef and plum pudding were on Christmas Day enjoyed here by many of the patients. In the evening sacred music was discoursed in the chapel. On Boxing Day presents were given to the patients and toys distributed among the children, the afternoon being occupied by the distribution of toys to the children from three large Christmas-trees and a high tea in the brilliantly illuminated wards. The men were provided with cigars &c., and all in the hospital entered into the spirit of this festive time.

*Westminster Hospital.*—The keeping of Christmas was here signalled by the distribution of books, cards, toys, clothing and other presents, and great efforts were made by the medical and nursing staff to make the day a happy one for the patients. On Boxing Day the good cheer with which the season is peculiarly associated was forthcoming. Full and middle diet and even such delicacies as fried fish and Irish stew were suspended for the day and, subject to the permission of the medical staff, every patient was provided with turkey or chicken, followed by plum pudding and, in the case of the men who were able to reach the convalescent ward set apart for them, by the fragrant weed, without which even all the delicacies of the season would fall somewhat flat. Later in the day tea was served also on a festive scale and such amusements were provided as sick folk can enjoy.

*The Royal Free Hospital.*—At this hospital the annual entertainment was given on the 15th inst. On Christmas Day the patients were regaled with fare suitable to their condition; and on Boxing Day a special tea was provided in each ward for the patients and their friends. In the Marsden Ward a dramatic performance was given by the chaplain and his friends on the 27th, the festivities being concluded on the 29th by a Christmas-tree entertainment for the juvenile patients, when over 100 children—past and present patients—were entertained at tea and received suitable presents.

*Great Northern Hospital.*—The Christmas dinner at this institution was enjoyed on Monday, when turkeys were provided by the doctors and dessert by the secretary. In the evening carols were sung by the nurses. The annual entertainment will take place on Jan. 10th.

*Cheyne Hospital for Sick and Incurable Children, Chelsea.*—Turkey and special plum pudding formed the Christmas dinner provided for the little ones at this hospital, which took place on Boxing Day, with a perfect fusilade of crackers to finish up with and a general march-past of dolls and toys.

*Chelsea Hospital for Women, Fulham-road.*—Christmas fare and the distribution of suitable gifts helped the patients to pass a pleasant Christmas at this hospital.

*National Hospital for the Paralysed and Epileptic, Bloomsbury.*—The Christmas festivities in this hospital began with an entertainment on the 22nd inst., and a "waxwork" exhibition afforded great amusement to the patients. The usual fare was provided on Christmas Day. Tea parties have been given and the occupants of the children's ward delighted with a large Christmas-tree. On Thursday a distribution of useful and ornamental articles and carol singing by the nurses concluded the amusements.

*Hospital for Consumption, Brompton.*—The inmates of this hospital, which was most splendidly decorated, spent Christmas Day very quietly, but on Tuesday Christmas revelries began. Turkeys, pheasants, plum puddings, jellies, oranges and other fruits were provided, together with port wine. After dinner and tea songs and games afforded healthy pleasure for the inmates of the institution. On Tuesday next the usual musical entertainment will give place to a distribution of useful and ornamental articles on the Christmas-tree.

*Seamen's Hospital Society.*—The sick and injured sailors in the *Dreadnought* and Branch Dock Hospital were regaled with turkeys and plum pudding on Christmas Day and every effort was made to cheer the patients. The wards were profusely decorated with evergreens and quaint devices constructed by the patients. Every man whose condition would permit was allowed a pint of beer and also to smoke in the wards. Of the 220 patients under treatment there were representatives of no less than thirty-five different nations and castes in the hospitals on Christmas Day, and the Chinaman, East Indian and African were eating their Christmas fare in goodwill by the side of the Britisher, the Scandinavian and the Italian, while the Turk, the West Indian and the Yankee joined this cosmopolitan ship's company. Christmas Day falling on a Sunday the usual entertainment for the patients was held on the following Monday, when the men had a "sing-song" and smoked in one of the wards.

*Hamerton Fever Hospital.*—This hospital being one for infectious diseases could not entertain its inmates in the same way as many of the general hospitals, but the wards were tastefully decorated, and for such as were in a fit condition to participate the usual Christmas fare was provided. Toys were distributed to the children and entertainment provided in a moderate way.

*The French Hospital and Dispensary, Shaftesbury-avenue,* and the *German Hospital, Dalston,* observed Christmas very much in the same fashion as the English hospitals. Christmas-trees, musical entertainments, gifts and Christmas fare were provided so far as was consistent with the health of the patients.

*London Hospital, Whitechapel.*—As Christmas Day came on Sunday, Saturday was set apart for the usual entertainment of the 650 patients in the wards, which were extensively and very tastefully decorated. The patients' Christmas dinner consisted of roast beef and plum pudding, after which they were allowed to smoke, cigars and tobacco being thoughtfully provided by the house physicians and house surgeons. Various entertainments were given—theatricals, concerts, nigger minstrels, songs, recitations, magic lanterns and various side shows. All convalescent patients were up and dressed, and those who could not leave their beds were wheeled into the centre lobbies of the wards, where they

could see the entertainments. On Boxing Day the sisters and nursing staff, now numbering over 250, enjoyed their Christmas dinner. The children's Christmas-tree entertainment and tea will take place on Jan. 3rd.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5915 births and 3915 deaths were registered during the week ending Dec. 24th. The annual rate of mortality in these towns, which had increased from 18·8 to 20·7 per 1000 in the preceding three weeks, declined again last week to 20·0. In London the rate was 19·6 per 1000, while it averaged 20·3 in the thirty-two provincial towns. The lowest rates in these towns were 12·2 in Plymouth, 14·5 in Cardiff, 14·7 in Derby and 15·3 in Portsmouth; the highest rates were 25·1 in Manchester, 25·6 in Bolton, 26·7 in Hull and 27·3 in Brighton. The 3915 deaths included 382 which were referred to the principal zymotic diseases, against 445 and 448 in the preceding two weeks; of these, 126 resulted from measles, 81 from diphtheria, 56 from whooping-cough, 51 from scarlet fever, 38 from "fever" (principally enteric), 22 from diarrhoea and 8 from small-pox. No fatal case of any of these diseases occurred last week in Birkenhead or Burnley; in the other towns they caused the lowest death-rates in Huddersfield, Plymouth, Swansea and Wolverhampton, and the highest rates in Hull, Cardiff, Brighton and Bolton. The greatest mortality from measles occurred in Croydon, Salford, Bolton, Cardiff, Hull and Brighton; from whooping-cough in Leicester and Bolton; and from "fever" in Preston. The mortality from scarlet fever showed no marked excess in any of the large towns. The deaths from diphtheria included 60 in London, 3 in Liverpool, 3 in Birmingham and 3 in Salford. Three fatal cases of small-pox were registered in Leeds, 2 in Leicester, 2 in Halifax and 1 in Oldham; 34 cases of this disease were under treatment in the Metropolitan Asylum Hospitals and not one in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3299, against numbers declining from 4067 to 3621 on the preceding seven Saturdays; 241 new cases were admitted during the week, against 302, 273 and 286 in the previous three weeks. The deaths referred to diseases of the respiratory organs in London, which had been 339 and 365 in the preceding two weeks, further rose to 380 last week, but were 135 below the corrected average. The causes of 75, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Bolton, Oldham, Newcastle-upon-Tyne, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Bristol, Birmingham, Liverpool and Blackburn.

### HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding six weeks from 20·6 to 25·5 per 1000, declined again to 24·0 during the week ending Dec. 24th, but exceeded by 4·0 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 16·5 in Greenock and 18·4 in Paisley to 29·2 in Perth and 30·5 in Leith. The 667 deaths in these towns included 86 which were referred to measles, 13 to scarlet fever, 11 to whooping-cough, 9 to diphtheria, 8 to diarrhoea, 4 to "fever" and 1 to small-pox. In all, 132 deaths resulted from these principal zymotic diseases, against 156 and 136 in the preceding two weeks. These 132 deaths were equal to an annual rate of 4·7 per 1000, which exceeded by 2·7 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had declined from 112 to 87 in the preceding three weeks, were 86 last week, of which 26 occurred in Glasgow, 25 in Edinburgh, 15 in Leith and 15 in Dundee. The deaths referred to scarlet fever, which had been 13 and 18 in the preceding two weeks, declined again to 13 last week and included 9 in Glasgow and 2 in Aberdeen. The 11 fatal cases of whooping-cough exceeded by 6 the number in the previous week and included

8 in Glasgow. The deaths from diphtheria, which had been 13 and 10 in the preceding two weeks, further declined to 9 last week, of which 5 occurred in Glasgow and 2 in Dundee. Of the 4 fatal cases of "fever," 2 were recorded in Edinburgh, where a death from small-pox was also registered. The deaths referred to diseases of the respiratory organs in these towns, which had increased from 134 to 198 in the preceding three weeks, declined to 168 last week, and were 80 below the number recorded in the corresponding period of last year. The causes of 69, or more than 10 per cent., of the deaths in these eight towns last week were not certified.

#### HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 22·8 to 24·9 per 1000 in the preceding four weeks, further rose to 26·7 during the week ending Dec. 24th. During the first twelve weeks of the current quarter the death-rate in the city averaged 23·7 per 1000, against 18·1 in London and 23·8 in Edinburgh. The 179 deaths in Dublin during the week under notice showed an increase of 12 upon the number in the preceding week, and included 9 which were referred to "fever," 2 to measles, 1 to scarlet fever, 1 to whooping-cough, 1 to diarrhoea, and not one either to small-pox or diphtheria. In all, 14 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2·1 per 1000, the zymotic death-rate during the same period being 2·2 in London and 6·3 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 4 in the preceding two weeks, further rose to 9 last week and, with one exception, exceeded the number recorded in any preceding week during the current year. The mortality from scarlet fever and from diarrhoea showed a decline from that recorded in the previous week. The 179 deaths registered in Dublin last week included 22 of infants under one year of age and 44 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons differed but slightly from those returned in the preceding week. Six inquest cases and 3 deaths from violence were registered and 48, or more than a fourth, of the deaths occurred in public institutions. The causes of 18, or 10 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

#### MOVEMENTS OF MEDICAL STAFF.

STAFF-SURGEON-COLONEL A. C. GAYE and Surgeon-Captain R. E. Kelly have arrived home from India. Brigade-Surgeon-Lieutenant-Colonel W. McWatters has proceeded to Portsmouth for duty. Surgeon-Captain T. B. Winter, A.M.S., embarked for India on the 15th inst. The following officers have arrived in England on completion of a tour of service abroad:—Brigade-Surgeon-Lieutenant-Colonel Steele and Surgeon-Major Robbins. Surgeon-Lieutenant-Colonel Joynt has left Ceylon in Medical Charge of drafts on his way to England. Surgeon-Captain M'Carthy has been transferred from Cork to Kinsale and Surgeon-Captain Garner to Cardiff.

#### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant-Colonel James Keith Anderson, M.D., 2nd Volunteer Battalion Black Watch (Royal Highlanders), to be Surgeon-Lieutenant-Colonel; Surgeon-Captain Edward Bass Reckitt, 1st Lincolnshire Volunteer Artillery (West Liverpool R.A.), to be Surgeon-Major; Surgeon-Captain George R. T. Phillips to be Surgeon-Major.

#### ARMY MEDICAL SERVICE.

*Yeomanry Cavalry*: Shropshire: Veterinary-Lieutenant H. Barnes to be Veterinary-Captain. 1st Durham (West Division, R.A.): Surgeon-Lieutenant J. J. A. V. C. Raye to be Surgeon-Captain; Surgeon-Lieutenant-Colonel Napoleon Bisdee Major to be Brigade-Surgeon-Lieutenant-Colonel.

#### INDIA AND THE INDIAN MEDICAL SERVICE.

2nd Bombay Infantry (Grenadiers): Surgeon-Captain J. B. Smith, I.M.S., to officiate in Medical Charge, vice Surgeon-Captain A. Milne, I.M.S., transferred temporarily to the Civil Department. Surgeon-Captain H. J. Parry, A.M.S., is transferred from general duty, Bombay District, to general duty, Poona District. Surgeon-Captain R. J. A. Durant, A.M.S., is transferred from general duty, Poona District, to general duty, Bombay District. The services of Surgeon-Major A. F. Ferguson, M.B., I.M.S., are placed at the disposal of Government for employment in the Civil Department.

Surgeon-Captain J. Chaytor-White, M.B., I.M.S. (Bengal), is appointed to officiate during the absence of Brigade-Surgeon-Lieutenant-Colonel T. French-Mullen, M.D., as Medical Officer of the Meywar Bhil Corps. Surgeon-Colonel R. P. Ferguson, M.S., is placed on the Administrative Medical Staff of the Army, vice Surgeon-Colonel T. Rudd, M.D., transferred to the home establishment (dated Oct. 27th, 1892). The undermentioned Surgeon-Lieutenants of the Indian Medical Service, appointed to the Bengal Establishment, reported their arrival at Bombay on the dates specified: C. G. Robson Scott and H. M. Earle. Surgeon-Lieutenant-Colonel C. Cameron, I.M.S., Bengal Establishment, is permitted to retire from the service from Sept. 21st, 1892, subject to Her Majesty's approval. Surgeon-Captain F. J. Doves, I.M.S., has returned from furlough out of India. Surgeon-Captain A. E. Grant, M.B., Professor of Hygiene, Medical College, sub. *pro tem.*, is confirmed in that appointment from Oct. 8th, 1892. Surgeon-Captain D. G. Marshall, I.M.S., has been posted to the Civil Medical Charge of Roorkee, in addition to his military duties, from the date of taking charge from Surgeon-Lieutenant-Colonel T. O'Reilly.

#### NAVAL MEDICAL SERVICE.

Staff-Surgeon Richard E. Biddulph has been appointed to the *Canada*. Surgeons: George M'Gregor to the *Canada* and Charles G. Matthews to the *Vernon*.

#### VOLUNTEER CORPS.

*Light Horse*: 1st Forfarshire: Surgeon-Lieutenant W. T. Grant has resigned his commission.—*Rifle*: 3rd Volunteer Battalion, the King's (Liverpool Regiment): William Joseph Murphy Barry, Gent., is to be Surgeon-Lieutenant. 1st Cadet Battalion, the Queen's (Royal West Surrey Regiment): Acting Surgeon T. Holmes has resigned his commission; James Herron, M.D., is to be Acting Surgeon.

#### THE SICKNESS AT PESHAWAR.

It is reported in the Indian papers that in compliance with the desire expressed by Lord Roberts Surgeon-Colonel Cleghorn, Inspector-General of Civil Hospitals, has proceeded to Peshawar to inquire into the nature of the fever prevailing among the troops there and into the sanitary condition of the station generally. Dr. Evans, attached to the Medical College at Lahore, accompanied Surgeon-Colonel Cleghorn to aid him in the investigation.

#### MEDICAL OFFICERS OF THE FOOT GUARDS.

*The World* says that the new system affecting medical officers of the Brigade of Foot Guards is not likely to prove popular. The medical officers are not quite contented with their position, nor are the members of the Brigade satisfied either. It is one of those changes which *The World* thinks would have been better left alone.

#### THE OPENING OF THE NEW NURSES' HOME, EDINBURGH INFIRMARY.

In connexion with the opening of the large building intended as a new home for nurses at the Edinburgh Royal Infirmary, which took place on the 19th instant, we may mention that the suggestion for its provision was first made by the late Surgeon-General Fasson, to whom a memorial tablet is to be placed in front of the building. The successor to the late superintendent is, as we have already announced, Surgeon-Major General Lithgow, M.D., C.B., D.S.O., at present acting as the principal medical officer of the Southern District. The election of this officer for the post speaks well for the reputation enjoyed by the late superintendent and for the opinion which the officials of the Royal Infirmary apparently entertain of a previous training in the army as a qualification for the duties of the appointment, which are difficult to adequately fulfil.

#### PHYSICAL DEVELOPMENT.

Surgeon-Captain Deane has written to our service contemporary the *Broad Arrow* to explain that he decried as useless for muscular development, though excellent as acrobatic performances, certain gymnastic exercises as tests of strength or endurance. Horizontal and parallel bars when properly used are, however, essential in military gymnasia and there are not half enough of them, but the recruit should be led up to the use of these by previous exercise on the ground with dumb-bells in order to obtain their full benefit. This develops the muscles of the arms and chest as well as those of the back and lower limbs. The great point to be secured in the physical training of the recruit is the symmetrical development of every part of the body.

## THE AGE RETIREMENTS IN THE MEDICAL STAFF IN 1893.

Five officers of the rank of Surgeon-Major-Generals and six of the rank of Brigade-Surgeon-Lieutenant-Colonels &c. are due to retire in the course of next year.

## FEVER AT MALTA.

According to an Exchange Company's recent telegram from Malta fever is stated to be increasing among the soldiers of that garrison. It may be assumed that cases of typhoid fever are included under the term "fever," for enteric fever commonly prevails to some extent in Malta during the autumn and early winter. The health of the troops in that command of late years has, we believe, been much better than it was many years ago in this respect, and this has been attributed to the sanitary works that have taken place in the way of water-supply and drainage. Although the barracks have been improved and a large proportion of the troops are encamped during the summer months with manifest advantage to their health, it cannot be said that the barrack accommodation is satisfactory. The buildings are generally old and some of them badly placed, consequently they are not of the construction considered necessary by modern sanitary requirements. The native population is large and generally poor and a good deal of overcrowding exists in the towns. The chief military hospital is not at all a good one and occupies a bad site; but, after all, it is to the character of the barrack accommodation provided for the troops that we must look for the prevention of disease, and for this reason we should be glad to hear that additional barracks are to be built on some healthy open site at a reasonably convenient distance from Valetta or the other overcrowded towns of Malta.

## REPORTS ON RECRUITING.

The War Office has given orders for assistant adjutant-generals for recruiting and officers commanding regimental districts to send in their reports by Jan. 7th; but on the previous day colonels of cavalry and battalions of foot guards are to send to the Horse Guards a special report showing the growth and development of recruits joined during the past year who, at the time of their enlistment, were under the regulated standard of height, weight or chest measurement. Returns, reports and discussions regarding recruits are constantly cropping up, and somehow or other our system does not seem to work very satisfactorily. The army is not popular with "the masses" whatever it may be with "the classes"; whilst the number of candidates for Sandhurst and Woolwich is overwhelming, it is quite the reverse as far as recruits are concerned, although we believe that just at the present time they are fairly numerous. It has often seemed to us surprising, under these circumstances, that the strength of the Royal Marines is not increased. It is a very popular service and there would be no difficulty in enlisting any number of recruits for it. The men of that corps are of fine physique; they cover on parade a larger amount of ground than other troops; they are well-drilled, excellent soldiers, and as they are in the main a very healthy, contented body of men, their state of discipline is perfectly satisfactory. Why not, therefore, increase their numbers?

## Correspondence.

"Audi alteram partem."

## RICHARD OWEN AND JOHN HUNTER.

To the Editors of THE LANCET.

SIRS,—Ham churchyard was the scene to-day of an unwanted throng when the great naturalist was laid to rest. Our own profession was well represented by the President of the College of Surgeons, by Sir Joseph Fayrer and others, and many leaders in science stood around. The simple service in the church seemed well to befit the veteran who is gone; thoughts of his genial yet reverent spirit in peaceful old age came over the mind as the preacher read of man that liveth by reason of strength to fourscore years. The stillness was unbroken save by the twittering of birds in the leafless trees. The level rays of the low December sun shone on the company of mourners. It had been overcast with heavy grey clouds, but as the service went on the sky grew clear and blue and the dark clouds lay piled away on the eastern horizon, their summits tipped with rosy light

from the setting sun—a peaceful close to a long day of life. Few now living knew Sir Richard Owen in his prime. He became famous early, and even the old amongst us have looked up to him as a leader from their own young days. He was a link with past generations and his memory is worthy to be cherished. My own knowledge of him was only in his old age, when his work was done and he was quietly waiting for the end; yet there was about him still a wonderful grace of manner, a kind and cordial speech and nothing of that impatience of new ways and discontent with their surroundings which is oftentimes excusable in old men. He loved to speak of his own work, but not in pride, and looked upon his honours rather as kindnesses received than as rewards for merit. Especially he would talk of Cuvier and how when Cuvier, obliged to flee France, was studying in the Hunterian Museum Owen was appointed to attend on him, and how cordially they worked together "like friends." A fine large medallion of the great Frenchman adorned Sir Richard's study; above it an admirable miniature of John Hunter, inherited from Wm. Clift and highly prized by him; above this a portrait of William Clift himself in his old age; and Sir Joseph Banks surmounting all. It is as a link with Hunter that I would speak of Owen. Although not born until eleven years after Hunter's death, Owen earned the right to be his chief interpreter. Indeed he comes down to us in direct succession from Hunter. William Clift was Hunter's last and favourite pupil and "entered most [I quote from Owen's words to me] into his master's spirit. His was a singular example of lifelong devotion, entire and absolute, to one object—the memory of his master, John Hunter, and the care of his collection. He had no aims of his own, no thought of distinguishing himself; his one care was the pursuit of his master's work." With such a man was Owen associated, as his assistant in the care of Hunter's Museum from 1827 to 1842, when he succeeded Clift, already bound to the latter by the close tie of a son to a father. William Clift died in 1849. When Owen published in 1861 the well-known edition of Hunter's (posthumous) Essays and Observations, taken from copies so long preserved by Clift, he wrote in his dedication that his "labours in making known the thoughts and works of the founder of philosophical surgery" were now terminated. He told me himself that it had been throughout life one of his chief aims to preserve the memory and carry on the work of that great man. And so in losing Owen a link which bound the present with the life and work of John Hunter is broken and his days seem to recede into a more distant past. The coming year is the centenary of John Hunter's death, which took place on Oct. 16th, 1793. It would surely be fitting to commemorate in some way this event. The Hunterian Society (of which I am one of the honorary secretaries) will, I think, make some endeavour to this end, but it is much to be hoped that some larger bodies will take the matter up. Not alone the medical art, but the kindred study of biology in its wider bearings owe much to John Hunter, and I trust that next October will witness some worthy memorial of his name and fame.

I am, Sirs, yours faithfully,

Dec. 23rd, 1892.

R. HINGSTON FOX.

## THE LATE DR. WALSHÉ.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the letter of Dr. Sturges, in your last issue, on Dr. Walshe. I only had the honour of Dr. Walshe's friendship during the last seven years of his life, but confess that the interpretation of his character which Dr. Sturges sets forth does not altogether satisfy me as being a correct image of "the man." Of his method and of his refinement in observation and description I think his account is excellent; but Dr. Sturges appears to me to view Walshe as a physicist who degenerated into a metaphysician. The conclusion which my intercourse with him would lead to is that he was a metaphysician who had forced himself in a measure to become a physicist, but only in a measure, for he had in a rare degree the attributes of both. His refinement in description, indeed, was, in my opinion, a consequence of that mental habit which felt itself surrounded by "unending Nature," as various in expression, as unfathomable in itself. He was good enough at one time to express concern lest I should develop too metaphysical a vein, and advised me to stick to clinical work. "That's

<sup>1</sup> See also the Memoir of William Clift (a brochure), by Owen.

the thing that pays," he said; and added, "I never published anything metaphysical until I could afford to do without medicine." That his exquisitely sensitive nature under the influence of physical pain, was apt at times to take a materialistic and pessimistic view of things must be well known to his friends; but this was but a symptom of suffering. Walshe had too great an intellect and too much music in his own soul not to echo the harmonies of the "Unseen," and although, like the Æolian harp, he may not always have known whence the movement came, when free from physical distress his fine organisation felt it and the music was there. The marvel to me is that one so endowed with the faculty for abstract speculation should have so mastered what he himself termed the "fascination" of that tendency as to place himself in the front rank of the physical observers of his day. Whether the method of Walshe or the method of the present day will be most lasting in its influence remains for the future to decide.—I am, Sirs, yours faithfully,

Dec. 26th, 1892.

X. Y.

### THE VALUE OF SUTURES IN THE TREATMENT OF CUT THROAT.

To the Editors of THE LANCET.

SIRS,—I have read Mr. Henry Morris's clinical lecture on the value of sutures in the treatment of cut throat, reported in your last issue, with much interest, and desire, by reference to my own experience, to support the practice which Mr. Morris has so ably advocated. The improved treatment of cut throat is but one more instance of the way in which aseptic surgery has revolutionised old methods of treatment. No doubt the dread of putting sutures in deep wounds of the throat was amply warranted in the days of septic surgery; but that it should still hold sway in the surgical mind is strange indeed. By careful suturing wounds in the throat, which formerly took many weeks to close by granulation, may now heal in as many days. During the period between October, 1882, and October, 1884, whilst I was resident surgical officer in the Manchester Royal Infirmary, it was my duty to initiate the treatment of several bad cases of cut throat and I soon emancipated myself from the dread of sutures. Two of my cases were so very similar to those described by Mr. Morris that I should like to refer to them. The cuts had passed through the thyro-hyoid membrane close to the thyroid cartilage, and had so completely severed the connexions between the latter and the hyoid bone that the larynx dropped down, leaving a wide gap through which the posterior wall of the pharynx was displayed. It seemed hardly possible for such wounds to heal without sutures. At first I tried to suture the thyro-hyoid membrane, but owing to the small amount of that structure which was attached to the thyroid cartilage the hold of the first few stitches inserted was insufficient to bear the strain, for the muscles attached to the hyoid bone on the one hand and to the thyroid cartilage on the other held these structures apart with considerable force. In order to overcome them a suture was passed over each great cornu of the hyoid bone by means of a Liston's needle, and by the same means the deep end of each suture was drawn through the upper part of the ala of the thyroid cartilage. These sutures were tightened up and tied simultaneously. In this way the larynx was suspended from the hyoid bone and all strain on the thyro-hyoid membrane was removed. The edges of the latter membrane were then accurately adjusted with fine sutures. The ends of the wound in the superficial tissues were sutured, but the central part was left open. This treatment proved very successful in both the cases. In recent years the practice of suturing the tissues layer by layer has been pretty generally employed, and in my opinion Mr. Morris is quite right in making no exception in the neck.

I am, Sirs, yours faithfully,

BILTON POLLARD, F.R.C.S. Eng.

Harley-street, W., Dec. 22nd, 1892.

To the Editors of THE LANCET.

SIRS,—The very interesting and instructive clinical lecture of Mr. Morris, in the last issue of THE LANCET, reminds me of a case of cut-throat occurring in the same individual on three separate occasions. The patient was under the care of the late Mr. Taylor, of Wargrave, Henley-on-Thames. He was the proprietor of a small roadside inn and was addicted to intemperate habits, and it was during these freaks that he attempted suicide by cutting his throat with an ordinary

table knife. His first "performance" upon his neck occurred somewhere about the year 1864, his second the following year, and his last "operation" about eighteen months subsequently. I was assistant to Mr. Taylor and was present on each occasion when this publican was attended. The first and second wounds were situated above the pomum Adami and extended, as far as I can recollect, about two inches and a half on each side of the median line. No important structures were severed, nor did any vessel need torsion or ligature. The last wound, which was inflicted below the old scars, however, was of a more serious nature, inasmuch that the trachea was divided, yet no vessel required to be dealt with. The man resided about a mile off, and was attended at his house on his first and second injury, but on the last occasion he was conveyed to the surgery in a wheelbarrow. The treatment adopted throughout consisted of several silk sutures, bandages and lead lotion, his head not being fixed, and he was fed from the beginning with beef-tea and milk. He eventually succumbed from some pulmonary complication, I think, within a week of his last attempt upon his life.

I am, Sirs, yours obediently,

Camberwell-green, Dec. 26th, 1892.

J. FRENCH BLAKE.

### "CHLOROFORM ADMINISTRATION."

To the Editors of THE LANCET.

SIRS,—The conclusions of the Hyderabad Commission as to the way in which chloroform kills not having met with universal acceptance, I think it right that all cases of death from chloroform should be reported in the journals. I therefore beg to send you the following details of a case in which I administered the anæsthetic: The patient was a female aged fifty-eight. The operation was for removal of a tumour of the face. Chloroform was administered by being dropped upon the outside of a cone formed by the corner of an unfolded towel, in the manner suggested by Sir Joseph Lister. The heart was examined before the operation and nothing abnormal detected. The patient was nervous and said she was afraid of the chloroform, but took it well. The operation was commenced and about ten minutes afterwards she vomited slightly; when that ceased she was again completely anæsthetised and her pulse and breathing were good and regular. About four or five minutes later she became suddenly pale, her pupils dilated widely and her pulse could not be felt (it was felt to be good almost immediately before and the cut vessels in the wound were spurting freely). She respired once or twice spontaneously before artificial respiration was commenced. After its commencement the pupils slightly contracted, but almost immediately dilated again. Nitrite of amyl and ammonia inhalations, hot sponges to the præcordium and injection of ether were also used without effect. Post mortem the heart was contracted and contained but little clot. The heart walls were not pale or markedly soft; the valves were slightly thickened at their free edges. Below the aortic valves and in the lower part of the aorta were some small patches of atheroma. The lungs were slightly emphysematous and had some scarring at the apices, but were otherwise healthy. There were some fibroid tumours of the uterus and the other abdominal organs were healthy. Death in this case appears to have been certainly due to heart failure, as the respiration continued after the imperceptibility of the pulse and change in aspect had been noted.—I am, Sirs, yours faithfully,

FRANK HINDS, M.D., B.Sc. Lond.,

Dec. 27th, 1892. Hon. Medical Officer to the Worthing Infirmary.

### "COLOUR VISION."

To the Editors of THE LANCET.

SIRS,—In your last issue you publish a critique upon the report of the Committee of the Royal Society upon Colour Vision. In it you say: "The test to be used for colour vision are the wools of Holmgren, the sets to be approved by the central authority." You make no mention of my colour circle, which has been devised for making Holmgren's test more rapid and convenient and offers facilities for permanently registering the mistakes of those who are examined. The words of the committee's recommendations are (page 18): "The simplest efficient test is the wool test of Holmgren, applied either in the form which Holmgren recommends or in that of Jeaffreson." The report gives a good illustration of the instrument (p. 112) and further says (p. 19): "In

Jeaffreson's form of this test the handling of colours is avoided, the match being made as there described. The hesitation evinced by the colour blind in matching the test colours in this instrument is also of great utility to the examiner. Moreover, it has been found practically that as many or even more persons can be examined in a given time by it than by the original plan. The committee are therefore of opinion that this modification may be admitted if desired by the examiner." I write this letter not only in my own justification, but in that of Messrs. Curry and Paxton, who have gone to a good deal of trouble and expense in perfecting this apparatus.

I am, Sirs, yours faithfully,

C. S. JEAFFRESON, F.R.C.S. Eng.,

Senior Surgeon to the Northumberland, Durham and Newcastle  
Dec. 22nd, 1892. Infirmary for Diseases of the Eye.

#### "ON THE DIAGNOSIS OF THE DIFFERENT FORMS OF PROSTATIC ENLARGEMENT."

To the Editors of THE LANCET.

SIRS,—Mr. McMunn is under a misapprehension. The instrument lent me did not in my hands fulfil the expectations I had formed. I therefore requested Messrs. Meyer and Meltzer to make me a urethrometer of the ordinary type adapted to the prostatic portion of the urethra, and I have never claimed or thought of claiming any originality in connexion with it. The best proof that the idea was not borrowed from Mr. McMunn is the trouble he has taken in his letter to show that the principle upon which the instrument is constructed is such a bad one.

I am, Sirs, yours truly,

Wimpole-street, W., Dec. 28th, 1892. C. MANSELL MOULLIN.

#### "EXPERIMENTS ON LIVING ANIMALS."

To the Editors of THE LANCET.

SIRS,—Mr. Lawson Tait in endeavouring to maintain his dictum that the healthy peritoneum is extremely sensitive seeks refuge in a supposition that, although the healthy peritoneum of "animals" is insentient, the same membrane is, on the contrary, in man acutely sensitive. He appears in so doing to forget the fact that my letter was corroborative of surgical experience on the human peritoneum already expressed and published conversely to the supposition he now advances. The evidence from the laboratory is therefore in accord and not, as Mr. Tait alleges, in disaccord with observations upon man. From an experimental point of view the matter seems hardly debatable further. At present all Mr. Tait has done is to repeat an assertion, which, I would remind him, is not the same thing as to substantiate it. It will require time, he says, before he can verify the unqualified contradiction he gave to the statement in the recent lecture by Dr. Gee. Dr. Gee's statement has already received a twofold ratification in the medical press. Would it not have been a better course had Mr. Tait taken the time and trouble to verify his contradiction before instead of after making it?

I am, Sirs, yours faithfully,

C. S. SHERRINGTON, M.A., M.D.

St. George's-square, S.W., Dec. 24th, 1892.

### LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

#### *Christmas and the Poor.*

CHRISTMAS has come and gone with the usual festivities. A pleasing feature of the latter is the large amount of gifts in money and food—chiefly the latter—bestowed upon the deserving poor. The "hot pot" fund, which was originated some years ago, has become a hardy annual, and by its means a large number of families receive a substantial dinner of meat and potatoes. Generous tradespeople follow the good example with gifts of tea &c., and thus a large number of the hungry are fed with good things. It was all the more welcome this year, the weather having been before, during and after Christmas Day most unusually severe.

#### *Death of Dr. Costine.*

David Dunlop Costine, M.D. St. And., L.F.P.S. Glasg. L.S.A., died somewhat suddenly just as he had attained

the age of sixty, his death occurring on the 23rd inst., his sixtieth birthday. The life of the deceased is an excellent illustration of what may be done by energy and perseverance. Coming from Scotland many years ago to Liverpool a perfect stranger, the deceased worked his way up step by step from a very humble position to a prominent place in the profession as well as in public life. He became a student at the Liverpool School of Medicine in 1860, and on the completion of his studies a few years later he commenced private practice in the north end of the city, a locality where a doctor was then much wanted. He soon acquired a large practice and became a member of the Everton Board of Guardians, taking also a prominent part in politics. It was mainly through his exertions that the Stanley Hospital was first completed and then enlarged; it continues to fulfil the purpose for which it was erected in a large and crowded district and will remain as a graceful monument to the memory of its founder. The funeral, which took place at St. James's cemetery on the 26th inst., was largely attended, in spite of the severe weather, by professional and private friends, representatives of the different public bodies and institutions to which the deceased belonged and of the general public. Dr. Costine was some years ago made a justice of the peace and on the day of his funeral references were made by the magistrates and the city coroner to his death and to the estimation in which he was held. He was married, and a son is in the profession.

#### *A Man Frozen to Death.*

The body of a tug boatman was found on the beach at the Dingle on the afternoon of Christmas Day. He had evidently been frozen to death, the weather being bitterly cold with a strong south-east wind.

#### *Hospital Sunday.*

The second Sunday in the year was chosen from the first as that on which collections shall be made for the hospitals and other medical charities, the first Hospital Sunday having been held on Jan. 8th, 1871. By the usual coincidence of years, the twenty-second anniversary will take place on the same date next year. The committee, in their last annual report, lament the want of elasticity in the amounts of the church collections, and the lament is well founded. Starting under most unfavourable circumstances, and after surmounting almost superhuman difficulties the first year's collections exceeded by £700 the £4000 which the promoters of Hospital Sunday here had modestly predicted. The next year, 1872, the collections closely approached £8000, in 1873 this sum was exceeded, while in 1874 the collections considerably exceeded £10,000, the Hospital Saturday Fund amounting then only to a few hundreds, swelling the total to upwards of £11,000. Since then the tendency has been to stagnate or fluctuate; there has not been the continual steady rise which was hoped. But if Liverpool could raise nearly £11,000 in 1874, surely the amount in 1892 should be in excess of this sum. A sum should be fixed upon as the amount which ought to be raised, say £15,000, and every effort should be made to reach this.

#### *Hospital Accommodation in Liverpool.*

And this leads me to turn to the institutions for which Hospital Sunday and Saturday were established. In Liverpool hospitals have not kept pace with the increasing population as in many of the older towns and cities. Although Liverpool received its charter from King John it did not possess any medical charity till the middle of the eighteenth century, when the first infirmary was built. The Northern Hospital was not founded till 1834, or the Southern Hospital till 1841, each being urgently needed by the rapid growth of the town. Then in 1867 came the Stanley Hospital, thus completing four general hospitals for a population of nearly 600,000. In Dublin, with less than half this number, there are ten general hospitals. Though fairly well supplied with dispensaries and special hospitals these cannot be said to be excessive considering the population and its continued increase.

December 28th.

### NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

#### *Outbreaks of Small-pox.*

SMALL-POX has appeared in various places in North Yorkshire and in parts of Durham. Cases are reported from Bedale and Weardale. As a rule these cases occur in the persons of

tramps and such-like wayfarers and are promptly isolated. More general attention is being paid to vaccination, re-vaccination and sanitary measures.

#### *Tyne Port Sanitary Authority.*

At the late meeting of the Tyne Port Sanitary Authority it was agreed to increase the salary of the medical officer from £80 to £100 per annum, and that a gratuity of £20 be further paid him on account of his extra services during the recent cholera scare, so-called. But the medical officer did more: he stayed up all night in the cholera hospital with a patient and remained with the man until he died. Never was a gratuity better deserved.

#### *Sunderland Infirmary and its Convalescent Home at Harrogate.*

An invitation given to the men of the various collieries which contribute to the Sunderland Infirmary to send representatives to the new home at Harrogate has been very freely accepted and must have a good effect on both charities. The more that working men can be induced to take a direct interest in all medical institutions the better for all concerned.

#### *The Thirsk Railway Disaster.*

The driver of the Scotch express on the morning of Nov. 2nd, when the fearful collision occurred at the Manor siding, near Thirsk, is reported to be able to sit up, and it is expected he will be able to leave the Lambert Memorial Hospital, Thirsk, this week and return to Gateshead, where he resides.

#### *"The Human Frog."*

A case which has excited a good deal of curiosity of a certain kind and was exhibited about Hartlepool and Stockton as a "human frog" was provided for by Drs. Gourley and Morison last week, when they made an order for the inspector in lunacy to take the so-called "frog" to the county asylum. The "frog" is a poor, decrepit imbecile, and it is said that he was sold by his father to a showman.

#### *Bequests to Newcastle Charities.*

The late Mr. Robert Daglish has left the following bequests to Newcastle charities: Royal Infirmary, £500; Newcastle Deaf and Dumb Asylum, £500; and to the Home of the Little Sisters of the Poor, £100.

Newcastle-on-Tyne, Dec. 28th.

## IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

#### *Meath Hospital, Dublin.*

At a recent meeting of the Standing Committee, the following resolution was passed unanimously: "That this committee, having heard of the resignation of Dr. Arthur Wynne Foot, senior physician to the hospital, on account of ill-health, feel they cannot let the opportunity pass without expressing their extreme regret at his severance from the medical staff after his long and faithful service. They sincerely trust that he may soon be restored to health, and be enabled to resume his many other professional duties."

#### *Dublin Main Drainage Scheme.*

A deputation representing the Main Drainage Committee of the Corporation of Dublin last week had an interview with the Chief Secretary and Colonel Le Mesurier (representing the War Office) for the purpose of explaining the views of the committee with reference to the objections to the scheme by the War Department. It appeared that the Main Drainage Scheme had been sanctioned by the Local Government Board, but that the War Office had objected to the construction of the proposed main outfall sewer at the Pigeon House Fort, on the ground that the health of the soldiers stationed at the Fort would be endangered in the event of that portion of the scheme being carried out. After some discussion it was eventually decided to communicate with the War Office authorities, setting forth what the Corporation were prepared to undertake, with a view to meeting the objections to the scheme and removing the obstacles which at present impede the progress of the work.

#### *Richmond Hospital, Dublin.*

By the will of the late Mr. Louis Higgins, a sum of £5000 has been left for charitable purposes, and the executors intend to devote the entire sum to the rebuilding of the Rich-

mond Hospital, which is in a very bad condition. A further sum of £6000 is also forthcoming, and this £11,000 will be sufficient to rebuild the hospital.

#### *Royal Hospital for Incurables.*

The board have resolved to erect a second pavilion, containing two wards, which will provide accommodation for fifty-two beds.

#### *Health of Dublin for November.*

As compared with the previous month, there was a trifling increase in the mortality ascribed to typhoid fever. The deaths from diarrhoea decreased largely. One small-pox patient was admitted into Cork-street Fever Hospital from Blackrock. The death-rate was 27.1, and the zymotic death-rate was 1.8 per 1000 below the mean rate during the month of October for the previous ten years.

December 28th.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

#### *"Political Insanity."*

In the new edition of his book on forensic psycho-pathology Professor von Krafft-Ebing has added a new chapter on "political insanity," from which I quote the following: "In history and in our own time one comes upon large numbers of people who, discontented with social arrangements, feel called upon to better the world. There are innumerable such pseudo-geniuses in society, both in the harmless province of important inventions and proposals for the public good which prove in the light of criticism to be mere vain desires or Utopias. The clinical marks of these abnormally constituted persons are infinitely various. In many the mental endowment is weak and their intellectual productions bear the stamp of crazy eccentricity which clearly distinguishes them from those of genius. Many such remain all their lives in the stage of abnormal world-menders and pothouse politicians, but from the suggestions of others or the influence of excited times they are apt to lose the remnant of their discretion. Then they feel impelled to convert their ideas into action. They appear in the rôle of tribunes of the people, leaders of rebellions, founders of sects or political parties and plunge themselves and others into misfortune." Further on he says: "Such unfortunates fall at last into complete megalomania and if they obtain power for a time they use it in accordance with their degenerate natures as tyrants ..... If they are placed in lunatic asylums they regard their sequestration as actuated by envy and fear of their great talents and go on cultivating their 'ideas,' awaiting the time of their realisation. Their final fate is extreme megalomania, confusion, psychic debility."

#### *Statistics of the Medical Profession.*

The following statistics are taken from Dr. S. Guttman's Medical Calendar of the German Empire. The number of medical men in Germany is 20,500. It has increased more than 21 per cent. during the last five years. The number of medical men in Prussia is 12,074, in Bavaria 2345, in Saxony 1533, in Baden 811, and in Württemberg 711. The corresponding number in Berlin and its suburbs is 1636. The number of medical men in Germany per 10,000 inhabitants is 4.15. The number of dentists in Germany holding German diplomas is 828. The number of apothecaries' shops is 4964. The number of hospitals is estimated at 3109, with 185,069 beds—i.e., 37.44 beds per 10,000 inhabitants.

#### *Cholera and Diphtheria.*

At the December sitting of the Society for Public Hygiene Dr. Wernicke of the Hygienic Institute of Berlin University reported the results of his investigations of cholera and diphtheria bacilli. He has found that the pink reaction under sulphuric acid, is not so peculiar to cholera bacilli as has hitherto been thought. He maintains also that the danger of the transmission of cholera by tobacco is very small. Cholera bacilli die on tobacco leaves. He has succeeded in producing a very high degree of immunity against diphtheria in dogs by injecting weakened diphtheria cultivations. With the blood serum of such a dog he completely protected guinea-pigs against artificially produced diphtheria.

#### *Cholera in Hamburg.*

Between the 28th ult. and the 12th inst. only one case of cholera occurred in Hamburg, but about fifteen have been

reported since then, so that spring and summer are looked forward to with considerable anxiety.

#### *Cholera Statistics.*

It is now officially stated that the number of persons who died of cholera in Germany during the recent epidemic was 8510, of whom 7611 died in the City and State of Hamburg.

#### *Louis Pasteur.*

The Medical Section of the Institut de France has invited the Society for Internal Medicine here to take part through delegates in the celebration of Pasteur's seventieth birthday. The Society has elected Pasteur an honorary member.

#### *Miscellaneous Items.*

Dr. Baginsky of Berlin University has been promoted to the rank of Extraordinary Professor. — Surgeon-General Schaper, the new medical director of the Charité, entered on his office on the 14th inst.—Herr Kühler, Director of the Imperial Office of Health, is seriously ill.

December 20th.

## VIENNA.

(FROM OUR OWN CORRESPONDENT.)

### *Cholera in Austria-Hungary.*

FRESH cholera cases have occurred during the last week in Galicia, near the Russian frontier. Single cases are reported from the town of Husiatyn and the villages Zaluozce, Wierbowka and Siekierzyne in Galicia. It is stated that the cholera is raging severely in the adjacent port of Russian Podolia. At Budapest there are still nine cases of cholera at the cholera hospital and a case of cholera was stated to have occurred at Esseg in Croatia. It is feared by the sanitary authorities that the epidemic will spread in Austria and Hungary in next spring. At the last meeting of the Styrian Society of Physicians at Graz Professor Klemensiewicz announced that he had found a new method for staining the comma bacillus and that by this method the flagellum of the bacillus could be made visible, so that it could be easily distinguished from other similar bacteria. The researches on this matter, however, are not yet concluded.

### *Operation for Cataract.*

Professor Fuchs of Vienna gave recently an interesting lecture on the methods of operating for cataract, in which he stated that the excellent results obtained by Professor Wecker of Paris with the old method of Daviel and Beer (who performed extraction without iridectomy) induced him to try the same method again at his clinic. Between May, 1890, and November, 1892, 1344 cases of cataract were operated upon—702 of them by Professor Fuchs himself and in 311 of these without iridectomy. The results were very favourable with the elder (Beer's) method, as only 0.9 per cent. of the cases were unsuccessful, while with the other method the percentage of non-success was 2.3.

### *Pasteur's Seventieth Birthday.*

At the last meeting of the Vienna Society of Physicians it was resolved to present an address to M. Pasteur on his seventieth birthday.

### *Medical Provident Society.*

A new medical society has been formed here for the aid of physicians who have become disabled or ill. The annual subscription is 30fl. (50s.). Three hundred members have joined the society.

December 20th.

## Obituary.

WALTER HAYLE WALSH, M.D. EDIN., F.R.C.P. LOND.

WALTER HAYLE WALSH, the son of William Walshe, a barrister of great promise who died at the early age of forty-eight, was born in Dublin on March 19th, 1812. He entered Trinity College, Dublin, in 1827, and continued to the third year of study, but did not proceed to the degree of B.A. The intention up to this time had been that his profession should be that of a barrister-at-law; but he preferred another course, and in 1830 went to Paris, whither his mother had already gone with the idea of making her permanent residence in France. From advice then given by an old family friend, he

in 1830 began the study of Oriental languages, commencing with Arabic, but after two years gave up the idea, to use his own expression, of "pushing himself in life as an Oriental linguist," although assured there was a "fine opening" in India for anyone who could attain even moderate skill in the use of three or four of the current tongues. To those who know Dr. Walshe's great classical learning, and his latest work on the "Colloquial Faculty for Languages," published in 1886, it may appear strange that one so highly gifted as he was in this particular direction, as well as in the mastery of language on its scientific side, should have relinquished this pursuit at that time and have commenced the apparently uncongenial study of medicine. This was in 1832, but at that time physical and biological science presented an immense attraction to young Walshe; and so he began, in October of that year, to attend the practice of Boyer and Roux at La Charité in Paris, and to dissect and follow other kindred studies in the same metropolis.

In the beginning of 1834 the most important event of his professional career occurred. It was then that he became acquainted with M. Louis, and the impetus given to his mind was intensified by his devoted study in the clinique of that physician at La Pitié; and thenceforward, until the end of his long life, he never swerved from the lines laid down and illustrated by his great master. The natural inborn bias of Dr. Walshe's mind was towards strict observation and inductive reasoning; and in the school of Louis this bias was so accentuated as to develop in him an equally potent "polar" repulsion in regard of imperfectly noted facts and *a priori* reasoning of all or any kind. The great teachers "at whose feet he sat," to use his own expression, and whom he specially remembered with gratitude and admiration, were Brard, Orfila, Dumas, Cruveilhier, Andral, de Blainville, Dubois, Velpeau, Ricord and Marjolin. He was dresser to Dupuytren for some months and attended the extra-professional lectures of Michelet, Flourens and Arago among others. In 1835 he was elected a member of the Société Médicale d'Observation, being nominated by his friends and colleagues, Dr. Oliver Wendell Holmes and M. Valleix—M. Louis being president. In the August of the same year, 1835, Dr. Walshe left Paris for Edinburgh, and there became acquainted with his uncle, the Rev. R. O. Shannon of the Episcopal Chapel, York-place, who had for a long time been one of the most popular and socially prominent men in the "Modern Athens." To this intercourse Dr. Walshe often referred as being one of the great helps he had received in the cultivation of his literary taste. In 1836 he proceeded to the degree of M.D. in Edinburgh, and immediately after graduating returned to Paris. M. Louis was kind in introducing him to a few English families, but Dr. Walshe felt that he was wasting time, and in 1838 came to England and commenced medical practice in a very humble manner in the north of London.

During the years 1839 and 1840 Dr. Walshe was a vigorous writer on pathology, contributing the articles on Cancer, Endosteitis, Cephalæmatoma, Ectopia, Emphysema (surgical), Empyema and Thoracic Fistula to Costello's "Cyclopaedia of Surgery"; and, but several years later, the very remarkable paper on Adventitious Products to Dr. Todd's "Cyclopaedia of Anatomy and Physiology." The article on Cancer was written in 1840, and was the foundation of his important and quite classical work "On the Nature and Treatment of Cancer," published separately in 1846. In the preface to this book Dr. Walshe refers to the "flattering reception with which the article on Cancer in the 'Cyclopaedia of Surgery' was honoured by the profession," and to the fact that in 1844 Dr. Mason Warren, of Boston, produced an American edition of it as a separate book. It was doubtless in consequence of the high distinction as a pathologist obtained by Dr. Walshe as the author of these masterly papers that the Council of University College in 1841 elected him, in succession to the late Sir R. Carswell, as their Professor of Morbid Anatomy, an office which he held during the following eight years, when he succeeded the late Dr. John Taylor as Special (Holme) Professor of Clinical Medicine. The duties of this office were those of minute personal instruction of the students in the wards of the hospital and the delivery of clinical lectures. Those were very high days in University College and its hospital. The colleagues of Dr. Walshe in the Faculty of Medicine were Lindley, Grant, Graham, Fownes, Quain, Sharpey, C. J. B. Williams, A. T. Thomson, Ellis, S. Cooper and Liston; while in the Faculty of Arts, in which he always took a most lively interest, were Augustus de Morgan, H. Malden, George Long, T. H. Key, R. Potter, R. G. Latham, Tom Taylor, Merlet, Cressy,

Donaldson, Hurwitz and many others. The active professional career of Dr. Walshe was so closely associated with the years of his connexion with University College from 1841 to 1862 that it would be well to complete this part of that history here rather than interpolate with it the various contributions made to literature in their chronological order. When in session 1846-47 Dr. Walshe became Special Professor of Clinical Medicine, he was elected physician to the hospital and as such continued until 1861-62, when, upon retirement from active duty, he was elected Consulting Physician and Emeritus Professor of Medicine and Clinical Medicine. In 1848, upon the resignation of Dr. C. J. B. Williams, Dr. Walshe was appointed Professor of the Principles and Practice of Medicine, an office which he held with great distinction and success during fourteen years. Throughout this time he delivered regularly most important "clinical" lectures, in addition to those of the "systematic course"; and it is by many of these, as well as by much systematic writing, that his work will be best remembered. In the three professorships he had filled he was succeeded by Sir William Jenner, and in mentioning this illustrious name it seems a fitting place in which to mention some others of his colleagues—viz., Edmund Parkes, Sir A. Garrod, C. J. Hare, Wilson Fox,\* Maudsley,\* Russell Reynolds,\* J. E. Erichsen, John Marshall, Burdon-Sanderson, Alexander Williamson, George Harley, Graily Hewitt,\* Michael Foster,\* Charlton Bastian,\* Sir Henry Thompson\* and Wharton Jones, while in the Faculty of Arts there were Farinelli, Croom Robertson, Masson, John Sealey, Hirst and others. These names<sup>1</sup> are selected from the large list of contemporary professors because, from the writer's personal knowledge, each of them entertained a very high regard for their distinguished colleague.

As a professor both in the "clinical" and "systematic" courses, it is difficult to imagine anyone more highly gifted than was Dr. Walshe. He was profoundly and accurately learned in the literature of every subject upon which he spoke and upon the cognate subjects of more specifically scientific processes which could throw any light upon his subject matter. He arranged all his work with the most rigidly logical precision; and every individual lecture furnished a separate and complete model of scientific carefulness. His method of representing facts was essentially "the numerical"; his mode of arriving at conclusions was "per viam exclusionis." He handled theories, bygone doctrines, present fancies and working hypotheses with equal ease; placed them either side by side, in sequence or face to face with facts as the need might be; brought out their value, often not fully seen before, or destroyed them with a relentless energy whenever they were fit only for destruction; and on those ten fingers, which seemed all alive with redundant energy, enumerated point by point achieved, until the members of his class used often to look at one another with an expression of amazement that what before had seemed so vast, so complicated, so obscure, so misrepresented, so hard and so well nigh impossible to understand, could be so robbed of showy clothes, stripped bare of all misconception and made so clear and simple as it now was by the apparently easily-used magic of their great teacher's mind. His language was well chosen, his delivery remarkably rapid, fluent, precise and yet easy to follow; he was often rhetorical, and when he chose highly eloquent, but in ordinary lectures he was instructive by his great learning, convincing by his vigorous logic, and fascinating by the beauty of his style and the obvious earnestness of his conviction.

At the bedside he was most precise and methodical, and gave all his powers to the accurate observation and record of facts. The history of each case was "taken" by his clinical clerks under the direction of his house physician, and this being read to him the "present state" was dictated by himself and taken down then and there in the ward-book. This was done always, and also in his own notes of private cases, according to the scheme drawn up by the "London Medical Society of Observation" (of which he was the founder) under the title of "What to Observe." The notes were long and elaborate as a rule, but sometimes they were amusingly short—e.g., after for many minutes endeavouring to ascertain from a somewhat confused man, who could articulate easily enough and apparently quite intentionally, but who could not put out his tongue although he said he could, Dr. Walshe summed up thus: "When asked if he can put out his tongue says he can, but he can't"—a terse phrase, the last six words

of which became a favourite expression among some members of his class to describe other conditions where performance did not equal promise. It may be true that sometimes Dr. Walshe's protracted investigation may have proved tiring to a patient or to some so-called "students" who were trying to "catch" a knowledge of medicine as they might perchance have caught measles in the ward, but the patient was always handled with such kindness and delicate consideration by the master that the common impression was one of gratitude for his abundant care, while the earnest worker was always sorry when the last word was uttered and only because there were no more to follow. During this period of constant activity in teaching Dr. Walshe was physician also to the Brompton Hospital for Diseases of the Chest and wrote largely on scientific and practical subjects, with marked learning, skill and acceptance. He translated a "Course of Lectures on the Blood," by Magendie, which were published in THE LANCET, and also the immortal work of Louis, his "Researches on Phthisis." This was brought out in 1844 by the Sydenham Society. In the *British and Foreign Medico-Chirurgical Review* he wrote many critical articles and original papers; one of these is or ought to be familiar to every earnest student—viz., the Report produced in 1849 on Pulmonary Phthisis as observed at the Hospital for Consumption. It is based entirely upon facts recorded statistically, with some forty-four propositions arrived at by strict induction. The most generally interesting of these conclusions and perhaps the most unexpected were those which related to the heredity of phthisis and the laws of hæmoptysis. His small but at the same time exhaustive book on the "Physical Diagnosis of Diseases of the Lungs," published in 1843, was the text-book for students not only in University College but in the other schools of the metropolis. Nothing so compact, so well informed or so precise had appeared before, and although it was expanded afterwards into a much larger book, containing many other aims, it yet remains as a model of condensed knowledge and of perspicacity in its application. His treatise on "Diseases of the Lungs," which grew out of the smaller book just mentioned, has passed into its fourth edition, the last being carefully revised and enriched by the author in 1875. This work has been translated into French and Danish. His other equally important work on "Diseases of the Heart and Great Vessels" also passed to its fourth edition in 1873, and has been deservedly held to be one of the most careful and elaborate epitomes of knowledge on the matters with which it deals.

But Dr. Walshe did much more than these things. He published a "Course of Clinical Lectures," and contributed largely to the journals of the day. He was one of the earliest to furnish an account of "Movable Kidney," 1843, while in 1849 he wrote a remarkable paper in the *Medical Times* on the Logical Application of Physiology to Pathology. In 1862, at the meeting of the British Medical Association in London, he delivered the Address in Medicine, which certainly is one of the ablest among the many very able addresses with which that Association has been honoured. Especial attention should be paid to the very lucid and eloquent passages in which the author, as a scientific witness, throws back upon the legal profession a *tu quoque* reply to the charge of "differences among doctors," as though this were a specialty of their profession. In 1871 he produced a paper in THE LANCET on the fallacy of supposing that "bad health" increases the tendency to catch "acute specific fevers," and other contributions on allied questions teemed from his polished pen. At this time, too, his consulting practice was very large, and he was often seen in courts of law in the great cases of disputed testamentary capacity or of claims for compensation in cases of railway accident. His early legal training made him a most careful and effective witness. In his separately published books and in his numerous lectures and contributions to journals, these things may be fairly said as indications of his originality. He was the first to detail accurately the anatomy of cephalæmatoma and of movable kidney. He was very early in pointing out the influence of existing diathetic diseases on the course of acute specific diseases—e.g., Bright's disease on typhoid fever &c. He was an early, if not the first, exponent of the idea that Bright's disease was not a disease of the kidney but of the blood primarily,<sup>2</sup> a view now so fully illustrated by the

<sup>1</sup> Those distinguished by an asterisk were previously pupils of Dr. Walshe.

<sup>2</sup> THE LANCET, 1840.

into Drs. Basham, Wilson Fox and others that it is really hard to believe how original the idea seemed at the time of its enunciation. He was very strongly of opinion that "the pitch of tone" elicited by percussion was the governing factor in estimating the value of variations in dulness. This may not possibly be so evident to some physicians as it was to the author, whose ear was attuned to the very finest modifications of sound; but the writer, who has made hundreds of observations on this point with Dr. Walshe many years ago is quite sure that the value was not over-estimated by him. As some people are colour-blind more or less, so others have a very indifferent appreciation of changes in the "pitch" of note.

Dr. Walshe was the first to teach in this country the fact of contracted pupil in aneurysm of the arch of the aorta and also the occurrence of sudden death in aortic reflux. These points are fully discussed by him in the fourth edition of his work on Diseases of the Heart and Great Vessels. Dr. Walshe was a Fellow of the Royal College of Physicians of London and LL.D. of Edinburgh, a member of the Medical Society of Observation of Paris, of the Medical Society of Copenhagen, of the Royal Medical Society of Athens and of other learned bodies. The most recent works of Dr. Walshe have been outside medical literature, but both of them have shown wide and accurate knowledge of all the biological principles involved in their curiously interesting and instructive pages. That on "Dramatic Singing Physiologically Estimated" affords a striking illustration of the manner and degree to which a highly cultured physician might find time not only to enjoy but to analyse all the elements that contributed to his enjoyment, and by vast acquaintance with the subject of which he treats to criticise in detail every factor in the production of the musical effects to which he listened. There are few, we think, who could carry out an analysis such as his in the field he has chosen; but still fewer who could, by any possibility, have had either the opportunities he enjoyed or the faculty for understanding what it was he enjoyed, as well as the capacity for its expression. The second book, on "The Colloquial Faculty for Language," with an essay on "The Nature of Genius," is of quite exceptional ability and interest to the scientific biologist and the general reader. To read its pages is to find oneself in companionship with a man of high culture and scientific aim. Dr. Walshe's reading was very wide and exceptionally accurate, and many of his most striking personal qualities are charmingly displayed in this choice and learned work. Pages after pages are full of thoughts and suggestions of recondite or inviting subjects he has left the reader to follow, as his bent may lead him, but all of them convey to the mind the feeling that a great master has passed away and, take him "for all in all, we shall not look upon his like again."

As a physician and consultant Dr. Walshe showed always a fineness of kindly consideration for his patient and his colleague—an outcome of his strong gentleman-like feeling and marked courtesy of manner. To the frankness of his manner, so well known in those of Irish origin, Dr. Walshe added the lustre conferred by a Parisian education and extended travel in the best society. His conversation was enriched by epigram and anecdote and great humour. His acquaintances were many, his intimate personal friends were few; but those who had the advantage of being within that circle always found in him perfect consideration, unflinching and devoted kindness and affectionate personal regard. He was by nature both sceptical and cynical, but to what he did believe he clung with all his energy, and where he did trust he trusted utterly.

To conclude as we began with personal history, Dr. Walshe married, twenty-four years ago, Caroline Ellen, the youngest daughter of the late Rev. D. Baker, Vicar of Bishop's Tawton, and sister of General Sir Thomas Baker, Quartermaster-General of the Forces, by whom he leaves one son, now in his twenty-second year, and who, having just passed his "Responsions," is to follow out his own career in Oxford. Some years ago Dr. Walshe expressed to the writer a wish, recently repented and enforced in a letter directed to be delivered immediately after his death, to the effect how greatly he desired it might be known "how deeply mortified he was by his inability to mix professionally and socially with his colleagues." The "wretched state of his health was the sole but most effective cause of his life of isolation." For years he had "been practically confined to his own fireside not only in the evenings but even in the daytime." This the writer knows to be absolutely true, and knows also

that the isolation, in spite of occasional periods of active practice, dates back for more than twenty years, and was a great source of grief to his old master and friend; Dr. Walshe keenly feared that his former colleagues and associates might think his interest in old studies and pursuits had failed, but it was not really so. To almost the last he retained all his brilliant faculties, and intense interest in pathology and practical medicine, and also in the affairs and ethics of his profession. He was however compelled by painful disease to retire from all the scenes and discussions that would have interested him most deeply, and in which the participators would have found in him a wise and most accomplished adviser, had the discussions been in the Societies, the schools, the councils of his profession, the Colleges or the University. In his charming book on "Dramatic Singing," after quoting Herbert Spencer's homage to the emotional power of the art, couched in the following words: "Music arouses dormant sentiments of which we had not conceived the possibility, and do not know the meaning," Walshe continues, "Spell-bound, in truth, we muse in vague indefinite dreams of something beyond and above this nether world, as melody and harmony of the higher moulds enthrall the auditory sense; in fact a something yet deeper than the shadowing forth or the idealisation of the most trivial and of the deepest emotions, the subtlest and the most refined sentiments, the tenderest and the deepest passions." Feelings and yearnings such as are here expressed are not infrequent in his other writings, nor were they so in his conversation. His was the "Honest Doubt," in which "Faith" lives; although at times its breathing may be faint. He thirsted for perfect knowledge with a passionate longing, and sought no less earnestly for higher light. With Goethe he might say, as we know he often felt, and especially of late,

Und mich ergreift ein längst entwöhntes Sehnen  
Nach jenem stillen, ersten Geisterlich.

And we now, putting all the shadows of life behind us by turning to the light, must feel that such a soul—so fully attuned to every note of melody and every chord of harmony—must, released from its painful tenement in this "nether world," find the reality of its highest aspirations in an exalted condition of existence in some "higher world" of which the philosopher, as such can but "dream."

Sir William Jenner writes: "Many years since I attended Dr. Walshe's lectures on Morbid Anatomy and never heard a more able or clearer lecturer in my life. I followed him in the hospital and he was a first-rate clinical teacher. I heard him deliver an introductory lecture at University College, remarkable for its eloquence and for its soundness. He had left such a strong impression on my mind and I thought so highly of him that when I had the honour to be President of the Royal College of Physicians I wrote to him asking him to deliver the Harveian Oration. Although he at first consented, circumstances soon after prevented him from delivering it."

The following remarks are by a younger contemporary of Dr. Walshe well entitled to speak of his great qualities as a medical teacher and as a physician: "I first made acquaintance with him when he was appointed to the chair at University College by attending his clinique. What the men who talked about him at that time used to say was that 'he had all the characteristics of an Irishman educated in Paris.' He had all an Irish gentleman's geniality and I do not think I ever knew a man who exhibited a more delicate regard for the susceptibilities of all he came into relation with or a finer tact in apprehending them. He was a charming companion largely for these reasons. As a teacher at the bedside he was unsurpassed, and the appreciation of this bedside teaching (after all, the most useful and impressive) was shown by the large numbers of men that accompanied him through the wards at his visits. They all knew perfectly well that they would not come away without very valuable additions to their practical knowledge of disease. But above all, in the wards he was a *trainer*. He recognised this as a most important part of his work at the hospital; he taught the men to be methodical in their diagnosis, never to my recollection quitting the bedside of a fresh case until he had made clear to everyone about him each step that he mentally had taken to arrive at the final view he had adopted. Spreading out the fingers of his hand, I have often seen him in a difficult or obscure case dotting off one by one more or less similar diseases and explaining why one after the other was to be rejected—in fact, teaching the men at the place where they must be most receptive of such teaching the

application of what has been called the 'via exclusionis.' My intercourse with him became renewed in 1852. In that year he began to bring together a few selected men who met periodically at his house under the title of the 'London Medical Society of Observation.' It commenced with somewhere about a dozen men, of whom I recollect Jenner, Sieveking, Hare, Edmund Parkes, Snow Beck, Hermann Weber, Russell Reynolds, Lionel Beale and Morris, besides myself. It never became anything more than a private society of medical workers and never came before the medical public but once, when it put forth a little book, 'What to Observe at the Bedside and after Death in Medical Cases.' It was, as stated in the preface to the volume, 'a form of arrangement of symptoms and after-death appearances which had been framed by Dr. Walshe' and adopted with some modification by the Society. It passed through two editions. How the Society came to an end or what became of its records I cannot tell."

#### DR. GIACOMO RICCHETTI.

VENICE has lost one of her ablest physicians and busiest consultants in Dr. Giacomo Ricchetti, who was found dead in bed on the morning of the 23rd inst. The night before he had retired to rest at the usual hour and seemingly in his usual health. To his servant's customary knock at 7 A.M. next morning no answer was returned, till, on his room being entered, he was seen to be lying as if in sleep. His colleague, Dr. Orazio Pinelli, arrived shortly after, to find him dead from cardiac failure. Dr. Ricchetti was but in his sixtieth year, with apparently a long term of active life before him. He was an exceedingly well trained and pleasant-mannered practitioner and had won great confidence among the Venetian aristocracy and the foreign, particularly the British, residents or visitors in the "Pearl of the Adriatic." By birth he was a native of Gorizia, in the so-called "Italia Irredenta," but like others of his compatriots had become completely naturalised in the city of his adoption—"Italianissimo" (Italian of the Italians).

## Medical News.

UNIVERSITY OF LONDON.—The following candidates have passed the recent M.D. Examination:—

**Medicine.**—Horatio George Adamson, St. Bartholomew's Hospital; Wm. Henry Alchin, Westminster Hospital; Launcelot William Andrews and Harold William C. Aueten, B.S., St. Bartholomew's Hospital; Sir H. Reeve Beever, Bart., King's College; Letitia Caroline Bernard and Frances May D. Berry, London School of Medicine and Royal Free Hospital; Richard Oxley Bowman, Manchester Royal Infirmary; David Brown, B.Sc., London Hospital; Lewis Thos. Fraser Bryett, King's College; G. S. Buchanan, B.S., B.Sc., St. Bartholomew's Hospital; Arthur Wm. Burrell, London Hospital; Frank Geo. Bushnell, University College; Henry Albert Caley,\* St. Mary's Hospital; Julius St. Thomas Clarke, Guy's Hospital; Charles Coles (Gold Medal), St. Bartholomew's Hospital; Walter Stacy Colman, University of Edinburgh and University College, London; Samuel Bird Cook, St. Thomas's Hospital; George Harry Cooke, Owens College and Manchester Royal Infirmary; Harry Corner London Hospital; Henry Jones Curtis, B.S., Philip Rasleigh Dodwell,\* and Douglas Drew, B.S., University College; Henry Holdrich Fisher, St. Bartholomew's Hospital; Arthur Edwd. Giles,\* B.Sc., Owens College; Douglas Richard Green, B.S., and Augustine Griffith, University College; Richard Tanner Hewlett, King's College; Thomas Walter Hinds, University College; Aubrey Dallas P. Hodges, London Hospital; Herbert Horrocks, B.Sc., Owens College and Manchester Royal Infirmary; Edward Victor Hugo, B.S., St. Bartholomew's Hospital; Walter Ross Jordan, Queen's and Mason Colleges, Birmingham; Alfred A. Kanthack, B.S., B.A., B.Sc., Liverpool Royal Infirmary, St. Bartholomew's Hospital and University of Cambridge; Henry Brunton Kitchen and Ronald Edward S. Krohn, University College; Arnold William W. Lea, B.S., Priestley Leech, B.S., and Jas. S. McGowan, B.S., B.Sc., Owens College and Manchester Royal Infirmary; Joseph Johnston Macgregor, St. Bartholomew's Hospital; Charles Pye Oliver, Charing-cross Hospital; John Ernest Paul, University College; Hugh Jas. Moore Playfair, King's College; Harold M. Richards,\* B.S., University College; R. Walter Richards and Llewellyn Roberts, St. Bartholomew's Hospital; Richard Gundry Row, University College; Ernest Alfred Sadler, Birmingham Medical School; Henry Shamm, University College; Gerald A. Simmons, B.S., St. Mary's Hospital; Ernest Newlyn Smith, University College; Cecil Robert Stevens, B.S., St. Bartholomew's Hospital; Thomas Geo. Stevens, B.S., Guy's Hospital; William Mitchell Stevens,\* University College; William Francis Umney, St. Thomas's Hospital; John Wilkie, B.Sc., St. Bartholomew's Hospital; John Price Williams, Owens College and Manchester Royal Infirmary; Arthur S. Wohlmann, B.S., Guy's Hospital; Emily Elizabeth Wood, London School of Medicine and Royal Free Hospital; Thomas Jason Wood, University College.

**State Medicine.**—Arthur E. Pernewan, M.D., University College; Richard Sisley, M.D., St. George's, Guy's, University College, and Vienna; Theodore Thomson, Universities of Aberdeen and Edinburgh; Frank Tratman, Bristol and London Hospital.

The following candidates were successful at the recent M.B. Examination for Honours:—

**Medicine.**  
**First Class.**—Seymour Graves Toller (Scholarship and Gold Medal), St. Thomas's Hospital; Arthur Mantell Daldy (Gold Medal), Guy's Hospital; Hamilton Ashley Ballance\*, University College; Louisa B. Aldrich-Blake, London School of Medicine and Royal Free Hosp.; Charles Caldwell Elliott, Guy's Hospital; Hugh Roubillac Smith, University College; Chas. Richard Box, B.Sc., St. Thomas's Hosp.; Ed. T. E. Hamilton, B.Sc., Guy's Hospital; Martin Randall, B.A., University College.  
**Second Class.**—Jessie Flewitt Hatch, London School of Medicine for Women, and Leonard Rogers, St. Mary's Hospital (equal); William Bligh, Guy's Hospital, Wm. Prior Purvis, B.Sc., St. Thomas's Hospital, and Henry Stephen Sandifer, King's College (equal); Arthur John Sharp, Guy's Hospital; Thos. Grigor Brodie, King's College, Clement M. Rogerson, Yorkshire College and General Infirmary, Leeds, and Chas. Geo. Spencer, University College (equal); Francis Jordan Coleman, Guy's Hospital, John Evans, University Colleges, Liverpool and London, and Chas. S. Pantin, Guy's Hospital (equal).  
**Third Class.**—Cecil Benjamin T. Musgrave, University College, and Frank Allan Roberts, Yorkshire College (equal); A. Seal Blackwell, B.Sc., St. Bartholomew's Hospital, and G. Arbour Stephens, B.Sc., University College (equal); Arthur Douglas Heath, University College, and Herbert Ramsden, Owens College (equal).

**Obstetric Medicine.**  
**First Class.**—Seymour Graves Toller (Scholarship and Gold Medal), St. Thomas's Hospital; Jessie Flewitt Hatch (Gold Medal), London School of Medicine for Women; Louisa B. Aldrich-Blake, London School of Medicine and Royal Free Hospital; Hamilton A. Ballance, University College; Arthur M. Daldy, Guy's Hospital.  
**Second Class.**—Thos. Major Tibbetts, Queen's College, Birmingham; Thos. Grigor Brodie, King's College; Chas. Satchell Pantin, Guy's Hospital; Herbert Ramsden, Owens College; T. Robinson Taylor, B.Sc., Guy's Hospital; Arthur Seal Blackwell, St. Bartholomew's Hospital; Richard Hamilton, Owens Coll. and Manchester Royal Infirmary, and Wm. Black Jones, St. Bartholomew's Hosp. (equal); Wm. Prior Purvis, St. Thomas's Hospital.  
**Third Class.**—Leonard Rogers and Vincent Warren Low, St. Mary's Hospital; Chas. Richard Box, St. Thomas's Hospital, and Walter L. Pethybridge, B.Sc., St. Bartholomew's Hosp. (equal); Chas. George Spencer, University College; Henry Stephen Sandifer, King's College.

**Forensic Medicine.**  
**First Class.**—Charles E. Wheeler, B.Sc. (Gold Medal), St. Bartholomew's Hospital; John Jones, University College; Arthur J. Sharp, Guy's Hospital.  
**Second Class.**—Edward Thos. Ernest Hamilton, Guy's Hospital; Christopher Addison, St. Bartholomew's Hospital; Tom Robinson Taylor, Guy's Hospital.  
**Third Class.**—Arthur Seal Blackwell, St. Bartholomew's Hospital; Thomas Grigor Brodie, King's College; Wm. Prior Purvis, St. Thomas's Hospital; Chas. Geo. Spencer, University College.

\* Obtained the number of marks qualifying for a Gold Medal.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the subjects indicated:—

**Surgery.**—E. H. Calvert, Leeds Yorkshire College; H. S. Chavasse and H. W. Clarke, St. Mary's Hospital; B. S. Foulds and F. J. Godwin, Charing Cross Hospital; F. Henry, St. Bartholomew's Hospital; G. M. Hetherington, King's College Hospital; G. Higginson, Cambridge University and London Hospital; J. Joule and J. Kennedy, London Hospital; E. G. Little, St. George's Hospital; G. Martyn, King's College Hospital; F. S. Park, Edinburgh; E. Le F. Payne and W. F. Peacock, St. Mary's Hospital; A. L. Roper, Cambridge University and Guy's Hospital; S. Smith, Middlesex Hospital; T. E. Smurthwaite, St. Mary's Hospital; A. B. Sturges, Yorkshire College, Leeds; J. M. Swanson and S. W. Thompson, Charing Cross Hospital; J. A. T. White, St. Bartholomew's Hospital; F. D. Woolley, Owens College, Manchester.

**Medicine, Forensic Medicine and Midwifery.**—R. S. Berry, St. George's Hospital; H. H. P. Cotton, Westminster Hospital; F. C. B. Harvey, Sheffield Hospital; A. N. V. Johnson, Royal Free Hospital; A. G. Jones, Middlesex Hospital; A. S. Knapman, Owens College, Manchester; L. P. Tomlinson, St. George's Hospital; R. B. Williams, St. Thomas's Hospital.

**Medicine and Forensic Medicine.**—H. F. Ealand, St. Mary's Hospital; T. M. Nair, Madras and St. Mary's Hospital; F. S. Park, Liverpool and Edinburgh.

**Medicine and Midwifery.**—R. Evans, University College.  
**Forensic Medicine.**—R. S. Fairbank, King's College; J. H. Roberts, Guy's Hospital; A. Robinson, Leeds Yorkshire College; H. A. Walker, Owens College, Manchester; W. R. Willey, St. Mary's Hospital.

**Midwifery.**—G. L. Godwin, Edinburgh.  
The following candidates received the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery:—Messrs. Berry, Calvert, Foulds, Henry, Joule, Little, Martyn, Payne, Peacock, Roper, Rober, s, S. Smith, Swanson, Thompson, Tomlinson, White, Willey and Williams.

PRESENTATIONS.—Mr. Peter Galloway of Rhynie,, Aberdeenshire, has been presented with a handsome pianoforte, accompanied by a large piece of silver plate, on the occasion of his marriage. Professional duties deprived Mr. Galloway of the pleasurable opportunity of receiving the testimonial in person, and in his absence the duty of receiving the gift devolved on his bride, whilst its acknowledgment was made on his behalf by a friend present.—Mr. H. F. Devis, L.R.C.P. Lond., M.R.C.S., of Bristol, has been the recipient, on the occasion of his marriage, of a handsome marble clock, from the members of the Knowledge Football Club, as a token of respect and friendship.

**THE NEW LANCASTER INFIRMARY.**—The Mayor of Lancaster (Alderman Kitchen) has intimated his intention of subscribing £5000 towards the cost of the new infirmary.

**SELLING DISEASED MEAT.**—The Blackburn bench of magistrates has recognised in a special manner the gravity of the offence of selling diseased meat by inflicting on a butcher a fine of £50 and costs. The evidence went to show that the meat was derived from a cow which had died of fever.

## Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

**BARON, B. J., M.B., C.M. Edin.**, has been appointed Physician to the Throat and Nose Department, Bristol General Hospital.

**BELL, C. W. J., L.R.C.P. Edin., M.R.C.S.**, has been reappointed Medical Officer for the Yarborough Sanitary District of the Louth Union.

**BRANNIGAN, H. C., M.D., M.Ch. Irel., L.R.C.P. Edin.**, has been appointed Medical Officer at Mount Morgan, Queensland, vice Hunter, resigned.

**CLARKE, J. M., M.B. Camb., M.R.C.P., M.R.C.S.**, has been appointed Physician to the B-1's of General Hospital, vice Baron.

**FRASER, A. R., M.B., C.M. Edin.**, has been appointed House Surgeon to the Northern Infirmary, Inverness.

**GRANT, NORMAN MCKAY, M.D., Kingston, Ont., Canada**, has been appointed a Public Vaccinator for the District of Waiapu, New Zealand.

**GRAY, THOS., Ch.M. Edin.**, has been appointed Assistant Medical Inspector to the Board of Health, Victoria, Australia.

**HARE, F. W. E., M.D. Durh., M.R.C.S.**, has been appointed Senior Resident Medical Officer to the Charters Towers Hospital, Queensland.

**HIGGINS, T. J., M.D. Irel., L.R.C.S., L.M. Edin.**, has been reappointed Medical Officer for the Welton Sanitary District of the Louth Union.

**HENDERSON, J. L., M.B. Melb.** has been appointed Assistant Resident Medical Officer to the Children's Hospital, Carlton, Melbourne, Australia.

**HALAHAN, S. H., M.B., B.Ch. Dubl.**, has been appointed Health Officer for Kowree Shire, Victoria, Australia.

**HAYMAN, F. D., M.R.C.S.**, has been appointed Health Officer for Winchelsea Shire, Victoria, Australia.

**HOWLIN, A. J., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg.**, has been appointed Medical Officer to the London County Council Industrial School, Mayford, Surrey.

**HUTTON, J. R., M.B., Ch.M. Edin.**, has been appointed Resident Surgeon to the Castlemaine Hospital, Victoria, Australia.

**ICK, THOS. E., M.B. Melb.**, has been appointed Health Officer for Poowong and Jeetho Shire, Victoria, Australia.

**JOHNSTON, ALEX., M.D.**, has been appointed Physician Superintendent to the City of Glasgow Fever Hospital, Belviders, vice Allan, resigned.

**KENNY, WILLIAM, M.B., Ch.B. Melb.**, has been appointed Assistant Resident Medical Officer to the Children's Hospital, Carlton, Melbourne, Australia.

**KERR, JAMES, M.B., C.M. Edin.**, has been appointed Health Officer for Croajingolong Shire, Victoria, Australia.

**LANCASTER, E. LE CRONIER, M.B., B.Ch., M.R.C.S.**, has been appointed Medical Officer, Swansea Hospital.

**LANGDON, J. A., L.R.C.P. Edin., L.F.P.S. Glasg.**, has been appointed Medical Officer to Warangera Mission Station, New South Wales.

**LEXTON, W. A., L.R.C.P. Lond., M.R.C.S.**, has been appointed Honorary Assistant Surgeon to the Skin and Lock Hospital, Birmingham.

**LINDSAY, HERBERT S., M.R.C.S., L.R.C.P. Lond.**, has been appointed a Government Medical Officer at Muttaburra, Queensland, vice Egan, resigned.

**LOYD, FREDK. GEO., M.R.C.S., L.R.C.P. Lond.**, has been appointed Assistant House Physician to the West London Hospital.

**LUSH, PERCY J. F., M.A., M.B., B.Ch. Oxon., M.R.C.S.**, has been appointed Medical Officer for Friedenheim, Upper Avenue road, Swiss Cottage, N.W.

**MASON, S. R., M.D., F.R.C.S. Irel.**, has been appointed Consulting Surgeon to the Coombe Lying-in Hospital and Guinness Dispensary, Dublin.

**MOIR, WILLIAM, M.B., Ch.M. Aberd.**, has been appointed Health Officer for Morwell Shire, Victoria, Australia.

**PARKER, GEO., M.D. Camb., M.R.C.S.**, has been appointed Assistant Physician to the Bristol General Hospital, vice Clarke.

**PAIRMAN, T. W., L.R.C.P., L.R.C.S. Edin.**, has been appointed a Public Vaccinator for the District of To Awamutu (prov. Auckland), New Zealand.

**PEARCE, H. R., II., L.R.C.P., L.M. Irel.** has been appointed Medical Officer to the Nymoges Hospital, New South Wales.

**POGGIOLI, V., M.D. Bologna**, has been appointed Medical Officer to the Park Hill Hospital and Minors' Association, New South Wales.

**RANKIN, R. P., L.R.C.P., L.R.C.S. Edin.**, has been appointed Public Vaccinator for Dookie, Victoria, Australia.

**REID, G. M., M.D. Edin., L.R.C.P. Lond., M.R.C.S.**, has been appointed Health Officer for Chewton Borough, Victoria, Australia.

**RIGHT, W. H., M.B. Melb.**, has been appointed a Public Vaccinator for Coleraine, Victoria, Australia.

**ROBERTSON, G. M., M.B., C.M., M.R.C.P. Edin.**, has been appointed Medical Superintendent to the Murthly District Asylum.

**ROWLING, C. E., L.R.C.P. Edin., C.M., M.R.C.S.**, has been appointed a Public Vaccinator for the District of Paterson, New South Wales.

**SALTER, A. E., M.B., Ch.B. Melb.**, has been appointed Medical Officer for the Lepers detained in the Lazaretto on Friday Island, Queensland.

**SIBLEY, W., KNOWSLEY, M.A., M.D., B.C., M.R.C.P.**, has been appointed Clinical Assistant to the Skin Department, Middlesex Hospital.

**WESTENRA, F. G., M.B., C.M., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg.**, has been appointed an additional Public Vaccinator for the District of Hawera, New Zealand.

**WILLIAMS, E. J., L.R.C.P., L.R.C.S. Edin., L.M.R.C.P. Irel.**, has been appointed Surgeon in the Naval Brigade, Victoria, Australia.

**WILLIAMS, W., M.A., M.B., B.S., D.P.H. Oxon., M.R.C.S., F.C.S.**, has been appointed County Medical Officer to the Glamorgan County Council.

**WRIGHT, F. G., L.R.C.P., C.M., L.R.C.S. Edin.**, has been appointed a Public Vaccinator for Serviceton, Victoria, Australia.

## Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

**ALNWICK INFIRMARY.**—House Surgeon (unmarried). Salary £120 per annum, with furnished apartments, attendance, coals and gas, but without board.

**ANCOATS HOSPITAL, Manchester.**—Resident Junior House Surgeon. Salary £50, with board and washing.

**CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.**—House Surgeon. Rooms, coals and lights provided.

**HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.**—House Physicians.

**KENSINGTON DISPENSARY.**—Honorary Medical Officer. (Applications to the Hon. Secretary, 7, Stamford-road, Kensington-square, W.)

**KING'S COLLEGE, London.**—Assistant Physicians.

**MANCHESTER ROYAL INFIRMARY.**—Resident Medical Officer for the Fever Hospital at Mossall, for twelve months. Remuneration £250 per annum, with board and residence.

**MILLETT HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich, S.E.**—Junior Resident Medical Officer, for six months. Salary £30 per annum, with board, attendance and washing.

**NATIONAL HOSPITAL FOR THE PARALYSED (ALBANY MEMORIAL), Queen-square, Bloomsbury.**—Senior House Physician. Salary £100 per annum.

**ST. GEORGE'S HOSPITAL.**—Visiting Apothecary.

**THE METROPOLITAN ASYLUMS BOARD.**—Medical Superintendent at the Darenth Schools for Imbeciles, near Dartford, Kent. Salary £450 per annum, with furnished residence, coals, gas, milk, garden produce and washing. (Applications to the Clerk of the Board, Chief Office, Norfolk street, Strand, W.C.)

**THE VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.**—House surgeon to the In-patients. Honorarium of £50 per annum, and board and lodging provided in the hospital.

**THE VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.**—House Physician to the In-patients. Honorarium of £50 per annum, and board and lodging provided in the hospital.

**WEST HERTS INFIRMARY, Hemel Hempstead.**—House Surgeon and Dispenser, who shall also be Assistant Secretary, for two years. Salary £100 per annum, with board, furnished rooms, free light, attendance and washing.

## Births, Marriages and Deaths.

### BIRTHS.

**MAUGHAN.**—On Christmas Day, at Albany-street, N.W., the wife of James Maughan M.D. Bux., of a daughter.

**MILTON.**—On Dec. 13th, at Cairo, the wife of Herbert Milton, M.R.C.S., of a son.

**TRACEY.**—On Dec. 24th, at Eversley, The Grange, Wimbledon, Surrey, the wife of H. Eugeno Tracey, M.B., of a daughter.

### MARRIAGES.

**ENTHOVEN—RUDALL.**—On Oct. 12th, at St. Paul's Cathedral, Melbourne, Australia, by the Rev. Canon Handfield, assisted by the Rev. J. G. Swan, Elias James, third son of John Enthoven, of Harrow-on-the-Hill, England, to Anna Georgina, only surviving daughter of James T. Rudall, F.R.C.S., of Spring-street, Melbourne.

**FLEMMING—WOOD.**—On Dec. 23th, at St. John's Church, Upper Holloway, by the Rev. G. Hemming, Percy Flemming, M.D., B.S., F.R.C.S., son of the late Horatio Henry Flemming, of 35, Regent's-park road, N.W., to Emily Elizabeth Wood, M.D., daughter of Arthur John Wood, of 267, Camden-road, N., and 1, Hare-court, Temple, E.C.

**OWEN—O'NEILL.**—On Nov. 26th, 1892, at St. Michael's Church, Colombo, Ceylon, by the Rev. J. C. Ford, M.A., Arthur Deaker Owen, M.R.C.S., of the Porak Government Service, Straits Settlements, to Katharine, eldest daughter of Major Edward O'Neill, Teignmouth, S. Devon.

**THOMPSON—STAINTHORPE.**—On Dec. 15th, at St. Andrew's Parish Church, Newcastle-on-Tyne, by licence, by the Rev. Canon Lister, M.A., James, son of the late John Thompson, of Annan, Dumfriesshire, to Emily Ann, second daughter of Dr. G. F. Stainthorpe, 29, Eldon-square. No cards.

### DEATHS.

**FOX.**—On Dec. 21th, at the Vinoyards, Bath, Edwin Churchill Pigott Fox, M.B. Edin., aged 50

GODWIN.—On Dec. 23rd, at Rawal Pindi, India, Surgeon-Colonel C. H. Y. Godwin, Principal Medical Officer, Rawal Pindi Division, late Professor of Military Surgery, Army Medical School, Netley, aged 64.  
HESS.—On Dec. 22nd, Augustus Hess, M.D., M.R.C.P. Lond., aged 75.

*N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.*

### BOOKS ETC. RECEIVED.

- ADLARD & SON, Bartholomew's-close, London.  
The Calendar of the Royal Veterinary College for 1892. pp. 138. Price 1s.
- BAILLIÈRE, TINDALL & COX, London; LEA BROTHERS & CO., Philadelphia.  
The Principles of Theoretical Chemistry. By Ira Remsen. Fourth Edition. 1893. pp. 322.
- CASSELL PUBLISHING CO., New York.  
Hydrotherapy at Saratoga. A Treatise on Natural Mineral Waters. By J. A. Irwin, M.D. Irel. pp. 270.
- CHURCHILL, J. & A., New Burlington-street, London.  
Year-book of Pharmacy from 1st July, 1891, to 30th June, 1892. With the Transactions of the British Pharmaceutical Conference held at Edinburgh, August, 1892. pp. 608.  
Physical Education. By F. Treves, F.R.C.S. 1892. pp. 75. Price 2s. 6d.  
Transactions of the Ophthalmological Society of the United Kingdom. Vol. XII. Session 1891-92.
- CROSBY LOCKWOOD & SON, Ludgate-hill, London; and D. VAN NOSTRAND COMPANY, New York.  
The Microscope, its Construction and Management. By Dr. H. V. Henck. Translated by Wynne E. Baxter, F.R.M.S., F.G.S. Illustrated. 1893. pp. 382.
- DORNAN, W. J., Philadelphia.  
Transactions of the American Surgical Association. Vol. X. Edited by J. Ewing Mears, M.D. 1892. pp. 280.
- DOUGLAS, DAVID, Edinburgh.  
Horses in Accident and Disease. By J. R. Cox, F.R.C.V.S. 1892.
- FROWDE, HENRY, Amen-corner, London.  
The Hospital Service Book. Short Services for use in the Wards of Hospitals and Infirmaries. By C. P. Baxter, M.A. 1892. pp. 100. Price 2s.
- GRIFFIN, CHAS., & Co., Exeter-street, Strand, London.  
On Peripheral Neuritis. A Treatise. By J. Ross, M.D. Aberd., and J. S. Bury, M.D. Illustrated. 1893. pp. 424.
- KEGAN PAUL, TRENCH, TRÜBNER & Co., Charing-cross-road, London; and P. BLAKISTON, SON & Co., Philadelphia.  
The Coal-Tar Colours. A Sanitary and Medico-legal Investigation. By Theodore Weyl. Translated by Henry Lefmann, M.D., Ph.D. 1892. pp. 154.
- LIVINGSTONE, E. & S., Edinburgh.  
Vaccination Eruptions—Original Research. By T. D. Poole, M.D. 1893. pp. 120.
- LONGMANS, GREEN & Co., London.  
Lay Down your Arms. The Autobiography of Martha von Tillng. Translated by T. Holmes. 1892. pp. 435. Price 7s. 6d.
- MASSON, G., Paris.  
Études de Clinique Chirurgicale. Par A. le Dentu. 1892. pp. 302.
- OLIVER & BOYD, Edinburgh.  
The Diseases and Deformities of the Fœtus. By J. W. Ballantyne, M.D., F.R.C.P.E. Vol. I. Illustrated. pp. 252. Price 10s. 6d.
- PUTNAM'S SONS, London and New York.  
Hygienic Measures in relation to Infectious Diseases. By G. H. F. Nuttall, M.D., Ph.D. (Göttingen). 1893. pp. 112.
- SEGG & Co., Regent-street, London.  
How to Give Gas. By T. E. Constant, M.R.C.S., L.R.C.P. Illustrated. pp. 86. Price 1s. 6d.
- SIMPKIN, MARSHALL, HAMILTON & Co., London, and H. H. G. GRATTAN, the Borough, London-bridge.  
Notes on the Malarial Fevers met with on the River Niger (West Africa). By W. H. Crosse. 1892. pp. 100.
- SMITH, ELDER & Co., Waterloo-place, London.  
Dictionary of National Biography. Edited by Sidney Lee. Vol. XXXIII. Leighton—Ilwelyn. 1893. pp. 447.
- STANFORD, E., Cockspur-street, Charing-cross, London.  
Mediterranean Winter Resorts. Edited by E. A. Ball, F.R.G.S. Second Edition. 1892. pp. 336.
- WOOD, WM., & Co., New York.  
A Handbook of Pathological Anatomy and Histology. By F. DeLafield, M.D., LL.D., and T. M. Prudden, M.D. Fourth Edition. Illustrated. 1892. pp. 715.  
A Manual of Bacteriology. By G. M. Sternberg, M.D. Illustrated. 1892. pp. 886.
- Bulletin of the American Academy of Medicine, No. 12, December, 1892 (published by the Academy at the Office of the Secretary, Lafayette College, Easton, Pennsylvania).—Dod's Peerage, Baronetage, and Knightage of Great Britain and Ireland for 1893; fifty-third year (Whitaker & Co., and G. Bell & Sons, London).—Transactions of the Obstetrical Society of London, Vol. XXXIV., for the year 1892; Part III. for June and July (published by the Society, 20, Hanover-square, London, W.); price 4s.—De la Cataracte; par le Dr. A. Forret; 1893, pp. 131 (Société d'Éditions Scientifiques, Paris).—Hygiène et Traitement du Diabète; par le Dr. E. Monin; Troisième édition (Société d'Éditions Scientifiques, Paris).—Magazines (Christmas Numbers): Gentlewoman, Graphic, Queen Myra, Hearth and Home, Strand, Yule Tide, Publishers' Circular for January, Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

### METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 26th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 a.m.
Dec. 23	30.00	E.	30	36	45	41	85	..	Cloudy
" 24	30.01	E.	30	..	38	35	20	..	Cloudy
" 25	30.00	N.E.	30	..	40	35	27	..	Bright
" 26	30.12	N.E.	30	..	..	33	28	..	Hazy
" 27	30.22	S.W.	21	..	..	35	22	..	Foggy
" 28	30.33	S.W.	28	..	..	33	22	..	Foggy
" 29	30.05	S.E.	32	..	30	35	26	..	Foggy

### Medical Diary for the ensuing Week.

#### Monday, January 2.

- KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays, at the same hour.  
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; and on Tuesday, Wednesday, Friday, and Saturday at the same hour.  
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.  
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M.; and each day at the same hour.  
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2 P.M.; Thursday, 2.  
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.; and on Thursday at the same hour.  
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.  
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.  
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.  
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M. Eye Department, 2 P.M.

#### Tuesday, January 3.

- GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.  
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.  
ST. MARK'S HOSPITAL.—Operations, 2 P.M.  
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.  
WESTMINSTER HOSPITAL.—Operations, 2 P.M.  
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Skin Department, 1.45; Saturday, 9.15.  
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

#### Wednesday, January 4.

- NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.  
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.  
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.  
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.  
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday and Saturday, same hour.  
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.  
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.  
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M. Dental Department, 9.30 A.M. Eye Department, 2 P.M.  
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.  
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.  
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Handfield-Jones, Dr. Napier, Dr. W. S. A. Griffith, Dr. Playfair, and others. Dr. Hornman: On the Frequency of Local Symptoms associated with Backward Displacements of the Uterus.—Dr. Cullingworth: Note Supplementary to a Paper on Vaginal Hysterectomy, giving the subsequent history of the cases.

#### Thursday, January 5.

- ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M. Ear and Throat Department, 9 A.M. Eye Department, 2 P.M.  
HARVEIAN SOCIETY.—Discussion on "Obstruction of the Large Intestine," opened by Mr. Harrison Cripps.

#### Friday, January 6.

- ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.  
UNIVERSITY COLLEGE HOSPITAL.—Eye Department, 2 P.M.

#### Saturday, January 7.

- UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

## Notes, Short Comments & Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale and advertising departments of THE LANCET to be addressed "To the Publisher."*

*We cannot undertake to return MSS. not used.*

COMMUNICATIONS relating to the EDITORIAL business of THE LANCET must in every case be addressed *exclusively* "To the Editors," and not to them otherwise than in their official capacity.

### PUBLISHER'S NOTICE.

In order to facilitate the work of reference to the volumes of THE LANCET, we have arranged in the future to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together.

We have had a large number of duplicate copies of the Index to the present half-yearly volume printed, and those of our subscribers who may wish to be supplied with loose copies, can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

### A GRUESOME "FIND."

AN English mining company the other day in the Alpine commune of Bovegno (Province of Brescia) came upon a shaft, evidently of Roman excavation, across the mouth of which had been laid a wooden beam which, on contact with the air, crumbled immediately into dust. Letting themselves down into the shaft, some of the employes found at the bottom a great number of human skeletons, the osseous framework of men of almost gigantic build, and, not far from these, the entrance to an imperfectly cleared out gallery, in which lay scattered about pieces of a mineral containing silice in combination with lead (*plumbum argentiferum*). This had doubtless been an ancient Roman mine in which the work of excavation had been performed by men of the neighbouring hill tribes, a company of whom had probably been buried alive by a landslip from the mountain above. The skeletons are being carefully preserved for the purpose of checking (possibly confirming) Professor Mosso's recent conclusions as to the comparative strength and stature of men of the Roman epoch and those of the present day.

Dr. J. A. MacFunn (Alderney) writes to ask if any cholera had existed in Cherbourg during the middle or latter end of November and the early part of this month. We believe that the only return as to cholera at Cherbourg related to four deaths towards the end of last month. But, unfortunately, the absence of returns from French ports by no means implies an absence of cholera.

### ANÆSTHETIC ETHER.

To the Editors of THE LANCET.

SIRS,—We are glad to see from your review of Dr. D. W. Buxton's book on Anesthetics that you very properly draw particular attention to the heading of Chap. iv., "Sulphuric Ether—Anæsthetic Ether." These terms have hitherto been only applied to ether obtained by the action of sulphuric acid on spirits of wine or methylated spirit. The introduction of a mixture consisting of amyl hydride and sulphuric ether under either of these names will undoubtedly produce endless confusion; and as this mixture cannot with safety be used as a general anæsthetic, fatal or serious accidents will be the natural result of its substitution for the preparation which has been so long known and used as anæsthetic ether. Amyl hydride is a hydro-carbon, not an ether, and can only be used with safety as a local anæsthetic, whereas the ordinary anæsthetic ether can be employed with equal safety for both local and general anæsthesia. It is therefore absolutely necessary that this mixture should bear some distinguishing name which will prevent the possibility of its being used for general anæsthesia. This, we think, might be done by calling it either "amyl hydride" or "petroleum ether."—We are, Sirs, yours faithfully,  
Edinburgh, Dec. 26th, 1892.

J. F. MACFARLAN AND CO.

### "INFECTION" AND "CONTAGION."

Student.—We are not surprised at our correspondent's difficulty, for the terms as at present used are somewhat ambiguous. It would conduce to clearness if the term "contagion" were restricted to its precise signification of transmission by actual contact; but unfortunately it is often used in connexion with the transmission of specific poisons, aerially or otherwise, and it would be difficult to revert to its true meaning. When a distinction is made between the two terms and a disease is said to be "infectious" and not "contagious," the former term is applied solely to diseases capable of such indirect transmission. Then, again, with the growth of experimental research the phrase "infective" has come to include all affections which are propagated within the body by means of an organised virus, without any reference to their transmission to others. At the same time most, if not all, of the so-called "infective" diseases are capable of being propagated in other bodies by inoculation or the direct introduction into the blood of the virus. Owing to this extended use of the term "infective" it might perhaps be better now to divide all infective diseases into the two groups, "contagious"—using that word in its widest sense—and "inoculable," although the first will probably be found to include many of the second.

### "VESALIUS THE ANATOMIST."

To the Editors of THE LANCET.

SIRS,—Your correspondent "G. M. C." (THE LANCET, Dec. 17th, p. 1424) will, I fear, find it extremely difficult to obtain the information he desires with regard to the domestic or matrimonial life of Vesalius. On these points contemporaneous writers and commentators, as well as later authors, are, so far at least as I have been able to ascertain, singularly reticent or meagre in the details they afford, the chief points thus chronicled being, firstly, those referring to his early devotion to anatomy and the precocity of his eminence therein, as shown by his first work on this subject having been composed in his nineteenth year; secondly, we have a mere outline of the different phases of his strangely varied career as professor of anatomy in Pavia and other Italian universities and as Physician in Ordinary to Charles V. and Philip II. of Spain; and, lastly, in fuller detail has been described the unfortunate misadventure which led to his exile from Spain and pilgrimage to Jerusalem, on returning from which he was shipwrecked at Zanti, where he perished from hunger in 1563. Little more is ascertainable from any of the works I have consulted with reference to the life of Vesalius. One of the most interesting of these in my possession is that published only thirty-three years after Vesalius's death, being a republication of his Anatomy by Paaw—viz., "Andreæ Vesalii, Bruxellensis Epitome Anatomica. Opus Redivivum, cum accipere Notæ ac Commentaria P. Paaw, Amstelædamensis, in Lugduno Batava Academia Professoris Anatomica. Lugdani, Batavorum, 1598." My copy of this somewhat rare work has been most copiously annotated in MS. in 1636 by an evidently English student in the same university—namely, "Guilielmus Perkinus"; and as there is a short sketch of Vesalius's life prefixed I shall, if your correspondent should care to refer to it, be happy to let him see the volume.

I am, Sirs, yours very truly,

THOS. MORE MADDEN.

Dublin, Dec. 21st, 1892.

### GIVING MEDICINE WITHOUT SEEING THE PATIENT.

AT an inquest held in Whitechapel on the death of a man named Moses Van Prazen, aged seventy-eight, it transpired that he had had medicine from a practitioner for two years. Up to that time this gentleman, as medical officer of a medical aid society, attended Prazen at Norton Folgate for bladder and kidney trouble. He then told the friends to let him know if the deceased ever got worse. From that time till they came for a certificate of death he never saw him. The coroner did not reflect on the medical man and thought the only thing he could have done was to have refused a certificate. It speaks much for the medicine that it served in a serious case for two years and a half; but it is certainly unsatisfactory in any case to give medicine continuously without occasionally seeing the patient.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Birmingham Daily Post, Local Society's Health, Electrical Engineer, Galignan's Messenger, Schoolmaster, Home News, Southern Echo (Southampton), Kentish Express, Kelso Mail, Working News, Caterer, Scientific American, Irish News, Optician, Belfast Evening Telegraph, Cork Constitution, Trade and Finance, Family Doctor, Louth Times, Brighouse Echo, Surrey Times, Jarrow Express, Dundee Courier, Public Opinion, Waterford Mirror, Figaro, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, City Press, Leeds Mercury, Yorkshire Post, Liverpool Daily Post, Bristol Mercury, Hertfordshire Mercury, Mining Journal, Reading Mercury, Hastings Independent, Bath Chronicle, West Sussex Gazette, Western Daily Press, Manchester Courier, South Australian Register, Madras Times, Surrey Advertiser, Local Government Journal, West Middlesex Advertiser, Citizen, Sunday Times, Builder, Architect, Times of India, Pioneer Mail, Kentish Express, Scotsman.*

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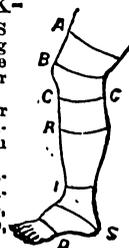
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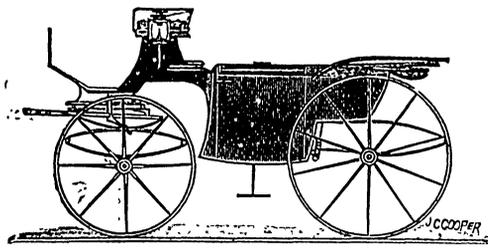
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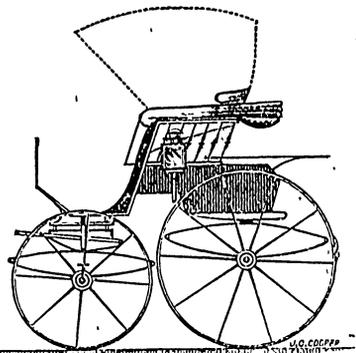
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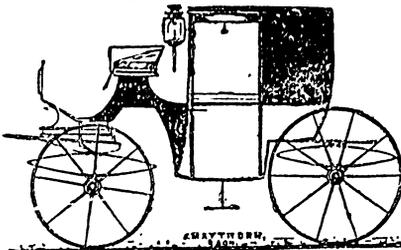
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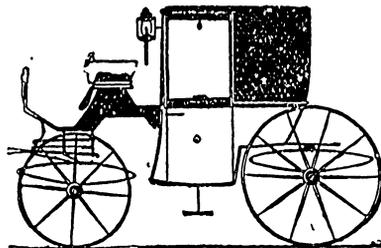
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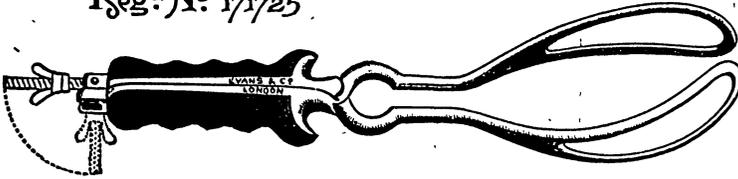
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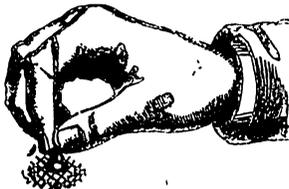
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Vide THE LANCET, page 420, 30th August, 1892.

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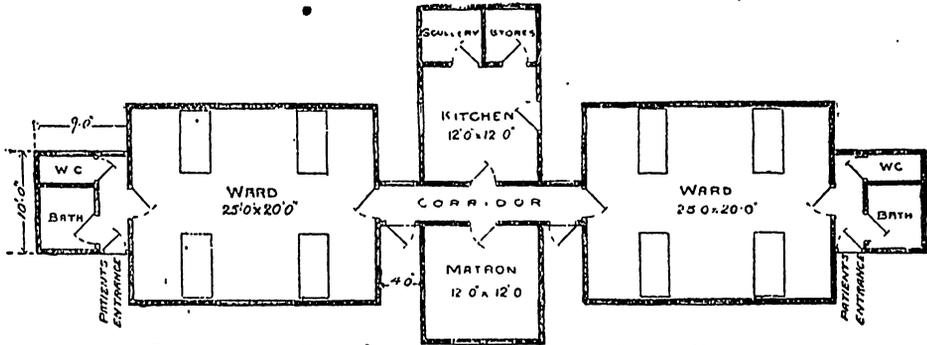
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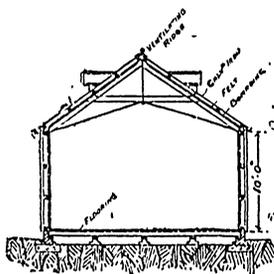
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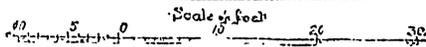
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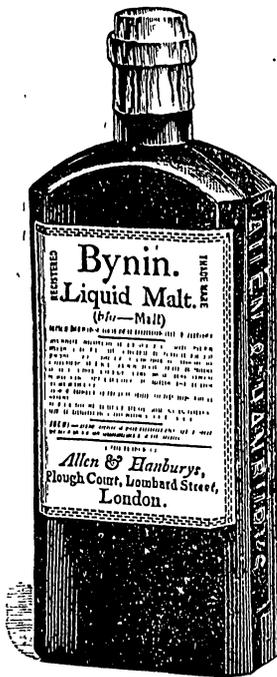
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*In Bottles at (retail) 1s. 9d. and 3s. each; 16s. and 27s. per dozen to the Profession.*

## BYNO-PEPSIN.

*Byno-Pepsin* is a solution of Pepsin in Bynin, and since both are in a peculiarly active form, valuable aid is thus afforded to the digestion both of Proteids and Starchy foods: this preparation is especially useful in dyspepsia dependent on deficient secretions.

*In Bottles at (retail) 2s. 6d., 4s. 6d. and 8s. 6d. each; 23s., 41s. and 72s. per dozen to the Profession.*

SAMPLES SENT TO MEDICAL MEN POST FREE ON APPLICATION.

### Allen & Hanburys, Plough Court, Lombard Street, London.

West-end House: 7, VERE ST., CAVENDISH SQ. Laboratories & Warehouse: BETHNAL GREEN, LONDON, E.  
Cod Liver Oil Factories: LONGVA & KJERSTAD, NORWAY. Australian Agency: 484, COLLINS ST., MELBOURNE.

**Liquor**

"A valuable addition to our list of Skin Remedies" **LANCET.**

"We can affirm its value as a Detergent agent and as an article of great utility"

**Carbonis**

**BRITISH MEDICAL JOURNAL**

"One of the best Tarry Lotions" **PRACTITIONER.**

**Detergens**

"We have more than once called attention to the value of this remedy in Chronic Eczema" **MEDICAL TIMES & GAZETTE.**

**Wrights**

"Most effective in Skin Diseases" **LANCET.**

**Coal**

"The only true antiseptic Soap" **BRITISH MEDICAL JOURNAL.**

**Tar Soap**

**THE ORIGINAL AND ONLY GENUINE COAL TAR SOAP. THIRTY YEARS REPUTATION.**

**PROPRIETORS AND MANUFACTURERS.**

**Wright Layman & Umney, (late W. V. Wright & Co), Southwark, London. S.E.**



## AWARDS.

**GOLD MEDAL**, International Health Exhibition, London, 1884.  
**FIRST ORDER OF MERIT AND MEDAL (Highest Award)**, Adelaide, 1887.  
**HIGHEST AWARD**, Medical and Sanitary Exhibition, London, 1882.  
**FIRST ORDER OF MERIT AND MEDAL**, Melbourne, 1888.

# BENGER'S PREPARATIONS

OF THE

# NATURAL DIGESTIVE FERMENTS

AND

## SPECIAL FOODS FOR INFANTS AND INVALIDS.

### 1. LIQUOR PANCREATICUS (BENGER).

For the preparation of peptonised or partially digested foods, such as milk, soups, beef-tea, &c. *In 4-oz., 8-oz., and 16-oz. Bottles, with simple directions for use.*

THE LANCET says:—

"So many worthless articles of this kind have been sold that great care is required in choosing those upon which reliance can be placed. Mr. Benger's care has therefore been well spent."

### 2. BENGER'S PEPTONISING POWDERS.

These Powders may be used instead of LIQUOR PANCREATICUS (BENGER) to peptonise milk &c. They are colourless, odourless, and instantly soluble.

One powder will rapidly peptonise a pint of milk, gruel, soup, &c.

*In Boxes of 12 Powders, retail 2s. 6d.*

### 3. LIQUOR PEPTICUS (BENGER).—A Concentrated and exceedingly active Fluid Pepsine.

It is prescribed in doses of one or two teaspoonfuls in a wineglass of water, wine, or weak spirit-and-water, with meals. It is without disagreeable taste.

*In 4-oz., 8-oz. and 16-oz. Bottles.*

### 4. BENGER'S PEPTONISED BEEF JELLY.—A Delicately Flavoured, Concentrated, Partially Digested, and Solidified Beef-tea.

*In Glass Jars, retail price 2s. each.*

It can be taken by teaspoonfuls, cold, as a jelly, or, dissolved in a little hot water, as a concentrated beef-tea. It is also used to fortify or enrich ordinary beef-tea, soups, &c. It affords to invalids, when travelling, a ready and convenient form of concentrated nutriment.

### 5. BENGER'S PEPTONISED CHICKEN JELLY.—A Nutritive Delicacy for Invalids.

*In Glass Jars, 2s. each.*

It is prepared in a similar manner to the PEPTONISED BEEF JELLY above described, and, like it, contains the nutritive constituents in a concentrated, partially digested, and solidified form.

### 6. BENGER'S FOOD (Pancreatized), Registered.—For Infants, Children, and Invalids.

*In Tins, 1s. 6d., 2s. 6d., 5s. and 10s., with directions for use.*

A great improvement on the various forms of Liebig's Food. When mixed with warm milk the pancreatic ferments render the farinaceous matter soluble and reduce the casein to the same digestible condition in which it exists in human milk, so that hard masses of curd cannot be formed in the stomach. Experience has shown that delicate children and adults with weak digestions can enjoy and retain this food when all others disagree.

### 7. BENGER'S NEW ESSENCE OF RENNET (Curdling Fluid).

For preparing fresh Whey, Junkets, &c.

*Bottles, 1s. and 1s. 9d. Directions for use enclosed.*

### 8. PEPTONE SUPPOSITORIES (BENGER).—For Rectal Alimentation.

*In Boxes of 6 and 12*

### OPINIONS OF THE MEDICAL PRESS.

#### THE LANCET.

"We have on a previous occasion noticed some of Mr. BENGER'S admirable preparations. Those now before us are not less satisfactory."

#### The BRITISH MEDICAL JOURNAL.

"Time and use have justified the claims put forward for these preparations."

#### The PRACTITIONER.

"All these preparations are, we think, deserving of the highest praise, and only require to be made known to the profession to ensure their extensive employment."

#### The LONDON MEDICAL RECORD.

"These are undoubtedly a great advance on any previous attempt in this direction. The introduction of these preparations is a distinct advance in Therapeutics."

#### The MEDICAL TIMES AND GAZETTE.

"BENGER'S preparations have deservedly a very high reputation, and are all largely used."

BENGER'S PREPARATIONS may be obtained through all Wholesale and Retail Houses, or direct from the Manufacturers.

**F. B. BENGER & CO., Limited, OTTER WORKS, MANCHESTER.**

# WYLEYS', LIMITED, COVENTRY, & 52, MOOR STREET, BIRMINGHAM.

## WYLEYS' GELATINE-COATED OVAL PILLS.

The only oval gelatine-coated pills of English manufacture in the market.

	PRICE.
Gro. bots.	
Acid Arsenious (1-30th gr.) c. Ferr.	
Redact. (1 gr.) ... ..	1/8
Acid. Salicylic, 2 grs. ... ..	1/8
Aloin, Belladonna, et Strychnin ...	2/6
Atropinæ Sulph., 1-100th gr. ...	2/-
Belladon. (Ext. 1/3 gr.) et Aloin (2 grs.)	2/6
Belladon., Camphor et Hyoscyam.	2/-
Belladon. et Morph. Mur., aa 1/2 gr.	2/-
Belladon., Opil, et Quinina ...	3/-
Bismuth. Nit. (2 grs.) et Papain (1 gr.) ... ..	5/6
Bismuth., Pepsin Comp. ... ..	3/-
Bismuth., Soda, et Zingib. ...	2/-
Butyl Chloral (3 grs.) et Ext. Gelsem. Alch. (1/2 gr.) ... ..	4/6
Caffein Citrat., 3 grs. ... ..	2/6
Cannab. Ind. c. Opio ... ..	2/-
Cascara Sagrada Ext., 2 grs. ...	1/9
Cascara et Nux Vomica... ..	2/3
Cascara, Podophyllin, et Nux Vomica ... ..	2/3
Cathartic, U.S.P. ... ..	2/-
Caulophyllin et Pulsatilla ... ..	4/6
Codeia, 1/2 gr. ... ..	3/-
Coloc. Hyd. Subchlor. et Hyoscyam.	2/6
Creasote, 1/2 and 1 min. ... ..	2/-
Ergotin (Boujean's), 3 grs. ...	3/-
Ergotin Comp. ... ..	2/6
Ergotin (1 gr.) et Ferr. Redact. (2 grs.) ... ..	2/-
Euonymin et Cascara ... ..	3/6
Euonymin et Iridin... ..	7/-
Euonymin et Pepsin ... ..	7/6
Ferri Hypophosph. Comp. ... ..	2/6
Ferruginous (Blaud's), 5 grs. ...	1/8
Ferri Quinina et Strychninæ Phosph. ... ..	2/9
Hydrarg. et Arsenic. Iodid. ... ..	1/8
Hydrarg. Biniodid., 1/2, 1/3, and 1-16th gr. ... ..	1/8
Hydrarg. c. Creta et Ipecac. ...	2/-
Iodoform, 1 gr. ... ..	1/10
Iridin. et Hyoscyam. ... ..	4/6
Leptandrin, Colocynth, et Hyoscyam. ... ..	4/6
Leptandrin et Podophyllin ... ..	3/-
Morphinæ (1/2 gr.) et Atropinæ Sulph. (1-100th gr.) ... ..	2/-
Papain, 2 grs. ... ..	7/-
Pepsin Forci, 3 grs. ... ..	3/6
Phosphor. c. Nuc. Vomic. ... ..	2/3
Phosph., Nuc. Vom., et Ferr. Redact. ... ..	2/3
Phosphor et Quinina ... ..	3/-
Phosph. Ferr. Redact. et Quinina Podophyllin, Belladon., et Strychnin. ... ..	2/6
Podoph., Colocynth., et Hyoscyam. ...	2/-
Potass. Permang., 2 grs. ... ..	1/8
Quinina Sulph., 1 gr. ... ..	1/9

## PERMANENT AND SOLUBLE FORMS

# BLAUD'S PILLS.

THE following PERMANENT AND SOLUBLE forms of Blaud's Pills, manufactured in our own laboratories, are guaranteed to represent ferrous carbonate equivalent to 2 1/2 grains ferrous sulphate for each pill.

Our PEARL-COATED PILLS, GELATINE-COATED PILLS, and FLEXIBLE GELATINE "BLAUD" CAPSULES will Test Full Strength with Standard Bichromate Solution.

### PEARL-COATED BLAUD'S PILLS (WYLEYS').

Price per gross ... 10d.  
" per 10 gross... 8d. per gross.

TEST FOR SOLUBILITY.—Cut a pill through, after removing the coating, and place the two halves in dilute sulphuric acid. A perfect pill will speedily dissolve, with evolution of CO<sub>2</sub>, forming a nearly clear solution, showing little or no insoluble powder or mucilaginous matter.

### GELATINE-COATED OVAL BLAUD'S PILLS (WYLEYS').

Price per gross ... 1/8

### FLEXIBLE GELATINE BLAUD'S CAPSULES (WYLEYS').

No. 1. Representing Blaud's Pill, 5 grs. (100 in box), per doz. boxes ... ..	12/-
No. 2. Representing Blaud's Pill, 10 grs. (100 in box), per doz. boxes ... ..	18/-
No. 3. Representing Blaud's Pill, 15 grs. (100 in box), per doz. boxes ... ..	20/-

## WYLEYS' COMPRESSED PELLETS.

All insoluble drugs, as sulphur, phenacetin, salol, &c., readily disintegrate in cold water.

Ammon. Bromid., 5 grs. ... ..	4/- lb.
Ammon. Bromid., 10 grs. ... ..	3/6 "
Ammon. Chlorid., 5 grs. ... ..	2/6 "
Ammon. Chlorid. c. Borace, 5 grs.	2/6 "
Ammon. Boras, 5 grs. ... ..	3/6 "
Antacid — Gastric Antacid Pellets (according to the formula of Sir William Roberts)	1/6 "
Antipyrin, 5 grs. ... ..	3/8 oz.
Antipyrin, 10 grs. ... ..	3/6 "
Antifebrin, 2 grs. ... ..	-/9 "
Antifebrin, 5 grs. ... ..	-/6 "
Acid Sublimat. (Tube of 12 Pellets) ... ..	-/6
Alembroth. Tube of 12 Pellets	-/6
Apomorphin, 1/2 (Expectorant)	1/- gro.
Bismuth. Nit., 3 grs. ... ..	2/- "
Pepsin Forci, 1 gr. ... ..	2/- "
Bismuth. Nit., 2 1/2 grs. ... ..	1/6 "
Sodæ Bicarb., 2 1/2 grs. ... ..	1/6 "
Bismuth. Nit., 2 grs. ... ..	1/6 "
Sodæ Bicarb., 2 grs. ... ..	1/6 "
Pulv. Zingib., 1 gr. ... ..	1/8 lb.
Borax, 5 grs. ... ..	1/8 lb.
Cascara Pellets—Sugar-coated. 4-oz. (bottles free), 3/- each; 8-oz. (bottles free), 5/6 each; 1-lb. (bottles free), 10/- each.	
Cascara Ext., 2 grs. ... ..	2/- gro.
Euonymin, 1/2 gr. ... ..	2/- gro.
Ext. Nuc. Vomic., 1/2 gr. ... ..	2/- gro.
Chloral Hydrat., 5 grs., 10 grs.	-/10 oz.
Chloralamid, 10 grs. ... ..	1/6 "
Cocain. Hydrochlor., 1/2, 1/3 gr.	2/- gro.
Hypodermic Pellets, single tubes, 1/- each.	
Nitroglycerine, 1/2, 1/3 gr. ... ..	1/6 "
Pepsin Forci, 3 grs. ... ..	3/6 "
Pepsine Pellet—Sugar-coated. In bottles, with screw caps, each bottle containing 40 pellets (2 grains of Pepsinæ Forci in each pellet), 3/- per doz. bottles; 4-oz. (bottles free), 4/- each; 8-oz. (bottles free), 7/6 each; 1-lb. (bottles free), 13/6 each.	
Phenacetin, 5 grs. ... ..	3/- oz.
Potass. Bicarb., 5 grs. ... ..	1/4 lb.
Potass. Bromid., 5 grs. ... ..	3/6 "
Potass. Chlorat., 5 grs. ... ..	1/3 "
Potass. Chlorat. c. Borace, 5 grs.	1/3 "
Potass. Iodid., 5 grs. ... ..	1/6 oz.
Potass. Nitrat. (Sal Prunella)	1/4 lb
Potass. Permang., 2 gr. ... ..	1/2 gro.
Quinina Bisulph., 1 gr. ... ..	1/3 "
Saccharine Pellets, 1/2 gr. in 1/2 gr. In tubes of 25 and 50, and bottles of 100 pellets; each pellet containing 1/2 grain of Saccharine, 2/6, 3/-, 7/- doz.	
Salicin, 3 grs. ... ..	1/6 "
Salol, 5 grs. ... ..	1/8 "
Sodii Bicarb., 5 grs. ... ..	1/3 lb.
Sodii Bicarb. et Zingib. ... ..	1/6 "
Sodii Bromid., 5 grs. ... ..	3/6 "
Soda Mints... ..	1/3 "
Sodii Salicylas (pure), 5 grs. ...	2/- oz.
Sulphonal, 5 grs. ... ..	1/9 "
Sulphur Pellets... ..	1/6 lb.
Voice Pellets with Cocain ... ..	3/- "

**Vinolia** (SOOTHING)

(EMOLLIENT)

**Cream**

**FOR ITCHING, BURNING &c.**

1s. 9d., 3s. 6d. and 6s. per box.

**Vinolia** (SOLUBLE)

(SAFE)

**Powder**

**FOR TOILET, NURSERY &c.**

1s. 9d., 3s. 6d. and 6s. per box.

IN WHITE, PINK AND CREAM TINTS.

**BLONDEAU ET CIE.,** Ryland Road, London, N.W.

*American Dépôt:—73-77, Watts Street, New York.*

# PEPTONIZED MILK

(PATENT CONCENTRATED).

The remarkable value of Peptonized (*predigested*) Milk has now been completely established. Without calling for any digestive effort, it can, in the absence of all other food, supply the system for an indefinite period with the nutriment which it requires. The great drawback to the more extended use of Peptonized Milk has been the trouble, care, and even skill required to be daily expended to prepare a fairly palatable and uniformly peptonized product. These disadvantages are entirely obviated by the use of this Concentrated Preparation, as by mere dilution with water a deliciously-sweetened Peptonized Milk, of uniform composition, can be instantly prepared by the most inexperienced person.

*Tins, 1s. 6d. and 2s. 6d.*

# PEPTONIZED COCOA AND MILK

(PATENT CONCENTRATED).

In this preparation the Cocoa as well as the Milk is peptonized and rendered soluble, and is therefore more readily assimilable than any other preparation of Cocoa extant, and can be digested by even the most confirmed dyspeptic. Besides its extreme digestibility, its perfect palatableness renders it a most delicious as well as wholesome beverage, which can be taken alike by the invalid and by those who, although otherwise healthy and robust, frequently experience a difficulty in digesting any form of Cocoa. For general convenience in use it is unrivalled, as no addition of milk or sugar is needed, but only mixture with hot water.

*Tins, 2s. 6d., to make fifteen breakfast cups of Cocoa, or ten or more breakfast cups of rich Chocolate. Also in Smaller Tins, 1s. 6d. each.*

N.B.—The milk used in these preparations is secured from farms under our control, and where the sanitary arrangements have been made perfect, and in addition to this, sterilisation after the most approved modern methods is provided for, thus ensuring complete immunity from communication of the infectious diseases which are unhappily so often spread by means of milk.

## OPINIONS OF THE MEDICAL PRESS.

THE LANCET, June 15th, 1889:—

“Peptonized Milk (Patent Concentrated) is an excellent article. In consistence it is like a thick cream, agreeable in flavour, and yet so well peptonized that it gives no coagulation with dilute hydrochloric acid, even after heating. It will be of great value. The Peptonized Cocoa and Milk (Patent Concentrated) is clearly founded on the above. In appearance it resembles chocolate cream, and it is delicate in flavour, and yet peptonised. It is almost needless to say of Messrs. Savory & Moore’s novelties that they are well prepared.”

The PRACTITIONER, July, 1889:—

“We have carefully examined and tested Savory & Moore’s Peptonized Cocoa and Milk and Peptonized Milk, and have used them ourselves and for patients of fastidious appetite. We find them well peptonized, capable of keeping even when the tins are opened for a considerable time, and very palatable. The Cocoa and Milk forms a thin and inviting beverage of a pleasant nutty flavour, and is retained well even in cases of chronic neurotic vomiting. The peptonised Milk mixes well with tea or coffee, and improves the taste of both. These properties render Messrs. Savory & Moore’s latest preparations a valuable addition to the sick-room dietary, and we can recommend them to the profession.”

The MEDICAL PRESS AND CIRCULAR, Sept. 4th, 1889:—

“The Peptonized Cocoa and Milk and Peptonised Milk introduced to our notice by Messrs. Savory & Moore, like everything emanating from their laboratory, are most carefully prepared and of the highest quality. There is, moreover, a delicacy in flavour and aroma with the Peptonized Cocoa which shows at once that the products of selected growths only obtain a place here. It is, therefore, one we can unhesitatingly recommend.”

N.B.—THESE PREPARATIONS KEEP WELL AFTER THE TINS ARE OPENED.

## SAVORY & MOORE,

*Chemists to the Queen, H.R.H. the Prince of Wales, H.H. the Khedive of Egypt, &c.,*

143, NEW BOND STREET, LONDON.

# SAVORY & MOORE'S BEST FOOD FOR INFANTS.

*The attention of the Medical Profession is especially requested to the following characteristics of this old-established **SELF-DIGESTING Food**, which has so thoroughly maintained its reputation for superiority during an experience of 30 years:—*

Ratio of Albuminoids to carbohydrates.

Albuminoids easy of digestion, not pre-digested.

Healthy nature of evacuations.

The curdling of Cow's milk prevented.

Complete conversion of the starch.

Retention of the Phosphates and Fat.

Absence of fermentable sugar.

Verdict of Jury as to inferiority of imitations.

The ratio of the albuminoids to the carbohydrates is the same as in human milk—viz., 1 to 6·4; the ratio in cow's milk being only 1 to 3·8.

The albuminoids are not predigested as in pancreatised foods, but are rendered easy of digestion, leaving (as in human milk) just sufficient work to strengthen and develop the immature digestive powers, instead of weakening and abrogating them by keeping them inactive. Sir WILLIAM ROBERTS'S experiments in feeding kittens show that distinct failure of nutrition occurs when the milk is predigested (peptonised), and the same thing has been observed in feeding infants, probably owing, as THE LANCET points out, to atrophy of unemployed glands.

As a consequence of the foregoing the proper peristaltic action of the bowels is maintained, and the healthy nature of the evacuations of infants fed on this food is a satisfactory feature much and favourably commented on by Mothers and Nurses.

When mixed with cow's milk it prevents the troublesome curdling in the stomach which takes place when cow's milk is given alone, and assimilates its composition to that of human milk.

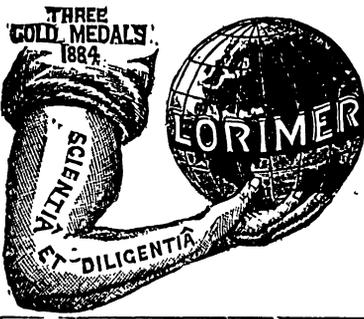
The active Malt Diastase present provides for the rapid and complete conversion of the starch at the time of mixing into the soluble assimilable products of maltose and dextrine. The point of the gelatinisation (thickening) of the Food—viz., 140° F.—is just that at which Malt Diastase is most active, and the conversion of the starch is consequently the work of a very few minutes only.

The retention of the fat and of the phosphates of the wheat and malt, which are so essential to bone formation. These exist chiefly in the outer portions of the grain, the very parts which some manufacturers pride themselves upon so successfully rejecting.

The absence of the fermentable sugar, which in the various malt extracts and milk foods so often gives rise to Diarrhoea and Flatulence.

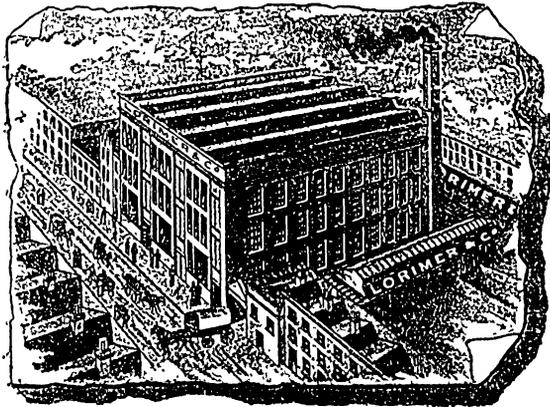
It is the *only* Infants' Malted Food which obtained a Gold Medal at the International Health Exhibition, the Jury being comprised of such authorities as Dr. ATTFIELD, F.R.S.; G. W. WIGNER, F.I.C., the then President of the Society of Public Analysts; Dr. JAMES BELL, F.R.S., the Head of the Government Laboratories; and other distinguished Medical and English and Foreign Experts. This affords significant indication of the value to be attached to the numerous imitations, which, whilst pirating the descriptive notices of the Food, utterly fail to approach its standard of excellence.

**SAVORY & MOORE,**  
143, NEW BOND STREET. LONDON, W.



# LORIMER'S RELIABLE PREPARATIONS AND SPECIALITIES

FOR THE MEDICAL PROFESSION.



## BEEF AND MALT WINE (LORIMER'S).

A most invigorating form of liquid nourishment, very palatable to take. It is prepared with a fine sound Port, Liebig's Extract of Beef, and Extract of Malt (Lorimer's), and its high character and purity are strictly maintained and guaranteed.

In pint Champagne Bottles, 20s. per doz.  
In quart " " 33s. per doz.

## PURIFIED TEREBENE (LORIMER'S).

For the relief of Winter Cough, Chronic Bronchitis, Phthisis &c.

"Pure Terebene is a powerful expectorant, and if inhaled the first thing in the morning, when the mucous membranes are covered with thick viscid secretion, will give very great relief. It is of such value in winter cough that I rarely experience the necessity of resorting to other remedies."—Dr. MURRELL in BRITISH MEDICAL JOURNAL.

In 4-oz. and 8-oz. Bottles, 1s. and 2s. each.

Pure Terebene (Lorimer's), in 10 mm. Capsules. Boxes containing thirty-six, 8s. 6d. per dozen boxes.

## COD LIVER OIL (LORIMER'S).

Finest quality selected oil, absolutely pure, and almost devoid of taste or smell.

Extract from Letter of an Eminent Firm of Pharmaceutical Chemists.

Messrs. LORIMER & Co.

Brighton, April 18th, 1884.

"Gentlemen—The New Cod Liver Oil smells like new milk ..... VERY NICE ..... We have tried it alongside other samples, none of which have this characteristic sweetness."

"There is no finer oil procurable."

In 8-oz. Bottles, 7s. 6d. per dozen. In 16-oz. Bottles, 13s. per dozen.

## COD LIVER OIL WITH MALT EXTRACT (LORIMER'S).

A perfect combination of our Extract of Malt and Cod Liver Oil, the malt assisting the most delicate stomach to retain the oil, and aiding its assimilation; a desideratum long sought by the profession—viz., an elegant preparation at a moderate price.

In 1-lb. Bottles, 2s. each.



LORIMER & CO., BRITANNIA ROW, ISLINGTON, LONDON, N.

## WHY MEDICAL MEN PREFER



WITH

## COD-LIVER OIL

## TO OTHER PREPARATIONS OF COD-LIVER OIL &amp; MALT.

Because of:—

- (a) Its Keeping Properties. The Oil is so perfectly associated with the Maltine that it will keep for any length of time and never separates. This cannot be said of any other preparation of oil and malt.
- (b) Its Freedom from all  
Odour of  
Cod-liver Oil. Maltine is a delicious, appetising, digested Food, possessing, as Prof. Attfield says, "the flavour and odour of a delicate sweetmeat." In the above combination it effectually masks the taste and smell of the oil, so that it will readily be taken by those who reject other forms of cod-liver oil and malt.
- (c) The Economy of its Use. The whole of the oil is absorbed into the system; it is thus the most economical mode of prescribing cod-liver oil.
- (d) Its Superior  
Reconstructive  
Constituents. The bone and muscle producing elements of wheat and oats, the digestive properties of malted barley, and the fat-forming powers of cod-liver oil, render this combination a food of incalculable value in Consumption, Wasting Diseases, and General Debility.

The BRITISH MEDICAL JOURNAL, referring to our preparation (March 24th, 1888), reports:—"It has long been known that some patients who are unable to tolerate the purest and most carefully prepared cod-liver oil can readily digest and assimilate it when mixed or combined with Maltine. .... The admixture is complete and permanent, and the consistence is very convenient. .... As regards taste, that of the cod-liver oil is almost entirely concealed, and what suspicion there is of it is not at all unpleasant. ... We can recommend it on the ground of *its perfect admixture, the ease with which it is assimilated, the good quality of the Cod-liver Oil, and the value in diastase of the Maltine.*"

The MEDICAL PRESS AND CIRCULAR (March 28th, 1888) reports:—"The oil is intimately blended with the malt, and fulfils all the conditions of perfect digestion. Maltine is an excellent medium for the oil, besides aiding materially in its digestion. It has the additional merit of converting it into an elegant and palatable preparation."

SAMPLES FREE TO MEDICAL MEN.

The word "MALTINE" is our Registered Trade Mark.

R. "Maltine" (M.M. Co.)

THE MALTINE MANUFACTURING COMPANY, Limited,  
24 and 25, HART STREET, BLOOMSBURY, LONDON, W.C.

**THE LANCET:—**

"We are bound to admit the great excellence and elegance of this new method. The Profession generally will not be slow to recognise its very obvious advantages. Will, as a matter of course, meet with hearty and very general approval. Their employment places the administration of exceedingly unstable compounds like ferrous carbonate, phosphate, and arseniate upon a sounder and more scientific basis."

**BRITISH MEDICAL JOURNAL:—**

"The 'Bi-palatinoid' is an excellent method for the administration of ferrous carbonate in a pure unoxidised state. The air-tight covering entirely protects the contents from atmospheric influences and the shape renders deglutition easy. We regard these 'Bi-palatinoids' as a very ingenious and marked progress in elegant and efficient pharmacy."

**MEDICAL ANNUAL:—**

"One of the most elegant and efficient methods of administering medicines with which we are acquainted. Well worthy of the attention and the gratitude of the Profession."

**HOSPITAL GAZETTE:—**

"Among recent improvements in pharmacy there is none more ingenious, meritorious or practically useful than 'Palatinoids.' The merits of this method of administering certain medicines are such as will, we feel sure, ensure its adoption."

**INDIAN MEDICAL RECORD:—**

"Assuredly the climax of pharmaceutical perfection at the present day. For use in India we wish to lay stress on the fact that the samples we have tried]throughout the present monsoon weather, with its attendant dampness and heat, have stood the test admirably and those that remain seem to be as fresh and perfect now as when we got them."

# "PALATINOIDS"

(BY ROYAL LETTERS PATENT)

"PALATINOID"



CLOSED.

"PALATINOID"



OPENED.

**CASCARA SAGRADA EXT., 1 & 2 grs.  
QUININE, 1, 2 & 3 grs.  
QUININE & GELSEMIN.  
LAXATIVE.**

COMPLETE LIST OF 144 FORMULE SENT FREE UPON APPLICATION.

# "BI-PALATINOIDS"

OF

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"BI-PALATINOID."



Ferrous Phosphate.

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FERROUS CARBONATE c. ARSENIATE.  
FERROUS PHOSPHATE c. NUX VOMICA &  
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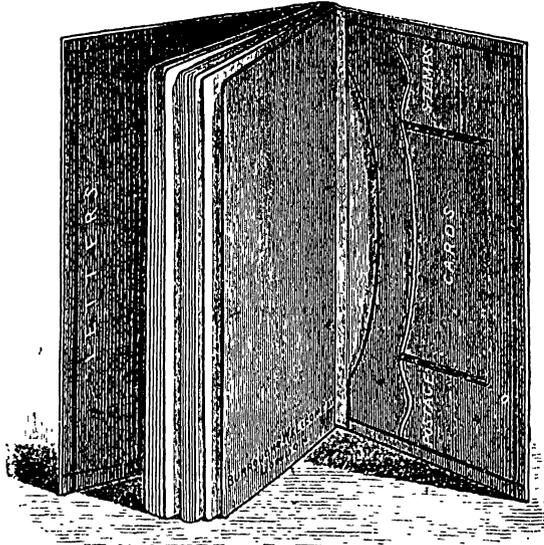
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*Samples, Price Lists, Professional and Press Opinions supplied gratis.*

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The "A B C" MEDICAL DIARY  
and VISITING LIST for 1893.



THOSE who desire to make New Year Presents with the certainty of their being well appreciated will find on this page a selection of goods especially suitable for, and interesting to, Medical Men.

The Diary for the coming year is now ready. It is of the same convenient size as heretofore, and contains sufficient space to record 56 or 112 visits weekly, as may be desired; pages for Cash Accounts, Obstetric and Vaccination Memoranda, engagements under the Factory Act &c. &c.

But the most important feature of the present issue is "THE EXCERPTA THERAPEUTICA," a synopsis of the latest information in Therapeutics, carefully selected from the latest editions of native and foreign works on this subject, the authorities or source in each case being given. We venture to hope that the completeness and compactness and general usefulness of our Diary will render it more acceptable and more popular than ever.

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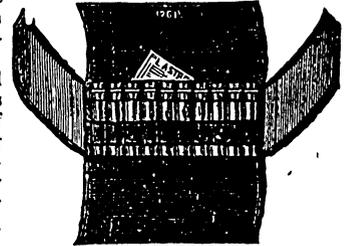
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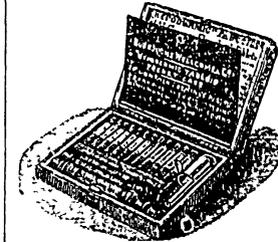
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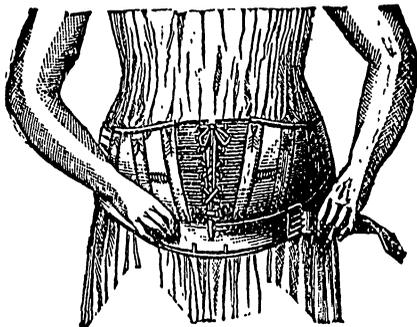
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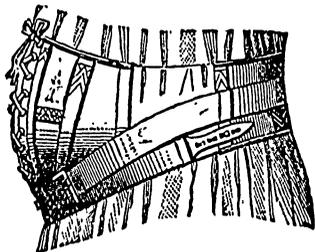
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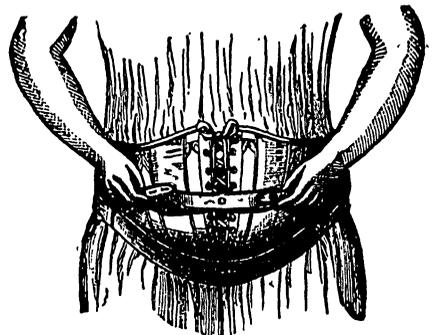


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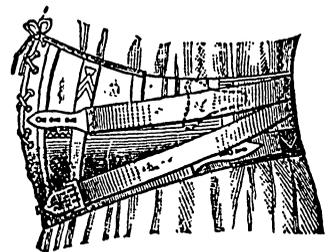
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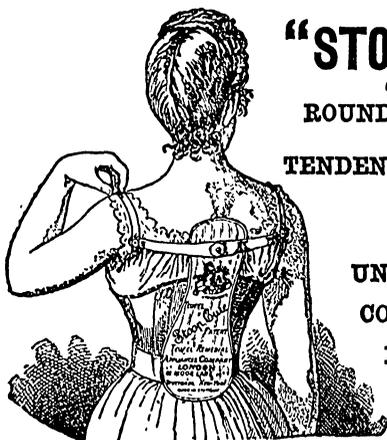
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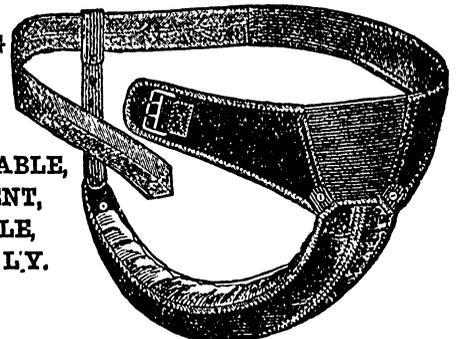


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CORRECTS  
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CHARGED ENTIRELY WITH NATURAL GAS.

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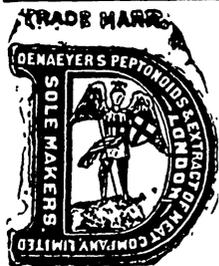
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“Schmid Mülheim tried to find an answer to this in the following way: He fed six dogs on boiled meat, killed them, one, two, four, six, nine, and twelve hours afterwards, and examined the contents of the stomach and intestines. In each case he found considerably more peptone than dissolved proteid, both in stomach and intestine. It thus appears that the greater part of the proteid became absorbed after peptonisation.”

TEXT-BOOK OF PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY, 2nd Edition, 1890.  
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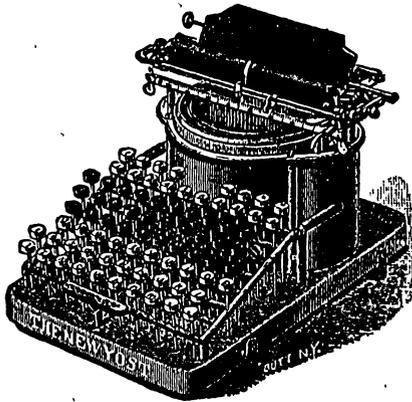
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PAMPHLETS AND SAMPLES FREE.

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**MISREPRESENTATION FULLY EXPOSED.**

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"POCOCK STREET, BLACKFRIARS, LONDON, S.E.,  
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"DEAR SIRS,—On proposing to purchase a YOST Type-writer to replace an older make we were assured that repentance would swiftly follow the attempt to use this 'vexatious toy' for our work. To minimise the cost of our delusion one at half your price was generously offered us as the property of an unfortunate purchaser (said to be in the North) who had arrived on the pentient stool to which we were said to be rapidly hastening. As delivery of it here was indefinitely delayed, we have now to report that after hard daily usage for six months of the YOST you supplied us, it is doing excellent work. We are in every way satisfied that the change is a decided improvement.

"Yours faithfully,  
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The Rev. N. Curnock, Editor of the "Methodist Recorder," says:—  
"Type-writing for business and literary purposes will soon become as popular in England as in America. The saving in time, even for a writer who has not attained to expertness, is an item of great importance. Strange to say, the manipulation of keys, instead of hindering, assists the process of composition. The advantages of legible copy are obvious. Mistakes are prevented and time in reading and editing is saved. Both in America and in England we have seen and discussed the merits of several forms of type-writers. On the whole, the YOST appears to be the best. It is clean, clear, strong, quickly learnt and easily handled. In one day a young girl who had never before touched a type-writer produced excellent copy, and in a very few days had acquired fair speed."

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These Catheters and Bougies are made of strong Belfast Linen Thread, carefully woven and covered by a new method with extremely elastic gum. The process of manufacture occupies many weeks, and the goods are so thoroughly prepared that they are flexible and durable to an extent hitherto unknown. The advantage of combining strength, flexibility, and a smooth, polished surface in a catheter or bougie is apparent to anyone familiar to the article. The danger from using an instrument liable to crack or break at any time is very serious, but with the Belfast Linen Instruments this cause of danger is quite removed; the flexibility of the material is so marked that but little difficulty is ever experienced in use, and as they are made with cylindrical, olive, or mercier points their adaptability to all cases is, of course, considerably enhanced.

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	Patent Metal Eye.	Belfast Linen.	Patent Metal Eye.	Belfast Linen.	
Cylindrical Catheters ..	2/3 each.	.. /0 each.	Esophagus Bougies ..	4/0 each. .... 4/- each.	
Olive ..	2/3 ..	1/- ..	" Tubes, funnel end	5/- ..	4/0 "
Conical ..	2/3 ..	1/- ..	" Tubes, plain ..	4/0 ..	2/0 "
Mercier or Coude Catheters ..	3/- ..	1/0 "	O'Brien's Tubes, 18-in. funnel	..	2/0 "
Cylindrical Bougies ..	..	.. /0 "	end ..	..	..
Olive ..	..	.. /0 "	Specula, 4 sizes, Fergusson's,	..	..
Conical ..	..	.. /0 "	Mirror covered with Belfast	..	..
Stomach Tubes ..	4/0 ..	4/- ..	Linen ..	..	3/- ..

The Patent Metal Eye Catheters are only kept in stock in sizes 4 to 12. Larger sizes specially made. In ordering Belfast Linen Catheters it is necessary to specify whether they are desired with the ordinary eye or the New Metallic Tip.

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(OR MUSTARD PAPER).

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## WRIGHT'S EAR SYRINGE (Patented).

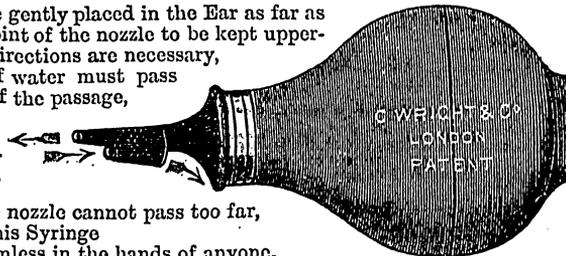
FOR THE USE OF PATIENTS AND NURSES.

RECOMMENDED BY THE LEADING AURAL SURGEONS.

The Syringe to be gently placed in the Ear as far as convenient. The point of the nozzle to be kept uppermost. No further directions are necessary, (as the stream of water must pass along the roof of the passage,

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The point of the nozzle cannot pass too far, so this Syringe is perfectly harmless in the hands of anyone.



PRICE 5/6.

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A laxative, refreshing, and medicated Fruit Lozenge, very agreeable to take, and never causing irritation. Its physiological action assures the immediate relief and effectual cure of

**CONSTIPATION,**

**HÆMORRHOIDS, BILE,  
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By augmenting the peristaltic movement of the intestine without producing undue secretion of the liquids. Unlike pills and the usual purgatives, it does not predispose to intestinal sluggishness; and the same dose always produces the same effect—that is to say, never needs increasing.

It is recommended by the most eminent physicians of Paris, notably Drs. BRUN and TARDIEU, who prescribe it constantly for the above complaints and with most marked success.

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The analgesic properties of **EXALGINE** have been fully established by prolonged and searching trials throughout Europe and America.

**EXALGINE** relieves pain in Neuralgia of all kinds, Sciatica, Lumbago, Locomotor Ataxy, Chorea, Cephalalgia in the Influenza, &c. The following authorities have published their reports from time to time:—Prof. Frazer of Edinburgh and Dujardin-Beaumetz, Paris; Dr. Bardet, Paris; Dr. Gaudineau, Paris; Dr. Desnos, Paris; Drs. Gougenheim and Désiré, Paris; Dr. Combevalle, Lille; Dr. Heinz, Berlin; Dr. Rabow, Berlin; Dr. Löwenthal, Berlin; Dr. Gubb, London; Dr. Herschell, London; and, lately, Dr. John Gordon of Aberdeen University and Dr. T. Churton of Leeds (THE LANCET, May 28th, 1892).

DOSE: 1 to 6 grains in Alcoholic Solution or Cachets, also hypodermatically. (See *Manual for Hypodermic Medication*, page 899, by Dr. ROBERTS BARTHOLOW.)

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A SAFE AND EFFICIENT **CARDIAC TONIC** INDICATED IN IRREGULAR OR FEEBLE HEART ACTION, AND IN ALL FORMS OF DEBILITY.

Each Pillet represents one one-hundredth of a grain of Cactina—the active proximate principle of Cactus Mexicana.

DOSE.—One Pillet every hour, or less frequent.

PRICE, PER BOTTLE (100 PILLETS), 1/6.

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THE FEVER REMEDY.**

CONTROLS FEVER GRADUALLY, WITH SAFETY & CERTAINTY, LESSENS PAIN, RE-ESTABLISHES THE SECRECTIONS. VALUABLE IN COLDS. SAFE NERVINE FOR NERVOUS PATIENTS.

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DOSE—Adults, one Tablet every hour, or less frequent.

PRICE, PER BOTTLE (50 TABLETS), 1/6.

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**THE KREOCHYLE CO., VIADUCT HOUSE, FARRINGDON ST., LONDON, E.C.**  
TO BE OBTAINED OF ALL WHOLESALE CHEMISTS.

Prices—5s. pound Bottles; 2s. 6d. half-pound Bottles; and 1s. Bottles.

INTERNATIONAL and UNIVERSAL EXHIBITION, LONDON, 1884—FIRST CLASS CERTIFICATE and GOLD MEDAL; also CALCUTTA EXHIBITION—FIRST CLASS CERTIFICATE and SILVER MEDAL for the superiority of our Pharmaceutical Preparations.

## MIST. PEPSINÆ CO. c. BISMUTHO (Hewlett's).

COMPOSITION—Pepsine, Liq. Bismuthi, Sol. Opil Puri., Hydrocyanic Acid, P.B., Tinct. Nux Vomica, &c.

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia, more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgic gastric pain following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with great success in alleviating pain and vomiting.

In the dyspepsia of patients, dependent upon some organic disease, and where there is a decided loss of nerve power, it is of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epigastrium—evident signs of general relaxation and loss of nerve power. Clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerve-centres. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, antidyseptic, and tonic. In general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, connected with atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the *exhausting purging of Phtisis* accompanied with night sweats and restlessness, Dr. Mathews, of Nantwich, has used it with marked and appreciable effect.

Price 10s. 6d. per lb. Physicians will please write Mist. Pepsinæ Comp. (Hewlett's). Dose—Half to one drachm, diluted.

C. J. HEWLETT & SON, Manufacturing Chemists,  
40 & 41, CHARLOTTE STREET, GREAT EASTERN STREET, LONDON, E.C.

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SPECIALLY PURIFIED.

THIS PREPARATION IS PURER THAN ANY WHICH HAS HITHERTO BEEN PLACED ON THE MARKET.

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As used by Dr. THOMAS KEITH.

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B. & Co. respectfully beg to call the attention of the Medical Profession to this preparation, which they have just introduced after a long series of experiments. It consists of the juice of the finest selected English Meat, in its natural state, with the albumen uncoagulated, together with the other nutritive qualities, ready for immediate assimilation. No chemicals are used in its manufacture.

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# Fletcher's Hydrobromate Syrups

Iron and Quinine (with or without Strychnia), in chemical combination with Bromine, dissolved in pure Hydrobromic Acid, and forming, with Cane Sugar, a permanent and palatable Syrup.

The special advantage which these Syrups possess over other combinations of Iron and Quinine is that they NEITHER CAUSE HEADACHE NOR INTERFERE WITH DIGESTION.

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In the treatment of *Anæmia, Chorea, Epilepsy, Hysteria, and Nervous Exhaustion*, Fletcher's Hydrobromates are acquiring a daily-increasing reputation.

DOSE.—The ordinary tonic dose is one fluid drachm. In chronic *Anæmia* and in *Epilepsy*, larger doses may be given at discretion.

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"Fletcher's Syrups of the Hydrobromates have been for some years before the profession, and have met with general approval. They are exceedingly pure and delicate preparations, and very convenient for use. From a very frequent experience of their action, extending over four or five years, we are able to affirm that in many cases of *Debility, Cerebral Anæmia, Nervous Exhaustion* resulting from overwork and poor assimilation of food, and similar conditions, the use of these Syrups has been followed by excellent results in a very short time."—*The Hospital*.

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When prescribing it, the Medical Profession are strongly advised to specify "VIN MARIANI" in order to avoid the substitution of imitations often worthless, and consequently disappointing in effect.

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It is with this concentrated liquid, that experiments were made in seven large hospitals of Paris, as well as in Brussels, Vienna, Lisbon, etc., against colds, bronchitis, asthma, catarrh of the bronchial tubes and of the bladder, affections of the skin, herpes, eczema.

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In 2-oz., 4-oz., 8-oz., and 1-lb. Bottles.

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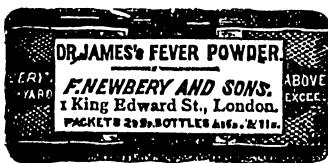
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Specially indicated as a remedy for NEURALGIC MIGRAINE. It has  
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THE LANCET says:—"An analysis of these biscuits shows that they  
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Moisture .. .. .	2.51 per cent.
Mineral matter (especially rich in soluble phosphate) ..	5.58 "
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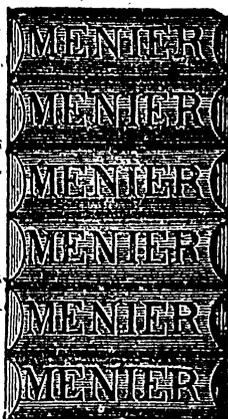
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Acidity, Indigestion, and Morning Sickness, with coated tongue.  
To be had of all first-class Hotels, and sold by Chemists and Italian  
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INVALUABLE ALSO DURING THE PERIOD OF WEANING.

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These celebrated Oysters (*specially selected for Invalids*) can now be obtained in Quarter Barrels, containing 3 doz., price 14s., and can be despatched by Parcel Post at the 10<sup>d</sup>. rate to any part of the United Kingdom. These Oysters are much patronised, and highly recommended by the leading Physicians and Medical Profession throughout the country. Full directions for opening and keeping sent with each barrel. Larger sizes packed. Oyster knives 6d. extra.

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A NON-ALCOHOLIC SPARKLING & REFRESHING BEVERAGE.

"An excellent non-alcoholic beverage."—THE LANCET.

"Evolved delicious aroma of hops."—MED. PRESS.

"It is a new approach to Hops' or Alkaloids' Ale than any non-intoxicant preceding it."—EASTERN MORNING NEWS.

Price 2s. per doz. Sent Carriage Free on prepaid orders for 6 doz.

WATKIN MANUFACTURING CHEMISTS

Sole London Bottlers: R. MAYER & SON, 46, Myddelton Street, E.C.

**HOGG'S PIPERAZINE WATER.**

The New and Powerful Solvent for Uric Acid.

Bottles, five grains in each, and Syphons 15 grains in each.

Prepared by

R. HOGG & SON, 1, Southwick Street, Hyde Park.

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## LITHIA, POTASH, & SODA WATERS

OF THE BRITISH PHARMACOPŒIA.

### EFFERVESCING MINERAL ACID WATER

(Containing Nitro-hydrochloric Acid, or made to order with Hydrochloric, Nitric, or Phosphoric Acid).

A Refreshing Beverage, especially grateful to Convalescents; prescribed with marked benefit in Phthisis and in the treatment of Sluggish Liver and Indigestion.

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### GLEN URQUHART WHISKY.

FOUR PRIZE MEDALS.

Prices—42s., 48s., and 60s. per dozen, Carriage paid.

### PERIGEUX & C<sup>IE</sup> EPERNAY CHAMPAGNE.



SEVEN PRIZE MEDALS.

Prices—36s., 48s., 60s. & 72s. per dozen, Carriage paid. 1889 finest Vintage since 1874.

These Wines rival any of the well-known Brands, having established their reputation in a general competition of Champagnes.

THE LANCET Analysis on application.

TO BE HAD OF MOST WINE MERCHANTS.

HENRY URQUHART, 16, Water Lane, London.

**WHEATLEY'S HOP BITTERS**

(OR HOP ALE)

**The HIGHEST AWARD**  
The GOLD MEDAL and  
CERTIFICATE OF MERIT,  
For the best non-intoxicating beverage,  
AT THE  
**DUBLIN EXHIBITION, 1892.**

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UNEQUALLED AS A WHOLESOME  
TEMPERANCE TABLE BEVERAGE,  
Resembling in flavour and appearance the  
FINEST BITTER BEER.

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**GOOD ON DRAUGHT.**  
To be had of Bottling Agents in all towns  
FROM  
Wheatley & Son, Sheffield.

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## TERRA - COTTA — PORTABLE.

FOR COAL, OR COAL AND COKE.

(ROBERTS'S IMPROVED PATENT.)

PURE AND AMPLE HEAT WITHOUT ATTENTION.

24 HOURS OR LONGER FOR ABOUT 1d.

The best stoves for Hospitals, Sick-rooms, Bedrooms, Greenhouse; or almost any purpose. Pamphlet and eight pages of authenticated testimonials from eminent medical men and others can be had. Stoves in use daily at Patentee's—

THOMAS ROBERTS, 14, Victoria-street, Westminster.

## USE LIEBIG COMPANY'S

Perfect Purity absolutely Guaranteed.

Makes the finest, "purest, and strongest Beef

Tea. A Medical Comfort

of the highest efficiency,

rendering all other food more

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Jar of the Genuine Extract bears

JUSTUS VON LIEBIG'S Signature in Blue Ink across Label.

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Sole Manufactory: FRAY BENTOS, S. AMERICA.

LIEBIG'S EXTRACT OF MEAT COMPY., Ld.

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## The DOCTOR'S INVERNESS CAPE.

£2 12 6    £3 3    £3 13 6

With Special Pockets for Obstetric and Emergency Cases.

Made Waterproof by a New Process, 5s. extra.

Two measures only required—

CHEST and FULL HEIGHT.

Each Cape made to measure, and sent, on receipt of remittance, to any part of the world.

Send for Selection of Patterns—FREE.

**HAMILTON & CO.,**  
CIVIL & COURT TAILORS,

21, Bedford Street, Strand, London.  
(ONE MINUTE'S WALK FROM THE LANCET OFFICE.)

## GODALMING FLEECY HOSIERY,

FLEECY BANDS,  
WHITE NATURAL WOOL  
UNDERWEAR.

VESTS AND PANTS MADE TO MEASURE.

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## CORSETS—HYGIENIC.

Madame CAPLIN,

Inventor and Sole Manufacturer of the Original HYGIENIC CORSET, begs to inform Medical Gentlemen and Ladies that she continues to make, on scientific principles, Corsets, Belts, and Supports of every description, together with some New Inventions, especially the simple Hygienic Corsets for young Ladies, to assist the Figure during growth.

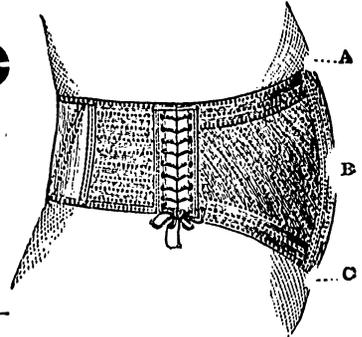
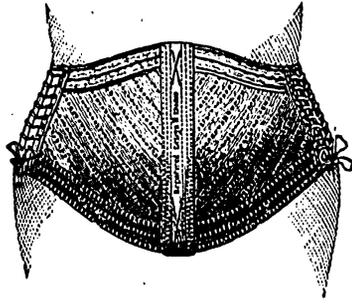
58, BERNERS STREET, OXFORD STREET.

## SALT & SONS' ORTHONEMIC ABDOMINAL BELT.

REGISTERED No. 198,010.

69, CORPORATION STREET,  
BIRMINGHAM.

Read THE LANCET Opinion, Oct. 22nd, 1892:—



"MESSRS. SALT & SONS of Corporation-street, Birmingham, have submitted to us for examination a new form of abdominal belt which they have designated as above, and the construction of which exhibits exceptional features. Two illustrations of the belt are given, a front and a side view. From these it will be seen that the diagonally arranged front elastic webs (separated by the central whalebone) follow the direction of the external abdominal muscle, and supply the lifting support so desirable in these appliances, transmitting the weight of the abdomen to the upper portion of the hips, whence it is distributed by the horizontal side webs equably towards the back, the lacing being also elastic. The transverse top and bottom webs in the front clip the body and retain the belt in its proper position, thus dispensing with

perineal straps, which cause so much discomfort. The complicated straps and bands added to most belts to assist their fit are avoided, and the appliance is consequently very simple, the arrangement of the elastic fibres causing it to fit perfectly in every way. The belt appears to be well calculated for increased efficiency, and at the same time an acceptable advance towards simplicity of application."

Made in Silk Elastic price 68/- | And in Thread Elastic price 42/-  
POST FREE ON RECEIPT OF CHEQUE OR P.O.O.

Measurements required—Circumference at A, B, C.

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## THE HAMMOCK LEG REST.



The advantages claimed for this Leg Rest are as follows:—

Firstly and foremost.—The exceeding ease it affords to those who use it, owing to the leg being suspended in the hammock or sling, which can be extended even to the thigh if needed.

Secondly.—It can be used as a bed-leg rest by placing the back of the rest against the end of the bed.

Thirdly.—That the foot or leg can either be kept warm or cool by the use of woollen covering or hammock netting, &c.

Fourthly.—The height can be easily altered, and the leg raised to any height, or lowered to within one inch of the ground; thus it can be used when writing at a table with much comfort and ease.

Fifthly.—It can be got ready for use, or taken from together in about forty seconds; the cover forming a bag or satchel, in which the whole can be placed, and readily packed in portmanteau or trunk or carried in the hand.

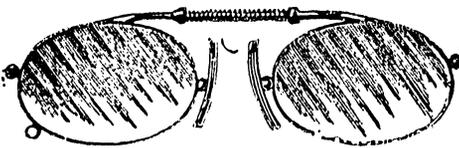
PRICE, INCLUDING POSTAGE—

Polished Birch .. .. .	11s. 0d.
Do. Walnut .. .. .	18s. 6d.
Do. Mahogany .. .. .	18s. 6d.

APPLY TO THE PATENTEE—

W M CARTER, Masham, Yorks, R.S.O.

T. GRIFFIN, 1a, Hoxton-st., London, N.,  
SOLE WHOLESALE AGENT AND DEPOT.

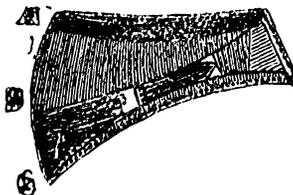


**CURRY & PAXTON, PICKARD & CURRY, <sup>Late</sup>**  
**OPHTHALMIC OPTICIANS,**  
195, GREAT PORTLAND STREET, LONDON, W., 8, HARDMAN STREET, LIVERPOOL,  
and 61, Park Street, BRISTOL.

Inventors and Patentees of the only Pince-nez suitable for astigmatism. CURRY & PAXTON are the only Opticians who devote themselves ENTIRELY to the Medical Profession.

## SALMON'S ABDOMINAL BELT.

In Silk Elastic and Thread ditto. From 25s. to 50s.



The Belt is light in texture, and affords a more lifting support than any hitherto made, completely supporting the lower part of the Abdomen. It is recommended in cases of Obesity, Tumour, Prolapsus Uteri, and during and after Pregnancy.

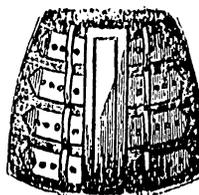
**HENRY R. SALMON,**

42, Beaumont-street, Upper Wimpole-street, London, W.  
(from 87, Wimpole-street).

NOTICE—Mr. SALMON does not associate electrical properties with any of his Surgical Bandages.

## SALMON'S OBSTETRIC BINDER.

For Immediate Use after Delivery. 6s. 6d., by post 6s. 9d.



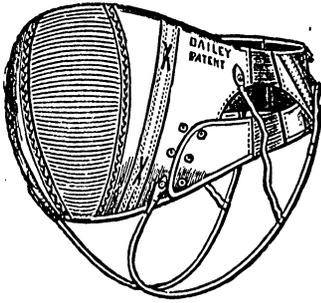
The Binder is a substitute for the towel generally used immediately after labour. It is made of strong linen, and dispenses with the usual pinning. The advantages of the Binder are facility of application, combined with comfort and greater efficiency. Measurement required, ordinary size of waist. Each one stamped with name and address.

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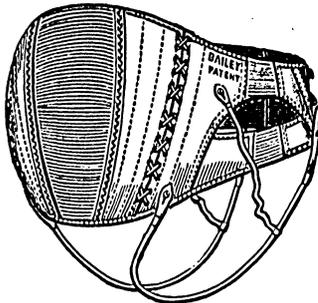
42, Beaumont-street, Upper Wimpole-street, London, W.  
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Established 1861.

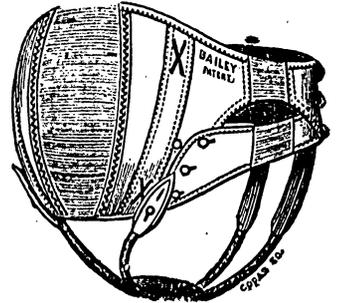
# BAILEY'S PATENT ABDOMINAL BELTS.



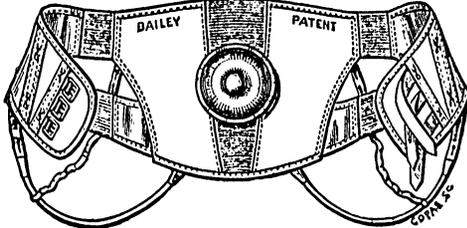
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"Cannot shift or ruck up."—THE LANCET.  
45/-, 35/-, 25/-, 18/-.



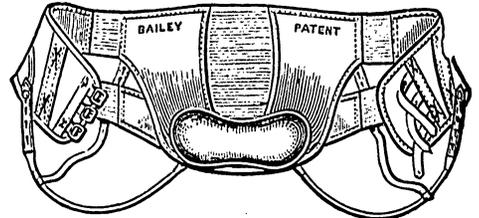
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Capable of great expansion. Lacing front.  
45/-, 35/-, 25/-, 18/-.



**No. 3. FOR PROLAPUS UTERI.**  
With Improved Indiarubber Perineal Pad and  
Regulating Straps. "Easy and perfect support."  
BRIT. MED. JOUR. 50/-, 40/-, 30/-, 25/-.



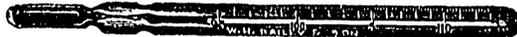
**No. 4. FOR UMBILICAL HERNIA.**  
These Belts can be fitted with any kind of pad suitable to the hernial  
aperture, or with hollow pads for irreducible hernia.  
50/-, 40/-, 30/-, 23/6.



**No. 5. FOR UTERINE SUPPORT.**  
Fitted with Air-pad.  
50/-, 40/-, 30/-, 23/6.

Four Qualities. Usual Discount. For Measurement: Circumference at Umbilicus. Special Department for Ladies.

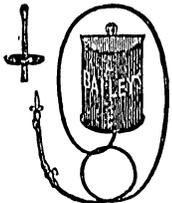
## CLINICAL THERMOMETERS. REDUCED PRICES!



NOTICE.—We do not sell any Thermometers in which the Index can be shaken down into the bulb, and so rendered useless.  
Kew Certificate, 1s. 6d. extra; silver case, 2s. 6d. extra.

No.	Description	s.	d.	No.	Description	s.	d.
No. 0.	4-in. Cheap Hospital Thermometers in Cases, each	2	6	No. 4.	4-in. Patent Indestructible Index, magnifying lens front, Ebony Case ... each	5	0
1.	Hospital 4-in., Indestructible Index, Ebony Case ... each	3	0	5.	4-in. Patent "HALF-MINUTE" magnifying lens front, Indestructible Index, in Patent Nickel-plated Case ... each	6	6
2.	4-in. Indestructible flat back, Indelible Red Scale, Metal Case ... each	4	0	6.	4-in. Patent "HALF-MINUTE," but without magnifying lens ... each	5	0
3.	4-in. Patent Indestructible Index, wide bore, easily read ... each	4	6				

This Thermometer is guaranteed to take the maximum temperature of patient in HALF-MINUTE. Postage 8d. extra.



### BAILEY'S DOUCHE (HYDROSTATIC).

Made for Queen Charlotte's Hospital.  
One Pint: Two Pints: Four Pints:  
8s. 6d. 10s. 6d. 12s. 6d.  
Postage 6d.

### BAILEY'S INDIARUBBER TRUSSES.



FOR INFANTS.  
Clean & Impervious.



Single from 7s. 6d.; Double 10s. 6d. Usual discount.

W. H. BAILEY & SON, 38, Oxford Street, London, W.

## EASY BOOTS.

# DOWIE & MARSHALL,

455, Strand, London (Opposite Grand Hotel).

ESTABLISHED 1824. ILLUSTRATED CATALOGUE GRATIS.  
DOWIE & MARSHALL make a speciality of carrying out the requirements of the Profession for the shoeing of Weak and Distorted Feet.



# BOYD & CO.'S

Price from  
4 Guineas.

## Title Registered. "DOCTOR'S ULSTER."



Made from genuine Irish Frieze, waterproofed without the use of indiarubber, and fitted with special instrument pockets. Thousands of our Winter Wraps have now been supplied to Gentlemen of the Medical Profession, and we have permission to give private reference to Medical Gentlemen in nearly every part of the kingdom.

The New "BALLYLAREEN" DUFFLE FRIEZE is now introduced. An exquisitely thick, warm, and light fabric, more closely resembling the constitution of the natural fleece of wool than anything ever previously produced in a loom. Two measures only are required—Height and Chest Measure. Samples post free from

**BOYD & COMPANY, Belfast.**

## THE EIDERDON RUG.

The QUEEN, Nov. 21st, 1891, says:—  
"AN IDEAL RUG. No other words will express the many excellent qualities which we find combined in the splendid Rug lately introduced by Boyd & Company of Belfast. This new rug, though it is quite of unusual thickness, is extraordinarily light. For warmth as a wrap, either when travelling or spread over an invalid's couch, we hold it unequalled. It is as soft as down, yet practically indestructible. The same fabric is supplied for dressing gowns and for the Ladies' Circular Capes which are fashionable. The Rug is made

From JAMES G. DICKSON,  
M.D., L.F.P.S.

"Woodlee,  
Newton Stewart,  
27th Jan., 1890.

"GENTLEMEN,—In cold, stormy, and wet weather I, yesterday, under the protection of your excellent coverings, did over forty miles of driving—thirty open and ten under cover—with a degree of comfort hitherto never before experienced.

"Yours truly,  
"JAMES G. DICKSON."

of the finest wool and is a most perfect combination of lightness and warmth with absolute porosity."

## THE DOCTOR'S MACKINTOSH.

Fitted with special instrument pockets same as in the Doctor's Ulster. Each garment made to measure, ensuring accuracy in fit and attention to all personal requirements. A large section of patterns to select from.

Feather-Weight HORSE CLOTHING, light, extraordinarily warm, porous and durable, the perfection of a health covering.

London Agency: **CUTHBERTSON, 84, Cheapside, and 203, Strand,**

Where Stock is held.

PATTERNS REQUIRED BY POST ARE SUPPLIED FROM BELFAST DIRECT.

### TO THE MEDICAL PROFESSION.

In buying SEALSKIN GARMENTS, GENTLEMEN'S FUR-LINED COATS, and LADIES' FURS, go to—

**PHILLIPS & CO.,** 52 & 53, NEWGATE STREET, CITY,

AND SAVE 50 PER CENT.



500 real Buffalo, Bear, Silver Fox, and other Carriage Bugs, 30s. to 50s.  
250 superb Dining-room Hearthrugs, in Tiger, Bear, Leopard, and Angora.  
500 FUR-LINED GENTLEMEN'S COATS, on Fine Cloth, in Sable, Otter, Beaver, Mink, and Jennett, from £5 to £10 each. English and American ladies are particularly invited to inspect our magnificent stock.  
Sealskin Jackets Re-dyed and Altered to Present Fashion.

£10,000 worth of Sealskin Jackets, Sacques, all of fresh Alaska Skins, guaranteed.

One-half Paris, New York, and London West-end prices. Rich Sable Costume Cloaks, and Travelling Wraps, half-price.

1000 Sable Tail, Beaver, and other Capes and Countess Collars.

15,000 yards of every kind of trimmings, finest in Europe. Cock Feather and Ostrich Boas, 4s. to 20s.; Bear Boas and Capes from 16s.

SPECIAL CAUTION.—THE ONLY ADDRESS. OTHER PEOPLE ARE TRADING UPON OUR NAME.  
**PHILLIPS & CO., 52 and 53, NEWGATE ST. (opposite the General Post Office).**

## Royal College of Physicians of LONDON.

The next Professional Examination for the MEMBERSHIP will commence on Thursday, January 10th.

Candidates are required to give fourteen days' notice in writing to the Registrar of the College, with whom all certificates and testimonials required by the by-laws are to be left at the same time.

Full Mail East. EDWARD LIVEING, M.D., Registrar.

### ARMY MEDICAL DEPARTMENT.

WAR OFFICE, November 12th, 1892.

## An Examination of Candidates for

TWELVE COMMISSIONS in the Medical Staff of Her Majesty's Army will be held at the University of London, Burlington-gardens, W. (by permission of the Senate), on the 6th of February next and following days.

Application for admission to the Examination should be made in writing without delay to the Director-General, Army Medical Department, War Office, London, S.W.

(Signed) W. A. MACKINNON, Director-General.

## Society of Apothecaries of London.

The next EXAMINATION in ARTS will be held at their Hall, Blackfriars, E.C., on Friday and Saturday, March 3rd and 4th, 1893.

This Examination will qualify Candidates for Registration as Medical Students.

After January, 1892, the Examination must be passed as a whole, no separate subject being allowed.

A Syllabus may be had upon application.

An Examination in Arts will again be held on June 2nd and 3rd, September 1st and 2nd, and December 1st and 2nd, 1893.

C. E. ARMAND SEMPLE, B.A., M.B. Cantab., Secretary to the Board.

### COOKE'S SCHOOL OF

## ANATOMY, PHYSIOLOGY, SURGERY,

and all PROFESSIONAL SUBJECTS. Recognised (see Prospectus) by the Conjoint Board and other Examining Bodies. Application to Mr. THOMAS COOKE, F.R.C.S., Senior Assistant Surgeon to the Westminster Hospital, 40, Brunswick-square, W.C. Thoroughly dissected parts always available for study. Resident students have the advantage of private evening classes of anatomy and physiology without extra charge.

OPERATIVE SURGERY Recognised by Conjoint Board.

## Mr. Cooke's Tablets of Anatomy,

price 7s. 6d. (Longmans), contain "in the fewest words and plainest language, and in about one-tenth the space, the matter which is found in the most accredited standard works."—THE LANCET.

## Aphorisms in Applied Anatomy and

OPERATIVE SURGERY. Price 3s. 6d. "Information no candidate can do without."—BRIT. MED. JOUR. "Should be in every student's hand."—MED. PRESS AND CIRC.

## The College of State Medicine,

LONDON.

A CLASS under the supervision of A. MACFAYDEN, M.D., B.Sc., and J. GLAISTER, M.D., D.P.H., is being formed for Practical Microscopical Work.

This Class is intended for Medical Officers of Health, Public Analysts, and Students of Hygiene. The main impurities present in or added to Food-Stuffs, Beverages, and Water will be practically studied. Each member of the Class will prepare a typical series of permanent specimens.

The Course will begin on January 4th, 1893.

Full particulars may be had from

W. R. CORNISH, Surg.-General, Honorary Secretary.

101, Great Russell-street, W.C.

### DIPLOMA IN PUBLIC HEALTH.

## King's College, London.

A Special Class will be held under the direction of Professor WILLIAM R. SMITH, M.D., D.Sc., D.P.H. Camb., in preparation for the April Examination of the University of Cambridge, beginning Tuesday, January 3rd, 1893, at 4 P.M.

This Class is intended for gentlemen who registered their medical and surgical qualifications prior to January 1st, 1890. It will embrace all the subjects required for the above examination. Fee, Twelve Guineas.

### LABORATORY INSTRUCTION.

A Six Months' Course of Public Health Instruction including two months in the Bacteriological Laboratory, for gentlemen who obtained their medical qualifications subsequent to January 1st, 1890, will begin on Tuesday, January 3rd, 1893.

The Laboratories will be open daily from 10 A.M. to 4 P.M., except on Saturday, when they close at 1 P.M.

Fee for the complete Course (inclusive of apparatus) 20 guineas.

For Syllabus apply to J. W. CUNNINGHAM, Esq., King's College, London.

## Oral Education of the Deaf.—Mr.

H. N. DIXON, M.A. Lond. and Cambridge, F.L.S., gives a thorough and high-class education to Deaf Children, based upon the Oral Method.

The School has lately been removed to larger and more convenient premises—Apply, Wickham House, East Park, Northampton

## Urgent Appeal.—In consequence of

prolonged and most serious illness, an old University College man and family are reduced to greatest distress and in need of immediate aid. An appeal is made in their behalf to the more fortunate members of our profession.

Particulars may be obtained of:—

Dr. TURLE, Woodside-grange, Finchley, N.

Dr. JOY, Northwold, Norfolk.

Dr. FRISTON, 924, Old Kent-road, S.E.

Mrs. EVERETT, St. Cuthbert's, Lansdown, Bath.

Mrs. and Miss JOINSTONE, Sloane-street, Brighton.

Miss DOBBING, 32, Compton-avenue, Brighton.

Who will also thankfully receive even the smallest donations sent.

## Royal London Ophthalmic Hospital,

Moorfields, E.C.

Courses of Instruction on the following subjects will be given at the Hospital, commencing on Jan. 9th, 1893:—

The Use of the Ophthalmoscope; on Tuesdays and Thursdays. By Messrs. Gunn, Silcock and Lawford.

Errors of Refraction; on Mondays. By Mr. Lang.

External Diseases of the Eye; on Fridays. By Mr. Morton.

Fees for the Ophthalmoscope Class, 2 guineas.

Refraction, 1 guinea.

External Diseases, 1 guinea.

Perpetual Students of the Hospital are admitted free.

Further particulars may be had of the Secretary.

ROBERT J. NEWSTEAD, Secretary.

## Medical Curriculum at Cooke's

SCHOOL.—The School having been recognised by the London University and the Society of Apothecaries, a department for Curriculum Work has been formed in which instruction is given meeting the requirements of the two first years of medical studies. Special advantages are offered in regard to practical work in Anatomy and Physiology, on the lines of the "Dissection Guides" in respect of the former subject. Through the School being open during the Summer the course of studies preparatory to Parts I. and II. of the Primary Examination of the Society of Apothecaries—that is, up to and including Anatomy and Physiology, and initiatory to clinical work—can be taken out in twelve calendar months, starting from any date. It is intended, in regard to the Curriculum, to take on only a small number of earnest workers, the object being to instruct men who, on their becoming efficient in practical work, will be able, if so inclined, to act as prosectors and physiological assistants to the School, and thus to take part in the "Supplementary Teaching," which is the main feature of the Institution. —Particulars on application to Mr. THOMAS COOKE, F.R.C.S., 40, Brunswick-square, W.C.—THE BLAND SUTTON ENTRANCE PRESENTATION, conferring the privilege of free education in all the subjects of the First and Second Years of the Medical Curriculum, is given in October of each year.

## The College of State Medicine,

LONDON.

### DEPARTMENT OF PUBLIC HEALTH.

Professor: A. WYNTER BLYTH, M.R.C.S., Barrister-at-Law &c.

Assistant-Professor: J. GLAISTER, M.D., D.P.H. (Cambridge).

A Three Months' Course, designed for Gentlemen who qualified before Jan. 1st, 1890, will commence on Monday, Jan. 9th, 1893, at 3 P.M. This course will include Lectures and Demonstrations on all the required subjects, as well as Practical Laboratory and out-door work. Fee for the complete course, 12 guineas.

A Six Months' Course, in accordance with the regulations, applicable to gentlemen whose qualifications have been obtained since January 1st, 1890, will also commence on Monday, January 9th, 1893.

This course will include instruction in the Hygienic and Bacteriological Laboratories, as well as the practical out-door work under a Medical Officer of Health, required by the regulations. Inclusive fee for the complete course, twenty guineas.

### BACTERIOLOGICAL DEPARTMENT.

Professor: A. MACFAYDEN, M.D., B.Sc. The Laboratory will reopen on Monday, January 9th, 1893.

Gentlemen may enter for one or other of the following branches:—  
1. Practical Bacteriology. Fee for one month's instruction and practical work £5 5s.

2. Bacteriology in relation to Hygiene. This course is intended for medical officers of health and students of hygiene, and includes instruction in the Bacteriological Examination of Water, Soil and Air, Investigation of the Action of Antiseptics and Disinfectants &c. Fee for one month's practical work £5 5s.

3. Research work under the supervision of the Professor.

Further particulars on application to

101, Great Russell-street, W.C.

W. R. CORNISH, Hon. Sec.

### DIPLOMA IN PUBLIC HEALTH.

## London Hospital Medical College.—

The next Course of Laboratory Instruction, with Classes &c. will commence in January.

Fee for the whole Course, 20 guineas (inclusive.)

For further particulars apply to

Mile-end, E.

MUNRO SCOTT, Warden.

## Royal Westminster Ophthalmic

HOSPITAL, King William-street, Strand.

Patients are seen daily from 1 P.M., and Clinical Instruction is given. For particulars of the various Classes and Lectures, apply either at the Hospital, or to Mr. ADAMS FROST, 17, Queen Anne-street. Fees, not exceeding six months, £8 8s.; Perpetual, £5 5s.

# LONDON POST-GRADUATE COURSE.

President: JONATHAN HUTCHINSON, Esq., LL.D., F.R.S.

The SPRING TERM (1893) will commence on Monday, January 16th, and end on Saturday, March 11th.

Demonstrations and Lectures will be given at the following hospitals and institutions, viz.:-

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and MIDWIFERY TRAINING SCHOOL, Marylebone, N.W.—MEDICAL PUPILS admitted to the Practice of this Hospital. Unusual opportunities are afforded of seeing obstetrical complications and operative midwifery, upwards of three-fourths of the total admissions being primiparous cases.

CERTIFICATES AWARDED as required by the various Examining Bodies.

PUPILS RECEIVED and SPECIALLY TRAINED for MIDWIVES and MONTHLY NURSES. On completion of the period of Training, each pupil, on being found competent, is awarded a DIPLOMA qualifying her to practise.

For rules, fees &c., apply

G. OWEN RYAN, Secretary.

## THE LONDON ASSOCIATION OF NURSES.

CHIEF OFFICE—123, NEW BOND STREET, W.  
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Superior Hospital-trained NURSES for Monthly, Medical, Surgical, Fever, and Small-pox cases; also Male Attendants, Male Nurses, and Medical Rubbers can be obtained immediately on application to the Superintendent.

Great care is taken in the selection of Monthly Nurses, who reside in a separate Home, and never come in contact with those who attend infectious cases.

HOME HOSPITALS FOR THE WELL-TO-DO.  
 Invalids can be received under the care of their own Physicians, each Patient being provided with a separate room.

M. FIRTH, Superintendent.  
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8, NEW CAVENDISH STREET, PORTLAND PLACE, W.  
 Established to secure to Nurses the full remuneration for their work.  
 FULLY TRAINED HOSPITAL

Medical, Surgical, Mental, Monthly, Fever, Male, Children's } NURSES

Supplied any time, day or night. *Telegraphic address*, "Apron, London," K. PHILIPPA HICKS, Lady Superintendent.

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The only Institution in London where Male Nurses reside on the premises. Obtainable day or night.

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 Telephone 570. *Telegraphic address*: "Nurses," Liverpool.  
 Hospital-trained NURSES and reliable MALE ATTENDANTS supplied day or night, for all cases of either sex.  
 Monthly and Mental cases a special feature.  
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NURSES' INSTITUTE.—Thoroughly experienced NURSES can be immediately obtained for Medical and Surgical Cases from the Sister in Charge, 17, Cleveland-street, W. *Telegraphic address*, "Skillful, London."

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For forms of admission, address, DAVID BOWER, M.D., as above. (Dr. B. attends at 5, Duchess-street, Portland-place, W., on Tuesdays, from 3 to 4.)  
 Terms 2 guineas per week.  
 There are vacancies for one lady and one gentleman.

**INTEMPERANCE.**

**Buxton House, Earl's Colne, Essex.—**  
 PRIVATE HOME for SIX LADIES. Sixteen years' experience. Very satisfactory results. Excellent references. Inspection by applicants welcomed. Terms 2 and 3 guineas weekly.  
 Medical attendant, J. TAYLOR, M.R.C.S. (Lond.).  
 Address, Mrs. or Miss PUDNEY.

**THE COPPICE, NOTTINGHAM. HOSPITAL FOR MENTAL DISEASES.**

President: The Right Hon. the Earl MANVERS.

This Institution is for the reception of a limited number of Private Patients of Both Sexes, of the Upper and Middle Classes only, at moderate rates of payment. It is pleasantly situated on an eminence a short distance from Nottingham, and commands an extensive view of the surrounding country; and from its singularly healthy position affords every facility for the relief and cure of those mentally afflicted.

Particulars as to terms &c. may be obtained from Dr. TATE, the Medical Superintendent.

**Private Home for the Treatment of INSANE LADIES.**

**ASHBROOK HALL, HOLLINGTON,**  
 within half an hour's walk of St. Leonards-on-Sea, conducted by the Widow of the late Samuel Hitch, M.D., formerly of Sandywell-park, near Cheltenham, for many years Physician to the General Lunatic Asylum for the County of Gloucester.  
 Station: Warrior-square, St. Leonards. Telegraph Office: Silverhill.  
 For particulars and terms, apply to Mrs. LETITIA A. HITCH.

**Church Stretton Private Asylum,**

**STRETTON HOUSE, Church Stretton, Salop.** Established 1859. (For Gentlemen only.) 600 ft. above sea level. Bracing air, farm, extensive grounds, and every facility for occupation and amusement; 4 1/2 hours from London. Terms moderate. Suites of rooms for first-class cases.  
 Superintendent, CAMBELL HYSLOP; Medical Superintendent, Dr. HORATIO BARNETT, B.A., M.B. Cantab., M.R.C.S., &c.  
 (See Medical Directory for further information.)

**Grove House, All Stretton, Church STRETTON, SHROPSHIRE.**

A Private Home for the Care and Treatment of a limited number of LADIES mentally afflicted. Climate healthy and bracing.  
 Apply to Mrs. MCLINTOCK (widow of the late Dr. McLintock), the Resident Proprietress, or to the Medical Superintendent.

**Barnwood House Hospital for MENTAL DISEASES, Barnwood, near Gloucester.**

Exclusively for Private Patients of the Upper and Middle Classes. This Institution is devoted to the Care and Treatment of persons of both sexes at moderate rates of payment. The terms vary according to the requirements of the patients, who can have private rooms and special attendants, or be accommodated in Detached Villas and in the Branch Convalescent Establishment on the hills. Under special circumstances the rates of payment may be greatly reduced by the Committee.—For further information, apply to J. G. Soutar, M.B., the Med. Supt.

**Harpenden Hall, Herts.—For the**

Treatment and Cure of LADIES mentally afflicted. Patients are under the immediate care of the proprietor and his wife. Carriage exercise and every amusement provided. Twenty-five miles from London. Midland station quarter of a mile.—Apply to A. MACLEAN, Proprietor and Medical Superintendent.

**Warneford Asylum, Oxford.—This**

Asylum, for the care and treatment of the Insane of both sexes of the middle and upper classes, is pleasantly situated on Headington-hill, near Oxford, and has been recently enlarged. The grounds are extensive, and cricket, tennis, billiards, dances, and other amusements are amply provided. There are now vacancies for patients at moderate charges.—For particulars, apply to the Medical Superintendent, Dr. BTWATER WARD.

**Wye House Asylum, Buxton, Derby-**

shire, for the Middle and Upper Classes of BOTH SEXES, is beautifully situated in the healthy and bracing climate of the Derbyshire hills, and is directly accessible by the Midland and the London and North-Western Railways.—For terms and other particulars, address the Resident Physician and Proprietor Dr. F. K. DICKSON

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RICKMANSWORTH, HERTS.  
 For Gentlemen under the Act and privately. Terms—3 to 5 guineas.  
 Apply to the Medical Superintendent.

**St. Andrew's Hospital for Mental DISEASES, NORTHAMPTON.**

FOR THE UPPER AND MIDDLE CLASSES.  
 President—The Right Honourable the Earl SPENCER, K.G.  
 Chairman of the Committee of Management—The Most Honourable the Marquis of NORTHAMPTON, K.G.  
 The Institution is pleasantly situated one mile from the Northampton Station of either the London and North-Western or Midland lines, being 1 1/2 hour from London, and is surrounded by more than 100 acres of pleasure grounds. The terms vary from 25s. a week upwards, according to the requirements of the Patients, who can have, if desired, private rooms in the Hospital or in detached villas on the grounds, and at Moulton Park, a branch establishment two miles from the Hospital, but connected by telephone. Special Attendants, horses, carriages, &c. are provided if required. There are also Seaside establishments in North Wales to which Patients may be sent.  
 For further information apply to the Medical Superintendent.



INEBRIETY, THE MORPHIA HABIT, AND THE ABUSE OF DRUGS.

**A PRIVATE HOME, ESTABLISHED 1864,**

for the Treatment and Cure of Ladies of the Upper and Higher Middle Classes suffering from the above. Highly successful results. Private sitting-rooms if required. Cons. Phys.: Dr. B. W. RICHARDSON, London. Medical Attendant: Dr. J. ST. T. CLARKE, Leicester.—For terms &c., apply, Mrs. THEOBALD, Tower House Leicester.



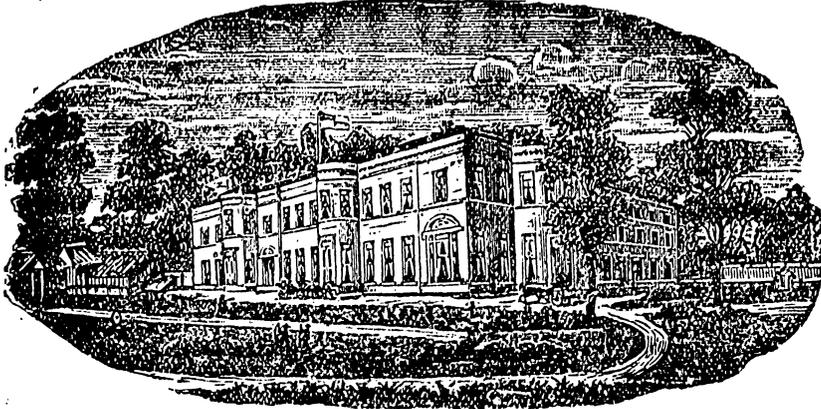
**MAVISBANK HOUSE, NEAR EDINBURGH.**

A Hospital for the Insane and a Home for Mental and Nervous Invalids.  
 Chairman of the Board of Direction—The Right Honourable Sir Thomas Clark, Bart., Lord Provost of the City of Edinburgh.  
 Mavisbank House is about six miles from Edinburgh, in the beautiful neighbourhood of Roslin. It is a comfortably furnished old mansion, containing large and handsome dining- and drawing-rooms, billiard-room, library, conservatory, and private parlours.  
 The estate is upwards of 120 acres in extent, with stabling, large flower and fruit gardens, hothouses and vinerias.  
 The Directors have arranged to receive a limited number of patients at ONE GUINEA A WEEK, who will reside in the comfortable farmhouse on the estate. They will receive careful supervision and every comfort.  
 The terms are inclusive, clothing only excepted.  
 Mavisbank House is five minutes' walk from Polton Station, on the North British Railway.  
 For further information, apply to the Resident Medical Superintendent, Mavisbank House, Polton, Midlothian

**WONFORD HOUSE HOSPITAL FOR THE INSANE, near EXETER.**

A REGISTERED HOSPITAL FOR THE UPPER AND MIDDLE CLASSES.  
 This Institution is situated in a beautiful and healthy locality, within a short distance of the City of Exeter.  
 There is comfortable accommodation at moderate rates, both in the Hospital itself and at Plantation House, Dawlish, a seaside residence on the South Devon Coast, affording more privacy, with the benefits of sea air and a mild and salubrious climate.  
 Private Rooms and Special Attendants provided, if required.  
 Voluntary Patients or Boarders also received without certificate.  
 For terms &c. apply to  
 F MAURY DEAS, M.B., M.S. Lond.,  
 Resident Medical Superintendent

**HAYDOCK LODGE, NEWTON-LE-WILLOWS, LANCASHIRE,**

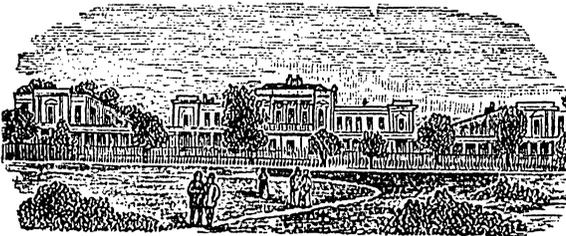


Is charmingly situated in a healthy and retired neighbourhood, midway between Liverpool and Manchester, about two miles from Newton-le-Willows Station on the London and North-Western Railway. It is a comfortably furnished country mansion, especially adapted for the care and treatment of persons of unsound mind. Besides the use of the general sitting-rooms &c., patients of both sexes can have private apartments and special attendants at moderate rates of payment.

Information as to terms &c. may be obtained on application to the Resident Medical Superintendent—

**CHARLES T. STREET,**  
L.R.C.P. Lond., M.R.C.S. Eng.  
Telegraphic Address: "Street, Ashton-in-Makerfield."

Visiting Physician: **ALEXANDER DAVIDSON, M.D., F.R.C.P.,** Physician to the Liverpool Royal Infirmary.



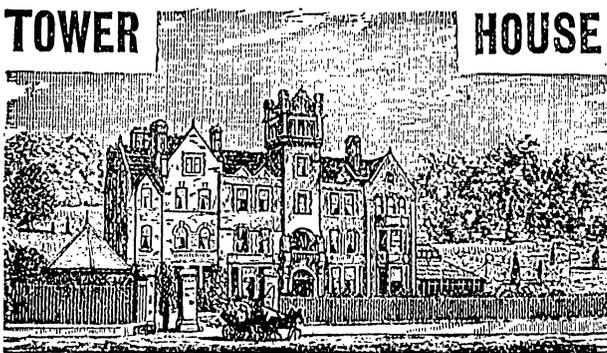
**NORTHWOODS HOUSE,  
WINTERBOURNE, near Bristol.**

**PRIVATE ASYLUM for LADIES and GENTLEMEN.**  
Situating in a large park in a healthy and picturesque locality, easily accessible by rail via Bristol, Patchway, or Yate stations. Under the Act of 1890 Voluntary Patients or Boarders can now be received.—For further information, see Medical Directory, page 1835; and for terms &c., apply to Dr. EAGER, Resident Physician.

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*The Waters are highly efficacious in cases of Rheumatism, Gout, and Skin Affections. The Baths are the most complete in Europe.*

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Westgate - on - Sea, Kent.**

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Licensed under the Inebriates Acts, 1870-88. The only Establishment in the United Kingdom specially erected for the reception and treatment of Ladies and Gentlemen desirous of overcoming habits of intemperance.

The house stands in its own grounds of nearly three acres, and is replete with every convenience, containing a large Billiard-room, spacious Drawing-rooms, Smoking-rooms, Bath-rooms, &c.

Patients can be received under the Act or privately. All servants and attendants total abstainers.—For prospectus, forms (when required) for signature under the Act, and further particulars, address, Principal, Tower House, Westgate-on-Sea.

**GRAND HOTEL, LEYSIN.**

LEYSIN, NEAR AIGLE, CANTON VAUD, SWITZERLAND.  
1450 METER HIGH. WINTER AND SUMMER ALPINE CURE.

**CLIMATIC HEALTH RESORT, LIKE DAVOS.**

Three hours from Aigle. First-class Sanitary Establishment, with 125 beds. Reading, Billiard, &c. rooms. Promenade Winter Garden. Central Heating Apparatus. Skating and Lugging. Very extensive Panorama. Treatment of Tubercular Affections, Chlorosis &c. Physician in the establishment.—For all further particulars apply to the Manager

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On the Mountain Limestone, 1000 ft. above Sea Level.

## THE WARM MINERAL-WATER BATHS OF BUXTON.

*Natural Temperature of Water, 82° Fahr.*

**AVERAGE NUMBER OF BATHERS DURING PAST 20 YEARS, 62,867 PER ANNUM.**

These very extensive Baths are fitted with all modern appliances for Bathing with either the natural or heated Mineral Water, and also for the Massage Treatment.

The warm Springs of Buxton have been resorted to from the earliest ages for the cure of Rheumatic and Gouty Affections.

On application at the Duke of Devonshire's Estate Office, Buxton, lists of charges for Bathing, with Analysis of the Water and all necessary information, will be forwarded.

Medical Gentlemen will, on personal application at the same Office, receive an order to view and make use of the Baths free of all charge.

### Private Asylum.—Ashwood House, Kingswinford, Staffordshire.—

For the reception and Medical treatment of a limited number of Ladies and Gentlemen, nervously or mentally afflicted. The House stands in picturesque grounds of 40 acres in extent; the soil, sand and gravel; climate genial; the locality notoriously healthy. The patients associate with the family, congenial occupation is encouraged, and every possible freedom allowed consistent with safety. Carriage exercise, billiard table, tennis lawns, and a variety of amusements provided. Boarders received without certificates. Friends of patients, if desirous, may reside in the house *pro tem*.—Proprietors, Drs. PEACOCK and PETERSEN; late Bodington and Peacock, co-Licenseses.

### MENTAL AND NERVOUS DISORDERS, West Malling Place, Kent.

Beautifully situated in a retired position in one of the healthiest localities in England. An easy distance from town on the Sevenoaks and Maidstone Railway. Old established, fully equipped, and perfectly adapted in itself, and by its surroundings, for CARE AND CURE UNDER HOME-LIKE CONDITIONS. Resident Physician and Proprietor, Dr. JAMES ADAM, late Physician-Superintendent, Crichton Royal Institution, &c. (26, Harley-street, Cavendish-square, W., Wednesday mornings). Voluntary Boarders received under the new Act without Certificates.



ESTABLISHED 1862.

### INTEMPERANCE AND NARCOTICS.

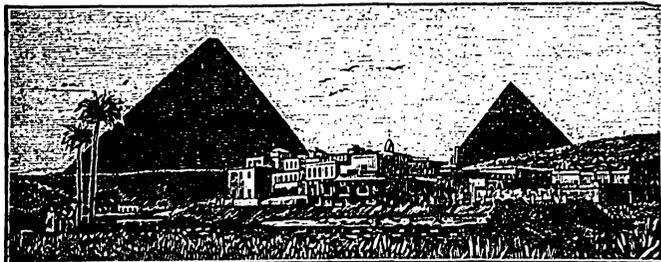
## KINGSWOOD PARK, near Bristol.

R. W. BRIMACOMBE, L.R.C.P.Lond., M.R.C.S.Eng.,  
*Resident Medical Adviser.*

A Private HOME for the Treatment and Cure of Gentlemen wishing to overcome the Propensity. Healthy and cheerful situation, near Clifton and Bath. Patients can be sent for or received on receipt of telegram. Dr. OWEN PRITCHARD, Consulting Physician

Telegraphic address—"Brimacombe, Kingswood, Bristol."

### Winter Health Resort—MENA HOUSE, Pyramids, NINE MILES FROM Cairo.



This first-class family hotel is built and arranged like an English country house with every luxury and home comfort. It has beautiful and very large drawing-room, library, and billiard-room, with two full-sized English tables, a splendid mosque dining-hall with a raised gallery round for private parties, and table d'hôte in the central hall. Comfortable bed- and sitting-rooms, furnished with English furniture. The whole house is lighted with electric light. There is a marble swimming-bath attached to the hotel for the use of guests. The hotel has very extensive stables, and a great number of Arab riding horses and donkeys with English saddles. Well-appointed Victorias, dog-carts, and other carriages can be had at a moment's notice. Besides these private conveyances the "Mena" coach runs daily between Cairo and the hotel with a team of English horses. A char-a-banc with an Arab team runs daily from Mena to Cairo and back, thus facilitating visits to the town. Adjoining the hotel is an English church. Both the English chaplain and physician, Arthur J. M. Bentley, M.D., reside in the house. A competent English head nurse will superintend all arrangements connected with invalids, for whom every delicacy can be had. The hotel has its private racecourse with stand, where during the season Gymkhanas are held. There are also lawn-tennis courts and a golf ground, and good sport can be obtained in the neighbourhood. An ice machine on the premises ensures a constant supply of ice. Drinking water from an Artesian well. A herd of cows is kept for the supply of pure milk. For those who are desirous or are compelled to winter in Egypt this hotel, situated at the foot of the Pyramids, and surrounded by the dry, invigorating air of the Desert, offers unusual attractions, and is well worthy of the attention of the Medical Profession. Season commences about December 10th. For particulars apply to MANAGER, Mena House Hotel, Cairo, Egypt.

### Resident Patients. — Margate. —

M.D. Lond., F.R.C.S. (married), residing in a commodious house facing the sea, in best position, with tennis lawn in front, has accommodation for one or two of the above. Drainage guaranteed perfect. Terms moderate, according to requirements. — Address, Dr. Crook, Dalby-square, Margate.

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Medical Man at Brighton, close to sea and downs. Trained Nurse kept. Massage and electricity. Sea water laid on. Epileptic or paralysed case can be received. Terms from £2 2s. a week.—Apply to Dr. Pendleton, 10, The Drive, Brighton; or E. Gotton-Salmond, 71, Chesapside, E.C.

**INEBRIETY.****HIGH SHOT HOUSE,****ST. MARGARET'S, TWICKENHAM.**

For Gentlemen, under the Acts and privately. Terms 2½ to 5 guineas. Apply to the  
**RESIDENT SUPERINTENDENT.**

**Attendance during Confinement.—**

A married Medical Practitioner (late Resident Officer to a Lying-in-Hospital) living in a large, healthy, well-appointed house, will receive a Lady for her Confinement. Fee for the whole attendance, including skilled Nurse's fee and board, lodging, and washing both for Patient and Nurse for a term not exceeding six weeks from the time of Patient's entry, sixty guineas. Any residence beyond six weeks to be paid for at the rate of £0 6s. per week. The fee is payable in advance. References given and required.—Address, Accouchement, THE LANCET Office, 423, Strand, W.C.

**Resident Patients. — A list of**

Medical Men in all parts willing to receive into their houses Resident Patients, together with a full description of the accommodation offered, terms, &c., can be had without charge from Mr. G. B. Stocker, 8, Lancaster-place, Strand, W.C.

**To Invalids. — Bournemouth, St.**

Leonards, Brighton, Eastbourne, Torquay, Isle of Wight, Jersey, Riviera, &c. Several Doctors in these places will receive Invalids into their houses.—For particulars apply to Mr. G. B. Stocker, 8, Lancaster-place, Strand, W.C.

**Aberystwith "The Biarritz of**

WALES," is highly recommended for INVALIDS. It possesses the most equable temperature, its shore being swept by the Gulf Stream and the S.W. breezes of the Atlantic. The drainage is perfect, and the town is supplied with the purest water from Plynlimon.

The late Sir James Clarke, M.D., says:—"A fortnight in Aberystwith is equivalent to month's residence in most watering-places"

**Epileptic, Feeble-minded, and Back-**

WARD CHILDREN.—HOME, with Education.—Address, Miss Wright, Two Elms, Sidecup, Kent. Formerly Lady Superintendent, for 12 years, Darenth Schools for the Feeble-minded. Doctor attends.

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Railway Station — MATLOOK BRIDGE.

Telegraph Office — MATLOCK BANK.

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**TURKISH, RUSSIAN, and other BATHS. WEIR-MITCHELL METHOD AND ELECTRIC TREATMENT.****TUE BROOK VILLA, LIVERPOOL.**

PRIVATE ASYLUM for the care and treatment of those suffering from Mental and Nervous Diseases. Pleasantly situated in the parish of West Derby. Stands in its own grounds. Home life, cricket, tennis, bowls, croquet, gardening, billiards, and evening entertainments. Outdoor employment on the farm and grounds. Voluntary boarders accommodated.—For terms apply to G. Dufus, Medical Superintendent. Telephone No. 8114.

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(Late CLIFTON HALL), WHITEFIELD, LANCASHIRE.

Licensed for a limited number of PATIENTS of the Upper and Middle Classes. It is beautifully situated in a retired neighbourhood, and has all the comforts of home life.—For terms &c. apply to J. HOLMES, M.D., Resident Medical Superintendent. Dr. HOLMES attends at 8, St. John-street, Manchester, Tuesdays, Thursdays, and Fridays, 12 to 1.30 P.M.

**INTEMPERANCE AND NERVOUS DEBILITY.****A Private Home (established in**

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817 &amp; 819, CLAPHAM ROAD, LONDON, S.W.

Superior Private Home for Invalids. Large gardens. Good nursing. Highest references. Terms moderate. Massage and Weir-Mitchell cases treated with great success. Patients attended by their own physicians. Masseurs and Masseuses supplied. Also pupils received for massage.—Apply, Mrs. Chapman.

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TOOTING BEC ROAD, TOOTING COMMON, S.W.  
**CHANGE OF ADDRESS.**

The Proprietors beg to announce that the above House has been substituted for BLACKLANDS HOUSE, CHELSEA, and licensed for the care and treatment of Gentlemen of Unsound Mind. Voluntary Boarders can also be received. The House is near Balham Station, and forty minutes' drive from Charing-cross. It has been fitted with the most modern appliances for sanitation and for the treatment of the Insane.—Apply to

E. T. HALL, Esq., M.R.C.S., Resident Medical Superintendent, or to A. H. SUTHERLAND, Esq., 2a, Marions-road, Kensington, W.

**Kingsdown House, Box, Wilts.—A**

Private Home, with every comfort and convenience for those suffering from Mental and Nervous Diseases.

The situation is most healthy and picturesque, among the Wiltshire Downs, fifteen minutes from Box Station, and five miles from Bath.

The house stands in its own grounds, in the gardens of which the patients employ and amuse themselves with tennis, croquet, &c., and the close proximity of country walks affording them the great advantage of extended exercise.

Voluntary Boarders can be received under the New Statute without Certificate.

Friends of patients, if desirous, may reside in the house pro tem.

Terms moderate, for which apply to H. CRAWFORD MACBRYAN, Resident Medical Superintendent.

**The London Skin Hospital, 40,**

Fitzroy-square, W.—Special facilities afforded for the reception of paying In-Patients. Out-Patients daily, 2 and 7.—For terms and particulars, apply to the Secretary.

**NERVOUS AFFECTIONS.****The Oaks, Hythe, Kent.—A quiet**

Home for the Special Treatment of a limited number of Patients suffering from Hysterical and Nervous Affections (not under certificates).

The house stands in its own grounds, within five minutes' walk of the church, sea, and railway station, and contains every modern convenience and comfort. Massage, Baths, and Electrical treatment carried out under medical supervision.—Apply to Dr. CECIL A. P. OSBURN (late of Church Streeton), Resident Physician.

**St. Luke's Hospital, London, E.C.—**

Established 1751.

This Hospital was established for the Treatment of Mental Diseases of the Upper-middle and Middle Classes, for whom there is no statutory relief. Preference is given to acute cases, and these are admitted either gratuitously or on payment of a weekly sum varying from 14s. to 30s., according to the circumstances of each; and chronic cases can only be admitted at the higher rates. Patients are eligible for admission from any part of the United Kingdom.

Forms of application may be had from, and inquiries addressed to, the Secretary, at the Hospital.

PERCY DE BATHUR, M.A. Secretary

**Earlswood, near Redhill. — This**

Institution is situated in the most healthy, pleasant, and picturesque part of Surrey. The extensive estate comprises over 200 acres of finely wooded grounds, and is well laid out in paths and drives.

The Institution, being a home and school, is especially adapted for the development, training, and education of backward children, there being a skilled staff of governesses, teachers, and nurses.

Roomy, extensive, and well-ventilated workshops are also provided, where instruction is given in every branch of industry, serving as occupation or amusement for the pupils.

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**Invalid required, one Mentally**

afflicted or otherwise, wishing either to reside or travel with an experienced, well-qualified Medical Man.—Communications to M.R.C.S. Eng., THE LANCET Office, 423, Strand, W.C.

**Resident Patients in a fashionable**

watering resort on the Welsh coast offered to two INVALIDS mentally or otherwise affected needing medical supervision. Bright, open situation, sea view, well sheltered from north-west winds; mild and genial climate; within few minutes' walk of station, church and post-office. Every accommodation. Terms moderate, according to requirements.—Please address, first instance, Medicus, THE LANCET Office, 143, Strand, W.C.

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Student in house of medical practitioner (bachelor). House is healthily situated, overlooking large open space of eight acres, and within convenient distance of London, Bartholomew's, and Guy's Hospitals.—Apply, H. G., 22, City-road, E.C.

**A Home when ill. Medical and**

Surgical. Special arrangements for chronic and accouchement cases. Terms moderate.—Apply, Matron, 65, Weymouth-street, W.

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**For Lady Patients suffering from**  
Intemperance or from the excessive use of drugs. The Institution is managed by voluntary workers; there are no paid assistants. The income, after paying the expenses, is devoted to the extension of the work. Special arrangements for Men Patients.—Apply to the Secretary, St. Raphael's, Woodside, Croydon.

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**Ladies received in the houses of a**  
Medical Man—one house in London, the other in a quiet country village, within one hour of Town—whose wife is a qualified Obstetrician.—For terms &c., address M. O. S., care of Messrs. Gale & Co., 15, Boulevard-street, London, E.C.

**Bournemouth Hydropathic. — A**  
delightful winter health resort in unrivalled position, facing South. Sunny rooms. Lovely views and sheltered walks amongst the Pines. Large recreation and billiard rooms. Corridors heated. Passenger lift. Invalids' requirements studied. Terms (inclusive) from 2 guineas per week.

Dr. WATSON, Proprietor.

**Hendon Grove, Hendon, Middlesex.**

Ladies mentally afflicted receive experienced treatment and every home comfort at the above Asylum. The mansion is surrounded by forty acres of pleasure grounds and park land, and carriage exercise is provided. Half a mile from the Hendon Station on the Midland Railway and six from Hyde and Regent's Parks.—Further particulars on application to Dr. H. Hicks, Resident Physician and Proprietor.

**Travelling Companion wanted, must**  
be qualified, young and gentlemanly, with some experience of mental cases.—Apply, stating terms, to Blandford Lodge, Whiteknights, Reading.

**Trained Nurse, who has had four**  
years' experience in Egypt as Private Nurse, wishes for an Engagement as NURSE COMPANION to an Invalid. Is a good housekeeper. Reference to ladies now in England and Egypt.—Nurses' Club, 12, Buckingham-street, Strand.

**Wanted, a Female Mental Nurse,**  
with good references.—Address, with terms &c., Beta, THE LANCET Office, 423, Strand, W.C.

**Salisbury Infirmary.—Wanted, at**  
the above institution, a MATRON. She must have been trained in Nursing, a good housekeeper and conversant with accounts. Age thirty to forty-five. No married person is eligible for the appointment. Salary £75 per annum. Her services will be required from the date of appointment.

Applications and testimonials to be forwarded to the Secretary on or before the 12th day of January next.

Further particulars may be had on application to  
Dec. 24th, 1892. G. SMITH, Solicitor, Salisbury, Secretary.

**West Herts Infirmary, Hemel**

Hempstead.—The office of HOUSE SURGEON and DISPENSER, who shall also be ASSISTANT SECRETARY to the above Institution, is now vacant. Candidates, who must be qualified and duly registered and unmarried, are requested to forward their applications and copies of certificates of registration to the Secretary on or before January 31st, 1893, at 12 o'clock.

The appointment, which is vested in the Committee, will take place on Feb. 16th, 1893, at 12 o'clock noon.

The appointment will be for two years, but if deemed desirable may be terminated by the Committee at three months' notice, and the successful candidate will be required to sign a bond not to practise within twelve miles of the Infirmary during the term of his office nor for seven years afterwards.

The Infirmary contains 50 beds. Salary £100 per annum, with board, furnished rooms, fire, lights, attendance, and washing. Canvassing is forbidden, and will be deemed a disqualification. Any further information can be obtained from

RAYMOND SHAW, M.S., M.B., Assistant Secretary.

**Ancoats Hospital, Manchester.—**

Wanted, RESIDENT JUNIOR HOUSE SURGEON to attend home patients and accidents. Salary £50, with board and washing. Candidates must be duly qualified and on the Medical Register.—Address, stating age, with testimonials.

ALEX. FORREST, Hon. Sec.

**House Physicians. — Vacancies**

having occurred in the HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, those Gentlemen, who are desirous of becoming candidates for the vacant offices are requested to send in their applications, with testimonials, on or before Thursday, January 12th, and to attend the Medical Committee on the following Monday at 3.30 o'clock. Testimonials as to moral character as well as to medical qualifications are required.

Further particulars may be obtained at the hospital.

Brompton, Dec. 21st, 1892. HENRY DOBBIN, Secretary.

**House Physician.—National Hos-**

PITAL for the PARALYSED and EPILEPTIC (Albany Memorial), Queen-square, Bloomsbury.

A Vacancy is about to be created by the resignation of Dr. Bowman, Senior House Physician, and the Board of Management invite applications for the post from Gentlemen possessed of a double qualification. The present Junior House Physician is a candidate, and applicants should state whether they are prepared to accept either appointment.

The salary of the Senior House Physician is £100 and of the Junior £50 per annum, with board and apartments.

Applications, with copies of recent testimonials, should be sent to the undersigned on or before Jan. 5th, 1893.

B. BURFORD RAWLINGS,  
Secretary and General Director.

**The Victoria Hospital for Sick**

CHILDREN, Queen's-road, Chelsea, S.W.—The Managing Committee are prepared to receive applications for the Office of HOUSE SURGEON to the In-patients of this Hospital which will become vacant on February 1st, 1893. Every candidate for the office of House Surgeon must be a Fellow or Member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries, or of the Royal College of Physicians, or a Graduate of Medicine of any University recognised by the Medical Council. He will receive an honorarium of £50 per annum and will be provided with board and lodging in the Hospital. Applications, with testimonials &c., must be sent in on or before Saturday, January 14th, 1893, to the Secretary of the Hospital.

By order,  
Commander BLOUNT, R.N., Secretary.

**The Victoria Hospital for Sick**

CHILDREN, Queen's-road, Chelsea, S.W.—The Managing Committee are prepared to receive applications for the Office of HOUSE PHYSICIAN to the In-patients of this Hospital, which will become vacant on February 15th, 1893. Every candidate for the office of House Physician must be a Fellow or Member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries, or of the Royal College of Physicians, or a Graduate of Medicine of any University recognised by the Medical Council. He will receive an honorarium of £50 per annum and will be provided with board and lodging in the Hospital. Applications, with testimonials &c., must be sent in on or before Saturday, January 14th, 1893, to the Secretary of the Hospital.

By order,  
Commander BLOUNT, R.N., Secretary.

**A Vacancy in the office of Visiting**

APOTHECARY to ST. GEORGE'S HOSPITAL, having occurred by the resignation of Mr. T. H. Smith, Candidates for this office, who must be registered under the Medical Act of 1858, should make application in writing to the Secretary of the Hospital on or before the 18th January.

The appointment will be made by a Committee of Governors elected for that purpose. Candidates canvassing directly or indirectly any member of the Committee will be deemed ineligible for election.

Candidates are invited to attend at the Hospital on the day of the meeting of the Committee, which they will learn on application to the Secretary.

By order,

CHARLES J. TODD, Secretary.  
St. George's Hospital, Weekly Board, Dec. 28th, 1892.

**Appointment of Medical Superin-**

TENDENT.—The METROPOLITAN ASYLUMS BOARD require the services of a Medical Superintendent at the DARENTLI SCHOOLS for INBECILES, near Dartford, Kent. Salary £460 per annum, with furnished residence, coals, gas, milk, garden produce and washing.

The Schools, with the attached pavilions, contain accommodation for 1050 patients and the necessary staff of officers and servants.

The appointment will be on probation for three months and will be subject to the approval of the Local Government Board.

Candidates must not exceed forty-five years of age and must be duly registered and qualified to practice both Medicine and Surgery in England.

Preference will be given to those candidates who have had experience in institutions for the insane.

Forms of application, with particulars of the duties, can be obtained at the Offices of the Board, Norfolk House, Norfolk-street, Strand, W.C., where such forms, duly filled up and accompanied by copies of not less than three recent testimonials, must be delivered not later than 4 o'clock P.M. on Monday, January 23rd, 1893.

Personal canvassing is strictly prohibited and will disqualify any candidate.

Selected candidates will be written to.

By order,

T. DUNCOMB MANN, Clerk to the Board.  
Chief Offices, Norfolk House, Norfolk-street, Strand, W.C.,  
December 24th, 1892

**King's College, London.—Applica-**  
tions are requested for the Office of ASSISTANT PHYSICIAN  
for Diseases of the Throat, at King's College Hospital.—For particulars,  
apply to J. W. CUNNINGHAM, Secretary.

**Central London Ophthalmic Hos-**  
PITAL, Gray's Inn-road, W.C.—There is a vacancy for HOUSE  
SURGEON. Applications, with testimonials, from duly qualified can-  
didates must be sent to the Secretary, on or before Tuesday, Jan. 10th,  
1893. Candidates must attend at the Hospital at 4 P.M., Wednesday,  
January 11th. Rooms, coals and lights.

**Kensington Dispensary. — A**  
Vacancy for an HONORARY MEDICAL OFFICER having  
occurred, applications from candidates desirous of the appointment  
should be made by January 3rd, to the Honorary Secretary, FRED.  
LEACH, Esq., 7, Stanford-road, Kensington-square, W.

**Miller Hospital and Royal Kent**  
DISPENSARY, Greenwich, S.E.

A Qualified JUNIOR RESIDENT MEDICAL OFFICER required.  
Salary £30 per annum, with board, attendance and washing. This post  
is tenable for six months, with prospect of re-election as Senior. Salary,  
£20 per annum.

Applications, stating age, with copies of testimonials, should be sent  
not later than Saturday, January 14th, to the Hon. Secretary, from  
whom particulars can be obtained.

Candidates are requested not to canvass either the members of the  
Committee or staff. G. R. ROBERTS, Maj.-Gen., Hon. Sec.  
Dec. 28th, 1892.

**Manchester Royal Infirmary.—**

RESIDENT MEDICAL OFFICER for the FEVER HOSPITAL  
at Monsall.—The Board of the Royal Infirmary are prepared to receive  
applications for the above office. Applicants must not be less than  
twenty-five years of age. They must be registered and hold a Medical  
and Surgical qualification. The appointment will be for a term of at  
least twelve months. The remuneration £250 per annum, with board  
and residence. Applications, with testimonials, to be sent, directed to  
the Chairman of the Board, on or before the 7th January next.

December 20th, 1892.

By order. W. L. SAUNDER, Secretary.

**Alnwick Infirmary.—House Surgeon**

(unmarried) wanted, for the Alnwick Infirmary, to enter on his  
duties on March 2nd next. Restricted from private practice, and his  
duties include making up prescriptions. Salary £120 per annum, with  
furnished apartments, attendance, coals and gas, but without board.  
Applications, testimonials, diplomas and certificates will be received by  
me up to Jan. 14th, 1893, for examination by the Medical and Managing  
Committees. By order.

20, Bondgate Without, Alnwick. WM. T. HINDMARSH, Hon. Sec.

### THE NORTH OF ENGLAND

**Clerical, Medical, and Scholastic**  
AGENCY (Established 1890).

Offices: 18, SOUTH KING STREET, MANCHESTER.

(Conducted by University and Professional Men.)

ASSISTANTS wanted. LOCUMS supplied.

Telegrams—"Universitas, Manchester."

### BIRMINGHAM MEDICAL AGENCY.

**LEE & MARTIN,**  
LINCOLN'S INN, CORPORATION STREET.  
ESTABLISHED 1877.

#### TO PURCHASERS.

Particulars of PRACTICES on the books, many of them  
never advertised, will be sent free of charge on  
receipt of letters stating requirements.

#### TO VENDORS.

PRACTICES of upwards of £400 are readily disposed  
of through the Agency, without advertisement,  
Lee & Martin having many purchasers on their  
books anxious to settle, and prepared to invest the  
necessary cash.

LOCUM TENENS and ASSISTANTS at short notice.

Telegraphic Address: "Locum, Birmingham."

**Surgeons. — Sea. — Abroad. —**

Surgeons with families or friends going abroad will find an  
immense saving by obtaining their passages through MOORE & CO. All  
passages booked free of charge. Surgeons as medical officers to ships or  
for the outward voyage only to the Colonies are all obtained through  
MOORE & CO., the recognised agents to all shipping firms.

Stamp envelope to MOORE & CO., Medical Agents, Wholesale  
Druggists, 125, Finsbury-ditch, E.C.

**Messrs. H. Wilson & Son,**  
20, CHARLES STREET, ST. JAMES'S SQUARE, S.W.

For immediate Disposal, unopposed old-established PRACTICE.  
Income £300, including £400 from appointments. Good house,  
grounds, and stabling.

### MEDICAL PARTNERSHIP AND CONVEYANCING AGENCY,

1, ADAM-STREET, ADELPHI, W.C.

The SALE of PRACTICES and PARTNERSHIPS NEGOTIATED.

Trustworthy LOCUM TENENS and ASSISTANTS can be had at a  
few hours' notice.

N.B.—No charge made to Purchasers.

**Notice.—Mr. J. C. Needes, with an**  
experience of over a quarter of a century, is in an exceptional  
position to give intending Purchasers independent information concern-  
ing most PRACTICES and PARTNERSHIPS. Those Investments in  
the following List marked with an asterisk are well known to him,  
having been purchased through his Office by the present Incumbents  
years ago, and in many other cases an Introduction can be given to  
Gentlemen who have taken charge of the Practices during the absence  
of the Incumbents.

**WEST OF ENGLAND.**—An entirely Private PRACTICE of fifty years  
standing, varying in receipts from £400 to £500 per annum,  
situated in a small town. Beautiful locality. Good society and  
sport of all kinds. Ample scope for an energetic gentleman. Rent  
of house, with stabling and garden, £10 a year. A moderate  
premium accepted.

\***MIDLANDS.**—An old-established PRACTICE, situated in a village  
ten miles from a large town. It is worth about £650 per annum,  
including Clubs and other appointments over £300. Capable of  
considerable increase. Large modern residence, with stabling,  
garden &c. attached. Hunting, fishing and shooting.

£300 A YEAR.—In a County Town in the West of England, possessing ex-  
ceptional educational advantages, a well-established PRACTICE  
of at least £800 per annum (some years exceeding this), including  
appointments. Present incumbent, who is retiring, has held the  
Practice ten years. Excellent family residence with large garden  
(well stocked). Coachhouse and stabling attached. Rent £00 a  
year. Premium £1000, part down and balance on the termination  
of an equal partnership introduction.

\***PARTNERSHIP.—PARTIAL OCCUPATION.**—An active Gentleman  
required as Partner in a CASH PRACTICE, yielding £200 last  
year. He would be required to attend to the duties of the prac-  
tice on three days a week only, but it is a sine qua non that he  
should reside on the premises, which are situate within a mile of  
Charing-cross. Half-share for disposal. Premium £550.

**PRIVATE PRACTICE WITHOUT MIDWIFERY.**—Cash receipts  
about £900 per annum. In hands of present incumbent nearly  
twenty years. The Practice is not a Dispensary, but a fair amount  
of ready cash is taken in small fees. Expenses light. The house  
is pleasantly situated in an open north-eastern suburb of London.  
Premium £1000.

£1000 To £1200.—The leading PRACTICE in a small manufacturing  
Town in the North Midlands offers for negotiation. Appointments  
yield £130. Only forty to fifty cases of Midwifery, and very little  
night work. Good house, with stabling, garden &c. attached;  
rent moderate. An efficient introduction.

\***IN A PARTICULARLY ATTRACTIVE TOWN,** about twenty miles  
from London, an old-established good-class PRACTICE, the  
actual cash receipts of which have averaged £500 to £550 per  
annum for the past three years. Very little Midwifery; fees  
1 to 5 guineas. Appointments (not Union) yield £100. There  
are many wealthy seats in the neighbourhood. Good society.  
Educational advantages and excellent train service. Modern  
residence available. Premium one and a half year's purchase.

**SOUTH.**—£1000 a year.—In a favourite watering-place an inexpensively  
worked PRACTICE of £1000 a year, including appointments of  
£200 to £300. Only one horse required. Pleasant residence  
(facing the sea), with garden, coachhouse and stabling; rent  
moderate. A six months' partnership introduction given.  
Premium two years' purchase.

\***WESTERN COUNTY.**—In an exceptionally beautiful district, an old-  
established COUNTRY PRACTICE, worth about £500 a year.  
Nearest medical man resides five miles distant. The fees are  
good: 10s. 6d., 7s. 6d., 5s., and in a few rare cases 3s. 6d. No  
Midwifery under 1½ guinea. Only twenty cases yearly. Good hunt-  
ing and fishing. Premium one year's purchase. An efficient in-  
troduction.

**IN A PLEASANT SEAPORT TOWN** in the South of England an  
increasing PRACTICE of £900 per annum is for disposal. As a  
considerable portion of the income is received in ready money, the  
successor would not require any reserve capital, as the invest-  
ment would yield an immediate return. The expenses are con-  
fined to the house rent (which is very moderate) and drug bill.

Apply to J. C. NEEDES, 1, Adam-street, Adelphi, W.C.

### Locum Tenens and Temporary

ASSISTANTS.—Practitioners requiring the above can im-  
mediately obtain thoroughly reliable qualified Gentlemen upon application  
to 1, Adam-street, Adelphi, W.C. Every Gentleman engaged by the  
Office in either of the above capacities is personally known to Mr.  
J. C. Needes. An office fee of half a guinea is payable by the principal.

Telegraphic Address: "Acquirement—London."

# THE SCHOLASTIC, CLERICAL AND MEDICAL ASSOCIATION, LIMITED.

## MEDICAL DEPARTMENT.

This Association was established in 1890 as a Limited Liability Company under the direction of professional men, its object being the creation of a RESPONSIBLE and THOROUGHLY TRUSTWORTHY Agency. The Medical Department has met with so great success that it has been found necessary for one of the Managing Directors (Mr. G. B. Stocker) to devote his whole attention thereto; and he has the assistance of an experienced Medical Accountant and a large staff of clerks. Further, a Board composed entirely of gentlemen of high standing in the Medical Profession has been appointed, and to them matters of dispute and complaint are referred.

The Association undertakes the SALE of PRACTICES and PARTNERSHIPS; the INTRODUCTION of LOCUM TENENS and ASSISTANTS; MEDICAL ACCOUNTANCY (by a duly qualified Medical Accountant); INVESTIGATION and VALUATION of Practices, &c.; POSTING BOOKS and sending out Bills, &c. &c.

A Pamphlet relating to the Medical Department, with the names of the "Directors" and "The Medical Advising Board," and terms, will be sent on application to—MR. G. B. STOCKER, MANAGING DIRECTOR, 8, LANCASTER PLACE, STRAND, W.C.  
Telegraphic Address—"Triform, London."

### FOR SALE.

- (1) GOOD SUBURB OF A LARGE MIDLAND TOWN.—PRACTICE of over £500 per annum, with great scope. No carriage. House rent £65. Six months' introduction can be given.
- (2) LARGE MIDLAND TOWN.—Good-class Non-dispensing PRACTICE of nearly £500 per annum. Rent £60. One year's purchase only required.
- (3) PARTNERSHIP IN CASH PRACTICE of £1700 per annum.—Half, Third or Quarter Share will be Sold. Part premium by instalments. Prospect of increase. Thickly populated district.
- (4) LONDON SUBURB.—PARTNERSHIP (One Third Share) in an old-established middle-class Practice of £4000 per annum. Premium £2000. There will be three partners.
- (5) HOME COUNTIES.—Pleasant residential Town PRACTICE of over £500, with considerable scope. Large house. Price £700. Very satisfactory reasons for selling. Forty minutes from London. Suitable for resident patients.
- (6) WEST OF ENGLAND.—Country Town PRACTICE of £900, including appointments of £200. Introduction six months or longer. Large commodious house. Price for house and Practice £2000.
- (7) NORTH-WESTERN COUNTY.—Country Town PRACTICE of about £850 per annum. Rent of house, garden, and stabling £24. Premium £250 down and £550 by instalments.
- (8) UNOPPOSED COUNTRY PRACTICE in a Western County. £400 to £500 per annum. Good fees; good society. Near a large town. Choice of houses. Premium £500.
- (9) WEST OF ENGLAND.—Country PRACTICE of £300, close to a large residential town. Large house, garden, &c.; rent £48. Good society. Dry, bracing climate. Price £300.
- (10) DEATH VACANCY.—High-class, suitable for an experienced well-qualified Man. Inland watering-place. Income £2000. Premium only £650. Large house. Suitable for resident patients.
- (11) PARTNERS WANTED, for a Third Share of a Suburban Practice of over £1500 per annum. Two years' purchase.
- (12) PRACTICE of about £600 per annum in a Country Town, with educational advantages. Very good house. Premium £700.
- (13) COUNTRY TOWN WITHIN ONE HOUR OF LONDON.—PARTNERSHIP in a Practice of over £1000 per annum. Two years' purchase. Purchaser must be M.D. and have small private means.
- (14) NORTH MIDLANDS.—PRACTICE of £600 per annum, increasing. Practically unopposed. Large house and grounds; net rent, after letting off field, £36. Premium £700.
- (15) LOVELY PART OF THE NORTH OF ENGLAND.—Country Town PRACTICE of £400 to £500 per annum. First-rate schools. Good house; rent £33. Premium only £350. Good reason for selling.
- (16) NORTHERN TOWN PRACTICE of over £800 per annum. All classes of patients. Expenses very light. Rent £42. Premium £1000. Accountant's report of this Practice can be seen at the office of the Association.
- (17) LEADING PRACTICE in a town with first-rate educational advantages. Long introduction. Purchaser must be a University graduate, accustomed to good-class practice, aged not over thirty-five, and have capital of £4000.
- (18) SEAPORT TOWN AND WATERING-PLACE.—NON-DISPENSING PRACTICE of £1800 per annum. Not much night work. No assistant. Rent moderate. Premium one year and a quarter's purchase. Six months' introduction.
- (19) FAVOURITE SOUTH-COAST RESORT.—HALF-SHARE in a SANATORIUM returning nearly £1000 per annum net profits. Purchaser should be over thirty; if married, without family. Capital necessary £2500.
- (20) GOOD SUBURB OF A LARGE NORTHERN CITY.—Receipts for 1891 over £1200. Good house; rent £90. No carriage necessary. Very little Midwifery. Premium only £1000.
- (21) NORTHERN TOWN.—PARTNERSHIP in a Practice of £900 per annum, including £200 from Club and Insurance appointments. Price for half share £600, or for one-third £300, or offer.
- (22) LUNACY AND PRIVATE PRACTICE.—HOME COUNTIES.—Transfer or Partnership. Very old established Private Asylum, licensed for a few patients only. Most desirable situation. Expenses low. Suitable only for a Medical Man with capital or connexion. Country Practice attached. Price moderate.
- (23) DISPENSARY PRACTICE IN A SEAPORT TOWN.—Receipts for 1891 over £360. Fees 1s. upwards. Premium inclusive £200. Rent £27.
- (24) LONDON, N.E.—CASH and PRIVATE PRACTICE of over £800 per annum. Premium £550. Accountant's report can be seen at the office.

### FOR SALE (continued).

- (25) LONDON, S.W.—NUCLEUS of PRACTICE, about £300, in a favourable Suburb. House in good position; rent £30. Premium £300.
- (26) LONDON, N.—PRACTICE of nearly £500 per annum. No Midwifery under one guinea. Rent £40. Price one year's purchase.

### WANTED TO PURCHASE.

- (27) WANTED, in West Brighton, a small PRACTICE or PARTNERSHIP, by a retired Army Surgeon, who has some knowledge of private practice and private means. Price to be from £500 to £800.
- (28) WANTED, a Country Town PRACTICE of £900 to £1000 per annum, with good house. Purchaser is middle-aged, accustomed to all classes of patients, and can invest up to £2000.
- (29) WANTED, in the Midlands or North, a Country PRACTICE of £700 per annum or more, with good house. Purchaser, who is a Graduate of Aberdeen, aged over thirty-five, can invest £1500 or more.
- (30) WANTED, a middle-class Town or Country PRACTICE, in the Midlands or North, of £1000 to £1500. Purchaser is middle-aged, M.R.C.S., L.R.C.P., and can invest to £3000.
- (31) WANTED, a PARTNERSHIP in a good middle-class London or suburban Practice. Share to yield £500 upwards. Purchaser is M.A., M.B., C.M. Aberdeen, and D.P.H.; aged twenty-six, single, and experienced. Capital £2500.
- (32) WANTED, a middle-class London or Suburban PRACTICE. Purchase money up to £1200. Purchaser is a Graduate in Arts and Medicine of Cambridge, and has had six years' experience latterly in a large, busy Practice in the Midlands.
- (33) WANTED, A MIDDLE-CLASS PRACTICE in London or Suburbs (not East) of £500 to £700 per annum. Purchaser is M.R.C.S., L.R.C.P., D.Ph., aged twenty-seven, and can invest £300 or more.
- (34) WANTED, in the West of London or in a first-rate suburb, a PRACTICE or PARTNERSHIP, income £1000 upwards, suitable for a graduate of the University of London, of nearly forty years of age, with large and successful experience in the provinces. Capital £3000 or more.
- (35) WANTED, a PARTNERSHIP in a good Northern Town in a PRACTICE of good standing. Purchaser is an F.R.C.S. Eng. and M.B. Lond. (St. Bart.'s), and can invest £1000 or possibly more.
- (36) WANTED, a PARTNERSHIP in a Country Town Practice within 100 miles of London; income from share £500 upwards. Purchaser is well qualified, strongly recommended, and can invest £1500 or more.
- (37) WANTED, in two or three months' time, a PRACTICE of £800 per annum upwards in a South-Western County, Devon preferred, by an Edinburgh graduate of large experience. Capital to £2000.
- (38) A GOOD-CLASS COUNTRY TOWN PRACTICE in a healthy bracing place. Income about £1000, with really good house. Purchaser is a graduate of Edinburgh (age under forty); married, with large experience of English Practice, and can invest up to £1500 or more.
- (39) WANTED, a good-class PRACTICE or PARTNERSHIP in London, a leading Provincial Town, or a residential Country District. Purchaser is an Edinburgh Graduate, with Cambridge D.P.H., age about thirty-seven. Ample capital.
- (40) WANTED, by a London Graduate (St. Bart.'s), aged twenty-nine, single, a COUNTRY or PROVINCIAL TOWN PARTNERSHIP (Midlands or South preferred). Purchaser can invest £1000 or more.

N.B.—There are several hundred purchasers on the books of the Association, so that the sale of any good Practice or Partnership within a reasonable time is certain.

### ASSISTANTS WANTED.

#### QUALIFIED.

- (41) London, S.E., £120 and rooms &c. (42) Assistant Medical Officer to Friendly Society, S.W. county, £150, out. (43) Assistant Medical Officer to Friendly Society, Devonshire, £120, out. (44) Durham, about £110, and rooms &c. (45) London, E., about £90, in. (46) Cornwall, £80, in.; ample time for reading. (47) London, E., £100, in.; for Branch with view to Purchase. (48) Hants, £72, in.; billiard-player preferred and light weight. (49) Glam., £120 to £130, out.; light work. (50) S. Wales, for Branch, £140, out.; ride and drive. (51) S. Wales, for Colliery Practice, £90, in. (52) Berks, £70, in. (53) Kent, £130, out.; time for reading. (54) Lancs, £120, and house &c.

#### UNQUALIFIED.

- (55) London, S.E.; time for reading; small salary and rooms &c. (56) Mon., Dispensary, 26s. weekly, out. (57) Glos., £40 to £60, in. (58) Kent, £90, out.; time for reading.

ASSISTANTS and LOCUM TENENS SUPPLIED.

ADDRESS—Mr. G. B. STOCKER, Managing Director, Medical &c. Association, Limited, 8, Lancaster-place, Strand, W.C.

**MEDICAL DIVISION.****THE  
INCORPORATED AGENCIES  
(LIMITED).**

This Agency is established under the patronage of eminent Members of the Medical Profession for the purposes (*inter alia*) of—

1. Negotiating the Sale or Exchange of Practices, Medical, Hydropathic and other Establishments.
2. Providing Assistants, Locum Tenens, Partners, Tutors, Pupils &c., investigating their competency and character previous to engagement.
3. The Investigation and Auditing of Accounts and Posting same, Recovering and Purchasing Debts and other Assets, Raising Loans and Securing eligible Investments, Settling Disputes by Arbitration and Providing Agents and Trustees.
4. The Procurement of Resident Patients and Medical Appointments.
5. Insuring and Underwriting Life Policies, Managing the Estates and Practices of deceased Practitioners in town or country and Providing Legal Assistance and Advice in all emergencies.

Full particulars of Practices and all information to be had of the General Manager, Mr. H. T. CLEMENTS, at the Offices, 215, Piccadilly, Piccadilly Circus, London

(Established 1878).

**Mr. Percival Turner**

(Son of a well-known Practitioner),  
Telegraphic Address— 4, Adam-street, Adelphi, London, W.C.  
"EPSOMIAN, LONDON." (close to THE LANCET Office).

**Practitioners seeking Partners or**

Successors can be immediately introduced to suitable candidates by Mr. Turner, he having always very many more purchasers than vendors on his books, thereby enabling him to carry out the arrangements, if desired, without the delay and publicity of advertising. PURCHASERS supplied with details of Practices for Disposal free of charge on application.

LOCUM TENENS or ASSISTANTS free of expense to Principal. Only those known to be reliable introduced.

BOOKKEEPING, DEBT-COLLECTING, ARBITRATIONS, INVESTIGATIONS OF PRACTICES for Purchasers, &c.

\*\* USUAL LIST NEXT WEEK.

**MEDICAL TRANSFER OFFICES**

19, Craven-street, Strand, W.C.

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For the due support of a human being there are required—(1) water, (2) minerals, (3) nitrogenous foods, (4) non-nitrogenous foods, and, of course, (5) oxygen, or the food we obtain from the air. Now, excluding air, water, and minerals, it is evident the public should be made aware that **both** nitrogenous and non-nitrogenous foods are required for the body's support, and this for the plain reason that **both** these classes of substances are found making up part and parcel of the human frame.

**The Nitrogenous Foods** are represented by albumen (white of egg and beef juice); casein (found in milk); gluten (found in flour), and to a less typical extent by gelatin. These foods build up the tissues of the body; less directly, they may serve as energy-producers.

**The Non-Nitrogenous Foods** are starches and sugars, and fats and oils. They are the great "working" foods of the body, and give us "energy," which is "the power of doing work."

This is the science of foods in a nutshell. Coming now to the vital question of the supply of the **Nitrogenous Foods**, always a moot point in economics as in physiology and medicine, we find Meat Juice—that is, the uncooked albumen of beef—to stand foremost as a food of this class. **It resembles the most vital of our tissues in chemical composition; therefore it can be converted into our body's material with the least possible expenditure of digestive power.** Note this first fact as a crucial point in the whole theory and practice of feeding children, invalids, and even those in robust health.

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Why, then, should the public waste their money on such Extracts which are not "foods" at all in the true sense of the term? and why should invalids be fed on that which, however it may stimulate, will not build up and strengthen the weakened frame? Echo answers "Why?"

Science, however, comes to our rescue here. There has been prepared a true Nitrogenous Food in the shape of **Caffyn's Liquor Carnis**, which is **actually the uncooked juice of meat** (or muscle-plasma) preserved by the addition of a non-nitrogenous food, thus giving to the world, for the first time, a perfect nitrogenous food for body-building in combination with another food as a preservative substance.

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